

BIOLOGICAL RESOURCES

When a community protects wildlife and habitat, it also protects biodiversity, which enables many species, including humans, to thrive and live healthy lives. Biodiversity refers to the variety of genetic material within a species population, the variety of species (plants, animals, microorganisms) within a habitat, and the variety of ecosystems within a given region. Biodiversity facilitates adaptation and evolution, improving a species' chance of survival as the environment changes. A diversity of plant and animal species is also necessary to maintain healthy human environments, working landscapes, and productive ecosystems. Lower organisms, many not well known, contribute to nutrient cycling, decomposition of organic matter, soil rehabilitation, pest and disease regulation, pollination, and water filtering. Once biodiversity declines, it is extremely hard for an ecosystem to recover or replace species.

Evesham contains numerous types of natural habitats, all of which are important for maintaining biodiversity. Wetlands, which support plants that require constantly saturated soils, are the most abundant type of natural habitat in Evesham. Upland forests make up most of the remainder of major habitats present in Evesham, and brushlands and scrublands are also present. The following sections identify and describe in more detail the plant and animal communities that inhabit these ecosystems within Evesham.

NATURAL VEGETATION

An area's vegetation is dependent on many factors, the most important of which are climate and soils. The region has a cool, temperate climate with rainfall averaging 48.25 inches per year. See the **Climate** section for a detailed description of Evesham's variable climate. Evesham's variety of hydric and non-hydric soils support diverse populations of trees, crops, and wetland vegetation. See the **Soils** section for a detailed description of Evesham's soils.

Evesham's natural vegetation types, along with human-influenced types of land cover, have been tabulated and mapped by NJDEP's 2012 land cover analysis. This is the most recently available remotely sensed data that shows vegetative cover. The designation of a particular land cover as a vegetation type is based on definitions provided by the Anderson Land Use Classification System, created by the U.S. Geologic Survey. See **Table 20: Evesham Township Natural Vegetation** and **Map 12: Natural Vegetation**.

It is generally believed that the vegetation found in the Pinelands today developed within the past 12,000 to 10,000 years. The New Jersey Pine Barrens ecosystem is home to approximately 800 species of flowering plants and 25 species of ferns. Among them are various types of wildflowers, as well as some carnivorous plants, such as pitcher plants and sundews. The forests usually have three levels: groundcover (made up of mosses, lichen, grasses, ferns, and small shrubs, such as low blueberry, sweet pepperbush, bayberry, scrub oak, and highbush blueberry), the understory, and a canopy (trees such as pitch pine, post oak, red maple, American holly, Atlantic white cedar, and sour gum). Trees that are common in the upland areas of the Pinelands include chestnuts, pitch pines, short-leaf pines, and oaks (such as black, scarlet, blackjack, white, and post). Vegetation common in the bog/swamp areas includes: Atlantic white cedar, pitch pine,

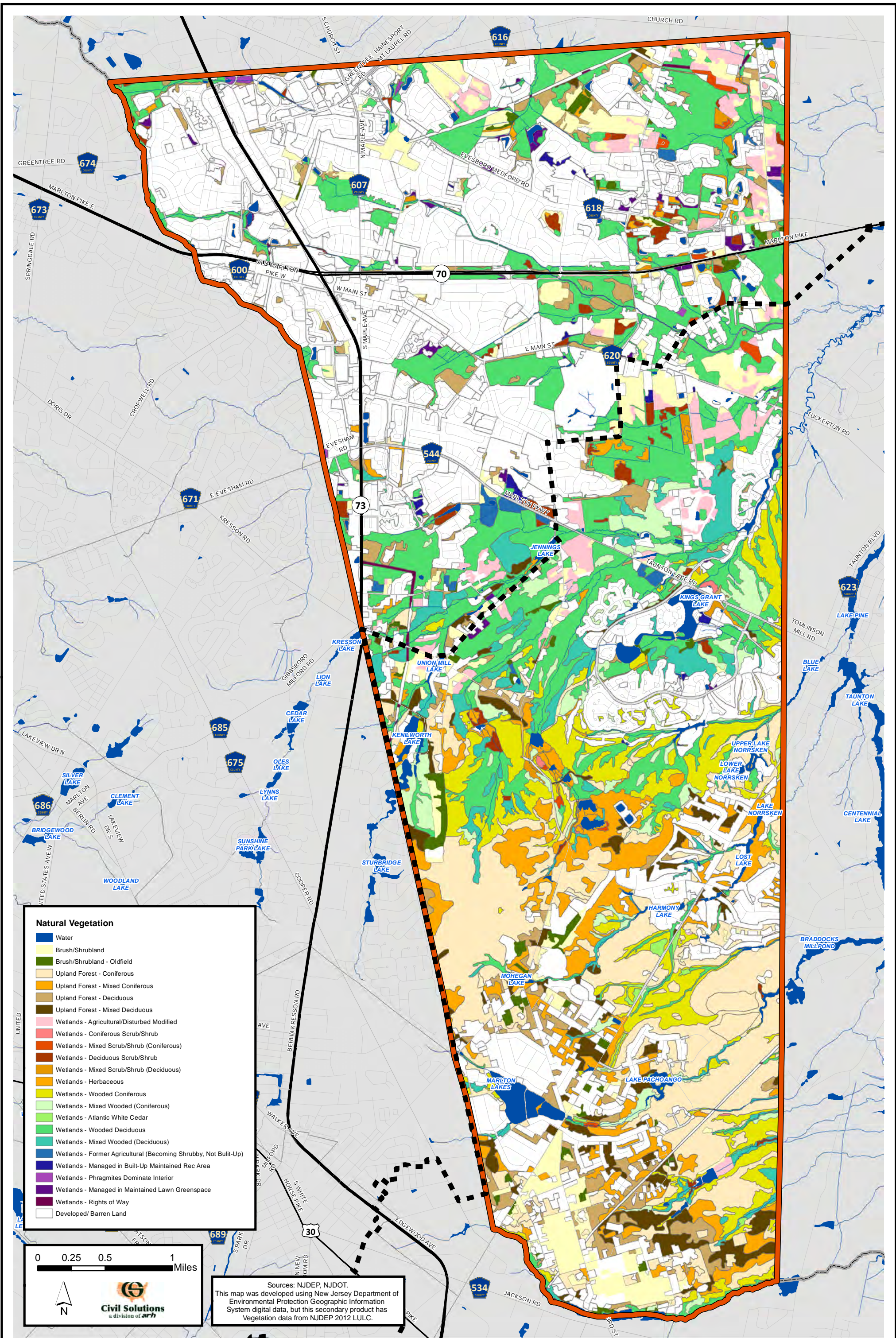
red maple, black gum, swamp magnolia, and gray birch. See **Appendix D: Streamside Plants Documented in Pineland Areas of Evesham Township.**

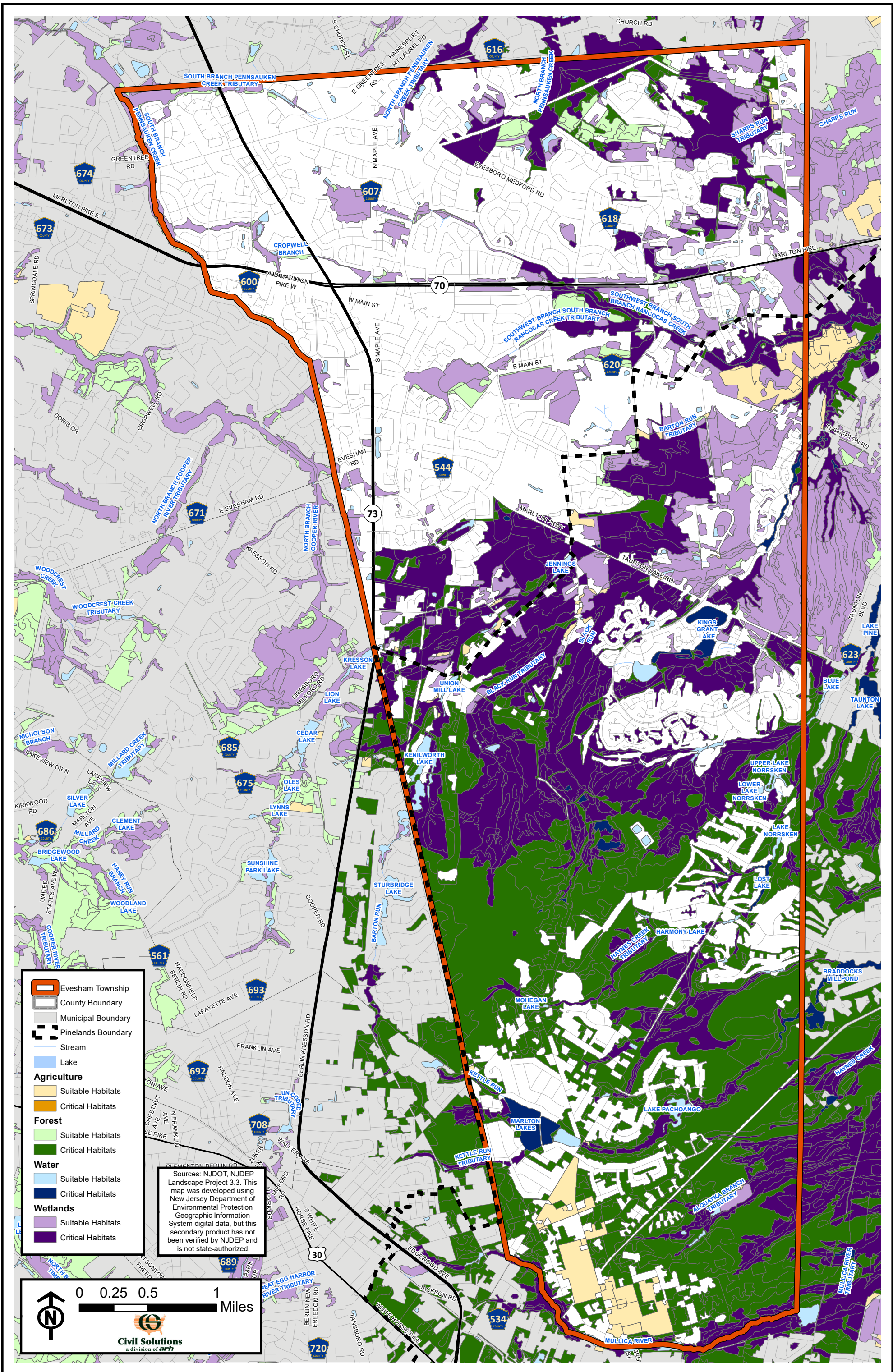
Table 20: Evesham Township Natural Vegetation

TYPE OF VEGETATION	ACRES	PERCENT TOWNSHIP AREA
Wetlands	5717.10	30.20%
DECIDUOUS WOODED WETLANDS	3,073.28	30.20%
CONIFEROUS WOODED WETLANDS	1,031.88	16.23%
AGRICULTURAL WETLANDS (MODIFIED)	497.97	5.45%
MIXED WOODED WETLANDS (CONIFEROUS DOM.)	327.06	2.63%
MIXED WOODED WETLANDS (DECIDUOUS DOM.)	260.76	1.73%
DECIDUOUS SCRUB/SHRUB WETLANDS	162.25	1.38%
FORMER AGRICULTURAL WETLAND (BECOMING SHRUBBY, NOT BUILT-UP)	80.85	0.86%
MANAGED WETLAND IN MAINTAINED LAWN GREENSPACE	74.48	0.43%
HERBACEOUS WETLANDS	70.83	0.39%
DISTURBED WETLANDS (MODIFIED)	31.75	0.37%
MIXED SCRUB/SHRUB WETLANDS (DECIDUOUS DOM.)	30.24	0.17%
MANAGED WETLAND IN BUILT-UP MAINTAINED REC AREA	27.56	0.16%
ATLANTIC WHITE CEDAR WETLANDS	26.10	0.15%
MIXED SCRUB/SHRUB WETLANDS (CONIFEROUS DOM.)	22.08	0.14%
CONIFEROUS SCRUB/SHRUB WETLANDS	17.91	0.12%
Forest	3,876.77	20.48%
CONIFEROUS FOREST (>50% CROWN CLOSURE)	1,923.88	10.16%
MIXED FOREST (>50% CONIFEROUS WITH >50% CROWN CLOSURE)	799.99	4.23%
DECIDUOUS FOREST (>50% CROWN CLOSURE)	561.69	2.97%
MIXED FOREST (>50% DECIDUOUS WITH >50% CROWN CLOSURE)	288.96	1.53%
DECIDUOUS FOREST (10-50% CROWN CLOSURE)	130.64	0.69%
CONIFEROUS FOREST (10-50% CROWN CLOSURE)	124.00	0.66%
MIXED FOREST (>50% DECIDUOUS WITH 10-50% CROWN CLOSURE)	26.84	0.14%
MIXED FOREST (>50% CONIFEROUS WITH 10-50% CROWN CLOSURE)	20.76	0.11%
Brush/Shrubland	1,151.18	6.08%
CROPLAND AND PASTURELAND	700.15	3.70%
OLD FIELD (< 25% BRUSH COVERED)	190.68	1.01%
DECIDUOUS BRUSH/SHRUBLAND	135.70	0.72%
MIXED DECIDUOUS/CONIFEROUS BRUSH/SHRUBLAND	93.77	0.50%
CONIFEROUS BRUSH/SHRUBLAND	30.89	0.16%
Lakes	291.05	1.54%
ARTIFICIAL LAKES	291.05	1.54%
TOTAL	11,054.01*	58.39%

Source: NJDEP (2002 Land Cover)

Note: Total acres of vegetation is not equivalent to total township area.





Evesham Township

Map 13: Landscape Project Priority Habitats

Wetlands

Wetlands are a critical ecological resource, supporting both terrestrial and aquatic animals and boasting biological productivities far greater than those found on dry land. Wetlands play a vital role in maintaining water quality by cleaning surface and ground waters. The ecological importance of wetlands, however, has not always been appreciated. For over three centuries people drained, dredged, filled and leveled wetlands to make room for development and agriculture. Although the pace of wetland destruction has slowed markedly in the past three decades, human activities have destroyed approximately 115 million of the original 221 million acres of wetlands in the United States since the beginning of European settlement.

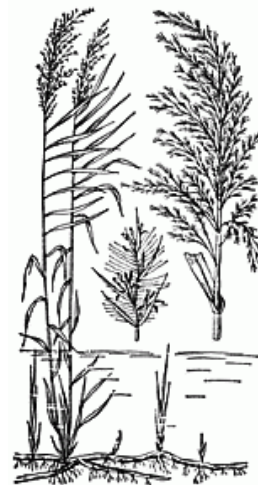
Most wetlands in Evesham are found in association with major streams and their tributaries, including Barton Run, Black Run, Kettle Run, Pennsauken Creek, and Sharps Creek. Wetlands are dominant in the central portion of Evesham, where Barton Run and its tributaries are located. Wetlands provide high-quality animal and plant habitats, purify surface and groundwater, and create picturesque landscapes that add to the quality of life for area residents. Evesham's most abundant wetlands are deciduous wooded wetlands and coniferous wooded wetlands. All are listed in *Table 18*.

Deciduous wooded wetlands (sometimes referred to as forested wetlands) occupy 3,073.28 acres of Evesham Township and support mixed hardwoods that flourish at low elevations. Some common trees in the area's deciduous wooded wetlands are red maple, black tupelo, ash, black willow, American beech, swamp white oak, willow oak, southern red oak, and sweetgum. Similar to deciduous wooded wetlands are deciduous-dominated mixed wooded wetlands, occupying 260.76 acres of Evesham. Vegetation in such wetlands is composed of greater than 50% but less than 75% deciduous species. Deciduous and mixed deciduous wooded wetlands are found along nearly all stream corridors in Evesham.

Coniferous and coniferous-dominated wetlands are the second most common type of wetland found in Evesham, occupying about 1,358.94 acres combined. These closed-canopy wetlands support species such as the loblolly pine, pond pine, Atlantic white cedar, and red maple.

Other types of wetlands found in Evesham include scrub/shrub, Atlantic white cedar, and herbaceous. Scrub/shrub wetlands consist of woody species less than 20 feet tall. These wetlands may be usually in early successional stages and will later become shrub-dominated wetlands or those dominated by canopy species. Atlantic white cedar wetlands are found primarily in southern New Jersey and consist of Atlantic white cedars and other trees such as red maple, and shrubs such as blueberry.

Herbaceous wetlands cover less than 0.37%% of Evesham Township. Herbaceous wetlands may include plants such as Jack-in-the-pulpit, jewelweed, ferns, rice cutgrass, reed canary grass, pond lily, tearthumb, arrow-leafed tearthumb, and



Source: www.agroportal.ru

Figure 13: Phragmites

The invasive species Phragmites crowds out native vegetation.

broadleaf cattail. Herbaceous wetlands may be dominated by *Phragmites*, a reed that colonizes easily and pushes into wetland areas from adjoining dryer land, growing through underground shoots that make it difficult to eradicate (see Figure 13). As it spreads, it tends to trap silt and gradually raise the land level, converting the habitat to one that is dryer. This conversion, plus its manner of growth, enables *Phragmites* to push out other wetland species of plants. *Phragmites* does not provide good habitat for wildlife and tends to become a monoculture, so it is considered an invasive species.

Modified wetlands are areas that have been altered by human activities and do not support natural wetland vegetation, but which do show signs of soil saturation on aerial infrared surveys. Agricultural wetlands, described in some detail in the Surface Water section, occupy 497.97 acres of land that is now under cultivation. This figure may be larger because not all modified agricultural wetlands show well on aerial infrared photos. Other modified wetlands encompass former agricultural wetlands, disturbed wetlands and wetlands that occur in maintained greenspaces such as open lawns, golf courses, and storm water swales.

Upland Forests

Upland areas are those locations without water at or near the soil surface. About 22.89% of Evesham is composed of upland forests. Much of the area's original upland forests have been cleared and converted to development. The remaining upland forests are primarily located in the southern half of the township.

Upland forests are the third most abundant general land cover type in Evesham after urban land use and wetlands. Approximately 4,333.04 acres of Evesham is upland forest, the vast majority of which is coniferous forest. These forests are mostly made up of successional, or pioneer, plants – like Virginia pine, scrub pine, and pitch pine – which may eventually be overgrown by dominant deciduous trees, such as ash, birch, oak, and hickory—or may remain as the dominant population in Evesham's Pinelands environment.

The upland forests of the Pinelands are dominated by pitch pines, short-leaf pines, and several species of oaks. The understory is composed of various shrubs, such as scrub oak, black huckleberry, lowbush blueberry, and mountain laurel. The ground is also covered by lichens, mosses, bracken ferns, bearberry, and teaberry.



Source: Science Office, New Jersey Pinelands Commission

Pinus rigida (Pitch Pine)

Grasslands and Agricultural Lands

NJDEP defines grassland habitat as brushland, shrubland or old fields that were cleared or disturbed at one time and then abandoned. Following abandonment, old fields are overgrown by perennial herbs and grasses. These pioneer plants remain the dominant species for 3 to 20 years. Later, woody plants take over. This habitat is visible especially along wood edges, roadsides, and in landscapes where mowing is infrequent and where woody plants are not yet the dominant vegetation.

According to 2002 NJDEP land cover data, only about six percent of Evesham's land cover consists of brushland, shrubland or old fields. Old fields are sections of farmland that have become idle and have transitioned to land suitable for grassland and brushland species habitat. Patches of these lands are scattered throughout Evesham, and are often found adjacent to agricultural lands and upland forests.

LANDSCAPE PROJECT PRIORITY HABITATS

The Landscape Project, developed by the Endangered and Nongame Species Program of the NJDEP Division of Fish & Wildlife, documents the value of various types of habitats within New Jersey. It categorizes these habitats into one of five groups according to their importance (five being the highest). Ranks three through five are considered "critical" habitats that possess two exceptional conditions: (a) a documented occurrence of one or more species included on either a federal or state endangered or threatened species list, and (b) a sufficient amount of habitat type to sustain these species. These habitats are collectively known as "critical habitat." Rank 2 habitats have one or more occurrences of at least one "state species of special concern," and Rank 1 habitat is deemed suitable for species that are included on the state or federal threatened and endangered species lists but for which there are no documented occurrences or sightings. Rank 2 and 1 habitats are labeled "suitable habitats." It is important to preserve both levels of habitat in order to maintain the diversity of species that still exists in the area.

The Landscape Project identifies both "critical" and "suitable" habitat in Evesham. The rankings in Evesham are primarily the result of habitat being either "critical" or "suitable" for rare bird species, such as the red-shouldered hawk or the barred owl, or for endangered reptiles and amphibians, such as the Pine Barrens treefrog. See **Table 21** below and **Map 13: Landscape Project Priority Habitats**.



Pink Lady Slipper

Courtesy of John Volpa

Table 21: Landscape Project Habitat Rankings – Acreage in Evesham

Category	Rank	Area (Acres)
Upland Forest		8,640.67
	Critical Habitat (4)	5,511.65
	Critical Habitat (3)	902.32
	Suitable Habitat (2)	2,226.70
	Suitable Habitat (1)	0.00
Forested Wetlands		4,949.44
	Critical Habitat (4)	1,744.99
	Critical Habitat (3)	1,072.15
	Suitable Habitat (2)	2,132.29
	Suitable Habitat (1)	0.00
Emergent Wetlands		745.97
	Critical Habitat (4)	0.00
	Critical Habitat (3)	57.14
	Suitable Habitat (2)	688.83
	Suitable Habitat (1)	0.00
Grasslands		916.37
	Critical Habitat (4)	0.00
	Critical Habitat (3)	0.73
	Suitable Habitat (2)	873.34
	Suitable Habitat (1)	0.00
Total Habitat		15,252.45

Source: NJDEP

Key to Table 21

Rank	Combined Category	Explanation
5	Critical habitat	Documented occurrence of one or more species included on the federal endangered or threatened species list <u>and</u> a sufficient amount of habitat type to sustain these species
4	Critical habitat	Documented occurrence of one or more species included on the state endangered species list <u>and</u> a sufficient amount of habitat type to sustain these species
3	Critical habitat	Documented occurrence of one or more species included on the state threatened species list <u>and</u> a sufficient amount of habitat type to sustain these species
2	Suitable habitat	One or more occurrences of at least one “state species of special concern” <u>and</u> a sufficient amount of habitat type to sustain these species
1	Suitable habitat	Habitat deemed suitable for species that are included on the federal or state threatened and endangered species lists but for which there are no documented occurrences or sightings <u>and</u> a sufficient amount of habitat type to sustain these species

Landscape Project Data on Upland Forest Habitat

The Landscape Project ranks about 6,413.97 acres in Evesham as “critical” upland forest habitat, and nearly 2,226.70 acres as “suitable” upland forest habitat. Upland forest habitat is found primarily in the southern half of the township. Upland forests are home to rare species such as

timber rattlesnakes, barred owls, northern pine snakes, Pine Barrens treefrogs, red-shouldered hawks, and red-headed woodpeckers, and to the species of special concern such as eastern box turtles, eastern king snakes, great blue herons, wood thrushes, and brown thrashers.

Landscape Project Data on Emergent Wetland Habitat

The Landscape Project divides wetland habitats into two types – emergent and forested wetlands. Emergent wetlands are marshy areas characterized by low-growing shrubs and herbaceous (non-woody) plants in standing water. About 688.83 acres in Evesham are identified as emergent wetlands habitat and are ranked at the “suitable” level. No emergent wetlands in the township are classified as “critical.” Small patches of emergent wetland habitat are found throughout the township, mainly along waterways and adjacent to forested wetlands. Animal species that can be found in these wetland habitats include turtles, fish, mollusks, crustaceans, and insects. Emergent wetlands are also important habitats for migratory waterfowl and passerines (smaller perching birds, such as migrating flycatchers and thrushes). In Evesham Township in particular, this habitat is suitable for carpenter frogs, Fowler’s toads, great blue herons, and Pine Barrens treefrogs.

Landscape Project Data on Forested Wetland Habitat

Evesham’s forested wetlands occupy 4,949.44 acres of which 2,919.14 acres are ranked as critical. “Critical” forested wetlands in Evesham are located primarily in the central portion of the township. “Suitable” forested wetland habitat supports wildlife along the other waterways in the township. Forested wetlands support species such as migratory and nesting warblers, many of which are species of special concern. They can also be home to various rare amphibians (frogs and salamanders). In Evesham Township, forested wetlands are critical or suitable for barred owls, brown thrashers, carpenter frogs, eastern king snakes, Fowler’s toads, great blue herons, Pine Barrens treefrogs, timber rattlesnakes, and wood thrushes.

