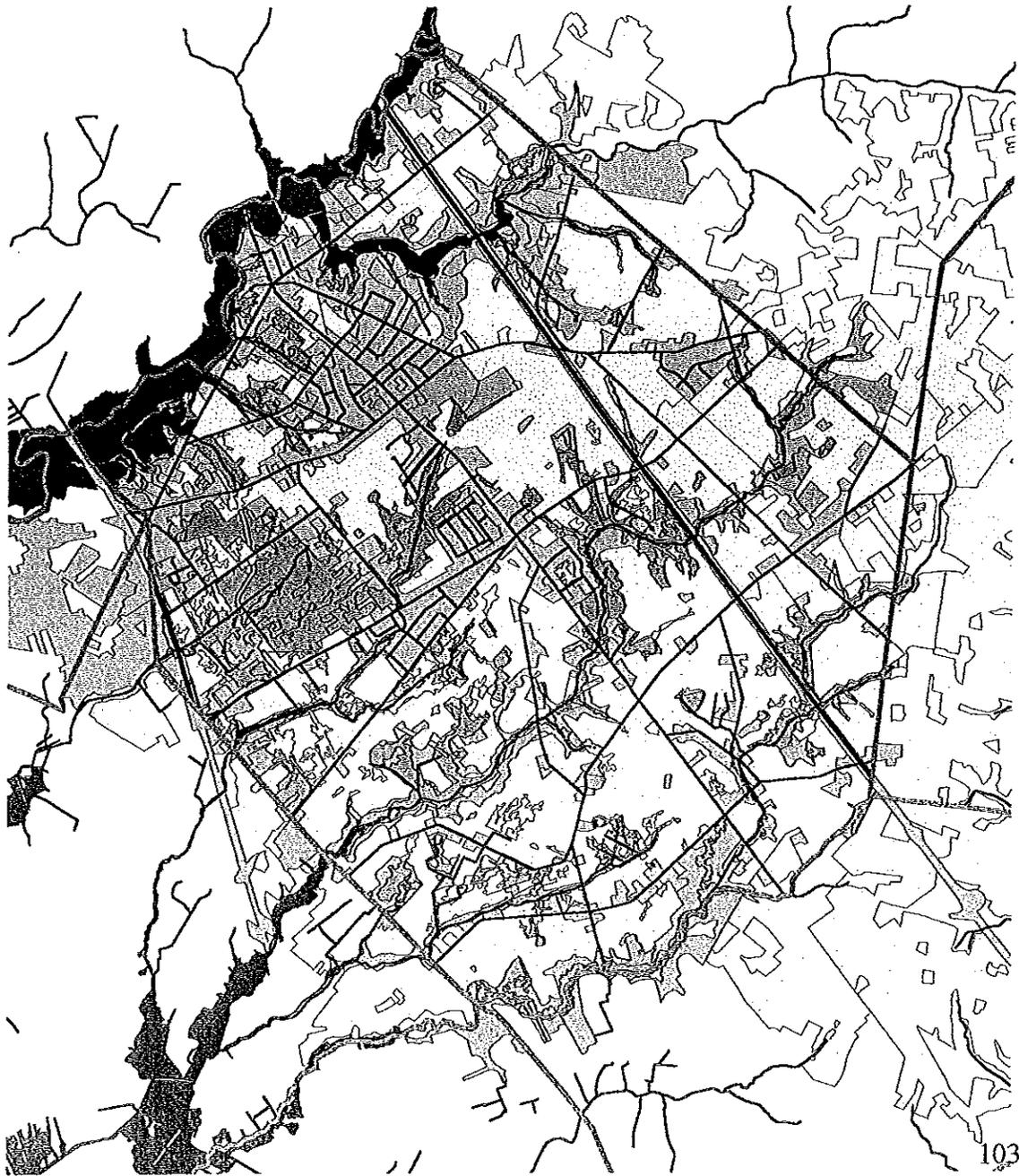
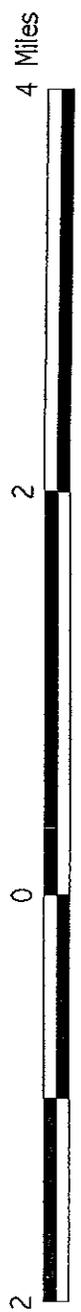
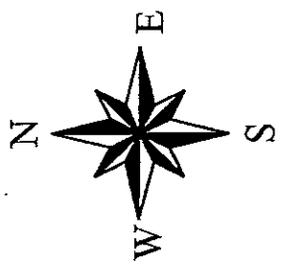


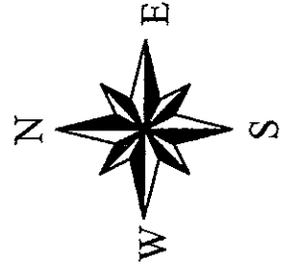
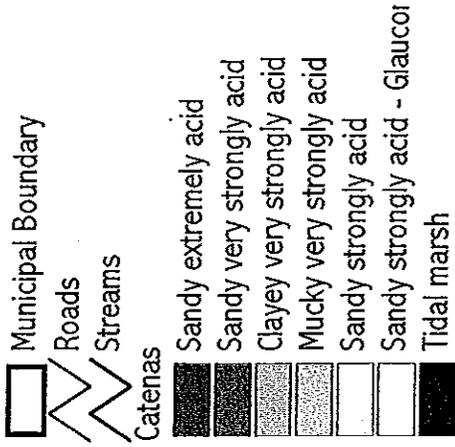
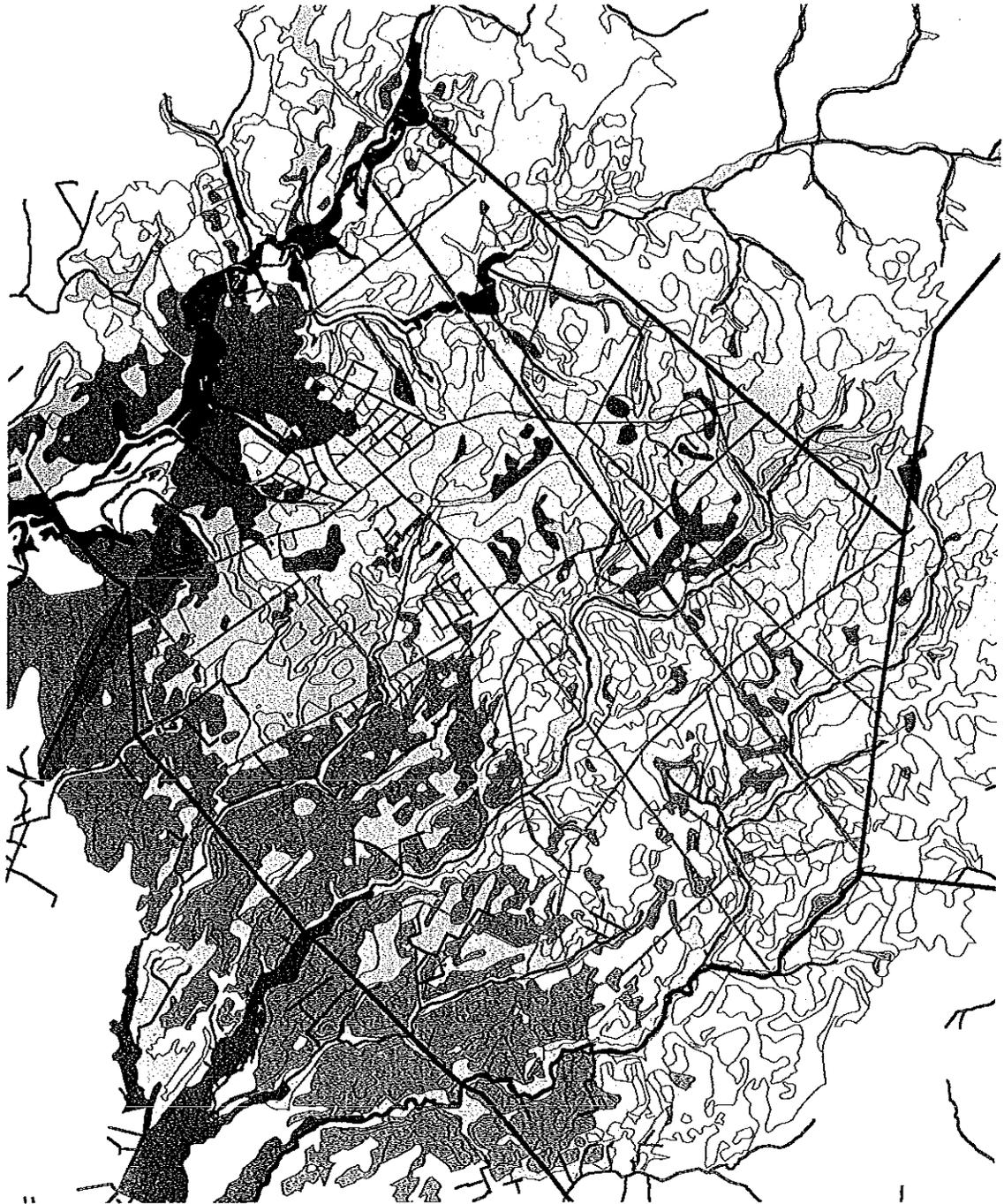
Habitats



- Municipal Boundary
- Streams
- Roads
- Wetlands
 - Tidal marsh
 - Lakes
 - Agricultural Wetlands
 - Herbaceous Wetlands
 - Forested Wetlands
- Non-Wetlands
 - Man Related
 - Agricultural
 - Forested Uplands
 - Barrens



Catenas



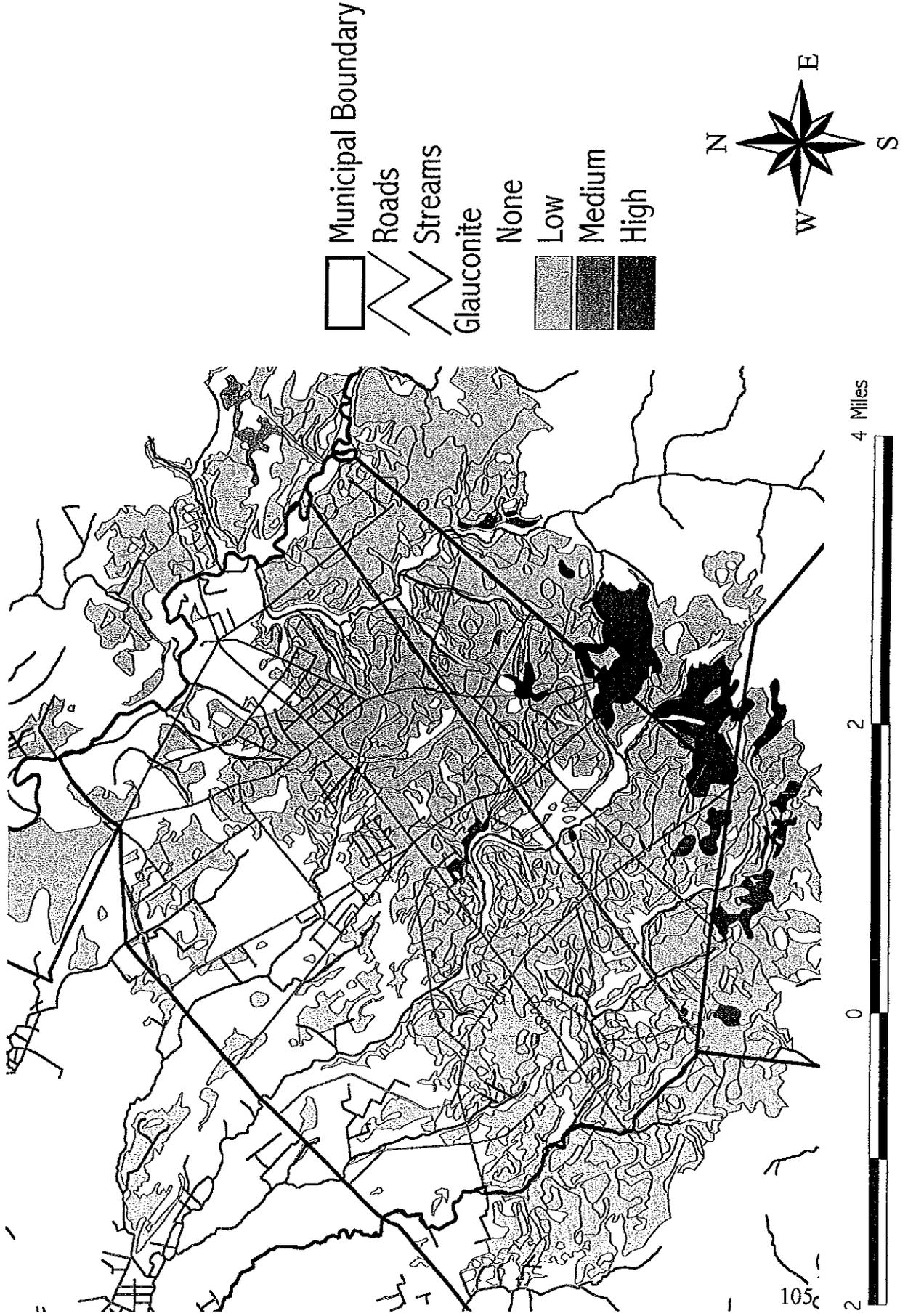
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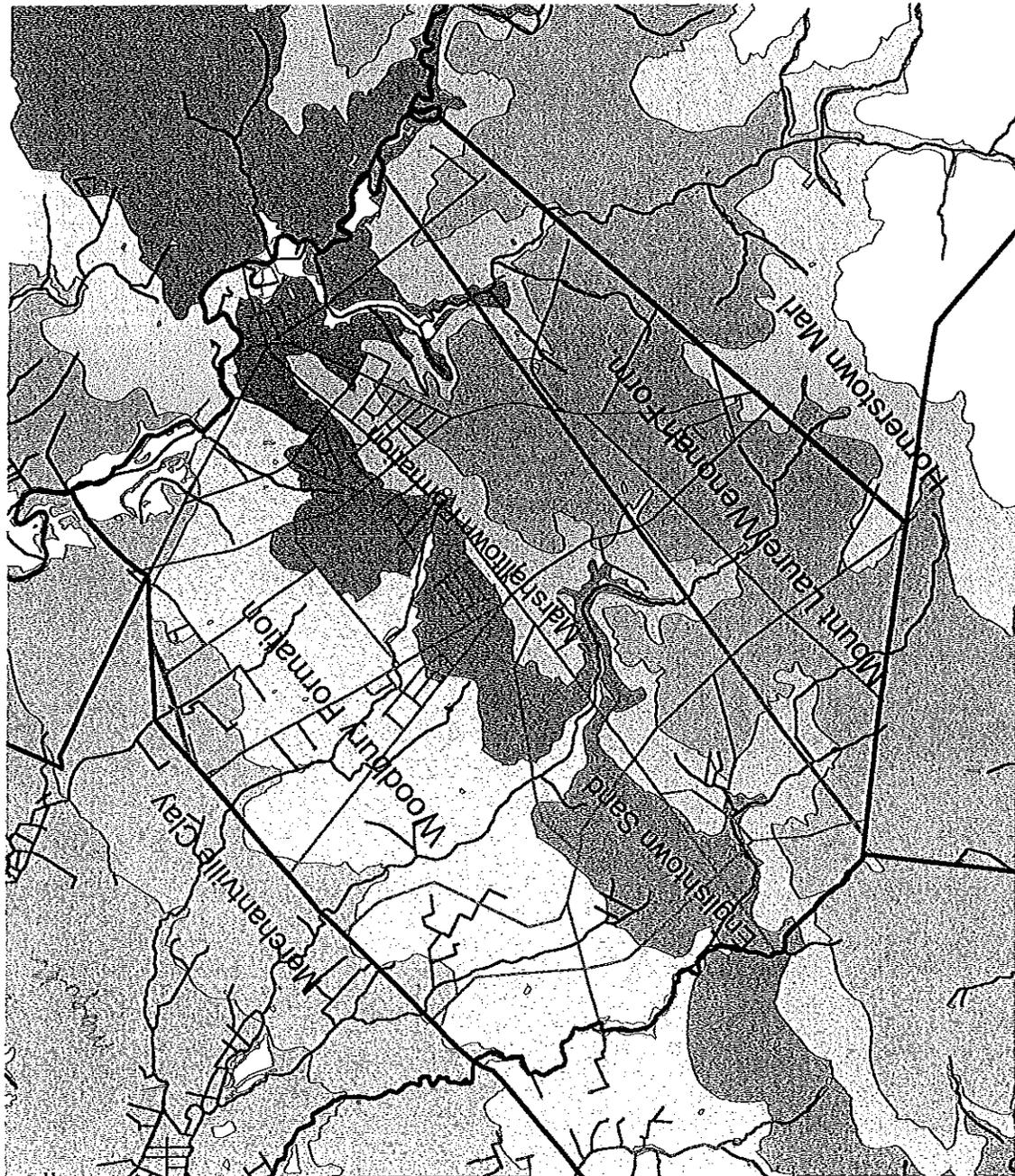
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2

Glauconitic Soils



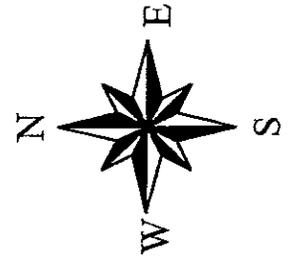
Geology



 Municipal Boundary
 Roads
 Streams

Geology

 Homerstown Marl
 Mount Laurel/Wenonah Form.
 Marshalltown Formation
 Englishtown Sand
 Woodbury Formation
 Merchantville Clay
 Magothy and Raritan Form.



4 Miles



REGIONAL OVERVIEW

The regional overview allows a regional perspective of East Greenwich Township's relationship to surrounding areas. Three important characteristics are: 1.) suburban expansion is about to drastically change the Township; 2.) The forested wetland in the north central part of the Township is one of only two (Cedar Swamp) in northern Gloucester County; 3.) Most remnant farmland east of East Greenwich Township occurs in isolated small blocks, most of which are too small to support prairie species.

See Habitats section for narrative definitions.

HABITATS

The Habitat map provides a good local overview of the Township. It shows the corridor like characteristics of the forested stream valleys, the extent of the large forested wetland near I-295 and the extensive farmland that still dominates the Township. Unlike the maps from the Gloucester County Planning Commission, which included forested wetlands in the wetland category, this map separates wetlands into five categories:

- **Tidal Marsh** – Areas of herbaceous wetlands and some deep-water habitats influenced daily by the tides.
- **Lakes** – non-tidal, open water habitats, including ponds.
- **Agricultural Wetlands** – Areas that meet the definition of wetlands, but are utilized for agricultural purposes. The U.S. Department of Agriculture and the U.S. Army Corps of Engineers recognize a number of categories including “Prior Converted Croplands”, “Farmed Wetland Pasture” and “Farmed Wetland”.
- **Herbaceous Wetlands** – Wetlands whose dominant vegetation is herbaceous, rather than woody.
- **Forested Wetlands** – Wetland areas of second growth forest or more mature.

The uplands are divided into four habitats:

- **Man Related** – Any non-natural habitats, including houses, streets, roads, industries, etc.
- **Agricultural** – All non-wetland agriculture.
- **Forested Uplands** – All no-wetland forests.
- **Barrens** – All uplands that do not fall in the previous three categories, including old fields and areas stripped of vegetation.

PRIORITIES

The priorities for natural resource protection for East Greenwich Township are divided into Acquisition or Regulation, each with three levels of importance. “Acquisition” refers to specific

areas that should be considered for acquisition, due to their unique location, size and resource elements. "Regulation" refers to areas of lesser importance to every specific area, but whose overall protection is important to the Township. The Acquisition category includes the endangered species habitat and the large forested wetland near I-295 as top (first) priority. These specific areas need to be saved. Preserving an alternative stream corridor is not going to protect the endangered species. The area of secondary priority involves a wildlife corridor to the Mantua Creek tidal marshes. The third priority level involves potential acquisitions for the expansion of the forested block, while connecting the existing block to other stream corridors.

The regulation category prioritizes habitats according to importance for developers who provide open space. Highest priority is contiguous stream corridors. Secondary is natural areas extending away from stream corridors and third priority is isolated or fill-in areas.

GEOLOGY

The geologic map refers to the subsurface deposits, which are generally covered by surficial deposits of sands, gravels, silts and clay of varying and disputable age and name. The surficial deposits were not mapped, either by the New Jersey Department of Environmental Protection, the Gloucester County Planning Commission or by Mellow Biological Services. Having examined several references and visited the U.S. Geologic Service in Trenton, there seems to be little consensus as to the naming, definitions or mapping of the various surficial deposits. Since most of these deposits have a pH of 4.0 to 5.5 and have low to moderate Glauconitic and Arkosic components (especially in the top 12 inches), few significant differences from an ecological perspective exist.

In the southern part of the Township, the underlying Mount Laurel/Wenonah Formation and the Hornerstown Marl are more likely to be exposed. However, even these deposits, which are high in glauconite (and were mostly farmed), exhibited few distinctive vegetational characteristics.

CATENAS

The Soil Survey of Gloucester County New Jersey defines Catena as "A group of soils, within a specific soil zone, formed from similar parent materials, but with unlike soil characteristics because of differences in relief or drainage". There is often a strong correlation between catenas and plant communities. This study utilized catenas to define where differing communities might be expected, then field checking to for different plan communities. The soil survey lists five catenas for East Greenwich Township. Based on previous experience, this study reduced and modified the number of catenas to four in order to simplify the data.

- **Sandy Extremely Acid** - This catena was absorbed into other catenas in the soil survey, possibly because of its small size. Although it is listed separately here, no special habitats were found in the field, possibly due to the high levels of disturbance in the area.
- **Sandy, Clayey and Mucky, Very Strongly Acid Soils** - These three groups are defined here as one catena with a strong correlation between sandy, clayey and mucky and dry, wet and very wet, respectively. The soil survey uses "DWSK- Sandy Flats along the Delaware" and "MAFP - Inland Wet Soils" as two catenas to define this area. Soils are generally very strongly acid (4.5 - 5.0) and the plant community is consistent throughout the catena.

- **Sandy Strongly Acid and Sandy Strongly Acid – Glauconite** - These two classes make up the third catena. They are the equivalent of ‘FCC – Gently to strongly sloping soils from greensand’ and ‘MK - Gently to sloping olive clay soils’, respectively. The apparent contradiction between ‘Sandy Strongly Acid – Glauconite’ and ‘Gently to sloping olive clay soils’ is that in this report our primary concern is the top twelve inches of soil, where most plant roots are found and in this catena the top twelve inches is sandy loam, while the B horizon below twelve inches is clay. For this report, these two catenas have been combined because there is so little of the Sandy Strongly Acid – Glauconite catena in the Township and since most of it is farmed and the little that is natural had a similar plant community to the Sandy Strongly Acid catena.
- **Tidal Marsh** - This catena is limited to tidal marshes.

GLAUCONITIC SOILS

Since glauconite appears to be the one characteristic that might vary enough to create distinct habitats, this characteristic was mapped, based on soil types and descriptions. The soils were categorized as: None – not having Glauconite, and Low, Medium and High concentrates of glauconite. No distinctions were found between the plant communities of the different categories.

HYDRIC SOILS

Following are the apparent classifications for the Hydric Soils Map which appear to be based on drainage classes (generally, very poorly and poorly drained soils are hydric soils, somewhat poorly drained is a non-hydric soil, but may be hydric. The other soils are non-hydric soils, but may have hydric inclusions):

- Low Runoff – Very poorly and poorly drained soils.
- Moderately Low Runoff – Somewhat poorly drained
- Moderately High Runoff – Moderately well and well drained
- High Runoff – Excessively drained

FORESTED AREAS

Forested Areas appear only to represent forested uplands, with forested wetlands being included in a wetland classification in the GIS data, but not included on the map. Note: There are significant differences between the County’s wetland lines and the State’s. Limited investigations in critical areas suggest that the State’s lines are more accurate.

Appendix D1

Bedrock Geology- Technical Explanation

Merchantville Formation (Upper Cretaceous, Lower Campanian)-Sand, glauconite, locally has high quartz content, very clayey and silty, massive to thick-bedded, grayish-olive-green to dark-greenish-gray; weathers moderate brown or moderate yellow brown. Mica, feldspar, and pyrite are minor sand constituents. Very micaceous at base. Locally, has extensive iron incrustations in near-surface weathered beds. Fossil molds are mostly phosphatic. Fossils typically occur in siderite concretions. No calcareous fossils were found in outcrop. The Merchantville forms a continuous narrow to wide belt throughout the map area. The unit is about 6 M (20 ft) thick in the northern part of the central sheet, about 20 m (66 ft) thick in the Trenton area, and 12 to 15 m (39-49 ft) thick throughout the southern sheet. The formation is best exposed in the Trenton East quadrangle (sheet 1), mainly in the tributaries on the western side of Blacks Creek and south of Bordentown, Burlington County, where the entire thickness of the formation can be seen in gullies (Owen and Minard, 1964b). The basal contact with the underlying Magothy or cheesequake Formations is sharp and disconformable. At most places, a reworked zone about 0.3 to 1 m (1-3 ft) thick is present at the base. This basal bed contains reworked lignitized wood, siderite concretions as much as 13cm (5 in) indiameter, scattered pebbles and coarse-grained quartz sand and is burrowed. Most burrows project downward into the underlying formations. The Merchantville is the basal bed of a lower Campanian transgressive-regressive cycle that includes the overlying Woodbury and Englishtown Formations. Merchantville faunas were analyzed by Sohl (in Owens and others, 1977) who concluded that northern fauna represented deposition on a lower shoreface or in the transition to an inner shelf, whereas the southern fauna was a deeper water assemblage, probably inner shelf.

Macrofossils occur as internal and external molds and include the ammonites *Menabites* (*Delawarella*) *delawarensis* and *Scaphites* (*Scaphites*) *hippocrepis* III> The *Scaphites* is of the type II variety of Cobban (1969) and is indicative of the lower, but not the lowest, Campanian. More recently Kennedy and Cobban (1993), detailing the ammonite assemblage that includes *Baculites* *harsi*, *Cheasapekella* *madatum*, *Cryptotaxanites* *paedomorphicus* sp., *Glypoxocaras* sp., *Menabites* (*Delawarella*) *delawarensis*, *M.* (*Delawarella*) *vanuxemi*, *Menabites* (*Barella*) sp., *Pachydiscus* (*Pachydiscus*) sp., *Placenticerias* *placenta*, *Pseudoscholobachia* cf. *P. chispaensis*, *Scaphites* (*Scaphites*) *hippocrepis* III, *Submortonicerias*, *punctatum*, *S. uddeni*, and *Texanites* (*Texanites*), sp., concluded that the Merchantville is of late early Campanian age. Wolfe(1976) indicated that the Merchantville microflora was distinct from overlying and underlying units and designated it Zone CA2 of early Campanian age.

Woodbury Formation (Upper Cretaceous, lower Campanian) – Claysilt, dark-gray; weathers brown and orange pink. Iron oxides fill fractures or form layers in the most weathered beds. Unit is massive except at the base where thin quartz sand layers occur. Locally, thin stringers of pale-greenish-brown, smooth-surface glauconite occur near the top. Unit conspicuously micaceous throughout and contains finely dispersed pyrite, carbonaceous matter, and small pieces of carbonized wood as much as 30 cm (12 in) in length. Small siderite concretions are abundant in the Woodbury in the northern part of the outcrop belt (sheet 1). Unit forms a broad belt in the central sheet from Sandy Hook Bay, southwest to area around East Greenwich, Gloucester County,

where it pinches out or changes facies (sheet 1). The Woodbury maintains a thickness of about 15 m (49 ft) throughout most of its outcrop belt.

