

ALLOWAY TOWNSHIP

ENVIRONMENTAL RESOURCE INVENTORY

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(The original of this report has been signed and
sealed in accordance with the law)

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CREDITS

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Their assistance and dedication to identifying environmentally sensitive lands is most appreciated.

ALLOWAY TOWNSHIP GOVERNING BODY

Mayor Lester R. Sutton
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Committeeman William Rex Cobb

ALLOWAY TOWNSHIP ENVIRONMENTAL COMMISSION

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Jacket-folder included with additional maps for Alloway's preserved lands

I. INTRODUCTION

The development of accurate environmental data is vital to the execution of proper land use planning by the Planning Board and the Environmental Commission. In fact, the Municipal Land Use Act of the State of New Jersey clearly summarizes this responsibility by stating the purposes of the Act, *"...To promote the establishment of appropriate population densities and concentrations that will contribute to the well being of persons, neighborhoods, communities and regions and **preservation of the environment**"* (emphasis added). In addition, the Act promotes *"...The conservation of ...open space and valuable natural resources in the State to prevent urban sprawl and the **degradation of the environment through improper land use**"* (emphasis added).

This Report identifies key natural processes that exist in Alloway Township in order to provide a database by which the Environmental Commission can systematically and factually support the Community's Land Use Regulatory Boards with site-specific environmental information.

This process is augmented in Alloway Township by the creation of an Environmental Commission, which serves in an advisory capacity to the Governing Body, Planning Board and Zoning Board of Adjustment in issues of the environment relating to land use matters.

The Environmental Inventory identifies key natural and cultural conditions that occur in Alloway Township. This report will aid in the construction of a database that allows the Environmental Commission to systematically and factually support the Community's Land Use Regulatory Boards with site-specific environmental information. The data that has been gathered from various State and County sources is listed as follows:

1. Policy and Planning Map
2. Wetlands Areas Map
3. FEMA Areas Map
4. Geology and Hydrology elements
5. Soils Maps
 - A. Surficial Soils
 - B. Septic Systems Suitability
 - C. Development Suitability
 - D. Agricultural Capability
 - E. Slope and Depth to Seasonal High Water Table
6. Existing and Proposed Agricultural Preservation Areas
7. Rare, Threatened, and Endangered Species

8. Areas of Recreation, Scenic or Historic importance

This information has also been augmented by a local survey conducted by the Environmental Commission, which focuses upon locally known environmental assets.

Thus, this database allows the Environmental Commission to analyze the natural processes associated with environmentally sensitive areas in Alloway so that the regulatory mechanisms, as they are administered by the Planning Board and Zoning Board of Adjustment, can be advised to recognize and protect those areas that exist within the Township.

Although not within the scope of this initial analysis, the Environmental Commission can also utilize this data to evaluate the Community's Land Use Regulatory documents to ascertain whether or not they recognize environmentally sensitive areas.

In essence, the Environmental Inventory presented herein will allow the Environmental Commission to assist the Community in "planning ahead" by allowing the Governing Body and Planning Board to consider environmental issues as part of their long-range planning strategy.

In essence, the environmental inventory presented herein will allow the Environmental Commission to assist the Community in "planning ahead".

II. DEVELOPING A NATURAL RESOURCE INVENTORY FOR THE NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION DATABASE

The development of a natural resource inventory from existing data has been carried out at two levels in Alloway Township. The first level, which will be considered the macro evaluation, utilizes inventory data for wetlands, aquifer recharge areas, soil types, etc., that is available from existing databases. This information has been extracted from existing digitized sources and applied to the land areas in Alloway Township.

The natural resource inventory incorporates wetlands, soils, vegetation, aquifer recharge and similar data from State and County databases, as well as survey information collected by local volunteers.

Geographically, these cover the entire Township and, in some cases, portions of the County. The latter is particularly relevant to endangered species habitat, where target areas are not pinpointed by the State in order to protect those specific environments.

The second level is the micro analysis conducted by the Environmental Commission based upon a survey prepared by Peter P. Karabashian Associates, Inc.¹

As part of the environmental inventory analysis, the Environmental Commission's findings should be cross-referenced and verified with County and State data, including the information sources of non-profit Conservation Foundations, such as the New Jersey Conservation Foundation, New Jersey Lands Trust, and other conservation organizations. By doing so, the Environmental Commission can verify its findings and add to the database of the various organizations previously listed.

III. USING AN ENVIRONMENTAL INVENTORY AS A PRACTICAL APPLICATION IN GUIDING LOCAL LAND USE DECISIONS

The responsibility of the Environmental Commission is to serve in an advisory capacity to the Governing Body, Planning Board and Zoning Board of Adjustment by providing information from the environmental inventory for:

- Formulating comprehensive land use decisions, which are then reflected in the Township's Land Use Element of the Master Plan.
- Preparing Land Use Ordinances to support the preservation of environmentally sensitive areas, and
- Assist in site plan review by pointing out environmental issues that would assist landowners to adopt alternate and more environmentally sensitive development methods.

Environmental data is valuable for formulating the Land Use Element of the Master Plan. Formulating land use regulations and assisting in site plan review analysis.

A. Using an Environmental Inventory to Guide the Land Use Element of the Community's Comprehensive Plan

¹ The survey is included as part of Appendix A in this report and identifies specific areas of concern targeted by members of the Environmental Commission. The purpose of the survey was to develop specific target areas of environmental issues within the township. Data was collected by the Environmental Commission members and logged onto maps provided by Peter P. Karabashian Associates, Inc. The maps were based upon U.S.G.S. Quadrangle sheets assembled at a prescribed scale for the township. This base map enabled the Environmental Commission members to inventory and target specific areas of concern within the Township. The findings of this report are included as part of Appendix A, entitled, *Community Environmental Survey – Alloway Township Environmental Commission, June 1999*.

The environmental inventory of a community identifies lands which are environmentally sensitive and require diligence and careful evaluation as part of the land use design-making process in a community. By identifying these sensitive and special areas, land that is suitable for development is quickly identified. The process was clearly defined by a pre-eminent landscape architect and planner, Ian McHarg in his book entitled, "*Design With Nature*". This initial work, prepared in the late 1960's, established the pattern for intelligent land use strategies by accounting for environmentally sensitive lands. The Environmental Inventory for Alloway Township can be used to guide the Planning Board in preparing a Land Use Element that "works with nature".

Supporting this premise are the goals and objectives of the Municipal Land Use Law which stipulate that a Master Plan must take into account, "...*natural conditions including, but not necessarily limited to topography, soil conditions, water supply, drainage, floodplain areas, marshes, and woodlands.*"

Thus, the environmental conditions that are recorded as part of the Environmental Inventory, become part of the foundation of the Land Use Plan Element, which guides the development of regulatory policies established as part of the community's land use regulations.

Since the Land Use Plan is shaped by the other Master Plan elements, Housing, Circulation, Recreation, Open Space, etc., which all require allocations of land, the Environmental Inventory identifying suitable and non-suitable lands for development becomes a foundation document for a good Land Use Plan Element.

In Alloway Township, where most land is yet undeveloped, the Environmental Inventory prepared as part of this report, is important background documentation that should be used

as part of the comprehensive planning process in allocating lands for various uses within the Township.

B. Designing Regulatory Ordinances to Support the Findings of the Environmental Inventory

Another use of the Environmental Inventory is to support the preparation of appropriate land use regulations that deal with specific issues identified in the Environmental Inventory findings.

Regulatory controls developed to give local government an involvement in development decisions for environmentally sensitive areas can play a substantial role in resource protection by controlling some of the externalities of development. Such actions reduce impacts upon adjoining property owners, maintain water quality, and reduce future governmental costs from environmental degradation.

Intelligent use of environmental data as part of the land use decision making process serves the general good by reducing future governmental costs from environmental degradation.

Such ordinances refocus land use controls so that they are designed to maintain the natural process of environmentally sensitive areas, rather than designate land for some intensive use. By refocusing regulations based upon performance orientation and land use controls, environmentally sensitive areas may be preserved.

Advanced land use regulations shift toward performance orientation and land use control rather than maintaining predominantly negative functions of restrictive use, as is typical in a standard zoning ordinance. By identifying the positive features of land within a community (using the environmental inventory), government and its advisory boards, combined with non-profit organizations and state resources, can work together to identify positive features of land that need to be preserved. This provides the landowners with a variety of options including acquisition, conservation easements, and similar venues which reimburse the landowner for the

Sustainable development which is anchored in the premise that environmental issues will be factored into the equation of land use decision-making.

reservation of such environmentally sensitive lands.

Individually or in combination, such regulations provide a mechanism by which local governments and their environmental commissions can make a significant contribution to wetlands preservation, water quality, habitat preservation and, in essence, sustainable development.

The Environmental Inventory contains the mapping that identifies the critical areas to be protected within the Township. As noted previously, this is achieved by summarizing data retrieved from State, County and local sources and incorporated herein as part of the overall Environmental Inventory Assessment.

The environmental inventory contains the mapping of resources which enable the Environmental Commission to assist the Planning Board in creating a valid Land Use Element.

Utilizing this information is vital in preparing the appropriate Land Use Regulatory Ordinances needed to implement the Community's Land Use Plan Element.

C. Utilizing the Environmental Inventory in Site Plan Review

Another use for the Environmental Inventory data is to assist the Environmental Commission in evaluating individual applications to the Planning Board and Zoning Board of Adjustment. These Boards, which regularly deal with development packages and land use issues, should be made aware of the environmental characteristics for specific tracts of land.

The maps identifying environmental assets such as aquifer recharge areas, soils, agricultural preservation lands, etc., are the tools of the Environmental Commission. Used as overlays they identify the environmental assets as they are juxtaposed against Planning Board Land Use and development proposals.

The mapping presented herein is designed to assist the Environmental Commission in providing their reports. The process is as follows:

Using the 11x17 color maps designating various environmental categories, the Commission can simply request that all applicants provide an overlay of the designated project at the same

scale of the overlay maps. The process would then simply require overlaying the proposed development scheme onto each of the series of maps provided to manually ascertain on a map-by-map basis, what impact there is to a specific tract of land being proposed for development. The Environmental Commission can then prepare a report indicating compliance with a particular site based upon the various categories provided in the Environmental Inventory. In basic format, the Environmental Commission creates a checklist, which is then submitted to the appropriate Board (Planning Board or Zoning Board of Adjustment) for review and consideration of their findings for a project submitted to the Township for review.

On a more site-specific basis, the Environmental Commission may incorporate data collected by its members as part of the Community Environmental Survey and also present that information as part of its written project review analysis.

In all cases, the Environmental Commission should not work in a vacuum, but should make every effort to coordinate its activities with the applicant and the appropriate professionals to provide information to them that would guide the development of appropriate plans.

The information gathered by the Environmental Commission should be printed and made available to all potential applicants to the Planning Board and Zoning Board of Adjustment so that the Environmental Commission is perceived as a proactive rather than reactive body.

In all cases the Environmental Commission should work with all others by proactively sharing its information.

The information gathered by the Environmental Commission should be printed and made available to all potential applicants.

IV. ISSUES FOR CONSIDERATION BY THE ENVIRONMENTAL COMMISSION

- A. The Environmental Inventory data can help in intelligently resolving a variety of land use issues within the Township. For the purposes of future consideration, these issues are listed as elements

The Environmental Commission data can help in intelligently resolving a variety of land use issues within the Township.

that the Environmental Commission in conjunction with the Planning Board may wish to consider as the Township evaluates the adequacy of its Land Use Regulations. They are:

1. Utilizing the Environmental Inventory as a basis for restructuring the Master Plan Elements particular to the Land Use Element. Although this was discussed in a previous section of this report, it is important to consider the Master Plan process as part and parcel of the entire Environmental Inventory analysis. The two are inextricably linked in a symbiotic relationship. The environmental issues of the Township must be recognized in the Master Plan. The current Master Plan, prepared by the staff of Salem County some years ago, does an excellent job of reflecting the environmental constraints within the Township. The aquifer recharge areas, wetlands, and other environmentally unstable areas have been mapped and presented as part of the documentation in this study.

Utilizing the Environmental Inventory as a basis for restructuring the Master Plan Elements particular to the Land Use Element.

Thus, the Environmental Commission should work with the Planning Board to address such elements as:

- a. Large lot zoning and resultant yield plan development versus cluster development which preserves open space
- b. Existing patterns of development which chip away at the rural environment by allowing 2, 3, and 4-lot subdivisions
- c. Creating a definitive plan to identify transfer of development rights, conservation easements, and other regulatory devices that could lead to compensating landowners for open space preservation and concentrating development in the sewered areas of the Township.
- d. Identifying vacant land and farms as part of the Township's Open Space and Conservation Plan.

Collectively, these are issues that deal with the policy of land use planning within the Township. As such, the Environmental Inventory can provide valuable input into an orderly planning process that respects the capacity of the land and generates sustainable development objectives as they are reflected in the Township's Land Use Element.

V. ESTABLISHING A "HOW-TO-DO-IT KIT"

One of the important responsibilities of an Environmental Commission is to conduct an effective public relations campaign in which the information that it has gathered is appropriately disseminated. Typically, landowners have been extremely wary of engaging in any dialogue which would limit the productivity of their land. To the farmers in Alloway Township who have subsidized the preservation of the Township's open space by farming, land is an asset which is bankable only because of its development potential. Frequently, farmers in a difficult economy are forced to mortgage land and to borrow against it in order to continue with their farming endeavors. Thus, land is judged by its development potential, rather than its agricultural potential. Often, land use regulations, driven by environmental guidelines, conflict with the farmer's ability to appropriately value land. Therein lies the problem between the goals and objectives of environmentally oriented individuals and the farmers.

