

2023 Master Plan

Bernards Township Somerset County, NJ

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The original of this document was appropriately signed and sealed on______, in accordance with Chapter 41 of Title 13 of the State Board of Professional Planners.

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INTRODUCTION

The Bernards Township Planning Board has prepared this comprehensive update to the Bernards Township Master Plan in response to the Bernards Township Planning Board's policy to maintain an up-to-date Master Plan. The Planning Board adopted the last comprehensive update to the Bernards Township Master Plan in April of 2019. In accordance with the ten-year statutory requirement for a periodic examination of the Master Plan and development regulations of the municipality at least once every 10 years, the Bernards Township Planning Board adopted the 2019 Periodic Reexamination Report in November 2019, which followed a complete reexamination of the 2010 Master Plan at that time.

This Master Plan update maintains the fundamental planning approach that underpins Bernards Township's zoning and community character. There are no major Master Plan policy changes in this update; rather, existing policies remain consistent with Bernards Township's 2010 Master Plan and long history of consistent community planning.

The Planning Board is comprised of Bernards Township residents who are dedicated to protecting the community, the environment, and the prized quality of life that residents enjoy in Bernards Township.

CHAPTER I - GOALS & OBJECTIVES

A VISION FOR THE 21ST CENTURY

In the year 2000, a public visioning process identified major goals and objectives of the community that are reinforced in the Bernards Township Master Plan. These included keeping taxes stable while working to:

- 1. Protect open spaces.
- 2. Provide adequate fire and first aid safety.
- 3. Control and calm traffic in town.
- 4. Connect neighborhoods with pathways/greenways.
- 5. Create accessible programs to meet the needs of youth.
- 6. Protect downtown Basking Ridge, maintain its charm.

Bernards Township's long history of proactive planning addresses these goals and objectives with implementation strategies that provide affordable housing, emergency service facilities and equipment that serve the needs of the community, extensive and widely distributed public open spaces, and expansive recreation facilities including an extensive path and bikeway network. Concerns for safety, community character and livability of historic village areas have resulted in traffic calming and context sensitive architecture in Bernards Township and a focus on protecting community character.

In 2019, the Planning Board completed a Reexamination Report which continues the long tradition of creative and forward-thinking public policy in Bernards Township, a place where stewardship brings a duty to plan well. This Report's recommendations continue the Township's tradition of strategic, integrated and comprehensive planning for responsible stewardship over open spaces, infrastructure and natural and built systems that promotes sustainable development, operations and maintenance. The 2019 Report recommendations recognize new and emerging planning challenges arising from demographics changes, technology advancements, environment awareness and the evolving manner in which society organizes itself.

STATUTORY AUTHORIZATION

This section of the Master Plan was prepared in accordance with the Municipal Land Use Law, (M.L.U.L.) N.J.S.A. 40:55D-28b(1), which states:

A statement of objectives, principles, assumptions, policies and standards upon which the constituent proposals for the physical, economic and social development of the municipality are based.

GENERAL OBJECTIVES

This Master Plan acknowledges the statutory purposes of planning and zoning that are identified in the Municipal Land Use Law (N.J.S.A. 40:55D-2, Purpose of the act) and are listed below.:.

- a. To encourage municipal action to guide the appropriate use or development of all lands in this State, in a manner which will promote the public health, safety, morals and general welfare.
- b. To secure safety from fire, flood, panic and other natural and manmade disasters.
- c. To provide adequate light, air and open space.
- d. To ensure that the development of individual municipalities does not conflict with the development and general welfare of neighboring municipalities, the county and the State as a whole.
- e. To promote the establishment of appropriate population densities and concentrations that will contribute to the well-being of persons, neighborhoods, communities and regions and preservation of the environment.
- f. To encourage the appropriate and efficient expenditure of public funds by the coordination of public development with land use policies.
- g. To provide sufficient space in appropriate locations for a variety of agricultural,

residential, recreational, commercial, and industrial uses and open space, both public and private, according to their respective environmental requirements in order to meet the needs of all New Jersey citizens.

- h. To encourage the location and design of transportation routes which will promote the free flow of traffic while discouraging location of such facilities and routes which result in congestion or blight.
- i. To promote a desirable visual environment through creative development techniques and good civic design and arrangements.
- j. To promote the conservation of historic sites and districts, open space, energy resources and valuable natural resources in the State and to prevent urban sprawl and degradation of the environment through improper use of land.
- k. To encourage planned unit developments which incorporate the best features of design and relate the type, design and layout of residential, commercial, industrial and recreational development of the particular site.
- l. To encourage senior citizen community housing construction.
- m. To encourage coordination of the various public and private procedures and activities shaping land development with a view of lessening the cost of such development and to the more efficient use of land.
- n. To promote utilization of renewable energy sources.
- o. To promote the maximum practicable recovery and recycling of recyclable materials from municipal solid waste through the use of planning practices designed to incorporate the State Recycling Plan goals and to compliment municipal recycling programs.
- p. To enable municipalities the flexibility to offer alternatives to traditional development, through the use of equitable and effective planning tools including clustering, transferring development rights, and lot-size averaging in order to concentrate development in areas where growth can best be accommodated and maximized while preserving agricultural lands, open space, and historic sites.

GOALS

The following Goals were developed during preparation of the 1982, 1989, 1996, 2003 and 2010 master plans, and refined for relevancy by the Planning Board in the 2019 Reexamination Report and in this Master Plan Update:

- 1. Neighborhood and community character are protected, and attractive streetscapes throughout the Township are retained and improved.
- 2. Social courtesy, civic responsibility, and neighborliness are key quality of life indicators

in Bernards Township.

- 3. Public and private facilities are sustainably designed, constructed, and operated.
- 4. Bernards Township is a better place to live, work and play based on an overarching respect for the natural environment and a desire to implement Master Plan policies with integrity and fidelity.
- 5. Rural and agricultural character of the Township is retained as much as possible through the policies of this Master Plan.



- 6. Municipal services and community facilities are maintained to assure a high quality of life for present and future residents.
- 7. Development densities and intensities are commensurate with the existing capacity of private and municipal capital facilities and by the capacity of the Township's natural systems where no such facilities exist.
- 8. The carrying capacity of the Township's natural and environmentally sensitive areas are respected through the application of conservative development density and intensity limits.
- 9. Housing and employment land use is balanced and assures an adequate number and supply of retail, service and employment establishments in appropriate locations that minimize impacts to residents.
- 10. Development regulations are sufficiently flexible to permit a variety of housing types serving a broad range of income levels.
- 11. Development techniques conserve energy, water and minimize the impact of development on the everyday environment.
- 12. The unique quality and character of the villages of Basking Ridge, Liberty Corner and Franklin Corners are protected, and the mixed-use character of these villages is maintained.
- 13. The Township's historic sites and districts are preserved and maintained.
- 14. A well-informed citizenry is involved in the land use planning process.
- 15. Land development regulations are continually examined and amended when appropriate to assure flexible and excellent design.
- 16. New design approaches such as lot averaging and open lands conservation techniques are examined to determine their applicability in Bernards Township.
- 17. A healthy, diverse inventory of natural and neighborhood forests is maintained. Woodland resources are actively managed to mitigate safety hazards and to reestablish trees lost through acts of God, blight, and root systems weakened during periods of increased rainfall.

18. Biodiversity and native species predominance are reestablished and maintained in all types of environmental conditions, including forest, meadow and managed, developed landscapes.

OBJECTIVES

Land Use and Management Objectives

The following land use objectives serve to guide the Master Plan:

- 1. Land use policies should strive to maintain and enhance community character, protect the integrity of existing neighborhoods and prevent the intrusion of incompatible new development.
- 2. The densities and intensities of permitted development on the limited remaining vacant lands should respect the environmental capabilities and limitations of these lands.
- 3. Groundwater aquifers and surface water quality and quantity should be protected, through the proper management of aquifer recharge areas, wetlands and their transition areas and fractured bedrock groundwater aquifers.
- 4. A reasonable balance among various land uses should be planned that respects residents' needs and reflects the goals and objectives of the Master Plan.
- 5. Development densities and intensities should be planned at levels which do not exceed the capacity of the natural environment and current infrastructure, and growth-inducing infrastructure should not be extended into the rural countryside.

Nonresidential Development Objectives

- Nonresidential development should be planned for appropriate areas where it will be compatible with and not adversely impact residential development within the Township.
- 2. Office zoning should be limited to maintain a balance of uses and to reduce traffic impacts on existing and planned Township infrastructure. The effects of noise, glare and light spillover on the quality of life in residential neighborhoods should also be considered.



Dewy Meadow Village

3. Commercial strip development along roadways should be discouraged through stringent site planning standards, including the use of common driveways, common rear yard parking areas and unified sign plans.

- 4. Retail shopping opportunities in the existing business zones should be strengthened by discouraging or restricting office uses from ground floor areas.
- 5. The continued viability of the existing Basking Ridge and Liberty Corner business districts should be enhanced with additional municipal parking facilities, traffic calming and pedestrian ways to promote a walkable environment.
- 6. Future uses for the quarry that preserve open space and protect the Long Hill ridgeline should be explored.

Community Facilities and Infrastructure Objectives

- 1. Community facilities should be planned to accommodate anticipated future population needs, in terms of numbers of persons and anticipated age cohorts.
- 2. The Township's capital improvement program should assure that community facilities and infrastructure are available when appropriate.



3. The Township's capital improvement program relating to roads and drainage should be coordinated with the funding of off-tract improvements by developers.

4. To the maximum extent practical and legal, all future development should pay its proportionate share of any required off-tract improvements for community facilities and infrastructure.

5. Within the designated sewered areas of the Township, development should be limited so as

to not exceed the NJDEP permitted capacity of the sewage treatment plant.

- 6. On-site individual septic disposal systems should be utilized in all areas outside the existing sewer service areas, subject to soil suitability.
- 7. All future development that increases lot coverage should be designed to reduce

stormwater runoff to protect existing and future residents against flooding, reduce erosion protect water quality and promote aquifer recharge

- 8. The Township should strive to design standards for infrastructure improvements, both private and public, which should include considerations for sustainable design features and minimizing future maintenance costs.
- 9. The Township should maintain the high quality of municipal services enjoyed by residents.



Town Hall

- 10. The Township should maintain appropriate emergency services for Township residents.
- 11. The extension of growth inducing infrastructure into non- sewered areas should be avoided.
- 12. The Township should encourage development of alternative energy facilities (solar, geothermal, etc.,) on private or public lands and buildings under appropriate conditions, where the rights of neighbors are respected.

Recreation/Open Space Objectives

- 1. A wide range of recreational facilities should be provided and adequately maintained to meet the needs of all Township residents.
- 2. The Township policy of centralizing major active recreational facilities and enhancing neighborhood recreation should be continued.
- 3. Environmentally sensitive land should be protected through acquisitions and/or conservation easements.
- 4. Recreational opportunities should be enhanced by construction of paths and expansion of greenways that better link neighborhoods with open spaces and natural lands.
- 5. Township-owned sites should be evaluated for potential active and passive recreational use and for the importance of retaining natural lands wherever possible.
- 6. Open space acquisitions should be prioritized to meet evolving needs and current deficits and in concert with historic preservation objectives.
- 7. Local stewardship of open spaces should be promoted and enhanced.

Traffic and Circulation Objectives

- 1. Traffic demand generated by development should not exceed the existing and planned capacity of the Township circulation system.
- 2. Future circulation improvements identified in the Traffic and Circulation Plan should be included in the capital improvement program and be based upon the anticipated timing of new development.
- 3. Pathways for walking and biking, serving as connections among community facilities (commercial, employment, historic sites, parks, playgrounds, schools, transportation nodes)



should be encouraged and considered in all site plan and subdivision applications.

- 4. Traffic demand management strategies should be explored in conjunction with local employment generators.
- 5. Existing parking facilities should be maintained at commuter rail stations and appropriate bus pick-up and drop-off locations.
- 6. Township officials should work closely with Somerset County to encourage improvements to County roads as identified in the Bernards Township Master Plan.
- 7. Additional sidewalks and bikeways should be considered to connect residences with major pedestrian generators and destinations such as schools, recreational facilities, shopping, etc..



- 8. The Township should continue to require developer off-tract improvements as authorized by law to provide additional road capacity as needed.
- 9. The Township should continue to require development of pedestrian circulation ways by developers where appropriate and to connect with major pedestrian generators.
- 10. Pedestrian friendliness should be improved throughout Bernards Township, and especially in high pedestrian traffic areas such as the historic settlements of Basking Ridge and Liberty Corner.

Housing Objectives

- 1. A reasonable diversity of housing should be maintained to serve various household needs.
- 2. The Township should continue its commitment to providing its state constitutional fair share of low- and moderate-income housing.
- 3. The Township should maintain the affordability of low- and moderate-income units within the community.

Historic Preservation Objectives

- 1. Maintain the distinctive character of the historic villages of Basking Ridge, Franklin Corners and Liberty Corner.
- 2. Coordinate the identification and preservation of historic areas, historic sites, landscapes, archeological sites and scenic corridors within the municipality, and maintain a municipal central repository of data collected.

- 3. Encourage the preservation of historic buildings and structures and promote the protection of archaeological, historic and other cultural resources.
- 4. Promote the adaptive reuse of historic structures in ways that respect architectural and historic integrity.
- 5. Promote and encourage these historic preservation objectives through a combination of strategies: encourage private, voluntary initiatives; administer and enforce existing design guidelines and requirements; and utilize Township and other funds, where appropriate.



South Finley Avenue

Conservation and Environmental Resources Objectives

- 1. Identify and protect environmentally sensitive areas within the Township, including moderate and steep slopes, wetlands, flood plains, water bodies, ridge lines and areas of significant vegetation.
- 2. Preserve ridge lines in their natural state. Roof lines should be kept below the ridge line to preserve distant views and significant vegetation along the ridge lines should be maintained.
- 3. Protect streams, waterways and wetlands through careful stormwater and wastewater management practices and/or ordinances, and other efforts to minimize non-point pollution.

4. In order to protect existing natural systems



Distant Ridgeline Views

- and to prevent soil erosion and degradation of surface water quality, protect naturally occurring steep slopes from development impacts.
- 5. Require conservation easements on environmentally sensitive areas owned privately to prevent future disturbance.
- 6. Preserve existing vegetation, with special emphasis on the protection of native forest cover.
- 7. Utilize native vegetation as replacement plants and trees in areas of disturbance.

- 8. Minimize site disruption by establishing clearly marked limits of clearing.
- 9. The permitted intensity of development in areas relying on groundwater supplies and on-site sewage disposal should be planned consistent with conservative estimates of available water resources and the ability to sustain on-lot disposal systems without degrading or impairing surface or groundwater quality.
- 10. Protect environmentally sensitive areas, encourage use of renewable resources, particularly energy, promote energy conservation and provide design flexibility for passive solar design with appropriate design standards and techniques in the Land Development Ordinance where appropriate.
- 11. Protect biological diversity through the maintenance of large contiguous tracts and corridors of recreation, forest, flood plain and other undisturbed open space lands.
- 12. Maintain and/or provide natural vegetation in stream corridors and buffer areas to maintain and improve water quality, wildlife corridors and opportunities for passive and active recreation.
- 13. Plan and manage land use to preserve, protect and enhance surface water and groundwater quality, in part by managing the impacts of development on headwaters tributaries.
- 14. Preserve and protect the high-quality waterways in the Township from point and nonpoint source pollution. Wherever appropriate, Best Management Practices (BMP's), such as, but not limited to, buffering, created wetlands, multistage storm water treatment systems, drywell infiltration systems for groundwater recharge, and storm water bioretention strategies, should be used to maximize groundwater recharge and protect downstream public drinking water supplies.
- 15. Encourage the use of recommended management practices for agriculture, forestry and land development.
- 16. Encourage and implement recommended strategies to protect and enhance the ecological condition of the Great Swamp and its watershed and tributaries.
- 17. Promote sustainable landscape management and restoration practices that maximize use of native plant material and reduce reliance on fertilizers, pesticides, herbicides and irrigation.
- 18. Promote forest stewardship and cultivate respect for existing trees in neighborhoods.

Agriculture & Farmland Preservation Objectives

1. Promote a better environment for agriculture to continue as a business by preserving as many agricultural operations as possible, utilizing a variety of land preservation techniques.

- 2. Analyze issues affecting the survival of economically viable agriculture in Bernards Township and identify strategies to support the survival of viable farming operations and family farms.
- 3. Develop strategies focused on maintaining agricultural activities in the community including promoting farming, encouraging future farmers and citizenry to participate in this necessary industry.
- 4. Focus preservation activities in the area of existing agricultural operations in order to retain farms that have survived in spite of suburban development.
- 5. Retain core areas of preserved farmland, so that agriculture can be sustained into the future.
- 6. Preserve agricultural lands to protect scenic rural landscapes, groundwater water recharge areas and wildlife habitat and to assure that the precious remaining pieces of the Township's rural fabric are not lost forever.
- 7. Consult with the Township Agriculture Advisory Committee to guide municipal farmland preservation efforts and assist with development and implementation of agricultural retention strategies, including prioritizing farmland easement acquisition, and conducting community outreach.
- 8. Maintain communication with Bernards Township's agricultural community, which can assist the Township with the formulation of public policy meaningful to farmers and their interests.

Compatibility with Other Planning Efforts

- 1. The Township should continue to participate in the State and Somerset County planning processes.
- 2. The Township Master Plan should take into account the Somerset County Master Plan and the State Development and Redevelopment Plan, as well as other State and County planning documents.
- 3. The Township should cooperate with Regional Planning Agencies and consider the policies and recommendations of the Bernards Township Shade Tree Commission, Bernards Township Parks, Recreation, Parks and Pathways Advisory Committee, Upper Raritan Watershed Association, the Association of New Jersey Environmental Commission, Passaic River Coalition and New Jersey Division of Watershed Management.
- 4. The Township should work with utility companies to minimize the aesthetic and environmental damage from pruning and tree/shrub removal and promote cooperative planning for utility maintenance activities.

CHAPTER II - LAND USE PLAN ELEMENT

INTRODUCTION

This Land Use Plan Element maintains continuity and consistency with over three decades of previous Land Use Plan Elements adopted by the Bernards Township Planning Board. The Land Use policies and recommended distribution of land uses remain substantially unchanged from prior Plans. Continuity in planning has served Bernards Township well by creating a balanced distribution of residential and nonresidential land uses.

In this Land Use Plan, the Planning Board seeks to maintain the long-standing land use policies embodied in prior Plans and emphasizes the objectives of protecting neighborhoods and the Township's existing community character, and protecting the natural environment, natural resources and remaining open areas in the Township. As the Township approaches maturity with most of the Township's readily developable lands consumed by growth in one form or another, increasing growth pressure will continue to be exerted on Bernards Township. Through the policies of this Land Use Plan, the Planning Board seeks to protect the established suburban and remaining rural character of the community, which is regionally recognized as a highly desirable community in which to live, work and raise a family. This is the result of careful planning and faithfully maintaining the balance of land uses established in this Land Use Plan.

Since adoption of the 2010 Land Use Plan, the Township has had to address State constitutional affordable housing obligations by providing zoning for additional multi-family housing. These obligations were addressed by the Planning Board and the Township Committee in the Bernards Township 2018 Housing Plan Element and Fair Share Plan through inclusionary zoning at a significant scale at Dewy Meadow on King George Road and on Mountain View Boulevard, and on a smaller scale at Crown Court. These changes are recognized in this Plan. These Land Use Plan changes expand housing choices to address a wider range of housing needs.

STATUTORY AUTHORIZATION

The Land Use Plan Element of the Master Plan is authorized pursuant to the Municipal Land Use Law ("M.L.U.L", N.J.S.A. 40:55D-28), which is enumerated in the M.L.U.L., as follows:

a. The planning board may prepare and, after public hearing, adopt or amend a master plan or component parts thereof, to guide the use of lands within the municipality in a manner which protects public health and safety and promotes the general welfare.

b. The master plan shall generally comprise a report or statement and land use and development proposals, with maps, diagrams and text, presenting, at least the following elements (1) and (2) and, where appropriate, the following elements (3) through (17):

(1) A statement of objectives, principles, assumptions, policies and standards upon which the constituent proposals for the physical, economic and social development of the municipality are based;

- (2) A land use plan element
- (a) taking into account and stating its relationship to the statement provided for in paragraph (1) hereof, and other master plan elements provided for in paragraphs (3) through (17) hereof and natural conditions, including, but not necessarily limited to, topography, soil conditions, water supply, drainage, flood plain areas, marshes, and woodlands;
- (b) showing the existing and proposed location, extent and intensity of development of land to be used in the future for varying types of residential, commercial, industrial, agricultural, recreational, open space, educational and other public and private purposes or combination of purposes including any provisions for cluster development; and stating the relationship thereof to the existing and any proposed zone plan and zoning ordinance;
- (c) showing the existing and proposed location of any airports and the boundaries of any airport safety zones delineated pursuant to the "Air Safety and Zoning Act of 1983," P.L.1983, c.260 (C.6:1-80 et al.);
- (d) including a statement of the standards of population density and development intensity recommended for the municipality;
- (e) showing the existing and proposed location of military facilities and incorporating strategies to minimize undue encroachment upon, and conflicts with, military facilities, including but not limited to: limiting heights of buildings and structures nearby flight paths or sight lines of aircraft; buffering residential areas from noise associated with a military facility; and allowing for the potential expansion of military facilities;
- (f) including, for any land use plan element adopted after the effective date of P.L.2017, c.275, a statement of strategy concerning:
 - (i) smart growth which, in part, shall consider potential locations for the installation of electric vehicle charging stations,
 - (ii) storm resiliency with respect to energy supply, flood-prone areas, and environmental infrastructure, and
 - (iii) environmental sustainability;
- (g) showing the existing and proposed location of public electric vehicle charging infrastructure; and
- (h) including, for any land use plan element adopted after the effective date of P.L.2021, c.6, a climate change-related hazard vulnerability assessment which shall
 - (i) analyze current and future threats to, and vulnerabilities of, the municipality associated with climate change-related natural hazards,

including, but not limited to increased temperatures, drought, flooding, hurricanes, and sea-level rise;

- (ii) include a build-out analysis of future residential, commercial, industrial, and other development in the municipality, and an assessment of the threats and vulnerabilities identified in subparagraph (i) of this subparagraph related to that development;
- (iii) identify critical facilities, utilities, roadways, and other infrastructure that is necessary for evacuation purposes and for sustaining quality of life during a natural disaster, to be maintained at all times in an operational state;
- (iv) analyze the potential impact of natural hazards on relevant components and elements of the master plan;
- (v) provide strategies and design standards that may be implemented to reduce or avoid risks associated with natural hazards;
- (vi) include a specific policy statement on the consistency, coordination, and integration of the climate-change related hazard vulnerability assessment with any existing or proposed natural hazard mitigation plan, floodplain management plan, comprehensive emergency management plan, emergency response plan, post-disaster recovery plan, or capital improvement plan; and
- (vii) rely on the most recent natural hazard projections and best available science provided by the New Jersey Department of Environmental Protection;

This section of the Master Plan was prepared in accordance with the Municipal Land Use Law, N.J.S.A. 40:55D-28.b.(2) (a) – (e) as set forth above. Subsections N.J.S.A. 40:55D-28.b.(2) (f) – (h) above are addressed in a separate subplan element entitled "Land Use Plan Amendment, Climate Element."

LAND USE AND MANAGEMENT OBJECTIVES

The following land use objectives serve to guide the master plan:

- 1. Land use policies should strive to maintain and enhance community character, protect the integrity of existing neighborhoods and prevent the intrusion of incompatible new development.
- 2. The densities and intensities of permitted development on the limited remaining vacant lands should respect the environmental capabilities and limitations of these lands.
- 3. Groundwater aquifers and surface water quality and quantity should be protected, through the proper management of aquifer recharge areas, wetlands and their transition areas and fractured bedrock groundwater aquifers.
- 4. The Land Use Plan should assure a diversity and balance among various land uses that respects and reflects all the goals of the Master Plan.

5. Development densities and intensities should be planned at levels which do not exceed the capacity of the natural environment and current infrastructure, and growth-inducing infrastructure should not be extended into the rural countryside.

BUILD OUT

The Bernards Township Land Use Plan has remained consistent and largely unchanged for more than 30 years. Zoning consistent with the Land Use Plan is primarily responsible for the highly desirable environment and community character that Bernards Township residents enjoy today. The Land Use Plan has guided development of the community and resulted in the development patterns and neighborhoods that make Bernards Township a widely sought after place to live, work and raise a family in the region.

The 2010 Master Plan indicated that Bernards Township was approaching "build-out" at that time. "Build-out" can be characterized as the point at which developable land in a community has been fully developed in accordance with zoning. Projecting remaining build-out is a somewhat theoretical planning estimate based on zoning and developable land. The 2010 Master Plan estimated 255 additional dwelling units and 505,703 square feet of nonresidential development as remaining build-out of developable land based on zoning.

The remaining build-out changes over time because land uses and circumstances change. By way of example, the basis for the 2010 Master Plan build-out estimate was an assessment of developable land, zoning and approved development at that point in time. However, the 2010 remaining build-out estimate included 343,965 square feet of approved nonresidential office development on Mountain View Boulevard that was not built, and instead the site was rezoned in 2019 for 280 residential dwelling units to address state constitutional affordable housing obligations. Other changed circumstances impacting the build-out estimate include additional zoning to meet the State constitutional affordable housing obligation, redevelopment of existing developed sites and unanticipated nonresidential development changes such as removals and additions.

TABLE II-1 BUILD-OUT ESTIMATES 2010 ACTUAL GROWTH 2009-2022 BUILD-OUT ESTIMATE 2023¹

	Residential (Dwelling Units)	Nonresidential (Square Feet)
2010 Master Plan Build-out Estimate	255	505,703
Actual 2009 – 2022 (CO's) ²	225	211,126
2023 Master Plan Build-out Estimate	719 ³	100,995

¹ Bernards Township Engineering Department

² Certificates of Occupancy.

³ The increase in residential build-out between 2010 and this 2023 Master Plan is attributable to affordable housing inclusionary zoning to comply with the Township's State constitutional affordable housing obligations.

The 2023 Build-out estimate identified above is based on the following data compiled by the Bernards Township Engineering Department:

TABLE II-2 Residential and Nonresidential Build-out

Residential Dwelling Units (719):

1. Residential Units Approved or Under Construction on New or Vacant Lots as of 12/31/2022:

12 single-family dwellings
2 apartments (15 Church St mixed use)
4 apartments (18 Columbia Rd)
108 apartments (Dewy Meadow)
220 apartments (Mountain View)
60 townhomes (Mountain View)
94 assisted living units⁴ (LCB/Mt Airy Rd)
80 assisted living units (Braemar/Valley Rd)
580 TOTAL DWELLING UNITS

 Potential Future Residential Units as of 12/31/2022 139 TOTAL DWELLING UNITS (all single-family)⁵

Nonresidential Floor Area (100,995 square feet):

3. Nonresidential Floor Area Approved or Under Construction as of 12/31/2022: 15,708 sf fitness center/salon (Fellowship Senior Living) 588 sf retail (Kenken LLC) 73,255 sf cancer center (MS-K Phase 2-B) 7,228 sf synagogue (Chabad Jewish Center) 4,216 sf mosque (Islamic Society of Basking Ridge)

As of 12/31/2022, the Engineering Department identified 15 "knockdown/rebuilds" that are not included in the 719 residential dwelling unit build-out estimate because these dwelling units are replacement dwelling units.

⁴ According to US Census definitions, "Units in assisted living facilities are considered to be housing units, however, units in nursing homes are not considered to be housing units."

⁵ Bernards Township Engineering Department estimate of additional single-family dwelling units that can be accommodated under existing residential zoning.

Prevailing zoning in the lower density and less-developed sectors of the community remains unchanged from 2010 when the last Master Plan update was adopted. However, Master Plan resource management objectives have been reflected in ordinance amendments that require minimum net developable areas, which remain in effect today. However, as can be seen in the data presented above, much of the increased level of development occurred in the developed sectors of the Township.

LAND USE/LAND COVER

Bernards Township is a rich and varied mosaic of land use and land cover characteristics, as shown on the NJDEP 2015 Land Use/Land Cover Map (Figure II-1). This mapping is the latest available interpretation of land cover from aerial photos and reinforces the patterns of development highlighted in the 2003 and 2010 Master Plans.

A review of the existing land use by coverage area in Bernards Township reveals a largely open/undeveloped character where forests, farm fields, water, riverine habitat and wetlands anchor the landscape. Wetlands



Liberty Corner - English Farm

occupy major sections in the northwest quadrant of the Township and along the Passaic and Dead River corridors. Larger forested areas are located in the southwest quadrant of the Township where fragments of agriculture are scattered throughout, and a rural residential character has evolved.

Except for recent developments to address state constitutional affordable housing obligations, there has not been significant growth in the Township since 2003, and the general patterns of development have not changed. Suburban subdivision patterns and the Township's commercial areas occupy roughly 40 percent of the land area of the Township, a concentration of residential land use located between I-78 and I-287. A large section of multi-family development is concentrated along the western border in The Hills⁶ development and in the southeast, north of the Dead River corridor. The larger commercial and office uses are generally located at the interchanges of Route 287 and Route 78 corridors (in the north and south, respectively) while smaller scale commercial uses are found in the

⁶ The Hills neighborhoods are located southwest of Liberty Corner, adjoining the municipal boundaries with Bedminster Township and Far Hills Borough.

historic settlements of Basking Ridge and Liberty Corner and a node of commercial uses in Lyons⁷.

As seen in Table II-3 below, between 1995 and 2015 the greatest acreage changes in land cover were seen in the lands lost in the categories of (1) agricultural lands (-441 acres), (2) deciduous forest (-481 acres), (3) barren land (-250.78 acres), and (4) deciduous wooded wetlands (-204.61 acres). The greatest gains in acreage were seen in residential categories (high-density, medium-density and rural residential) which gained approximately 1,133 acres, generally because of conversion from farmland and forests to residential use. The water land cover category increase of 215 acres appears to be the result of a combination of factors that include NJDEP increased and expanded aerial interpretations of wetlands, stormwater management basins (both residential and nonresidential), and the emergence of the quarry lake.

TABLE II-3 LAND USE/LAND COVER FOR BERNARDS TOWN	SHIP
1995 - 2015	

				Change in
Land Cover Class	1995 acres	2002 acres	2015 Acres	acres
Agricultural	916.58	708.56	475.36	-441.22
Agricultural Wetlands	82.12	47.94	28.13	-53.99
Athletic Fields	82.43	113.85	111.03	28.60
Barren Land	447.22	286.87	196.44	-250.78
Brush Covered Field	313.06	253.88	378.16	65.10
Commercial	397.19	445.13	509.08	111.89
Coniferous Forest	188.92	71.72	21.93	-166.99
Coniferous Wooded Wetlands	4.54	15.84	20.02	15.48
Deciduous Forest	3,345.53	3,009.65	2,864.45	-481.08
Deciduous Wooded Wetlands	2,589.22	2,429.43	2,384.61	-204.61
Disturbed Wetlands	146.86	85.29	4.28	-142.58
Herbaceous Wetlands	195.44	226.89	184.53	-10.91
High Density Residential	369.47	505.00	510.76	141.29
Industrial	11.02	8.37	9.59	-1.43
Low Density Residential	2,328.42	2,179.64	2,272.62	-55.80
Managed Wetlands	31.88	57.42	51.42	19.540
Medium Density Residential	149.94	418.53	437.34	287.40
Mixed Forest	465.30	381.41	343.72	-121.58
Mixed Wooded Wetlands	7.12	21.74	64.27	57.15
Plantation	45.14	36.71	12.61	-32.53
Recreational Land	390.84	532.78	590.91	200.07
Rural Residential	1,946.52	2,424.50	2,650.88	704.36
Transportation and Utilities	224.74	254.42	244.45	19.71
Urban	792.69	940.38	910.39	117.70
Water	74.87	104.79	290.72	215.85

<u>Source</u>: Township of Bernards Engineering Department, FEMA Floodzones, NJDEP 10-meter Digital Elevation Models, 2015 NJDEP Land Use Land Cover mapping.

⁷ The commercial node in Lyons in located at the intersection of South Finley Avenue and Stonehouse Road and includes the NJ Transit Lyons railroad station, a shopping center, gas station, bus commuter parking lot and offices.

FARMLAND ASSESSED LANDS

Bernards Township retains significant elements of its agrarian past, as seen in the lands qualifying for Farmland Assessment (see Figure II-2, "Farm Assessed Lands"). These lands include a number of working farms, scattered throughout the community, as well as other pasture land and woodlands. Totaling approximately 443.5 acres⁸, a majority of these farm assessed lands are concentrated in the western half and southerly reach of Bernards Township, mostly in the CR-1 and CR-2 Districts⁹ (see discussion of the CR-1 and CR-2 Districts below), along with a number of large contiguous parcels south of Interstate 78.

Farmland and agricultural activities are an important part of the rural character that remains in Bernards Township. Preserving and protecting farmland offers many economic and environmental benefits, since farms require less in municipal services; farmers manage the land at no cost to the taxpayers; and the most scenic byways are those roads passing through active farming landscapes. Bernards Township's farms support local farm to table agriculture sales and provide seasonal recreation activities for residents, Agricultural activities create and maintain rolling fields, hedgerows and wooded stream corridors. The Somerset County Master Plan cites agriculture as an important long-term landuse. Supportive municipal planning and zoning are fundamental to farm viability.

LAND USE PLAN

This Land Use Plan is designed to implement the purposes of the Municipal Land Use Law (MLUL) and the State Development and Redevelopment Plan (SDRP) and the Bernards Township Master Plan goals and objectives in a manner which respects and responds to the capabilities and limitations of the man-made and natural conditions - groundwater quantity and quality, surface water resources, agricultural use opportunities, soils, steep slopes, woodlands, wetlands and flood prone areas. The Plan generally depicts the proposed location, extent and intensity of development of land to be used in the future for varying

types of residential, commercial and industrial purposes, as shown on the Land Use Plan Map (Figure II-3). These land use policies become effective land management tools when implemented through Township Land Use Ordinances.

The Land Use Plan Element is the fundamental unit of the Master Plan, with the broadest scope and most farreaching consequences. It represents a municipality's basic statement about the future disposition of land and



Liberty Corner - English Farm

⁸ Farm assessed acreage as per Bernards Township Tax Assessment records, not NJDEP Land Use Land Cover data in Table II-3 above.

⁹ CR-1 and CR-2 Districts initially identified in 2003 Land Use Plan.

the physical form of the community. Informed by the other plan elements, which play supporting roles, the Land Use Plan and the Conservation Plan have the greatest influence on the Township's future, as they shape local zoning.

The Highlands Council adopted the Highlands Regional Master Plan (RMP) in September 2008 pursuant to the Highlands Water Protection and Planning Act (the "Act", 2004). The Act, and by extension the RMP, divides the Highlands Region into two primary components (1) a Planning Area, where RMP policies are optional, and (2) a Preservation Area, where conformance to the Highlands RMP is mandatory and was required for the Preservation Area by December 8, 2009. There is no deadline for Planning Area communities to "opt-in" (conform) to the RMP.

Bernards Township is designated Highlands Planning Area in the Highlands Region, where conforming the local master plan and ordinances to the Highlands RMP is optional. Bernards Township evaluated RMP policies as compared to the Bernards Township Master Plan and the Township determined that the natural resource protection intent of the RMP is fulfilled by the Bernards Township Master Plan and local ordinances that include policies for floodplain, steep slope and stream corridor protection. In addition, it was determined that State land use regulations over wetlands, riparian areas, flood hazard areas and stormwater management together with local plans, policies and ordinances provide adequate land use protection and that another layer of state agency review over local land use decision-making is not desirable. As a result, Bernards Township concluded that the Township would not conform to the Highlands RMP¹⁰.

The Land Use Plan continues the general patterns of land use that have historically developed in Bernards Township and the general policy orientation, which has evolved through the Township's continuing planning process. The Plan also reflects a conservation emphasis in the less developed sectors that will better protect natural resources and rural character.

LAND USE DISTRICTS ENUMERATED

The Land Use Plan includes eleven (11) districts. The following chart identifies the percentage of Bernards Township included within each district.

¹⁰ The municipalities that adjoin Bernards Township that are included in the Highlands Region include: Harding Township, Bernardsville Borough and Far Hills Borough. These three municipalities are designated Planning Area and all three have not conformed local master plans and ordinances to the RMP. Bedminster Township is designated Planning Area (south of Pottersville Road (CR512)), and Preservation Area (north of Pottersville Road). Bedminster Township has conformed to the RMP for only the Preservation Area of the Township located on the north side of Pottersville Road and has not conformed the Bedminster Township Master Plan and ordinances to the RMP Planning Area .

District	Percent of Township	Percent of Township
Residential Districts		
Residential Low Density ¹¹	28	
Residential Medium	28	
Density		
Residential Cluster	3.8	
Residential Multi-Family	.5	67.3
Senior Housing	.2	
Planned Unit	6.8	
Development		
Public Purpose	25.5	25.5
Mining (inactive)	1.2	
Office/Employment ¹²	4.6	
Retail Commercial	.5	6.8
Golf Heritage	.5	
Total	100.013	

TABLE II-4 BERNARDS TOWNSHIP LAND USE DISTRICTS

Source: Percentages of land identified above are derived from the Bernards Township Zoning Map.

The Township's Low- and Medium-Density Districts are characterized by and limited to detached single-family housing development. The Residential Cluster District includes detached single-family housing development with open space set-asides within neighborhoods for the use and enjoyment of those residing in the residential cluster development. Additional housing choices are provided in the Residential Multi-family Districts, but at higher development densities than the Township's single-family detached housing districts. The Planned Unit Development (PUD) district provides perhaps the widest variety of housing choices and range of dwelling sizes of any of the Township's other residential districts. The PUD includes attached townhouse development, semi-detached and detached single-family dwelling residential neighborhoods.

The Public Purpose Districts include public land uses, including open space, recreation, civic, educational (public and private) and community facilities uses.

The Mining District is inactive and is zoned for single-family residential development on two (2) acre lots under existing zoning.

¹¹ This Land Use Plan identifies Conservation Residential Districts (CR-1 & CR-2), discussed below, that coincide with the Residential Low-Density Districts designated on the northwest, west and south sides of Bernards Township that are dependent upon individual septic systems.

¹² Includes the following Districts: (1) Office/Business, (2) Office/Manufacturing, and (3) Office/Laboratory

¹³ Actual percentage is 99.6 percent to rounding of percentages for each District.

The Office/Employment and Retail Commercial districts provide for a range of employment and commercial, service, restaurant land uses serving the local community. The Office/Employment districts provide for a range of office uses and are situated near the I-78 and I-287 interchanges to accommodate employee access to office buildings. The Retail Commercial districts provide community-scale commercial uses for residents in the historic centers of Liberty Corner, Basking Ridge, in Lyons on South Finley Avenue, at Dewy Meadow on King George Road and at the Highlands Village Center on Allen Road in The Hills.

Over one quarter of Bernards Township is within the unsewered Conservation Residential (CR) Zones, designed to assure that development does not exceed the natural carrying capacity of the land to yield potable water and assimilate septic effluent. When the CR lands are combined with the other Residential districts, residential use dominates the Township leaving less than 30 percent of the Township for all other uses.

Furthermore, when the Public lands accounting for approximately 25% of the Bernards Township's land area are further removed from the table of Districts (above), the narrow complement of non-residential lands shrinks to just less than 7 percent of Bernards Township's land area. Thus, while the land use districts in Bernards Township provide for a wide range of housing, retail and service uses and a variety of office/employment opportunities, nearly *ten times as much land is intended for residential uses as for commercial uses*, with roughly three quarters of the Township zoned residential, while all commercial and office districts occupy only 7.2 percent.

RESIDENTIAL DISTRICTS

The residential development opportunities in this Land Use Plan span a broad spectrum. These districts account for three quarters of the Township's land area and range from Lowdensity Conservation Residential districts to High-density Multi-family districts. Multiple Family Districts, designed to address diverse housing needs and state constitutional affordable housing obligations, are situated at locations with convenient access to I-287 and I-78, and are proximate to local retail and service uses. Medium Density Districts dominate the central portion of the Township. Conservation Residential and Low Density Residential Districts occupy perimeter portions of the Township, generally on the north, south and west.

"Grandfather" provisions are intended to be included in the Land Use Ordinance to allow the development of undersized lots, which have been made nonconforming by zoning amendments¹⁴, without an appeal to the Zoning Board.

This Land Use Plan designates the following residential land use districts in Bernards Township:

¹⁴ Local zoning dates to the 1930's, which was preceded by substantial development that occurred in downtown Basking Ridge, Liberty Corner, among other smaller nodes of historic development. Over time, Bernards Township amended zoning in the interest of sound planning and maintaining community character.

Conservation Residential Districts (CR)

The CR-1 and CR-2 Districts¹⁵, which include approximately 30 percent of the land area of Bernards Township, are located outside the sewer service area. The lack of public sewer

infrastructure throughout these Districts limits future development potential, which respects the carrying capacity limitations of the natural systems to treat septic effluent without degrading groundwater quality below community objectives. In the absence of public sewer infrastructure, the principal limiting factors to development in the natural environment are land and water.

This section of the Land Use Plan seeks to promote stewardship over land and water resources, and the prolonged maintenance of these essential elements of a healthy and desirable physical environment. The groundwater management strategy for the



The CR-1 and CR-2 Districts are the core of Bernards Township's rural countryside.

CR-1 and CR-2 Districts seeks to limit the degradation of groundwater while also permitting appropriate uses of land. This Plan seeks to program uses of land that could conserve and manage limited resources, while also permitting development at densities that limit degradation and serve to better protect the potability and availability of groundwater resources.

When ammonia from human waste is discharged through a septic system into the ground, nitrates are produced naturally by bacteria in the septic effluent. In sufficiently high concentrations, nitrates pose risks to both human and ecological health. Ecologically speaking, nitrates can promote the growth of algae in surface waters, depleting oxygen levels in the water and killing fish. Elevated nitrate levels can pose a health threat to the elderly and to infants who are at risk of methemoglobinemia or "blue baby syndrome" which can cause lethargy, excessive salivation, loss of consciousness and even death in extreme situations.

Nitrate dilution models have been widely used to predict the amount of development that can be assimilated in the natural environment, since nitrates are easily detected and highly mobile in groundwater. The presence of high concentrations of nitrates may also be an indication that there are other septic system contaminants in the groundwater.

Nitrate dilution modeling was cited in the State Development and Redevelopment Plan (SDRP) as a way to assess development impacts on groundwater. The approach outlined in

¹⁵ Figure II-3.

the 1988 report, titled "DEVELOPMENT OF A NITRATE DILUTION MODEL FOR LAND USE PLANNING IN THE STATE OF NEW JERSEY", formed an important underpinning for the residential densities recommended for the CR-1 and CR-2 Districts established in the 2003 Land Use Plan.

The New Jersey Geological Survey, Geological Survey Report GSR-32 (GSR-32) method, developed by New Jersey Geological Survey (NJGS), quantifies ground water recharge according to climatic factors, soil types, and land cover distribution on a given site. GSR-32 estimates annual groundwater recharge (in inches) and is the accepted standard for determining groundwater recharge throughout New Jersey. Since GSR-32 utilizes soil permeability to evaluate recharge potential, without consideration of the underlying geology and its potential to store groundwater, it may overstate the potential for percolating runoff to become groundwater in hard rock aquifers. Based on GSR-32, a residential unit in Bernards Township's unsewered areas should have at least five (5) acres of recharge area and may require as much as seven (7) acres in Bernards Township's southernmost sector.

In unsewered areas, Bernards Township's Master Plan proposes to achieve the objectives of the State Plan through zoning techniques that avoid sprawl. In unsewered areas of Bernards Township, State Plan guidance to avoid sprawl is recognized in the environmental sensitivities of the land.

In May 2007, Bernards Township retained Professional Geologist Matthew Mulhall, PG to prepare a groundwater evaluation ('Evaluation of Groundwater Resources of Bernards Township, Somerset County, New Jersey, April 2008", the "Mulhall Report") that has again called attention to the need for lower development densities in unsewered areas to protect groundwater from septic contamination. A key Mulhall finding (page 69) calls attention to the need for adequate recharge areas to dilute septic system contaminants:

Within the small portion of the township underlain by Precambrian rocks, recharge areas open to infiltrating precipitation ranging from 9.3 to 12.9 acres are necessary to ensure adequate recharge is available to dilute septic system contaminants that migrate into bedrock aquifers in this area. Given the very low replenishment rate of the Preakness Basalt, if septic system contaminants migrate into the same fractures used for water supply, recharge to the equivalent of 23 to 67 acres will be necessary to adequately dilute the nitrates in these discharges to the current antidegradation level. Within the slightly more than 2400 acres underlain by the Jurassic sedimentary rocks, recharge to 7.3 acres will be necessary for diluting nitrates in septic system discharges to a concentration of 5.8 mg/l.

Thus, Mulhall concludes that the minimum recharge areas per septic system for the aquifers that underlie the CR-1 and CR-2 Districts are generally comparable to or in excess of the seven (7) acre and ten (10) acre minimum lot criteria recommended in the 2003 Master Plan. The Mulhall Report is available at bernards.org (search by report name or "Mulhall")

While the proposed CR-1 and CR-2 Districts recommend reductions in residential density to reflect the natural carrying capacity of the land, minimum lot criteria is only one way to address this concern. Bernards Township should continue to explore other policy and regulatory options that could become useful in the future. (see additional discussion of the CR-1 and CR-2 Districts in the Chapter VIII – Conservation Plan Element)

The surface water resources of Bernards Township also merit protection. Streams in the Township are headwaters to the Dead River and Harrison Brook, which flow to the Passaic River. Headwaters to the North Branch of the Raritan River also include minor reaches of the Mine Brook, Chambers Brook and West Branch Middle Brook on the far westerly and southerly limits of the Township. Headwaters are particularly vulnerable to degradation because of the limited available flow, and any degradation in headwaters is transferred downstream throughout the surface water system. DEP Flood Hazard Area Rules were last amended in 2023 with requirements for an expanded the riparian buffer areas applicable to Category 1 and other streams, and an increased flood hazard area elevation. Bernards Township has updated stream corridor regulations to reflect all current DEP stream buffer and Flood Hazard Area Rules.

Bernards Township includes some high-quality stream segments in the northern portion of the Township. Classifications of surface water in Bernards Township include trout production, trout maintenance and non-trout categories. The NJDEP designates streams as "trout production" if the stream is capable of supporting the spawning of trout and these waters are considered an indicator of very high-quality water. Trout maintenance streams are those designated by the DEP as supporting trout throughout the year, while non-trout waters are generally not suitable for trout because of their physical, chemical, or biological characteristics. However, non-trout waters may be suitable for a wide variety of other fish species.

In addition to the protection of groundwater and surface water resources, the CR-1 and CR-2 Districts respond to the goals of conserving significant elements of the remaining rural countryside. The rural character that pervades the edges of Bernards Township, which includes scenic vistas, wooded hillsides, agricultural fields, expansive floodplains, and historic settlements, is highly susceptible to degradation. Full development at permitted densities has consumed most of the countryside, and even when clustered, has produced minor conservation acreages which generally contain critical lands (wetlands, flood plains, steep slopes, etc.) of limited utility in preserving the rural character of the community.

As remaining development proceeds in Bernards Township, sustained attention will be required to prevent the dramatic alteration of the remaining rural character to accommodate traffic movements and increased traffic volumes. When these alterations occur, roadside features (trees, hedgerows, stone rows, etc.) and alignments (narrow cartways and winding alignments) can be compromised and lost. Rural character frequently undergoes a subtractive process of change that results in conversion of the landscape to a more suburban appearance with the associated environmental and traffic impacts.

Bernards Township's vision for the future of partially developed lands is consistent with the smart growth principles of the State Plan, intended to deter sprawl. Residential zoning, which has been perceived as a sort of "basic right" of landowners throughout New Jersey's countryside, has proven to be a root cause of sprawl. As efforts to hold back the tide of suburban sprawl have found the support of State planning efforts in New Jersey and around the country, a clearer focus has been brought to the problems created by sprawl, and the benefits to alternative patterns of development.

While a range of definitions of sprawl are advanced in the planning literature, Webster's Dictionary puts it clearly - "to spread out in an awkward...way, so as to take up more space than is necessary". In unsewered areas, Bernards Township's Master Plan proposes to achieve the objectives of the State Plan through zoning techniques that avoid sprawl. Permitted land development options will promote intelligent land use patterns.

The rural character of the less developed portions of Bernards Township is highly susceptible to degradation. Thus, land use regulations should encourage patterns of development that respect and retain the Bernards countryside character to the greatest extent possible. In the CR-1 District, where restrictive bedrock geology prevails, conventional subdivision will be permitted at a maximum density of one unit per ten (10) acres, which may occur on ten acre lots. However, to encourage land development patterns that are more conservative of natural features, farmland and other open lands, "open lands" conservation subdivision designs are incentivized with an "open lands conservation density".

Based on a plan of fully conforming lots, open lands conservation subdivisions will be permitted a 50 percent open lands conservation density increase over the number of units possible in a conforming plan. This density is permitted when at least 50 percent of a tract remains in one large "open-lands" parcel, deed-restricted to permit no more than one single-family dwelling (and its accessory uses and structures) with the balance to be used for natural resource conservation and/or agricultural uses. To achieve the desired pattern of development, the conservation subdivision would permit lots as small as three (3) acres, provided that open lands are provided to meet the minimum density requirement per three (3) acre lot created.

In the CR-2 District, conventional subdivision may occur at a maximum density of one unit per seven (7) acres, which can be arranged on lots of at least seven acres. When the open lands conservation subdivision option is employed, a 50 percent open lands conservation density increase is permitted over the number of units possible in a fully conforming plan, when at least 33 percent of a tract remains in one large "open-lands" parcel, deed-restricted to permit no more than one single-family dwelling (and its accessory uses and structures) with the balance to be used for natural resource conservation and/or agricultural uses. The permitted development may occur on lots of at least three (3) acres, provided at least 33 percent of the tract remains in the open lands residential parcel.

Protection of scenic resources can benefit by techniques such as scenic corridor designation and the use of scenic corridor setbacks. Within the CR-1 and CR-2 Districts, new construction should be set back behind natural features in the landscape, such as hedgerows and tree lines to preserve existing view sheds and vistas. Where these features do not occur in the terrain, setbacks should be at least 200 feet from public rights-of-way, unless the prevailing setbacks of adjacent dwellings are substantially less than 200 feet, in which case a 100 feet minimum setback should apply.



Significant portions of the natural landscape can be preserved as Open Lands where 33% of a parcel will remain undeveloped

The CR-1 and CR-2 Districts will work to advance the objectives of the Conservation Plan Element by setting aside and preserving open space land that would otherwise be developed to remain as open space. Bv maintaining 33 percent to 50 percent open lands on a parcel, significant elements of the rural country-side and natural landscape can be permanently preserved. The open space requirements in the CR-1 and CR-2 conservation subdivision options are designed to promote a more sustainable future by respecting the limited carrying capacity of these areas and protect valuable natural resources. These resources include valuable ecosystems, interconnected forests, wetlands and flood plains, interior and edge habitats, grasslands, stream corridors and headwaters.

These environmentally sensitive areas provide a multitude of benefits for Bernards Township's residents and promote an overall healthy natural environment.

To assure that owners of existing lots of record are not hindered in their ability to construct new dwellings or adapt existing homes with additions or modifications, a grandfather provision is recommended to allow construction or reconstruction of a home according to standards that relate to the size of the lot. Such a provision provides appropriate bulk standards to permit reasonable utilization of existing lots.

Low-Density Districts

The R-1 and R-2 districts provide for residential development at densities of 0.33 and .5 per acre (i.e., one dwelling unit per three acres and one dwelling unit per two acres, respectively). Lands within these districts include the lower density residential clusters, which are located along Somerville Road, just north and south of Allen Road, at Martinsville Road, the area northwest of I-287 including Meeker Road, Whitenack Road, Emily Road and Baltusrol Way, and in the northernmost portion of the Township at Butternut Lane.

Medium Density Districts

The majority of residential land use in the Township includes medium density residential districts. Here, the established character is dominated by lots of one acre or less and includes lots as small as one quarter acre. This district represents the center of Bernards Township, extending from north of I-287 and southward through the central portion of the Township.

Fellowship Village. а continuing care retirement community (CCRC¹⁶), is located in the R-2 District as a conditional use. Sunrise Assisted Living has been constructed as a conditional use in the R-6 District. The Medium-Density District is also found at the Hills Planned Unit Development (PUD), where the established lot sizes for single-family dwellings range between 4,000 square feet and eight acres. This Medium- Density District amalgamates the lower and higher density single-family portions of the Hills and the accompanying golf course, New Jersey National, for the average medium density character throughout this area. A Medium-Density residential district is also situated at



Multi-Family districts contain higher density housing, including townhouses, apartments and condominiums (The Hills).

the Township's southeastern most point, just west of King George Road along the Dead River.

These districts include established neighborhoods as well as newer neighborhoods where quality of life concerns are of significant importance. Protecting neighborhood character and managing change in these neighborhoods is a significant planning objective.

Multi-Family Districts

These districts permit multiple family residential uses including apartments, condominiums, and townhouses. These areas are located within the Hills PUD, south of Valley Road at Society Hill, the Cedars, Spring Ridge and Crown Court Planned Residential Developments (PRD's). Additional PRD's are located along South Maple Avenue (The Barons), along Lord Stirling Road (Lord Stirling Village), off of North Maple Avenue (Maple Run), north of Mt. Airy Road (Countryside) and east of Knollcroft Road (The Ridge). There is also a Multi-Family District, which includes the Ridge Oak Senior Housing Complex, east of South Maple Avenue. Multifamily districts are also designated at Mountain View Boulevard and at Dewy Meadow to reflect the inclusionary multi-family zoning adopted by the Township to address state constitutional affordable housing obligations.

In 2018, Bernards Township amended zoning to include an MH-1 Multi-family Housing Zone as part of addressing its state constitutional affordable housing obligations. The MH-1 Zone resulted in at least 70 acres in area with frontage on Mountainview Boulevard and permits

¹⁶ Assisted living facilities approved by use variance by the Zoning Board of Adjustment include "LCB" on /Mt Airy Rd. and "Braemar" on Valley Rd. and are not situated in multi-family zoning districts.

up to 280 dwelling units. These units include 60 townhouse units with the balance of the development potential provided as multi-family rental housing including at least 62 rental units available to the general public and set aside as affordable low- and moderate-income households with 30-year affordability controls¹⁷. An additional 24-units of housing was also designated at the Crown Court neighborhood in 2018, which included affordable housing.

FARMLAND PRESERVATION

Farmland and agricultural activities continue to be an important part of the rural character that remains in Bernards Township. Given the limited amount of farmland-assessed remaining land in Bernards Township (roughly 443-acres), it is reasonable to assume that a fair amount of it can be permanently preserved through a variety of means. Bernards Township may apply to the State Agriculture Development Committee (SDADC) Planning Incentive Grant (PIG) Program for Farmland Preservation. This program allows the Township to



Actively farmed lands contribute to the rural character of the Township.

identify local preservation priorities, and to acquire easements without the competitive ranking required in the traditional Farmland Preservation Program.

Initial preservation efforts should be focused in the CR-1 and CR-2 districts where the majority of farmland assessed acreage lies in the Township. By focusing efforts here, financial assistance can be extended to working family farms, providing a measure of stability and vehicle to finance the continuation of agricultural activities. Additionally, preservation of farmland advances the basic rural character and conservation objectives of this Land Use Plan and the Conservation Plan.

The Bernards Township Agricultural Advisory Committee is responsible for promoting and preserving agriculture as a viable economic activity and agriculture as a business within Bernards Township, and enabling agricultural enterprises to continue to contribute to the quality of life in the community. A right to farm ordinance protects farmers from nuisance complaints related to agricultural operations, typically from non-farm neighbors. Agriculture could be listed as a permitted use in the appropriate zones.

¹⁷ At the expiration of a 30-year affordability control period, a municipality may extend controls for an additional term of affordability.

NEIGHBORHOOD CONSERVATION AND PROTECTION

A primary objective of this Land Use Plan is to maintain the character of established



Neighborhood conservation and protection policies seek to preserve the character of places such as Basking Ridge.

neighborhoods, and to protect the quality of life in these areas. While substantial undeveloped, unsewered portions of the community will develop at a lower intensity. this Master Plan sets as a key objective the protection and enhancement of the established residential character that pervades much of Bernards Township.

One of the market-driven forces impacting Bernards Township remains the residential "teardown", which is where smaller, older homes are replaced with larger new homes. In some cases, the teardown may include combining existing residential lots to accommodate a new, larger home. Teardowns can negatively impact the fabric of established neighborhoods, by "unplugging"

an existing home and replacing it with a much larger and different house. In desirable locations, the lure of a profitable real estate investment can have significant negative effects on neighborhood character. This can also be disruptive to neighborhood character when oversized lots are subdivided for further development, or multiple small lots are combined for redevelopment with a larger building.

The 2003 Land Use Plan advanced a variety of strategies designed to maintain the existing residential fabric and the scale and character of established neighborhoods. It also cited the need to review a variety of techniques, to preserve neighborhood character, including floor area ratio (FAR) restrictions, enhanced setbacks, revised building coverage standards, building placement, maximum building size limitations, and residential lot suitability standards.

In the interim, the Planning Board and Township Committee have examined these techniques and adopted lot suitability standards, rejected maximums on FAR or house size, and did not yet conclude whether other techniques should be employed.

The review of these techniques resulted in the following Township actions or determinations since 2003:

TABLE II-5 NEIGHBORHOOD AND CONSERVATION TECHNIQUES STATUS OF IMPLEMENTATION SINCE 2003							
Technique	Ordinance	Undecided	Ord. #,				
_	Adopted		Adopted				
Enhanced setbacks x							
Lot coverage x							
Lot suitability standards	x		#1929, 2/27/2007				
Lot of record restrictions		х					
Building placement		X					
Side yard setbacks ¹⁸	x		#1888, 9/12/2006				
Lot width requirement	х		#1888, 9/12/2006				
Irregular lot frontage							
Natural resource deductionsx#1929, 2/27/2007							
Building height measurement	X		#1945, 6-12-2007				

The undecided column outlines a number of regulatory approaches that may merit further review, including building location on the lot (setback, placement), lot coverage and lot of record restrictions. These remain as techniques available for implementation if needed in the future and are described below.

Enhanced Setbacks

The intrusion of new construction along existing roadways often results in the removal of existing roadside vegetation and scars the existing rural landscape. Major view sheds and vistas, valuable and unique visual resources, and roadside features can be protected using enhanced setback regulations. The enhanced setback approach requires new construction along the Township's existing roadways to be situated behind these existing scenic resources, including existing hedgerows, tree lines, and other natural features in the landscape.

Lot Coverage

Lot coverage standards have evolved in response to a number of legitimate public policy concerns. Environmental protection and conservation of natural resources are principal objectives, with water quality among the major concerns. Retaining native vegetation, particularly mature trees, and limiting runoff-generating coverage plays a significant role in protecting both water quality and neighborhood character. Coverage standards also limit the intensity of the built environment and can play a major role in conserving neighborhood character by limiting the impact of "knock-down" redevelopment or overly ambitious additions to existing buildings. These standards limit the footprint area of buildings and

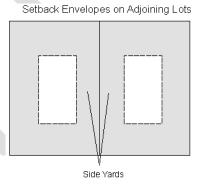
¹⁸ "Grandfathering" provisions apply to reduced minimum side yard and combined side yard dimensions for dwellings constructed prior to September 21, 2006 in the R-6 and R-7 zones are found on Table 501, of Chapter 21, Land Development ordinance.

other impervious surfaces and can help to limit the scale of new development and the extent of vegetation removal, which is important to maintaining neighborhood character. The Township could investigate flexible approaches to coverage limits for buildings and other improvements, particularly where enhanced stormwater management is important. The Master Plan recognizes the Zoning Board of Adjustment recommendations regarding impervious coverage limits. The Planning Board and the Township Committee could review and explore this issue and potential ordinance changes.

Lot-of-Record Restrictions

One technique for preventing the consolidation of multiple lots and removal of existing buildings is to limit the use(s) permitted in any specific zone to a "lot-of-record", that is, a parcel existing as of a certain date. Restrictions on the use of lots-of-record are intended to prevent the combination of lots into larger parcels to create larger development opportunities. When this happens, the scale and character of established neighborhoods can

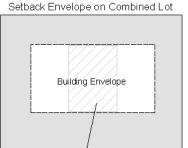
be radically altered, as it results in fewer buildings of larger size through the merger of lots and elimination of side yard requirements. This can result in larger and wider buildings, since the "disappearing" side yards can now house building area. By example, in the accompanying diagrams, if the envelopes of the two former lots could each hold a 1,000 square foot footprint, the "new" envelope could fit a 3,000 square foot footprint.



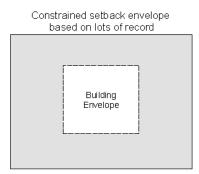
Lot-of-record restrictions can acknowledge the use and level of existing development and place appropriate controls on bulk and intensity. By limiting the combined lots to their former development potential as individual lots (total building coverage, total impervious coverage and setbacks), such restrictions work to prevent the consolidation of two existing lots, elimination of the intervening side yard and creation of an "oversized" lot that could accommodate a substantially larger building.

Building Placement

Zoning regulations have typically required the placement of buildings within an "envelope" established by the minimum front, side and rear yards. Except for the limitations imposed by floor area or coverage controls, the building envelope may be "filled up" by the addition of the unused development rights that remain to be acted out. Desirable residential and mixeduse locations are affected by market forces, which make it attractive to alter the prevailing character by capturing additional development potential. However, it is often this real estate investment incentive, which destroys or dramatically



Side Yards are Eliminated



alters neighborhood character. In residential neighborhoods, where some homes have been built at the minimum front yard setback while others have been set substantially further back, the results can be a "front yard vs. back yard" arrangement. In this setting, one resident's front door faces another resident's accessory uses (i.e. - pools, fences, dog runs) and outdoor living areas in the rear yard, compromising the privacy of these areas.

The "New Urbanism" design approach requires that new dwellings be built at a comparable front yard setback, creating a relationship where front yards are fairly consistent across a block, and rear yard areas are preserved throughout the neighborhood for those more private activities appropriate to rear yards. While the New Urbanism sometimes attempts to dictate architectural styles and may require porches, specific types of fences or other details, the theory that underpins these designs seeks to recreate neighborhood forms found desirable and workable in the past. However, in the era of increasingly large lots, which include flag lots and other atypical arrangements, juxtapositions of formal and informal spaces will become more common and potentially troublesome.

If a 50' front yard was required when a neighborhood was built, most homes were typically located at or near the minimum setback. However, as scattered redevelopment overtakes some of these neighborhoods, motivated by an attractive commuting location and desirable community facilities services and schools, the cost of driveway paving is no impediment to locating a replacement dwelling substantially further back from the street than the neighborhood relationships can evolve and the perception of a traveler through such neighborhoods is one of transition and change, not of consistency and cohesiveness.

Requiring both a minimum and maximum front yard setback requirement can help to address this concern. If the typical front yard setback in the neighborhood is 50 to 60', it may be appropriate to require that new or replacement dwellings be located no closer than 50' and no further back than 60' along their front building line. The maintenance of a uniform front yard can help to retain the feeling of neighborhood character. Where older development is closer to the road than the actual setback requirement for the zone, it may be appropriate to consider an average setback requirement for infill development.

Maximum Building Width

Another technique for avoiding the introduction of buildings that are out of scale with their surroundings is a control overall building width. This control can help to retain the small scale and individual character of individual building elements. A maximum building width requirement can prevent buildings from becoming out of scale with their surroundings, when such maximum building width standards are properly gauged to neighborhood character. Regulating building width based on lot width may prove useful, since a large house can be less obtrusive when it sits deep on the lot, which can hide the massiveness.

The scale and character of historic villages is also a major concern, and Liberty Corner and Basking Ridge stand as testimonials to the historic past of Bernards Township. These mixed-use village areas have a fabric, which is susceptible to damage by the removal and replacement of older and smaller buildings with new larger buildings. Yet, in many cases, prevailing zoning standards permit a building envelope, based on setbacks, coverage and other standards, which can accommodate substantially more development than the historic forms. Strategies could be directed at preventing the removal of older homes or other buildings that play a key role in the streetscape and unique character of these historic areas.

Where older settlement areas tended to develop incrementally, with a series of smaller buildings combining to create a sense of place, modern architectural and design efficiencies often provoke larger buildings, disparate architectural styles and institutional rather than individual appearances. The use of a maximum building size requirement can help to assure



S. Finley Avenue, Downtown Basking Ridge

that when the floor area associated with a given area of land is established or modified, that the size of buildings can be reasonably related to the character that exists prior to the new construction. Of course, new construction will make changes in this character over time, making it more important to limit significant departures from neighborhood character.

Neighborhood character is generally perceived along a linear processional experience. A drive down the street, observing the size and placement of homes

on both sides of the street, reinforces our sense of neighborhood character. Regulations should be crafted to recognize the size and scale of the buildings that create the context within which the new or additional development will occur.

Lot Frontage / Minimum Lot Width at Setback Line

Lot frontage standards are a dimensional standard that can be used as a means of maintaining and reinforcing neighborhood character and minimizing potential conflicts among neighbors. When the minimum lot frontage requirement is identified in proportion with a minimum lot width requirement and minimum lot size requirement, a uniform and predictable lotting pattern will result. This uniformity, in conjunction with appropriate setbacks, can assist in managing the placement of the dwelling or a building within a neighborhood setting in such a way that minimizes the potential for crowding, awkward development arrangements and even conflicts among adjoining lots, which can serve to reinforce neighborhood character.

In 2008, the Township Committee adopted an ordinance amendment¹⁹ requiring the minimum lot width to be calculated uniformly on all lots – at the minimum front yard setback

¹⁹ See § 21-3, Definitions in the Land Development Ordinance.

line. Prior to the 2008 amendment, minimum lot width on cul-de-sac and pie-shaped lots could be measured where the front of the dwelling was situated on the lot (not at the required front yard setback as was/is the case for all other residential lots). This anomaly in the ordinance permitted a developer to shift a dwelling rearward on a cul-de-sac or pie-shaped lot to the point on the lot at which the minimum lot width could be calculated. The result of this was an awkward "front yard vs. back yard" arrangement, where one resident's front door faces another resident's accessory uses. The 2008 ordinance amendment prevents the potential for the awkward arrangement described above to be repeated on new lots created after 2008. The amendment also grandfathered all cul-de-sac and pie-shaped lots in existence prior to February 2008 to measure lot width at the actual or approved location of the house, but not closer than the minimum required setback.

Minimum Zoning Standards and Grandfathering

Zoning ordinances in largely developed areas frequently employ minimum lot area and yard requirements that are scaled to the character of existing development. This approach can be problematic when oversized parcels, frequently home to large older buildings, are attractive candidates for subdivision. If a village zone has seen a dominant pattern of one quarter acre to one third acre parcels, for example, zoning that permits the subdivision of new lots of this size will encourage the subdivision of the larger parcels - a particular concern in the R-6 and R-7 Zones (three quarter acre and one half acre minimum respectively).

When these parcels include stylistically unique design, attractive traditional architecture of one time period or another, or include private places of special significance, further division can "deconstruct" the neighborhood fabric and setting, as these attributes may be removed and replaced by oversized new development "shoehorned" into the minimum building envelope. In small lot neighborhoods this is particularly important, since smaller homes tend to be more affordable and the imposition of large new homes can overpower these smaller homes. Thus, Bernards Township could develop strategies to encourage owners to retain and adapt these small homes on small lots by making zoning more compatible with existing lot sizes.

To avoid this dilemma, "saving" or "grandfather" standards can permit the new or additional construction on existing lots, according to standards appropriate for a lot of such size. This method can assure that non-conforming lots will still be eligible for the construction of new homes, or the construction of additions or accessory buildings, without burdensome processing of variances by the Zoning Board of Adjustment. This goal can be accomplished by creating a saving clause that provides graduated bulk requirements which reflect the prior zoning standards based on lot size.

Thus, setback, coverage and other standards can be appropriately scaled to the one half acre, one acre or two acre size of an existing parcel, not to some arbitrary standard for new subdivision that always requires variance relief for any new construction. Since similarly sized lots are treated in similar fashion, the provisions are fair, providing uniform treatment for such classes of lots. This technique is useful whenever significant "downzoning" occurs, in both developed and largely undeveloped areas. An example of this are the side yard and

combined yard setback standards for the R-6 and R-7 zones, which recognize pre-existing nonconforming setbacks for dwellings constructed prior to September 21, 2006 and allow for home additions with setbacks that do not conform to the existing setback requirements (see Table 501, Chapter 21).

Finetuning of land development regulations should also address other areas where frequent Zoning Board of Adjustment appeals may be required. In cluster developments, for example, dormer additions to existing second floor areas can require variance relief, although they result in no significant change to neighborhood character or increase in the footprint of development. However, it is also important to maintain and improve neighborhood quality throughout Bernards Township.

NON-RESIDENTIAL DISTRICTS

Bernards Township includes an array of non-residential districts that provide for office uses, retail commercial uses, a variety of public uses, and the Millington Quarry where quarrying operations have now ceased. These districts combine to comprise roughly one quarter of Bernards Township's land area.

PUBLIC PURPOSE DISTRICTS



Veterans Affairs Lyons Campus

The existing Public Purpose districts designated by Bernards Township permit a variety of public and quasi-public uses, including public open space and parks, hospitals, public and private schools, child care centers, and nonprofit emergency services. Parcels zoned Public Purpose are either held in perpetuity as public or private open space or by some other public or non-profit entity, or developed as schools, hospitals or non-profit institutions.

The larger tracts in the Public Purpose districts are currently

occupied by public and quasi-public uses, including the Veterans Administration Hospital, Bonnie Brae School, and the Somerset Hills YMCA These sites, which provide regional services, were developed at relatively low intensities, with the main buildings generally set back into the interior of the site, creating the appearance of an open space campus-like setting.

A review of the potential for substantial additional development under current zoning suggests the need to modify the permitted uses and reduce the amount of development

permitted in the Public Purpose districts. There are several properties within the existing Public Purpose zoning district that could redevelop with higher intensity uses that conflict with the surrounding residential neighborhoods and drastically change the existing character of the site.

The continued operation and/or redevelopment of existing public purpose uses are guided by five (5) distinct public purpose districts, designed to reflect current public and semipublic uses and respect the existing land uses and character of surrounding development.

Bernards Township distinguishes among these districts in the principal uses listed below as designated in the Land Development Ordinance for each Public Purpose zoning district:

- **P-1**: Public recreation and open space, public parks, roads and other public purpose uses.
- **P-2**: Existing private, non-profit health and recreation membership organizations that offer a range of health, fitness and community service programs and social activities for all ages but shall not include a medical clinic, medical practice or medical facilities operated by physicians or other State recognized or licensed medical or health practitioners. Community, cultural, recreational, athletic, social and educational facilities, fire companies, and first-aid squads operated on a not-for-profit basis.
- P-3: Public and private schools (Grades: Pre-K through 12).
- P-4: Hospitals and golf courses.
- **P-5:** Community, cultural, recreational, athletic, social and educational facilities operated on a not-for-profit basis, including the Somerset Hills YMCA.

This land use plan continues the recommendations of the 2010 Master Plan and calls for designation of certain sites to be zoned under the Public districts designation. The Public districts track the acquisition of public lands and are updated regularly to reflect the most recent additions. In the event that uses within the Public Districts are discontinued, this Plan

recommends that any redevelopment of these parcels should be governed by the recommended standards applicable to the CR-1 Districts.

OFFICE/EMPLOYMENT DISTRICTS

Three major Office/Employment nodes of varying size are designated in Bernards Township, all oriented to the interstate highway system. The largest area designated office/employment district is situated to the north and south of Route 78 at Martinsville Road. The second largest Office/Employment District is situated



Bernards Township has attracted high-quality office development (Verizon, North Maple Avenue).

at the I-287 interchange with North Maple Avenue, the site of Verizon (the former AT&T Corporate Complex). The smallest Office/Employment District is located just north of I-287 at Mount Airy Road.

The Office/Employment Zones provide major regional corporate office and employment opportunities easily accessible by the arterial highway network. Together, these districts comprise nearly six percent of the Township's land area. Given the location and character of these areas, designed to respond to the interstate highway grid, the established character will likely remain as previously planned and zoned.

RETAIL COMMERCIAL DISTRICTS

These districts are compact in form and occupy several, central locations within densely populated portions of the community. They are found on (1) Allen Road within the Hills PUD, (2) in the center of Basking Ridge, south of Oak Street, along South Finley Avenue and South Maple Avenue, (3) in Lyons at South Finlev Avenue and Stonehouse Road, (4) in Liberty Corner along Church Street, (5) at the Dewy Meadow complex situated along King George Road, and (6) Riverwalk and 100 Market Place at Martinsville Road. Dewy Meadow and Riverwalk commercial districts were an outgrowth of the 2003 Master plan's recognition of the need for retail services within the community and



The Township is served by a variety of attractive retail/commercial facilities (Riverwalk, Martinsville Road).

was designed in a compact format with a highly styled architectural treatment.