Landscape Project Data on Grassland-Species Habitat

The Landscape Project designates nearly all of Evesham’s remaining habitat as “suitable” or “critical” grassland-species habitat. Less than 1 acre is ranked as “critical” grassland-species habitat, though there are 873.34 acres of “Suitable” habitat. Grassland-dependent species (mostly birds) are the most threatened group of species in New Jersey, primarily because the most common form of habitat used by these species, agricultural fields, is the most threatened habitat in the state due to development pressure as well as to changed agricultural practices.

Examples of grassland-dependent species that use grassland habitat for nesting or feeding include the vesper sparrow and some species of butterflies and moths. Evesham’s designated grasslands provide critical or suitable habitat for eastern box turtles and northern pine snakes.

NEW JERSEY PINELANDS STUDIES

The NJDEP Landscape Project data is based on sightings of endangered species on parcels of land that are over 25 acres in size. The Landscape Project methodology for ranking habitat patches works well where patch sizes are relatively small or discontinuous, but it is less suitable to the New Jersey Pinelands, where there are large areas of contiguous habitat. The New Jersey Pinelands Commission, which is responsible for administering the Pinelands Comprehensive Management Plan (CMP), undertook an ecological-integrity assessment of the Pinelands to provide a more detailed analysis of habitats. The assessment's purpose was to evaluate the ecological status of the entire 938,173-acre (379,827-hectare) Pinelands Area and to identify the areas that are most intact and undisturbed – that have the highest ecological integrity.



Source: DVRPC

Grassy areas with pine woods, on the Aerohaven site

In order to evaluate ecological integrity, the Pinelands Commission looked at three factors: landscape integrity, wetlands integrity, and aquatic integrity. In addition to the data presented in the full report, published in 2008, the Pinelands Commission also developed a report entitled *Sub-regional Resource Protection Plan for Southern Medford/Evesham Townships*, which was released in 2006. This report is a more local plan that looks specifically at the Pinelands areas of Evesham and Medford townships. It documents ecological integrity, although it uses a different methodology, and devises a number of actions for protection of significant landscape habitats.

Landscape Integrity

Landscape integrity is a measure of the extent of intact Pinelands habitat in an area. Pinelands habitat includes upland forests, water, and wetlands, with the exception of managed wetlands and wetland agriculture. For the *Sub-regional Plan*, The Pinelands Commission study scientists determined which lands were “altered” based on 2000 DVRPC Land Use/Land Cover data. They included all developed land and upland agricultural land as “altered.” Remaining land was subdivided into grid “cells” and the study then used Geographic Information Software to compute the distance of each cell of habitat to the nearest altered land. Land farthest from altered land was given a value of 10, while the land closest to the altered land was given a value of 1.

Wetlands Integrity

Wetland integrity is a measure of the percentage of intact habitat in a wetland-drainage unit that is neither developed nor upland agriculture. A wetland-drainage unit is defined as a discrete area of wetlands and the adjacent uplands that contribute surface water and groundwater to the wetlands. The Pinelands Commission study for the *Sub-regional Plan* used a process similar to the landscape integrity analysis for the Pinelands as a whole to calculate watershed integrity, except in this case, the study scientists computed the straight line distance from a “wetlands” or “water” cell to altered land. Again, the ten percent of habitat farthest from altered land was given a value of ten, while the ten percent that was closest to the altered land was given a value of one.

Watershed Integrity

Aquatic integrity has been shown to be a function of the percentage of land, within the boundaries of a subwatershed, that is neither developed nor in agriculture. In general, water quality and biological communities decline as the level of altered land increases within a subwatershed. Dissolved solids and pH both rise as altered land increases. The Pinelands study for the *Sub-regional Plan* computed the sum of the area of developed and upland agricultural land in each drainage sub-basin or subwatershed and then divided this number by the total area of each sub-basin. This was then used to classify the subwatersheds into three categories: least altered (<10% altered), altered (10-30% altered), and most altered (>30% altered). In the *Sub-regional Plan*, this approach was used to characterize the 104 sub-basins within the Pinelands in Evesham and Medford

Pinelands Commission Conclusions Related to Evesham Township

Based on the Landscape, Wetlands, and Watershed Integrity analyses, plus additional rare plant and animal sighting data, three areas in the Evesham-Medford study were found to have particularly high resource value. One area is in eastern Medford Township. In Evesham, the southeastern portion of the township connecting to Medford is the second area. The Black Run drainage area and lands to the south of it is the third region. All three regions scored high in the integrity studies and all are deemed most important for preservation because of the biological communities that they support.

The *Sub-regional Resource Protection Plan* also looked at issues pertaining to land use in both Evesham and Medford, including population figures, infrastructure, zoning, township open space programs, and development pressures. The last were found to be high. The Study also laid out recommended Protection Strategies that could be used to protect these areas. These include changes in zoning, transfers between “sending” and “receiving” areas, clustering, direct acquisition, increased stewardship, and tax incentives. To date (March 2009) Medford Township has adopted the *Sub-regional Plan*. Evesham has not yet done so.

Other Pinelands Commission Studies

The Pinelands Commission has undertaken extensive scientific testing over the last 40 years. In the early 1990s, the Commission launched its long-term environmental monitoring program. The Pinelands Commission has released several reports about the watersheds within the Pinelands using the results of the long-term environmental monitoring program. Two of these reports – those on the Rancocas Creek Basin and the Mullica River Basin – are relevant to Evesham Township. They provide information about water quality, stream vegetation, fish assemblages, and anuran (frog and toad) assemblages. The data from these reports show that when there are changes in land use intensity and water quality, there are also corresponding changes in the composition of stream vegetation, fish assemblages, and anuran communities.

One of the Pineland Commission's current projects is the Kirkwood-Cohansey Project. In 2001, the New Jersey legislature directed the Pinelands Commission to prepare an assessment of how to meet future water-supply needs while protecting the Kirkwood-Cohansey aquifer. The legislation authorized \$5.5 million for the Commission to undertake this study in cooperation with NJDEP, Rutgers University, the U.S. Fish & Wildlife Service, and the U.S. Geological Survey. The project involves analyzing hydrology, species and community indicators, ecological-process indicators, landscape models, and build-out and water-demand.

There are two major research questions being addressed by the current phase of the Kirkwood-Cohansey study. The first is to determine what the effects of groundwater diversions from the aquifer are on stream flows and wetland water levels. The second question asks what the probable ecological effects are on aquatic and wetland communities of induced stream-flow and groundwater-level changes.

ANIMAL COMMUNITIES

Although no comprehensive inventory of the different animal species within New Jersey, Burlington County, or Evesham exists, there are records of sightings, biological studies of range, environmental impact assessments, and evaluations of endangered and threatened status. Evesham, however, is luckier than most communities because the New Jersey Pinelands are an extensively studied ecosystem. As a result, the descriptions of locally occurring animals are often more comprehensive here than in other areas. For example, according to the Pinelands Commission, 39 species of mammals, 299 birds, 59 reptile and amphibian species and 91 fish species have been identified as occurring within the Pinelands. This means that it is possible that many of these species occur in the southern half of Evesham, which is in the Pinelands Management Area. Using federal, state, scientific, and nonprofit sources, it is possible to identify and describe known and possible animals of Evesham.

See Appendix E: Vertebrate Animals Known or Probable in Evesham Township.

Invertebrates

Invertebrates are the basis of a healthy environment and are part of every food chain – either as food for amphibians and fish, or as a part of nutrient cycling systems that create and maintain fertile soils. Invertebrates consist of organisms lacking vertebrae, including insects (beetles, butterflies, moths, dragonflies, ants, termites, bees, wasps, flies, and others), arachnids (spiders, ticks, and mites), crustaceans (crayfish, microscopic copepods), mollusks (mussels, clams, snails, and slugs), and worms.

Macroinvertebrates are invertebrates that are visible to the naked eye but smaller than 50 millimeters. Benthic (bottom dwelling) macroinvertebrate communities provide a basis for ecological monitoring and are relatively simple to collect from shallow stream bottoms. These communities consist largely of the juvenile stages of many insects, such as dragonflies and mayflies, as well as mollusks, crustaceans, and worms.

Monitoring for diverse assemblages of macroinvertebrates reveals the effect of pollutants over a long period of time. The NJDEP Ambient Biomonitoring Network (AMNET) surveys streams for macroinvertebrate communities, which indicate certain levels of water quality, as was discussed in the **Surface Water Quality** section of this document.

There are nine endangered invertebrate species (two beetle species, four butterfly species, and three mussel species) and eight threatened invertebrate species (three butterfly species and five mussel species) in the State of New Jersey. In Evesham, the triangle floater, a freshwater mussel, is listed as a threatened species.

Vertebrates

Vertebrates are less numerous than invertebrates, but their larger size makes them much more visible, and thus better studied and recorded. Fish species are fairly well documented, as are mammals. Many species of birds both migrate and nest in Evesham, using the wetlands and other natural habitats to rest and feed. New Jersey is located in the Atlantic Flyway, a bird migration route that parallels the Atlantic coast east of the Appalachian mountains on the North American continent. Birds favor this path because there is abundant food located along the north-south route. Because New Jersey is located approximately half way between the North Pole and the equator, it is an important stopover site for many migrating bird species.

Mammals

Mammals appear to be abundant because they tend to be larger and live in habitats also ideal for human development. There are over 80 mammal species in New Jersey, of which nine are listed by the state as endangered. Some common mammals found in Evesham include cottontail rabbits, eastern gray squirrels, skunks, raccoons, opossums, and white-tailed deer.

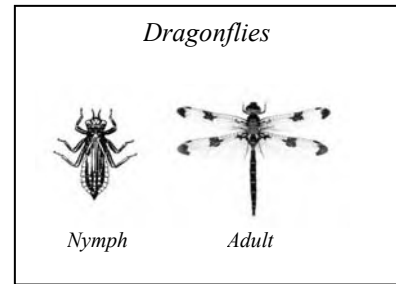


Figure 14: Dragonfly Nymph and Adult

The nymph is a common macroinvertebrate found in southern New Jersey's waterways

Management of white-tailed deer is an issue in New Jersey. Deer often come into conflict with humans in suburban and farm areas. According to the U.S. Department of Agriculture, deer cause more damage to agricultural crops than any other vertebrate wildlife species. Farmers in densely human-populated areas appear to be the most affected. Additionally, deer can devastate the understory of forests through overgrazing, destroying the growth of seedlings and young trees. Finally, as most motorists are aware, collisions between deer and automobiles frequently result in serious damage.

Controlling deer numbers has become increasingly difficult in New Jersey, primarily because suburban landscaping provides year-round food, which supports population growth. The principal method of culling the population – hunting – is often not feasible in suburban environments.

To minimize human-deer conflicts, the New Jersey Agricultural Experiment Station recommends both lethal and nonlethal deer management options for community-based deer management programs. For example, municipalities can extend the hunting season, issue depredation permits to private landowners, engage in sharp shooting, and employ traps and euthanasia to reduce deer numbers. Alternatively, communities and private landowners can choose to apply nonlethal, although more costly, deer management strategies such as installing reflectors and reducing speed limits on rural roads to decrease deer-vehicle collisions, modifying habitat by planting unappealing plants on commercial and residential properties, using taste-based and odor-based repellents, and employing traps and translocation techniques.



Courtesy of Mike Baird

Red-shouldered Hawk

Birds

There are between 350 and 500 bird species in New Jersey, which is an exceptional number given the state's small size. New Jersey is an important location for migratory birds flying south for the winter. Not only is the state an important "rest stop" for birds migrating to warmer climates in Central and South America, but the New Jersey Atlantic Coast and the Delaware Bay are major parts of the Eastern Flyway (established migratory air route) in North America.

Common birds in Burlington include geese, ducks, vultures, woodpeckers, doves, swallows, crows, grackles, jays, robins, starlings, wrens, cardinals, finches, sparrows, and some hawks. Wild turkeys are becoming

increasingly common in South Jersey, and wild turkey hunting is popular. The red-shouldered hawk, an endangered bird species; the Cooper's hawk, a threatened bird species; and other rare and endangered species have been sighted in Evesham. According to the Landscape Project, Evesham contains suitable habitat for a variety of predatory birds including hawks, falcons, and eagles.

Fishes

When European settlers arrived in present-day Burlington County, they encountered American Indians who regularly fished along the inland streams and gathered shellfish in the Delaware River. Due to the unintended consequences of urban development, industrial advancement, and mechanized agriculture, the amount and diversity of aquatic life has decreased dramatically throughout most of New Jersey.

The New Jersey Division of Fish and Wildlife, under the Bureau of Freshwater Fisheries, monitors and actively aids the propagation, protection, and management of the state's freshwater fisheries. The bureau raises several million fish for stocking in suitable waterbodies, and conducts research and management surveys. Evesham Township's freshwater streams may contain sunfish, shiner, pickerel, pumpkinseed, eastern mudminnow, common carp, largemouth bass, perch, darter, crappie, and the American eel. Other fish species are documented for Evesham in the "Annotated Checklist and Distribution of New Jersey Freshwater Fishes" by Rudolf G. Arndt. See **Sources of Information** and **Appendix E: Vertebrate Animals Known or Probable in Evesham Township**. Pineland species have been documented by the Pinelands Commission at five sites in Evesham. See **Pinelands Commission Studies** subsection in **Water Quality** section.

Endangered Vertebrates

According to the Natural Heritage Database and the Landscape Project, a number of rare wildlife species have been sighted in Evesham. Brief descriptions, provided by the New Jersey Fish and Wildlife Service, of some of the township's endangered and threatened species and their preferred habitat follow.

The bald eagle (*Haliaeetus leucocephalus*) is a type of raptor, which people often call a "bird of prey." Bald eagles are incredibly large; they can have a wingspan of between 7 and 8 feet when they are mature. Although they have mottled plumage when they are young, by the time they reach four years old they begin to develop the characteristic white head and tail, as well as the brown body feathers. Bald eagles are found in forested areas near water, as their primary diet consists of fish. In New Jersey they can be found near the Delaware River, the Delaware Bay, and the tributaries associated with these bodies of water. When nesting, the eagles choose a tall tree that is taller than the surrounding trees. Sometimes they also choose a lone tree in an open field. The bald eagle population declined in the United States as a result of shooting,

FEDERAL ENDANGERED SPECIES ACT*

An "Endangered" species is in danger of extinction throughout all or a significant portion of its range.

A "Threatened" species is one that is likely to become endangered in the near future.

NEW JERSEY ENDANGERED SPECIES ACT**

An "Endangered" species is in danger of immediate extinction within the state due to one of several factors: loss or degradation of habitat, over-exploitation, predation, competition, disease, or environmental pollution.

A "Threatened" species is one that may become endangered if environment conditions continue to deteriorate. It is vulnerable due to one of several factors: small population size, restricted range, narrow habitat affinities, or significant population decline.

A species of "Special Concern" is one that warrants special attention because of the evidence of population decline, environmental deterioration, or habitat modification that would result in becoming Threatened. Special Concern status also extends to species whose population size is unknown or unstudied.

* Definitions adapted from U.S. Fish and Wildlife Service, "Listing a Species and Threatened or Endangered: Section 4 of the Endangered Species Act." Washington, DC: February 2001.

** Definitions adapted from N.J. Division of Fish, Game, and Wildlife, Endangered and Nongame Species Program, "Status Definition." Trenton, NJ: April 2002.

poisoning, and the pesticide DDT. Although the bald eagle is still listed as a state endangered species, it has made a dramatic recovery in New Jersey. When Congress passed the Endangered and Nongame Species Conservation Act in 1973, there was just one nesting pair of bald eagles in New Jersey. Today there are nearly 60 nesting pairs of eagles in the state. In Evesham, the Bald Eagle may be seen foraging in open areas, especially near water.

The red-shouldered hawk (*Bufo lineatus*) is a soaring hawk about as big as a crow. The hawk requires mature wet woods such as riparian forests for breeding and mixed woodlands near old growth forests containing standing water for nesting. Red-shouldered hawks prefer a closed canopy of tall trees with an open sub-canopy and variable amounts of understory shrubs and seedlings. In southern New Jersey, these hawks are found in vast and contiguous freshwater wetlands, especially hardwood or mixed wood/cedar swamps containing maple, black gum, Sassafras, magnolia, and Atlantic white cedar. The red-shouldered hawk avoids nesting near residences, roads, and development. Habitat loss and declines in population in the Northeast have resulted in the listing of this species as endangered in New Jersey, threatened in New York, and of special concern in Connecticut.

The Pine Barrens treefrog (*Hyla andersonii*) has many unique identifying characteristics—a nasal, honking "quonk-quonk-quonk" call, vibrant coloration, a tiny inch and a half long body, and an appetite for mosquitoes. They are also found in a specific type of habitat—sandy, acidic and mucky soils that offer dense shrubs, heavy ground cover, and shallow ponds, bogs and ditches for breeding needs. The Pine Barrens treefrog was first described in New Jersey and, in the state, occurs only in what is now known as the Pinelands. Recognized in New Jersey as an endangered species since 1979, the status of the Pine Barrens treefrog has been upgraded to "threatened" due to being locally abundant in some areas of New Jersey where this treefrog is known to occur.

The barred owl (*Strix varia*) is a large fluffy-looking owl with brown barring on the upper breast and brown streaking on the lower breast and belly. The throat is white and the round head lacks ear tufts, while the facial disk is grayish-white with a brown outline. The large facial disk funnels sounds towards the owl's proportionally gigantic ears, providing it with extraordinary hearing for detecting minute noises, such as the rustling of mice in the dark. Unlike all other eastern owls excluding the barn owl, the eyes of the barred owl are dark brown. The hooked bill is buff yellow. The feet and toes are feathered and the talons are dark brownish-black. Sexes are similar in plumage and, although there is much overlap, females may be larger than males. Juveniles resemble adults. Barred owls fly with slow, moth-like wing beats that are interspersed with glides. In flight, the head appears large and the wings are broad and rounded. Soft feathers and serrated edges on the outer wing feathers minimize noise, enabling these and all other owls to fly silently—an advantage that enables them to surprise their prey.



Source: www.dnr.state.wi.us

Barred Owl

The Cooper's hawk (*Accipiter cooperii*) is a member of the Accipiter family – woodland hawks that prey on smaller birds – and is especially adapted to fly through dense cover while chasing prey. In southern New Jersey, Cooper's hawks breed in remote wooded wetlands dominated by red maple or black gum. Adjacent upland pine or mixed oak/pine forests usually provide a buffer for nesting hawks. These hawks generally nest in sub-climax forests composed of trees 30 years or older, creating a closed canopy. On average, a hawk will place the nest more than a third of a mile away from the nearest human inhabitant. While other raptor species were threatened due to hunting practices, Cooper's hawk populations were not threatened until widespread suburbanization. Additionally, the pesticide DDT impaired many bird species' reproduction and contributed to declining populations from the 1950s to 1970s. Populations began to recover due to the nationwide ban of DDT in 1972, coupled with the reforestation of old fields throughout New Jersey. The hawk was listed as endangered in 1974 and downgraded to threatened in 1999 on the state list. The loss of large, contiguous forests remains a threat to this species and warrants the continued protection of Cooper's hawk nesting habitats.

Timber rattlesnake

The timber rattlesnake (*Crotalus horridus*) is the only rattlesnake in New Jersey. It has a strongly triangular head and a large, heavy body. The head is unmarked, and the tail is black. The body is often yellow or brown with dark crossbands, but occasionally the dark pigment is so wide that the snake looks almost entirely black. The snake is venomous. In the Pine Barrens, the rattlesnake is found in scattered populations in the swamps and pine-oak forests, where it dens along riverbeds. These reptiles were once found throughout the state but habitat loss, illegal collecting, road-side mortality, and unjustified killing have contributed to declines in rattlesnake numbers in New Jersey.

In 1998, a scientist from the College of New Jersey discovered a timber rattlesnake – an endangered species in New Jersey – near Kettle Run Lake on the Evesham-Medford border. After implanting the snake with a radio-transmitter, the snake was tracked back to its hibernation den, which was located on land scheduled to become The Sanctuary housing development. The land was approved for approximately 250 single-family dwelling units on 1.0 acre lots.

A protracted legal battle ensued, in which the Pinelands Preservation Alliance, the New Jersey Audubon Society, and the Natural Resources Defense Council challenged the development. It was argued that the development should not proceed because one of the rules in the Pinelands Comprehensive Management Plan states that no development can be approved unless it avoids irreversibly damaging habitats that are critical to the survival of threatened or endangered species.

Eventually, in a court-mediated settlement agreement, the Pinelands Commission allowed the developer to build the majority of the homes that had been planned. Part of the agreement was that the developer had to install five culverts and 2.7 kilometers of fences to guide the snakes away from the developed areas and to an area of preserved land when they came out of hibernation each year.

In 2001, the Pinelands Commission and the New Jersey Division of Fish and Wildlife's Endangered and Nongame Species Program initiated a timber rattlesnake monitoring program in

the area with the partially constructed residential development. The study's aim was to locate undocumented hibernacula, assess how the movement of individual snakes changed before and after the construction of the fences, and determine whether the fences and culverts effectively direct snakes away from the development and towards the forested areas. The study concluded that the fences were ineffective for that particular purpose; as they did not prevent any of the transmitter-equipped snakes from entering the constructed portions of the development.

See **Appendix E: Vertebrate Animals Known or Probable in Evesham Township** and **Appendix F: Threatened and Endangered Species in Evesham Township**, and **Appendix G: New Jersey Endangered and Threatened Species**.



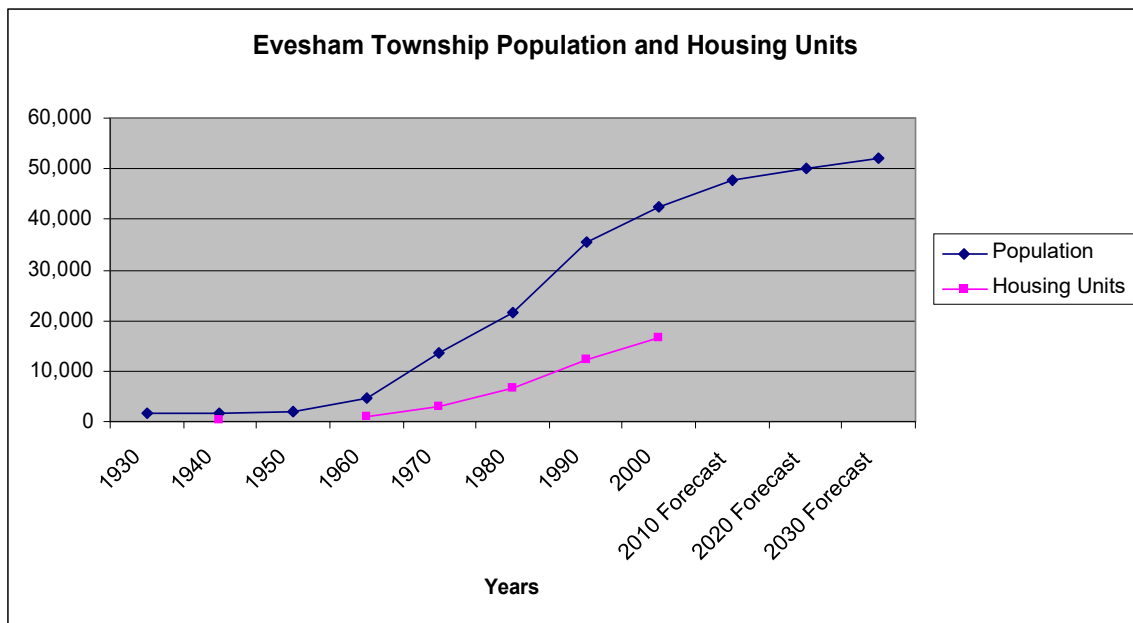
Courtesy of NJ Pinelands Commission

Timber Rattlesnake

THE BUILT ENVIRONMENT

POPULATION AND HOUSING

Evesham experienced explosive growth in the last four decades of the twentieth century. In 1960, it had a population of less than 5,000, and by 2000, there were 42,275 residents – an 800+% increase in 40 years. The growth rate was fastest between 1960 and 1970, but over 13,801 residents moved into the township between 1980 and 1990. Although the growth rate slowed by 2000, Evesham’s population still grew by approximately 20% from 35,309 to 42,275 between 1990 and 2000. At the time of the 2000 Census, Evesham was the most populous township in Burlington County. The Delaware Valley Regional Planning Commission (DVRPC) also ranked Evesham as one of the 15 fastest growing municipalities in DVRPC’s nine county metropolitan planning region in terms of absolute change between 1990 and 2000. Evesham continues to grow, with an estimated 2007 population of 45,619 and an expected 2035 population of 52,867 (see Figure 15).