Therefore, it is vital that farmers, who have been dealing with land use issues for centuries, are considered as partners in the effort to preserve open space. Compensation packages in the form of transfer of development rights, the outright purchase of development rights and/or the purchase of farms by public or private entities for the express purpose of leaving the area as open space, are factors which must be considered as part of any future planning in the implementation and preservation of areas designated as being environmentally sensitive.

There is a need for logical regulatory programs based upon mutually defined goals. These goals help avoid the use of

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police powers invested in the Municipal and State Governments.

The State Plan, which has designated Alloway Village as a separate entity from the rest of the Township, clearly recognizes that growth should be concentrated in specific areas. However, the vested rights of farmers and other landowners cannot be ignored. By using the comprehensive analysis of all environmentally sensitive areas and comparing them with the development potential of particular parcels, the Environmental Commission can constantly refine its priority of lands to be preserved. Once that objective has been accomplished, the methods of preservation should be established. The Environmental Commission is advised to focus upon techniques to provide appropriate compensation to landowners, rather than completely relying upon powers vested through zoning.

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The Environmental Commission can also provide additional service, even in cases where land rights cannot be obtained. Frequently, landowners and farmers will allow habitat enhancement by recognized organizations such as Quail Unlimited, Ducks Unlimited, the National Wild Turkey Foundation and similar other foundations. These organizations, dedicated to the enhancement of habitat, work in tandem with State Fish and Wildlife Management officials to enhance habitat. Collectively, a checkerboard of such activities within the Township's agricultural belt will lead to substantial habitat enhancement for area wildlife.

The Environmental Commission can also provide additional service, even in cases where land rights cannot be obtained. Frequently, landowners and farmers will allow habitat enhancement by recognized organizations.

The resources of these organizations can be brought to bear in the planning and implementation of such strategies, however, groups such as the local Environmental Commission must spearhead finding willing landowners that would participate in such programs. This is another venue that the Environmental Commission can follow in enhancing the environmental status of the community.

Lastly, the Environmental Commission should launch an educational program and couple its goals with willing participants in the private sector. The Environmental Commission, through a series of educational efforts, should consider:

Lastly, the Environmental Commission should launch an educational program and couple its goals with willing participants in the private sector.

- a. Preparing educational program for local school children, creating seminars and workshops for

local landowners to identify various programs and alternatives dealing in estate planning and preservation of open space.

- b. Working as a conduit for non-profit organizations that sponsor habitat enhancement in conjunction with the New Jersey Division of Fish and Wildlife.

VI. WHERE DOES THE ENVIRONMENTAL COMMISSION GO FROM HERE - - - DEFINING ITS GOALS AND OBJECTIVES

The Environmental Commission, in order to initiate an effective program of sustainable growth, must define itself by a statement of goals and objectives in order to work effectively with the Governing Body, Planning Board and Zoning Board of Adjustment with the Community. A summary of the goals and objectives appropriate for the Environmental Commission is presented herein for consideration by the Commission. They are listed as follows:

The Environmental Commission, in order to initiate an effective program of sustainable growth, must define itself by a statement of goals and objectives in order to work effectively with the Governing Body, Planning Board and Zoning Board of Adjustment with the Community.

Recommended Goals and Objectives for the Alloway Environmental Commission

- A. Preserve the environmentally sensitive lands in the Township by providing an environmental inventory of such lands and identifying them to the Governing Body, Planning Board and Zoning Board of Adjustment of the Community.
- B. Assure that individual landowner rights are respected and strive to promote preservation with compensation through established and recognized programs.
- C. Promote rational land use planning by embracing the concept of, "Design with Nature" and recognizing the community's environmental assets identified as part of this report.
- D. Working with the agricultural community to identify techniques for land preservation including, but not limited to:

Preserve the environmentally sensitive lands in the Township.

Assure that individual landowner rights are respected.

Promote rational land use planning.

Working with the agricultural community to identify techniques for land preservation.

1. Transfer development rights
2. Conservation easements
3. Estate planning via essential tax strategies for the landowner
4. Developing concepts of eco-tourism and game farms that provide "open space uses with an economic return for landowners"
5. Position the Environmental Commission to serve as a conduit of information to landowner interested in preservation activities.

E. Work with the Governing Body and Planning Board to establish land use regulations that encourage smart growth by:

Work with the Governing Body and Planning Board to establish land use regulations that encourage smart growth.

1. Discouraging development that impacts existing aquifers, open space wetlands and equally sensitive environmental areas.
2. Discouraging sprawl development reflected in Alloway by leapfrog development of residential and commercial uses.
3. Discouraging development that infringes upon agricultural lands and functionally threatens the right to farm activities.
4. Encouraging cluster-housing concepts that are supported by existing or proposed infrastructure.
5. Encourage farmland preservation to enhance environmental assets, such as aquifer recharge areas, habitat preservation, wetlands preservation, etc.
6. Encourage the preservation of the Alloway Village "built environment" in the form of its architecture and village/farm physical relationship.
7. Develop a public awareness program to identify the goals and objectives of the Environmental Commission.
8. Closely coordinate the Commission's activities with the Township's Governing Body and Planning and Zoning Boards to achieve smart growth consistent with the State Plan's objectives. This is to be carried out by using the Environmental Inventory prepared herein to

comment upon land use proposals submitted to those bodies.

SUMMARY STATEMENT

The Township of Alloway, in preparing the Environmental Inventory, has begun identifying its environmental assets throughout the Community in a form that can be used to guide the future planning of the Township.

The environmental assets identified as a variety of elements extending from wetlands, soil types, aquifer recharge areas (as reflected in certain geology types), to rare, threatened or endangered species habitat, etc., are all factors which must be weighed in the assignment of uses to parcels of land. The mosaic of land use issues and conditions that confront the Township must be evaluated. As the Community evaluates its Master Plan, the Land Use Element, Circulation, Housing, Recreation, Conservation and other components of the Master Plan, "Smart Planning" mandates that the environmental inventory be utilized in establishing a rational process for land use management in the Community.

The Environmental Inventory, although not the only tool used in making planning decisions, is a valuable element in that process. However, other considerations must also be factored into the equation. Farmland preservation and compensation to landowners for the initiation of an open space plan to preserve environmentally sensitive areas is also vital. Fortunately, mechanisms are in place to be incorporated as part of the Master Plan and regulatory processes that will compensate farmers and landowners for the preservation of open space areas that function as "host sites" for endangered species, and environmentally sensitive lands.

The information provided is a tool for the Environmental Commission to assist the Planning Board, Zoning Board and Governing Body in making appropriate land use decisions that will lead to "smart growth" as it is defined in the New Jersey State Plan. In addition to such activity, it is advised that the Environmental Commission serve as a proactive group to educate and guide decision-makers and landowners to the advantages of cost-effective planning using smart planning techniques.

Therefore, it can be stated that the Environmental Commission's role is multi-faceted starting with the simplest of actions. This includes providing environmental data to support site plan decisions by the Planning Board to supporting land use allocations within the Township. In addition, the Environmental Commission, serving as an advisory board within the Community, can also embark upon a wide range of educational projects that can enhance the Community's awareness of its environmental assets and the techniques available to preserve them.

Appendix A

**Community Environmental Survey –
Alloway Township Environmental Commission, June 1999**

(reference following three (3) pages)

APPENDIX A

COMMUNITY ENVIRONMENTAL SURVEY

The purpose of this survey is to identify significant environmental features, plants, habitats, as well as views and vistas that should be preserved in Alloway Township. Although the State of New Jersey will provide data that will indicate the general locations of environmentally sensitive areas and threatened or endangered species, this survey is designed to encourage citizen participation by identifying locally known micro environmental conditions. This survey has been provided to identify these conditions.

APPENDIX A - COMMUNITY ENVIRONMENTAL SURVEY

MAP KEY #	ID OF ENVIRONMENTALLY SIGNIFICANT FINDING	DESCRIPTION	LOCATION
1	Burdens Hill (Habitat: significant environmental feature - Distinctive natural region).	NJ Conservation Foundation priority site. Contains a regionally significant forest complex (Atlantic Coastal Plain Pine Barrens Habitat). The largest contiguous tract of forest in private ownership in South Jersey.	See appended NJCF map and description labeled Burdens Hill.
2	Extensive Forest Recreational Potential - Cobbs Mill Lake	Cobbs Mill Lake is part of the Burdens Hill forest areas. Page 90 NJCF study.	Cobbs Mill Lake: NJCF Study Page 90
3	Alloway Lake: Habitat/Vista	Ranked among the top ten tributary sites by NJ Conservation Foundation. A partly forested lake contains very old trees and has high potential for Bald Eagle nesting.	Listed on page 89 of NJCF Charting A Course for the Delaware Bay Watershed.
4	Ponchantoula Lake: Pristine Forest; Open Farmland	Ponchantoula includes its namesake lake and a mixture of farm and forest along Friesburg Road. The headwaters supports numerous bird species. Page 90 NJCF.	Bisected by Friesburg Road, this area extends from Friesburg on the south to Watsons Corner on the north and from the Cohansey Headwaters site on the east to the Ponchantoula Lake on the west - NJCF Page 90.
5	Alloway Headwaters (significant environmental feature).	Ranks among the top seven NJCF headwater sites. It contains an insular forest tract and its grassland provides habitat for declining Eastern Meadowlark.	Alloway Headwaters - NJCF Study Page 90.
6	Bostwick Lake (preserved land).	Part of Cohansey Headwaters jointly owned by Upper Deerfield, Hopewell and Alloway Township.	Bostwick Lake: NJCF Study Page 91.
7	Deep Run (Habitat: significant environmental feature).	Natural Heritage Priority Site: Tidal swamp forest w/ diversity of shrub species. Site contains good example of rare NJ wetland natural community which may also be rare globally. A globally rare plant species has also been historically documented @ site.	See appended Natural Heritage Priority Site map and description labeled Deep Run.
8	Riddleton (Habitat: significant environmental feature).	NJ Natural Heritage Priority Site: Wet and swampy woodlands with scattered shallow intermittent (Vernal) ponds. Contains two state - listed Endangered Plant species plus a Special Concern Plant species.	See appended Natural Heritage Priority Site map and description labeled Riddleton.

APPENDIX A - COMMUNITY ENVIRONMENTAL SURVEY

MAP KEY #	ID OF ENVIRONMENTALLY SIGNIFICANT FINDING	DESCRIPTION	LOCATION
X(1)	Swamp Pink	Large cluster (clump) reported in 1998 by NJ DEP (Audrey Wendolowski) between Arya property line and Cobbs Mill Road. Satellite colonies observed (FP) on Arya development site.	Arya Golf property - Alloway Friesburg Road (near Cobbs Mill Road) Block 100 Lot 2 (see red X # 1 on attached Map)
X(2)	Swamp Pink	Thundergut WMA - Deep Run Branch (observed by FP 7/99).	(see red X # 2 on attached Map)
X(3)	Swamp Pink	Observed and reported by member of Salem Co. Watershed Task Force.	Paradise Lakes, Telegraph Road, Block 69 Lot 11 (see red X # 3 on attached Map)
X(4)	Swamp Pink	Observed and reported by member of Salem Co. Watershed Task Force.	Paradise Lakes, Telegraph Road, Block 61 Lot 17 (8 acres) (see red X # 4 on attached Map)
X(5)	Swamp Pink	Telephone interview with property owner - 7/15/99.	Telegraph Road, Block 61 Lots 12 & 13 (see red X # 5 on attached Map)
X(6)	Bald Eagle nest	Nest occupied for 3 years - 1998 2 young fledged - 1999 1 young fledged.	Sycamore Lake at Camp Edge - Block 64 Lot 11 - (see red X # 6 on attached Map).
X(7)	Cool Run	Cool Run is on NJCF high priority headwaters site. The site includes farmland, forest and Ballingers and Roosevelt Lake. The area is important for neotropical migratory songbirds and threatened grassland birds.	Listed on page 90 NJCF Report. Atlantic White Cedar within area between Ballingers Mill L and Roosevelt L (FP) (see red X # 7 on attached Map)

Appendix B

Aerial Photograph of Alloway

(following page)

**Aerial Photograph
Alloway Township, New Jersey**

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Appendix C
Environmental Commission Overlay Maps

MAP SUMMARIES

1. Policy and Planning Map

This map illustrates the following designated planning areas. PA1 – Metropolitan Planning Area, PA3 – Fringe Planning Area, PA4 – Rural Planning Area, PA5 – Environmentally Sensitive Planning Area, PA8 – Park, and PA42 – Rural Environmentally Sensitive Planning Area. Alloway is classified entirely as PA4.

2. Wetland Area Map

This map outlines all the various types of wetlands found in Alloway including lakes, streams, and tidal waters. This is a crucial component of the Inventory as many of the other conditions are dependent upon the presence or absence of water. Wetland areas are often heavily pressured lands and being able to readily identify these areas is extremely beneficial to those trying to protect them. This map also serves as a vegetative inventory identifying all the various wetlands and upland areas in Alloway.

3. Q3 FEMA Areas Map

The information on this map is generalized flood insurance rate boundaries taken from FEMA or Flood Emergency Management Agency Maps. Alloway consists of only two areas, Zone "A"- An area inundated by 1% annual chance of flooding for which no BFE's (Base Flood Elevations) have been determined, and a large area of Zone "X"- An area that is determined to be outside the 1% or 0.2% annual chance floodplains.

4. Primary Geology and Groundwater Resources

There are two primary geologic formations in Alloway, Kirkwood sand and Cohansey sand -- these are illustrated on the two maps enclosed. Most of the entire upper portion of Alloway is a recharge area for the Kirkwood sand formation.