Zoning was amended in 2018 to add a mixed-use multi-family housing overlay zone redevelopment option to a portion of the Dewy Meadow in the B-5 Zone that retains a substantial retail shopping center component on the site that was exclusively a retail site. This overlay permits a maximum of 198 multifamily dwelling units including a 15 percent affordable housing set aside for low- and moderate-income to satisfy a portion of Bernards Township's State constitutional affordable housing obligation and the residential component of site is now fully developed with 168 market-rate apartments and 30 affordable apartments.

While Bernards Township is served by a variety of suburban commercial facilities in a number of different settings, the commercial downtowns of Basking Ridge and Liberty Corner are a separate category requiring different strategies. Many communities in New

Jersey are interested in protecting the pedestrian vitality and character of small downtowns. One strategic approach commonly used is to require first floor areas to be utilized solely for retail uses and restaurants rather than be consumed by office occupancy or other uses that do not contribute to foot traffic needed to enhance the pedestrian character and scale of the downtown. Bernards Township could investigate whether such a restriction would be appropriate in any of Bernards Township's historic neighborhood commercial settings.

MINING DISTRICT

This district encompasses the existing Millington Quarry lands where active Quarry operations ceased in 2016. This Master Plan calls for maintaining the existing low-density residential development zoning intended in this area, at a density of one (1) dwelling unit per two (2) acres (§ 21-10.9 a.(1)(a)). The Quarry District accounts for slightly over 1 percent of Bernards Township's land area.

SUMMARY

A principal objective of this land use plan is that the highly prized community character and quality of life be protected and maintained, throughout Bernards Township, whether in newly constructed or older suburban neighborhoods, historic settlements or rural portions of the Township. Protecting these features will likely require a combination of regulatory techniques, including carefully crafted strategies to protect and enhance these assets.

Regional location, desirable neighborhoods, high quality public education, excellent community services and a highly valued quality of life have made Bernards Township an attractive community for many years. This Land Use Plan is designed to guard and protect these values.

This 2023 Land Use Plan also acknowledges the need to expand local initiatives to conserve energy and promote sustainable lifestyles. As new development and redevelopment is evaluated in the future, a clearer focus should be brought to the task of orienting buildings to a site and a neighborhood in ways that promote the use of renewable energy and enhance opportunities for meaningful social and civic interaction and protect neighborhood character.

CHAPTER II-A - CLIMATE SUBPLAN ELEMENT OF THE LAND USE PLAN

SMART, RESILIENT, SUSTAINABLE PLANNING IN THE FACE OF CLIMATE CHANGE

New Jersey's Municipal Land Use Law (MLUL) has long provided a focus on the environment, stewardship and sustainability. Bernards Township internalized this focus in the Master Plan process that produced the 2002 Conservation Plan. This Conservation Plan provided an understanding of Bernards Township's natural environment and its attributes and limitations and formed the basis for Bernards Township's environmentally-responsible land use plan two decades ago. The Township's Master Plan maintains this focus today.

New Jersey's continuing focus on smart growth and sustainable development, long reflected in the policies of the State Development and Redevelopment Plan (SDRP), was reiterated in the statutory amendments included in NJSA 40:55D-28f, g, and h, as follows:

(f) including, for any land use plan element adopted after the effective date of P.L.2017, c.275, a statement of strategy concerning:

(i) smart growth which, in part, shall consider potential locations for the installation of electric vehicle charging stations,

(ii) storm resiliency with respect to energy supply, flood-prone areas, and environmental infrastructure, and

(iii) environmental sustainability;

(g) showing the existing and proposed location of public electric vehicle charging infrastructure; and

(h) including, for any land use plan element adopted after the effective date of P.L.2021, c.6, a climate change-related hazard vulnerability assessment which shall

(i) analyze current and future threats to, and vulnerabilities of, the municipality associated with climate change-related natural hazards, including, but not limited to increased temperatures, drought, flooding, hurricanes, and sea-level rise;

(ii) include a build-out analysis of future residential, commercial, industrial, and other development in the municipality, and an assessment of the threats and vulnerabilities identified in subparagraph (i) of this subparagraph related to that development;

(iii) identify critical facilities, utilities, roadways, and other infrastructure that is necessary for evacuation purposes and for sustaining quality of life during a natural disaster, to be maintained at all times in an operational state;

(iv) analyze the potential impact of natural hazards on relevant components and elements of the master plan;

(v) provide strategies and design standards that may be implemented to reduce or avoid risks associated with natural hazards;

(vi) include a specific policy statement on the consistency, coordination, and integration of the climate-change related hazard vulnerability assessment with any

existing or proposed natural hazard mitigation plan, floodplain management plan, comprehensive emergency management plan, emergency response plan, postdisaster recovery plan, or capital improvement plan; and

(vii) rely on the most recent natural hazard projections and best available science provided by the New Jersey Department of Environmental Protection;

SMART GROWTH, STORM RESILIENCY AND ENVIRONMENTAL SUSTAINABILITY

This section responds to the statutory provisions of N.J.S.A. 40:55D-28 f. (i) – (iii).

Bernards Township's Master Plan was shaped in part by a public visioning process that identified the major goals and objectives of the community, which included keeping taxes stable while working to:

- Protect open spaces.
- Provide adequate fire and first aid safety.
- Control and calm traffic in town.
- Connect neighborhoods with pathways/greenways.
- Create accessible programs to meet the needs of youth.
- Protect downtown Basking Ridge and Liberty Corner maintain their distinct charm.

Bernards Township has a long history of proactive planning for and implementation of strategies that provided affordable housing, expanded emergency service facilities and equipment, acquired extensive and widely distributed public open spaces, developed and expanded recreation facilities, and added an extensive path and bikeway network.

The Master Plan provides "a holistic policy rationale that acknowledges the responsibility of stewardship over open spaces, infrastructure and natural and built systems and promotes sustainable development, operations and maintenance."

Somerset County has maintained a leadership role in planning for hazard management and the July 2019 Disaster Mitigation Act of 2000²⁰ Hazard Mitigation Plan Final Update has been referenced widely in this review.

²⁰ The Disaster Mitigation Act of 2000 (DMA 2000) is federal legislation that establishes a pre-disaster hazard mitigation program and new requirements for the national post-disaster Hazard Mitigation Grant Program (HMGP). DMA 2000 encourages and rewards local and state pre-disaster planning, promotes sustainability, and seeks to integrate state and local planning with an overall goal of strengthening statewide hazard mitigation planning. This enhanced planning approach enables local, tribal, and state governments to articulate accurate and specific needs for hazard mitigation, which results in faster, more efficient allocation of funding and more effective risk reduction projects. (Source: Somerset County)

Smart Growth (N.J.S.A. 40:55D-28 f. (i))

Smart Growth is a much used term that merits clarification. While not defined in the SDRP, Smart Growth America has highlighted the key features of smart growth, which include:

- 1. Mixed land uses
- 2. Take advantage of compact design
- 3. Create a range of housing opportunities and choices
- 4. Create walkable neighborhoods
- 5. Foster distinctive, attractive communities with a strong sense of place
- 6. Preserve open space, farmland, natural beauty, and critical environmental areas
- 7. Direct development towards existing communities
- 8. Provide a variety of transportation choices
- 9. Make development decisions predictable, fair, and cost effective
- 10. Encourage community and stakeholder collaboration in development decisions

Bernards Township's Land Use Plan encourages smart growth. By permitting and encouraging mixed uses in the village centers, the layout of the community has encouraged compact design while also creating a range of housing opportunities that include single family and multi-family options and affordable housing.

Electric Vehicle (EV) Infrastructure (N.J.S.A. 40:55D-28 f. (i))

The evolution of the electric vehicle is largely the product of an alternative to fossil fuel powered transportation that is responsible for a significant portion of greenhouse gas emissions. These emissions are widely believed to be responsible for climate change. As electric vehicles assume an ever-increasing share of the vehicle market, from mini-cars to tractor trailers, consumer concerns about access to charging infrastructure can be an impediment to their purchase. At present, most vehicle charging occurs at home; however, providing a network of charging stations on the road will assist the growth of electric vehicle Currently, charging stations are found at six (6) locations in Bernards Township, use. including: (1) Dewy Meadow Shopping Center (Tesla Supercharger and OpConnect Charging Station) at 415 King George Road (2) a ChargePoint facility at the rear of the new Dewy Meadow apartments, (3) a ChargePoint facility at 2129 Fellowship Road in Fellowship Village, (4) a ChargePoint facility at Pingry School, (5) a Flo Charging Station at 65 South Maple Avenue in Basking Ridge and (6) a ChargePoint Charging Station at the Olde Mill Inn on Morristown Road (225 US Route 202). In addition, two ChargePoint charging stations for municipal use are located at two locations: The municipal complex at 1 Collver Lane and the Department of Public Works at 277 South Maple Avenue.

Electrical vehicle charging at home seems to be the most cost-effective and with most owners choosing to charge vehicles at home. Prices charged at public access stations vary considerably depending upon location and the type of charger. There are some public use

facilities that provide EV charging for free (i.e., for customers at stores, motels, etc.), and others that charge a fee. The cost for EV charging at a private EV charging station is reported to vary widely.

In September 2021, the New Jersey Department of Community Affairs published an Electric Vehicle Charging Station Model Ordinance²¹ as a statewide model ordinance to implement the provisions of the EV Charging Station Law. The model ordinance is intended to incentivize the installation of EV Charging Stations throughout New Jersey and should help streamline the installation process as the network is built out.

During his February 2023 Climate Address, New Jersey Governor Phil Murphy identified a goal of requiring only the sale of electric vehicles in NJ by 2035. At that time, the Governor also directed the NJDEP to begin stakeholdering on a proposed rule for vehicle manufactures to make zero emission vehicles (ZEV"s) an increasing percentage of their new light-duty vehicle sales, ramping up to 100% ZEV's by 2035. In July 2023, the Governor announced the filing of the Advanced Clean Cars II (ACCII) proposal with the Office of Administrative Law to establish rules to achieve that objective. On August 21, 2023, proposed rule-making in the New Jersey Register for the State's Low Emission Vehicle Program modeled after a similar program in effect in California. Public comment period on the proposed rule runs through October 20, 2023.

Bernards Township could consider working with Somerset County to develop a coordinated plan for future electric vehicle charging stations. However, it appears that the network of public electric vehicle charging stations is spontaneously building out in response to market demand. New Jersey law²² now permits the installation of charging stations at commercial and non-residential facilities and businesses and the law requires charging stations to be provided in new residential developments of a certain size at the time a local approval is granted. In addition, it is noteworthy that a vehicle's Global Positioning System (GPS) may map charging station locations for a driver in need of a charge. In essence, government coordination may not be needed in light of the manner in which these facilities are being established and locatable through a vehicle's GPS system. (Additional Electric Vehicle discussion can be found, below and in Chapter V – Circulation Plan Element & Chapter VIII – Conservation Plan Element)

Storm Resiliency (N.J.S.A. 40:55D-28 f. (ii))

"Climate resilience is the ability to anticipate, prepare for, and respond to hazardous events, trends, or disturbances related to climate. Improving climate resilience involves assessing how climate change will create new, or alter current, climate-related risks, and taking steps to better cope with these risks". (Center for Climate and Energy Solutions).

²¹ NJDCA's electric vehicle charging station model ordinance entitled "An Ordinance Authorizing And Encouraging Electric Vehicle Supply/Service Equipment (Evse) & Make-Ready Parking Spaces," may be found at the following link: https://www.nj.gov/dca/dlps/home/modelEVordinance.shtml

²² EV Law (P.L. 2019, c. 362)

Energy Supply (N.J.S.A. 40:55D-28 f. (ii))

The Bernards Township Annex to the Somerset County All Hazards Plan identifies the hazards meriting further study as follows:

Table 5.2-1 Summary Results of the Hazard Identification and Evaluation Process						
 Avalanche Coastal Erosion Drought Earthquake Expansive Soils Extreme Temperatures Flood (Riverine, Flash, Ice Jam, and Dam Flooding) Groundwater Contamination Hailstorm Hurricane (and other Tropical Cyclones) Ice Jams Ice Storm 	 Infestation Land Subsidence Landslide Nor'easters Radon Severe Storms (Windstorms, Thunderstorms, Hail, Lightning, Tornados, and Hurricanes) Severe Winter Storms (Heavy Snow, Blizzards, Freezing Rain/Sleet, Nor'easters, Ice Storms) Tornado Tsunami Volcano Wildfire Windstorm 					

🗹 = Hazard considered significant enough for further evaluation through Somerset County's multi-jurisdictional hazard risk assessment.

Threats to the continuity of energy supply are inherent in the hazards identified by Somerset County, including:

- 1. Severe Storm (Windstorms, Hurricanes, Thunderstorms, Hail, Lightning and Tornadoes)
- 2. Flooding (Riverine, Flash, Ice Jam and Dam)
- 3. Wildfire
- 4. Severe Winter Storm (Heavy Snow, Blizzards, Freezing Rain/Sleet, Nor'easters and Ice Storms)
- 5. Extreme Temperatures
- 6. Drought
- 7. Earthquake

Hazard	Frequency	Hazard Ranking
Severe Storm	Frequent	High
Flooding	Frequent	High
Wildfire	Occasional	High

Hazard	Frequency	Hazard Ranking
Severe Winter Storm	Frequent	Medium
Extreme Temperatures	Frequent	Medium
Drought	Occasional	Medium
Earthquake	Rare	Low

The most frequent events are severe storms, flooding and extreme temperatures, with the highest hazard ranking for severe storms, flooding and wildfire.

Somerset County identifies the frequency of earthquakes as an occasional occurrence. NJ DEP reports that damaging earthquakes in NJ are rare but have happened and will happen again. Nonetheless, whether from ice or rain, floods, wind, wildfire or extreme heat events, hazards pose threats to power infrastructure.

The Bernards Annex to the County All Hazards Plan indicates that the Township's ongoing efforts to address power vulnerability include:

- Public education and outreach on proper installation and/or use of backup power on Township website guiding the public on the proper installation techniques and required permit.²³
- Implementation, review, and enforcement of municipal policies and programs to prevent trees from threatening lives and impacting power availability/interruption.

Additional recommended actions to protect power distribution facilities include:

- a. Encouraging more solar (local) and wind power (regional)
- b. Curbing energy demand through weatherization and energy efficiency improvements
- c. Supporting expansion of EV charging stations (electric vehicles can act as backup batteries for customers when the grid is down following extreme weather events)
- d. Expanding long-distance transmission lines (regional).

Enhanced Risk Assessment (N.J.S.A. 40:55D-28 f. (ii))

Bernards Township could participate in local, county and/or state level projects and programs to develop improved structure and facility inventories and hazard datasets to support enhanced risk assessment efforts. Such programs may include developing a detailed inventory of critical facilities based upon FEMA's Comprehensive Data Management System

²³ Gas-powered electrical generators are dependent upon an adequate supply of natural gas during periods of electric service disruption. Extensive use of gas-powered back-up electrical generators may give rise to a supply concern if demand exceeds the capacity of distribution lines.

(CDMS) which could be used for various planning and emergency management purposes including:

(1) Support the performance of enhanced risk and vulnerability assessments for hazards of concern; and

(2) Support state, county and local planning efforts including mitigation (including updates to the State HMP), comprehensive emergency management, debris management, and land use.

Improved structural and facility inventories could incorporate flood, wind and seismicspecific parameters (e.g. first floor elevations, roof types, structure types based on FEMA-154 "Rapid Visual Screening of Buildings for Potential Seismic Hazards" methodologies). It is recognized that these programs will need to be initiated and supported at the County and/or State level, and will require training, tools and funding provided at the county, state and/or federal level.

Tree Management To Protect The Power Grid (N.J.S.A. 40:55D-28 f. (ii))

The Township could prepare, implement , and enforce municipal policies and programs to prevent trees from threatening lives and impacting power availability/interruption. Removal of dead Ash²⁴ trees and ongoing assessments, trimming and removal of tree growth that pose threats to power lines can also improve power grid reliability during extreme weather events.

Stormwater And Runoff Management

In accordance with the Township Master Plan:

- Conduct a water audit in support of implementation of bio-filtration systems (biorentention systems, rain gardens, and constructed wetlands).
- Identify parking lots, roads, or other parcels where small areas of curbing can be eliminated and biofiltration systems can be constructed on the other side to treat the stormwater runoff.
- Identify and protect environmentally sensitive areas within the Township, including moderate and steep slopes, wetlands, flood plains, water bodies, ridge lines, and areas of significant vegetation.

Green Infrastructure (N.J.S.A. 40:55D-28 f. (ii))

The ability to prevent flooding and the discharge of polluted runoff during increasingly frequent storm events will require a coordinated approach by government and the private sector. In 2019, Congress enacted the Water Infrastructure Improvement Act, which defines

²⁴ According to the USDA, the Emeral Ash Borer Beetle is is responsible for the destruction of tens of millions of ash trees in 30 states. Standing dead Ash trees weaken and break apart over time, and commonly cause downed power lines when tree branches ultimately fall, which may be at any time, particularly during wind events.

green infrastructure as "the range of measures that use plant or soil systems, permeable pavement or other permeable surfaces or substrates, stormwater harvest and reuse, or landscaping to store, infiltrate, or evapotranspirate stormwater and reduce flows to sewer systems or to surface waters."

Green infrastructure, which uses natural systems to the greatest advantage in limiting storm effects, plays an increasingly critical role in storm resiliency. and in turn creates numerous benefits for the community as it reduces stormwater flows and helps prevent pollutants and harmful toxins from entering stream corridors.

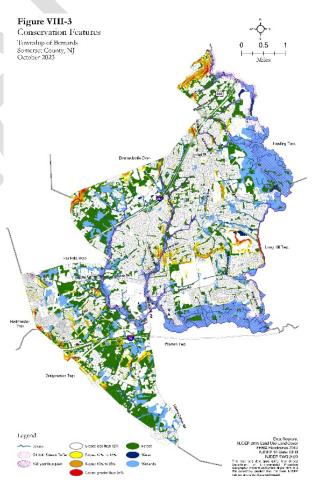
NJDEP adopted new stormwater rules (N.J.A.C. 7:8), effective March 2, 2021, which substantially increased the focus on green infrastructure. The revised rules replaced the requirement that major developments incorporate nonstructural stormwater management strategies to the "maximum extent possible" to meet groundwater recharge, stormwater runoff quantity and stormwater runoff quality standards, requiring that green infrastructure be utilized to meet these standards. The new rules create mathematically based standards for stormwater design compliance and allow infiltration through best management practices.

Flood Prone Areas (N.J.S.A. 40:55D-28 f. (ii))

Bernards Township's Conservation Plan, which identifies the natural systems throughout the Township that are the underpinnings of the 2003 and 2010 Master Plans and this Master Plan, includes an identification of the flood zones by location and intensity, seen at right.

Stream corridor management strategies, advocated in the Master Plan and resulting in land use regulation, included the following:

- 1. Vegetated buffers should be maintained along all stream corridors in the Township. Where past land use practices have resulted in the removal of trees along stream corridors, management practices should include the reestablishment of the tree cover. Stream buffers should extend at least one hundred fifty (150') feet from each side of the stream centerline.
- 2. A stream corridor protection program, modeled after the program established by the Delaware and Raritan Canal Commission, which seeks to protect the stream corridor and adjacent wetlands,



floodplains, and contributory uplands with steep slopes, to be developed and implemented by the Township.

- 3. Management strategies and monitoring standards for stream corridor areas.
- 4. Outreach to neighboring municipalities to develop consistent and/or compatible management strategies along stream or river corridors.
- 5. Floodplains have been included in the natural resource deductions contained in the Land Development Ordinance.

The Conservation Plan also advocated for water quality best management practices to protect the quality of surface waters and promote maximum habitat values. These included:

- Arrange development on the least porous soils, to promote infiltration and reduce sediment and pollutant loading,
- Require the use of buffer strips and other techniques to maximize overland flow, such as grassed swales and filter strips,
- Implement regional stormwater management approaches and use extended detention facilities,
- Establish wet ponds (retention basins) and wetland or marsh creation,
- Implement infiltration practices to detain runoff, including trenches, basins, drywells and other structural solutions, and
- Use water quality inlets and oil/grit separators in stormwater management basins.
- Require enhanced soil erosion and sediment control measures such as double silt fencing, diversion berms, staked hay bales, and maintain and monitor the effectiveness of these measures during the entire construction phase of development.

Bernards Township has provided a wide range of important flood protection information for the public and landowners on the Township website, included as Appendix A.

Environmental Sustainability (N.J.S.A. 40:55D-28 f. (iii))

This Master Plan sets forth a vision to scale permitted development to the carrying capacity of the land and water resources and infrastructure, recognizing that "...sustainability requires a margin of safety, not planning for the maximum development that can be supported." This Master Plan maintains the above vision and is supported by the Township's natural resource constraints ordinance in zoning. This zoning calibrates permitted development to the capacity of the land to support development after consideration of environmentally sensitive areas on a tract that are inappropriate for development. This policy is also supported in the Land Use Plan with the designation of the two Conservation Residential Districts (CR-1 and CR-2), which call for reduced residential development densities in the south and southwest areas of Bernards Township that are based on the fundamental planning principles of carrying capacity and sustainability.

The sustainability goals in Municipal Planning and Design, recommend a comprehensive and holistic view of planning decisions. Additionally, the following specific measures are recommended:

- Encourage design options that create a visually pleasing pedestrian experience, that preserve greenfields and natural resources, and that promote a sense of community.
- Promote transportation alternatives to the automobile and encourage the single occupancy driver to utilize those alternatives.
- Encourage practices and opportunities with local farmers.
- Encourage local businesses to adopt green business practices.
- Promote sustainability in municipal services to increase energy efficiency, protect and properly manage wildlife areas, and conserve water.
- Encourage the utilization of green building standards and integration of renewable energy technologies for new or renovated buildings that can reuse materials, minimize environmental impact, and reduce future energy costs through innovative construction.

Following adoption of the various iterations of the Master Plan, land use regulations were enacted and refined in part to reduce permitted residential densities in unsewered areas, which help to protect the quality of the water that flows through Bernards Township. These lower intensity development policies have assisted in conserving community character, retaining farmland, open spaces and preserving historic structures and districts. Lower density policies for the Bernards Township countryside also protect the scenic character of the remaining rural countryside and the villages and hamlets.

Concurrently, opportunities for ratable generation in the I-287, I-78 and State Route 202 highway corridors has allowed Bernards to provide a balance of opportunities to live, work and play while maintaining an efficient circulation system in the developed areas.

CLIMATE CHANGE HAZARD VULNERABILITY ASSESSMENT

This section responds to the requirements of N.J.S.A. 40:55D-28 h. (i) – (vii). It has been prepare utilizing and relying upon the most recent natural hazard projections and best available science provided n the NJDEP in accordance with N.J.S.A. 40:55D-28 h (vii).

1. Analyze climate change-related natural hazards (N.J.S.A. 40:55D-28 g.(i);

The table below summarizes the vulnerability risk rankings from the Somerset County Hazard Mitigation Plan of potential hazards within the Township of Bernards.

	Natural Hazard Risk/Vulnerability Risk Ranking						
Hazard type		ial Dollar Losses to ble to the Hazard ^{a, c}	Probability of Occurrence	Risk Ranking Score (Probability x Impact)	Hazard Ranking ^b		
Flood	1% Annual Chance: 0.2% Annual Chance:	\$14,000,000 \$30,300,000	Frequent	18	Medium		
Severe Storm	100-Year MRP: 500-Year MRP: Annualized Loss:	\$2,886,461 \$15,291,184 \$144,366	Frequent	39	High		
Severe Winter Storm	1% of GBS: 5% of GBS:	\$40,437,730 \$202,188,650	Frequent	27	Medium		
Earthquake	500-Year MRP: 2,500-Year MRP: Annualized Loss:	\$7,179,610 \$105,204,767 \$108,482	Occasional	12	Low		
Drought	Not available		Occasional	20	Medium		
Extreme Temperature	Not available		Frequent	18	Medium		
Wildfire	Not a	Occasional	32	High			

Note

a. Building damage ratio estimates based on FEMA 386-2 (August 2001)

- b. The valuation of general building stock and loss estimates was based on custom inventory for Somerset County.
- High = Total hazard priority risk ranking score of 31 and above Medium = Total hazard priority risk ranking of 15-30 Low = Total hazard risk ranking below 15
- d. Loss estimates for the severe storm and severe winter storm hazards are structural values only and do not include the value of contents.
- e. Loss estimates for the flood and earthquake hazards represent both structure and contents.
- $f. \quad \mbox{The HAZUS-MH earthquake model results are reported by Census Tract}.$

MRP – Mean Return Period, or MRP. is the average period of time, in years, between occurrences of a particular hazard event. "For example, a flood that has a 1-percent chance of being equaled or exceeded in any given year is also referred to as the base flood and has a MRP of 100. This is known as a 100-year flood. The term "100-year flood" can be misleading; it is not the flood that will occur once every 100 years. Rather, it is the flood elevation that has a one-percent chance of being equaled or exceeded each year. Therefore, the 100-year flood could occur more than once in a relatively short period of time or less than one time in 100 years (Dinicola, 2009)"

GBS - General Building Stock Exposure (Structure Only) and Estimated Losses from Severe Winter

Storm Events (specific to Bernards Township, Source: Somerset County Multi-Jurisdictional Hazard Mitigation Plan update, July, 2019).

Risks associated with earthquakes have "low" hazard ranking and have an "occasional" probability of occurrence. Other occasional hazards include drought with a "medium" hazard ranking, and wildfire with a "high" hazard ranking. Flood, Severe Storm, Severe Winter Storm and Extreme Temperature are ranked "medium" hazards and have a "frequent" probability of occurrence.

Risks associated with the hazards have also been ranked by Somerset County to account for the probability of occurrence and the impact of the event. According to this ranking, the severity of potential hazards, from highest to lowest, is as follows:

		Risk Ranking Score
	<u>Hazard</u>	<u>(Probability x Impact)</u>
1.	Severe Storm	39
2.	Wildfire	32
3.	Sever Winter Storm	27
4.	Drought	20
5.	Flood	18
6.	Extreme Temperature	18
7.	Earthquake	12

According to the County ranking of the severity of potential hazards, #5 Flood and #6 Extreme Temperature are tied with a severity of potential hazard rank of 18.

2. Include a build-out analysis of future development and an assessment of the threats and vulnerabilities identified above related to future development (N.J.S.A. 40:55D-28 g.(ii);

A review of building permit data for the past two decades provided by the New Jersey Department of Community Affairs (NJDCA) is represented in the tables below.

Year	Nonresidential square feet authorized by certificates of occupancy	Housing units authorized by certificates of occupancy	
2000	165,080	224	
2001	30,598	146	
2002	493,261	181	
2003	106,877	43	
2004	4.676	27	
2005	0	39	
2006	125,386	30	
2007	59,220	21	
2008	23,063	25	
2009	4,504	22	
2010	0	17	
2011	879	12	
2012	0	38	
2013	0	4	
2014	0	7	
2015	1,030	1	
2016	16,348	11	
2017	415,968	10	
2018	85,907	8	
2019	10,358	11	
2020	5,158	7	
2021	166,544	119	
TOTAL	1,710,185.676	1,003	

While a total of 1,003 new dwellings received certificates of occupancy between 2000 and 2021, only roughly one-quarter (228) of these units were occupied since 2011. A similar pattern of slower growth is also seen in the non-residential sector, where the most recent 10 years recorded only 702,000 of the 1.7m square feet occupied since 2000.

While Bernards Township has inspired substantial desirable suburban development, the intrinsic country charm of the Township remains strong. At this juncture, and based on this data, it seems reasonable to assume that future trends will be similar to the recent past and that, as the remaining vacant land dwindles, the era of rapid growth and development in Bernards Township has passed.

Based on the slower growth since 2010, and assuming a 20-year forecast period, Bernards Township would expect roughly 600 additional residential units (30 per year). However, Bernards Township's compliance with State constitutional affordable housing obligations resulted in the Superior Court's approval of a compliance plan involving 502 new residential dwelling units. In addition, 205 assisted living beds have been approved by use variance approvals obtained from the Zoning Board of Adjustment. These recent additions are anomalous deviations from the development trend characterized by the NJDCA Building Permit data.

With regard to non-residential development, the most recent 10 years have seen certification of roughly 70,000 square feet of non-residential space per year. compared to the prior ten years, which averaged about 100,000 square feet/year. It is important to note that over half of the space certified since 2010 was in the category of "storage" and was not office or retail space.

3. Identify critical facilities, utilities, roadways, and other infrastructure necessary for evacuation and sustaining quality of life during a natural disaster, to be maintained at all times in an operational state (N.J.S.A. 40:55D-28 g.(iii);

Critical facilities include Emergency Operations Centers (EOCs), fire stations, police stations, hospitals, childcare facilities, senior care facilities, and schools (including schools that serve as Red Cross shelters). Critical infrastructure and utilities include airports, ferry ports, potable water treatment facilities, wastewater treatment facilities and municipal public works buildings.

In Bernards Township, critical facilities include Town Hall, the Library, Madisonville sanitary sewer pump station, the water pump station at Ridge Oak (off East Oak Street), all 18 sewer pump stations including the six pump stations in The Hills, the Harrison Brook Sewage Treatment Plant (STP), the Texas Eastern / Algonquin gas transmission line, all telephone and internet infrastructure, and Fellowship Village (a continuing care retirement residential facility).

Critical infrastructure and utilities in Bernards Township include:

- Bernards Department of Public Works
- Harrison Brook STP
- Water supply and treatment facilities.
- Wastewater collection and treatment facilities.
- Natural Gas distribution lines.
- Electric utility distribution lines.

Critical evacuation routes include:

- 1. US Route 202
- 2. Interstate 287
- 3. Interstate 78

4. Analyze the potential impact of natural hazards on relevant components and elements of the master plan (N.J.S.A. 40:55D-28 g.(iv);

The Conservation Plan was crafted to account for the impact of natural hazards, with proactive planning, to prevent improper development in environmentally sensitive areas. The policies of the Conservation Plan, designed to protect wetlands, stream corridors and floodplains from inappropriate development impacts, have been implemented through the Land Management Ordinance

5. Provide strategies and design standards that can reduce or avoid risks associated with natural hazards (N.J.S.A. 40:55D-28 g.(v);

As noted above, Bernards Township's Master Plan recommends an extensive series of environmental management standards, as noted above. These policy recommendations were implemented with zoning requirements that protect sensitive lands and water areas and promote sustainable development.

6. Include a specific policy statement on the consistency, coordination, and integration of the climate-change-related hazard vulnerability assessment with certain other plans adopted by the municipality (N.J.S.A. 40:55D-28 g.(vi).

Bernards Township has recognized the importance of local stormwater management on flooding and resiliency in the region, adopting and maintaining a stormwater management ordinance stricter than the NJDEP model ordinance standards (since 2004) and participating in the FEMA Community Rating System (CRS) for decades. These actions are consistent with and reinforce the policies of the Conservation Plan Element of the Master Plan.

BERNARDS TOWNSHIP MASTER PLAN 2023

APPENDIX A - BERNARDS TOWNSHIP FLOOD INFORMATION

General Flood Information (click on each link for access to information)

- <u>General Flood Information</u>
 (https://bernards.org/images/Outreach and Web Topics.pdf)
- <u>FEMA</u>
 - (https://www.fema.gov/)
- <u>FEMA Map Service Center</u> (https://msc.fema.gov/portal/search)
- <u>FEMA Flood Insurance Publications</u> (https://www.fema.gov/flood-insurance)
- <u>NFIP Class 7 Approval</u>
 (https://bernards.org/government/documents/department-
- <u>documents/engineering/documents/1969-nfip-class-7-approval/file</u>)
 <u>Official site of the NFIP</u> (https://www.floodsmart.gov/)
- <u>USGS Water Resources site</u> (https://www.usgs.gov/mission-areas/water-resources)
- <u>USGS 01379000 Passaic River near Millington Gage</u>
- (https://waterdata.usgs.gov/nwis/inventory/?site_no=01379000)<u>USGS Waterwatch -</u> <u>Current Water Resources Conditions (Hydrographs)</u>
 - (nwishttps://waterwatch.usgs.gov/?m=flood&r=nj&w=map)
- <u>USGS Water Data</u> (https://waterdata.usgs.gov/)
- <u>USGS Data Archive data Collection Stations</u> (https://nwis.waterdata.usgs.gov/nwis/)
- <u>https://www.fema.gov/flood-insurance/find-form/underwriting (NFIP</u> <u>Underwriting Forms)</u>
- Blue Acres Flood Plain Acquisition
 - (https://dep.nj.gov/blueacres/)
- <u>CRS Activity 510-Progress Report</u>
 - (https://bernards.org/images/CRS_Activity_510_-_Progress_Report.pdf)

Flood Maps

- Buildings Floodway Flood Zone Map
 - (https://bernards.org/government/documents/departmentdocuments/engineering/maps-1/1967-floodplain-1-acre-minimumzoning-map/file)
- Floodplain 1 Acre Minimum Zoning Map
 - (https://bernards.org/government/documents/departmentdocuments/engineering/maps-1/1967-floodplain-1-acre-minimumzoning-map/file)

Open Space Flood Zone Map

(https://bernards.org/government/documents/departmentdocuments/engineering/maps-1/1968-open-space-flood-zone-map/file)

• <u>Township Property Flood Zone Map</u>

- (https://bernards.org/government/documents/departmentdocuments/engineering/maps-1/1965-township-property-flood-zonemap/file)
- <u>https://www.fema.gov/flood-maps (View, Obtain, Use Flood Maps)</u>

Additional Flood Publications NFIP

- How Recent Legislative Changes Affect Flood Insurance
 - (https://www.bernards.org/Engineering/Document/fema/NFIP/FEMA-HFIAA-Fact%20Sheet_Rev6_ToFEMA_061114.pdf)
- <u>Cheaper Flood Insurance Brochure</u>
 - (https://www.bernards.org/Engineering/Document/fema/NFIP/Cheaper %20Flood%20Insurance%20Brochure.pdf)
- <u>Consumer's Top Ten NFIP Facts</u>

(https://www.bernards.org/Engineering/Document/fema/NFIP/Consum ers%20Top%20Ten%20NFIP%20Facts.pdf)

• <u>Flood Insurance Companies</u>

(https://www.bernards.org/Engineering/Document/fema/NFIP/Flood%2 0Insurance%20Companies.pdf)

• Flood Insurance vs Disaster Assistance

(https://www.bernards.org/Engineering/Document/fema/NFIP/Flood%2 0Insurance%20vs%20Disaster%20Assistance.pdf)

Flood Preparation and Safety sheet

(https://www.bernards.org/Engineering/Document/fema/NFIP/Flood%2 0Preparation%20and%20Safety%20sheet.pdf)

<u>General Flood Brochure 1</u>

(https://www.bernards.org/Engineering/Document/fema/NFIP/General %20Flood%20Brochure%201.pdf)

<u>General Flood Brochure 2</u>

(https://www.bernards.org/Engineering/Document/fema/NFIP/General %20Flood%20Brochure%202.pdf

<u>Homeowners Preferred Risk Policy</u>

(https://www.bernards.org/Engineering/Document/fema/NFIP/Homeow ners%20Preferred%20Risk%20Policy.pdf)

How the NFIP Works sheet

(https://www.bernards.org/Engineering/Document/fema/NFIP/How%2 0the%20NFIP%20Works%20sheet.pdf)

Increased Flood Coverage Brochure

(https://www.bernards.org/Engineering/Document/fema/NFIP/Increase d%20Flood%20Coverage%20Brochure.pdf)

• Insurance Agent's Top Ten NFIP Facts

(https://www.bernards.org/Engineering/Document/fema/NFIP/Insuranc e%20Agent-s%20Top%20Ten%20NFIP%20Facts.pdf)

NFIP Agent Enrollment (<u>https://www.bernards.org/Engineering/Document/fema/NFIP/NFIP%2</u> 0Agent%20Enrollment.pdf)

• NFIP Claims Handbook

- (https://www.bernards.org/Engineering/Document/fema/NFIP/NFIP%2 0Claims%20Handbook.pdf)
- <u>NFIP Condominium Coverage Brochure</u>
 - (https://www.bernards.org/Engineering/Document/fema/NFIP/NFIP%2 0Condominium%20Coverage%20Brochure.pdf)
- <u>NFIP FAQ's sheet</u>
 - (https://www.bernards.org/Engineering/Document/fema/NFIP/NFIP%2 0FAQ-s%20sheet.pdf)

• NFIP Grandfathering Rule

(https://www.bernards.org/Engineering/Document/fema/NFIP/NFIP%2 0Grandfathering%20Rule.pdf)

<u>NFIP Managing Your Claim sheet</u>

(https://www.bernards.org/Engineering/Document/fema/NFIP/NFIP%2 0Managing%20Your%20Claim%20sheet.pdf)

• <u>NFIP Myths and Facts Sheet</u>

(https://www.bernards.org/Engineering/Document/fema/NFIP/NFIP%2 0Myths%20and%20Facts%20Sheet.pdf)

<u>NFIP Realtor's FAQ's</u>

(https://www.bernards.org/Engineering/Document/fema/NFIP/NFIP%2 0Realtor-s%20FAQ-s.pdf)

<u>NFIP Standard Flood Insurance Policy</u>

(https://www.bernards.org/Engineering/Document/fema/NFIP/NFIP%2 0Standard%20Flood%20Insurance%20Policy.pdf)

• NFIP Summary of Coverage

(https://www.bernards.org/Engineering/Document/fema/NFIP/NFIP%2 0Summary%20of%20Coverage.pdf)

<u>NFIP Underwriter Supply Order Form</u>

(https://www.bernards.org/Engineering/Document/fema/NFIP/NFIP%2 0Underwriter%20Supply%20Order%20Form.pdf)

<u>Why You Need Flood Insurance sheet</u>

(https://www.bernards.org/Engineering/Document/fema/NFIP/Why%2 0You%20Need%20Flood%20Insurance%20sheet.pdf)

Protecting Homes

- <u>Elevating Residential Structures</u>
 - (https://www.bernards.org/Engineering/Document/fema/Protecting%20 Homes/Elevating%20Residential%20Structures.pdf)
- <u>Elevating Your House</u>
 - (https://www.bernards.org/Engineering/Document/fema/Protecting%20 Homes/Elevating%20Your%20House.pdf)
- <u>Homeowner's Guide to Retrofitting Your House</u>

(https://www.bernards.org/Engineering/Document/fema/Protecting%20 Homes/Homeowner-

s%20Guide%20to%20Retrofitting%20Your%20House.pdf)

<u>Protecting Building Utilities From Flood Damage</u>

(https://www.bernards.org/Engineering/Document/fema/Protecting%20 Homes/Protecting%20Building%20Utilities%20From%20Flood%20Dama ge.pdf)

<u>Protecting Your Property from Flooding</u>

(https://www.bernards.org/Engineering/Document/fema/Protecting%20 Homes/Protecting%20Your%20Property%20from%20Flooding.pdf)

Protecting Floodplain Resources

Protecting Floodplain Resources

(https://www.bernards.org/Engineering/Document/fema/Protecting%20Fl oodplain%20Resources/Protecting%20Floodplain%20Resources.pdf)

CHAPTER III - DEMOGRAPHICS & HOUSING

INTRODUCTION

This Master Plan element presents general demographic and housing information for Bernards Township and analyzes the changes that have occurred over time in population, housing and income characteristics. A portion of this analysis relates to the comparison of American Community Survey (ACS) Census information, the most recent of which (2010 vs. 2019), to actual Census data releases in prior decades. These comparisons are presented in Appendix A. The US Census Bureau completed the last decennial Census in 2020. Comprehensive Census data is normally available at the local level two years following the Census; however, that level of detail has not yet been released by the US Census Bureau due to complications arising from the COVID-19 pandemic and other factors. However, the US Census Bureau generates and releases data for the Township through the ACS, which is the predominant source of Census information referenced in this Chapter while actual 2020 Census data remains unavailable.

The 2003 Master Plan may have been somewhat prophetic when it noted that "past trends do not necessarily guarantee those of the future." By way of example, the Great Recession (2008 – 2009), the COVID-19 pandemic, and responsible planning development strategies to address State-mandated affordable housing obligations are factors that have and will impact emerging trends.

This Chapter of the Master Plan was initially developed under the auspices and expertise of the late William Draper, Sc.D., P.E., a long-time Bernards Township resident and former Planning Board Chairman. Mr. Draper was dedicated to maintaining the most comprehensive and up-to-date demographics and housing information to assist in community planning and municipal decision-making. Mr. Draper authored annual reports which catalogued evolving trends and providing important information about changes in the community. He was an invaluable resource for Bernards Township and is missed. The Bernards Township Planning Board acknowledges Mr. Draper's contributions to the residents of Bernards Township and his dedication to informed local government.

EMERGING DEMOGRAPHIC TRENDS

The changing demographic trends in the Township between 2010 and 2020 that are summarized below have been gleaned from Appendix A in the pages that follow this summary.

POPULATION

1. From 2010 to 2020 Bernards experienced a significant slowing in population similar to that of Somerset County. The Township's 8.5% increase in 2010 (to 26,652) and 4.4% increase in 2020 (to 27,830) is similar to the rate of the County's population increases at

8.7% in 2010 and 6.8% in 2020. While the population increased between 1990 and 2000 and averaged 737 persons/year, since 2000 (24,575) that rate has dropped by more than half (roughly 160 persons/year) for the 20-year period through 2020. The average population increase over the past 10 years is 112 persons/year.

- 2. From 2010 to 2020 Bernards Township's and Somerset County's main population growth was found in the 55-84 age cohorts, which increased to 35% during the past decade. The 55-64 age cohort increased to 24 percent of the population.
- 3. During the 2010-2020 time period, there was a population increase in the 15-24 age cohort, also known as the "baby boom echo" generation. The 15-24 age cohort increased from 10 percent to 12 percent of the population.
- 4. The Township's population is getting older, with the median age continuing to increase. The median age in 2010 was 42.2 and in 2020 is 45.6. This increased median age has implications for the future housing and community service needs of an older population.
- 5. The ethnic composition of the Township has continued the trend between 2000 and 2020 with the Asian population increasing dramatically.
- 6. The 2010 Master Plan anticipated the school population peaking in 2013. In actuality, total enrollment appears to have peaked in the 2014/2015 school year at 7,508 (vs. 5,638 in the 2008-2009 school year). During the past decade, there has been a precipitous drop in the K-7 population, a leveling off of grade 8-10 enrollment (after peaking in approximately the 2016-2017 school year), and slight increases in grades 11-12 (17%) from a decade earlier. This school-age population trend suggests a contraction in the high school-age population in the coming decade. However, this trend is likely to be impacted somewhat by school-age population growth anticipated from recent multifamily development approvals that will add 440 multi-family housing units and 60 townhouse units²⁵ during the years 2023-2025 when construction and occupancy is expected.
- 7. 40% of households have children 18 years or younger. 29% of households have one or more persons 65 years or older.
- 8. During the 20 years between 2000 and 2020, the 65-74 age group of Bernards Township's population remained stable as a percentage of the population with modest real number gains showing an increase of 325. The 65-74 age group numbered 1,525 in 2000 (6 percent of the population), it increased by 220 to 1,745 in 2010 (7 percent of the population) and it increased by an additional 105 to 1,745 in 2020 (6 percent of the population). At the same time, the 55-64 age group grew by 1,954 persons from 2,341 in 2000 (9.5 percent of the population), it increased by 941 to 3,282 in 2010 (12 percent of the population) and it increased by 1,013 to 4,295 in 2020 (14 percent of the

²⁵ These multi-family and townhouse units were approved as part of the Township's compliance with State constitutional affordable housing obligations.

(population). If the percentage of Bernards Township's population in the 65-74 age group remains stable in the coming decade, that will likely be from a portion of the 2020 population identified in the 55-64 age group relocating outside of Bernards Township. That turnover in occupancy will likely result in additional school enrollment.

HOUSING STOCK

- 1. Approximately 56% of Bernards Township's 2020 housing stock consisted of single family detached homes, with the remaining 44% in multiple family units.
- 2. Growth in households slowed in the past decade, with dramatic reduction since 2000. Growth was prolific during the 1980's and 1990's, has been dramatically reduced since 2000.
- 3. Bernards Township is entering a mature phase of community development wherein redevelopment is expected to be a major source of new construction, as vacant developable lands are in short supply.
- 4. During the Great Recession (2008-2009), a significant contraction in the economy was evident in all aspects of housing construction, with new home construction shrinking and significant reductions in home sales, approvals, new home starts and additions.
- 5. Building permit data shows a significant reduction in the number of new building permits over the last 20 years.
- 6. 440 multi-family rental apartments, 60 townhouses²⁶ and 205 assisted living beds have been approved. 198 multi-family rental apartments (Dewy Meadow) and 205 assisted living beds (100 beds on Valley Road and 105 beds on Mount Airy/Whitenack Road) are expected to be occupied in 2023. On Mountain View Boulevard, the 242 multi-family rental apartment and 60 townhouse unit approved development is under construction and could be built with occupancy of some units in 2024.

²⁶ 440 multi-family rental apartments and 60 townhouses were approved as part of municipal compliance with State constitutional affordable housing obligations. 205 assisted living beds approved by use variance.

APPENDIX A - POPULATION AND HOUSING CHARACTERISTICS

BERNARDS TOWNSHIP AND SOMERSET COUNTY 2010 AND 2020

SUMMARY OF DEMOGRAPHIC TRENDS

The demographic trends in the Township between 2010 and 2020 can be summarized as follows.

POPULATION (Table III-1 – Table III-6A)

- 1. From 2010 to 2020, Bernards Township experienced a 4.4 percent population increase of 1,178 (26,652 27,830) as compared to Somerset County's 6.8 percent increase of 21,917 (323,444 345,361).
- From 2010 to 2020, Bernards Township and Somerset County's main population growth was in the over 55 age cohorts, the "baby boom" generation. The 55-64 age cohort increased from 12 percent to 14 percent of the population in Bernards Township (3,282 – 4,295).
- 3. During this same time period, there were population increases in the 15-24 age cohort, also known as the "baby boom echo" generation. The 15-24 age cohort increased from 10 percent to 12 percent of the population (2,628 3,723).
- 4. The Township's average age became older between 2010 to 2020 with a median age of 42.2 in 2010 and 45.6 in 2020.
- 5. The ethnic compositions of the Township became more diverse between 2010 and 2020 with the Asian population increasing from 13.8 percent to 21 percent.

HOUSEHOLD CHARACTERISTICS (Table III-7 – Table III-13)

- 1. From 2010 to 2020, Bernards Township's median household size increased from 2.65 persons to 2.71 persons per household. The County's median household size also increased during this period from 2.71 to 2.75 persons per household.
- 2. In 2020, approximately 66 percent of Bernards Township's households were married couple families, while 34 percent were either single-parent families or persons who lived alone. This compares to 61 percent of households identified as married couple families for Somerset County and 39 percent of County households were either single-parent households or nonfamily households.
- 3. In 2010, the US Census Bureau identified Bernards Township's median income at \$185,663, which was \$56,441 higher than the County's median income and \$92,188

higher than the states median income in 2010. In 2019, by comparison, the US Census Bureau reported Bernards Township's median household income was \$151,871, or \$38,260 higher than Somerset County's median income and \$37,180 higher than the State's median income. Interestingly, during the same period that the Bureau reported the decrease in Bernards Township's median income, Bernards Township's per capita money income increased from \$67,809 in 2010 to \$70,490 in 2019.

HOUSING STOCK (Table III-14 – Table III-16)

- 1. Approximately 56.4 percent of Bernards Township's 2020 housing stock consists of single family detached homes.
- 2. Housing units with six or more rooms accounted for approximately 70.4 percent of Bernards Township's total housing stock in 2020, which was higher than Somerset County's 64.4 percent.
- 3. Approximately 81 percent of Bernards Township's households moved into their residences before 2000. Approximately 58 percent of Somerset County's households moved into their residences before 2000.
- 4. In 2020, the median housing value in Bernards Township was \$673,000, or \$242,300 higher than Somerset County's median housing value. ²⁷
- 5. 72 percent of Bernards Township's 2020 housing stock is valued at \$500,000 or more.¹⁶
- 6. Less than one percent of Bernards Township's 2020 housing stock either lacked complete plumbing facilities or was overcrowded.
- 7. From 2000 through 2020, 887 new dwelling units were authorized by building permits of which approximately 72 percent were single-family homes.

DEMOGRAPHIC CHARACTERISTICS

POPULATION TRENDS

Between 1950 and 2020, Bernards Township generally followed Somerset County and New Jersey State population trends. As shown in Tables III-1 and III-2, there were sharp increases between 1950 and 1970, little or no growth from 1970 to 1980 and substantial increases between 1980 and 2000. The major difference appears to be a slowdown in County growth (18 percent from 1980 to 1990) while Bernards Township's growth during this period was 33 percent. Part of the reason for this disparity was new home construction, particularly condos and townhouses, in the southerly part of the Township. The Township and the County also saw increases from 1990-2000. The Township's population increased by 42.9

²⁷ US Census Bureau, American Community Survey, 2020

percent from 1990 to the year 2000, while the County increased by 23.4 percent. Between 2000 and 2020, both the Township and the County saw a significant slowing in their populations with under 10 percent growth for each decade.

		Populatio	n Change
Year	Population	Number	Percent
1950	7,487	N/A	N/A
1960	9,018	1,531	20.5
1970	13,305	4,287	47.5
1980	12,920	-385	-2.9
1990	17,199	4,279	33.1
2000	24,575	7,376	42.9
2010	26,652	2,077	8.5
2020	27,830	1,178	4.4

Table III-1 POPULATION CHANGE, 1950 to 2020 BERNARDS TOWNSHIP

Source: 1990 – 2020, U.S. Bureau of the Census and 1989 Bernards Township Master Plan

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		Population Change		
Year	Population	Number	Percent	
1950	99,052	N/A	N/A	
1960	143,913	44,861	45.3	
1970	198,372	54,459	37.8	
1980	203,129	4,757	2.4	
1990	240,279	37,150	18.3	
2000	297,490	57,211	23.4	
2010	323,444	25,954	8.7	
2020	345,361	21,917	6.8	

Source: U.S. Bureau of the Census, 1950-2020

POPULATION AGE DISTRIBUTION

The age segmented population increases in both Bernards Township and Somerset County again followed national trends, although the increases in Bernards Township were significantly higher. As shown in Tables III-3a and III-4a, the Township and County's major growth spurts occurred in the over 55 age groups (the baby boom generation - consisting of those born from about 1946 through 1964). The County experienced a 25 percent increase in the 55-64 age cohort and a 40 percent increase in the 65-74 age cohort while the Township experienced 24 and 6 percent increases, respectively. The baby boom generation continues to represent a major population force nationally as well as locally. Most of this group was responsible for housing demand in the Township during the significant years of housing

growth, has now aged past 65-years and will be making future housing choices that are expected to result in turnover in single-family detached housing ownership over the next several years in Bernards Township.

Another important population increase occurred in the 15-24 population cohort. This age group includes the children that previously fueled the school population bubble of the past decades. From 2010 to 2020, the Township and County experienced approximately 29 and 15 percent increases in this age group, respectively. In Bernards Township, the actual increase in numbers was significant - from 2,628 to 3,723 persons. This population cohort is now exiting the school system, pursuing postsecondary education and entering the workforce.

Another noteworthy change that will have an impact on Bernards Township is in the 35-44 age cohort. This cohort decreased from 33 percent of the population to 10 percent. At the same time, Somerset County's 35-44 decreased slightly less on a percentage basis from 33 percent to 29 percent. This decrease is reflected nationally as well as in the Township and portends a decrease in demand for goods and services for young adults. In addition, it will eventually have an impact on the housing market - reducing first home demands.

Finally, the number of individuals aged 55 and older is significant. This age group has a variety of housing and consumer needs. For example, while younger members of the cohort may desire condominiums or smaller single-family dwellings, those in their late seventies or eighties may choose or need assisted living arrangements. A small percentage may require nursing homes. In 2020, the 55 and older age group accounted for approximately 28 percent of Bernards Township's population (Table III-3). At the same time, Somerset County's 55 and older age group is for 31 percent of the County population (Table III-4).

	2020)	201	0	Char	ıge
Age	# of Persons	Percent*	# of Persons	Percent*	# of Persons	Percent ¹
Under 5	1,078	4	1,389	5	-311	-29
5-14	3,857	13	4,811	18	-954	-25
15-24	3,723	12	2,628	10	1095	29
25-34	1,604	5	1,481	6	123	8
35-44	3,004	10	3,996	15	-992	-33
45-54	5,198	17	5,477	21	-279	-5
55-64	4,295	14	3,282	12	1013	24
65-74	1,850	6	1,745	7	105	6
75-84	1,211	4	1,152	4	59	5
85 and over	1,294	4	691	3	603	47
Totals:	30,175		26,652			

TABLE III-3 BERNARDS TOWNSHIP POPULATION BY AGE, 2020 AND 2010

Source: U.S. Bureau of the Census, ACS 2010-2019

¹ Percent of Total Households

2010		2000		Change		
Age	# of Persons	Percent*	# of Persons	Percent*	# of Persons	Percent ¹
Under 5	1389	5	1,962	8	-573	-29
5-14	4811	18	3,999	16.3	812	20
15-24	2628	10	1,636	6.6	992	61
25-34	1481	6	2,542	10.3	-1,061	-42
35-44	3996	15	5,115	20.8	-1,119	-22
45-54	5477	21	3,917	15.9	1,560	40
55-64	3282	12	2,341	9.5	941	40
65-74	1745	7	1,525	6.2	220	14
75-84	1152	4	1,155	4.7	-3	0
85 and over	691	3	383	1.6	308	80
Totals:	26652		24,575	100		

TABLE III-3A POPULATION BY AGE, 2010 AND 2000BERNARDS TOWNSHIP

Source: U.S. Bureau of the Census, ACS 2010-2019

TABLE III-4 POPULATION BY AGE, 2020 AND 2010 SOMERSET COUNTY

	2020		2010		Change	
Age	# of Persons	Percent*	# of Persons	Percent*	# of Persons	Percent ¹
Under 5	16,965	5	19,237	6	-2,272	-12
5-14	41,149	12	46,651	14	-5,502	-12
15-24	41,279	13	35,998	11	5,281	15
25-34	36,312	11	36,425	11	-113	0
35-44	42,493	13	48,863	15	-6,370	-13
45-54	51,228	16	57,513	18	-6,285	-11
55-64	48,635	15	38,755	12	9,880	25
65-74	28,907	9	20,721	6	8,186	40
75-84	15,135	5	13,110	4	2,025	15
85 and over	8,050	2	6,171	2	1,879	30
Totals:	330153		323,444			

Source: U.S. Bureau of the Census, ACS 2010-2019

¹ Percent of Total Households

¹ Ibid.

	2010	·	2000		Change	
Age	# of Persons	Percent*	# of Persons	Percent*	# of Persons	Percent ¹
Under 5	19,237	6	22,207	7.5	-2970	-13
5-14	46,651	14	43,337	14.6	3,314	8
15-24	35,998	11	27,962	9.4	8,036	29
25-34	36,425	11	42,367	14.2	-5,942	-14
35-44	48,863	15	58,297	19.6	-9,434	-16
45-54	57,513	18	43,861	14.7	13,652	31
55-64	38,755	12	26,078	8.8	12,677	49
65-74	20,721	6	17,770	6.0	2,951	17
75-84	13,110	4	11,482	3.9	1,628	14
85 and over	6,171	2	4,129	1.4	2,042	49
Totals :	323,444		297,490	100		

TABLE III-4A

POPULATION BY AGE, 2010 AND 2000 SOMERSET COUNTY

Source: U.S. Bureau of the Census, ACS 2010-2019

RACE AND GENDER

Bernards Township remains a predominantly white community with a small but increasing percentage of people with non-white racial backgrounds. Racially white people comprise 75 percent of the Township's 2020 population compared to 89.2 percent in 2000, as depicted in Table III-5a. In Somerset County, the percentage of people with non-white racial backgrounds increased from 20.5 percent to 32 percent between 2000 and 2020. The number of non-white people in Bernards Township has increased by 4,573 persons between 2000 and 2020. Most of the increase occurred in the Asian population with an increase of 3,715 persons from 2000 to 2020 (1,931 persons to 5,646 persons) accounting for a 53 percent increase in the Asian population of between 2010 and 2020 (and increase of 1,960 persons from 3,686. At the same time, people of Asian descent increased in Somerset County by 33,276 persons (from 25,062 to 58,338). In 2020, 48.9 percent of the Township's population was male while 51.1 percent was female. The Black population in Bernards Township increased by 161 (32 percent) between 2010 and 2020 rising from 504 to 665 persons, while at the same time the Black population in the County increased by 3,204 (11 percent) increasing from 28,943 to 32,147.

¹ Percent of Total Households

		2020	201	0 Cł	ange	
Race	Number	% of Total	Number	% of Total	Number	Percent
		Population		Population		
White	19,855	75	21,809	81.8	-1,954	-9
Black	665	3	504	1.9	161	32
American	0	0	20	.1	-20	-100
Indian,						
Eskimo,						
Aleut						
Asian or	5,646	21	3,686	13.8	1,960	53
Pacific						
Islander						
Other Race/	314	1	633	2.4	-319	-50
Two or more						
Races						
Total	27,082		26,652			
Gender						
Male	13,427	49.6	12,958	49.3		
Female	13,655	50.4	13,352	50.7		
Total	27,082		26,652	ACC 2010 2010		

Table III-5 RACE AND GENDER, 2020 AND 2010 BERNARDS TOWNSHIP

Source: U.S. Bureau of the Census, ACS 2010-2019

TABLE III-5A RACE AND GENDER, 2010 AND 2000 BERNARDS TOWNSHIP 2000

2010		2	2000	Change		
Race	Number	% of Total	Number	% of Total	Number	Percent
		Population		Population		
White	21809	81.8	21,921	89.2	-112	-1
Black	504	1.9	354	1.4	150	42
American	20	.1	13	.1	7	54
Indian,						
Eskimo,						
Aleut						
Asian or	3686	13.8	1,931	7.8	1,755	91
Pacific						
Islander						
Other Race	633	2.4	356	1.7	277	78
Total	26652		24,575	100	-112	-1
Gender						
Male	12958	49.3	11,945	48.6		
Female	13352	50.7	12,630	51.4		
Total			24,575	100		

Source: U.S. Bureau of the Census, ACS 2010-2020

	2020		2	2010	Change	
Race	Number	% of Total	Number	% of Total	Number	Percent
		Population		Population		
White	218,626	66	226,608	70.1	-7,982	-4
Black	32,147	10	28,943	8.9	3,204	11
American	886	0	556	.2	330	59
Indian,						
Eskimo,						
Aleut						
Asian or	58,338	18	45,744	14.1	12,594	28
Pacific						
Islander						
Other Race	12,227	4	21,593	6.6	-9,366	-43
Total	329,838		323,444			
Gender						
Male	161,195	48.9	158,657	48.9		
Female	168,643	51.1	165,537	51.1		
Total						

TABLE III-6 RACE AND GENDER, 2020 AND 2010 SOMERSET COUNTY

Source: U.S. Bureau of the Census, ACS 2010-2020

TABLE III-6A RACE AND GENDER, 2000 AND 2010 SOMERSET COUNTY

		2010		2000	Ch	ange
Race	Number	% of Total	Number	% of Total	Number	% of Total
		Population		Population		Population
White	226,608	70.1	236,042	79.3	-9,434	-4
Black	28,943	8.9	22,396	7.5	6,547	29
American	556	.2	375	.1	181	48
Indian,						
Eskimo,						
Aleut						
Asian or	45,744	14.1	25,062	8.4	20,682	83
Pacific						
Islander						
Other	21,593	6.6	13,615	4.5	7,978	59
Race						
Total	323,444		297,490	100		
Gender						
Male	158,657	48.9	145,241	48.8		
Female	165,537	51.1	152,249	51.2		
Total			297,490	100		

Source: U.S. Bureau of the Census, ACS 2010-2020

HOUSEHOLD CHARACTERISTICS

HOUSEHOLD SIZE

In general, household size in Bernards Township has remained approximately the same. While previous decades showed significant decline in household size, the last two decades have shown a leveling and stabilization of rates. Various trends during the late 1960's and 1970's contributed to the reduction in household size and are continuing. These include the tendency to marry at later ages, increases in divorce, increases in the number of older people living alone and the desire of single persons to maintain their own household. Collectively, these trends have resulted in reductions in household size which in turn has a major impact on the housing market. Unmarried, and single individuals in their twenties and thirties tend to have different shelter needs than those who are married with children. Recently, however, the low median rates of households have been maintained and have not dipped further.

Bernards Township and Somerset County both have maintained a relatively low median household size. In 2000, 2010 and 2020, approximately 70 percent of Bernards Township residents lived in households of 3 or fewer persons (Table III-7). As shown in Table III-8, the Township's 2010 median household size was 2.65 and the 2020 median household size slightly increased to 2.70. Likewise, the County's median household size increased - it was 2.71 in 2010 and increased to 2.75 in 2020. This increase is slight, and it is yet to be determined whether household size will continue to increase in the future.

Bernards Township household size is characterized in Table III-7a. The number of oneperson households decreased from 27 percent in 2010 to 24 percent in 2020. Two person households in the Township increased from 27 and 30 percent, respectively, from 2010 to 2020. The Census Bureau identified fewer households in Bernards Township in 2020 than However, despite this apparent inaccuracy, the Census Bureau's 7/1/2021 2010. QuickFacts" data identifies 9,907 households (footnote ⁷ below) for Bernards Township.

	Table III-7 HOUSEHOLD CHARACTERISTICS							
2010 & 2000								
		BERNA	RDS TOWN	ISHIP				
	2010	Household	s 2000 H	ouseholds	Change			
Household Size	Number	Percent*	Number	Percent*	Number	Percent ¹		
1 Person	2,599	27	2,442	26.4	157	6		
2 Persons	2,674	27	2,829	30.6	-155	-5		
3 Persons	1,582	16	1,396	15.1	186	13		
4 or more Persons	2,928	30	2,575	17.8	353	14		
Totals:	9,783		9,242					

Table III.7 HOUSEHOLD CHARACTERISTICS

Source: U.S. Bureau of the Census, 2000 and ACS 2010-2020

¹ Percent of Total Households

Table III-7a HOUSEHOLD CHARACTERISTICS 2020 & 2010 BERNARDS TOWNSHIP

	2020 Households		2010 Households		Change	
Household Size	Number	Percent*	Number	Percent*	Number	Percent ¹
1 Person	2,349	24	2,599	27	-250	-10
2 Persons	2,908	30	2,674	27	234	9
3 Persons	1,829	19	1,582	16	247	16
4 or More	2,610	27	2,928	30	-318	-11
Persons		27				
Totals:	9,696 ²⁸		9,783			

Source: U.S. Bureau of the Census, ACS 2010-2020

Table III-8 MEDIAN PERSONS PER HOUSEHOLD: 1970 - 2020BERNARDS TOWNSHIP AND SOMERSET COUNTY

Year	Bernards	Somerset
	Township	County
2020	2.70	2.75
2010	2.65	2.71
2000	2.58	2.69
1990	2.54	2.67
1980	3.14	2.95
1970	3.74	3.4

Source: 1970, 1980, 1990 & 2000 U.S. Census, and ACS 2010-2020

HOUSEHOLD TYPE

Most households in Bernards Township are occupied by married couple families as indicated in Table III-9. Approximately 66 percent of the Township's total households comprise married couple families. This compares to 84 percent of Somerset County's total households comprised of married couple families. Approximately 74 percent of Bernards Township's total households are family households. Approximately 72 percent of Somerset County's total households are family households.

As noted above, single person households have increased in the Township. Almost 33 percent of households are single member households with 17 percent female householders.

¹ Percent of Households

²⁸ 9,907 Households identified in the Census Bureau's July 1, 2021 QuickFacts data for Bernards Township. Updated household size data is not identified in the July 1, 2021 QuickFacts estimate for Bernards Township.

Table III-7 TH ES OF HOUSEHOLDS DERNARDS / SOMERSET COUNTY						
	Bernard	ls Township	Somerse	t County		
	Total	Percent	Total	Percent		
In Family Households:	6,296	74%	94,502	72%		
Married Couples	5,597	66%	79,318	84%		
In Non-Family Households:	2,203	26%	36,437	28%		
Male householder:	755	9%	No data			
Living alone	633	7%	No data			
Not living alone	122	1%	No data			
Female householder:	1,448	17%	No data			
Living alone	1,340	16%	No data			
Not living alone	108	1%	No data			
Male and Female Householder	2,203	26%	36,437	28%		
Living alone	1,973	23%	29,276	22%		
Not living alone	230	3%	7,161	6%		

 Table III-9 TYPES OF HOUSEHOLDS BERNARDS / SOMERSET COUNTY

Source: U.S. Bureau of the Census, 1990 & 2000 ACS 2010-2020

HOUSEHOLD AND PER CAPITA INCOME

Bernards Township is a relatively affluent community as shown in Table III-10. The 2019 median household income in Bernards was \$151,871 or \$38,260 greater than Somerset County's median income and \$37,180 greater than the State's median income. Likewise, the Township's 2019 mean capita income was greater than that of the State and the County.

Table III-11 details Bernards Township's 2019 household income distribution. 70 percent of Bernards Township's households earn \$100,000 or more annually. This distribution is logical as almost half of Bernards Township's population is in the 54 and older age group; a time when individuals typically earn higher incomes. However, it is also noted that 7.6 percent of households earn less than \$25,000 per year, an amount that qualifies them for low-income housing, depending on household size. Also notable in Bernards Township's household income distribution is that 40.5% (the greatest percentage in the table) of households have incomes of \$200,000 or more.

TABLE III-10PER CAPITA AND HOUSEHOLD INCOME, 2010 AND 2019 BERNARDS TOWNSHIP,
SOMERSET COUNTY AND STATE OF NEW JERSEY

	2010	2010 Per	2019	2019 Per
	Median	Capita	Median	Capita
	Income	Money	Income	Money
		Income		Income
Bernards	\$185,663	\$67,809	\$151,871	\$70,490
Township				
Somerset	\$129,222	\$47,067	\$113,611	\$55,828
County				
State of	\$93,475	\$34,858	\$114,691	\$42,745
New Jersey				

Source: U.S. Bureau of the Census, ACS 2010-2020

TABLE III-11 2019 HOUSEHOLD INCOME DISTRIBUTION BERNARDS TOWNSHIP AND SOMERSET COUNTY

	Bernards Tow	vnship	Somerset County	
Income	# of Households	Percent	# of Households	Percent
Less than \$10,000	253	2.6	3,436	2.9
\$10,000 - \$14,999	149	1.5	2,260	1.9
\$15,000 - \$24,999	336	3.5	5,099	4.3
\$25,000 - \$34,999	261	2.7	5,357	4.5
\$35,000 - \$49,999	384	4.0	7,880	6.7
\$50,000 - \$74,999	768	7.9	14,551	12.3
\$75,000 - \$99,999	765	7.9	13,901	11.8
\$100,000 - \$149,999	1,801	18.6	21,977	18.6
\$150,000 - \$199,999	1,050	10.8	14,921	12.6
\$200,000 or more	3,929	40.5	28,811	24.4
Totals:	9,696		118,193	

Source: U.S. Bureau of the Census, ACS 2010-2020

HOUSING STOCK

TYPE AND SIZE CHARACTERISTICS

The majority of the housing stock in Bernards Township is single family detached housing as indicated in Table III-12. In 2020, there were 5,473 single-family detached homes or 56.4 percent of the total housing stock. Of the remaining units (4,223), 20.6 percent were single-family attached units and 23 percent were in structures that contained two or more units.

Both Bernards Township and Somerset County follow national trends with increasingly larger homes. In 2020, units with six or more rooms accounted for approximately 70.4

percent of Bernards' total housing stock and 64.4 percent of Somerset County's total housing stock, as shown in Table III-12. This type of housing is family-oriented housing.

Bernards Township's housing stock is relatively new in age. Almost 62.6 percent of the housing was built after 1980. Less than 10 percent of the Township's housing was constructed prior to 1939.

BERNARDS TOWNSHIP MASTER PLAN 2023

	Bernards Town	ship S	omerset Cou	omerset County		
Characteristics:	Number	Percent	Number	Percent		
Total Units	9,696		118,193			
Year Structure Built:						
2014 or later	43	0.4	2,281	1.9		
2010-2013	63	0.6	2,736	2.3		
2000-2009	679	7.0	11,005	9.3		
1980-1999	5,291	54.6	43,476	36.8		
1960-1979	2,071	21.4	28,833	24.4		
1940-1959	964	9.9	18,479	15.6		
1939 or earlier	585	6.0	11,383	9.6		
Units in Structure:						
One (Single Family Detached)	5,473	56.4	71,252	60.3		
One (Single Family Attached)	1,994	20.6	17,863	15.1		
Two or more Units	2,211	22.8	28,838	24.4		
Mobile Home, Trailer, Other	1829	.2	240	.2		
Number of Rooms:						
1 room	26	0.3	1,434	1.2		
2 or 3 rooms	616	6.4	9,677	8.2		
4 or 5 rooms	2,228	23.0	31,041	26.3		
6 or 7 rooms	2,162	22.3	32,722	27.7		
8 or more rooms	4,664	48.1	43,319	36.7		
Number of Bedrooms						
No bedroom	26	0.3	1,560	1.3		
1 bedroom	697	7.2	11,365	9.6		
2 or 3 bedrooms	4,707	48.5	62,883	53.2		
4+ bedrooms	4,266	44.0	42,385	35.9		

TABLE III-12 HOUSING UNIT DATA –BERNARDS TOWNSHIP AND SOMERSET COUNTY 2020 Bernards Township Somerset County

Source: U.S. Bureau of the Census, ACS 2020

TENURE OF HOUSEHOLDS

As shown in Table III-13, 81 percent of Bernards' households moved into their homes before 2010. The trend is similar in the county with 82 percent of residents who moved into their

²⁹ This ACS estimate is recognized as unreasonable. According to Census.gov, "As collected by the American Housing Survey, a manufactured/mobile home is defined as a housing unit that was originally constructed to be towed on its own chassis (also called HUD Code homes) ... Some people use the terms trailer or manufactured housing in the same sense as mobile homes. Manufactured/mobile homes, however, are not the same as modular/panelized homes."

homes prior to 2010. This trend is consistent with similar suburban communities in regions that had a significant increase in population with job growth in the 1990's and early 2000's.

TABLE III-13 OCCUPIED HOUSING UNITS BY TENURE BERNARDS TOWNSHIP AND SOMERSET COUNTY 2020

B	Bernards Township Somerset County						
Year Householder	Number	Percent	Number	Percent			
Moved Into Unit							
2017 or later	1,977	8	22,045	7			
2015-2016	2,948	11	39,689	12			
2010-2014	6,324	24	76,529	24			
2000-2009	8,110	31	96,506	30			
1990 - 1999	5,248	20	57,405	18			
1989 or earlier	1,587	6	33,206	10			
Totals:	26,194		325,380				

Source: U.S. Bureau of the Census, 2020

HOUSING VALUES

In 2020, housing values in Bernards Township were higher than housing values in Somerset County. As shown in Table III-14, Bernards Township's 2020 median housing value was \$673,000 or \$242,300 higher than the County's 2020 median housing value. Almost 72 percent of Bernards' 2020 housing stock was valued at \$500,000 or more compared to approximately 40 percent of Somerset County's 2020 housing stock in this range. Only two percent of Bernards' housing units and six percent of Somerset County's housing units were valued below \$175,000 in 2020. This represents national preference for larger, more expensive housing units. Bernards Township, and to a lesser extent Somerset County, follow this trend.

Be	ernards Tov	wnship	Somerset Coun		
Value	Number	Percent	Number	Percent	
Less than \$79,999	32	0	973	1	
\$80,000-\$99,999	20	0	476	1	
\$100,000-\$124,999	20	0	836	1	
\$125,000-\$149,999	14	0	640	1	
\$150,000-\$174,999	151	2	1,445	2	
\$175,000-\$199,999	13	0	1,551	2	
\$200,000-\$249,999	169	2	7,005	8	
\$250,000-\$299,999	448	6	10,445	12	
\$300,000-\$399,999	818	10	17,483	20	
\$400,000-\$499,999	661	8	12,824	14	
\$500,000 to \$749,999	2,384	30	22,564	25	
\$750,000 to \$999,999	1,799	23	8,352	9	
\$1,000,000 to \$1,499,999	1,117	14	3,572	4	
\$1,500,000 to \$1,999,999	210	3	734	1	
\$2,000,000 or more	136	2	674	1	
Total:	7,992		89,574		
Median Value:	\$673,000		\$430,700		

TABLE III-14 HOUSING VALUES FOR BERNARDS TOWNSHIP AND SOMERSET COUNTY 2000 Bernards Townshin Somerset County

Source: U.S. Bureau of the Census, ACS 2020

HOUSING CONDITIONS

The condition of housing in Bernards Township is excellent. Table III-15 details the condition of the Township's 2020 housing stock based upon the existence of complete plumbing facilities and overcrowded units; factors customarily used to determine housing deficiency. Only 83 units in the Township in 2020 were lacking complete plumbing and 30 units were overcrowded, where the number of persons per household exceeded the national standard. Combined, these 103 units equal 1 percent of the Township's 2020 housing stock. While the number of units with deficiencies increased from 2010 to 2020, their percentage of the total housing stock remained constant. It is noteworthy that these are estimates, typically based on the age of housing stock, and are not necessarily indicative of actual conditions.