Source: U.S. Census & DVRPC Population Forecasts

Figure 15: Growth of Evesham Township Population and Housing by Year

According to the 2000 Census, 11,485 residents (27.16%) of Evesham’s population were under the age of 18. By comparison, only 24.8% of New Jersey’s population and 25.2% of Burlington County’s population were under the age of 18 in 2000. This age group represents those residents who are most physically active in the community and most likely to use public recreational facilities (see Figure 16).

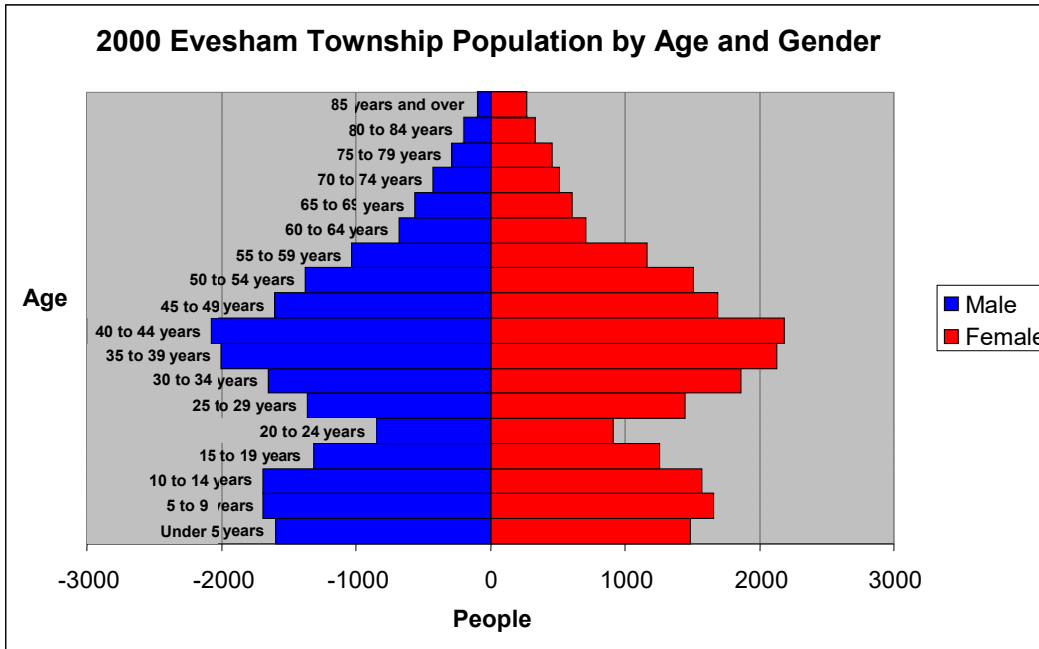
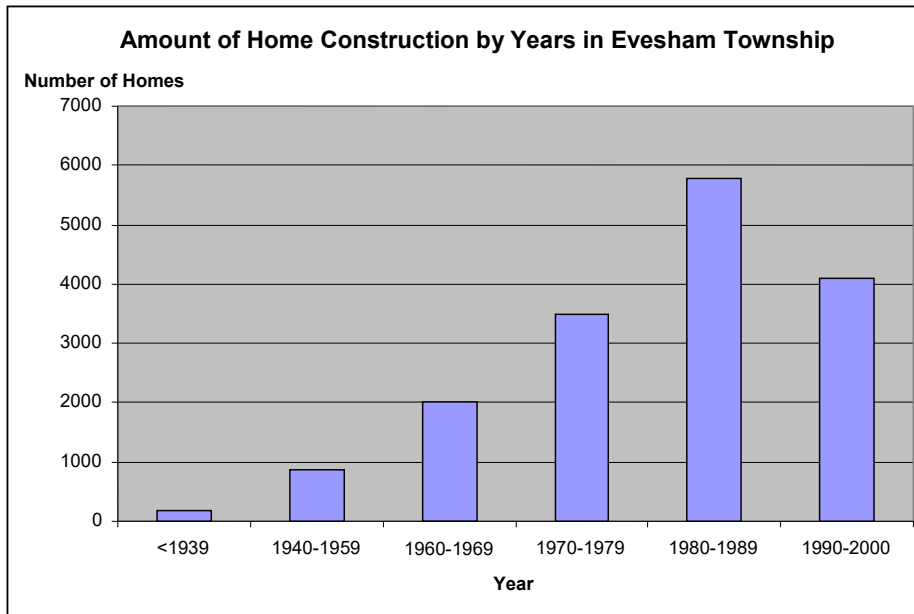


Figure 16: 2000 Evesham Township Population by Age and Gender

Source: 2000 U.S. Census

There were 16,436 housing units in Evesham in 2000. Approximately three-quarters of Evesham’s dwellings are either single-family detached or single family attached units. The remainder are multifamily units and a few mobile homes. Approximately one quarter of Evesham’s units in existence in 2000 were built between 1990 and 2000, while 35% were constructed in the 1980s, 21% in the 1970s, and the rest prior to 1970 (see Figure 17).



Source: 2000 U.S. Census

Figure 17: Home Construction by Date in Evesham Township

Several subdivisions were approved for Evesham Township recently, as is shown in *Table 22* below. A total of 167 units have been approved.

Table 22: Recent Development Approvals

Name	Address	Block and Lot	Acres	Description
Mend	200 Sharp Rd.	14/2	49.16	104 apartments
Deluca Homes Phase II: Sharp Run Seniors	Sharp Rd.	15/8	11.58	22 single family age restricted
Procacci Development Co., Inc.: Sharp Run Estates	205 Sharp Rd.	15/3, 15/4,15/5,15/6, 15.12	42.17	38 twin residential dwelling units*
James Gatto	49 5 th Street	137/1-137/20	1.29	3 single family lots
TOTAL			104.20	167 units

Source: Evesham Township

* preliminary site plan approval only

TRANSPORTATION

Evesham Township is relatively accessible compared to other parts of rural southern New Jersey. According to the New Jersey Department of Transportation (NJDOT), Evesham has a total of 178.95 miles of roads. Of these, 8.08 miles are maintained by NJDOT, 15.32 are maintained by Burlington County, and 154.83 are maintained by the municipality. Major thoroughfares, such as State Routes 70 and 73, facilitate travel between Evesham and the Philadelphia metropolitan region, while County Routes 600, 607, 618, 619, 620, and 674, as well as smaller rural arterials and collectors, connect to local roads within the township.

While Evesham is most easily accessed by car, there are also opportunities to use mass transit in the area. New Jersey Transit bus route 406 serves Evesham Township. The northern portions of Evesham are within a short drive of several transit services, including the Burlink (www.ridetheshuttle.com), RiverLINE (<http://www.riverline.com/>), New Jersey Transit's Atlantic City Rail Line (<http://www.njtransit.com/>), Port Authority Transit Corporation (PATCO; <http://www.ridepatco.org/>), Southeastern Pennsylvania Transportation Authority (SEPTA; <http://www.septa.org/>), and Amtrak (<http://www.amtrak.com/>).

Cross County Connection, a non-profit transportation management association in southern New Jersey, partners with the NJDOT, NJ Transit, and the U.S. Federal Highway Administration to improve the quality of life through transportation solutions. Their website, www.driveless.com, provides information about mass transit, car and vanpooling, bicycling, walking, telecommuting, and flexible scheduling. There are schedules, fare information, and maps of the different transit systems, as well as e-mail or SMS traffic alerts and a database of contacts for carpooling. Discounts at local merchants are available through the Caring Commuter program.

The Evesham Township Council provides free transportation within the township for seniors aged 55 and over. Appointments must be scheduled one week in advance. The service is available weekdays from 8 am to 4 pm (excluding holidays). Shopping trips to township supermarkets are scheduled by neighborhoods, in order to accommodate as many people as possible. Additional information is available by calling 856-988-9866.

Burlington County provides free county bus transportation to senior citizens (60 and older) and adult disabled residents (21-59 years of age) through the Burlington County Transportation System (BCTS), which operates Monday through Friday 8 am – 5 pm. More information is available at: <http://www.co.burlington.nj.us/departments/transportation/index.htm>

MUNICIPAL SERVICES

Drinking Water

The Evesham Municipal Utilities Authority (EMUA) is a public body that owns and operates water and sewer facilities in Evesham. It was initially established as the Evesham Sewerage Authority in 1955, and later reorganized into the EMUA in 1959. The EMUA operates 170 miles of potable water lines. Most of the EMUA's service is provided in the northern and central portions of the township, with limited service in the southern part of the municipality. EMUA's total annual water use is 1.5 billion gallons.

EMUA customers receive a combination of groundwater and treated surface water. Eleven wells, which range in depth from 300 to 623 feet, provide water for local residents. The Potomac-Raritan-Magothy aquifer, which is the major water supply for Evesham (see **Aquifers** section), is being depleted faster than the natural recharge rate. As a result, water company allocations from well withdrawal are limited. The EMUA purchases additional water supplies from nearby water companies, such as the Mt. Laurel Township Municipal Utilities Authority (182 million gallons) and the New Jersey American Water Company (365 million gallons). New Jersey American provides water drawn from the Delaware River and treated at its plant in Delran. Between October 1st and June 30th, the EMUA recharges the PRM Aquifer from well #13, which is in the Mt. Laurel Aquifer. From July 1st to September 30th, they recover the previously recharged water from well #14, which is in the Potomac-Raritan-Magothy aquifer.

See **Map 11: Public Water Supply Wells** and **Tables 18 and 19**. These are described in the **Water Supply Wells** section of this document.

Sewer

The Evesham Municipal Utilities Authority (EMUA) operates a public sewer system within the municipality. See **Map 14: Approved Sewer Service Area and NJPDES Permits**. There are a total of approximately 175 miles of sewer lines in Evesham that connect to Evesham's three modern sewage treatment plants. The Kings Grant plant is the smallest, with a capacity of approximately 600,000 gallons per day. This facility discharges to recharge basins and a

sprinkler system, when temperatures permit (in all but the coldest months of the year). All of Kings Grant's recharge will soon be through recharge basins.

The Elmwood Wastewater Treatment Plant has a capacity of 2.1 million gallons per day (mgd), and discharges treated water to the Southwest Branch of the Rancocas Creek. Recently, the EMUA began providing recycled water to the municipal golf course for irrigation purposes, thus saving the golf course from pumping 100,000 gallons of water per day from their own private well. This example of water conservation is being evaluated for other possible township and local board uses, as well as for other private golf courses.

Finally, the Woodstream Wastewater Treatment Plant has a capacity of approximately 1.2 mgd, and discharges to the South Branch of the Pennsauken Creek. Although the majority of the Township is approved for sewer service, there are certain areas that still rely on septic systems.

In order to comply with the federal Clean Water Act, New Jersey has a statewide Water Quality Management Plan, which is administered by the Department of Environmental Protection. DEP divided the state into several planning areas. Evesham falls under the Tri-County Water Quality Management Board, which coordinates water supply and wastewater treatment plans for Burlington, Camden, and Gloucester counties. The Tri-County Water Quality Management Board also maintains the Tri-County Water Quality Management Plan, which addresses wastewater and water quality issues over a twenty year timeline. The Tri-County Board operates through the Delaware Valley Regional Planning Commission (DVRPC), which is the agency that facilitated the development of the Tri-County Water Quality Management Plan in the late 1970s.

Trash and Recycling

Curbside municipal trash service is available in Evesham on a weekly basis. Recycling – including glass bottles and jars, aluminum and steel food and beverage cans, plastic bottles, newspaper, and cardboard – is picked up by Burlington County twice a month. Bulk waste (items which are too big to fit in a trash collection container but cannot be recycled) is collected on the first trash collection day of the quarter. Residents must schedule pickups of brush or appliances/large metal items through the Department of Public Works. Leaf collection takes place in November and December, and Christmas tree removal occurs in January. Residents can bring hazardous household waste, such as used motor oil, computers, paint, and paint thinners, to the Public Works Facility at 501 Evesboro-Medford Road.

Burlington County's conversion to single stream recycling started September 1st 2014.

Studies show single stream recycling brings with it an increase of 10 percent or more in recycling. The more that is recycled, the less goes to our landfills. Last year, recycling saved the towns more than \$3.2 million in landfill tipping fees. Those cost-savings are effectively tax savings, since they improve the bottom line of municipal budgets.

The cost of the program is included in tipping fees – with no additional costs to the towns. In addition, the program is operated through the Occupational Training Center of Burlington County and provides jobs to individuals with disabilities.

When single stream began in September 2014, #1 & #2 plastic food trays were added to the #1 & #2 plastic bottles we currently collect as well as #5 plastics. Collection of #3, #4, #6 or #7 types of

plastic containers are not accepted until recycling markets improve. Major changes in the global plastic market have made it very difficult to find environmentally sound markets for #3, #4, #6 or #7 plastics.

Education

Evesham contains several public schools, seven of which are elementary schools (Beeler, DeMasi, Evans, Jaggard, Marlton, Rice, and VanZant) and two of which are middle schools (DeMasi and Marlton). There are a total of approximately 4,600 students in the schools.

Evesham students, along with students from the neighboring town of Medford, attend the Lenape Regional High School District, which includes three schools: Lenape High School, Shawnee High School, and Cherokee High School. In addition to public schools, there are also several private schools in the town, which are all listed in *Table 23* below.

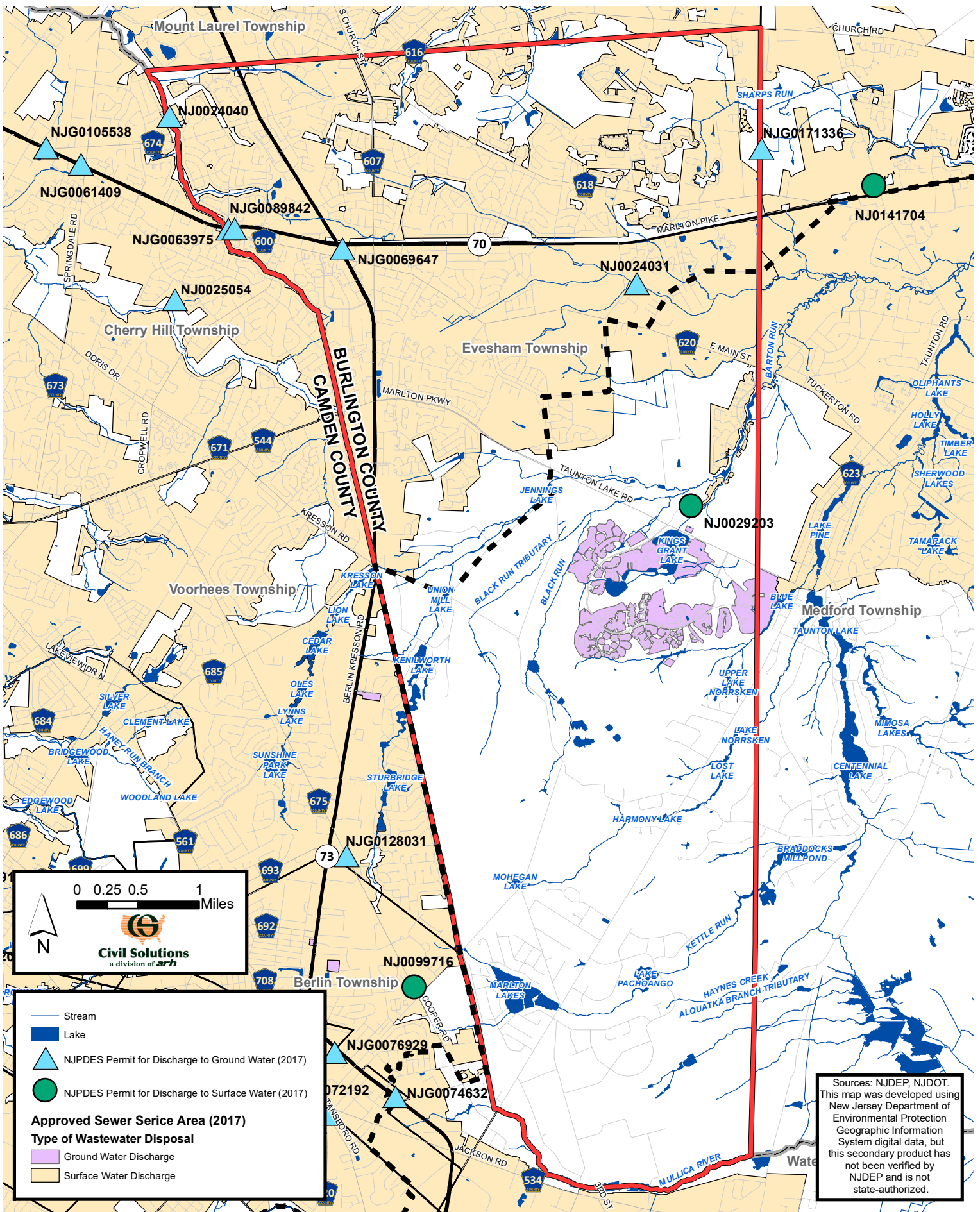
Table 23: Schools in Evesham Township

Name	Type	Grades	# of Students
Frances Demasi Elementary	Public	K-5	288
Marlton Elementary	Public	K-5	475
Florence V. Evans Elementary	Public	K-5	505
H.L. Beeler Elementary	Public	K-5	434
J. Harold Vanzant Elementary	Public	K-5	389
Robert B. Jaggard Elementary	Public	K-5	401
Richard L. Rice	Public	K-5	478
Marlton Middle	Public	6-8	833
Frances Demasi Middle	Public	6-8	792
Cherokee High School	Public	9-12	2219
Chesterbrook Academy	Nonsectarian Private	PreK-K	30
Excel Learning Center, Inc.	Nonsectarian Private	PreK-K	89
Under the Sun Learning Center	Nonsectarian Private	PreK-K	33
Joyful Noise Christian School	Nondenominational Christian	PreK-K	100
Marlton Christian Academy	Assembly of God Private School	PreK-7	80
St. Joan of Arc Elementary School	Roman Catholic Private School	K-8	427
Greenberg Education Center	Nonsectarian Private	2-12	26

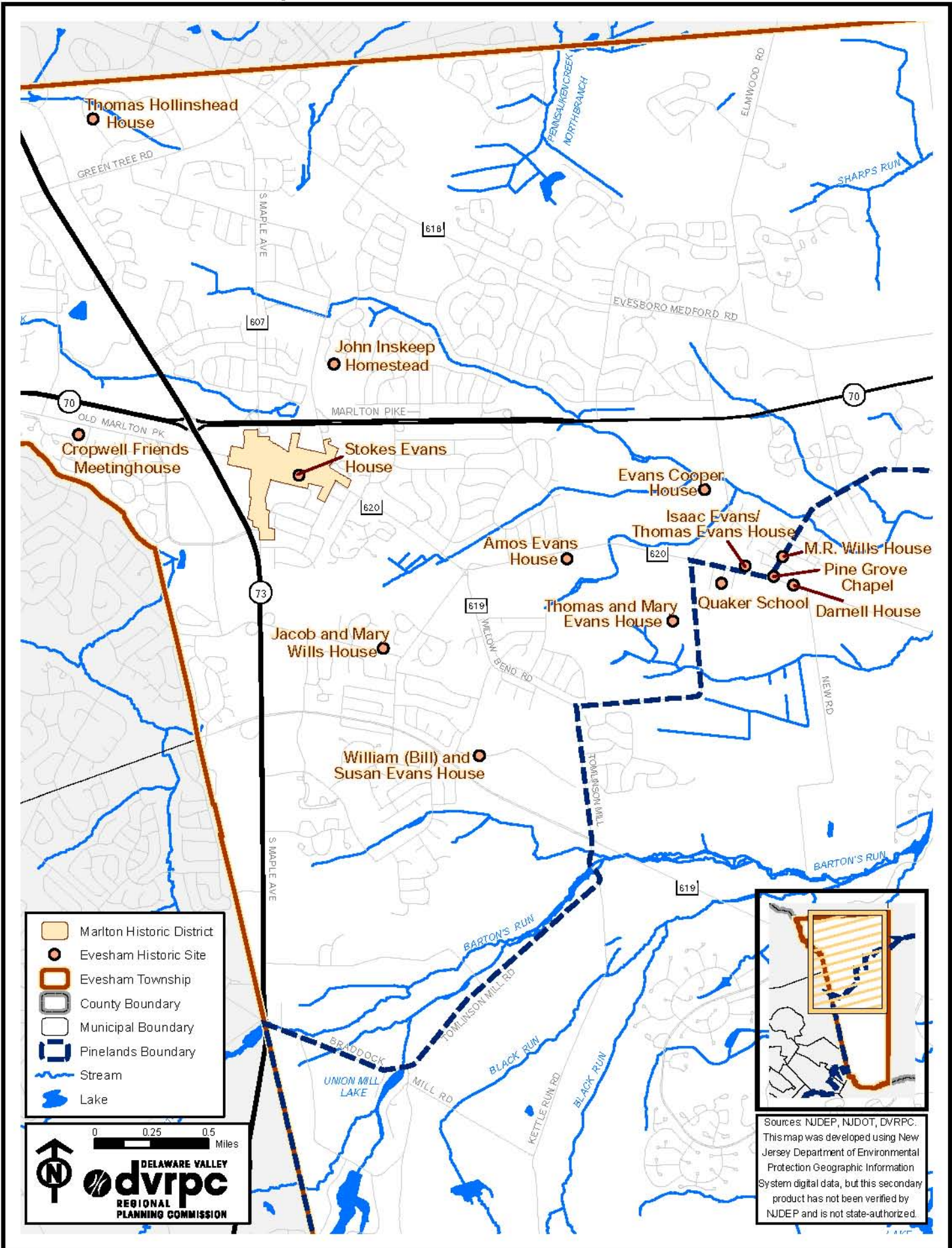
Source: www.nces.ed.gov for public schools, 2014/2015 school year; private school data from PSS Private School Universe Survey, 2013/2014 school year, <https://nces.ed.gov/surveys/pss/>

Map 14: Approved Sewer Service Area and NJPDES Permits

Evesham Township



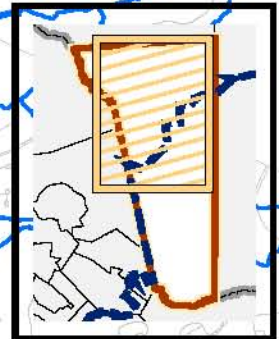
Sources: NJDEP, NJDOT. This map was developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by NJDEP and is not state-authorized.



- Marston Historic District
- Evesham Historic Site
- Evesham Township
- County Boundary
- Municipal Boundary
- Pinelands Boundary
- Stream
- Lake

0 0.25 0.5 Miles

DELAWARE VALLEY
dvrpc
REGIONAL
PLANNING COMMISSION



Sources: NJDEP, NJDOT, DVRPC.
This map was developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by NJDEP and is not state-authorized.

HISTORIC RESOURCES

Protection and preservation of historic structures, lands, and views are of high importance to Evesham Township residents. In 1985, Evesham Township hired ACROTERION, a preservation consulting group, to conduct a survey of the Township’s historic sites and structures. More than 100 structures were identified in the survey. Several are eighteenth-century structures, such as the Jacob Wills House, the Rising Sun Tavern, and the Thomas Evans House, the oldest surviving structure in Evesham.

Evesham has ten sites on both the National and State Registers of Historic Places. Additionally, five sites were issued a State Historic Preservation Office (SHPO) Opinion, which reviews a site’s eligibility for inclusion on the State Register of historic places.⁵ The Evesham Historic Preservation Commission lists 162 sites on its historical inventory, some of which have the potential to be listed as local, state, or national landmarks, but have not been nominated by local citizens or identified by the SHPO for such a designation. The township boasts numerous 18th and 19th century structures, most of which are houses in Marlton (see Figure 15).

See **Map 15: Historic District and Historic Sites**, **Table 24** below, and **Appendix H: Partial Inventory of Locally Significant Historic Sites in Evesham Township**.