5. Soil Maps

There are five maps dealing with various aspects of the soils located in Alloway. They are Surficial Soils, Septic System Suitability, Development Suitability, Agricultural Capability, and Slope and Water Table Depth. The Development Suitability Map is extremely important as it takes into consideration such things as structural integrity, percolation rates, and physical properties such as clay content.

6. Farmland Areas

The first map delineates state owned lands, preserved farmlands, and agricultural development areas. A more comprehensive analysis of the farmland in Alloway should be documented to show locations of farmlands that could possibly be preserved as open space in the future. The second map illustrates the Township's Green Acres lands (Farmland Preservation) and deed restricted lands.

7. Rare, Threatened, and Endangered Species

This information is provided in list form and was taken from the *Natural Features Report for Salem County, NJ*, compiled by Salem County Planning Board in 1993. It consist of both plants and animals which are rare, threatened, or endangered.

8. Areas of Recreation, Scenic or Historic Importance

This information is a compilation of data from Alloway Township Environmental Commission members and the *Alloway Township Comprehensive Development Plan* from 1975.

Policy and Planning Map Summary

This map illustrates the planning areas designated by the state of New Jersey as part of the State Development and Redevelopment Plan (SDRP). The entirety of Alloway Township is considered PA4 -- Rural Planning Area.

As defined in the State Development and Redevelopment Plan:

General Description

The Rural Planning Area -- comprises much of the countryside of New Jersey, where large masses of cultivated or open land surround rural Regional, Town, Village, and Hamlet Centers, and distinguish other sparse residential, commercial and industrial sites from typical suburban development. Four major regions of the State where the Rural Planning Area can be found include portions of: Sussex and Warren Counties; Hunterdon, Northern Mercer and Southern Somerset Counties; Eastern Burlington and Western Monmouth Counties; and Southern Gloucester, Salem and Northwestern Cumberland Counties. The Rural Planning Area may be found in other counties and municipalities, too.

While there may be some disagreement about what is "rural" in this heavily urbanized State, it is clear that the large contiguous areas of farmland and other open lands interspersed by traditional Centers and carefully planned new Centers provide a picture that many New Jerseyans desire.

The open lands of the Rural Planning Area include wooded tracts, lands with one or more environmentally sensitive features, rural towns and villages; and most of the State's prime farmland., which has the greatest potential of sustaining continued agricultural activities in the future.




Glossary

Planning Area -- an area of greater than one square mile with a common set of conditions, including population density, infrastructure systems, level of development, and environmental sensitivity. These designations and accompanying policies and objectives are intended to guide growth through local planning decisions.

Rural Planning Area -- area of large tracts of open or cultivated land interspersed with small towns and sparse commercial and industrial development.

CAFRA -- Coastal Area Facility Review Act. Alloway Township is not within this area.

LEGEND

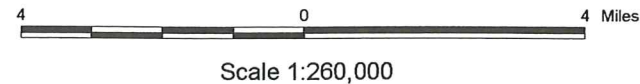
-  Alloway Township Boundary
-  Salem County Boundary
-  CAFRA Boundary

Major Roadways

-  US Route
-  Interstate
-  State
-  County
-  Municipal Roads

State Planning Areas

-  PA1 - Metropolitan Planning Area
-  PA3 - Fringe Planning Area
-  PA4 - Rural Planning Area
-  PA5 - Environmentally Sensitive Planning Area
-  PA8 - Park
-  PA42 - Rural Environmentally Sensitive Planning Area



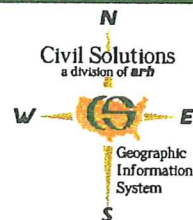
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PPK

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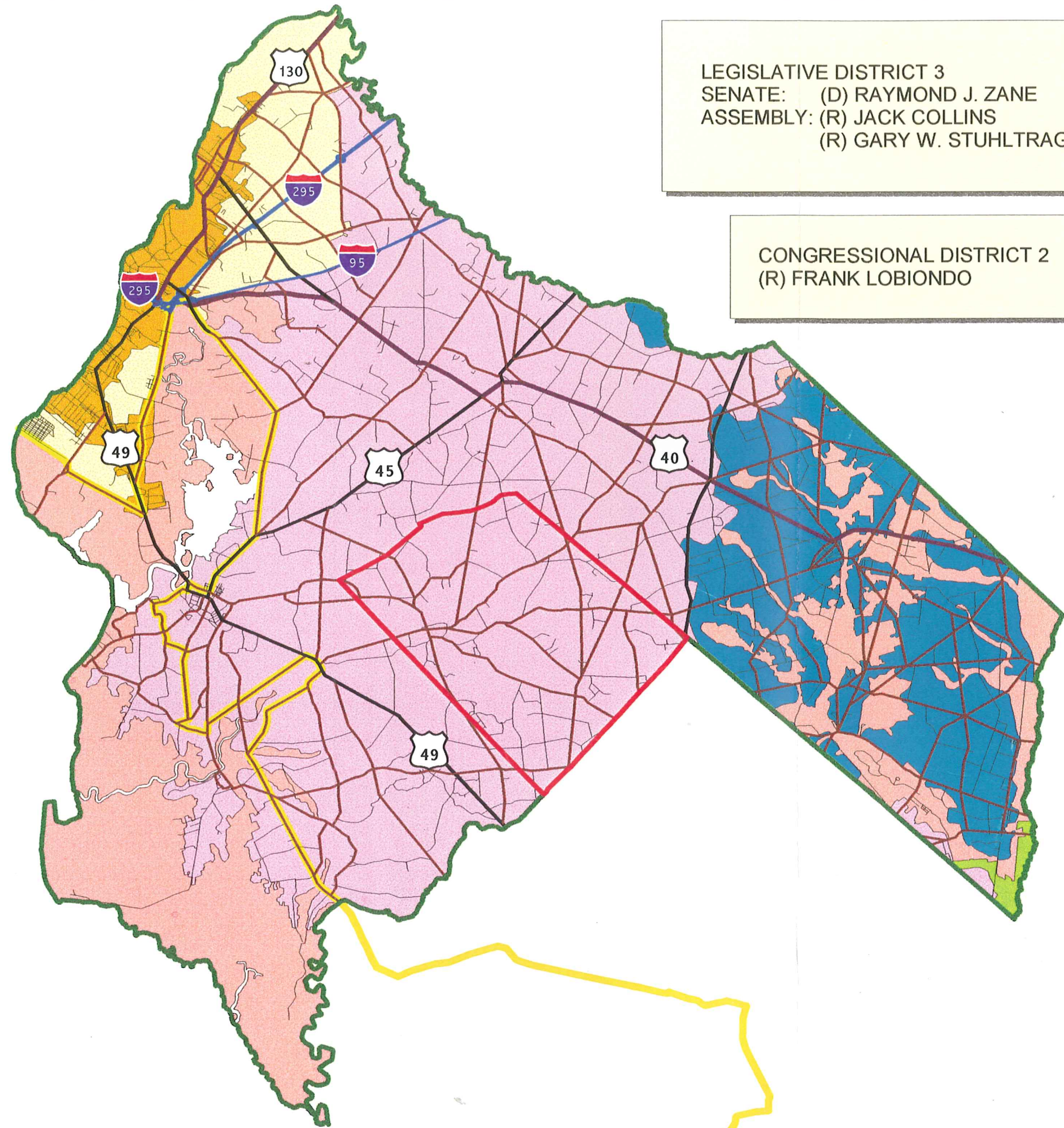


POLICY AND PLANNING

Alloway Township, Salem County, New Jersey

LEGISLATIVE DISTRICT 3
SENATE: (D) RAYMOND J. ZANE
ASSEMBLY: (R) JACK COLLINS
(R) GARY W. STUHLTRAGER

CONGRESSIONAL DISTRICT 2
(R) FRANK LOBIONDO



Wetland Areas Map Summary

This map outlines the various types of wetlands found in Alloway including lakes, streams, and tidal waters. This is an important component of the inventory as many of the other conditions are dependent upon the presence or absence of water. Once commonly considered wastelands, the importance of wetlands is now better understood. They alleviate flood damage by acting as temporary passageways to relieve upstream overflow or absorbing floodwater, then releasing it slowly. They also act as pollution filters, aquifer recharge areas, crucial fish and wildlife habitat, and recreation or open space areas. Being able to readily identify these areas is crucial to their protection. This map also serves as an inventory of the vegetative characteristics of both the wetland and upland areas of the township.

Glossary

Coniferous – evergreen trees and shrubs, often exhibiting cones.

Deciduous – trees and shrubs that shed leaves seasonally

Wetland – “tracts of land where saturation with water is the dominant factor determining the nature of soil development and the types of plants and animal communities living in the soil and on its surface.” These areas may not be continuously wet, nor visibly wet at the surface, but are identified by the presence of hydric soils and plants.

LEGEND

- SALEM COUNTY BOUNDARY
- ALLOWAY TOWNSHIP BOUNDARY

WETLAND AREAS

- AGRICULTURAL WETLANDS (MODIFIED)
- ARTIFICIAL LAKES
- ATLANTIC WHITE CEDAR WETLANDS
- CONIFEROUS SCRUB/SHRUB WETLANDS
- CONIFEROUS WOODED WETLANDS
- DECIDUOUS SCRUB/SHRUB WETLANDS
- DECIDUOUS WOODED WETLANDS
- DISTURBED WETLANDS (MODIFIED)
- FRESHWATER TIDAL MARSHES
- HERBACEOUS WETLANDS
- MANAGED WETLANDS (MODIFIED)
- MIXED FORESTED WETLANDS (CONIFEROUS DOM.)
- MIXED FORESTED WETLANDS (DECIDUOUS DOM.)
- MIXED SCRUB/SHRUB WETLANDS (CONIFEROUS DOM.)
- MIXED SCRUB/SHRUB WETLANDS (DECIDUOUS DOM.)
- NATURAL LAKES
- STREAMS AND CANALS
- TIDAL WATER
- UPLANDS
- WETLAND RIGHTS-OF-WAY (MODIFIED)

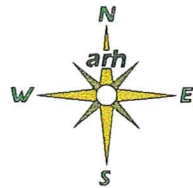
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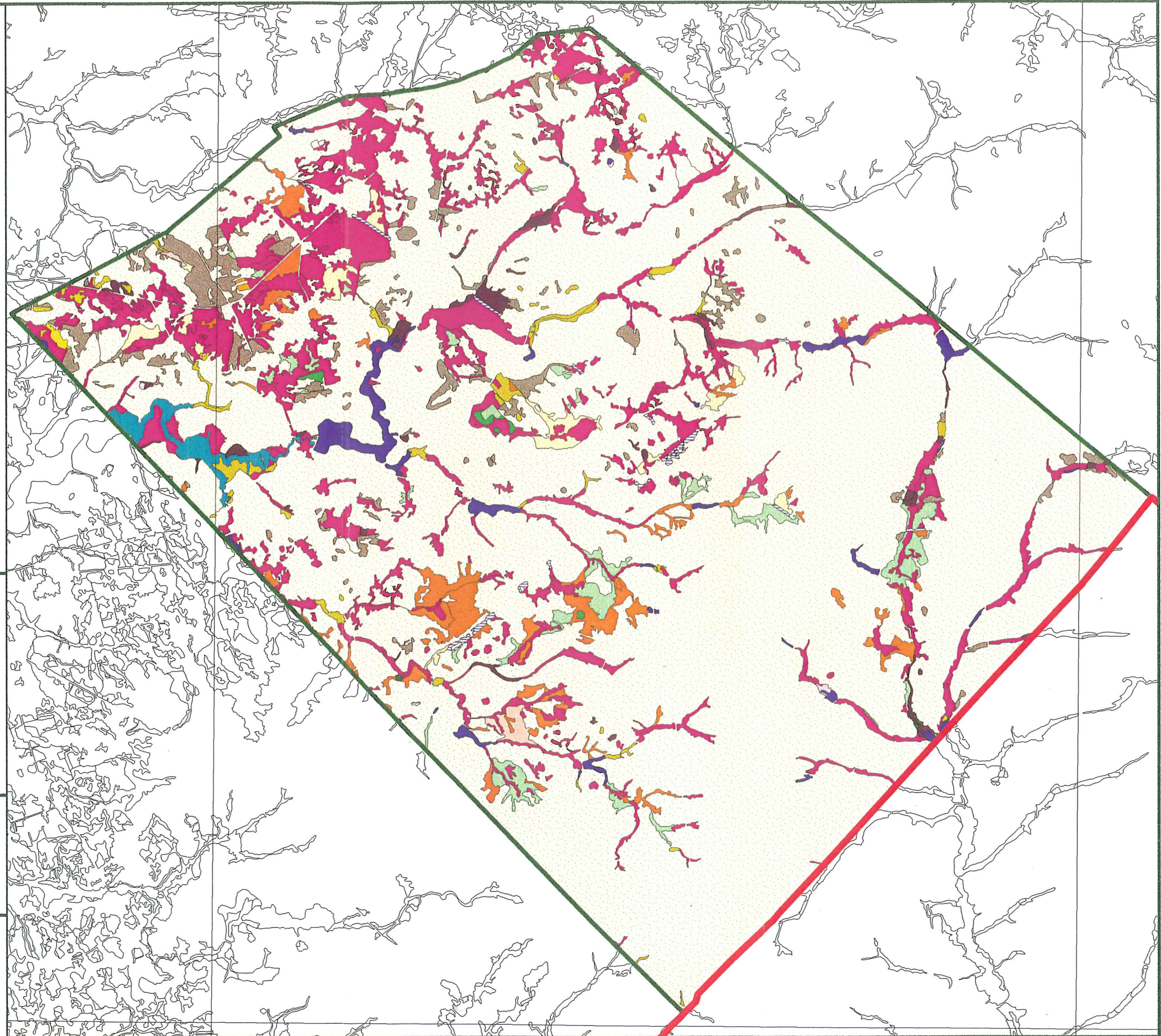
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WETLAND AREAS MAP

Alloway Township, Salem County, New Jersey



FEMA Areas Map Summary

This map shows generalized flood insurance rate boundaries taken from FEMA maps. Alloway includes only two zones, Zone "A" and Zone "X". Zone "A" is the area that has a 1% annual chance of being flooded in any given year; hence the property is in the 100-year floodplain. These areas are located along lakes and streams. Because detailed hydraulic analyses are not performed for these areas, no BFEs have been determined. Mandatory flood insurance purchase requirements apply. Zone "X" is the area that is determined to be outside the 100-year floodplains and poses minimal risk of flooding.