Fossil imprints are abundant. An extensive Woodbury macrofauna was described by Weller (1907) from siderite concretions from a tributary to the Cooper River in the Camden quadrangle. This assemblage is unusual in that it is the only existing outcrop of the Woodbury where calcareous and aragonitic shells are still intact. Most fossils are small, fragmented, and concentrated in small pockets, but larger intact calcareous fossils are scattered throughout the Woodbury. Weller (1907) recorded 57 species from this locality. In addition, this is the same locality that contains fossils of the dinosaur *Hadrosaurus foulkii*. Pollen collected from the Woodbury was assigned to the CA3 Zone by Wolfe (1976). Biostratigraphic data suggest that the Woodbury is of early Campanian age.

Englishtown Formation (Upper Cretaceous, lower Campanian) - Sand, quartz, fine - to coarse-grained, gravelly, massive, bioturbated, medium to dark-gray; weathers light brown, yellow, or redish brown, locally interbedded with thin to thick beds of dark clay. Abundant carbonaceous matter, with large lignitized logs occur locally, especially in clay strata. Feldspar, glauconite, and muscovite are minor sand constituents. Sand is extensively trough crossbedded particularly west of Mount Holly, Burlington County (sheet 1). In a few places in the western outcrop belt, trace fossils are abundant, typically the burrow *Ophiomorpha nodosa*. Unit is pyritic, especially in the carbonaceous rich beds where pyrite is finely disseminated grains or pyritic masses as much as 0.6 m (2 ft) in diameter. Lowest part of unit is a massive sand that contains small to large, soft, light-gray siderite concretions. The Englishtown underlies a broad belt throughout the map area and ranges from about 45m (148 ft.) thick in the northern part of the central sheet to 30 m (98 ft.) thick in the western part of the central sheet to 15 m (49 ft.) in the southern sheet. Best exposures occur along Crosswicks Creek in the Allentown quadrangle (sheet 1) and along Oldmans Creek (sheet 2). The basal contact with the underlying Woodbury Formation or Merchantville Formation is transitional over several meters. The age of the Englishtown in outcrop could not be determined directly but was inferred from stratigraphic position and pollen content. Wolfe (1976) designated the microflora of the unit as Zone CA4 and assigned it to the lower Campanian.

Marshalltown Formation (Upper Cretaceous, upper and middle Campanian) - Sand, quartz and glauconite, fine to medium-grained, silty and clayey, massive, dark-gray; weathers light brown or pale red, extensively bioturbated. Very glauconitic in basal few meters; glauconite concentration decreased upward so that in upper part of unit, quartz and glauconite are nearly equal. Feldspar, mica, pyrite, and phosphatic fragments are minor sand constituents. Locally, very micaceous (mostly green chlorite) with sparse carbonized wood fragments. Fine-grained pyrite abundant throughout formation. Local thin, pebbly zones with large fossil impressions occur in the middle of the formation. In the upper part of the formation, quartz increases to about 40 percent. Unit crops out in a narrow belt throughout the map area and forms isolated outliers in the central sheet. Best exposures are along Crosswicks Creek in the Allentown quadrangle. In the southern sheet, the Marshalltown underlies a narrow belt in the uplands and broadens to the southwest. Many Marshalltown exposures occur along Oldmans Creek and its tributaries near Auburn, Gloucester County (sheet 2). The contact with the underlying Englishtown Formation is sharp and unconformable. The basal few centimeters of the Marshalltown contain siderite concentrations, clay balls, and wood fragments reworked from the underlying Englishtown. Many burrows, some filled with glauconite, project downward into the Englishtown for about one meter

(3 ft.) giving a spotted appearance to the upper part of the Englishtown (Owens and others, 1970). The Marshalltown is the basal transgressive unit of a sedimentation cycle that includes the regressive deposits of the overlying Wenonah and Mount Laurel Formations resembling the overlying Red Bank Formation to Navesink Formation cycle in its asymmetry.

Within the map area, only a few long-ranging megafossils occur in the Moorestown quadrangle (sheet 1) (Richards, 1967). To the south, in the type area, Weller (1907) reported diverse molluskan assemblages indicating a Campanian age. More importantly, Olsson (1964) reported the late Campanian foraminifera *Golbotruncana calcarata* Cushman from the upper part of the formation. No *G. calcarata* were found during our investigation. Wolfe (1976) assigned the pollen assemblage of the Marshalltown to the CA5A Zone considered to be Campanian. The Marshalltown has most recently been assigned to Zone CC 20-21 (Sugarman and others, 1995) of middle and late Campanian age (Perch-Nielson, 1985).

Wenonah Formation (Upper Cretaceous, upper Campanian)- Sand, quartz and mica, fine-grained, silty and clayey, massive to thick-bedded, dark-gray to medium-gray; weathers light brown to white, extensively bioturbated, very micaceous, locally contains high concentrations of sand-sized lignitized wood and has large burrows of *Ophiomorpha nodosa*. Feldspar (5-10 percent) is a minor sand constituent. Unit crops out in a narrow belt from Sandy Hook Bay on the central sheet and pinches out southwest of Oldmans Creek, Salem County, on the southern sheet. Isolated outliers of the Wenonah are detached from the main belt in the central sheet area. Thickness is about 10 m (33 ft) in the northern part of the central sheet, 20 m (66 ft) in the southwestern part of the central sheet, and 7.5 m (25 ft) in the southern sheet. The Wenonah is gradational into the underlying Marshalltown Formation. A transition zone of several meters is marked by a decrease in mica and an increase in glauconite sand into the Marshalltown.

Fossil casts are abundant in the Wenonah. Weller (1907) reported *Flemingostrea subpatulata* Hop Brook in the Marlboro quadrangle (sheet 1) indicating a late Campanian age. Wolfe (1976) placed the Wenonah microflora in his CA5A assemblage, considered to be of late Campanian age. Kennedy and Cobban (1994) identified ammonites including *Baculites cf. B. scotti*, *Didymoceras* n. sp., *Menuites portlocki*, *Nostoceras (Nostoceras) puzosiforme* n. sp., *Nostoceras (Nostoceras) aff. N. colubriformis*, *Parasolenoceras* sp., *Placentoceras placenta*, *P. minor* n. sp., and *Trachyscaphites pulcherrimus*. The presence of *M. portlocki* and *T. pulcherrimus* indicates late, but not latest, Campanian.

Mount Laurel Formation (Upper Cretaceous, upper Campanian) Sand, quartz, massive to crudely bedded, typically coarsens upward, interbedded with thin clay beds. Glauconite and Feldspar are minor sand constituents. Muscovite and biotite are abundant near the base. Lower part of the formation is a fine- to medium-grained, clayey, dark-gray, glauconitic (maximum 25 percent) quartz sand. Typically weathers to white of light yellow and locally stained orange brown by iron oxides. Small pebbles scattered throughout, especially in the west-central area. Locally has small, rounded siderite concretions in the interbedded clay-sand sequence. Granules and gravel are abundant in the upper 1.5 m (5 ft). Upper beds are light gray and weather light brown to reddish brown. The Mount Laurel is 10 m (33 ft) thick from the Roosevelt quadrangle to the Runnemedede quadrangle in the central sheet. Thickness varies in the northern part of the map area due, in part, to extensive interfingering of this formation with the underlying Wenonah Formation. Weller (1907) and Kümmel (1940) recognized only about 1.5 m (5ft) of the Mount Laurel in the north. In this report those beds are assigned to the overlying Navesink Formation. The

interbedded sequence, the major facies in the north, ranges to about 4.5m (15 ft) thick. These interbeds have well-developed large burrows (Martino and Curran, 1990), mainly *Ophiomorpha nodosa*, and less commonly *Rosselia socialis*. The Mount Laurel is gradational into the underlying Wenonah Formation. A transition zone of 1.5m (5 ft) is marked by an increase in clay, silt, and mica into the Wenonah, especially in the west-central area of the central sheet.

The oyster *Agerostrea falcaae* occurs in the lower part of the formation. *Exogyra cancellata* and *Belemnitella americana* are abundant in upper beds in the west-central area of the central sheet (New Egypt quadrangle). The Mount Laurel Formation is of late Campanian age based on the assignment of Zone CC 22b to the formation by Sugarman and others (1995) and the occurrence of *Exogyra cancellata* near Mullica Hill, Gloucester County (sheet 2).

Hornerstown Formation (lower Paleocene, Danian) – Sand, glauconite, fine- to medium-grained, locally clayey, massive, dary-gray to dusky-green; weathers dusky yellow of red brown, extensively bioturbated, locally has a small amount of quartz at base. Glauconite grains are typically dark green and have botryoidal shapes. The Hornerstown weathers readily to iron oxide because of its high glauconite content. The Hornerstown in most areas is nearly pure glauconite greensand. The Hornerstown crops out in a narrow belt throughout most of the western outcrop area. In the northern part of the central sheet, it is extensively dissected and occurs as several outliers. Throughout its outcrop belt in the central sheet, the Hornerstown unconformably overlies several formations: the Tinton Formation in the extreme Northern area; the Red Bank Formation in the northwestern and west-central areas; and the Navesink Formation in the west-central and southern areas. In the southern sheet, it unconformably overlies the Mount Laurel formation. The unconformable basal contact locally contains a bed of reworked phosphatic vertebrate and invertebrate fossils. For the most part, however, the basal contact is characterized by an intensely bioturbated zone in which many burrows filled with bright green glauconite sand from the Hornerstown Formation project down into the dark-gray matrix of the underlying Navesink Formation. In a few exposures, a thin layer of medium- to coarse-grained quartz sand separates the Hornerstown from the underlying unit. The Hornerstown is 1.5 to 7 m (5-23 ft) thick.

A cretaceous age was assigned to this by Koch and Olsson (1977) based, in part, on a vertebrate fauna found at Sewell, Gloucester County (sheet 1). However, early Paleocene calcareous nannofossil Zones NP 2-4 were found in a core at Allaire State Park, Monmouth County. This is the only locality in New Jersey where Zone NP 2 was observed; otherwise, the Hornerstown is confined to Zones NP 3 and NP 4. Lowermost Paleocene Zone NP 1 was not identified, and it is thought that the Cretaceous-Tertiary boundary in New Jersey may be unconformable. A complete Cretaceous-Tertiary boundary section was recovered at the Bass River borehole (ODP Leg 174AX). It contained the uppermost Maastrichtian calcareous nonnofossil *Micula prinsii* Zone below a spherule layer and the basal Danian planktonic foraminiferal *Guembeletria cretacea* PO Zone just above the layer (Olsson and others, 1997).

Appendix D2

Weathered Material and Terrestrial Deposits

Slope and Valley Deposits

Colluvium and alluvium unit 1 (Pleistocene) – Sand, gravel, silt, clay, and rare peat and wood. Sediments dominantly quartz rich with variable amounts heavy minerals, glauconite, chert, and clasts from ironstone-cemented horizons; variability depends on proximity to source materials, weathering history and multicyclic transport history. Colluvium is generally poorly sorted with matrix-supported clasts and discontinuous pebble layers common at the base. Deposits underlie gentle slopes and merge with alluvium in valley bottoms. Alluvium is moderate sorted and deposited in sets of planar beds of trough crossbeds which fill old channels and gullies, or alternatively as alluvial fans interbedded with colluvium. Underlies low slopes and some valley bottoms; generally continuous across broad areas. Thickness generally 0.5 to 1.5 m; locally may exceed 3 m. Soil development (including lamellae) mini and largely limited to accumulations of humate and local development of chromic B horizons.

Pensauken Formation (Pliocene? To upper Miocene?) – Sand, gravel, silt, clay, cobbles, and boulders. Orange to reddish-brown, angular to subrounded, coarse- to fine-grained, arkosic alluvium that includes quartz and chert, abundant weathered feldspar grains, and weathered, unstable heavy minerals and lithic fragments. Gravel, cobbles, and boulders include clasts of single crystalline and polycrystalline quartz, chert, gneiss, schist, quartzite, sandstone, and shale (Martino, 1981). Silt and clay are minor constituents, dominated by quartz and kaolin. Included 0.5- to 1.5 –m- thick sets of planar trough crossbeds, Planar beds, ripple trough crossbeds, and massive sand, gravel, silt, and clay. Assemblages of these bedding forms are commonly graded and arranged as fining upward sequences which record changing river dynamics and flood histories.

Cape May Formation, undivided (early Wisconsinan? to early Sangamonian) – Shown where not enough information was available to distinguish separate sequences within Cape May Formation. Shown in Delaware River valley and in Atlantic-Coast-facing deposits on sheet 1. Locally, barrier bars are distinguished by an overprint pattern. Unit appears in the subsurface on the cross sections (sheet 3). May also include fluvial deposits at Van Sciver Lake (Qvl) and fluvial deposits at Spring Lake (Qvl).

Unit 3 (early Sangamonian) Sand, clayey silt, pebble gravel, and peat; wide variety of oxidized colors including gray and brownish gray. Primarily consists of quartz-rich estuarine and fluvial deposits with variable amounts of heavy minerals and chert. Thickness is highly variable, ranging from 1 to 47 m; thicker deposits fill deep channels cut as much as 55 m below present sea level by paleorivers, including a proto- Delaware River channel described by Knebel and Circé (1988) and Knebel (1992). Channels formed when sea level dropped as much as 60 m below present sea level. Paleochannel shown in cross section C-C' on southern sheet has been informally known as the Rio Grande paleochannel (Gill, 1959, 1962a, b).

Eolian Deposits

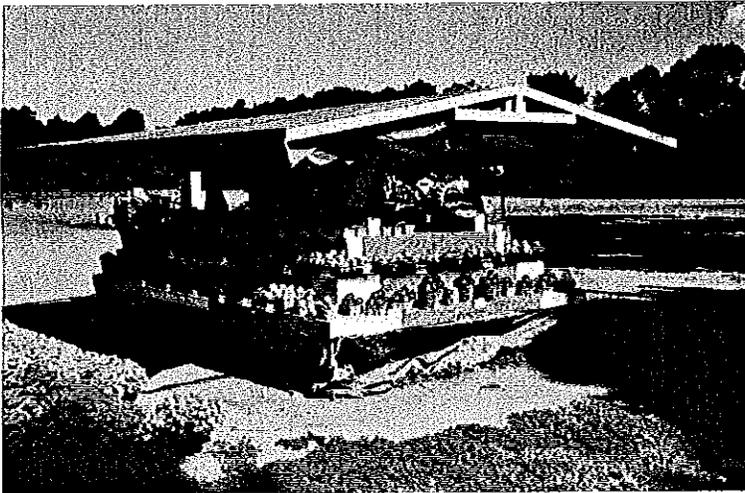
Dune field deposits (Holocene to Pleistocene) - Yellow, white, tan, and gray, coarse- to fine-grained sand and silt. Includes well-rounded, very well sorted, frosted grains of quartz and locally derived minerals, including glauconite and mica.

Eolian, Alluvial, and Slope Deposits

Alluvium (Holocene and Pleistocene, late Wisconsinan) Gravel, sand, silt, minor clay, and some organic material, deposited by modern streams. In flood plains of major rivers, alluvium commonly consists of poorly sorted gravel and sand at base, overlain by laminated and thinly bedded sand, silt, and clay; sand is moderately to poorly sorted. Thickness 1.8 to 9.1 m. Along smaller streams, alluvium is composed of sand and gravel derived from adjacent glacial, meltwater, colluvial, or weathered-rock materials; sand and gravel is poorly sorted; thickness generally is less than 4 m. Alluvium in Piedmont valley bottoms commonly includes swamp deposits too small to portray on map. In area of late Wisconsinan glacial deposits, alluvium locally includes and grades laterally into swamp and marsh deposits. In areas of older glacial deposits, colluvium, and weathered bedrock materials, alluvium locally grades into or intertongues with colluvium.

E. FARMLAND PRESERVATION

The value of preserving farmland has been recognized by citizens throughout New Jersey, particularly in communities with a long tradition of farming as the mainstay of economic activity. However, many non-farmers do not recognize that their desire to maintain and protect farmland falls on the shoulders of those who own the land. Each time a resident complains about the loss of farmland to a housing development or a shopping center, he or she may not fully understand the dynamics at work. Farming is a business and in order for farmers to make money, farming must have a strong economic base. Otherwise farming will yield to alternative land uses. Agricultural viability depends on the ability of a farmer to meet his financial obligations and to sustain him through an off-year. Though agriculture is a conspicuous use of land, much of the apparently open farmland in New Jersey is not owned by farmers. Speculators, those interested in the potential profits from development or sale of the land, hold the land. Farmers themselves may be speculators. In recent years the percentage of farms owned by non-resident individuals, groups or firms has increased significantly. Also, according to the 2002 Census of Agriculture, more than half of the farm operators in Gloucester County (7,511 of 14,754) have a primary occupation other than farming. This demonstrates the threat to agricultural viability in East Greenwich, because absentee property owners do not necessarily have a commitment to farming or to the community and additionally, resident farm operators are generating income from other sources.



To a certain extent the suburbanization of New Jersey adds to the locational advantages of farming in the Garden State. Suburban dwellers create a market for value-added farm products such as ornamental garden plants, vegetables, fruits, and soy products. However, the negative externalities of suburban sprawl are difficult to overcome. The cost of doing business for farmers is continually increasing: taxes, insurance, labor, utilities and raw materials. Additionally, escalating land values make it difficult for

farmers to resist the temptation to sell their land to developers. These factors cause a great deal of uncertainty for farmers and causes hesitation to plan for the future. A 1993 survey of farmers in New Jersey revealed that 35% of respondents would sell their land if offered a fair price.⁵ In the ten years since this study, the numbers are sure to have increased.

In order to meet the goals set forth below, the underlying assumption must be that the municipality wishes to preserve the farming industry in addition to the land itself.

The Farmland Preservation Element of the Master Plan must include the following:

1. an inventory of farm properties
2. a map of farm properties

⁵ Dr. Adesoji Adelaja, Director of Research for the New Jersey Agriculture Experiment Center, 1993.

3. a statement showing that municipal ordinances support agriculture
4. a plan for preserving as much land as possible by leveraging funds through a variety of mechanisms.

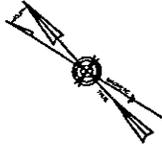
There are many farms in East Greenwich that are threatened by imminent conversion to residential uses, and the township would like to do everything in its power to minimize and eliminate the negative impacts of such conversion. Five farms have already been permanently preserved in East Greenwich, and four are in the "Eight year" program. Preservation of farmland generally involves the retirement of development rights, not the outright purchase of land. The price for the purchase of the development rights is the difference between the value of the land with a restriction for agricultural use and the value of the land without such a restriction.

Active Farms in East Greenwich are listed below. As stated in the goals and objectives of this master plan, one of East Greenwich's priorities is to maintain the rural character of the community and to encourage and support the preservation of farming as a viable economic pursuit and a means to maintaining the bucolic setting. The farmland properties listed in Agricultural Development Area 'A' are located in an area with prime agricultural soils, they are reasonably contiguous and they are the most desirable for preservation. All of the properties are located in the area designated as a high priority area on the Gloucester County Farmland Preservation Priorities Map.⁶ They are also located in Planning Area 4 (Rural) on the State Plan Policy Map. The properties on the list have been located on **map E 1**.



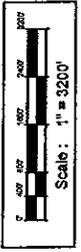
Vineyard on Tomlin Station Road

⁶ Farmland Preservation Priorities Map, Gloucester County Farmland Preservation, Open Space Protection and Recreational Needs Study, map 4-1.1 July 1997.



Legend

- Permanently Preserved Farmland
- Preserved Farmland By
- Preservation Project Area 'A'
- Active Farmland - Priority 'B'
- Active Farmland - Priority 'C'
- Highest Priority



Map prepared by:
 Ragan Design Group
 10/2005

**Table E1
PRESERVED FARMLAND January 2004**

Owner's Name	Address	Block/Lot	Acres	Longevity
Rose Gattuso (Estate of Amos Peaslee)	Cedar Road	1005/12	196	Permanent
Barbara Peaslee	Kings Highway	1005/9.08	8.8	8 year
Joseph & Samuel Leone	Wolfert Station Road	1202/10, 9, 8; 1203/1,6; 1004/30	118	Permanent
Joseph & Samuel Leone	Tomlin Station Road	101/2	76	Permanent
Joseph & Samuel Leone	Swedesboro Avenue	102/19	47	Permanent
Joseph & Samuel Leone	Jessup Mill Road	1304/9	35	Permanent
Grace & Richard S. Brown	Cedar Road	1207/12	85.7	8 year
Emma Jane Mascaro	Tomlin Station Road	105/3.01	7	8 year
Barry & Janice Jackson	Tomlin Station Road	105/3.03	6.2	8 year
Robert & Anna Stratton	County House Road	1401/7	40.5	Permanent
Robert Simon	Cohawkin Road	401/6	17.7	Permanent
TOTAL			637.2 acres	

Table E2
Farmland Preservation Priorities
"Project Area A"

Owner's Name	Address	Block/ Lot	Acres	Priority Rank
Timothy Powell	Cedar Road	1005/11	17.5	A
Eglington Cemetery	Cohawkin Road	1005/7.02	11.5	A
Grace A. Brown	Cedar Road	1207/12	85.7	A (in 8 year)
Lepcar Corp.	Cedar Road	1207/10	71	A
Lepcar Corp.	Cedar Road	1302/9	15.2	A
Owen & Gladys Pool	Union Road	1207/6 1204/2	70 ?	A
Doris Lail	Cedar Road	1207/7	12	A
Caltabiano	Union Road	1203/3	33.36	A
Thomas & Doris Lall	Cedar Road	1204/4	20	A
Doris Lall	Union Road	1301/1	49	A
Doris Lall	Union Road	1302/1	37	A
D. Bauman	Union Road	1204/5	17	A
Charles Mihlebach	Jessup Mill Road	1005/2.02	21.66	A
Charles Mihlebach	Cohawkin Road	1005/7 1401/2	19 43	A
Bertha Workman	Cohawkin Road	1301/2	22	A
Barbara Schaub	Cohawkin Road	1302/2	54	A
Barbara Schaub	Cohawkin Road	1303/5	20	A
Ann & Coyle Luska	County House Road	1401/5	41	A
Walter & Violet Workman	Pine Mill Road	1304/11	64	A
DeSimone Family Ltd Partnership	Jessup Mill Road	1304/7, 8	62	A
Arthur Dersch	Cedar Road	1305/2	13	A
Julia Rosenthal	Sesame Street	1401/5.01	23	A
Jeffery Walsh	Jessup Mill Road	1403/	21.2	A
TOTAL			843.36 acres	

**Table E3
Other Active Farmland**

Owners Name	Address	Block/Lot	Acres	Priority
Wilda & John Seymour	Tomlin Station Road	101/3		B
Daniel Simone	W. Wolfert Station Road	101/5		B
Harold & Patricia Heritage	Wolfert Station Road	101/6	27.87	B
Irving & Frances Deringer	Tomlin Station Road	101/10	12.25	B
Robert & Mary Provencher	Tomlin Station Road	101/11	20.9	B
Robert & Cynthia Newcomb	Tomlin Station Road	102/2		B
Stephen Rioux & Elizabeth Rode	Tomlin Station Road	102/3	65	B
Geraldine Bresler	Wolfert Station Road	102/7	18.8	B
Matthew Chamberlain	N. Wolfert Station Road	102/8	23	B
Mark & Jennifer Dormann	N. Wolfert Station Road	102/9	14	B
Linda Vandergrift	N. Wolfert Station Road	102/11	14	B
Elizabeth & Chris Kugler	N. Wolfert Station Road	102/16	26	B
Jean & Joseph Davis	North Wolfert Station Road	102/20		B
John & Verna Caccavale	W. Tomlin Station Road	104/2	47.21	B
Doris W. Budens	Tomlin Station Road	104/4	16.4	B
Richard & Kathy Hamilton	Wolfert Station Road	105/13	61	B
Noreen Lanza	Wolfert Station Road	1001/1	17	B
Noreen & Gregory Lanza	Kings Highway	1001/2	64.47	B
Pasquala Liciardello	W. Tomlin Station Road	1101/1	21	B

Elinor & Ernest Beier	Kings Highway	1101/4	57.35	B
Michael P. Stetto	Kings Highway	1101/5		B
John & Jean Reistle	Rattling Run Road	1103/2.01	12.5	B
Mike & Rosario Sorbello	Kings Highway	1105/13	24	B
Robert C. Urban	Rattling Run Road	1106/6	17.63	B
Ernest Beier, Jr.	Rattling Run Road	1107/14, 15, 16	42.27	B
Philip DiPietro	E. Tomlin Station Road	1107/4	58	B
Lydia Carpenito	E. Rattling Run Road	1107/6	22	B
Philip DePietro	E. Tomlin Station Road	1107/18	15	B
Ernest Beier, Jr	Tomlin Station Road	1107/17		B
John J. Casella	Union Road	1202/2	31	B
Henry Westerman	Union Road	1202/4	52.17	Pending Preservation
John Maccherone	Union Road	1205/1	63	B
Alfred Tomarchio	Wolfert Station Road	1208/2	46	B
Helen & William Stefka	Tomlin Station Road	101/1	27.5	C
Elizabeth & Chris Kugler	N. Wolfert Station Road	102/16	26	C
Gloria Fastife	N. Wolfert Station Road	102/17	21	C
Elizabeth & Chris Kugler	N. Wolfert Station Road	103/2	24	C
Christopher & Kim Dormann	N. Wolfert Station Road	103/6	21	C
Geraldine J. Bresler	N. Wolfert Station Road	103/7	29	C
Carl & Jean Gruber	Quaker Road	103/12	38.1	C
ZVS Associates	Democrat Road	103/13.01	30.62	C
James R. Morris Jr	Democrat Road	103/16	70.41	C
Hargreen Associates	Democrat Road	103/19	83	C

Joel Gershman	Democrat Road	103/20	50	C
Hargeen Associates	Democrat Road	103/21	64	C
The Gray Fox Farm, Inc.	W. Wolfert Station Road	107/3	33.96	C
Media Realty Co.	Swedesboro Avenue	201/1	17.5	C
Media Realty Co.	Swedesboro Avenue	201/1.02	19.84	C
Manchester Machine & Salvage Inc.	Democrat Road	201/2	56.86	C
Carl & Lorraine Minnitti	Democrat Road	201/5	35.81	C
ZVS Associates	Harmony Road	201/15	40	C
K & M Realty Holdings	Harmony Road	204/13	50	C
Wallace Miller	Friendship Road	204/19	17.3	C
Howard I Huff	Friendship Road	204/19.02	10	C
Delores Derr, Et Al	Timberlane Road	204/25	98	C
Consulato Putorti	Route 295	204/34	24	C
Nancy Musser Mondelli	Timberlane Road	205/4	17	C
Samuel Heister	Timberlane Road	205/5	13	C
Keith & Pricilla Reed	Timberlane Road	205/8.05		C
Evelyn & Thomas Haddock	Cohawkin Road	205/12	19	C
James & Anna May Clanton	W. Cohawkin Road	205/13	39	C
George Wollman	Maple Avenue	205/15	20	C
James & Janice Vellutato	Harmony Road	206/3	12	C
William & Marcia Doermann	Harmony Road	206/6	13	C
Harold & Delores Shute	Friendship Road	206/10	72.6	C
Charles & Patricia Platt	Cohawkin Road	206/11	17.5	C

Tindall Home	Cohawkin Road	206/14	27	C
Tindall Homes	Cohawkin Road	206/20	39.61	C
Edward Mullison	Cohawkin Road	401/2	10	C
Charles & Patricia Platt	Cohawkin Road	401/14	15	C
George Haines	Wiskey Mill Road	401/24	22.36	C
George Haines	Whiskey Mill Road	402/1	29	C
Robert & Dorothy Hughes	Whiskey Mill Road	402/4	10	C
Amos Peaslee, Jr.	Kings Highway	1003/1	42	C
Michael Smith	Mantua Road	1402/2	26	C
Lucy Cristado	Mantua-Paulsboro Road	1403/14 and 8.01	7	C

The Township Committee and the Planning Board would like to encourage the preservation of farmland in all parts of the Township, but would like to focus specifically on those farms that are located outside the existing sewer service area in the eastern portion of the Township. The zoning designation of the area that comprises the proposed Agricultural Development Area is Rural Residential (RR) and permits agricultural uses (and customary accessory uses), and single family homes on lots of at least two (2) acres. The zone also permits clustering on one acre lots while maintaining an overall density of no more than one unit per two acres with the remaining acreage in open space.