TABLE III-15INDICATORS OF HOUSING CONDITIONS: 1990 & 2000 BERNARDS TOWNSHIP

	2019		20	10	Change	
	Number	Percent	Number	Percent	Number	Percent
Total Housing Units	10,108		9,500			
Lacking Complete Plumbing	83	.8	0	0	83	100
Overcrowded Units ²	30	.3	15	.2	15	100

Source: U.S. Bureau of the Census, ACS 2010-2020.

² Any unit with 1.01 or more persons per room is considered overcrowded.

HOUSING CONSTRUCTION

Table III-16 details dwelling units authorized by building permits since 2000 and the number of units demolished. During the 20-year period between 2000 and 2020, there were a total of 887 dwelling units authorized by building permits. Approximately 73 percent, or 645 of the units, were single-family homes including attached units. The most active years were prior to 2003 when 402 permits were issued. The number of building permits that were issued during these years comprises 45 percent of all building permits issued between 2000 and 2020. These years refelct the height of the construction boom that occurred in the State and the tail end of the housing boom in the Township. During this 21-year period, 165 residential units were demolished and were in all likelihood knock-downs for replacement housing.

Table III-16 DWELLING UNITS AUTHORIZED BY BUILDING PERMITS - 2000-2020 BERNARDS TOWNSHIP

			эпір	
Year	Total	1 & 2 Family	Multi- Family Family	Demolitions
2020	204	6	198	9
2019	29	5	24	6
2018	9	9	0	7
2017	9	9	0	1
2016	14	14	0	1
2015	11	11	0	4
2014	13	13	0	7
2013	10	10	0	5
2012	14	14	0	5
2011	33	13	20	9
2010	16	16	0	6
2009	7	7	0	9
2008	18	18	0	8
2007	22	22	0	6
2006	22	22	0	9
2005	23	23	0	20
2004	31	31	0	18
2003	76	76	0	9
2002	51	51	0	7
2001	113	113	0	14
2000	162	162	0	5
Totals:	887	645	242	165

Source: Summary of Residential Building Permits, 2000 - 2020, NJ Department of Labor.

CHAPTER IV – HOUSING PLAN ELEMENT AND FAIR SHARE PLAN

The Housing Plan Element and Fair Share Plan was not updated as part of the 2023 Master Plan update. The Housing Plan Element and Fair Share Plan was prepared and adopted by the Planning Board, and endorsed by the Bernards Township Committee in 2018 in response to the Township's State constitutional affordable housing obligation.

Township of Bernards Somerset County, New Jersey

Amended Housing Plan Element and Fair Share Plan

Public Hearing: September 4, 2018 ADOPTED: September 4, 2018 Amended HPE/FSP Planning Board Public Hearing: November 5, 2019 Adopted: November 5, 2019 Endorsed by Bernards Township Committee:

> **Prepared** by the **Bernards Township Planning Board** in consultation with Banisch Associates, Inc. 111 Main Street, Flemington, NJ 08822

NOTE: This amended Third Round Housing Plan Element and Fair Share Plan amends the September 4, 2018 Plan to address conditions in the June 28, 2019 Superior Court Order, SOM-L-899-15, that granted Bernards Township a Conditional Judgment of Compliance and Temporary Immunity for the Third Round.

> The original of this report was signed and sealed in accordance with N.J.A.C. 13:41-1.3

11/8/2019 Date Signed David J. Banisch, PP

J Licensed Professional Planner No. 5565

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Bernards Township Amended Housing Plan Element and Fair Share Plan September 2019

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Bernards Township Amended Housing Plan Element and Fair Share Plan November 2019

Executive Summary

This is the fifth "Third Round" Housing Plan Element and Fair Share Plan ("Housing Plan" or "Plan") prepared by the Bernards Township Planning Board to address the entirety of Bernards Township's affordable housing obligations. This amended Housing Plan includes amendments to the September 2018 Housing Plan that conform to conditions in the Superior Court Conditional Judgment of Compliance and Continued Temporary Immunity Order issued for Bernards Township's Third Round compliance on June 28, 2019. This Housing Plan is essentially the same as the fourth amended Housing Plan (September 2018), except that the inventory of housing credits are revised in the section of this Plan addressing the Third Round (1999-2025) Gap and Prospective Share obligation.

The affordable housing obligations addressed in this Plan have been identified through the New Jersey Superior Court process. Bernards Township received Substantive Certification from the New Jersey Council on Affordable Housing (COAH) in 2010 thereby demonstrating constitutional compliance with the Township's affordable housing obligations. However, the Township's Substantive Certification was invalidated as a result of litigation challenging the COAH rules on which the Township's 2010 substantive certification was granted. In 2015, the NJ Supreme Court ordered the COAH administrative process dissolved and directed all New Jersey municipalities to demonstrate constitutional compliance with their affordable housing obligations in Superior Court. In July 2015, Bernards Township entered the Court process pursuant to the Supreme Court's order.

In August 2018, Bernards Township settled Third Round affordable housing litigation in Superior Court after entering into three separate settlement agreements, including two agreements with developers that will build affordable housing and one settlement agreement with an intervening defendant, the Fair Share Housing Center. In September 2018, the Bernards Township Planning Board adopted the fourth amended Housing Plan Element and Fair Share Plan incorporating the terms of the settlement agreements into the Third Round Housing Plan, which was subsequently endorsed by the Township Committee in September 2018 and approved by the Superior Court in November 2018.

On June 28, 2019 the Superior Court issued an Order granting Bernards Township a Conditional Judgment of Compliance and Continued Temporary Immunity. Paragraphs 4 & 6 of the Order call for amendments to the September 2018 Housing Plan, including one (1) correction and three (3) revisions to the Third Round Gap and Prospective Share section of the Plan. In addition, the Order calls for the Planning Board to adopt and the Township Committee to endorse this amended Plan. This amended Housing Plan addresses the conditions of the June 2019 Superior Court Order as well as the entirety of Bernards Township's Third Round affordable housing obligations.

Bernards Township's affordable housing obligations identified in this Plan through the Court process consist of essentially three components of affordable housing responsibility, as follows:

- 1. Rehabilitation obligation of 44 units this component of need requires the municipality to rehabilitate substandard housing occupied by low- and moderate-income households based on one or more major building deficiencies. This obligation is addressed through a municipal rehabilitation program.
- 2. Prior Round obligation of 508 units this is the municipal affordable housing obligation assigned to Bernards Township for the time period 1987-1999. This obligation is addressed through production of affordable housing by the municipality and it has been previously addressed by Bernards Township. The 508-unit Prior Round obligation is addressed in this Plan through Bernards Township's existing inventory of affordable housing that is credited against the 508-unit obligation.
- 3. Third Round Gap & Prospective Need, collectively referred to in this Plan as the "Round 3 Fair Share consisting of 873-units of obligation. It is comprised of two separate calculations of need that have recently been determined through the Courts that consist of (1) the Gap Present Need obligation of 435-units for the 1999-2015 period of obligation; and (2) the Prospective Need obligation of 438-units for the 2015-2025 period of obligation.

Therefore, this plan addresses Bernards Township's 44-unit rehabilitation obligation and a total of 1,381-units of affordable housing obligations including the 508-unit Prior Round obligation and the 873-unit Round 3 obligation.

Introduction

This is the Bernards Township Planning Board's fifth "Third Round" (or "Round 3") Housing Plan Element and Fair Share Plan ("Housing Plan"). The Planning Board adopted four previous Housing Plans documenting Bernards Township's compliance with Round 3 affordable housing (Mt. Laurel) obligations:

- On November 22, 2005, the Board adopted its first Round 3 Housing Plan that fully satisfied the Township's fair share obligations as constituted for Round 3 (2004-2014 at that time) in accordance with N.J.A.C. 5:94-1 et seq. (Chapter 94), COAH's first set of Round 3 rules. Prior to a grant of substantive certification by COAH, the Court invalidated Chapter 94 and ordered revised rule-making.
- 2. On December 16, 2008, the Board adopted its second Round 3 Housing Plan that fully satisfied the Township's fair share obligations as constituted under Chapter 97, COAH's second set of Round 3 rules. The total obligation assigned under Chapter 97 amounted to 888 units, including a 12-unit rehabilitation obligation. Bernards Township received substantive certification of its second Round 3 Housing Plan from COAH on May 13, 2010. The Supreme Court invalidated Chapter 97 in 2013, including all substantive certifications granted by COAH for Chapter 97 compliance, thereby requiring Bernards Township to adopt another Round 3 Housing Plan, along with all other municipalities under COAH's

jurisdiction. The Court ordered COAH to adopt revised Round 3 rules, but the agency failed to adopt revised rules (Chapter 99) in October 2014. In March 2015, the Supreme Court¹ dissolved the NJ Fair Housing Act's (FHA) exhaustion-of-administrative-remedies requirement and transferred jurisdiction of Mt. Laurel compliance to the trial courts.

- 3. On June 2, 2015, the Board adopted its third Round 3 Housing Plan, which documented Round 3 compliance in accordance with the fair share obligations assigned in COAH's ill-fated Chapter 99. At the time Bernards Township entered the Court process (July 2015), those obligations appeared to be a logical planning basis because they were the most recent municipal affordable housing obligations identified by COAH, however, those obligations were never adopted by COAH. The Board's third Housing Plan documented that the Township's existing affordable housing inventory fully addressed a 919 unit obligation identified in COAH's ill-fated Chapter 99, plus a proposed 39-unit rehabilitation obligation.
- 4. On September 4, 2018, the Planning Board adopted an amended Housing Plan addressing the 44-unit rehabilitation obligation, 508-unit Prior Round obligation and the 873-unit Third Round Gap and Prospective Need obligation. This Plan was approved for Bernards Township's Round 3 compliance, however, the Court subsequently identified a series of amendments during the course of the Court's compliance review of the September 4 Housing Plan.

This fifth Round 3 amended Housing Plan demonstrates compliance with Round 3 affordable housing obligations identified through the Court declaratory judgment process in negotiation with Fair Share Housing Center (FSHC), which is an interested party in all municipalities that filed declaratory judgment actions with the Court in July 2015, which includes Bernards Township. The obligations negotiated between Bernards Township and the FSHC must be subject to a "fairness hearing" conducted by Court and approved by the Court. The negotiated Round 3 obligations arise from Bernards Township's response to the NJ Supreme Court's March 2015 so-called "Mount Laurel IV" decision¹ that (1) transferred jurisdiction of municipal <u>Mt. Laurel</u> compliance from the NJ Council on Affordable Housing (COAH) to the trial courts, (2) required municipalities to address affordable housing obligations calculated according to COAH's Prior Round methodology, and (3) charged the trial courts with assigning Round 3 affordable housing obligations to municipalities.

Bernards Township filed a declaratory judgment action with the trial court on July 6, 2015 seeking orders declaring and adjudging the Township's Housing Plan as compliant with the Township's Round 3 <u>Mt. Laurel</u> affordable housing obligations either in its current form or such amended or supplemented form as the Court may require. Subsequently, the trial court required the submission of expert reports to identify the Township's Round 3 affordable housing obligations. Those expert reports became the subject of a trial in Mercer County, which were then modified by Superior Court Master, Richard B. Reading, which were subsequently modified by Judge Jacobson. The resulting methodology for identifying municipal Round 3 obligations by Judge Jacobson provide a range for acceptable Round 3 affordable housing obligations in

¹ In the matter of the adoption of N.J.A.C. 5:96 and 5:97 by the New Jersey Council on Affordable Housing (COAH), 221 N.J. 1 (2015)

Vicinage 13, Bernards Township's Superior Court of jurisdiction, in which Judge Thomas Miller presides and in which Richard Reading also serves as Superior Court Master to the Court.

This amended Round 3 Housing Plan demonstrates compliance with the Township's Round 3 affordable housing obligations that were calculated in accordance with the Jacobson Methodology, as follows:

(1) Prior Round Obligations (1987-1999):	508 units
(2) Present Need (2015 rehabilitation):	44 units ² ; and
(3) Gap Present Need (1999-2015):	435 units; and
(4) Prospective Need (2015-2025):	438 units ³ .

As indicated above, the Prior Round Obligations of 508 units, plus the Gap Present Need and the Prospective Need obligations are referred to as new construction obligations, which total 1,381 affordable housing units, and which are distinctly separate components of "need" from the rehabilitation obligation (Present Need (2015 rehabilitation). Satisfying the new construction obligations require the production of affordable units and may include rental bonus credits in achieving the numerical values assigned to the municipality. Separate "compliance parameters" are identified to satisfy "Prior Round" (1987-1999) and the two components of Round 3 obligations: "Gap Present Need" (1999-2015) and "Prospective Need" (2015-2025), which include: (1) the provision of rental housing, in the Prior Round, and (2) the provision of rental affordable housing, family-unit affordable housing, family rental-unit affordable housing, very low-income affordable housing and may include age-restricted housing. Prior Round rules do not recognize affordable housing that was built prior to 1980, which has resulted in a large inventory of 247 Ridge Oak age-restricted affordable housing being excluded from "credit" in addressing the obligations, which thereby resulted in the need for additional affordable housing projects to fully satisfy affordable housing obligations.

This amended Housing Plan documents Bernards Township's compliance with these obligations.

It is noteworthy that Bernards Township's second Third Round Housing Plan certified by COAH in May 2010 documents existing projects and compliance mechanisms that fully address the Township's 888 unit affordable housing obligation as it was identified by COAH at that time, which included: (1) a 508-unit prior round obligation, (2) a 12-unit rehabilitation obligation and (3) a 368-unit prospective need obligation. Indeed, all but one of the affordable housing compliance projects identified in the Plan have been completed and are currently occupied. An additional 69 affordable housing units have been created in Bernards Township since receiving substantive certification in 2010. Affordability controls on an additional 247 units have been

² David N. Kinsey, PhD, PP, FAICP, NEW JERSEY LOW AND MODERATE INCOME HOUSING OBLIGATIONS FOR 1999-2025 CALCULATED USING THE NJ COAH PRIOR ROUND (1987-1999) METHODOLOGY, July 2016 and April 2017.

³ FSHC refers to the sum of the "Gap Present Need (2015)" obligation of 435 units; and the "Prospective Need (2015-2025)" of 438 units, which is 873 units as "Third Round (1999-2025) Prospective Need (per Kinsey Report, as adjusted through this Agreement)". For the purpose of this Housing Plan, the obligations are identified as per the Jacobson Methodology, which identified discrete affordable housing obligations for the two separate time periods of 1999-2015 and 2015-2025.

extended on existing affordable units since then. All 316 of these units are in addition to the 888 unit affordable housing obligation that was certified by COAH in 2010.

In addressing the Prior Round and the Third Round obligations identified in this fifth Amended Housing Plan, Bernards Township's inventory requires the addition of four (4) new construction projects to fully address the 1,381-unit combined obligations and Round 3 compliance parameters that FSHC requires to be satisfied for a Court settlement of Bernards Township's Third Round obligations. However, this Housing Plan also relies heavily on the Township's existing affordable housing inventory and past affordable housing efforts in addressing the municipal obligations.

Prior Mount Laurel Compliance Background / Third Round Court Developments

Bernards Township has assiduously demonstrated compliance with its constitutional obligation to provide its fair share of low- and moderate-income housing since adoption of the FHA in 1985. Bernards Township adopted its original Housing Plan Element and Fair Share Plan on December 2, 1986, and received substantive certification from the NJ Council on Affordable Housing (COAH) in the first round on March 13, 1989 for a housing obligation of 475 units. The plan was amended in December 1994 and certification expired on March 13, 1995. On June 7, 2000, Bernards Township received substantive certification for its 12-year cumulative (second-round) obligation of 552. On November 12, 2005, the Bernards Township Planning Board adopted its first third round Housing Plan and Bernards Township petitioned COAH for third round Substantive Certification with a 2005 plan that fully addressed the Township's affordable housing obligation as it was then defined (N.J.A.C. 5:94-1 et seq. aka Chapter 94).

On January 25, 2007, the NJ Superior Court, Appellate Division, invalidated Chapter 94 and ordered revised rule-making. COAH didn't fully process Bernards Township's first Third Round petition before the Chapter 94 rules were invalidated and revised Third Round rule-making was ordered by the Court. On January 22, 2008, COAH proposed new substantive and procedural rules which became effective on June 2, 2008 with subsequent amendments effective in October 2008 (Chapter 97 – growth share). The Bernards Township Planning Board amended the Third Round Housing Plan in December 2008 and Bernards Township petitioned COAH on December 30, 2008, again, for third round substantive certification. Bernards Township received Third Round substantive certification from COAH on May 13, 2010 for its 31-year cumulative (prior round and third round 1987-2018) obligation of 888 units as it was constituted at that time.

According to the Township's May 2010 substantive certification, the 2008 amended Housing Plan addresses Bernards Township's total 1987-2018 affordable housing obligation of 888 units, consisting of a 12-unit rehabilitation share, 508-unit prior round obligation, and the 368-unit projected growth share obligation that was assigned under COAH's Chapter 97 regulations in effect at that time. COAH granted Bernards Township third round substantive certification through December 30, 2018.

On October 8, 2010, the Appellate Division invalidated substantial portions of Chapter 97 resting principally on the growth share concept for calculating affordable housing obligations

and remanded to COAH the adoption of new third round rules. The Supreme Court accepted certification of that decision and on September 26, 2013 ruled that revised third round rulemaking was necessary, again. COAH prepared new revised rules for the third round in 2014 (proposed Chapter 99), published the rules in May, accepted public comment through August and voted on the rules in October, however, the rule adoption process stalled on October 20, 2014 when COAH's vote to adopt the rules deadlocked in a tie vote of its membership. The tie vote resulted in COAH's failure to adopt the third iteration of third round rules, which led to the Court's March 10, 2015 decision and order. Nevertheless, proposed Chapter 99 was prepared in response to the Supreme Court's directives to COAH.

Bernards Township is one of 68 municipalities that achieved substantive certification under the invalidated Chapter 97 rules. There were just three municipalities that received substantive certification under Chapter 94. Approximately 380 New Jersey municipalities were participating in the COAH process before it was dissolved by the Supreme Court order on March 10, 2015 in favor of a judicial process.

The Supreme Court's March 10, 2015 decision left it to individual <u>Mount Laurel</u> judges in the vicinages throughout the state to determine municipal third round obligations. The decision provided specific guidance as to the municipal obligations that municipalities are to address.

<u>1. Prior Round Obligation</u> With respect to the prior round obligations, the Supreme Court's March 10, 2015 decision determined that municipalities were expected to fulfill their prior round obligations. The Court stated that:

...our decision today does not eradicate the prior round obligations; <u>municipalities are expected</u> to fulfill those obligations. As such, prior unfulfilled housing obligations should be the starting point for a determination of a municipality's fair share responsibility. Cf. In re Adoption of N.J.A.C. 5:96 & 5:97, supra, 416 N.J. Super. at 498-500 (approving, as starting point, imposition of "the same prior round obligations [COAH] had established as the second round obligations in 1993"). (<u>underlined emphasis added</u>) [221 N.J. 1 at 42)]

Bernards Township's prior round obligations identified by COAH consisted of (1) a 44unit rehabilitation obligation and (2) a 508-unit combined Round 1 & 2 (1987-1999) prospective need obligation. Bernards Township received substantive certification of the prior round obligation that has been fully addressed. This is the same prior round obligation, minus the rehabilitation component, that has been identified for Bernards Township through the Court process, as follows:

• Prior Round (1987-1999) Obligation: 508 units

2. Round 3 With respect to Round 3, the Court reiterated its prior position regarding the calculation of present and prospective need, where the Court stated that:

"First, as we said in In re Adoption of N.J.A.C. 5:96 & 5:97, supra, <u>previous methodologies</u> <u>employed in the First and Second Round Rules should be used to establish present and</u> <u>prospective statewide and regional affordable housing need</u>. 215 N.J. at 620. The parties should demonstrate to the court computations of housing need <u>and municipal obligations based on</u> <u>those methodologies</u>." [221 N.J. 1 at 41]

As a result of the Court process and as indicated above, Bernards Township's present (1999-2015) and prospective (2015-2025) affordable housing obligations have been identified at a total of 873-units through negotiation with FSHC as follows:

Gap Present Need (1999-2015):	435 units; and
Prospective Need (2015-2025):	438 units ⁴ .

Contents of a Housing Plan

At N.J.S.A. 40:55D-28.b.(3), the Municipal Land Use Law identifies requirements for a Housing Plan Element, as follows:

(3) A housing plan element pursuant to section 10 of P.L.1985, c.222 (C.52:27D-310), including, but not limited to, residential standards and proposals for the construction and improvement of housing;

The FHA identifies requirements for the contents of a housing plan at N.J.S.A. 52:27D-310 a. - f, as follows:

N.J.S.A 52:27D-310.1.a: "An inventory of the municipality's housing stock by age, condition, purchase or rental value, occupancy characteristics, and type, including the number of units affordable to low and moderate income households and substandard housing capable of being rehabilitated, ...". (addressed in Appendix A)

N.J.S.A 52:27D-310.1.b: "A projection of the municipality's housing stock, including the probable future construction of low and moderate income housing, for the next ten years, taking into account, but not necessarily limited to, construction permits issued, approvals of applications for development and probable residential development of lands"

N.J.S.A 52:27D-310.1.c. "An analysis of the municipality's demographic characteristics, including but not necessarily limited to, household size, income level and age" (addressed in Appendix A)

⁴ FSHC refers to the sum of the "Gap Present Need (2015)" obligation of 435 units; and the "Prospective Need (2015-2025)" of 438 units, which is 873 units as "Third Round (1999-2025) Prospective Need (per Kinsey Report, as adjusted through this Agreement)". For the purpose of this Housing Plan, the obligations are identified as per the Jacobson Methodology, which identified discrete affordable housing obligations for the two separate time periods of 1999-2015 and 2015-2025.

N.J.S.A 52:27*D-310.1.d.* "An analysis of the existing and probable future employment characteristics of the municipality" (*N.J.S.A* 52:27*D-310.1.d.*). (existing employment addressed in Appendix A, probable future employment characteristics addressed below)

N.J.S.A 52:27D-310.1.e: "A determination of the municipality's present and prospective fair share for low and moderate income housing and its capacity to accommodate its present and prospective housing needs, including its fair share for low and moderate income housing.

N.J.S.A 52:27D-310.1.f. A consideration of the lands that are most appropriate for construction of low and moderate income housing and of the existing structures most appropriate for conversion to, or rehabilitation for, low and moderate income housing, including a consideration of lands of developers who have expressed a commitment to provide low and moderate income housing.

N.J.S.A 52:27D-310.1.b: "A projection of the municipality's housing stock, including the probable future construction of low and moderate income housing, for the next ten years, taking into account, but not necessarily limited to, construction permits issued, approvals of applications for development and probable residential development of lands"

Between 2004 and June 2015, the Township issued a total of 220 residential certificates of occupancy (30% of projections of 724 CO's estimated by COAH in 2008), of which 109 CO's (15% of COAH's projection) were related to new construction to vacant land. The remaining 111 residential certificates of occupancy were related to construction of replacement residential dwellings that replacing would not have generated affordable housing obligation under the growth share approach. The pace of residential development has significantly slowed in Bernards Township in the 10 years since the 2008 economic recession. Between 2018 and 2025, Bernards Township is anticipating residential growth of approximately 551 residential dwelling units driven by the provision of affordable housing, including:

- 49 affordable rental apartments for US Veterans at the VA campus;
- 198 rental apartments, including 30 affordable rental apartments on King George Road at the Dewy Meadow shopping center site (vis-à-vis settlement agreement);
- 24 rental apartments, including 4 affordable rental apartments at Crown Court (vis-à-vis settlement agreement); and
- 280 residential dwelling units on Mountainview Boulevard; including 60 townhomes and 22 rental apartments, including 62 affordable apartments (visà-vis settlement agreement).

Thus, in the next 7 years, residential growth is to more than double the pace of development Bernards Township experienced between 2004 - 2015. This future growth estimate results from Bernards Township's compliance with affordable housing obligations identified in 2018 through the Court Process that replaced the COAH process. The period of affordable housing responsibility assigned through the Court process applies retroactively to 1999 and forward to

2025. Therefore, the affordable housing obligations for the Third Round time period, which now spans 25 years (1999-2025), is the primary factor driving residential growth in Bernards Township into the foreseeable future.

N.J.S.A 52:27*D*-310.1.*d.* "An analysis of the existing and probable future employment characteristics of the municipality".

The existing employment characteristics for Bernards Township are reflected in Appendix A. The probable future employment characteristics for the Township are driven by pending development approvals, which results in an estimated 2,000 future jobs, which is based upon the future growth characteristics that are discussed in the section above, and are repeated below:

Probable Future Employment:

Pending non-residential development: 432,248 sq. ft. of non-residential development, approved, with projected employment, as follows:

- Office development: 358,895sf / 2.8 jobs/1,000 sf. = 1004.9 jobs; and
- I-Institutional development: 72,786sf/1,000sf x 2.6 jobs/1,000 sf. = 189.2 jobs.

Total projected employment projected: <u>1,194.1 jobs</u>

N.J.S.A 52:27D-310.1.e: "A determination of the municipality's present and prospective fair share for low and moderate income housing and its capacity to accommodate its present and prospective housing needs, including its fair share for low and moderate income housing.

Three components of affordable housing obligation are identified in the August 2018 settlement agreement with the Fair Share Housing Center, as follows:

- Prior Round (1987-1999) Obligation: 508 units
- Present Need (Rehabilitation Share: 44 units
- Third Round (1999-2025) Gap and Prospective Need 873 units

N.J.S.A 52:27D-310.1.f. A consideration of the lands that are most appropriate for construction of low and moderate income housing and of the existing structures most appropriate for conversion to, or rehabilitation for, low and moderate income housing, including a consideration of lands of developers who have expressed a commitment to provide low and moderate income housing.

Consideration has been given to the use of lands appropriate to addressing the affordable housing obligation in the development of affordable housing. Affordable housing proposals and lands considered for affordable housing by the Township include:

• Block 8001, Lot 3, Veterans Administration Campus – Peabody Homes, Braintree, MA, which completed construction of 61 rental apartments in 2014 on the Veterans Administration Campus on Knollcroft Road (Valley Brook I) and now proposes an additional

49 rental apartments for US Veterans at the same location (Valley Brook II). Construction on the 49 Valley Brook II apartments is expected imminently. Both projects received the Bernards Township Committee's endorsement and financial support. This project is included in Bernards Township's Round 3 Fair Share Plan.

- Block 6001, Lot 6, Millington Quarry property A contract purchaser of the site sought recognition of an affordable housing opportunity in connection with the comprehensive development of the former Millington Quarry property consisting of approximately 179 acres, including a future lake of approximately 50 acres in area. The site has roadway access to Stonehouse Road in Lyons and municipal water and sewer service are available. The site was considered as part of a proposal that included mixed use, commercial, office, hotel and residential development. The proposal included approximately 190,000 - 200,000 sq. ft. of office, retail, service mixed-use development, approximately 100-250 room hotel, and 230 residential dwelling units, including townhouses, rental apartments, detached single-family homes and 30 affordable rental units to be provided as group homes and rental apartments. The location of the site within the community, however, raised significant concerns related to primarily to traffic, but including the disruption of community character with proposed highdensity development situated within low-density residential neighborhoods that characterize the surrounding area to the quarry. On the basis that community impacts were undesirable, particularly traffic, and the low number of affordable units proposed as part of the overall high-density development plan, the Township determined that the site was not desirable for addressing a portion of the community's affordable housing obligations and the site is not included as part of the Township's Round 3 Fair Share Plan.
- Block 8501, Lot 39, consisting of 17.19 acres, owned by Bernards Plaza Associates, is the Dewy Meadow shopping center that includes a variety of community service and retail uses, child day-care and a failed retail shopping center anchor (A&P Supermarket) that vacated the site. The site is located on King George Road with excellent access to I-78 and surrounding land uses comprised of open space and multi-family housing. The developer proposed redevelopment of a substantial portion of the shopping center incorporating portions of the site now suffering commercial vacancies into a rental housing development including a total of 198 rental apartments including 30 rental apartments. The site includes sufficient unconstrained development to accommodate the proposed development and has access to public water and sewer to serve the project. The project was proposed as part of comprehensive proposal that included the extension of affordability controls on 19 affordable apartments on adjacent Block 8501, Lot 12, owned by Crown Court Associates. That proposal included an additional 24 rental units, including 4 affordable family rental apartments. In total, the Dewy Meadow and Crown Court proposals resulted in a comprehensive proposal for 53 affordable family rental apartments, which the Township has accepted and zoned for inclusion in this Fair Share Plan to address a portion of the Township's Round 3 obligations.
- Block 9001, Lots 99 & 100, approximately 9.36 acres, former Wagner Property A developer proposed a total of 186 rental apartments, including 62 affordable "family" rental apartments. The parcel is located on the south side of Valley Road across to the Veterans Administration campus and adjacent to The Cedars, which is a multi-family neighborhood of owner-occupied homes that includes affordable for-sale units that are included in Bernards Township's Prior Round inventory and with extended controls that are identified as part of the plan to satisfy a portion of the Round 3 obligations. Although the property is slightly

constrained by approximately one acre of wetlands, the site is developable and has access to the local road network with public and water available. Traffic considerations on the local road network, however, along with a potentially undesirable concentration of high-density development in the vicinity resulted in a conclusion that the site should not be included in the Township's Round 3 Plan.

Block 11301, Lot 1 – This irregularly shaped property consisting of approximately 71 acres is located on Mountainview Boulevard, which has a single means of access to the local road network at the traffic light-controlled intersection of County Route 525 (Liberty Corner -Martinsville Road) and the I-78 interchange. The site was previously approved for 344,000 sq. ft. of office development, which approval has been in place for more than 10 years, but the site has failed to develop. The developer proposes to construct a total of 220 rental apartments, which will include no less than 60 townhomes, including 62 affordable family rental apartments. Adjacent development includes the Sloan Kettering treatment center located on Mountainview Boulevard and low density residential neighborhoods to the northwest and south, which do not rely on Mountainview Boulevard for access to the local road network and do not have any direct access to Mountainview Boulevard, which is a privately owned-road. The site has adequate public water and sewer service available, however the site will be served by private infrastructure connected to these utilities. On the basis that the existing roadway is adequate for access to the level of development proposed, the site is situated in relative isolation from existing neighborhoods, which will limit community character impacts, and the fact that the inclusionary component provides an adequate number of affordable family rental apartments for the Township to meet its Round 3 affordable housing obligations, the Township has selected the site for inclusion in this Third Round Fair Share Plan, which, together with the other components of the Plan, will fully address the Round 3 affordable housing obligations.

2018 Fair Share Plan (section amended 2019)

The following Fair Share Plan addresses the Bernards Township Prior Round (1987-1999), Gap Present Need (1999-2015), and Prospective Need (2015-2025) obligations identified above. The Township's Fair Share Plan identifies a variety of affordable housing techniques, mechanisms and existing affordable housing that respond to a variety of affordable housing needs. This plan identifies completed affordable housing initiatives and establishes new initiatives to respond to the Township's affordable housing obligations and provide opportunities for housing that may not be currently accommodated in the community. The aim is to provide affordable housing opportunities in a manner that will enhance the fabric of the community and maintain the quality of life in Bernards Township.

Present Need (Rehabilitation Share)

• Present Need: 44 units

Bernards Township conducted a survey of the municipal housing stock in accordance with Appendix C of N.J.A.C. 5:93-1 et seq., and identified a total of eleven (11) units as deficient and candidates for rehabilitation. As a result, the Court has approved an adjustment of the Rehabilitation (Present Need) obligation from 44 to 11 owner-occupied units. Accordingly a municipal rehabilitation program has been implemented to rehabilitate substandard housing occupied by low- and moderate-income households to correct substandard conditions that are found to exist. The Township has allocated Affordable Housing Trust Funds in its Third Round Spending Plan to fund the municipal rehabilitation program.

Prior Round (1987-1999)

• Prior Round: 508 units

Bernards Township complied with the Supreme Court's requirement to address the prior round as the starting point in addressing affordable housing obligations. Compliance with the prior round is evidenced by the fact that Bernards Township received substantive certification for its 12-year cumulative (second-round) obligation of 552 units on June 7, 2000. On October 26, 2000, the Planning Board adopted an amendment to the certified housing element and fair share plan. On November 9, 2000, the governing body endorsed the amendment and petitioned COAH for review and approval of the amendment. The amendment added a 39-unit age-restricted project, "Ridge Oak II" that resulted in a 52-unit surplus obligation, as indicated in COAH's August 10, 2001 Compliance Report. Both the 2000 and 2001 amendment fully satisfied Bernards Township's cumulative 12-year obligation, which consisted of a 508-unit obligation (prior cycle prospective need & 1993-1999 prospective need) plus a 44-unit rehabilitation obligation. This Fair Share Plan reconfigures affordable housing projects to maximize the number of units and bonuses addressing the Prior Round and includes all units that resulted in the 52-unit surplus identified by COAH in 2001.

The following table lists the units, projects and bonuses to address the 508-unit Prior Round obligation:

Bernards Township's Inventory Existing Affordable Units Addressing the <u>Prior Round</u>

Project/Development Name	Year Built or Approved	Type of Affordable Unit	# Units	Bonus Type	# Bonuses	Total Units + Bonuses
Society Hill	1986-87	Family For-Sale	100			100
The Cedars	1990-94*	Family For-Sale	106			106
Crown Court	1991-94	Family Rentals	19	Rental	19	38
Matheny Group Home	1992	Supportive/Special Needs	6	Rental	6	12
Bethel Ridge Group Home	2000	Supportive/Special Needs	6	Rental	6	12

Veterans for Hope I	2003	Supportive/Special	47	Rental	47	94
		Needs	(bedrooms)			
Veterans for Hope II	2007	Supportive/Special	12	Rental	12	24
		Needs	(bedrooms)			
Our House 10 Flintlock	2008	Supportive/Spec	4	Rental	4	8
Ct		ial Needs				
Our House 130 Mt.	2011	Supportive/Spec	3	Rental	3	6
Airy (partial)		ial Needs				
Ridge Oak #2	2003/200	AR-rental	39		10	49
-	4					
Phillipsburg RCA	1994	Rehabilitation	50			50
(partial)						
S. Bound Brook RCA	2000	Rehabilitation	4			4
Substantial	2000			Subst.	5	5
Compliance Reduction				Compl.		
		TOTALS	396		112	508

Prior Round obligation: 508 units

Bernards Township is addressing its Prior Round obligation of 508 units with 396 units, including 54 RCA's, 39 age-restricted units, a total of 136 rental units and 112 bonuses, including a 5-unit substantial compliance credit authorized by COAH for the Prior Round. Bernards Township's Prior Round Plan has been reconfigured from the Prior Round Plan that received substantive certification from COAH in 2010.

All compliance parameters are met for the Prior Round, as follows:

Prior Round Parameter Compliance:

Maximum bonus:

• 127 bonus permitted vs. 112 bonuses in Plan (107 units and 5 substantial compliance reduction credits - complies).

Maximum age-restricted:

• 127 units age-restricted units permitted vs. 39 age-restricted Ridge Oak #2 units in Plan (complies).

Minimum rental units:

• 127 rental units required vs. 136 rental units in Plan.

Round 3 (1999-2025)

• Third Round (1999-2025) Gap & Prospective Need: 873 units

Bernards Township's Third Round (1999-2025) Gap & Prospective Need is identified at 873 units. Since receiving Second Round substantive certification from COAH in 2000 and the subsequent 2001 amendment to substantive certification, Bernards Township received Round 3 substantive certification on May 13, 2010 for a 386-unit growth share obligation – the Township's Round 3 affordable housing as it was assigned by COAH at that time. During the passage of time, Bernards Township has been consistently active and deliberate in its efforts to provide affordable housing and increase the municipal inventory of affordable housing, despite the extraordinary Round 3 regulatory uncertainties that have characterized the past 15 years. In essence, Bernards Township has utilized the regulatory tools available to it and the proceeds from its development fee ordinance to substantially expand the supply of affordable housing in the Township.

Since receiving the 2010 Substantive Certification from COAH, Bernards Township completed four compliance mechanisms that were identified as proposed mechanisms in the certification. These include extended controls on 205 existing affordable for-sale family units (Society Hill and The Cedars), construction of 20 age-restricted units at Ridge Oak and construction of a 6-bedroom group home with the YMCA/Our House on Mount Airy Road. Together, these projects add 232 units to Bernards Township's affordable housing inventory for the Round 3 obligations.

- 1. Society Hill (100 units) extended controls, for-sale units;
- 2. The Cedars (106 units) extended controls, for sale units;
- 3. Ridge Oak III (20 units) new construction age-restricted rental units; and
- 4. YMCA supportive housing project (6-bedroom) "Our House" group home rental project, Mount Airy Road).

In addition to the Round 3 planned compliance mechanisms that were certified by COAH and completed by Bernards Township since receiving the now invalidated 2010 substantive certification, the Township's affordable housing inventory has increased by an additional 367 units of affordable housing for Round 3 that were not included in the certified plan, which include:

- 1. Valley Brook I (60 units) rental apartments (151 Knollcroft Road, Veterans Administration campus);
- 2. Vallley Brook II (48 units) rental apartments (151 Knollcroft Road, Veterans Administration campus);
- 3. Our House (4-bedroom) group home rental project, 17 Vail Terrace;
- 4. Our House (4-bedroom) group home rental project, 11 Lafayette Lane;
- 5. Monarch Housing (4-bedroom) group home rental project, 16 Evergreen Place;
- 6. Ridge Oak I (247 units)⁵ extended controls on age-restricted rental apartments (East Oak Street and Manchester Drive).

This impressive progress added 367 affordable housing units to the Township's affordable housing inventory. It is a clear demonstration that Bernards Township remained

⁵ 247 existing Ridge Oak I age-restricted rental apartments received extended affordability controls from HUD in 2012. The affordability controls are extended for 20 years through 2032.

active and committed to creating affordable housing after receiving Substantive Certification from COAH in 2010 for addressing the obligation as it was then constituted for Round 3 through 2018. Unfortunately, however, FSHC will not accept the extension of controls on 247 Ridge Oak units as credit-worthy toward the Round 3 obligations in the Township's Third Round litigation now before the Court because the apartment complex was constructed prior to 1980, which renders the unit ineligible for affordable housing credit. That exception to existing affordable housing units would have resulted in the addition of only 120 more affordable units since the 2010 COAH certification. However, Bernards Township has added five (5) affordable housing projects to address the Round 3 Mt. Laurel constitutional obligation that will actually increase the post 2010 Third Round Sub. Cert. inventory by an additional 236-units, as listed below.

Existing Units	Name	Control thru
60	Valley Brook I Apts – VA, 151 Knollcroft Rd. (30-yr)	2043
48	Valley Brook II Apts – VA, 151 Knollcroft Rd. (30-yr)	2045
4	Our House – (2013) (B 2501/L29) – 17 Vail Terrace 4	DDD,
	bedroom (VLI)	Continuous
4	Our House – (2017)(B7703/L5)–11 Lafayette La. (VLI)	
4	Monarch Housing (2014) (B404/L13) 16 Evergreen	DDD,
	Place	Continuous
30	Dewy Meadow rental apartments	2050 (approx.)
4	Crown Court Apts. added rental units	2050 (approx.)
19	Crown Court Apts. Extended Controls	2050 (approx.)
62	Mountainview rental apartments	2051 (approx.)
1	Columbia Road rental apartment	2048 (approx.)
236	Total new, occupied units since 2010 Certification	

Affordable Units Added Since 2010 Substantive Certification

Bernards Township's Round 3 Fair Share Plan to address the Gap Present Need (435units) and the Prospective Share (438) obligations totaling 873 units is identified in the table below:

Bernards Township's Round 3 Fair Share Plan Inventory of Existing Affordable Units & Planned Units Addressing <u>Round 3 for 1999-2025</u> – 873-units

Project/Development Name	Year Built or Approved	Type of Affordable Unit	# Units	Bonus Type	# Bonuses	Total Units + Bonuse s
P-burg RCA (partial)		Rehabilitation	187		0	187
Ridge Oak #3	2011/2012	AR-rental	20		0	20
Sunrise Senior Living	2001	AR-rental	4		0	4

Project/Development Name	Year Built or Approved	Type of Affordable Unit	# Units	Bonus Type	# Bonuses	Total Units + Bonuse s
Society Hill Ext. Control	1986-87	Family for-sale	100		0	100
The Cedars Ext. Control	1990-94*	Family for-sale	106		0	106
Valley Brook I	2013	Supportive/Spec ial Needs	60	Rental	60	120
Valley Brook II	2018 Planned	Supportive/Spec ial Needs	48	Rental	48	96
Our House 130 Mt. Airy (partial)	2011	Supportive/Special Needs	3	Rental	3	6
Our House 11 Lafayette La	2017	Supportive/Special Needs	4	Rental	0	4
Our House 17 Vail Ter.	2013	Supportive/Special Needs	4	Rental	4	8
Cerebral Palsy/Monarch 16 Evergreen Place	2014	Supportive/Special Needs	4	Rental	4	8
Dewy Meadow Apts.	2018 Planned	Family rental	30	Rental	30	60
Crown Court Added Apts	2018 Planned	Family rental	4	Rental	4	8
Crown Court Ext. Controls	2018 Planned	Family rental	19		0	19
Mountainview	2018 Planned	Family rental	62		62	124
J. Nan Realty – 18 Columbia Road	2019 Approved	Family rental	1	Rental	1	2
Group Home Bedroom (TBD)	By 7/20	Supportive and Special Needs	1		1	2
		TOTALS	657		217	874

June 28, 2019 Superior Court Order - Amendments to 2018 HPE/FSP

On June 28, 2019, the Superior Court of New Jersey Law Division-Somerset County granted Bernards Township a Conditional Judgment of Compliance and Continued Temporary Immunity. Paragraphs 4 & 6 of the June 28, 2019 Order identify certain amendments to the Fourth Amended Housing Plan Element and Fair Share Plan (September 2018) and call for additional amendments to be adopted by the Planning Board and endorsed by the Township Committee.

- Paragraph 4 of the Order amends the Round 3 Fair Share Inventory table (above) and identifies conditions related to certain projects in the Inventory (Paragraph 4 Amendments).
- Paragraph 6 of the Order calls for the Planning Board to adopt and the Township Committee to endorse the Paragraph 4 amendments to the Housing Plan Element and Fair Share Plan.

The Paragraph 4 Amendments include one (1) correction and three (3) revisions to the Round 3 Fair Share Inventory, as follows:

- 1. Correct the number of Society Hill affordable units that have extended affordability controls there are 100 affordable units in the development, not the 99 previously identified.
- 2. Change the crediting for the 11 Lafayette Lane group home to remove bonus credits because it has been determined that this project is not eligible for bonuses without a 30-year deed restriction.
- 3. Add 1-unit and 1-bonus credit for the recently approved J. Nan Realty affordable family rental apartment to the inventory. The unit will be constructed at 18 Columbia Road. It was approved by the Zoning Board of Adjustment in October 2018 (Resolution No. ZB2013-11 memorialized on November 7, 2018).
- 4. Add two (2) credits (1-bedroom/unit and 1 bonus credit) for a "to-be-determined" (TBD) supportive and special needs group home that the Township will identify by July 2020.

The Paragraph 4 Amendments to the Round 3 Fair Share Inventory were identified during Third Round compliance review by the Court. These amendments change the "Units", "Bonuses" and "Total Units and Bonuses" column totals, as follows:

- Total "Units" column has been changed from 658 to 657,
- Total "Bonuses" column has been changed from 219 to 217; and
- The "Total Units and Bonuses" column has been changed from 873 to 874.

In accordance with Paragraph 4 of the Order, the amended crediting for the 11 Lafayette Lane group home, the "TBD" supportive and special needs project and the 18 Columbia Road moderate-income apartment is dependent upon the following conditions:

- 4.(a) If the group home located at 11 Lafayette Lane operated by Our House ceases to exist, the Township shall replace it with a new group home, however, the Township will be entitled to bonus credits generated by the replacement group home provided that the replacement group home complies with all applicable regulations, including but not limited to the minimum 30-year affordability controls deed restriction, so that the creation of two (2) replacement bedrooms would yield two (2) bonus credits for a total of four (4) credits;
- 4.(b) The Township shall identify two (2) additional credits generated from an additional group home by the time of the realistic opportunity midpoint review in July, 2020; and
- 4.(c) As the recently approved (October 2018) development at 18 Columbia Road proceeds, the Township shall provide further documentation to the special master detailing the minimum 30-year affordability controls deed restriction and confirming that the one bedroom affordable unit will be an affordable rental unit so will also generate one (1) rental bonus.

This plan calls for the identification of at least one (1) bedroom of supportive and special needs housing by July 2020 with a 30-year deed restriction; or 2 bedrooms of supportive

and special needs housing without a deed restriction to fully satisfy the Third Round obligation.

As part of this Housing Plan Element and Fair Share Plan Third Round Plan, Bernards Township identifies the opportunity for 24-32 additional Ridge Oak age-restricted affordable rental apartments to be added on land owned by Ridge Oak adjacent to the existing Ridge Oak campus, which the Township will support through zoning amendments at such time as the developer clarifies expansion plans and anticipated scheduling for additional units to be constructed at the senior citizen housing complex.

Round 3 Parameter Compliance

All compliance parameters are met for Round 3, as follows:

Maximum bonus (25%): Complies.

• 219.25 bonus permitted vs. 217 bonuses in Plan.

Maximum age-restricted (25%): Complies.

• 219 age-restricted units permitted vs. 24 age-restricted units in Plan (10%).

Minimum rental units (25%): Complies.

• 219 rental units required vs. 240 rental units in Plan.

Valley Brook I	60
Valley Brook II	49
Our House 130 Mt. Airy (partial)	3
Our House 11 Lafayette La	4
Our House 17 Vail Ter.	4
Cerebral Palsy/Monarch 16 Evergreen Place	4
Dewy Meadow Apts.	30
Crown Court Expansion Apts.	4
Crown Court Ext. Controls	19
Mountainview	62
18 Columbia Road aff. apt.	1
Total Round 3 Rental Units:	240

Minimum Family Rental units required (12.5%): Complies.

• 109 units required vs. 115 units in Plan.

Dewy Meadow Apts.	30
Crown Court Exp. Apts	4
Crown Court Ext. Controls	19

Mountainview	62
18 Columbia Road aff. apt.	1
Total Round 3 Family Rental Units:	116

Minimum Very low-income units required (13%%): Complies.

• 113 units required vs. 143 units in Plan.

Valley Brook I	60
Valley Brook II ⁶	49
Our House 130 Mt. Airy (partial)	3
Our House 11 Lafayette La	4
Our House 17 Vail Ter.	4
Cerebral Palsy/Monarch 16 Evergreen Place	4
Dewy Meadow Apts.	4
Crown Court (new & ext. controls)	3
Mountainview	10
TBD Supp.&Spec. Needs Bedrooms	27
Total Round 3 Very Low-Income:	143

Minimum Family Unit Requirement:

873 - 187 RCA - 219 Bonuses = 467 x. 5 = 234-units family requirement.

• 234 family units required vs. 322 family units in Plan.

Society Hill	100
The Cedars	106
Dewey Meadow Apts.	30
Crown Court (new & ext. controls)	23
Mountainview	62
18 Columbia Road aff. apt.	1
Total Round 3 Family Units:	322

⁶ Estimated start of construction is Autumn 2018.

⁷ 2 units or 1 unit plus bonus.

Round 3 Authorized Compliance Techniques

The following list of affordable housing compliance techniques are available for municipal Fair Share compliance. The list below is provided as an overview of potential Fair Share techniques that are available to the Township if needed in the future.

N.J.A.C. 5:93-5.2 – Rehabilitation of existing units – rehabilitation of substandard units;

N.J.A.C. 5:93-5.3 – New Construction - create new low and moderate income units within their borders by sponsoring their construction, with or without a non-profit corporation, or by zoning sites for inclusionary development.

N.J.A.C. 5:93-5.4(b) - <u>New construction</u>; conformance with the State Development and Redevelopment Plan (SDRP)

(b) In Planning Area 3, the Council shall encourage inclusionary development within centers. Where a municipality proposes an inclusionary site within Planning Area 3 outside of a center, the Council may permit such a site if infrastructure is available or can be easily extended from Planning Area 2 (PA-2).

--Multiple units per acre required.

--Planning Area 2 is the "Suburban Planning" Area, which is expansively designated in Bernards occupying the majority of residentially developed neighborhoods in the Township. It is designated north of Spring Valley Road, north of Church Street, northeast of Mine Brook Road, east of Annin Road, and north and east of the Meeker Road Extension at the Mt. Airy Road / I-287 interchange. The designation extends north and east from these roads and encompasses all of Basking Ridge to the municipal boundaries with Harding Township and Long Hill Township. The PA-2 designation occupies both side of Liberty Corner Road in the vicinity of the I-78 interchange and extends to the south and west encompassing corporate center development south and west of the I-78 Liberty Corner Road intersection. The Hills and NJ National golf course is also included within PA-2.

--Planning Area 3 is the "Fringe" Planning Area and is designated from The Hills southeast to Liberty Corner Martinsville Road encompassing the residential neighborhoods that flank Mountain Road to the municipal boundary with Bridgewater Township.

N.J.A.C. 5:93-5.5 Municipally sponsored construction and gut rehabilitation

 (a) A municipality shall document that there is municipal control of the site(s); an administrative mechanism to construct the proposed housing; a funding plan and evidence of adequate funding capacity; and timetables for construction of the units.

N.J.A.C. 5:93-5.6 Zoning for inclusionary development – generally, requires identification of sites with available water, sewer; regulations require presumptive densities of between 4 to 6 units per acre. This can be designated as an overlay zone.

Overlay zoning – 100% Municipally Sponsored Construction – This could involve designating small overlay zones focused on redevelopment of parcels that are served by water and sewer.

There may be certain locations in the Township where this approach could make sense with municipal sponsorship.

N.J.A.C. 5:93-5.7 Regional contribution agreements (RCAs) – no longer authorized under the law.

N.J.A.C. 5:93-5.8 Alternative living arrangements – group homes, transitional facilities for the homeless, etc.

N.J.A.C. 5:93-5.9 Accessory apartments – apartments created within existing dwelling units; or as accessory to existing dwelling units.

N.J.A.C. 5:93-5.10 Purchase of housing units that have never been occupied and vacant housing units.

N.J.A.C. 5:93-5.11 Write-down/buy-down of previously owned units (Market to Affordable) – involves Writing-down or buying-down the cost of previously owned market rate units and offering them in sound condition at affordable prices to low and moderate income households.

N.J.A.C. 5:93-5.12 ECHO (elder cottage housing opportunities) housing units – This involves adding a small unit as an accessory unit on a lot with a detached single-family dwelling for an elderly family member. Credits are applied against the rehabilitation obligation.

N.J.A.C. 5:93-5.14 Age restricted housing – subject to a 25% cap.

N.J.A.C. 5:93-5.15 Rental housing – every municipality has to provide at least 25% of the obligation. The now invalidated Chapter 97 included requirements for "Family Rental" housing, and established a minimum percentage that has to be included in the Fair Share Plan. These requirements should be expected to resurface at some point in the future.

N.J.A.C. 5:93-5.16 Assisted living residence - Apartments in assisted living residences may address a municipal housing obligation if the private pay resident qualifies as low or moderate income or if the resident is the recipient of a Medicaid waiver.

Housing Stock Adaptation for Affordable Housing in Bernards Township

Bernards' suburban landscape has been indelibly shaped by Mount Laurel litigation and the COAH rules. The Hills and smaller multiple family housing communities provide a broad diversity of housing opportunities. The Township has been a diligent participant in the COAH process and developed housing elements and fair share plans in response to all known COAH obligations.

Yet today, as Bernards looks to find affordable housing options that can reinforce, rather than undermine, neighborhood character, it is important to develop solutions that can address multiple neighborhood and community needs. A February 2013 Rutgers University study prepared for the Somerset Business Partnership by the Bloustein Planning School, examined the perspective of the Millennial generation millennials (born 1982-2004) and the lifestyle implications of the aging baby boomers (born 1946-1964). A significant finding of this study revealed that 2/3 of baby boomers indicate that they will choose to age in place. Of the 1/3 who will move from their current home, most of those will look for a new residence within their community, near friends and social connections.

The alternatives to living at home (assisted living or nursing care) have skyrocketed in cost, so aging residents will increasingly choose to remain in their homes and "age in place". As the Baby Boom "bulge" moves through the system, the ranks of those aging in place will swell. This change in the complexion of households will create a need for smaller units, many of which can be created within the footprint of existing units.

As more residents age in place, there will be a decreasing need for living space and an increasing need for support, including financial support. Downsizing can mean moving to a smaller house or apartment, or it can mean capitalizing on the flexibility to add a unit in an existing dwelling. Many existing dwellings have sufficient room for a secondary dwelling and may well constitute a hidden resource that can address a variety of local and regional housing needs. Conversions can produce affordable housing at a comparatively economical cost and in an efficient manner, while also addressing other emerging needs and circumstances.

When new construction or redevelopment occur, very expensive housing generally results from the soft costs of design and approvals combined with the hard costs of land, construction, infrastructure and related activities. When a single-family dwelling is converted to two units, the costs of creating the new unit are far lower than building new, since the utilities and the structure are already in place and need only be adapted through the addition of a kitchen and bathroom, demising walls and new entry door. Where the subsidy needed to make a new construction unit affordable can readily total over \$100,000, an adapted unit in an existing dwelling can be created for a fraction of the new construction costs.

While COAH rules have permitted the creation of accessory dwellings, their use to meet affordable housing obligations has been sharply constrained, with a limit of 10 units or 10% of the local new construction obligation. These limits have made it unlikely that towns can meet much of their obligation this way and a robust program of accessory conversions has failed to develop in most communities, although there are notable exceptions, like Tewksbury Township where dozens of such conversions have produced affordable units.

Accessory units should not be seen as a panacea, but they can play an increasingly important role in providing a holistic program to meet affordable housing needs. Conversions do not produce much neighborhood change since they are developed one at a time, and Bernards has long recognized the value of allowing an accessory unit for a family member, as permitted under Section 21-12.3 (h). As the need for accessory units increases with the aging population, this can also be a tool for affordable housing production. A properly incentivized program that allows and encourages such conversions could gain rapid acceptance in the climate where aging in place will continue to grow as a lifestyle.

As noted above, conversions to develop accessory affordable units in a single family dwelling are already permitted in Bernards and can help protect community character and better meet the needs of an aging population. Accessory affordable units offer a number of benefits, compared with new construction, including:

- a significant cost advantage to produce a unit
- can blend seamlessly with neighborhood character
- can provide income that allows an aging homeowner to remain

APPENDIX A Inventory of Municipal Housing Conditions

The primary source of information for the inventory of the Township's housing stock is the 2010 U.S. Census, American Community Survey (ACS) 5-year Estimates and Summary File (SF) 1.

Table 1 identifies the units in a structure by tenure; as used throughout this Plan Element, "tenure" refers to whether a unit is owner-occupied or renter-occupied. According to the 2010 Census, the Township had 9,705 housing units, of which 9,500 (97.8%) are occupied. The Township consists primarily of one-family, detached dwellings (57.7% of the total, compared to 58.9% in the County), and single-family attached units (21%); there are 1,978 units in multi-family structures. The Township has a smaller percentage of renter-occupied units than the County, 12%, compared to 20% in Somerset County and 33% in the State.

Units in Structure	Occupied Units		
	Total	Owner	Renter
1, detached	5,483	5,320	163
1, attached	2,030	1,872	158
2	30	0	30
3 or 4	520	335	185
5+	1,428	812	616
Other	0	0	0
Mobile home or trailer	9	9	0
Total	9,500	8,348	1,152

Table 1: Units in Structure by Tenure

Source: 2010 U.S. Census, for Township, ACS 5-year estimates DP-04

Table 2 presents the data concerning the year housing units were built by tenure, while Table 3 compares the Township to Somerset County and the State. Approximately 61% of the owner-occupied units in the Township were built since 1980. The highest rate of renter-occupied units were also built between 1980 and 2000 (69%). Since 1980, 6,088 units have been constructed, which account for 64% of all units in the Township. 1980-1999 were the most transformative years for the Township. During that 20-year period, 54% of all housing units the Township were constructed. Between 1960 and 1979, 1,777 units were built in the township, which account for 18% of all housing unit in the Township. In 1959, Bernards Township had a total of 1,635 housing units, or about approximately 17% of the Township's current housing stock. In the 20 years following (1960-1979), the number of housing units more than doubled from 1,635 units to 3,412 units. In the following 20 years (1980-1999) the housing stock more than doubled again to a total of 8,613 units.

Voor Duilt	Occupied Units		
Year Built	Total	Owner	Renter
2000-2010	887	800	87
1990-1999	2,701	2,248	453
1980-1989	2,500	2,154	346
1970-1979	777	629	148
1960-1969	1,000	963	37
1950-1959	853	807	46
1940-1949	330	321	9
Pre-1940	452	426	26

Table 2: Year Structure Built by Tenure

Source: 2010 U.S. Census, for Township, ACS 5-year estimates DP-04

Table 3 compares the year of construction for all dwelling units in the Township to Somerset County and the State. The Township has a much larger percentage of units built between 1980 and 2000 than does the County or State, and a smaller percentage of units built for all previous years. This is exemplified in the median year built between the State, County and Township.

Year Built	%		
I cal Dunt	Bernards Township	Somerset County	New Jersey
2000 - 2010	9.1	3.5	8.4
1990 – 1999	28.2	7.0	8.9
1980 - 1989	26.4	70.1	11.6
1970 – 1979	8.4	4.1	13.0
1960 - 1969	10.9	5.0	14.2
1950 - 1959	8.8	4.4	16.1
1940 - 1949	3.4	1.9	8.9
Pre-1940	4.8	4.1	18.9
Median Year	1985	1978	1964

Table 3: Comparison of Year of Construction for Township, County, and State

Source: 2010 U.S. Census, for Township, ACS 5-year estimates

Information reported in the 2010 Census concerning occupancy characteristics includes the household size in occupied housing units by tenure, and the number of bedrooms per unit by units generally house slightly smaller households, with 78% of renter-occupied units having 2 persons or fewer compared to 52% of owner-occupied units.

Household Size	Total Units	Owner-occupied Units	Renter-occupied Units
1 person	2599	1973	626
2 persons	2674	2395	279
3 persons	1582	1417	165
4 persons	1825	1694	131
5 persons	795	737	58
6 persons	238	222	16
7+ persons	70	61	9
Total	9783	8499	1284

Table 4: Household Size in Occupied Housing Units by Tenure

Source: 2010 U.S. Census, for Township, ACS 5-year estimates DP-04

Number of Bedrooms	Total Units	(%)
No bedroom	127	1.3
1 bedroom	1004	10.3
2 bedrooms	2177	22.4
3 bedrooms	2258	23.3
4 bedrooms	2987	30.8
5+ bedrooms	1152	11.9

Table 5: Number of Bedrooms per Unit

Source: 2010 U.S. Census, for Township, ACS 5-year estimates DP-04

Table 6 compares the Township's average household size for all occupied units, owner-occupied units, and renter-occupied units to those of the County and State. The Township's average household size for owner-occupied and renter-occupied units is lower than those of the State and County.

Table 6: Average Household	Size for Occupied Units for	Township, County, and State
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Jurisdiction	All Occupied Units	Owner-occupied units	Renter-occupied units
Bernards Township	2.65	2.80	1.7
Somerset County	2.71	2.85	2.42
New Jersey	2.68	2.81	2.43

Source: 2000 U.S. Census, SF-1 for Township, County, and State, DP-1.

The distribution of bedrooms per unit, shown in Table 7, indicates that the Township contains dramatically more four or more bedroom units than the County or State and fewer none to three bedroom units than either the County or State.

Jurisdiction	None or one	Two or Three	Four or More
Bernards Township	11.6	45.7	42.7
Somerset County	11.6	54.3	34.1
New Jersey	17.1	58.4	24.4

Table 7: Percentage of All Units by Number of Bedrooms

Source: 2010 U.S. Census, for Township, ACS 5-year estimates

In addition to data concerning occupancy characteristics, the 2010 Census includes a number of indicators, or surrogates, which relate to the condition of the housing stock. These indicators are used by the Council on Affordable Housing (COAH) in calculating a municipality's deteriorated units and indigenous need.

In the first Two Rounds of COAH's fair share allocations (1987-1999), COAH used seven indicators to calculate indigenous need: age of dwelling; plumbing facilities; kitchen facilities; persons per room; heating fuel; sewer; and, water. In the proposed Round Three rules, COAH has reduced this to three indicators, which in addition to age of unit (Pre-1940 units in Table 2), are the following, as described in COAH's rules.

Plumbing Facilities	Inadequate plumbing is indicated by either a lack of exclusive use of plumbing or incomplete plumbing facilities.
Kitchen Facilities	Inadequate kitchen facilities are indicated by shared use of a kitchen or the non-presence of a sink with piped water, a stove, or a refrigerator.

Table 8 compares the Township, County, and State for the above indicators of housing quality. The Township has fewer units with inadequate kitchen or plumbing and fewer overcrowded units than the County or State.

Condition	%		
Condition	Bernards Township	Somerset County	New Jersey
Overcrowding	.2	1.5	3.2
Inadequate plumbing ¹	0	.3	.5
Inadequate kitchen ¹	.7	.8	.7

Table 8: Housing Quality for Township, County, and State

Notes: ¹The universe for these factors is all housing units. Source: 2010 U.S. Census, for Township, ACS 5-year estimates The last factors used to describe the municipal housing stock are the values and rental values for residential units. With regard to values, the 2010 Census offers a summary of housing values. This data is provided in Table 9 and indicate that 67% of all residential properties in the Township are valued over \$500,000 with a median housing value of \$650,600.

Value	Number of Units	%
\$0-50,000	11	.1
\$50,000 - 99,999	74	.9
\$100,000 - 149,999	138	1.7
\$150,000 - 199,999	160	1.9
\$200,000 - 299,999	714	8.6
\$300,000 - 499,999	1650	19.8
\$500,000 - 999,999	4104	49.2
\$1,000,000 +	1497	17.9

Table 9: Value of Owner Occupied Residential Units

Source: 2000 U.S. Census, SF-3 for Township, County, and State, DP-4.

The data in Table 10 indicate that a majority of housing units (63%) rent for over \$1,500/month with the largest percentage, 46.2%, found over \$1,500 per month.

Monthly Rent	Number of Units	%
Under \$200	48	4.2
\$200 - 299	21	1.8
\$300 - 499	128	11.1
\$500 - 749	97	8.4
\$750 - 999	56	4.9
\$1,000 - 1,499	26	2.3
\$1,500 or more	733	63.6
No Cash Rent	43	3.7

 Table 10: Gross Rents for Specified Renter-Occupied Housing Units¹

Note: Median gross rent for Bernards Township is \$1,799. Source: 2010 U.S. Census, for Township, ACS 5-year estimates DP-04 The data in Table 11 indicate that there are 405 renter households with an income less than \$35,000 annually. At least 247 of these households are paying more than 30% of their income for rent; a figure of 30% is considered the limit of affordability for rental housing costs.

Income	Number of	Percentage of Household Income					
Income	Households	0 – 19%	20-24%	25 - 29%	30-34%	35% +	Not computed
<\$10,000	54	0	0	0	0	42	12
\$10,000 – 19,999	216	34	44	43	22	73	0
\$20,000 - 34,999	161	0	9	33	0	110	9
\$35,000 +	721	196	51	82	116	262	22

Table 11: Household Income in by Gross Rent as a Percentage of Household Income ¹

*Note:*¹ *The universe for this Table is specified renter-occupied housing units. Source: 2010 U.S. Census, for Township, ACS 5-year estimates DP-04*

Analysis of Demographic Characteristics

As with the inventory of the municipal housing stock, the primary source of information for the analysis of the demographic characteristics of the Township's residents is the 2000 U.S. Census. The data collected in the 2000 Census provide a wealth of information concerning the characteristics of the Township's population.

The 2000 Census indicates that the Township has 26,652 residents, or 2,078 more residents than in 2000, an 8% increase. The Township's 8% increase in the 2000's compares to a 8.7% increase in Somerset County and an 4.5% increase in New Jersey. The age distribution of the Township's residents is shown in Table 12. The Township's male population is predominant in younger age groups from 0-19 with females being predominant in all other groups.

Age	Total Persons	Male	Female
0-4	1,389	713	676
5 – 19	6,764	3,541	3,223
20 - 34	2,156	1,022	1,134
35 - 54	9,473	4,437	5,036
55 - 69	4,305	2,126	2,179
70 +	2,565	1,042	1,523
Total	26,652	12,881	13,711

Table 12: Population by Age and Sex

Source: 2010 U.S. Census, for Township, ACS 5-year estimates DP-04

Table 13 compares the Township to the County and State for the same age categories. The principal differences among the Township, County, and State occur in the 0-4, 5-19 and 35-54 where the Township has more population than the County or State. However the Township has fewer persons in the 20-34 age groups than the County and State.

Table 13: Comparison of Age Distribution
for Township, County, and State (% of persons)

Age	Bernards Township	Somerset County	New Jersey
0-4	5.1	6.3	6.3
5-19	26.2	21.1	20.1
20-34	8.5	15.8	18.6
35 - 54	34.4	33.7	30.3
55 - 69	16.2	14.7	15.1
70 +	9.5	8.6	9.5
Median	42.2	39.7	38.5

Source: 2010 U.S. Census, for Township, ACS 5-year estimates DP-04

Table 14 provides the Census data on household size for the Township, while Table 15 compares household sizes in the Township to those in Somerset County and the State. The Township differs from the County and State in terms of the distribution of household sizes by having a higher number of households with one person and fewer 3 person households.

Household Size	Number of Households (%)
1 person	26.9
2 persons	27.6
3 persons	16.2
4 or more persons	29.4

Table 14: Persons in Household

Source: 2010 U.S. Census, for Township, ACS 5-year estimates

Table 15: Comparison of Persons in Household for Township, County, and State (% of households)

Household Size	Bernards Township	Somerset County	State
1 person	26.9	22.8	26
2 persons	27.6	30.4	30.3
3 persons	16.2	18.2	17.3
4 or more persons	29.4	28.7	26.4

Source: 2010 U.S. Census, for Township, ACS 5-year estimates

Table 16 presents a detailed breakdown of the Township's population by household type and relationship. There are 6,296 family households in the Township and 2,203 non-family households; a family household includes a householder living with one or more persons related to him or her by birth, marriage, or adoption, while a non-family household includes a householder living alone or with non-relatives only. In terms of the proportion of family and non-family households, the Township has fewer family households than the County (70.9% for the Township, 72.8% for the County, and 69.2% for the State).

-	• -
	Total
In family Households:	6,296
Married Couples	5,597
In Non-Family Households:	2,203
Male householder:	755
Living alone	633
Not living alone	122
Female householder:	1,448
Living alone	1,340
Not living alone	108

Source: 2010 U.S. Census, for Township, ACS 5-year estimates

Table 17 provides 2010 income data for the Township, County, and State. The Township's per capita and median incomes are higher than those of the State and County for household income. The definitions used for households and families in Table 17 are similar to those identified in the description of Table 16, so that the households figure in Table 17 includes families.

		I / V	·	
	Per Capita	Median Income (Dollars)		
Jurisdiction	Income (Dollars)	Households	Families	
Bernards Township	67,809	123,285	153,906	
Somerset County	47,067	97,440	115,214	
New Jersey	34,858	69,811	84,904	

 Table 17: 1999 Income for Township, County, and State

Source: 2010 U.S. Census, for Township, ACS 5-year estimates

Table 18 addresses the lower end of the income spectrum by providing data on poverty levels for persons and families. According to the data in Table 18, the Township proportionally has less persons and families qualifying for poverty status than do the County and State. Thus, the non-family households have a larger share of the population in poverty status.

(% with 1999 income below po	overty)
Persons (%)	Fami

Jurisdiction	Persons (%)	Families (%)
Bernards Township	32.1	24.8
Somerset County	34.1	31.1
New Jersey	27	30.5

Source: 2010 U.S. Census, for Township, ACS 5-year estimates

The U.S. Census includes a vast array of additional demographic data that provides insights into an area's population. For example, Table 19 provides a comparison of the median year persons moved into their homes between the years; this is a surrogate measure of the mobility/stability of a population.

Percent living in same house in 1995
2000
2000
2001

Source: 2010 U.S. Census, for Township, ACS 5-year estimates

Table 20 compares the educational attainment for Township, County, and State residents. The data indicates that Township resident's exceeds the County and State for residents in educational attainment.

(Persons 25 years and over)					
Jurisdiction	Percent (%) high school graduates or higher	Percent (%) with bachelor's degree or higher			
Bernards Township	96.8	66.8			
Somerset County	94.7	53.8			
New Jersey	90.1	37.8			

 Table 20: Educational Attainment for Township, County, and State Residents (Persons 25 years and over)

Source: 2010 U.S. Census, for Township, ACS 5-year estimates

The 2010 Census also provides data on the means of transportation which people use to reach their place of work. Table 21 compares the Census data for the Township, County, and State relative to driving alone, carpooling, using public transit, and using other means of transportation. The Township has a relatively high percentage of those who drive alone, and a relatively low percentage of workers who carpool or use public transit. Of the 10% of workers who reside in the Township and use other means of transportation to reach work, 929 workers work at home and 180 workers walk to work.

 Table 21: Means of Transportation to Work for Township, County and State Residents (Workers 16 years old and over)

Jurisdiction	Percent who drive alone	Percent in carpools	Percent using public transit	Percent using other means
Bernards Township	78.9	4.9	6.1	10
Somerset County	78.1	9.3	5.4	7.1
New Jersey	71.6	9	10.6	8.8

Source: 2010 U.S. Census, for Township, ACS 5-year estimates

CHAPTER V – CIRCULATION PLAN ELEMENT

INTRODUCTION

Bernards Township's transformation from a remote rural countryside, a patchwork of loosely connected hamlets and farms, to a largely developed and highly desirable suburban community, was largely set in motion by construction of the interstate highway system serving the northern New Jersey region, first with the enhanced access of I-287, and later with the addition of I-78. These arteries charted a direct pathway into major regional employment centers from the more rural countryside, which quickly achieved an identity as an emerging suburb in the Somerset Hills region.

Bernards Township today is well served by a variety of multi-modal transportation facilities, including passenger rail and bus transit service, the Interstate and State highways (I-287, I-78 and Route 202) that traverse the Township, and Highways 206 and 22 that are

within proximity. These highways all provide excellent access to the major employment and activity centers of Northern New Jersey and New York City serve clusters of commercial and development at interchanges within the Township. Several county roads serve local circulation needs. Scheduled rail and bus service also make the Township attractive to regional commuters and contributes to the perception of a high quality of life.

This circulation plan element summarizes the future traffic impact to Bernards Township based on current land use and

Bernards Township is served by a variety of transportation facilities, including County roadways.

traffic data. It also proposes a set of recommended road improvements that may be needed to serve anticipated future traffic volumes.

Figure V-1 (Functional Classification of Roadways) is a map that details the roadway network within Bernards Township, as well as the functional classification of Township roads.

STATUTORY AUTHORIZATION

This section of the Master Plan was prepared in accordance with the Municipal Land Use Law, N.J.S.A. 40:55D-28b:

(4) A circulation plan element showing the location and types of facilities for all modes of transportation required for the efficient movement of people and goods into, about, and through the municipality, taking into account the functional

highway classification system of the Federal Highway Administration and the types, locations, conditions, and availability of existing and proposed transportation facilities, including air, water, road, and rail.

TRAFFIC AND CIRCULATION OBJECTIVES

- Traffic demand generated by development should not exceed the existing and planned capacity of the Township circulation system.
- Future circulation improvements identified in the Traffic and Circulation Plan should be included in capital improvement programs and based upon existing identified needs and the anticipated timing of any substantial new development that may arise.
- Pathways for walking and biking, serving as connections among community facilities (commercial and employment and historic sites, parks, playgrounds, schools, transportation nodes), should be encouraged and considered in all new and redevelopment site plan and subdivision applications.
- Traffic demand management strategies should be explored in conjunction with local employment generators.
- Existing parking facilities should be maintained at commuter rail stations and appropriate bus pick-up and drop-off locations.
- Bernards Township officials should work closely with Somerset County to encourage improvements to County roads identified in the Bernards Township Master Plan.
- Additional sidewalks and bikeways should be considered to connect residential neighborhoods with major pedestrian generators and destinations (schools, recreational facilities, shopping, etc.).
- The Township should continue to require off-tract improvements from developers to provide additional road capacity as needed.
- The Township should continue to require pedestrian circulation ways where appropriate and to connect with major pedestrian generators.
- The Township should improve pedestrian friendliness especially access to commercial and retail services and civic facilities in the historic settlements of Basking Ridge, Liberty Corner, and in Lyons for shopping and access to rail and bus transportation facilities.