Table 24: Sites listed on the National or State Registers of Historic Places

Name	Location	National Register	State Register
Savich Farm (Benjamin Cooper Farm) (ID#807)	E. Main St.	NR: 12/12/1978 (NR Reference #: 78001744)	SR: 12/16/1977
Jacob Wills House (ID#809)	Brick Road, west of Evans Road	NR: 11/1/1990 (NR Reference #: 89002296)	SR: 11/29/1989
Cropwell Friends Meetinghouse (ID#795)	810 Cropwell Road	NR: 8/14/1992 (NR Reference #: 92000976)	SR: 6/25/1992
William and Susan Evans House (ID#801)	2 Bills Lane	NR: 8/14/1992 (NR Reference #: 92000978)	SR: 6/25/1992
Thomas Hollinshead House (ID#804)	18 West Stow Road	NR: 8/14/1992 (NR Reference #: 92000977)	SR: 6/25/1992
Evans-Cooper House (ID#799)	North Elmwood Road	NR: 8/26/1993 (NR Reference #: 93000868)	SR: 7/20/1993
Thomas and Mary Evans House (ID#802)	South Elmwood Road	NR: 8/26/1993 (NR Reference #: 93000867)	SR: 7/20/1993
John Inskeep Homestead (ID#2987)	70 North Locust Road	NR: 8/26/1993 (NR Reference #: 93000866)	SR: 7/20/1993
Amos Evans House (ID#797)	501 East Main Street, Marlton	NR: 9/2/1994 (NR Reference #: 94001008)	SR: 6/28/1994
Stokes-Evans House (ID#808)	52 East Main Street, Marlton	NR: 8/30/1994 (NR Reference #: 94001009)	SR: 6/28/1994

⁵ Filing an Environmental Impact Statement (EIS) usually prompts the issuance of a SHPO Opinion. The use of federal funding for a project often triggers the requirement to perform an EIS, which may result in NJDEP recognizing possible threats to certain historic sites and identifying those sites as eligible for listing in the State Register of historic places.

Table 24 (continued)

Name	Location	National Register	State Register
Darnell House (ID#796)	960 Tuckerton Rd.		SHPO Opinion: 2/15/1978
Isaac Evans House (ID#800)	875 East Main Street		SHPO Opinion: 2/15/1978
Pine Grove Chapel (ID#805)	Tuckerton Road and Marlton Pike		SHPO Opinion: 2/15/1978
Quaker School (ID#806)	130 Paul Rd.		SHPO Opinion: 2/15/1978
M.R. Wills House (ID#810)	2240 Old Marlton Pike		SHPO Opinion: 2/15/1978

Source: New Jersey State Historic Preservation Office

Evesham requires that archaeological surveys be completed before significant developments are built. The Township also requires residents in the historic village of Olde Marlton to preserve historical structures. To assist in this task, the Township formed the Evesham Township Historic Preservation Commission in 1987. The Commission encourages the continued use of historic structures, and fosters appreciation of the Evesham Township Historic District. It has published two guides to help owners and tenants comply with Evesham’s historic preservation regulations. Currently, the Historic Preservation Commission is not active.

The Historic District of Evesham Township was nominated for inclusion on the national and state registers in 1989. The Olde Marlton Village Historic District is centered around the intersection of Maple Street and Main Street, and also includes all or parts of Blue Anchor Street, Cottage Street, Cooper Avenue, Locust Avenue, Community Avenue, Oak Lane, and Oak Avenue. To support and sustain the historical, cultural, architectural, and social heritage of Evesham



Source: McCabe, Wayne T. & K. Gordon, A Penny A View

Main Street, Marlton, looking east

Township, the Department of Community Development regulates buildings within the Historic District, including façades, signage, and structural changes. According to Section 160-28 of the Evesham Zoning Code, property owners are required to obtain a “certificate of appropriateness” for any exterior work on a building visible from a street within the historic district.

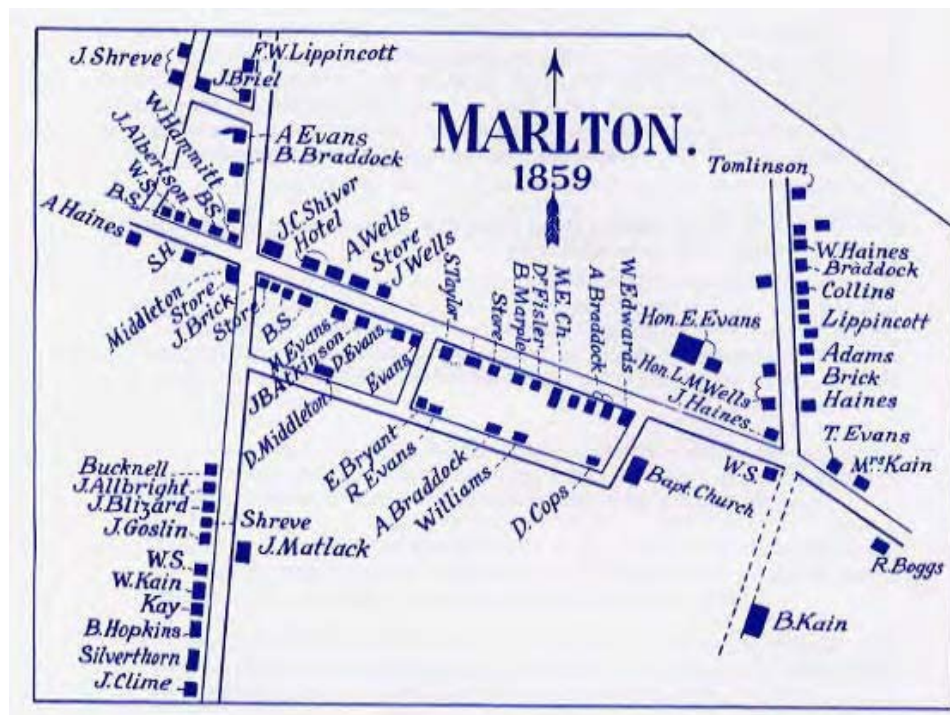
Evesham has a Historical Society, located at 10 Madison Court in Marlton, New Jersey. The group meets on a monthly basis, and membership is open to all for a nominal fee. The meetings take place in the Inskip/Higginbotham House, a mid-18th century farmhouse.

Aside from local ordinances regulating the appearance of historic structures, Evesham Township is also a Historic Preservation Certified Local Government (CLG), which makes federal and state

funding available for program implementation and rehabilitation. Jointly administered by the National Park Service and the State Historic Preservation Office, the CLG program provides technical assistance and funding to community-based preservation efforts. To participate, a municipality must maintain a historic preservation commission, survey local historic properties, provide opportunities for public participation in preservation activities, and develop and enforce local preservation laws.

There are federal incentives for individuals, organizations, or firms who own historic properties and are interested in historic preservation. Interested parties can take advantage of the Rehabilitation Investment Tax Credit, a federal tax incentive to encourage the preservation and reuse of older income-producing properties, including offices, apartment buildings, and retail stores.

Investing in historic preservation efforts can provide a municipality with important and impressive returns, and Evesham Township is a prime example. Private and public efforts in the Olde Marlton Historic District have created an attractive place to live, work, and play and stimulated new investment in the historic village. The historic district is a draw for antique collectors and tourists. Furthermore, historic preservation maintains Evesham Township's character, distinctly separating it from other rural and suburban communities.



Source: Evesham Historic Preservation Commission (www.historic-vesham.org/hpc/Map1859.htm)

Figure 18: Map of Marlton, 1859

EXISTING OPEN SPACE

Evesham's parks and recreations areas are maintained by the Department of Parks and Open Space (See **Map 16: Existing Open Space** and **Map 17: Zoning Map**).

The Evesham Township Department of Parks and Open Space offers the Triple-A Summer Camp, which is focused on Academics, Arts, and Athletics. The program runs for 10 weeks in the summer.

Open space in Evesham is made up of both active and passive facilities. There are parks, playgrounds, athletic fields and courts, and open space areas (See **Table 25: Available Recreational Fields**). Evesham Township Memorial Sports Complex is located adjacent to the municipal building on Tuckerton Road. The site is approximately 127 acres in size, of which about 35 acres are devoted to active use. In addition to a playground, there are four baseball fields, a soccer field, and a football field. In 2010 and again in 2016, synthetic turf fields were added to the complex, replacing grass fields. One turf field is multi-use; the other is for soccer only. In May of 2014, the Diamonds at Arrowhead Park, a four-field youth complex for baseball and softball was opened. The Recreation Center (known by township residents as the "Blue Barn") is also located at the Memorial Sports Complex. It is approximately 28,000 square feet in size and contains 3 basketball courts, as well as 2 classrooms.

The Gibson House Community Center is located at 535 East Main Street. It is open Mondays through Fridays from 8:00AM to 4:00PM and is host to a variety of events, including classes, lunches, and bingo for seniors. Near the Gibson House, there is a 141 acre, 18-hole public golf course called the Indian Spring Country Club in Evesham. Other private golf courses in the township include the Links Golf Club and Little Mill Country Club.

Numerous small parks have active recreational facilities as well. Many of these were established as part of development projects and are being updated by the Township. Evesham Township is created an Open Space and Recreation Plan that documents these sites and identifies township needs and goals.

Some of the open space in Evesham is privately owned. For example, Kings Grant maintains a host of recreational facilities, including a community building available for rent, tennis courts, basketball courts, softball field, street hockey rink, volley ball courts, eight tot lots, nature trails, biking paths, bathing beach on Lake James, boating and fishing on the lake systems, and the Swim Club. "The Links" golf course abuts Kings Grant.

In addition to the Department of Parks and Open Space, Evesham also has the Marlton Recreation Council, a non-profit volunteer organization that provides organized sports and promotes sportsmanship for local youth. Approximately 7,000 children and teenagers participate in the activities, including basketball, softball, baseball, wrestling, soccer, football, cheerleading, field hockey, track, volleyball, lacrosse, street hockey, roller hockey, and golf. Other groups devoted to recreation and open space in Evesham are Evesham's Environmental Commission.

In order to decrease the burden that additional development places on the township's infrastructure and schools, as well as to preserve open space, recreational areas, and historic structures for future generations to enjoy, the Evesham Township Council approved Resolution 105-98, a referendum regarding the levy for recreation/open space preservation within Evesham. Evesham Township residents approved the ballot measure to implement an Open Space Tax six months later on November 3, 1998. The one cent tax per \$100 assessed value allowed the township to purchase privately-owned land in order to preserve farmland, open space, recreational areas, or properties worthy of historic preservation. Only areas zoned for residential development – not commercial development – are considered for preservation. On June 13, 2000, the Township Council passed Resolution 122-2000 to increase the Recreation/Open Space Preservation Tax by two cents, which was approved by the voters in November of that year. Under the current tax, the township brought in an estimated \$847,000 in calendar year 2007.

Table 25: Available Recreation Fields

ACTIVITY/ FACILITY	Currently Available			
	Private	School	Township	Total
Badminton	n/a	n/a	n/a	n/a
Basketball	14	6	23	43
Handball	1	0	1	2
Ice Hockey	1	0	8	9
Tennis	23	6	14	43
Volleyball	5	0	0	5
Baseball/Softball	4	24	8	36
Field Hockey	n/a	n/a	n/a	n/a
Football	0	4	11	15
Soccer*	0	20	23	43
Golf-driving Range	0	0	1	1
¼ Mile Running Track	4	1	4	9
Multiple Recreation Court (basketball, volleyball, tennis)	n/a	n/a	n/a	n/a
Trails	1	1	2	4
Archery Range	n/a	n/a	n/a	n/a
Combination Skeet and Trap Field (8 Stations)	n/a	n/a	n/a	n/a
Golf (18-hole standard)	2		1	3
Swimming Pools	17	0	0	17
Beach Areas	n/a	n/a	n/a	n/a

Source: Evesham Township

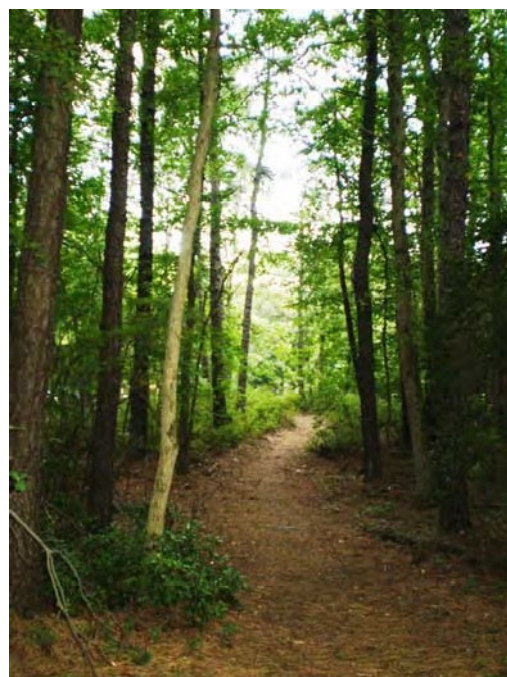
* Includes soccer/lacrosse fields

An Open Space and Recreation Plan was written and finalized in 2012 and adopted as an element of the township's Master Plan in June of 2012. This plan provides an accounting of active and passive recreation areas and facilities in the township and detailed information on the active and passive recreational needs and opportunities within the township including the preservation of open space.



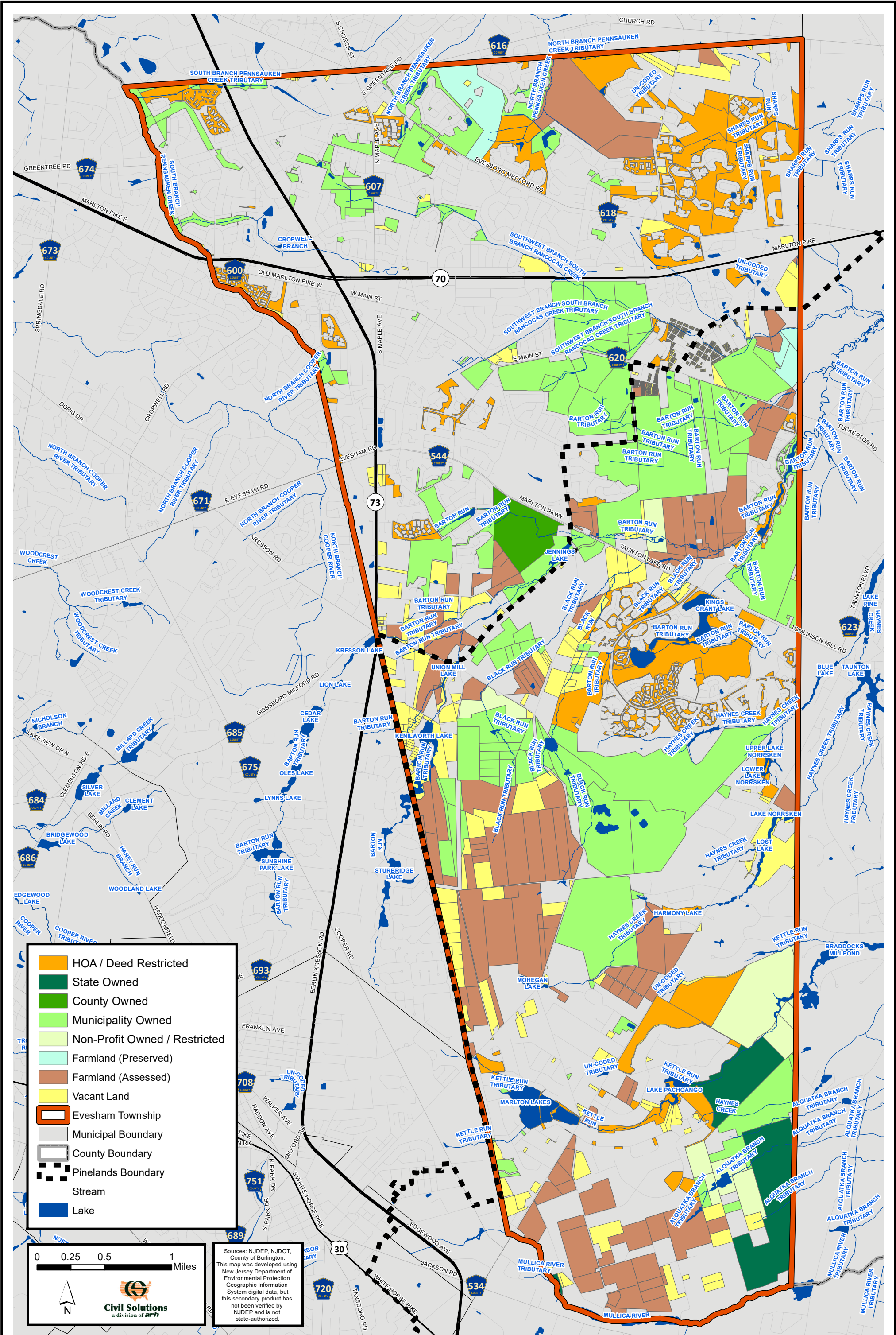
Source: DVRPC

The sign at the entrance to Evesham's Memorial Sports Complex



Source: DVRPC

Trail to Little Mill Park



ENVIRONMENTAL ISSUES

KNOWN CONTAMINATED SITES

NJDEP's 2016 Inventory of Known Contaminated Sites reported 569 such sites in Burlington County. Twenty-five of these sites are located in Evesham Township. See **Table 26: Known Contaminated Sites in Evesham Township** for a list and **Map 18: Known Contaminated Sites** for the location of these sites. There are additional contaminated sites in the municipalities surrounding Evesham Township. Mt. Laurel Township has 50 contaminated sites, Medford Township has 34, Berlin Township has 9, Cherry Hill Township contains 93, and Voorhees has 16.

The New Jersey *Known Contaminated Sites List* includes former factory sites, landfills, locations of current or former leaking underground storage tanks, sites where chemicals or wastes were once routinely discharged, and places where accidents have resulted in spills and pollution. Contamination may have affected soil, groundwater, surface water, or a combination of site conditions. The most dangerous sites, from a human health standpoint, can be listed on the National Priorities List (NPL), under the federal Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLA is commonly referred to as the "Superfund" because sites on the NPL are eligible for federal cleanup funds.

The Ellis Property

Burlington County has 39 current and nominated Superfund sites, one of which—the Ellis Property—is located in Evesham Township. The Ellis Property (EPA ID#: NJD980529085) was proposed for the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) National Priorities List (NPL) on December 1, 1982. The site was once a dairy farm, but it was also used for drum storage and reconditioning operations.



Source: http://www.state.nj.us/dep/srp/publications/site_status/1998/html/98highli3.htm

Approximately 300 drums were discovered on the 36-acre property. Many of the drums had corroded, allowing the contents – including polychlorinated biphenyls (PCBs); heavy metals like arsenic, chromium, and lead; and Volatile Organic Compounds such as trichloroethylene (TCE) and tetrachloroethylene (PCE) – to leak into the soil and groundwater. The underlying Englishtown Aquifer was polluted as a result. Although the Englishtown Aquifer is not currently a source for municipal drinking water,

Shallow soil remediation in progress at the Ellis Property

approximately 3,500 people live within a 3-mile radius of the site. In fact, there are 20 potable wells within a one mile radius of the site.

Because no primary responsible party (PRP) can be found, the federal government and state government have taken charge of the remediation actions. This included removing the drums, neutralizing the acidic soil with lime, removing contaminated soil to a licensed off-site facility, and extracting and treating groundwater. The soil excavation was completed in 1998, while groundwater remediation continues to this day.

In September of 2015, the EPA published a report entitled, “THIRD FIVE-YEAR REVIEW REPORT, ELLIS PROPERTY SUPERFUND SITE, BURLINGTON COUNTY, NEW JERSEY.” The purpose of the review was to determine if the remedy at the site is and will continue to be protective of human health and the environment.

For site management purposes, the Ellis Property is divided into two operable units (OU): OU1 and OU 2. OU1 addresses the contaminated soils. OU2 addresses the contaminated groundwater. The OU1 remedy has been amended in the 2013 Record of Decision (ROD) Amendment. The OU2 remedy is currently operating to address the contaminated groundwater. The Five-Year Review Report evaluated the operating OU2 groundwater remedy. The report concluded:

“This five-year review assessment found that the remedial actions implemented at the Ellis Property Superfund site currently protect human health and the environment. However, in order to be protective in the long-term, additional excavation and in-situ source remediation activities selected in the 2013 ROD Amendment need to be implemented, and the operation, maintenance, and groundwater monitoring activities need to be conducted in accordance with the groundwater pump and treat system operation and maintenance plan.”¹

The Five-Year Review Report should be on file with the Evesham Library which serves as the local site repository and is also available at the EPA website for the Ellis Property:

<https://sempub.epa.gov/src/collections/02/SC/NJD980529085>.

Also in September of 2015, the Final Design Report (FDR) for the Ellis Property was completed and approved by the Environmental Protection Agency (EPA). The FDR provides the remedial action required for the property along with the detailed activities, including drawings and specifications, for the remediation.

With the completion and approval of the FDR for the Ellis Property, the next step would have been the final cleanup of the property. However, due to limited EPA funding for remediation of superfund sites, an EPA panel did not select the Ellis Property to receive funding. The EPA panel meets annually, and the Ellis Property will be considered for funding again at that time.

At the time of revision of this document, a request was made of Mr. Richard Ho at the EPA (ho.richard@epa.gov, (212) 637-4372), Remedial Project Manager for the Ellis Property, for a copy of the Final Design Report.

¹ THIRD FIVE-YEAR REVIEW REPORT ELLIS PROPERTY SUPERFUND SITE BURLINGTON COUNTY, NEW JERSEY, Prepared by U.S. Environmental Protection Agency, Region 2, New York, New York, September 29, 2015.

While the Ellis Property is handled by the federal government, sites with less serious contamination are handled by state programs or through private funds. The New Jersey Site Remediation Program's role is not limited to the oversight and cleanup of sites with confirmed contamination, but also includes cases where contamination is suspected but not yet confirmed. As of March 2016, there are 25 active sites, 4 pending, and 341 closed known contaminated sites in Evesham. **Table 26: Known Contaminated Sites in Evesham Township** lists only the active known contaminated sites. For additional information about each site listed and closed and pending sites, visit www.nj.gov/dep/srp/kcsnj.

The Aerohaven Site



Source: DVRPC

The preserved Aerohaven property

On June 22, 2007, NJDEP approved a Remedial Action Report (RAR). The area was secured with a fence and capped with a Claymax 500SP geocomposit clay cap, with a permeability of 1×10^{-9} cm/sec permeability. Several months later, on October 31, 2007, a deed notice was recorded for the property. Owens Corning never received a No Further Action letter because there are still some metals (iron, manganese) in the wells, which may be due to background conditions. The capped portion of the site (the southern portion) continues to be maintained by Owens Corning, while the northern portion is owned by Evesham Township as open space.

Owens Corning, a glass fiber and building materials manufacturer with a plant in Berlin, New Jersey, disposed of Kaylo, an insulation product containing asbestos, on the Aero Haven Airport site from 1961-1972. The fill was used to extend the Aero Haven Airport runways. Owens Corning bought the property in 1986. In September 1994, Owens Corning entered into a Memorandum of Agreement (MOA) with the New Jersey Department of Environmental Protection to close and remediate the site.

On June 22, 2007, NJDEP approved a Remedial Action Report (RAR). The area was secured with a fence and capped with a Claymax 500SP geocomposit clay cap, with a permeability of 1×10^{-9} cm/sec permeability. Several months later, on October 31, 2007, a deed notice was recorded for the property. Owens Corning never received a No Further Action letter because there are still some metals (iron, manganese) in the wells, which may be due to background conditions. The capped portion of the site (the southern portion) continues to be maintained by Owens Corning, while the northern portion is owned by Evesham Township as open space.