Right to Farm and Supportive Municipal Ordinances

New Jersey's Right to Farm Act was adopted in 1983 and strengthened in 1998 to address the issue of compatibility between suburbs and agriculture. The Act validates generally acceptable agricultural practices by providing the presumption that they will not constitute a private or public nuisance or otherwise be deemed to invade or interfere with the use of nearby land or property, unless there is a threat to public health or safety. The Act provides for dispute resolution procedures involving County Agriculture Development Boards and appeals to the State Agriculture Development Committee. The Act also provides farmers with relief from local ordinances that interfere with on-site production, processing and packaging of agricultural products. This provision is critical for those farmers wishing to "add value" to their products with on site processing or sales. To benefit from the Act, the farm must be in compliance with all federal and state laws and best management practices as recommended by the SADC. The farm must also be located in a zone where agriculture is a permitted use.

The East Greenwich Land Development Ordinance also contains Right-to Farm provisions. The ordinance contains definitions for accessory farm uses, farm buildings and principal farm uses. Section 16.58.040 of the Land Development Ordinance recognizes the right to farm on all land within the Township in all zones. The right to farm includes the right to use all farming equipment

for the purpose of producing agricultural products from the land such as vegetables, grains, hay, fruits, fibers, wood, trees, plants, shrubs, flowers and seeds. The right to farm will also include the use of land for grazing by animals. Farming is permitted all times and the noise odors, dust and fumes caused by farm uses are specifically permitted as part of the exercise of the right to farm when reasonable and necessary for that particular farming, livestock or fowl production process and when conducted in conformance with generally acceptable agricultural practices. Farms are subject to health and sanitary codes. Industrial uses that will produce discharges determined to be detrimental to farming operations and that will adversely affect the environment will not be permitted. Section 16.28.040 has required that any residential development that will abut an active farm use must provide a minimum buffer of fifty (50) feet or a combination of a six foot high opaque fence and a twenty-five (25) foot wide landscaped area. This master plan proposes to increase the required buffer to 100 feet or 50 feet with an opaque fence six feet in height. The purpose of the provision is to minimize the potential for conflicts between the uses and to protect farmers from nuisance complaints.

Building permits are required for the construction of any building within the Township. The Agricultural Advisory Committee may wish to recommend that reduced rates be made available for permits relating to agricultural structures.

Types of Restrictions on Preserved Farmland

Short Term

There are two types of "eight year" preservation programs that provide cost share dollars for improving the farm property. In the State Eight-Year program, the landowner commits the property to agriculture for a period of eight years. The Farmland Preservation Program will cost share with the applicant up to a maximum dollar amount decided based on the total acreage of the property. At the end of the eight years, the landowner may extend the program for another eight years and receive whatever distribution of funds is available. The municipal eight-year program is similar, but the program must be approved by the local governing body, by ordinance because the land is protected from being taken by eminent domain and the farmer is protected from water and energy shortages while enrolled.

Permanent

The permanent preservation program is forever. The rights to develop the land are purchased from the property owner, and the restriction runs with the land. Development rights are valued through an appraisal process where the market value and the deed restricted value are assessed. The per-acre price is based on the land without any improvements (house, barn, etc). The farmer may continue to farm or sell the land to another farmer.

Grants and Other Funding for Farmland Preservation

Gloucester County Office of Land Preservation

Gloucester County has been active in Farmland Preservation since 1993. In 2003, the County Farmland and Open Space Preservation Fund raised over \$3 million dollars. Though the funds are substantial, there are many more farms available than can be purchased by the County each year. The County has also passed bond acts to supplement the funds collected from the property tax. In 2002 the Gloucester County Board of Chosen Freeholders approved a \$10 million dollar bond in order to purchase the development rights to farms in the program waiting for state funding. This allowed the County to make timely settlements on farms, with subsequent state funding used to

pay off the bonds. This proactive approach has allowed the preservation of 2000 acres in 2003. Despite the significant preservation activity, farmland in East Greenwich remains threatened. By focusing municipal efforts on farmland preservation, it is the Township's hope that farm owners in East Greenwich will be informed about the opportunities for preservation and that many will be inclined to participate in one of the preservation programs.

Garden State Preservation Trust

The Garden State Preservation Trust is a state sponsored program that provides a stable source of funding for farmland preservation. The goal of the Trust is to preserve one million acres of open space in New Jersey between 2000 and 2010, 500,000 of which is to be farmland. In addition to the previously established County Easement Purchase Program, municipalities are eligible to participate in the Planning Incentive Grant "PIG" program. The objective of the "PIG" program is to preserve significant areas of reasonably contiguous farmland that will promote the long-term viability of agriculture. There are a number of steps that a municipality must take to lay the foundation that will make the Town eligible to participate in the program.

One of the purposes of the program is to focus on target areas, consisting of multiple farms within an agricultural development area (ADA), which are reasonably contiguous. The Township must establish an Agricultural Advisory Committee, which should report to the planning board. The majority of the three to five member committee must be actively engaged in farming and own some farmland. The town must also have a dedicated funding source for farmland preservation.

Municipal Funding

In accordance with Chapter 12.12 of the East Greenwich Ordinances, an annual levy of one cent per one hundred dollars of assessed valuation per year is collected for the municipal open space, recreation, farmland and historic preservation trust fund. The funds may be used for acquisition, preservation, required maintenance and debt service. In November 2003 a ballot referendum was held and the voters approved an increase of the annual levy from one cent per one hundred dollars of valuation to three cents per one hundred dollars of valuation (2 cent increase). This increase will assist in the Townships preservation goals.

Conclusion

Once the Township has the Farmland Preservation Element and an Agricultural Advisory Committee in place, the Township will work with the landowners in the designated project area to develop an application to the State Agricultural Development Committee. The municipality will provide support to any farm owner wishing to make application to the Farmland Preservation Program and will specifically encourage the preservation of those farms located within the proposed Agricultural Development Area 'A'. East Greenwich would like to pursue the implementation of a Transfer of Development Rights program and ordinance. Legislation giving New Jersey municipalities the authority to develop TDR programs has recently been approved by the legislature. A TDR program will assist in the preservation of farmland by making development rights available on the open market, thus leveraging additional funding opportunities.

F. Housing and Population

The Housing and Population plan element reviews the spectrum of housing needs and current population trends in the Township. The zoning scheme in East Greenwich includes eight (8) residential districts that include a senior citizen residential zone, and four (4) non-residential districts. This variety of districts provides a comprehensive response to the housing needs of the community. The Housing and Population element advances the following goals and objectives:

Goal: Preserve and enhance existing neighborhoods through rehabilitation of any substandard housing unit and by encouraging appropriate infill development where permitted by zoning. Rehabilitation includes both major and minor housing repairs.

Objective 1:

Continue to design and implement zoning that promotes a diversity of housing types and responds to an array of social, cultural and economic market demands.

- Continue to provide East Greenwich's regional fair share of affordable housing for low and moderate-income families in keeping with our COAH/court approval.
- Provide more housing opportunities for senior citizens.
- Establish criteria for residential redevelopment within existing neighborhoods.

Objective 2:

Maintain proper planning and development techniques to ensure compatibility and appropriate densities with existing land uses.

- Ensure that new housing development does not negatively affect the existing natural environment and is consistent with and enhances the character of existing land use patterns.
- Balance housing needs with other land use goals and policies as defined in the master plan.
- Continue strict enforcement of development standards for residential construction throughout East Greenwich Township

Housing

The Township's Housing Plan, through its land use policies, has provided opportunities to accommodate present and future housing demands. Currently, the East Greenwich Planning Board is entertaining several new housing proposals. Should all of these projects be completed, the total housing stock in East Greenwich Township would increase steadily within the next six to ten years. It is important to analyze existing land use patterns in order to assure that the appropriate mix of housing opportunities are being provided to meet the needs of the community.

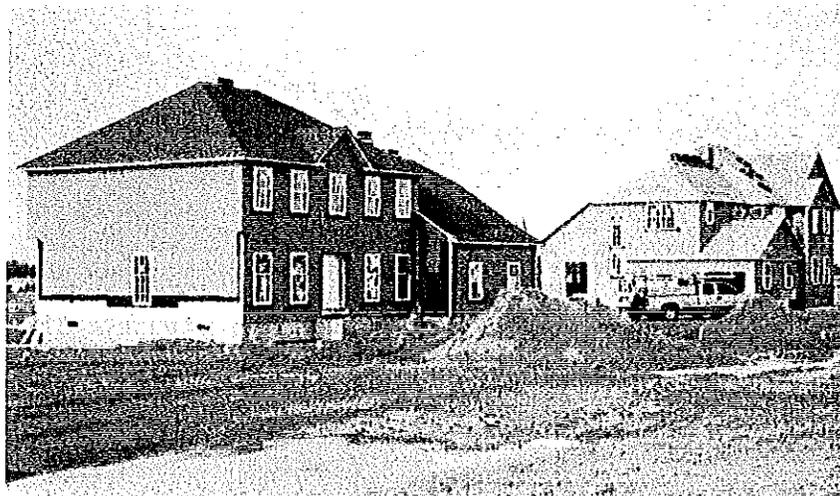
Exurban Phenomenon

As defined, exurbanism is an increased emigration from urban and suburban areas. Land consumption increases and the lines between suburban and rural become increasingly blurred. A new type of development that is neither fully suburban nor fully rural emerges, sometimes referred to as the “exurbs”.

Exurbia or the “exurbs” are a type of spatial pattern of settlement that differs from their suburban counterparts. Exurbs are located at greater distances from urban centers than suburban developments and are comprised of a different mix of land uses and population. Active farms are interspersed with different ages and types of low-density residential development including new housing subdivisions and exclusive estate housing. In addition, exurbia contains small, rural towns as well as newer edge-of-town retail, commercial, and industrial development. Exurbs are areas that are in transition from their traditional rural setting to something more urban. They are often transformed into suburbs within a 20-30 year period.

According to the 2000 census, the number of housing units in East Greenwich totaled 1,971. As of January 1, 2004 the number of housing units either constructed or approved to be built totaled 2,220, an 11% increase since the time of the 2000 census. The 1990 Census found that there were 1,750 dwelling units in East Greenwich, which equates to a 21% increase in housing starts since 1990 (Table-1). Over the past three years East Greenwich has been averaging 74 housing starts per year.

The largest gains in housing construction in East Greenwich have occurred within the past two decades. Between 1980 and 2000, the number of housing starts increased by 33%. With the addition of the recent 11% increase since the 2000 census, it is clear that East Greenwich is evolving from a rural farming community to an exurban type municipality.



Braemoor Development

The majority of the housing is owner occupied (89%) and the vacancy rate in the township stands at 3.6% (Table 1). As of the 2000 census, East Greenwich had a relatively low housing density of .23 dwelling units per acre. The housing stock in the Township remains in very good condition. Of 2,220 dwelling units, only 6 units lack complete plumbing facilities and all homes are reported to have acceptable, normal source heating systems. During the past decade, the total number of persons per household in East Greenwich has remained consistent at 2.8 persons. This figure is reflective of the current U.S. average of 2.7 persons per household.

GENERAL HOUSING TRENDS

EAST GREENWICH TOWNSHIP

(Table 1)

Number of Housing Units			
2000	2004	Net Change	Percent Change
1,971	2,220	+249	12.6%

Unit Breakdown:	
Owner Units	1,722
Renter Units	179
Vacant	70
Total Units	1,971

Source: 2000 US Census Report and New Jersey Dept. of Labor

Owner-Occupied Housing

The value of owner occupied housing is determined by the median value of this type of housing. The median value of owner occupied housing in East Greenwich Township according to the 2000 census was \$155,000. The highest percentage value of owner occupied units in the Township fell within the \$150,000 to \$199,999 range (38.4%). Given the number of recent housing starts and the type of product being constructed (i.e. four bedroom, 2½ baths) it is anticipated that the majority of new housing will exceed both the monetary value and the persons per household depicted in the 2000 census.

Rentals

The manner in which value is attributed to rental housing depends upon the tenure of the dwelling unit. The value attached to a rented dwelling unit can be gauged by the contract rent paid by the occupant. According to the 2000 census, the median contract rent in East Greenwich was \$392 per month. The highest percentage value of rental units in the Township fell within the \$500 to \$749 range (36.3%).

Housing Projections

When projecting new housing starts, several factors must be taken into consideration, some of which are beyond the control of the Township. These include the general economy, the vitality of the housing market (interest rates, consumer confidence, etc.), and the ability of developers to

secure financing. Given the amount of available land for housing should East Greenwich continue under current zoning, the number of housing starts over the next six to ten years will be significant.

One method used to prepare projections is to take the average over an earlier period and project that average forward. Between 1990 and 2003, 601 permits were issued for the construction of new privately owned residential housing units. This is an average of 46 units per year. A second method of projecting housing starts is to evaluate how the housing market has been performing in recent years. Beginning in 2001 and ending in 2003, 222 permits were issued for the construction of new privately owned residential housing units. The average for this period is 74 dwelling units per year, which equals between 444 and 740 additional units over the next six to ten year period.

Although equally valid, both projections fail to take into consideration the amount of developable land available in East Greenwich for residential housing and the number of housing developments that either have been approved or are pending before the planning board. As presented in the Land Use Element, the total amount of private vacant land is slightly over 4,000 acres or approximately 44% of the community. As of January of this year approximately 1,545 housing units have either been approved, are under construction or are currently pending before the planning board. Upon completion, this represents a 70% increase in housing in East Greenwich Township!

Assuming the robust housing market continues, an average of 230 dwelling units per year could be constructed over the next six to ten years. This is a significant increase in average housing starts compared to the previous period. Should the housing market depress, then the expectation would be adjusted and an average similar to the past may be expected. Given the housing shortage both nationally and locally, we anticipate that the housing market will continue to expand.

Demographic Characteristics

As of the 2000 census, 63.19% of East Greenwich residents (16 years and over) were in the labor force with an unemployment rate of 1.9%. East Greenwich households average 3 persons and a median household income of \$65,701. The median family income is \$74,455 with per capita income of \$25,345. 20.2% of East Greenwich families made less than \$35,000 per year and 33% of the families made less than \$50,000 per year and conversely, 67% made over \$50,000 per year. With an average of 3 persons per household, and 57.7% of the population between the ages of 20 and 64, the data suggests that over half of the families in East Greenwich Township are of income earning age and are with children.

Impact of Jobs to Housing

The concept of jobs-housing balance can be defined as an equal supply of housing and employment opportunities within an identified geographic area. Balancing job and housing opportunities implies that each person working in a "balanced" area would be able to live in that area and, likewise, each person living in the "balanced" area would be able to work there.

The jobs-housing balance is most often expressed in terms of a ratio. Given one worker per dwelling unit, a ratio of one job to one dwelling unit would employ balance. The jobs-housing balance can also be figured as an "employment-population" ratio, indicating the amount of employment relative to the number of employed residents. Typically, one sees a "jobs-housing" balance ratio of 1.4 to 1.6 jobs per household. East Greenwich has a "jobs-housing" ratio of 1.05

indicating that the number of jobs per household in East Greenwich lags behind the national average. However, jobs-housing balances are complicated to determine because there is no one-way to measure and define them.

A “balanced” community is generally thought of as a self-contained and self-reliant in which people live, work, shop, and recreate. The reason for creating or maintaining a jobs-housing balance is to increase choices and opportunities for workers to live closer to their workplaces and companies to locate closer to their workers. If people live near where they work, they will commute fewer miles and produce less traffic and pollution. Therefore, to conserve time and energy, it is recommended that the time traveling to and from work be minimized and employees be given the opportunity to live as close as possible to where they work.

The goals that jobs-housing balances are intended to achieve include:

- A high percentage of people who both live and work in the community (or at least some desired measure of housing and job opportunities).
- A reduction in commuting times.
- Reduction in vehicle miles traveled.
- A shift to alternative transportation modes.

The perceived and/or actual benefits of balancing jobs and housing include:

- Decreased commuting times, reductions in vehicle miles traveled, road expansion and maintenance costs and devotion to land transportation facilities.
- Improved air quality.
- More lifestyle options and choices in terms of living where one works, more free time for family or other activities.
- Enhancement of community character, identity, and citizen participation.
- Diversification of economic development potential within communities, a more accessible employee base, greater attraction for new businesses and likelihood for existing businesses to stay.
- A tax base bolstered by wages being spent in the same community.

“Balance” is a relative term because it can be based on a variety of measurements or desired outcomes. Balance for planning purposes is as much *qualitative* as it is *quantitative*. While jobs-housing balances are most commonly expressed as ratios detailing how many jobs are available for each worker, these expressions measure only the quantitative relationships in a community. However, the desired balance is more complex than simple parity between the number of jobs and the number of homes. As a planning tool, “balance” is devoid of meaning unless it takes account of the wages paid by the available jobs and the prevailing house price or bid rent commanded by the available housing.

Beyond the basic comparison of housing to jobs and employment to population, there are also qualitative factors that should be considered in achieving “balance” in an area. The quality and price of housing should match workers’ earnings and skill levels, while earning potential of incoming jobs should also match residents’ mix of skills and income requirements. Therefore, another way jobs-housing balance is achieved is through the job prospects in an area matching the quality and quantity of housing opportunities.

For a true balance to exist, available housing needs to be priced commensurate with area wages. No matter how many units of luxury homes are built around a new employment center, such new housing is of little benefit to clerical or service sector workers.

Job-housing ratios indicate only the *potential* for people to live and work in the same community. The degree to which that potential is realized is reflected by the number of jobs actually filled by residents, and conversely the share of workers finding a place to live in a community. However, several factors other than proximity to work influence the decision on where to live.

Commuting patterns in East Greenwich Township are related to an individual's job and income, marital status and length of employment. Variables such as two-worker households, choice of schools or day care and specific values and priorities (people who would rather commute to a job and live elsewhere so they can afford a larger house or be in a particular community or school district) also influence people's decisions. Additionally a jobs-housing balance is dependent on cooperation between governments because external activities in adjacent municipalities or counties could blunt potential benefits.

Population

The State of New Jersey experienced a population increase beginning in the 1950's. The state's population grew 48% between 1950 and 1970. Since the 1970's, the rate of population growth of the state has slowed. New Jersey's total population still ranked ninth among the nation's 50 states as of 2001. With 1,136 persons per square mile, New Jersey's distinctive status as the nation's most densely populated state remains unchallenged. Between 1990 and 2000, the state grew 8.9%, while Gloucester County's population grew 10.7%. As presented in Table F2, as of April 2000 Gloucester County was home to three percent of the state's population. The accelerated growth suggests that Gloucester County is quickly evolving from an industrial and rural farming county to an exurban/suburban county.

GLOUCESTER COUNTY'S SHARE OF STATE POPULATION
(Table F2)

Year	State Population	County Population	Percent of State
2000	8,414,350	254,673	3.0
1990	7,800,188	230,082	2.9

SOURCE: U.S. Census 1990 and 2000

GLOUCESTER COUNTY CHANGE IN POPULATION

Population		Population Change	
2000	1990	Number	Percent
254,673	230,082	24,591	+10.7%

SOURCE: U.S. Census

Among municipalities in Gloucester County, East Greenwich ranked fourteenth of twenty-four in population in 2000 with 5,430 persons. East Greenwich ranked twelfth in rate of population growth (3.3%) from 1990 to 2000. The fastest growing community according to the 2000 census was Woolwich Township with a growth rate of 107 percent. Ten municipalities lost population over the last decade. With an area of 14.9 square miles, the population density of the township stands at 364 persons per square mile. By comparison, the most densely populated municipality is National Park Borough with a density of 3,205 persons per square mile. The least populated municipality is South Harrison with a population density of 153 persons per square mile.



Country Walk

General Population Trends, East Greenwich Township
(Table F3)

Population		Population Change	
2000	1990	Number	Percent
5,430	5,258	172	+3.3%

SOURCE: U.S. Census

The age distribution of the township indicates that the majority (57.9%) of the population falls between the ages of 18 and 64. This data also indicates a modest population of residents 65 years of age and older (Table F4). As of the median age of an East Greenwich resident was 40.7 years.

East Greenwich Township Age Distribution
(Table F4)

Age	Number	Percent
Under 5	311	5.7 %
5-19	1,170	21.5 %
20-64	3,138	57.9 %
65+	<u>811</u>	<u>14.9 %</u>
Total	5,430	100%

Median age: 40.7 years

SOURCE: U.S. Census

Conclusion

As of July 1, 2002 the Census Department estimated that the population of East Greenwich Township reached 5,691. As of January 1, 2004 the number of housing units either existing or permitted totaled 2,220. With the number of housing units currently being considered before the planning board, the municipality can expect an annual increase in its population of approximately 5% to 8% over the next six to ten years. This is based on comparing census data from the last decade and projecting development in and around East Greenwich. Based on the analysis of population trends and current market and development trends East Greenwich will continue to experience an increase in both housing starts and population. The total number of housing units that is forecasted based on current zoning is in the range of 5,000 units. The ultimate population forecast of East Greenwich Township assuming maximum build-out in accordance with current zoning and conditions is in the range of 15,000 persons. Based on new zoning proposals as defined in the Master Plan, the total number of housing units projected at complete build-out is in the range of 4,000 units. The population projected under the new plan is in the range of 12,000 persons. Following is the complete Housing and Fair Share Plan.

Housing Element and Fair Share Plan
Submitted for Certification December 2003

I. Introduction

East Greenwich Township is located in the heart of Gloucester County, and is primarily an agricultural community. Of East Greenwich's 9,641 acres, 46% are Agriculture, 22% are developed, 19% are designated as Green Acres and wetlands and 13% are forest. The Township's population is 5,430 persons, and the density is 364 persons per square mile.

On October 2, 1991, the Council on Affordable Housing (COAH) granted Substantive Certification to an affordable housing plan designed to meet the Township's first round allocation.

In 1994, COAH adopted regulations for the second housing cycle. COAH assigned the Township a "cumulative" fair share for the first and second housing cycles of 276 units. Prior to the expiration of six year period of protection from builder's remedy suits created by this Certification, East Greenwich and its Planning Board adopted and filed a new housing element to address the 276 unit cumulative fair share.

Before COAH could review and approve the new cumulative plan, Hayley Run Limited Partnership, CBD Development Corporation and Joseph and Dorothy Palladino filed a builder's remedy lawsuit. Thereafter, a prolonged battle ensued over whether COAH had jurisdiction over the Township's affordable housing plan or whether the Court had jurisdiction over the builder's remedy complaint. Notwithstanding that an Administrative Law Judge, after a trial, ruled that COAH had jurisdiction, a trial judge ultimately ruled that COAH did not have jurisdiction and that the builder's remedy claim should proceed in Court. Before the Appellate Division could rule on the appeal to that decision, the parties settled their lawsuit in 2002 clearing the way for the Township to secure approval of its plan. In addition to approving various components of the plan, the settlement contemplated that East Greenwich would enjoy six years of protection from the time the Court reviewed and approved that plan.

The Township has submitted the affordable plan it had previously adopted and submitted to COAH to the Court appointed Master for his review and evaluation. The master has reviewed that plan and provided his input. In addition, the Township has re-examined all the components of the plan; and considered the "best" ways to provide affordable housing. As a result of those efforts, the Township has revised its plan to the form set forth herein.

This plan not only satisfies all the requirements of applicable COAH regulations, but also updates, with 2000 Census information, all the various statistical and demographic information required for a housing plan element. This plan also reflects the diligent effort of the Township to work with various developers to and her citizens to resolve potential conflicts and develop the most satisfactory plan for the community. East Greenwich Township, the Governing Body, the Planning Board are pleased to submit this plan for the court's review and approval.

II. Pre-credited Need

East Greenwich Township's housing need calculation, based on COAH's current guidelines is as follows:

Indigenous Need	27 units
Reallocation Present Need	34 units
Prospective Need	+175 units
Total Need (1993-1999)	235 units
Total Need (1993 – 1999)	235 units
Prior Cycle Prospective Need	+ 35 units
Total Need	288 units
Credits:	
Demolition	0 units
Filter Credits	7 units
<i>on</i>	3 units
Rehabilitation	+ 2 units
Total Credits	12 units
Total Need	288 units
Credits	- 12 units
PRE-CREDITED NEED:	276 units
Pre Credited Need	276 units
Indigenous Need (rehab.)	-25 units
Inclusionary Requirement (new construction)	251 units

Source: Council on Affordable Housing

The plan that follows addresses both the 25unit rehabilitation component, as well as the 251unit new construction component.

III. HOUSING ELEMENT

A. Inventory of Housing Stock

1. Age of Housing Stock

East Greenwich Housing Stock (By Age) (Exhibit #2)

<i>Year</i>	Homes	Percentage
Pre 1940	434	22%
1940-1959	227	11.5%
1960-1969	248	12.6%
1970-1979	330	16.7%
1980-1989	380	19.3%
1990-2000 ⁽³⁾	352	17.9%
Total:	1,971	100%

Sources: U.S. Census 2000
East Greenwich Construction Office

2. Condition

The housing stock is in generally good condition. There are only 6 units that lack plumbing facilities. All homes are heated by acceptable, normal sources. The median number of rooms per dwelling unit is 6.7 rooms. Forty-five (45) homes consist of only three rooms, and one hundred eighty-eight (188), consist of four rooms. Only one percent, (19 units) has occupancy of one person or more per room.

3. Purchase/Rental Values

Owner-Occupied

As noted in the 2000 census (Exhibit #3), the value for the majority of owner-occupied homes is between \$100,000 to \$200,000 range. The median value of all housing in East Greenwich in 2000 is \$155,000.

Financial Characteristics of Housing Units

(Owner-Occupied Housing Units - Exhibit #3)

Price Range	# of Units	Percentage
Less than \$50,000	6	0.4
\$ 50,000 to \$ 99,999	175	10.9
\$100,000 to \$149,999	532	33.1
\$150,000 to \$199,999	617	38.4
\$200,000 to \$299,999	236	14.6
\$300,000 to \$499,999	41	2.6
TOTAL:	1,607	100

Sources: U.S. Census Report 2000
East Greenwich Tax Assessor

The sampling of housing expenses as a percentage of income provides an illustration of the cost of shelter in East Greenwich for selected owner-occupied units in 2000. Approximately 80% of those who own their homes in East Greenwich pay no more than an "affordable share" of their income for housing expenses. The definition of "affordable" in this context is consistent with that of COAH; namely, affordability is limited to 30% of household income for specified expenses. (Exhibit #4).

