

NJ Office of Planning Advocacy

State Plan Endorsement

Opportunities & Constraints Assessment Report:

TRENDS Analysis

For:

The Borough of Allentown, Monmouth County

October 7, 2021

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Introduction

On March 18, 2021, the Borough of Allentown submitted their Municipal Self-Assessment Report (MSA) to the New Jersey Office of Planning Advocacy. This document and associated components provided by the other State Agencies comprise the Opportunities and Constraints Assessment (OCA) conducted as part of the Municipal Plan Endorsement (PE) process. Plan Endorsement is a voluntary review process designed to ensure the coordination of state, county, and municipal planning efforts in achieving the goals and policies of the State Planning Act. The State Development and Redevelopment Plan (State Plan) is the blueprint for achieving these goals and provides the templates for coordination. The endorsement process expands upon the requirements of the Municipal Land Use Law (MLUL) and incorporates many planning initiatives of the State agencies.

This report provides for a comparison of information with the MSA with the most up-to-date regional and statewide data to determine whether TREND growth is sustainable and viable based on the information provided. This information is intended to guide and direct the Community Visioning Process and to develop a vision with a twenty-year planning horizon. The vision shall provide for sustainable growth, recognize fiscal constraints, housing needs and protection of natural, and historic resources. Community visioning shall take into consideration the findings and conclusions of the Municipal Self-Assessment and the State Agencies' Opportunities and Constraint Analysis (O&C). In addition, the O&C provides specific comments that will need to be addressed through PE.

Background Relation to the State Development and Redevelopment Plan (State Plan)

The Borough of Allentown initiated the Plan Endorsement process by attending a pre-petition meeting with OPA and our partner State agencies. The Borough was granted a waiver request on May 14, 2020 to waive Step 2 of the Plan Endorsement Process, the appointment of the Plan Endorsement Citizens' Advisory Committee (N.J.A.C. 5:85-7.8). The MSA was authorized by the Borough of Allentown via resolution 308-2020. As previously mentioned, the Borough of Allentown submitted their MSA on March 18, 2021.

Relation to the State Development and Redevelopment Plan (State Plan)

According to the Borough of Allentown's Municipal Self-Assessment Report, the municipality is seeking Plan Endorsement to align its local planning goals and objectives within the State Plan.

The Borough seeks to renew its Village Center Designation along North and South Main Street from Broad Street to the Upper Freehold Township border, Waker Avenue to the Upper Freehold Township border, Church Street to Robbinsville Township border, and High Street to the Upper Freehold Township border. The municipal proposed Village Center boundary coincides with Allentown's municipal boundary.

According to the MSA, Allentown's Village Center environs are in Upper Freehold Township in Monmouth County and Robbinsville and Hamilton Township in Mercer County. The Borough and most of its environs are in the Rural Planning Area (PA-4), with large-lot residential developments encroaching on the historic village and large farmland tracts. Allentown has an existing Cultural Site overlay covering much of the Borough and its historic district. The Borough of Allentown's primary reason for Village Center designation renewal is to maintain State agency support to preserve the Borough's historic character through rehabilitation, to maintain the Village's economic viability, and to discourage sprawl and encourage

Opportunity & Constraints Assessment Report Borough of Allentown, Monmouth County

farmland preservation and natural resource conservation outside its municipal borders in the Village Center's environs. The proximity on Interstate-195 and the New Jersey Turnpike Interchange 7A has encouraged significant residential development in the rural environs in recent years.

According to the County's Panhandle Region Plan (2011) Allentown's "Top Planning Issues" were downtown congestion, preservation of historic character economic viability, and retaining locally-owned stores. Redevelopment efforts in the Borough include: revitalizing the business district, rehabilitation of the wastewater treatment plant infrastructure, and the Allentown Historic Streetscape Improvement Project.

The State Plan Policy Map accompanies the State Plan and categorizes every area in the State into a specific Planning Areas based on their suitability for growth, development, and preservation. The State Plan Map that was adopted in 2001 depicts 324.85 acres of Rural Planning Area (PA-4) and 71.22 acres of Park Planning Area (PA-8).

About the Trend Analysis

The TREND Analysis performed by OPA was conducted based on the current zoning information from the 2011 Zoning Map and Tax Maps with the Zoning Districts superimposed. The source mapping date is 2001.

Figure 1: Summary Table	
Land Consumption (Acres) Township Wide	
Urbanized Land	290.39
Constrained Land	95.60
Current Developable Land	10.1
Buildings	
Existing Residential Units	720
Potential New Residential Units	26
Potential New Commercial Units	0
People	
Current Residents	1,892
Additional Residents at Buildout	69
Total Residents at Buildout	1,961

OPA considered known environmental constraints along with identified State Plan Parkland as impediments to development. Also eliminated from development consideration were wetlands (with a 25-foot buffer), presence of Category 1 (C1) Streams, existing developed land including infrastructure, and identified surface water. The net result from the TREND Analysis will determine the amount of housing and commercial space that can potentially be built given current zoning regulations.

Ultimately, the information provided throughout this document shall be utilized to inform the Community Visioning Process, as well as the remaining steps in the Plan Endorsement Process.

The objective of the analysis is to provide the municipality with an idea of how it might appear at time of full buildout based on current land use and zoning regulations.

This series of worksheets represents a basic methodology for the TREND Analysis. Based on mapping date and zoning regulations, OPA inserted relevant data transferred from the Borough of Allentown's zoning language, into the Residential Buildout Method and Commercial Trend – Building Cover Method. Household size was identified as 2.67 persons per household (median) (U.S. Census Bureau (2019). American Community Survey 5-year estimates. Retrieved from Census Reporter Profile page for Allentown borough, Monmouth County, NJ).

Opportunity & Constraints Assessment Report Borough of Allentown, Monmouth County

The Borough of Allentown's Zoning Ordinance adopted on April 20, 2021 by Ord. No. 03-2021 if found on the municipal website: <https://allentownboronj.com/index.asp?SEC=4BA7F0CE-803E-4E7F-9BB4-1AFAD63D58CC>

The zoning ordinance and zoning map reference redevelopment plans and the MSA provides an update on efforts currently underway.

Borough of Allentown Residential Buildout Method

Census Year	Population	%±
1900	695	*
1910	634	-8.80%
1920	634	0.00%
1930	706	11.40%
1940	766	8.50%
1950	931	21.50%
1960	1,393	49.60%
1970	1,603	15.10%
1980	1,962	22.40%
1990	1,808	-6.80%
2000	1,882	3.00%
2010	1,828	-2.90%
2019	1,892	3.50%
OPA Projection	1,961	3.60%
NJTPA 50	1,990	5.18%
Source: United States Census of Population: 1890-2010, United States Census Bureau, Census Estimates for New Jersey, April 1, 2010 to July 1, 2015		

The TREND Analysis for the Borough of Allentown Residential Buildout assumes buildout of existing residential zones at maximum density permitted by the Township's current zoning ordinance. Figure 2 shows the Zones within the municipality with the potential for growth.

According to the MSA, the Borough saw population changes between 1960 to 2010 due to natural increases or decreases (births versus deaths) and in and out migration (the movement of residents into or out of the Borough). The MSA also stated that following World War II, population growth in Allentown resulted from both a high birth rate and an in-migration of population as evidenced by the fact that the population

increased approximately 2 ½ times from 1940 to 1980. In the decades that followed, 1980 to 2015, the population decreased as a result of reduction in birth rate and a modest net out-migration of population. The North Jersey Transportation Planning Authority (NJTPA) projects that the Borough of Allentown will grow to 1,990 residents by the year 2050.

Within the Borough's MSA, the following major development activities have been planned or are approved within the Borough: Wastewater Treatment Plant Improvement Project, Historic Streetscape Phase IIA, Sgt. George Ashby Memorial Park Project, Pondview Drive Improvement Project, Expansion of St. John's Roman Catholic Church, Towne Mews Expansion, and Development of 21 Waker Avenue.

Figure 2: Residential Trend Land Consumption (acres)								
Residential Zone	Total Land in Residential Zone (acres)	Total Constrained Land in Residential Zone (acres)	Total Developable Land in Residential Zone (acres)	Total Available Residential Land (acres)	Approx. Min Lot Size (area per Sq. Ft.)	Potential Number of Units	Average Household size (person per unit)	Approx. No of Total Residents Upon Buildout

**Opportunity & Constraints Assessment Report
Borough of Allentown, Monmouth County**

	A	B	C	D = A-B-C	E	F	G	H = F*G
R-140	168.00	67.19	92.87	7.94	13,500.00	18	2.67	48
R-60	52.02	4.56	46.35	1.11	6,000.00	5	2.67	13
R-85	99.50	6.07	92.4	1.03	8,500.00	3	2.67	8
Total	319.52	77.82	231.62	10.08	*	26.00	*	69

Borough of Allentown Commercial Buildout Method

The Commercial Buildout was performed similar as the Residential Trend Analysis using current zoning. However, it was through OPA's analysis that there was no potential for development.

Conclusion

The Borough of Allentown actively plans for its future by engaging the public and seeks to realize the vision articulated in the 2018 Master Plan. The Allentown Master Plan is supportive and consistent with the goals of the Monmouth County Master Plan and the Panhandle Regional Plan.

**NJ Department of Environmental Protection
State Plan Endorsement
Opportunities & Constraints Assessment Report
Allentown Borough, Monmouth County**

June 4, 2021

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Introduction

Municipal Plan Endorsement is a voluntary review process designed to ensure the coordination of state, county, and municipal planning efforts in achieving the goals and policies of the State Planning Act (Act). The State Development and Redevelopment Plan (State Plan) is the blueprint for achieving these goals and provides the template for coordination. The endorsement process expands upon the requirements of the Municipal Land Use Law (MLUL) and incorporates many planning initiatives of the State agencies.

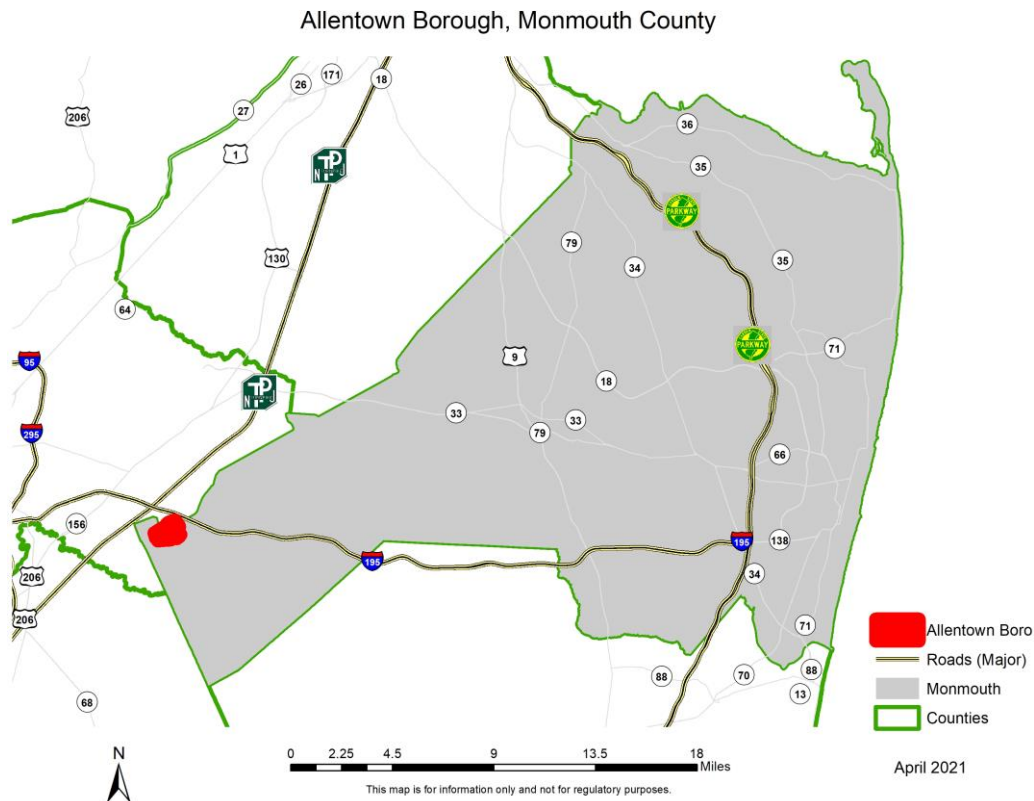
This document constitutes the Department of Environmental Protection's (DEP) component of the State Opportunity and Constraints Assessment (OCA) conducted as part of the Plan Endorsement process. This document provides an overview of the Department's regulatory and policy concerns within Allentown Borough, Monmouth County. The information provided herein is intended to reflect the Department's current information concerning the Town. Recommendations may be found throughout the document **in bold** and are listed for easy reference in the Summary of and Recommendations section at the end of this report.

Overview

Allentown submitted a Municipal Self-Assessment (MSA) which was deemed complete by the Department of State's Office of Planning Advocacy (OPA) on March 23, 2021. The MSA presented by Allentown Borough includes a proposal to re-adopt the existing 395-acre Village Center boundary. The Borough is entirely in the Rural Planning Area (PA-4). The MSA proposed Village Center encompasses all 395 Borough acres. Based on the identification of additional parcels in environmentally sensitive and floodprone areas, the **DEP recommends a proposed Village Center of 380 acres that includes 97.5% of the Borough and the Historic District but excludes some parcels in the one-percent (100-year) flood zone.**

The following represents the DEP's comments on the MSA:

Allentown Borough is a mature community that encompasses a total of 395 acres (0.6172 sq mi) in Monmouth County. While the borough is 78% developed, land use is divided between residential (200 acres), public property/parks/open space (80.1 acres), roadways (38.1 acres), Public Schools (19.3 acres), commercial (17.7 acres), cemeteries (14.2 acres), apartments (10 acres), houses of worship (9.2 acres), privately owned vacant lots (5.1 acres), and farmland (0.9 acres). Within Allentown's boundary, 311 acres (78.7%) is in the current sewer service area and 166 acres (42 %) is in the Allentown Historic District. Bounded by Robbinsville, Mercer County to the west and elsewhere by Upper Freehold, Monmouth County, the Borough is located within the Inner Coastal Plain segment of the Atlantic Coastal Plain Provinces and the Lower Delaware Watershed Management Area 20 including Doctors Creek. Allentown Borough is located entirely within State Rural Planning Area (PA-4). Allentown received Village Center designation in 2002 by the New Jersey State Planning Commission. The center designation was set to expire on June 30, 2020 although the expiration date has not been determined at this time. Allentown is proposing to renew the Village Center designation to restore and preserve the Borough's historic district, preserve open space, and to address sustainable economic development, stormwater management, affordable housing and congestion concerns consistent with the planning goals and objectives within the State Plan.