Table 26: Known Contaminated Sites In Evesham Townshnship
(see end of table for an explanation of the abbreviations)

Site ID	PI Number	Name	Address	Bureau	Homeonwer	Case Types (Start Date)	Remedial Level
10869	1198	APCO PETROLEUJ MARLTON CORP BP	929 RT 70 West	BOMM	No	CEA (8/2/2004); Fixed Fee Case (8/12/2008); LSRP 2-10 CAOC (5/1/2012); LSRP GW FEE (5/1/2012); Regulated UST (8/26/1991)	C2
10903	4982	MARLTON CITGO	210 RT 70	LSR	No	LSRP 0-1 CAOC (10/6/2014); Regulated UST (4/14/2004)	C2
10886	5946	SHELL GAS STATION	RT 73 & MAPLE AVE	BOMM	No	LSRP 2-10 CAOC (3/23/2010); LSRP GW FEE (3/23/2010); Regulated UST (7/6/1992)	C2
10879	7205	SRB SERVICE MARLTON LLC	771 RT 70	BUST	No	LSRP 2-10 CAOC (10/8/2010); LSRP GW FEE (10/8/2010); Regulated (UST 4/13/1993)	C2
17095	7877	MGA PETROLEUM	930 936 RT 70	BUST	No	LSRP 2-10 CAOC (9/20/2011); LSRP GW FEE (9/20/2011); Regulated UST (11/18/1985)	C2
10891	13389	MARLTON SUNOCO SERVICE INC	71 E MAIN ST	INS	No	Fixed Fee Case (12/2/1999); LSRP 2-10 CAOC (11/17/2011); Regulated UST (2/18/1999); Spill Act Discharge (3/8/2012)	C2
10872	14800	SUNOCO 0004-6284	930 RT 70	BUST	No	LSRP 2-10 CAOC (3/26/2011); LSRP GW FEE (3/26/2011); Regulated UST (9/29/1989)	C2
50999	15121	BD OF ED BUS GARAGE	OAK AVE	LSR	No	LSRP 2-10 CAOC (2/24/2012); LSRP GW FEE (2/24/2012); Regulated UST (8/3/1990)	C2
51413	16941	EXECUTIVE LUBE CENTER INC	8 RT 70	(None)	No	LSRP 0-1 CAOC (5/12/2014); Regulated UST (8/24/2005)	C1
54486	23757	ENGAR MACHINE SHOP	N ELMWOOD RD	BISR	No	ISRA (11/30/1988); LSRP 0-1 CAOC (11/18/2011); LSRP GW FEE (11/18/2011)	C2
49628	025862	AERO HAVEN AIRPORT(FORMER)	450 KETTLE RUN RD	LSR	No	Commercial (9/6/1994); Landfill (11/28/2011); LSRP Default Category (3/17/2015); Spill Act Discharge (3/17/2015)	C3

Site ID	PI Number	Name	Address	Bureau	Homeowner	Case Types (Start Date)	Remedial Level
37212	190983	GREENTREE SQUARE SHOPPING CENTER	900 RT 73	(None)	No	LSRP 0-1 CAOC (11/16/2011); LSRP GW FEE (11/16/2011); Other (3/18/1999); Spill Act Discharge (11/16/2011)	C2
158603	208683	PRIVATE RESIDENCE	ELIZABETH CT S	BFO-S	Yes	Home Owner (10/18/2003); MOA (9/30/2003); Nonreg UST (10/8/2003)	C2
188889	248193	MARLTON LAKES GROUND WATER CONTAMINATION	HOLLY RD & WALNUT AVE	ICU	No	IEC (3/3/2005); Publicly Funded (3/3/2005);	C3
18340	G000004493	ELLIS PROPERTY	150 SHARP RD	BOMM	No	Fixed Fee Case (7/8/1982); Publicly Funded (7/8/1982)	C3
70855	G000041211	MARLTON GREEN SHOPPING CENTER	36 RT 73	BOMM	No	CEA (7/25/2003); Fixed Fee Case (8/1/2003); MOA (11/23/1999); Other (12/29/1999)	C2
70906	G000043570	NJ DOT SECTION (5) MARLTON CIRCLE RT 73	RT 73 & MARLTON CIR	BFO-S	No	Linear Construction (5/10/2000); NJDOT Rd Proj (5/10/2000)	D
27173	26345	D. MINSTER	MAPLE AVE	LSR	No	LSRP Default Category (7/9/2014); Spill Act Discharge (7/1/2014)	B
10874	483130	MASTER CLEANERS & TAILORS	101 RT 70	(None)	No	LSRP 0-1 CAOC (11/11/2008); LSRP GW FEE (11/11/2008); MOA (11/11/2008); Spill Act Discharge (11/11/2008)	C2
359865	487162	CHESTERBROOK ACADEMY	108 EVESBORO MEDFORD RD	CAS	No	Child Care Facility (1/26/2009); Fixed Fee Case (1/26/2009); Historic Pesticide (1/26/2009)	B
477140	601865	995 ROUTE 73	995 RT 73	CAS	No	LSRP 0-1 CAOC (4/11/2014); Spill Act Discharge (2/25/2013)	B

Site ID	PI Number	Name	Address	Bureau	Homeowner	Case Types (Start Date)	Remedial Level
554105	694315	20 CONTINENTAL LANE	20 CONTINENTAL LN	LSR	No	LSRP 0-1 CAOC (6/22/2015); Spill Act Discharge (6/1/2015); Stop Bill-LSR Fee General (12/14/2015)	B
554517	694826	PRIVATE RESIDENCE	CARLTON AVE	(None)	Yes	(None)	(None)
10878	703542	LEES DUTCH CLEANERS @ EVESHAM PLAZA	740 750 RT 70	LSR	No	LSRP 0-1 CAOC (10/9/2015); LSRP GW FEE (10/9/2015); Spill Act Discharge (8/13/2015); Stop Bill-LSR Fee General (11/4/2015)	C2
65850	G000032442	MARLTON SQUARE SHOPPING CENTER	36 RT 70	BOMM	No	CEA (1/27/2006); Fixed Fee Case (1/28/2006)	C2

Source: NJDEP DataMinter, March 2016

See Key to Remedial Levels on next page

Key to Remedial Levels

Remedial Level	Explanation of site complexity
B	A single-phase remedial action in emergency area of site
C1	A remedial action with simple sites; one or two contaminants localized to soil and the immediate spill or discharge area.
C2	A remedial action with more complicated contaminants localized to soil and the immediate spill or discharge area
C3	A multiphase remedial action with high complexity and threatening sites. Multiple contaminants, some at high concentrations, with unknown sources continuing to impact soils, groundwater, and possibly surface waters and potable water resources. Dangerous for direct contact with contaminated soils.
D	Same conditions as C3 except that D levels are also usually designated federal "Superfund Sites."
U	Not Yet Determined
NA	Not Assessed.

Key to Lead Agencies

Acronyms	Bureau	Telephone No.
BFO-S	Bureau of Field Operations - Southern	(609) 584-4150
BISR	Bureau of Industrial Site Remediation	(609) 777-0899
BOMM	Bureau of Operation, Maintenance & Monitoring	(609) 984-2990
BUST	Bureau of Underground Storage Tanks	(609) 292-8761
OWR	Office of Wellfield Remediation	(609) 984-2990
BSCM	Southern Case Management (formerly BUST - Bureau of Underground Storage Tanks)	(609) 292-8761

Other Abbreviations:

CAS – Case Assignment Section

CEA – Classification Exception Area

ISRA – Industrial Site Recovery Act

LSR – Licensed Site Remediation

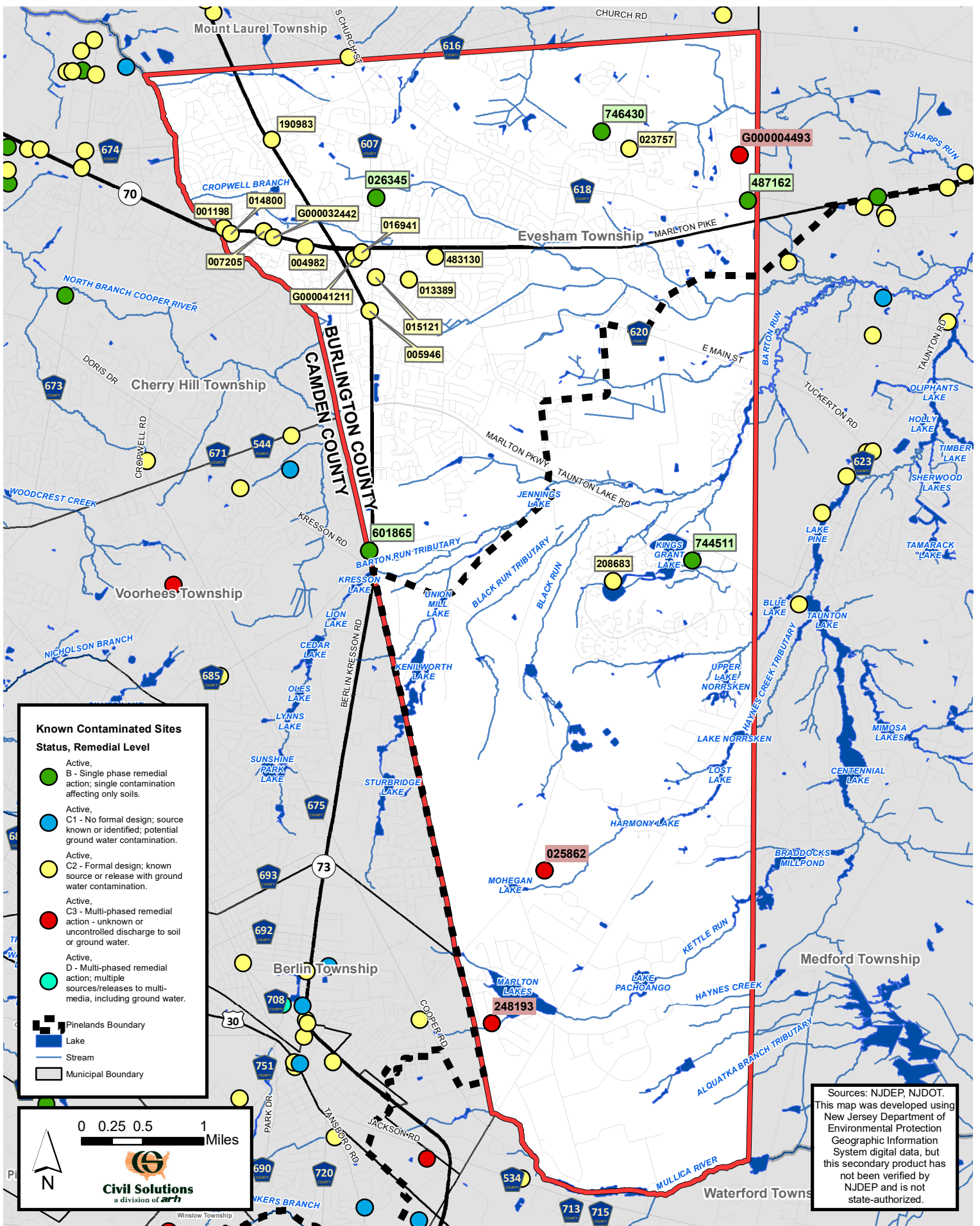
MOA – Memorandum of Agreement (between responsible party at a site and NJDEP)

NJDOT – New Jersey Department of Transportation

Reg – regulated

UST – Underground Storage Tanks. Gas station tanks are regulated. Private residence heating oil tanks are unregulated.

See also the NJDEP Site Remediation Program glossary at www.nj.gov/dep/srp/community/basics/glossary.htm.



The PH-32 Nike Missile Battery

At the end of World War II, the U.S. Army realized that its conventional anti-aircraft artillery would not adequately defend U.S. cities from the faster, higher flying, and more maneuverable planes that were being introduced by other nations, such as the Soviet Union. The United States decided to develop a system of Anti Aircraft Guided Missiles. The benefit of this new system would be that the missiles could be guided to intercept aircraft, regardless of the pilot's evasive tactics, unlike conventional anti-aircraft artillery that followed a predetermined trajectory that could not be altered after firing. Within the continental United States, over 200 Nike missile sites were constructed in defensive "rings" surrounding major urban and industrial areas. Due to its proximity to both New York City and Philadelphia, New Jersey was the location of more than one dozen U.S. Army Nike missile installations, including the PH-32 Nike Missile Battery in Evesham.

The PH-32 Nike Missile Battery, which stretched across 35 acres of land on Tomlinson Mill Road between Elmwood and Taunton Lake Road (directly across from Cherokee High School), was designed to defend Philadelphia and was activated July 1, 1955. For a period of eight years, PH-32 was manned 24 hours a day by approximately 100 men. The site was divided in two sections—the Control Area (also known as the Integrated Fire Control area) and the Launch Area. PH-32 launch area contained two underground magazines that stored 30 Nike-Ajax missiles. In 1963, PH-32 was deactivated along with six other Philadelphia-designated sites. By 1974, all Nike Missile sites were deactivated. No missiles were ever fired from these Nike bases over the two decades of operation.

After PH-32 was deactivated, it was turned over to Burlington County, which used the site as a Civil Defense Control Center, Fire/Rescue/Police Academy and Police Target Range. In the early 1970s, the site was purchased by Evesham Township and all existing buildings were torn down. The control area was sold to a developer in the early 1990s, who constructed the Briarwood community.

In a September 1990 DEP Hazardous Waste Management report, John Trela stated, "Considering the relatively low levels of petroleum hydrocarbons detected in the shallow wells and the depth of the public water supply wells, the potential for any health effects as a result of operations at Nike Missile Site PH-32 is remote."

Today, the Briarwood development takes up half of the former PH-32 site, while the other half is still owned by the Township and remains undeveloped. The magazines are still there, except now they are filled with water and covered with welded metal. The rest of the area is in need of cleanup. There are stacks of old tires, charred scraps of metal, and large piles of rock and brick. According to the Marlton Economic Development Committee, there are no plans to build on this site.

Owens Corning - Berlin

Situated in Berlin, NJ, the Owens Corning facility manufactured high-temperature insulation materials from 1958 until operations ceased in October 1993. Because of its manufacturing operations, the site, located at 150 Jackson Road in Berlin, NJ was entered into the Industrial Site Recovery Act (ISRA)

program after operations ceased. Site investigation activities, conducted in cooperation with and under the direction of the Licensed Site Remediation Professional (LSRP) in accordance with the regulations of the New Jersey Department of Environmental Protection (NJDEP), identified soil and groundwater impacts related to the former manufacturing operations. The identified impacts are primarily related to the historic use of DOWTHERM A™ (a heat transfer fluid). Impacts to soil are delineated within the site's boundaries.² Impacts to groundwater continue to be monitored by Owens Corning and have required sampling of private, potable wells in Evesham Township.

Beginning in 2011, Owens Corning began groundwater testing at the former manufacturing facility.³ Testing is focused on two constituents of DOWTHERM A™: 1, 1-Biphenyl and Diphenyl ether. In early 2012, results found levels of constituents related to DOWTHERM A™ in area groundwater to the east of the former manufacturing facility that necessitated the commencement of off-site action including a well survey and testing program along with the delineation of the extent of impacts to groundwater.⁴

In July of 2012, three wells in Waterford Township were found to contain levels of either one or both of the DOWTHERM A™ constituent above the applicable ground water quality (GWQ) standards. This finding resulted in Owens Corning expanding the well survey area to include properties in Atco, Camden County and Evesham Township, Burlington County.

Testing of five wells in Evesham Township in August 2012 resulted in all five wells meeting the applicable GWQ standards for DOWTHERM A™ constituents. One of the five wells contained levels of a constituent that was not the focus of the Owens Corning environmental investigation. In accordance with regulatory requirements, Owens Corning notified the NJDEP and provided assistance to the property owner to understand the options available to them through the state.

Figure 15, from November 2012, shows the location of the former Owens Corning facility in Berlin along with off-site monitoring wells, off-site grab groundwater locations, and locations where DOWTHERM A™ constituents were found to be above or below the NJDEP's Groundwater Quality Standards (GWQS).

As well testing and groundwater impact delineation continues, Owens Corning has most recently been required to sample additional private, potable wells in Evesham Township. This testing impacted properties along Kettle Run Road and Raymond Avenue.

By February 2016, Owens Corning had completed the installation of five (5) temporary groundwater borings along Kettle Run Road. Samples were collected at various depths at each drilling location from depths of 21 feet below ground surface (BGS) to 125 feet BGS. The samples were analyzed for two DOWTHERM A™ constituents. A total of 30 samples were collected, and two of those samples were found to contain levels of Diphenyl ether. The results of one of those two was slightly above the state's action threshold of 100 parts per billion (ppb). Both of the samples also had detections of 1, 1-Biphenyl ether, but the levels were below the state's action threshold of 400 ppb.

The detection of DOWTHERM A™ constituents in two of the 30 samples, required Owens Corning to perform a NJDEP mandated "step out" and sample water from private water wells within a certain

² <http://www.occommunityinformationsite.com/>; accessed on March 30, 2016.

³ <http://www.occommunityinformationsite.com/docs/community-display-board-Jan13.pdf>; accessed on March 30, 2016.

⁴ Ibid.

distance of where the contaminated samples were collected. Eleven (11) private wells along Kettle Run Road required testing.

By March 2016, Owens Corning had sampled ten (10) of the eleven (11) wells. Samples collected from one (1) of the wells found Diphenyl ether that exceeded its applicable groundwater quality standard (GWQS) as shown in the table below.

Owens Corning “Step Out” Results from Private Well that Exceeded GWQS

Constituent	Sample 1	Duplicate Sample	Groundwater quality standard (GWQS)
Diphenyl ether	100 ppb	110 ppb	100 ppb
1, 1-Biphenyl ether	25 ppb	25 ppb	400 ppb

In response to the sample results, Owens Corning filed an Immediate Environmental Concern (IEC) with the NJDEP. In addition, Owens Corning started providing bottled, potable water to the residents whose well was impacted and is required to establish a water delivery service to meet near-term drinking and cooking needs. The long term solution is for Owens Corning to design and install a Point-of-Entry Treatment (POET) system.

The contaminated sample of the private well on Kettle Run Road, required a second “step-out.” Three additional property owners along Kettle Run Road were contacted and their wells will require testing.

As of the publication of this update, Owens Corning continues to keep Evesham Township apprised of their ongoing testing.

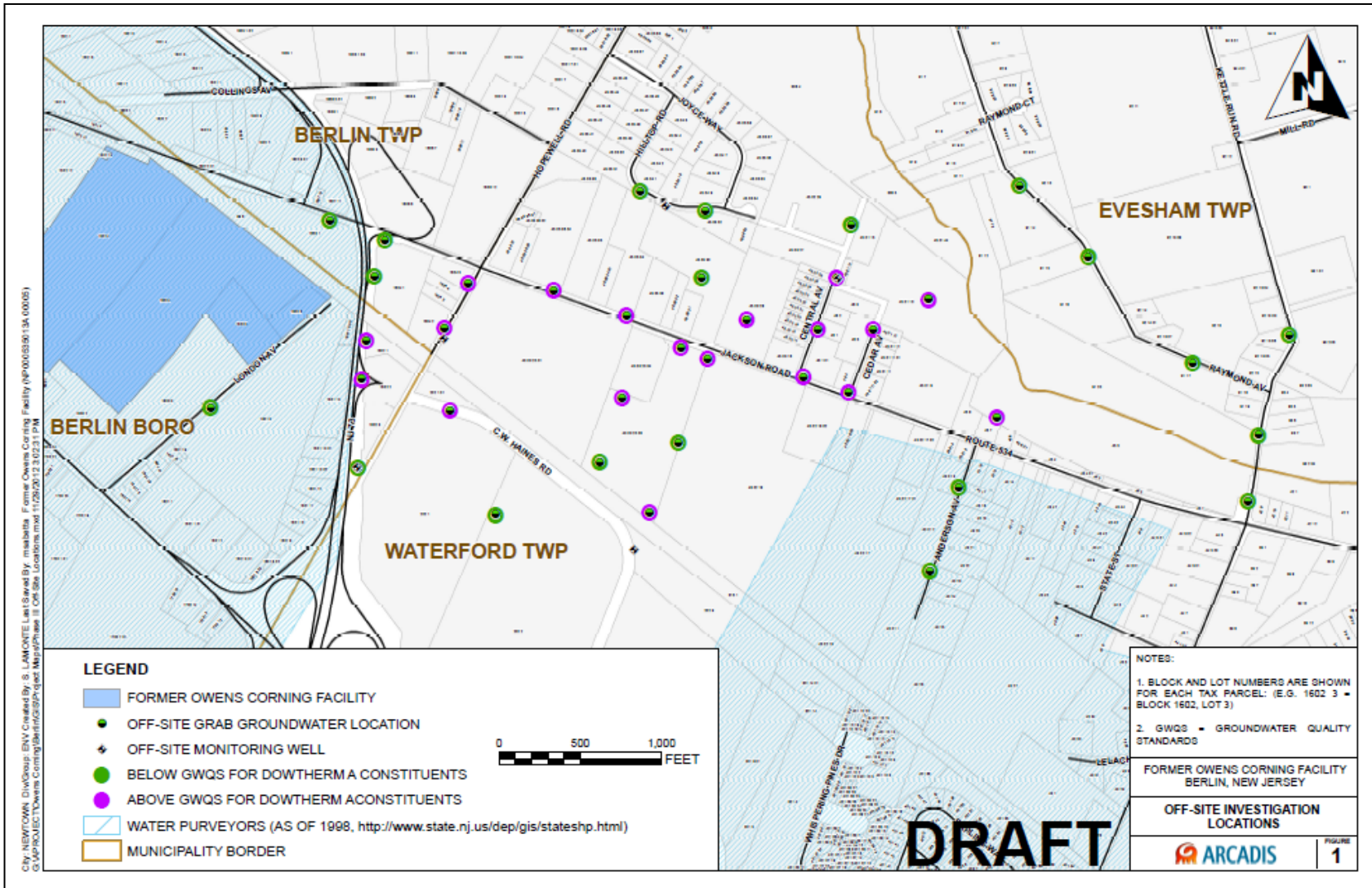


Figure 19: Owens Corning Phase III Off Site Locations from November 2012

RADON

Radon is an invisible and odorless radioactive gas that comes from the natural decay of uranium found in nearly all soils. It moves up through the ground to the surrounding air, and into homes and other buildings through cracks and other holes in foundations. A build-up of radon-contaminated air (internal alpha particle exposure hazard) within a home can pose a long-term health hazard to residents, specifically for lung cancer. The only method of detection is to conduct a test for alpha particles in the air within a home. Fortunately, radon testing is inexpensive. All radon test results conducted in the state are reported to DEP by certified companies, which perform the tests or manufacture the test kits. This data is used to classify municipalities into a three-tier system, which identifies the potential for homes with indoor radiation problems.

NJDEP classifies municipalities into three categories – high (Tier 1), moderate (Tier 2), or low (Tier 3) – as to the risk of having high radon levels. Evesham is listed as a Tier 2 municipality with moderate potential of having dangerous radon levels in homes.

The criteria for a Tier 2 municipality designation is that 5 to 25%, of 25 or more homes tested, have radon concentrations greater than or equal to 4.0 picocuries per liter in air. The level at which homeowners should take immediate action is 4.0 picocuries per liter in air. If radon levels are high in a home, NJDEP suggests that the homeowner take the following actions: (1) prevent radon from entering the house by repairing cracks and insulation and (2) dilute radon concentrations currently in the house by installing a radon extraction system and/or frequently ventilating indoor air. NJDEP maintains www.njradon.org as an information source for concerned citizens. Free information packets are available upon request. All companies conducting radon testing and mitigations are certified by NJDEP and listed on their website.

FLOODING

During the morning of July 12, 2004, a warm air front moving from the southwest stalled over Burlington County. A low-pressure system that was supported by cooler air from the northwest developed along the warm front. The result of these two forces colliding was a record-breaking 24-hour deluge that ravaged Burlington County. Areas within the county received in excess of 13 inches of rain. The sudden rains swelled the Rancocas Creek and its tributaries. Water rushed into the creek's 100-year floodplain and beyond. The creek breached numerous dams in the Pinelands region, exacerbating the severe flooding that occurred downstream. The New Jersey Interagency Waterway Infrastructure Improvement Task Force later determined that the July 12-15, 2004 storm was a 1,000-year storm. No lives were lost as a result of the flooding, but more than 750 people were forced to evacuate. New Jersey Governor James McGreevey declared a state of Emergency in both Burlington and Camden Counties.

In Evesham, residents experienced sewer overflows and water backing up into their homes. Several Evesham Municipal Utilities Authority facilities also experienced storm damage. Well No. 6 on Elmwood Road had been flooded. EMUA employees took precautionary steps including shutting down the well, collecting samples, increasing the chlorine level, and

continuously flushing the water main. Fecal coliform and e-coli were discovered in the samples, and local television and radio stations as well as newspapers received a press release outlining a Boil Water Advisory, which was lifted on July 15, 2004. The EMUA has addressed its emergency preparedness in three areas—Staffing Levels, Operating Procedures, and Public Notification Procedures – as a result of the 2004 floods.