**Ownership Housing Expenses as Percentage of Income
Selected Owner-Occupied Units, 1989
Exhibit #4**

Housing Expenses Percent of Income	Household Income, 2000	
	Totals	Percent
Under 25%	1094	68.1
25 - 29.9%	145	9
30 - 34.9%	118	7.3
35 or more	217	13.5
Not computed	33	2.1
TOTAL	1607	100

Source: US Census 2000

Rentals

The monthly rental cost for apartments in the Township is generally affordable, with rents ranging from as low as \$300 to \$999 per month. The mean of all rentals in Gloucester County is \$645, with 21.9 percent rentals between \$750 and \$999 and 7.0 percent between \$1000 and 1499 and 1.4 % over \$1500 (U.S Census). As of 2000, there were only 163 units available in East Greenwich for rent. The sampling of housing expenses as a percentage of income provides an illustration of the cost of rental shelter for selected rental units.

Gross Rent as A Percentage of Household Income Selected Renter-Occupied Units, 1999 (Exhibit #5)

Gross Rent As A Percentage Of Household Income in 1999		
Less than 15.0 percent	14	8.3
15.0 to 19.9 percent	46	27.4
20.0 to 24.9 percent	40	23.8
25.0 to 29.9 percent	14	8.3
30.0 to 34.9 percent	21	12.5
35.0 percent or more	28	16.7
Not computed	5	3.0
TOTAL	168	100

Source: US Census 2000

4. *Occupancy Characteristic and Types*

The unit type of choice is single-family detached housing. Over 88.7% of East Greenwich's 1,971 housing units are owner-occupied single-family detached. This compares to 72.8% in Gloucester County. Two percent are single family attached; four percent are two unit structures; two and two-tenths percent are three and four unit structures; one and one-tenth percent are ten to nineteen units; one percent is a building of more than fifteen units and lastly one and two-tenths percent are mobile homes.

5. *Substandard Housing/Rehabilitation*

The total rehabilitation component of the plan is 27 units as identified in the COAH analysis. The township has completed the rehabilitation of eleven units, leaving a remaining rehab component of 16 units.

B. *Projection of the Municipality's Housing Stock*

It is evident from the description of East Greenwich's housing stock that growth in single-family detached housing occurred consistently from the 50's until today. The township has experienced a

recent increase in single-family development primarily due to the construction of single-family subdivisions.

However, as a result of measures the Township has taken to keep zoning in place that permits multifamily housing, it is anticipated that considerable affordable housing will be produced either directly or through the funding of regional contribution agreements. More specifically, the East Greenwich Master Plan (in the R10 zone) has included developments for inclusionary affordable housing.

The first subdivision, Weathervane, has been constructed of single-family houses on small lots and opted to send their COAH obligation (50) to Gloucester City through a Regional Contribution Agreement. A second approved development, south, proposes forty-six (46) single-family units and One-hundred-thirty (130) townhouses, again sending their affordable units (27) to another community.

Atlantic Five subdivision is in the approval process and proposes one-hundred-sixty-one (161) single family, one-hundred-seventy-four (174) townhouses, and sixty (60) condominiums. The sixty condominiums will be affordable family rental units. Since these units are rental they cannot be easily integrated into for sale units. A waiver is requested of this requirement.

Outside the R-10 zone are GDP approvals for Stoneville, thirty-one (31) single-family units. Kings Gate East & West one-hundred-sixty-two (162), single-family units. Further, the Hargreen property Block 103, Lots 9, 17 and 18 is under contract to the Pulte Builders Group which proposes 224 single family units, as well as other single family developers on the verge of submitting. There are other developers proposing senior housing.

C. Municipality's Demographic Characteristics

The total population of East Greenwich is 5,430 persons with 47.7% male (2591) and 52.3% female (2839). The under 19-year old age group constitutes 21.5% (1481) and the over 65 year old group is 14.9% (811). Further the 55-65 year old group is 10.2% (554). Therefore, there appears to be a substantial demand for senior housing within the community. Over the course of the next ten years as the seniors mature and baby boomers begin to reach retirement age, demand for senior living options will grow and existing owner-occupied housing will enter the real estate market. This cycle will continue to bring new families into the Township.

**Demographics
East Greenwich Township
Exhibit 6**

Educational Attainment of the Population

Subject	Number	Percent
EDUCATION ATTAINMENT		
Population 25 years and over	3,661	100.0
Less than 9th grade	133	3.6
9th to 12th grade, no diploma	303	8.2
High school graduate (included equivalency)	1,420	38.8
Some college, no degree	626	17.1
Associates degree	306	8.4
Bachelor's degree	616	16.8
Graduate or professional degree	258	7.0
Percent high school graduate or higher	88.1	(x)
Percent bachelor's degree or higher	23.9	(x)
B. SCHOOL ENROLLMENT		
Population 3 years and over enrolled in school	1,529	100.0
Nursery school, preschool	77	5.0
Kindergarten	67	4.4
Elementary school (grades 1-8)	743	48.6
High school (grades 9-12)	351	23.0
College or graduate school	291	19.0

Sources: US Census 2000

East Greenwich Construction Office

East Greenwich has a generally well-educated population with a great emphasis for education within the community.

D. Existing & Probable Future Employment Characteristics

The 2000 census reported 4,228 persons over 16 years old and 2,672 in the labor force. There were zero persons in the armed forces. There are very little employment opportunities within the Township. In fact, the majority of the work force drove to work alone (22,207) 87%, where the mean travel time was 26.3 minutes. East Greenwich remains a bedroom community to places of work, such as Woodbury, Deptford, Cherry Hill and Philadelphia.

**Management Positions
Exhibit #7**

Management /Professional	1,051
Service positions.....	237
Sales and office.....	683
Farming.....	9
Construction.....	260
Production.....	351

**Industry
Exhibit #8**

Agriculture.....	9
Construction.....	184
Manufacturing.....	319
Wholesale Trade.....	190
Retail.....	276
Transportation/Utilities.....	153
Information.....	68
Finance/Real Estate.....	185
Scientific, management.....	287
Education.....	562
Art entertainment.....	122

Currently, most residents work outside of the Township. New employment opportunities may develop in the B-1 and industrial areas adjacent to the I-295. Recently a Raymour & Flanagan warehouse was constructed directly adjacent to the township border in Greenwich. However, warehouses tend to produce very few jobs. Moreover, there is little prospect of any significant non-residential development in the foreseeable future, although the Township is attempting to encourage such development.

E. Present & Prospective Fair Share for Low & Moderate Income Housing

COAH's formula allocates a total need of 276 units, of which 25 units have been designated for rehabilitation. This results in 251 units of new construction of affordable housing. East Greenwich proposes a variety of solutions to meet its entire fair share obligation. They include (a) Inclusionary Zoning, (b) Regional Contribution Agreements, (c) an innovative new technique discussed below and (d) Rehabilitation.

As part of the plan, East Greenwich Township relies on Gloucester County for the rehabilitation component as they have completed 11 rehabs to date. (Copies of the units and the funds uses are attached as received from Gloucester County.)

IV. THE FAIR SHARE PLAN

The Fair Share Plan of East Greenwich Township consists of the following inclusionary developments, credits and Regional Contribution Agreements:

1. RCAs	77 units
2. Family Residences	120 units from Atlantic 5 (family rental) 12 units from the Cemetery 22 units from land in R-10
3. Senior Citizens units either through Participation with developers such as Presbyterian Homes or via some other means.	0 No units at this time.
4. Senior Citizens independent living as result of a developer request.	0 No units at this time.
5. CILDF: Construction in Lieu of Developer Fee Construct 6% of all market rate units in non-inclusionary areas in lieu of cash fee. (Included in anticipation of Round Three)	90 units
6. Credits for developmental disabled housing Advo Serve and Mental Health Consortium	42 units
7. Gloucester County Rehabilitation Program	<u>11 units</u>
Total Number of Units and Credits	374 units and credits

A. Inclusionary Development

The inclusionary zoning of "R-10" permits apartments, townhouses and single-family detached units currently the R-10 has a five unit per acre density cap and a fifteen-percent set aside. This plan proposes to modify the density within the R-10 area to a maximum density of six units per acre and a twenty-percent set aside. (Amendment language is attached).

1. Weathervane" is an R-10 inclusionary single-family subdivision of two-hundred-sixty-three (263) units, which has been constructed. The developer has set aside one million dollars for fifty (50) units for a regional contribution agreement. Gloucester City has agreed to receive the units. COAH has approved the RCA agreement. The agreement with Gloucester City is enclosed.

2. "Southwind" is a second R-10 inclusionary development consisting of forty-six (46), single family detached units, and one-hundred-thirty (130) town homes. The developer is providing twenty-seven (27) credits or \$680,000 for a Regional Contribution Agreement to a community of East Greenwich's choosing. The Township is investigating entering into an agreement with Paulsboro, the Southwind development has not yet commenced and the funds will be deposited with the Township as the development proceeds.
3. "Atlantic Five" is a third inclusionary development within the R-10 zone. The Atlantic Five development proposes one hundred sixty one (161) single-family dwellings, and one hundred seventy four (174) town homes and sixty (60) condominiums will be affordable units for family rental.
4. Other R-10 Inclusionary lands.
 - a. The land adjacent to the cemetery is Block 1404, Lot 3, consisting of 33 acres. Based upon our review of the site, we believe there is a realistic opportunity for up to 180 town homes. Atlantic Five has acquired this site. They are proposing 80 single family homes and 12 low/moderate units.
 - b. Land adjacent to the cemetery is Block 1404, Lot 1 consisting of nineteen (19) acres. It is possible to develop 114 town homes with a set aside of twenty percent, would yield twenty-two (22) affordable units.

**Inclusionary Zoned Lands
(Exhibit #8)**

Development	Zone	Block/Lot	Acres	Density	Approved Units	COAH Units
Weatherwane		Block 1401, Lot 11	102.63	2.57	263 single-family (completed)	50 RCA
Southwind		Block 14.02 Lots 7,8 & 10	55	3.2	46 single-family 130 townhouses	27 RCA
Atlantic 5					161 single-family 174 townhouses 60 condos	60 apartments. 120 credits
Cemetery						12
Land adjacent to Cemetery						

B. Senior Citizen Opportunities

1. Senior citizen housing is a goal of East Greenwich. The township has discussed developing a senior affordable housing project, even though, through the means set forth herein, the Township has exceeded its fair share. East Greenwich has considered the "Mushroom Farm" of seventeen acres as a possible site for a co-venture with Presbyterian Homes. East Greenwich has every intention to work with Presbyterian Homes to make the production of affordable housing on the mushroom farm a reality. However, the Township requires more time to investigate this option and requests the Court's approval of this component of the plan provided all efforts are consistent with COAH regulations.
2. The Township has a number of developers who would like to develop market rate senior independent living within the community. A new senior's development has not yet been endorsed. Should a senior's development be endorsed by the township, the Township will consider requiring an affordable housing component of such a project. Again, the township is not assigned any number of units to this possibility at this point.

C. C.I.L.D.F.: Construction in Lieu of Developer Fee.

1. The Township proposes to require all developers of residential projects other than those discussed above to reserve six (6%) percent of the housing in each new subdivision for low and moderate households in lieu of the monetary developer fee contribution. The

proposal allows developers of single family lots to create triplex units that look like single family detached houses on the same size lot as permitted in the single family development. East Greenwich has development applications pending or anticipated in the near future. Consequently, the Township wishes to implement this component of its plan immediately so as to avoid missing opportunities to generate affordable housing.

An analysis of the land available for development is included in Exhibit II. The land was discounted by fifty percent to establish a realistic opportunity for these units to be successfully constructed. It appears that ninety (90) units could be easily achieved in this program. The implementing ordinance draft is Exhibit III.

D. Group Homes

East Greenwich has two group home providers within the community:

- a. Advo Serv, located at 255, 261 and 271 at Whiskey Mill Road.
 - In 255 are 10 persons in six bedrooms
 - In 261 are 10 persons in seven bedrooms
 - In 271 are 5 persons in 3 bedrooms
 - Total of 25 persons in 16 bedrooms
- b. The Rattling Run Road site of the Community Mental Health Consortium for Gloucester County.
 - 5 persons in 5 bedrooms

This number of bedrooms qualifies for a 2:1 credit of 32 credits and 10 credits respectively.

E. Rehabilitation

Gloucester County Rehabilitation Program

Currently, Gloucester County has performed eleven (11) rehabilitation units in East Greenwich averaging \$11,500 per case. Mr. Robert Broughton of Gloucester County has confirmed their commitment to continue to work with the township to provide major system and rehabilitation consistent with COAH rules. Currently, the county's program uses CBDG funds and places a zero percent interest on the property, to be repaid when and if the property is sold.

EAST GREENWICH FAIR SHARE PLAN (Summary)

East Greenwich's Total Requirement is 276 Units

Requirement	251 Present and	
Perspective Need		
+ 25 Rehabs = 276 Total		251 P+P Rehabs 25
Weathervane		50 RCA's
Southwind		27 RCA's
Atlantic Five – 60 Rental family units		120 Credits
R-10		
• Cemetery holdings - Atlantic Five sketch plan		12 units
• Block 1404 Lot 1 19 acres x 6 = 114 x 20%		22 units
5a. Mushroom Farm to be pursued in round three		0 at this time
5b. Senior independent living; potential new zoning		0 at this time
6. Percentage of all Developments 6% =		90 units
7. Advo Serv: 16 bedrooms x 2 credits		32 units
Mental Consortium: 5 bedrooms x 2 credits		10 units
8. County Rehab Program		11 units
<i>Total</i>		<i>363 units</i>

- Of the 363 total units, 251 (the requirement for Round II) have been met by virtue of approvals and Regional Contribution Agreements and Development Approvals for the sites.

Full Compliance

Under this Fair Share Plan for Round II compliance, no other units are required from item 6; the six percent set aside. Currently, there are over 400 units that are beginning the approval process. Six percent of 400 units are 24 units, achievable in the immediate future.

F. Changes from the Previous Plan

1. The R-10 areas will have the density increased to six units/acre from five, with a floor of four units per acre.
2. The developer of non-inclusionary zones are required to construct units in lieu of a per house contribution.
3. The Township will pursue senior housing opportunities even though there is not the need for additional affordable housing for the Township to meet its fair share.

These changes along with the development of the inclusionary R-10 zone, meet the obligation in a planned and controlled manner.

V. IMPLEMENTATION

A. Ordinance Amendments

See Exhibits I and III for Zoning language.

B. Marketing Plan

See Exhibit VI

C. Infrastructure Capacities

East Greenwich Township is included within Gloucester County Utilities Authority (GCUA) sewer service area. The municipality operates and maintains the flow lines and sanitary sewer pump stations that carry effluent to the County sewage treatment facility. East Greenwich's allotted capacity is 730,000 gallons per day (gpd). The municipality's current permitted capacity totals 322,700 gpd. Therefore, the municipality maintains excess capacity in the system of 407,300 gpd. East Greenwich Township filed an application with the GCUA to expand the 208-sewer services area as an attempt to attract ratable growth along the Route 295 corridor. This application has been approved by the GCUA and the area has been included in the county wide management plan.

Regarding water availability, East Greenwich has recently constructed a new one million gallon water tower to ensure service to the entire community. In addition to the water tank, East Greenwich operates two wells; one which produces 500 gallons per minute (gpm) and the second, which produces 1,000 gpm. The current capacity of the system is in the range of 2.16 million gallons per day. East Greenwich is currently pumping in the range of 500,000 per day. Currently 50 percent of the community has public water service. Obviously, capacity to service the entire municipality remains available.

SUMMARY AND CONCLUSION

East Greenwich made every effort to meet its fair share in 1987 by rezoning a portion of the community R-10, in compliance with COAH's initial mandate. Unfortunately, developer flexibility resulted in fewer COAH units than necessary, although the R-10 area almost satisfied the fair share COAH allocation. This plan proposes a few new ideas that permit the integration of units as projects that would otherwise not produce any affordable housing develop. Such innovation is encouraged by the Supreme Court in Mount Laurel II, the Legislature in the Fair Housing Act and COAH in its various regulations. We included a growth share component so we do not miss the opportunity of current pending approvals. The proposed growth share is six (6) percent. If and when the COAH growth share of ten (10) percent is incorporated into the new regulations, then East Greenwich will amend its ordinance to ten (10) percent. In the meantime, East Greenwich will continue to search out possible opportunities in the seniors market within the community. This plan does in fact ensure that as the community develops there will be housing opportunities for households of all incomes. As such, the Township and Planning Board look forward to receiving approval of the plan by the Court.

G. COMMUNITY FACILITIES ELEMENT

Planning for a full range of community facilities is an essential component of providing for the needs of the current residents as well as for the additional need that inevitably follows residential and commercial growth. East Greenwich has done well in developing a system of community facilities and services that contributes to the high quality of life that residents have come to expect. Community facilities and services include police and fire protection, emergency services, a public library, public schools, municipal services, and recreational facilities.

The placement of facilities affects adjacent land uses, traffic patterns and efficiency of service delivery. The community facilities plan is closely related to the land use element. As planned development and redevelopment are advanced, community facility sites should be logically located in proximity to the populations intended to be served. The Township's overall goal is to provide community facilities and services for all areas of the community. East Greenwich should ensure that the provision of services is planned for in advance, rather than left to chance so that the quality of community facilities and services is not reduced and so that the fiscal integrity of the Township is promoted. The Community Facilities Map (**Map G1**) identifies all existing community facilities and above ground utility facilities within East Greenwich.

Goal: Provide community facilities that meet the needs of all Township residents and businesses as well as enhancing the overall community.

Objective 1:

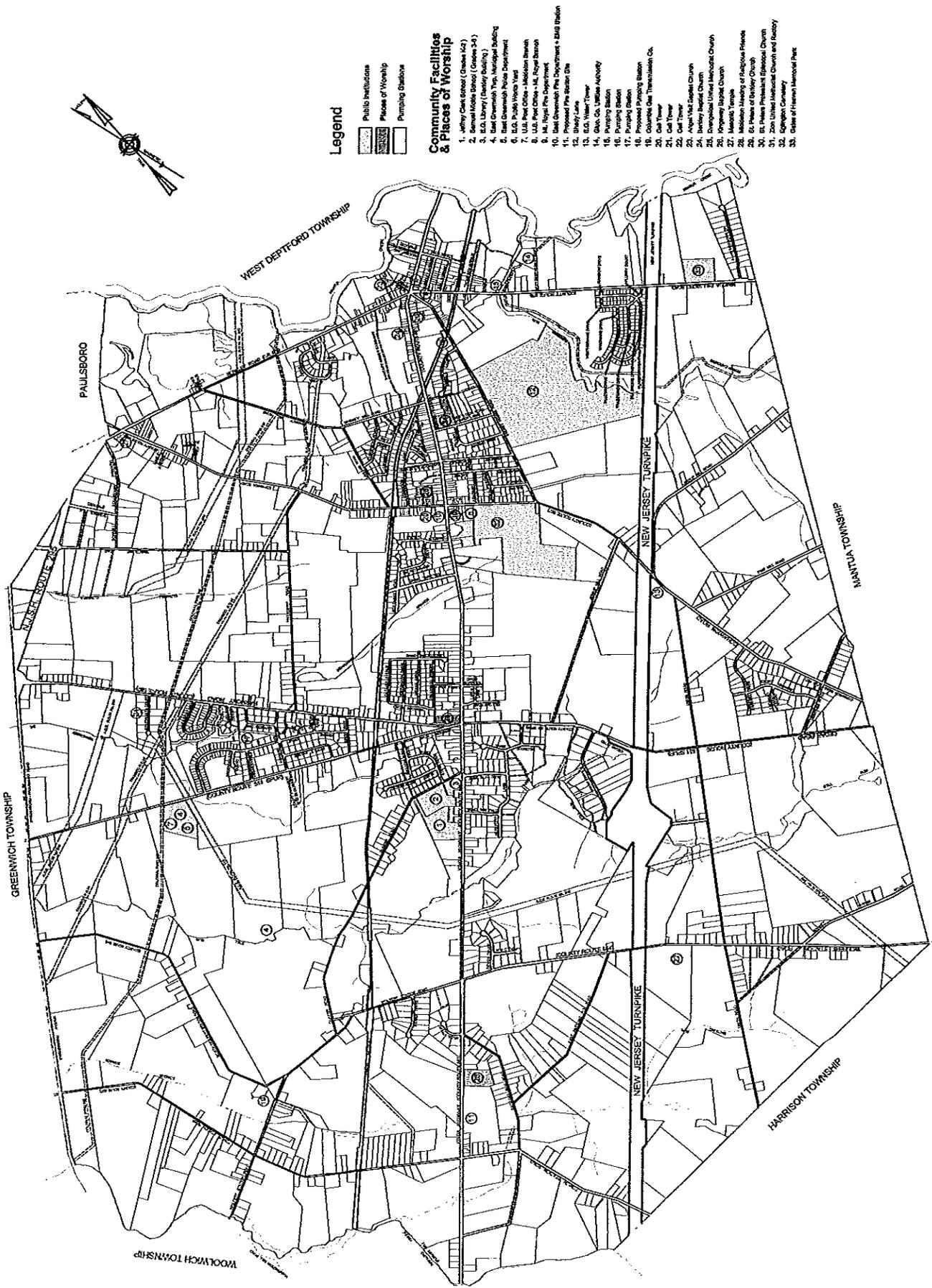
Maintain and improve existing facilities to meet the growth and change of the community.

- Replace facilities that are obsolete or unable to meet the needs of the Township.
- Provide ample facilities to meet the needs of all East Greenwich residents regardless of age.
- Assist the fire companies in establishing and providing service that will best serve the needs of East Greenwich Township.
- Maintain appropriate emergency services for Township residents.

Objective 2:

Use community facilities to create and maintain a sense of place by enhancing public areas with quality design and pedestrian friendly landscape that link to commercial, cultural, and educational resources.

- Review all Township facilities for compliance with the requirements of the Americans with Disabilities Act (ADA).
- Designate an area for a new public works yard, acquire property and construct the facility at the appropriate time.
- Attract and train volunteers to support and provide additional EMT's to East Greenwich Township.



Legend

- Public Institutions
- Places of Worship
- Pumping Station

Community Facilities & Places of Worship

1. Valley Crest School (Grade K-2)
2. Barnet Middle School (Grades 3-4)
3. S.O. Library (Dealey Building)
4. East Greenwich Twp. Municipal Building
5. East Greenwich Twp. Court House
6. S.O. Public Works Yard
7. U.S. Post Office - Jackson Branch
8. U.S. Post Office - Mt. Hope Branch
9. U.S. Post Office - Mt. Pleasant Branch
10. East Greenwich Fire Department - EMS Station
11. Proposed Fire Station #2
12. Shady Lane
13. S.O. Water Tower
14. S.O. Co. Utility Authority
15. Pumping Station
16. Pumping Station
17. Pumping Station
18. Proposed Pumping Station
19. Proposed Pumping Station
20. S.O. Gas Transmission Co.
21. S.O. Gas Tower
22. S.O. Gas Tower
23. S.O. Gas Tower
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34. S.O. Gas Tower
35. S.O. Gas Tower



Map prepared by Ragan Design Group
 Date: 10/15/00
 Project: Community Facilities Map



East Greenwich Municipal Building

The East Greenwich Municipal Building is a new facility that was dedicated in 2001. The building includes administrative offices, the municipal court, police and the Mickleton post office. The facility is over 18,000 square feet with adequate parking. The potential exists for additional recreation fields around the site. A veteran's memorial is also located at the municipal building.

Public Schools

East Greenwich public schools educate children in kindergarten through sixth grade in two buildings on adjacent sites on Kings Highway and Quaker Road. East Greenwich residents attend Kingsway Regional High School from grades seven through twelve. The East Greenwich School District employs 49 full time teachers: 28 classroom teachers, 7 special education teachers, 2 nurses, and 12 specials including art, music, world language, physical education and computers.

The Jeffery Clark School is attended by students in kindergarten through second grade. The school is 32,278 square feet. Currently 261 students are enrolled at the school. The building's capacity is 259 students. The Samuel Mickle School is attended by students in third through sixth grade. The school is 64,064 square feet. Currently 329 students are enrolled at the school, the buildings capacity is 425 students. Enrollment at the two schools has increased by 73 students over the last two years.

The Board of Education Office is located at 535 Kings Highway in the John Berkley Building. The superintendent's office is at the Mickle School.

In order to provide bus service to the East Greenwich elementary students, the district enters into an agreement with Kingsway Regional to share buses and drivers. Twenty-six (26) students walked to school in the 2002-2003 school year. This number may increase as additional sidewalks and crosswalks are installed within walking distance of the schools.

The elementary schools do not have an after school sports program. Extra-curricular activities are provided in the school and on the play fields in conjunction with the township Parks and Recreation Committee.

Not surprisingly, the greatest challenge facing the district is maintaining adequate finances to address the needs of the escalating enrollment. The district is planning expansion of both school buildings, an adjacent property has been acquired to accommodate this expansion at the existing school sites.

The Planning Board will need to work with the school district and the Board of Education to identify sites for new schools and plan for projected enrollment increases. It is anticipated that the student body will increase by 255 to 350 students over the next five years. Over the ten to twelve year horizon, based on housing units that are under construction, approved or pending approval, projections indicate that enrollment may increase by 1,192 to 1,640 students.⁷ Two proposed school sites are identified on **Map G1**.

The school administration presented its long range facilities plan to the planning board in 2001 for review and comment. A member of the school board sits on the planning board to promote cooperation and coordination between the school district and the township. This cooperative relationship benefits the Township as a whole. The planning board gains an awareness and understanding of the challenges faced by the school board and the school board stays informed about possible developments that will impact the number of students in the district and the tax base.

Fire Safety

There are two fire companies in East Greenwich, The Mount Royal Fire Company and the East Greenwich Fire Company.

East Greenwich Fire Company

The East Greenwich Fire Department is an all volunteer company with sixteen (16) members and six (6) junior members. The East Greenwich Fire station is located near the intersection of Kings Highway and Cohawkin Road. The Fire House is 4,500 square feet. The fleet consists of four vehicles. The East Greenwich Fire Company has not made any plans to expand, but expects to recruit new volunteers from the developing sections of the Township.

Table G1 East Greenwich Fire Company Equipment Inventory			
Vehicle Name	Year and Make	Model	Capacity and Accessories
19-4 Frieghtliner	1997	Tanker	2,800 Gallon Tanker with 500 gpm pump
19-15 Ford F250	1996	Brush Truck	
19-11 Young	1986	Pumper	1,000 GPM
19-12 Young	1978	Pumper	1,000 GPM

⁷ Report by Ragan Design Group to the East Greenwich Township Board of Education dated August 25, 2003.

Mt Royal Fire Company

The Mt. Royal Fire Company is an all volunteer company consisting of 33 members. As of December 2003, twenty-one of the members are active firefighters, six are junior firefighters, four are contributing members, and two are currently living out of town. The station is located at the intersection of Mantua Road and Kings Highway in Mount Royal. The fleet consists of five vehicles and one boat. The vehicles are listed in **table G2**.