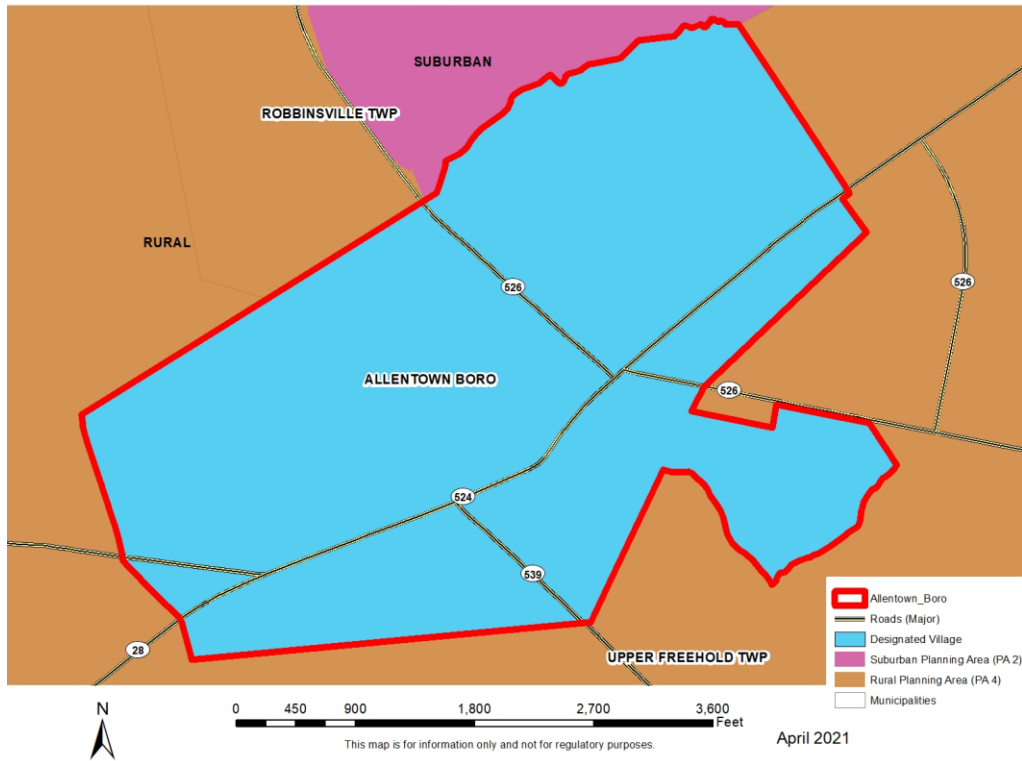
Proposed Center

The Proposed Allentown Center illustrated in the maps below is based on a series of discussions between Allentown Borough, OPA, and DEP, and is updated from that proposed within the MSA. The proposed area was revised to minimize impacts within flood areas and areas of potential impact to threatened and endangered species. **DEP also proposes designation of Critical Environmental Sites over areas of environmentally sensitive and floodprone features within the center.**

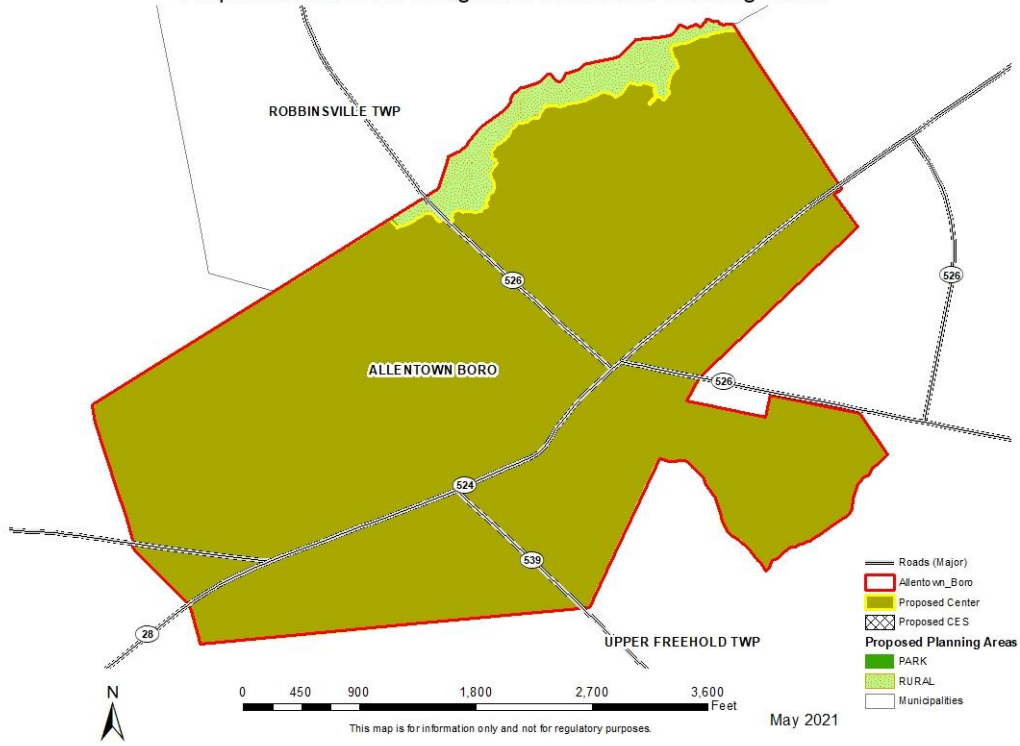
The Borough's zoning ordinance should be updated to include overlays that address stormwater management, aquifer recharge, steep slopes, 100 year flood zones and critical habitat and habitat corridors.

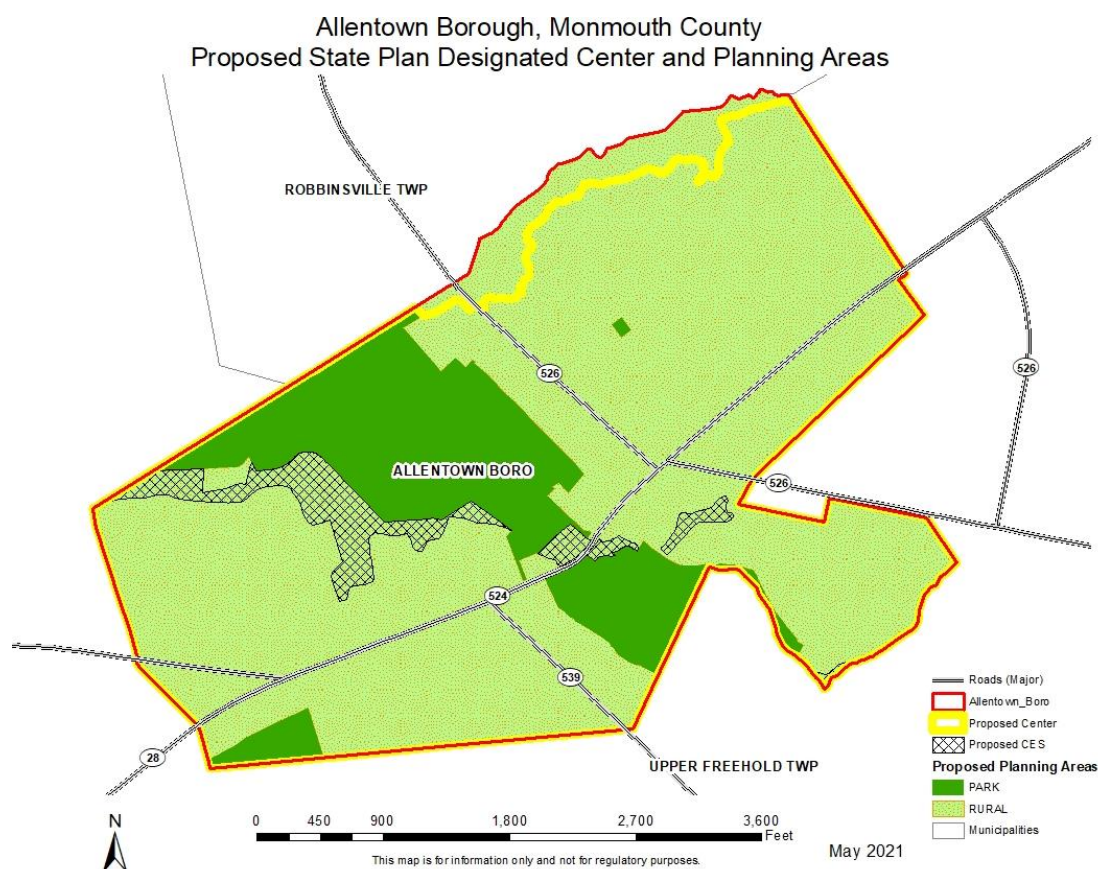
Allentown should update its Land Development Ordinance to include sustainable development practices.

Allentown Borough, Monmouth County
Existing State Plan Designated Center and Planning Areas



Allentown Borough, Monmouth County
Proposed State Plan Designated Center and Planning Areas





Land Use/Land Cover

DEP's 2015 Land Use Land Cover shows Allentown contains the following Land Types:

Land Cover	Acres	Percent of Total Land Area
Urban	321.87	81.3%
Forest	19.82	5.0%
Wetlands	31.97	8.1%
Water	16.64	4.2%
Agriculture	5.82	1.5%
Barren	0	0%

Note: Numbers may not equal 100% due to rounding

Impervious Surfaces

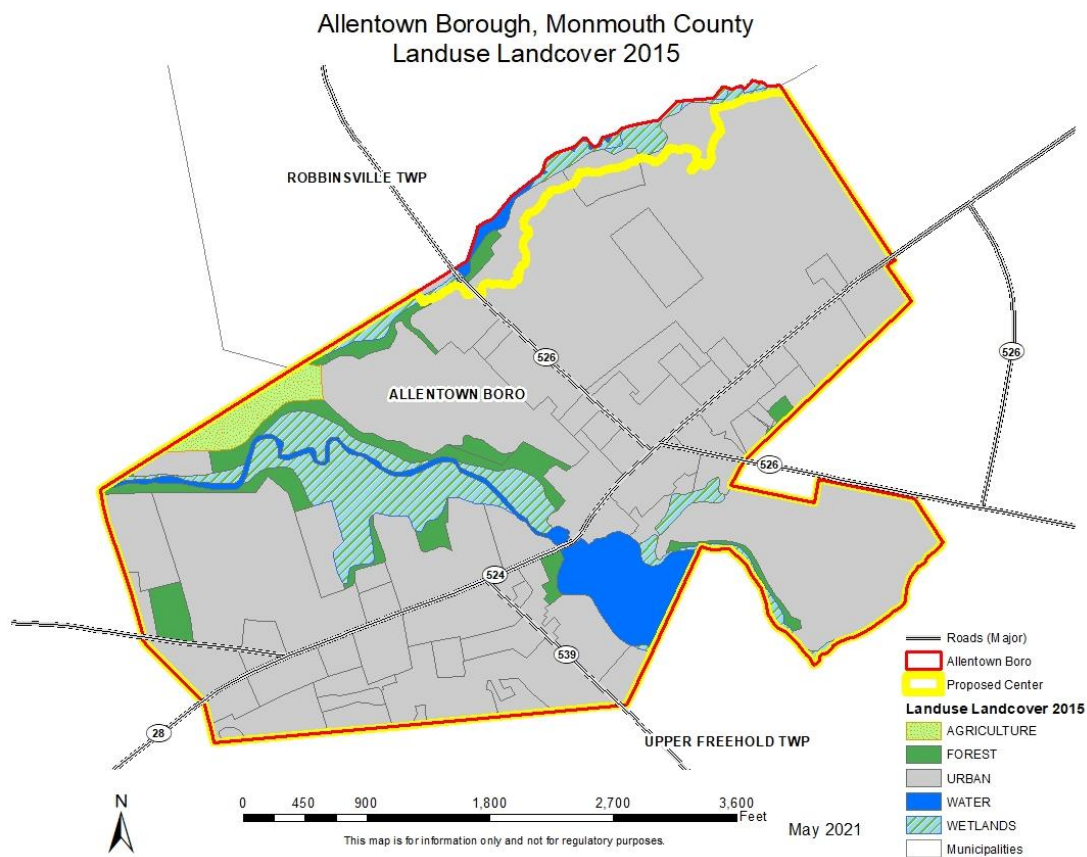
With additional development within the proposed center boundary, Allentown must address how to manage and minimize any additional impervious surface. An increase in stormwater runoff may result in a discharge of excessive nutrient and pollutant loads to nearby surface water bodies. Additional stormwater runoff can also lead to soil and stream bank erosion and further degradation of valuable surface water bodies.

As a result of changing climate conditions, including increases in temperature and precipitation, the ability of the municipality to manage an increase in stormwater in situ will be challenged by an increase in new construction of impervious surfaces. The state-proposed 380-acre

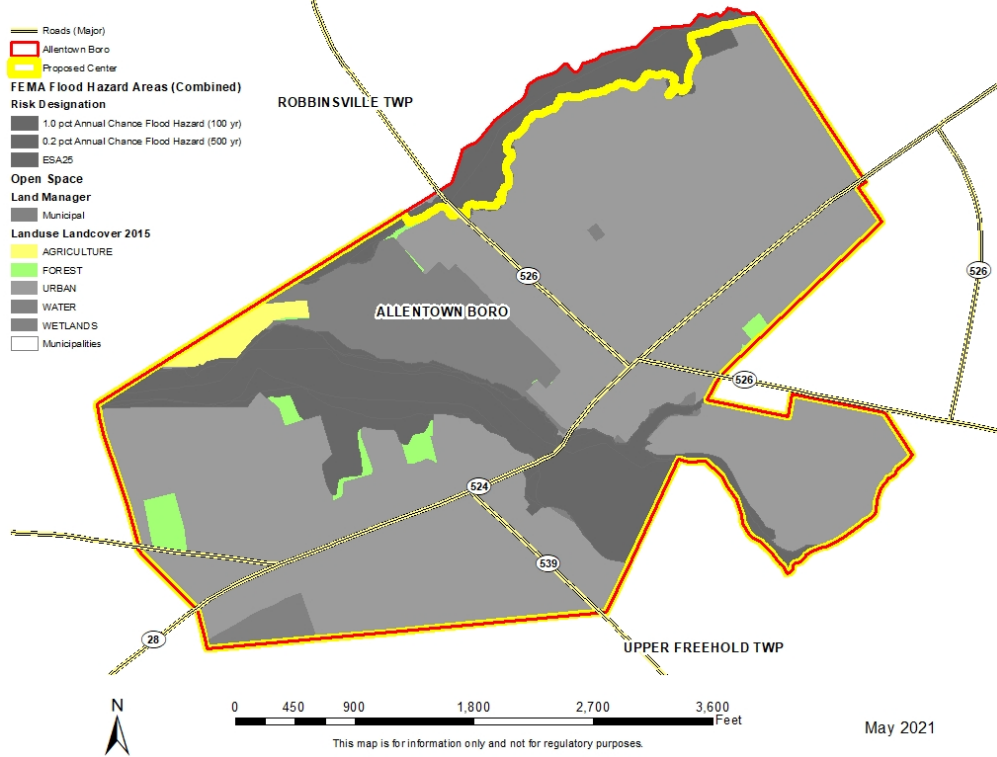
Village Center boundary includes a total of 129.4 acres of impervious surfaces. This is 4.32 fewer acres of impervious surface than the existing Village Center.

	Acres of Impervious	Pct. Impervious
Allentown Township (395 ac)	133.59	33.7%
Existing Village Center (395 ac)	133.59	33.7%
Proposed Village Center (380 ac)	129.4	33.8%

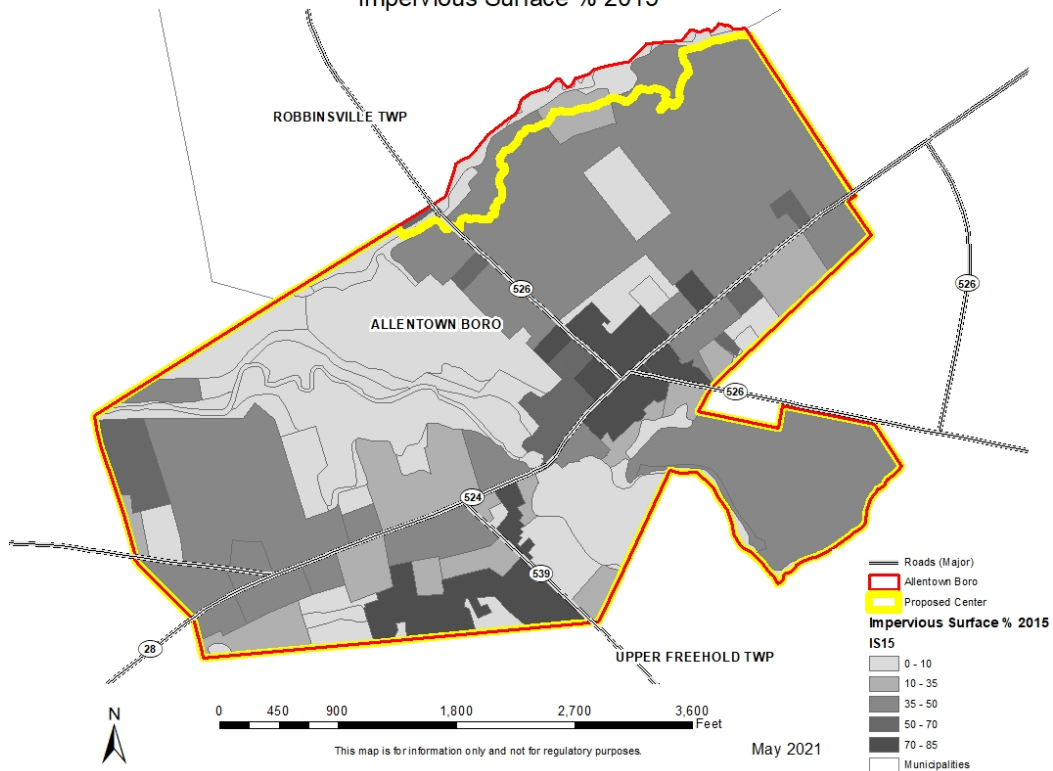
Note: Numbers are approximate.