To address regional transportation issues, this Circulation Plan Element has been developed with reference to the State Development and Redevelopment Plan (SDRP), the Somerset County Master Plan, the Somerset County Scenic Corridor and Roadway Study (July 1992), Somerset County Circulation Element Update (November 2011), the County's WalkBikeHike Connecting Vibrant Communities Plan (2019), and the Somerset County Electric Vehicle

Readiness Plan (September 2018) "Transportation Choices 2030" (New Jersey Department of Transportation Long Range Plan (2008, not adopted)). The SDRP, which seeks to concentrate growth and development in existing centers and compact nodes in order to reduce public investment and infrastructure costs, supports the Township's planning goals. In addition, the County's Scenic Corridor and Roadway Study supports the Township's comprehensive planning program by designating Route 512 (Liberty Corner Road), as a Scenic Roadway. The 1999 Somerset Traffic Calming Study describes a set of transportation techniques to promote traffic speeds and volumes that are more appropriate to the Township's street environment. NJDOT Transportation Choices 2030 and the NJDOT 5-year Capital Improvement Plans provides programming of regional solutions needed to assist the Township in achieving its goals of protecting and improving air quality, conserving community character and maintaining efficient circulation, which are also supported by Somerset County's ongoing transportation planning policies, such developing a network of Electric Vehicle charging stations throughout the County.

TRAFFIC GENERATION

Existing land use patterns remain essentially unchanged in Bernards Township since the last Circulation Plan update in 2010. However, three noteworthy approved residential projects which addressed municipal affordable housing obligations (inclusionary development) have been approved, including (1) Dewy Meadow redevelopment project, consisting of 198 rental apartments in two buildings, (2) a new rental apartment building at Crown Court, consisting of 24 units, and (3) the Mountain View Boulevard – Corporate Center project that includes 220 rental apartments and 60 townhouse units. The Mountain View Boulevard project replaces a previously approved yet unbuilt 343,965 sq. ft. office development.

The 198 Dewy Meadow rental apartments are partially occupied with full occupancy anticipated in Autumn 2023. The 24 new Crown Court rental apartments are complete and occupied. Construction on the 220-rental apartment and 60-unit townhouse Mountainview Boulevard project site started in 2021, occupancy is anticipated in 2024-2025. The Dewy Meadow apartments will result in additional traffic primarily on King George Road in the vicinity of the I-78 interchange. The new Crown Court apartment building is occupied, and that neighborhood also accesses King George Road via Spring Valley Boulevard. The Mountain View Boulevard development will add traffic on Martinsville Road in the vicinity of the I-78 interchange. The sites were selected for inclusionary development, in part, to best accommodate added traffic volumes increases at locations readily accessible to the interstate highway. The new residents will also utilize local roadways; however, traffic impacts to the community will be tempered somewhat by the fact that most trips will often utilize I-78.

In addition to these three inclusionary developments, additional major development has been approved by the Zoning Board of Adjustment. These approvals include: (1) a 100-bed assisted living facility on Valley Road, and (2) a 105-bed senior living (assisted living) facility redevelopment project at the corner of Mount Airy Road and Whitenack Road that was completed in Spring 2023.

The Planning Board also approved an additional 73,255 sq. ft. addition to the existing Memorial Sloan Kettering site on Mountain View Boulevard (remains unconstructed as of this Plan's publication date).

The following table lists all approved major development construction projects expected to be completed and occupied by 2025. These are depicted on Figure V-2, Location of Planned Major Developments). A 73,255 sq. ft. Memorial Sloan Kettering approved expansion may or may not be constructed in this time frame.

TABLE V-1 PROJECTED LAND ACTIVITY - Design Year 2025

Residential Development	
Dewy Meadow:	198 rental apartments
Crown Court:	24 rental apartments
Mountain View Boulevard:	220 rental apartments
	60 townhouse units
Valley Road:	100 beds, assisted living
Mount Airy/Whitenack Road	105 beds, assisted living
Office Development	
Memorial Sloan Kettering	73,255 sq. ft.

Based on current land use data, morning and evening trip ends were calculated for major approved developments (at various phases of the construction process) that are expected to become fully occupied during approximately 2023-2025. Trip generation rates from the Institute of Transportation Engineers (ITE) <u>Trip Generation Manual</u>, 7th Edition were used to calculate projected trip ends. Total trip ends Township-wide appear in Table V-2A below.

Approximately **377** trip ends will be added during the morning peak hour, and **459** evening peak hour trip ends will be added as shown in Table V-2A below. These estimated trip ends are 404 and 617 morning and evening peak hour trip ends less than the 781 and 1,076 morning and evening peak hour trips estimated for existing and approved developments that were displaced by the new development, which are identified in the following paragraph and in Table V-2B below.

This compares to an estimated 781 trip ends during the morning peak hour and 1,076 evening peak hour trip ends that will not materialize on local roads due to four (4) developed and approved sites that were converted to residential development sites listed in Table V-I above, including: (1) a 46,000 sq. ft. supermarket and 27,700 sq. ft. of retail space at Dewy Meadow Village, (2) an approved 343,956 sq. ft. office development on Mountain View Boulevard (#3 in Table V-2A below), and (3) a 12,000 sq. ft. house of worship on the corner

of Whitenack Road and Mount Airy Road. The traffic generation associated with these sites is identified in Table V-2B below.

The traffic generation that is projected to materialize in Bernards Township between 2023 and 2025 is 377 morning peak hour trip ends and 459 evening peak hour trip ends. This traffic generation subtracted from the traffic for uses listed in Table V-2B results in 404 fewer vehicle trip ends in the morning peak hour (781-377); and 617 fewer vehicle trip ends in the evening peak hour (1,076-459) than would have materialized if the Table V-2A sites had not replaced the existing and approved sites listed in Table V-2B.

	YEARS 2023-25						
	Major Developments	Morning Hoi	9	AM Peak Hour Total		ening Hour	PM Peak Hour Total
		Enter	Exit		Enter	Exit	
1.	Dewy Meadow Shopping Center redevelopment, King George Road (198 rental apartments)	19	72	91	75	40	115
2.	Crown Court rental apt. building, Crown Court (24 rental apts.)	2	9	11	9	5	14
3.	Mountain View (220 rental apartments)	21	80	101	83	45	128
	Mountain View (60 townhouse units)	5	22	27	21	10	31
4.	Braemar Partners, Assisted Living Facility, 3066 Valley Road (80-units, 100 beds)	12	7	19	10	16	26
5.	LCB Senior Living Holdings, 219 Mount Airy Road (94- units, 105 beds)	13	7	20	10	17	27
6.	Mountain View – Memorial Sloan-Kettering, Mountain View Blvd. (73,255, phase 2B)	68	40	108	45	73	118
	TOTALS - 2023	140	237	377	253	206	459

TABLE V-2A FUTURE TRIP GENERATION - MAJOR LAND DEVELOPMENT DESIGNYEARS 2023-25

	Demolitions, Abandoned	Morning Peak Hour		AM Peak Hour Total	Evening Hour	Peak	PM Peak Hour Total
	Approval, Conversion	Enter	Exit		Enter	Exit	
1.	Demolition - Dewy Meadow Shopping Center (42,000 sq. ft. supermarket)	84	53	137	224	215	439
2.	Demolition - Dewy Meadow Shopping Center 27,700 sq. ft. general retail)	18	11	29	50	54	104
3.	Abandoned Approval - Mountain View Corporate Center (343,965 sq. ft. office)	533	66	599	72	444	516
4.	Conversion - 12,000 sq. ft. House of Worship	8	8	16	10	7	17
	Totals:	643	138	781	356	720	1076

TABLE V-2B EXISTING DEVELOPMENT DEMOLITIONS, ABANDONED APPROVAL AND CONVERSION MAJOR LAND DEVELOPMENT DESIGN YEARS 2023-25

TRAFFIC VOLUME ANALYSIS

The Township's previous Master Plans in 1982, 1989, 1996, 2003 and 2010 have detailed needed improvements to the circulation system in Bernards Township. Most of these improvements have been accomplished. As elaborated below, the widening of various collector roadways was not deemed practical or desirable and are the only recommended major improvements that have not been completed. Except for the major land development projects associated with Bernards Township's State constitutional affordable housing obligations, residential and commercial development in Bernards Township has slowed down tremendously during the last twenty years. This reduced growth rate has not added appreciably to the overall traffic volumes seen in the Township.

More recently, work behavior and commuting requirements drastically changed by the work from home response to the COVID19 pandemic and reduced local traffic congestion in 2020,

2021 and to a lesser extent in the first quarter of 2022. This trend is expected to reverse somewhat as pre-pandemic levels of activity return to normal in 2022 and 2023. However, work from home changes in the workplace are expected to remain permanent and result in an overall reduction of the Township's day-to-day normal pre-pandemic traffic volumes.

The future trip generation anticipated (see Table V-2A) to be added to the existing traffic volumes is not expected to negatively impact the capacity of the existing roadway network. However, safety concerns and localized capacity improvements must be continuously reviewed and when warranted, solutions should be implemented.

ROADWAY IMPROVEMENTS

Improvements to the roads in Bernards Township have already been constructed by the public and private sectors, including the rehabilitation of existing facilities, construction of the Somerville Road Extension and, widening or capacity enhancement of others to accommodate local and regional traffic needs. There are presently 20 traffic signals in the Township, predominantly along the major County Roads of Martinsville Road, South Finley Road and Valley Road. The latest traffic signals installed by Somerset County include a light at the intersection of South Finley Avenue, Lake Road and the entrance to Ridge High School, and a light at the southbound I-287 off ramp at Mount Airy Road. Stop signs have been fitted with flashing lights as an enhanced safety measure at the intersection of the Somerville Road Extension, Canterbury Way and Minebrook Road and on each stop sign at the 4-way stop at the intersection of Somerville Road and Church Street (CR512).

ROADWAY NEEDS

Previous master plan traffic studies and capacity calculations of North Maple Avenue, South Finley Avenue, Mount Airy Road and King George Road have indicated that four travel lanes would be needed to adequately serve peak hour demands. However, widening roadways in the Township would violate one of the main recommendations of this master plan and previous master plans which is to maintain the character of established neighborhoods and to protect the quality of life in the Township. Furthermore, due the very short duration of peak traffic demands (morning and evening peak hours), four (4) lanes are not practical or desirable. This Master Plan update emphasizes the prior Circulation Pan policy that two lanes of traffic (one lane in each direction) are desired and recommended for these roads with only limited minor improvements where needed for traffic safety purposes.

INTERSECTION NEEDS

Capacity and safety concerns are anticipated at several intersections in the Township. Past Circulation Plans have called attention to increased volumes that may indicate the need for signalization at the Mount Airy Road intersections with West Oak Street and with Lake Road, and Canterbury Way intersection with Old Mine Brook Road – all subject to ongoing

monitoring and accident statistics. The Canterbury Way and Old Mine Brook Road intersection concern has been addressed with recent improvements including stop signs with flashing light on Canterbury and the Somerville Road extension and speed humps on Old Mine Brook Road. The signalized intersection of Route 202 and North Maple Avenue (under NJDOT jurisdiction) recently received capacity and lane striping improvements. The triangle intersection of Church Street, Lyons Road and Valley Road, in the heart of Liberty Corner, has in the past indicated a need for attention to safety concerns, and is being monitored by Somerset County for future improvements. It is the policy of this Master Plan that any improvements needed at this location should be designed with sensitivity to the modest scale, historical context, and rural character of Liberty Corner.

The Township Engineer observed that increased traffic volume indicates the need for a consideration of future signalization of the following intersections: Stonehouse Road and Haas Road, South Maple Avenue and Cross Road, Spring Valley Boulevard at Acken Road, which has the potential for a roundabout in lieu of a traffic signal, and Valley Road at Acken Road. Monitoring and studying the need for these improvements is recommended.

In the 2019 Periodic examination of the Master Plan, the Planning Board identified a recommendation to investigate signal timing at Ridge High School to determine whether school traffic causing excessive wait times and stacking on South Finley Avenue and Lake Road could be reduced. The Township Engineer reported that this has been studied and it was determined that additional signal timing adjustments will not improve the situation. It has been suggested and the Planning Board recommends that Ridge High School address this situation by building a loop road around the school and redesigning campus circulation to relieve the traffic congestion. However, since the Planning Board examined the loop road recommendation, a second access route to the Ridge High School campus has been approved and paved. An existing gravel driveway on the east side of the High School campus that extends between the High School parking lot and municipal parking lot at the Collyer Lane municipal complex has been paved to facilitate access between the two sites, provide a second driveway access to the High School from Collyer Lane and relieve congestion at the High School driveway traffic light on South Finley Avenue.

SUGGESTED ROADWAY IMPROVEMENTS

Anticipated capacity and safety deficiencies on Bernards Township roads are noted in the previous section, but because of their anticipated undesirable physical impacts on community character it is not practical to implement many of these projects. The Planning Board reviewed, updated and supplemented the 2010 Master Plan Suggested Roadway Improvements list in the 2019 Master Plan Periodic Reexamination Report, and identified suggested additional roadway improvements that should be considered over the coming 10-year planning horizon. Specific projects, which are practical, have been selected for implementation. Many of these were noted in the previous Transportation Management Plan prepared for Bernards Township in 1989, 1996 and 2003 and the 2010 Circulation Plan Element of the Master Plan.

The "Suggested Roadway Improvements," Table V-3 below, was reviewed by the Police Chief and Township Engineer and supplemented with their suggestions for additional roadway improvements to be incorporated into this 2023 Master Plan update. The improvements listed include recommendations developed in the Planning Board's 2019 Master Plan Reexamination Report. The numbering of the list has no bearing on the order of importance for each suggested roadway improvement. However, addressing the High School traffic situation with new paved access through the municipal complex to Collyer Lane is expected to yield an immediate improvement to the persistent traffic congestion problem at Ridge High School. The location of each suggested roadway improvement is depicted on Figure V-3, Suggested Roadway Improvements.

TABLE V-3					
SUGGESTED ROADWAY IMPROVEMENTS					
2010 Circulation Plan	2019 Periodic Reexamination &				
Recommendations	2023 Master Plan Recommendations				
1. Mt. Airy Road and SB I-287 off ramp –design and install a traffic signal at this location.	COMPLETED				
2. Somerville Rd. and Liberty Corner Rd. / Church Street – Monitor traffic operations.	Enhanced Four-Way Stop Sign controls and a flashing signal has been installed – continued monitoring recommended.				
3. Old Mine Brook Road and Somerville Road Extension/Canterbury Way – Monitor traffic operations for sight distance and safety issues	Intersection traffic calming in 2019, including Somerville Road pedestrian and bike path extension from Mine Brook to Harry Dunham Park, Continued monitoring recommended for possible future traffic light.				
4. Mount Airy Road and West Oak St. Monitor traffic conditions for possible traffic signal improvement - safety and capacity. (County)					
5. Church St. and Valley Rd./Lyons Rd.– Improve sight distance, alignment. (County)	Sight distance remains an ongoing concern at the triangle.				
6. Route 202 and North Maple Avenue – Monitor for possible intersection capacity improvements and add line striping on northbound approach. (NJDOT)	COMPLETED with left turn and signal.				
7. Mt. Airy Road and Lake Road intersection- Monitor traffic conditions for possible traffic signal improvement - safety and capacity (County)	Continued monitoring recommended.				

TABLE V-3 SUGGESTED ROADWAY IMPROVEMENTS				
2010 Circulation Plan Recommendations	2019 Periodic Reexamination & 2023 Master Plan Recommendations			
8. Mt. Airy Road and Canterbury Way intersections – Monitor traffic conditions for possible traffic signal improvement - capacity concern. (County)	Continued monitoring recommended.			
9. Childs Road at Route 202 – evaluate for road widening and improved intersection capacity.	Added 2019 Periodic Reexamination.			
10. Mountainview Blvd. at Martinsville Rd – evaluate to ease congestion exiting 100 Marketplace.	Added 2019 Periodic Reexamination.			
11. Ridge High School – consider and evaluate improvements to ease traffic flow, including possible signal timing adjustments to reduce peak hour delays on Lake Road and South Finley Ave.	Added 2019 Periodic Reexamination. Signal timing adjustments have been studied and none can be made to better relieve traffic congestion; A Township Committee approved secondary access driveway through the One Collyer Lane municipal campus to the High School Campus to relieve peak hour traffic congestion at main South Finley has been completed (Autumn 2023).			
12. Stonehouse Rd. / Lyons Rd. / South Finley – evaluate for intersection improvements and signal timing adjustments to decrease intersection congestion, delays and peak hr. stacking at light.	Added 2019 Periodic Reexamination.			
13. Martinsville Road southbound from I-78 to Mountain Park (Mountain Road).	Evaluate to ease congestion at all times of travel.			
14. Stonehouse Road and Haas Road, possible future traffic signal.	Study/monitor to determine need for future traffic signal.			
15. South Maple Avenue and Cross Road, possible future traffic signal.	Study/monitor to determine need for future traffic signal			
16. Spring Valley Boulevard at Acken Road, possible traffic signal. Potential for roundabout in lieu of a traffic signal	Study/monitor to determine need for future traffic signal. Evaluate for potential roundabout in lieu of a traffic signal.			
17. Valley Road at Acken Road, possible traffic signal.	Study/monitor to determine need for future traffic signal.			

A "Problem Statement" for each suggested roadway improvement listed above may be submitted by the Township to the County Highway Department and the State Department of Transportation (NJDOT), depending on roadway jurisdiction. The Problem Statement, once submitted, initiates an investigation, or reinforces the need for continued investigations into these areas of concern with the County or NJDOT.

<u>Sight Distance Obstructions</u> - A roadway improvement related concern is the recommendation to address intersection sight obstructions. As neighborhoods mature, landscaping and existing hedgerow growth can become a sight distance hindrance. The Township should consider a municipal ordinance amendment to require sight distance clearing at roadway intersections in certain situations. The following road intersections are cited *only as examples of locations* where existing sight distance obstructions from overgrown and misplaced vegetation are believed to exist that illustrate this concern:

- 1. Whitenack Road & Meeker Road.
- 2. Somerville Road Extension, Canterbury Way and Minebrook Road.

Additional suggested intersections for study are depicted on Figure V-4, Intersection Clearing Improvements.

The Township should evaluate these intersections to determine whether sight distances are impaired by vegetation or structures. The Bernards Township Police Department should be consulted to determine whether accident statistics bear a relationship to sight distance obstructions by vegetation anywhere in the Township. The concern related to intersection sight lines could be addressed through an ordinance amendment to eliminate unnecessary blind spots and improve traffic safety. A sample ordinance provision to address this safety consideration is identified below:

§ Visibility at Intersections:

On a street corner, a fence, structure or planting over 24 inches in height above the curb or edge of roadway shall not be erected or maintained within a triangle formed by the intersecting street right-of-way lines and a line connecting said right-of-way lines and located 50 feet from their point of intersection.

The requirements in this sample ordinance could require a significant amount of clearing, which may not always be desirable. Extensive clearing and improved sight distances at intersections can sometimes result in the undesirable effect of encouraging higher traffic speeds where visibility improves, which raises another safety concern on narrow rural roads that still exist throughout the Township. The benefits of a sight distance regulation should be weighed against the competing safety concern. Intersection clearing could have the opposite effect of improving traffic safety where existing sight distance conditions at specific locations may actually serve to moderate traffic speeds thereby maintaining a better margin of traffic safety, despite the inconvenience of requiring additional driver care when negotiating an intersection.

An additional sight distance concern is identified at the narrow bridge on Whitenack Road and accompanying blind curve. The road geometry combined with an older home situated close to the side of the road poses a visibility issue. The Township could consider adding roadside mirrors for drivers to better see oncoming traffic.

SUGGESTED TOWNSHIP-WIDE IMPROVEMENTS

Basking Ridge and Liberty Corner Business Districts have been the subject of a detailed evaluation to examine the inter-relationship between business district circulation and parking needs. The Township should seek further improvements that will increase safety both vehicular and pedestrian, while still serving the local parking and access needs of the districts. In Basking Ridge Village, the Township should continue to look for opportunities to provide additional and convenient parking areas.

Recent Improvements Include:

- The implementation of the municipal parking area on South Maple Avenue. This is an important asset to Basking Ridge business and civic uses.
- Traffic calming measures such as the curb extensions installed at the corner of South Finley Avenue and Henry Street. This is a good example of traffic calming that served to reduce vehicular speeds and enhance pedestrian safety.
- Landscaped traffic islands and colored and textured crosswalks throughout the Township have yielded great benefits and should be encouraged. It has been found that these landscaped islands function as a traffic calming measure that slows traffic speeds (to view the multi-colored and seasonal flowers). Textured and colored crosswalks enhance the visibility of the crosswalk which enhances pedestrian safety.

The 2010 Master Plan recommended encouraging traffic demand management strategies for the Township's larger employers and office parks as a means of relieving peak-hour traffic congestion. These strategies would include encouraging employers to develop ridesharing or flextime programs for their employees.

BERNARDS TOWNSHIP SCENIC CORRIDOR AND ROADWAY STUDY

Site plan and subdivision standards may have the greatest role in protecting scenic qualities as they can control and manage the location of buildings, configuration of lots and roads and alteration of the landscape. Creative and flexible development options are recommended, and while these may include clustering or lot-size averaging development, opportunities for these alternative development patterns may be limited by the generally rural and older, wellestablished settlement areas traversed by the Township's roadways and dwindling undeveloped land resources. Nevertheless, Bernards Township should explore and evaluate the potential benefits of scenic corridor preservation, both to reinforce the Neighborhood Conservation and Preservation Program and to prioritize roadways based on the scenic resource values. Views along major roadways such as North Finley Avenue, Stonehouse Road, North and South Maple Avenues and Mountain Road should be preserved for their historic and rural vistas. Furthermore, views along

roads such as Pond Hill Road, Whitenack Road and Minebrook Road should be maintained in their present state. Good examples of protection of viewsheds are along Stonehouse Road with the clustered developments of The Summit and Sherbrooke.

An example of a scenic resource corridor protection ordinance to codify standards to protect views along certain municipal roadways deemed worthy of scenic corridor protection is provided below:



Bernards Township continues to implement off-street bikeways and bike routes

- **§** Scenic Corridor Protection Requirements:
 - a. A scenic corridor road buffer easement, 50 feet in width, shall be provided adjacent to the street right-of-way, in addition to the shade tree easement and/or sight easement which may be required.
 - b. The minimum fifty-foot buffer easement shall be replanted with similar vegetation wherever natural vegetation is removed.
 - c. Common driveways shall be utilized to limit new driveway cuts, and limited access for new streets shall be permitted in order to maintain the character of the scenic corridor.
 - d. To the maximum extent possible, scenic and rural and historic features along the roads, such as stone rows, hedgerows, stone retaining walls and fences, should not be disturbed.
 - e. Sidewalks should be separated from the roadway, meandering and constructed of materials that serve to maintain and reinforce the character of the scenic corridor.

BIKEWAYS AND BIKE ROUTES

Bernards Township has actively pursued implementation of an enhanced bikeway and bike route system for years. Future bikeways and bike routes have been planned to link the existing routes with generators and destinations such as schools, parks and public facilities as shown in Figure V-5, Bicycle, Pedestrian, and Greenway Plan. Site plans and subdivisions should provide links to the existing and proposed bikeway system and provide bike racks where appropriate. Combined bicycle and pedestrian facilities enhance access where rightof-way widths limit the separation of these facilities. The recently completed (2019) pedestrian-accessible and bicycle path between Old Mine Brook Road and Harry Dunham Park along Somerville Road is a good example of this type of multi-modal linkage for residents to safely access recreation.

Somerset County's November 2011 Circulation Plan update identified 500 and 600 level routes considered "bicycle compatible" based on "NJDOT's matrix of bicycle compatible roadway design found in NJDOT's Bicycle Compatible Roadways and Bikeways Planning and Design Guidelines. Bicycle compatibility was determined using several roadway criteria, including the volume of traffic, speed limit, character (urban or rural), lane width, shoulder width, and presence of on street parking." Somerset County adopted an update to the County Circulation Plan in November 2019, entitled WalkBikeHike. The Plan identifies future bicycle path improvements on County Roads in Bernards Township, as indicated below.

Road Segment	Bicycle Compatible
CR525	Buffered Bike Lane - Canterbury Way to Berkeley Circle
Mount Airy Road	Bike Lane – Berkeley Circle to West Oak Street
CR624	Bike Lane – Mount Airy Road to South Finley Avenue
West Oak Street	
CR652	Bike Lane - Somerville Road to Martinsville Liberty Corner
Allen Road	Road
Somerville Road	Bike Lane – Allen Road to Liberty Corner Road/Church Street
	(Somerville Road not under County jurisdiction)

In addition to establishing linkages among neighborhoods, commercial centers, schools and other civic uses, the County's objective is to establish linkages to existing mass transit stations to facilitate access for increased ridership.

SIDEWALKS AND PEDESTRIAN CIRCULATION

Since 1990, pedestrian circulation improvements must respond to the requirements of the American with Disabilities Act, which seeks to remove or prevent access impediments to persons with disabilities, which has been addressed by the Township over time. The existing and future bikeways provide an accessible route of pedestrian and bike travel that will improve convenience and safety and promote non-vehicular travel. The utility, convenience and quality of life benefits to providing safe pedestrian access are well known to Bernards Township residents and are supported in this Plan and by the Township as a planning principle. The "Guide for Residential Design Review" (Moskowitz & Lindbloom, 1976) notes, "Apart from the need for sidewalks for circulation and safety, sidewalks can be an important element in the recreational system of a community. They serve as walking and biking trails for all age groups ... and are also the primary informal and unsupervised recreational system for preschoolers ... (and) should be required as part of any large-scale residential development." Others have gone even further, stating, "Sidewalks are a more important recreational facility than playgrounds."³⁰. The State Development and Redevelopment Plan

³⁰ Site Planning, Lynch & Hack, 1984

echoed this message beginning in 2003 by stating "New Jersey's communities are healthy, active communities where adults and children are living active, healthy lives because exercise and walking are a vital part of their daily lives. Communities are designed to promote walking and cycling for transportation and recreation". These transportation planning principles have become embedded in State and County and local transportation policies.

It is generally accepted that sidewalks should be provided along streets used for access to schools, parks, shopping and transit stops (Model Subdivision and Site Plan Ordinance, NJDCA, 1987). The model ordinance also notes that "... sidewalk requirements should be based on the street classification system and on density of development as measured in terms of lot size, lot frontage or number of housing units per acre." Street classification is particularly important to safety since traffic volumes and speeds increase as roads assume higher traffic circulation functions. Density affects the extent of pedestrian movements to be generated, and in higher density developments sidewalks are important for both convenience and safety. The absence of sidewalks on busy streets causes pedestrian movements in the paved cartway of the street and conflict with traffic movements and creates potential safety hazards.

In conventional developments, sidewalks should be placed in the right-of-way, parallel to the street, unless an exception has been permitted to preserve topographical or natural features, to provide visual interest, or where an alternative pedestrian system provides safe and convenient circulation, and these types of design exceptions should be thoughtfully and liberally granted when proposed pedestrian and bicycle improvements will serve as links among neighborhoods, transportation routes and other community destinations. Wherever possible, sidewalks should be designed with a planting strip separating the curb and sidewalk. In planned developments, sidewalks may be located away from the road system to link dwelling units with other dwelling units, the street, and on-site activity centers such as parking areas and recreational areas. Sidewalks should also be required parallel to the street for safety and other reasons. It can be a challenge to establish sidewalks in developed areas due to existing conditions. New sidewalk construction in areas of existing neighborhoods should be very conscious of the concerns of the affected residents. It is a long-standing Township policy only to install new sidewalks where needed for safety reasons and in areas where the majority of the adjacent property owners have consented to the installation. However, consideration should be given to the type of road and the need for pedestrian safety. The need for sidewalks on a quiet residential street is not the same as a heavily trafficked road.

Bernards Township residents have made excellent use of the Township's existing network of sidewalks and walking paths wherever they exist, including commercial centers, neighborhoods and trails in parks natural areas. Sidewalks and paths are a valuable quality of life resource that support residents' daily exercise habits, access to schools, parks, and commercial shopping. Sidewalks and paths contribute to the vibrancy of the community.

GREENWAY RECOMMENDATIONS

The Recreation, Parks, and Pathways (RPP) Committee reviews future pathway locations that will create a safe walking, jogging and biking circulation system throughout the Township.

Its mission is to "enhance the lives of Bernards Township residents by offering diversified opportunities of leisure interests by providing parks, pathways, physical infrastructure, and programming necessary to pursue these needs." Community surveys, planning exercises, direct feedback at the town-sponsored Charter Day, and the regular ability to solicit teams of volunteers for establishing and cleaning trails have demonstrated broad and consistent community support for this mission.

Central to this mission is the establishment of *paths*. A *path* is a route for walking or biking; the term is interchangeable with the terms *sidewalk*, *bikeway* and *trail*. Examples of paths include a painted bike lane on a public street, a concrete sidewalk, an off-road bikeway, an asphalt, turf, or chip path trail, and a dirt path through woods. The design and construction of a path depends on its intended usage and user population and may vary from simple markers through undeveloped open space to a concrete or macadam walkway.

The RPP identified a set of proposed paths for walking and biking throughout the Township as shown on the Bicycle, Pedestrian, and Greenway Plan (Figure V-5). Particular attention was paid to paths that facilitate school access, close missing links between existing paths, and provide access to Township open space. All of the paths were numbered and recorded in the Township GIS system, along with path attributes to identify the most likely user group (i.e., walkers, bikers), usage (e.g., school access, recreation), proposed construction (e.g., dirt, 8-foot-wide asphalt), and proposed positioning relative to nearby roads, property, or streams.

The success of the RPP plan requires long-term careful and consistent implementation, and the ability to act on new opportunities as they arise. Most proposed paths are on land that is either currently owned by the Township or that has a Township right-of-way that can be used for a path. In a few cases, a path will require some sort of acquisition by the Township, be it open space acquisition, right-of-way acquisition, or some other means to acquire public access rights. The RPP has highlighted the need to enhance the paths in the current plan that currently lack public access and improve safe walking and biking with *new* paths that fill missing links, provide school access, provide open space access, and meet other key community needs. Development proposals before the Planning and Zoning Boards should be reviewed with an eye towards expanding walking and biking opportunities and linkages as generally depicted on Figure V-5.

ELECTRIC VEHICLE CHARGING STATIONS

At present, most electric vehicle charging takes place in the home. A local network of public use electric vehicle charging stations is spontaneously building out in response to market

demand. There are six (6) public use electric vehicle charging stations identified in Bernards Township: (1) Dewy Meadow Shopping Center (Tesla Supercharger at 415 King George Road; and OpConnect Charging Station at 403 King George Road); (2) a ChargePoint facility at the rear of the new Dewy Meadow apartments on the west end of Dewy Meadow, (3) a ChargePoint facility at 2129 Fellowship Road in Fellowship Village, and (4) ChargePoint facility at Pingry School, (5) a Flo Charging Station at 65 South Maple Avenue in Basking Ridge and (6) a ChargePoint Charging Station at the Olde Mill Inn on Morristown Road (225 US Route 202). Bernards Township installed two ChargePoint charging stations for municipal use at two locations: The municipal complex at 1 Collyer Lane and the Department of Public Works at 277 South Maple Avenue.

NJ Statewide Electric Vehicle Charging Station Law

On July 9, 2021, P.L. 2021, c. 171, was signed into law and "requires that Electric Vehicle Supply/Service Equipment (EVSE) and Make-Ready parking spaces be designated as a permitted accessory use in all zoning or use districts and establishes associated installation and parking requirements related to EVSE in New Jersey's 565 municipalities.³¹ A model ordinance for municipalities to implement the law has been published by the NJDCA. The requirements of the law are mandatory irrespective of whether the local jurisdiction adopts the model ordinance promulgated by NJDCA.

The requirements of the law are summarized below:

- a. Existing buildings/sites: Issuance of a zoning permit to install electric vehicle supply equipment (ESVE) without site plan approval.
- b. Multi-unit residential sites with five or more units: Provide 15% as "make ready" ESVE spaces, install charging equipment in one-third of the requirement at the time of construction, install the remainder of the requirement within 6-years of certificate of occupancy. 5% of the make ready spaces have to comply with the American with Disabilities Act.
- c. Nonresidential site plan applications with parking lot or a garage are required to install (a) at least 1 make ready space in a parking lot with 50 or fewer parking spaces, (b) at least two make ready spaces if 51 75 parking spaces, (c) at least three make ready spaces if 76-100 parking spaces, (d) at least four make ready spaces if 101-150 parking spaces, (e) at least 4% make ready spaces if 151 parking spaces. The developer may install ESVE in lieu of the make ready spaces required.
- d. There is no requirement for nonresidential developments with 25 or fewer parking spaces.
- e. The law permits an applicant to count each ESVE or make ready space as two parking spaces toward the requirement, but only up to 10% of total required parking.

These are mandatory requirements that apply to all development in every municipality in New Jersey, irrespective of whether a municipality adopts the Statewide Model Ordinance published by NJDCA. Because the law is subject to change over time, the Township has

³¹ NJ Department of Community Affairs (NJDCA) website.

decided to forgo adoption of the model ordinance at this time, and instead to be guided by the statute in implementing these requirements. (Additional Electric Vehicle discussion can be found below and in Chapter II - Land Use Plan & Chapter VIII - Conservation Plan Element)

REGIONAL CIRCULATION PLANNING

SOMERSET COUNTY CIRCULATION PLAN

The County Planning Department maintains the Somerset County Circulation Plan Element. The County Engineering Department is responsible for maintenance and improvement of County roads and bridges and all capital improvements to the County Road system.

Somerset County Engineering Department

Somerset County maintains the following roads in Bernards Township:

BERNARDS TOWNSHIP					
Route No.	Local Road Name(s)	From	То		
512	Liberty Corner Road, Church Street, Valley Road	Douglas Road	Morris County Corporate Line		
525	Martinsville Liberty Corner Rd, Mount Airy Road	Bridgewater Township Line	West Oak Street CR 624, Pill Hill Rd., Bernardsville Line		
613	Stonehouse Road, South Finley and North Finley Avenue	Valley Road CR 512	Bernardsville Borough Line		
624	West Oak Street, East Oak Street	Mount Airy Road CR 525	South Maple Avenue CR 657		
640	Lyons Road, South Finley Avenue	Church Street CR 512	Stonehouse Road CR 613		
651	King George Road	Warren Twp. Line (North of Route 78)	Valley Road CR 512		
652	Allen Road	Bedminster Township Line	Martinsville Liberty Corner Rd CR 525		
657	South Maple Avenue	Passaic River, Morris County Corporate Line	East Oak Street CR 624		

Somerset Count Engineering Department lists the following capital improvement project for Bernards Township:

Valley Road (CR512) bridge replacement project. The project goals are to address the structural deficiencies of the bridge and increase safety for the traveling public. The Valley Road (County Route 512) Bridge over the Passaic River connects Bernards Township, Somerset County and Long Hill Township, Morris County. Now approaching 90 years old, the Valley Road Bridge is in poor condition and has structural and functional limitations that do not meet today's design standards. The project is being undertaken by Somerset County and Morris County, in coordination with the North Jersey Transportation Planning Authority (NJTPA) and the New Jersey

Department of Transportation (NJDOT). The NJTPA project description identifies a total project cost of \$9,050,000 for preliminary study, engineering design and construction. The 2023 engineering budget for the bridge replacement is \$1,000,000. The 2024 budet for design and right-of-way acquisition is \$1,550,000. The construction budget identified for 2025 is \$6,500,000.

Until recently, Somerset County listed a project for Allen Road/Somerville Road intersection improvements including construction of a single-lane roundabout. That project is no longer listed on the Somerset County Engineering Department's website. However, signalization of the intersection is being investigated as an alternative to the initially proposed single-lane roundabout.

Somerset County recently (2023) completed rehabilitation of the Madisonville Bridge (No. H1305). The bridge was officially closed on August 8, 2022 for bridge deck rehabilitation and replacement. The bridge was originally constructed in 1975 and the project restored the structural condition of the deck by replacement of the existing concrete deck and replaced the existing brush curb, sidewalk, and installed a new four bar railing on both sides of the bridge. The existing road geometry remains unaltered by this project.

Somerset County Circulation Plan Updates

Since the Township's 2010 Master Plan Update, there have been two updates to the County Circulation Plan Element, one in 2011 and another in 2019, both of which focus and emphasize multi-modal transportation planning to incorporate facilities that support pedestrian and bicycle transportation and support mass transit. The County also adopted an Electric Vehicle Readiness Plan in 2018 that seeks to establish the County as a leader in electric vehicle charging facilities available to the traveling public to support business, tourism and the conversion from combustion engine to electric motor vehicles. Another update to the County Circulation Plan is anticipated in the near future funded by a grant from NJTPA.

Somerset County Making Connections Circulation Plan Update, 2011

In 2011, the County adopted the "Making Connections" as an update to the Somerset County Circulation Plan Element. The County update indicates that 46% of the Township's County roads have sidewalks and ranked that percentage of sidewalks eighth among the 21 Somerset County municipalities. With respect to intersections identified for safety and efficiency improvements, no Bernards Township locations were identified among high accident locations for the County. The County analyzed County roads for bicycle lane improvement suitability and identified County roads with conditions that could support bike lanes and those roadway segments that were not recommended for bicycle path due to factors such as shoulder width and daily traffic volume. Specific recommendations were identified in another County Circulation Plan update in 2019.

Somerset County WalkBikeHike Connecting Vibrant Communities Plan, 2019

In June of 2019, Somerset County adopted the WalkBikeHike Connecting Vibrant Communities plan, which is a county-wide master plan element "... designed to improve multimodal mobility and safety for Somerset County travelers of all ages and abilities. Together, the WalkBikeHike Framework Strategy and Design Book have the potential to transform how Somerset County and its municipal partners plan, design, and build their roads, communities, parks, public facilities, and recreation areas. The Framework Strategy is just the first step in a process that will take shape over many years to see proposals advance from concept planning, to design and construction, and for many years of use and enjoyment. The Framework Strategy includes more than 220 candidate walk, bike, and hike improvements, totaling almost 275 miles of new facilities across Somerset County."

For Bernards Township, the County's WalkBikeHike Plan identifies the following proposed future bike lane and buffered shared path proposals.

- a. A potential new bike lane on CR652 (Allen Road) extending west from Liberty Corner Road (CR525) to Schley Mountain Road in Bedminster and continuing down the mountain through The Hills near I-287 and Bedminster's Hike & Bike Trail.
- b. A potential new bike lane on Somerville Road between Allen Road and the intersection of Somerville Road with Liberty Corner Road and Church Street (CR512).
- c. A potential new buffered bike lane extending north on Mount Airy Road from the shared path on Canterbury Way to Berkley Circle, then a bike lane to West Oak Street (CR624) and a bike lane east along West Oak to South Finley Avenue (CR613).
- d. A shared use path along Route 202 (Morristown Road) between Bernardsville and Harding Township.

Somerset County Electric Vehicle Readiness Plan, 2018

The County's initiative focuses on expanding the supply of electric vehicle (EV) charging stations in the County as the number of electric vehicles increases. The County Plan notes that "In 2017, the New Jersey Department of Environmental Protection, working with the Federal Highway Administration, designated the I-78 and I-287 corridors as "plug-in electric vehicle charging corridors." These highways will receive signage to alert motorists that charging stations are located near the highway." The county offers assistance to municipalities and area employers to conduct surveys and identify locations appropriate for installation of EV charging assist area

The plan notes that "The emissions associated with the electric drivetrain of plug-in electric vehicles come from power plants generating electricity to charge the batteries and not from tailpipe emissions. The electricity supply in New Jersey is one of the cleanest power sectors in the country; nearly all power is supplied by natural gas (more than 50 percent) and nuclear energy (about 40 percent) (from NJTPA AFV Readiness Guidebook). Use of alternatives to fuel can also increase the county's resilience in emergency situations, providing increased options in case of a fuel disruption. Because electricity is a domestic energy source, prices are likely to be more stable than gasoline, which can have disruptions and price fluctuations on the world market."

New Jersey's July 2021 electric vehicle charging station law³² provides that: (1) electric vehicle charging stations are a permitted use in all zoning districts, (2) electric vehicle charging stations are permitted at existing gas stations, retail establishments and existing buildings, and (3) substantial new developments must provide electric vehicle charging stations. (addition Electric Vehicle discussion can be found in Chapter II – Land Use Plan Element and Chapter VIII – Conservation Plan Element)

In light of the new law, Somerset County policy, and in the interest of convenience to Bernards Township's residents, the Township may consider encouraging existing office complexes situated near the I-287 and I-78 interchanges to develop public use electric charging station facilities, particularly on sites with large parking lots that may be underutilized.

Summary List of Prior County Circulation Plan Updates & Studies (Pre-2010)

The following list summarizes Somerset County Circulation Plan studies and updates that the County published prior to the most recent Circulation Plan updates identified above:

- Somerset County Municipal Circulation Element Review Study The purpose of this effort was to review the circulation elements of the County's 21 municipalities. It identified deficiencies in many elements such as a lack of addressing bicycling, transit and inter-municipal coordination to resolve transportation corridor issues.
- Somerset County Traffic Calming Study The purpose of this effort was to assess problems related to existing traffic conditions and demonstrate how traffic calming (physical design of roadways) can control vehicular speed, the dominance of cars, reduce the volume of through traffic and encourage overall driving behavior appropriate to the environment within which the street is located. This study includes a case study of South Finley Avenue (CR 613) in Basking Ridge and provides a set of preferred traffic design alternatives that strike a balance between the need to move vehicles and preserve and enhance the community and neighborhood environment.

³² P.L. 2021, c. 171

- Somerset County Sidewalk Inventory and Pedestrian Plan This study included a complete inventory of sidewalk location and conditions along county roads. It mapped pedestrian generators and it made recommendations for improvements.
- Somerset County Goods Movement Study This effort was an attempt to understand the role that goods movement plays in the County's economy. It involved a survey of County businesses and how they move and receive e-product.
- Somerset County Transportation Public and Private Partnership Handbook The handbook was developed to encourage a better understanding of the complex issues affecting partnerships in transportation and foster appropriate action to meet the County's growing transportation needs.
- Somerset County Annual Six Year Capital Programming Handbook This document was developed to help prioritize the County's transportation needs and establish a process to program transportation improvement needs and priorities (roads, intersections, and bridges.)

SOMERSET COUNTY SCENIC CORRIDOR AND ROADWAY STUDY (1992)

The Somerset County Planning Board prepared a study of Scenic Corridors and Roadways (July 1992), which reviewed a wide range of literature and existing regulatory models in developing a rating system for scenic corridors, and roadways. According to the County, scenic corridors have an area of influence, which extends beyond those lands that border the roadway, to include the entire landscape, while scenic roadways focus on the visual foreground at the edge of the roadway. The findings of this study and methodology for identifying Scenic Corridor remains a useful and valid approach to identifying scenic corridors worthy of consideration at the local level.

The County study suggests that while the State Development and Redevelopment Plan espouses worthy objectives relative to scenic corridors, "... the State Plan has not provided practical guidance on how to implement these policies." The County Planning Board suggests that "... use of an objective rating system can not only aid in this endeavor, but also lend credibility and support to a scenic roads program and thereby shield the municipality from court challenges."

The County developed designation criteria to allow an objective evaluation of candidate roadways. A rating system was developed to establish the relative scenic merits of various roadways, and all appropriate County Road segments were analyzed. These designation criteria included positive features (vegetation, landscape composition, road characteristics and structures or historic districts); and negative features (landscape "scars" such as quarry sites or utility lines, structures such as junkyards, car lots or storage tanks and "other features such as high traffic volumes, litter, and landscape manipulation).

Based on this rating system, Liberty Corner Road (CR 512) in Bernards Township was

designated as scenic roadway with a rating of 22.46, while the highest ranking in the County (42.5) was given to Route 606 in Branchburg Township. The Countv studv suggests the use of an objective rating system to enhance the opportunities to protect scenic corridors. The County also suggests that municipalities utilize the master plan, zoning ordinance and site plan subdivision and standards to enhance scenic resource protection. Master plans should coordinate circulation, conservation and historic preservation plan policies with scenic resource protection goals. Zoning ordinances can provide "scenic zones" based upon the boundaries of the "view shed"



and are an essential part of the character of Bernards Township.

observed from a scenic corridor or roadway. Standards for such zones would provide for development that minimizes visual intrusion on the landscape. In Bernards Township, the Township's Land Use Plan amendment recommends a similar approach for the preservation of neighborhood character, which utilizes a linear processional experience along sections of the Township's roads to gauge maximum building standards that will protect community character.

NEW JERSEY TRANSIT

New Jersey Transit has scheduled rail service, with stations at Lyons and Basking Ridge providing convenient access for Bernards Township and nearby residents. The Gladstone branch of New Jersey Transit's Morris and Essex Rail Line provides frequent service with connections to Newark, Hoboken and New York City. New Jersey Transit also provides express and local bus service to New York's Port Authority Bus Terminal.

New Jersey Transit completed improvements to the Lyons Train Station in approximately 2005, which included additional parking and enhancements to the platform. These facilities were expanded to better serve local and regional needs and further expansion is not anticipated and is not deemed desirable for Bernards Township.

In 2020, NJ Transit issued a 5-year Capital Plan, which "is a comprehensive capital investment strategy that describes *what NJ TRANSIT can achieve with sustained and dependable funding over an extended period*. The Capital Plan includes more than 100

projects touching every aspect of NJ TRANSIT service, including Access Link, Bus, Light Rail and Rail designed to establish NJ TRANSIT as a world-class transit system." The Plan identifies the following project (p.92):

The Gladstone Branch runs single track service between Gladstone and Summit and is an extension of the Morris and Essex (M&E) Line. Currently, there are wood poles along the Gladstone Branch right-of-way that support the catenary and signal lines for approximately 22 miles. These poles are frequently damaged during strong wind events and disrupt the track catenary and signal systems. Any disruption to service on this branch is felt throughout the entire line because it only runs a single track.

If funded, this project would replace the existing obsolete wood poles with stronger steel poles. The steel poles would withstand stronger winds and prevent widespread line outages during extreme events. Additionally, steel poles provide a much longer service life than wood, which would reduce maintenance expenses.

Ultimately, replacement of the existing wood poles with stronger steel poles would allow the NJ TRANSIT to provide more reliable service to its customers along the Gladstone Branch while lowering costs."

The project would cost an estimated \$81 million in 2020 dollars, if funded.

LAKELAND BUS SERVICE

Lakeland Bus Lines, Inc., provides weekday bus service to New York City in the AM and PM with the following stops identified in Bernards Township (listed in order eastbound):

- a. RT 202 North at North Finley Avenue
- b. North Finley Avenue at Ridge Street
- c. South Finley Avenue at West Henry Street
- d. South Finley Avenue at Cross Road
- e. Stonehouse Road at Lyons Park and Ride (across from Shell Station)
- f. Stonehouse Road at Valley Road
- g. Valley Road (CR 512) at King George Road (Millington Baptist Church)

Lakeland also has local stops in Bernardsville Borough at the Bernardsville Train Station and at ShopRite on Route 202 north in the east and west-bound directions.

NJ LONG RANGE TRANSPORTATION PLANNING

The New Jersey Department of Transportation (NJDOT) Long-Range Transportation Plan (LRTP) was published for public comment in October 2008. It is a 25 year plan that describes the state of transportation in NJ, it predicts trends for the future of transportation, and it provides policy directions for how to achieve the state's goals. In February 2022, NJDOT's website included an announcement that an update to the plan was

in progress. As of the publication of this Circulation Plan Element, the NJDOT website has no information on the LRTP update at this time.

However, the October 2008 Long Range Transportation Plan (published for public comment) included a section addressing the I-78 corridor, as follows:

"MULTIMODAL/FREIGHT CORRIDOR

The I-78 travel corridor between Newark and Easton, PA, is one of the most heavily traveled truck corridors in the state. This analysis included all the measures in the 2030 Plan, as follows:

- Invest in transit,
- Improve maintenance,
- Apply smart growth strategies, and,
- Increase the efficiency of the roadway system.

In addition, [the analysis stated] in this corridor 50% of the projected truck trips were shifted to rail or were moved to less congested times of the day. The results show that the 2030 Plan would improve travel in this corridor during the evening rush hours.

This approach would take trips off the highway and ease congestion for the vehicles that must use it, including a large number of trucks.

• Travel in congestion (at or near capacity) in a corridor like this one would actually decrease, from 28% in 2005 to 27% in 2030.

• Transit ridership would increase by 8,850 trips (89%) over the 2005 baseline, largely because of the new rail lines in the corridor.

Overall, the measures included in the 2030 Plan show dramatic effects in a corridor like the I-78 travel corridor. Reducing truck traffic growth by shifting some of it to rail and other times of the day enhances these results. The corridor would be able to accommodate the projected growth in population and especially employment while maintaining the level of travel experienced today and providing new transit options."

It should be noted that the 2008 LRTP was published for public comment. The LRTP I-78 planning analysis and the potential improvements forecast for the I-78 corridor are dependent upon shifting projected truck trips to rail and/or truck traffic being moved to less congested times of day.

e-STIP – ELECTRONIC STATEWIDE TRANSPORTATION IMPROVEMENT PLAN.

The NJDOT publishes the 10-year capital improvement plan as an electronic database that can be viewed by the general public. According to the NJDOT, the FY 2022 – 2031 electronic Statewide Transportation Improvement Program (e-STIP) is an application that provides current information about the Statewide Transportation Improvement Program for the State of New Jersey for federal fiscal years 2022 through 2031 as the program is modified and

amended. The e-STIP reflects all modifications and amendments to the FY 2022– FY 2031 STIP as such changes to the program are adopted. Thus e-STIP differs from the FY 2022 - 2031 STIP that was approved on November 22, 2021, by the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) that reviewed the 2022 – 2031 portion of the STIP.

The e-STIP identifies the CR 512 Valley Road, Passaic River bridge replacement project at Long Hill Township. A 2025 construction date for the bridge replacement project is identified in the e-STIP.

NORTH JERSEY TRANSPORTATION PLANNING AUTHORITY

The North Jersey Transportation Planning Authority (NJTPA) is the Metropolitan Planning Organization (MPO) for the 13-county northern New Jersey region. Each year, the NJTPA oversees over \$1 billion in transportation investments. It evaluates and approves proposed transportation improvement projects and provides a forum for interagency cooperation and public input into funding decisions. It also sponsors and conducts studies, assists county planning agencies and monitors compliance with national air quality goals. Serving 6 million people, the NJTPA is the fourth largest MPO in the nation.

The NJTPA is the regional forum and technical resource for the people of northern New Jersey that:

- Creates a vision to meet the mobility needs of northern New Jersey through its Regional Transportation Plan,
- Develops a plan for transportation improvement and management to fulfill the vision through the Region's Transportation Improvement Plan,
- Prioritizes federal funding assistance to make that plan a reality, and awards funding for transportation planning.
- Links transportation plans with economic growth, environmental protection, growth management, and quality of life goals for the region.

The Regional Transportation Plan for Northern New Jersey establishes regional transportation corridors. Bernards Township is within Corridors 3 and 15. Corridor 3 provides east-west travel on I-78 in Bernards and US 22 and NJ 28 throughout the length of the corridor. Corridor 15 provides north-south (northeast-southwest) mobility via I-287 and US Route 202 to access major economic activity centers of Parsippany-Troy Hills, Morristown, Hanover, Bedminster and Bernards. Corridor 15 is in close proximity to Corridor 11, which provides additional north-south movements using Route 206 extending from south to north between Montgomery Township and Newton in Sussex County. The plan identifies critical problem areas and congestion generators within the I-287, I-78, and US Route 202/206 corridor. The Regional Transportation Plan identifies programmed corridor investments and provides a brief description of each project.

SUMMARY

The existing and future traffic conditions on roadways in Bernards Township have been analyzed in this circulation element. Traffic generating growth and development in the Township has leveled off significantly resulting in predictable well-distributed vehicular trips on the existing system. Previously programmed improvements have been completed. Additional improvements and areas of study related to traffic safety and convenience are identified in this Circulation Plan update for possible improvements to better serve Bernards Township's residents' travel needs.

Suggested roadway improvements programmed in the Circulation Plan are identified to address both current and projected local transportation needs and have been developed within the framework of state, regional and local transportation planning efforts.

Electric vehicle charging station locations in Bernards Township are identified in this plan.

BERNARDS TOWNSHIP MASTER PLAN 2023

CHAPTER VI - COMMUNITY FACILITIES PLAN ELEMENT

INTRODUCTION

The adequacy and realized expectation of community services such as schools and municipal facilities are important components of the quality of life in a community. The Community Facilities Plan Element of the Master Plan provides an evaluation of the public service and facility needs and inventory for Bernards Township, such as schools, fire protection, police, first aid and the library. The plan evaluates municipal resources, existing service levels, potential deficiencies and considers future community facilities and service needs based on the Township's present and future demographic composition.

STATUTORY AUTHORIZATION

This section of the Master Plan was prepared in accordance with the Municipal Land Use Law, N.J.S.A. 40:55D-28b:

(6) A community facilities plan element showing the existing and proposed location and type of educational or cultural facilities, historic sites, libraries, hospitals, firehouses, police stations and other related facilities, including their relation to the surrounding areas;

COMMUNITY FACILITIES/INFRASTRUCTURE OBJECTIVES

- 1. Plan community facilities to accommodate anticipated future population growth, in terms of numbers of persons and anticipated age groups.
- 2. Maintain the Township's capital improvement program to assure that community facilities and infrastructure are available when appropriate.
- 3. Coordinate the Township's capital improvement program relating to roads and drainage with the funding of off-tract improvements by developers.
- 4. Require future development to pay its proportionate share of any required off-tract improvements for community facilities and infrastructure to the maximum extent practical and legal.
- 5. Design future development to reduce stormwater runoff to protect existing and future residents against flooding.



Town Hall, Collyer Lane

6. Maintain infrastructure design standards , both private and public, to minimize future maintenance costs.

- 7. Maintain the high quality of municipal services enjoyed by residents.
- 8. Provide appropriate emergency services for Township residents.
- 9. Guide development of public and private accessory use of solar photovoltaic electric generation (solar panel) installations and electric vehicle charging facilities by enacting performance standards for these uses that ensure compatibility with the residential character of existing neighborhoods in response to the emergence of local demand for these facilities.

MUNICIPAL SERVICES

TOWNSHIP SERVICES

Bernards Township employees are located in five separate buildings. The Administrative and Police Headquarters are located on the municipal campus on Collyer Lane, the Health Department off South Finley Avenue, and the Engineering Services Building and the Library off South Maple Avenue as shown in Figure VI-1, Community Facilities Plan.

The Administrative offices are located in the former Astor residence, which has been extensively renovated and expanded in recent years. This building houses the following ten municipal departments/functions:

Municipal Court
Parks, Recreation, Pool and Golf
Tax Collector
Tax Assessor
Purchasing

In 1990, the Police Department moved from municipal hall to a newly constructed 12,000 square foot headquarters adjacent to the Astor Building. The Engineering Services Building, which includes the Construction Code and Public Works Maintenance on the first floor and the Engineering, Planning, Fire prevention and Public Works departments on the second floor, is located off South Maple Avenue across from the Somerset County Riding Stable. The Township Health Department is located in the former Hendershot House adjacent to Ridge High School off South Finley Avenue and the Community Service Department is located in the former Public Works garage off Stonehouse Road. The Bernards Township Sewerage Authority is located on Martinsville Road.

The Township Library is located on South Maple Avenue and Lindbergh Lane in Basking Ridge. The library was expanded by 10,000 square feet in 1999 and now has a total of 25,000 square feet. The Township Community Center is located off South Maple Avenue adjacent to the Engineering Services Building.

Additional Township buildings include the Community Service building on Stonehouse Road, the Brick Academy on West Oak Street, the NJ Transit Lyons Train Station building and the

Kennedy-Martin-Stelle Farmhouse off of King George Road. See Figure VI-1, Community Facilities Plan, identifying mapped locations of all municipal buildings.

The COVID-19 global pandemic caused increased use and reliance on virtual access for services and social interaction even as life returned to normal. This temporary change resulted in changes to the delivery of municipal services for a time, causing municipal departments to improve virtual access to better serve the public.

TOWNSHIP EMPLOYEES

The Township has a total of 159 permanent employees as shown in Table VI-1. The number of full-time equivalent employees has been reduced by 19.2 since the 2010 Community Facilities Plan tally with 191.5 employees in 2008 vs. 172.3 in 2021. The Township utilizes part-time seasonal staff for summer recreation programs, and pool and golf operations and full-time seasonal employees are hired for Public Works and Grounds projects during the summer months. Interns have also been utilized for various township projects during the summer months. In 2021, as was the case in 2008, the seasonal staff numbered over 225 employees primarily comprised of recreation programs, pool, golf and crossing guards.

	1988	1995	2002	2008	2021	20	21
	Full-	Time Eq	uivaler	nt Employ	/ees	Full Time	Part Time
Administration (Admin., IT,							
HR, Comm. Service)	4	4	5	7.5	9	9	
Clerk	4	3	3	3.5	3	3	
Municipal Court	4.5	4	3	3	0	0	
Finance (Finance A/P, Tax							
Assessor, Collector)	11.5	14	13.5	12.5	12	12	
Construction Code	6.5	7.5	11.5	7	6.5	6	4
Engineering, Planning &							
Fire	13.5	11	12	13.5	13.5	12	4
Public Works	32	28	32	31.5	36.2		1
Recreation	2	3.5	12	14.5	5	5	
Health	8.5	8	11	9.5	10.3	10	2
Police	25	26	35	39	38	38	
Police-Admin/Dispatch	9	9	9	16	3	3	
Library	16	18.2	26.5	23	24.8	14	23
Sewerage Authority	9	9	9	11	11	11	
Totals	146	145.2	182.5	191.5	172.3	159	52

TABLE VI-1 PERSONNEL FIGURES BY MUNICIPAL DEPARTMENT:1988 TO 2021

Note: The municipal personnel data provided does not include interns and seasonal staff that is primarily comprised of employees supporting recreation programs, pool and golf, and includes 18 crossing guards under the Police Department.

FUTURE NEEDS

The Township Human Resources Manager identified no future community facility needs in 2021 as adequate facilities and levels of staffing exist to respond to community facility needs.

FIRE SERVICES

Bernards Township is well served by two volunteer fire companies, Basking Ridge and Liberty Corner. The Basking Ridge Fire Company serves the northern section of the Township, specifically the area north of Mt. Airy Road and Lake Road. The Liberty Corner Fire Company serves the remainder of the Township. The Veterans Administration Hospital Fire Department is available as back up to all Somerset County municipalities including Bernards Township. The Township provides partial operating and sinking funds for capital equipment to the fire companies, the remainder of their budgets come from donations.

As with most volunteer fire companies in New Jersey, recruitment and retention remain the most serious challenges. Traditionally, volunteers were long-term residents with local jobs, capable of responding to calls. In recent years, the pool of potential volunteers has shrunk drastically. The Township should continue to explore options to promote the continuation and expansion of volunteer rolls.

BASKING RIDGE FIRE COMPANY NO. 1

The Basking Ridge Fire Company No. 1 (BRFC) is a combined Fire Company and EMS. It has 61 volunteer members in 2023, with 25 firefighting and EMS regularly responding members. Chief John Sabel reported that the Fire Company primarily provides fire protection services in the northern area of Bernards Township and the Fire Company specializes in heavy vehicle rescue, water rescue and rope rescue. The Fire Company is the first responder for the six miles of I-287 in Bernards Township that extends from Harding Township to Far Hills. The Chief reported that fire emergency calls number approximately 250 calls per year and he estimated that EMS calls number between 300 and 400 calls per year.

- 1. 61 volunteer members, 25 regularly responding to calls
- 2. The Fire Company has three apparatus, including:
 - a. 2019 Pierce Class A Fire Engine/Pumper
 - b. 2003 E-One Class A Fire Engine/Pumber
 - c. 2009 E-One Walk Around Heavy Rescue Vehicle
- 3. Service area is northerly area of the Township and includes 6 miles of I-287.

LIBERTY CORNER FIRE COMPANY

The Liberty Corner Fire Company has 55 volunteers including 45 active members and 3 junior members. The Company is housed in a twenty-seven-year-old building, which should meet the Company's long-term space needs. The Company currently has two Class A

pumpers, one of which acts as a rescue/fire vehicle along with a 100' Aerial Platform Ladder Truck. The population of the Liberty Corner section of Bernards Township has increased dramatically in the past 20 years. Recruitment and retention of volunteers continue to be a top priority for the Fire Company. The call volume has averaged around 500 calls a year for the past four years, with an increase in mutual aid structure fires given in neighboring towns.

- 1. 55+ volunteers, established in 1910
- 2. The Fire Department has four apparatus, including
 - a. 1 Incident Command Vehicle (Car 40, a 2017 Ford Explorer),
 - b. 2 Fire trucks, each with a 2,000 gallon per minute pump and a 500-gallon tank (Squad 40, a 2019 Pierce Enforcer, and Engine 40, a 2009 Pierce Velocity),
 - c. 1 Tower ladder truck with a 100-foot ladder truck and a 2,000 gallon per minute pump.
- 3. Service area remains unchanged (approx.. 18 sq. mi. of Twp.'s 26 sq. mi., southerly area of the Township)

FIRST AID SERVICES

Until September 5, 2022, two volunteer EMS agencies provided emergency first aid services in Bernards Township: Basking Ridge Fire Company No. 1 and the Liberty Corner First Aid Squad. As of September 5, 2022, the Liberty Corner First Aid Squad discontinued operations after 57 years of faithful service to Bernards Township residents and businesses. In response to the need for round-the-clock protection, the Bernards Township Committee designated Atlantic Health Emergency Medical services to provide service during weekdays.

The Basking Ridge Fire Company No. 1 (BRFC) provides first aid services throughout the Township from 6pm to 6am, Monday through Friday and from 6pm Friday through 6am Monday morning. Atlantic Health Emergency Medical Services responds to all calls which fall between the hours of 6am and 6pm, Monday through Friday.

Bernards Township provides operating and capital funds to the BRFC, and the remainder of their budget comes from donations. A number of Township employees, including police officers, are also trained as EMTs. Township police officers (both EMT and non-EMT) are also trained to handle life-threatening situations and are frequently the first responders to EMS calls where they provide care until the squad arrives. Both squads provide and receive assistance from neighboring first aid squads with mutual aid agreements.

BASKING RIDGE EMS (FIRE COMPANY NO. 1)

Basking Ridge EMS is in the Basking Ridge Fire House at 30 Washington Avenue. There are 28 people who are certified as EMTs and eligible to respond to calls for basic life support in the BRFC EMS. The squad accepts junior members (16-18 years old) who agree to take the EMS course and become a certified EMT. All members are volunteers. Both Basking Ridge Fire Company No. 1 and Atlantic Health Emergency Medical Services responded to 551 calls in 2020. The call volume was down throughout 2020 from prior years due to the COVID19 Pandemic

and the fact that Atlantic Health EMS now responds to calls during the day. Prior to that, it was estimated that under normal conditions call volume numbered approximately 600 calls per year. Basking Ridge EMS has been in its current building since 1985. The structure is also used as a shelter in emergencies. The squad maintains two ambulances purchased in 2012 and 2018, replacing the two ambulances purchased in 1999 and 2002.

LIBERTY CORNER FIRST AID SQUAD

Founded in 1965, the Liberty Corner First Aid Squad was a 100%-volunteer first aid squad for the service area that covers roughly 70% of the geography and population of Bernards Township; from The Hills to the Spring Ridge/Dewy Meadow Village area; and from the William Annin School/Lyons Mall area down to Pingry School. As residential and commercial development has increased in the service area, so has the demand for services. Until discontinuing operations in September 2022, the squad responded to approximately 500 emergency calls per year. The First Aid Squad's decision to discontinue operations results from increased call volumes and a critical EMT staff shortage, which is consistent with State and national trends. Service to the Liberty Corner service area is now provided by contract services through Atlantic Health EMS 6am – 6pm Monday through Friday. The BRFC squad provides call service throughout the Township 6pm to 6am Monday through Friday and weekends.

The Planning Board recognizes that substantial demands accrue to emergency services needed by housing for seniors. These neighborhoods have at times been taxing on available services. In the decade ahead a growing number of Bernards Township residents will be entering retirement years (as indicated in Table III-3, growth among the 55 – 64 age group increased by 1,013 from 3,282 in 2010 to 4,295 in 2020). Those among that age group that may choose to age in place can be expected to add to the demand for emergency medical services. The Township has required new senior housing development to provide non-emergency ambulatory services to their residents.

POLICE DEPARTMENT

The Bernards Township Police Department has been in the 12,000 sq. ft. building adjacent to the Astor Building on Collyer Lane since 1990. The Bernards Township Police Department consists of thirty-nine (39) sworn officers, three (3) civilian administrative support staff members, two (2) Special Police Officers plus an additional eighteen (18) part-time crossing guards. The Department has four divisions, including Administration, Patrol, Detective, and Services and Professional Standards.

Presently, Police Headquarters contains sufficient space to house current staffing levels. However, it is anticipated that the department will grow in the number of personnel to accommodate the completion of new housing units currently being constructed and that are anticipated to increase the department's current call volume. Further personnel expansion will create the need for some renovation of the interior of the building. Over time, minor renovation projects have alleviated some growth and office space issues. The Department currently has a substation at the Hills Highlands Shopping Center, which is used for rest breaks.

The Police Department utilizes a shared municipal court located at Miller Lane in Bedminster with Bedminster, Bernardsville, Peapack-Gladstone. The Department also utilizes Somerset County Communications for dispatch and 9-1-1 at no direct cost to Bernards Township. Generally, the Police Department responds to approximately 2,000-2,500 calls monthly or 20,000-25,000 calls annually. The Department has 31 vehicles consisting of front-line marked patrol/traffic vehicles, administrative/detective vehicles, utility pick-up and road job vehicles that are not used for patrol and serve traffic as well as community information functions.

Unfunded and underfunded State mandates impose costs on the Department that increases pressure for local funding. For example, police body cameras mandated by State law were acquired at a cost to the Department of more than \$120,000, but State grant funding provided to comply with the mandate was less than one-half that amount. The Department anticipates continued financial demands through similarly mandated public health and safety legislation.

The Police Department is consistently engaged in community outreach and constructive efforts to combat the challenges alcohol, drug, and tobacco use by community youth and young adults through a variety of initiatives. These include:

- Police Department Liaison to the Bernards Township Municipal Alliance who is a sworn officer on the force. The Municipal Alliance consists of volunteers appointed by the Township Committee with the mission to provide innovative and creative consultation, programs training, and resources to the community with the goal of preventing and reducing alcohol, tobacco, and drug use. Alliance outreach efforts and programs are coordinated and supported by the Township's Health Department. As the first line of contact with community health and safety issues as they arise, the Department's Liaison to the Alliance is a critical link to its mission.
- Two School Resource Officers; one assigned to Ridge High School and the other to William Annin Middle School. The Resource Officers handle investigations, concerns, and other issues related to the community's school-age children in a collaborative effort by the Township Police, Board of Education, students, parents and the community in an effort to reduce crime, drug abuse, peer-to-peer cyber bullying and violence.
- The Department's "Law Enforcement Against Drugs (L.E.A.D.)" programs are taught in elementary schools. L.E.A.D, is a nonprofit (501C3) that is supported by the Township's Police Officers. The mission of L.E.A.D. is to provide the leadership, resources and management to ensure law enforcement agencies have the means to partner with our educators, community leaders, and families by providing proven and effective programs to deter youth and adults from drug use, drug related crimes, bullying and violence. The Program is committed to reinforcing the mutual respect, goodwill and relations between law enforcement and their communities.

- Community in Crisis (CIC) referrals. Under the framework of recent legislation, the Department provides automatic referrals to Community in Crisis when Township Police Officers come into contact with individuals with opioid substance issues. CIC operates "The Community Hub" in Bernardsville and provides information and resources with a focus on fostering healthy lifestyles with workshops and resources for individuals in post-acute care recovery and their families. CIC has developed innovative education programs and sponsored Take Back Medicine day's twice a year to collect unused opioids from the community.
- In August 2023, the Bernards Township Committee hired six (6) Special Law Enforcement Officers, Class III (SLEO), that are stationed part time at each of Bernards Township six schools, including Ridge High School, William Annin Middle School, Cedar Hill Elementary School, Mount Prospect Elementary School, Oak Street Elementary School, and Liberty Corner Elementary School. Each of the six SLEO's are specifically trained for school security for the safety and security of the students, faculty, staff, and visitors.

BERNARDS TOWNSHIP LIBRARY

The Bernards Township Library renovation and expansion was completed in March 1999. The current building totals 25,000 square feet, which is 10,000 square feet larger than the original building. The Library maintains approximately 140,000 physical and digital titles in the library's materials collection. The Library offers in-person and online programs and services, including the following:

- 1. Knowledgeable, helpful and friendly staff.
- 2. Handicap accessibility to all areas of the library.
- 3. Designated spaces for quiet study, group study and conversation friendly zones with comfortable seating.
- 4. Two program rooms (these rooms can be converted into one large room with the removal of a divider).
- 5. Conference room for meetings.
- 6. Attractive teen room.
- 7. Dedicated technology space.
- 8. Self-contained children's library on lower level.
- 9. Website: <u>www.BernardsLibrary.org</u>
- 10. On-line newsletter and program information, registration, and automated reminders from the Library's website.
- 11. Ability to borrow materials from other libraries throughout the state.
- 12. Public-access computers with MS Office.
- 13. Wi-Fi throughout the building, printing and scanning available for public use.

The Library, Basking Ridge



- 14. Wealth of online materials, including databases on a range of topics, including Consumer Reports.
- 15. Access to local history collections, including digitized Bernardsville News.
- 16. Several services for streaming and downloading e-books, e-audiobooks, magazines, music and movies for all ages.
- 17. Special collections including puzzles, games, museum passes and mobile hotspots.
- 18. Two self-checkout machines and self-pickup hold service for a more contactless experience.
- 19. Curbside service available upon request.

Library's meeting rooms receive heavy use for library programs and by community, and nonprofit groups. Scheduling meeting room use occurs months in advance due to substantial community demand for library use and the popularity of Library facilities. Outside groups that wish to use any of the meeting rooms are asked to complete an application and meet certain reasonable use criteria that has been established by the Bernards Township Library Board of Trustees for public use of Library facilities.

The coronavirus pandemic skewed and altered public use of the Library for 2020 and 2021. As a result, circulation, program attendance and book sales are down considerably from prior years. The last year of reported activity (2008) identified 431,377 materials circulated, with program attendance of 40,229 at 1003 programs, and 12,463 book and other sales. In response to the pandemic the library added services, updated processes and diversified online resources for all ages, including streaming, to provide a safe experience for residents.

SCHOOL SERVICES

EXISTING CONDITIONS

In 2008-2009, the Board of Education identified 5,638 students enrolled in Bernards Township's six public schools. 1,696 or 30.1 percent attended Ridge High School (grades 9-12), 1,345 or 23.9 percent attended William Annin (grades 6 - 8), and 2,597 or 46.0 percent were in grades K – 5 at the Cedar Hill, Liberty Corner, Mount Prospect and Oak Street Schools.

As of October 15, 2020 for the 2020-2021 school year, the Board of Education identified total enrollment of 4,882, including 1,816 High School students (37%), 1,204 students in grades 6-8 at William Annin (25%), 1,862 in grades K-5 (38%) and 37 in the Preschool Program (<.01%). The enrollment difference between the 2008-2009 and 2020-2021 school years was 756 students (2020-2021 enrollment 86.5% of the District's 2008-2009 enrollment).

"Table VI-3" below identifies student enrollment for the 2020-21 / 2021-22 school years and includes the total for students in the regular curriculum, students that received instruction through a variety of special needs offerings, and High School age students in the Vocational Technical School. The table also identifies the capacity of each school and compares enrollment for each school to the remaining capacity of each in the line entitled "Growth Potential, Actual" for each of the two school years, which shows that each school has available capacity to accommodate growth. Available capacity has increased in recent years

as the result of nearly across-the-Board decreases in enrollment. Ridge High School exhibits the least available remaining capacity or potential to accommodate growth; however, with capacity at approximately 93%, there remains sufficient capacity to accommodate a reasonable amount of growth in high school enrollment.

			0-2021/2		1	1
<u>Schools:</u>	Liberty	Oak	Cedar	Mount	William	Ridge
	Corner	Street	Hill	Prospect	Annin	High
Grade	K - 5	K - 5	K - 5	K - 5	6 - 8	9 - 12
К	54 / 54	60 / 56	54 / 75	54 / 50	T	
1	63 / 66	58 / 72	70 / 78	48 / 62		
2	77 / 66	67 / 60	82 / 74	77 / 52		
3	78 / 79	64 / 68	71/87	77 / 74		
4	94 / 71	69 / 75	87 / 78	88 / 92		
5	84 / 92	88 / 74	98 / 84	84 / 94		
6					358/352	
7					373 / 355	
8					428 / 378	
9						432 / 404
10						410 / 422
11						442 / 404
12						458 / 437
SUB-TOTAL	450 / 428	406 / 405	462 / 476	428 / 424	1159 / 1085	1742 / 1667
Behavior Disabilities			16 / 17		16 / 16	- / 10
Cognitively Impaired FD					9/-	24 / 27
PreSch Program – Half Day				29 / 40		
PreSch Program – Full Day				8 / 15		
LLD Mild/Moderate	13 / 12		10/9		5 / 14	
Autism			- / 1	40 / 39	15 / 11	30 / 32
SC Vo Tech 9, 10, 11, 12						20 / 11
SUB - TOTAL	13 / 12	0	26 / 26	67 / 94	45 / 45	74 / 80
TOTALS	463 / 440	406 / 405	488 / 503	505 / 518	1204 / 1126	1816 / 1747
			·	·		
Max. Capacity, Actual	552	576	641	757	1,413	1,883
Growth Potential, Actual	89 / 112	170/171	153 / 138	252 / 239	209 / 287	67 / 136
TOTAL K - 5	ζ-5 1862 / 1866					l
TOTAL 6-8					1204 / 1126	
TOTAL 9-12						1816 / 1747
STUDENTS IN DISTRICT				5, 2020: 4,8 5, 2021: 4,7		

Table VI-3 PUBLIC SCHOOL ENROLLMENTSCHOOL YEARS - 2020-2021 / 2021-2022

Source, Bernards Township School District, Bernards Township Public School Enrollment Reports, Oct. 15, 2020 & October 15, 2021.