The Mount Royal Fire Company covers all 14.89 square miles of East Greenwich for all fire and rescue calls. The Company also responds to some EMS calls. Calls are dispatched from the Gloucester County 911 Communications center located in Clayton. The Fire Company provides mutual aid to Gibbstown, Paulsboro, Swedesboro, Woolwich, Mantua Township, West Deptford, Woodbury, Woodbury Heights, Westville and Deptford. The Company has a combined technical rescue team with Gibbstown Fire Company that responds to calls in Gloucester County and some of Salem and Camden Counties.

**Table G2
Mount Royal Fire Company Equipment Inventory**

Vehicle Name	Year and Make	Model	Capacity and Accessories
Engine 1921	1997 Simon Duplex	Class A pumper	1500 gallon per minute, 1000 gallon water tank, supply hose, attack hoses, forestry line, firefighting hand tools
Engine 1922	1983 Peter Pirsch	Class A pumper	1250 gallon per minute, 1000 gallon water tank, supply hose, attack hoses and forestry line, firefighting hand tools
Utility 1927	1996 Dodge utility	4 wheel drive pick up	Ice rescue sled, ice rescue suits, dewatering pumps, chain saws, trailer hitch for boat
Rescue 1928	1994 International	16' walk-in rescue truck	Rescue, EMS and firefighting equipment, full EMS inventory, climate controlled command post
Command 1920	1994 Ford	Crown Victoria	Chief's response car
Boat	14' semi-vee boat		25 hp outboard motor

The Mt. Royal Fire Company has assessed its current equipment and has determined that the rescue truck should be replaced. The rescue truck responds to 98% of the calls in town and is

beginning to exhibit signs of strain. The rescue equipment is continually upgraded and changed and the truck has become overloaded, all of the necessary equipment does not fit into the truck. The difficulty in acquiring a new truck is compounded by the fact that a larger truck would not fit into the current station due to the height limitations of the building. Additionally the 1983 pumper is outdated and in need of major repair. The Company feels that the 1983 truck (Engine 1922) would not be needed if the two fire companies were to combine into one company in order to make more efficient use of equipment and manpower.

The Mt. Royal Fire Company has outgrown its facility, which is 5,200 square feet. The station was built for three vehicles and currently houses four. There is a potential for injury with personnel crowded by apparatus and equipment. The suggestion from the Mt Royal Fire Company is to build a new station on the northern side of town to replace the existing facility and to locate a sub-station on the southern end of town to improve the response distance and time.

Combining the companies seems to be a valid and responsible option for streamlining service as well as saving money on vehicles and maintenance. The organizational decision regarding combining the companies is beyond the Planning Board's jurisdiction, but the board may recommend the merger and assist in determining where to place new facilities. It may be most efficient and cost effective to retain existing facilities for the substation if a new firehouse is built as a headquarters.

Police

The East Greenwich Police force consists of nineteen (19) staff members, which include sixteen (16) sworn officers. Twelve of the officers are assigned to patrol, two (2) are assigned as detectives and two (2) as administrators. There are two (2) police clerks and one special officer who monitors activity in the municipal court. The police department facility is located at 159 Democrat Road in Mickleton. The facility was opened in 2001. The force has sixteen (16) vehicles. Ten (10) of the vehicles have GPS capabilities through mobile data terminal ports, but the technology is not currently being utilized. Additional equipment and training are needed to make the technology functional. Currently the department's facilities and equipment are adequate to meet the needs of the Township. However, considering the projected increase in population based on residential subdivisions that are either under construction or already approved, the Department will request a budget increase to hire two additional police officers and one additional clerk for the FY 2004. Between 2005 and 2008 it is anticipated that six additional officers and one clerk will be requested to meet increased service demands. These projections will change based on the reality that unfolds over the next several years. Eventually, with the addition of personnel, additional space will be needed.

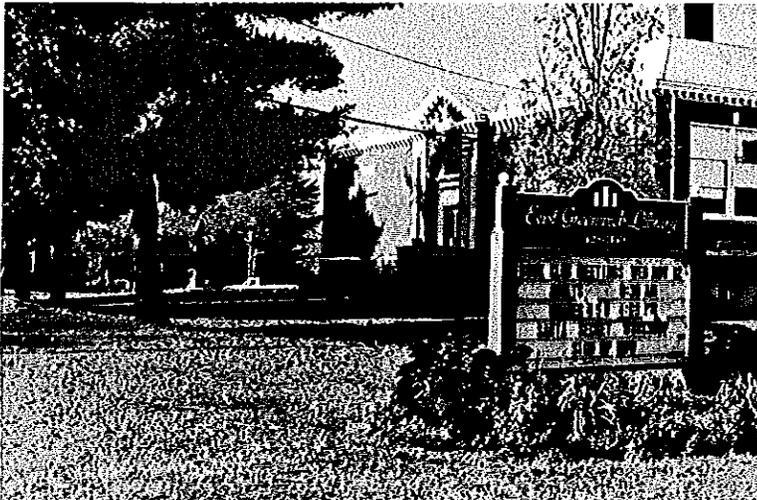
Calls are dispatched though Gloucester County Communications in Clayton. This central dispatching service is provided by Gloucester County. Problems occasionally arise when officers respond to a call and discover they have been dispatched to the wrong address because of similar street names (Maple Avenue vs. Maple Court for example). New developments which will include new streets should clear proposed street names with the police department prior to finalizing roadway names.

The Department has a bicycle unit and practices the philosophy of community policing. As demand for the police department's service increases, there are a few issues that surface as areas of concern. With the increase in children and teens there is a need for parks, recreation areas and

community centers (see recreation element for recommendations). From the police department's perspective traffic volume issues are of particular concern and are particularly compounded in the Mount Royal area where recent development seems to have had the greatest impact. The police department has expressed concern over the limited roads available for north-south movement through the Township. It has been recommended that right of way be acquired for a new road between Tomlin Station, Wolfert Station and Democrat Roads, west of Kings Highway.

Emergency Medical Services

Emergency Medical Services for the entire township are provided by the EMS station at 21 East Cohawkin Road. The all volunteer organization has 9 EMTs and 2 ambulances. The recently renovated building, now a state of the art facility, was dedicated in 2003. The township's EMS team offers CPR and First Aid training to the community once per year. The East Greenwich Ambulance Association is in need of volunteers. The association actively recruits volunteers by word of mouth and flyers. It is recommended that the Association advertise in a community news letter, on the internet or by including a call for volunteers in a township mailing, such as a tax bill.



Public Library

The East Greenwich Public Library has been at its current location at the corner of Kings Highway and Quaker Road since April of 1999. From 1962 to 1999, the library was located in three rooms in a private residence at the intersection of Kings Highway and Cohawkin Road in Clarksboro. The current facility is approximately 3,000 square feet, in four rooms with conference tables, chairs and sofas. The library has 15,000 volumes and a

collection of 52 magazine titles.

A sliding door wall between two of the rooms allows one side of the library to open up into a larger space for meetings or programs. The children's room can seat 18 children with the existing tables and chairs, utilizing the floor and a sofa, 30 children will fit into the room for programming. The computer area seats six people at individual work stations, with a love seat and three upholstered side chairs for leisure reading and relaxation. There is a magazine area with seating for three. The library staff has been creative in maximizing the available space and has managed to host a combination of 50 children and adults for programs.

The library has a staff of six and a pool of approximately ten volunteers, both teens and adults. The staff is trained in library operations, and the volunteers assist with special events such as summer reading and fundraisers. Programs for children include weekly pre-school story hours, summer reading programs, after school programs, bedtime story hours, a book discussion group and occasional performances. Adult programs include a monthly book discussion group and occasional evening programs.

The current facilities are nearing full capacity. Additional shelving has recently been installed in both the adult and children's area, which is anticipated to satisfy demand until 2006. With the projected increase in population in East Greenwich, it is predicted that additional staff, library materials and services to the public will be needed. The need for a larger facility will be inevitable.

The library derives its funding from numerous sources. The most stable source of funding has come from budget requests submitted to the Township Committee each year, and well-established fund raisers including the annual fund drive, book and bake sale, and Christmas cookie sale. Other fundraisers have been periodically tested including a cookbook sale, Entertainment Book sales, map sales, and a year round lobby book sale. The library staff also applies for grant funding from the State Library, Target, Karma Foundation and other organizations when opportunities are available.

Two branches of the Gloucester County Library System are within close proximity to East Greenwich residents. The Greenwich branch is on Swedesboro Road in Greenwich. This new building, with almost 10,000 square feet of floor space, opened in March 2003 and was dedicated on May 10, 2003. The new library houses over 24,000 volumes and is open 56 hours per week. The Mullica Hill branch is on Wolfert Station Road. This branch opened its doors in October of 1994, and houses a collection of over 106,000 items. It also serves as the System's reference center and houses the administrative offices.

Public Works

The public works facility is located at 21 East Cohawkin Road in Clarksboro. The 2,880 square feet metal frame garage has three (3) bays to house its fleet of seven (7) vehicles. The Department of Public Works (DPW) has a staff of six (6) employees and operates three (3) dump trucks, two (2) utility trucks and two (2) pick up trucks. The DPW has a 900 square foot salt dome and is responsible for plowing 17 miles of roads when it snows. The Department mows the Township parks, fields, municipal buildings, easements, basins, sewer plants and water facilities. The DPW maintains open spaces and parks as well as numerous storm water basins.

The Township contracts with a private hauler to pick up trash and recycled materials throughout the Township. The DPW picks up grass, leaves, branches and limbs. Large trash items are picked up every Wednesday by the DPW.

In planning for future land use, consideration needs to be given to the acquisition of property for a public works yard and storage building. A building is needed to afford protection for equipment from inclement weather, and a work area for equipment and vehicle maintenance. The DPW presently utilizes a parking area that was assigned by the Ambulance Association. Based on current and projected demand for services, the Department of Public Works will also require additional equipment and staff to maintain the current level of service. Land adjacent to the Turnpike would be an appropriate location for a new public works garage and yard because the heavily traveled highway and the garage and public works operations would in most circumstances be considered compatible uses.

Places of Worship

East Greenwich has places of worship that provide opportunities for several religious denominations to practice their faith as well as opportunities for building communities among people with shared interests. **Table G3** is a listing of the houses of worship within the community.



Zion Methodist Church

Table G3 Places of Worship in East Greenwich	
Angel Visit Baptist Church	15 North Street
Berkley Baptist Church	177 Kings Highway
Evangelical United Methodist Church	14 West Cohawkin Road
Kingsway Baptist Church	Kings Highway
Mickleton Meeting of Religious Society of Friends	Kings Highway and Democrat Road
St. Peters Protestant Episcopal Church	304 Kings Highway
Zion United Methodist Church	242 Kings Highway

Summary

The municipal offices are sufficient to meet the community's needs for the foreseeable future. The police facilities are ample for the immediate future. The post office will continue to pay rent to the municipality for the next twenty years and possibly beyond, which is an asset to the community. The Mount Royal Fire Company has current equipment needs as well as the stress associated with inadequate building space. The two fire companies are in need of some attention and creative thinking to adjust to the challenges and needs of the future and provide for a new station. The EMT facility is newly renovated and is satisfactory, though in need of volunteers. The Township should give some consideration to establishing a new public works area, as the current facility does not have any room for expansion.



H. UTILITIES ELEMENT

As defined in the Municipal Land Use Law (MLUL), a utility service element analyzes the need for, and plans for the future of water supply and distribution facilities, drainage and flood control facilities, sewage and waste treatment, solid waste disposal, and provisions for other related utilities, including storm water management plans. The utility infrastructure in East Greenwich consists of public water, sanitary sewer, and storm water facilities.

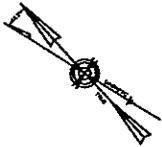
Goal: Provide adequate infrastructure to service the needs of all Township residents and businesses without adverse impact upon the environment.

Objective:

Maintain and improve existing utilities while protecting natural resources so that growth and redevelopment within East Greenwich Township is supported with adequate public facilities and infrastructures, including extensions and replacements of existing utility systems where required.

- Provide an adequate level of service to meet the present and future needs of the Township.
- Employ regional strategies to facilitate redevelopment, particularly with large-scale public infrastructure such as water quality and waste management issues.
- Address new and redevelopment project needs, as well as mitigating existing flooding and water quality issues within the Township.
- Require new developments to locate all utilities underground.
- Maintain criteria for zero increase in water runoff from new developments.
- Promote groundwater recharge where favorable geological conditions exist.
- Encourage the reduction of non-point source pollution, to the greatest extent possible.
- Promote the preservation and protection of water supply facilities and water resources by controlling flood discharges, stream erosion, and runoff pollution.

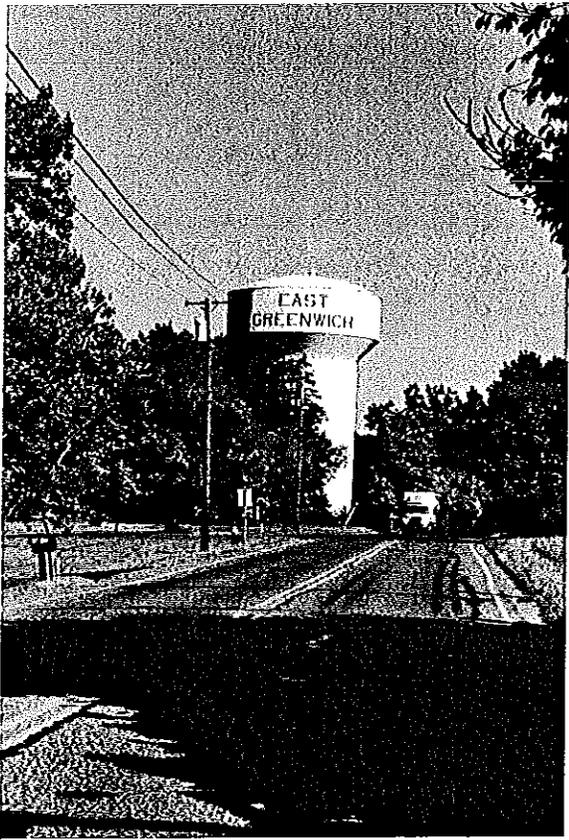




Legend
 Sewer Pipe



Approved by Project No. 100-000000-0000
 Date: 10/15/2000
 Project: Sewer Infrastructure Map



Drinking Water Supply

Public water in East Greenwich is supplied by the East Greenwich Water Department. The public water infrastructure is shown on **map H1**. East Greenwich is dependent upon subterranean well water. East Greenwich is within the New Jersey Plain Aquifer System. There is concern that the recharge from precipitation and induced infiltration is insufficient to replace ground water in heavily pumped areas close to the saltwater-freshwater interface and will lead to an advance of the interface toward the pumping centers. There are two active wells in the Township. Built on Cohawkin Road in 1955, "well #2" is 214 feet deep and can pump 500 gallons per minute. The second well is "well # 3" on County House Road. It was built in 1975, is 248 feet deep, and can pump 1,000 gallons per minute. During the winter season the approximate daily demand is 400,000 gallons per day (GPD) and in the summer months the demand reaches 900,000 GPD. Under water supply allocation permits issued by the New Jersey Department of Environmental Protection, East Greenwich is permitted to divert a maximum of

178 million gallons of water from the wells each year. The actual volume drawn from the wells daily varies according to season and drought conditions. The water supply is supplemented by approximately 217,000 gallons per day purchased from the New Jersey American Water Company, which is the largest water utility in New Jersey. New Jersey American Water Company has recently extended its Tri-county pipeline to service East Greenwich. The East Greenwich Water Department serves 2,300 connections which includes residential and commercial customers. East Greenwich has established a Wellhead Protection Planning Committee and Wellhead Protection Plan in order to protect the system's source from contaminants that are difficult to treat. The Wellhead Protection Plan must eventually be supplemented by a hydrogeologic study by a registered geologist in order to meet NJ DEP's requirements for an interim wellhead protection plan. The wellhead protection plan identifies known and potential sources of contamination and suggests ways that the sources of contamination may be eliminated (through proper handling of wastes, public outreach and education, revising the system emergency operations plan etc.).

All new residential subdivisions with public water availability are required to obtain service from New Jersey American Water. East Greenwich Water Department and New Jersey American Water have entered into a franchise agreement. In accordance with section 16.19.30 of the Land Development Ordinances, a developer must provide any improvements to the water supply and distribution system that may be required to service the proposed site.

Those residents not serviced by public water system have private wells. Applications for private wells are reviewed and approved by the Gloucester County Health Department. The Private Well Testing Act (N.J.S.A. 58:12A-26 et seq.) became effective on September 14, 2002. The PWTA requires that when a property with a private drinking water well is sold or leased, the well water must be tested for contaminants. The results of the water testing must be reviewed by the buyer and the seller. The testing must be completed by an employee of a certified drinking water

laboratory and tested for: total coliform bacteria, iron, manganese, pH, all volatile organic compounds (VOCs) with established Maximum Contaminant Levels, nitrate, lead, mercury and gross alpha particle activity. This Act is intended to ensure safe drinking water for all New Jerseyans and to raise awareness about the importance of protecting water quality.

In the early 1990s a one million gallon water tower was constructed at Cohawkin Road and the New Jersey Turnpike to ensure a 24 hour emergency supply of water.

Waste Water

East Greenwich is part of the Gloucester County Wastewater Treatment System that is regulated by the Gloucester County Utilities Authority. In 1967, the Federal Water Pollution Control act required each state to develop water quality standards to protect surface water and groundwater. The GCUA has the responsibility to plan for and treat wastewater within Gloucester County as required by the Federal Clean Water Act. All sewer flow is pumped to the Gloucester County Utilities Authority's regional wastewater conveyance and treatment facilities. The GCUA treats an average of 18 million gallons per day at one facility located in West Deptford. The GCUA treatment facility is rated to treat up to 24.1 million gallons per day and the design capacity is for 27.5 million gallons per day. All sludge is incinerated on site and fluid is treated and discharged to the Delaware River. East Greenwich has been serviced by sanitary sewer for twelve years. Prior to the installation of sewer lines, the Township was reliant on septic disposal systems for the management of wastewater. There are six pump stations in East Greenwich. Currently, all sewer infrastructure is north of the intersection of Quaker Road and Kings Highway. The sewer service area (**map H1**) was amended and approved by the DEP on May 14, 2001. East Greenwich has a sewer flow allocation of 730,000 gallons per day. Currently the Township sends approximately 400,000 gallons per day. In accordance with the land use plan, all residential densities under 2 acres per dwelling should be located within the sewer service are and served by public sewer. In accordance with section 16.19.60 of the Land Development Ordinances, developers are responsible for the costs of any off-tract improvements to the sanitary sewer system including distribution facilities, the installation, relocation or replacement and installation of collectors, trunks, and interceptors that may be necessary as a result of a proposed development. If others will benefit from required improvements, the developer will be responsible for a pro rata share of the total cost of the improvements.

Currently there are two existing problems with the sewer system. First, the Township is working to correct an inflow and infiltration problem in the Harmony Acres area. The second problem is that the Gaunt Drive pumping station is at its maximum capacity. This pumping station handles the majority of existing flow and any future extensions will also go through that station. A proposal to build a larger regional pump station is being considered to alleviate this condition. This expansion to increase capacity is critical to the expansion of sewer lines to the industrial and business areas in the northwestern section of the Township.

Storm Water

In New Jersey, stormwater is controlled and regulated by three entities: the stormwater rules in the Residential Site Improvement Standards, NJ DEP's Land Use Regulation Program and the municipal stormwater ordinances adopted to implement EPA's Phase II stormwater rules. In accordance with the New Jersey Pollutant Discharge Elimination System (NJPDES) Municipal Stormwater Regulation Program (N.J.A.C. 7:8), which has been developed as a result of the U.S.



EPA's Phase II stormwater rules, each municipality in New Jersey is required to prepare a storm water management plan and provide for implementation of specific permit requirements referred to as statewide basic requirements (SBRs). SBRs may also require the permittee (township) to implement related best management practices (BMPs). The purpose of the plan is to develop a stormwater pollution prevention plan. Significant strides have been made in the United States to reduce point source water pollution from industry and wastewater treatment facilities, such that the majority of water pollution now comes from non-point sources. The plan will address both new and existing development. Sound stormwater and watershed management techniques can have both environmental and economic benefits.

The stormwater regulation program addresses pollutants entering surface and ground waters from many storm drainage systems owned or operated by local, state, interstate or Federal government agencies. All Statewide Basic Requirements are intended to regulate by prescribing methods for implementing BMPs, providing minimum standards, measurable goals and implementation schedules. All municipalities are responsible for completing the plans within 30 days from the effective date of the rules. NJDEP anticipates that this will be in the winter or spring of 2004. The plan is to be incorporated as part of the Master Plan. The New Jersey Department of Environmental Protection along with the New Jersey Department of Agriculture have jointly developed a document entitled Revised Manual for New Jersey: Best Management Practices for Control of Nonpoint Source Pollution from Stormwater. This manual was developed to provide guidance to municipalities and developers in addressing the requirements of the storm water regulations and replaces the 1994 BMP manual. Best Management Practices (BMPs) include recommendations for bioretention systems, construction of wetlands, forested buffers, infiltration structures, filter strips and wet ponds.

Storm water management plans and storm water ordinances and performance standards are designed for the following purposes as delineated in Article 13 of the Municipal Land Use Law:

1. to reduce flood damage,
2. to minimize storm water runoff from any new land development,
3. to reduce soil erosion,
4. to assure the adequacy of existing and proposed culverts and bridges,
5. to induce ground water recharge,
6. to prevent an increase in nonpoint source pollution,
7. to maintain the integrity of stream channels for their biological functions as well as for drainage, and
8. to minimize safety hazards at any storm water detention facilities constructed as part of a subdivision

East Greenwich has already adopted a storm water management ordinance which specifies that within the sewer service areas of the Township there will be no net increase in stormwater runoff and no net increase pollutant loads as a result of new development. The ordinance was written to compliment any regional stormwater management plans or watershed management plans that may be adopted. It is recommended that the Township's Storm Drainage and Stormwater Management ordinances be amended to be consistent with the Residential Site Improvement Standards (RSIS) and the Municipal Stormwater Regulation Program if necessary when the rules become available.

In accordance with section 16.19.50 of the Land Development Ordinances, a developer seeking site plan or subdivision approval is responsible for the installation, relocation or replacement of storm drains, bridges, culverts, catch basins, manholes, rip-rap, detention or retention, improved drainage ditches that may be required as a direct result of a development.

Telecommunications and other Communication Technologies

Telecommunications technologies have evolved to be a part of our daily lives. Twenty years ago telephone service was provided entirely via land lines. Today, people expect to have mobile phones and service area coverage regardless of physical location. Telecommunications are used to enhance emergency response time and to communicate important information from the field to police headquarters or hospitals. Telecommunications are private industry (regulated by the federal government), but residents and businesses expect universal access to telecommunications facilities as if they were public services. Currently there are two communications towers within the Township. One is a monopole located at Union Road and Wolfert Station Road, the other is attached to a water tower at the East Greenwich Fire Department site in Clarksboro. Developers wishing to locate communications facilities in East Greenwich should be required to first consider co-locating on existing towers or tall buildings to minimize the total number of towers throughout the community. Telecommunication towers should not be permitted closer than 500 feet to any residential structure. When choosing a location for any new telecommunication tower, priority should be given to sites owned by East Greenwich Township.

With increased access to high speed internet connections and wireless technologies by the public, certain government administrative functions can be made easier. Meeting agendas, trash pick up schedules and community announcements can be posted on the Township's web site. With this technology people can register for programs and pay fees online. Information can be quickly distributed electronically and followed up with traditional means of distribution.



I. RECYCLING ELEMENT



New Jersey is the state with the highest population density in the nation. One of the many challenges facing a densely populated area such as New Jersey is municipal solid waste removal. Governments, communities and enterprising individuals have sought out ways to recover and reuse recyclable materials, both to reduce the waste stream and to reduce the costs of inputs and the extractions from nature that are required for further production. Many Americans seem to think that when an item is thrown in the trash it just disappears. Persuasive advertising and the value placed on disposability have caused the volume of municipal solid wastes

in the United States to grow at a rate much higher than the growth in population.

Objective:

Strive to provide the most comprehensive and fully utilized solid waste-recycling program in the County.

- Focus resources to standardize a mandatory commercial and institutional Township recycling program.
- Work with local schools to educate students at a young age about the importance of reuse and recycling.
- Assist the recycling coordinator with enforcement efforts by providing information about existing businesses, and consider the benefits of distributing recycling containers to residents.
- Work with surrounding municipalities and the County to establish an inter-local services agreement so that recycling may be picked up on the same day as trash and once per week.
- Mandate the use of recycled products for all Township entities, as well as in new private development, thus establishing a demand for recycled products.
- Educate residents about the importance of reducing the volume of municipal solid waste, both from an environmental and a financial perspective.

Regulations and Requirements

The bill that initiated mandatory recycling in New Jersey was the 1987 New Jersey Statewide Mandatory Source Separation and Recycling Act. The act was viewed as necessary to decrease the flow of solid waste to sanitary landfill facilities, aid in the conservation and recovery of valuable resources, conserve energy in the manufacturing process, and increase the supply of reusable raw materials for the state's industries. The legislation calls for statewide source separation and recycling of solid waste with the goal of recycling a minimum of 25 percent of the total municipal solid waste stream. The goal was subsequently increased to 60 percent. To meet the 25 percent goal, the regulatory duties and powers of state, county, and municipal governments were all greatly enlarged. On the state level, the legislation established the New Jersey Office of Recycling to oversee a State Recycling Fund, administer a tonnage grant program to municipalities, and coordinate county efforts. Counties were required to adopt district recycling plans that would designate a district recycling coordinator, specify the recyclable materials to be collected, and detail the strategy to be used to collect and market the materials. Finally, the legislation required each municipality to designate a recycling coordinator, update municipal master plans and site plan

ordinances to include recycling provisions, adopt source separation ordinances, enforcement procedures to ensure compliance by residents and businesses, and collect recyclables either directly or by contract. All communities are required to recycle leaves and at least three of the following materials: paper, metal, glass, plastic containers, and food waste.

In setting forth the components of a municipal master plan, the Municipal Land Use Law, section 40:55D-28(12) states that:

the recycling plan element shall incorporate the State Recycling Plan goals, including provisions for the collection, disposition and recycling of recyclable materials designated in the municipal recycling ordinance, and for the collection, disposition and recycling of recyclable materials within any development proposal for the construction of 50 or more units of single-family residential housing or 25 or more units of multi-family residential housing and any other commercial or industrial development proposal for the utilization of 1,000 square feet or more of land.

The Township's Trash Collection and Disposal Ordinances specify the manner in which trash and recycled materials will be picked up and set forth regulations relating to disposal and pick up. All owners, renters and occupants of residential and commercial, industrial and institutional properties are required to separate recyclable materials from other solid wastes generated. In the past in New Jersey, multi-family residential complexes have been responsible for securing trash collection services. Recently, the Kelly Law has required that municipalities either offer the service or provide reimbursement. East Greenwich will have to comply with the requirements of the new law as new units are constructed.

According to East Greenwich's municipal recycling ordinance, professional and commercial establishments are permitted to place up to four receptacles of household trash curbside for pick up. Professional and commercial establishments that produce more than four receptacles worth of household trash must independently arrange for pick up. However, the current municipal solid waste contractor is only required to pick up trash from residential and public sector properties. The Township will not pick up trash from roadside farm stands, industrial properties or trailer camps. The ordinance should be modified to reflect the Township's intent and practice.