Allentown Borough, Monmouth County LULC 2015 Agriculture/ Forest Land not within ESA 25, Floodzone, Open Space



Allentown Borough, Monmouth County Impervious Surface % 2015



Climate Change

In past OCA reports, DEP has largely focused on assessing the impacts to the development potential of municipalities based on environmental resources and water/wastewater capacity. In addition to addressing those issues, this OCA addresses the current and future impacts of climate change on those issues, as well as climate mitigation (e.g. greenhouse gas reduction, renewable energy) and climate resilience (e.g. vulnerability to increased flooding).

New Jersey issued its first *Scientific Report on Climate Change*¹ on June 26, 2020. The report details the latest science and describing the current and projected impacts of climate change, specific to New Jersey. As atmospheric levels of carbon dioxide and other greenhouse gases increase, Allentown can expect to see increases in average temperature, precipitation, flooding, and impacts to its extensive natural resources. Following, are key findings of the Scientific Report that may be germane to Allentown Borough.

Temperature

- New Jersey is warming faster than the rest of the Northeast region and the world.
- Since 1895, New Jersey's annual temperature has increased by 3.5° F.
- Historically unprecedented warming is projected for the 21st century with average annual temperatures in New Jersey increasing by 4.1° F to 5.7° F by 2050.
- Heatwaves are expected to impact larger areas, with more frequency and longer duration by 2050.
- Climate change could result in a 55% increase in summer heat-related mortalities.

Precipitation

- Annual precipitation in New Jersey is expected to increase by 4% to 11% by 2050.
- The intensity and frequency of precipitation events is anticipated to increase due to climate change.
- Droughts may occur more frequently due to the expected changes in precipitation patterns.
- The size and frequency of floods will increase as annual precipitation increases.

Air Quality

- The effects of climate change are likely to contribute to an increase in air pollution, lead to increased respiratory and cardiovascular health problems, like asthma and hay fever, and a greater number of premature deaths.
- Environmental degradation from climate induced increases in air pollution will reduce visibility and cause damage to crops and forests.

Water Resources

- Water supplies will be stressed from the increase in the growing season and extreme temperatures expected due to climate change.
- Surface and groundwater quality will be impaired as increased nutrients and contaminants enter waters due to runoff from more intense rain events.

¹ <https://www.nj.gov/dep/climatechange/docs/nj-scientific-report-2020.pdf>

Agriculture

- The productivity of crops and livestock are expected to change due to the climate-induced changes in temperature and precipitation patterns.
- New Jersey may become unsuitable for specialty crops like blueberries and cranberries in the future as higher temperatures reduce necessary winter chills.

Forests

- The persistence of Southern pine beetle in New Jersey represents an early example of the destruction of invasive pests that can occur due to climate change impacts.
- Wildfire seasons could be lengthened, and the frequency of large fires increased due to the hot, dry periods that will result from increased temperatures.

Terrestrial Carbon Sequestration

- The loss of forest habitats to climate change will result in carbon losses and increase New Jersey's net greenhouse gas emissions.

Terrestrial Systems

- Climate change is likely to facilitate expansion of invasive plant species.
- 29% of New Jersey's bird species are vulnerable to climate change, including the American Goldfinch which is the state bird of New Jersey.

Freshwater Systems

- Freshwater fish, like brook trout, that need cold-water habitats are expected to lose habitat as water temperatures increase due to climate change.
- Reptiles with temperature-dependent sex determination could experience changes in sex ratios as New Jersey temperatures increase.

Climate Change Mitigation

As climate change, energy use, and environmental sustainability take on a larger role in New Jersey's policies, land use planning should promote energy efficiency, and specifically, integrate green building design and Greenhouse Gas (GHG) reduction into its planning and regulatory structures.

New Jersey's Global Warming Response Act calls for an 80% reduction of GHG emissions from 2006 levels by the year 2050. Released in October of 2020, the GWRA 80x50 Report² was written in response to that mandate and builds on the State's previous efforts to address and reduce greenhouse gas emissions. The report analyzes New Jersey's emissions reductions to date, evaluates plans presently in place for further reducing emissions, and presents a set of strategies across seven emission sectors for policymakers to consider in formulating legislation, regulations, policy and programs.

The 80x50 Report concludes that, "New Jersey can meet its goal of reducing GHG emissions to 80% below 2006 levels by 2050 – protecting our people, economy, and environment from the

2 <https://www.nj.gov/dep/climatechange/docs/nj-gwra-80x50-report-2020.pdf>

worsening impacts of climate change to which our state is uniquely vulnerable. Reaching our 80x50 goal requires planning and collaboration across all economic sectors, levels of government, political boundaries, and administrations, all fixed on a carbon neutral future. Achieving this goal depends upon a swift and decisive transition away from our reliance on fossil fuels, accomplished through adaptive policies that also ensure reliability and remain responsive to the scope and pace of efforts to electrify the transportation and building sectors while expanding renewable energy sources. However, only by working in concert across time and economic sectors can we implement the long-term, structural changes to how we generate and use energy, build our homes and businesses, operate our industries, develop and preserve our land, grow our food, manage our waste, and transport our people and products.”

While the 80x50 Report focuses on state-level actions, action at the municipal level will be crucial to meet the state’s GHG reduction goals. The Municipal Plan Endorsement Guidelines identify a series of mandatory requirements that will make substantial progress. Additionally, New Jersey’s climate change website identifies similar and additional actions for local governments at <https://www.nj.gov/dep/climatechange/action.html>.

Greenhouse Gas Emission Reduction

The degradation of air quality and elevated temperatures can lead to negative health issues. Elevated temperatures can interrupt power supply to all residences which could impact those who need electricity for medical equipment in their homes and loss of air conditioning could increase heat stress and its associated impacts. **Allentown should conduct an energy audit of all municipal owned buildings to identify energy inefficiencies. Allentown should also explore utilization of alternative fuels and green energy.**

Traffic congestion relief is a priority in Allentown as they explore alternative bikeways, walking paths, additional parking and funding for a traffic circulation improvement bypass around Main Street as recommended by the NJTPA Monmouth County Traffic Study.

Allentown should adopt a Greenhouse Gas Emissions Reduction Ordinance that encompasses energy efficiency and sustainable alternatives to transportation including bike paths and walking trails. The DEP has a model ordinance as guidance.

Climate Resilience

Pursuant to Governor Murphy’s Executive Order 89, the state has released a Draft Climate Change Resilience Strategy (CCRS) to promote the long-term mitigation, adaptation, and resilience of New Jersey’s economy, communities, infrastructure, and natural resources throughout the State in a manner consistent with the Scientific Report on Climate Change. Much like the 80x50 Report, the CCRS will identify state-level action, including guidance and strategies for municipalities to implement resiliency measures, including through changes to plans, by-laws, regulations, policies, or land use standards. Executive Order 89 also requires the Climate & Flood Resilience Program at DEP to provide technical guidance and support to counties and municipalities in their efforts to plan for and address the current and anticipated impacts of climate change in accordance with the CCRS. Plan Endorsement is one avenue for the state to provide that assistance.

Allentown should prepare for climate impacts described in the state Climate Change Science Report by completing a climate vulnerability assessment, adopting a Climate Resiliency Plan and incorporating climate resiliency into all applicable ordinances.

The vulnerability assessment should take an inventory of critical facilities, specifically water, sewer, transportation, and energy infrastructure, as well as redevelopment areas and land use plans. It should then assess the risk that future projections of climate conditions such as increased temperature, precipitation, and sea level rise, as well as other natural hazards that the Borough experiences, pose for these assets and the population.

The Borough should prepare for impacts of increased heat in addition to flooding and precipitation.

Flooding

Allentown participates in the National Flood Insurance Program (NFIP). Monmouth County outlined a Hazard Mitigation Plan in 2017 and determined that 8% of Allentown's land area is within the flood hazard area. **Allentown should update its Hazard Mitigation Plan or annex to the county Hazard Mitigation Plan on a regular interval to address changing climate conditions.**

Allentown adopted a Hazard Mitigation Plan in 2017 and shall include a NJ State Police approval letter for the Local Emergency Management Plan.

Flood Zones

More than 50 acres of Allentown Borough is in the flood zone. The Federal Emergency Management Agency (FEMA) maps Special Flood Hazard Areas (SFHA) adjacent to streams or rivers that experience flooding during periods of high precipitation and/or stormwater discharge. FEMA has identified flood hazard areas within Allentown. Most of Allentown's floodplains are in various locations along combined 11,000 linear feet of stream corridor along Doctors Creek, Indian Run, Indian Run Tributary, and Conines Millpond (aka Allentown Lake). The SFHA for the one-percent storm (100-year) covers an area of 45.39 acres – 11.46% of Allentown's total surface area, while the SFHA associated with 0.2 percent storm (500-year) covers an additional 4.9 acres or 1.24%. In total, 50.29 acres (12.3%) of Allentown's total land cover falls within a FEMA SFHA.

Allentown Borough in Flood Hazard Zone	Acres	% of Total Municipal Area (395 acres)
100 - Year Floodplain	45.39	11.49
500 - Year Floodplain	additional 4.9	1.24
TOTAL	50.29	12.73

Source: FEMA Flood Hazard Areas (Combined)

NJDEP LULC 2015 Surface Water Removed from FEMA Flood Hazard Area

A limitation of the currently delineated SFHAs is that they do not consider projections of future precipitation due to climate change. While annual increases may not result in significant additional flooding, the increased frequency of shorter but more intense precipitation events is expected to result in additional flooding events. **As such, DEP recommends that Allentown Borough utilize the SFHA for the 0.2 percent (500-year) storm for planning purposes.** This will allow Allentown to inform its current decisions in a manner that is protective of health and safety from future impacts.

In assessing flood vulnerability, the Township should evaluate its sewer, water, and stormwater infrastructure, as well as its transportation and evacuation routes.

Allentown Borough should also consider flood hazard area riparian buffers of any waterway in future planning. The regulated area of the riparian zone (50, 150 or 300 feet) that may restrict future development in these areas depends on the designation of that regulated waterbody as per the current Flood Hazard Area Control Act rules at N.J.A.C. 7:13-4.1 below:

(c) The width of the riparian zone is as follows:

1. The width of the riparian zone along any regulated water designated as a Category One water, and all upstream tributaries situated within the same HUC-14 watershed, is 300 feet;
2. Except for the regulated waters listed at (c)1 above, the width of the riparian zone along the following regulated waters is 150 feet:
 - i. Any trout production water and all upstream waters (including tributaries);
 - ii. Any trout maintenance water and all upstream waters (including tributaries) located within one mile of a trout maintenance water (measured along the length of the regulated water); and
 - iii. Any segment of a water flowing through an area that contains a threatened or endangered species, and/or present or documented habitat for those species, which is critically dependent on the regulated water for survival, and all upstream waters (including tributaries) located within one mile of such habitat (measured along the length of the regulated water). A list of critically dependent species is available from the Department at the website set forth at N.J.A.C. 7:13-1.3; and
3. For all other regulated waters not identified in (c)1 or 2 above, the width of the riparian zone is 50 feet.

Critical Facilities and Assets in Flood Zones

These flood-prone areas are subject to state and federal regulation which limits new construction and promotes open space preservation. In addition, **municipal code should minimize new construction in flood hazard areas and mitigate for any redevelopment of existing structures.** Of particular concern are adverse impacts to existing assets, infrastructure, and buildings within the flood zones, and how a municipality will mitigate for potential increased vulnerability to flooding. Several properties have been identified in or near flood zones including the Allentown Wastewater Treatment Plant, the Allentown Water Treatment Plant, utility piping and power line infrastructure, two dams in need of repair (Millpond/Allentown Lake and Indian Run), critical roadways, and 13 historic structures. Just outside the floodway are houses of

worship, the Allentown Municipal building and Police Station, two schools (Allentown High School and Newman Elementary School), and a large portion of Allentown's public open space. While 51 acres of the entire 395-acre town is in the flood zone, 25.22 acres of the 311.44 acre sewer service area is in SFHA.

Sewer Service Area in Flood Hazard Zone	Acres	% of Total Sewer Service Area (311 acres)	% of Total Municipal Area (395 acres)
1% (100-Year) Floodplain	21.42	6.9	5.4
0.2% (500-Year) Floodplain	additional 3.80	1.2	0.96
TOTAL	25.22	8.1	6.4

Allentown Borough Parcels with Building Structures in 100 yr and 500 yr Flood Zone
(P =Partial Lot)

		100		Existing Village Center 395 acres	Proposed Village Center 380 acres	Historic Properties 116.87 acres	Sewer Service Area 311.44 acres
Block	Lot	yr	500 yr				
14	26	x		x	x	x	x
14	30	x		x	x	x	x
14	33	x		x	x		x
14	31	x		x	x	x	x
14	32	x		x	x	x	x
17	99.01	x		x			x
17	99	x		x			x
17	98	x		x			x
17	29	x		x	x	x	x
5	71	x		x			x
5	21	x		x			x
5	23	x		x			x
5	25	x		x	p		x
5	26	x		x	p		x
5	67	x		x	p		x
5	68	x		x	p		x
5	24	x		x			x
5	70	x		x			x
5	78	x		x		x	x
5	72	x		x			x
5	80	x		x	p		x
5	22	x		x			x
5	75	x		x	p	x	x
5	77	x		x	x	x	x
5	69	x		x	p		x
1	8		x	x	p		x
14	29		x	x	x	x	x
14	28		x	x	x	x	x
14	27		x	x	x	x	x
22	10		x	x	x		x
5	76		x	x	p	x	x
5	66		x	x	p		x
5	27		x	x	x		x
5	20		x	x	p		x
5	19		x	x	p		x
5	18		x	x	p		x
5	17		x	x	p		x
9	6		x	x	x	x	x

The above parcels in the 100-year flood zone (blue) and 500-year flood zone (black) are currently located within the existing Village Center and are proposed for re-adoption in the MSA

by Allentown. **DEP recommends that those proposed village center parcels in the table above that are unmarked or marked with a (p) be entirely or partially removed from the existing Village Center – a reduction in the Village Center of 15 acres to avoid flood hazards.** Lots not included in the revised proposed center are 2 lots with an historic structure, 1 partial lot with an historic structure, 10 lots with structures, and 13 partial lots with structures.

Future development in the Borough will likely be limited by overlapping restrictions of Special Flood Hazard Areas and riparian zones, wetlands, and critical environmental species habitat.

Allentown Borough **should regularly update mapping and inventory of areas that flood frequently, including, but not limited to, repetitive loss (RL) and severe repetitive loss (SRL) properties.** If a local Floodplain Administrator is interested in obtaining a copy of their community's RL and SRL properties list for planning purposes, a request must be made to FEMA in writing on the municipality's letterhead and signed by the mayor. The municipality will be required to sign an Information Sharing Access Agreement with FEMA to protect Personally Identifiable Information associated with this list. For more information on this, please contact the Region II Insurance Representative, [Marianne Luhrs at Marianne.luhrs@fema.dhs.gov](mailto:Marianne.luhrs@fema.dhs.gov).

Unimpeded transportation via rail and road are critical to safety and are also subject to flooding. Within Allentown there are 6.96 miles of major circulation roadway as follows by jurisdiction: Allentown (4.96), County Route 524 (0.5), County Route 526 (0.48), County Route 539 (0.28) and County Route 524/539 (0.75). A desktop analysis shows approximately 1,972 linear feet (0.37 miles) of roadways within the flood zone. However, DEP is unable to determine if the roadways are above the flood level. It is likely that municipal and public works officials are fully aware of areas in the township that flood regularly.