ENROLLMENT HISTORY

TABLE VI-4 PUBLIC SCHOOL ENROLLMENT HISTORY2008-09, 2014-15 THROUGH 2020-21

Table "VI-4" below identifies enrollment for school years 2008-2009, and 2014-2015 through 2020-2021.

									Change: 2	008-2021
School	2008/	2014/	2015/	2016/	2017/	2018 /	2019/	2020 /		
Year	2009	2015	2016	2017	2018	2019 /	2020	2021	Number	Percent
Grades										
К	359	308	309	273	266	272	232	222	-137	- 38%
1	372	336	322	323	307	283	298	239	-133	- 36%
2	402	386	347	330	336	328	300	303	-99	- 25%
3	399	394	398	358	340	352	344	290	-109	- 27%
4	468	409	406	417	374	355	356	338	-130	- 28%
5	459	448	413	422	426	381	361	354	-105	- 23%
6	452	451	455	420	426	438	381	358	-94	- 21%
7	452	443	462	452	434	431	430	373	-79	- 17%
8	427	466	456	456	454	427	440	428	+1	No change
9	443	447	468	455	470	449	420	434	-9	02%
10	400	485	440	468	455	458	453	419	+19	+ .05%
11	427	459	481	442	469	452	460	447	+20	+ .05%
12	396	447	455	479	454	461	456	462	+66	+ 17%
Other ³³	182	229	227	246	230	220	221	215	+33	+ 18%
Totals	5,638	5,708	5,639	5,541	5,441	5,307	5,152	4,882	-756	- 13.4%

Source: Bernards Township Public School Enrollment Reports compiled annually by the School District identifying District enrollment as of October 15 of each year.

Between 2003 and 2008, the major enrollment increases were in grades 11 and 12 of 34.3 and 38.9 percent or 109 and 111 additional students (that substantial increase was attributed in 2010 to students born to the waning years of the "baby boom echo" generation). Enrollment reductions were reported during that 5-year period for kindergarten, and grades 1 and 2. Kindergarten enrollment declined by 28 (-7.2%) with slight enrollment reductions in Grades 1 (-24) & 2 (-13) accounting for 6.1 and -3.1 percent reductions.

In contrast, the 12-years spanning 2008-09 to 2020-21, total enrollment in the District declined by 13.4% from 5,638 students to 4,882 students.

³³ All other students, including students in special education programs and Vocational Technical Education students.

Over the 12-years reported in Table VI-4 above, enrollments in Kindergarten, and grades 1-7 showed substantial declines including: Kindergarten (-38%); 1st Grade (-36%), 2nd grade (-25%); 3rd Grade (-27%); 4th Grade (-28%); 5th Grade (-23%); 6th Grade (-21%); and 7th Grade (-17%); and Grades 8, 9, 10 & 11 remained essentially the same with some fluctuation during the 12-year period. However, Grade 12 enrollment increased 17% from 396 to 462 students over the 12-year period, and High School enrollment of 1,762 students in 2020-2021 was 93% of the actual 1,883 student capacity for the High School whereas 2008-2009 High School enrollment of 1,666 was 88% of capacity. Where 2008-09 enrollment saw increases in Grades 11 & 12, enrollment that was attributed to the waning years of the baby boom echo generation, it appears that sustained higher enrollments in the High School relative to the other grades may be attributable to another factor, such as self-selection – that is the occurrence of enrollments resulting from families that come to the District specifically for their children to enroll in the high-quality education available at Ridge High School.

ENROLLMENT PROJECTIONS

Enrollment projections provided for the District in a report entitled "Demographic Study for the Bernards Township School District", dated December 2017 published projections for each grade for 2018-19 through 2022-23, which are provided in "Table VI-5" below:

Year	PreK	К	1	2	3	4	5	6	7	8	9	10	11	12	Spec Ed	PK-12 Total
2018-19	32	250	286	319	350	353	379	438	434	436	457	462	449	463	176	5,284
2019-20	32	221	267	297	330	364	357	389	446	436	439	453	462	447	167	5,107
2020-21	32	247	238	277	307	344	368	367	396	448	439	435	453	460	164	4,975
2021-22	32	257	266	246	286	320	347	378	374	398	452	435	435	451	158	4,835
2022-23	32	252	276	276	254	298	323	356	385	376	401	448	435	433	153	4,698

TABLE VI-5BERNARDS TOWNSHIP SCHOOL ENROLLMENT PROJECTIONS2018-19THROUGH 2022-23

Source: Table 19, "Demographic Study For The Bernards Township School District," Statistical Forecasting, LLC, December 2017.

EVALUATION OF PUBLIC SCHOOL ENROLLMENT PROJECTIONS

District enrollment is identified in Bernards Township Public School Enrollment Reports (October 15 Annual Enrollment Report) that are compiled annually. The enrollment identified by the District compares to projections in the table above, as follows:

Year	2017 Enrollment Projection		
2018-19	5,284	5,307	
2019-20	5,107	5,152	F 000
2020-21	4,975	4,882	5,882
2021-22	4,835	4,739	
2022-23	4,698	-	

TABLE VI-5-A COMPARISON OF PROJECTIONS TO ENROLLMENT & DISTRICT CAPACITY

Actual enrollment identified by the District and the projections prepared for the District show an overall trend of declining enrollment. District enrollment in the 2021-22 school year was 80.5% of District Capacity (1,143 students less than District capacity).

Recently approved housing is expected to become available over the next two to three years. Notably, the December 2017 enrollment projections did not anticipate the recently approved new housing production that would likely have influenced the projections. Nevertheless, substantial capacity appears to be available to accommodate growth in District enrollment as new housing becomes available for occupancy. One noteworthy exception; however, is High School capacity at 93% (1,747 students) of the 1,883-student capacity in the 2021-22 school year. At 93% capacity in 2021-2023, the High School has remaining capacity for an additional 136 students.

CULTURAL FACILITIES

The following County, municipal and private facilities provide cultural resources to Bernards Township residents, including performing arts, cultural and historic events programing available to the general public.

<u>Environmental Education Center</u> - Lord Stirling Park (Somerset County), 190 Lord Stirling Road in Basking Ridge, NJ. The Environmental Education Center (EEC) at Lord Stirling Park is a County operated facility with the goal of improving environmental literacy. The Center provides nature education programs, specialized nature themed exhibits, a nature, science and conservation research library, and classrooms. Outdoor activities include trail hiking, naturalist led programs, school field trips, and festivals. Virtual programs are also provided. Bernards Township's annual Art Show is held at the Environmental Education Center. Residents age 16 or older may enter their artwork, consisting of paintings, sculpture, photographs, mixed media, etc. for a month long exhibition at the Center during the month of September. <u>Ross Farm</u> (Somerset County), 135 North Maple Avenue in Basking Ridge. This site is the State and National Historic Register-listed historic Boudinot-Southard-Ross Farm named after three prominent families that lived on the farm, Elias Boudinot, Henry Southard and Edmund Ross. Elias Boudinot and Henry Southard were influential members of the community during the Colonial Era. The Ross Farm, as it is known locally, was purchased by Somerset County in 2005 and is operated by the charitable, not for profit Friends of Boudinot-Southard-Ross Farm. The Friends were formed in 2016 to conduct historical and cultural events on the property. The Friends have sponsored concerts, art exhibits, history education programs and a community giving garden to grow food for donations to local food banks, among a variety of other events that are open to the community. The site consists of 67+ acres and includes a historic dwelling and barn.

<u>Kennedy Martin Stelle Farmstead</u> (Bernards Township), Farmstead Art Center, 450 King George Road, Basking Ridge. The Farmstead Art Center is a collection of surviving Colonial Era farm buildings including a farmhouse, a grain barn and cow barn. The site was acquired by Bernards Township in 1999 and listed on the NJ Register of Historic Places in 2003 and on the National Register in 2004. The deteriorated barn and dwelling was renovated by interested citizens with funds provided by the Garden State Historic Trust Fund, New Jersey Historic Trust and the Department of Community Affairs for reuse as an Art Center. The Friends of the Kennedy-Martin-Stelle Farmstead operate the Art Center and provide concerts, theater productions, history lectures and art shows and classes. Virtual programing is also provided.

<u>Fellowship Village</u> (Private) 8000 Fellowship Road, Basking Ridge. Fellowship Senior Living is a private, continuing care retirement community (CCRC) that is located on Allen Road in Liberty Corner. The community received approval in 2016 to construct a 240-seat theater / multi-purpose room for performing arts on the campus. Ticketed theatrical and orchestral performances are offered and available to the public.

<u>Pleasant Valley Park</u>, Valley Road – The Bernards Township Parks and Recreation Department sponsors cultural events that are held at the Pleasant Valley Park including an annual summer concert series and "Plays in the Park" theatrical productions during summer months. The concerts and theatrical productions are held at the Pleasant Valley Park Amphitheater. Because the Parks and Recreation Department sponsors the events, Bernards Township residents attend the musical and theatrical performances without an admission fee.

TOWNSHIP OWNED LANDS

In addition to traditional public facilities (libraries, police and fire stations), the Township owns significant lands, listed in Table VI-6 (last revised 2023). Totaling 1,797.480 acres, these parcels serve a variety of functions and purposes, from open space lands to detention basins to parking lots. Each property is listed below, along with its location and use.

NO.	BLOCK	LOT	PARCEL NAME	LOCATION	ACREAGE
1	200	6	Lyons Station/Park Lot So.	Lyons Road	2.2955
2	1004	1	Maple Ridge OS	Birch Drive	0.655
3	1005	8	Woodland Glen OS	40 Walnut Circle	1.25
4	1206	3	leftover lot	Morrison Street	0.0001
5	1206	5	leftover lot	Morrison Street	0.0015
6	1206	9	leftover lot	Morrison Street	0.0003
7	1302	13	vacant lot	West Oak St.	0.32
8	1306	6	Drainage and walkway	North Brook Ave.	0.2645
9	1401	1	Basking Ridge Park	Washington Ave.	0.316
10	1402	1	Basking Ridge Park	Washington Ave.	0.008
11	1402	2	Basking Ridge Park	Washington Ave.	1.076
12	1402	3	Basking Ridge Park	Washington Ave.	0.028
13	1403	1	Basking Ridge Park	Washington Ave.	1.87
14	1406	1	Sloping Hills OS	Brook Ave.	1.79
15	1406	17	Basking Ridge Park	North Brook Ave.	1.047
16	1406	18	Basking Ridge Park	North Brook Ave.	0.112
17	1406	19	Basking Ridge Park	North Brook Ave.	0.184
18	1406	20	Basking Ridge Park	North Brook Ave.	1.518
19	1406	21	Basking Ridge Park	North Brook Ave.	0.079
20	1406	22	Basking Ridge Park	North Brook Ave.	0.012
21	1406	23	Basking Ridge Park	North Brook Ave.	0.098
22	1406	24	Basking Ridge Park	North Brook Ave.	0.287
23	1406	25	Basking Ridge Park	North Brook Ave.	1.19
24	1406	26	Basking Ridge Park	North Brook Ave.	1.72
25	1407	1	Basking Ridge Park	North Brook Ave.	0.103
26	1407	2	Basking Ridge Park	North Brook Ave.	0.077
27	1408	1	Basking Ridge Park	North Brook Ave.	0.009
28	1408	2	Basking Ridge Park	North Brook Ave.	0.23
29	1408	3	Basking Ridge Park	North Brook Ave.	0.057
30	1408	4	Basking Ridge Park	North Brook Ave.	0.334
31	1408	5	Basking Ridge Park	North Brook Ave.	0.096
32	1408	6	Basking Ridge Park	North Brook Ave.	0.027
33	1408	7	Basking Ridge Park	North Brook Ave.	0.003
34	1409	1	Basking Ridge Park	North Brook Ave.	0.332
35	1506	1	Fireman's Park	N Finley Ave.	1.74
36	1506	10	Brick Academy	West Oak St.	0.22
37	1511	7	B.R. Train Sta. Park Lot	Depot Place	0.24

TABLE VI-6 BERNARDS TOWNSHIP PROPERTIES

NO.	BLOCK	LOT	PARCEL NAME	LOCATION	ACREAGE
38	1512	2	Vacant lot-B.R. Train Sta.	Depot Place	0.11
39	1601	1	So. Finley/Collyer Island	So. Finley Ave.	0.042
40	1603	13	Municipal Park Lot	So. Maple Ave.	1.63
41	1604	6	Municipal Park Lot	So. Maple Ave.	0.0258
42	1605	1	Island - Village Green	So. Finley Ave.	0.0248
43	1606	1	Island - No. Maple Ave.	No. Maple Ave.	0.01
44	1609	21	Southard Park	67 N. Maple Ave	13.92
45	1610	1	Library	So. Maple Ave.	1.21
46	1610	15	Library lower Parking Lot	Lindbergh La.	0.29
47	1901	33	Brown Open Space	East Ash	5.00
48	1902	26	Spencer Willow OS	28 Voorhees Dr	1.17
49	2001	2	leftover lot	Culberson Road	0.012
50	2101	10	Mount Airy Heights OS	Mount Airy Rd	5.714
51	2101	45	Chimney Ash O S	Chimney Ash Farm	2.806
52	2301	11	Land Fill	Pill Hill	32.48
53	2301	37	un-named	Whitenack Road	4.23
54	2301	41	un-named	Whitenack Road	9.42
55	2401	9	287/DOT tract OS	Mount Airy Rd	7.7
56	2501	23	Bernards Manor OS	Kinnan Way	2.34
57	2601	4	leftover lot	Culberson Road	0.2
58	2801	1	Town Hall	1 Collyer Lane	22.81
59	2801	1	Astor Field	1 Collyer Lane	5.5
60	2801	2	Semf House	255 So. Maple Ave	3.36
61	2801	4	Engineering Services	So. Maple Ave.	10.69
62	2801	5	Community Center	So. Maple Ave.	1.08
63	2801	9	Paws Park/Ballfield	So. Maple Ave.	6.05
64	2801	10	War Memorial Field	So. Maple Ave	11.63
65	2801	35	Health Dept.	So. Finley Ave.	1.81
66	2905	6	Homestead Park	Grove Street	0.73
67	3101	18	Meadowview Estates OS	Riverside Dr	1.036
68	3201	18	Meadowview Estates OS	Riverside Dr	12.879
69	3302	6	Meadowview Estates OS	Castle Way	1.44
70	3303	12	Meadowview Estates OS	Castle Way	1.00
71	3303	17	Meadowview Estates OS	Riverside Dr	0.828
72	3402	14	Meadowview Estates OS	Hill Top Road	0.3786
73	3604	5	Community Service	Stonehouse Road	1.08
74	3605	1	Island – Finley/Stonehouse	Finley/Stonehouse	0.22
75	3705	2	Lyons Station Park Lot No.	Cross Road	0.41

NO.	BLOCK	LOT	PARCEL NAME	LOCATION	ACREAGE
76	3802	22	Woods End D.B.	Woods End	3.84
77	3901	61	Prince Edward Pointe OS	Springhouse Lane	19.993
78	3901	62	Tamarisk Ct. OS	Tamarisk Ct.	0.90
79	4005	1	Som. Hills Luth. Church OS	74 Autumn Drive	1.74
80	4005	5	Dawn Ridge OS	Sleepy Hollow	1.2
81	4201	2	un-named	Whitenack Road	3.499
82	4301	51	McCollum Farm	Whitenack Road	10.72
83	4601	5.01	Whitenack Woods OS	Whitenack Road	185.19
84	4902	21	Rebel Hill Park	Fairview Drive So.	10.42
85	5303	19	Cedar Knolls OS	Galloping Hill	2.6
86	5303	28	Cedar Knolls OS	Galloping Hill	6.00
87	5503	13	Prince Edward Pointe OS	Brittany Place	6.999
88	5601	10	Prince Edward Pointe OS	Jeffery Court	1.463
89	5602	5	Somerset Homes	Gerard Ave.	1.58
90	5602	35	Prince Edward Pointe OS	Jeffery Ct.	4.093
91	5802	1	Thompson Island OS	Lyons Road	0.63
92	5901	1	Commuter lot	Stonehouse Road	4.7
93	5901	2	Green Acres Open Space	S. Finley Ave.	14.902
94	5901	29	Summit OS	Stonehouse Road	14.136
95	6001	11	Schmidt Park	Pond Hill Rd.	5.00
96	6102	1	Schmidt Park	Pond Hill Rd.	3.83
97	6103	1	Schmidt Park	Pond Hill Rd.	6.73
98	6201	15	Elmi	Overlook Ave	0.02
99	6208	10	Elmi	Overlook Ave	0.03
100	6303	12	Fawn Hill OS	Pheasant Run	1.968
101	6303	33	Elmi	Overlook Ave	0.09
102	6401	1	Summit OS	Stonehouse Road	13.884
103	6401	5	Sherbrook OS	Governor Drive	6.246
104	6404	9	Sherbrook OS	Blackburn Drive	4.465
105	6404	27	Sherbrook DB	Governor Drive	4.587
106	6501	1	Summit OS	Summit Drive	15.01
107	6503	1	Sherbrook OS	Blackburn Drive	5.514
108	6703	7	Pleasant Valley Park	39 Penwood Road	4.34
109	6801	27	Summit OS	Summit Drive	3.878
110	6801	44	Summit OS	Knollcroft Road	2.409
111	6802	4	Glenbrook OS	Bryon Drive	5.77
112	7001	15	Grist Mill Park	Grist Mill Drive	1.261
113	7002	33	Lincroft OS	Lincroft Drive	0.3569

NO.	BLOCK	LOT	PARCEL NAME	LOCATION	ACREAGE
114	7101	9	Canterbury Walkway	Canterbury Road	0.264
115	7101	25	Canterbury Walkway	Canterbury Road	0.203
116	7101	29	Canterbury Walkway	Canterbury Road	0.137
117	7201	28	un-named	Mine Brook Rd	0.92
118	7301	27	Arrowhead OS	Mine Brook Rd	21.129
119	7301	35	River View OS	Liberty Corner Rd.	3.727
120	7302	1	Arrowhead OS	Mine Brook Rd	0.657
121	7302	6	L.C. Tennis Courts	Mine Brook Rd	0.543
122	7302	11	Arrowhead OS	Mine Brook Rd	4.911
123	7402	12	Canterbury Walkway	Canterbury Road	0.131
124	7502	1	Liberty Corner Island	Church St./Lyons	0.0223
125	7601	15	Harrison Brook OS	180 Goltra Drive	3.83
126	7703	22	English Farm Meadow(Preservation)	Valley Road	16.281
127	7804	8	Pleasant Valley Park	Lurline Drive	1.43
128	7901	10	Pleasant Valley Park	75 Archgate Road	0.92
129	8001	1	Pleasant Valley Park	Valley Road	79.14
130	8001	2	Pleasant Valley Park	Valley Road	24.52
131	8101	3	Sherbrook OS	Stonehouse Road	49.469
132	8101	23	Sherbrook DB	Stonehouse Road	2.077
133	8101	47	Sherbrook DB	Stonehouse Road	4.013
134	8102	18	Sherbrook OS	Valley Road	0.3356
135	8301	1	Pine Hills OS	Haas Rd	3.22
136	8301	6	Pine Hills OS	Haas Rd	10.22
137	8301	11.02	Bologna OS	Haas Rd	11.06
138	8401	16	Hayefields OS	Crest Dr	8.49
139	8401	23	Kennedy-Martin Farmstead	King George Rd	4.397
140	8501	1	Spring Ridge OS	Spring Valley Blvd.	73.524
141	8501	2	Crown Court OS	King George Rd	0.337
142	8501	3	Crown Court OS	King George Rd	5.887
143	8501	4	Crown Court OS	King George Rd	0.261
144	8501	5	Crown Court OS	King George Rd	54.169
145	8501	41	Passaic River OS	King George Rd	82.77
146	8501	45	Crown Court OS	King George Rd	14.094
147	8501	46	Spring Ridge OS	Spring Valley Blvd.	25.071
148	8501	47	Spring Ridge OS	Spring Valley Blvd.	37.05
149	8502	2	Farmstead Park	King George Rd	32.035
150	9101	2	Society Hill OS	Spring Valley Blvd.	90.05

NO.	BLOCK	LOT	PARCEL NAME	LOCATION	ACREAGE
151	9101	3	Cedars OS	Spring Valley Blvd.	130.391
152	9204	4	Little League Fields	3570 Valley Road	23.70
153	9204	6	Society Hill OS	Spring Valley Blvd.	32.01
154	9204	8	Society Hill OS	Spring Valley Blvd.	28.45
155	9205	1	Martinsville Rd Island	Mount Airy Rd	0.79
156	9301	9.01	English Farm (Preservation)	Valley Road	64.298
157	9401	11	Sons Of Liberty Farm OS	Allen Road	23.08
158	9501	3	Dunham Park	Liberty Corner Rd.	69.543
159	10301	26	The Hills OS	Allen Road	4.523
160	10301	27	The Hills OS	Allen Road	4.523
161	10402	3	Old Somerville Road	Old Somerville Rd	0.36
162	10704	39	The Hills OS	Old Stagecoach Rd.	3.88
163	10801	95	The Hills OS	Old Stagecoach Rd.	1.76
164	10801	96	The Hills OS	Old Stagecoach Rd.	0.92
165	11201	6	Allen Road OS	Allen Road	5.228
166	11201	11	Allen Road OS	Allen Road	4.978
167	11601	1	Mountain Park	Mountain Road	143.864
168	11701	10	Darren Woods OS	Darren Drive	2.44
169	11701	20	Sunset Lane OS	Sunset Lane	0.71
170	11701	21	Sunset Lane OS	Sunset Lane	1.12
171	11702	7	Darren Woods OS	Darren Drive	0.86
172	11702	11	Darren Woods OS	Darren Drive	13.872
173	11702	28	Darren Woods Trail OS	Darren Drive	0.331
			TOTAL ACRES		1,797.480
			TOTAL OPEN SPACE		

STEWARDSHIP PRACTICES

Bernards Township acknowledges its duty to exercise responsible stewardship over the public lands and buildings that constitute the Township's community facilities, and to promote their sustainable development, operations and maintenance. As society's focus on sustainability and "green" design and maintenance continues to expand, the stewardship practices employed by the Township at its public lands and community facilities can serve as a model for private and corporate citizens and other units of government.

SOMERSET COUNTY OWNED LANDS

In addition to Township owned properties, the County of Somerset owns significant lands, listed in Table VI-7. Totaling almost 1,300 acres, these parcels serve a variety of functions and purposes, from open space lands to horse stables to detention basins. Each property is listed below, along with its use.

No.	Block	Lot	Name	Description	Acreage
1	1005	10	Ross	Open Space	8.25
2	1701	11	Ross Farm	Historic/OS	53.39
3	1701	24	County Riding Stables	Horse Stables	18.88
4	1701	15	Stirling House	Dwelling	3.388
5	1701	14	Environ. Ed. Center	Education Center	4.139
6	1701	13	Lord Stirling Park	Park	839.972
7	1701	23	Crane Farm	Farming	4.895
8	1701	18	Crane Farm	Farming	3.94
9	1611	39	Manchester Drive	Open Space	0.726
10	3201	7	Lord Stirling Park-Croot	Open Space	22.02
11	3201	8	Lord Stirling Park-Croot	Open Space	20.596
12	7903	6	Harrison Bk/Lyons Rd	Open Space	1.21
13	11001	14	Somerville Rd/DeMarco	Open Space	5.38
14	11001	15	Somerville Rd.	Open Space	11.47
15	11101	6	Somerville Road/Knox	Open Space	6.596
16	11101	2	Mountain Road/AT&T	Open Space	33.904
17	11102	41	Rickey Lane	Open Space	20.108
18	11102	6	Mountain Road/AT&T	Open Space	84.898
19	11102	5	Mountain Road/AT&T	Open Space	0.633
20	11501	5.02	Mountain Rd/Prochaska	Open Space	14.357
21	11501	6	Mountain Rd/McNellis	Open Space	29.264
22	11501	18	Mountain Rd/Maolucci	Open Space	25.763
23	11501	19	Mountain Rd/Maolucci	Open Space	14.20
24	11501	20	Mountain Rd/Maolucci	Open Space	1.65
25	11501	21	Mountain Rd/Maolucci	Open Space	0.91
26	11501	22	Mountain Rd/Maolucci	Open Space	1.19
27	11501	23	Mountain Rd/Maolucci	Open Space	31.021
28	11601	25	Off Long Road	Open Space	15.24
29	11601	23	Sunset La./Pasnik	Open Space	20.961
30	11701	19	DB/Martinsville Road	Detention Basin	0.56
	TOTAL				1,299.51

 TABLE VI-7 SOMERSET COUNTY PROPERTIES

In total, the Township and Somerset County own over 3,000 acres, roughly 20 percent of the Township's land area.

CHAPTER VII - PARKS AND RECREATION PLAN ELEMENT

INTRODUCTION

This Parks and Recreation Plan Element is an update and refinement of the Planning Board's 2010 plan element, which was preceded by the Planning Board's 2003 and 1996 Bernards Township Parks and Recreation Plan Elements. The Master Plan Parks and Recreation Plan Elements have assisted the Bernards Township Committee in amassing an impressive inventory of parks and recreation facilities and developing extensive programming for residents that help shape the quality of life in Bernards Township. Since the last Plan update, the Bernards Township Parks & Recreation Department has gained experience with residents' use of the Township's parks and recreation facilities. A Community Wide Needs Assessment survey was conducted by Parks & Rec. in September 2021 in conjunction with the Bernards Township Recreation, Parks, and Pathways Committee, which also informs this Plan update.

The municipal inventory of parks and recreation facilities is identified in this Plan. A series of planning considerations and recommendations are set forth in recognition of resident's recreation needs and the opportunities for recreation and open space in the Township. Public input from the Community Wide Needs Assessment assisted in formulating the findings and recommendations that constitute this plan.

In this element, the Planning Board identified all public, quasi-public and private lands that provide recreational and open space opportunities for Bernards Township's residents. Specific goals and objectives seek to protect and acquire valuable natural resources, including important wildlife habitat and other land areas with environmental sensitivity or exceptional scenic value. Finally, the Planning Board included the identification of a comprehensive system of areas and public sites for recreation, and the identification of open space lands and greenways for passive recreational uses.



Bernards Township contains a wide array of active and passive recreation facilities, including Dunham Park, pictured here.

STATUTORY AUTHORIZATION

This element of the Master Plan was prepared in accordance with the Municipal Land Use Law, N.J.S.A. 40:55D-28b:

• A recreation plan element showing a comprehensive system of areas and public sites for recreation.

GOALS AND OBJECTIVES

The following goals and objectives for parks and recreation outline a consistent vision to provide Bernards Township's residents with adequate active and passive recreation facilities and to protect and enhance the natural and rural environment in an environmentally conscious manner.

- Provide a wide range of recreational facilities and creative programing to meet residents' present and future needs and provide opportunities for recreation for all age-groups..
- Provide a range of cultural arts to residents within the Township, including at Township recreation programs and facilities.
- Maintain and Expand a network of path and bikeway linkages for non-vehicular access among the Township's neighborhoods and public spaces, including parks, schools and commerce centers, and through greenways, greenbelts, and adjacent to waterways where appropriate.
- Pursue opportunities to expand the parks and recreation network through purchase, voluntary donation or as a by-product of future development.
- Maintain, evaluate, and where necessary enhance neighborhood recreation facilities to address resident's parks and recreation needs.
- ensure that an appropriate balance of public open space and recreational facilities are provided through public action and the development review process.
- Encourage the preservation of areas with exceptional recreational or scenic value, or environmental sensitivity at all levels of government, with priority given to acquisition of land to meet present and future demand for active and passive recreation through public acquisition, private donation, farmland preservation, and the purchase of development rights and conservation easements.
- Accept land from developers, or residents willing to sell or donate property only after the land is determined to be useable for active and passive recreational uses, or for protection of environmental resources.
- Protect environmentally sensitive park land from development, including wetlands, stream corridors forests and critical wildlife habitat.
- Maintain parks, recreation, and open space areas using best management practices to protect and conserve natural resources and critical habitat.
- Maintain and update existing parks and greenways mapping as the inventory is expanded.

NEEDS ASSESSMENT

The Parks and Recreation Department is constantly evaluating recreation needs and preferences to ensure that parks and recreation facilities and programs are responsive to what the residents need and want. According to the Parks and Recreation Department, Bernards Township's inventory of parks and recreation facilities has generally proved to be

adequate to the population's needs over the past decade. During that time, the Township's population growth has slowed, and future population growth is expected to remain relatively low in comparison to earlier rapid growth decades.

The Bernards Township Department of Parks and Recreation has experienced overall sustained participation in the programs and leagues sponsored and supported by the Department. This trend indicates that the residents of Bernards Township are active and interested in the leisure time activities that are available to them. Parks and open space acquisitions and facilities development has paid dividends to the Township this past decade by having facilities and open spaces as part of the fabric of the community contributing to the everyday qualify of life for Bernards residents. These parks and recreation resources include an ample supply of athletic fields as well as open space areas where residents can enjoy time in natural areas on their own. The Township has rendered a well thought out approach to the acquisition and development of open space lands providing a balance for both active and passive recreation.

Attractive, well-maintained recreational opportunities and facilities contribute to the high quality of life experienced in the Township. The Bernards Township Department of Public Works has done an exemplary job maintaining facility functionality and implementing environmentally sustainable practices to maintain the aesthetics of the Township's facilities for residents. Linking multi-use pathways connecting parks to residents should remain a goal of park & facility promotion – i.e. "get the people to the parks". As has been its practice, the Parks and Recreation department should continue to adapt and creatively provide activities and opportunities for the residents.

In the past, towns have relied on the New Jersey Balanced Land Use Concept (BLUC) and the National Park and Recreation Association (NRPA) "Level of Service" approach to determine open space and recreational needs. The Balanced Land Use method recognizes that land is a finite resource and sets its goals in perpetuity, while the NRPA Level of Service method applies standards based on current or forecasted population. Both of these methods provide minimum guidelines. As New Jersey continues to become more densely populated, open space and parks are more highly prized community assets. Thus, when evaluating parks and open space for sufficiency, more is definitely better; however, in Bernards Township, the parks and recreation planning orientation has always been responsive to recognized needs and opportunities rather than relying on "one size fits all" standards.

As depicted in Table VII-1, the State's Balanced Land Use Concept seeks to allocate 3% of all developed and developable land, less County, State, and privately protected and environmentally sensitive land, to municipal open space. The Planning Board's 2003 Master Plan Reexamination Report identified a deficit of 53.28 acres of parkland for the Township. By contrast, in 2009, that calculation identified a surplus over the minimum standards of approximately 211 acres. "The Economic Benefits of Open Space" according to the Trust for Public Land (TPL) indicate that easy access to parks and open space has become "a new measure of community wealth—an important way to attract businesses and residents by guaranteeing both quality of life and economic health,

Studies from across the nation have shown a high correlation between open space and community desirability. Bernards township's desirable quality of life derives in part from the amount, types and locations of protected open space in the community. According to TPL, "...mid- and high-level executives increasingly choose to work in locations that offer a high quality of life outside the workplace. Availability of quality education is of prime importance..., but not far behind comes recreation, along with cultural institutions and a safe environment. Proximity to open space is seen as an important benefit."

Total Land in Township	15,680 acres
Vacant	547 acres
Developed	15,133 acres
County Lands	1,300 acres
Federal Lands	297 acres
Environmentally Sensitive	750 acres
(Minus County, Federal and	(2,347 acres)
Environmental Sensitive)	
Total Developed and Developable lands	12,786 acres
3% BLUC Minimum Recreational Acreage	384 acres

TABLE VII-1 BALANCED LAND USE CONCEPT (BLUC)

The acreages total above have been calculated from Township tax records.

The 3% BLUC is based on the amount of developed and developable land in the community after subtracting County, federal and environmentally sensitive land from the overall total acreage of land in the municipality. The 3% BLUC is not a population-based park and recreation planning guideline. It is a useful aid in planning to determine the amount of land a community should plan to set aside to ensure that the community has an ample supply of recreation and open space land for facilities and activities to meet the recreation needs of its residents when the community is fully developed.

The most recent additions to the Bernards Township open space inventory were added in the 2000's and include Whitenack Woods, McCullom Farm and Sons of Liberty Farm that total approximately 219 acres, which are all passive open space sites. In comparing the Township's recreation and open space inventory to the 3% BLUC recommended minimum requirement, the municipal inventory indicates that there is a 235-acre surplus³⁴ of parkland in the Township (See Table VII-2). Along with this ample supply of recreation land, creative recreation programming is provided with activities and opportunities for all age groups.

³⁴ Not including the three (3) most recent additions to the parks and open space inventory, the Township's inventory exceeds the BLUC 3% parkland guideline of 384-acres by 16.18-acres of parkland (104% of the guideline). Including the acreage included in Whitenack Woods, McCullom Farm and the Sons of Liberty Farm (a total of 218.99-acres) yields a total of 619.17-acres or 161% of the recommended 384-acres.

Facility ³⁵	Acreage	BLUC Acreage
Southard Park	13.92	13.92
War Memorial Complex	14.63	14.63
B&B Little League Complex	23.7	23.7
Pleasant Valley Park	103.66	103.66
Liberty Corner Tennis Courts	0.55	0.55
Astor Athletic Fields	4.00	4.00
Rebel Hill Park	10.42	9.42
Community Center	1.08	1.08
Washington Ave Athletic Field	1.87	1.87
Dunham Park	69.5	30.0
Allen Street Gazebo	1.74	1.74
Schmidt Park	15.56	2.5
Pine Hill	10.22	6.5
Farmstead Park	32.03	32.03
Brown Property	5.00	5.00
Grove Road Park	0.69	0.69
Mountain Park	148.89	148.89
Whitenack Woods	185.18	185.18
McCullom Farm	10.72	10.72
Sons of Liberty Farm	23.09	23.09
Total Acreage	676.45	619.17-
BLUC Minimum Recreation Acreage		384
Acreage Over Minimum		<u>235.17³⁶</u>

The NRPA approach includes generic ratios for "Suggested Facility Development Standards." The NRPA defines a hierarchy of recreational facilities used to classify a recreational facility in light of its size, service area and population served. Table VII-3 (Bernards Township Recreational Facility Matrix) compares the Township's and other community recreational facilities to the NRPA standard for a population of 28,000.

TABLE VII-5 BERNARDS TOWNSHIT RECREATIONAL FACILITY MATRIX					
	Bernards	Board of	Private	Community	NRPA
ACTIVITY	Township	Education		Total	Standard
Amphitheater	1	0	1	2	N/A
Basketball	2	1.5	3	6.5	12
Golf Course	0.5	0	2	2.5	N/A
Ice Skating	1	0	0	1	N/A
Paddle Courts	4	0	0	4	5
Picnic Shelter	4	0	1	4	N/A

TABLE VII-3 BERNARDS TOWNSHIP RECREATIONAL FACILITY MATRIX

³⁵ See Figure VI-1, Community Facilities Plan.

³⁶ Dewy Meadow Athletic Field (4.85-acres) was included in the municipal recreation and open space inventory in 2010. It is now a privately managed open space amenity for the Enclave at Dewy Meadows, which is a 198 rental apartment project developed to address State constitutional affordable housing obligations.

ACTIVITY	Bernards Township	Board of Education	Private	Community Total	NRPA Standard
Playground	4	4	5	13	25
Pool	1	0	9	10	2
Tennis Courts	12	2	37	51	14
Pickleball	12	0	0	1237	
Volleyball	3	3	0	6	5
Community	1	0	1	2	1
Center					
Disc Golf	1	0	0	1	N/A
Bocce Court	2	0	0	2	N/A
Shuffle Board	1	0	0	1	N/A
Roller Rink	1	0	1	2	N/A
Indoor	2	0	3	5	N/A
Pavilion					-
Dog Run	1	0	0	1	N/A
Skateboard	0	0	0	0	N/A
Park					
Performing	0	0	0	0	N/A
Arts Center					
BALL FIELDS					
<u>Multi-</u>	16	6	5	27	**
purpose*					
Baseball	5	2 5	0	4	5
Softball	14	5	1	16	24

* Multi-purpose fields include use for soccer, lacrosse and football

**The NRPA standard for soccer fields depends upon the local popularity of the sport.

The Bernards Township Recreation Department's recreation facilities planning and development approach identifies local recreation facilities needs and preferences identified by the Township's residents. The Recreation Department and the Township Committee has not relied on the prescriptive generic ratios recommended by the NRPA. Facilities development needs are identified by the Recreation Department and the Township's Recreation, Parks and Pathways Committee, which most closely interact with the residents that use the Township's parks and recreation facilities and are well positioned to identify changing needs and preferences. In this way, Bernards Township has been able to focus facilities development on the type and number of recreation facilities that residents want and use.

In September 2021, the Bernards Township Parks and Recreation Department conducted a town-wide survey focusing on parks and recreational needs. It was developed with the Township Recreation, Parks and Pathways Committee. A link to the survey was sent to 1,700 email subscribers to the Department's Weekly E-Newsletter for four weeks and it was emailed to 4,139 households registered with the Parks and Recreation Department. The

³⁷ Liberty Corner Courts, Oak Street Courts and Rebel Hill Courts have two (2) combination tennis and pickleball courts at each location. Pleasant Valley Park has 6 tennis courts, 6 pickleball courts and 4 paddle tennis courts.

survey sought information on the types of facilities most important to Township residents. One response per household was accepted. A total of 662 complete survey responses and 169 partial survey responses were received (response rate of approximately 9%). The Department of Parks and Recreation analyzed survey responses to assist in planning for future programs/services and leisure time infrastructure. Survey results were summarized by the Department in the "Bernards Township Parks & Recreation 2021 Needs Assessment Survey – Review" (the Review)." (see Survey results in Appendix A to this Parks and Recreation Plan Element)

The Department conducted a similar survey in 2001. At that time, the top four results identified were:

- A strong desire of Bernards Township residents for a high level of facility maintenance,
- Continued acquisition of open space,
- The linkage of neighborhoods, parks, schools, and commerce centers via bike/walking paths, and
- The need for more athletic fields.

The Township has recognized the benefits of sports and recreational programs as an important aspect of the quality of life in Bernards Township. Currently, the Township offers its residents a range of organized youth and adult recreational programs that operate year-round.

The youth programs offered by the Township include indoor floor hockey, softball, basketball, summer camps, tennis lessons, therapeutic recreation programs and special events. Local



Township facilities support youth and adult recreation programs, such as this soccer field in Dunham Park.

Youth Sports Organizations utilize Township athletic fields and facilities and provide football, soccer, lacrosse, field hockey and baseball programs. In addition to these sports, students at Bernards' schools can participate in a wide variety of interscholastic sports.

<u>The Mayor's Arts Awards</u> program is coordinated by the Bernards Township Parks and Recreation Department. Nominations are accepted up until approximately Labor Day and a panel comprised of the Mayor, Recreation, Parks & Pathways Advisory Committee Members, and Parks and Recreation Department staff review nominations submitted for recognition of a resident of Bernards Township or someone that works in or for the arts in a way that benefits Bernards Township residents. Nominations are accepted for residents including student nominees 11th grade or above and adults in the community. The Township's adult recreational programs include yoga, aerobics, art classes and tennis as well as a monthly schedule of trips for active older adults. An adult men's softball league as well as commercial use of the facilities is offered by the Township.

To assure continuing high quality of these facilities, field conditions should be monitored.

INVENTORY

This plan includes an inventory of public, quasi-public and private land that provides recreational opportunities for Bernards Township's residents. The inventory identifies the size, location, ownership, and usage of each property.

Bernards Township has approximately 3,200 acres of open space and parkland. However, Somerset County Park Commission owns 1,180 acres or 33% of this total. The Township owns and maintains over 430 acres of active public parks and recreational facilities, which provide a host of recreational opportunities for Bernards' residents. Figure VII-1, Community Facilities Plan, depicts the location of each municipal park.

BERNARDS TOWNSHIP ACTIVE RECREATION FACILITIES

Southard Park, North Maple Avenue – 13.92 acres

- 1 softball/Little League field
- 1 multi-purpose field
- 1 shuffle board courts
- 1 basketball court with 6 baskets
- 1 ice skating area
- 1 sand volleyball court
- picnic shelter with restroom
- trout pond
- barrier free playground
- 1 Bocce court

War Memorial Fields (South Maple Ave.) – 17.683 acres

- 1 baseball field
- 1 soccer field
- 1 softball field
- 1 dog run

Ridge Baseball Club Complex, Valley Road – 23.70 acres

- 4 Little League fields
- utility building, comfort station
- Storage building with comfort station
- Batting cage

Liberty Corner Tennis Courts, Church Street; 0.543 acres

• 2 tennis/pickleball courts

Pleasant Valley Park, Valley Road - 103.66 acres

- 1 baseball field
- 3 softball fields
- 4 multi-purpose fields
- 6 all-weather tennis courts
- 6 pickleball courts
- 4 paddle tennis courts (lighted)
- 1 sand volleyball court
- 1 basketball court with six baskets
- walking/bicycle/fitness trail; 1.5 miles with fitness cluster
- barrier free playground
- pond and pond shelter
- amphitheater
- indoor meeting room/comfort stations
- 1 picnic shelter

Pleasant Valley Pool, Valley Road

- 50 meter pool
- training pool
- 1 volleyball court
- 2 shuffle board courts
- picnic area
- water play area
- zero depth entry baby pool and Splash area
- concession stand
- administrative staff building
- men's and women's changing area and restrooms
- well house, pump house

Astor Fields, Municipal Building, Collyer Lane – 4.0 acres

• 3 multi-purpose fields

Rebel Hill Park, Fairview Drive – 10.42 acres

- Barrier free playground
- 1 softball field/combo
- 2 tennis /pickleball courts

Community Center, 289 South Maple Avenue; 1.08 acres

- activity room for groups up to 35
- recreation room for groups up to 50

Washington Ave. Basking Ridge Firemen's Field; 4.0 acres

1. 1 softball field

Dunham Park, Somerville Road/Liberty Corner Road; 69.5 acres

- 1 baseball field
- 1 multipurpose field
- 1 mile 8' wide paved path
- 0.8 mile wood chip nature path
- roller hockey rink
- 2 barrier free playgrounds
- picnic shelter
- indoor pavilion with comfort stations
- 9 hole disc golf course
- sand volleyball court
- batting cage

Mountain Park, Mountain Road and Martinsville Road, 148.89 acres

- 4 multi-purpose fields, irrigated and 2 lighted
- 4 baseball fields, irrigated and 2 lighted
- 1 ¼ mile jogging path
- 2 comfort/concession buildings

Farmstead Park (and Arts Center), King George Road; 32.035 acres

- 1 Multi-purpose field
- River walk

Manchester Drive Field, Manchester Drive; 0.726 acres

<u>Coakley Russo Golf Course, Valley Road, Owned by VA Medical Center, leased to Bernards</u> <u>Township</u>

- 9 hole golf course
- Driving range

BERNARDS TOWNSHIP PASSIVE RECREATION AREAS

As a complement to the active recreation areas, Bernards Township owns and maintains 1162 acres of passive open space dedicated to walking and hiking trails or places to just relax. The main areas are as follows:

Allen Street Gazebo, 1.74 Acres

• A colonial gazebo

Schmidt Park: Pond Hill Road - 15.56 acres

• The restoration of this property resulted in the re-establishment of the trail system, identification of the local fauna and flora, some clearing of trees for the establishment of vistas of the Passaic River and a general cleaning of the property.

Basking Ridge Park, 9.28 acres

• Forested open space

Dead River Trail, 490.696 acres

• 2 ¹/₂ mile river trail

Whitenack Woods: Whitenack Road, Minebrook Road, Annin Road – 185.18 acres

• Hiking paths

McCollum Farm: Whitenack Road – 10.72 acres

• Meadows and open space

Sons of Liberty Farm: Allen Road and Somerville Road - 23.09 acres

- Forested open space area
- Fishing ponds

English Farm woodlot: 68 acres (public access easement)

• Paths and stream

OTHER ACTIVE RECREATION FACILITIES

In addition to Township-owned facilities, Bernards Township residents have access to recreational facilities owned by the Bernards Township Board of Education, and the Fireman's Field owned by the Liberty Corner Fire Company. These facilities provide additional recreational space in the Township. (See Figure VII-1, for the complete survey and location of open space and recreational lands in Bernards Township).

In addition to the Township and County owned parkland, Bernards contains many other facilities, which are at least partially devoted to indoor and outdoor recreational activities. Some are located in or around public or private schools, while some are in condominium or corporate ownership.

The following facilities are owned by the Bernards Township Board of Education.

Liberty Corner School (Church Street)

- 2 Little League baseball fields
- playground area/tot lot
- indoor gym
- outdoor basketball court with 6 baskets (4 8' high, 2 10' high)

Oak Street Tennis Courts

• 2 tennis / pickleball courts

William Annin Middle School (Gold Blvd.)

- 1 soccer / multi-purpose field
- 1 Little League/softball field
- 2 indoor gym
- 1 auditorium

Oak Street School (Oak Street)

- 1 basketball court
- 1 soccer field
- 2 playgrounds
- 1 indoor gym/adjustable height baskets
- 1 auditorium

Ridge High School (S. Finley Avenue)

- 1 ¼ mile running track, with lights
- 1 artificial turf football field, with lights
- 1 softball field
- 1 field hockey field
- practice football fields
- 4 indoors gyms
- 1 wrestling room
- 1 weight room
- 1 auditorium

South Maple Avenue Varsity Field Complex (So. Maple Ave.)

- 1 baseball field
- 1 softball field
- 1 soccer field
- ¹/₂ court size basketball field
- 1 batting cage

Cedar Hill School (Peachtree Lane)

- 1 baseball field
- 1 indoor gym with adjustable height baskets
- 1 multi-purpose auditorium/cafeteria

Mt. Prospect School (Hansom Road)

- 1 large multipurpose field
- 1 gymnasium
- 1 multipurpose auditorium/cafeteria

COUNTY PARKS, PRIVATELY OWNED, PRIVATE SCHOOLS, NON-PROFIT ORGANIZATIONS AND OTHER GOVERNMENT AGENCIES

In addition to the Township's parks, the recreation system in the Township includes over 2,000 acres of county, state or privately held open space and recreational land. Somerset County alone owns over 800 hundred acres along the Passaic River, representing the largest single public land holding in the Township. The County Parks offer an abundance of low-intensity recreational opportunities, including fishing, hiking and nature study and provide additional opportunities for recreation to meet the needs of the Township's expanding population.

The following parcels are owned and maintained by private, non-profit or other public entities and provide additional recreational opportunities for many Township residents. The availability of these public, semi-public and private properties is indispensable in meeting the needs of the citizenry.

<u>YMCA (Mt. Airy Road)</u>

- 25 yard, 6-lane swimming pool
- Second swimming pool
- indoor gym
- gymnastic facilities
- exercise room/fitness center
- 1 outdoor basketball court
- playground area/tot lot
- outdoor pavilion/picnic area
- 1 baseball field

The Albrook School (Somerville Road)

- Outdoor swimming pool
- playground
- multi-purpose field (no regulation size facilities)

The Pingry School (Liberty Corner Road)

- 1 softball field
- 2 Junior Varsity Baseball/football fields
- 1 Varsity baseball/soccer field
- 1 football field & 400 meter track
- 1 field hockey field
- 1 practice field (open area)
- 2 soccer fields
- 12 tennis courts
- 2 basketball courts
- 1 swimming pool

St. James School (S. Finley Avenue)

- open field (no regulation size facilities)
- playground
- softball field/soccer field
- 1 gymnasium/auditorium

Bonnie Brae School (Valley Road)

- indoor gym
- baseball field
- 1 soccer/football/rugby field

Lord Stirling County Park

- Environmental Education Center
- Developed Natural Area
- 600 Total acres; 10 Developed acres:
- Outdoor Theatre
- Unpaved Trails 8.5 miles
- Fishing Pond
- Visitor center, gift shop, cross country skiing, restrooms
- Canoe and kayak launch with parking area

Lord Stirling Stables

- Special Use Park
- 25 Total acres
- 15 Developed acres
- Outdoor Facilities
- Horse Trails 14 miles
- Dog Park 0.5 acre
- Equestrian support facilities, indoor riding ring, barns, stalls, restrooms
- 11 acres of open space leased to Bernards Township

VA Hospital (Valley Road)

- 2 soccer fields
- 1 amphitheater
- 1 indoor gymnasium
- 1 picnic shelter
- 9 hole golf course
- Driving range

<u>Fireman's Field (Church Street) – 9.55 acres</u>

• 1 Softball field

PRIVATELY-OWNED RECREATIONAL FACILITIES IN MULTI-FAMILY DEVELOPMENTS

The Barons (132 units)

- 2 tennis courts
- 1 swimming pool

The Cedars (526 units)

- 4 tennis courts
- 1 swimming pool

<u>Crown Court (96 units)</u>

• 1 tot lot

Countryside (150 units)

- 2 tennis courts
 - 1 swimming pool

Lord Stirling Village (175 units)

- 2 tennis courts
- 1 swimming pool

Maple Run (64 units)

• 2 tennis courts

<u>The Ridge (104 units)</u>

• 2 tennis courts

Society Hill (830 units)

- 8 tennis courts
- 1 swimming pool

<u>Spring Ridge (1,150 units)</u>

- 8 tennis courts
- 1 swimming pool

<u>The Hills (1886 homes)</u>

- two swimming pools
- trail network
- 8 all weather tennis courts
- 3 basketball courts
- 2 tot lots
- 1 multi-purpose field

ADDITIONAL CORPORATE-OWNED RECREATION FACILITIES

Verizon Center, Basking Ridge

- jogging trail
- cardiovascular exercise machine room
- aerobics facility
- 1 softball field

RESOURCE ASSESSMENT

The following resource assessment compiled by the Planning Board identifies public and private land and water resources that have potential for providing open space or recreation opportunities for Bernards' residents. The resource assessment provides valuable information regarding opportunities to create linear open space and recreational facilities, including trails, bicycle paths or greenways and identifies areas where preservation is critical to protect valuable natural resources and ecosystems.

One of the objectives of this plan is to establish "linkages of public spaces through the purchase and development of greenways, greenbelts, waterways, paths and bikeways and provide non-vehicular access to the Township's neighborhoods, parks, schools, public transportation and commerce centers." The Township should continue to explore and

develop new opportunities for linear open space, trails, and system linkages. The Circulation Plan, designed to work in conjunction with the Conservation and Open Space Plan and the Parks and Recreation Plan promotes connectivity between open space and recreational facilities through non-vehicular travel using greenways and bikeways. The Circulation Plan recommends implementing a pedestrian/bike way and sidewalk system to increase connectivity between existing neighborhoods, commercial areas, open space and recreational facilities.



The Township contains many valuable natural resources and important habitats that will

Bikeways and greenways can establish linkages between open space and recreational facilities.

benefit substantially from conservation efforts. The benefits of acquiring open spaces go far beyond creating additional recreational facilities. Safeguarding open space ensures the viability of ecosystems that support the high quality of life that residents associate with living in Bernards Township. Protecting interconnected forests, wetlands, edge habitats, stream corridors and other environmentally sensitive areas creates an overall healthy environment. An analysis of these areas and their potential to provide recreational benefits are discussed in the Conservation and Open Space Plan.

SOMERSET COUNTY OPEN SPACE PRESERVATION PLAN 2022

The County's 2022 Open Space Preservation Plan is an update to the 2000 Parks and Recreation Plan Element and the prior 1994 Plan. It provides a means for Bernards Township to ensure that an appropriate balance of open space and recreational opportunities are available to Township residents and future generations. Expanding the scope of a parks and recreation plan beyond the political boundaries to include the County facilities, increases recreational opportunities for Bernards residents and helps guide policies that reflect the larger objectives in the County plan. Expanding the scope of open space protection beyond the municipal boundaries, particularly within open expanses of forest, and along ridgelines, rivers and streams can assist Bernards Township with its own objectives of protecting these features that so greatly contribute to the community character that Bernards Township's residents so value. This section reflects the policies adopted by the County Plan with emphasis on areas in and around Bernards Township.

County Goals and Objectives

Somerset County's 2022 Open Space Preservation Plan recently revised the goals and objectives set forth in the 2000 and 1994 County Parks, Recreation and Open Space Master Plan. These goals reinforce and align with the previous goals and make changes and additions where necessary to address priorities and the challenges presented by continued regional development pressure. The following is a summary of goals and objectives from the County's 2022 updated Plan. The first five (5) goals remain unchanged from the 2000 Plan, *Goals 6, 7 and 8 have been added as new goals in the Plan by the County in 2022.*

1. Create an open space system preserving lands of countywide significance.

2. Preserve open space to protect critical environmental resources of Somerset County

3. Provide open space for a diverse mix of quality of recreational experiences appropriate for a County Park system.

4. Provide County parks where they will most easily serve the greatest population concentrations in Somerset County.

- 5. Provide open space, which enhances the quality of life in Somerset County.
- 6. Leverage the Somerset County Preservation Trust Fund.
- 7. Preserve County-owned Historic Sites.
- 8. Cultivate Partnerships.

SOMERSET COUNTY GREENWAYS

Greenways are generally defined as corridors of private and public recreation lands and waters that provide linkages between open spaces. Greenways protect natural vegetation and limit development impacts on steep slopes, floodplains and scenic natural areas. Greenways also maintain wildlife corridors and protect the nesting, breeding and feeding areas of numerous wildlife species, some of which have been classified as "endangered" or "threatened."

The Somerset County Open Space Preservation Plan identifies greenways as part of its program to provide linkages of open spaces, and provides the following discussion in the section on County Initiatives:

"Somerset County's Greenways

A cornerstone in previous county land preservation plans has been the creation of greenways along major rivers and ridgelines. Throughout history, the county's rivers have brought economic prosperity to the county. As the lifeblood of the county, rivers literally directed traffic within and through the county landscape and shaped settlement patterns. The ridgelines along the Watchung Mountains not only shaped settlement and transportation patterns but were also the scenes of historical events that formed the nation.

The Benefits of Greenways

Preserving natural lands along the rivers and ridgelines retains environmental services from these features. Natural lands absorb stormwater and slow the flow of water down slopes to avoid erosion.

Natural buffers along rivers and streams absorb and slow stormwater entering river systems. Many of these rivers are sources of drinking water. The natural roots and vegetation allow the water to percolate through soil, removing contaminants and entering rivers cleaner and at a slower pace. This natural function lessens flooding downstream and contributes to a cleaner water supply entering major rivers. Natural buffers along waterways provide a green infrastructure that is less expensive and requires less maintenance than pipes, culverts, and other grey infrastructure built for the same purposes.

In addition, these natural lands offer a recreational amenity that contributes to the health and vitality of Somerset County residents. Natural areas are places sought for mental relaxation and stress relief. With inviting paths, recreational greenways not only offer opportunities for close-to-home physical activity but to connect residents both physically and mentally to Somerset County's rivers and natural areas.

Ultimately, these greenways can provide an important framework for residents' geographic awareness of their surroundings, creating a sense of

place and appreciation for open space that contribute to quality of life. They are a critical element of the county's motto, "Creating Vibrant Connections."

STATE DEVELOPMENT AND REDEVELOPMENT PLAN (SDRP)

The 2001 State Development and Redevelopment Plan includes statewide goals, strategies, and policies which places a high priority on protecting and conserving natural resources and open space. The State Plan recognizes the importance of environmental resources as valuable community assets that are essential to sustaining the health and existence of ecosystems. Water, air and soil are no longer viewed as separate resources, but rather part of a larger system involving watersheds, ecosystem regions, and broader defining landscapes. The following section describes in more detail the goals of the State Plan for regions within the Township.

Statewide Policy – Open Space and Recreational Lands

The SDRP includes 19 Statewide Policies designed to improve the planning and coordination of public policy among all levels of government. Policy number 12: Open Lands and Natural Systems is designed to:

"Protect biological diversity through preservation and restoration of contiguous open spaces and connecting corridors; manage public land and provide incentives for private land management to protect scenic qualities, forests and water resources; and manage the character and nature of development for the protection of wildlife habitat, critical slope areas, water resources, and for the provision of adequate public access to a variety of recreational opportunities."

The SDRP also highlighted greenways as an important component in the state's open space and recreation planning policies. The SDRP contains the following policy on greenways:

"Greenway/Blueway Public Open-Space Linkages

Through the cooperation of State, regional and local governments, prepare and implement a comprehensive, statewide plan for a network of open-space corridors (greenways) and waterway corridors (blueways) that link recreational and open-space land by way of corridors, paths, river and stream corridors, migratory routes, hiking and biking trails, beaches, abandoned railroad rights-of-way, scenic trails and outlooks, historic areas and other resources and public open spaces."

Greenways are an important goal for the County and the State. Greenways provide open space links to various natural areas throughout New Jersey. County greenways in Bernards would follow the 2nd Watchung Ridge along the southwestern border of the Township and

portions of the Passaic River. The County Plan also encourages local committees to develop greenways throughout their municipalities.

LOCAL GREENWAYS

The Planning Board and the Township Committee should consider development of a greenway plan for the Township. The plan should incorporate the Passaic River and Dead River along the Township's borders where potential conservation and public access easements can be pursued to establish a continuous linkage along the waterways. Other preservation strategies, including stream corridor restoration to reestablish vegetated riparian buffers, and regulating setbacks to floodplains and limiting the disturbances and uses within these corridors, should also be explored.

As a step toward stream restoration and flood prevention, and recognizing recreational utility and greenway value of the Passaic River, Bernards Township participated in the Passaic River De-Snag Project by the Public Works Department locating and clearing fallen trees and snags in the river that the Township mapped using a global positioning system (GPS). The fallen trees and snags in the River were identified by residents and the Township Staff. It was part of a joint project with additional municipal participation by Warren, Long Hill, Berkeley Heights, Summit, New Providence, and Union and Morris Countys.

Prior local planning efforts recognized that many of the Township's neighborhoods had no pedestrian or cycle links to nearby schools, businesses and recreational areas. The expansion of opportunities for walking and biking throughout the Township, and encouraging their use, has been recognized in the Parks and Recreation Department's 2021 survey of residents. These linear open spaces can also provide valuable buffers between land uses of differing intensity. The Township has identified paths for walking and biking throughout the township as shown on the Bicycle, Pedestrian, and Greenway Plan (Figure V-5) in the Circulation Plan Element. Particular attention was paid to paths that facilitate school access, close missing links between existing paths, and provide access to township open space.

IMPLEMENTATION APPROACHES AND RESOURCES

This section focuses on various strategies available to the municipality to implement open space acquisition and recreational planning and development. In addition to these resources, the Township is encouraged to explore other avenues for additional preservation and recreational improvements.

The Planning Board should continue to work with the Bernards Township Committee and the Township staff to implement the Parks and Recreation Plan in concert with the goals and objectives of the Conservation and Open Space Plan, discussed in the following Section VIII. This will require a combined effort among parties to continue to evaluate the effectiveness, methodology, and strategies of the plan as it is implemented.

A coordinated open space and recreation approach should integrate environmental protection strategies as core elements of the preservation effort. A "stewardship plan" for

the development, operation and maintenance of Township parkland can provide a basis for implementation strategies that respect the environment and natural systems.

The programs and approaches outlined below represent a "toolbox" of implementation strategies, and a variety of approaches will be required to meet the objectives of this open space plan.

• New Jersey Department of Environmental Protection Green Acres Program The NJDEP Green Acres Program provides grants and low-interest loans to municipal and county governments, and private non-profit organizations for park and open space acquisition and recreation facilities development. The program will also fund state-direct acquisition of open space and parkland.

> For municipalities that have adopted an open space tax and prepared an Open Space and Recreation Plan (OSRP) prepared in accordance with specific NJDEP guidelines, the Green Acres Program developed the Planning Incentive Grant (PIG) Program. This program provides 50% matching grants to local governments for the acquisition of land for recreation and conservation purposes.

> To be eligible for funding, local governments must have a Green Acres approved OSRP, and either an open space tax, or an approved alternative funding source, which is stable and sufficient, such as an annual tax levy. As Bernards Township has elected not to continue to participate in the Green Acres Program, the Township relies solely on local appropriations to purchase land and develop facilities for open space and recreation.

• Somerset County Open Space Partnership Program

The County Open Space Trust Fund is an outgrowth of the County/Municipal Planning Partnership Grant Program that was established in 1995 to assist municipalities in the acquisition of open space that advances local preservation efforts. This highly successful grant program is open to municipal governments in Somerset County and private, non-profit conservation organizations. County Planning Board staff administers the program, which operates an open grant application process that can assist municipal government in addressing opportunities as they may arise. The County Planning Board, Park Commission and Open Space Advisory Committee review applications based on a number of criteria and recommend awards to the Board of Chosen Freeholders.

• The Environmental Infrastructure Trust Financing Program

This program provides low interest loans to municipalities, counties and authorities for clean water-related activities, including land acquisition when watershed management and water quality benefits are provided. With funding from both NJDEP and the NJ Environmental Infrastructure Trust, the program utilizes a Federal Priority System developed each year by DEP. Loans are made for 20-year terms at below market-rates.

• National Recreational Trails Program

NJDEP provides financial assistance for developing and maintaining trails and trail facilities for non-motorized, motorized and multi-use purposes. The Bipartisan Infrastructure Law of 2021 reauthorized the Recreational Trails Program (RTP) through Federal fiscal years 2022 through 2026 as a set-aside from the Transportation Alternatives Set-Aside under the Surface Transportation Block Grant (STBG). Funding is administered by the NJDOT and is typically awarded on an 80 federal share and 20% matching share basis.

• Private Development Initiatives Land Donations and Dedications.

Land donations and dedications from private developments can be utilized for recreational purposes and the preservation of scenic resources. Land reserved for neighborhood and community benefits may be retained in private ownership by homeowner's associations or dedicated to the Township. As part of development approvals, developers can be encouraged to include neighborhood parks, tot lots and other facilities to meet the recreational needs of the community. Bernards Township has been quite successful in working with developers to provide adequate recreational facilities in most of its multifamily and planned neighborhood developments.

• Conservation Easements

Land for conservation and passive recreation can be made accessible through the establishment of conservation easements.

• Development Rights

Land can be protected from development through the sale and purchase of developments rights. The landowner is allowed to continue to use the property for non-development purposes. The Township should consider this option for farmland preservation opportunities. An example of this approach to land preservation is the Township's preservation of the English Farm in Liberty Corner through the purchase of development rights from the landowner, which resulted in preservation of approximately 65-acres of actively farmed land.

SYSTEM MAP

The Active and Passive Recreation Areas System Map (Figure VII-1) illustrates the locations of all existing public and private recreation and open space sites, public and private institutional facilities and tax-exempt properties. In addition, the System Map identifies proposed open space and open space corridors, or greenways, for potential acquisition in

response to steep slopes and ridge line protection goals. Table VII-4 lists the property name and acres of each facility identified on the Active and Passive Recreation Areas System Map.

	1		DADCEL NAME LOCATION		EUNCTION
BLOCK	LOT	OWNER	PARCEL NAME- LOCATION	ACRES	FUNCTION
103	1	NJ Audubon	Hardscabble Road	0.91	Private OS
1004	1	Bernards Twp	Maple Ridge-Birch Dr.	0.655	Twp OS
1005	8	Bernards Twp	Woodland Glen-40 Walnut Circle	1.25	Twp OS
1005	19	Somerset Co.	Ross-No. Maple Ave	8.25	County OS
1302	13	Bernards Twp	Vacant lot-West Oak St.	0.32	Twp OS
1306	6	Bernards Twp	No. Brook Ave.	0.2645	Twp OS
1401	1	Bernards Twp	Basking Ridge Park-Washington Ave.	0.316	Twp OS
1402	1	Bernards Twp	Basking Ridge Park-Washington Ave.	0.008	Twp OS
1402	2	Bernards Twp	Basking Ridge Park-Washington Ave.	1.076	Twp OS
1402	3	Bernards Twp	Basking Ridge Park-Washington Ave.	0.028	Twp OS
1403	1	Bernards Twp	Basking Ridge Park-Washington Ave.	1.87	Twp OS
1406	1	Bernards Twp	Sloping Hills-Brook Ave.	1.79	Twp OS
1406	17	Bernards Twp	Basking Ridge Park-No. Brook Ave.	1.047	Twp OS
1406	18	Bernards Twp	Basking Ridge Park-No. Brook Ave.	0.112	Twp OS
1406	19	Bernards Twp	Basking Ridge Park-No. Brook Ave.	0.184	Twp OS
1406	20	Bernards Twp	Basking Ridge Park-No. Brook Ave.	1.518	Twp OS
1406	21	Bernards Twp	Basking Ridge Park-No. Brook Ave.	0.079	Twp OS
1406	22	Bernards Twp	Basking Ridge Park-No. Brook Ave.	0.012	Twp OS
1406	23	Bernards Twp	Basking Ridge Park-No. Brook Ave.	0.098	Twp OS
1406	24	Bernards Twp	Basking Ridge Park-No. Brook Ave.	0.287	Twp OS
1406	25	Bernards Twp	Basking Ridge Park-No. Brook Ave.	1.19	Twp OS
1406	26	Bernards Twp	Basking Ridge Park-No. Brook Ave.	1.72	Twp OS
1407	1	Bernards Twp	Basking Ridge Park-No. Brook Ave.	0.103	Twp OS
1407	2	Bernards Twp	Basking Ridge Park-No. Brook Ave.	0.077	Twp OS
1408	1	Bernards Twp	Basking Ridge Park-No. Brook Ave.	0.009	Twp OS
1408	2	Bernards Twp	Basking Ridge Park-No. Brook Ave.	0.23	Twp OS
1408	3	Bernards Twp	Basking Ridge Park-No. Brook Ave.	0.057	Twp OS
1408	4	Bernards Twp	Basking Ridge Park-No. Brook Ave.	0.334	Twp OS
1408	5	Bernards Twp	Basking Ridge Park-No. Brook Ave.	0.096	Twp OS
1408	6	Bernards Twp	Basking Ridge Park-No. Brook Ave.	0.027	Twp OS
1408	7	Bernards Twp	Basking Ridge Park-No. Brook Ave.	0.003	Twp OS
1409	1	Bernards Twp	Basking Ridge Park-No. Brook Ave.	0.332	Twp OS
1506	1	Bernards Twp	Fireman's Park-No. Finley Ave.	1.74	Twp OS
1512	2	Bernards Twp	Vacant lot-Conkling St.	0.11	Twp OS

TABLE VII-4 ACTIVE RECREATION AND PASSIVE OPEN SPACE AREAS

BLOCK	LOT	OWNER	PARCEL NAME-LOCATION	ACRES	FUNCTION
1601	1	Bernards Twp	So. Finley/Collyer Island	0.042	Twp OS
1605	1	Bernards Twp	Island - Village Green-So. Finley Ave.	0.0248	Twp OS
1606	1	Bernards Twp	Island - No. Maple Ave.	0.01	Twp OS
1609	21	Bernards Twp	Southard Park-No. Maple Ave.	13.92	Twp Park
1611	39	Somerset Co.	Manchester Drive	0.726	County OS
1701	11	Somerset Co.	Ross Farm-No. Maple Ave.	53.39	County OS
1701	13	Somerset Co.	Lord Stirling Park-So. Maple Ave.	839.972	County Park
1701	14	Somerset Co.	Environmental Ed. Center-Lord Stirling Road	4.139	Env. Ed. Center
1701	15	Somerset Co.	Stirling House-Lord Stirling Road	3.388	County Park
1701	18	Somerset Co.	Crane Farm-Lord Stirling Road	3.94	County Farm
1701	23	Somerset Co.	Crane Farm-So. Maple Ave.	4.895	County Farm
1701	24	Somerset Co.	County Riding Stables-So. Maple Ave.	18.88	Riding Stables
1901	33	Bernards Twp	Brown-East Ash St.	5.00	Twp. OS
1902	26	Bernards Twp	Spencer Willow-Voorhees Dr.	1.17	Twp OS
2001	2	Bernards Twp	leftover parcel-Culberson Road	0.012	Twp OS
2101	10	Bernards Twp	Mount Airy Heights-Mt. Airy Road	5.714	Twp OS
2101	45	Bernards Twp	OS-Chimney Ash Farm Road	2.806	Twp OS
2301	11	Bernards Twp	Former Landfill-Pill Hill Road	32.48	Twp OS
2301	37	Bernards Twp	OS-Whitenack Road	4.23	Twp OS
2301	41	Bernards Twp	OS-Whitenack Road	9.42	Twp OS
2401	9	Bernards Twp	287/DOT tract-Mt. Airy Road	7.7	Twp OS
2501	23	Bernards Twp	Bernards Manor-Kinnan Way	2.34	Twp OS
2601	4	Bernards Twp	leftover parcel-Culberson Road	0.2	Twp OS
2801	1	Bernards Twp	Astor Fields-Collyer Lane	5.5	Athletic Fields
2801	6	Bd. of Ed.	So. Maple Ave. Fields	12.44	Athletic Fields
2801	9	Bernards Twp	Loocke-So. Maple Ave.	6.05	Fields/Dog Park
2801	10	Bernards Twp	War Memorial Field-So. Maple Ave.	11.63	Athletic Fields
2905	6	Bernards Twp	Homestead Park-Grove Road	0.73	Twp OS
3101	18	Bernards Twp	Meadowview Estates-Riverside Dr.	1.036	Twp OS
3201	7	Somerset Co.	Croot -Lord Stirling Road	22.02	County OS
3201	8	Somerset Co.	Croot -Lord Stirling Road	20.596	County OS

BLOCK	LOT	OWNER	PARCEL NAME-LOCATION	ACRES	FUNCTION
3201	18	Bernards Twp	Meadowview Estates-Riverside Dr.	12.879	Twp OS
3302	6	Bernards Twp	Meadowview Estates-Castle Way	1.44	Twp OS
3303	12	Bernards Twp	Meadowview Estates-Castle Way	1.00	Twp OS
3303	17	Bernards Twp	Meadowview Estates-Riverside Dr.	0.828	Twp OS
3402	14	Bernards Twp	Meadowview Estates-Hill Top Road	0.3786	Twp OS
3605	1	Bernards Twp	Island -S. Finley/Stonehouse	0.22	Twp OS
3802	22	Bernards Twp	DB-Woods End	3.84	Twp OS
3901	61	Bernards Twp	Prince Edward Pointe-Springhouse La.	19.993	Twp OS
3901	62	Bernards Twp	OS-Tamarisk Ct.	0.90	Twp OS
4005	1	Bernards Twp	Som. Hills Luth. Church-Autumn Dr.	1.74	Twp OS
4005	5	Bernards Twp	Dawn Ridge-Sleepy Hollow Road	1.2	Twp OS
4201	2	Bernards Twp	OS-Whitenack Road	3.499	Twp OS
4301	51	Bernards Twp	McCollum Farm-Whitenack Road	10.72	Twp OS
4601	5.01	Bernards Twp	Whitenack Woods-Whitenack Road	185.19	Twp OS
4902	21	Bernards Twp	Rebel Hill Park-Fairview Dr. So.	10.42	Twp Park
5303	19	Bernards Twp	Cedar Knolls-Galloping Hill Road	2.6	Twp OS
5303	28	Bernards Twp	Cedar Knolls-Galloping Hill Road	6.00	Twp OS
5503	13	Bernards Twp	Prince Edward Pointe-Brittany Place	6.999	Twp OS
5601	10	Bernards Twp	Prince Edward Pointe-Jeffrey Ct.	1.463	Twp OS
5602	5	Bernards Twp	Somerset Homes-Gerard Ave.	1.58	Twp OS
5602	35	Bernards Twp	Prince Edward Pointe-Jeffrey Ct.	4.093	Twp OS
5802	1	Bernards Twp	Thompson Island-Lyons Road	0.63	Twp OS
5901	1	Bernards Twp	OS-Stonehouse Road	3	Twp OS
5901	2	Bernards Twp	OS-So. Finley Ave.	14.902	Twp OS
5901	29	Bernards Twp	Summit-Stonehouse Road	14.136	Twp OS
6001	11	Bernards Twp	Schmidt Park-Pond Hill Road	5.00	Twp OS
6102	1	Bernards Twp	Schmidt Park-Pond Hill Road	3.83	Twp OS
6103	1	Bernards Twp	Schmidt Park-Pond Hill Road	6.73	Twp OS
6201	15	Bernards Twp	Elmi-Overlook Ave.	0.02	Twp OS
6208	10	Bernards Twp	Elmi-Overlook Ave.	0.03	Twp OS
6303	12	Bernards Twp	Fawn Hill-Pheasant Run	1.968	Twp OS
6303	33	Bernards Twp	Elmi-Overlook Ave.	0.09	Twp OS
6401	1	Bernards Twp	Summit-Stonehouse Road	13.884	Twp OS
6401	5	Bernards Twp	Sherbrook-Governor Dr.	6.246	Twp OS
6404	9	Bernards Twp	Sherbrook-Blackburn Dr.	4.465	Twp OS
6404	27	Bernards Twp	DB Sherbrook-Governor Dr.	4.587	Twp OS
6501	1	Bernards Twp	Summit-Summit Dr.	15.01	Twp OS
6503	1	Bernards Twp	Sherbrook-Blackburn Dr.	5.514	Twp OS

BLOCK	LOT	OWNER	PARCEL NAME- LOCATION	ACRES	FUNCTION
6703	7	Bernards Twp	Pleasant Valley Park-Penwood Road	4.34	Twp Park
6801	27	Bernards Twp	Summit-Summit Dr.	3.878	Twp OS
6801	44	Bernards Twp	Summit-Knollcroft Road	2.409	Twp OS
6802	4	Bernards Twp	Glenbrook-Bryon Dr.	5.77	Twp OS
7001	15	Bernards Twp	Grist Mill Park-Grist Mill Dr.	1.261	Twp OS
7002	22	Bd. of Ed.	OS-Lincroft Dr.	14.69	Bd. of Ed. OS
7002	33	Bernards Twp	Lincroft-Lincroft Dr.	0.3569	Twp OS
7101	9	Bernards Twp	Canterbury Road Walkway	0.264	Twp OS
7101	25	Bernards Twp	Canterbury Road Walkway	0.203	Twp OS
7101	29	Bernards Twp	Canterbury Road Walkway	0.137	Twp OS
7201	28	Bernards Twp	OS-Mine Brook Road	0.92	Twp OS
7301	27	Bernards Twp	Arrow Head-Mine Brook Road	21.129	TWP OS
7301	35	Bernards Twp	River View-Liberty Corner Road	3.727	Twp OS
7302	1	Bernards Twp	Arrow Head-Mine Brook Road	0.657	Twp OS
7302	5	LC Fire Co.	LC Fields-Church St.	8	LC Fire Co.
7302	11	Bernards Twp	Arrow Head-Mine Brook Road	4.911	Twp OS
7402	12	Bernards Twp	Canterbury Road Walkway	0.131	Twp OS
7501	3	Bd. of Ed.	Fields-Liberty Corner School	5.01	Fields
7502	1	Bernards Twp	Liberty Corner Island	0.0223	Twp OS
7601	15	Bernards Twp	Harrison Brook-Goltra Dr.	3.83	Twp OS
7703	22	English Family	English Farm Meadow-Valley Road	16.281	Farm Pres.
7804	8	Bernards Twp	Pleasant Valley Park-Lurline Dr.	1.43	Twp OS
7901	10	Bernards Twp	Pleasant Valley Park-Archgate Road	0.92	Twp OS
7903	6	Somerset Co.	Harrison Brook-Lyons Rd	1.21	County OS
8001	1	Bernards Twp	Pleasant Valley Park-Valley Road	79.14	Twp OS
8001	2	Bernards Twp	Pleasant Valley Park-Valley Road	24.52	Twp OS
8001	3,4	US VA	Coakley Russo Golf Course-Valley Road	45	USVA/Twp Golf
8101	3	Bernards Twp	Sherbrook-Stonehouse Road	49.469	Twp OS
8101	23	Bernards Twp	DB Sherbrook-Stonehouse Road	2.077	Twp OS
8101	47	Bernards Twp	DB Sherbrook-Stonehouse Road	4.013	Twp OS
8102	18	Bernards Twp	Sherbrook-Valley Road	0.3356	Twp OS
8301	1	Bernards Twp	Pine Hills-Haas Road	3.22	Twp OS
8301	6	Bernards Twp	Pine Hills-Haas Road	10.22	Twp OS
8301	11.02	Bernards Twp	Bologna-Haas Road	11.06	Twp OS
8401	16	Bernards Twp	Hayefields-Crest Dr.	6.5	Twp OS
8501	1	Bernards Twp	Spring Ridge-Acken Road	73.524	Twp OS
8501	2	Bernards Twp	Crown Court-King George Road	0.337	Twp OS

BLOCK	LOT	OWNER	PARCEL NAME- LOCATION	ACRES	FUNCTION
8501	3	Bernards Twp	Crown Court-King George Road	5.887	Twp OS
8501	4	Bernards Twp	Crown Court-King George Road	0.261	Twp OS
8501	5	Bernards Twp	Crown Court-King George Road	54.169	Twp OS
8501	41	Bernards Twp	Passaic River Coalition-King George Rd	82.77	Twp OS
8501	45	Bernards Twp	Crown Court-King George Road	14.094	Twp OS
8501	46	Bernards Twp	Spring Ridge-Acken Road	25.071	Twp OS
8501	47	Bernards Twp	Spring Ridge-Acken Road	37.05	Twp OS
8502	2	Bernards Twp	Farmstead Park-King George Road	32.035	Twp Park
9101	2	Bernards Twp	Society Hill-Spring Valley Blvd.	90.05	Twp OS
9101	3	Bernards Twp	Cedars-Spring Valley Blvd.	130.391	Twp OS
9204	4	Bernards Twp	Little League Fields-Valley Road	23.70	Twp Fields
9204	6	Bernards Twp	Society Hill-Spring Valley Blvd.	32.01	Twp OS
9204	8	Bernards Twp	Society Hill-Spring Valley Blvd.	28.45	Twp OS
9205	1	Bernards Twp	Martinsville Rd Island-Mt. Airy Road	0.79	Twp OS
9301	9.01	English Family	English Farm Preservation-Valley Rd	64.298	Pres. Rights
9401	11	Bernards Twp	Sons Of Liberty Farm-Allen Road	23.08	Twp. OS
9501	3	Bernards Twp	Dunham Park-Liberty Corner Road	69.543	Twp Park
10301	26	Bernards Twp	The Hills-Allen Road	4.523	Twp. OS
10301	27	Bernards Twp	The Hills-Allen Road	4.523	Twp. OS
10401	38	URWA	Upper Raritan OS-Milito Way	19.25	URWA OS
10402	3	Bernards Twp	Old Somerville Road	0.36	Twp. OS
10704	39	Bernards Twp	The Hills-Old Stagecoach Road	3.88	Twp. OS
10801	95	Bernards Twp	The Hills-Old Stagecoach Road	1.76	Twp. OS
10801	96	Bernards Twp	The Hills-Old Stagecoach Road	0.92	Twp. OS
10801	97	NJDOT	Old Stagecoach Road	9.59	NJDOT
11001	14	Somerset Co.	DeMarco-Somerville Road	5.38	County OS
11001	15	Somerset Co.	Somerville Rd.	11.47	County OS
11101	2	Somerset Co.	AT&T-Rickey Lane	33.904	County OS
11101	6	Somerset Co.	Knox-Somerville Road	6.596	County OS
11102	5	Somerset Co.	AT&T-Mountain Road	0.633	County OS
11102	6	Somerset Co.	AT&T-Mountain Road	84.898	County OS
11102	41	Somerset Co.	Rickey Lane	20.108	County OS
11201	1	English Family	Wood Lot-Allen Road	59.235	Pres. Rights
11201	6	Bernards Twp	Pinson-Allen Road	5.228	Twp. OS
11201	11	Bernards Twp	Pinson-Allen Road	4.978	Twp. OS

BLOCK	LOT	OWNER	PARCEL NAME- LOCATION	ACRES	FUNCTION
11501	5.02	Somerset Co.	Prochaska-Mountain Road	14.357	County OS
11501	6	Somerset Co.	McNellis-Mountain Road	29.264	County OS
11501	18	Somerset Co.	Maolucci-Mountain Road	25.763	County OS
11501	19	Somerset Co.	Maolucci-Mountain Road	14.20	County OS
11501	20	Somerset Co.	Maolucci-Mountain Road	1.65	County OS
11501	21	Somerset Co.	Maolucci-Mountain Road	0.91	County OS
11501	22	Somerset Co.	Maolucci-Mountain Road	1.19	County OS
11501	23	Somerset Co.	Maolucci-Mountain Road	31.021	County OS
11601	1	Bernards Twp	Mountain Park-Mountain Road	143.864	Twp Park
11601	23	Somerset Co.	Pasnik-Sunset La.	20.961	County OS
11601	25	Somerset Co.	Off Long Road	15.24	County OS
11701	20	Bernards Twp	Sunset Lane	0.71	Twp. OS
11701	10	Bernards Twp	Darren Woods-Darren Dr.	2.44	Twp. OS
11701	19	Somerset Co.	DB-Martinsville Road	0.56	County OS
11701	21	Bernards Twp	Sunset Lane	1.12	Twp. OS
11702	7	Bernards Twp	Darren Woods-Darren Dr.	0.86	Twp. OS
11702	11	Bernards Twp	Darren Woods-Darren Dr.	13.872	Twp. OS
11702	28	Bernards Twp	20' wide trail-end Darren Dr.	0.331	Twp OS

Total: 3,217.63

PUBLIC PARTICIPATION AND PLANNING CONSISTENCY

As previously referenced in this Plan, the Parks and Recreation Department conducted a town-wide survey focusing on parks and recreational needs in September 2021 (see appendix A, below). The survey provided information on the types of facilities most important to Township residents. The Planning Board also holds public hearings to allow the public to participate in discussions regarding community open space and recreation planning. This includes public comment at the Planning Board's work sessions on the Periodic Examination of the Master Plan in 2019, and as part of this Master Plan update.