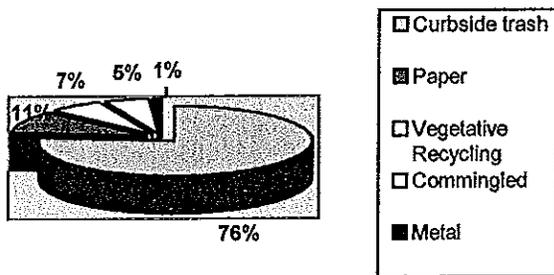
East Greenwich currently recycles paper materials (including newspaper, magazines, wrapping paper, books, corrugated and regular cardboard) and commingled recyclables (plastic, glass, cans) as well as yard wastes, large appliances and scrap metal. In accordance with the State's Mandatory Source Separation and Recycling Act and the Municipal Land Use Law, East Greenwich coordinates its recycling efforts through the recycling coordinator and the Department of Public Works. East Greenwich offers curbside pick up for trash, furniture, commingled recyclables, paper, scrap metal and yard wastes. In addition, residents are encouraged to participate in recycling household special wastes (HSW) by taking HSWs to the designated locations provided by the Gloucester County Improvement Authority on collection days, held eight times per year.

In accordance with federal regulations designed to control the disposal of hazardous wastes, household special wastes must be delivered to a drop off site for proper disposal by the Gloucester County Household Special Waste program. Materials such as solvents, pesticides, cleaners,

varnish, kerosene, herbicides, gasoline, chemical fertilizers, rat poison, lighter fluid, fluorescent tubes, lead acid and ni-cad batteries, pool chemicals and propane tanks are accepted. It is important that these materials be properly disposed of in order to avoid negative impacts caused when toxic substances are disposed of in an uncontrolled manner. These HSW materials may leach into the soil and subsequently into the groundwater supply if disposed of in landfills or they may be discharged into the atmosphere if incinerated. The most effective way to avoid the negative impacts to the environment and to human health is to limit use of toxic products.

East Greenwich Township bids out its contracts to pick up trash and recyclable glass, cans and plastics. Trash from East Greenwich is taken to the Wheelabrator incinerator in Westville and ashes are disposed of at the Gloucester County Improvement Authority's sanitary landfill in South Harrison. The Gloucester County Freeholders recently approved an expansion of this landfill, so that it will not reach the end of its useful life until 2020. Vegetative wastes including limbs, trees, leaves and grass clippings are collected by the Department of Public Works. Tree stumps and limbs are chipped for reuse and given away to residents and businesses. Grass and leaves are composted.

East Greenwich Solid Waste Disposal 2002



The Environmental Commission along with Township Committee in East Greenwich have assisted in making recycling a community wide effort by placing recycling containers at public facilities and parks. The Township has received a Clean Communities grant that can be used to provide additional containers in appropriate locations. Recycling and trash collection information is provided on the Township's website (www.gloucester.lib.nj.us/eastgreenwich/) with additional information on household special wastes, composting, grasscycling, tire, battery and electronics recycling available at the Gloucester County Improvement Authority website (www.gcianj.com).

Recommendations

Educate

In order to maximize the benefits of a recycling program, citizens must believe in the value of the program. The Township has already promoted the program with information on the Township website and in newsletters. Establishing a program in the schools to educate and inform students of both the need for and the benefits of a successful recycling program is another way to promote the program and to focus attention upon it.

Reduce

Recycling has the potential to save tax dollars, save land space and protect environmental resources. Any new recycling effort should be preceded by a careful cost benefit analysis to ensure that the recycling plan will continue to meet its objectives in a cost effective manner. One of the ways to reduce the municipal solid waste stream is source reduction, which means changing our purchasing decisions to prevent excessive wastes. Presently residents in East Greenwich (as well as most New Jersey jurisdictions) pay for trash and recycling services through property taxes.

Since this essentially amounts to a flat fee and the demand for trash pick up is inelastic, there is no financial incentive for households to reduce the volume of wastes set out at the curb. East Greenwich and other New Jersey municipalities may wish to consider instituting a "pay as you throw" program that requires residents to pay according to the volume of trash produced. There are many simple things that residents and businesses can do to minimize post-consumer wastes. Think of all of the paper cups that would be saved if each adult in East Greenwich took a refillable coffee mug with them to the coffee shop in the morning. The following suggestions come from the New Jersey Department of Environmental Protection's website.

At Home:

- Look for products with minimal packaging,
- Buy refillable bottles of milk, soft drinks and other beverages
- Buy detergent, cleanser, etc. in bulk packaging
- Get rid of junk mail - request to be removed from mailing and distribution lists
- Buy only necessary products
- Rent or borrow power tools, landscape tools, snow blowers, etc.
- Grasscycle - Leave grass clippings on your lawn
- Home compost your food scraps and yard trimmings
- Purchase products with longer life/ they create less waste and save money
- Use silverware instead of plastic forks, knives, spoons, plates, etc.

At The Office:

- Use refillable products such as pens, pencils, tape dispensers and calendars
- Use a solar powered calculator
- Communicate using bulletin boards or computers
- Eliminate fax cover sheets, use labels
- Print directly on envelopes instead of using labels
- Reuse bank deposit bag
- Eliminate single use cups
- Reuse single sided paper

Recycle and Reuse

New innovations in using recycled materials are being tested around the world. Gloucester County has instituted a metal recycling program in which metals are recovered from the ash loads arriving at the Gloucester County Solid Waste Complex from the Wheelabrator incinerator, the metals are separated and then ready to be reused. A company in New Mexico has successfully turned recovered tires into fuel chips and is improving on an energy conversion process with low emissions. The plastic resins found in household recycling bins are being used to develop a composite material to be used in structural I-beams and lumber. Electronics such as computer monitors, printers and televisions have been disassembled and used experimentally to fill potholes! By purchasing products made from recycled materials, we sustain the demand for such products and encourage manufacturers to find more ways to reuse and recycle.

The NJDEP has recently estimated that at least 25 percent of the business community does not recycle. Efforts to induce the business community to recycle may substantially increase the overall

percentage of recovered recyclable materials. All builders, businesses and service providers must submit a tonnage report demonstrating compliance with recycling laws to the recycling coordinator each year. It is recommended that the Fire Marshall provide the recycling coordinator with a list of businesses to facilitate his enforcement efforts. It is also recommended that builders continue to be required to provide receipts demonstrating that construction waste material and debris, including tree stumps were recycled. Failure to recycle may result in a fine. Under the mandatory recycling program, municipalities may provide residents with recycling containers. Since this is a direct cost of the development, it is recommended that the developer be required to provide the container for each new homeowner in the development. The containers contribute to a sense of community pride and make it obvious if a household or business is not recycling properly.

J. Economic Element

One of the goals of the Master Plan is to improve the prospects for expanding East Greenwich's ratable base. This element will provide some direction and options for pursuing economic growth. First the essential questions must be answered: What do we have? Where are we now? What is the environment in which we operate? And where are we going?

In accordance with Municipal Land Use Law (N.J.S.A. 40:55D-1 et seq.) the economic plan element is intended to consider all aspects of economic development and sustained economic vitality, including: a) a comparison of the types of employment expected to be provided by the economic development to be promoted with the characteristics of the labor pool resident in the municipality and nearby areas and b) an analysis of the stability and diversity of the economic development to be promoted.

Goal: Expand and diversify the economic profile of the Township, establishing East Greenwich as an important economic player in the region while ensuring that the growth is consistent with the natural capacity of the land and infrastructure.

Objective 1:

Retain and promote existing businesses.

- Provide a business friendly environment for existing businesses, which have invested in the Township and provide a supportive environment for those wishing to upgrade or renovate.

Objective 2:

Promote nonresidential development that is consistent with the natural capacity of the land, compatible with the labor force and availability of infrastructure to support the economic success of the business community.

- Encourage redevelopment and full occupancy in existing commercial locations.
- Encourage dialogue with developers regarding opportunities within the community.
- Continue to work with the Gloucester County Office of Economic Development in pursuit of establishing a Redevelopment Area along the Interstate Route 295 corridor.
- Promote redevelopment and offer business incentives.
- Consider the establishment of an Economic Development Coordinator to attract developers and businesses interested in becoming active in the East Greenwich and regional markets.

Projected Employment Growth 2000-2010⁸

Gloucester County is the fastest growing southern county in New Jersey, with a projected annual growth of 1.4 percent. Gloucester County is expected to add 14,600 new jobs between 2000 and 2010, most of which will be business, health and social services. Gloucester has a large retail trade sector which accounted for 23 percent of base year employment and is expected to grow significantly faster than the state as a whole. The county also has a large and fast growing

⁸ Thomas Sheppard and Robert Vaden "New Jersey's Projected Employment Growth by County:2000-2010", New Jersey Division of Labor Market and Demographic Research, December 2002.

wholesale trade sector which is expected to increase by 1.7 percent annually and create 1,550 new jobs. As with most counties, professional and related occupations and service occupations will add the most new jobs, even though professional and related occupations will grow slower than the state overall. The county is expected to have relatively strong growth in sales and transportation and material moving occupations. The occupation expected to add the most jobs is retail cashier.

Trade Area

East Greenwich has been a largely residential community relative to business growth in Gloucester County and the Philadelphia regional marketplace. However, East Greenwich is prepared to receive new business opportunities within the business and industrial areas along the I-295 corridor. The Township has sewer and water service available to +/-820 acres of land zoned for business. The Township is poised to attract businesses, industrial parks, office parks and individual businesses with full utility services and convenient access to Route 295, the New Jersey Turnpike and area bridges.

To the southwest of East Greenwich is Logan Township. Within Logan's borders is the Pureland Industrial Park where approximately 1,000,000 square feet of warehouse and office space has developed over the last 30 years. Similarly to the north, the West Deptford Industrial Park has continued to establish itself with industrial uses. Recently, a glycol-ethanol plant has been approved on 180 acres of land in West Deptford. If this plant becomes operational, the production of ethanol produced from corn will provide a stable market for Gloucester County farmers.

With the business activity in Logan to the south and West Deptford to the north, it seems inevitable that East Greenwich will be the next development frontier. With the adoption of the proposed redevelopment plan, the Township will begin to actively market the parcels for development consistent with the ordinance, the master plan and the regional strategic plan.

Businesses and Employment

Currently, East Greenwich has 76 business parcels including 8 utilities, 33 retail establishments, 16 automotive/truck businesses, 12 contracting and related businesses, 3 offices, 1 day care, 1 self-storage facility, 1 bar, 1 recreation building, 1 manufacturing facility and 9 vacancies. As of 2001, there were 552 non-farm workers employed in East Greenwich.



Labor Pool

According to the U.S. Census (2000) 88.1 percent of East Greenwich residents 25 years and older have earned a high school diploma or higher and 23.9 percent have earned a bachelor's degree or higher. The majority of those who have not attained at least a high school diploma are over the age of 65. Nearly fifty percent (49.73%) of residents aged 18 to 24 were either in college or had attained a bachelor's degree in 2000. This shows that the population is becoming more educated. If skilled jobs and professional positions are not available, educated young residents will tend to move away.

At the time of the 2000 Census, the average commute time for an employed person in East Greenwich was 26.3 minutes. Less than half of one percent (.5%) of employed East Greenwich residents use public transportation, eighty-seven percent (87%) drove alone. This means that there are many residents who drive a significant distance to their work places and may desire employment closer to home.



Toddlers N Tots Day Care Center

The Regional Economic Climate

The Delaware Valley Regional Planning Commission measures regional economic indicators in order to plan for a diverse and competitive regional economy. In the nine county region as a whole, employment increased by 2.4 percent between 1990 and 1997. Gloucester County had a 14.7% increase in employment over the time period, which was second only to Chester County with 17.6 percent employment growth. While the increase in jobs is an important economic indicator, income growth is also important since skilled jobs with higher wages will increase the money spent in the region and expand the regional economy. In 1989, per capita income in Gloucester County was \$15,207 and ranked 18 of 21 New Jersey counties. In 1989 per capita income in East Greenwich was \$16,520 and ranked 371 of 566 municipalities in New Jersey. By 1999, per capita income in Gloucester County rose to \$22,708 and ranked 15 of 21 counties. Per capita income in East Greenwich for 1999 was \$25,345, ranking 323 of 566 municipalities. The per capita income in Gloucester County and East Greenwich is below the state average of \$27,006 but above the national average, \$21,587 for 1999.

Since its inception, Gloucester County has been a largely agricultural county, which supplied farm products to the Delaware Valley and beyond. While the strong agricultural base remains, we are in the midst of an explosion in population, new homes and fast growing industry. As compared to the nation as a whole Gloucester County is now underrepresented in farming, with .88 persons employed in farming for every one in the nation as a whole.

East Greenwich Demographics

Median household income in East Greenwich is \$65,701 (1999). Over 1999 there were 473 households in the Township with income greater than \$100,000.00. This number is sure to increase with the number of four bedroom, single family homes that are under construction or planned within the community. **Table J2** is a profile of selected economic characteristics for East Greenwich Township.

Employment Growth in East Greenwich

It is anticipated that between 2000 and 2010, the greatest employment growth in Gloucester County will be in business services, health services, social services, eating and drinking establishments, special trade contractors, wholesale trade-nondurable goods, miscellaneous retail, wholesale trade-durable goods, engineering and management services and amusement and recreation services⁹. It is important that East Greenwich seize opportunities to attract businesses in these growing fields. It is anticipated that manufacturing will stagnate.

Taxes and the Ratable Base

Currently the equalized assessed value for tax purposes in East Greenwich is established at 83.93 percent. The residential ratable base consists of 2207 parcels valued at \$319,755,800.

The Township's non residential property assessments are as follows:

Classification	Number of parcels	Assessed Value
Commercial	63 parcels	\$27,165,000
Industrial	20 parcels	\$11,818,000
Apartments	7 parcels	\$1,799,000
Vacant Land	449 parcels	\$11,651,900
Farm Regular	108 parcels	\$16,163,900
Farm Q	250 parcels	\$3,192,100
TOTAL		\$71,789,900

The Township tax rate is 3.17%. The tax rate is broken down as follows:

Receiving Entity	Rate
Gloucester County	.721
County Library	.054
County Open Space	.024
School (regional)	1.023
School (local)	1.18
Municipal	.138
Local Open space	.03

Recommendations

Areas zoned for business include 1,585 acres of land, which is 16.4% of the total land area of the town. Of this total, 246 acres are developed for existing businesses. This area's proximity to route 295 makes it well positioned to be the gateway for commercial opportunity. Shopping, industrial, warehousing and manufacturing are all possible here. West Deptford and Logan have substantial developments that require 15 to 20 minutes of vehicle travel once exiting Rte 295. East Greenwich may have a competitive advantage because of the easy and immediate access to the highway.

The table that follows (**table J1**) shows the areas with development potential. Developers in this area may be eligible to participate in a PILOT (payment in lieu of taxes) program once the proposed redevelopment area is established and in place. This program allows the Township to

⁹ New Jersey Department of Labor, May 2003.

establish project priorities with tax dollars received. Gloucester County should receive a minimum of five percent of the total tax collected.

Area	Zone	Total Land Area	Wetland Area	Developed Area	Undeveloped
A	B2	158	60	9	89
B	B2	299	55	35	209
C	I	270	24	34	212
D	B2	660	210	158	292
E	B1	198	175	10	13
TOTAL		1585	524	246	815

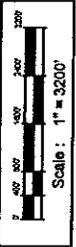
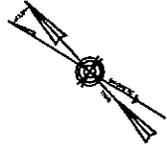
Redevelopment

The East Greenwich Township Committee in cooperation with the Planning Board and with generous support from the Gloucester County Department of Economic Development has undertaken an effort to design and implement a redevelopment plan for the western portion of the Township in the vicinity of 1-295. **Map J1** shows the proposed redevelopment area. The Local Redevelopment and Housing Law provides eight criteria that are used to determine whether an area is in need of redevelopment, and in order to qualify the area must meet at least one of the eight criteria. While some of the properties within the proposed redevelopment area are physically blighted (criteria “a”) or obsolete in layout and design (criteria “d”), the plan will rely most heavily on the “h” criteria: Smart Growth Consistency. The Local Redevelopment and Housing Law was amended in July 2003 to include the “h” criteria. This criterion will allow an area to be evaluated based upon consistency with smart growth planning principles adopted pursuant to law or regulation. The proposed redevelopment area is located within the metropolitan and suburban planning areas on the state plan policy map. The area is located within the sewer service area and is in close proximity to a major highway, Route 295.

Marketing

It is recommended that East Greenwich establish a marketing strategy to attract major corporations to the area along Route 295. The Township should determine what types of users the Township would like to attract and set up a marketing strategy to emphasize the attributes that will draw companies and organizations to locate in East Greenwich. Advantages such as proximity to a highway, a large regional employment base and nearness to a major city are attributes that companies look for when choosing a location. In order for the redevelopment plan to be successful and to have vibrant commercial areas, the Township must understand both the potential and the constraints of the area and develop a marketing strategy that embraces opportunities without wasting resources on industries or markets that may never materialize.

District A'	158
Area Acres	469
Wetland Acres	67
Disturbed Acres	67
District B'	288
Area Acres	515
Wetland Acres	285
Disturbed Acres	285
District C'	270
Area Acres	34
Wetland Acres	24
Disturbed Acres	24
District D'	680
Area Acres	270
Wetland Acres	165
Disturbed Acres	282
District E'	188
Area Acres	172
Wetland Acres	16
Disturbed Acres	16
Overall	1885
Area Acres	3224
Wetland Acres	375
Disturbed Acres	375



Approved Project No. 0885
 Date of Approval: 08/08/08
 Project Name: 0885

Table J2

East Greenwich Township

Profile of Selected Economic Characteristics: 2000

Subject	Number	Percent
EMPLOYMENT STATUS		
Population 16 years and over	4,228	100.0
In labor force	2,672	63.2
Civilian labor force	2,672	63.2
Employed	2,591	61.3
Unemployed	81	1.9
Percent of civilian labor force	3.0	(X)
Armed Forces	0	0.0
Not in labor force	1,556	36.8
Females 16 years and over		
Females 16 years and over	2,273	100.0
In labor force	1,286	56.6
Civilian labor force	1,286	56.6
Employed	1,240	54.6
Own children under 6 years		
Own children under 6 years	335	100.0
All parents in family in labor force	248	74.0
COMMUTING TO WORK		
Workers 16 years and over	2,536	100.0
Car, truck, or van -- drove alone	2,207	87.0
Car, truck, or van -- carpooled	181	7.1
Public transportation (including taxicab)	11	0.4
Walked	12	0.5
Other means	22	0.9
Worked at home	103	4.1
Mean travel time to work (minutes)	26.3	(X)
Employed civilian population 16 years and over		
Employed civilian population 16 years and over	2,591	100.0
OCCUPATION		
Management, professional, and related occupations	1,051	40.6
Service occupations	237	9.1
Sales and office occupations	683	26.4
Farming, fishing, and forestry occupations	9	0.3
Construction, extraction, and maintenance occupations	260	10.0
Production, transportation, and material moving occupations	351	13.5
INDUSTRY		
Agriculture, forestry, fishing and hunting, and mining	9	0.3
Construction	184	7.1
Manufacturing	319	12.3
Wholesale trade	190	7.3
Retail trade	276	10.7
Transportation and warehousing, and utilities	153	5.9

Information	68	2.6
Finance, insurance, real estate, and rental and leasing	185	7.1
Professional, scientific, management, administrative, and waste management services	287	11.1
Educational, health and social services	562	21.7
Arts, entertainment, recreation, accommodation and food services	122	4.7
Other services (except public administration)	79	3.0
Public administration	157	6.1
CLASS OF WORKER		
Private wage and salary workers	2,080	80.3
Government workers	400	15.4
Self-employed workers in own not incorporated business	103	4.0
Unpaid family workers	8	0.3
INCOME IN 1999		
Households	1,903	100.0
Less than \$10,000	69	3.6
\$10,000 to \$14,999	51	2.7
\$15,000 to \$24,999	173	9.1
\$25,000 to \$34,999	198	10.4
\$35,000 to \$49,999	276	14.5
\$50,000 to \$74,999	358	18.8
\$75,000 to \$99,999	305	16.0
\$100,000 to \$149,999	348	18.3
\$150,000 to \$199,999	83	4.4
\$200,000 or more	42	2.2
Median household income (dollars)	65,701	(X)
With earnings		
Mean earnings (dollars)	1,499	78.8
With Social Security income	74,654	(X)
Mean Social Security income (dollars)	558	29.3
With Supplemental Security Income	12,576	(X)
Mean Supplemental Security Income (dollars)	63	3.3
With public assistance income	7,649	(X)
Mean public assistance income (dollars)	11	0.6
With retirement income	6,318	(X)
Mean retirement income (dollars)	423	22.2
Families		
Families	1,533	100.0
Less than \$10,000	26	1.7
\$10,000 to \$14,999	34	2.2
\$15,000 to \$24,999	79	5.2
\$25,000 to \$34,999	170	11.1
\$35,000 to \$49,999	200	13.0
\$50,000 to \$74,999	266	17.4
\$75,000 to \$99,999	298	19.4
\$100,000 to \$149,999	335	21.9
\$150,000 to \$199,999	83	5.4
\$200,000 or more	42	2.7
Median family income (dollars)	74,455	(X)
Per capita income (dollars)	25,345	(X)

Median earnings (dollars):		
Male full-time, year-round workers	51,662	(X)
Female full-time, year-round workers	31,619	(X)
POVERTY STATUS IN 1999 (below poverty level)		
Families	40	(X)
Percent below poverty level	(X)	2.6
With related children under 18 years	33	(X)
Percent below poverty level	(X)	4.3
With related children under 5 years	25	(X)
Percent below poverty level	(X)	10.2
Families with female householder, no husband present	8	(X)
Percent below poverty level	(X)	4.1
With related children under 18 years	8	(X)
Percent below poverty level	(X)	6.8
With related children under 5 years	0	(X)
Percent below poverty level	(X)	0.0
Individuals	203	(X)
Percent below poverty level	(X)	3.9
18 years and over	136	(X)
Percent below poverty level	(X)	3.5
65 years and over	28	(X)
Percent below poverty level	(X)	4.0
Related children under 18 years	56	(X)
Percent below poverty level	(X)	4.2
Related children 5 to 17 years	32	(X)
Percent below poverty level	(X)	3.0
Unrelated individuals 15 years and over	86	(X)
Percent below poverty level	(X)	16.9

(X) Not applicable.

Source: U.S. Census Bureau, Census 2000 Summary File 3, Matrices P30, P32, P33, P43, P46, P49, P50, P51, P52, P53, P58, P62, P63, P64, P65, P67, P71, P72, P73, P74, P76, P77, P82, P87, P90, PCT47, PCT52, and PCT53

K. HISTORIC PRESERVATION ELEMENT

In recent years, our society has become increasingly concerned with the preservation of our historic and cultural resources. As such, the concept of what should be evaluated and preserved has broadened to include pastoral rural and cultural landscapes, scenic and historic corridors and "greenways" and "blueways". These land uses contribute to our sense of place and provide a tangible link to our past. Historic properties add to the community's cultural inventory and foster pride in the community. Neighborhoods, commercial areas and parks provide a sense of identity as well as a sense of place. In a world that is changing so quickly, we take comfort in the certainty of our shared past. Therefore, it is not only important to understand the history of where we live, but also to be aware of our historical resources and plan for their preservation. Preservation has economic as well as cultural value. The purpose of this Historic Preservation Element is to identify and describe the location and significance of historic properties, sites, districts, and associated open spaces in East Greenwich and to set the stage for further research. The identified sites will serve as the focus for preservation efforts and public education about Township's historic resources.

Goal: Preserve and enhance the cultural, historical, and archeological resources that reflect the historic significance of East Greenwich Township.

Objective 1:

Preserve, protect and enhance areas of special interest or value that represent or reflect significant elements of East Greenwich's cultural, social, economic, and architectural history and prehistory.

- Prevent neglect of the Township's historic archaeological and cultural sites by recognizing and promoting the sites.
- Promote the understanding and appreciation of the Township's history and historic resources.
- Discourage the unnecessary demolition of historic structures.
- Promote amendment of East Greenwich's Land Use Ordinance to be consistent with the goals of historic preservation as expressed in the Historic Preservation Plan element.
- Investigate the adoption of an ordinance establishing a Township Historic Preservation Commission that complies with the requirements of the New Jersey Municipal Land Use Law.

Objective 2:

Promote the understanding and appreciation of the historic value of the Township.

- Encourage development patterns adjacent to existing historic structures that complement the character of said structures.
- Establish priority for renovations of existing structures.
- Require preservation and rehabilitation of any historic structures on properties to be developed.
- Preserve and protect the natural heritage, both environmental and cultural.

In setting forth the components of a municipal master plan, the Municipal Land Use Law (MLUL), section 40:55D-28(10) states that a historic preservation plan element should:

- (a) Indicate the location and significance of historic sites and historic districts; (b) identify the standards used to assess worthiness for historic site or district identification; and (c) analyze the impact of each component and element of the master plan on the preservation of historic sites and districts.

This plan begins to address the components listed above by identifying known historic sites and suggesting standards for assessing worthiness of sites, as well as analyzing the impacts of the other plan elements on the Township's historic sites. It is recommended that the Township apply for available grants in order to conduct a historic resource survey and inventory. The study results would then be adopted as an amendment to this Master Plan and would assure that all worthy historic sites are identified and afforded the respect they deserve.



Friends Meeting

Linking the Past to the Present

In their transformation from rural farming towns to bustling suburbs, many towns in New Jersey have lost the majority of their historic resources over the years. East Greenwich has lost some potentially significant structures, but is now in a position to save historic sites before it is too late. In the past historic preservation may have been taken for granted, but with mounting development pressure and developers who may not have experience in preservation techniques or imagining creative re-use, the temptation to demolish existing structures and build new is hard to resist.

East Greenwich has demonstrated a commitment to historic preservation through the adoption of the Kings Highway Historic District (HD) zoning designation. The intent of the ordinance is to enhance and preserve the historic character of the Township's three villages: Clarksboro, Mickleton and Mount Royal by maintaining a framework and district for historic renovation, and to provide complimentary design opportunities for new development. Standards for architectural review are provided in order to ensure compatibility with the surrounding buildings and with the dominant styles and themes of the appropriate period. However, this zoning district is not the legal equivalent of a designated historic district. Such designation is recommended in the pages that follow.

Historic Background of East Greenwich¹⁰

Prior to European settlement, East Greenwich was inhabited by a sub-tribe of the Lenape (or Delaware) Indians who were known to the Swedish and Dutch settlers as the Mantese, Mantoes or Mantauk. The major village center was located in what is now Thompson's Point in Gibbstown. Another village stretched from the location of the current George Haines Farm on Berkley Road on Mantua Creek to the Robert Simon Farm on Cohawkin Road. The Cohawkin Road was one of the larger Indian trails in the region, running from the Delaware River to the New Jersey coast. Many smaller hunting camps are also known, including one in the area of the stream next to Colonial Drive and another upstream at Saunders Run behind the Bodo Otto house. Researchers at Rowan University have reportedly uncovered numerous artifacts at the Palermo Farm in Mount Royal, located on Mantua Road. Prior to the development of the Woodland Lenape culture, scattered bands of hunter gatherers resided in small hunting camps along both sides of Mantua Creek and Edwards Run. Primitive tools and various animal bones have been found at these sites. The discovery of soapstone artifacts indicate that the Native Americans traded with others in Pennsylvania.