Note:

The enclosed map, per GIS mapping systems, was created utilizing two (2) different sources, therefore distributional points do not always align perfectly. Generally, according to field inspectors, FEMA maps have an accuracy of ± 167 feet -- thus one should assume that the provided map may serve only as a guide to determining floodplain area/delineation. Field investigation is always necessary to determine FEMA boundaries.

Glossary

FEMA – Federal Emergency Management Agency

Base Flood Elevations – Elevation that indicates the water surface elevation resulting from a flood that has a 1% chance of equaling or exceeding that level in any given year

Floodplain – any land area, usually adjacent to a stream, lake, or pond, which is susceptible to being inundated by floodwaters when it rains. The regulated floodplain is the area that would be covered by water during a "100-year storm", a storm which has a 1 in 100 chance of occurring in any one year period.

Source: FEMA website <http://www.fema.gov>

New Jersey regulates construction in the flood plain under the Flood Hazard Area Control Act, N.I.S.A. 58:16A-50 et seq., and its implementing rules at N.J.A.C. 7:13.

What Is the Flood Plain?

The flood plain is the area adjacent to a stream, lake or pond, which is covered by floodwater when it rains. This area can shrink or expand depending on how much it rains. In general, the regulated flood plain is the area that would be covered by water during the "100 year storm" - a storm which has a 1 in 100 chance of occurring in any one year period.

Why Regulate Work in a Flood Plain?

The state regulates work in flood plains for two reasons. First, such regulation protects the person who is building from loss of life and property in case of a flood. Flooding causes an estimated \$3 billion of damage in the United States every year. State regulations minimize the damage by ensuring that buildings are placed in safe areas, and are constructed to withstand high water.

The second reason to regulate building in flood plains is to protect other properties along the stream or pond from flood damage. When you build on a flood plain and the waters begin to rise, the buildings on your property displace water thus increasing the height of the rising waters and making the flooding worse everywhere along the banks. In addition, your buildings and pavement cover the natural ground surface that would have helped soak up the water. Therefore, the more buildings and pavement allowed, the higher the flood waters along that water body will rise, and the worse the flooding problems will get. Even if a building is permissible in the flood plain, regulations are necessary to ensure that it is strongly constructed so that it won't wash away in flood waters, causing danger and damage downstream.

What Are the Floodway and the Flood Fringe?

The flood plain is made up of two parts - the floodway and the flood fringe. The floodway is the inner area where floodwaters are deep and move fast. The floodway always includes the stream bed or lake bed where the water normally flows, and usually extends to the top of the bank (if there is a defined bank) and sometimes beyond. The flood fringe is the outer area where flood waters move more slowly, appearing more still, like a lake or pond.

A building in a floodway will block the water's flow, backing up water and causing flooding upstream to worsen. A building in a flood fringe will prevent flood waters from spreading out, thus forcing floodwaters downstream faster and increasing downstream flooding.

How Do I Know if My Property Is in a Flood Plain?

Every stream, river, pond or lake has a flood plain. If your property has a stream running through it or near it and the land is relatively flat, it probably contains some flood plain.





However, if the water body on your land is a lake or pond, or if your land slopes steeply down to a stream, most of your land may lie outside of the flood plain. Since a flood plain's size depends on so many factors, it can be accurately determined only through a detailed engineering analysis, in which an engineer calculates and maps the flood plain based on water movement and topography.

The State and Federal governments have already calculated and mapped the flood plains on some larger streams and rivers in New Jersey. Although these maps do not show all of the flood plains in New Jersey, and omit many smaller streams, they are a good starting point. Federal Flood Insurance Maps are usually available at municipal offices. State flood plain maps can be obtained from the Department of Environmental Protection's Flood Plain Management Office at (609) 292-2296.






If your stream, lake, or pond is not already mapped, you can obtain a free jurisdictional determination from the DEP. Call the DEP at the number for your county on the contact LUR page for information on how to apply.

Source: NJDEP

LEGEND

-  Salem County Boundary
-  Alloway Township Boundary
-  Alloway Township Streams
-  Alloway Township Lakes

Q3 FEMA Map Data

-  Zone "A" - An area inundated by 1% annual chance of flooding, for which no BFEs have been determined.
-  Zone "AE" - An area inundated by 1% annual chance of flooding, for which BFEs have been determined.
-  Zone "ANI" - An area that is located within a community or county that is not mapped on any published FIRM.
-  Zone "X" - An area that is determined to be outside the 1% and 0.2% annual change floodplains.
-  Zone "X500" - An area inundated by 0.2% annual chance of flooding; an area inundated by 1% annual chance of flooding with average depths of less than 1 foot or with drainage areas less than 1 square mile; or an area protected by levees from 1% annual chance of flooding.

4000 0 4000 Feet

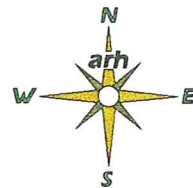
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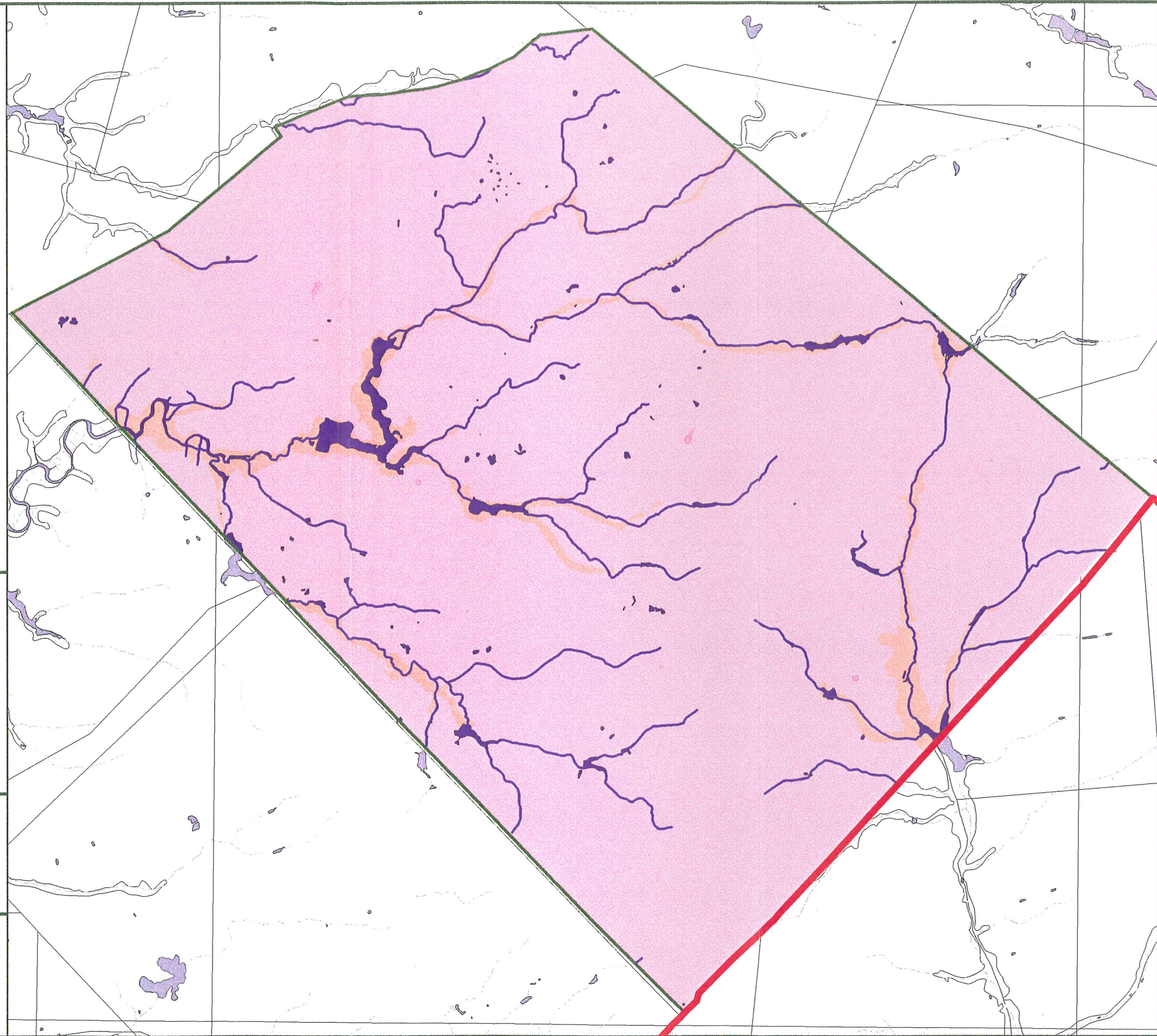
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Q3 FEMA AREAS MAP

Alloway Township, Salem County, New Jersey



Alloway Aquifer maps: geology & hydrology, primary geology & groundwater resources

These maps show the delineation of Cohansey and Kirkwood sands, through which the Kirkwood-Cohansey aquifer system is replenished. Alloway Township sits atop this aquifer system and because the township is largely undeveloped, it is an important recharge area for the aquifer.

“The Cohansey sands are considered the greatest potentially productive aquifer in the NJ Coastal Plain.” “The capacity of the system is estimated at 17 trillion gallons, the largest of any underground aquifer in the US. This supply has long been seen as an alternative to the ever-depleting Potomac-Raritan-Magothy aquifer, which is currently the major source of water for Southern NJ.” “The quality of water in the Cohansey is mainly dependent on local conditions at the surface, as it is recharged directly by percolation of precipitation. This makes the aquifer more susceptible to damage from surface pollution, especially non-point sources of pollution from septic systems, agricultural runoff, and incidental spills of chemicals.” P.18

“The Kirkwood Sands comprise a large area but limited source of water. So far, it has been developed only for domestic and farm supplies. The major source of recharge is from precipitation on the permeable parts of its outcrop area. Since the sands are fine grained and of relatively low permeability in and near the outcrop area, it is unlikely that many large wells can be developed in this aquifer.” P.21

Glossary

Aquifer – subsurface geological formation which contains water that can be supplied to natural springs and water wells

Aquifer Recharge Area – the surface area through which an aquifer is replenished

Source: Natural Features Report Salem County New Jersey, Salem County Planning Board, 1993, p.14-21.

What is an aquifer?

An aquifer is a body of geologic material that can supply useful quantities of ground water to natural springs and water wells.

What is aquifer recharge?

Aquifer recharge is the process by which rainwater seeps down through the soil into an underlying aquifer. There are many natural processes that determine how much rainwater actually reaches and replenishes an aquifer instead of being evaporated, consumed by plants and animals, or simply running off the ground surface into streams, rivers, lakes, and oceans.

Why is important to map aquifer recharge?

The protection of our water resources is an important for everyone in the State concerned with the quality and availability of clean drinking water. Previous water conservation and supply programs have proven to be insufficient for adequately protecting our drinking-water supplies. About half of the water used by humans for daily living is extracted from the ground. Therefore it is important to identify those parts of the State where our ground water is most likely to be replenished so that we can attempt to protect these vital resources from pollution and any land-use practices that will decrease the quality and availability of clean water.



How do we map aquifer recharge areas?

The New Jersey Geological Survey (NJGS) has recently developed a method for mapping aquifer recharge areas. The method uses rainfall data from climate-monitoring stations, maps showing how the land surface is currently used (residential, agricultural, commercial, wooded, pavement, etc.), what kind of soils occur at the earth's surface, and the extent of wetlands (streams, rivers, lakes, marshes, and bogs). These data are combined using scientific methods to determine how much ground water is available in any particular area for recharge to the local aquifer. How much of this water will actually make it into the aquifer is also predicted based on how much water can usually be pumped from water wells drilled into the aquifer. This method has been recently used to show the location of aquifer recharge areas for Middlesex and Cape May counties. The NJGS is also currently involved in mapping aquifer recharge areas for the State's priority watershed areas.

Please refer to Geological Survey Report publication GSR 32 "A method for evaluating ground-water-recharge areas in New Jersey" for more detailed information. GSR 32 is available for purchase at the Maps and Publications Sales Office. For a recent supplement to this methodology download TM99-1 Basin Factor Calibration for Ground-Water Recharge Estimation (in Adobe PDF). DGS99-2 is an Excel Workbook implementing the ground-water-recharge methodology based on GSR-32.

For more information about the NJGS Aquifer Recharge Project you can email the project coordinator. (aqrchg@njgs.dep.state.nj.ju).