The Township should periodically review the Parks and Recreation Plan, as part of its tenyear statutory Master Plan review. In accordance with Municipal Land Use Law procedures, any amendment to the plan will require a public hearing, which will give the public an opportunity to comment on the planning process.

APPENDIX A Bernards Township Parks & Recreation 2021 Needs Assessment Survey – Review

The Parks & Recreation Department conducted a Needs Assessment Survey in September of 2021.

The Recreation, Parks & Pathways Committee worked in conjunction with the Department to review prior Township led surveys, recent surveys in surrounding municipalities and Somerset County and other sample surveys to develop questions for our Community Wide Needs Assessment. The survey launched on September 7, 2021 and accepted responses through September 30, 2021.

The survey link was included in the Department's Weekly E-Newsletter for four weeks, sent to approximately 1,700 email subscribers. The link was emailed to 4,193 households registered with the Parks & Recreation Department. The survey announcement was included in the Board of Education's District Friday Folder on September 17th and advertised on the Township's Facebook page and the Parks & Recreation Department's Instagram account.

We asked that the survey be completed once per household, considering the needs of all members living at the same Bernards Township residential address. We received 662 complete survey responses and 169 partial responses.

Most respondents indicated they learn about Department programs and events through our weekly e-newsletter (58%) and by visiting the Township's website (56%), with emailed newsletters being the preferred method of communication (73%).

Most respondents were not Pleasant Valley Pool Members (71%), with the top reason selected as has access to another pool (36%) in their backyard or HOA.

Most respondents were not Coakley-Russo Memorial Golf Course Members (88%), with the top reason selected as not interested in golf (51%). A few respondents did not know membership was an available option (8%).

When asked which parks were visited by their household within the last 24 months, Pleasant Valley Park (89%), Dunham Park (81%) and Mountain Park (49%) were the top three selected. Paws Park Dog Park (5%) and Farmstead Park Athletic Field (5%) were the least visited. When asked to select the three parks they visited most often, Pleasant Valley Park (76%), Dunham Park (58%) and Mountain Park (32%) remained the top three and Paws Park Dog Park and Farmstead Park Athletic (2%) field remained the bottom two (1%).

The top five types of facilities indicated as used on a regular basis were paved bike paths (56%), tennis/pickle/paddle courts (41%), playgrounds (39%), woodchipped trails (38%) and multipurpose fields for soccer, lacrosse, football, etc. (29%). Fewer respondents selected Basketball Courts (22%), baseball/softball Fields (13%) and the roller hockey rink (4%).

Most respondents visited parks more often during the pandemic (50%) or the same as before (33%) the pandemic began.

When asked to rate each of our five largest parks on a scale of 1 - 5 stars, with 5 stars being an excellent rating; Dunham Park, Pleasant Valley Park and Mountain Park scored an average of 4.2 stars; Rebel Hill Park and Southard Park scored an average of 3.5 stars.

Nearly all respondents indicated a need for paved walking and biking paths (93%) and most indicated a need for non-paved paths (67%), picnic shelters (58%), playgrounds (56%) and tennis courts (55%). Most of the respondents that selected those top five needs felt there was just the right amount or more than enough of the facility type available. While only 36% of respondents indicated a need for outdoor ice-skating facilities, 58% of those felt there were too few facilities available. Of the other top selections for too few available – lighted athletic fields (47%), indoor meeting/party space (46%) and artificial turf fields (40%) – only an average of 43% of respondents indicated a need for these facilities.

Respondents were asked to indicate if their household has a need for the following facilities:

- 51% percent indicated a need for indoor gym space.
- 48% indicated a need for lighted tennis or pickleball courts.
- 32% indicated a need for lighted basketball courts.
- 27% indicated a need for cricket fields.
- 25% indicated a need for a skateboarding area.

Approximately 53% of respondent households had participated in Department sponsored programs within the last 24 months. Of those who had not participated, 47% selected the reason for not participating as they did not know programs were offered. Overall, 96% of respondents who participated felt the programs offered were of good or excellent quality.

For youth, ages 17 and younger, the top program needs were Recreational Sports Leagues (36%), Instructional Sports Programs (36%), Basketball (33%), Soccer (32%) and Competitive Sports Leagues (32%). For adults, ages 18 – 54, the top program needs were Tennis (32%), Badminton (28%), Pickleball (22%) and Recreational Sports Leagues (22%). For seniors, age 55+, the top program need was pickleball (10%). A majority of respondents felt there were too few tennis and badminton activities available, followed by recreational sports leagues and instructional sports programs.

For youth, activities with high interest included science/STEM programming, summer camp and art. Adults and seniors showed most interest in fitness/exercise and wellness programs. Seniors also showed high interest in bus trips. Most respondents felt there were too few of the listed program types available – art, music, theater, science/STEM, wellness, summer camp and bus trips.

Summary

- **1.** Communication is most effective through email and use of the Township's website.
- 2. Multipurpose parks, which include several different types of facilities, are most visited.
- **3.** Walking and biking paths, both paved and non-paved, are most needed and used. Maintenance of pathways and addition of new pathways should be a continued goal.
- **4.** Picnic shelters, playgrounds and tennis courts are needed and used, and the facilities provided seem adequate at this time.
- 5. There may be a need for the addition of lighted athletic fields, lighted tennis/pickleball courts, indoor multipurpose space and artificial turf fields. These needs should be further explored.
- 6. Sports programming should remain focused on instruction and recreation leagues, specifically for tennis and badminton. While participation in baseball, softball, basketball, soccer and football programs has declined significantly over the last 10 years, participation in lacrosse, tennis and field hockey programs has increased steadily.
- 7. For youth, there is continued demand for summer camps, art and music programming and new interest in science/STEM programming. For adults and seniors there is continued interest in fitness/exercise and wellness programming. Expansion of current program and addition of new interests should be further explored.



CHAPTER VIII - CONSERVATION PLAN ELEMENT

"Of all the questions which can come before this nation, short of the actual preservation of its existence in a great war, there is none which compares in importance with the great central task of leaving this land even a better land for our descendants than it is for us, and training them into a better race to inhabit the land and pass it on."

President Theodore Roosevelt, August 31, 1910, Osawatomie, Kansas

INTRODUCTION

In furtherance of the conservation objectives of the State Legislature, the Municipal Land Use Law (*N.J.S.A. 40:55D-1 et seq.*) provides for preparation and adoption of a Conservation Plan Element (*N.J.S.A. 40:55D-28b.8.*) as follows:

"Conservation plan element, providing for the preservation, conservation and utilization of natural resources, including, to the extent appropriate, energy, open space, water supply, forests, soil, marshes, wetlands, harbors, rivers and other waters, fisheries, endangered or threatened species, wildlife and other resources, and which systematically analyzes the impact of each other component and element of the Master Plan on the present and future preservation, conservation and utilization of those resources;"

STATUTORY AUTHORIZATION

The MLUL authorizes municipalities to plan and zone to promote the general welfare of the citizens of New Jersey. The 17 purposes of the MLUL (NJSA 40:55D-2) explain the State's rationale for the statutory authorization for municipal land use planning and regulation. Nine of these purposes highlight the importance of conserving natural resources and maintaining a clean healthy environment.

- 1. The public health and safety (subsection "a") bear a direct relationship to the use and management of New Jersey's land and water resources.
- 2. Securing safety from floods and other natural and manmade disasters (subsection "b") and providing adequate light, air and open space (subsection "c") are similarly directed at conserving natural resources.
- 3. "Preservation of the environment", in part through planning for "appropriate population densities and concentrations" (subsection "e") is a key underpinning of local land use policy.
- 4. Providing sufficient space in appropriate locations for a variety of land uses is intended, according to their respective environmental requirements, to meet the needs of all New Jersey citizens" (subsection "g").

- 5. The statute also seeks to promote the conservation of "open space, energy resources and valuable natural resources in the State and to prevent urban sprawl and degradation of the environment through improper use of land" (subsection "j").
- 6. The conservation of energy is cited in subsection "n" ("promote utilization of renewable energy sources)" and subsection "o" ("promote the maximum practicable recovery and recycling of recyclable materials").
- 7. Preserving and retaining open land is cited in subsection "p" (concentrate development in areas where growth can best be accommodated and maximized while preserving agricultural lands, open space, and historic sites;").

GOALS AND OBJECTIVES

This Conservation and Open Space Plan Element of the Master Plan continues the general policies identified for Conservation and Open Space in the 2003 and 2010 Master Plans and identifies additional policy objectives.

The following Master Plan Goals and Objectives are directly relevant to the Conservation and Open Space Plan:

- 1. Neighborhood and community character are protected, attractive streetscapes throughout the Township are retained and improved.
- 2. Social courtesy, civic responsibility, and neighborliness are key quality of life indicators in Bernards.
- 3. Public and private facilities are sustainably designed, constructed, and operated.
- 4. Bernards Township is a better place to live, work and play based on an overarching respect for the natural environment and a desire to implement Master Plan policies with integrity and fidelity.
- 5. Rural and agricultural character of the township is retained to the greatest extent practicable through the policies of this Master Plan.
- 6. Development is limited to densities and intensities served by existing private and municipal capital facilities and by the capacity of the Township's natural systems where no such facilities exist.
- 7. The carrying capacity of the Township's natural and environmentally sensitive areas are respected and limit development density and intensity s.
- 8. Development techniques conserve energy, water and minimize the impact of development on the everyday environment.
- 9. The Township's historic sites and districts are preserved and maintained.
- 10. Land development regulations are continually examined and amended when appropriate to assure flexible and excellent design.
- 11. New design approaches such as lot averaging, and other open lands conservation

techniques are examined to determine their applicability in Bernards.

OBJECTIVES

LAND USE AND MANAGEMENT

- 1. Land use policies should strive to maintain and enhance community character, protect the integrity of existing neighborhoods and prevent the intrusion of incompatible new development.
- 2. The densities and intensities of permitted development on the limited remaining vacant lands should respect the environmental capabilities and limitations of these lands and not exceed the capacity of the natural environment and current infrastructure.
- 3. Groundwater aquifers and surface water quality and quantity should be protected, through the proper management of aquifer recharge areas, wetlands and their transition areas and fractured bedrock groundwater aquifers.
- 4. A reasonable balance among various land uses should be planned that respect and reflect the goals of the Master Plan.
- 5. Development densities and intensities should be planned at levels which do not exceed the capacity of the natural environment and current infrastructure, and growth-inducing infrastructure should not be extended into the rural countryside.

CONSERVATION AND OPEN SPACE

- 1. Environmentally sensitive land should be protected through acquisitions and/or conservation easements.
- 2. Recreational opportunities should be enhanced by construction of paths and expansion of greenways that better link neighborhoods with open spaces and natural lands.
- 3. Township-owned sites should be evaluated for potential active and passive recreational use with an emphasis on retaining natural lands wherever possible.
- 4. Open space acquisitions should be prioritized to meet evolving needs and current deficits and in concert with historic preservation objectives.
- 5. Continue to promote and enhance local stewardship of open spaces.
- 6. Identify and protect environmentally sensitive areas within the Township, including moderate and steep slopes, wetlands, flood plains, water bodies, ridge lines and areas of significant vegetation.
- 7. Preserve ridge lines in their natural state. Roof lines should be kept below the ridge line to preserve distant views and significant vegetation along the ridge lines should be maintained.

- 8. Protect streams, waterways and wetlands through careful stormwater and
- wastewater management practices and/or ordinances, and other efforts to minimize non-point pollution.
- 9. Protect naturally occurring steep slopes from development impacts, in order to protect existing natural systems and to prevent soil erosion and degradation of surface water quality.
- 10. Require conservation easements on environmentally sensitive areas in private ownership to prevent future disturbance.



Sweeping views across sloping terrain to distant ridgelines are found in Bernards Township

- 11. Preserve existing vegetation, with special emphasis on the protection of native forest cover.
- 12. Utilize native vegetation as replacement plantings in areas of disturbance.
- 13. Minimize site disruption by establishing clearly marked limits of clearing.
- 14. Plan the intensity of permitted development, in areas relying on groundwater supplies and on-site sewage disposal, in response to conservative estimates of available water resources and the ability to sustain on-lot disposal systems without degrading or impairing surface or groundwater quality.
- 15. Protect environmentally sensitive areas, encourage use of renewable resources, particularly energy, promote energy conservation and provide design flexibility for passive solar design with appropriate design standards and techniques in the Land Development Ordinance where appropriate.
- 16. Protect biological diversity through the maintenance of large continuous tracts and corridors of recreation, forest, flood plain and other undisturbed open space lands.
- 17. Maintain and/or provide natural vegetation in stream corridors and buffer areas in order to maintain and improve water quality, wildlife corridors and opportunities for passive and active recreation.
- 18. Plan and manage land use to preserve, protect and enhance surface water and groundwater quality, in part by managing the impacts of development on headwaters

tributaries.

- 19. Preserve and protect the high-quality waterways in the Township from point and nonpoint source pollution. Wherever appropriate, Best Management Practices (BMP's), such as, but not limited to, buffering, created wetlands, multistage storm water treatment systems, drywell infiltration systems for groundwater recharge, and storm water bioretention strategies, should be used to maximize groundwater recharge and protect downstream public drinking water supplies.
- 20. Encourage the use of recommended management practices for agriculture, forestry, and land development.
- 21. Encourage and assist in implementing the goals and management principles of The Ten Towns Great Swamp Watershed Management Committee to protect and enhance the ecological condition of the Great Swamp and its watershed and tributaries.
- 22. Promote sustainable landscape management and restoration practices that maximize use of native plant material and reduce reliance on fertilizers, pesticides, herbicides, and irrigation.
- 23. Promote forest stewardship and cultivate respect for existing trees in neighborhoods.

Many of these objectives are supported by existing ordinance provisions. Other objectives are advanced as policy objectives and recommendations for ordinance amendments, while other objectives enumerated above are identified to guide applications submitted to the Township's Planning Board and Board of Adjustment.

CONSERVATION PLANNING IN BERNARDS TOWNSHIP



Bernards Township's rolling landscape lends to its desirable sense of place.

Bernards Township contains a multitude of natural resources which together help define the essential character of the Township. The rolling landscape that surrounds the developed environment lends to a sense of place that should be fiercely protected; its vanishing would have a profound effect on the future character of the Township.

Toward this end, since 2003 the Township has considered a series of ordinances addressing native species plantings and neighborhood tree conservation and has adopted minimum improvable lot area and density calculations

based on natural resource limitations and other constraints.

This Conservation Plan proposes the continuation and expansion of Bernards Township's land stewardship efforts and outlines Bernards Township's strategies to meet the statutory purpose to preserve, conserve and utilize natural resources. Land stewardship involves the actions of both landowners and government agencies. The Township's approach to stewardship should be two-fold, including public education and implementation of ordinances for conservation subdivision designs, stormwater management, and protection of stream corridors, steep slopes, ridgelines and forests.

Public education on the importance of stewardship in protecting these valuable natural resources is available through existing educational programs offered by the County and State, and private non-profit organizations including the New Jersey Conservation Foundation, the Great Swamp Watershed Association and the Raritan Headwaters Association. The Township should seek to partner with these organizations to advance these efforts and explore the creation of new programs through Township schools and Township agencies such as Parks and Recreation or the Environmental Commission.

Sustainable Jersey, a statewide program to register and certify "green" municipalities, has outlined an agenda of environmentally friendly initiatives that municipal leaders can select from, when pursuing Sustainable Jersey certification. Sustainable Jersey is further described in the Green Building and Environmental Sustainability Plan (Green Plan).

While the Conservation Plan Element is designed to function in concert with the other plan elements, the most important linkage will be with the Land Use Plan. Together, these plan elements propose the location, scale and intensity of new development and the resource management strategies needed to protect the environment. By providing for development at densities that the land can support, the Land Use Plan effectively carries out the objectives of the Conservation Plan and vice versa.

This Master Plan reiterates the concern that retaining the existing zoning will overtax the natural environment, with substantial degradation of surface water and groundwater quality. It will also entail the removal of substantial forested areas, and farmlands, which are particularly vulnerable to suburban sprawl. It has become increasingly obvious that there are other alternatives available, and that zoning for sprawl does not protect the general welfare, but rather substantially degrades the environment and erodes the quality of life and human interaction.

Fragmentation and degradation of vegetation, land and water resources has been a byproduct of human activity. Woodlands, initially cleared for agricultural use, have given way to residential neighborhoods easily developed on these high, dry and usable soils. Water quality has been progressively altered and impacted by human activity.

The quality of the air we breathe and the water we drink determines the health of the human organism and all life forms. This Conservation Plan seeks to minimize further degradation of these resources for the 21^{st} century and beyond. This plan recognizes the inherent limitations of our ability to disassemble the natural world and put it back together again. It argues in favor of a lighter touch on the land, one that is more respectful of natural systems,

and that limits the resource commitments and impacts of human intervention. This calls for a systems approach to natural resource conservation, where interconnected natural systems are viewed as a collective resource, not a series of separate features.

The variety of biological species is an indicator of the health of an ecosystem. Maintaining biological diversity requires protection of critical habitat areas. While habitats of endangered or threatened plant or animal species are of special importance, threatened or endangered status may be transient. For instance, the great blue heron and bald eagle have been removed from the protected list, yet their critical habitats remain essential to their continued survival. Additionally, the extirpation of rare species removes elements from the food chain that help maintain ecological balance. The explosive deer population in New Jersey is but one example of the damage wrought when this natural balance is lost.

Protecting biodiversity requires the protection of terrestrial and aquatic habitats that are highly susceptible to degradation. Pristine waters cannot be maintained without the protection of their watershed areas. Freshwater wetlands play an important role in filtering contaminants from the surface water and groundwater regime and, while protected by state statutes, are not immune from impacts that occur beyond the regulated areas. Similarly, prime forested areas, including mature stands of native species, are easily lost or damaged through fragmentation, a manmade impact that reduces biodiversity.

The scenic wonder of ridgelines, slopes and ravines is only one aspect of the value of these natural features, without which certain species will not remain. Similarly, grassland habitats are essential to the nesting, feeding and breeding of a variety of grassland bird species, yet such areas are frequently lost to development. Land development should be arranged to maximize the conservation of substantial masses of critical habitat areas, by limiting the aerial extent of development and promoting conservation techniques targeted to these resources.

Aldo Leopold wrote in A Sand County Almanac: "A land ethic, then, reflects the existence of an ecological conscience, and this in turn reflects a conviction of individual responsibility for the health of the land. Health is the capacity of the land for self-renewal. Conservation is our effort to understand and preserve this capacity..."

THE HIGHLANDS REGIONAL MASTER PLAN

The New Jersey Highlands Council adopted a Regional Master Plan (RMP) for the Highlands in September 2008. The RMP divides the Highlands into two primary components - the Planning Area, where RMP policies are optional, and the Preservation Area, where conformance to the RMP is mandatory and must be completed by December 8, 2009.

Bernards Township is designated entirely within the Planning Area, where any local decision to conform or "opt-in" to the RMP is optional. While there is no time line for Planning Area communities to "opt-in" to the RMP, making the standards of the RMP applicable in the Planning Area, Bernards Township has considered this option. When RMP conformance was

considered, Bernards Township evaluated RMP policies, and the Master Plan amendments and local ordinance amendments required for RMP Planning Area Plan Conformance.

Bernards Township determined that State land use regulations for wetlands, riparian areas, flood hazard areas and stormwater management, Bernards Township's Master Plan policies, and local environmental protection ordinances, many of which pre-date the Highlands RMP, provide adequate land use protection. In addition, it was observed that another layer of state agency review over local land use decision-making is not desirable. As a result, it was concluded that Bernards Township would not conform to the Highlands RMP.

SUMMARY OF CONSERVATION FACTORS

Bernards Township possesses a number of unique natural resources. The greatest concentration of these is found at the periphery of the developed suburban core of the Township along the Passaic River to the east, the Dead River to the south and the Second Watchung Ridge, spanning the Township's entire southwesterly border with Bridgewater and Bedminster Townships. The following paragraphs identify these resources and highlight their importance in the ecosystem.

TOPOGRAPHY

The topography of Bernards Township ranges from the higher elevations on the Second Watchung Ridge (elevation 500') to the lower lying areas of the Great Swamp (220' elevation) and Dead River (200' elevation). Elevations are generally between 199' and 609' above sea level (see Figure VIII-1, Topography). The core of the Township is characterized by rolling terrain, with higher elevations on the surrounding ridges to the north and west.

The Second Watchung Ridge is part of the Watchung Mountains, extending westward from Millburn Township in Essex County. This topographic feature forms the southerly and westerly borders of Bernards. The westerly border is a minor extension of the Watchung Ridge, which also serves as a gateway to the Somerset Hills, which fan out through Bernardsville Borough. There are two other distinct ridge features present that attain 400' elevation, one in Basking Ridge running north to south and another south of Lyons Road running east to west. The latter is part of Long Hill, which extends from Chatham Borough to the east-central area of Bernards.

BEDROCK GEOLOGY

The topography of Bernards Township reflects the underlying bedrock geology, depicted in Figure VIII-2, Bedrock Geology. The Preakness Basalt flows which formed the Watchung Mountains are evident on the southerly and westerly borders, in a radial pattern evident in the Second Watchung Ridge. The Towaco Formation, which consists of fine-grained sand and siltstone, extends throughout the central portion of the Township. The Hook Mountain Basalt runs through the southerly side of Basking Ridge from the northeast side of South Maple Avenue, south of the railroad line to Lyons VA and east to Mount Airy Road. The Boonton Formation, spanning the northerly half of the Township border with Harding,

underlies the Great Swamp and northeast side of Basking Ridge. The Hook Mountain Basalt, which underlies Basking Ridge and the portion of Long Hill within Bernards Township, is a fine to coarse grained intrusion like the Watchung Mountains. The Boonton Formation is a fine-grained sand, silt and mudstone.

Protection of groundwater resources requires, in part, that development impacts to aquifers are managed in a way that protects recharge areas. Recharge areas are areas where permeable soils and natural drainage patterns permit the infiltration of surface runoff into the underlying geologic structure. Protecting aquifer recharge areas requires limitations on impervious coverage, to limit the negative effects of contaminated stormwater, and to assure that recharge areas remain open to infiltration. Adequate functioning of on-site septic systems is a major concern in this regard.

Figure VIII-3 depicts a series of "Conservation Factors" affecting Bernards Township, including streams, forests, wetlands, steep slopes and floodplains. This composite mapping highlights areas of the Township where sensitive resource limitations overlap or converge. These areas merit a high level of protection.

WATERSHEDS

The majority of Bernards Township (i.e., 88.4%, 21.4 square miles) is located within Watershed Management Area 6 (Upper & Mid Passaic, Whippany & Rockaway), as defined by the State Development and Redevelopment Plan and NJDEP's New Jersey Geological and Water Survey (see Figure VIII-4, Watershed Management Areas). Small portions of the Township's westerly-most boundary are located within Watershed Management Area 8 (North & South Branch Raritan), and a small portion of the southerly tip of the Township is located within Watershed Management Area 9 (Lower Raritan, South River and Lawrence).

All of the Township's medium-density residential zones (R4, R5, R6 and R7) are located within Watershed Management Area 6, which itself consists of five subwatersheds, (1) Upper Passaic (above Osborn Mills); (2) Upper Passaic (Dead River to Osborn Mills); (3) Dead River (below Harrison Brook); (4) Harrison Brook; and, (5) Dead River (above Harrison Brook).

SURFACE WATERS

Bernards Township has approximately 57 miles of streams and rivers, which are depicted on Figure VIII-3, Conservation Factors. The Passaic River forms the Township's easterly border with Harding and Long Hill Townships and flows roughly north to south. The two other main flowing water bodies are Harrison Brook and the Dead River. Harrison Brook has its origins in the north-central portion of the Township, north of I-287, and flows south to its confluence with the Dead River. The Dead River originates in the northwest corner of the Township, north of I-287, and flows south and east along the Township's southeast border where it then joins the Passaic River. Since 2003, NJDEP Flood Hazard Area Control Act (FHA) regulations have expanded controls designating riparian zones, with minimum 50' buffers on all streams. According to the NJDEP, riparian zone requirements identify three widths of riparian zones, as follows:

- 300 feet along both sides of Category One waters (and all upstream tributaries within the same HUC-14 watershed).
- 150 feet along trout production waters and all upstream tributaries; trout maintenance waters (and tributaries within one mile upstream) and waters flowing through an area that contains documented habitat for a threatened or endangered species of plant or animal, which is critically dependent on the regulated water for survival (and tributaries within one mile upstream); and
- 50 feet along all other waters.
- No riparian zone exists along the Atlantic Ocean or any manmade lagoon, stormwater management basin, or oceanfront barrier island, spit, or peninsula.

Riparian zone protection, reforestation and restoration of stream corridors assumes a high priority because these areas contribute to aquifer recharge and maintenance of stream baseflow upon which surface waterway flows rely during dry seasons of the year, periods of low rainfall and drought. Stream baseflow is the groundwater reserve underlying streams that serves to support aquatic life and the overall health and water quality of the Township's surface waters. Stream baseflow is the underlying component of a stream that functions to ensure surface water courses do not dry up. For example, riparian zone forests and meadows capture stormwater runoff that recharges the groundwater regime by retaining a substantial portion of the overland flow and allowing for groundwater recharge that might otherwise flow unimpeded to the surface water course and directly exported downstream away from the Township's natural areas where recharge is needed for healthy ecological function.

FLOODPLAINS

Floodplains flank the streams and rivers that drain the Township, as depicted on Figure VIII-3, Conservation Factors. By far the most extensive floodplain is associated with the Passaic River in the northeast portion of the Township. Most of the floodplain areas here are within the Great Swamp watershed and part of Lord Stirling Park, permanently protected as open space and recreation land. The floodplain in this area extends as far as 3000' from the Township border to the east and is variable in width. The Dead River also has an extensive floodplain within Bernards Township, major portions of which are encompassed within Township-owned lands directly south of Spring Valley Boulevard. Except for a few elevated areas to the interior of these properties, the floodplain extends to Spring Valley Boulevard.

Further north, where the Dead River flows from the northwesterly corner of the Township, the floodplain is variable, ranging in width from 200' to 2500' at its widest point in the southeast corner of the Township. Harrison Brook flows through the central portion of the Township and has a variable width floodplain. As the brook flows south, its floodplain fans out further, reaching 1000' at its widest point. Altogether, floodplains total 2,200 acres and account for roughly 15% of the Township's acreage.

NJDEP FHA updated rules (2023) set limits on building in the flood hazard area, prohibiting construction of basements and restricting construction of crawlspaces and garages unless their floors are more than three feet (3') above the high-water mark, as is also required for any new road. The amended rules impose a riparian zone protection designation for all new construction, or reconstruction of existing buildings, regardless of whether the site is located in a flood hazard area. A "Zero Net Fill" requirement in the rules prohibits construction from covering more than 20% of the flood storage volume of a site and requires removal of fill to compensate for the flood storage volume reduced by proposed development within the floodplain.

"The riparian zone is the land and vegetation within a regulated water and extending either 50 feet, 150 feet or 300 feet from the top of bank along both sides of the regulated water, depending on the environmental sensitivity of the water." ³⁸ The amended NJDEP FHA regulations require permits for construction, filling or clearing land within either 50 feet, 150 feet or 300 feet of a watercourse, depending upon the environmental sensitivity of the water, with very limited circumstances under which vegetation in the Riparian Zone may be disturbed or removed.

WETLANDS

Wetlands account for approximately 20% of the total land area of Bernards Township. Many of these wetlands correspond to the floodplains of the three major rivers and streams of the Township; however, there are wetlands in various locations that are part of the greater hydrologic system as depicted on Figure VIII-3, Conservation Factors. The largest concentrations of wetlands occur in the vicinity of Lord Stirling Park/Great Swamp, and along the Dead River floodplain, south of Spring Valley Boulevard. Wetlands within Bernards Township play an important role by filtering contaminants as well as retaining precipitation and slowly feeding it to headwater streams.

STEEP SLOPES

Steep slopes occur in various locations throughout the Township (see Figure VIII-3, Conservation Factors) but are primarily found along the Second Watching Ridge on the Township's southerly and northwesterly boundaries. Slopes greater than 15% are also found along the extension of Long Hill in the very center of the Township south of Basking Ridge and in the northerly-most part of the Township in the vicinity of Hardscrabble Road. Bernards Township regulates steep slopes over 15% and requires detailed grading plans and architectural plans as part of a development application involving disturbance within these areas.

³⁸ NJDEP.

FORESTED AREAS

Despite the substantially developed character of north/central Bernards, the westerly and southerly portions of the Township retain large contiguous forests, many of which are permanently preserved as parks and open space. The more developed portion of the Township has spotty forested areas, primarily found on remaining undeveloped parcels and along stream corridors. Roughly 30% (4,360 acres) of the Township remains forested.

Forests provide a wide range of benefits, improving air quality, aiding aquifer recharge and preventing soil erosion. Most of the



Approximately 30% of Bernards Township remains forested.

forests in Bernards also provide critical habitat for endangered and threatened species (see next section on Critical Habitat). The preservation of remaining forest cover is not only of critical importance to the perpetuation of these species, but also to the retention of the Township's rural character.

The NJDEP publication titled "Protection and Care of Urban Forests" provides a detailed list of the resources protected and offered by forested areas. It notes that forests:

- Modify local climatic conditions near or within their boundaries.
- Create the feeling of privacy.
- Serve as recreational facilities.
- Provide habitats for plants and animals.
- Reduce surface runoff because of the high moisture holding capacity of the forest soils and tree canopy.
- Enhance the visual characteristics of the scenic corridors.
- Reduce noise pollution.
- Produce oxygen.

CRITICAL HABITAT FOR THREATENED AND ENDANGERED SPECIES

First instituted in 1993, the New Jersey Department of Environmental Protection Endangered and Non-game Species Program (ENSP) established a landscape level approach for endangered species identification and protection. With suburbanization and development occurring in all areas of the State, an increasing amount of habitat suitable for threatened and endangered species was then being lost daily, which continues today.

To address habitat loss, ENSP partnered with The Center for Remote Sensing and Spatial Analysis (CRSSA) at Cook College, Rutgers University. Utilizing LandSat Thematic Mapper satellite imagery, CRSSA mapped land cover for the entire State of New Jersey, broken down

into 20 different habitat/land cover types. After generalized cover types were classified, detailed methodologies were developed to address the habitat suitability issues for each focus category, including beach/dunes, emergent landscapes, forested wetlands, forested areas and grasslands.

After reclassifying data based on standards developed for each focus category, the habitat data was intersected and combined with the Natural Heritage Program's Biological Conservation Database (BCD). This database is a Geographic Information System (GIS) coverage that provides information on the sighting of threatened and endangered species, based on the field work of ENSP scientists and sightings reported by members of the public. It is the most comprehensive data available in digital form on the location of threatened and endangered species.

The combination of these two data sets resulted in the data depicted on Figure VIII-5, NJ Landscapes Project Version 3.3. The Landscape Project data provides users with scientifically sound, peer-reviewed information on the location of critical habitat based on the conservation status of the species that are present. Habitats are ranked on a scale of 1 to 5, based on the criteria outlined in the following table:

NJ LANDSCAPES PROJECT RANKING SYSTEM

Rank	Indication
1	Suitable habitat, no special concern, threatened or endangered species sighted
2	Habitat patch with species of special concern present
3	Habitat patch with State threatened species present
4	Habitat patch with State endangered species present
5	Habitat patch with Federal threatened or endangered species present

Bernards Township is rich in habitat that is suitable to support populations of threatened and endangered species. Bernards Township includes approximately 30 percent (3,574 acres) of forested areas, and 16 percent (2,474 acres) of wooded wetland areas. Many of the forest and wetland/forest resources that are present in Bernards Township are ranked 5, indicating the presence of Federally-listed Threatened and Endangered species. Approximately 72 percent % of Bernards Township's forest resources are Rank 5 while the remaining approximately 28 percent are identified Rank 1, 2, 3 or 4. Roughly 41 percent of the wetland/forest resources are Rank 5 with 45% Rank 2 and 3. In addition to these highquality habitats, there are also grassland and emergent habitats present within the Township.

While forest is the most extensive habitat found in Bernards Township, the wetland/forest habitat is the most critical primarily within the floodplain of the Passaic River in Lord Stirling Park and along the corridor of the Dead River in the east part of Bernards Township. The critical forest habitat of Bernards Township extends along the south boundary with

Bedminster and Bridgewater Townships, wrapping around to the west boundary with Far Hills and Bernardsville. Some critical forest resources also extend north along the Dead River and Harrison Brook corridors.

Bernards Township also has critical emergent and grassland habitat. Although not as high ranking as much of the forest and wetland/forest habitat, it nonetheless is worthy of noting. Emergent habitats are those that are critical to the reproduction of many amphibian species, which occur within early spring pools. The NJDEP conducts ongoing efforts to identify and monitor these emergent habitats, with the hopes of giving them the same protection that wetland areas are afforded under State legislation, which has not yet been established. Rank 1 and Rank 2 emergent habitats are located along the Passaic and Dead River floodplains. The grassland habitat depicted in Figure VIII-5 is primarily Rank 3, with small areas of Rank 1 present as well. Grassland resources are concentrated near Lord Stirling Park, the southerly tip of Bernards Township, and along the west side of Bernards Township adjacent to Far Hills. There is a total of 381 acres of grassland habitat in Bernards Township.

NJ Landscapes data does not include the entirety of Bernards Township's land area. 9,512 acres (approximately 61%) of Bernards Township's total acreage of 15,680 is classified as Rank 1, 2, 3, 4 or 5 by the NJ Landscapes Program. The following list identifies the acreage and percent area of the 9,512 acres in Bernards Township that has been assigned a Rank under the NJ Landscapes data classification system:

Rank 1: 1,901 acres 12 percent. Rank 2: 1,760 Acres 11 percent. Rank 3: 419 Acres 3 percent. Rank 4: 114 Acres 1 percent. Rank 5: 5,318 acres 34 percent.

The Landscape Program data was intended to aid municipalities, County and State governments, conservation agencies and citizens by identifying the extent of critical habitat within their respective jurisdictions and communities. A variety of means should be employed to protect these critical habitats, including the following:

- Prioritizing open space acquisitions based on the presence of habitat for threatened and endangered species.
- Adopting regulations aimed at protecting critical habitat.
- Adopting management policies for open space that are consistent with protection of critical habitat.
- Permitting flexibility in development techniques to protect critical habitat.
- Promoting land stewardship practices that are consistent with the protection of critical habitat.

More than half of the land area in the Township is categorized as critical habitat for threatened and endangered species, whether it's forest, grassland, emergent or forested

wetland. The Landscape Project data highlights the extent and critical nature of these resources found within Bernards Township.

CARRYING CAPACITY

Carrying capacity is a planning technique used to establish the maximum population level of a species based on the availability of natural resources. Carrying capacity had its genesis in ecological studies, used to manage wildlife habitat rangeland for grazing. In the context of land use planning, carrying capacity has been defined as the ability of natural and man-made systems to support a level of population growth and ancillary development while maintaining established standards of performance. When applied to land use planning, an assessment of carrying capacity is useful in establishing maximum densities or intensities of development. However, sustainability requires a margin of safety, not planning for the maximum development that can be supported.

The policies and strategies of this Conservation Plan seek to limit the impacts of development and retain the natural terrain and features to the greatest extent practicable. This plan also promotes the restoration of natural systems that have been degraded by past activities. As new regulatory tools or techniques become available, they should be evaluated for their ability to promote the Conservation Plan objectives and adopted where appropriate. Conservation easements for critical resources should be expanded, and a program of mapping and monitoring instituted. Additionally, open space and woodlands acquisition priorities should support the goals of the Conservation Plan.

In 2007, Bernards Township sought to further document the planning rational for designating the two Conservation Residential Districts (CR-1 & CR-2) in the Township's environmentally sensitive southerly, westerly, and northerly tiers of the Township (see Figure II-3, Land Use Plan). At that time, Bernards Township retained the services of a hydrogeologist, Mr. Matthew Mulhall, PG, to prepare a groundwater evaluation. Mr. Mulhall's report, entitled "Evaluation of Groundwater Resources of Bernards Township, Somerset County, New Jersey" 2008 reinforced the Conservation District planning orientation recommended in the 2003 and 2010 Master Plans by again calling attention to the need for lower development densities in unsewered areas to protect groundwater from septic contamination. The report is available at bernards.org by searching the title of the report.

The groundwater management strategy from the 2003 and 2010 Master Plans proposed CR-1 and CR-2 Districts that seek to limit the degradation of groundwater while also permitting appropriate uses of land. Those recommendations remain in this Master Plan update, which seeks to program uses of land that can conserve and manage limited resources, while also permitting development at densities that limit degradation and serve to better protect the potability and availability of groundwater resources. Updated DEP septic density standards since 2010 reinforced this policy orientation by highlighting the need for a further evaluation of the minimum lot criteria needed to meet this state mandate.

DEP regulations require a 300' Riparian Zone for all Category 1 streams and their tributaries and 50' to 150' Riparian Zones on other waters depending on the environmental sensitivity of the water. On May 23, 2023, Bernards Township adopted Ordinance #2521 that amended and updated the Township's stream buffer regulations for consistency with current DEP riparian zone standards. Amended local regulations acknowledge existing conditions and provide protection for existing development within the riparian zone. Bernards Township includes some high-quality stream segments on the northeast side of the Township, including trout production waters, and streams in the Township that are headwaters to the Dead River and Harrison's Brook, which flow to the Passaic River. Headwaters are particularly vulnerable to degradation because of the limited available flow, and any degradation in headwaters is transferred downstream throughout the surface water system.

In unsewered areas, Bernards Township's Master Plan proposes to achieve the objectives of the State Plan through zoning techniques that avoid sprawl. A key Mulhall finding (page 69) calls attention to the need for adequate recharge areas to dilute septic system contaminants:

Within the small portion of the township underlain by Precambrian rocks, recharge areas open to infiltrating precipitation ranging from 9.3 to 12.9 acres are necessary to ensure adequate recharge is available to dilute septic system contaminants that migrate into bedrock aquifers in this area. Given the very low replenishment rate of the Preakness Basalt, if septic system contaminants migrate into the same fractures used for water supply, recharge to the equivalent of 23 to 67 acres will be necessary to adequately dilute the nitrates in these discharges to the current antidegradation level. Within the slightly more than 2400 acres underlain by the Jurassic sedimentary rocks, recharge to 7.3 acres will be necessary for diluting nitrates in septic system discharges to a concentration of 5.8 mg/l.

Thus, Mulhall concludes that the minimum recharge areas per septic system for the aquifers that underlie the proposed CR-1 and CR-2 Districts are generally comparable to or in excess of the 7-acre and 10-acre minimum lot criteria recommended in the 2003 Master Plan. Both the DEP septic density standards and the Mulhall study corroborate the 2003 & 2010 Master Plan recommendations to reduce residential densities in non-sewered areas that are reiterated in this Plan.

SUMMARY OF CONSERVATION PLAN POLICIES

ENERGY AND AIR QUALITY

Protection of air quality is a measure difficult for individual municipalities to control given that most impacts to air quality come from outside the region. Mobile sources represent the largest source of air pollution in New Jersey. According to the NJDEP Bureau of Mobile Sources, cars, trucks, buses, off-road construction vehicles, locomotives, marine engines, and planes are all considered mobile sources of air pollution. While emissions from individual cars are relatively low, there are millions of diesel and gasoline vehicles travelling in and through New Jersey every day emitting thousands of tons of pollutants including particulate matter, oxides of nitrogen, air toxics and greenhouse gases. The combination of coal burning power plants and industry to the west in the Ohio Valley along with prevailing wind directions also impact air quality in our region.

Mindful that mobile sources and their emissions are the largest contributor to air quality in New Jersey, the State has implemented an array of initiatives to reduce vehicle emissions through the promotion of electric vehicles (EV) use and purchases. These include:

- EV purchase discounts,
- No sales tax on EV purchases,
- Legislation requiring mandatory incorporation of EV charging stations into site plans for new residential and nonresidential development with requirements for construction of EV stations, and including limitations on municipal ordinances regulating EV station development,
- Electric utility (BPU) rebates (up to \$500) on purchases of in-home EV charging stations,
- Mandatory build-out of the construction of 400 EV charging stations for public use at 200 locations across the State.

EV charging stations have arrived in Bernards Township and additional EV charging station development is anticipated soon as the number of electric vehicles on the road continues to increase. Existing office, commercial and public parking facilities will provide convenient and appropriate locations for installing these charging stations as public demand for EV charging stations increases.

Promoting sound principles will aid in reducing further effects on local air quality and maximize energy efficiency and use of alternative technologies. To effectuate this, the following measures are recommended:

- 1. Promote alternative means of transit by providing opportunities and access for alternative transportation systems (buses, car and van pooling, bicycling, and walking).
- 2. Reduce the need for vehicular trips by facilitating better connections among residential, commercial, office, and recreational uses.
- 3. Encourage staggered work hours for large employment centers.
- 4. Encourage energy conservation through subdivision design, building design and building orientation to maximize passive solar gain.
- 5. Recommend landscaping standards that provide buildings with maximum solar access, shading, and wind protection.
- 6. Encourage the maximum recovery of recyclable materials and the use of renewable energy sources.

- 7. Require air quality assessments at principal intersections for significant developments (three hundred (300) or more vehicle trips per day) to identify problem areas and mitigation strategies.
- 8. Design and encourage bikeways, pedestrian walkways, and other routes, where appropriate, to maximize opportunities for non-motorized travel in existing and new development.
- 9. Encourage the use of alternative energy technologies, such as active solar collection for electricity or passive solar space heating and recommend ways to accommodate these features without negative neighborhood visual impacts.

FOREST RESOURCES

Woodlands serve a number of important functions in the ecosystem. The most basic is the production of oxygen through the assimilation of CO2; this is critical to the survival of both humans and animals and gives forests an undeniable intrinsic value and indicates the need for their conservation. Forests are also excellent filters for surface runoff, reducing runoff volume and providing valuable recharge areas for groundwater aquifers and surface waters. Woodlands are the primary habitat areas for plant and animal species, some of which are threatened or endangered. Forests also play an important role in regulating climate, providing shade for water bodies that sustain life and cooling the environment. Removal of trees and other vegetation results in ecological, hydrological, and economic impacts, and eliminates microclimate benefits in the community that accrue from these resources.

Aside from ecological benefits, woodlands and other native vegetation also provide visual diversity in the terrain. They enhance property values and contribute to the latent value of open space and recreation amenities, making them more attractive places within the community.

Along with the benefits from woodlands and other native vegetation; however, are significant challenges such as managing invasive exotic species, such as the Tree of Heaven (*Ailanthus altissima*), which is "a rapidly growing deciduous tree native to China that has become a widespread invasive species across North America,"¹ and established itself as a widespread nuisance throughout the Township, and is host to the Spotted Lantern Fly, also a native of China. It is "a problem because it reproduces very quickly and aggressively inhibits (and can even kill) native plants near it. This invasive plant produces an overly abundant amount of seeds, crowds out native species with its dense thickets and secretes a chemical into the soil that is toxic to surrounding plants. When native plants are hindered or killed, it upsets the balance of the native ecosystem (³⁹ and biodiversity, potentially leading to extinctions of native plant and animal species⁴⁰ across the whole ecosystem".⁴¹

³⁹ Link to: <u>https://www.nature.org/en-us/about-us/where-we-work/united-states/maryland-dc/stories-in-maryland-dc/maryland-invasive-species-taking-on-the-invaders-of-maryland/</u> - an article by The Nature Conservancy, last updated July 27, 2023, entitled "Taking on Maryland's Invasive Species."

 ⁴⁰ Link to: https://www.nature.org/en-us/what-we-do/our-insights/perspectives/biodiversity-crisis-nature-underpins-human-existence/ - an article by The Nature Conservancy, entitled "Biodiversity: Nature by Another Name."
 ⁴¹ Nature Conservancy, "Tree of Heaven", July 2020

Invasive species have crept into and spread throughout the Township's landscape as a result of regional proliferation of these unwanted intruders. The impact of invasive species on the Township's prized landscape may well extend beyond the alteration of the diversity of native species in the Township's forests. According to the Nature Conservancy, "… <u>invasive species have directly contributed to the decline</u>⁴² of 42% of the threatened and endangered species in the United States."

The following approaches are recommended to preserve, protect and improve the forest resources in the Township.

- 1. A woodland conservation plan should be required as part of any application for development where critical forest resources have been identified. This plan should include identification of the floodplain, mesic and upland forest stands on the tract, identify the type, location and extent of invasive species on the tract, a short-and long-term plan for removal of invasive species and management of the tract, and the woodland conservation plan should be a primary consideration in the arrangement of development.
- 2. Performance standards should be established limiting the extent of forest removal, based on the quality of the forest type. Priority wooded areas for preservation include unique forest types, woodlands adjacent to public water supply tributaries, habitats critical for endangered and threatened species, specimen trees, large, wooded patches, 100-year floodplains, wetlands, stream corridors, and slopes of 15 percent or greater.
- 3. Performance standards should be developed to encourage the preservation of habitat areas that are as large and circular as possible, gradual and undulating at the edges and connected by wildlife corridors wide enough to maintain interior conditions (i.e., 300' or more).
- 4. Hedgerows and forest areas along traveled roadways and established property boundaries should be retained, managed, and enhanced, where appropriate, with native species. This is especially important on roadways identified in scenic roadway studies. These naturalized features also serve as buffers, providing separation between residential and commercial and industrial areas.
- 5. Existing and proposed greenways should promote and preserve existing woodland corridors to the greatest extent possible. This is especially important where greenways are proposed along stream corridors.
- 6. Reforestation and afforestation of open spaces through the use of native species should be required to enhance habitat, manage invasive exotic tree and plant species, promote recharge and reduce surface runoff, erosion and flooding.
- 7. A construction mitigation plan, which minimizes construction-related impacts on woodlands, should be required prior to disturbance of more than 10,000 square feet of woodlands.
- 8. Reduced residential densities and the use of creative development techniques such as clustering, lot averaging, and non-contiguous clustering are authorized in the

⁴² Link to: <u>https://www.nature.org/en-us/about-us/where-we-work/united-states/ohio/stories-in-ohio/native-plants/</u> - a March 15, 2023 article by The Nature Conservancy, entitled: "Protecting Native Plants in Ohio."

M.L.U.L and provide the ability to protect valuable forest resources identified in the Township. Flexibility in design allows development to occur in a manner more consistent with conservation goals and objectives.

9. A Township-wide policy and strategy should be developed to address the proliferation of invasive plant and tree species and include an educational campaign for residents to understand the harm posed by invasives to the Township's landscape and biological diversity

GROUNDWATER

The groundwater resources of the Township provide potable water to many of the Township's rural areas. Groundwater also provides base flow to rivers and streams during low flow periods. To protect and maintain this critical resource, it is recommended that the Township consider the following activities:

- A program should be established, or coordinated with an existing County or State program, to ensure that existing septic tanks are regularly pumped and maintained in a manner similar to the revised State Health Code standards for new systems.
- Ongoing public education should be directed at water conservation and preventing the discharge of toxic and hazardous pollutants to groundwater.
- The Environmental Commission, in conjunction with the Health Department, could conduct an environmental audit of groundwater quality, including an analysis of existing groundwater samples and an identification of existing facilities, which could adversely impact groundwater. Among the facilities that should be mapped and inventoried are the following:
 - (1) Underground storage tanks.
 - (2) Gas, fuel, and sewer line locations.
 - (3) Large septic systems for commercial/industrial users.
 - (4) Permitted community septic systems.
 - (5) Hazardous substance storage areas and facilities.
 - (6) Permitted NJPDES groundwater or surface discharge facilities.
- The Township should consider a wellhead protection program to protect areas in the Township with clusters of residential wells that might be threatened by inappropriate land uses.
- Consistent with NJDEP 2021 updated stormwater management rules, stormwater management ordinances should encourage the implementation of best management practices (BMP's) that promote water quality objectives and the recharge of groundwater supplies. Infiltration and water quality basins should be required with new development to the greatest extent practical, even when not required under the State's stormwater regulatory regime.
- Residential densities in unsewered areas should be reduced as originally recommended in the 2003 Master Plan, subsequently highlighted in the Mulhall report, reiterated in the 2010 Master Plan and consistent with the new DEP septic

density standards. These changes are important to protect the potability of groundwater from the impacts of septic systems.

- Landscaping standards should require the use of native and locally adapted plants, and designs, which minimize irrigation, maintenance and turf areas and require mulches to preserve soil moisture.
- Irrigation systems for lawns and landscaping should be curtailed or eliminated in new developments and drip irrigation for localized watering should be encouraged.
- The Township should evaluate alternative well testing methodologies to assure that groundwater availability is accurately analyzed. Test wells installed as part of a groundwater availability analysis should also be tested for potability.
- The Township should relate the intensity of permitted development to conservative estimates of i) available water resources; and ii) the ability of the soil and ground water to sustain on-lot disposal systems without degrading or impairing surface or ground water quality.
- Impervious cover should be limited to foster maximum recharge and sustainable yields in regional watersheds dependent on groundwater supply whether public or private, and to maximize groundwater recharge needed to maintain base flow of the Township's surface waters.

SCENIC RESOURCES

Bernards Township's "sense of place" is inextricably linked to the views encountered traveling along local roadways and rivers. The perceptual experience of landscape is a dominant element in the perceived "quality of life" for Bernards Township's residents and visitors to the community. The protection of scenic vistas, particularly those seen from public rights-of-way, serves to maintain the sense of place that exists within the Township. The Planning Board, as the agency carrying out development review, is the most appropriate agency to promote the maintenance of existing scenic resources within Bernards; however, the Board of Adjustment also plays a critical role in managing change and maintaining the Township's scenic resources in its role as the most active local development review agency.

The Municipal Land Use Law (N.J.S.A. 40:55D-1 et seq.) provides a basis for such scenic character concerns, within the purpose, "to promote a desirable visual environment through creative development techniques and good civic design and arrangements" (N.J.S.A. 40:55D-2i). This purpose has particular relevance in subdivision and site plan review. The issue of scenic resource protection is also highlighted in the State Development and Redevelopment Plan (SDRP), which advances scenic resources management strategies.

Identifying Scenic Resources and Corridors

Landscapes are composed of groups of natural and man-made elements that combine to create a specific landscape character. The natural elements of landscape include:

- 1. Physical features: Valley Hills Plains Ridgelines
 - High points
 - Elevation changes
- 2. *Hydrographic features:*
 - Ponds Lakes Streams Swamps
 - Marshes
- 3. Vegetative features:

Fields (natural, agricultural, cultural open spaces) Forests

Hedgerows along fields and roads

4. *Cultural or man-made elements:* Roads (paved/unpaved; primary/secondary) Structures (buildings and monuments) Stone walls and fences Land use patterns

The observer's position in the landscape shapes interaction with the scenic resource, which in turn shapes the perception of visual beauty. In general, the distance to the landscape scene increases the observer's visual focus shift from details and particular features to forms and patterns.

Management Considerations

Standards should be established for the review of subdivisions and site plans that take into consideration the features that establish roadside and distance views. The following issues should be considered.

- 1. Roadside Views:
 - Vegetation management
 Clearing to promote visual penetration.
 Planting to shield development.
 Selective cutting to maintain corridor.
 Access points for local streets
 Utilize natural breaks.
 Subdivision configuration
 Maintain stone rows and hedgerows.
 Utilize forested areas as backdrops.
 Shield development via street design.
 Arrange home sites to protect open fields.

Distance Views: Location of development In foreground or midground of hillsides, away from ridge lines. Behind visual barriers. No higher than tree line. Street alignment Follow hedgerows and stone rows. Screening material consistent with existing topography and native vegetation

2.

Bernards Township has a wealth of scenic character elements, as a drive through the Township will confirm in any season of the year. Stonehouse Road, one of the more scenic thoroughfares, is a good example of a scenic roadway that may merit protection. The Township should develop a methodology for identification of scenic corridors in Bernards Township and priorities for conservation of those particularly scenic areas that merit special treatment.

The Somerset County Planning Board prepared a study of Scenic Corridors and Roadways (July 1992) that developed a rating system for scenic corridors and roadways. According to the County, scenic corridors have an area of influence that extends beyond those lands that border the roadway to include the entire landscape, while scenic roadways focus on the visual foreground at the edge of the roadway.

The County study suggested that while the State Development and Redevelopment Plan espouses worthy objectives relative to scenic corridors, "... the State Plan has not provided practical guidance on how to implement these policies." The County Planning Board suggested that "... use of an objective rating system ...lend credibility and support to a scenic roads program and thereby shield the municipality from court challenges."

The County developed designation criteria to allow an objective evaluation of candidate roadways. A rating system was developed to establish the relative scenic merits of various roadways, and all appropriate County Road segments were analyzed. These designation criteria included positive features (vegetation, landscape composition, road characteristics and structures or historic districts); and negative features (landscape "scars" such as quarry sites or utility lines, structures such as junkyards, car lots or storage tanks and "other features such as high traffic volumes, litter, and landscape manipulation).

The County also suggested that municipalities utilize the master plan, zoning ordinance and site plan and subdivision standards to enhance scenic resource protection. Master plans should coordinate circulation, conservation, and historic preservation plan policies with scenic resource protection goals. Site plan and subdivision standards may have the greatest role in protecting scenic qualities since they can control the siting of buildings, lots and roads.

Specific road design and maintenance standards are recommended by the County including standards for cartways, bridges and culverts, curbing and drainage, guide rails, vehicle limits, intersection treatments, landscaping, lighting, and signage. The County also cites mitigation

strategies, including landscape management plans and lighting and signage controls.

The Township should pursue the following recommendations to develop a program for the protection of scenic resources:

- 1. The scenic resources of the Township should be identified and ranked according to the combination of elements present and proximity to the public way.
- 2. Design standards should be developed for different categories of attractive views, including enclosed roadside views, extended roadside views, and distance views.
- 3. Significant ridgelines and hillsides in the Township should be identified and offered protection through the Land Use Ordinance. This could include a ridgeline and hillside protection section which defines ridgelines and offers measures to protect and buffer them from potentially visually scarring impacts of clearing and residential development itself.
- 4. Design standards should be incorporated into the Township's subdivision and site plan process, to guide the location and configuration of development to protect scenic corridors and viewsheds.
- 5. Enhanced setback standards should be established to limit the intrusion of new development along scenic roadsides.

STEEP SLOPES

Development on steep slopes has far reaching impacts. Clearing of trees and disturbance in steep slope areas leads to soil erosion and sedimentation of streams and water bodies, even with strict protective measures in place. Soil erosion and sedimentation even occurs from steep slope disturbance outside of require stream corridors and buffers. A number of the steep slope areas in the Township occur on the banks of streams and rivers, where there is a significant threat of environmental damage if these slopes are disturbed. Bernards Township has recognized the environmental sensitivity of steep slopes and land disturbance impacts to be avoided by including steep slopes in the natural resource deductions contained in the Land Development Ordinance.

To avoid impacts due to disturbance and clearing of naturally occurring steep slopes, the following are recommended:

- 1. Strictly adhere to development standards limiting the extent of disturbance to slopes greater than 15% and require individual lot grading plans where disturbance is permitted.
- 2. Develop land use strategies which allow parcels to be developed utilizing lot averaging and clustering techniques, to avoid disturbance, tree clearing on steep slopes and to maintain open fields.

STREAM CORRIDORS

With nearly 57 miles of streams and rivers in the Township, protection of stream corridors is critical. Bernards Township maintains and periodically updates stream corridor

protection standards in the Land Development Ordinance. Ordinance #2521 adopted on May 23, 2023 amended existing stream buffer requirements for consistency with NJDEP Flood Hazard Area Act Riparian Zone regulations. Ordinance #2521 also added riparian zone deductions to the Land Development Ordinance.

Many streams and rivers form municipal boundaries, suggesting a need for cooperation at an inter-municipal level. Protecting the integrity of the stream corridor will lessen impacts to water quality. The following stream corridor management and protection approaches are recommended:

- 1. Vegetated buffers, especially wooded slopes and forest land cover, should be maintained along all stream corridors in the Township. Where past land use practices have resulted in the removal of trees along stream corridors, management practices should include the re-establishment of tree cover.
- 2. A stream corridor protection program should be developed and implemented which seeks to protect the stream corridor and adjacent wetlands, floodplains, and contributory uplands with steep slopes. The program established by the Delaware and Raritan Canal Commission provides a valuable model.
- 3. Management strategies and monitoring standards should be developed for stream corridor areas.
- 4. Bernards and neighboring municipalities could develop consistent and/or compatible management strategies along stream or river corridors.
- 5. Floodplains and riparian zones have been included in the natural resource deductions contained in the Land Development Ordinance⁴³.

SURFACE WATER

Surface water is impacted by both point and non-point source pollution. Non-point source pollution, a major factor affecting Bernard's surface waters, should be mitigated by local land use strategies and management approaches. Non-point source pollutants include septic system effluent, stormwater runoff, agricultural runoff, and construction activities. The following management approaches are recommended to mitigate potential impacts to the Township's surface waters:

- 1. Adopt Water quality Best Management Practices (BMP's) should be adopted or refined, to protect the quality of surface waters and promote maximum habitat values. These include:
 - a. Arrange development on the least porous soils, to promote infiltration and reduce sediment and pollutant loading.
 - b. Require the use of buffer strips and other techniques to maximize overland flow, such as grassed swales and filter strips.
 - c. Implement regional stormwater management approaches and use extended detention facilities,
 - d. Require wet ponds (retention basins) and wetland or marsh creation,

⁴³ Ordinance #2521, adopted May 23, 2023.

- e. Implement infiltration practices to detain runoff, including trenches, basins, drywells and other structural solutions, and
- f. Use water quality inlets and oil/grit separators in stormwater management basins.
- g. Require enhanced soil erosion and sediment control measures such as double silt fencing, staked hay bales, and maintain and monitor the effectiveness of these measures during the entire construction phase of development.
- 2. Reduce permitted residential densities and impervious coverage to reduce the potential impact to surface waters from non-point source pollution.

THREATENED AND ENDANGERED WILDLIFE SPECIES

With 50% of the Bernards Township land mass categorized as habitat suitable to threatened or endangered species, it is important to protect this habitat from further degradation and promote species diversity. Toward this end, it is recommended that the Township pursue the following actions:

- An ongoing inventory of threatened and endangered species, combining the records of the Natural Heritage Database with local sighting records should be developed and maintained.
- Alternative development options should be developed to aid in the preservation of critical habitat for threatened and endangered species. Techniques such as clustering and lot averaging, along with conservation easements, should be used to protect habitat areas with a landowner's utility of his or her land.
- The Township should develop a list of habitat requirements for endangered species.
- The Township should promote the potential re-establishment of habitat on open space lands while also protecting existing habitat through open space purchases.
- Permitted residential density should be reduced in non-sewered areas of the Township to help preserve critical habitats.
- The impact of invasive exotic species on the Township's remaining critical habitat should be investigated. Strategies should be developed to reduce and limit the negative impacts of invasive species on critical habitat.

WETLANDS

Although wetlands are regulated at the State and Federal level, it is important for the Township to remain involved in the conservation of these areas. This is especially important as conservation easements are routinely granted through the development review process. Wetland delineations and associated conservation easements are now prepared and maintained in digital format, making management of these areas easier. Given the availability of this data, a system to periodically monitor and enforce conservation easement restrictions should be developed.

- Wetlands and wetland transition areas required by the New Jersey Freshwater Wetlands Protection Act have been included in the natural resource deductions contained in the Land Development Ordinance.
- Permitted development should be arranged to avoid all significant wetlands, and when road crossings are unavailable, they should be located at the point of minimum impacts.

LIGHT POLLUTION

While development continues at a rapid pace throughout New Jersey, lighting and light pollution have become increasingly critical issues. The State Development and Redevelopment Plan recommends that "In the interest of improved safety, energy conservation and maintenance of environmental integrity, outdoor roadway and area lighting should be designed, installed and maintained to minimize misdirected and upward light and optimize the use of the lighting system."

This issue led the New Jersey Legislature to form a panel of experts to study the problem of light pollution and to advise the Legislature as to the severity of the problem and recommend legislative or administrative measures to alleviate it.

In 1996 the Light Pollution Study Commission (LPSC) filed its report with the Governor and the Legislature. The LPSC recognizes Light Pollution as a problem and provided the recommendations and actions of its report to the Governor and the Legislature for their information and further consideration. While most of the recommendations pertained to State agencies there are a number of recommendations that are appropriate to local governments and particularly to Bernards Township and its rural character.

Some of the recommendations to be considered are:

- Nationally recognized lighting recommendations for illuminance levels and uniformity ratios should be reviewed, such as contained in the Illuminating Engineering Society of North America (IESNA) Lighting Handbook. To the extent that local "dark sky" goals are inconsistent with these IESNA recommendations, minimum safe levels of illumination should be required and maintained.
- Architectural and sign lighting should be designed to minimize light that does not illuminate the target area.
- Lighting of building exteriors should be minimized or eliminated during those hours when it is not needed. Lighting controls (such as timers, dimmers, motion sensing devices, and photo sensors) should be encouraged.
- Areas of New Jersey determined to be especially suitable for astronomical observations or which provide nocturnal benefits to flora and fauna should be considered for designation as "dark areas." A "dark area" is an area in which lighting is prohibited or limited to 1) address concerns regarding Light Pollution which impact the environment and 2) restore a more natural view of the starry sky.

In 2001, Clinton Township received the Hunterdon County Planning and Design Award for its "light pollution ordinance." This was a voluntary action on the part of the Township evolving from a perceived need to protect the night sky by fostering good design and safety in lighting. The Township addressed non-mandatory suggestions from the public and quasipublic agencies such as the New Jersey Light Pollution Study Commission and the New Jersey Astronomical Association. It also retained an expert on light pollution.

While Bernards Township doesn't have an ordinance similar to the Clinton Township ordinance, the Bernards Township's Boards have had success with applicants yielding to lighting concerns about potential impacts of new development on adjoining neighbors. However, these efforts have primarily been focused on the horizontal lighting regime including direct glare and light impacts on neighbors, and not regulating or discouraging uplighting that most contributes to light pollution that may compromise the Township's "dark sky." Bernards Township shares the night sky with New Jersey and its neighboring municipalities. It could therefore consider instituting controls on lighting design and incorporating them into the Land Development Ordinance. The Township could also embark on a "dark sky" awareness campaign to alert residents to considering reductions or elimination of up-lighting may as a valuable individual contribution that residents may choose to make toward maintaining a dark sky and the associated quality of life benefits for the community.

NEIGHBORHOOD DESIGN ALTERNATIVES

While Bernards Township has a wide range of housing types and no shortage of multiple family units, the build out of remaining lands is of considerable concern for its potential impact on neighborhood character, water resources and flora and fauna. The opportunity to meet the multiple objectives above can sometimes be better served by offering alternatives to traditional subdivision design standards. A recent example of an alternative subdivision approach in Bernards Township that offered multiple conservation benefits is the new neighborhood approved on Mine Brook Road under the Township's Natural Resource Conservation subdivision overlay standards. Under this development option, homes were placed in such a manner that expansive wetland buffers and open agricultural lands were retained with reduced setbacks for permitted residential development.

The Natural Resource Conservation overlay standards only apply in the R-1 District, however, farmland and forested parcels remain with subdivision potential in the R-2 & R-3 (2-acre) Zones. Bernards Township should consider applying a similar Natural Resource Conservation overlay zoning option in the R-2 and R-3 zones with reduced setback and minimum tract area requirement where specific environmental and open land objectives could be better served than with conventional zoning.

OPEN SPACE CONSIDERATIONS

The Township's goal of developing an open space system, including linear corridors along rivers and brooks, continues to remain a goal of this Plan. The preservation of parks and open space advances the conservation Township's goals while providing active and passive recreation amenities for Township residents. Open space preservation provides a number of benefits, including protection of flood prone and wetland areas from development and disturbance. maintenance of contiguous wildlife habitats adjacent to rivers and streams and preservation of the natural environment. Open Space and Conservation Areas are depicted in Figure VIII-6, Open Space and Conservation



Open space preservation advances conservation and recreation goals.

Areas, and listed in Table VII-1, Active and Passive Recreation Areas.

The creation of linear corridors along rivers and streams also provides an access link between parks, schools and the residential neighborhoods throughout the Township, promoting goals of both the Circulation Plan Element and the Parks and Recreation Plan Element. Figure VII-1, Active and Passive Recreation Areas, in the Parks and Recreation Element depicts the location of potential open space corridors and greenways. This Conservation and Open Space Plan is designed to work in conjunction with the Parks and Recreation Plan and the Circulation Plan to promote connectivity between open space and recreational facilities through non-vehicular travel using greenways and bikeways.