Allentown Borough should map additional areas that flood regularly, including roadways and intersections, with particular attention given to evacuation routes or critical access areas. The Allentown Borough 2018 Master Plan recommends that **zoning regulations be enhanced as well as building codes to encourage building outside of the flood zone and to minimize construction in flood prone areas to reconstruction of existing buildings.** When evaluating any construction within the identified floodplain of Allentown Borough, one must also consider the cost of damage and replacement in the event of flooding. **Construction of any critical utility line and associated infrastructure, emergency services, or public services buildings (schools, hospitals, churches, etc.) should be avoided in the flood hazard area.** By avoiding construction in floodplains, one can avoid adverse impacts also to critical roadways and provide a safe level of distance in the event of a flood. NJDEP also supports consideration of the resilience measures proposed in the 2017 Monmouth County Hazard Mitigation Plan.

DEP's model ordinance has been updated consistent with FEMA requirements. Allentown Borough should work with the NFIP State Coordinator and FEMA Regional Office to adopt the updated code-coordinated floodplain development ordinance. For guidance, please review the riverine model ordinance at <https://www.nj.gov/dep/floodcontrol/modelord.htm> and FEMA guidance at <https://www.fema.gov/floodplain-management/manage-risk/local>.

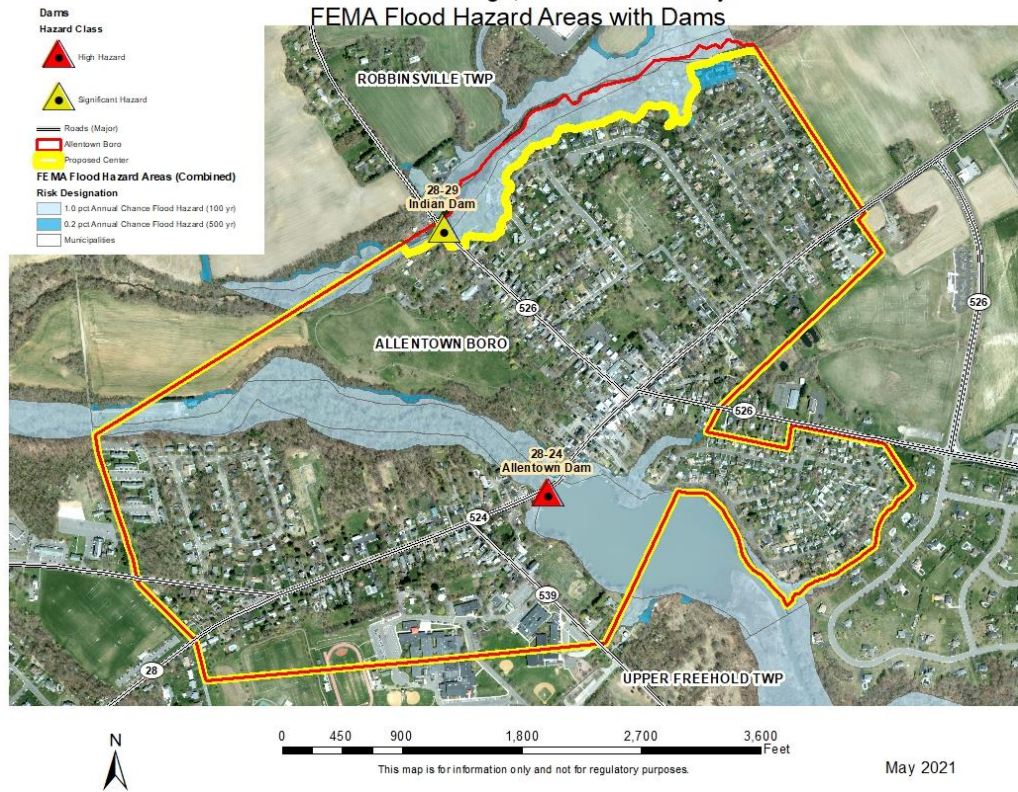
Future development within the floodplain requires a higher level of regulation through state and federal environmental rules for flood hazard areas. **Any proposed conceptual plan should be presented to DEP early in the review process, before planning board approval, and before submittal of any permit applications to determine if the project has any fatal flaws rendering it un-permittable in its current design.**

Green infrastructure should be incorporated into all projects within the floodplain. By creating more open public space, Allentown Borough gains flood zone buffer areas and additional recreation area as well as enhanced areas for stormwater management. Any opportunity in a flood area to enhance or expand a buffer area protects vulnerable residential areas and minimizes future flood events.

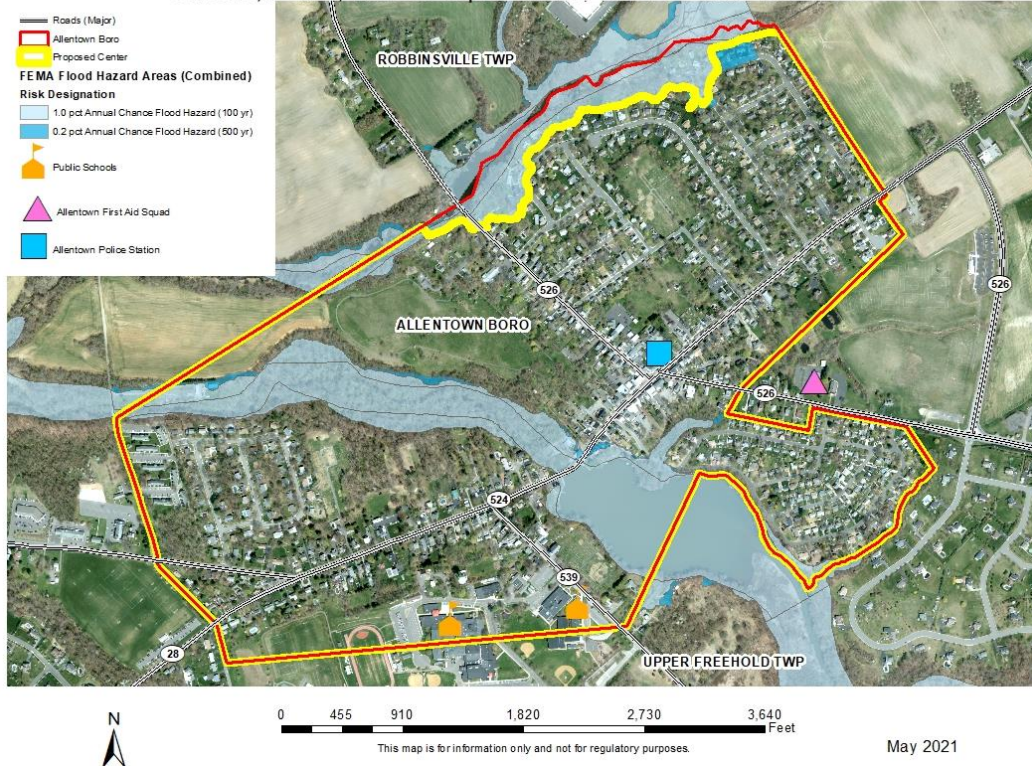
Allentown shall continue to develop a stream corridor buffer area and protection ordinance. Allentown has an estimated more than 2 miles combined stream and lakeshore corridor length in feet as follows: Doctor Creek (3,375 ft), Indian Run (3,500), Indian Run tributary (1000), Conines Millpond (Northshore-2000; Southshore-1,125). A 25-foot wide streamline and shoreline corridor established for trails, conservation and flood management would occupy approximately 6.3 acres.

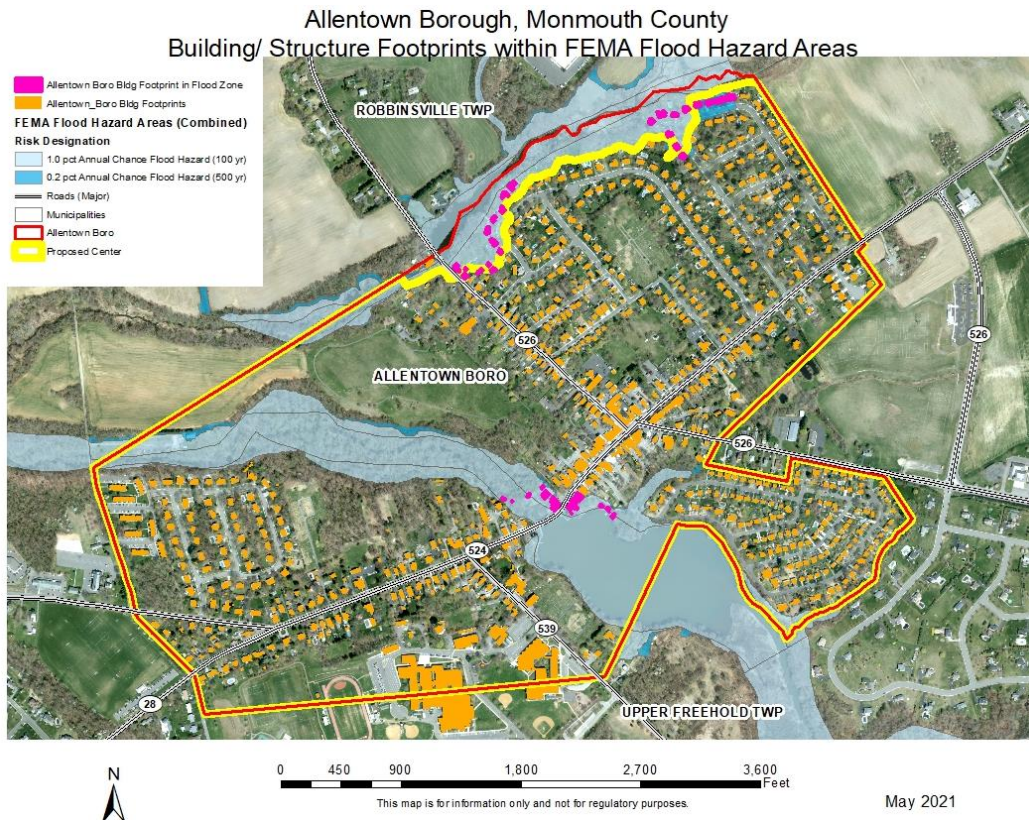
The DEP supports Allentown's recommendation in MSA to adopt a Flood Mitigation Plan and an All-Hazards Mitigation Plan and Flood Ordinance to effectively manage stormwater runoff and mitigate the adverse impacts of climate related flooding within and adjacent to the 51 acres of identified floodplain.

Allentown Borough, Monmouth County FEMA Flood Hazard Areas with Dams



Allentown Borough, Monmouth County Schools, Police, Rescue Squad with FEMA Flood Hazard Areas





Open Space

Open space not only provides Allentown Borough residents with recreational opportunities but also acts as a means of climate change mitigation through enhanced tree cover shade and carbon sequestration. It also improves Allentown and the state's natural resources by mitigating stormwater runoff, acting as flood storage, and protecting habitat for threatened and endangered species. Within Allentown Borough, there are approximately 58 acres of preserved open space, no acres of Federal open space and 12.91 acres of open surface water at Conines Millpond. The 2003 Open Space and Recreation Plan was updated and adopted on May 3, 2006 which includes the 2004 Doctors Creek Regional Greenway Plan and the 2005 Critical Natural Resources Analysis. **DEP recommends that the Borough update these documents to account for any changes since adoption as well as climate change considerations.**

Allentown should incorporate conservation easement tracking and monitoring in its Open Space and Recreation Plan and a habitat conservation protection ordinance.

DEP recommends that Allentown adopt a resource conservation protection overlay.

Allentown should expand on long-term adaptive management practices for tree shade and forestry to preserve its tree cover as precipitation and temperatures increase. As part of this, it should expand tree ordinance 12-2017 to protect trees during development and in accordance with 2016 Community Forest Management Plan.

Allentown shall continue to expand public outreach and educational opportunities.

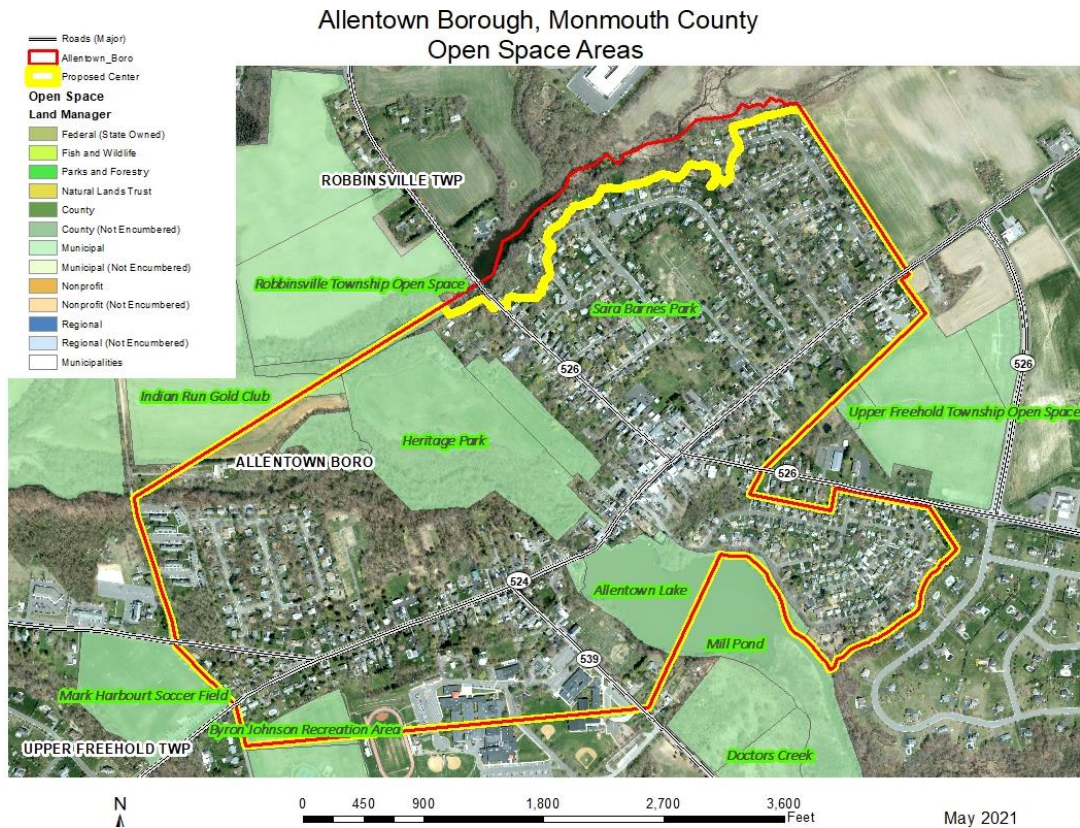
Although Allentown has identified only 0.9 acres of open farmland, the Borough should adopt a Farmland Preservation ordinance.

Green Acres

The Green Acres program was created in 1961 to meet New Jersey's growing recreation and conservation needs. Together with public and private partners, Green Acres has protected over a half a million acres of open space and provided hundreds of outdoor recreational facilities in communities around the State. Allentown most recently updated its register of open space inventory (ROSI) in 2017. Within Allentown, approximately 57 acres have been set aside as public open space. Allentown has previously had several acquisition projects and development projects under the Green Acres program. Heritage Park was acquired in 1995 and Ashley Park in 2017. Allentown has shared open space with Upper Freehold including the Block 24, Lot 20 Mill Pond site. The Borough also has an open project with Green Acres (Project No. 1303-17-069 - Mercer-Monmouth Regional Greenbelt) but has not yet identified a property for acquisition. There are more than 2 miles of linear stream corridor in need of conservation easement and protective buffer as well as opportunity for public access via trails and bikeways. There are no serious compliance problems with the town's recreational facilities or conservation lands. **DEP recommends that Allentown Borough work further with Monmouth County and surrounding municipalities to provide and expand corridors of open space and natural features to protect historic structures, support habitat connectivity, and adapt to changing climate conditions.**

These areas within Allentown Borough borders include the following:

Open Space	Location	Block/ Lot	Acres
Conines Millpond	Doctors Creek at Main Street	14/ 33	12.91
Byron Johnson Park	Ellisdale Road	15/ 26.02	5
Farmer Park	Lakeview Dr, Millpond South	14/ 22,23	2.8
Heritage Park	NW Doctors Creek to Main Street	17/ 30.02, 35.02	38,6
Sara Barnes Playground	Pearl Street	6/ 14,15	<1
Pete Stensi Park	South Main Street, Millpond South	14/ 33,34,35	0.33
Sgt George Ashley Park	Hamilton St and North Main Street	7/ 18,35	2.8
Breza I	At Upper Freehold/Robbinsville border	17/ 1,100	6.32



Blue Acres

The Green Acres, Farmland, Blue Acres and Historic Preservation Bond Act of 2007 authorized \$12 million for acquisition of lands in the floodways of the Delaware River, Passaic River or Raritan River, and their respective tributaries for recreation and conservation purposes. An additional \$24 million was approved by the voters in the Green Acres, Water Supply and Floodplain Protection, and Farmland and Historic Preservation Bond Act of 2009. Properties (including structures) that have been damaged by or may be prone to incurring damage caused by storms or storm related flooding, or that may buffer or protect other lands from such damage, are eligible for acquisition. **DEP encourages any town that has homes and neighborhoods that repetitively flood to consider contacting the DEP Blue Acres program regarding buyouts (https://www.nj.gov/dep/greenacres/blue_flood_ac.html).**

Natural and Historic Resources

New Jersey is the most densely populated state in the nation. One of the consequences of this is the extreme pressure that is placed on our natural resources. As the population grows, we continue to lose or impact the remaining natural areas of the state. As more and more habitat has been lost, people have also gained a greater understanding of and appreciation for the benefits and necessity of conserving the natural ecosystems of the state.