In 1633, the first Swedish settlers arrived in New Jersey. Woola and Peter Dalbo were the first surveyors of Kings Highway. Initially, Dutch and Swedish traders settled along the Delaware River. By 1664, however, the English had asserted their claims of sovereignty and New Jersey became a colony of the crown. The discovery of the land's fertility led the traders to turn to an agricultural economy. Remnants of several mills can be found throughout the Township, including one between Jessup Mill and Pine Mill Roads and one on Whisky Mill Road.¹¹

In 1686, the population of the third and fourth tenths of New Jersey, which encompassed modern day Gloucester, Camden and Atlantic Counties, had reached approximately 1,400. The residents petitioned for their own county and Gloucester County was formed in 1695. The county was named for the shire in England and consisted of six townships.

Early Quaker settlers greatly influenced East Greenwich's development. The first recorded Friends meeting took place at Solomon Lippincott's home in 1756 on what is now Wolfert Station Road. In 1759 the Friends of Upper Greenwich built a meetinghouse near Lippincott's home and a cemetery was established (Solomon's Graveyard). The original meetinghouse was destroyed by fire and a new meetinghouse was completed in 1799 at the corner of Kings Highway and Democrat Road in Mickleton. This building is on the State and National Register of historic Places. The lands of the meetinghouse and later the schoolhouse (1810) were donated by Samuel Mickle and Samuel Tonkin. The schoolhouse continued as a Friends school until 1908 and was a public school until 1928. In 1941, the Little Red Schoolhouse as it became known, was restored by Amos Peasley for a neighborhood recreation center.

Eglington Cemetery is the oldest cemetery in continuous operation in the United States. The land was originally set apart as a cemetery by John Eglington in his last will and testament in 1776. Eglington had fertile land, but no heirs to maintain it, so he decided to leave his legacy as a

¹⁰ Information for this section was compiled from several sources including Township of East Greenwich Open Space and Recreation Plan, by the Morris Land Conservancy dated January 2003; Rattling Run Road Old Kings Highway by Elizabeth Haines Sherman dated 1976, www.jbrown-home.com website maintained by Janice Brown, 2003.

¹¹ Richard Joseph, Township Historian 2003.

cemetery. When the original plot of ground was filled, an association was formed, and granted a charter by the NJ State Legislature in 1869 to purchase additional land. In 1970 the Garden State Cemetery Society purchased the cemetery (they are the owners of the Gates of Heaven Cemetery in Mount Royal).¹² It is also believed that there are many private cemeteries scattered throughout the Township on private property.

East Greenwich has a rich Revolutionary War history. Records of war preparations and military meetings make reference to the hamlet of Sandtown (now Mount Royal) and the surrounding area. Also, the Death of the Fox Inn in Clarksboro was a noted meeting place for revolutionaries. The inn was also a popular gathering place for the hunters of the Gloucester Fox Hunting Club (1766 to 1818), which is how it got its name. It is believed that the British camped on the land that is now a residential area known as Weathervane. In 1777, a pitched battle took place behind the Bodo Otto House in Mickleton between 1500 British troops and a much smaller contingent of militia under Colonel Silas Newcomb. Outnumbered, the rebels fell back to the Mantua Creek Bridge, which they then destroyed. In 1777, General Cornwallis sent his first Light Infantry over Berkley Road to Sandtown to repair the bridge over Mantua Creek, the main army later crossed the bridge.

Dr. Bodo Otto was a surgeon in Washington's Army at Valley Forge. In 1778 the Battle of Saunders Run took place near Dr. Otto's home. The hill behind the house was known as Saunders Hill and the stream at the bottom was called Saunders Run, both were named after John Saunders who had bought the land in 1770. During this battle, the British partially burned the house of Colonel Otto and all of his out buildings. The burned portions of the house were later rebuilt.

In 1881, East Greenwich was created by an Act of the Legislature of New Jersey, from the eastern portion of Greenwich Township and the western part of Mantua Township. East Greenwich has developed around the three villages of Mickleton, Clarksboro, and Mount Royal. East Greenwich was fairly insulated from the rapid growth of the late 19th century suburbs that developed closer to the Delaware River.

The Swedesboro Railroad originally opened its service in 1869 running from Woodbury to Swedesboro. The four stations on this railroad in East Greenwich were Mount Royal, Clarksboro, Mickleton and Tomlin and each station had its own building. The trains operated with passenger service until 1950, after which the line has been used exclusively for freight service. Farmers in East Greenwich were able to expand their trade area via the railroad.

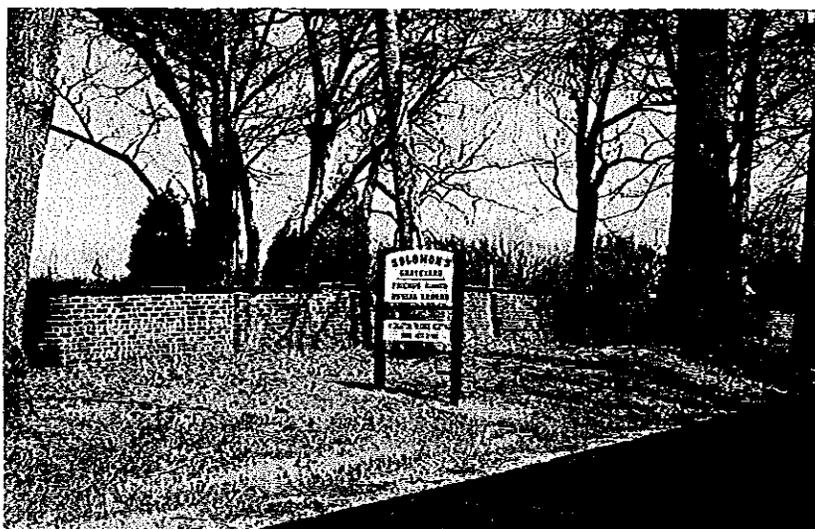
Coincident with the elimination of passenger rail service was the widespread access to motor vehicles by the public. After World War II, post war development boom caused immense growth in nearby suburbs like Cherry Hill and Deptford. While single family housing has been constructed over the years, East Greenwich has maintained a rural ambience. Between 1950 and 2000, the population of East Greenwich increased from 2,336 to 5,430 people. In the 1970s a sign was posted at the Township border along Kings Highway avowing "Industry Welcome!" Despite such invitations, industrial growth in the Township was minimal. However, suburban residential development began in earnest and has slowly increased to the present. By 2002 the population is estimated to have reached 5,691. It is anticipated that the rate of growth will increase over the next five years as a result of numerous residential subdivisions.

¹² www.jbrown-home.com website maintained by Janice Brown, 2003.

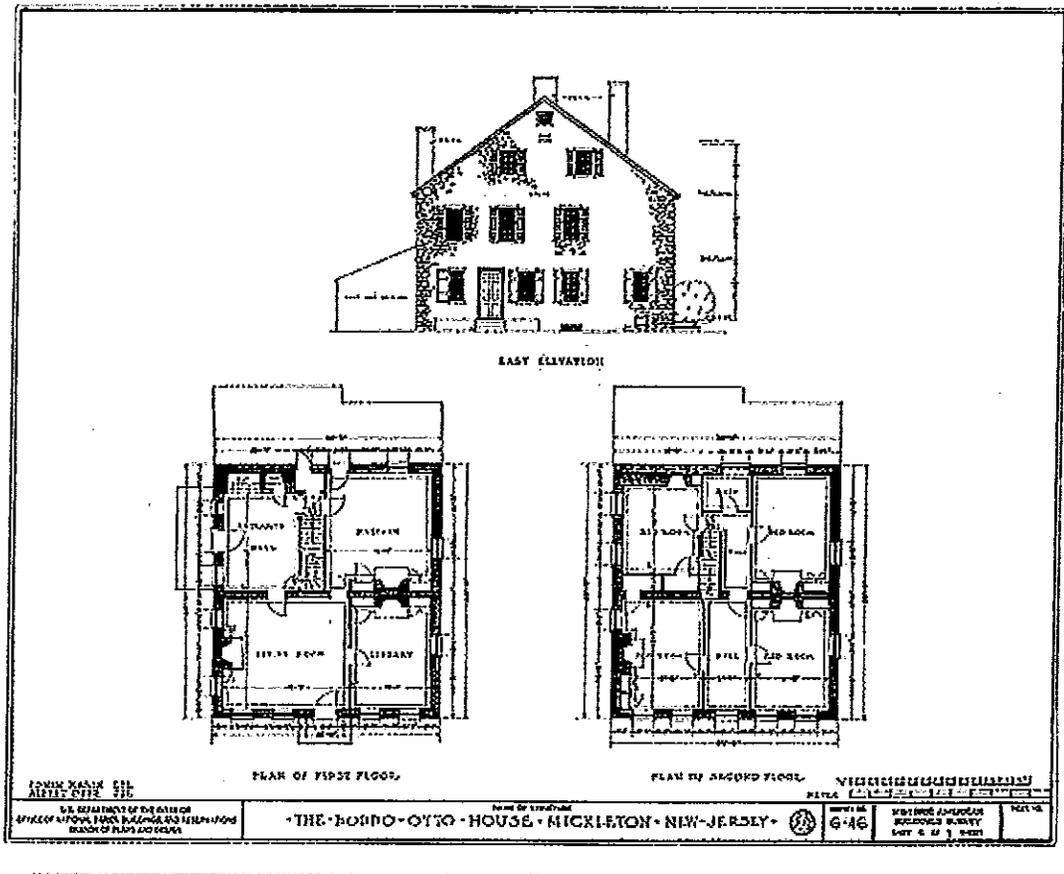
East Greenwich's Historic Places

It is recommended that East Greenwich undertake a thorough investigation of historically significant buildings, cemetery and grave sites, transportation structures and archeological sites. Those that have been identified thus far are shown on **map K-1**. The list of known historic sites listed is not comprehensive, it is a partial list based on available information and limited research. A comprehensive historic resources inventory, spearheaded by a new Historic Commission, will broaden the scope of East Greenwich's preservation efforts. Potential historic districts may be identified based on significant groupings of historic homes or buildings.

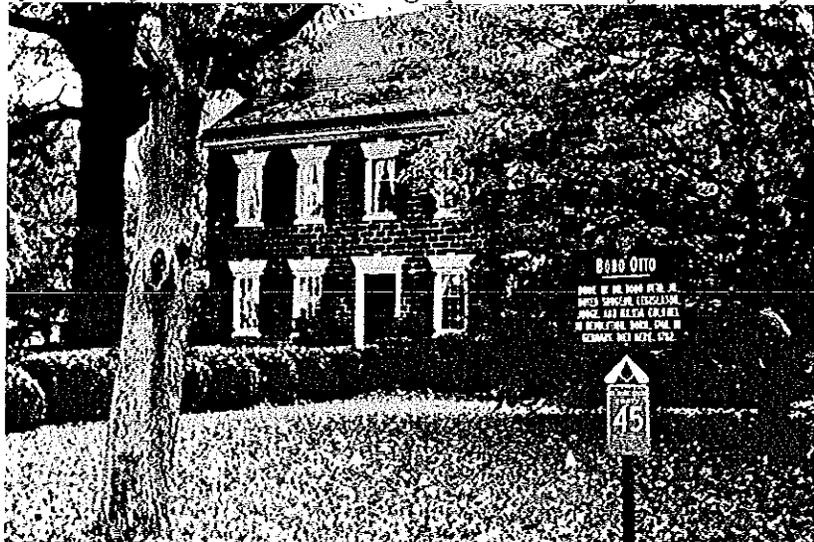
Many of these examples herald the early age of the Township and represent wealthy farmers' houses. It was only the well to do farmer that could afford to build with brick, stone, or other durable material, which has permitted the building to survive to this age. A few of historic buildings have been recently altered or demolished or thoroughly modernized. Without more research, the question remains as to whether or not all of the listed sites are worthy of inclusion on an historic preservation list and the number of potential sites not yet listed is unknown.



Solomon's Graveyard



Floor Plans of the Bodo Otto House along with other plans and documents related to the house and property are on file Prints and Photographs Division of the Library of Congress.



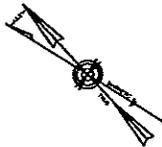
The Bodo Otto House (photo October 2003)

**Table K1
Known and Potential Historic Sites in East Greenwich**

No.	Name	Location	Block/Lot	Year
1	Bodo Otto House*	331 Kings Highway	1014/8	Circa 1771
2	St. Peter's Episcopal Church*	302 Kings Highway	705/7,8,9	
3	Upper Greenwich Friends Meeting House (Mickleton Meeting)*	413 Kings Highway	802/1	Circa 1799
4	Death of the Fox Inn	217 Kings Highway	502/39	Circa 1727
5	Justice-Peaslee House	348 Kings Highway	1005/4	Circa 1747
6	Heart in Hand Tavern/ Berkley Hotel	137 Kings Highway	1801/9	Circa 1700s
7	Eglington Cemetery	320 Kings Highway	705/3,4,5	Circa 1776
8	Haines Pork Shop	521 Kings Highway	902/3	Circa 1880
9	Bond House	351 Kings Highway,	1003/2	Circa 1710- 1720 (portion)
10	Thomas Adams House	44 East Tomlin Station Road	1107/1.01	Circa 1783
11	Margaret Wells Albertson House	711-715 Kings Highway	1102/4	Circa 1770 (stone portion)
12	William Allen House			Circa 1812 (portion)
13	George Brown House	751 Rattling Run Road	1105/17	Circa 1793 (portion)
14	Jeffrey Clark House	230 Kings Highway	1507/5	Circa 1720
15	William Harrison House	825 Kings Highway	1101/4	Circa 1746
16	Amos Jenkins Peaslee House	356 Kings Highway	1005/9.02	Circa 1876
17	James Miller House	Democrat Road		Circa 1812
18	William Pine House	614 Kings Highway	1004/2	Circa 1800 (portion)
19	Thomas Wilson House	West Tomlin Station Road		Circa 1830
20	Joseph Wolf House	160 Cedar Road	1302/8	Circa 1802 (portion)

*Listed on New Jersey and National Registers of Historic Places

Zoning Legend
 HD Historic District
 R1C Rural Single Hwy. District
 Historic Properties



Map prepared by:
 Ragan Design Group
 30 Jackson Road
 Marlton, NJ 08053

Historic Designations, Regulations and Requirements

In New Jersey there are three distinct types of historic designations: the National Register of Historic Places, the New Jersey Register of Historic Places, and designation by a municipality pursuant to the authority of the Municipal Land Use Law (N.J.S.A. 40:55D-107 through 112). The National Historic Preservation Act of 1966 established a federal policy of safekeeping the country's cultural heritage. For the first time, funding on a national basis was made available to identify, map, and preserve historic properties, including not only buildings, but also important sites and pre-Columbian finds. Much of the identification and organizing work was delegated to the states through the establishment of State Historic Preservation Officers who are the liaisons between local officials or groups and the Federal Department of the Interior, which administers the federal historic preservation efforts. The federal program became the impetus for state efforts in historic preservation. The State of New Jersey passed legislation to enable historic preservation in 1970.

The federal and state legislation established the National and State Registers of Historic Places, respectively. In New Jersey, the Historic Preservation Office, where the State Register is maintained, is part of the Department of Environmental Protection, under the Division of Parks & Forestry. The State Register is a list of areas and properties worthy of preservation for their historical, architectural, cultural or archaeological significance. Under the New Jersey act, political subdivisions of the state, i.e. counties and municipalities, come under review if a proposed project will encroach on a listed property. This is typically done through a Historic Preservation Commission's (HPC) review of the capital improvement program and review of County and State transportation projects. Historic Commissions are explained in greater detail in the sections that follow.

The New Jersey Register of Historic Places is the state's official list of historic resources. The New Jersey Register is modeled after the National Register and uses the same criteria for evaluating the eligibility of resources and the same forms for nominating properties. Listing on the New Jersey Register of Historic Places provides recognition of a property's historic importance and assures protective review of public projects that might adversely affect the character of the historic property. The only protection of historic resources that occurs with registration is from the actions of government and the protection that may come from public awareness. For private property owners, listing in the Register does not mean that limitations will be placed on the property by the state and federal government. Within the limits of municipal zoning laws, private property owners are free to utilize, renovate, alter, sell or demolish their property. Therefore, the most effective protection of historic resources is designation and regulation at the municipal level. As part of the municipal planning and zoning process, a municipality may list and designate historic sites. Designation will also give the properties priority if funding for maintenance or restoration of buildings becomes available.

In East Greenwich, the Bodo Otto House, St. Peter's Episcopal Church, and Upper Greenwich Friends Meetinghouse are the only sites listed on the National and State Registers of Historic Places. There may be other properties that are eligible for inclusion, but have not been submitted for review by the state historic preservation officer. Lastly, several pre-European settlement sites have been noted but not publicly identified to prevent unauthorized excavation of artifacts.

These historically significant sites and artifacts are vital parts of the community and landscape. Sites that are listed on the New Jersey State Register are afforded an added level of protection from destruction and most importantly the listing enhances public support and appreciation for the sites.

Historic Preservation Commission

The Historic Preservation Commission (HPC) is created by the Township Committee and defined by local ordinance. The MLUL requires that the HPC consist of between five and nine members, plus alternates who have a variety of backgrounds ranging from preservation professionals to citizen advocates. The HPC may be advisory, where the Commission makes recommendations to the Planning Board (and Zoning Board) or regulatory where the commission itself is empowered to make final decisions on projects subject to its review. The historic sites eligible for review must be so designated by ordinance. Historic preservation designation at the municipal level is separate from the national and state process. The HPC is charged with preparing a survey of historic sites in the community pursuant to the criteria identified, making recommendations to the planning board on the historic preservation plan element, advising the planning board on the inclusion of historic sites in the recommended capital improvement program, advising the planning board and board of adjustment on applications, providing written reports where required and carrying out other educational and informational functions to promote historic preservation. Guidelines for establishing a Historic Preservation Commission are found in the municipal land use law, and assistance in setting up the HPC and writing preservation ordinances is available from the State Historic Preservation Office.

The Certified Local Government program has been established in order to offer municipalities an opportunity to participate more directly in the state and federal historic preservation programs. In order to be certified the program requires that a municipality have a historic preservation ordinance and a historic preservation commission conforming to the specifications set forth in the MLUL and the National Park Service Guidelines. As a certified local government, the community becomes eligible to apply for Historic Preservation Fund grants for a variety of local preservation activities. Goals for Historic Preservation Fund grants include identifying all buildings, sites, structures, objects and districts which are significant in American historic, architecture archaeology and engineering and which meet the criteria for inclusion in the National Register of Historic places; and designing and implementing planning tools for the protection of these resources. Certified Local Governments may request funding for historic resource surveys, historic preservation education projects, historic structures reports, and preservation plans.

Incentives for Private Preservation

New Jersey Rehabilitation Sub-code

In 1998 the New Jersey Rehabilitation Sub-code was passed to make rehabilitation of existing buildings a viable alternative to replacement or abandonment. The code represents a shift in building code philosophy. It recognizes that using new building standards for renovated buildings can result in expensive improvements that have little real benefits in terms of occupant safety and encourages investments that improve existing buildings. The Rehabilitation Subcode now bases requirements on the nature of the proposed work rather than the cost of the work to be performed, thus, removing a barrier to restoring historic buildings and protecting the historic character of buildings from unnecessary disturbance.

Tax Incentives

Currently in order to qualify for tax incentives, rehabilitation projects must involve income producing historic properties included in the National Register of Historic Places. The Investment Tax Credit program has supported large-scale private investment in historic buildings and neighborhoods such as the Atlantic City Convention Hall, but has limited applicability for individual residential structures.

A bill entitled the "Historic Property Reinvestment Act" was introduced in the State Assembly and Senate during the 2002-2003 legislative session. The Act proposes to provide homeowners and/ or corporations with an economic incentive to revitalize older neighborhoods and to reuse historic structures by providing a state tax credit for their rehabilitation. This Act will help to promote the goals and objectives that are promulgated in the State Plan regarding the redevelopment of centers and the preservation and enhancement of historic lands and structures. The proposed tax credit would be allowed against an individual's personal income tax or a business would be allowed the credit against its corporate business tax. A qualified historic building is one that is listed individually or within a historic district on the State or National Registers of Historic Places or within a locally designated historic district and contributing to the district's significance, and must be certified by the State historic Preservation Office. The work would have to be done in conformance with the Secretary of Interior Standards for Rehabilitation, and must be considered a substantial rehabilitation.

Tools for Preservation

Municipal and county governments have used public funds to purchase valuable historic properties to guarantee permanent protection and to enrich communities with tangible history and public gathering places. However, public funding is scarce and preservationists must come up with other ways to aid in the preservation effort. A preservation easement is a legal instrument by which a property owner can provide enduring protection for a historic property. The easement allows a property owner to place certain restrictions on the property in perpetuity and conveys the right to enforce the restrictions to a qualified organization. The New Jersey Historic Trust accepts such easements. Typically, the easement will prohibit demolition and will restrict changes to the building's exterior, and interior features where appropriate. An inspector will monitor the property on a yearly basis to ensure compliance with the terms of the easement. A tax benefit may be available to a property owner that grants an easement in perpetuity. The value of the easement (determined by a professional appraisal) may qualify as a charitable contribution that can be deducted from federal income taxes. In recognition of the contribution to preserving New Jersey's historic resources a bronze plaque is placed on the property as a permanent reminder that the property is protected. To qualify for the easement program, a property must be listed or be eligible for listing on the State Register of Historic Places.

The National Park Service was directed by Congress in fiscal year 2000 to study New Jersey's role in the American Revolution. The goal of the study was to determine if the region met the criteria for designation as a new unit of the national park system and, if not, whether other management alternatives including designation as a national heritage area were feasible. Based on the information developed and analyzed during this study, Crossroads of the American Revolution was found to meet all ten criteria needed to be eligible for designation as a National Heritage Area. A local management entity, Crossroads of the American Revolution Association, Inc., has been identified to undertake the purposes and activities of the recommended national heritage area. The

study maps and proposed boundary area include areas just north of East Greenwich in Gloucester County. The Township may wish to contact the program director to determine whether East Greenwich may have some role to play in the project.

Recommendations

The Township of East Greenwich has taken positive steps in protecting its rich history by recognizing historic properties as significant contributions to the social stability of the community. It is recommended that the Township take the following steps to ensure preservation of historic and cultural resources and to promote them as community assets:

- Commission a cultural and historic resource survey in order to produce a comprehensive inventory and to encourage preservation and restoration. The survey should identify all existing structures built prior to 1930 and further investigate any structures or sites that may be eligible for listing on the National and State Registry of Historic Places.
- Arrange for the presentation of speakers on the various aspects of regional history
- Secure a centralized location for the collection and maintenance of archival documents
- Prepare a Bicycle or Auto Tour Map of Historic Sites in the Township, for distribution to residents and regional tourism.

Historic Preservation Process

In order to preserve the Township's historic resources, it is necessary for the Township to be aware when improvements, changes, or demolition to historic properties, or structures within historic districts, are proposed. It is recommended that the following procedures be considered:

Once an inventory of historic sites has been prepared and reviewed by the Historic Preservation Commission, the Planning Board and the Township Committee and a Historic Preservation Ordinance has been adopted, the following steps should be taken to actualize the preservation process:

1. All applications that are submitted for Planning Board approval, Zoning Board approval, Building permits, or Demolition permits, where improvements, changes, or demolition are proposed to the designated historic properties or properties within historic districts (as defined in the Historic Resource Survey) should be reviewed by the East Greenwich Historical Commission in the early stages of the municipal approval process. Comments and recommendations from the East Greenwich Historical Commission will then be presented for consideration by the applicant and to the appropriate municipal agency.
2. The East Greenwich Historical Commission or Committee will consider the following during its review of applicants affecting historic properties or districts:
 - A. The effect of the proposed work upon the current use and long-term goal of the property or district.
 - B. The extent of the alteration, addition, removal or demolition of the distinctive character or architectural features as it relates to preserving the historic character and use of the property or district.

- C. The relationship of the designated site to the surrounding land and natural features.
- D. The degree to which the proposed work would isolate the designated structure or area from its historical or architectural surroundings.
- E. The degree to which the proposed work is compatible with the original design concept of the structure or the general design characteristics of that era.
- F. The degree to which the proposed work is compatible with the aesthetic appearance of the designated structure or area, including the type, style, colors, and combination of the proposed materials.
- G. For archaeological sites, the degree to which the proposed work disturbs the designated site, or complies with the rules of the Department of the Interior governing the recovery of archaeological data, 43 CFR 3, et. seq.
- H. If the proposed work involves demolition of a designated structure, the degree to which the applicant has explored options for preservation, including sale or relocation of the structure.
- I. The degree to which the proposed work is in conformance with the Department of the Interior's Standards for Historic Preservation Projects, 36 CFR 1207, et. seq.

Long Term Historical Preservation Goals

It is recommended that the Township take an active role in historical preservation and work toward the development of an ordinance enacting the proposed historic preservation process. In order to take advantage of various funding opportunities, the Township should consider the advantages of establishing a Certified Local Government for historical preservation projects and issues. In order to become certified, the Township Council must promulgate local controls on historic sites in accordance with state guidelines and the municipal land use law.

In order to save historic properties for future generations, it is recommended that the Township consider purchasing (if necessary) threatened historic properties or obtaining easements ensuring preservation projects and issues. In order to preserve the history of the Township, as expressed in its historic structures, architectural guidelines should be implemented and used as a guide for new construction or alterations to existing historic structures. To promote community pride in the Township's historic past, it is recommended that additional opportunities for public education relating to the historic structures and their cultural and social context be provided.

III. *The Broad and the Long View*

A. *CONSISTENCY WITH OTHER PLANS*

Relationship to the State Plan

The New Jersey State Development and Redevelopment Plan was adopted by the State Planning Commission on March 1, 2001 after a long cross-acceptance process that included hundreds of public meetings across the state. The cross acceptance process will commence anew in 2004. The plan sets forth planning goals that aim to reduce the costs of public services, maintain and improve the vitality of existing communities, provide opportunities for affordable housing, relieve burdens on infrastructure systems, and protect our remaining open lands. These goals are particularly salient in East Greenwich because of the development pressures that threaten to diminish the rural character of the Township. The State Plan aims to synchronize planning through coordination and effective public policies. Planning Areas are established to categorize masses of land (greater than one square mile) that share a common set of conditions such as population density, infrastructure systems, level of development or natural systems. The Planning Areas guide the application of the State Plan's statewide policies, as well as providing guidance and support to local planning authorities. East Greenwich lies within three planning areas: the Metropolitan Planning Area (PA1), the Suburban Planning Area (PA2) and the Rural Planning Area (PA 4). **Map SP1** shows the State Plan planning areas. It is important to note that these planning areas do not necessarily coordinate with municipal boundaries, encouraging a regional planning perspective.

The Metropolitan Planning Area (PA1) is characterized by dense settlement patterns and centers of economic activity. The PA1 areas in East Greenwich Township are extremely limited. While East Greenwich is a part of the Philadelphia-Camden metropolitan area, it is on the fringe of the fully developed 19th century commuter rail towns and the post-war suburbs. While a bit of land within East Greenwich Township falls within this planning area on the State Plan Policy Map, local conditions overall are not reflective of the metropolitan area characteristics. The area west of Route 295/130 to the township line is identified as part of PA1, the area totals approximately 23 acres. The properties are currently vacant and residential, zoned for Interstate Business (B-2). The second area consists of approximately 100 acres and is situated at the northeast corner of the Township east of the New Jersey Turnpike and north of County Rte. 678. This area is currently zoned R-10, single family residential lots. The minimum lot size is 10,000 square feet, which is consistent with higher densities of a metropolitan area. These areas are geographically interrelated with the Metropolitan Planning Area.