The Planning Board should encourage the use of a variety of land development techniques in the Land Use Ordinance to encourage the preservation of open space and further the creation of a cohesive network of recreation amenities. The Planning Board should continue to encourage the establishment or preservation of open space and natural areas that provide linkages to existing parks and recreation facilities, as outlined in the Recreation Plan. The Township Committee can expand on the Planning Board's initiatives by providing capital funding for the purchase of property in fee simple, purchase of access and conservation easements from existing developed lands and creation of trails and other recreation amenities. The Township should continue to assess lands for recreation potential as they may become available, regardless of the zoning district in which they are located.

Somerset County promotes the creation of a municipal park system along the Second Watching Ridge and the Dead and Passaic Rivers. These areas of the Township, along the border of Bridgewater and Bedminster Townships (Second Watchung Ridge) and along the border of Warren Township (Dead River) and Harding and Long Hill Townships (Passaic River), are identified as proposed open space corridors in the Parks and Recreation Plan

Element. The Township and County have significant land holdings along the two river corridors and the Township is encouraging expansion of its holdings through this plan element. The Land Use Plan recommends reduced residential densities in the area of the Second Watchung Ridge, which will allow buffering of the Ridge from development. Cluster subdivision regulations and the Township's Natural Resource Conservation overlay zoning strategy are valuable tools, which can assist in protecting critical lands as open space.

The Great Swamp Watershed is a valuable regional resource shared by the ten towns which surround it, including Bernards Township. The Township participated in the efforts of the "Ten Towns Great Swamp Watershed Management Committee". The Committee, founded in 1995, provided a cooperative agreement among member towns which studied issues of water quality and management. The Committee was dissolved in June of 2010, but not before identifying the need for cooperatively preventing and/or minimizing potential adverse impacts upon water quality, wildlife, and human well-being within the Watershed.

Working farms and land in agricultural production are valuable assets to the community. The pastoral landscapes that endure on the fringe of the more densely developed core of the Township are a reminder of Bernards Township's agrarian roots. They also play an important role in imparting a sense of "open space" that is still apparent in some areas of the Township. Encouraging agricultural retention through farmland preservation efforts, agriculturally friendly land use policies and promoting agriculture as a business are appropriate policies to assist in retaining the remaining farmland in the Township.

						AREA
No.	BL	LOT	OWNER	PARCEL NAME/LOCATION	FUNCTION	(Acres)
1	103	1	NJ Audubon	Hardscabble Road/Passaic River	Private OS	0.91
2	1005	8	Bernards Twp	Woodland Glen-40 Walnut Circle	Twp OS	1.25
3	1005	19	Somerset Co.	Ross-No. Maple Ave	County OS	8.25
4	1302	12	Bernards Twp	Vacant Lot - West Oak Street	Twp OS	0.32
5	1403	1.01	Bernards Twp	Washington Ave. Park	Twp OS	3.84
6	1406	1	Bernards Twp	Basking Ridge Park-No. Brook Ave.	Twp OS	1.79
7	1406	34.01	Bernards Twp	Basking Ridge Park-No. Brook Ave.	Twp OS	8.971
8	1409	1	Bernards Twp	Basking Ridge Park-Conkling Street	Twp OS	0.332
9	1506	1	Bernards Twp	Fireman's Park-No. Finley Ave.	Twp OS	1.74
10	1512	2	Bernards Twp	Vacant lot-Conkling St.	Twp OS	0.11
11	1609	21	Bernards Twp	Southard Park-No. Maple Ave.	Twp Park	13.92
12	1611	39	Somerset Co.	Manchester Drive	County OS	0.726
13	1701	11	Somerset Co.	Ross Farm-No. Maple Ave.	County OS	53.39
14	1701	13	Somerset Co.	Lord Stirling Park-So. Maple Ave.	County Park	839.972
				Environmental Ed. Center-Lord Stirling		
15	1701	14	Somerset Co.	Road	Env. Ed.	4.139
16	1701	15	Somerset Co.	Stirling House-Lord Stirling Road	County Park	3.388
17	1701	18	Somerset Co.	Crane Farm-Lord Stirling Road	County Farm	3.94
18	1701	23	Somerset Co.	Crane Farm-So. Maple Ave.	County Farm	4.895
					Riding	
19	1701	24	Somerset Co.	County Riding Stables-So. Maple Ave.	Stables	18.68

TABLE VIII-1 OPEN SPACE AND CONSERVATION AREAS

						AREA
No.	BL	LOT	OWNER	PARCEL NAME/LOCATION	FUNCTION	(Acres)
20	1901	33	Bernards Twp	Brown-East Ash St.	Twp. OS	5.00
21	1902	26	Bernards Twp	Spencer Willow-Voorhees Dr.	Twp OS	1.17
22	2101	10	Bernards Twp	Mount Airy Heights-Mt. Airy Road	Twp OS	5.714
23	2101	45	Bernards Twp	OS-Chimney Ash Farm Road	Twp OS	2.806
24	2301	11	Bernards Twp	Former Landfill-Pill Hill Road	Twp OS	32.48
25	2301	37	Bernards Twp	OS-Meeker Road	Twp OS	4.23
26	2301	41	Bernards Twp	OS-Meeker Road	Twp OS	9.42
27	2401	9	Bernards Twp	287/DOT tract-Mt. Airy Road	Twp OS	7.7
28	2501	23	Bernards Twp	Bernards Manor-Kinnan Way	Twp OS	2.34
20	2001	1	Derry and a Tarra	OC (Aster Fields Callery Lorg	Athletic	20
29	2801	1	Bernards Twp	OS/Astor Fields-Collyer Lane	Fields	20
30	2801	6	Bd. of Ed.	So. Maple Ave. Fields	Athletic Fields	12.44
- 30	2001	0	Du. OI Eu.	So. Maple Ave. Fields	Fields/Dog	12.44
31	2801	9	Bernards Twp	Loocke-So. Maple Ave.	Park	6.05
51	2001	,	Dernarus rwp	Loocke bo. Maple Tive.	Athletic	0.05
32	2801	10	Bernards Twp	War Memorial Field-So. Maple Ave.	Fields	11.63
33	2905	6	Bernards Twp	Homestead Park-Grove Road	Twp OS	0.73
34	3101	18	Bernards Twp	Meadowview Estates-Riverside Dr.	Twp OS	1.036
35	3201	7	Somerset Co.	Croot -Lord Stirling Road	County OS	22.02
36	3201	8	Somerset Co.	Croot -Lord Stirling Road	County OS	20.596
37	3201	18	Bernards Twp	Meadowview Estates-Riverside Dr.	Twp OS	12.879
38	3302	6	Bernards Twp	Meadowview Estates-Castle Way	Twp OS	1.44
39	3303	12	Bernards Twp	Meadowview Estates-Castle Way	Twp OS	1.00
40	3303	17	Bernards Twp	Meadowview Estates-Riverside Dr.	Twp OS	0.828
41	3402	14	Bernards Twp	Meadowview Estates-Hill Top Road	Twp OS	0.3786
42	3802	22	Bernards Twp	DB-Woods End	Twp OS	3.84
43	3901	61	Bernards Twp	Prince Edward Pointe-Springhouse La.	Twp OS	19.993
44	3901	62	Bernards Twp	OS-Tamarisk Ct.	Twp OS	0.90
45	4005	1	Bernards Twp	Som. Hills Luth. Church-Autumn Dr.	Twp OS	1.74
46	4005	5		Dawn Ridge-Sleepy Hollow Road	Twp OS	1.2
47	4201	2	Bernards Twp	OS-Whitenack Road	Twp OS	3.499
48	4301	51	Bernards Twp	McCollum Farm-Whitenack Road	Twp OS	10.72
49	4601	5.01	Bernards Twp	Whitenack Woods-Whitenack Road	Twp OS	185.19
50	4902	21	Bernards Twp	Rebel Hill Park-Fairview Dr. So.	Twp Park	10.42
51	5303	19	Bernards Twp	Cedar Knolls-Galloping Hill Road	Twp OS	2.6
52	5303	28	Bernards Twp	Cedar Knolls-Galloping Hill Road	Twp OS	6.00
53	5503	13	Bernards Twp	Prince Edward Pointe-Brittany Place	Twp OS	6.999
54	5601	10 F	Bernards Twp	Prince Edward Pointe-Jeffrey Ct.	Twp OS	1.463
55 56	5602	5 35	Bernards Twp	Somerset Homes-Gerard Ave.	Twp OS	1.58
56	5602		Bernards Twp	Prince Edward Pointe-Jeffrey Ct.	Twp OS	4.093
57	5802 5901	1	Bernards Twp	Thompson Island-Lyons Road OS-Stonehouse Road	Twp OS	0.63
58	5901 5901	2	Bernards Twp Bernards Twp	OS-So. Finley Ave.	Twp OS Twp OS	3 14.902
60		29		Summit-Stonehouse Road	-	
00	5901	29	Bernards Twp	Summit-Stonenouse Road	Twp OS	14.136

						AREA
No.	BL	LOT	OWNER	PARCEL NAME/LOCATION	FUNCTION	(Acres)
61	6001	11	Bernards Twp	Schmidt Park-Pond Hill Road	Twp OS	5.00
62	6102	1	Bernards Twp	Schmidt Park-Pond Hill Road	Twp OS	3.83
63	6103	1	Bernards Twp	Schmidt Park-Pond Hill Road	Twp OS	6.73
64	6303	12	Bernards Twp	Fawn Hill-Pheasant Run	Twp OS	1.968
65	6401	1	Bernards Twp	Summit-Stonehouse Road	Twp OS	13.884
66	6401	5	Bernards Twp	Sherbrook-Governor Dr.	Twp OS	6.246
67	6404	9	Bernards Twp	Sherbrook-Blackburn Dr.	Twp OS	4.465
68	6404	27	Bernards Twp	DB Sherbrook-Governor Dr.	Twp OS	4.587
69	6501	1	Bernards Twp	Summit-Summit Dr.	Twp OS	15.01
70	6503	1	Bernards Twp	Sherbrook-Blackburn Dr.	Twp OS	5.514
71	6703	7	Bernards Twp	Pleasant Valley Park-Penwood Road	Twp Park	4.34
72	6801	27	Bernards Twp	Summit-Summit Dr.	Twp OS	3.878
73	6801	44	Bernards Twp	Summit-Knollcroft Road	Twp OS	2.409
74	6802	4	Bernards Twp	Glenbrook-Bryon Dr.	Twp OS	5.77
75	7001	15	Bernards Twp	Grist Mill Park-Grist Mill Dr.	Twp OS	1.261
76	7002	22	Bd. of Ed.	OS-Lincroft Dr.	Bd. of Ed. OS	14.69
77	7002	33	Bernards Twp	Lincroft-Lincroft Dr.	Twp OS	0.3569
78	7101	9	Bernards Twp	Canterbury Road Walkway	Twp OS	0.264
79	7101	25	Bernards Twp	Canterbury Road Walkway	Twp OS	0.203
80	7101	29	Bernards Twp	Canterbury Road Walkway	Twp OS	0.137
81	7201	28	Bernards Twp	OS-Mine Brook Road	Twp OS	0.92
82	7301	27	Bernards Twp	Arrow Head-Mine Brook Road	TWP OS	21.129
83	7301	35	Bernards Twp	River View-Liberty Corner Road	Twp OS	3.727
84	7302	1	Bernards Twp	Arrow Head-Mine Brook Road	Twp OS	0.657
85	7302	5	LC Fire Co.	LC Fields-Church St.	LC Fire Co.	8
86	7302	11	Bernards Twp	Arrow Head-Mine Brook Road	Twp OS	4.911
87	7402	12	Bernards Twp	Canterbury Road Walkway	Twp OS	0.131
88	7501	3	Bd. of Ed.	Fields-Liberty Corner School	Fields	5.01
89	7601	15	Bernards Twp	Harrison Brook-Goltra Dr.	Twp OS	3.83
90	7703	22	English Family	English Farm Meadow-Valley Road	Farm Pres.	16.281
91	7804	8	Bernards Twp	Pleasant Valley Park-Lurline Dr.	Twp OS	1.43
92	7901	10	Bernards Twp	Pleasant Valley Park-Archgate Road	Twp OS	0.92
93	7903	6	Somerset Co.	Harrison Brook-Lyons Rd	County OS	1.21
94	8001	1	Bernards Twp	Pleasant Valley Park-Valley Road	Twp OS	79.14
95	8001	2	Bernards Twp	Pleasant Valley Park-Valley Road	Twp OS	24.52
96	8001	3	US VA	Coakley Russo Golf Course-Valley Rd	Twp Golf	23
97	8002	4	US VA	Coakley Russo Golf Course-Valley Rd	Twp Golf	22
98	8101	3	Bernards Twp	Sherbrook-Stonehouse Road	Twp OS	49.469
99	8101	23	Bernards Twp	DB Sherbrook-Stonehouse Road	Twp OS	2.077
100	8101	47	Bernards Twp	DB Sherbrook-Stonehouse Road	Twp OS	4.013
101	8102	18	Bernards Twp	Sherbrook-Valley Road	Twp OS	0.3356
102	8301	1	Bernards Twp	Pine Hills-Haas Road	Twp OS	3.22
103	8301	6	Bernards Twp	Pine Hills-Haas Road	Twp OS	10.22

						AREA
No.	BL	LOT	OWNER	PARCEL NAME/LOCATION	FUNCTION	(Acres)
104	8301	11.02	Bernards Twp	Bologna-Haas Road	Twp OS	11.06
105	8401	16	Bernards Twp	Hayefields-Crest Dr.	Twp OS	6.5
106	8501	1	Bernards Twp	Spring Ridge-Acken Road	Twp OS	73.524
107	8501	2	Bernards Twp	Crown Court-King George Road	Twp OS	0.337
108	8501	3	Bernards Twp	Crown Court-King George Road	Twp OS	5.887
109	8501	4	Bernards Twp	Crown Court-King George Road	Twp OS	0.261
110	8501	5	Bernards Twp	Crown Court-King George Road	Twp OS	54.169
111	8501	41	Bernards Twp	Passaic River OS Space-King George Rd	Private OS	82.77
112	8501	44	Bernards Twp	Dewy Meadow-King George Road	Twp Fields	4.849
113	8501	45	Bernards Twp	Crown Court-King George Road	Twp OS	14.094
114	8501	46	Bernards Twp	Spring Ridge-Acken Road	Twp OS	25.071
115	8501	47	Bernards Twp	Spring Ridge-Acken Road	Twp OS	37.05
116	8502	2	Bernards Twp	Farmstead Park-King George Road	Twp Park	32.035
117	9101	23	Bernards Twp	Society Hill-Spring Valley Blvd.	Twp OS	90.05
118	9101	<u> </u>	Bernards Twp	Cedars-Spring Valley Blvd.	Twp OS	130.391
119 120	9204 9204	6	Bernards Twp	Little League Fields-Valley Road	Twp Fields	23.70 32.01
120	9204	8	Bernards Twp Bernards Twp	Society Hill-Spring Valley Blvd.	Twp OS	28.45
121	9204	<u> </u>	Bernards Twp	Society Hill-Spring Valley Blvd. Martinsville Rd Island-Mt. Airy Road	Twp OS Twp OS	0.79
122	9203	9.01	English Family	English Farm Preservation-Valley Rd	Pres. Rights	64.298
123	9401	11	Bernards Twp	Sons Of Liberty Farm-Allen Road	Twp. OS	23.08
124	9501	3	Bernards Twp	Dunham Park-Liberty Corner Road	Twp. 03 Twp Park	69.543
125	10301	26	Bernards Twp	The Hills-Allen Road	Twp. OS	4.523
120	10301	20	Bernards Twp	The Hills-Allen Road	Twp. OS	4.523
127	10301	38	URWA	Upper Raritan OS-Milito Way	URWA OS	19.25
120	10402	3	Bernards Twp	Old Somerville Road	Twp. OS	0.36
130	10704	39	Bernards Twp	The Hills-Old Stagecoach Road	Twp. OS	3.88
131	10801	95	Bernards Twp	The Hills-Old Stagecoach Road	Twp. OS	1.76
132	10801	96	Bernards Twp	The Hills-Old Stagecoach Road	Twp. OS	0.92
133	10801	97	NJDOT	Old Stagecoach Road	NJDOT	9.59
134	11001	14	Somerset Co.	DeMarco-Somerville Road	County OS	5.38
135	11001	15	Somerset Co.	Somerville Rd.	County OS	11.47
136	11101	2	Somerset Co.	AT&T-Rickey Lane	County OS	33.904
137	11101	6	Somerset Co.	Knox-Somerville Road	County OS	6.596
138	11102	5	Somerset Co.	AT&T-Mountain Road	County OS	0.633
139	11102	6	Somerset Co.	AT&T-Mountain Road	County OS	84.898
140	11102	41	Somerset Co.	Rickey Lane	County OS	20.108
141	11201	1	English Family	English Wood Lot-Allen Road	Pres. Rights	58.596
142	11201	6	Bernards Twp	Pinson-Allen Road	Twp. OS	5.228
143	11201	11	Bernards Twp	Pinson-Allen Road	Twp. OS	4.978
144	11501	5.02	Somerset Co.	Prochaska-Mountain Road	County OS	14.357
145	11501	6	Somerset Co.	McNellis-Mountain Road	County OS	29.264
146	11501	18	Somerset Co.	Maolucci-Mountain Road	County OS	25.763
147	11501	19	Somerset Co.	Maolucci-Mountain Road	County OS	14.20

						AREA
No.	BL	LOT	OWNER	PARCEL NAME/LOCATION	FUNCTION	(Acres)
148	11501	20	Somerset Co.	Maolucci-Mountain Road	County OS	1.65
149	11501	21	Somerset Co.	Maolucci-Mountain Road	County OS	0.91
150	11501	22	Somerset Co.	Maolucci-Mountain Road	County OS	1.19
151	11501	23	Somerset Co.	Maolucci-Mountain Road	County OS	31.021
152	11601	1	Bernards Twp	Mountain Park-Mountain Road	Twp Park	143.864
153	11601	23	Somerset Co.	Pasnik-Sunset La.	County OS	20.961
154	11601	25	Somerset Co.	Off Long Road	County OS	15.24
155	11701	10	Bernards Twp	Darren Woods-Darren Dr.	Twp. OS	2.44
156	11701	19	Somerset Co.	DB-Martinsville Road	County OS	0.56
157	11702	7	Bernards Twp	Darren Woods-Darren Dr.	Twp. OS	0.86
158	11702	11	Bernards Twp	Darren Woods-Darren Dr.	Twp. OS	13.872
159	11702	28	Bernards Twp	20' wide trail-end Darren Dr.	Twp OS	0.331
				Total	:	3,235.04

HISTORIC STRUCTURES AND DISTRICTS

A document entitled "Inventory of Historically Significant Homes in Bernards Township" identifies more than 370 historically significant buildings in Bernards Township. The inventory includes lot and block, address, use, circa and style of each building of significant age, heritage or style, and is a rewrite of the document originally prepared in the late 1970's.

A detailed history of Bernards Township and recommendations for management of historic and archaeological resources are found in the Historic Preservation Plan Element.

RELATIONSHIP OF THE CONSERVATION PLAN TO OTHER PLAN ELEMENTS

Bernards Township's Conservation Plan works in tandem with the Land Use Plan, the latter providing for low intensity residential, farm and conservation uses outside the developed neighborhood areas of the Township. The Conservation Plan promotes resource management efforts that will retain ecological function, prevent destruction of sensitive resource areas and provide long term protection of the natural resource base.

The conservation objectives of retaining large contiguous areas of sensitive natural lands will be assisted by proposals for future land uses contained in the Land Use Plan. The low density of permitted development recommended throughout the remainder of Bernards Township will assist with preservation of the desirable features of the countryside and permit coordinated conservation and preservation efforts.

The Parks and Recreation Plan element proposes to continue the Township's program of open space preservation and development of recreation facilities. Potential park development is assessed based on the presence of critical features and is carried out in a manner which respects them. As such, the Parks and Recreation Plan supports the objectives of this Conservation Plan.

The Circulation Plan element proposes the establishment and expansion of a comprehensive network of sidewalks, bikeways and paths that will promote non-vehicular travel and reduce the air quality impacts of motorized vehicles. These expanding opportunities for access to open spaces, recreation areas and other destinations will also have human health benefits as more residents become involved in these activities.

The impacts on natural resources from the circulation and utility service plan elements will be minor, since they do not propose significant alterations to the existing road network and no new infrastructure and utility services are proposed.

CHAPTER IX - UTILITY SERVICES PLAN ELEMENT

INTRODUCTION

The Utilities Service Plan Element reviews the current status and adequacy of sanitary sewerage treatment facilities, public water supply, solid waste disposal, and stormwater management facilities. The future utility needs are then analyzed based upon anticipated population use demands. This establishes parameters for monitoring the adequacy of these systems and recommends improvements as required to meet anticipated needs.

STATUTORY AUTHORIZATION

This section of the Master Plan was prepared in accordance with the Municipal Land Use Law, N.J.S.A. 40:55D-28b:

(5) A utility service plan element analyzing the need for and showing the future general location of water supply and distribution facilities, drainage and flood control facilities, sewerage and waste treatment, solid waste disposal and provision for other related utilities, and including any storm water management plan required pursuant to the provisions of P.L.1981, c.32 (C.40:55D-93 et seq.);

UTILITIES SERVICE GOALS AND OBJECTIVES

- Municipal services and community facilities are maintained to assure a high quality of life for present and future residents.
- Development is limited within the designated sewer service area (SSA) so as not to exceed the capacity of the Bernards Township Sewerage Authority sewage treatment plant.
- Centralized sewer infrastructure is limited to existing SSA's.
- Development densities and intensities are limited to existing and planned private and municipal capital facilities and the natural and built infrastructure without purchasing additional wastewater treatment capacity to permit collection line extensions.
- Development densities and intensities are limited to retain the remaining natural areas of the Township and protect sensitive environmental areas.
- Energy and water conservation design techniques are utilized to minimize the impact of development on the everyday environment.
- Public and private water supplies are adequately maintained to provide high quality water to meet the needs of Bernards Township residents and businesses.
- Realistic opportunities are provided to meet the mandate of the Telecommunications Act of 1996, as amended, that minimize negative visual impacts and protect residential neighborhood character.

- Ample, open, pervious land area is preserved on each lot in order to provide for infiltration and recharge to groundwater aquifers without impacts to adjoining lands.
- Development of alternative energy sources are encouraged in appropriate settings while also protecting desirable neighborhood character.
- Local utility policies recognize and accommodate work-at-home and lifestyle changes that have emerged from society's response to the COVID 19 pandemic.

WASTEWATER TREATMENT

The Bernards Township Sewerage Authority continues to maintain a policy not to expand the Township's sewer districts and major sewer infrastructure beyond where sanitary sewer infrastructure improvements currently exist. Consistent with this policy, there will be no extension of sewer lines outside the existing sewer districts.

There are currently five sewer service areas within Bernards Township as shown on Figure IX-1, Sewer Service Areas. These five sewer service areas include the Bernards Township Sewerage Authority (The Authority), the New Jersey American Water Company (NJAW (formerly EDC)), the Veterans Administration Hospital Complex Treatment Plant, and the Pingry School serviced by the Somerset/Raritan Valley Sewerage Authority Sewer System. The 2021 updated Somerset County Wastewater Management Plan (WWMP) also identifies three New Jersey Department of Environmental Protection "NIPDES" (New Jersey Pollutant Discharge Elimination System) permitted service areas for groundwater discharge facilities in excess of 2,000 gallons per day, including Minebrook Road (Conservation Subdivision), the Albrook School on Somerville Road, and the USGA on Liberty Corner Road. This NJDEPapproved Bernards Township Chapter of the Somerset County WWMP identifies an update to the Township sewer service areas based on projected Township demands at full build-out and environmental constraints, and includes the Township's Third Round affordable housing inclusionary zoning sites on Mountainview Boulevard and at Dewy Meadow. Since the WWMP was adopted, the Minebrook Road did not develop a centralized wastewater collection system originally proposed and approved for the site. Homes in this subdivision are served by individual on-site septic septic systems. As a result, the Minebrook Road NJPDES permit has been removed from the NJDEP NJPDES active permit list.

The Bernards Township Sewerage Authority (BTSA) treatment plant has an NJDEP permitted capacity of 2.5 million gallon per day (MGD). Average daily flow varies. The wastewater treatment plant is located on Martinsville Road and discharges treated wastewater to the Dead River, which flows to the Passaic River to the east. The BTSA's treatment plant serves most of the sewered areas of the Township. Daily treatment volumes may rise higher during heavy rain events. The increased flow results from "Inflow and Infiltration" (I&I), which includes rainwater inflow to manholes and groundwater infiltration into collection lines. Illegal residential sump pump discharges into the system also account for a considerable unnecessary volume of the increased flow to the treatment plant. Illegal sump pump connections increase electrical and chemical expenses to treat the additional flow and may discharge 24,000 gallons per pump per day into the system (.024 MGD per

sump pump per day). The Authority conducts an ongoing program of I&I investigation and reduction. The current Wastewater Management Plan provides for no expansion of the current Authority service area.

The former EDC service area (now NJAW) is within the Raritan River basin and a portion of the Dead River basin and serves The Hills Development within both Bernards and Bedminster Townships. The EDC sewage treatment plant has a design flow capacity of 2.1 MGD and an average daily flow of 1.290 MGD, according to the Somerset County WWMP. The plant also accepts wastewater from other areas of Bedminster, Far Hills Borough and the Borough of Peapack and Gladstone.

The Exxon Station on King George Road is sewered by the adjacent Warren Township sewage treatment plant.

The Veterans Administration Medical Center complex on Valley Road has its own sewage treatment plant. The plant has a design capacity of 0.4 MGD and an average daily flow of 0.177 MGD, according to the Somerset County WWMP.

The fifth sewer service area serves only the Pingry School, located off Martinsville Road in the south section of the Township. Through a special agreement, the Pingry School is connected to the Somerset/Raritan Valley Sewerage Authority Sewer System with a design capacity of 24.31 MGD and an average daily flow of 25.265 MGD.

According to the current Wastewater Management Plan, all locations outside of the five existing sewer service areas must use individual on-site septic disposal. The Plan recognizes that certain areas will not be suitable for traditional on-site septic systems due to severe soil limitations. On-site disposal methods are the required means of wastewater treatment for those areas outside of the sewer service areas. These areas of the township were zoned for larger lots that can accommodate onsite disposal on lots with suitable soils.

COMMUNITY SEPTIC SYSTEMS

The current Wastewater Management Plan only provides for individual septic systems less than 2,000 gallons per day. However, there is a current environmental movement to use common created wetlands and other alternate mechanisms to clean and process larger volumes of effluent. The Planning Board should not encourage these types of wastewater treatment systems unless it can be demonstrated that individual on-site disposal of waste water can be accomplished on each proposed lot, including an approvable primary and reserve septic system location. That is, all proposed lots shall meet all of the requirements for an individual on-site septic system and have received Board of Health or NJDEP approval prior to Planning Board consideration of a common septic system. In this manner if there is a failure of the common system, each property owner will have the ability to construct an individual septic system on their own lot. In that regard, the locations of approved soil tests for the future septic systems on each lot should be covered with an easement for future septic system use. In addition, the use of a common septic system should not increase the zone density or increase the lot yield in a subdivision. Nevertheless, there is always a concern that a homeowners association or other entity will fail to maintain the system. Therefore, great care should be given in the review and approval of the entity established for the operation and maintenance of the common system and documented for the Planning Board in the event any approval is given for an alternative common wastewater treatment system.

INDIVIDUAL ON-SITE WASTEWATER DISPOSAL SYSTEMS

These systems, commonly called septic systems, are designed for use by one realty improvement, such as a home. As development continues to expand onto marginal lands outside the SSA, it is important to ensure that a septic system can function properly and that adequate provisions are possible to repair or replace a failing system. This objective is addressed by requiring that an approvable primary and reserve septic system location are identified on each lot.

Nitrate dilution modeling has been increasingly used to measure the capacity of the natural environment to assimilate septic effluent, since nitrates are highly mobile in groundwater and pose significant health risks. In 2003, the Bernards Master Plan relied on the nitrate dilution approach developed for the State Development and Redevelopment Plan, which led to the land use plan recommendations for lower residential densities in septic service areas. These proposed districts, CR-1 (10 acres/unit) and CR-2 (7 acres/unit), were designed to limit development to respect the natural carrying capacity in septic-served areas.

Bernards Township has not yet adopted the CR-1 and CR-2 zoning recommendation initially identified in the 2003 Land Use Plan, but in the interim, additional studies have also suggested the need to reduce permitted development densities in septic service areas. NJDEP has adopted a nitrate dilution model that will require *maximum* residential densities significantly lower than the current residential zoning. Additionally, a groundwater evaluation (Mulhall Study), commissioned by Bernards Township, recommended maximum residential densities far lower in some cases than even the NJDEP septic densities. These considerations are addressed in detail in the Conservation and Open Space Plan.

The non-sewered areas of Bernards Township have previously been zoned for one unit per two or three acres. However, because of environmental constraints, and due to the lack of public sewer infrastructure throughout these Districts, the Land Use Plan recommends a reduction of density (increased lot sizes) that respects the carrying capacity limitations of the natural systems and protects groundwater qualities. Specific zoning recommendations are found in the Land Use Plan, which identifies two "Conservation Residential" Districts: The CR-1 with a minimum lot size of 10 acres per dwelling unit and a CR-2 District with a minimum lot size of 7 acres per dwelling unit (a full discussion of the CR-1 and CR-2 can be found in the Land Use Plan).

WATER SUPPLY

As of April 1, 2020, Bernards Township had 27,083 residents, according to the Census Bureau, living in approximately 10,464 dwelling units. These data indicate a dwelling unit density of approximately 2.6 persons per unit. Based on Bernards Township's population and the average daily demand of 75 gallons per person indicated in N.J.A.C. 7:10-12.6, Township residents currently consume approximately 2.03 million gallons per day, or approximately 741.4 million gallons of water per year.

PUBLIC WATER SUPPLY

Public Water Supply Areas are depicted on Figure IX-2. New Jersey American Water (NJAW) provides public water supply to most areas of Bernards Township. The Township is located in the western portion of the NJAW's Passaic Basin System service area and is served by a combination of interconnected sources of supply that provide for highly redundant and reliable water service. These sources of supply include groundwater from nearby rock wells and surface water from the Passaic and Raritan Rivers. Passaic River sources include NJAW's Canoe Brook Water Treatment Plant in Millburn and purchased water from the Passaic Valley Water Commission Treatment Plant in Totowa. The Raritan River sources include NJAW's Raritan-Millstone and Canal Road Water Treatment Plants in Bridgewater Township and Franklin Township. These sources are delivered through various pumping stations and interconnections to five separate pressure gradients to provide adequate pressure to all areas of the Township.

INDIVIDUAL WATER SUPPLY (WELLS)

Within large portions of the township, the source of drinking water for residents is groundwater supplied from individual, on-lot wells in fractured bedrock aquifers. The hydrogeologic characteristics of these aquifers are dependent on the type of bedrock and nature and interconnection of fractures and other openings. The type of bedrock limits groundwater storage and transmission, recharge rates, sustained yields, interference effects, quality, and contaminant removal/dilution rates. An April 2008 "Evaluation of Groundwater Resources of Bernards Township", prepared by M2 Associates Inc., has informed Bernards Master Plan efforts.

In areas of Bernards Township, with dense, hard, poorly weathered bedrock; few fractures; hilly terrains; and steep slopes; stream channels will start at high elevations. In these areas, the slopes provide sufficient gradient to induce surface-water runoff and the low permeability of the bedrock limits the infiltration capacity. As a result, groundwater in the underlying bedrock aquifer systems is not significantly recharged and the water quickly runs off the land surface or through flows immediately below the ground surface often along the top of bedrock to the nearest stream channel.

Based on soils mapping completed by USDA-NRCS, approximately 27 percent of the township has slopes less than 2 percent and much of these areas contain wetlands or can be

flooded and therefore, are not significant groundwater recharge zones. Slopes beneath approximately 33 percent of the township are equal to or exceed 6 percent, which is sufficient to promote surface-water runoff in lieu of groundwater recharge. Furthermore, nearly 73 percent of the soils beneath Bernards Township are considered to have a hydrologic soil group code of C or D. These types of soils have very low infiltration rates and therefore, would have high rates of surface-water runoff. Soils and slopes beneath much of Bernards Township promote surface-water runoff in lieu of groundwater recharge.

Therefore ample, open, pervious land area must be preserved on each lot in order to provide sufficient land area for infiltration to recharge the groundwater aquifers.

SOLID WASTE

In 1987, the municipal landfill off Pill Hill Road was closed. In accordance with strict NJDEP landfill closure requirements the Township capped the landfill in 1995. Solid waste is now picked up by private haulers and brought to the Bridgewater Transfer Station or other approved facilities for ultimate disposal in accordance with the Somerset County Solid Waste Management Plan.

The prior municipal landfill area (Pill Hill Recycling Center) is currently used as a recycling center for vegetative waste and source-separated Class B recyclables, electronics, paper & corrugated, carpet, tires, televisions, MRP (mixed recyclable plastics), textiles, and various metals are also accepted. Motor oil is accepted at the Department of Public Works facility at 277 South Maple Ave. In addition, Township residents can drop off bulky items at the recycling area. At this time, the Township has roll-off truck chassis and roll-off containers to handle this operation and has incorporated a wood mulching machine into the operations. This eliminates approximately 300 roll-off containers full of vegetative waste currently shipped to various locations throughout the State and allows the Township to make mulch which can be used locally.

In terms of curbside recycling, the Township complies with the State Mandatory Recycling Law Provisions. The Township has adopted ordinances, which require the recycling of newspapers, cardboard, chipboard, junk mail, batteries, glass, plastics #1 & #2, steel, bimetal, and aluminum cans. The Township also has a contract with Somerset County to pick up recyclable items. In addition, the Township's Land Use Ordinance has been revised to meet State-mandated recycling provisions to ensure that new developments provide sufficient locations to handle recyclables. The Township continues to evolve in finding new ways to expand the recycling efforts to eliminate materials needlessly filling up landfills.

STORMWATER MANAGEMENT

In 2005 a comprehensive stormwater management plan was prepared by the Bernards Township Engineer⁴⁴ and approved by Somerset County. Figure IX-3, Stormwater Collection

⁴⁴ Link to 2005 Stormwater Management Plan:

https://bernards.org/government/forms/engineering/documents/2368-bernards-stormwater-management-plan/file

Facilities, depicts the locations of Storm Structures Collection Points, Storm Conveyance Lines and Detention Basins. The Township Engineer's study addressed stormwater-related conditions throughout the Township on a systematic basis, reflecting anticipated Township growth and the need to maintain a policy of zero increase in the rate of runoff after development. A policy of "over-detention" of stormwater runoff as required with the new NJDEP stormwater regulations was recommended as a means to compensate for pre-1980 development without detention facilities.

Policies established in the 2005 Stormwater Management Plan should be continued in concert with the new NJDEP stormwater management requirements. The Township should continue to provide "over-detention", as required by the new NJDEP stormwater regulations, on properties under development. On-site water quality, infiltration, and detention features such as grass infiltration swales, rain gardens and dry wells should be encouraged.

In 2000, Najarian Associates prepared a comprehensive stormwater management report for the Harrison Brook watershed. This watershed has the highest levels of flooding occurrences in the Township, mainly along Newell Drive and Valley Road. The report focused on the causes of the flooding and improvements that could be made to remedy the problems. All the existing detention basins were studied for possible modifications to "over retain" the stormwater flows. Unfortunately, the results of the study found no meaningful improvements to the floodwater elevations after analyzing numerous improvement scenarios.

The report found that the older existing developments without stormwater detention were <u>adding</u> to the flooding problems, not the newer developments with stormwater management. At that time, the Township had received approval from FEMA for its Flood Mitigation Plan in hopes of receiving federal funds for flood proofing, elevating or buy-out of flood prone dwellings.

STORMWATER QUALITY ISSUES

In 2004, the NJDEP mandated stormwater management regulations for all municipalities that "require minimum controls to compensate for the differences in the hydrologic response of the watershed from the undeveloped to the developed conditions." The NJDEP regulations were updated and became effective statewide in 2021 at which time Bernards Township updated the local ordinance to require consistency with the new State regulations. The primary goal is to have no net increase in the volume of stormwater runoff from a site. As required by law, the Planning Board abides by the New Jersey Residential Site Improvement Standards (RSIS) requirements for stormwater management for all residential developments. The NJDEP stormwater regulations are incorporated into RSIS. The Township has also required all non-residential development to abide by these same regulations in the 2021 ordinance update. The primary objective of retaining all predevelopment volume of stormwater on site results in challenging design requirements as the best management practices to be used are directed toward groundwater recharge that by their nature consume land on a site, including surface basins, seepage pits and other

infiltration measures including non-structural methods of stormwater conveyance such as grass swales, infiltration, and filtration and bio-retention systems.

The Township updated its Stream Buffer Conservation ordinance in 2023, and replaced it with a new Stream Corridor Protection ordinance for protection of all Bermards Township surface water courses. The updated regulations are consistent with NJDEP Flood Hazard Area Act riparian corridor requirements along all waterways ⁴⁵, as follows:

- 300 feet along both sides of Category One waters (and all upstream tributaries within the same HUC-14 watershed);
- 150 feet along trout production waters and all upstream tributaries; trout maintenance waters (and tributaries within one mile upstream) and waters flowing through an area that contains documented habitat for a threatened or endangered species of plant or animal, which is critically dependent on the regulated water for survival (and tributaries within one mile upstream); and
- 50 feet along all other waters.

Bernards Township has prepared numerous Stormwater Management studies over the last 28 years. These studies have depicted the areas of the municipality that routinely experience flooding conditions. Bernards Township and Somerset County have worked diligently over the years to mitigate and improve these areas. Projects such as replacement bridges over the Dead River at Acken Road, Martinsville Road, Allen Road, Somerville Road, and Meeker Road have already been reconstructed to provide safe passage from flood waters. The Mine Brook Road Bridge and Whitenack Road Bridge over the Dead River have also been completed by Somerset County. Bridge replacements over the Passaic River are in various forms of development. The bridge construction at Haas Road has been completed, and the bridge at Lord Stirling Road is under construction and new bridges at Hardscrabble Road and at Madisonville Road have already been completed. The Douglas Road bridge was replaced in 2020 and the bridge in Liberty Corner is 2021. Numerous culverts and drainage improvements have also been accomplished in the last 20 years.

In regard to environmental improvements, the township has sponsored several stream bank stabilization protection projects, as well as detention basin retrofits. The township has adopted numerous environmentally sensitive ordinances to improve water quality by protecting the stream buffers, steep slopes, wetlands, and trees.

The water quality of the streams in the Township is very good and streams are rated as either nonimpaired or at the high end of the range of moderately impaired. The habitat ratings are also very good at either optimal or at the high end of the range for sub-optimal. All new development projects in the Township must comply with the NJDEP Stormwater regulations, Best Management Practices, and Township ordinances to further improve the quality and control the quantity of stormwater runoff, including a Bernards Township ordinance that requires stormwater recharge for new impervious coverage exceeding 1,000 square feet.

⁴⁵ Ordinance #2521 replaced § 21-14.4, Stream Buffer Conservation with § 21-14.4 Riparian Corridor Protection.

SOLAR ELECTRIC POWER

Solar power from the installation of Solar Photovoltaic (PV) Panels has proven to be an important alternative energy for Bernards Township because it is a cost-effective way to meet energy needs, it makes a statement about conserving energy and often inspires residents to make independent energy conservation changes. The Bernards Township Sewerage Authority awarded a contract for a 1.1-megawatt solar PV energy generating project at the Sewer Treatment Plant in the Spring of 2010 that became operational in June of 2011. The Township entered into a private lease for a solar PV installation at the Recycling Center on Pill Hill Road that was built in 2016. Private solar PV systems have also been developed over the past decade as the private sector turns to alternative energy technology to address corporate office and research facility energy needs (Verizon on North Maple Avenue, the Offices at Liberty Square (Allen Road) and at 222 Mount Airy Road. Public and -private schools have also installed solar, including Ridge High School, William Annin School, the Pingry School). As this technology continues to evolve, Bernards Township may need to develop guidelines and regulations to assure that these facilities can be assimilated without detriment to neighborhood character.

WIRELESS TELECOMMUNICATIONS TOWERS AND ANTENNAS

Due to the growing use of wireless telecommunications services and the need to provide such services to the community effectively and efficiently, guidelines have been established for the siting of wireless communications towers and antennas, consistent with the Federal Telecommunications Act of 1996, as amended, which preserves local government authority to enforce zoning requirements that protect public safety, public and private property, and community aesthetics.

Towers and antennas should be located such that residential areas and land uses are protected from adverse impacts. Primary options for antenna locations should be on existing towers, buildings, or other existing structures. To the extent new towers are proven necessary, they should be encouraged in non-residential areas and designed to accommodate multiple wireless communications providers, thus minimizing the total number of towers throughout the community. In all cases, towers and antennas should be constructed and configured in a way that minimizes adverse visual impacts through careful design, siting, landscape screening, and innovative camouflaging techniques. Provisions for removal of outdated equipment and towers have been included in local regulations governing wireless telecommunications towers and equipment.

Evolving technology includes the recent industry development and deployment of 5G technology that is expected to replace the need for conventional wireless tower construction. Deployment of this technology includes the installation of nodes on existing infrastructure, such as existing utility poles, and on buildings where structures are appropriately situated to accommodate deployment of the technology. Permissive federal law allows for the installation of 5G nodes, which are typically cylindrical antenna affixed to existing roadside infrastructure with ground mounted utility boxes, within the public right-of-way. When

deployed, the new technology is expected to be less obtrusive to the eye and less intrusive on community character than the conventional cellular telecommunications towers because of its size.

UTILITY ADVISORY TASK FORCE

In 2021, the Bernards Township Committee established a Utility Task Force with a one-year appointment to assess the level of communication and service from utility providers in Bernards Township. In December of 2021, the Task Force delivered a report on its investigations to the Township Committee. The Task Force made recommendations in the report, including:

- 1. JCP&L
 - a. Importance of every affected customer reporting an outage when they occur because the utility prioritizes its response to outages based on the number of outages reported,
 - b. Directions are needed for reporting issues with utility poles based on utility ownership of the utility pole (i.e. JCP&L or Verizon).
 - c. Make customer aware of web portals for (1) reporting vegetation or tree issues to the utility and (2) streetlight outages.
 - d. Recommendation for local police to note and report streetlight outages.
- 2. All Utilities:
 - a. Notify residents to register with each utility (NJAWC, PSE&G, JCP&L, Verizon and Optimum) to receive automated communications from the utilities, including alerts, service issues, outages, restoration updates, ...
 - b. Revise the Land Development Ordinance at Section 21-26 regarding utility service, to include internet service as one of the utilities an applicant is required to address in a development application. (add internet service to the list of utilities identified at Sec. 21-26.1.a.)

The Task Force invested a great deal of effort investigating resident's internet service, from both reliability and adequacy of service viewpoints. The Task Force distributed surveys to residents to assess this question. The report identified geographic differences in residents' survey responses with The Hills residents reporting a high degree of dissatisfaction in their service. As a result of their thorough investigations and dogged efforts to address this situation, Optimum, The Hills internet service provider, appears to have agreed to install fibre optic service throughout The Hills neighborhoods. To achieve this goal, Optimum has indicated that agreements with each of the individual Homeowner's Associations (HOA's) is needed to grant the utility access across HOA property to make the installations necessary to improve internet access in each neighborhood. In addition, JCP&L is now installing service meters that report outages to the utility company.

"We shape our buildings; thereafter, our buildings shape us."

-Winston Churchill-

CHAPTER X HISTORIC PRESERVATION PLAN ELEMENT

STATUTORY AUTHORIZATION

The Statutory authorization for a municipal Historic Preservation Plan Element is found in Municipal Land Use Law (*N.J.S.A. 40:55D-1 et seq.*), which encourages "…municipal action to guide the appropriate use or development of all lands" in ways that promote the general welfare through local plans and zoning. Among its purposes, the MLUL (NJSA 40:55D-2) highlights the importance of conserving our heritage, as reflected in historic landscapes, buildings and structures, with the following purposes:

i. *To promote a desirable visual environment* through creative development techniques and *good civic design and arrangement*;

j. To promote the conservation of historic sites and districts, open space, energy resources and valuable natural resources in the State and to prevent urban sprawl and degradation of the environment through improper use of land;

Conserving historic sites and districts helps retain the authentic character that enriches our understanding of "place" and allows the past to inform and influence the evolving landscape. The civic design principles of the "pre-sprawl" era provided a strong sense of community through the type, style, and arrangement of buildings. In furtherance of its heritage conservation objectives, the MLUL provides for the Preparation and adoption of a Historic Preservation Plan Element in the Master Plan (N.J.S.A. 40:55D-28.b.10), as follows:

"(10) An historic preservation plan element:

(a) indicating the location and significance of historic sites and historic districts;

(b) identifying the standards used to assess worthiness for historic site or district identification; and

(c) analyzing the impact of each component and element of the master plan on the preservation of historic sites and districts;"

This historic preservation plan recounts the story of this place with a brief history (Appendix A) and includes the requisite identification of historic resources. It also reviews how other plan elements will affect historic preservation efforts as it seeks to establish a

framework for historic preservation planning and other preservation activities that can assure that this heritage is not lost and can inform and inspire future generations.

GOALS AND OBJECTIVES

The following are overarching historic preservation goals and objectives that guide this historic preservation plan:

- 1. Recognize and encourage the preservation of the distinctive character of the historic villages and hamlets of Basking Ridge, Liberty Corner, Franklin Corners, and Madisonville.
- 2. Coordinate the identification and preservation of historic areas, historic sites, landscapes, neighborhoods, archaeological sites, and scenic corridors within the municipality; maintain a municipal central repository of data collected.
- 3. Encourage the preservation of historic buildings and structures and promote the protection of historic, archaeological, and other cultural resources.
- 4. Promote the adaptive reuse of historic buildings and structures in ways that respect architectural and historic integrity.
- 5. Promote and encourage these historic preservation objectives through a combination of strategies: encourage private, voluntary initiatives; administer and enforce existing design guidelines and requirements; and utilize Township and other funds, where appropriate.

HISTORIC PRESERVATION POLICIES

The following policies are intended to advance Bernards Township's Historic Preservation Goals Objectives:

- 1. Promote an appreciation of Bernards Township's cultural, physical and architectural resources, and communicate with citizens and stakeholders about the importance of preserving this heritage, bringing together homeowners, shop owners, cultural, educational and environmental organizations, and government agencies;
- 2. Maintain cohesive neighborhoods; ensure a compatible and harmonious context for historic buildings, structures, sites and districts; and discourage new

construction destructive to the character of Bernards Township's neighborhoods;

- 3. Discourage unnecessary demolition, destruction or other actions disruptive of historic resources;
- 4. Integrate consideration of historic resources into Bernards Township's land use plan, subdivision and site plan reviews and approvals, economic development plans, and other strategic planning tools;

HISTORIC PRESERVATION PLANNING IN BERNARDS TOWNSHIP

As a town proud of its 18th century roots, Bernards Township values the historic buildings, structures and districts that remind us of the important role this region played during the Revolutionary War. The villages and hamlets that dot the Bernards Township countryside reflect a rich heritage spanning nearly 300 years of settlement. Its historic farmsteads and landscapes serve as reminders of the lifestyles of those early settlers and their descendants. Buildings representing different styles and ages, from pre-Revolutionary and Federal-period dwellings to early 20th century Bungalow, Eclectic and Colonial Revival houses, create the variety that gives the community much of its physical appeal and special character. Bernards Township's rich heritage is entrusted from generation to generation, enhanced and then passed on.

A key purpose of this Historic Preservation Plan is to chart the way forward toward identifying, preserving, and improving the historic buildings, structures, and streetscapes of Bernards Township so they can continue to play an integral, vibrant role in the community. This plan will help Bernards Township identify and characterize elements of community character and preservation strategies appropriate to the township. Understanding and documenting these historic resources is fundamental to this process. A process of education about a variety of values will be key, including the community values reflected in these resources, their intrinsic value to the neighborhood fabric, and their strong real estate value. The historic buildings, structures, neighborhoods, streetscapes, and landscapes that have shaped the community's identity, provide a unique sense of place. Their charm is a fragile commodity, one that can be easily damaged when style and scale are not respected. As the community evolves and changes over time, important aspects of the community character can be lost. On one level these risks include the disruption of neighborhood cohesiveness. when a massive addition or replacement house violates the scale and rhythm of the neighborhood and removes established landscaping. A more subtle threat involves the slow erosion of Bernards Township's historic fabric, setting and materials, as insensitive change can diminish the quality of historic buildings and landscapes.

This plan promotes and encourages the preservation of those historic resources that exemplify Bernards Township's cultural, social, economic, and architectural history. Historic villages and hamlets, landmark buildings, sites, and architectural styles are among the resources Bernards Township intends to preserve for the education, enjoyment, and general welfare of its citizens and visitors.

HISTORIC PRESERVATION CHALLENGES

As Bernards Township will very likely face future development pressure from economic forces and mandatory State requirements, , the town's historic resources will likely come under attack in some quarters. While the preservation of historic sites and districts serves to promote the value of surrounding properties, many of these sites have the potential for significantly more development. When the real estate development opportunity afforded by the township zoning is sufficiently attractive, historic buildings will come under threat.

BALANCING PRESERVATION AND THE RIGHTS OF PROPERTY OWNERS

One of the most important components of successful historic preservation efforts relates to the needs and rights of owners of historic structures. While historic preservation is sometimes cast as averse to property rights, these values can coexist by working to achieve a balance. A successful balance requires conscious planning and coherent and well-articulated public policies that support preservation goals as well as present-day needs. As Bernards Township moves forward with plans to implement historic preservation goals, the participation of property owners will be a key ingredient for success. Communication with owners of historic homes and residents of historic districts should build upon a common interest in the values (historic and financial) to be protected.

Increased public education can lead to a broader knowledge of Bernards Township's history as well as a deeper understanding of history's relevance to the present. Future efforts should formalize a learning environment and process and establish a municipal repository where cultural resources and architectural historical data can be maintained.

PROTECTING ESTABLISHED NEIGHBORHOODS

Recent demolitions have renewed concerns about the loss of character in some of Bernards Township's older neighborhoods not previously recognized for their special interest. There are several small neighborhoods built during the 1930s and early 1940s that are comprised of fine examples of modestly scaled Colonial Revival styles. Many of these houses still retain a high degree of historic integrity and represent high-quality work of several local builders. These houses were designed with an understanding of the historic prototypes that the Colonial Revival style was based, and more closely resemble the prototypes than the grand landmark Colonial Revival houses, such as the Frothingham-Sloan House at the United States Golf Association.

These small collections of well-crafted Colonial Revival houses enhance the value of all real estate within their spheres of influence and provide a permanent reminder of the scale and character of this place in an earlier time. They are also more affordable to purchase and maintain than their would-be 21st century replacement.

As the historic character of these neighborhoods comes under increasing threat from demolitions (permitted and de facto), subdivisions, new buildings at inappropriate building scale, and stylistically incongruous development, local policy will determine how neighborhood character is protected or exposed. A continuing trend toward neighborhood deconstruction/reconstruction may change the neighborhood scale that has been prized in Bernards Township for generations, by setting a new "neighborhood standard".

PRESERVING ARCHITECTURAL CHARACTER

Portions of Bernards Township look much as they did in the early 20th century, before the late 20th century building and population booms. Particularly significant are the Basking Ridge and Liberty Corner village centers and the hamlets of Franklin Corners and Madisonville with their 18th and 19th century traditional and high-style buildings, and the pre-war subdivisions of small-scale houses in a variety of historical revival styles. Bernards Township's historic landmarks and streetscapes of historic buildings contribute greatly to the beauty of the Township's varied and unique neighborhoods, tree-lined streets and vibrant business districts.

Contributing to the township's distinctive sense of place are such landmark buildings as the Brick Academy, the Van Dorn Mill, the Olde Mill Inn, the two Presbyterian churches, the Boudinot-Ross house, the Kennedy-Martin-Stelle Farmstead dwelling and barns, the USGA Golf House (designed by John Russell Pope), and Samuel Owen's "Cedar Hill" mansion (now Bernards Township Municipal Building).

In addition, there are numerous private homes that are stylistically noteworthy, many of which are potential candidates for changes to accommodate the needs of a modern family. The design and construction of complementary additions, that reinforce the neighborhood scale rather than overpower it, can permit the old established neighborhoods to thrive, which can help prevent undesirable and unfriendly teardowns. Neighborliness extends beyond keeping a neat yard and remaking a neighborhood.

When modern building codes are applied to rehabilitation of existing buildings, the standards are often too costly to allow these projects to proceed. New Jersey's Rehabilitation Sub-code enables building rehabilitation, consistent with preservation objectives to retain original features, to be safer and less costly, while maintaining the original design of the building.

OPEN SPACE

To preserve the essence of place that anchors community character, it is important to preserve the character-defining buildings on properties acquired for open space, which typically have consisted of centuries-old agricultural tracts. A process to properly identify, document and, where possible, protect historically significant buildings on these properties could utilize a variety of strategies that would avoid costs to taxpayers.

DESIGNATED HISTORIC SITES AND HISTORIC DISTRICTS

A number of historic sites and historic districts in Bernards Township have been listed on the New Jersey and National Register of Historic Places. The State and National Register listing for Bernards Township is provided in Table XI-1 below. The listing is compiled and maintained by the NJDEP Division of Parks and Forestry, Historic Preservation Office and identifies the general location of sites and districts within the Township.

Listing on the State and/or Federal Register of Historic Places provides protection against destruction of historic resources when state of federal government funding is involved. However, listing on historic registers does not preclude the destruction or substantial alteration of historic resources when no government funds are involved.

The DEP provides the following explanation of the historic places, sites and districts that are listed on the Register:

"The following New Jersey and National Registers of Historic Places listings include properties and historic districts in New Jersey for which a formal action was taken by the State Historic Preservation Officer or designee. The listings are updated quarterly to reflect ongoing additions and corrections."

TABLE X1-1						
NJ DEP - Historic Preservation Office						
New Jersey and National Registers of Historic Places						
Last Updat	te: <u>06/22/2023</u>					
Bernards Townsh	Bernards Township, Somerset County					
The Academy (ID#2467)	Franklin Corners Historic District (ID#2472)					
15 West Oak Street SR:	Hardscrabble and Childs roads SR: 12/12/1974					
11/25/1975	NR: 5/12/1975 (NR Reference #: 75001159)					
NR: 7/21/1976 (NR Reference #: 76001185)						
Alward House (ID#2468)	Gladstone Branch of the Delaware, Lackawanna					
40 Mount Airy Road	and Western (DL&W) Railroad Historic District					
SR: 2/5/1986	(ID#5030)					
NR: 3/13/1986 (NR Reference #: 86000388)	NJ Transit Gladstone Line between Peapack and					
	Gladstone Borough and Summit City					
	SHPO Opinion: 10/20/2010					
Basking Ridge Historic District (ID#2469)	Kennedy-Martin-Stelle Farmstead (ID#4200)					
North & South Finley and North & South Maple	450 King George Road COE:					
avenues; Lewis, West, Craig & Oak streets DOE:	5/14/2001					
8/18/1994	SR: 6/9/2003					
(DOE/Owner Objection)	NR: 5/5/2004 (NR Reference #: 03000868)					
	(Referred to in COE as "Reverend Samuel Kennedy					
	Parsonage Farmstead")					

NJ DEP - Historic Preservation Office						
New Jersey and National Registers of Historic Places						
Last Update: <u>06/22/2023</u>						
Bernards Townsh	ip, Somerset County					
Basking Ridge Presbyterian Church (ID#2470) 6 East Oak Street SR: 10/24/1974 NR: 12/31/1974 (NR Reference #: 74001190)	Liberty Corner Historic District (ID#2473) Church Street, Lyons Road, and Valley Road SR: 8/16/1991 NR: 10/11/1991 (NR Reference #: 91001477)					
Boudinot / Southard Farmstead (ID#4955 135 North Maple Avenue SR: 9/11/2009 NR: 12/18/2009 (NR Reference #: 09001101	Lyons Railroad Station (ID#2474) Lyons Road SR: 3/17/1984 NR: 6/22/1984 (NR Reference #: 84002805) (Thematic Nomination of Operating Passenger Railroad Stations)					
"The Buildings" Lord Stirling Manor Site	Lyons Veterans Administration Hospital Historic					
(ID#2475)	District (ID#2476)					
96 Lord Stirling Road	151 Knollcroft Road					
SR: 12/1/1976	NR: 7/3/2013 (NR Reference #: 13000461)					
NR: 5/22/1978 (NR Reference #: 78001795)	SR: 4/29/2013 DOE: 11/26/1980 U.S. Second Generation Veterans Hospitals (MPDF)					
Coffee House (ID#2471) 214	PSE&G Roseland to Branchburg Segment of the					
North Maple Avenue SR:	Roseland to Pleasant Valley Transmission Line					
3/28/1977	(NHL, ID#5786)					
NR: 11/7/1977 (NR Reference #: 77000906)	SHPO Opinion: 8/14/2020					
	(Livingston Twp., Essex County to Branchburg Twp., Somerset County)					

SR: State Register of Historic Places NR: National Register of Historic Places

NR: National Register of Historic Places

COE: Certification of Eligibility by State Historic Preservation Officer SHPO: Opinion: State Historic Preservation Opinion of Eligibility

DOE: Determination of Eligibility from the Keeper of the National Register

As listed in the table above, there are three designated Historic Districts in Bernards Township⁴⁶: (1) Franklin Corners Historic District, (2) Liberty Corner Historic District and (3) Lyons Veterans Administration Hospital Historic District. The 2010 Master Plan update included listings through 2005. Since then, three new sites have been added to the State and National Register listings for Bernards Township, including (1) the Boudinot / Southard Farmstead (2009), (2) The Gladstone Branch of the Delaware, Lackawanna and Western (DL&W) Railroad Historic District (2010) and (3) The PSE&G Roseland to Branchburg Segment of the Roseland to Pleasant Valley Transmission Line (2020).

NJDEP also maintains a historic resources mapping website called "LUCY", which is an acronym for "Look Up Cultural-resources for Yourself," and named after Lucy the Elephant in Margate ("The elephant never forgets"). The website⁴⁷ enables a person to find historic sites and features at the municipal level using the search engine provided. Bernards

⁴⁶ An overview of each of Bernards Township "Historic Districts" can be found on the Bernards Township website at bernards.org. Search "Historic Districts".

⁴⁷ Link to NJDEP's "LUCY" GIS interactive historic resources mapping website:

https://www.arcgis.com/apps/webappviewer/index.html?id=44ce3eb3c53349639040fe205d69bb79

Township's historic districts and sites of historic interest are viewable on the website. By clicking on LUCY map icons, the viewer is provided with a brief description of each mapped.

The listing for the Veterans Administration Hospital Historic District was listed on the State and National Registers of Historic Places in 2013, whereas prior to then the Veterans Administration Complex was listed with a 1980 SHPO Opinion of Eligibility and Determination of Eligibility.

EXISTING FORMAL SURVEYS

The *Bernards Township Reconnaissance Level Inventory*, which is part of the 1989 *Somerset County Cultural Resource Survey*, lists 232 historic sites in Bernards Township⁴⁸. The absence of stone arch bridges from the inventory is a significant missing link to the Township's early history. The very few that remain should be evaluated for their ability to yield significant information about early Township history, particularly in the face of increasing traffic loading and possible bridge replacements.

IMPACT OF OTHER MASTER PLAN ELEMENTS ON HISTORIC PRESERVATION

The provisions of other master plan elements can have direct bearing on the preservation of historic sites and districts. Proposals for future land use, circulation or community facilities can directly affect these resources. As required by statute, the impacts of other components and elements of the master plan on the preservation of historic sites and districts are addressed below.

GENERAL OBJECTIVES

The Master Plan cites the legislated purposes of the Municipal Land Use Law, which have been adopted as General Objectives, including the following purpose:

"10. To promote the conservation of historic sites and districts, open space, energy resources and valuable natural resources in the State and to prevent urban sprawl and degradation of the environment through improper use of land."

LAND USE PLAN

Bernards Township's Land Use Plan calls attention to the importance of conserving community character, both within and beyond the limits of the Township's historic districts. Key recommendations of the land use plan call for scrutiny of bulk and intensity standards that can precipitate change in historic districts and structures.

⁴⁸ Link to Somerset County Cultural Resource Survey, Phase II, dated August 1989 listing 232 Township sites: https://www.co.somerset.nj.us/home/showpublisheddocument/25669/636365023333000000

The Land Use plan discusses a series of planning considerations and policy statements related to managing growth and change in the context of preserving historic character:

- "... The rural character that pervades the edges of Bernards Township, which includes scenic vistas, wooded hillsides, agricultural fields, expansive floodplains and historic settlements, is highly susceptible to degradation..."
- "The scale and character of historic villages is also a major concern, and Liberty Corner and Basking Ridge stand as testimonials to the historic past of Bernards Township. These mixed-use village areas have a fabric, which is susceptible to damage by the removal and replacement of older and smaller buildings with new larger buildings. Yet, in many cases, prevailing zoning standards permit a building envelope, based on setbacks, coverage and other standards, which can accommodate substantially more development than the historic forms. Strategies should be directed at preventing the removal of older homes or other buildings that play a key role in the streetscape and unique character of these historic areas."
- "A principal objective of this land use plan is that the highly prized community character and quality of life be protected and maintained, throughout Bernards Township, whether in newly constructed or older suburban neighborhoods, historic settlements or rural portions of the Township. Protecting these features will likely require a combination of regulatory techniques, including carefully crafted strategies to protect and enhance these assets."
- Floor Area Ratio controls, which are utilized in Bernards Township's nonresidential districts, should be evaluated for their ability to control against overbuilding in non-residential areas, and adjusted if appropriate.

Many of the developed parcels in the Township's two historic sites (Franklin Corners and Liberty Corner) are lots that were developed prior to zoning and are nonconforming in relation to zoning requirements. Common nonconformities with the Historic Districts include lot size, setback and impervious coverage. These nonconformities and the intimate historic development patterns of these areas are significant contributing elements to the charm and character of the districts.

CIRCULATION PLAN

The Circulation Plan includes a goal to "improve pedestrian friendliness throughout Bernards Township, and especially in the historic settlements of Basking Ridge, Liberty Corner and Madisonville."

The Circulation Plan concludes that four lanes of traffic are not practical or desirable on two historic township roads, North Maple Avenue and South Finley Avenue.

The Circulation Plan suggests improvements in sight distance and alignment of the Church Street and Valley Road/Lyons Road intersection, which is within the Liberty Corner Historic District and is under Somerset County jurisdiction. Planning for this improvement will require Section 106 review which requires government agencies to take historic resources into consideration when government funds are expended. Section 106 of the National Historic Preservation Act of 1966 requires consideration of historic properties and requires federal agencies to consult with the State Historic Preservation Officer (SHPO) and give the Advisory Council on Historic Preservation an opportunity to comment before projects are implemented.

The Circulation Plan references recommendations based on the Somerset County Scenic Corridor and Roadway Study pertaining to preserving scenic assets:

- Coordination of circulation, conservation, and historic preservation plan policies with scenic resource protection goals.
- Development of an objective rating system based on designation criteria to evaluate candidate local roads as "scenic corridors" or "scenic roadways". Liberty Corner Road (CR 512) has already been designated as a scenic county roadway.
- Zoning ordinances can provide "scenic zones" based upon the boundaries of the "view shed" observed from a scenic corridor or roadway. Standards for such zones would provide for development that minimizes visual intrusion on the landscape.

COMMUNITY FACILITIES PLAN ELEMENT

The Community Facilities Plan encourages development of alternative energy facilities on public lands and buildings, which could potentially impact township- owned historic properties.

Bernards Township leases the Brick Academy to The Historical Society of Somerset Hills and has been supportive of its long-term preservation plan. Similarly, Bernards Township leases the Kennedy-Martin-Stelle Farmstead to the Friends of the KMS Farmstead, whose goal to create new uses for the property have been largely fulfilled with a busy schedule of cultural events. These leases are cost effective methods to preserve historic landmarks and provide community amenities.

PARKS AND RECREATION PLAN

Stewardship of historic buildings is a special responsibility that sometimes accompanies open space acquisitions. Where an acquisition includes buildings, an evaluation of potential adaptive reuse to serve the public, potential historic significance and the viability of

preserving historic buildings should be done early, since deferred maintenance is the enemy of many of these structures.

CONSERVATION PLAN

The Conservation Plan acknowledges the following recommendation in relation to the conservation of valuable historic resources:

"Basking Ridge and Liberty Corner are areas which exhibit distinct character with respect to historically significant elements. The building, inter-relationship of buildings and relationship to the street, landscaping, signs, lighting and pedestrian orientation all contribute to this character. The Township should consider design standards which would regulate potential demolition and future construction in a manner that maintains the integrity of these areas."

The Municipal Land Use Law provides guidance for municipal enactment of these types of controls, including designation of a Historic District. A Historic District designation was considered in the past for Basking Ridge and declined at the local level due to local property owner opposition to the designation. To date, enactment of Historic District regulation has been deemed to be undesirable and unnecessary for the Franklin Corners and Liberty Corner State Register Historic Districts.

Environmental sustainability goals support preservation and adaptive reuse of historic buildings and structures. Preservation is *sustainable development* for many reasons, including:

- The demolition of buildings adds significant amounts of material to landfills. The EPA has determined that building construction debris constitutes approximately one third of all waste generated in this country.¹⁴⁹
- It frequently requires less material, effort, and cost to make an existing building more energy efficient than to replace it with a new building. It is also energy expended locally with materials and workers, rather than in the long-distance shipping of manufactured materials.
- The materials that were used to create an existing building required a certain amount of energy to get them there in the first place (i.e. to cut the wood, transport it to the site and to construct the building). That is energy that is embodied in the existing building -- energy that would be destroyed by the destruction of these buildings.
- In calculating the energy used in a building, much is made of how much annual energy is used in the building. Even in a new, energy efficient

⁴⁹ Donovan D. Rypkema, *Historic, Green and Profitable*, Speech given at the Traditional Building Conference, Boston, March 8, 2007.

building, the energy saved pales in comparison with that used in construction. "The energy consumed in the construction of a building is 15 to 30 times the annual energy use."

SUMMARY AND RECOMMENDATIONS

The array of historic landscapes, sites and districts within Bernards Township contribute a cultural richness that enriches the quality of life and reinforces community values within Bernards Township. The protection of these resources serves to enhance the value of all real estate within their sphere of influence, while they also provide a permanent reminder of the scale and character of this place in an earlier time.

This historic preservation plan acknowledges the importance of these resources, which connect Bernards Township with its past, and calls upon all stakeholders to protect the authentic elements of place that make Bernards Township special. A review of the other Master Plan elements suggests that the other plan elements of the Bernards Township Master Plan, particularly the Land Use Plan Element, substantially advance the objectives of preserving and protecting historic sites and districts in Bernards Township.

The following specific recommendations are designed to advance the agenda for protecting historic buildings and structures in Bernards Township:

- 1. Prepare a survey of historic sites.
- 2. Conduct advisory, educational or informational activities to advance historic preservation.
- 3. Expand the collection of cultural and historic data in Bernards Township, particularly when development will alter or eliminate historic features.
- 4. Develop a standard protocol for the recording of historic buildings to be removed, including a photographic record, recorded measurements, etc.
- 5. Craft an Action Plan for historic preservation activities that includes:
 - a. expanded surveys and documentation of additional historic resources such as out-buildings, stone arch bridges and archaeological remains.
 - b. education for the citizenry (school curriculum, senior citizens, homeowners, etc.).
 - c. securing grants for historic preservation activities.

APPENDIX A - A BRIEF HISTORY OF BERNARDS TOWNSHIP

(Adapted from National Register Nominations for Basking Ridge, Liberty Corner, and Olcott Avenue Historic Districts)

Bernards Township originally included all of Bernardsville and Far Hills Boroughs as well as a small portion of Warren Township. Far Hills was established as a separate municipality in 1921 and Bernardsville followed in 1924. Throughout most of the 19th century, the population in Bernards Township remained relatively constant, rising slowly from 1,790 people in 1810 to 2,558 in 1890. By 1910, the population had risen to 4,608. After Bernardsville and Far Hills were incorporated as separate boroughs in the early 20th century, Bernards Township's population dropped to 2,293 people. The estimated population of the township as of 2007 was 26,590.

The Lenni-Lenape of the Delaware band of Native Americans (part of the Algonquin peoples), were the first known inhabitants of the Bernards Township area. Scattered throughout Bernards Township are traces of these early inhabitants – arrowheads, tomahawks, hearthstones, hammerheads and camp rubble – which indicate long occupation. One of the areas most intensely used by Native Americans was a campsite along the Passaic on the present Verizon property. A second major campsite area was located along the Passaic River on property now part of the Somerset County Environmental Education Center. A burial ground is known to have existed on the east side of Childs Road on the hillside across from the Indian Graves Brook. In 1717, John Harrison, agent of King George I of England, purchased 3,000 acres for \$50 from Chief Nowenoik of the Lenape, which comprised much of what became Bernards Township, and was known as Harrison's Neck or Harrison's Purchase.

BASKING RIDGE

The name Basking Ridge first appeared in 1733 in the records of the Presbyterian Church and is recorded as being derived from the fact that "the wild animals of the adjacent lowlands were accustomed to bask in the warm sun of this beautiful ridge." "Baskeridge" and "Baskenridge" were commonly used spellings.

At the time of the American Revolution, Basking Ridge was a small village on a hill above the Passaic River, populated by farmers who were descendants of Scottish and English settlers. These yeoman farmers had been in the area for at least two generations; organized settlement of the area dated to around 1720, about the same time as the [Basking Ridge] Presbyterian Church was founded. In the course of the Revolutionary War, as many as one hundred men from Bernards answered the call to arms.

During the Revolutionary period, the most prosperous member of the community was William Alexander, Lord Stirling, whose Palladian mansion stood southeast of the village center. Lord Stirling began to build his countryseat in Basking Ridge in 1761, after inheriting 700 acres of property there. He inherited thousands of other acres as well, but the wealthy and well-educated Lord Stirling seems to have chosen Basking Ridge as the site of his estate for its rural seclusion combined with a road network which provided access to his many business interests in New York and his political interests in Perth Amboy. Intent on recreating a countryseat on the Thames on a low knoll overlooking the Passaic, Stirling's estate, known as "The Buildings," was a local wonder.

Lord Stirling attended the Basking Ridge Presbyterian Church, and socialized with its prominent minister, the Rev. Dr. Samuel Kennedy, who was both physician and clergyman. Stirling gave up his position in the royal government of New Jersey and lost his considerable fortune by allying himself with the patriot cause during the Revolution. Commissioned as a Brigadier General in the Continental Army, he raised a regiment in the late summer of 1775. Using his home as a headquarters, Stirling brought uniformed excitement to Basking Ridge as the Revolution unfolded, through the coming and going of couriers, visits from General George Washington, and the headquartering of General Nathanael Greene and his brigade there in 1777-78. In December 1776, General Charles Lee, second in command under General Washington, was captured and taken prisoner from Widow White's Tavern by the elite Sixteenth British Light Dragoons.

These events were witnessed not only by the locals, but also by a number of well-to- do New York families who sought a haven from the occupied city and the threats of war. Perhaps best known of the circle to posterity is Elias Boudinot, a delegate to (and later, president of) the Continental Congress. He moved to an estate near Madisonville from his Elizabethtown seat, perhaps on the suggestion of his friend and legal client, Lord Stirling. Another important refugee from New York City was John Morton, who relocated to a farmhouse not far from Boudinot. A wealthy import merchant, Morton became known as the "Rebel Banker" and owned a nearby mill prior to his early demise in 1782.

Only weeks after the war was over, the New York families began to leave Basking Ridge, yet the excitement of the Revolutionary period was long remembered and colored much of the village's perception of itself throughout the 19th century. As early as 1850, Harper's Weekly Magazine published a series on historic houses, and included articles and drawings on the Lord Stirling house and the Widow White's Tavern.

By the turn of the 20th century, there was a cultivation of the perception that Basking Ridge was a "colonial" town. That the number of 19th century buildings greatly outnumbered the 18th century survivors, and the landmark buildings of the war were already demolished, did not hinder the antiquarians. Significantly, local conservatism caused traditional architecture to linger well into the 19th century, so that eclectic and elaborate Victorian-era styles were slow to catch on. New buildings were often modernized in the turn-of-the-century Colonial Revival style while existing buildings were often modernized in the same style. Some genuinely old houses, such as the Finley House at 200 South Finley Avenue, were enlarged and improved in the Neo-Georgian mode. Other old houses were moved, including the dwelling at 87 South Finley Avenue, reputed to be the oldest standing house in the village. It was relocated from a side street to a prominent site on the main thoroughfare. Small traditional East Jersey cottages at 147 South Finley [no longer extant] and 64

South Maple Avenue were preserved; their additions and minor alterations reflect different generations' varying interpretations of "colonial" architecture.