For example, we know that wetlands are critical for recharging aquifers, lessening the damage from flooding and naturally breaking down contaminants in the environment. Forests and grasslands protect the quality of our drinking water, help purify the air we breathe and provide important areas for outdoor recreation. Collectively, these habitats are of critical importance to the diverse assemblage of wildlife found in New Jersey, including endangered, threatened and special concern species.

Wetlands

Freshwater wetlands and transition areas (buffers) are regulated by the Freshwater Wetlands Protection Act rules (NJAC 7:7A). Previously misunderstood as wastelands, wetlands are now recognized for their vital ecological and socioeconomic contributions. Wetlands contribute to the social, economic, and environmental health of our state in many ways:

- Wetlands protect drinking water by filtering out chemicals, pollutants, and sediments that would otherwise clog and contaminate our waters.
- Wetlands soak up runoff from heavy rains and snow melts, providing natural flood control.
- Wetlands release stored flood waters during droughts.
- Wetlands provide critical habitats for a major portion of the state's fish and wildlife, including endangered, commercial and recreational species.
- Wetlands provide high quality open space for recreation and tourism.

There are on-site activity limits on lands identified as wetlands. The NJ Freshwater Wetlands Protection Act requires DEP to regulate virtually all activities proposed in the wetland, including cutting of vegetation, dredging, excavation or removal of soil, drainage or disturbance of the water level, filling or discharge of any materials, driving of pilings, and placing of obstructions. The Department may also regulate activities within 150 feet of a wetland as a transition/buffer area.

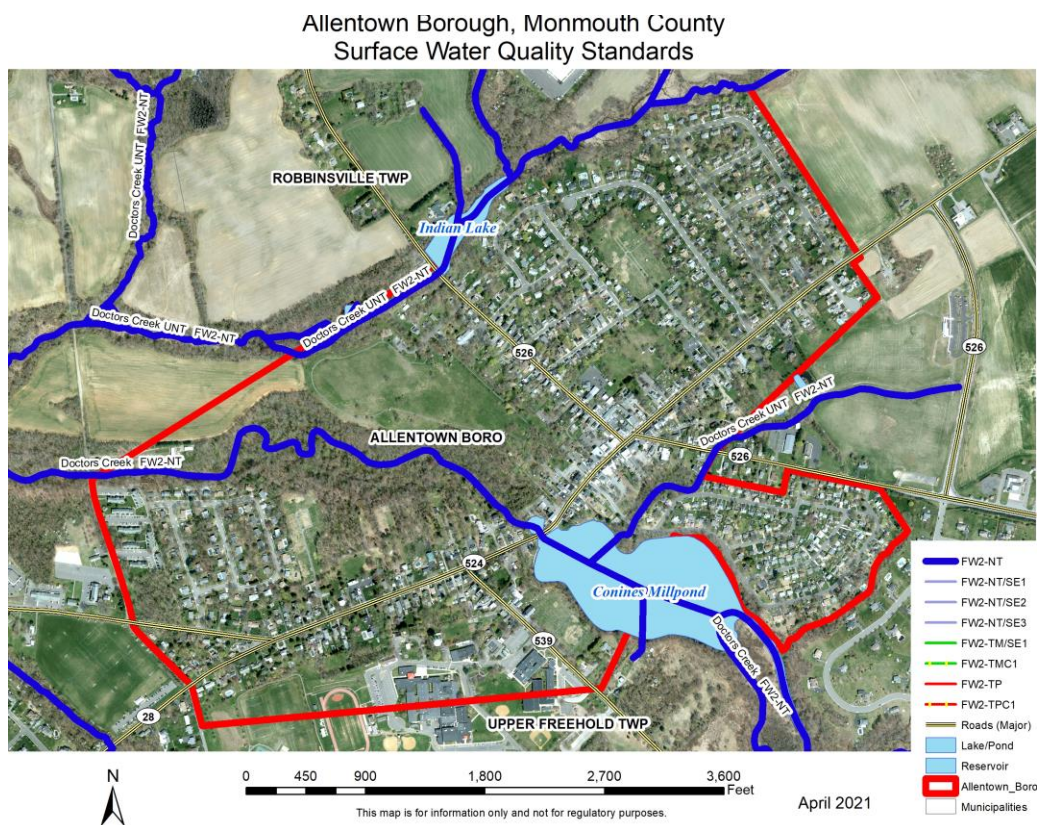
Allentown Borough has 31.97 acres of deciduous forested wetlands that are protected under state and federal regulation. Wetlands associated with Doctor's Creek would likely be exceptional resource value for bald eagle foraging and carry 150-foot buffers. No Category 1 (C1) or critically dependent wildlife (CDW) species are associated with this area so riparian buffers would be 50 feet.

Surface Water

Allentown Borough has several valuable and recreational bodies of water including streams, tributaries and lakes. These water bodies are subject to flooding which is exacerbated by an

increase in impervious cover and a decrease in stormwater's ability to infiltrate the ground. Including the following:

Name	Linear Length (ft)
Conines MillPond North Shore	2,000
Conines MillPond South Shore	1,125
Doctors Creek	3,375
Indian Run	3,500
Indian Run Tributary	1,000



Surface Water Quality Standards

The Surface Water Quality Standards (SWQS) are rules established under the New Jersey Administrative Code at N.J.A.C. 7:9B that include the policies, surface water classifications, and surface water quality criteria necessary to protect the quality of New Jersey's surface waters. The SWQS protect the health of New Jersey waters and ensure that they are suitable for all existing and designated uses, including recreation and water supply. SWQS also protect the health of New Jersey citizens and visitors by ensuring that the waters at our bathing beaches are safe for swimming, that water supplies are suitable sources of drinking water, and that the fish and shellfish harvested from our waters are safe to eat. SWQS protect waters for other uses such as trout production and trout maintenance, and agricultural and industrial use.

The SWQS establish designated uses (e.g., drinking water supply, recreation, etc.) to the State's surface waters, classify surface waters based on those uses (e.g. FW1, FW2-TP, etc.), and set water quality criteria that protect the designated uses for each water classification. The SWQS contain various policies for protecting water quality, including general, technical, antidegradation, nutrients, and mixing zones. The SWQS also contain procedures for establishing and modifying water quality-based effluent limitations for NJPDES point sources and reclassifying specific stream segments.

Surface waters are classified based on the type of waterbody and the designated use of the waterbody. Freshwaters are classified as FW1 waters (not subject to any man-made wastewater discharges) and FW2 waters (all other freshwaters except Pinelands waters). FW1 waters are non-degradation waters set aside for posterity because of their unique ecological significance. FW2 waters are further classified based on their ability to support trout, which thrive in cooler stream temperatures. Trout classifications include trout production (FW2-TP), trout maintenance (FW2-TM), and non-trout (FW2-NT).

The SWQS establish antidegradation policies for all surface waters of the State (see N.J.A.C. 7:9B-1.5(d)). The antidegradation policies require that all existing and designated uses shall be maintained and protected for all surface waters of the State; impaired waters must be restored to meet SWQS; and existing water quality shall be maintained.

- Category One (C1) Waters: This tier of antidegradation designation applies to surface waters designated as C1 waters (see N.J.A.C. 7:9B-1.4). C1 waters are protected from any measurable change to existing water quality because of their exceptional ecological significance, exceptional recreational significance, exceptional water supply significance, or exceptional fisheries resources. C1 waters have more stringent antidegradation requirements than Category Two waters.
- Category Two (C2) Waters: This tier of antidegradation designation applies to surface waters designated as C2 waters (see N.J.A.C. 7:9B-1.4). Some lowering of existing water quality may be allowed in C2 waters based upon a social and/or economic justification. However, all existing and designated uses must be protected in all cases and waterbodies that are generally not meeting criteria must be improved to meet water quality criteria. All waterbodies not designated as Outstanding Nature Resource Waters or Category One receive the Category Two antidegradation designation.

Additional information is also provided in the [Antidegradation/Category One Fact Sheet](#).

Allentown surface water bodies are classified and Freshwater 2 Non-Trout (FW-NT). The linear length of stream, tributary, and lake shoreline includes Doctor Creek (3,375 ft), Indian Run (3,500), Indian Run tributary (1000), Conines Millpond (Northshore-2000; Southshore-1,125).

There are no impaired waters within Allentown requiring a total maximum daily load (TMDL) restoration plan as outlined by US Clean Water Act. However, **a stream corridor buffer would reduce sedimentation to Conines Millpond, which was last dredged in 1985. Stormwater management would also be improved by preventing excessive sedimentation.**

Vulnerable, Threatened, and Endangered Species

Despite being the most densely populated state in the nation, and the fifth smallest in area, New Jersey provides habitat for an incredible number and diversity of wildlife species. There are more than 400 species of vertebrate wildlife which can be found within the state, due in large part to the state's geographic position within North America, as well as 134 freshwater fish and 336 marine finfish. New Jersey lies at the southern edge of the range of many "northern" species and the northern edge of the range of many "southern" species.

Many imperiled species require large contiguous tracts of habitat for survival. The consequence of the rapid spread of suburban sprawl is the loss and fragmentation of important wildlife habitat and the isolation and degradation of the smaller habitat patches that remain. Small patches of fields, forests and wetlands interspersed with development provide habitat for common species that do well living near humans, but do not provide the necessary habitat for most of our imperiled wildlife. We need to conserve large, contiguous blocks of forests, grasslands and wetlands to assure the survival of imperiled species over the long-term.

Future increases in stormwater runoff, flooding and contamination will adversely impact terrestrial and aquatic species. Climate change can adversely impact plants, trees, aquatic and terrestrial animals, reptiles, fish and birds. Increases in temperature and periods of drought can result in loss of suitable conditions for a tree or plant species to survive as well as a higher risk of wildfire.

The New Jersey Endangered Species Conservation Act was passed in 1973 and directed the New Jersey Department of Environmental Protection (DEP) to protect, manage and restore the state's endangered and threatened species.

Endangered Species are those whose prospects for survival in New Jersey are in immediate danger because of a loss or change in habitat, over-exploitation, predation, competition, disease, disturbance or contamination. Assistance is needed to prevent future extinction in New Jersey.

Threatened Species are those who may become endangered if conditions surrounding them begin to or continue to deteriorate.

There are other classifications for wildlife as well, including Stable, [Species of Special Concern](#) and Undetermined. For a complete listing of species monitored by the ENSP, see the [Species Status Listing](#). A full listing of the state's threatened and endangered species can be found at <https://www.nj.gov/dep/fgw/tandespp.htm>.

Landscape Project

Designed to guide strategic wildlife habitat conservation, the Landscape Project is a pro-active, ecosystem-level approach for the long-term protection of imperiled species and their important habitats in New Jersey. The project began in 1994 to protect New Jersey's biological diversity by maintaining and enhancing imperiled wildlife populations within healthy, functioning ecosystems. The Landscape Project focuses on large land areas called "landscape regions" that are ecologically similar with regard to their plant and animal communities. Using an extensive database that combines imperiled and priority species location information with land-use/land-

cover data, the Landscape Project identifies and map areas of critical importance for imperiled species within each landscape region.

Landscape Project critical habitat maps were developed to provide users with peer-reviewed, scientifically-sound information that is easily accessible. Critical habitat maps were designed for use by anyone, but especially those individuals and agencies who have the responsibility for making land-use decisions, i.e., municipal and county planners and local planning boards, state agencies, natural resource and lands managers, the general public, etc. Critical area maps can be integrated with planning and protection programs at every level of government - state, county and municipal, can provide the basis for proactive planning, zoning and land acquisition projects.

Most importantly, the critical information Landscape Project products provide can be used for planning purposes before any actions, such as proposed development, resource extraction (such as timber harvests) or conservation measures, occur. Proper planning with accurate, legally and scientifically sound information will result in less conflict. Less time will be wasted, and less money spent, attempting to resolve endangered and threatened species issues.

These rankings define the following habitat types:

- Rank 1 is assigned to species-specific habitat patches that meet habitat-specific suitability requirements but do not contain confirmed sightings of endangered, threatened, and special concern wildlife species.
- Rank 2 is assigned to species-specific patches containing one or more occurrences of habitats of Special Concern.
- Rank 3 is assigned to species-specific habitat patches containing one or more occurrences of State threatened species.
- Rank 4 is assigned to species-specific habitat patches with one or more occurrences of State endangered species.
- Rank 5 is assigned to species-specific habitat patches containing one or more occurrences of wildlife listed as endangered and threatened pursuant to the Federal Endangered Species Act of 1973.

Additional information about the Landscape Project can be found at <https://www.nj.gov/dep/fgw/ensp/landscape/index.htm>.