LEGEND

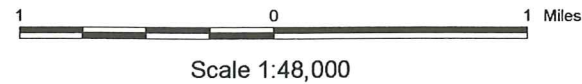
-  Alloway Township Boundary
-  Salem County Boundary

Major Roadways

-  State
-  County
-  Municipal Roads

Primary Geology

-  Cohansey sand
-  Kirkwood sand
-  Water
-  Vincentown sand
-  Hornerstown marl



NOTES

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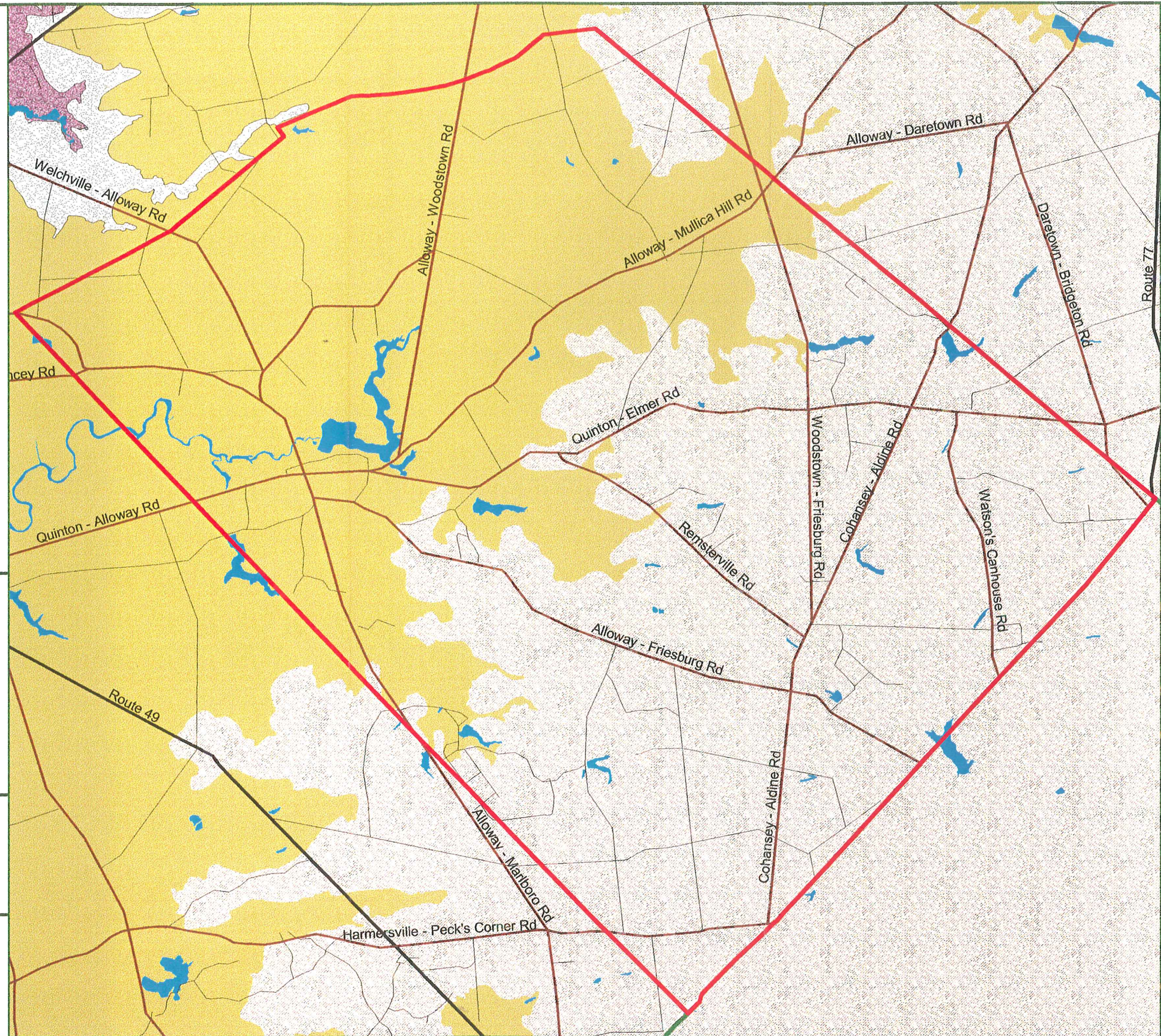
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**PRIMARY GEOLOGY AND
 GROUNDWATER RESOURCES**

Alloway Township, Salem County, New Jersey



LEGEND

-  Salem County Boundary
-  Alloway Township Boundary
-  Alloway Township Streams
-  Alloway Township Lakes
- Primary Geology Formations**
-  Cohansey sand
-  Kirkwood sand
-  Water

4000 0 4000 Feet

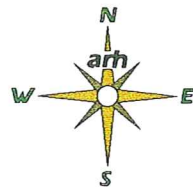
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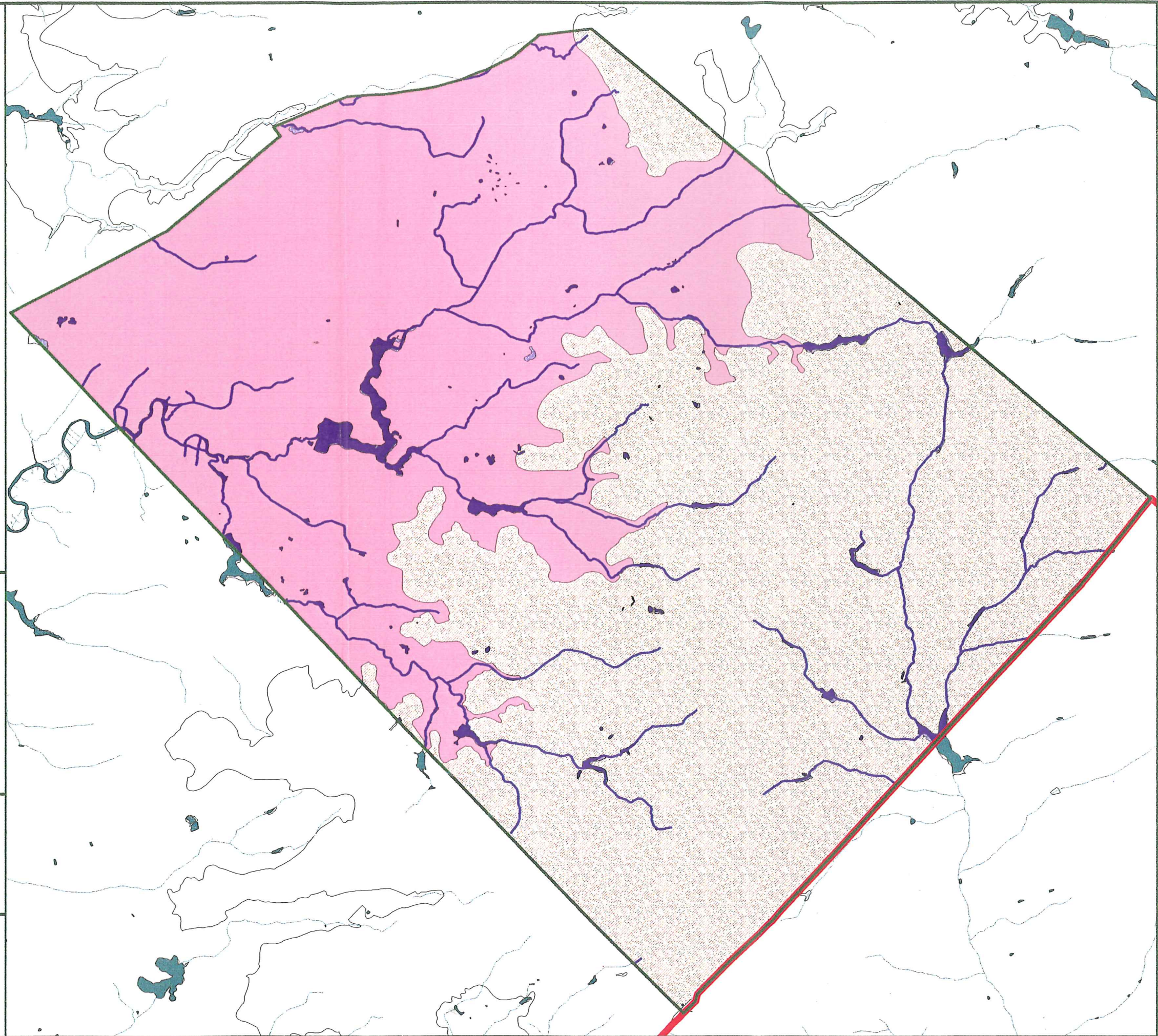
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GEOLOGY AND HYDROLOGY MAP

Alloway Township, Salem County, New Jersey



Soil Maps Summary

The following five (5) soils maps are relatively self-explanatory in their intention.

Surficial Soils Map

This map simply delineates the various soils as located within the Township.

Soils - Septic Systems Suitability

Ranging from slight to moderate to severe, this map dictates the locations where septic systems may and may not be utilized.

Soils Development Suitability

This map illustrates the areas where soils may and may not permit development of various types.

Soils - Agricultural Capability

This map primarily focuses on the drainage capability of the Township's soils, thus illustrating the locations that are considered suitable farmlands and those areas that are less suitable.


























Soils - Slope and Depth to Seasonal High Water Table

The focus of this map is to illustrate both the "depth to season high water table (in feet)" and the "slope (%)". As might be expected, the land in the northwest portion of the Township has a higher water table and is, therefore, likely less well drained (See Soils - Agricultural Capability map). Given these constraints, this area of the Township, generally speaking, contains less-suitable soils for agricultural development.

Note:

While this map may be slightly difficult to read, there is really no way to alter the information contained within. The colors utilized in the creation of this map were due to their light hues, so as to be able to read the lines underneath.

LEGEND

-  Salem County Boundary
-  Alloway Township Boundary
- Surficial Soil Areas**
-  Aura loam, sandy/gravelly loams, 0 to 10 percent slopes
-  Chicone silt loam
-  Chillum silt loam, 0 to 5 percent slopes
-  Downer loamy sands/sandy loams, 0 to 10 percent slopes
-  Downer-Galestown complex, 0 to 5 percent slopes
-  Evesboro sand, 0 to 10 percent slopes
-  Fort Mott loamy sand, 0 to 5 percent slopes
-  Galestown sand, 0 to 5 percent slopes
-  Gravel pits
-  Hammonton loamy sands/sandy loams, 0 to 2 percent slopes
-  Humaqueptic Fluvaquents, Assawoman and Mullica Association
-  Keyport silt/sandy loams, 0 to 10 percent slopes
-  Klej loamy sand, 0 to 2 percent slopes
-  Manahawkin muck
-  Mannington-Nanticoke complex
-  Matapeake silt loam, 5 to 10 percent slopes
-  Mattapex silt loams, 0 to 5 percent slopes
-  Othello, Fallsington and Trussim soils
-  Sand pits
-  Sassafras sandy loams, 0 to 10 percent slopes
-  Udorthents, dredged river material
-  Water
-  Woodstown loamy sands/sandy loams/clayey substratum, 0 to 5 percent slopes

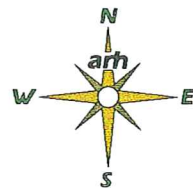


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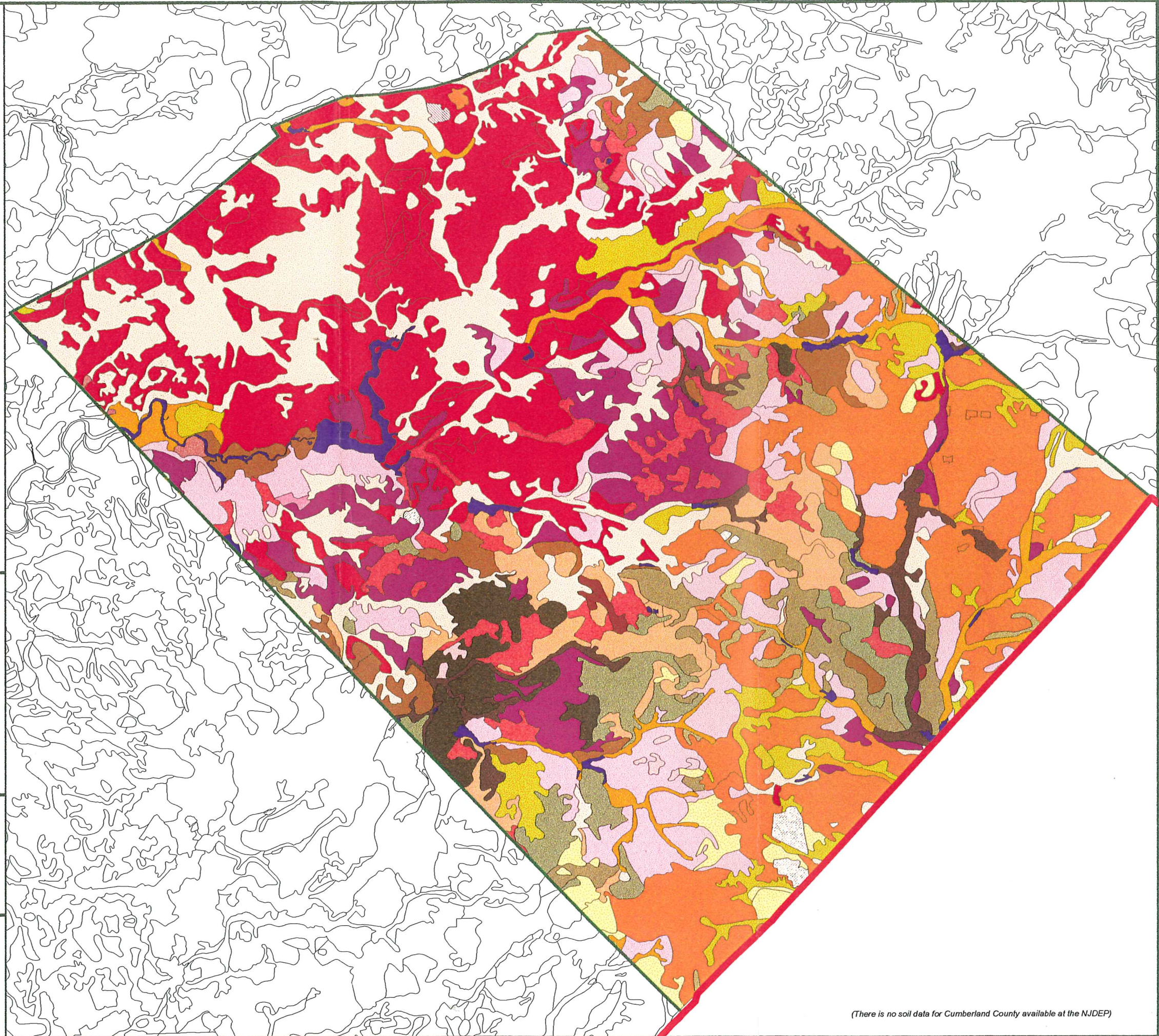
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
SURFICIAL SOILS MAP