In the Metropolitan Planning Area the State Plan's intent is to (State Plan, pg 190):

- Provide for much of the state's future redevelopment
- Revitalize cities and towns
- Promote growth in compact forms
- Stabilize older suburbs
- Redesign areas of sprawl
- Protect the character of existing stable communities

The Suburban Planning Area (PA 2) is distinguished from the Metropolitan Planning Area by the lack of high intensity centers, by the availability of developable land and by a more dispersed and fragmented pattern of predominantly low intensity development. There is limited availability of alternative modes of transportation to the automobile. These areas are commonly designated for growth in municipal master plans. The Suburban Planning Areas are generally located along state highways, which have become growth corridors. Scattered subdivisions and employment center patterns offer few focal points for community interaction. While some developments in these areas may be attractive unto themselves, they are not generally planned and integrated in a manner that promotes a sense of community. The trends of the last few decades have extended sprawl and reinforced fragmentation. The pattern results in traffic congestion since every destination requires a vehicle trip. The State Plan sets out to emphasize the positive attributes of the suburban planning area, while minimizing progressive, unwanted sprawl.

In the Suburban Planning Area the State Plan's intent is to (State Plan, pg 196):

- Provide for much of the state's future development
- Promote growth in centers and other compact forms
- Protect the character of existing stable communities
- Protect natural resources
- Redesign areas of sprawl
- Reverse the current trend toward further sprawl
- Revitalize cities and towns

The Rural Planning Area comprises much of the countryside of New Jersey, where large masses of cultivated or open land surround rural Town, Village and Hamlet Centers, and distinguish sparse residential, commercial and industrial sites from typical suburban developments. Rural Planning Areas are supportive of agriculture and other related economic development efforts that ensure diversity within New Jersey. The large contiguous areas of open farmland provide a bucolic setting that many residents of East Greenwich desire. Careful consideration of land development policies is required in the Rural Planning Areas in order to protect the State's resources and retain large contiguous areas of agricultural land. If a viable agricultural industry is to be sustained in the future, the conversion of some of these lands to non-farm uses must be sensitive to the area's predominant rural character and agricultural land base. Tools and techniques need to be developed to address the distinctive situation of rural New Jersey. With the increasing development pressure, the lifestyle and environment that many have known for years in Rural Planning Areas are threatened.

In the Rural Planning Area, the State Plan's intention is to: (State Plan, pg. 208)

- Maintain the environs as large contiguous areas of farmland and other lands
- Revitalize cities and towns
- Accommodate growth in Centers
- Promote a viable agricultural industry
- Protect the character of existing, stable communities
- Confine programmed sewers and public water services to Centers

Through a participatory planning process, East Greenwich has arrived at Master Plan goals and objectives that are consistent with the goals of the State Plan. The State Plan utilizes a trending analysis to generate probable future scenarios using existing conditions to project what an area may look like in twenty years based on development trends over the last several decades, and alternative scenarios based on planned development. These planning alternatives and the build out analysis that has been conducted coincide with the type of development desired by East Greenwich.

As reflected in the land use element, East Greenwich wishes to preserve farmland for its ecological and aesthetic value, but also to protect the vitality of the farming industry in New Jersey. Moderate density development will be permitted in the suburban planning area. Commercial activity will be encouraged around the Route 295 interchanges and adaptive reuse of existing buildings will be encouraged through a redevelopment plan.

The Department of Community Affairs and Department of Environmental Protection are currently working together to establish an environmental layer for the state plan to guide policy decisions and to assist property owners in understanding constraints on their land. This plan will be updated as needed to reflect the mutual goals of the state and the municipality.

POLICY MAP of the New Jersey State Development and Redevelopment Plan

DESIGNATED CENTERS

- ★ Urban Centers
- ★ Regional Centers
- Towns
- Villages
- Hamlets

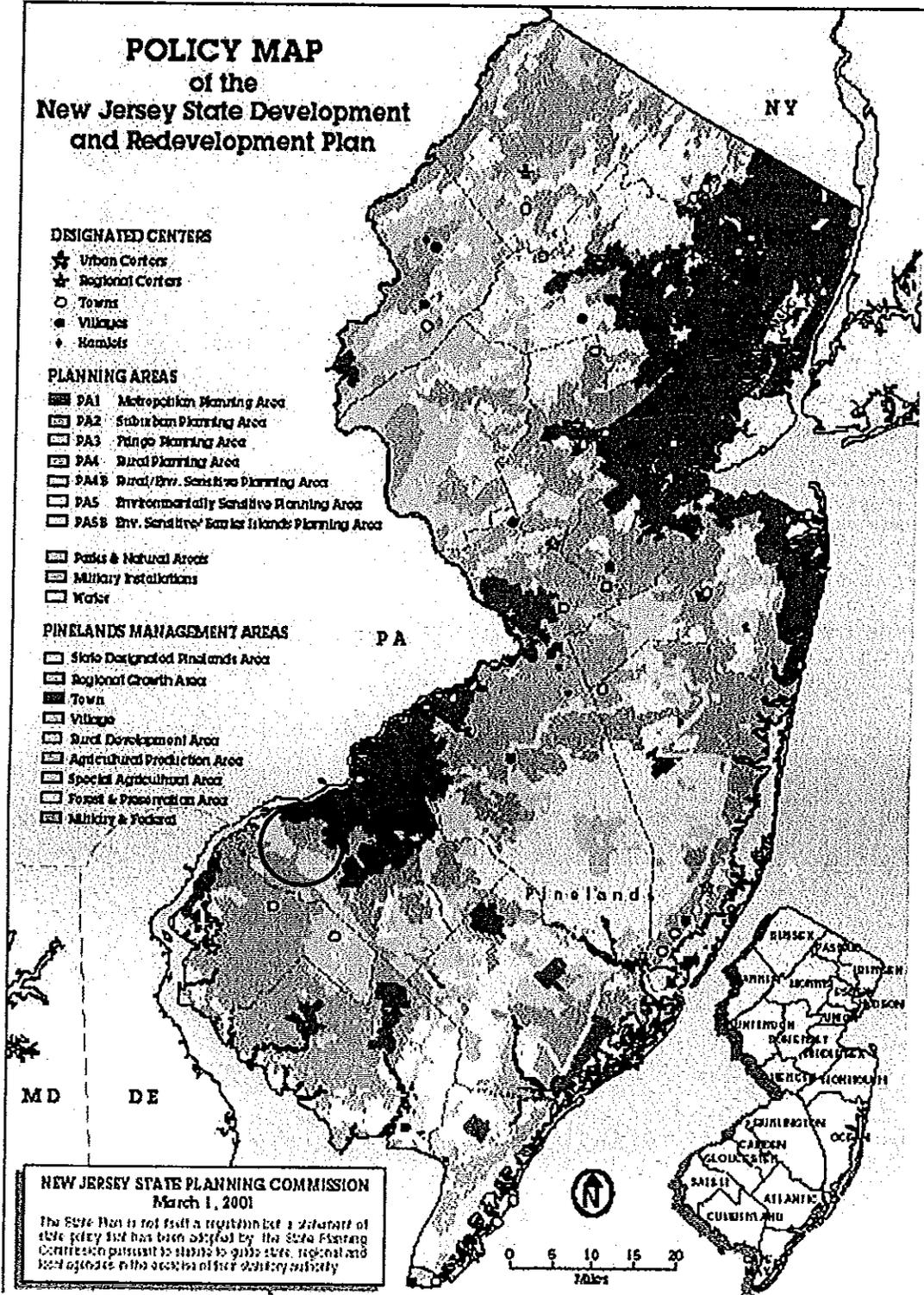
PLANNING AREAS

- PA1 Metropolitan Planning Area
- PA2 Suburban Planning Area
- PA3 Pinco Planning Area
- PA4 Rural Planning Area
- PA4B Rural/Env. Sensitive Planning Area
- PA5 Environmentally Sensitive Planning Area
- PA5B Env. Sensitive/ Banks Islands Planning Area

- PN Parks & Natural Areas
- MI Military Installations
- W Water

PINELANDS MANAGEMENT AREAS

- SD State Designated Pinelands Area
- RG Regional Growth Area
- T Town
- V Village
- DD Rural Development Area
- AP Agricultural Production Area
- SA Special Agricultural Area
- FP Forest & Preservation Area
- MF Military & Federal



NEW JERSEY STATE PLANNING COMMISSION
March 1, 2001

The State Plan is not itself a regulation but a statement of state policy that has been adopted by the State Planning Commission pursuant to statute to guide state, regional and local agencies in the exercise of their statutory authority.

Relationship to Gloucester County Master Plan

There are three County plans that need to be considered in conjunction with the development of a master plan for East Greenwich. The Gloucester County Development Management Plan, adopted in February 1982; the Official Map revised to September 2002; and the Farmland Preservation, Open Space Protection and Recreational Needs Study adopted June 25, 1997.

The Official Map depicts all County right-of-ways and the proposed roadway and right-of-way widths. This map is addressed in the Circulation Element. It is generally consistent with the East Greenwich Master Plan with the exception of the proposal to make the Kings Highway roadway 68 feet wide with an 88 foot wide right-of-way. The Township wishes to maintain the rural and village character along Kings Highway as well as potentially historic structures. A four lane road with 10 foot shoulders will inevitably invite traffic at higher speeds and require that land be usurped to the detriment of the villages of Mount Royal, Clarksboro and Mickleton. The Farmland, Open Space and Recreation Plan is supportive of East Greenwich's desire to preserve environmentally sensitive land, protect farmland and farming as an industry, and conserve open space both for recreation and for passive existence value. This plan is explored further in the Open Space Element.

The Gloucester County Development Management Plan was adopted by the Gloucester County Planning Board in February 1982. The plan was adopted in accordance with the new Jersey County and Regional Planning Enabling Act of 1968, yet it does not provide enforcement or implementation power to the counties. That role is left to the municipal governments. In the early 1980s increased development pressures in the county and the need to make a clear statement to other governmental agencies about the location and timing of future development led the Freeholders and the Planning Board to conduct background studies and to prepare a map and plan for the physical development of the county. Since the county is involved in water quality management, solid waste management, housing and transportation planning it made sense to coordinate these efforts through a comprehensive plan. Also the plan was designed to provide assistance to and reinforcement for municipal planning. The Development Map included with the plan breaks the County into the following general land use categories: existing development, growth areas, limited growth areas, rural agricultural areas, publicly owned land and environmentally sensitive areas. Existing development areas were already built out at the time of the 1982 plan, and the growth areas were designated in close proximity to existing development and not considered environmentally sensitive. Fifteen percent of the county was in the growth areas, which were primarily vacant open fields, farmland, and woodlands along transportation corridors where public facilities (such as sewerage) were either existing or proposed. Large tracts of land were designated for growth in East Greenwich along the northern and western portions of the Township.

The limited growth areas were also designated for 15% of the County. These areas were viewed as transitional areas and areas of reserve until some distant future time period when development might have expanded to the point that the growth areas could no longer accommodate additional growth. East Greenwich was one of the municipalities with large areas of limited growth potential. The limited growth areas appear to serve as a buffer between the growth areas and the rural agricultural areas. Overall the plan develops a perspective on and a general plan for logical patterns of growth in order to avoid the "leap-frogging" patterns that have become known as sprawl.

To a certain extent the County Development Management Plan is obsolete, as more than twenty years of growth and change have taken place since its adoption. Yet, the goals remain salient and development in East Greenwich has been more or less consistent with the land use designations on the map.

Relationship to Adjacent Municipalities

The distinction between the developed communities to the north and west of East Greenwich and the agricultural and developing communities to the south and east is evident as one passes through the towns. All of the surrounding municipalities have their roots in early Native American settlements and colonial times, yet the pace and timing of development has been markedly different over the last 100 years. Along the Delaware River West Deptford, Paulsboro and Greenwich have large industrial plants with residential areas in close proximity to the industrial sites, which have been large employers. To the south and east, Mantua, Harrison and Woolwich have been farming communities with village centers and some suburban growth along major roads and near commercial centers. However, over the last decade the pace of development has picked up and the evolution from agriculturally dependent communities to communities of commuters has continued.

Developed Communities

West Deptford Township

The entire northeastern township line is a border with West Deptford. The border is defined by the Mantua Creek. Along the eastern portion of the border, West Deptford is zoned for heavy manufacturing, M2. Just west of Kings Highway is a small area zoned residential R1 (20,000 square foot lot size) and a single commercially zoned site along Kings Highway. Just east of Kings Highway to the rail road is also zoned R-1. From the rail road east almost to the Turnpike is an area that is zone for rural residential R6 (2 acre lot size) and has been designated for Recreation and Open Space in the municipal master plan. From just west of the Turnpike to the end of the border with East Greenwich is zoned residential R6. The rural residential, recreation and open space and medium density residential areas are consistent with the residential zoning in East Greenwich. The Manufacturing areas toward the west are not consistent with the residential zoning in East Greenwich. This zoning scheme in West Deptford is practical since it is along the highway (I-295), yet it creeps further east than the commercial and industrial areas in East Greenwich. The manufacturing in West Deptford is separated from East Greenwich by a riparian corridor and wetlands which form a substantial buffer.

Paulsboro Borough

East Greenwich shares a short border with Paulsboro to the north. Paulsboro is a two square mile town that is essentially divided into two sections known as Paulsboro and Billingsport. Billingsport is representative of post-war industrial development and suburban growth, and Paulsboro is representative of older housing and commercial areas that came of age prior to society's shift toward auto dependency. The 1998 Paulsboro Master Plan indicates that there are six areas in need of redevelopment. One of these areas is the Interchange 18 area near Berkley Road, which is on the border with East Greenwich. This is consistent with East Greenwich's intent to establish a redevelopment area in the vicinity of Interchange 18. The zoning at the border is commercial C-2 and manufacturing M, which are consistent with east Greenwich's B-1 and B-2 zoning. The municipalities should coordinate their redevelopment efforts for the travel center, which lies in both towns.

Greenwich Township

From north to south the zoning designations along Greenwich's border with East Greenwich are: business park BP, residential R-2, senior citizen SC, business park BP, senior citizen SC and multi-family residential R-10. The BP zone permits a variety of business and light manufacturing uses such as commercial retail on major roads, warehousing and wholesale, professional offices, light manufacturing and conference centers. The minimum tract area for a planned development in the BP zone is ten (10) acres or two (2) acres for an individual site plan. In the vicinity of Interchange 18 where East Greenwich, Greenwich and Paulsboro come together, the BP zone in Greenwich is consistent with the B-2 zone in East Greenwich and the commercial zone in Paulsboro. If Greenwich adopts a redevelopment plan around the interchange, it will compliment the proposed redevelopment area in East Greenwich.

The residential R-2 zone permits single-family homes on lots of 12,500 square feet with access to public water and sewer. The R-2 area is adjacent to the R-15 zone in East Greenwich, which will soon be home to a public storage facility that received a use variance in November of 2003. The new facility will incorporate buffers and landscaping that responds to the adjacent residential uses. There are two areas along the border that are zoned for senior citizen developments. The SC zone requires a minimum tract area of 40 acres and permits a maximum density of three dwelling units per acre on 7,500 square foot lots with a minimum of 20% of the tract area in common open space. The SC zone is tailored to meeting the needs of the senior citizen population in areas convenient to shopping and transportation. The areas designated for senior citizen housing are adjacent to the Interstate Business B-2 and Industrial I zones in East Greenwich. The land in East Greenwich has been zoned this way for more than ten years. While development has not yet occurred it is anticipated that the proposed redevelopment plan will begin to attract development. Any inconsistencies will be tempered by stringent setbacks, buffer requirements and landscaping.

The majority of the line that divides East Greenwich from Greenwich is dominated by the BP zone in Greenwich. The adjacent zones in East Greenwich are B-2 and I, which are consistent. At the southwest corner of East Greenwich where East Greenwich, Greenwich and Logan meet, the zoning in Greenwich is R-10, a multi-family residential zone. The R-10 permits townhouses at a density not to exceed 6 dwelling units per acre and apartments not to exceed 6 dwelling units per acre with a 20% set aside for persons of low and moderate income. The adjacent land in East Greenwich is zone B-2, which is inconsistent. Often times, multi-family residential areas are set next to more intense business uses. Yet the apartment or townhouse dwellers have the same needs for clean air and quiet as those in single family units. Therefore development in the B-2 zone will be cognizant of the neighbors and will incorporate buffers and landscaping to mitigate any negative impacts.

Developing Communities

Harrison Township

Harrison Township's Master Plan was adopted in 1989 and now includes minor revisions. At the border with East Greenwich there are two zoning designations. In the vicinity of the New Jersey Turnpike and Tomlin Station Road, the land is zoned Planned Industrial (PI). Though this area is presently underdeveloped, the township envisions a future assemblage of land that will result in planned and integrated industrial development. Currently the land is largely vacant or agricultural with some light industrial/ commercial and cell towers. The majority of the border is zoned

residential R-1 which is a one acre zoning designation intended for agricultural uses and to accommodate some housing growth. The PI zone is not consistent with the adjacent uses in East Greenwich. The entire border with Harrison Township is zoned Rural Residential RR. A number of developments have cropped up along Union Road and Barney Hawkin Road in East Greenwich Township, which are consistent with the R-1 zone in Harrison. Both the RR zone in East Greenwich and the R-1 zone in Harrison are outside the sewer service area.

Woolwich Township

The western half of East Greenwich's southern border is shared with Woolwich Township. Between 2000 and 2002 Woolwich Township had the fastest population growth rate in the entire state, growing 50% from 3,032 people to 4,549 people. At one time the Township anticipated rapid unrestrained growth, but has recently adjusted its projections to reflect planned growth and preservation. Woolwich adopted its new zoning map on December 15, 2003. There are three distinct zoning designations along the border with East Greenwich. The western section of the border is zoned for residential R-2, the middle section is zoned planned adult community PAC and the eastern section is zoned flexible office commercial FOC. There is a proposed overlay zone on the FOC area at the border entitled "Kingsway Commercial Overlay". The FOC zone permits a flexible mix of offices, banks, entertainment, service uses and the like. The zoning regulations for the overlay have not yet been adopted. The FOC zone and the proposed overlay at the East Greenwich border are located west of the Turnpike adjacent to the rural residential RR area. This will create an inconsistency. When the overlay is proposed for adoption, it is recommended that representatives of East Greenwich review the proposals and attend hearings.

According to Woolwich's land development ordinance, the area designated as R-2 is intended to preserve agriculture and low density single family homes regardless of the presence or absence of sewer availability. The minimum lot size is 63,340 square feet, with a maximum gross density of .66 dwelling units per acre. The PAC area is intended to implement the terms of a settlement between Woolwich Township and Woolwich Adult Communities, LLC. The area will permit only the development of age restricted single family, townhouse and condominiums units on tracts of land greater than 200 acres. Townhouses and apartments may only be constructed in the PAC zone if they are made affordable to those of low and moderate income. Though the exact number of affordable units is not yet known, a total of 1,028 age-restricted units are planned. The development must have sewer service and must reserve 50% of the parcel as open space. An 18 hole golf course may be included in the open space. The Kingsway Town Centre overlay is located at the intersection of Kings Highway and Pentacost Road and will include up to 1.5 million square feet of commercial space over the course of the projected build out. A village atmosphere is envisioned with a clock tower and public parks. Yet, the mix of stores includes restaurants, a home store, supermarket and a movie theater. On a small scale these establishments could create a village, but large scale big box stores are hardly the elements of a village. Also, up to 1.5 million square feet of office and flex parks will be planned for the FOC Kingsway Commercial Overlay. A development of this scale will have a significant impact on Woolwich and the surrounding communities, most notably East Greenwich.

Mantua Township

East Greenwich shares a border to the southeast with Mantua Township. Along the shared border, lands in Mantua are zoned for agricultural residential AR and low-density residential R-40. Significant development of single-family homes has been taking place along Mount Royal Road (C.R. 678) which extends east from Mantua Paulsboro Road in East Greenwich. The area zoned

R-40 in Mantua is consistent with the adjacent area zoned R-10 in East Greenwich. The area zoned for agricultural residential is consistent with East Greenwich's parallel desire to preserve farming opportunities and to maintain the rural character in the rural residential RR zone.

Logan Township

Logan and East Greenwich share a very short border at East Greenwich's southwest corner. Though the two towns touch only at a point, the regional context within which they operate is similar and therefore makes them relevant to one another. Logan Township is 23.4 square miles and the population at the time of the 2000 census was 6,032 people. Logan's zoning at the border is residential R-1. The minimum lot size in the R-1 zone is 40,000 square feet, with a maximum density of one (1) dwelling unit per acre. The land in East Greenwich at the point of contact is zoned for interstate business B-2 and is located inside the sewer service area. However, the area is presently vacant and without sewer infrastructure. Logan's R-2 zone is also located in the vicinity, though not at the point of contact with East Greenwich. The residential R-2 zone permits agriculture and single family homes on lots with an area of two acres or more. The R-2 cluster zone permits 15,000 square foot lots with a maximum density of 1.5 dwelling units per acre. The present uses in the vicinity are agricultural and rural residential. The date of the last Master Plan was February 27, 1990. The Township contains sizable wetlands with 620 acres of surface waterways. The Township is dominated by agricultural and industrial uses, roughly organized around the waterfront and the major highways and roads

Conclusion

The East Greenwich Master Plan seeks to continue the existing land development policies in most areas of the Township, though the requirements within general zoning districts will in some cases change to respond to the community's needs and current conditions. The land use designations in East Greenwich are generally consistent with the use designations in the surrounding municipalities. The Township will remain diligent with regard to plans along Kings Highway in both directions to assure that the Township's plans are not undermined by actions just outside the Town's borders.

Despite the fact that zoning throughout the municipality will not change drastically, many policy changes are recommended to enhance the potential for maintaining and enhancing open space, the Town's character, quality of life for residents and opportunity for sustainable economic development. East Greenwich is a developing township and changes to the landscape are anticipated. By remaining mindful of the plans of surrounding municipalities, the county and the state the new Master Plan reflects local conditions and needs with an eye toward the region and the Town's role in the metropolitan area and the state. Every effort will be made to consider regional impacts of local decisions. The township would like to continue to cooperate with Gloucester County on traffic issues, recycling programs, economic development plans and farmland preservation efforts. Additionally, the Township would like the New Jersey Office of Smart Growth to review and endorse the plan.

B. Implementation

The Zoning Ordinance serves as the official implementation structure of the Master Plan. Upon acceptance of this document by the Planning Board, the Township Committee should commission a subcommittee to review existing Land Development Ordinances and draft implementing ordinances that respond to the suggestions and recommendations established within the Master Plan. The Planning Board should establish a specific six-year program of recommended expenditures. This list should then be forwarded to the Township Committee for their review and incorporation into the Municipal Capital Improvement Program.

Capital Improvements Program

It is recommended that the Township Committee rank the following items and project capital funding within their budgetary limitations. The committee may choose to phase the Master Plan recommendations over a six-year period.

Procedural Items:

- Preserve the financial integrity of the community through reasonable debt limitations and proper capital budgetary techniques.
- The Planning Board should prioritize all items listed in the Master Plan and present this list to the Township Committee.

Land Use:

- Institute a series of re-zonings that have been suggested in light of changing land use patterns and the changes in market conditions.
- Revise development ordinances to implement increased design standards.
- Revise development ordinances to implement the Redevelopment Plan.

Circulation:

- Explore mass transportation efforts in light of regional growth that is affecting East Greenwich Township and its ability to maintain adequate road segments to handle increased volumes of traffic.
- Present the series of recommendations of specific road improvements and traffic controls as identified in the Master Plan to NJDOT, DVRPC and the Gloucester County Highway Department.
- Revise development ordinances to require traffic-calming techniques on streets and bicycle transportation network where identified in the Master Plan.

Recreation:

- Establish a joint working relationship with the School Board to plan needed township recreational facilities and School Board facilities in centralized locations.
- Establish an adequate number of fields to serve the needs of the local youth groups for various activities.
- Establish a multi-year program for the implementation of the recommended number of sports facilities consistent with the population growth within the township.

Open Space and Conservation:

- Establish the conservation corridor easements that link the wooded stream corridor areas in the township for wildlife preservation.
- Initiate a street tree planting program along State, county and municipal roads. Plantings along the county roads should be coordinated with the county.
- Prioritize the parcels identified for open space preservation as listed in the Open Space and Preservation Plan (OSRP) and the Master Plan.
- Adopt an Official Map in accordance with the Municipal Land Use Law to prioritize and maintain the Township's ability to acquire properties for public use for up to one year after development applications have been submitted and approved.
- Promote incentives through development ordinance regulation the environmentally sensitive design solutions of all developments particularly along stream corridors and wetland areas.
- Establish a Steep Slope Ordinance that prohibits development on steep slopes where such development will create erosion, siltation, and flooding and excessive water run-off.
- Create an Environmental Overlay zone that limits development within environmentally sensitive areas as identified in the Mellon Biological Services Report.

Farmland Preservation:

- Adopt an Official Map in accordance with the Municipal Land Use Law to prioritize and maintain the Township's ability to acquire or purchase development rights on properties as listed for farmland preservation for up to one year after development applications have been submitted and approved.
- Apply for farmland preservation funding to purchase the development rights of lands as identified in the Farmland Preservation Element.

- Should or when the State Legislature permits Transfer of Development Rights (TDR) outside of Burlington County, the Township should immediately pursue the implementation of a TDR Ordinance.

Population and Housing:

- Establish a mechanism for housing rehabilitation to satisfy the Council on Affordable Housing requirements.
- Institute the spending plan as approved by COAH to assist those homeowners who may income qualify.

Community Facilities:

- Review all public buildings for compliance with the requirements of the Americans with Disabilities Act (ADA).
- Establish and promote cooperation and coordination between the School Board and the Township Planning Board.
- Establish a committee of Township Officials and representatives of the Fire Department to discuss the consolidation of the two fire companies in order to make more efficient use of equipment and manpower.
- Establish a committee of Township Officials to discuss the acquisition of property for a public works yard and storage building.

Utilities:

- Develop a strategy to extend public water service into those existing neighborhoods, which lack service.
- Develop a strategy to extend public sewer service into sections of the township that currently exist within the sewer service area and have inadequate septic systems.
- Investigate the possibility of income qualifying income-qualifying residents as established under the criteria of the Council on Affordable Housing so that public funding can be expended to help defer the costs of public sewer service.
- Apply for a grant to the Commissioner of the Environmental Protection for the preparation of a municipal stormwater management plan.

Recycling:

- Amend the recycling ordinance to require developers to provide the container for each new homeowner in his development.

- Require county review of plans for all multi family projects to ensure adequate areas for recycling.

Economic:

- Promote incentives through development ordinance regulation a business friendly environment for existing businesses that have invested in the Township and provide a supportive environment for those wishing to upgrade or renovate existing businesses.
- Adopt the Redevelopment Plan and initiate a series of re-zonings and development controls that have been proposed within the Redevelopment Plan.
- Establish a marketing strategy to attract major corporations to the area along the Route 295 corridor.

Historic Preservation:

- Establish a Historic Review Advisory Committee to review and recommend several issues including the consideration for a Historic Resources and Preservation Survey.
- Implement architectural guidelines as stated within the Historic Preservation and Land Use Elements of the Master Plan.



19th century Victorian design adds color and texture to the community