Allentown Landscape Rank 2,3,4,5 Threatened and Endangered Species are the following:

Species Rank	Species
2	Great Blue Heron
2	Wood Trush
2	Eastern Bog Turtle
3	Grasshopper Sparrow
3	Savannah Sparrow
4	Bald Eagle Foraging
5	None

Allentown Borough-wide Landscape Habitat Rank 1, 2, 3, 4, 5 covers the following:

Habitat Rank	Acres
1	38.07
2	24,58
3	0
4	43.6
5	0

Within Allentown Borough borders, there are 0.9 acres of open farmland, approximately 57 acres of preserved open space, 35 acres of critical forested wetland habitat and 19 acres of critical grassland habitat. **Allentown shall continue to promote ongoing and proposed community environmental education and public outreach events.**

The two dams located in Allentown on the Millpond and on Indian Run are regulated by the DEP Dam Safety program. Allentown Dam (28-24) was rehabilitated about 10 years ago in order to bring the structure into compliance with the Safe Dam Act. That project did include a fish ladder in the spillway. The Indian Lake Dam is in the Borough and Allentown is a part owner of that structure. Indian Dam (28-29) is in need of rehabilitation to bring the structure into compliance. A fish ladder is not installed at this structure. If fresh water, anadromous fish are present, please consult with NJDEP's Division of Dam Safety and Flood Engineering to determine if fish ladders should be installed at either dam. The NJDEP's Fish and Wildlife (F&W) program will advise Dam Safety if a fish ladder is necessary when the dam is rehabilitated. **Engineering studies must be completed and Allentown should provide an update on its schedule to address the Indian Dam rehabilitation.**

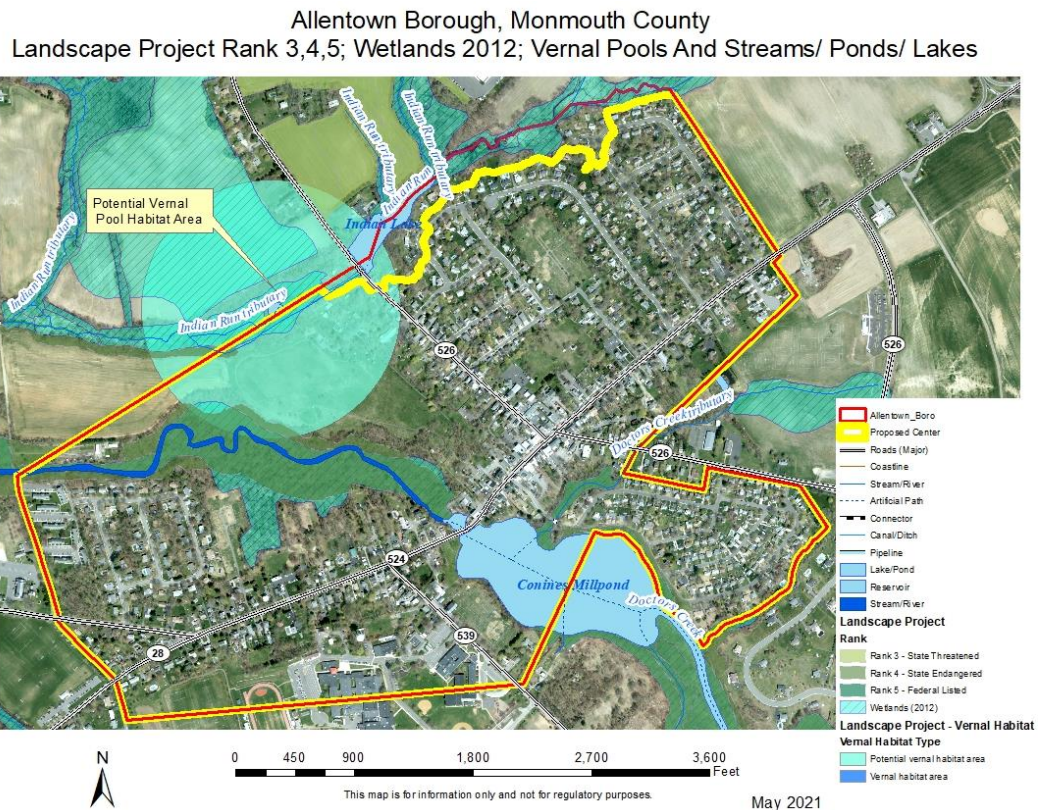
DEP supports Allentown's commitment to conservation and renewable energy, although it encourages the Township to pursue it in an ecologically responsible manner. A Conservation Plan is included in the 2018 Master Plan update. **Allentown should continue to protect the Township's open spaces and the recolonization and reuse of open field habitats for ground nesting and foraging birds.** Further research is needed to determine the causes and nature of direct and indirect effects of the placement of solar arrays on and/or over ground nesting habitat on birds.

Vernal Pools

In 2001, DEP partnered with Rutgers University Center for Remote Sensing and Spatial Analysis (CRSSA) to develop a method for mapping potential vernal pools throughout New Jersey. Through an on-screen visual interpretation of digital orthophotography, CRSSA identified over 13,000 potential pools throughout the state. A subset of these pools was field verified and confirmed, with an 88% accuracy rate, to meet the physical characteristics to qualify as a vernal pool (Lathrop et al. 2005).

In accordance with N.J.A.C. 7:7A-1.4, the term "vernal habitat" includes a vernal pool - or the area of ponding - plus any freshwater wetlands adjacent to the vernal pool. Vernal habitat areas mapped in the Landscape Project rely upon those data developed by the DEP and CRSSA to identify sites that should be field checked for possible identification as vernal habitat areas. DEP staff is in the process of field-verifying these pools. The Department also maps vernal habitat

areas based upon on-the-ground assessment of sites not captured by the CRSSA mapping. The Landscape Project includes all of the CRSSA-identified sites, as well as sites identified by on-the-ground reconnaissance. Within Allentown, there is one (1) documented vernal habitat area identified by the DEP.



Connecting Habitat Across New Jersey (CHANJ)

The Connecting Habitat Across New Jersey (CHANJ) project provides mapping tools to identify, secure, and restore wildlife habitat connection corridors. By protecting habitat connectivity and preventing adverse isolation of wildlife populations, various species are more easily able to migrate, seek shelter and food, and maintain a healthy wildlife population.

A review of the Department's CHANJ mapping (information on this mapping found at <https://www.nj.gov/dep/fgw/ensp/chanj.htm>) shows that within the approximately 380 acre proposed center, there are identified wildlife travel corridors that could serve as viable wildlife passageway through Allentown and the proposed Village Center primarily for nesting birds and bog turtle. A passageway classified as a more restricted wildlife corridor is shown in brown. While a passageway classified as less restrictive to wildlife movement is shown in tan, based on the land cover features occurring within it (Figure 1).

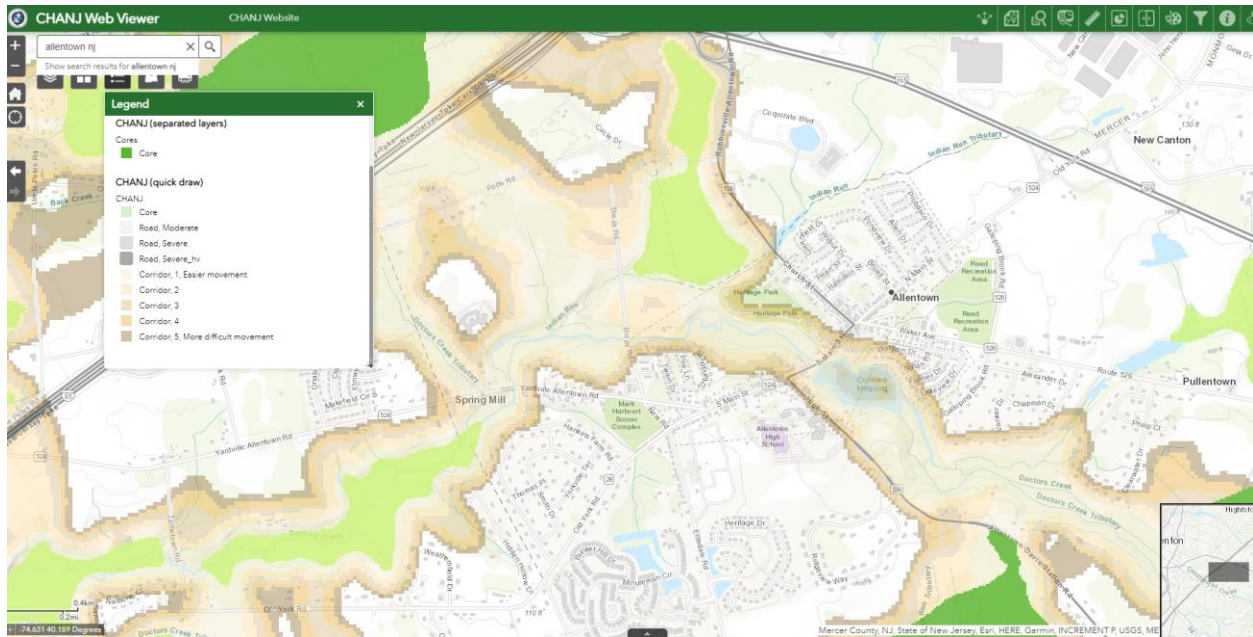


Figure 1: CHANJ mapping of the Allentown Borough area.

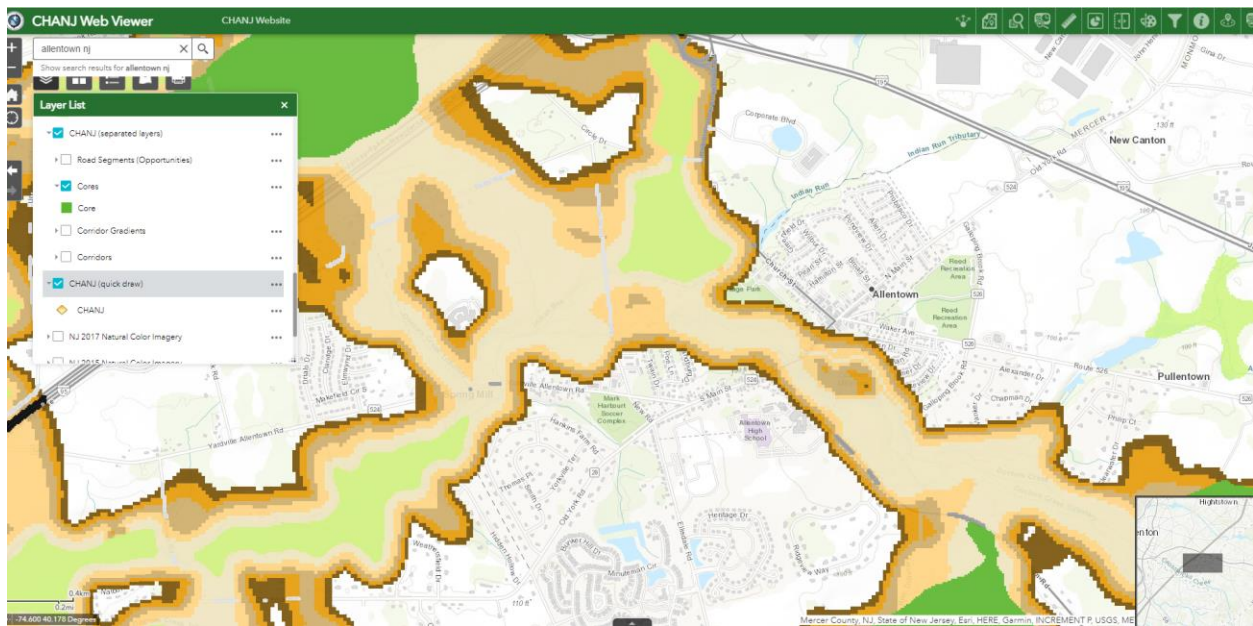


Figure 2: Threatened and Endangered Species sightings in the Allentown area.

These data suggest that there is or could be movement between larger habitat areas to the northeast and southwest through this corridor. As noted above, this area is classified as a fairly unrestricted wildlife movement corridor from core habitat northeast and southwest of the proposed Allentown Village Center. Given the potential significance of this area as a landscape habitat connector/wildlife movement corridor, **DEP recommends that Allentown incorporate a habitat corridor overlay into the zoning ordinance.** By reducing the development potential

of this critical area, the likelihood that this area will remain a suitable corridor is significantly increased.

State Wildlife Action Plan

The State Wildlife Action Plan (SWAP) is a strategic and cost-effective strategy for preserving the state's wildlife resources for the future. Recovering species that have reached threatened or endangered status is typically more costly than preventative actions that keep species populations from reaching such declines. Proactive management actions identified in the SWAP are intended to keep species from becoming threatened or endangered or to aid in the recovery of those that are already listed.

State Wildlife Action Plans are proactive plans created by virtually every state and U.S. territory that assess the health of each state's wildlife and habitats, identify the problems they face, and outline the actions that are needed to conserve them over the long term. The New Jersey Wildlife Action Plan identifies both priority species and habitats, assesses the threats they face and outlines actions to take to improve or stabilize their condition.

New Jersey's State Wildlife Action Plan (2018) was approved by the U.S. Fish and Wildlife Service in July 2018. New Jersey's Plan serves as a blueprint for conserving our wildlife heritage over the next decade. The Plan identifies priority actions over the next five to ten years to address the myriad threats facing our wildlife populations and their habitats. It also identifies species of greatest conservation need in New Jersey, as well as 107 focal species that are of the highest conservation priority.

New Jersey's State Wildlife Action Plan can be found at https://www.nj.gov/dep/fgw/ensp/wap/pdf/wap_plan18.pdf.

Natural Heritage Priority Sites

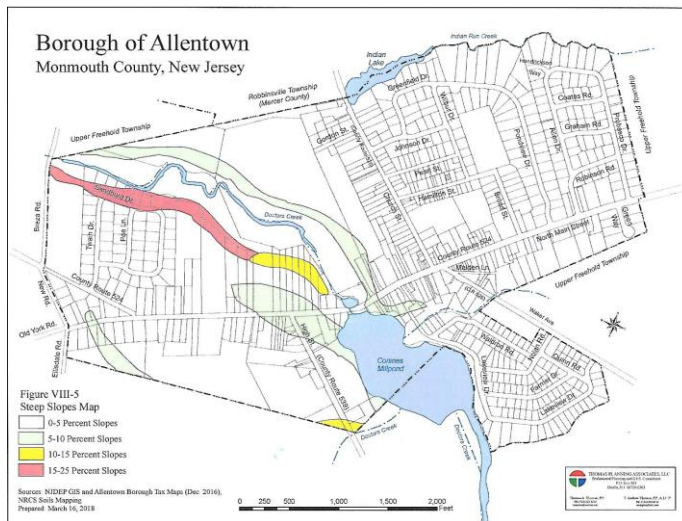
Following a review of Natural Heritage Grid Mapping layer, no Natural Heritage Priority Sites are located in Allentown Borough including no state-listed plants, data sensitive species, ecological communities or cave terrestrial communities. A full listing of Rare Plant Species and Ecological Communities Presently Recorded in the NJ Natural Heritage Database for Monmouth County can be found at:

<https://www.nj.gov/dep/parksandforests/natural/heritage/textfiles/monmouth.pdf>

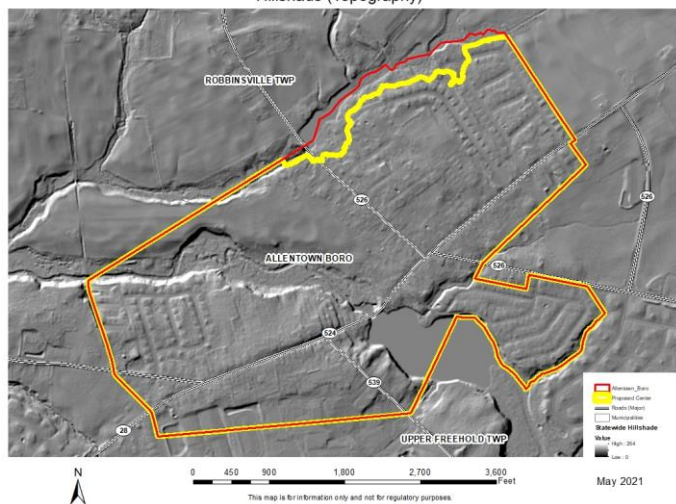
Steep Slopes

Allentown has prepared an inventory of steep slopes and should adopt a steep slope ordinance to prevent erosion, limit disturbance and preserve open space especially in and adjacent to riparian conservation corridors. The MSA presents a map of steep slope within Allentown (pg. 136). It only appears that one linear strip in the NW of the town is in the 15%-25% slope range. As guidance, the DEP 2008 model steep slope ordinance (https://www.nj.gov/dep/wqmp/docs/steep_slope_model_ordinance20080624.pdf) defines steep slope as "any slope equal to or greater than 20 percent as measured over any minimum run of 10 feet. Steep slopes are determined based on contour intervals of two feet or less." **Allentown should require a restriction of any disturbance of a steep slope unless it is either 1) redevelopment within the limits of existing impervious surface or 2) new disturbance**

necessary to protect public health, safety, or welfare, provide environmental benefit, or to prevent hardship.