Alloway Township, Salem County, New Jersey

(There is no soil data for Cumberland County available at the NJDEP)






LEGEND




-  Alloway Township Boundary
-  Salem County Boundary

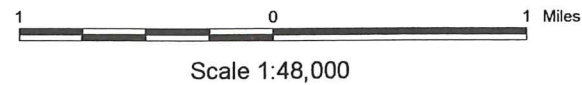
Major Roadways

-  State
-  County
-  Municipal Roads

Septic System Suitability and Limitations

-  Slight: Few or no limitations
-  Moderate: Requires specific attention
-  Severe: Cannot be utilized (due to depth to seasonal high water table or permeability)

-  Variable
-  N/A - Water Body
-  No Data

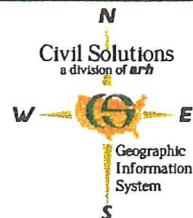


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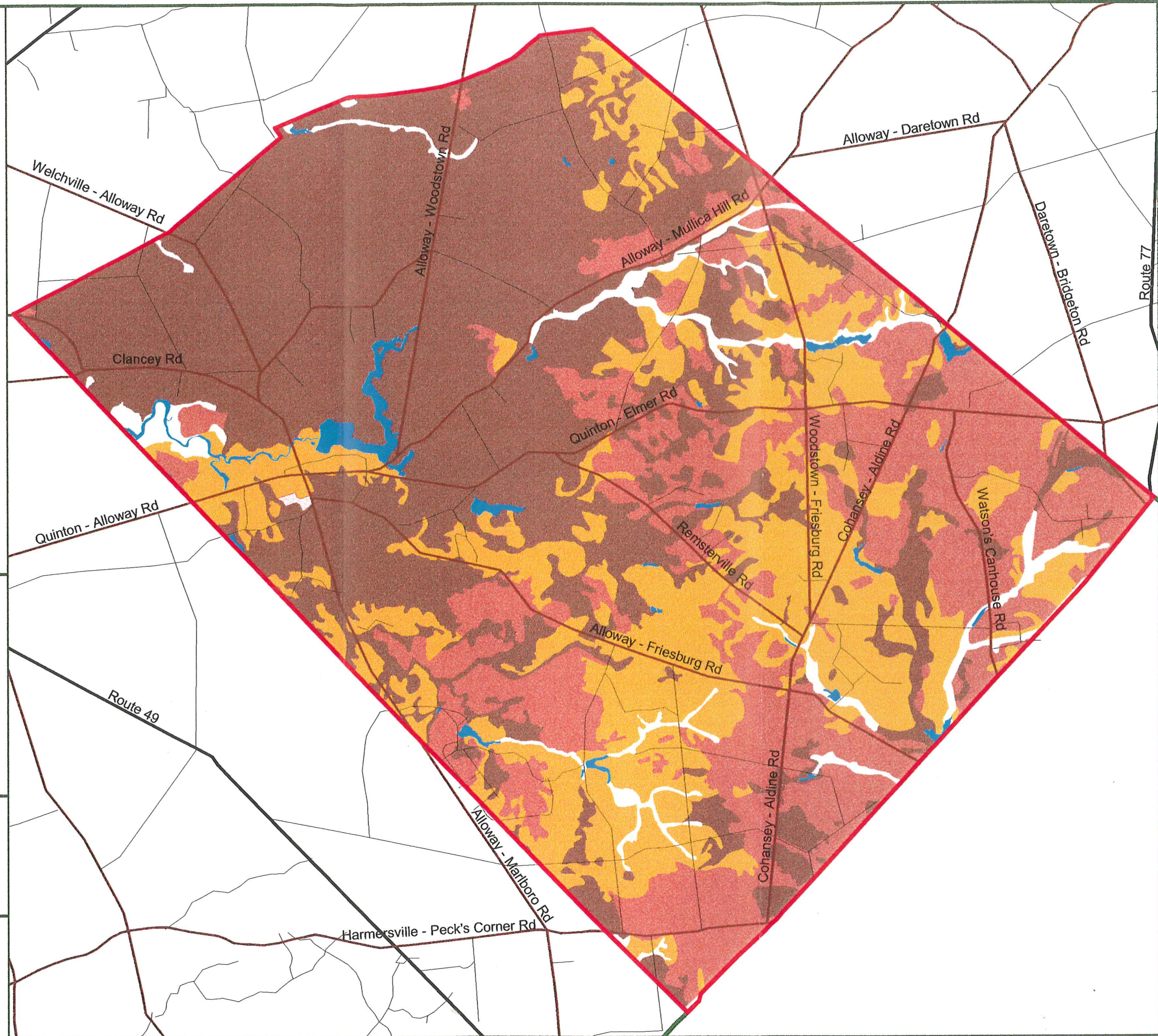
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SOILS - SEPTIC SYSTEMS SUITABILITY

Alloway Township, Salem County, New Jersey









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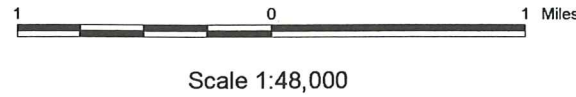
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-  Salem County Boundary

Major Roadways

-  State
-  County
-  Municipal Roads

Soils Development Suitability

-  Slight: Few or no limitations
-  Moderate: Requires specific attention
-  Severe: Cannot be utilized
-  Variable
-  N/A - Water Body
-  No Data



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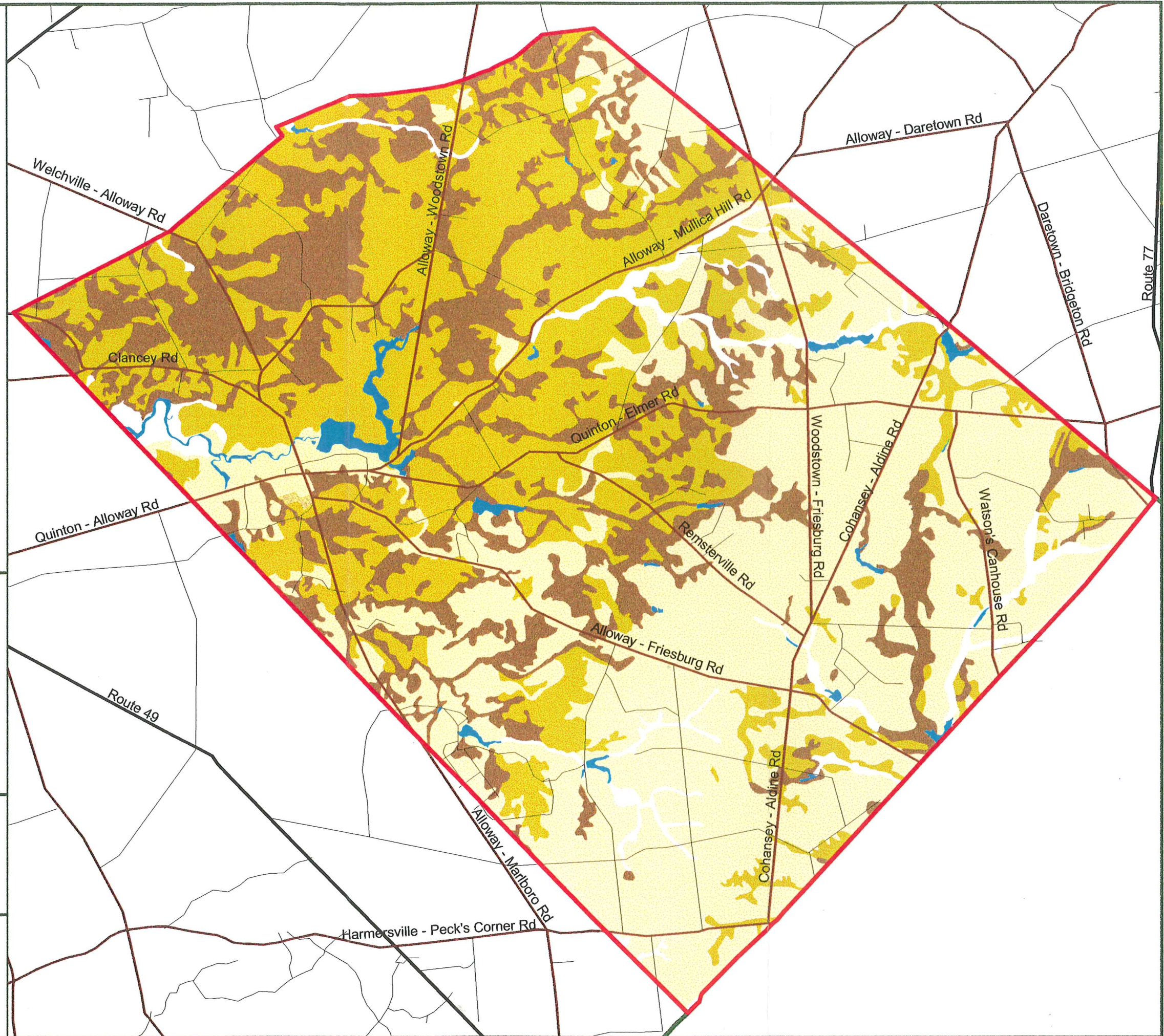
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SOILS DEVELOPMENT SUITABILITY

Alloway Township, Salem County, New Jersey



LEGEND

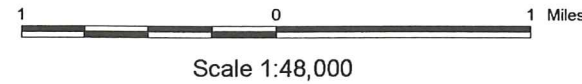
-  Alloway Township Boundary
-  Salem County Boundary

Major Roadways

-  State
-  County
-  Municipal Roads

Soil Drainage Description

-  Excessively drained
-  Well drained
-  Moderately well drained
-  Poorly drained
-  Saturated
-  Disturbed areas
-  Variable
-  N/A

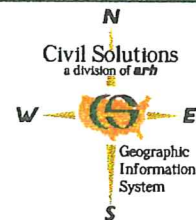


NOTES

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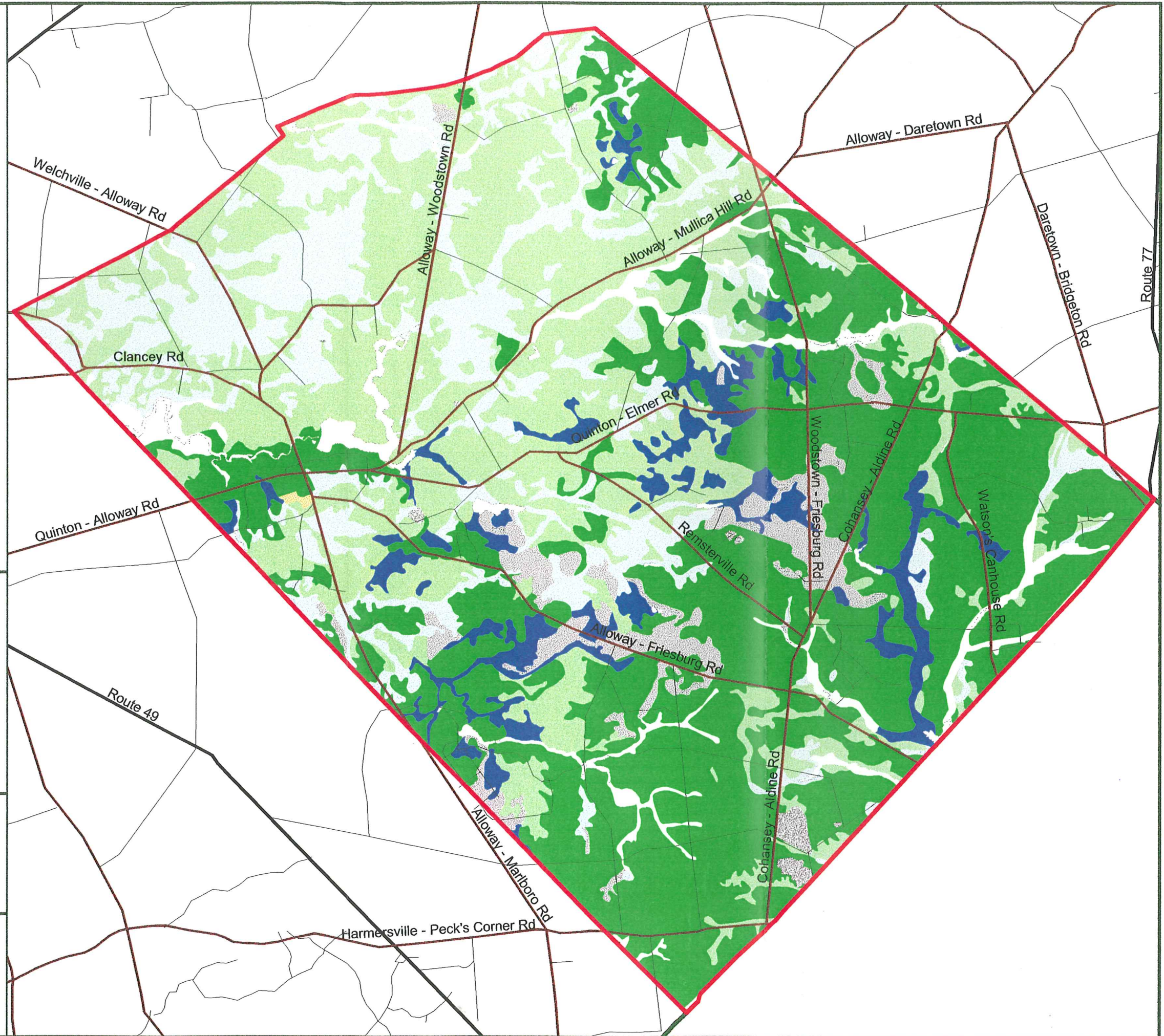
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SOILS - AGRICULTURAL CAPABILITY