The 2004 severe flooding occurred in several Burlington County townships as a result of the torrential rains, combined with a series of dam failures along the Rancocas Creek. Eighteen dams failed and 27 were significantly damaged by the storm (see **Table 27: Dams Damaged in Evesham Township, July 2004**). The dams failed in a chain reaction starting with a dam between Papoose Lake and Lake Stockwell near Camp Ockanickon in Medford. Water rushed over and underneath the barrier, eroding the structure until it completely failed. The quick flow of water from the Papoose Lake dam overwhelmed dams downstream. Crane Lake Dam in Evesham (a Class III Low Hazard Dam) failed, and Kenilworth Lake Dam #1 sustained structural damages during the flood.

The South Branch of the Rancocas Creek far exceeded measurements for the 100-year recurrence interval flood. The U.S. Geological Survey (USGS) streamgauge station at Vincentown recorded the South Branch's peak stage (the height of the river from normal conditions) at 12.34 feet, which considerably exceeded the old record of 7.98 feet set in 1978. The peak discharge of the South Branch of the Rancocas Creek was three times greater than the previous record, moving 4,200 cubic feet of water per second.

The fiscal impact of the July 2004 floods was drastic. Area residents and businesses reported millions of dollars in damages. In light of the dam failures, Governor James E. McGreevey directed the Department of Environmental Protection (DEP) to reopen the application process for low-interest loans to fund dam repairs, which voters approved in a \$95 million bond initiative in November 2003. Additionally, Governor McGreevey pledged \$5 million to help towns rebuild, and the White House gave the Federal Emergency Management Agency approval to allocate about \$20 million in relief to the affected areas. Flood insurance would have covered the damage; however, many people in the township did not have flood insurance and were forced to finance the rebuilding with their own funds. Those who did have flood insurance often did not receive their reimbursement funds until 2005.

The reconstruction of the dams has also proved to be an expensive and complicated endeavor. The dams were constructed towards the end of the nineteenth century for agricultural and milling industries in the area. In the 1920s, residential communities grew around those man-made lakes. Through the years, the dams were only mildly upgraded from their original earthen construction. Some dams had concrete spillways, but all dams had significant portions that were constructed from compacted earth. The cost to rebuild these dams will be high. In the years since the storm, the state of New Jersey has authorized \$22.4 million in low-interest loans for the reconstruction and repairs of the privately-owned dams. However, the high costs associated with reconstruction are prohibitive. Many dams that existed before the July 2004 deluge might not be rebuilt (for further information about the floods, see the articles listed in **Sources of Information**).

Table 27: Dams Damaged in Evesham Township, July 2004

Failed	Damaged
Crane Lake Dam (L)	Marlton Lakes Upper Dam (S)
Lost Lake Dam (U)	Kenilworth Lake Dam (S) *
Elmwood Waste Water Treatment Dam (U)	Union Mill Lake Dam (U)
	Van Dal Lake Dam (U)

Source: Philadelphia Inquirer, 2004

Key to Dam Codes

Abbreviation	Description
*	Lake behind dam was ordered lowered for safety reasons
H	high-hazard dam (potential to cause loss of life if dam breached)
S	significant-hazard dam (potential to cause major property damage if breached)
L	low-hazard dam
U	unclassified (unknown to state before the flooding)

In 2016, reconstruction on the Tomlinson Mill Road dam was completed. This dam was identified as a priority since it held back a large body of water and its culverts (pipes under the roadway) were deteriorating and not large enough to convey significant storms without overtopping the road and weakening the structure. A failure of the dam would have resulted in significant property damage downstream. In addition, utility poles across Tomlinson Mill Dam carry high voltage power lines, including various cable and fiber optic wires resulting in possible communication outages to residents in the surrounding area should the dam fail.

The new Tomlinson Mill Dam ensures that Jennings Lake is preserved. Future generations will experience numerous recreational opportunities, wildlife habitat (including sensitive vegetation and a rare species of fresh water mussel), as well as scenic views that enhance the enjoyment of our natural surroundings and the diverse experiences available to all of Evesham.

Dam upgrades will help to mitigate the impact of future floods, however, Evesham needs to address storm water drainage. As the amount of impervious surface increases in the community, the severity of floods will also increase. Unfortunately, flooding is inevitable when 13 inches of rain fall on an area within a 24-hour period. The severity of these incidents can be decreased by using stormwater best management practices. Preserving land in floodplains and limiting impervious surface coverage can also reduce the damage caused by torrential rain events.

DRINKING WATER WELLS

According to a July 2008 NJDEP report on the New Jersey Private Well Testing Act (PWTA) program, between September 2002 and April 2007, 12% of the 25,256 wells tested in nine Southern New Jersey counties exceeded one or more Maximum Contaminant Levels allowed in drinking water. Failures for gross alpha particle activity were most common (10.8 %), followed by nitrates (3.2%), VOCs (1.5%), mercury (.9%), and fecal coliform/E. coli (.8%).

Tetrachloroethylene Contamination in Evesham Township Wells

In 2005, a home in Evesham Township tested its private well under the PWTA program. The well was contaminated with tetrachloroethylene, a solvent widely used by the dry cleaning industry. The test result indicated that the well had 4 parts per billion (ppb) of tetrachloroethylene, although the Maximum Contaminant Level (MCL)—the highest level allowed in drinking water—is 1 ppb.

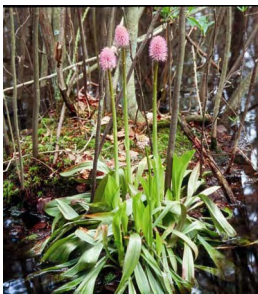
The Burlington County Health Department sampled 18 private wells in the vicinity of the contaminated well because the PWTA authorizes the county health authority to notify neighboring properties within 200 feet of the contaminated well. Of the 18 wells tested, 12 were found to have tetrachloroethylene concentrations that exceeded the MCL, with one well having an extremely high concentration of 840 ppb. The County Health Department then contacted NJDEP's Site Remediation Program to assist with follow-up testing and remedial activities.

The NJDEP tested 95 private wells in the area. Of those, 21 wells exceeded the MCL for tetrachloroethylene, with the highest concentration at 70 ppb. In addition, 6 of the 93 private wells exceeded the MCL for mercury. The drinking water remedial treatment costs related to the tetrachloroethylene and mercury contamination were covered by the NJDEP's Spill Compensation Fund (also known as the "Spill Fund"). NJDEP is still investigating to determine the source of the tetrachloroethylene and it continues to test wells in the area to determine if the plume is moving. (See "Marlton Lakes Groundwater Contamination Site" entry in **Table 26**).

Berlin Well #12

In February 2004, the New Jersey Department of Environmental Protection (NJDEP) revoked the water allocation permit for Berlin Borough's supply well No. 12, which had drawn down the water table and dried up Kettle Run stream in Evesham Township. The dry stream threatened the nearby wetlands, which contained swamp pink, a federally listed endangered plant species.

Marlton Lakes residents had become aware of the problem in 2000, when the main feeder stream to Marlton Lakes went dry. A coalition of Marlton Lakes residents, Evesham Township, the NJ Environmental Federation, and the Pinelands Preservation Alliance convinced NJDEP Commissioner Bradley Campbell to order Berlin Borough to turn the well off permanently. This marked the first time that a well was required to be turned off to protect an endangered species.



Source: Michael A. Hogan Swamp Pink (Helonias bullata)

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APPENDICES

Appendix A: Vernal Pools in Evesham Township

Appendix B: Federal and State Conservation Programs for Farmers

Appendix C: Private Well Testing Act

Appendix D: Streamside Plants Documented in the Pineland Areas of Evesham
Township

Appendix E: Vertebrate Animals Known or Probable in Evesham Township

Appendix F: Endangered and Threatened Species in Evesham Township

Appendix G: State Threatened and Endangered Species

Appendix H: Partial Inventory of Locally Significant Historic Sites in Evesham, NJ

APPENDIX A: VERNAL POOLS IN EVESHAM TOWNSHIP

Vernal Pool Status	X-Coordinate	Y-Coordinate
Potential vernal habitat location	508902.718738	4403937.999910
Potential vernal habitat location	508873.624988	4404040.999910
Potential vernal habitat location	507404.093739	4412356.499910
Potential vernal habitat location	507193.437489	4412598.499910
Potential vernal habitat location	507320.749989	4412723.999910
Potential vernal habitat location	509236.503570	4413972.400910
Potential vernal habitat location	508370.372406	4414930.632340
Potential vernal habitat location	508619.677945	4416073.979130
Potential vernal habitat location	511475.720045	4416229.830290
Potential vernal habitat location	507863.057495	4417034.873060
Potential vernal habitat location	511554.566251	4418495.995290
Potential vernal habitat location	511266.611075	4418614.025670
Vernal habitat location	509420.593738	4409360.999910
Vernal habitat location	511629.178685	4416436.205700

Source: www.dbcrrsa.rutgers.edu/ims/vernal

APPENDIX B: FEDERAL & STATE CONSERVATION PROGRAMS FOR FARMERS

Several financial and economic incentive programs, and technical assistance, are available to help farmers plan and use conservation practices on their farms. The United States Department of Agriculture Natural Resources Conservation Service (NRCS) has a Farm Service Agency office in Woodstown, Salem County, that serves Burlington County. NRCS staff members are available to work with farmers to help identify their conservation goals and then craft appropriate conservation plans to meet those goals.

Numerous programs provide financial incentives to help farmers voluntarily engage in these practices. Financial incentives can include rental payments to farmers for reserved land, easement payments, and cost sharing – up to 100% for some programs – to develop and follow conservation plans.

FEDERAL PROGRAMS

The **Conservation Reserve Program (CRP)** is offered by NRCS and administered by the Farm Service Agency. It provides technical and financial aid and gives farmers assistance in complying with federal, state and tribal environmental laws. The primary environmental goals of this program include reducing soil erosion, reducing sedimentation in streams and lakes, improving water quality, establishing wildlife habitat, and enhancing forest and wetland resources. Website: www.nrcs.usda.gov/programs/crp/.

The State of New Jersey partnered with the USDA to help farmers protect water quality by establishing a \$100 million **Conservation Reserve Enhancement Program (CREP)**, which is the New Jersey version of the federal program. Under a joint agreement between the USDA and State of New Jersey, \$100 million in funding has been provided for New Jersey farmers to install stream buffers in order to reduce the flow of nonpoint source pollution into the state's waterways. Types of buffers to be installed include trees, shrubs, vegetative filter strips, contour grass strips, and grass waterways. Under the program, a landowner installs and maintains approved practices through a 10- or 15-year rental contract agreement. A landowner entering the state Farmland Preservation Program or Green Acres Program also may opt for a permanent easement under the Conservation Reserve Enhancement Program. This would provide additional payment for permanent maintenance of approved conservation practices. The program will pay landowners annual rental and incentive payments for participating in the program, as well as 100% of the cost to establish approved practices. Additional information can be found at www.fsa.usda.gov or contact the local Farm Services Agency (FSA) Office or Soil and Water Conservation District Office.

Another program targeted for wetlands preservation is called the **Wetlands Reserve Program (WRP)**. WRP is a voluntary resource conservation program that provides

landowners with the opportunity to receive financial incentive to restore, protect and enhance wetlands in exchange for returning marginal land from agriculture. WRP is made possible by a reauthorization in the Food, Conservation and Energy Act of 2008, known as the Farm Bill. The program has three enrollment options: permanent easement, 30-year easement, or restoration cost-share agreement, which has a minimum 10-year commitment. Applications are accepted on a continuous basis and may be obtained and filed at any time. Please see the website for more details:
www.nrcs.usda.gov/programs/wrp/.

The **Grassland Reserve Program (GRP)** is another conservation program authorized by the 2008 Farm Bill. GRP is a voluntary program that protects grasslands, pasturelands, and rangelands without prohibiting grazing. Participants voluntarily put limitations on the future use of their land while retaining the ability and right to conduct grazing practices, produce hay, mow or harvest for seed production, conduct fire rehabilitation, and construct firebreaks and fences. There are four enrollment options: permanent easement; 30-year easement; rental agreement, which is available in 10-, 15-, 20-, or 30-year contracts; and restoration agreement. Participants are compensated in different ways according to the enrollment option. For more information and application procedures, visit the GRP website: www.nrcs.usda.gov/programs/grp/.

The **Wildlife Habitat Incentives Program (WHIP)** is another USDA voluntary program, that targets landowners who want to preserve and protect fish and wildlife habitat on nonfederal lands. WHIP applicants develop a plan of operations outline conservation practices and implementation schedules. The NJ State Conservationist, in conjunction with the State Technical Committee, identifies and prioritizes plans that complement the goals and objectives of relevant fish and wildlife conservation initiative at the state, regional and national levels. If selected, a plan forms the basis of a cost-share agreement, lasting between 1 to 10 years. NRCS will pay for up to 75% of costs of implementing conservation practices that protect fish and wildlife habitat. For beginning farmers, socially disadvantaged or limited resource producers, NRCS will pay for up to 90% of costs. In New Jersey, a state plan has been developed that targets a number of priority habitat areas: pollinator habitat, grasslands habitat, disturbance-dependent habitat, bog turtle priority species habitat, wetland habitat and Delaware Bay priority habitat. For more information and application procedures, visit the NJ WHIP website: www.nj.nrcs.usda.gov/programs/whip/.

The **Environmental Quality Incentives Program (EQIP)** is also a part of the reauthorized Farm Bill of 2008. EQIP is a voluntary program that focuses on conservation that promotes both agricultural production and environmental quality. The program itself offers technical and financial assistance with installation and implementation of structural and management practices on agricultural land. EQIP features a minimum contract term compared to other programs, lasting a maximum of 10 years. Landowners are eligible for incentive and cost-share payments of up to 75% and sometimes up to 90%, while still engaging in livestock or agricultural production activities. For more information please visit the website:
www.nrcs.usda.gov/programs/eqip.

The **Conservation Stewardship Program (CSP)** is a voluntary program administered by the NRCS that replaces the Conservation Security Program. This program is intended to promote conservation and improvement of soil, water, air, energy, plant and animal life, etc. on tribal and private working lands. Working lands refer to a variety of land types, including cropland, grassland, prairie land, improved pasture, and range land. In some cases, forested lands would also be included in this category. CSP is available in 50 states, as well as the Caribbean and Pacific Basin areas, and provides equal access to funding. For more information please visit the website: www.nrcs.usda.gov/programs/new_csp/csp.html.

The **Farm and Ranch Lands Protection Program (FRPP)** is a voluntary land conservation program that assists farmers in keeping their lands for agricultural purposes. FRPP provides matching funds to those provided by state, tribal, local government, or nongovernment organizations, offering farm and ranch protection programs designed to purchase conservation easements. The FRPP is managed by the NRCS. Conservation easements are purchased by the state, tribal, or local entity. A participating landowner agrees not to convert their land to nonagricultural uses, and to develop a conservation plan for any highly erodible lands. Landowners do, however, maintain all of their rights to utilize their land for agricultural purposes. For more information about FRPP, please visit the website: www.nrcs.usda.gov/programs/frpp/.

The federal Environmental Protection Agency (EPA) offers the **Strategic Agricultural Initiative**, an outreach program designed to demonstrate and facilitate the adoption of agricultural management practices that will enable growers to transition away from the use of high-risk pesticides. Funds are provided to projects that develop agricultural management practices that offer risk reductions to human health and the environment. For additional information visit www.epa.gov/region02.

The EPA also offers the **Source Reduction Assistance Program**, which prioritizes water conservation and the minimization of chemicals of concern, such as pesticides, endocrine disruptors, and fertilizers. For additional information visit www.epa.gov/region02.

The U.S. Fish and Wildlife offers technical and financial assistance to private landowners through the **Partners for Fish and Wildlife** Program. The owners restore wetlands, streams and river conditions, as well as other important fish and wildlife habitat, for federal trust species. More information is available at: <http://njfieldoffice.fws.gov/partners>.

STATE PROGRAMS

The **State Agricultural Development Committee (SADC) in New Jersey** has made soil and water conservation grants available as part of the Farmland Preservation Program. The grants give landowners up to 50% of costs associated with approved soil and water conservation projects. Farms are only eligible if they are already enrolled in a permanent or 8-year easement program. Soil projects can include measures to prevent or control

erosion, control pollution on agricultural land, and improve water management for agricultural purposes. Projects must be completed within three years of SADC funding approval. However, under special circumstances the grant may be renewed for an additional year. For more information contact the local Soil Conservation District or the State Agricultural Development Committee at (609) 984-2504 or visit the website: www.state.nj.us/agriculture/sadc/sadc.htm for additional details.

The **Landowner Incentive Program (LIP)** is a preservation program for private landowners who wish to protect and conserve rare wildlife habitat and species. LIP is funded by the U.S. Fish and Wildlife Service and is administered by NJDEP's Division of Fish and Wildlife Endangered Nongame Species Program. Participating landowners receive both technical and financial assistance through this competitive grant program. Generally, a five-year minimum commitment is required and longer terms are preferred. A 25% cost-share is required of the landowner. While the LIP is seeking funding for additional habitat protection projects, it may be another year before grants are available. To learn more about the program in general visit the website: www.state.nj.us/dep/fgw/ensp/lip_prog.htm.

NJDEP's 319(h) Non-point Source Pollution Control Pass-through Grant Program provides financial assistance to reduce non-point source pollution through riparian buffers, manufactured treatment devices, and other methods. (Applicant must be a government entity or a non-profit organization, but can partner with farmers.)

APPENDIX C: PRIVATE WELL TESTING ACT

The Private Well Testing Act (*N.J.S.A. 58:12A-26 et seq.*), passed in 2002 and administered by NJDEP, requires that well water be tested for contaminants when properties served by certain types of drinking water wells are sold or leased. The law does not prohibit the sale of property if the water fails one or more drinking water test standards. Rather, the fundamental goal of the PWTA is to ensure that purchasers and lessees of properties served by private potable wells are fully aware of the quality of the untreated drinking water sources prior to sale or lease. The state law allows the buyer and seller to determine which party will pay for the test, as well as what actions, if any, need to be taken if test results indicate a contaminant is present in the water above an applicable standard. However, individual county health rules may mandate that certain actions are required in order for a real estate transaction to be finalized.

The PWTA program requires that water be tested for primary contaminants (health-based) and secondary parameters (aesthetic characteristics). Primary contaminants are contaminants that may cause a potential health risk if consumed on a regular basis above the established maximum contaminant level (MCL). New Jersey regulates 18 primary contaminants, five more than federal EPA requirements. Primary contaminants include bacteriological (fecal coliform and *E. coli*), Volatile Organic Compounds (VOCs), inorganics (arsenic, lead, mercury, and nitrates), and Radiological (radium decay) substances. A certified laboratory must collect a water sample at a point before the water goes through any treatment. This sample represents the condition of the ground water in the aquifer, which may be different from water out of a kitchen faucet. Property owners may choose to also have the tap water tested to assure that filters or treatments are working effectively.

The PWTA program requires tests for three naturally occurring secondary parameters: pH, iron, and manganese. Secondary drinking water standards address aesthetics such as corrosivity, taste, and color, and testing for these parameters determines if water is suitable for laundering, plumbing, and showering. For example, due to the nature of soils and geology in southern New Jersey, the ground waters tend to be acidic (pH below 7), while ground waters in the northern part are neutral (pH=7) to basic (pH above 7). If the pH is too low (less than 6.5) water has a bitter metallic taste, and causes corrosion of pipes and fixtures. If the pH is too high (greater than 8.5) the water has a slippery feel, it tastes like soda, and deposits can form on plumbing fixtures.

Volatile Organic Compounds regulated by NJDEP

- Benzene
- Carbon Tetrachloride
- meta-Dichlorobenzene
- ortho-Dichlorobenzene
- para-Dichlorobenzene
- 1, 1-Dichloroethane
- 1, 2-Dichloroethane
- 1, 1-Dichloroethylene
- *cis* – 1, 2-Dichloroethylene
- *trans* – 1, 2-Dichloroethylene
- 1, 2-Dichloropropane
- Ethylbenzene
- Methyl tertiary butyl ether
- Methylene Chloride
- Monochlorobenzene
- Naphthalene
- Styrene
- 1, 1, 2, 2-Tetrachloroethane
- Tetrachloroethylene
- Toluene
- 1, 2, 4-Trichlorobenzene
- 1, 1, 1-Trichloroethane
- 1, 2, 2-Trichloroethane
- Trichloroethylene
- Vinyl Chloride
- Xylenes (Total)

Test results are reported by the lab to the person who requested the testing, to NJDEP, and to the local health authority. Suspicious or unexpected results are neither confirmed nor verified by NJDEP. Local health authorities will investigate suspect results, if necessary.

In February 2004, NJDEP released an online report summarizing the initial well test results reported to the agency during the PWTA program's first six months (September 2002 to March 2003). Results for 5,179 wells are included, which represent approximately 1% of private wells used as potable water supplies in New Jersey. The compilation of water test results is organized by county and municipality but does not include the names of specific property owners, their addresses, or well locations, because releasing that information is prohibited by law. About 92% of the 5,179 wells passed all the required (health-based) standards, with the exception of lead. Of the 8% (417 wells) of wells sampled that exceeded the maximum contaminant level for primary contaminants, the most common reason for failure statewide was nitrate (inorganics), followed by fecal coliform (bacteriological), and VOCs. Nitrates are found in groundwater due to a number of factors, including natural deposits, runoff from fertilizer, leaching from septic tanks, and from sewage pipes.

More wells in northern New Jersey were found to have fecal coliform or *E. coli* bacteria than in southern New Jersey. The northern/southern difference is probably due to the different geology in these regions. Northern New Jersey is characterized by limestone subject to solution cavities, fractured bedrock, or gravel water-bearing zones, while the southern part of the state is composed mainly of coastal plain sand and gravel, which appears to provide better protection of groundwater from fecal contaminants.

For those wells in the counties where mercury testing is required, 14 wells failed for mercury. Nine southern counties, including Gloucester, Camden, Burlington, and Salem, are required to test for mercury, which has been linked to neurological problems.