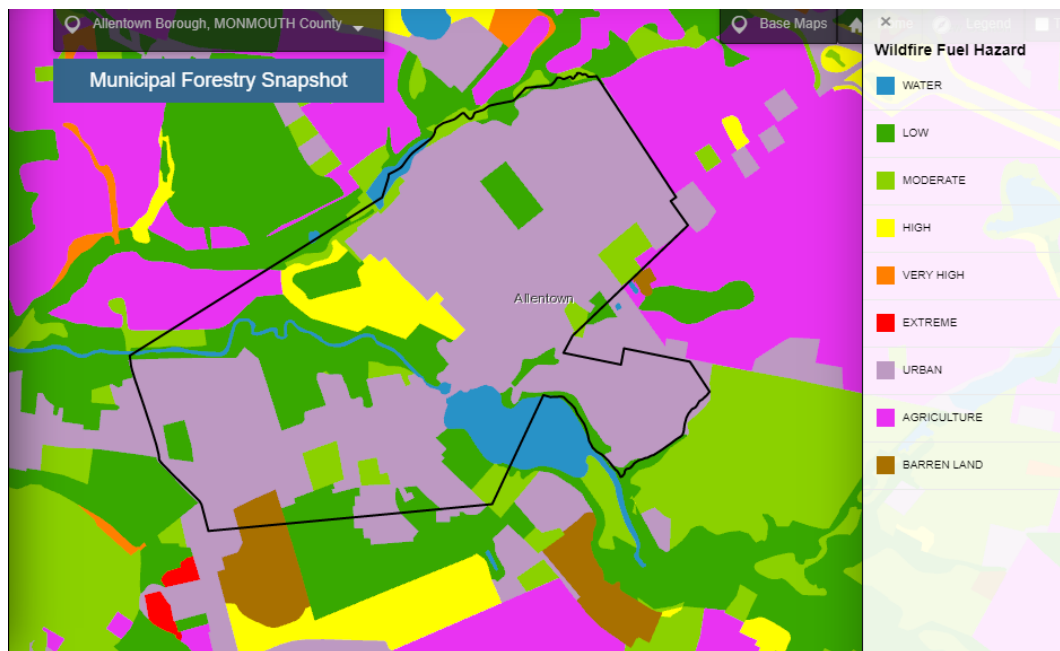


Allentown Borough, Monmouth County
Hillshade (Topography)



Forest Fire Management and Mitigation

Adverse effects of climate change increases in average daily temperature contribute to an increase in the potential for forest fires. Public and private property, infrastructure, public safety, and utilities could be compromised in a wildfire emergency. The impacts of a wildfire event can be reduced through the enhancement of the Township's emergency response plan and through the implementation of pre-event wildfire mitigation and response measures. Forest fuel loading conditions are characterized by fire hazard ratings (map below) and through coordination with the New Jersey Forest Fire Service and the New Jersey Emergency Management Program.



Allentown has not adopted a Wildfire Protection Plan (CWPP) with the NJ Forest Fire Service but has updated their Community Forest Management Plan in 2016 which includes the 2017 updated street tree inventory. More than 42 tree species were identified alone in Heritage Park. Allentown Borough also initiated a Community Stewardship Incentive Program. **Allentown should explore adopting a CWPP.**

Cultural and Historic Resources

Allentown's Historic District encompasses 166 acres and 42% of the Borough area and was added to the State and National Registers of Historic Places in 1981 and 1982 respectively. The Historic District boundary was confirmed by the NJ State Historic Preservation Office and the historic sites inventory was updated in 2017. In Allentown Borough, 226 buildings of historic significance have been identified within the existing Village Center. Allentown has delineated 6 Archaeological/ Historic districts all of which have been identified near and within flood prone areas.

It is also critical to protect our cultural and historic resources. The New Jersey Historic Preservation Office (HPO) administers a variety of programs that offer protection for historic properties. The HPO consults with federal agencies under Section 106 of the National Historic Preservation Act for federally funded, licensed or permitted projects. At the state level, the New Jersey Register of Historic Places Act requires that actions by state, county, or local governments, which may impact a property listed in the New Jersey Register of Historic Places, be reviewed and authorized through the HPO. The HPO also provides advice and comment for a number of permitting programs within the Department of Environmental Protection, including some permits required under the Division of Land Resource Protection. The Historic Preservation Office also maintains an inventory of historic properties in each municipality.

The New Jersey and National Registers of Historic Places listings include properties and historic districts in New Jersey for which a formal action was taken by the State Historic Preservation Officer or designee. The listings itemize the buildings, structures, sites, objects, and districts listed on the New Jersey Register of Historic Places (SR) and the National Register of Historic Places (NR). They also include resources that have received Certifications of Eligibility (COE), opinions of eligibility from the State Historic Preservation Officer (SHPO Opinion), or Determinations of Eligibility (DOE) from the Keeper of the National Register. These properties and historic districts all meet the New Jersey and National Register criteria for significance in American history, archaeology, architecture, engineering or culture, and possess integrity of location, design, setting, materials, workmanship, feeling and association. Properties that have been entered on the New Jersey and/or National Registers of Historic Places are listed by their historic names, which may be different from their current names. Properties that have SHPO Opinions or DOE's are listed by their historic name, when known. The listings are updated regularly to reflect ongoing additions and corrections. The most effective way to protect historic resources and promote our architectural and archaeological heritage is through local stewardship.

When implemented at the local level, historic preservation activities may take the form of master plan elements, comprehensive zoning ordinances, the establishment of a local historic preservation commission, regulated code enforcement, or public education and outreach programs. Local initiatives have far reaching effects on preserving historic resources for future generations. The HPO provides technical assistance, training, and other resources for historic preservation to New Jersey's communities through a variety of programs, including the Certified Local Government (CLG) program. The CLG program is a formalized partnership between the National Park Service, the States, and local municipalities. To become a CLG, a local government must a) enact a preservation ordinance that establishes a Historic Preservation Commission, b) establish criteria and procedures for the designation of local historic properties and the review of proposed changes to those properties, c) maintain a system for the survey and inventory of historic properties, d) provide for adequate public participation in the local historic preservation program, including the process of nominating properties to the National Register of Historic Places, and e) perform the responsibilities delegated to the local government in the certification agreement. The requirements for certification are outlined in the document "New Jersey's Certified Local Government Guidelines," available from the Historic Preservation Office (HPO) or online at http://www.state.nj.us/dep/hpo/3preserve/clgguides8_07.pdf.

One of the chief benefits of this partnership for local governments is access to grant funding. Each federal fiscal year, New Jersey sets aside ten percent of the state's allocation of federal historic preservation funds for pass-through as sub-grants to communities participating in the CLG program. The total amount of available funding varies each year with the federal allocation. Finally, the Historic Preservation Office maintains the State's Cultural Resources Geographic Information System (CRGIS) to record the location and extent of cultural resources in our statewide inventory. LUCY is our NJCRGIS Online Map Viewer. It is an ARCGIS Online based web mapping application delivering HPO CRGIS data in an intuitive, browser-based format. LUCY can be found at <https://njdep.maps.arcgis.com/apps/webappviewer/index.html?id=44ce3eb3c53349639040fe205d69bb79>. https://www.state.nj.us/dep/hpo/1identify/gis_LUCY_User_Guide_1.0.pdf.

Allentown should revise the Borough code to implement within the historic district the following:

- Adopt an updated historic district overlay with defined historic district buffer area;
- Adopt architectural and development standards within and adjacent to the district;
- Maintain an Historic Preservation Commission;
- Continue to update the historic sites inventory and include historic sites in capital improvement program especially related to flood resiliency; and
- Adopt an Historic vista ordinance

Historic Resources in Floodprone Areas

Within Allentown Borough 38 parcels with buildings are located within the flood zone, Within the 116.87 acre Historic District, 13 parcels with buildings have been identified in the flood zone that could have potential adverse impact if future flooding increases due to climate change.

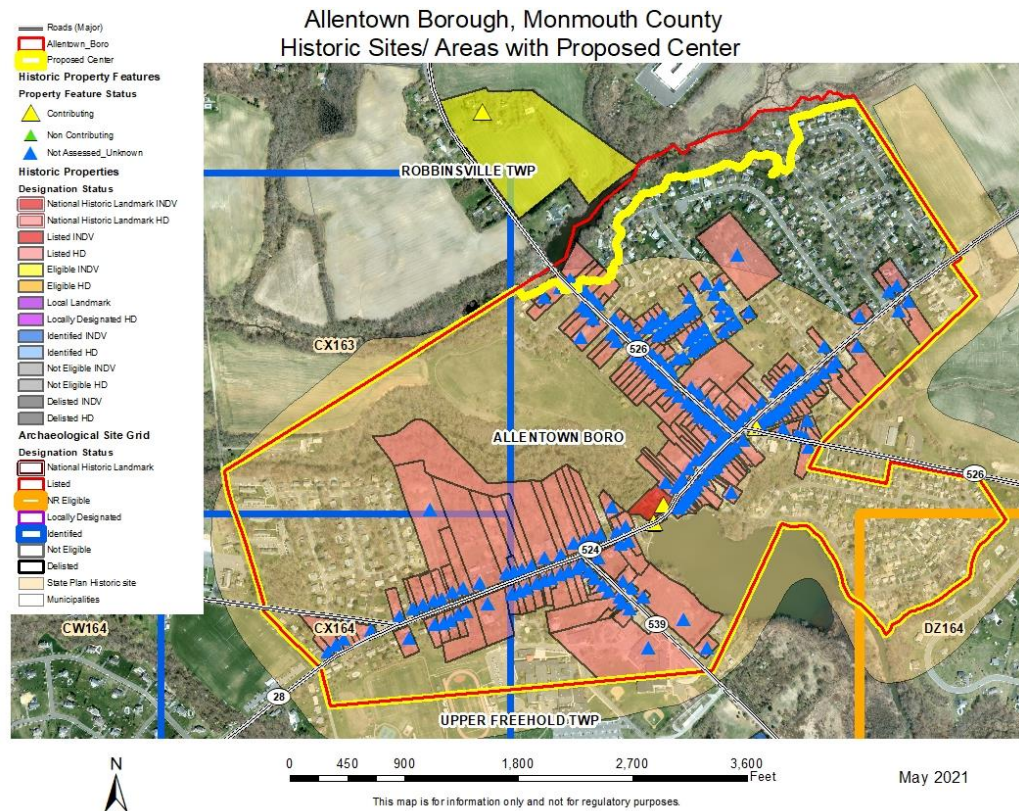
Historic District Buildings in 100 yr and 500 yr Flood zone

Block	Lot	100 yr	500 yr	In Proposed Village Center
14	26	x		x
14	39	x		x
14	31	x		x
14	32	x		x
17	29	x		x
5	78	x		no
5	75	x		partial
5	77	x		no
14	29		X	x
14	28		X	x
14	27		X	x
5	76		X	x
9	6		X	x

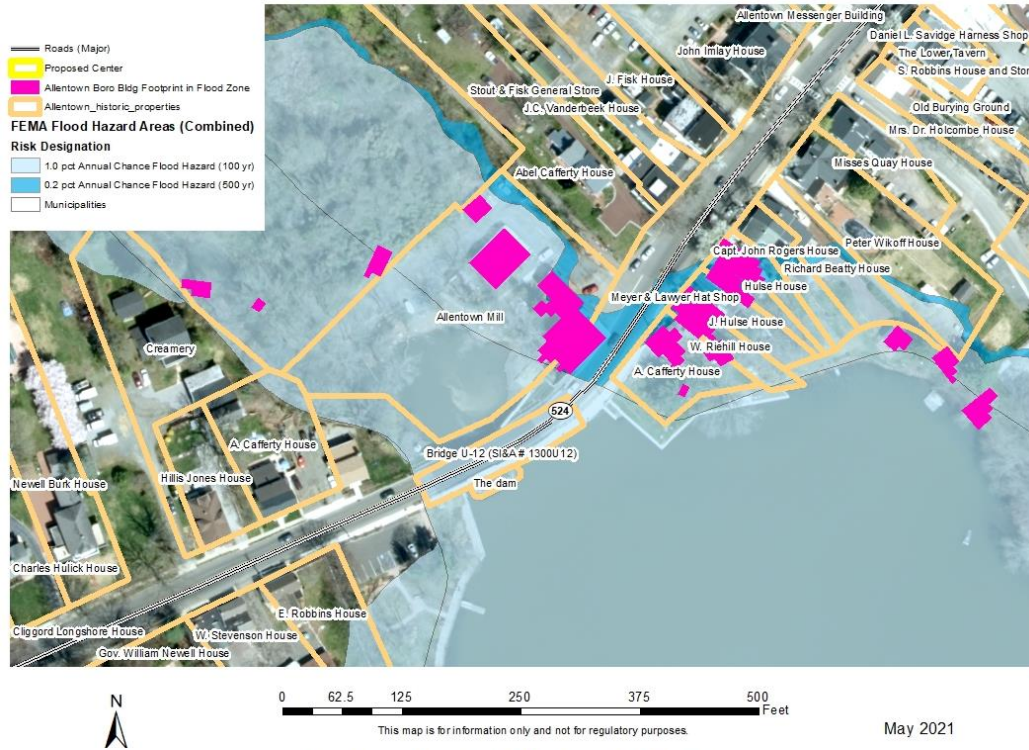
Historic structures should be evaluated and protected with enhanced stormwater management plans and flood minimization plans within the municipal code. DEP adopted Elevation Design Guidelines for Historic Properties in December 2019, which can be found at https://www.state.nj.us/dep/hpo/images/_MULT_DG_32_v2_ID14078r.pdf.

The DEP supports the 2018 Master Plan recommendations to revise the Borough code to implement within the historic district the following: define and adopt an historic district buffer area, adopt architectural and development standards within and adjacent to the district, establish an Historic Preservation Commission, continue to update the historic sites inventory and include historic sites in capital improvement program especially related to flood resiliency

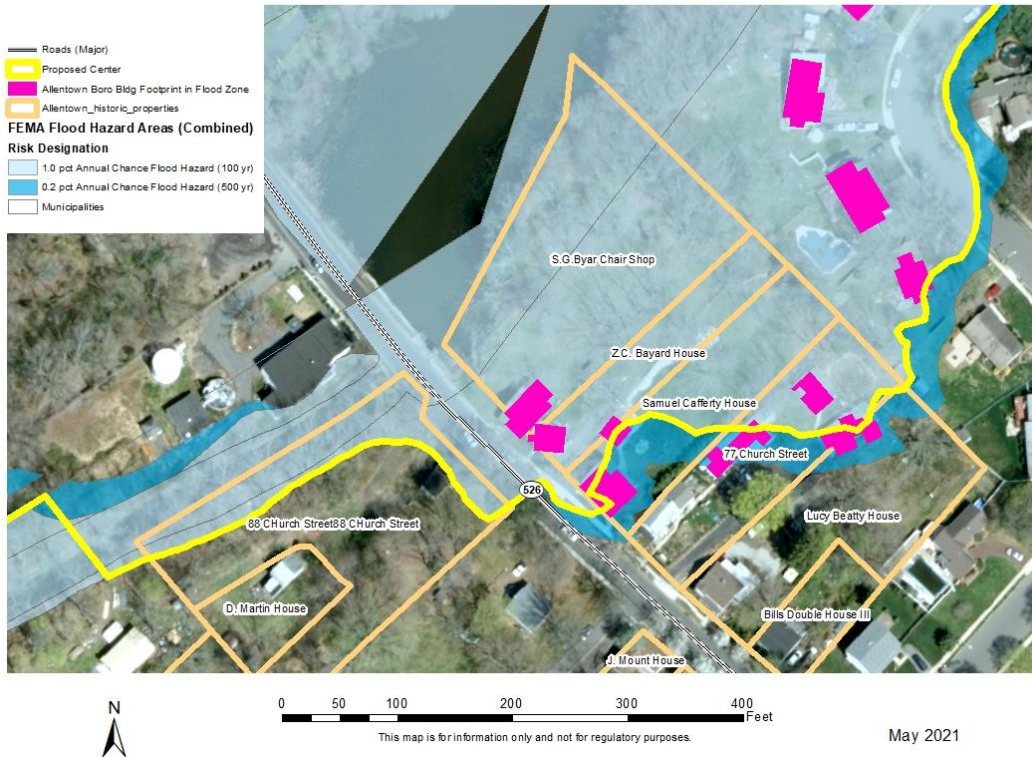
In addition, Allentown proposed on May 3, 2018 a modification to the historic district to add an additional tract (Block 17, Lot 12) outside of the flood zone and bounded by South Main Street, New Road and County Route 524 in the eastern entrance to the Borough.



Allentown Borough, Monmouth County Historic Building/ Structure Footprints within FEMA Flood Hazard Areas



Allentown Borough, Monmouth County Historic Building/ Structure Footprints within FEMA Flood Hazard Areas



Wastewater and Water Supply

Wastewater Analysis

The infrastructure to collect and convey sanitary wastewater within the municipality is owned and operated by the Allentown Wastewater Treatment Plant (AWWTP). Located on a 5-acre parcel at Breza Road (Block 17, Lot 101) in northwest Allentown, municipal wastewater is pumped to the Allentown sewage treatment plant (STP) (#NJ020206) and treated effluent is discharged to Doctors Creek. The AWWTP flooded in 1989 and was shut down for 6 weeks and is undergoing flood resiliency upgrades at this time as agreed upon through a 2018 administrative consent order (ACO) with DEP (Project #5340567-05; PI #46034). Resiliency construction commenced in January 2020 and is expected to be completed in July 2021. The current Monmouth County wastewater management plan (WMP) was adopted April 11, 2013. The currently approved Future Wastewater Service Area Map (SSA) was adopted in 2014.