Alloway Township, Salem County, New Jersey







LEGEND

-  Alloway Township Boundary
-  Salem County Boundary







Major Roadways

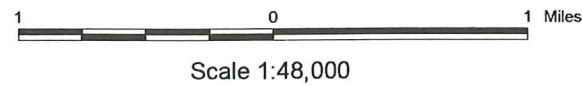
-  State
-  County
-  Municipal Roads

Depth to Seasonal High Water Table (ft)

-  0-1
-  2
-  10+
-  Variable

Slope (%)

-  0
-  0-2
-  0-5
-  2-5
-  5-10
-  Variable

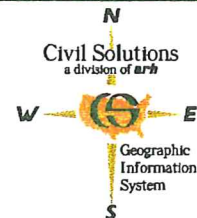


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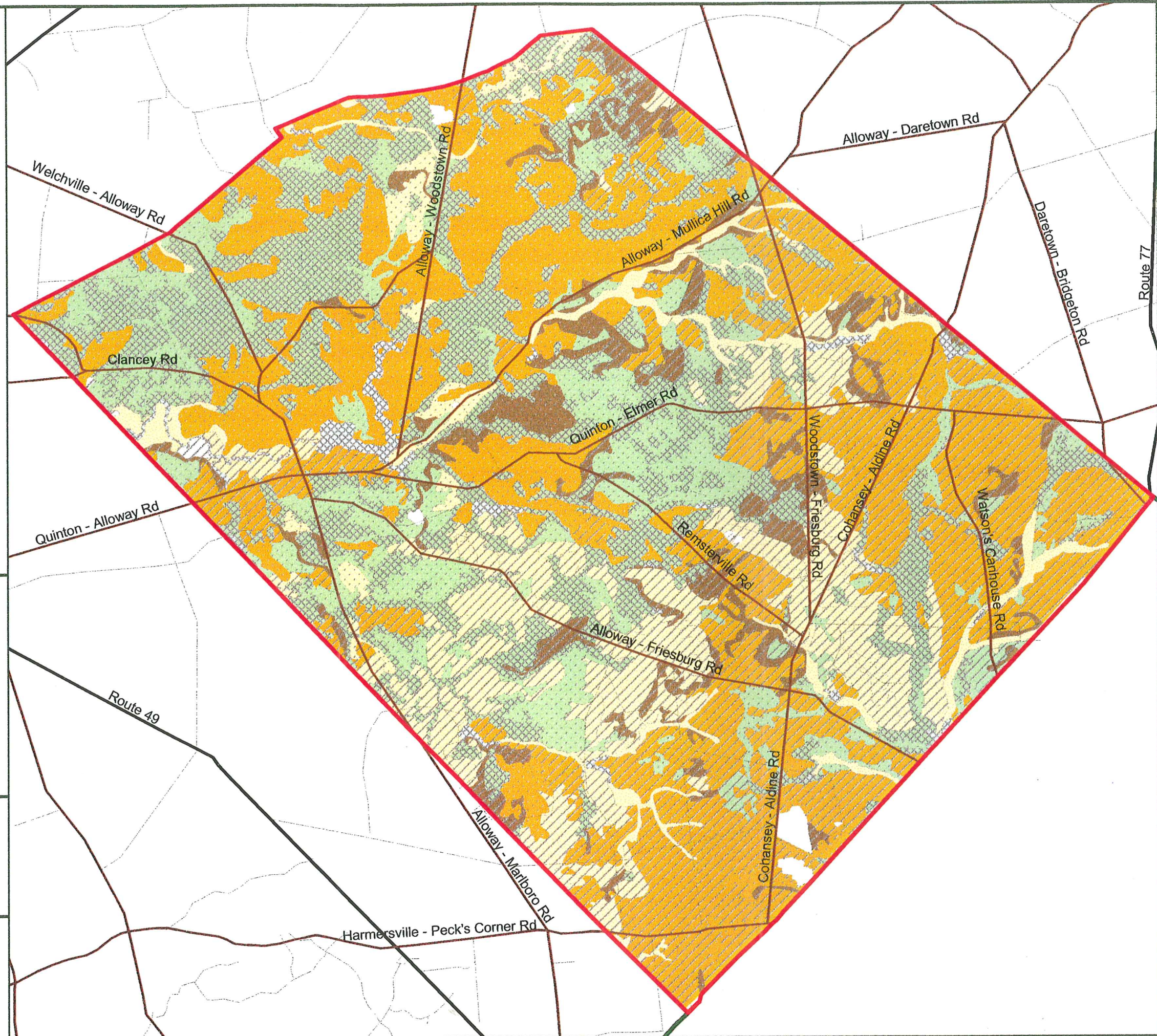
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SOILS - SLOPE AND DEPTH TO SEASONAL HIGH WATER TABLE

Alloway Township, Salem County, New Jersey



LEGEND

2000 Alloway Farmland Preservation

-  Applying for Farmland Preservation
-  Deed Restricted Lands
-  Preserved Farmland
-  State Owned Land
-  Streams
-  Lakes
-  Alloway Roads
-  County Roads
-  Municipal Roads



NOTES

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PRESERVED FARMLAND

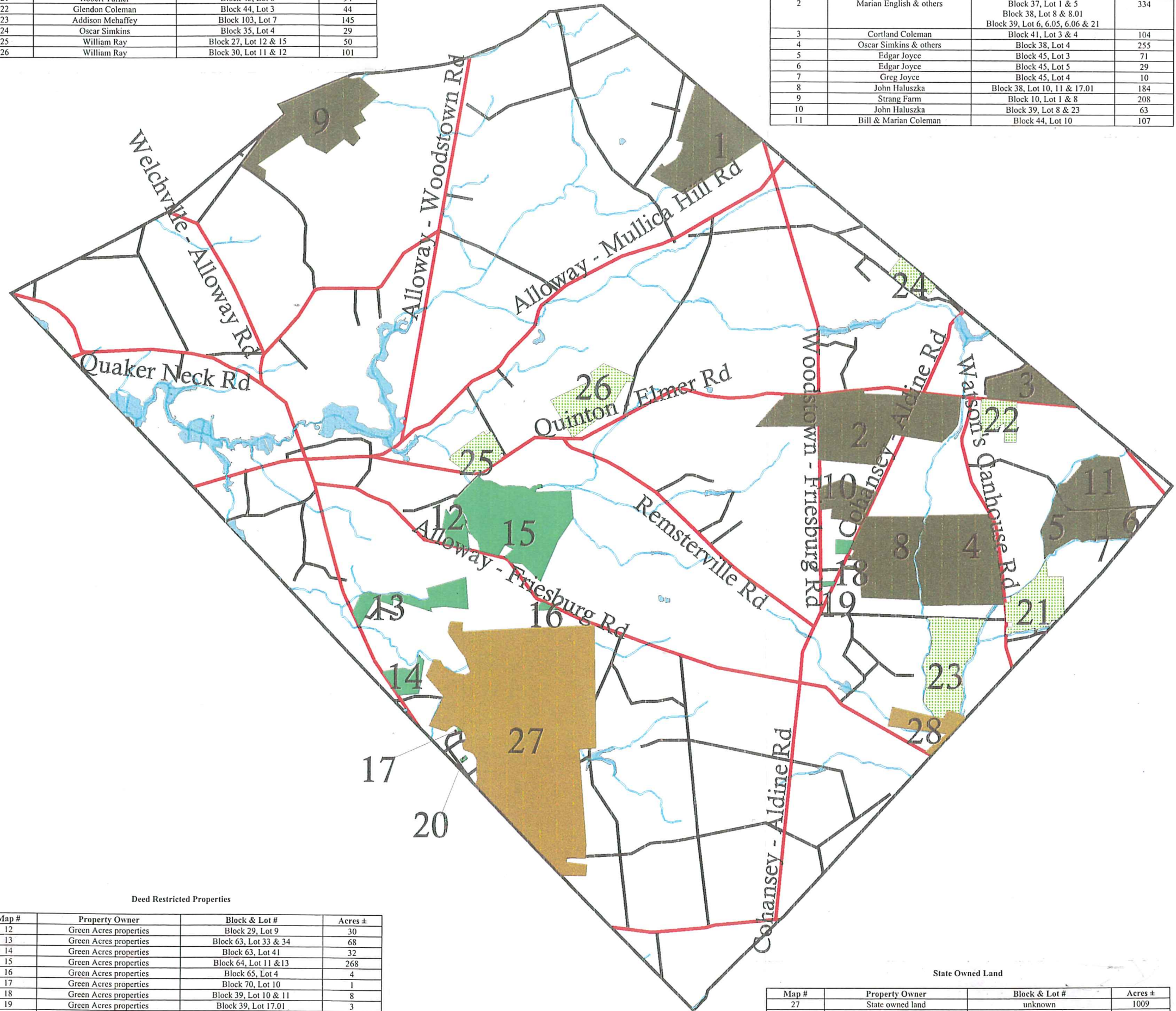
Alloway Township, Salem County, New Jersey

Properties Applying for Farmland Preservation

Map #	Property Owner	Block & Lot #	Acres ±
21	Robert Turner	Block 45, Lot 8	94
22	Glendon Coleman	Block 44, Lot 3	44
23	Addison McHaffey	Block 103, Lot 7	145
24	Oscar Simkins	Block 35, Lot 4	29
25	William Ray	Block 27, Lot 12 & 15	50
26	William Ray	Block 30, Lot 11 & 12	101

Preserved Farmlands

Map #	Property Owner	Block & Lot #	Acres ±
1	Doris Prickett & others	Block 16, Lot 2	111
2	Marian English & others	Block 37, Lot 1 & 5 Block 38, Lot 8 & 8.01 Block 39, Lot 6, 6.05, 6.06 & 21	334
3	Cortland Coleman	Block 41, Lot 3 & 4	104
4	Oscar Simkins & others	Block 38, Lot 4	255
5	Edgar Joyce	Block 45, Lot 3	71
6	Edgar Joyce	Block 45, Lot 5	29
7	Greg Joyce	Block 45, Lot 4	10
8	John Haluszka	Block 38, Lot 10, 11 & 17.01	184
9	Strang Farm	Block 10, Lot 1 & 8	208
10	John Haluszka	Block 39, Lot 8 & 23	63
11	Bill & Marian Coleman	Block 44, Lot 10	107



Deed Restricted Properties

Map #	Property Owner	Block & Lot #	Acres ±
12	Green Acres properties	Block 29, Lot 9	30
13	Green Acres properties	Block 63, Lot 33 & 34	68
14	Green Acres properties	Block 63, Lot 41	32
15	Green Acres properties	Block 64, Lot 11 & 13	268
16	Green Acres properties	Block 65, Lot 4	4
17	Green Acres properties	Block 70, Lot 10	1
18	Green Acres properties	Block 39, Lot 10 & 11	8
19	Green Acres properties	Block 39, Lot 17.01	3
20	Green Acres properties	Block 89, Lot 2	1

State Owned Land

Map #	Property Owner	Block & Lot #	Acres ±
27	State owned land	unknown	1009
28	State owned land	unknown	52

Farmland Preservation Area Maps Summary

The following map includes three (3) sub-categories of preserved lands:

Preserved Farmland:

This includes private ownership and other parcels of land.

Deed Restricted & Green Acres Lands:

This information was newly received, but was thought important to incorporate into this Map. These lands are rather newly created and show the increasing opportunities for farmland preservation throughout Alloway Township.

State Owned Land:

This information was obtained via the Salem County Planning Board and illustrates the two (2) major areas of the Township that are currently being preserved. The mapped areas are general in depiction and are intended primarily as a guide to indicate the locale of these preserved lands.

The included table references each property on the map by a key number. It further includes the property owner's name, the Block & Lot numbers, and the approximate acres.

Glossary

Transfer of Development Rights (TDR) -- a government program to direct development to suitable areas and away from unsuitable areas. Owners desiring to maintain the current open space or cultivation use of their property can sell their development rights to another property owner in an area suitable for development. This allows the receiver to increase the density of development and the property of the seller is restricted from ever being developed. This is a widely used policy for farmland preservation.

Source: Definitions from US Code: Title 16, Section 1532.

Rare, Threatened, and Endangered Species List

This list includes both animal and plant species that fall into the aforementioned categories.

Glossary

Endangered or Threatened Species -- plants or animals designated as endangered or threatened by the DEP under the New Jersey Non-game and Endangered Species Act or by the USEPA under the Federal Endangered Species Act. An endangered species is any plant or animal species which is in danger of extinction throughout all or a significant portion of its range. A threatened species is any plant or animal species which is likely to become endangered within the foreseeable future throughout all or a significant portion of its range.

Source: Definitions from US Code: Title 16, Section 1532.