**APPENDIX D: STREAMSIDE PLANTS DOCUMENTED IN PINELAND AREAS OF
EVESHAM TOWNSHIP**

Scientific Name	Common Name
<i>Acer rubrum</i>	red maple
<i>Ailanthus altissima</i>	tree of heaven
<i>Alnus serrulata</i>	azel alder
<i>Amelanchier canadensis</i>	anadian serviceberry
<i>Apios americana</i>	groundnut
<i>Apocynum cannabinum</i>	Indianhemp
<i>Arisaema triphyllum</i>	Jack in the pulpit
<i>Aronia arbutifolia</i>	Red Chokeberry
<i>Asclepias incarnata</i>	swamp milkweed
<i>Aster nemoralis</i>	bog aster
<i>Aster racemosus</i>	white aster
<i>Bidens coronata</i>	crowned beggarticks
<i>Bidens frondosa</i>	devil's beggartick
<i>Bidens laevis</i>	smooth beggartick
<i>Boehmeria cylindrica</i>	smallspike false nettle
<i>Botrychium dissectum</i>	cutleaf grapefern
<i>Callitriche heterophylla</i>	twoheaded water-starwort
<i>Carex canescens</i>	silvery sedge
<i>Carex debilis</i>	white edge sedge
<i>Carex lurida</i>	shallow sedge
<i>Carex striata</i>	Walter's sedge or tussock sedge
<i>Carya sp</i>	hickory
<i>Catalpa bignonioides</i>	southern catalpa
<i>Cephalanthus occidentalis</i>	common buttonbush
<i>Chamaecyparis thyoides</i>	Atlantic white cedar
<i>Chamaedaphne calyculata</i>	leatherleaf
<i>Chasmanthium laxum</i>	slender woodoats
<i>Cinna arundinacea</i>	sweet woodreed
<i>Clethra alnifolia</i>	coastal sweetpepperbush
<i>Commelina communis</i>	Asiatic dayflower
<i>Cornus amomum</i>	silky dogwood
<i>Cuscuta sp</i>	dodder
<i>Cyperus strigosus</i>	strawcolored flatsedge
<i>Decodon verticillatus</i>	swamp loosestrife
<i>Dioscorea villosa</i>	wild yam
<i>Drosera intermedia</i>	spoonleaf sundew
<i>Dulichium arundinaceum</i>	threeway sedge
<i>Echinochloa muricata</i>	rough barnyardgrass
<i>Eleocharis acicularis</i>	needle spikerush
<i>Erechtites hieracifolia</i>	American burnweed
<i>Eubotrys racemosa</i>	swamp doghobble
<i>Eupatorium dubium</i>	coastalplain joepeyeweed
<i>Eupatorium leucolepis</i>	justiceweed
<i>Eupatorium rotundifolium</i>	roundleaf thoroughwort
<i>Eupatorium rugosum</i>	white snakeroot
<i>Fraxinus pennsylvanica</i>	green ash
<i>Galium tinctorium</i>	stiff marsh bedstraw

Scientific Name	Common Name
<i>Gaylussacia dumosa</i>	dwarf huckleberry
<i>Glechoma hederacea</i>	ground ivy
<i>Glyceria obtusa</i>	Atlantic mannagrass
<i>Helonias bullata</i>	Swamp pink
<i>Hypericum canadense</i>	lesser Canadian St. Johnswort
<i>Hypericum densiflorum</i>	bushy St. Johnswort
<i>Ilex laevigata</i>	smooth winterberry
<i>Ilex verticillata</i>	common winterberry
<i>Impatiens capensis</i>	jewelweed
<i>Iris versicolor</i>	harlequin blueflag
<i>Itea virginica</i>	Virginia sweetspire
<i>Juglans nigra</i>	black walnut
<i>Juncus canadensis</i>	Canadian rush
<i>Juncus effusus</i>	common rush
<i>Kalmia latifolia</i>	mountain laurel
<i>Leersia oryzoides</i>	rice cutgrass
<i>Lindera benzoin</i>	northern spicebush
<i>Liquidambar styraciflua</i>	sweetgum
<i>Liriodendron tulipifera</i>	tuliptree, yellow poplar
<i>Lobelia canbyi</i>	Canby's lobelia
<i>Lonicera japonica</i>	Japanese honeysuckle
<i>Ludwigia alternifolia</i>	seedbox
<i>Ludwigia palustris</i>	marsh seedbox
<i>Lycopus uniflorus</i>	northern bugleweed
<i>Lycopus virginicus</i>	Virginia water horehound
<i>Lysimachia terrestris</i>	earth loosestrife
<i>Magnolia virginiana</i>	sweetbay
<i>Microstegium vimineum</i>	Nepalese browntop
<i>Mikania scandens</i>	climbing hempvine
<i>Mimulus ringens</i>	Allegheny monkeyflower
<i>Mitchella repens</i>	partridgeberry
<i>Morus rubra</i>	red mulberry
<i>Nuphar variegata</i>	variegated yellow pond-lily
<i>Nyssa sylvatica</i>	tupelo, blackgum
<i>Onoclea sensibilis</i>	sensitive fern
<i>Osmunda cinnamomea</i>	cinnamon fern
<i>Oxalis sp</i>	wood sorrel
<i>Panicum clandestinum</i>	deertongue
<i>Parthenocissus quinquefolia</i>	Virginia creeper
<i>Peltandra virginica</i>	green arrow arum
<i>Phalaris arundinacea</i>	reed canarygrass
<i>Phragmites australis</i>	common reed
<i>Picea abies</i>	Norway spruce
<i>Pilea pumila</i>	Canadian clearweed
<i>Pinus rigida</i>	pitch pine
<i>Platanus occidentalis</i>	American sycamore
<i>Polygonum arifolium</i>	halberdleaf tearthumb
<i>Polygonum cespitosum</i>	cepitose knotweed
<i>Polygonum cuspidatum</i>	Japanese knotweed
<i>Polygonum persicaria</i>	spotted ladysthumb
<i>Polygonum punctatum</i>	dotted smartweed
<i>Polygonum sagittatum</i>	arrowleaf tearthumb

Scientific Name	Common Name
<i>Potamogeton diversifolius</i>	hair-like pondweed
<i>Potamogeton epihydrus</i>	ribbonleaf pondweed
<i>Prunus serotina</i>	black cherry
<i>Quercus alba</i>	white oak
<i>Rhexia virginica</i>	handsome Harry
<i>Rhododendron viscosum</i>	swamp azalea
<i>Rubus hispidus</i>	bristly dewberry
<i>Rubus sp</i>	blackberry
<i>Salix sp</i>	willow
<i>Sambucus canadensis</i>	American black elderberry
<i>Sanicula canadensis</i>	Canadian blacksnakeroot
<i>Scirpus cyperinus</i>	woolgrass
<i>Scutellaria lateriflora</i>	blue skullcap
<i>Smilax rotundifolia</i>	roundleaf greenbrier
<i>Solanum nigrum</i>	black nightshade
<i>Solidago rugosa</i>	wrinkleleaf goldenrod
<i>Sparganium americanum</i>	American bur-reed
<i>Spiraea alba var latifolia</i>	white meadowsweet
<i>Symplocarpus foetidus</i>	skunk cabbage
<i>Thalictrum pubescens</i>	king of the meadow
<i>Thelypteris palustris</i>	eastern marsh fern
<i>Thelypteris simulata</i>	bog fern
<i>Toxicodendron radicans</i>	eastern poison ivy
<i>Triadenum virginicum</i>	Virginia marsh St. Johnswort
<i>Typha latifolia</i>	broadleaf cattail
<i>Utricularia subulata</i>	zigzag bladderwort
<i>Vaccinium corymbosum</i>	highbush blueberry
<i>Viburnum dentatum</i>	southern arrowwood
<i>Viola lanceolata</i>	bog white violet
<i>Vitis labrusca</i>	fox grape
<i>Woodwardia areolata</i>	netted chainfern

Source: Zampella, Robert A., John F. Bunnell, Kim J. Laidig, and Nicholas A. Procopio. *The Rancocas Creek Basin. A Report to the Pinelands Commission on the Status of Selected Aquatic and Wetland Resources*. New Lisbon, NJ: The Pinelands Commission, 2003.

APPENDIX E: VERTEBRATE ANIMALS KNOWN OR PROBABLE IN EVESHAM TOWNSHIP

MAMMALS		
Species	General Habitat	Township Locations
Opossum	All Habitats	Throughout
Short-tailed Shrew	Woodlands	Throughout
Eastern Mole	Uplands	Throughout
Star-nosed Mole	Uplands	Throughout, Occasional
Little Brown Bat	Uplands	Throughout
Eastern Pipistrel	Uplands	Throughout
Eastern Cottontail	All Habitats	Throughout, Common
Eastern Chipmunk	Woodlands	Throughout
Woodchuck	Woodlands and Fields	Throughout
Gray Squirrel	Woodlands	Throughout, Common
White-footed Mouse	Woodlands	Throughout
Jumping Mouse	Fields	Throughout
Meadow Vole	Open Fields	Throughout
Red-backed Vole	Woodlands	Throughout
Muskrat	Wetlands	Throughout
Brown Rat	Wetlands, Homes, Farms	Throughout
House Mouse	Homes and residential areas	Throughout
Red Fox	All Habitats	Throughout
Raccoon	All Habitats	Throughout, Common
Long-tailed Weasel	Wetlands	Throughout
Striped Skunk	Uplands	Throughout, Common
White-tailed Deer	All Habitats	Throughout, Common
Mink	Wetlands	Throughout
Coyote	Woodlands and Fields	Throughout

REPTILES		
Species	General Habitat	Township Locations
Common Snapping Turtle	Ponds and Lakes	Throughout
Stinkpot Turtle	Wetlands	Throughout
Spotted Turtle	Freshwater Wetlands and Ponds	Throughout
Eastern Box Turtle	Uplands	Throughout
Red-bellied Turtle	Lakes and Ponds	Throughout
Eastern Painted Turtle	Lakes and Ponds	Throughout
Northern Fence Lizard	Uplands	Throughout
Northern pine snake	Uplands	Threatened - NJ
Northern Water Snake	Wetlands	Throughout
Garter Snake	All Habitats	Throughout
Eastern Ribbon Snake	Wetlands	Throughout
Southern Ring neck Snake	Woodlands	Throughout
Northern Black Racer	Edge of Woodlands	Throughout
Rough Green Snake	Woodlands	Throughout
Black Rat Snake	All Habitats	Throughout
Timber Rattlesnake	Pinelands	Endangered - NJ

AMPHIBIANS		
Species	General Habitat	Township Locations
Carpenter frog		<u>Documented occurrence</u> ; Black Run bog - upper, Kettle Run at camp Kettle Run
Fowler's Toad		<u>Documented occurrence</u> : Lady's Lake, Kettle Run above Hopewell Road, Haynes Creek tributary above Kettle Run Road
Northern Spring Peeper		<u>Documented occurrence</u> : Mullica River impoundment above Jackson-Medford Road (Lady's Lake)
Green Frog		<u>Documented occurrence</u> : Mullica River impoundment above Jackson-Medford Road (Lady's Lake); Jennings Lake; Black Run Bog - upper; Kettle Run impoundment above Georgia O'Keefe Way; Kettle Run above Hopewell Road; Kettle Run at camp Kettle Run; Haynes Creek tributary above Kettle Run Road
Northern gray treefrog		possible
Pine Barrens Treefrog		Pinelands
Bullfrog		<u>Documented occurrence</u> : Mullica River impoundment above Jackson-Medford Road (Lady's Lake); Barton Run Impoundment above Tuckerton Road; Jennings Lake; Black Run Bog - upper; Kettle Run above Hopewell Road; Kettle Run at camp Kettle Run; Haynes Creek tributary above Kettle Run Road
Southern leopard frog		possible

FISH		
Species	General Habitat	Township Locations
American eel	Rivers and streams	Throughout
Goldfish	Lakes	Throughout
Grass Carp	Rivers and streams	Throughout
Satinfish shiner	Rivers and streams	Rancocas, Pennsauken Creek
Spotfin shiner	Rivers and streams	Rancocas
Common carp	Rivers and streams, Lakes	Rancocas, Pennsauken Creek
Eastern silvery minnow	Rivers and streams	Pennsauken Creek
Common shiner	Rivers and streams	Rancocas
Golden shiner	Rivers and streams	Documented PC
Ironcolor shiner	Rivers and streams	Rancocas, Pennsauken Creek
Spottail shiner	Rivers and streams	Rancocas
Swallowtail shiner	Rivers and streams	Rancocas
Blacknose dace	Rivers and streams	Rancocas
White sucker	Rivers and streams	Rancocas, Pennsauken Creek
Creek chubsucker	Rivers and streams	Documented PC
White catfish	Rivers and streams	Rancocas
Yellow bullhead	Rivers and streams	Documented PC
Brown bullhead	Rivers and streams	Documented PC
Tadpole madtom	Rivers and streams	Documented PC

Redfin pickerel	Rivers and streams	Documented PC
Chain pickerel	Rivers and streams	Documented PC
Eastern mudminnow	Rivers and streams	Throughout
Pirate perch	Rivers and streams	Documented PC
Banded killifish	Rivers and streams	Mullica River
Mud sunfish	Rivers and streams	Throughout
Blackbanded sunfish	Rivers and streams	Throughout
Bluespotted sunfish	Rivers and streams	Documented PC
Banded sunfish	Rivers and streams	Documented PC
Redbreast sunfish	Rivers and streams	Documented PC
Pumpkinseed	Rivers and streams	Documented PC
Bluegill	Rivers and streams	Documented PC
Largemouth bass	Rivers and streams	Documented PC
White crappie	Rivers and streams	Rancocas
Black crappie	Rivers and streams	Documented PC
Swamp darter	Rivers and streams	Documented PC
Tessellated darter	Rivers and streams	Documented PC
Yellow perch	Rivers and streams	Rancocas

This fish listing is based in part on Rudolph Arndt's Annotated Checklist (see **Sources**) and reflects historical records as well as current documentation by the Pinelands Commission ("Documented PC").

BIRDS

Species	General Habitat	Preferred Habitat/Township Sightings	Status in South Jersey*
* B = Breeding; M = Migrant; W = Winter; R = Year-round resident			
Pied-bill grebe	Lakes, ponds	Kings Grant lake	B - Scattered Locations; W
Double-crested cormorant	Open water	Kings Grant lake – Spring & fall	B
Great blue heron	Open marsh, lake edges		B
Great egret	Open marsh, lake edges	Occasional visitor	B
Snowy egret	Open marsh, lake edges	Migrant in Evesham	B - Coast & Del. R.
Green heron	Open marsh, lake edges		B
Black-crowned night heron	Open marsh, lake edges	Occasional visitor	B
Black vulture	Open fields	Nest in Evesham	R
Turkey vulture	Open fields, woodlands	Found in Pinelands	R
Snow goose	Open farm fields	Winter migrant in fields	W & M
Canada goose	Open water, fields		R
Mute swan	Open water	Large lakes	R
Wood duck	Forested wetlands	Need tree cavities or nest boxes for breeding; rare in winter	R
Gadwall	Open water	Winter migrant	W
American wigeon	Open water	Winter migrant	W
Black duck	Marsh, lakes		R
Mallard	Open water, marshes		R
Blue-winged teal	Wetlands	Winter Migrant	B
Northern shoveler	Open water	Winter migrant	W
Northern pintail	Open water,	Winter migrant	W
Green-winged teal	Wetlands	Winter Migrant	W
Ring-necked duck	Open water	Winter migrant	W
Lesser scaup	Open water	Winter migrant	W

Species	General habitat	Preferred habitat/township sightings	Status In South Jersey*
Bufflehead	Open water	Winter migrant	W
Hooded merganser	Open water	Winter migrant	W
Common merganser	Open water	Winter migrant	W
Ruddy duck	Open water	Winter migrant	W
Osprey	Open water	Lakes and ponds	B
Bald eagle	Lakes, waterways, open fields	May be nesting in Evesham, near Kings Grant	R
Northern harrier	Open fields, marshes		R
Sharp-shinned hawk	Woodlands	Migrant & Winter most likely	B - Mostly North Jersey
Cooper's hawk	Woodlands	Coniferous & mixed forests including wet forests; usually near water	R
Red-shouldered hawk	Wet forests - deciduous	Usually near water; endangered	R
Broad-winged hawk	Woodlands	Pinelands forests	B
Red-tailed hawk	Open areas, woodlands, urbanized areas	Most common hawk	R
American kestrel	Open fields, farmland	Summer; have declined	R
Merlin	Open fields near trees	Uncommon migrant	M & W
Peregrine falcon	Near water	Uncommon	R
Ringed-neck pheasant	Old fields, farms	Released; otherwise uncommon esp in Pinelands	R
Wild turkey	Open fields, woodlands	Becoming common	R
Northern bobwhite	Old field, brushy areas, woodlands	Has declined	R
American coot	Ponds and lakes, marshes	Kings Grant lake	W
Killdeer	Open areas, farmland, parking lots	Bare ground	R
Greater yellowlegs	Lake edges, mudflats	Summer/fall migrant	M
Lesser yellowlegs	Lake edges, mudflats	Summer/fall migrant	M & W
Solitary sandpiper	Lake edges, mudflats, pond edges	Summer/fall migrant; uncommon	M
Spotted sandpiper	Lake and pond edges, streams	Uncommon	B
Least sandpiper	Lake edges, mudflats	Spring & fall migrant	M
American woodcock	Wet forests; woodland edges		R
Laughing gull	Open water, parking lots	Summer visitor	B - NJ Coast
Ring-billed gull	Open water, parking lots	Winter visitor in Evesham	W
Herring gull	Open water, dumps, parking lots	Winter visitor in Evesham	R
Great black-backed gull	Open water, mudflats	Winter visitor in Evesham	R on Coast
Rock dove	Houses and bridges	Residential areas	R
Mourning dove	Suburbs, farmland, woodlands	Common; often on overhead wires	R
Black-billed cuckoo	Woodlands, shrub thickets	Like large unbroken forests	B
Yellow-billed cuckoo	Woodlands, dense thickets	Pinelands	B
Barn owl	Farmland	Uncommon	R
Eastern screech owl	Woodlands	Forest edges; open fields near forests	R
Great horned owl	Woodlands	Woods; fields; forest edges	R
Barred owl	Wet forests	NJ threatened status	R
Saw-whet owl	Mixed deciduous & coniferous woods	Uncommon breeder; sightings in Pinelands	R
Common nighthawk	Cities and towns; pastures; open fields	Nest on flat gravel roofs; summer evening sky	B & M

Species	General habitat	Preferred habitat/township sightings	Status In South Jersey*
Whip-poor-will	Mixed pine and deciduous woods		B
Chimney swift	Residential areas	Bridges, house chimneys	B
Ruby-throated hummingbird	Woodlands and fields	Woodland edges; feeders	B & M
Belted kingfisher	Open water	Rare in winter	R
Red-headed woodpecker	Upland forest	Open, dry, mixed woodlands - NJ threatened species	R
Red-bellied woodpecker	Woodlands	Common winter visitor at feeders	R
Yellow-bellied sapsucker	Woodlands	More likely as fall migrant but uncommon	M & W
Downy woodpecker	Woodlands	Frequently at feeders	R
Hairy woodpecker	Woodlands	Mature woods - uncommon	R
Northern flicker	Woodlands	Woods with openings - common	R
Eastern wood peewee	Woodlands	Upland woods	B
Willow flycatcher	Old fields, brush, near bogs	Wetland forests	B
Alder flycatcher	Old fields, brush; near bogs	Wetland forests	B - North Jersey
Least flycatcher	Woodlands	Mature forest; forest edges	B - North Jersey M
Acadian flycatcher	Woodlands	Nests In Kings Grant II and Hamilton Georgetown	B
Eastern phoebe	Woodlands; near houses	Nests on man-made structures	B
Great crested flycatcher	Woodlands	Upland mature deciduous forests	B & M
Eastern kingbird	Fields, farmland; often near water		B
Warbling vireo	Open woodlands, near streams & ponds	Nests in Evesham	B - Mostly North Jersey
White eyed vireo	Woodlands; edges; brushy areas		B
Red-eyed vireo	Woodlands		B
Yellow-throated vireo	Woodlands - deciduous or mixed	Forest edges; uncommon	B - More Abundant In North Jersey
Blue jay	Woodland	Common	R
American crow	All habitats	Common	R
Fish crow	All habitats	Near water	R
Purple martin	Open fields, wetlands	Agricultural & some suburban areas; nests only in man-made boxes	B
Tree swallow	Open fields; over water; open woods	Nests in birdhouses and cavities	B
Barn swallow	Buildings, bridges	Nests in man-made structures	B
Northern rough-winged swallow	Buildings, bridges, streambanks	Locally common	B
Bank swallow	Open fields; gravel pits; sand dunes	Locally common; nest in colonies	B
Carolina chickadee	Woodlands	Common	R
Tufted titmouse	Woodlands	Common	R
Red-breasted nuthatch	Coniferous woodlands	Largely a winter resident	M
White breasted nuthatch	Woodlands; feeders		R
Brown creeper	Woodlands	Pinelands forests; migrants in yards, forest edges	B & M
Carolina wren	Edge of woodlands; yards		B
House wren	Edge habitat altered by man		B

Species	General habitat	Preferred habitat/township sightings	Status In South Jersey*
Winter wren	Woodlands	Winter migrant	B - North Jersey
Golden-crowned kinglet	Woodlands	Winter migrant	B - North Jersey
Ruby-crowned kinglet	Edge of woodlands	Fall migrant	M
Blue-gray gnatcatcher	Woodlands	Nests in deciduous trees within Pinelands	B
Eastern bluebird	Edge of woodlands; fields		R
Veery	Woodlands	Most likely seen as migrant	B
Hermit thrush	Woodlands	Migrant	M
Gray-cheeked thrush	Woodlands	Migrant	M
Swainson's thrush	Woodlands	Migrant	M
Wood thrush	Woodlands	Deciduous upland and wet woods	B
American robin	Edge of woodlands, parks, suburbs	May leave in winter if it's severe	R
Catbird	Edge of woodlands, brushy areas	Common	B
Mockingbird	Suburbs, open areas, parks, yards	Common	B
Brown thrasher	All habitats	Brushy areas, forest edges, hedgerows	B
European starling	Old fields, developed areas, woodland edges	Very common	R
American pipit	Open fields		M
Cedar waxwing	Upland forest	B - mixed woods; fairly common in Pinelands	R
Blue-winged warbler	Woodlands	Forest edges	B
Golden-winged warbler	Brushy areas	Uncommon	B – North Jersey
Nashville warbler	Woodlands, gardens	Shrubby woods	M
Northern parula warbler	Woodlands	Large tracts of wet forests, deciduous or mixed	B
Yellow warbler	Wet brushy areas	Adjacent to marshes, ponds & streams	B
Chestnut-sided warbler	Brushy areas, old fields, orchards	Migrant	B - North NJ
Magnolia warbler	Woodlands, brushy areas	Coniferous forests	M & Early W
Black-throated blue warbler	Woodlands	Migrant	B - North NJ
Yellow-rumped warbler	Woodlands; brushy areas	Winter resident- dunes, field edges among shrubs	M & W
Black-throated green warbler	Woodlands, esp. Coniferous	Mostly migrant in Evesham	B - North NJ & Eastern Pinelands
Blackburnian warbler	Woodlands	Migrant - coniferous forests	B - North NJ; M
Yellow-throated warbler	Wet woodlands	Moist mixed oak-pine forests; probably migrant in Evesham	B - Eastern Pinelands & Bayshore Area
Pine warbler	Woodlands	OPEN PINE OR MIXED FOREST	B
Prairie warbler	Old fields, woodland edges	Pinelands	B
Palm warbler	Weedy fields, marsh edges	Migrant	M, Possibly W
Bay-breasted warbler	Woodlands	Migrant	M
Blackpoll warbler	Woodlands; forest edges	Fall migrant	M
Black and white warbler	Woodlands	Pineland forests	B
American redstart	Woodlands	Deciduous wet forests but more common in fall	B & M

Species	General habitat	Preferred habitat/township sightings	Status In South Jersey*
Prothonotary warbler	Woodlands	Wet forests - Pinelands	B
Worm-eating warbler	Woodlands	Wooded slopes; forested ravines; require large unbroken forest	B
Ovenbird	Woodlands	Dry deciduous or mixed forests	B
Northern waterthrush	Woodlands	Wet woodlands & brushy bogs	B – Pinelands, White Cedar Swamps
Louisiana waterthrush	Woodlands	Along streams	B - Limited - Western Pinelands
Kentucky warbler	Woodlands	Wet deciduous forests	B - Patchy
Connecticut warbler	Woodlands	Fall migrant	M
Mourning warbler	Woodlands	Fall migrant	M
Canada warbler	Woodlands	Migrant	B - North NJ; M
Common yellowthroat	Brushy & marshy areas	Low, wet open areas; forest edges; wet forest understory	B
Hooded warbler	Woodlands	Wet deciduous forests, esp with laurel understory; Pinelands, white cedar swamps	B
Yellow-breasted chat	Old fields, open areas	Fallow farm fields, brushy areas, hedgerows, marsh edges	B - Not Common
Summer tanager	Woodlands	Mixed pine and deciduous forest; western pinelands	B
Scarlet tanager	Woodlands	Upland deciduous or mixed forests, forest edges	B
Eastern towhee	Brushy areas, woodlands with shrubby understory	Upland areas	B
American tree sparrow	Brushy areas		W
Chipping sparrow	Open woodlands, parks, yards	Also nests in open or mixed pine woods	B
Field sparrow	Old fields	Likes some trees present in weedy overgrown fields	B
Savannah sparrow	Open fields; marshes; dunes	Farmland, airports, man-made habitats. Probably seen in winter in Evesham	B - North Jersey & Salem Co.; W
Grasshopper sparrow	Old fields, fallow farm fields	Likes hedgerows. Uncommon	B
Fox sparrow	Woodlands	Brushy Thickets In Woodlands	M & W
Song sparrow	Open areas, suburbs, yards	Bushy areas and edges; hedgerows	B
Lincoln's sparrow	Grassy patches near brush and trees	Fall migrant	M
Swamp sparrow	Wetlands	Freshwater marshes; edges of bogs	B & M
White-throated sparrow	Woodlands; brushy areas	Woodland edges, thickets, hedgerows, feeders; common in winter	W
White-crowned sparrow	Brushy areas; pastures	Uncommon	W
Dark-eyed junco	Woodlands, open areas, feeders	Common in winter	W
Northern cardinal	Woodlands, suburbs, parks, yards	Common in all habitats	B
Rose-breasted grosbeak	Woodlands	Open deciduous woods; edges	B-North Jersey; M
Blue grosbeak	Old fields; woodland edges	Nests at Aerohaven	B
Indigo bunting	Woodland edges; open brushy areas; farmland	Not abundant in much of Pinelands	B