During the early years of the 20th century, partly in response to the aesthetic reforms proposed by the "City Beautiful Movement," and partly in response to the call for public amenities promoted by social reformers, there emerged an entire class of civic improvement organizations. Their impact may have been most measurable in small towns and rural places, where there had existed virtually no infrastructure. In Basking Ridge, an improvement society was founded in February 1903. The Basking Ridge Improvement Society exercised a strong impact on the way the village appears and operates today. In fact, many of the village features we associate with its "historic" character actually took shape during this period as a direct result of the society's activities. The society dedicated itself to such high-minded concerns as "law and order," fire protection, and improved educational facilities, but its most lasting accomplishments concern features still visible to anyone who walks or drives through the village: trees, roads, and sidewalks, and street lights. Trees may seem like a natural feature of a place as rural as Basking Ridge, but by the beginning of the 20th century, commercial development and lack of a systematic planting program had resulted in shabby looking shade trees at the center of the village. Characteristic of the center of Basking Ridge are raised sidewalks and stone retaining walls necessitated by road cuts and other changes in grade.

LIBERTY CORNER

First named Annan's Corner, the village was settled in 1722 by John Johnston of Annandale, a Scottish immigrant who purchased from William Penn a large tract of land that comprises the present village center. Annan's son William built a locally famous stone house in 1766, just outside of the present village on Lyons Road. The house, no longer extant, served as a church, a soldier's hostelry, a military hospital, and a school as well as a residence. Farming was the chief occupation of those living in and around the village. In 1838, a Presbyterian Church was established in Liberty Corner, with Rev. James T. English as minister. A new building was constructed in 1868, where Rev. English continued to serve until his death in 1873. English's descendants remain in Liberty Corner today. During the American Revolution, French troops of Comte de Rochambeau camped overnight on this property, August 30-31, 1781, en route to Yorktown, Virginia, and final victory from General Cornwallis.

Easy rail transport commencing in 1872 was key to the development of dairying as an industry in Bernards Township, greatly and instantly expanding the market for fresh dairy products. In addition, other dairy products became increasingly important to dairy farmers in and around Liberty Corner, including condensed milk, which came to be preferred by many Civil War veterans accustomed to army- supplied processed milk and butter. The development of the cream separator in the 1870s led to the mechanization and standardization of butter production in centralized creameries, rather than on individual farms. Several creameries were located in Liberty Corner and Basking Ridge.

In 1889, William Childs and his brother Samuel of Bernards Township gave the local dairy industry a boost by opening the first of what grew to be a 105-restaurant chain featuring vegetarian meals and dairy products.

Liberty Corner was linked to the late 19th century tourist trade fostered by the railroad and offered lodgings for travelers in the Liberty Corner Hotel, which was built in the 18th century as Bullion's Tavern. At the end of the 19th century it was operated by Dennis Van Lieuw and was later renamed the William Allen Hotel. It is no longer extant. Liberty Corner also served as an attractive destination for outings by local vacationers in Bernardsville and Basking Ridge making a daytrip to a "quaint," historical town.

In the early 1920's, taking advantage of available bus service to Lyons station, Charles Romph, a World War I veteran, purchased a tract just north of Church Street, which he subdivided to create a tiny "romantic suburb" of "English Cottage" style bungalows, Liberty Corner's sole residential development until the last quarter of the century.

EDUCATION

In 1750 a classical school, designed to prepare young men for college, was established in Basking Ridge by Dr. Samuel Kennedy, fourth pastor of the Presbyterian Church. For a period of several years, the school was moved to Kennedy's farmstead in the southeastern corner of the Township. After Kennedy's death, Rev. Robert Finley reestablished the academy in 1799 and in 1809 built the Brick Academy. Pupils came from New York City and other states, as well as New Jersey; residents provided lodgings. Finley's first class of four students graduated in 1802 and all entered the College of New Jersey (later renamed Princeton University). Among the Academy students were Samuel Southard (1787-1842), governor of New Jersey from 1832 to 1833 and United States Senator from 1833 to 1842; Theodore Frelinghuysen (1787-1862), United States Senator from 1829 to 1835, vice-presidential candidate with Henry Clay in 1844, chancellor of New York University, and president of Rutgers College; Robert Field Stockton (1795-1866), hero of the Mexican War who served as the first military governor of California and as United States Senator (1851-1853); and William Lewis Dayton (1807-1864), United States Senator from 1842 to 1851 and vice-presidential running mate of John C. Fremont in 1856.

Beginning in 1903, the Basking Ridge Improvement Society, which had been organized with the modernization of the local school system as one of their major concerns, worked to have men sympathetic with progressive ideas, including William Childs, elected to the local school board. Childs, who was by then a successful New York City restaurant entrepreneur, attended the local public school as a child, but then had had to travel to Morristown to attend high school. Under Childs, three new multi-room schools were constructed between 1903 and 1905, a remarkable accomplishment for a rural community that resulted in the closure of five outdated schoolhouses. New four-room schools were built in Basking Ridge (1903) and Liberty Corner (1904).

In 1905, the Improvement Society backed efforts by the Board of Education to establish two grades for a new high school in the township – using two rooms in the Bernardsville School. For the first time a public high school education was available in Bernards Township. Prior to that year, the nearest public high school would have been eight to ten miles away in Morristown or Summit. In his 1904 School Report, Somerset County Superintendent H.C. Krebs singled out Bernards Township for taking the lead – through its ambitious school construction program – in a movement toward "an awakening and an enterprise that augur well for the educational future of the county."

Unlike most other rural communities, Bernards Township was clearly in the vanguard to provide a publicly financed higher education.

TRANSPORTATION

Even before paved roads to the village were contemplated, Basking Ridge's citizens wished to be connected to the rest of the world. Although stagecoach lines had served Basking Ridge since colonial days, by the mid-19th century all other modes of transportation were considered inferior to the railroad. By that time, Bernards Township had been bypassed by two railroads, the Morris and Essex through Morristown to the north, and the Jersey Central, through Somerville to the south. Citizens organized and agitated to get a rail line laid through the village, which was finally accomplished in 1872 with the Passaic Valley & Peapack Railroad. The line ran from Bernardsville to Summit, but the Basking Ridge depot was placed so far north of the center of town as to have virtually no impact on the life of the village center (effectively preserving the 19th century village streetscape). Although the Rail Road immediately began promoting the sale of nearly a thousand proposed tiny lots in Basking Ridge, hoping to create a commuter suburb that would provide steady revenue to the railroad, little development occurred there. Instead, to the chagrin of Basking Ridge's civic boosters, the railroad helped Bernardsville become the dominant town center of the region by facilitating the lifestyle of the enormously wealthy newcomers. Basking Ridge would continue as an inexpensive summer destination for families of more moderate means, who boarded at several hotels or with local farm families.

CHAPTER XI - RELATIONSHIP TO OTHER PLANS

REVIEW OF MUNICIPAL, COUNTY AND STATE PLANS

The Municipal Land Use Law (MLUL) requires that a municipal Master Plan include a statement concerning its relationship to the plans of contiguous municipalities, the master plan of the county in which the municipality is located, the State Development and Redevelopment Plan (SDRP), and the district solid waste management plan of the County (N.J.S.A. 40:55D-28d.). The purpose of this analysis is to ensure that the general welfare of adjoining municipalities, the County and the State as a whole is addressed in the local planning process. Towards this end, this review of other agency plans addresses the plans of adjoining municipalities, Somerset County and the State of New Jersey.

PLANS OF CONTIGUOUS MUNICIPALITIES

Bernards Township's adjoining neighbors in Somerset County include Bernardsville Borough to the northwest, Far Hills Borough and Bedminster Township to the west, and Bridgewater Township to the south. Adjoining Morris County municipalities include Long Hill Township to the east, and Harding Township to the north.

Bernardsville Borough, Somerset County

Bernards Township shares its northwestern border with Bernardsville Borough. Beginning in the south, the adjacent land use district is R-1A. This 3-acre (137,500 sq. ft.) low density residential district is non-sewered and contiguous with Bernards Township's CR-1 Conservation Residential District, which calls for one unit per ten acres and four-to-five-acre minimum lot requirements in the P-1 Public Purpose district which is occupied by the Township leaf compost center for residents.

Moving north along the common border the adjacent district changes to R-2 (50,000 sq. ft. minimum lots), which adjoins the Township's Residential Medium Density district (1 acre per unit or less) and an existing residential development in the Residential Multi-family district where multiple family residential uses, including apartments, condominiums, and townhouses, are permitted at a maximum density of six units per acre. North of Mt. Airy Road the adjacent district changes to R-4 (11,250 sq. ft. minimum lot size) and R-3 (20,000 sq. ft. minimum lot size) comparable to Bernards Township's adjoining Residential Medium Density district.

Along the northwestern border, Bernards Township's proposed CR-2 Conservation Residential District, which calls for one unit per seven acres on lots as small as three acres are generally compatible with Bernardsville's R-2 and R-1-10 (10 Acre) low density residential districts.

Far Hills Borough, Somerset County

To the west, Bernards Township's proposed CR-1 and CR-2 Conservation Residential districts, which permit a density of one unit per ten acres and one unit per seven acres, respectively, adjoins the Low-Density Residential district in Far Hills Borough, which permits a residential development density of 10 acres per unit.

Bedminster Township, Somerset County

Moving further south along Bernards Township's western border, a nearly straight boundary line divides Bernards Township from Bedminster. The boundary extends from Schley Mountain Road to Prospect Road through the Hills Development in Bernards Township. The Hills Development, which includes a portion of the medium density (1 acre per unit or less) and the multi-family residential districts, adjoins Bedminster's Planned Residential Development (PRD) district (8 du./ac), which has been fully developed. This residential development consists of single family detached dwelling units, townhouse and garden apartment multiple family dwelling units which are compatible with the Hills PRD in Bernards Township, where a gross density of up to two units per acre is permitted.

Bridgewater Township, Somerset County

Bridgewater Township forms the southwestern border of Bernards Township. Bernards Township's CR-1 Conservation Residential district (10 Acre), and P-1 Public Purpose districts are adjacent to the R-50 district in Bridgewater, which permits single-family detached homes on 50,000 square foot lots, country clubs, outdoor recreation facilities, agricultural and horticultural uses and municipal facilities.

Warren Township, Somerset County

To the south, Bernards Township's Office-Employment and Public Purpose (P-1) districts and a small portion of the low-density residential district (1-2 Acres per unit) abuts the Office Research (OR) and the Agricultural-Residential Environmental Protection (EP-250) districts in Warren Township. The OR district provides employment opportunities along interstate Route 1-78 with uses limited to service, research and administrative activities.

The EP-250 district includes areas of significant environmental constraints, as identified on the Environmental Constraints Map contained in the adopted Master Plan of Warren Township dated January 22, 1990. Development standards encourage clustered singlefamily dwellings. Areas of accessible, and contiguous buildable uplands which are greater than twenty (20) acres are considered appropriate for uses other than strictly large lot single-family residential or clustered single-family dwellings, and permit nursing homes, retirement facilities, private membership, nonprofit and recreation facilities as conditional uses.

To the southeast, Bernards Township's Office-Employment district, which provides major regional corporate office and employment opportunities, and the CR-1 Conservation

Residential district (10 Acre) residential district are contiguous with three residential zones and one mixed used zone in Warren Township. The residential districts include R-65 (1.5 Acre) Residential, R-20 (20,000 square foot) Residential, R-40 AH/MF Affordable Housing which permits single family dwellings on 20,000-40,000 square foot lots and multi-family on three acres. Warren Township's BR-40 mixed use district permits single family dwellings, service and office uses and serves as a transition between residential and non-residential districts.

Long Hill Township, Morris County

Bernards Township shares its easterly border, formed by the Passaic River, with Long Hill Township, where the R-3 residential district permits single family homes on 30,000-square foot lots and the Conservation district which permits single –family homes on 3-acre lots.

A majority of the land adjacent to Bernards Township is within three Conservation districts, which permit single family dwellings on three acre lots, agricultural uses, public uses and horse farms, riding stables, swim clubs, green houses and nurseries. A majority of the land within these conservation districts adjacent to Bernards Township is either parks or public facilities.

A small portion of the LI-2 district is located on Stone House Road near the Bernards Township border, which permits manufacturing, processing or the fabricating of materials or finished projects and warehousing uses on two acre lots.

The adjacent land use districts in Long Hill are compatible with Bernards Township's CR-2 Conservation Residential, which permits a density of one unit per seven acres, Residential Medium Density district (1 Acre per unit or less) and the Public Purpose (P-1) district, which permits public recreation and open space, public parks, roads and other public purpose uses.

Harding Township, Morris County

To the northeast, most of the adjacent land in Harding Township is in the R-1 (3 Acre) Residential district, which permits single family homes, farms, truck gardens and nurseries. The adjacent land use district surrounding Route 287 is the B-2 Business district, which permits retail and service establishments on 40,000 square foot lots. The remaining land within Harding Township is within the Public Land (PL) district. The PL district policies are influenced by significant public land holdings including the Great Swamp National Wildlife Refuge and Morristown national Historical Park. Other public land holdings include land along Route 287.

The adjacent land use districts in Harding Township are generally compatible with Bernards Township's CR-2 Conservation Residential district and the Office-Employment district.

SUMMARY OF MUNICIPAL PLAN COMPATIBILITY

In general, the plans of Bernards Township's adjoining neighbors include a mix of residential and non-residential districts. For the most part, the character of the development and planning and zoning in adjoining municipalities is highly compatible to that in Bernards Township.

However, where potential conflicts exist, as in cases of non-residential and abutting residential development, careful site planning and design can minimize most impacts.

COUNTY AND REGIONAL PLANS

SOMERSET COUNTY 1987 MASTER PLAN

In accordance with the New Jersey County and Regional Planning Act of 1968 (N.J.S.A. 40:27-2) the Somerset County Planning Board prepared a Master Plan for the physical development of the County in 1987. That plan was last reexamined in 1998. The County is currently working on a Somerset County Smart Growth Strategic Plan, entitled "Creating Quality Communities Together", which will serve as an update to the previous planning documents.

SOMERSET COUNTY SMART GROWTH STRATEGIC PLAN

The Somerset County Investment Framework Map was adopted in 2014 as an update of the 1987 Land Use Management Map. The map provides planning officials, businesses, and other stakeholders, a "criteria-based approach" to identify keys areas suitable for growth and preservation in the County. The map uses a variety of GIS information to identify four key areas; Priority Growth Investment Areas (PGIAs), Priority Preservation Investment Areas (PPIAs), Alternative Growth Investment Areas (AGIAs), and Limited Growth Investment Areas (LGIAs). According to the Plan, the four areas are described further as:

- **Priority Growth Investment Areas (PGIAs)** are areas where primary economic growth and community development strategies that enhance quality of life and economic competitiveness are preferred; and where appropriate, growth-inducing investments are encouraged. PGIAs are areas where development and infrastructure assets are already concentrated. They are prime locations for the vibrant mixed-use, live-work environments within walking distance of transit and green space, and that many employers, workers and households desire.
- **Priority Preservation Investment Areas (PPIAs)** are areas where agriculture and the preservation and restoration of environmentally sensitive natural resources are preferred and where investments aimed at resource restoration and protection, and farmland and open space preservation are preferred. Environmental and agricultural assets are concentrated within the County's PPIAs, as well as the County's highly-prized scenic, rural and historic landscapes. These are the areas where voluntary use of environmental/agricultural stewardship best management practices by both the public and private sectors are encouraged. PPIA Greenways are also identified. Greenways traverse all investment area categories and are places where investments that support a regional system of linked open space and conservation areas along stream corridors and ridgelines and the restoration of degraded environmental resources are high priorities. Greenways, parks and open space can be established within any of the investment area categories.

- Alternative Growth Investment Areas (AGIAs) are existing substantially developed areas located within adopted sewer service areas that are not PGIAs or PPIAs, and where large-scale, growth-inducing investments are not desired. Most of the County's AGIAs consist of residential neighborhoods and include community-oriented business and service establishments. These are quiet, safe, well-maintained residential areas where investments that enhance livability and neighborhood character are preferred. Local Priority Areas (LPAs) are a subset of AGIAs. These are distinct small town and village centers, some of which have been designated by the NJ State Planning Commission, and existing/emerging employment nodes, that have limited growth opportunities due to their scale, historic character, environmental and access constraints and municipal preferences. Job retention and community sustainability are high priorities within LPAs.
- Limited Growth Investment Areas (LGIAs) are areas that are outside of sewer service areas and that are not shown as PGIAs, AGIAs or PPIAs. LGIAs are places where large-scale investments that may lead to additional development or change in neighborhood character are not desired. LGIAs are comprised primarily of existing low-density, residential areas that are served by on-site septic systems. They are areas that support lifestyles with strong connections to the natural environment. Investments that restore and protect environmental resources, strengthen open space linkages and enhance quality of life are preferred in LGIAs.

Bernards Township does not include any identified Priority Growth Investment Areas, however, the Township includes several Local Priority Areas, including Basking Ridge, Verizon Center, Exit 26 on Route I-287, and Exit 33 on I-78. In addition, several areas of Priority Preservation Investment Areas and Limited Growth Investment Areas are located throughout the Township. Greenway linkages to Priority Preservation areas are also identified along stream corridor areas.

SOMERSET COUNTY HOUSING ELEMENT

The Somerset County Housing Element of the County Master Plan was updated in 2017. The updated Housing provides recommendations concerning the location and design of residential development consistent with the County Master Plan and the Investment Framework Map in the Strategic Smart Growth Plan. The Plan encourages investment of public and private funds for infrastructure, facilities, services, and public amenities for residential development. The Plan seeks to support diverse housing stock to address the needs of all residents and preserve and rehabilitate existing housing stock.

The Housing Element includes the following six (6) guiding principles:

- Guiding Principle 1: Respond to the changing needs of the County's population by encouraging a broad range of housing types at all levels of affordability.
- Guiding Principle 2: Create healthy, attractive, walkable neighborhoods with proximity and access to jobs, cultural and Recreational amenities, services and transportation choices.

- Guiding Principle 3: Align housing policies and strategies with the principles of regional and local smart growth and Sustainability.
- Guiding Principle 4: Maximize the dynamic relationship between housing supply, quality of life and the strength of the Economy.
- Guiding Principle 5: Support efforts to advance the Federal and State Fair Housing Acts and "Affirmatively Furthering Fair Housing" requirements.
- Guiding Principle 6: Enable informed housing policy, regulatory and investment decision-making.

SOMERSET COUNTY COMPREHENSIVE ECONOMIC DEVELOPMENT STRATEGY (CEDS)

The Somerset County Comprehensive Economic Development Strategy (CEDS) was adopted in 2014 as part of the Somerset County Master Plan and was prepared by the Somerset County Business Partnership. The Plan, titled "Investment Somerset", provides a wealth of economic development priorities and implementation strategies that support private sector investment and job growth.

The Plan provides detailed information on County demographic characteristics, employment, unemployment, income characteristics, economic drivers, and real estate markets. Other information includes how public policy help guide development through tax structures, planning and transportation, and infrastructure. The plan also identifies a plan of action aimed at prioritizing resources and strategies to achieve the goals of economic development and attracting new and innovating economic industries while supporting existing businesses. While the plan looks at the County in general and is not specific to any municipality, it does provide a wealth of information that is available and useful on a local level.

SOMERSET COUNTY'S CIRCULATION PLAN

The Somerset County Circulation Plan was adopted in 2012 and addresses transportation mobility and safety improvements countywide and includes policies and strategies for identifying and prioritizing transportation-related programs, projects, plans and initiatives. The goals of the Plan include:

- Maintain and Modernize the County Transportation System.
- Reduce Traffic Congestion.
- Reduce Greenhouse Gas Emissions Contributing to Climate Change.
- Protect and Enhance the Natural and Built Environment.
- Support Economic Activity in Town Centers and Business Corridors.
- Improve Mobility and Connections between Travel Modes.
- Integrate Transportation, Land Use, and Site Design.
- Maintain a High Level of Safety and Security.
- Monitor the Performance of the Transportation System.

The plan identifies key areas of transportation, including vehicle, pedestrian and bicycle circulation, transit mobility, and the movement of goods throughout the County. Other key areas of focus are overall infrastructure conditions and existing conditions and future funding and planning strategies.

Bernards Township's Circulation Plan conforms to the County's plan which seeks to reduce congestion, promote pedestrian and bicycle circulation, improve infrastructure and work collaboratively with County and State entities to support key improvements.

SOMERSET COUNTY PRESERVATION PLAN

Somerset County adopted the Preservation Plan in May 2022. The plan includes preservation plans for open space, farmland preservation, and historic preservation. The Somerset County Preservation Plan updates the 2000 Parks, Recreation & Open Space Master Plan Update, the 2008 Comprehensive Farmland Preservation Plan, and includes a new Historic Preservation Plan. The Preservation Plan provides land use, funding, and partnership strategies, as well as identifies the importance of linking preservation efforts to economic development, natural resource protection and tourism.

The Preservation Plan provides the background information, goals and objectives, preservation planning initiatives, and other requirements as set forth through the various agencies participating in preservation efforts, including the State Agricultural Development Board, New Jersey Department of Environmental Protection Green Acres, State Historic Preservation Office, as well as eliciting input from a variety of non-profit organizations and municipalities.

The Bernards Township preservation plan elements, including the Open Space and Recreation Plan and Historic Plan, conforms to the overarching goals and objections of the County's Preservation Plan which seeks to provide information and collaboration to the efforts to preserve natural resources, protect vulnerable area and historic sites and areas.

HIGHLANDS REGIONAL MASTER PLAN

Bernards Township is one of five Somerset County municipalities within the Highlands Region, as defined by the Highlands Water Protection and Planning Act (P.L. 2004, c.120). Bernards Township, along with Far Hills, Peapack-Gladstone and Bernardsville, is entirely within the Highlands Planning Area, while Bedminster is split between the Planning Area, which blankets the portion of Bedminster south of Pottersville Road (CR 512), and the Preservation Area, north of Pottersville Road.

Only those portions of communities within the Preservation Area are required to conform local Master Plans to the Regional Master Plan (RMP), while "Plan Conformance" is voluntary for communities with portions designated Planning Area.

STATE DEVELOPMENT AND REDEVELOPMENT PLAN

The New Jersey State Planning Act was signed into law over thirty years ago, providing for the first State Plan ever formally adopted with input from New Jersey's counties, municipalities, and citizens. The State Planning Act of 1985 (N.J.S.A. 52:18A-196 et. seq.) recognized the intent of the legislature to provide for sound and integrated statewide planning calling for a smart growth approach to "conserve its natural resources, revitalize its urban centers, protect the quality of its environment, and provide needed housing and adequate public services at a reasonable cost while promoting beneficial economic growth, development, and renewal...".

The State Planning Act established a process (Cross-acceptance) that invited the active participation of state agencies, and County and local governments as well as concerned citizens and private interests. Among the guiding principles of the State Planning Act are "the provision of adequate and affordable housing in reasonable proximity to places of employment" and the recognition that "the preservation of natural resources and environmental quality is vital to the quality of life in New Jersey".

The State Planning Commission, created under the State Planning Act, was empowered to effectuate its goals by promoting coordination among state agencies and local government, providing technical assistance to local governments, developing recommendations for a more efficient and effective planning process, and recommending to the Governor and Legislature such actions as would improve the efficiency or effectiveness of the planning process.

The Cross-acceptance process is a collaborative, participatory process by which state agencies and local governments join in statewide planning to achieve full public participation in the process and a consensus among all levels of government. For this reason, the State Development and Redevelopment Plan (SDRP) carries with it the weight of a long and detailed process of comparison of planning goals, negotiation of differences, and resolution of issues, allowing for a coordinated set of public policies which resonate around central themes. Additionally, N.J.S.A. 40:55D-28 (d) requires that municipal master plans include a statement indicating the relationship of the municipal master plan to the SDRP.

On March 1, 2001, the State Planning Commission adopted the revised State Plan. This document represents modifications that came about during cross-acceptance of the Preliminary State Development and Redevelopment Plan, which began in 1997 and came to a close in 1999.

While some of the policies and mapping in the State Plan have changed, the central organizing principle of the SDRP has remained – compact "centers" surrounded by "Environs" where natural resources and farmland can be protected and retained. The classification system that the State Planning Commission used to map the entire State into appropriate "Planning Areas" has also remained. The Planning Areas for Bernards Township are shown on Figure X-1, State Plan Policy Map.

In April 2004 the State Planning Commission released the Preliminary State Plan Policy Map. After numerous public meetings and individual meetings with Municipal Cross Acceptance Committees from municipalities including Bernards; the completion of municipal "Plan Consistency" questionnaires; and the compilation of proposed changes to the State Plan Policy Map in GIS format, the Final Somerset County Cross Acceptance Report was prepared submitted to the State Planning Commission in March 2005. It contained numerous recommended changes to the 2001 State Plan Policy Map, the bulk of which comprised updated information about county and local preserved open space and farms. In addition, a number of Planning Area changes were made to more accurately reflect existing development patterns, infrastructure and environmentally sensitive features.

The Office of Smart Growth (OSG) conducted a detailed review of the changes to the State Plan identified in the County's Cross Acceptance Report and released a comprehensive list of "Agreements and Disagreements" which was used as the basis of the Negotiation Phase of Cross Acceptance. Further refinements of the proposed updated State Plan Policy Map for Somerset County took place during the Negotiation Process.

In the 2001 State Plan Bernards Township includes three Planning Area designations as identified in the State Plan Policy Map. They are Planning Area 2, Suburban; Planning Area 3, Fringe; and Planning Area 5, Environmentally Sensitive.

In the Somerset County Cross-Acceptance Report, prepared by Somerset County, Bernards Township advanced several map amendments.

- 1. Changing a sewered, fully built 77-unit assisted living residence from Planning 5 to Planning Area 2. Negotiations resulted in the developed portion of the site changing to PA 2 with a Critical Environmental Site (CES) designation to reflect the wetlands, with the undisturbed portion to remain PA 5.
- 2. Changing Dewy Meadow Village Center, a sewered, fully-developed retail center with associated infrastructure, from PA 5 to PA 2. This resulted in the northern portion of the site that is already developed being joined to the adjacent PA2. The undisturbed area of the site includes a vernal pool, wetlands covering the southern end of the site, and flood prone areas and should remain PA5.
- 3. Changing the existing residential parcels served by public sewers on Riverside Drive from PA 5 to PA 2. Negotiations resulted in the undeveloped portion remaining PA5, and where appropriate, the updated PA 2 should have CES reflected on the map.
- 4. Establishing a CES on North Maple Ave. parcels with floodplains and wetlands. The OSG response was that wetlands are only visible on the eastern portion, which should be changed to PA 5.
- 5. Changing PA 2 to PA 5 for lots on Sunset Lane that are not in the sewer service area. OSG responded that sewers are not the only determining factor for PA 2 and cited a CES overlay for part of the property.
- 6. Changing the undeveloped portion of the Pingry School to PA5. The undeveloped portion of the site includes large areas of wetlands and includes areas of high

groundwater recharge. Newly mapped data identifies the wooded area as threatened & endangered species habitat. OSG concurred.

Since the State Plan has no regulatory authority, the utility of these Planning Area designations, relies on implementation in local and county plans and state agency functional plans. The courts have respected the SDRP in recent municipal zoning decisions and the State Plan has gained more influence as a regulatory tool among State agencies over the past couple of decades. Many state funding sources and discretionary awards have State Plan compliance requirements, making use of the State Plan and its policies more attractive to

Planning Area	GIS Acreage	Percent		
Suburban (PA-2)	9,129	58.5		
Fringe (PA-3)	3,740	24.0		
Environmentally Sensitive (PA-5)	2,725	17.5		
	15,594	100.0		

municipalities throughout New Jersey. A process of SDRP Plan Endorsement of local master plans is available to municipalities that wish to seek "Endorsed Plan" status.

Table X-1 illustrates the distribution of land in Bernards Township by SDRP policy area:

Table X-1: Bernards Township's Acreage by Planning Area

Planning Area 2, the Suburban Planning Area, includes areas intended to shoulder much of the future development throughout the State. These Planning Areas are often located near metropolitan areas and are delineated by non-congruent low-density patterns of development that are highly dependent on private transportation and still contain larger tracts of developable land. Planning Area 2 occupies most of the Township.

Planning Area 3, the Fringe Planning Area, is identified by its rural landscape and freestanding residential and commercial development. The Fringe Planning Areas are often located in regions that sit between the Suburban Planning areas and the Rural Planning areas, and thus act as a transition zone between the two. These regions are recognized by their rural character, which does not consist of prime agricultural soils or environmentally sensitive land. The Fringe Planning Area includes the proposed Conservation Residential (CR-1) district.

Planning Area 5 possesses many of the State's most significant environmental resources. It is comprised mainly of wetlands, forests, and steep slopes, and may also possess scenic views and other valuable qualities as well. The portion of the Township that is categorized as Planning Area 5 is found in the northwest and along the Passaic and Dead River corridors.

Bernards Township's officials participated in Cross-acceptance to assess the implications of the basic principles which guide the State Plan. The proposed land use plan amendment articulates the Township's vision for its future and was formulated in response to these basic principles.

The State Plan describes the Suburban Planning Area (PA 2) as:

- land area that is contiguous to the Metropolitan Planning area
- land area that is greater than one square mile
- natural infrastructure and systems able to meet the needs of a growing population which includes, public water supply, sewage collection and treatment facilities, stormwater, transportation, public schools and parks.

The goals of the State Plan for PA 2 are:

- provide for most of the State's future development.
- promote growth in centers and reduce and reverse sprawl while protecting the character of existing communities.
- protect natural resources.

The Fringe Planning Area (PA 3) is characterized in the State Plan as:

• areas that are adjacent to metropolitan or suburban planning areas.

• regions that are lacking in major infrastructure investments, for example roads are mainly provided and maintained by the State or County and traffic is meant to move through the area.

• land that does not meet the criteria of Rural or Environmentally Sensitive Planning Areas.

The intent of the State for PA 3 is to:

- promote growth in centers and confine sewers and public water to these centers.
- provide a buffer between more developed Metropolitan and Suburban Areas and less developed Rural and Environmentally Sensitive Areas.
- protect natural resources and the character of existing communities.

The Environmentally Sensitive Planning Area (PA 5) is characterized in the State Plan by:

- high quality surface waters and their watersheds
- watersheds of potable water supply sources
- aquifer recharge areas
- valuable ecosystems and habitat for threatened and endangered species
- contiguous freshwater wetlands systems
- significant natural features or landscapes, including critical slope areas, ridge lines, important geological features and unique ecosystems.
- prime forested areas

The SDRP cites PA 5 as "highly vulnerable to damage of many sorts from new development...including fragmentation of landscapes, degradation of aquifers and potable water, habitat destruction, extinction of plant and animal species and destruction of other irreplaceable resources." These environmental sensitivities prompted concern in the SDRP that "new development (in PA 5) has the potential to destroy the very characteristics that define the area."

The intent of the SDRP for PA 5 seeks to:

- protect environmental resources through the protection of large contiguous areas of land.
- accommodate growth in Centers.
- protect the character of existing stable communities.
- confine sewers and programmed water services to centers.
- revitalize cities and towns.

The State Plan emphasizes that growth should be organized within existing or planned centers, and that the Environs, outlying areas of lower development intensity outside centers, should be protected from suburban sprawl. The State Plan does not include any designated or proposed centers in the Township; however, the current list of identified centers includes Liberty Corner as a Village and Basking Ridge-Lyons as a Town.

In order to accommodate State Plan goals for both the Environs and central places, development needs to be realigned along smart growth principles. A push-pull relationship should evolve where growth is directed away from the Environs and into the cities and older suburbs, where redevelopment opportunities abound. The redevelopment vision of the State Plan cannot be realized unless the economic force behind sprawl is redirected toward these redevelopment opportunities.

The State Plan vision for New Jersey in 2020 saw diverse and thriving cities and towns with a desirable quality of life where reinvestment and public/private partnerships have reclaimed brownfield sites. At the same time, this 2020 vision foresaw rural areas where limited growth has been accommodated "while maintaining the rural character and large contiguous areas of farmland so important to all the citizens of New Jersey" and where "farmland and other open lands have been preserved to ensure the future viability of agriculture and maintain a rural environment."

The current Draft SDRP, recently released by the Office of Smart Growth, maintains and refines the goals and Smart Growth strategies of the 2001 State Plan. As noted in Volume 1 of the Draft SDRP, "The eight original goals of the State Plan were derived from the State Planning Act by the State Planning Commission over a long period of deliberation. A ninth goal, recognizing the emerging issues of Greenhouse Gas Emissions, Fossil Fuel Dependence and Climate Change, has been added.

The State Plan, while not mandatory, is a comprehensive guide to land use planning for a better New Jersey built upon an inclusive cross-acceptance process, and the ultimate success of the endeavor is largely in municipal hands. The Bernards Township Master Plan has incorporated local policies and strategies that respond to the basic premises, intent and purposes of the State Plan. In fact, the Bernards Township Master Plan designations were largely the basis for the Planning Area designations found in the State Plan for the municipality. Bernards Township has not sought State Plan Endorsement.

CHAPTER XII - GREEN BUILDINGS AND ENVIRONMENTAL SUSTAINABILITY PLAN

Municipal Land Use Law

This Green Buildings and Environmental Sustainability Plan Element of the Master Plan (Green Plan Element) has been prepared in accordance with the Municipal Land Use Law (M.L.U.L.). N.J.S.A. 40:55D-28a provides that the Planning Board "may prepare and, after public hearing, adopt or amend a master plan or component parts thereof, to guide the use of lands within the municipality in a manner that protects public health and safety and promotes the general welfare." The purpose of the Green Plan element is to establish goals, policies and strategies to protect natural resources and to create a healthy and sustainable economy and society.

Municipal planning for 'green buildings and environmental sustainability' is a new and dynamic field, and the 2008 statutory authorization for this plan element is among the most recent amendments to the M.L.U.L. A, a Green Buildings and Environmental Sustainability Plan Element:

...shall provide for, encourage, and promote the efficient use of natural resources; consider the impact of buildings on the local, regional and global environment; allow ecosystems to function naturally; conserve and reuse water; treat storm water on site; and optimize climatic conditions through site orientation and design [N.J.S.A. 40:55D-28b(16)].

The M.L.U.L. focus is on integrating local planning goals and objectives in a way that simultaneously addresses these several new provisions in the law. It raises the question "how can a municipality promote the efficient use of natural resources while at the same time allow ecosystems to function naturally?"

Community goals and objectives can be expected to change and evolve rapidly as new and innovative green approaches are conceived and developed, but it is critical that this plan element reinforce, and not detract from, Bernards' desirable established community character as a carefully planned community.

Since the terms "green" and "sustainable" have become commonplace in today's lexicon, it is important to define these terms.

"<u>Green design</u>" is a general term implying <u>a direction of improvement in design</u>- i.e., continual improvement <u>towards a whole and healthy integration of human activities</u> <u>with natural systems</u>.

"<u>Sustainability</u>" is the capability <u>to equitably meet</u> the <u>vital human needs</u> of the present without compromising the ability of future generations to meet their own

needs by preserving and protecting the area's ecosystems and natural resources. The concept of sustainability describes a condition in which <u>human use of natural resources</u>, required for the continuation of life, is <u>in balance with nature's ability to replenish them</u>.

When viewed together with the M.L.U.L. provisions for this Plan Element, a theme emerges centered on an underlying principle of conservation at a broad-based level.

More than one-half (ten out of seventeen) of the stated purposes of the M.L.U.L. directs the Planning Board to protect the environment, prevent urban sprawl, and protect the State's natural resources. These ten purposes of the law are listed below, which are consistent with the locally identified goals and objectives of this plan.

- (a) To encourage municipal action to guide the appropriate use of or development of all lands in the state, in a manner which will promote the public health, safety, morals and general welfare;
- (b) To secure safety from fire, flood, panic, and other natural and man-made disasters;
- (c) To provide adequate light, air and open space;
- (d) To ensure that the development of individual municipalities does not conflict with the development and general welfare of neighboring municipalities, the county and the State as a whole;
- (e) To promote the establishment of appropriate population densities and concentrations that will contribute to the well-being of persons, neighborhoods, communities and regions, and the preservation of the environment;
- (g) To provide sufficient space in appropriate locations for a variety of agricultural, residential, recreational, commercial, industrial uses, and open space both public and private, according to their respective environmental requirements in order to meet the needs of all New Jersey citizens;
- (j) To promote the conservation of historic sites and districts, open space, energy resources and valuable natural resources in the State and to prevent urban sprawl and degradation of the environment through improper use of the land;
- (n) To promote utilization of renewable energy sources;
- (o) To promote the maximum practicable recovery and recycling of recyclable materials from municipal solid waste through the use of planning practices designed to incorporate the State Recycling Plan goals and to compliment municipal recycling programs; and
- (p) To enable municipalities the flexibility to offer alternatives to traditional development, through the use of equitable and effective planning tools including clustering, transferring development rights, and lot-size averaging in order to concentrate development in areas where growth can best be accommodated and maximized while preserving agricultural lands, open space, and historic sites.

The Planning Board has prepared this Green Plan element in furtherance of the M.L.U.L. purposes to conserve natural resources and promote the maintenance of a clean and healthy natural and built environment and the desire to embrace green design and sustainable practices in everyday life.

GOALS AND OBJECTIVES

The overriding goal of this Green Plan Element is to outline successful, sustainable practices to guide local business, industry, school, government and community policies, including, efforts to reduce pollution, promote energy efficiency and use of renewable energy.

The following Master Plan Goals and Objectives are directly relevant to the Green Plan:

GOALS

- 1. To promote and encourage social courtesy, civic responsibility and neighborliness, which are key quality of life indicators in Bernards.
- 2. To promote sustainable practices in the design, construction and operation of public and private facilities.
- 3. To encourage an overarching respect for the natural environment and a desire to leave Bernards a better place as a result of these plans.
- 4. To retain the rural and agricultural character of the township to the greatest extent practicable.
- 5. To limit development to densities and intensities that can be adequately served by existing and planned private and municipal capital facilities and the natural and built infrastructure, and not purchasing additional wastewater treatment capacity to permit collection line extensions.
- 6. To limit development to densities and intensities that will retain the remaining natural areas of the Township and protect sensitive environmental areas.
- 7. To encourage the use of design techniques that result in energy and water conservation and minimize the impact of development on the everyday environment.
- 8. To continue to examine, and when appropriate, amend the Land Development Ordinance, to assure flexibility and excellence of design.
- 9. To examine new design approaches such as lot averaging and other open lands conservation techniques to determine their applicability in Bernards.
- 10. To promote the preservation of the Township's historic sites and districts.

OBJECTIVES

Land Use and Management

- 1. Land use policies should strive to maintain and enhance community character, protect the integrity of existing neighborhoods and prevent the intrusion of incompatible new development.
- 2. The densities and intensities of permitted development on the limited remaining vacant lands should respect the environmental capabilities and limitations of these lands and

not exceed the capacity of the natural environment and the current infrastructure that supports the community, including but not limited to municipal facilities, roads, water and sewer.

- 3. Groundwater aquifers and surface water quality and quantity should be protected, through the proper management of aquifer recharge areas, wetlands and their transition areas and fractured bedrock groundwater aquifers.
- 4. To plan for a reasonable balance among various land uses that respects and reflects the goals of the Master Plan.
- 5. Development densities and intensities should be planned at levels which will not require growth-inducing infrastructure to be extended into the rural countryside.

Green Buildings and Environmental Sustainability

- 1. Environmentally sensitive land should be protected through acquisitions and/or conservation easements.
- 2. Bernards Township should continue to promote and enhance local stewardship of open spaces.
- 3. Bernards Township should strive to create a more sustainable community through land use, transportation, local economies, and municipal services.
- 4. Bernards Township should limit the impact of development and redevelopment on natural resources and promote regenerative measures to alleviate negative effects on individual sites and reduce the overall impact on the ecosystem. Historic preservation and adaptive reuse should be encouraged as sustainable green building techniques.
- 5. Bernards Township should continue to reduce energy consumption, increase energy efficiency, and expand public awareness of and opportunities for renewable energy, whenever possible.
- 6. The coordinated policy created among municipal departments to purchase green goods and services as a means to save money, energy, and water, and to reduce waste, should continue.
- 7. Bernards Township should continue to promote sustainability, literacy, awareness, understanding, and action among municipal staff, residents, and the business and non-profit sectors of the community, including the need for and benefits of sustainable choices and behaviors.

Sustainability in Bernards Township

Planning for sustainability encompasses the decision-making processes for determining where and how to preserve and conserve, and where and how to grow. For a community to be "green," it should be in harmony and balance with its natural environment. Harmony and balance includes protecting our natural resources and maintaining biodiversity, maintaining a healthy economy, and providing safe, healthy places to live, work, and recreate. It is important to achieve a dynamic balance among the environment, the economy and societal needs, collectively referred to as the "triple bottom line".

To help bring the environment, the economy and the community into better balance, this plan addresses the interdependence of the three "P's" of sustainability - *people, profit* and *planet.* To achieve a good balance of the "three P's," it is necessary to understand a community's impact on its local, regional, and global environment. For these efforts to achieve maximum effectiveness, a wide range of stakeholders need to collaborate on a comprehensive approach that addresses the "triple bottom line" of sustainability.

To accomplish these goals, we need to thoroughly examine and improve our efforts to implement environmentally sound practices while recognizing that there are economic and social constraints that need to be considered when evaluating environmental initiatives. From a planning perspective, the intent is to examine and recommend green initiatives that are sustainable, balancing the environmental benefit against its cost both economically and socially. Bernards Township is committed to work towards becoming a sustainable community.

The Sustainable Jersey Program has been designed to assist New Jersey municipalities that wish to control costs, save money, and take steps to sustain community quality of life over the long term through green planning. This innovative program is an initiative of the NJ State League of Municipalities' Mayors Committee for a Green Future, the Municipal Land Use Center at the College of New Jersey, the New Jersey Sustainable State Institute at Rutgers University, the NJDEP, the Rutgers Center for Green Building, the NJ Board of Public Utilities, and a coalition of non-profits, state agencies, and sustainability experts. Bernards Township earned Bronze level Sustainable Jersey certification in November 2009, followed by Silver-Level Certification in 2011, 2014, 2016 and 2019, and reapplied for Bronze level certification in 2022. Certification offers technical resources for a municipality to implement their program and funding as it becomes available. However, this is just one means to encourage sustainability throughout the community. Interested residents can learn more about Sustainable Jersey certification at <u>www.sustainablejersey.com</u>.

Bernards Township has identified a policy to work towards sustainability in all municipal functions and operations, when appropriate. At the same time, a variety of Bernards Township initiatives undertaken can inspire residents to move towards a lifestyle that minimizes human impact on the environment. Sustainability practices include the following activities:

- construction/occupation of new buildings
- retrofit and upgrade of existing buildings
- delivery of municipal services
- maintenance, enhancement, and operation of municipal facilities and properties
- maintenance, enhancement, and operation of our homes and commercial properties

- consumption and disposal of products
- education of our children and ourselves

Sustainability seeks to limit the intensity of potential impacts on the environment on a local and regional level. The intent of Bernards Township's sustainability efforts is to progress beyond minimizing environmental impacts and toward regenerating ecosystem function, as well as repairing and remediating previous damage to the environment.

Green Plan Strategies

In order to achieve the goals outlined above this Green Plan Element is designed to outline successful, sustainable practices to guide local policies, including efforts to reduce pollution, promote energy efficiency and use of renewable energy. This can be achieved through:

- Municipal Planning and Design
- Resource Protection
- Energy Conservation
- Operations & Maintenance
- Education & Outreach

The greatest achievement of the plan will be to gain the involvement and acceptance of green initiatives in the local community. Continuing education and outreach are needed to lead in the direction of a more sustainable future.

Municipal Planning and Design

Creating a sustainable community is a top-down and a bottom-up approach. Through municipal planning and design, local officials will make planning decisions that will create a more sustainable community. Simultaneously, residents will work together to take action and provide necessary feedback that will determine the success of the Bernards Township's efforts.

This plan considers a number of larger issues to lessen the Township's environmental impact. Allocating resources in a responsible, more effective and efficient manner, will be a key element in land use planning, land preservation, and creating community vitality. Like much of New Jersey, Bernards Township is a product of sprawl-induced rapid development that did not account for sustainability. While Bernards Township has done an excellent job of acquiring open space throughout the community, parcels of open land remain, presenting an opportunity to more wisely and proactively plan for their use.

The Township Committee created Green Team Advisory Committee in 2007. It is comprised of residents and employees of Bernards Township, to advise the Township Committee on

ways to improve municipal operations with "Green" initiatives that are economically and environmentally sound through research and evaluation. The Green Team membership has changed since its inception. Current Green Team membership includes employees from the Finance Department, the Township Administrator, Township Engineer/BTSA Executive Director, DPW Advisor, DPW Administrative Coordinator, and Township Committeeperson. The Green Team's initial goals were to audit municipal facilities, evaluate municipal fleet vehicles, and report on suggested best practices for greener municipal operations. Having met those goals, new goals were given in January, 2010: (i) Maintain certification, and strive for the next certification level in Sustainable Jersey; (ii) advise on potential renewable energy projects at municipal facilities; and (iii) maintain and enhance the www.bernards.org based "Green Guide" as a reference for our citizens and a resource to other communities.

Bernards Township has been a leader in energy efficient design and construction (see Energy Conservation section below) and encourages green building practices, such as the Leadership in Energy and Environmental Design (LEEDTM) Green Building Rating System, developed by the U.S. Green Building Council. LEED⁻certified buildings use resources more efficiently when compared to conventional buildings that are simply built to code. The Green Team prepared a report identifying areas where Bernards Township could improve policies toward becoming a more sustainable community. For example, promoting alternative modes of transportation throughout the community requires that facilities be put in place to accommodate all users. While Bernards Township features many bike paths and trails through parks and recreation areas, additional or improved bike paths in heavy traffic areas and areas where they would be most used should be considered. Areas that generate heavy traffic, like schools and local shopping centers, could benefit from the addition of bike paths to reduce car and truck traffic, and thereby reduce vehicle trips, traffic idling and tailpipe emissions.

In order to achieve sustainability goals in Municipal Planning and Design, the Township should maintain the holistic view of planning decisions and continue to promote measures to:

- a. Encourage design options that create a visually pleasing pedestrian experience, that preserve greenfields and natural resources, and that promote a sense of community.
- b. Promote transportation alternatives to the automobile and encourage the single-occupancy driver to utilize those alternatives.
- c. Promote opportunities that support the local economy, especially those connections with local farmers, small locally owned businesses, and potential green businesses.
- d. Promote sustainability in municipal services to increase energy efficiency, protect and properly manage wildlife areas, conserve water.
- e. Encourage utilization of green building standards for buildings to the greatest extent possible.

The 2022 Green Team lists an impressive range of municipal accomplishments on the Bernards Township website since 2007 toward these sustainability goals, including:

- Installation of 4,700 solar panels at the Bernards Township Sewerage Authority on ground mounts, the drying bed roof and two steel canopies over the lagoons generating 1.1 megawatts of electricity annually;
- Installation of rooftop Solar Panels at the Department of Public Works Buildinggenerating approximately 39,000 kwh of electricity on an annual basis;
- Completion of the Warren Craft Meeting Room, built with high efficiency HVAC systems and ductwork, and high efficiency lighting;
- Installation of a Computerized HVAC Control System at the Library and Department of Public Works Building;
- Installation of LED lights and the "Wall Pack" exterior lights at the DPW and Townhall Buildings;
- Installation of a Computerized Control HVAC System at the Police Department;
- Shared Services Agreement with Somerset County supplying and replenishing rock salt and sand during inclement weather;
- Installed additional insulation at the Police Department to improve energy efficiency;
- Shared Service Agreement with Somerset County for the construction of a 7,000 ton Salt Dome increasing efficiency and operations for Bernards Township and Somerset County;
- BPU Direct Install Program- all lighting fixtures retrofitted with LED bulbs at the Municipal Townhall Building, Engineering/DPW Building, Health Department, Police Department and the Community Service/ Grounds Buildings;
- HVAC Heating and Cooling Upgrades at the Municipal Townhall Building;
- Purchased two (2) fully electric Chevy Bolt vehicles;
- Installation of two Level 2 electric vehicle charging stations located at the Townhall Municipal Building and the DPW/Engineering Building, with a third Level 2 Dual-Port charging station underway in the downtown municipal parking lot (privately operated electric vehicle charging stations may be found at (1) the Dewy Meadow shopping center by Dunkin Donuts, (2) as part of parking facilities at the rear of the new Dewy Meadow apartment complex, and (3) on Fellowship Road in Fellowship Village;
- Expansion of Electric Salt Spreading Equipment to reduce the quantity of deicers on roadways; and
- Participation in a reverse auction with EMEX for the purchase of electricity.

Additional solar panel installations have been developed, including an extensive ground and rooftop system at Verizon on North Maple Avenue, rooftop systems on a few buildings at Fellowship Village, a ground mounted system at Bonnie Brae on Valley Road, a rooftop system at the Pingry School on Martinsville Road and a rooftop system at the YMCA on Mount Airy Road.

Resource Protection

Development and redevelopment, which modifies the natural features of individual sites, can also have a greater impact on the surrounding ecosystem. Regenerative design objectives

encourage development, preservation and restoration practices that limit environmental impact. Bernards Township should promote regenerative design principles that are aimed at multiple objectives including economic savings, remediation or restoration of natural systems that bring back the resource's natural state and design that improves quality of life. Regenerative design objectives applied to agricultural lands, open spaces, soils, and greenways can serve to improve natural function and increase the utility of these productive landscapes for people and for wildlife.

Water

Bernards Township's stormwater management systems include drainage basins and storm sewers, which are highly effective in removing flood water from the community. Most of Bernards Township's roads are outfitted with curbs and storm sewer systems that collect stormwater and direct non-point pollutants into storm sewers that discharge to surface waters. Non-point source pollutants include, but are not limited to motor oil and lubricants, other petroleum derivatives from asphalt, wear from tires, pet waste, pesticide, herbicide, fertilizer, road salt, sediment and heavy metals (lead, zinc, copper, cadmium, mercury). Proper maintenance of storm sewers and drainage basins can extend the life and function of these systems. Basin maintenance can improve the groundwater recharge function of these structures, retain non-point source pollutants through the uptake of these pollutants in basin vegetation and reduce stormwater flows to surface waters. (see additional stormwater management discussion in Chapter VIII, Conservation Plan Element)

The reduction of pesticide, herbicide and fertilizer use on landscaping and lawn areas decreases the amount of non-point source pollution entering local waterways as well as the groundwater regime. Preventing vegetative organic matter from entering the storm sewer system can significantly reduce nitrogen pollutant loads in stormwater and serve to improve water quality and biodiversity in streams and rivers in Bernards Township as well as downstream. Compost is an organic alternative to fertilizer with benefits that include: (1) balancing soil density for healthier root system growth, (2) improving nutrient retention in soil and providing nutrients to plants, (3) increasing moisture retention in soil that reduces the need for watering, (4) balancing soil pH, (5) suppressing pests and disease and (6) discouraging certain weed growth. The Conservation Plan Element features a section on Surface Water that addresses the benefits of natural stormwater management techniques to protect local waters from pollution.

As described in the Utility Services Plan Element, the Bernards Township Sewerage Authority (BTSA) operates the wastewater treatment plant on Martinsville Road with a permitted flow of 2.5 million gallons per day. The BTSA maintains ongoing efforts to correct "Inflow and Infiltration" (I&I). I&I includes rainwater inflow to manholes and groundwater infiltration into collection lines. Groundwater levels are elevated by rainfall, which in turn increases infiltration into collection lines. By reducing groundwater infiltration into the collection lines, less groundwater is conveyed to the sewage treatment plan and exported from the watershed, which provides the benefit of improving groundwater baseflow to the Township's brooks, streams and rivers. Baseflow is the groundwater that resupplies

riparian flows during periods of low rainfall, particularly during summer months, when surface water flows are reduced and water quality is diminished. Maintaining baseflow contributes to the overall health of these riparian systems, particularly during droughty periods. By maintaining better baseflow conditions, the overall health of surface water courses is better maintained.

The Bernards Township DPW has embraced policy changes that include planting native vegetation in several areas maintained by the town, and replacing lawn areas wherever possible. This has saved the town in water usage, mowing costs and associated pollution (both air and water), reduced energy costs and helped enhance biodiversity in the community. The DPW has also installed rain barrels and utilized other measures such as stone curbing to help mitigate and control stormwater runoff.⁵⁰

Wildlife

The Conservation Plan Element also states that 50% of Bernards Township's land mass is categorized as habitat suitable to threatened or endangered species. In order to protect these important habitats from further degradation and to promote species diversity, the Township should consider inventorying species in the community, identifying their habitat requirements, and monitoring the effectiveness of policies put in place to protect these habitats over time.

Light Pollution

Street lights, security lights, decorative lighting – all of these become an increasing issue as population growth leads to new homes and more light. A 1996 study by the NJ Light Pollution Study Commission found that the effects of light pollution include glare, energy waste, light trespass (nuisance light) and sky glow. The study recommended twelve strategies to reduce light pollution. Some of the recommendations include: aiming of lighting; public awareness of light pollution; designation of dark sky areas; and other potential guidelines for the development of local ordinances. Using reduced voltage in outdoor decorative lighting will serve to dim and reduce lighting impacts on the dark sky and reduce energy consumption that can yield important energy cost saving benefits.

There has been a national movement toward protecting "dark sky" characteristics, which began in response to the noticeable loss of visibility of the night sky by star gazers from the introduction of and upward glow cast by artificial light sources. Some communities recognize undesirable quality of life impacts and seek to reduce the negative impacts of the overuse of artificial light, such as diminished visibility of the night sky and intrusive impacts from misdirected light and the over illumination of areas. Dark sky policies and ordinances have been implemented in some communities to manage these impacts. Full cut-off light fixtures to direct light downward and limit unwanted horizontal lighting impacts are commonly used to direct lighting where it is needed and avoid casting light where it isn't

⁵⁰ Bernards Township 2022 webpage: https://bernards.org/boards/green-team?highlight=WyJpcG0iXQ==

needed or desirable. The use of motion activated light fixtures, dimmers, timers and overnight security lighting levels are also commonly used to reduce or turn-off lighting when it is not needed. There are claims that reducing artificial lighting has health benefits for both humans and the animals that inhabit the environment, particularly avian species. In addition, reducing the amount of light and duration of lighting provide energy and cost savings. Some communities pursue dark sky strategies on the belief that it improves residents' quality of life.

The Planning Board's practice is to carefully evaluate potential negative lighting impacts that may result from new development. It has become common practice for the Board to require the use of cut-off light fixtures and limit hours of lighting when the Board approves subdivision and site plan applications. The Board commonly requires reduced lighting levels to the minimum lighting level needed for public safety. Light fixture intensity, the height and number of pole-mounted light fixtures are also commonly analyzed and adjusted when lighting level reductions are possible without compromising public safety.

Air Quality

Bernards Township currently has an ordinance in place banning excessive idling of all motor vehicles within the Township (§ 3-13.2 a., "a. No person shall ... permit the engine of a dieselpowered or gasoline-fueled motor vehicle to idle for more than three consecutive minutes ..., except:" 1. for 30 minutes if the vehicle is at the vehicle operator's place of business; or 2. if the vehicle has been stopped for three or more hours it may be allowed to idle for 15 consecutive minutes); however there sems to be a lack of public awareness of the ordinance. There are a number of locations where idling commonly occurs: at convenience stores, at bus stops, in parking lots, in drive-thru service lanes (i.e. bank or gas station) and in lines of cars waiting to pick up or drop off children at schools. The Board of Education elementary and middle schools and the Pingry School have designated "no idling" areas, which are helpful where these areas are in closest proximity to neighborhood homes. The St. James School and the Holbrook School don't have no idling areas because they aren't needed operationally (i.e. drop off line moves in the morning, parents have to park to pick up children in the afternoon). While the schools have designated no idling areas where appropriate, additional signs may encourage more motorists to shut the engine off while waiting to pick up students.

Discouraging engine idling may yield the most pronounced air quality benefits where it occurs near residential neighborhoods; however, engine idling contributes to diminished air quality wherever it occurs throughout the Township. A Bernards Township public awareness campaign could be considered to reduce the amount of idling that occurs throughout the Township. This may include posting of signs at commercial locations such as shopping centers in the downtown, and at parks and sports fields. A "soft" enforcement program (involving no financial penalty) could help raise public awareness about the air-quality benefits of the Township's idling ordinance and assist in discouraging unnecessary idling and reducing the Township's carbon footprint.

Forest

Bernards Township's forest resources are relatively vast and varied throughout the developed and undeveloped areas of the Township. The challenge of managing invasive exotic trees and vegetation is raised as a planning objective in Chapter VIII, the Conservation and Open Space Plan element of the Master Plan, to protect the Township's forest resources. The Bernards Township Environmental Commission (EC) identifies management of invasive species as an area of special concern for Bernards Township residents on their webpage.⁵¹ The Conservation and Open Space Plan identifies invasive exotic trees and vegetation as a rapidly emerging threat to the health and survival of the Township's native forest vegetation and understory growth that has been all but decimated by the deer browse. Awareness raising efforts are underway by the EC; however, a comprehensive strategic invasive exotic species management policy should be developed to protect forest resources, including both the suburban neighborhood forest and the larger contiguous forested areas that remain undeveloped.

Summary Recommendations

The Township should continue to promote enhanced protection and restoration of the Township's natural resources, in partnership with local organizations, including:

- a. Adopting or refining Water Quality Best Management Practices (BMP's) to protect the quality of surface waters and promote healthy wildlife habitats.
- b. Consider and evaluate appropriate strategies to manage future development impacts on water resources, including reducing residential densities and impervious coverage limits to reduce the potential impact to surface waters from non-point source pollution⁵².
- c. Conducting an updated inventory of wildlife habitat to evaluate best practices for preserving and monitoring of wildlife and ecology.⁵³
- d. Reducing light pollution and designating "dark sky" areas where limited exterior lighting is permitted.

⁵² Ord. #2249, adopted 10/29/13, added a requirement that stormwater management facilities in residential subdivisions be designed to accommodate the maximum lot coverage permitted in the zone. Ord. #2463, adopted 03/09/21, amended stormwater management requirements consistent with the NJDEP model ordinance.

⁵¹The Environmental Commission has published a comprehensive list of invasive exotic trees, shrubs, herbaceous plants and grasses that residents are asked to avoid and become familiar with on their website, which can be found here: https://www.bernards.org/boards/environmental?highlight=WyJpbnZlbnRvcnkiXQ==

⁵³ The Environmental Commission's 2014 Natural Resources Inventory (NRI) includes a mapped inventory of threatened and endangered species based on NJDEP's Landscape data base Version 3.1 of the Landscape Project maps released in 2012. NJDEP's Landscape data base Version 3.3 was released in 2017. The update to the Landscape Project maps incorporates the most recent land use/land cover data (LULC 2012) and new species occurrence data that supplements and in some cases supplants the last release of the Landscape maps in Bernards Township's 2014 NRI.

- e. Promoting awareness about the Township's anti-idling policies and establishing no idling zones throughout the Township to improve air quality. Consider possible enforcement strategies that involve no penalties.
- f. Developing a comprehensive strategy and public awareness campaign to address the threat that invasive species pose to the Township's forests.

Recent revisions to the State's stormwater regulations, which have been adopted by the Township, advance the objectives related to water quality. The Green Team has also noted significant progress toward the Resource Protection sustainability goals, including:

- Passaic River De-Snag Project joint project with Warren, Long Hill, Berkeley Heights, Summit, New Providence, Union County and Morris County
- Supplied and delivered start up materials (top soil/mulch) to local non-profit which created community garden whose produce is donated to local Food Bank
- Partnered with local landscaping firm for Free Tree Giveaway for Township residents
- Created a wildflower garden in Pleasant Valley Park in conjunction with a local landscaping firm.

The Bernards Township Environmental Commission has provided the following summary entitled "How the Bernards Township Environmental Commission Supports the Green Plan:

How the Bernards Township Environmental Commission Supports the Green Plan July 2022

Development Application Reviews: As an advisory board, the Environmental Commission (EC) provides commentary to the Planning Board, Board of Adjustment and Township Committee regarding environmental impacts and issues. The Commission reviews applications with the following guidelines in mind: Best Management Practices, Lot Coverage, Storm Water, Steep Slopes, Wetlands, Tree Protection/Inventory/Replacement, Critical Habitat, Stream Buffers, Pool Discharge, Natural Resource Inventory and Historic Significance.

Master Plan Review: At the Planning Board's request, the Environmental Commission reviews various elements of the Master Plan and makes recommendations for updates.

Tree Protection: The Environmental Commission works cooperatively with the Township's Shade Tree Commission and Engineering Department to assess tree removal applications. The assessments focus on any safety issues associated with the tree, the health of the tree, and canopy impact.

Public Outreach: Throughout the year, environmentally themed, educational/awareness pieces are created and posted to the Township website home page and the EC home page + the Township Facebook page. From there, these pieces are shared to a number of community FB groups such as: Bernards InSight, Bernards Township Community, Basking Ridge Moms, BaskingRidgeMoms, BR Women Lite, Bernards Beat. Most of the topics relate to different tips on

refuse/reduce/reuse/recycle/repurpose. The EC also works with the Shade Tree Commission to address life cycle/treatment of spotted lanternfly eggs, nymphs, adults, and ailanthus trees.

Advisory and Volunteerism: The EC provides advice and guidance to Ridge High School clubs regarding their green efforts and students sometimes attend Commission meetings. The EC supports other's environmental-related projects (such as the Girl Scouts "Caps for a Cause," Parks & Recreation's TREX challenge and the Ridge Girls Basketball fundraiser for Christmas tree recycling.)

Trips and Events: In the past, the Commission has sponsored 2 different Reusable Bag Challenges to all Bernards Township students in grades K-8 with the theme of "Refuse, Reduce, Reuse, Recycle" with hundreds of bags being offered to residents free of charge. The EC also organizes an annual free Pumpkin Smash Event held at English Farm/Dogwood Farm to promote keeping pumpkins out of landfills. Additionally, members of the EC have visited the Colgate Recycling Plant.

Partnerships: The Commission is a member of the GSWA Native Pollinator Working Group and is a partner on the GSWA annual Native Pollinator Plant Sale to do our part in creating Pollinator Pathways throughout the state. The EC also communicates with organizations like the AmeriCorps Watershed Ambassador program and invites them to provide updates at a meeting.

Energy Conservation

According to the U.S. Department of Energy, buildings consume approximately 37% of the energy and 68% of the electricity produced in the Unites States annually. In addition, burning of fossil-based fuels to generate electricity releases carbon dioxide, which contributes to global climate change.⁵⁴ Development of efficient energy use practices within a building helps to reduce the amount of electricity used and reduces the demand for carbon-based fuels. Innovative technologies, such as solar, wind, and geothermal power, can also reduce the need for extraction of additional fossil fuels to generate electricity.

The 2007 Green Team report found that the largest energy consumers under Bernards Township's control are the Municipal Building, the Police Department, the Library, the Health Department, and the Department of Public Works. Average monthly energy expenses for these buildings combined is about \$15,000. The Green Team further recommended that Bernards Township reduce the combined total of energy expenses by one third, to \$10,000.

Since the release of that report, the Township has promoted better insulation in homes, encouraged the use of more energy-efficient appliances, and promoted other innovative techniques to reduce the community's dependence on fossil fuels. Bernards Township has also committed itself to energy efficiency in the municipal building inventory as

⁵⁴ US Green Building Council, <u>New Construction & Major Renovation Version 2.2 Reference Guide</u>. 2nd Edition, September 2006.

recommended in the 2007 report. The Township's Sustainable Jersey certification application for 2019 identifies Energy Use Intensity (EUI) reductions for 2008 – 2018 for the Town Hall, the DPW, Library, Police, Health Department and Bernards Township Sewerage Authority Building. The table below identifies a combined 18.92% reduction in EUI for the 6 buildings, with some on-site solar photovoltaic electric generation.⁵⁵

	Baseline Energy Usage Data from Energy Audit Date >					Energy Usage Data Most recent 12 months Dated >			2018			
Building	Building area in square feet	Enter your grid purchased electricity (kWh) in this column	natural gas (therms) in this	total kbtu per month	Baseline EUI	Enter your grid purchased electricity (kWh) in this column	Enter your natural gas (therms) in this column	Enter your on- site generated electricity (kWh) into this column	total kbtu per month	Current EUI	% Change EUI in Facility	Weighted
Town Hall	14,433	327,667	9,595	4,519,023	313.1	185,760	12,681		3,322,261	230.2	-26.5%	-4.57%
DPW	22,260	193,413	20,408	4,215,612	189.4	122,320	22,946	44,759	3,872,974	174.0	-8.1%	-2.16%
Library	26,900	373,616	12,294	5,294,845	196.8	289,120	9,262		4,070,957	151.3	-23.1%	-7.44%
Police	6,328	263,838	3,512	3,196,264	505.1	179,030	5,697		2,516,817	397.7	-21.3%	-1.61%
Health	2,337	29,382	2,255	551,657	236.1	15,037	3,575		536,524	229.6	-2.7%	-0.08%
BTSA Plant	11,330	2,026,561	11,995	22,977,764	2,028.0	1,226,769	13,296	954,144	17,799,636	1,571.0	-22.5%	-3.05%
												-18.92%

This is a snapshot of progress made between 2008 and 2018. The 18.92% reduction is not an energy expense measurement as recommended in the 2007 report, nevertheless, this is apparently a substantial reduction to date.

In summary, to ensure greater energy independence, the following strategies should be advanced:

- a. Promote the construction of green buildings.
- b. Promote utilization of context sensitive and compatible green rehabilitation strategies for existing buildings.
- c. Encourage the utilization of resources through the Sustainable Jersey program to increase energy efficiency and energy conservation.
- d. Encourage Township residents to participate in the NJ CleanPower Choice Program and to consider renewable energy sources and technologies when possible.
- e. Promote awareness education among Township staff, businesses, schools and residents on the benefits of energy conservation.

The Green Team has noted progress toward the Energy Conservation goals, including

- Landfill Solar Project installation of 13,000 solar panels generating approximately 4.5 megawatts of electricity annually;
- Installation of the CIRUS Controls System on 4 new & existing fleet vehicles. This is an automated system for salt spreading, temperature monitoring, data collection and GPS navigation;

⁵⁵ 2019 Green Team Sustainable Jersey certification application

- Maintained certification in Sustainable Jersey: Bronze-Level Certification in 2009, followed by Silver-Level Certification in 2011, 2014, 2016 and 2019 (2019 is the most recent certification); and
- Submitted application for 2022 Sustainable Jersey Bronze Level Certification.

Operations & Maintenance

Bernards Township has established a purchasing policy that works to minimize the impacts on human health and the natural environment. A coordinated policy for environmentally preferable purchasing (EPP) of green goods and services, as an alternative to potentially harmful products can save residents, government and businesses money, energy and water and reduce waste. Green purchasing also takes into account the raw materials used to manufacture the product, the production itself, packaging and distribution and the distance of transporting the product to the final destination.

In addition, an integrated policy on the maintenance of lawns and landscaping can be developed by increasing the use of natural pesticides and fertilizers, thereby reducing the potential to degrade local waterways and groundwater sources. The use of drought-tolerant, hardy varieties of grass can reduce the need for watering and fertilization in municipal parks. The Township maintains and continually adds environmentally-preferable products and services to a list in an effort to support green and sustainable industries. This list guides purchasing to protect employees who spend significant amounts of time working with products. potentially harmful The Rutgers website at http://www.cook.rutgers.edu/~envpurchase/ provides a variety of lists that assist Bernards Township through the development of an EPP program. The categories of lists include: Paper, Electronics, Packaging, Building Materials, Chemicals/Cleaning, Landscaping and Other.

In order to advance an integrated sustainability policy within municipal operations, the Township should continue to:

- a. Encourage all municipal departments to establish a coordinated Green Purchasing Program for the purchase of goods and services. (This is an ongoing and sustained effort)
- b. Expand the green Grounds and Maintenance Program to ensure that municipallymaintained parks, gardens, and landscaped areas are managed in the most efficient and environmentally friendly manner. (The DPW has implemented a comprehensive program in response)
- c. Encourage recycling and waste reduction throughout all municipal departments, and among residents, businesses, schools, and other public facilities. (This is an ongoing and sustained effort)

- d. Continue to expand recycling programs. (This is an ongoing and sustained effort)
- e. Continue energy efficiency upgrades to municipal facilities and participation in various grant/rebate programs offered through he State of New Jersey and/or utility providers.
- f. Explore and consider the viability and applicability of electric vehicles and other energy/fuel efficient vehicles when replacing vehicles in the Township's fleet.

The Green Team has noted progress toward the Operations and Maintenance goals:

- Paperless Township Committee Meetings- meeting room equipped with Wi-Fi allowing all attendees to view agendas and documents on their electronic devices;
- Utilization of vinyl recycling bags to replace plastic bags;
- SDL Portal to search permits, enter service requests online;
- Automated Pill Hill Recycling Center access cards;
- Automated online OPRA requests via the SDL portal; and
- Automated online Parking Decal Renewal and utilization of license plate readers by the Police to monitor parking.

Green & Sustainable Design – A Municipal Example

The Bernards Township Sewerage Authority expanded its administration building, which incorporated a comprehensive range of green and sustainable design concepts. The project is as an excellent and illustrative example of how the interdependence concept of the three "P's" (*people, profit and planet*) can be balanced through thorough planning guided by green and sustainable design principles and supplemented with solar photovoltaic electric generation. The project hopefully serves as an inspiration to residents and local businesses committed to balancing the need for development with impacts on the local, regional and global environment. The green and sustainable design concepts employed in the project are listed as follows:

- 1. The building was designed with green and sustainable concepts and is LEED (Leadership in Energy and Environmental Design) certified by the U.S. Green Building Council.
- 2. By expanding an existing building, there was minimal new site disturbances, no tree removal and minimal soil run-off.
- 3. Solar panels were installed on the roof to provide heat for the hot water heating system.
- 4. Operable windows were installed to provide all occupants with direct daylight, outdoor views and natural ventilation. In this project, 100% of regularly occupied spaces have direct daylight and outdoor views.

- 5. All of the plumbing fixtures are low flow fixtures. With this LEED category alone, the building saves as much as 42.6% of water usage compared to using conventional plumbing fixtures. Less water usage also means less waste water generation.
- 6. Rain barrels are installed to collect rain water from the roof surface. This water is used for site irrigation, and at the same time to reduce surface water run off on site to storm system.
- 7. The roof was selected to be a highly reflective metal roofing material to reduce the heat gain.
- 8. To maintain the indoor air quality, all materials used in this building were VOC (Volatile Organic Compounds) free. Materials with higher recycled content were also specified for this project. Local materials were used as much as possible.
- 9. All wood materials in this building were certified by the Forest Stewardship Council for companies using sustainable practices.
- 10. All construction demolition/waste materials were sorted and recycled.
- 11. Surface bricks were salvaged and reused for patching the remaining walls.
- 12. The indoor air quality is maximized in several ways. The building was fully flushed out before occupancy to blow out all odors and particulates. Filter systems were installed to reduce particulate and allergens once occupied. The air quality is monitored after the occupation.
- 13. To reduce any exterior light pollution, the only new light at the exterior is the flagpole light. It is a solar powered LED light which only shines downward.
- 14. To save operational costs, all interior lights are controlled by switches with motion sensors. When there is no movement detected in the room for a certain length of time, the lights will be turned off to save electricity.
- 15. To give the occupied space a more comfortable indoor working environment the building exterior includes extra insulation. The HVAC system was designed to be more efficient with a cost of at least 7% lower than normal systems.

Education & Outreach

An aware and educated public can provide support and feedback to policy-makers as shortterm and long-term actions are implemented. The education and outreach process is a continuous effort through which Bernards Township can model and share sustainable practices, such as conserving energy, green purchasing, recycling, etc.

This Green Plan Element illustrates many opportunities for Township residents to participate in reducing the individual, as well as the community, environmental footprint. The success of the plan will be measured by a change in behavior among various stakeholders, who in turn, learn about sustainability initiatives and implement sustainable practices.

Presently, the Township involves the public in a number of community activities such as Charter Day and Community Wildlife Habitat projects. In addition, the Township and Green Team have published several information pieces to educate the public about topics like cost effective home improvements, recycling guidelines, and best use practices for energy consuming appliances, energy saving computing practices, and best office practices. Additional education resources are available on the Bernards Township website from the Agricultural Advisory Committee, the Environmental Commission and Shade Tree Commission, which may be found at https://www.bernards.org/ under the heading "Boards" on the ribbon across the top of the webpage.

In summary, to ensure an educated and informed public body, the Township should continue to strive to:

- a. Provide opportunities for sustainability education throughout all sectors of the community.
- b. Promote awareness and education on energy conservation through the use of established materials such as the Bernards Township Green Guide, and through media outlets that exist in the Township.
- c. Encourage community involvement and support volunteerism to increase the level of participation in green initiatives and community projects.

Summary

Bernards Township is acknowledged as a leader in New Jersey's green movement through its 2009 and subsequent Sustainable Jersey certifications (maintained certification in Sustainable Jersey: Bronze-Level Certification in 2009, followed by Silver-Level Certification in 2011, 2014, 2016 and 2019 (2019 is the most recent certification). Further success in becoming a more sustainable community will occur through local planning choices that are consistent with the green buildings and environmental sustainability goals and objectives of this plan. Through the decisions, practices and policies of local government and Bernards' residents, the community will achieve success in its efforts to strive for a sustainable future.