Rare, Threatened and Endangered Species

Name	Common Name	Status
Animals		
Ardea herodias	Great Blue Heron	Threatened
Haliaeetus leucocephalus	Bald Eagle	Endangered
Plants		
Aristida lanosa	Wooly Three-Awned Grass	Endangered
Calystegia spithamea	Erect Bindweed	Endangered
Castanea pumila	Allegheny Chinquapin	Endangered
Cyperus Pseudovegetus	Marsh Flatsedge	Endangered
Eriocaulon Parkeri	Parker's Pipewort	Rare
Helonias bullata	Swamp Pink	Endangered & Threatened
Hottonia inflata	Featherfoil	Endangered
Myriophyllum pinnatum	Cut-Leaved Water Milfoil	Endangered
Ophioglossum vulgatum	Sheathed Adder's Tongue	Endangered
Quercus lyrata	Overcup Oak	Endangered
Rhododendron atlanticum	Dwarf Azalea	Endangered
Rhynchospora scirpoides	Longbeak Baldrush	Rare
Scutellaria leonardii	Small Skullcap	Endangered

Historic and Recreation Sites Map Summary

The township has two officially designated historic sites and several sites that may potentially be considered for historic designation, if only at the local level. Alloway would need to develop a certified historic preservation program to officially include these properties in a local inventory.

These sites are listed in both the New Jersey and National Registers of Historic Places:

Dickenson House (1754)
Brickyard Road
SR: 8/10/73 NR: 2/20/75

Philip Fries House
Cohansey-Daretown Road
SR: 8/10/90 NR: 9/28/90

These sites are potentially historic, even if only on a local level:

Wistarburg Glassworks (1739-1778)
William Oakford House (1736)
Jacob Fries House (1738) Remsterville Road
Jarmen House (1744) Beal Road
Alloway Tavern (1790)
Reeve Brothers' Houses – three (3) in all
Haines Brick Factory and Tile Works (1880)
Alloway Twp Elementary School (1925)
The Frame House (1739) Alloway-Aldine Road
Shady Maple (1790) String Street
Grice House (1700) Aldine-Pole Tavern Road
Friesburg Lutheran Church (1768)
Souder House (1762) Alloway-Friesburg Road
Hitchner-Joseph Smith House (1790) Alloway-Friesburg Road/Cohansey-
Aldine Road
Crossroads Development (mid 19th century)

Simply for locational reference, some of the Township's recreational sites, municipal buildings, and other significant locales have been included in this map.

Glossary

State Register – New Jersey Register of Historic Places

National Register – National Register of Historic Places

Historic Site – A formally designated property, man-made structure, or natural object meeting specific criteria for significance in American history, archaeology, architecture, engineering, or culture, and possessing integrity of location, design, setting, materials, workmanship, feeling, and association.

Sources: *The New Jersey State Development and Redevelopment Plan Interim Plan*, March 31, 1999

New Jersey & National Registers of Historic Places 1970 – 1995

Alloway Township Comprehensive Development Plan September, 1975

Historic Sites

The Historic sites of Alloway, in detail:

Wistarburg Glass Factory Site – 1739; The first successful glass factory was developed on this site (Commissioner's Pike) by Casper Wistar and lasted until 1781. The factory made window and some "bullseye" glass panes. A few examples of the factory's products are on display at the Salem County Historical Society.

The Frame House – 1739; This small frame house on the Alloway – Aldine Road is believed to have been built about the time of the Wistarburg Glass Factory owned by a Glass Works employee. Techniques used in construction of the house indicate it was built by a ship's carpenter. It is in good condition.

Shade Maple – c. 1790 but probably earlier; This house is located on String Street, part of the former "Glass House tract". It was originally deeded by Richard Wistar (1780), son of Casper.

William Oakford House – 1736; The Oakfords were pioneers who bought a large tract of land along Alloways Creek, then called the Monmouth River. The grandson of the original settlers, William, built this fine colonial specimen. It remains as one of the few remaining examples of gambrel roofed, squat, one and a half story houses in Salem County, which at one time were quite prolific. Most of the gambrel-roofed houses were later destroyed or remodeled to add more room. Although abandoned for years, it is now in good condition and occupied by descendants of the original owners.

Jacob-Margaret Fries House – 1735; On Remsterville Road, this house built of fieldstones was part of Stockington, which no longer exists. Jacob Fries was the founder of Friesburg. This house has been featured in stories by G. A. Chamberlain and H. C. Beck. It is in good condition.

Grice House – c. 1700; North of Aldine on the west side of Aldine-Pole Tavern Road.

Friesburg Lutheran Church – 1768; The Emmanuel Evangelical Lutheran Church was organized here in 1726. A wooden church was constructed in 1739 and the existing brick structure was built in 1768. This church is one of the oldest German Lutheran Churches in the United States and is the oldest remaining house of worship in Salem County. Many of the German workers of the glass factory comprised the early congregation.

The Dickinson House – 1754; Generally, considered one of the finest examples of ornate glazed brickwork in America, according to Joseph Sickler and the Salem County Historical Society. It is located about 1-1/2 miles from the

glasswork site on Brickyard Lane. The talent and art of brickwork is brilliantly displayed on the southwest wall. A master piece of colonial architecture, it includes the diamond designs, ellipses, triangles, and bold blue lines, characteristic of this style, as well as the original owner's initials and date of construction. Originally, gambrel roofed, the house was remodeled to an almost flat roof in the latter part of the 19th century and to its present peak roof in 1931. It is presently in only fair exterior condition, but was carefully restored on the interior by Gerald Watland.

John Jarmen House – 1775; Located on Beal Road, this manor house is a fine example of Flemish bond brickwork with blue bricks being used as headers on the front and sides of the house. Two elliptical brick windows in the peak of the house and two large buttonwood trees in the front yard, enhance the beauty of this house. It has been beautifully restored in the last few years.

John Souder House – 1762; On the Alloway-Friesburg Road, the builder is unknown. It was purchased at a forfeit sale in 1799 by Souder. It is presently unrestored and in poor condition.

Hitchner – Joseph Smith House – 1790; At the southeast corner of the intersection of the Alloway-Friesburg and Cohansey-Aldine Road, it once was a tavern. The house has Flemish bond brickwork and unaltered architectural detail but is presently unrestored.

Philip Fries House – 1808; Across from the Lutheran Church on Cohansey – Aldine Road, the Philip Fries house has a classic Greek Revival exterior and almost entirely Federal interior. It has ten fireplaces and many fine examples of woodworking throughout the house. Presently, it is being beautifully reconstructed and restored.

The Reeve Houses – 1817, 1826, 1848; The Reeve brothers built these stately mansions at the peak of their prosperity. The frame house in-between the other two was built in 1817 by William Reeve. Josiah Reeve followed by constructing the house near the creek in 1826 and the third brother, Emmor, is believed to have built the third house in 1848.

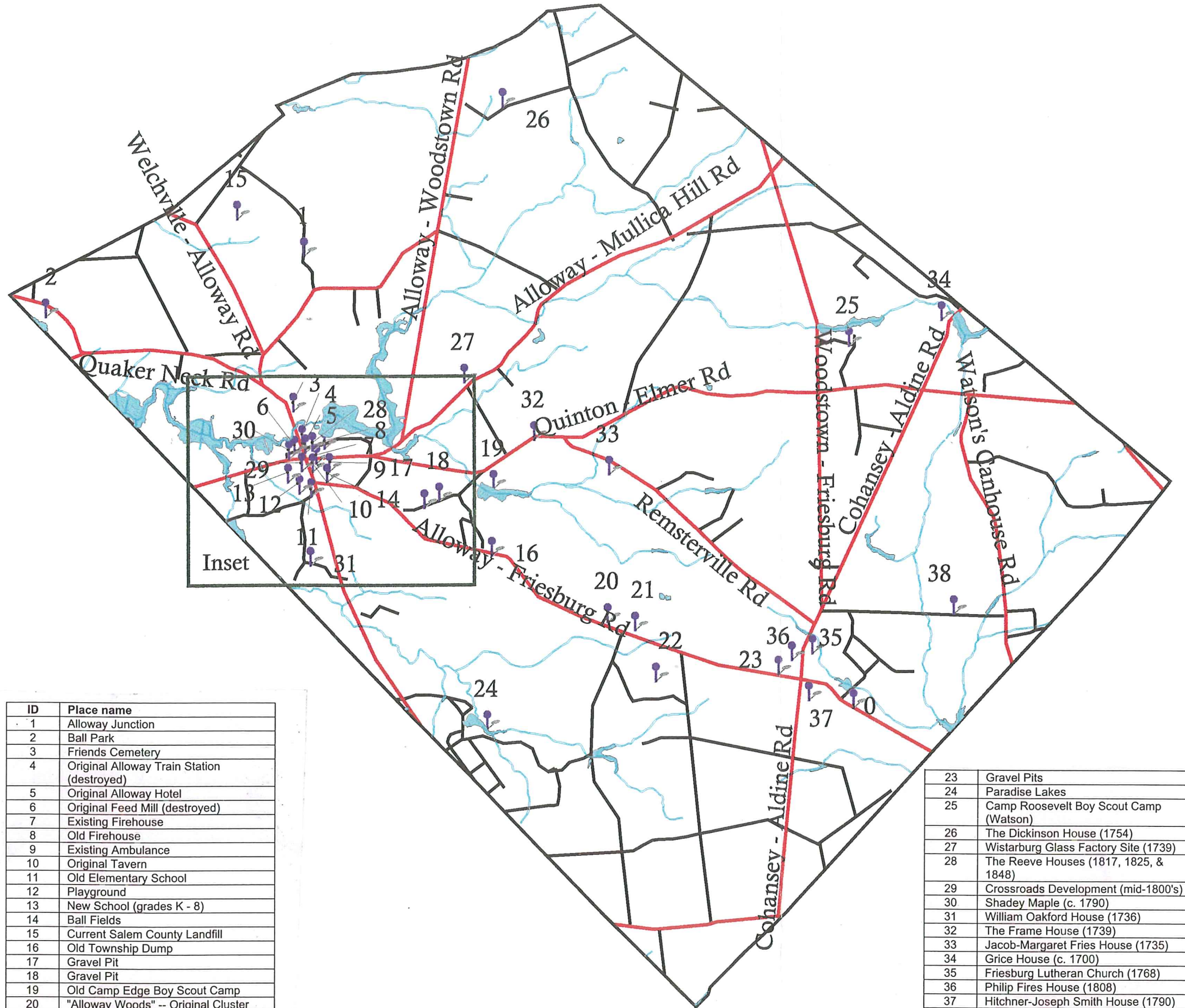
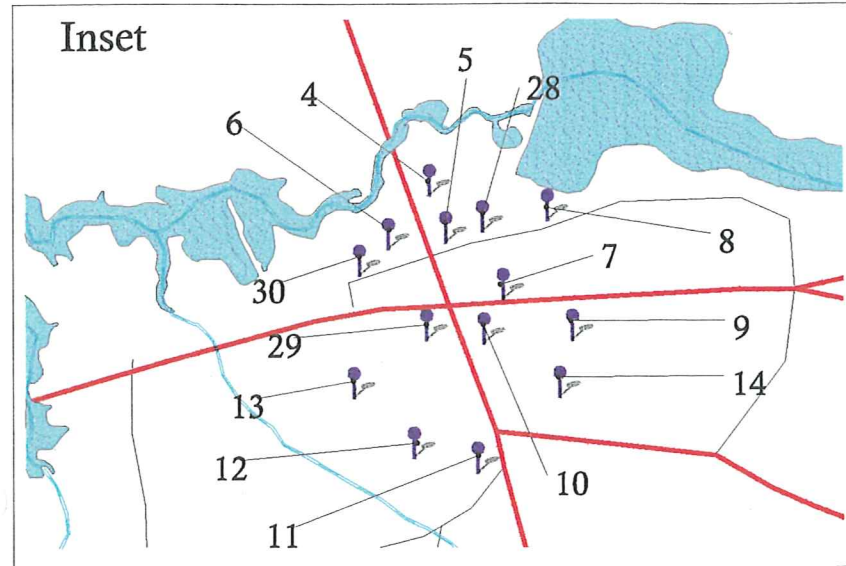
Crossroads Development – mid 19th century; The tight six buildings near the intersection are a classic example of crossroads development. Generally, they are in fair condition.

Source: Alloway Township Comprehensive Development Plan, September 1975, by the Alloway Township Planning Board and the Salem County Planning Board.

LEGEND

-  Streams
-  Lakes
-  Historic Places
-  Alloway Township Boundary
-  Roads
-  County
-  Municipal

3000 0 3000 6000 Feet



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ID	Place name
1	Alloway Junction
2	Ball Park
3	Friends Cemetery
4	Original Alloway Train Station (destroyed)
5	Original Alloway Hotel
6	Original Feed Mill (destroyed)
7	Existing Firehouse
8	Old Firehouse
9	Existing Ambulance
10	Original Tavern
11	Old Elementary School
12	Playground
13	New School (grades K - 8)
14	Ball Fields
15	Current Salem County Landfill
16	Old Township Dump
17	Gravel Pit
18	Gravel Pit
19	Old Camp Edge Boy Scout Camp
20	"Alloway Woods" -- Original Cluster
21	Holly Hills Golf Course
22	Existing Landfill Transfer Station

23	Gravel Pits
24	Paradise Lakes
25	Camp Roosevelt Boy Scout Camp (Watson)
26	The Dickinson House (1754)
27	Wistarburg Glass Factory Site (1739)
28	The Reeve Houses (1817, 1825, & 1848)
29	Crossroads Development (mid-1800's)
30	Shadey Maple (c. 1790)
31	William Oakford House (1736)
32	The Frame House (1739)
33	Jacob-Margaret Fries House (1735)
34	Grice House (c. 1700)
35	Friesburg Lutheran Church (1768)
36	Philip Fires House (1808)
37	Hitchner-Joseph Smith House (1790)
38	John Jarmon House (1775)
39	John Souder House (1762)

HISTORIC AND RECREATION SITES

Alloway Township, Salem County, New Jersey

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