Species	General habitat	Preferred habitat/township sightings	Status In South Jersey*
Bobolink	Farmland; marshes	Fallow fields; marsh reeds. Uncommon	B - Mostly North Jersey
Red-winged blackbird	Wetlands, fields, pastures	Common. Mix in winter flocks	B
Eastern meadowlark	Farmland, open fields	Grassy fields, open meadows. Uncommon	B
Rusty blackbird	Woodlands, ;swampy thickets	Mix less with other blackbirds. Winter visitor	W & M
Common grackle	Open areas	Highly abundant. Mix in winter flocks	B
Brown-headed cowbird	Open woodlands	Mix in winter flocks	B
Orchard oriole	Scrubby woodlands with some tall trees	Also orchards, parks. Somewhat uncommon. Not in Pinelands center.	B
Baltimore oriole	Open woodlands	Deciduous tall trees; edges; parks. Fairly common. Not in Pinelands center.	B
Purple finch	Woodlands; brushy areas	Winter visitor in Evesham	B- North Jersey; W
House finch	Suburbs; feeders	Nest in conifers; abundant at winter feeders	B
Pine siskin	Open woodlands, old fields	Often with goldfinches in small flocks	R
American goldfinch	Old fields; orchards; hedgerows; suburbs, thistle feeders	Residential areas; common	B
House sparrow	Open areas	Common in all habitats	B
* B = Breeding; M = Migrant; W = Winter; R = Year-round resident			

Sources: Walsh, Joan, et al. *Birds of New Jersey*; Personal observation: Ken Tischner, Steven Sobocinski

APPENDIX F: ENDANGERED AND THREATENED SPECIES IN EVESHAM TOWNSHIP

Scientific name	Common Name	Federal Status*	NJ Status*	State Rank**
<i>Carex barrattii</i>	Barratt's Sedge			S4
<i>Cornus foemina</i>	Stiff Dogwood			S2
<i>Helonias bullata</i>	Swamp-pink	LT	E	S3
<i>Penstemon laevigatus</i>	Smooth Beardtongue		E	S1
<i>Ranunculus longirostris</i>	Long-beak Water Buttercup			S2
<i>Satittaria australis</i>	Southern Arrowhead		E	S1
<i>Sphenopholis pennsylvanica</i>	Swamp Oats			S2
<i>Utricularia biflora</i>	Two-flower Bladderwort		E	S1
<i>Haliaeetus leucocephalus</i>	bald eagle		E	S1B,S1N
<i>Strix varia</i>	barred owl		T/T	S2B, S2N
<i>Toxostoma rufum</i>	brown thrasher		SC/S	S3B, S4N
<i>Rana virgatipes</i>	carpenter frog		SC	S3
<i>Terrapene carolina carolina</i>	eastern box turtle		SC	S3
<i>Lampropeltis g. getula</i>	eastern king snake		U	S3
<i>Bufo woodhousii fowleri</i>	Fowler's toad		SC	S3
<i>Ardea Herodias</i>	great blue heron		SC/S	S3B, S4N
<i>Pituophis melanoleucus melanoleucus</i>	northern pine snake		T	S2
<i>Hyla andersonii</i>	Pine barrens tree frog		T	S2
<i>Melanerpes erythrocephalus</i>	red-headed woodpecker		T/T	S2B, S2N
<i>Buteo lineatus</i>	red-shouldered hawk		E/T	S1B, S2N
<i>Crotalus horridus horridus</i>	timber rattlesnake		E	S1
<i>Alasmidonta undulate</i>	triangle floater		T	S2
<i>Hylocichla mustelina</i>	wood thrush		SC/S	S3B

* Key to Federal and State Status Codes

T	Threatened species – may become endangered if conditions surrounding the species begin to or continue to deteriorate.
E	Endangered species – one whose prospects for survival within the state are in immediate danger due to one or many factors.
INC	Increasing species – population has exhibited a significant increase
S	Stable species
D	Declining species – species that exhibited a continued decline in population numbers of the years.
SC	Special Concern – species that warrant special attention because of some evidence of decline, inherent vulnerability to environmental deterioration, or habitat modification that would result in their becoming a Threatened species

** Key to State Element Rank

S1	Critically imperiled in NJ because of extreme rarity (5 or fewer occurrences or very few remaining individuals or acres).
S2	Imperiled in NJ because of rarity (6 to 20 occurrences).
S3	Rare in state with 21 to 50 occurrences. Includes elements which are widely distributed but with small populations/acreage, or with restricted distribution but locally abundant.
S4	Apparently secure in state, with many occurrences.
S5	Demonstrably secure in state and essentially ineradicable under present conditions.
SX	Elements that have been determined or are presumed to be extirpated from New Jersey. All historical occurrences have been searched and a reasonable search of potential habitat has been completed. No longer a conservation priority.
SH	Element of historical occurrence in New Jersey. No extant occurrences are known, but not all historical occurrences have been surveyed, and unsearched potential habitat remains. Remains a conservation priority.
B	Breeding
N	Non-breeding

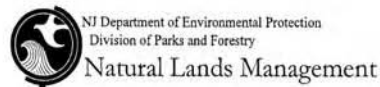
CAUTIONS AND RESTRICTIONS ON NATURAL HERITAGE DATA

The quantity and quality of data collected by the Natural Heritage Program is dependent on the research and observations of many individuals and organizations. Not all of this information is the result of comprehensive or site-specific field surveys. Some natural areas in New Jersey have never been thoroughly surveyed. As a result, new locations for plant and animal species are continuously added to the database. Since data acquisition is a dynamic, ongoing process, the Natural Heritage Program cannot provide a definitive statement on the presence, absence, or condition of biological elements in any part of New Jersey. Information supplied by the Natural Heritage Program summarizes existing data known to the program at the time of the request regarding the biological elements or locations in question. They should never be regarded as final statements on the elements or areas being considered, nor should they be substituted for on-site surveys required for environmental assessments. The attached data is provided as one source of information to assist others in the preservation of natural diversity.

This office cannot provide a letter of interpretation or a statement addressing the classification of wetlands as defined by the Freshwater Wetlands Act. Requests for such determination should be sent to the DEP Land Use Regulation Program, P.O. Box 401, Trenton, NJ 08625-0401.

The Landscape Project was developed by the Division of Fish & Wildlife, Endangered and Nongame Species Program to map critical habitat for rare animal species. Some of the rare species data in the Landscape Project is in the Natural Heritage Database, while other records were obtained from other sources. Natural Heritage Database response letters will list all species (if any) found during a search of the Landscape Project. However, any reports that are included with the response letter will only reference specific records if they are in the Natural Heritage Database. This office cannot answer any inquiries about the Landscape Project. All questions should be directed to the DEP Division of Fish and Wildlife, Endangered and Nongame Species Program, P.O. Box 400, Trenton, NJ 08625-0400.

This cautions and restrictions notice must be included whenever information provided by the Natural Heritage Database is published.



APPENDIX G: STATE THREATENED AND ENDANGERED SPECIES

Birds			
Endangered		Threatened	
Bittern, American	<i>Botaurus lentiginosus</i> BR	Bobolink	<i>Dolichonyx oryzivorus</i> BR
Eagle, bald	<i>Haliaeetus leucocephalus</i> BR	Eagle, bald	<i>Haliaeetus leucocephalus</i> NB
Falcon, peregrine	<i>Falco peregrinus</i>	Hawk, Cooper's	<i>Accipiter cooperii</i>
Goshawk, northern	<i>Accipiter gentilis</i> BR	Hawk, red-shouldered	<i>Buteo lineatus</i> NB
Grebe, pied-billed	<i>Podilymbus podiceps</i>	Night-heron, black-crowned	<i>Nycticorax nycticorax</i> BR
Harrier, northern	<i>Circus cyaneus</i> BR	Night-heron, yellow-crowned	<i>Nyctanassa violaceus</i>
Hawk, red-shouldered	<i>Buteo lineatus</i> BR	Knot, red	<i>Calidris canutus</i> BR
Owl, short-eared	<i>Asio flammeus</i> BR	Osprey	<i>Pandion haliaetus</i> BR
Plover, piping	<i>Charadrius melodus</i> **	Owl, barred	<i>Strix varia</i>
Sandpiper, upland	<i>Batramia longicauda</i>	Owl, long-eared	<i>Asio otus</i>
Shrike, loggerhead	<i>Lanius ludovicianus</i>	Rail, black	<i>Laterallus jamaicensis</i>
Skimmer, black	<i>Rynchops niger</i> BR	Skimmer, black	<i>Rynchops niger</i> NB
Sparrow, Henslow's	<i>Ammodramus henslowii</i>	Sparrow, grasshopper	<i>Ammodramus savannarum</i> BR
Sparrow, vesper	<i>Pooecetes gramineus</i> BR	Sparrow, Savannah	<i>Passerculus sandwichensis</i> BR
Tern, least	<i>Sterna antillarum</i>	Sparrow, vesper	<i>Pooecetes gramineus</i> NB
Tern, roseate	<i>Sterna dougallii</i> **	Woodpecker, red-headed	<i>Melanerpes erythrocephalus</i>
Wren, sedge	<i>Cistothorus platensis</i>		
Reptiles			
Endangered		Threatened	
Rattlesnake, timber	<i>Crotalus h. horridus</i>	Snake, northern pine	<i>Pituophis m. melanoleucus</i>
Snake, corn	<i>Elaphe g. guttata</i>	Turtle, Atlantic green	<i>Chelonia mydas</i> **
Snake, queen	<i>Regina septemvittata</i>	Turtle, wood	<i>Clemmys insculpta</i>
Turtle, bog	<i>Clemmys muhlenbergii</i> **		
Atlantic hawksbill	<i>Eretmochelys imbricata</i> **		
Atlantic leatherback	<i>Dermochelys coriacea</i> **		
Atlantic loggerhead	<i>Caretta caretta</i> **		
Atlantic Ridley	<i>Lepidochelys kempii</i> **		
Amphibians			
Endangered		Threatened	
Salamander, blue-spotted	<i>Ambystoma laterale</i>	Salamander, eastern mud	<i>Pseudotriton montanus</i>
Salamander, eastern tiger	<i>Ambystoma tigrinum</i>	Salamander, long-tailed	<i>Eurycea longicauda</i>
Treefrog, southern gray	<i>Hyla chrysocelis</i>	Treefrog, pine barrens	<i>Hyla andersonii</i>

Invertebrates			
Endangered		Threatened	
Beetle, American burying	<i>Nicrophorus mericanus</i> **	Elfin, frosted (butterfly)	<i>Callophrys irus</i>
Beetle, northeastern beach tiger	<i>Cincindela d. dorsalis</i> **	Floater, triangle (mussel)	<i>Alasmidonta undulata</i>
Copper, bronze	<i>Lycaena hyllus</i>	Fritillary, silver-bordered (butterfly)	<i>Bolaria selene myrina</i>
Floater, brook (mussel)	<i>Alasmidonta varicosa</i>	Lampmussel, eastern (mussel)	<i>Lampsilis radiata</i>
Floater, green (mussel)	<i>Lasmigona subviridis</i>	Lampmussel, yellow (mussel)	<i>Lampsilis cariosa</i>
Satyr, Mitchell's (butterfly)	<i>Neonympha m. mitchellii</i> **	Mucket, tidewater (mussel)	<i>Leptodea ochracea</i>
Skipper, arogos (butterfly)	<i>Atrytone arogos arogos</i>	Pondmussel, eastern (mussel)	<i>Ligumia nasuta</i>
Skipper, Appalachian grizzled (butterfly)	<i>Pyrgus wyandot</i>	White, checkered (butterfly)	<i>Pontia protodice</i>
Wedgemussel, dwarf	<i>Alasmidonta heterodon</i> **		
Mammals		Fishes	
Endangered		Endangered	
Bat, Indiana	<i>Myotis sodalis</i> **	Sturgeon, shortnose	<i>Acipenser brevirostrum</i> **
Bobcat	<i>Lynx rufus</i>		
Whale, black right	<i>Balaena glacialis</i> **		
Whale, blue	<i>Balaenoptera musculus</i> **		
Whale, fin	<i>Balaenoptera physalus</i> **		
Whale, humpback	<i>Megaptera novaeangliae</i> **		
Whale, sei	<i>Balaenoptera borealis</i> **		
Whale, sperm	<i>Physeter macrocephalus</i> **		
Woodrat, Allegheny	<i>Neotoma floridana magister</i>		




** Also on the federal Endangered and Threatened list
BR – breeding population only; NB – non-breeding population only

Source: NJ Division of Fish and Wildlife Endangered and Nongame Species Program. "New Jersey's Endangered and Threatened Wildlife." 2008. Available online: <http://www.nj.gov/dep/fgw/tandespp.htm> (Accessed March 3, 2009).




APPENDIX H: PARTIAL INVENTORY OF LOCALLY SIGNIFICANT HISTORIC SITES IN EVESHAM TOWNSHIP

Information was taken from the Evesham Historic Preservation Commission's website
<http://www.historic-evesham.org/hpc/sites.asp>



Key:	NR = National Register	SR = State Register	SHPO = State Historic Preservation Office
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Name		Location/ National Register/ State Register	Description
Savich Farm (Benjamin Cooper Farm) [Site] (ID#807)		E. Main St. NR: 12/12/1978 (NR Reference #: 78001744) SR: 12/16/1977	The primary significance of this property lies in the potential for the excavation of additional archeological remains. Excavation revealed extensive and unusual Archaic cremation cemetery dating back to 2,300 B.C. and late Woodland features. Unfortunately, the Italianate Savich farmhouse, built circa 1870, and its noteworthy interior burned in 1985.
Jacob Wills House (ID#809)		Brick Road, west of Evans Road NR: 11/1/1990 (NR Reference #: 89002296) SR: 11/29/1989	Dr. Daniel Wills settled on a plantation on Rancocas Creek after arriving in Burlington on the "Kent" in 1677. He later acquired large landholdings in the region. This house stands on a 1888 acre parcel originally purchased by James Wills in 1737. The house remained in the Wills family until 1906 when the property was sold to George and Margaret Olt. The exterior of the house is an excellent example of a local 18th Flemish checkerboard farm house. The clapboard section appears to be the oldest part of the house. The center chimney placement is unusual for this region. This house is one of the few surviving Flemish bond with glazed headers farmhouses in Evesham.
Cropwell Friends Meetinghouse (ID#795)		810 Cropwell Road NR: 8/14/1992 (NR Reference #: 92000976) SR: 6/25/1992	The Meeting House is a fine example of a traditional rural Quaker meeting house, typical of those built in the Philadelphia/southern New Jersey region. In 1785, Cropwell members of the Evesham Friends purchased a 3 acre lot on which they built a school, completed 1786. They desired a meeting separate from Evesham's and first worshipped in a nearby schoolhouse in 1794. The brick meeting house was built in 1809, with money bequeathed by Samuel Borroughs expressly for that purpose, and reflects the prosperity of the Friends at that time. This structure and its setting is the only tangible non-residential link to the original colonial Quaker settlements of Evesham Township.

Name		Location/ National Register/ State Register	Description
William and Susan Evans House (ID#801)		<p>2 Bills Lane</p> <p>NR: 8/14/1992 (NR Reference #: 92000978)</p> <p>SR: 6/25/1992</p>	<p>The house is architecturally significant as a structure embodying the distinctive characteristics of early 19th century brick farmhouse once so numerous in southern New Jersey. Because the house was built in sections, it also effectively conveys the evolution of a house from its beginnings in the Federal period to a larger house with Victorian features. As a whole, the house illustrates the evolution of a Quaker farmhouse from the late 18th century through the 19th century. The house is also historically significant because of its affiliation with members of the Evans family, early settlers of Evesham Township. Descendants of the original owners continue to live at Hillside Farm.</p>
Thomas Hollinshead House (ID#804)		<p>18 West Stow Road</p> <p>NR: 8/14/1992 (NR Reference #: 92000977)</p> <p>SR: 6/25/1992</p>	<p>Thomas Hollinshead inherited 450 acres from his grandfather Thomas Eves II and built the house in 1776. Gable end headers "H" is for Hollinshead, "T" for Thomas and "L" for his wife, Lydia. Hollinshead actively participated in township affairs as a trustee of the Cropwell Meeting, as an executor of and witness to many wills and as a guardian to orphans. The house is believed to be one of the sites in Evesham used by British soldiers retreating from Philadelphia to Monmouth June 18-19, 1778, and being devout Quakers with no desire for combat, the Hollinshead family abandoned their home during the retreat. The Hollinshead family heirs sold the property to William Alcott, whose name appears on the 1859 and 1876 maps. The last to farm the property was Ed Stowe. He sold the property to the Formigli Company in 1982. The house was sold to Frank Messina for \$1 for restoration. Architecturally, the house significant as a fine example of colonial architecture in this area with some unique features. The asymmetry of the three bay front facade, the arrangement of three rooms without hall and the interior brick wall dividing the house in half are some of the unusual features of the house. Interior woodwork details are of high quality.</p>
Evans-Cooper House (ID#799)		<p>North Elmwood Road</p> <p>NR: 8/26/1993 (NR Reference #: 93000868)</p> <p>SR: 7/20/1993</p>	<p>The house is architecturally significant as a structure embodying the distinctive characteristics of a late 18th and early 19th century brick farmhouse. Because the house was built in sections, it also effectively conveys the evolution of a house from its beginnings in the Federal period to a larger house with Second Empire features. As a whole, the house illustrates the evolution of a late 18th century farmhouse through the 19th century. The house is also historically significant because of its affiliation with members of the Evans family, early settlers of Evesham Township. The house was probably built by John Evans [1770-1841]. The house descended in the Evans family in the 19th century. Lydia Evans Cooper, wife of Benjamin Cooper inherited the house. It was probably during her ownership that the house was "modernized" with Second Empire features.</p>

Name		Location/ National Register/ State Register	Description
Thomas and Mary Evens House (ID#802)		<p>South Elmwood Road</p> <p>NR: 8/26/1993 (NR Reference #: 93000867)</p> <p>SR: 7/20/1993</p>	<p>The house is significant as a structure that shows the evolution of a late 18th century residence through two centuries. The building is a good example of a brick Evesham farmhouse with a dated gable, a building type acknowledged as being threatened in the 1985 Survey. The house is also historically significant because of its affiliation with members of the Evens and Eves families, early settlers of Evesham Township. The house is located on the original 1,000 acre Evans tract. Thomas Evens was the grandson of the original settler Thomas Evans. Letters formed by brick headers in the E gable end are "E" Evens, "T" Thomas and "M" Mary Eves, his wife. Mary Evens, was the daughter of Joseph Eves, for whom "Evesboro" was named. The land at this site provided meadows for a dairy, prime farmland for grains, hay and vegetables, and a clear spring. Thomas owned several farms and tracts of woodlands. The last farmer at the site was Robert Jaggard, for whom the Jaggard School was named.</p>
John Inskeep Homestead (ID#2987)		<p>70 North Locust Road</p> <p>NR: 8/26/1993 (NR Reference #: 93000866)</p> <p>SR: 7/20/1993</p>	<p>The house is significant as an example of an 18th century Evesham township farmhouse that has evolved over time. The first house on the site, built in c. 1725 by John Inskeep II, burned in 1770. A new house was built in 1771 by John Inskeep III probably on the same foundation of the burned structure. It is believed that the north side of the structure is the house built in c.1771. A c. 1810 addition was added by either John Inskeep or his sons. In c. 1860 the house was enlarged to its present form by Elizabeth Inskeep Haines and her husband Joshua Haines. The house remained in Inskeep family until 1936. The most profitable use of the land was for a dairy, meadows, grain and hay. The enormous barns, now demolished, stored hay and housed the large dairy herd. The house appears on the 1876 Burlington County map as the property of Dr. Elijah Woolston, husband of Rachel Inskeep Haines Woolston.</p>
Amos Evans House (ID#797)		<p>501 East Main Street, Marlton</p> <p>NR: 9/2/1994 (NR Reference #: 94001008)</p> <p>SR: 6/28/1994</p>	<p>This house sits on part of the original 1000 acre property of the Thomas Evans family. William, eldest son of Thomas, received 200 acres of the property as a gift from his father, and constructed the original house on this site c. 1740. Two brick additions were made to the original frame house. The current house on this site was probably built in 1785 by Enoch Evans. Two families and their descendants have occupied the farm, Evans for 211 years, and George Bowker since 1912. The house is significant because it has retained a high degree of late 18th century architectural details. It is one of the few remaining brick farmhouses with glazed headers and construction date on the gable end. The house has retained an extraordinary amount of original interior detail including hardware, doors, and beaded board partitions. The house is also historically significant because of its affiliation with members of the Evans, early settlers of Evesham Township.</p>

Name		Location/ National Register/ State Register	Description
Stokes-Evans House (ID#808)		52 East Main Street, Marlton NR: 8/30/1994 (NR Reference #: 94001009) SR: 6/28/1994	The house is an outstanding example of a vernacular Federal/Greek Revival style house. Most notable are its Greek Revival N elevation porch and the numerous surviving interior elements. The property is also notable for its associations with local residents, merchant Isaac Stokes and State Assemblyman and surveyor Ezra Evans. Henry Lippincott [surveyor, sheriff] and Mark Lippincott [coal dealer] also resided here. The public library was also housed in this building for many years. This building on East Main Street is one on the streetscape which reflects Marlton's history from the nineteenth to the twentieth centuries. Architecturally, the streetscape has an example of almost every type of architecture found in Marlton including Federal, Victorian pattern book, and American Foursquares. See the East Main Street Streetscape Survey Form for further information.
Darnell House (ID#796)		960 Tuckerton Rd. SHPO Opinion: 2/15/1978	This house sits on part of the original 1000 acre property of the Evans family. Nathan Evans purchased 233 acres from his father Thomas in 1756 and presumably built this house. The house was built to face the Marlton Pike constructed in the 1750s. When Nathan died in 1769 the property was divided among his four sons. His son Isaac inherited the house. The house is identified on the 1849, 1859 and 1876 Evesham Township maps as the property of the Darnell family. This dwelling is one of several brick farmhouses in the Township.
Isaac Evans House (ID#800)		875 East Main Street SHPO Opinion: 2/15/1978	This house sits on part of the original 1000 acre property of the Evans family. Isaac Evans purchased 186 acres from his father Thomas in 1750 and presumably built a house. The Evesham Township maps indicate that the house was owned by the Evans family through much of the 19th century. The house was owned by Clayton Evens in c. 1900. The house is believed to have been a stop on the Underground Railroad although there is no known documentary evidence to prove this claim.
Pine Grove Chapel (ID#805)		Tuckerton Road and Marlton Pike SHPO Opinion: 2/15/1978	This building is the focal point of the hamlet of Pine Grove and the only building to perpetuate the name. Until the building was built in 1906 the congregants met in a nearby Quaker schoolhouse at 130 Paul Road.

Name		Location/ National Register/ State Register	Description
Quaker School (ID#806)		<p>130 Paul Rd.</p> <p>SHPO Opinion: 2/15/1978</p>	<p>This building is one of two schools in Evesham built by the Quakers in the 18th century. The earliest school located at Cropwell, built in 1785, was demolished. Atlases of Evesham Township indicate it was used as public school in the 19th century. Congregants met here at the turn of the century before Pine Grove Chapel [Survey #087] was constructed.</p>
M.R. Wills House (ID#810)		<p>2240 Old Marlton Pike</p> <p>SHPO Opinion: 2/15/1978</p>	<p>The 1849, 1859 and 1876 Evesham township maps identify this as the property of M. R. Wills. The Wills family were early settlers of Evesham Township.</p>

DELAWARE VALLEY REGIONAL PLANNING COMMISSION

Publication Abstract

Title: *Environmental Resource Inventory
for Evesham Township,
Burlington County, New Jersey*

Date Published: July 2009
Publication No. 09065

Geographic Area Covered: Evesham Township, Burlington County, New Jersey

Key Words: Burlington County, conservation, conservation planning, endangered species, Evesham Township, environment, environmental resource inventory, environmental commission, historic structures, master planning, natural resources, threatened species, wildlife.

ABSTRACT

This publication documents the natural and community resources of Evesham Township, Burlington County, New Jersey. The natural resource information includes descriptions, tables and maps of land use; soils; steep slopes; drinking water aquifers and wells; surface waters including watersheds, streams, lakes, wetlands, and floodplains; impacts on water resources; groundwater; vegetation including forests and grasslands; animal communities; threatened and endangered species; NJ Landscape Project, Heritage Priority Sites, and Pinelands conditions. There is also an Environmental Issues section that includes information on known contaminated sites, radon, flooding, and well contamination. Community resources that are briefly described include population, transportation, water and sewer infrastructure, township services, and protected open space. A short history of the community is also included along with an inventory of registered historic buildings.

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ERI for the TOWNSHIP of
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