Capacity Analysis

The WQMP rule at NJAC 7:15-4.5(b)5 adopted in 2013 requires that if the “existing permitted flow is 80% or more at the time of WMP development, a municipality must determine, as part of the buildout analysis, if remaining projected growth (for buildout of the SSA) will result in a capacity deficiency and, if the potential for a capacity deficiency exists.” The AWWTP is currently permitted to discharge up to 0.238 MGD. Recent discharge monitoring reports (DMR) data between February 2020 and March 2021 indicates that the WTP is discharging a monthly average of approximately 0.193 MGD. Therefore, the existing flow is above 80% of the permitted capacity at 81%. Recent elevated discharges may be a result of construction at the WWTP. The submitted draft County-wide WMP buildout analysis for the entire AWWTP SSA projects a goal of future flow of 0.1575 MGD or 66.17% of the permitted capacity. Based on the current buildout analysis, the AWWTP does not anticipate an expansion for the STP permitted flow at this time.

Wastewater Infrastructure in Floodprone Areas

Critical utility infrastructure like powerlines, sewers, and potable water lines can be adversely impacted by flooding. The wastewater treatment plant sewer service area covers 311.44 acres and 78.6% of the total 395 acres of Allentown Borough. Approximately 25.22 acres (8.1%) of Allentown’s sewer service area is also in the flood zone as follows:

- 100 Year ~ 21.42 Acres or 6.9%
- 500 Year ~ 25.22 Acres or 8.1 % (100 + 500 Year Flood Zone)

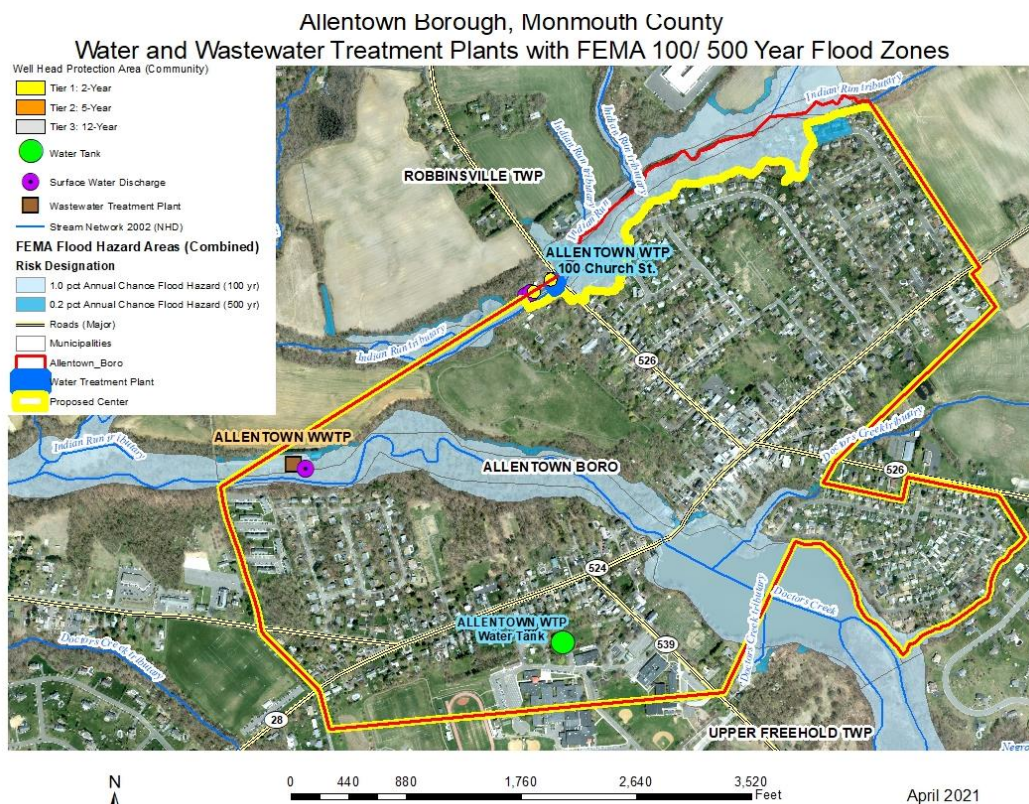
On July 5, 1989, the Allentown Wastewater Treatment Plant (AWWTP) suffered catastrophic flooding and a six week shutdown of the plant. Allentown has identified the treatment plant pump stations, and outfall infrastructure in the flood zone and their specific vulnerability to flooding events. In January 2020, construction began on flood resiliency improvement measures at the AWWTP including construction of a floodwall, updating, and elevating critical infrastructure.

DEP supports ongoing resiliency improvement measures at the Allentown wastewater treatment plant as recommended in the 2017 Monmouth County Hazard Mitigation Plan including constructing a floodwall, elevating critical infrastructure and relocating an

outfall pipe. Allentown should assess vulnerability of additional wastewater infrastructure and evaluate resiliency solutions.

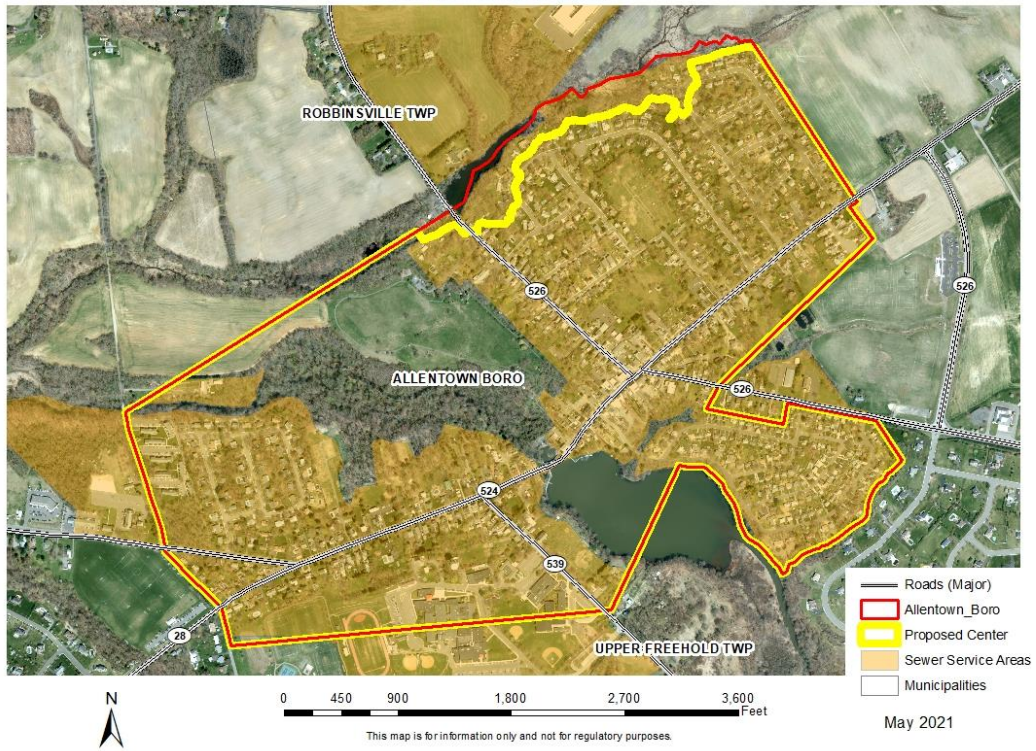
While the sewer service area includes all of Allentown Borough, Allentown should also identify any active commercial or home septic systems.

The current sewer service area also includes areas identified as habitat for threatened and endangered species. Future evaluation of the County approved sewer service area may eliminate those species habitat areas. Such parcels would be subject for review either through a Municipal Chapter of the Monmouth County Wastewater Management Plan or through a site specific amendment pursuant to the DEP Water Quality Management rules.

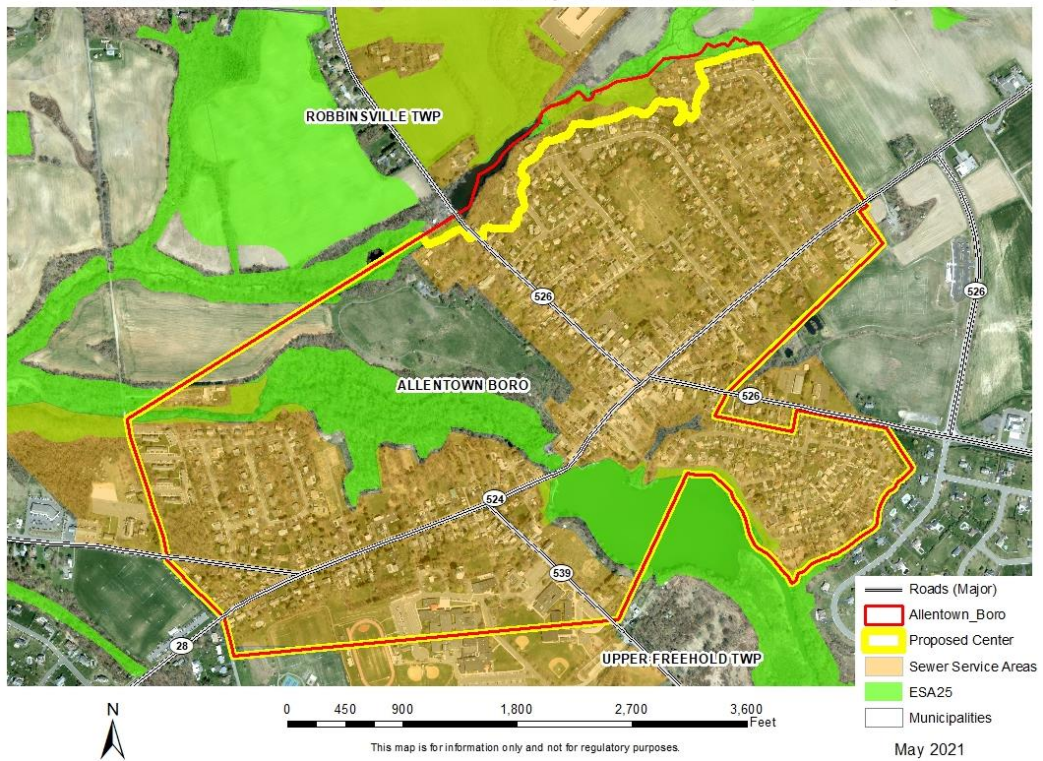


Allentown Wastewater Treatment Plant (AWWTP) – Breza Road, Block 17, Lot 1.01
Allentown Water Treatment Plant (AWTP) and Pump Station – Church Street, Block 17, Lot 98
Allentown Water Storage Tower – South Main Street – Block 15, Lot 7

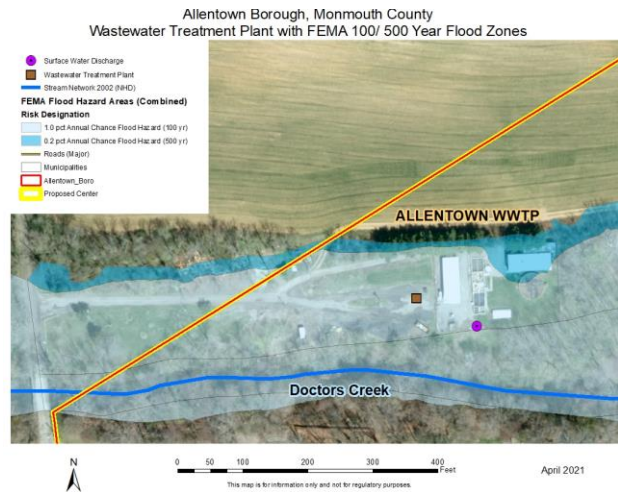
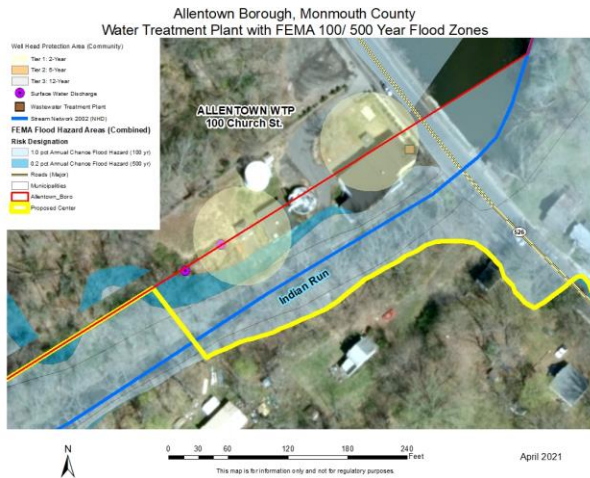
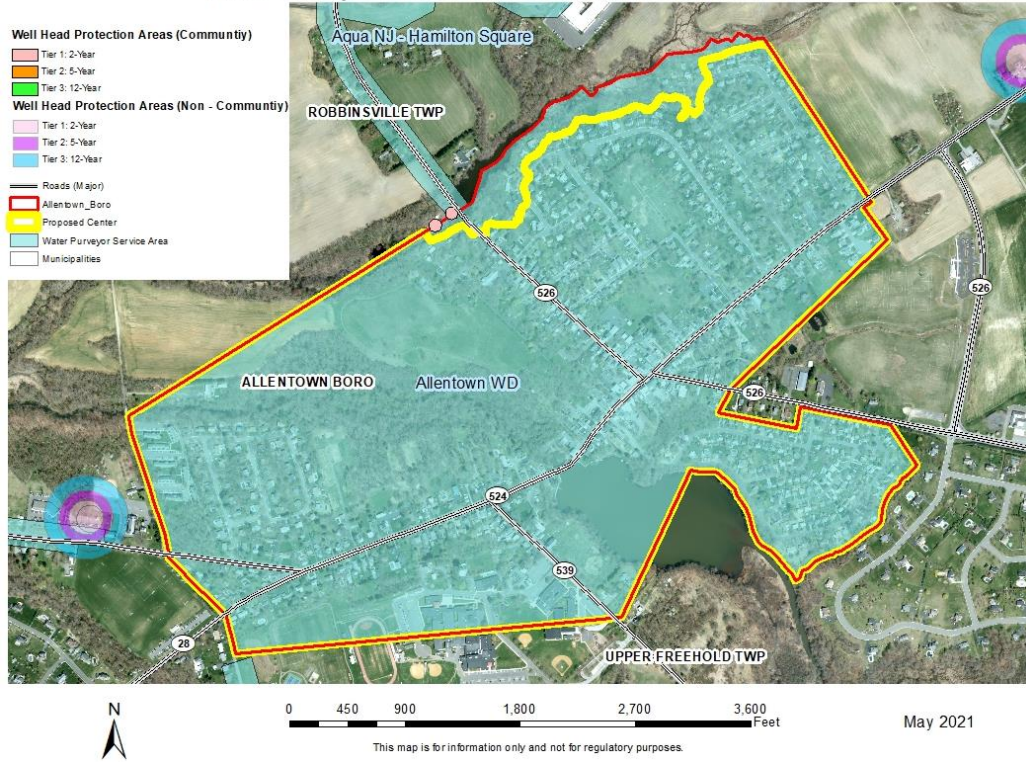
Allentown Borough, Monmouth County Sewer Service Area



Allentown Borough, Monmouth County Sewer Service Area with Environmentally Sensitive Areas (≥ 25 Acres)



Allentown Borough, Monmouth County Water Purveyor Service and Well Head Protection Areas



Water Supply

Allentown Borough operates its own public potable water service area and potable water treatment plant at 100 Church Road (AWTP). Two wells deriving groundwater from the Englishtown Formation Aquifer on Church Road at the border with Robbinsville opposite Indian Lake provide potable water to a service area encompassing the entire borough. A water storage tower is located east of south main street north of Allentown High School at Block 15, Lot 7.

Capacity Analysis

The Bureau of Water Systems Engineering (BWSE) Deficit/Surplus webpage indicates that the Allentown Water Treatment system has a surplus of water available to service all pending and future projects that have received approval through the BWSE. The BWSE's Deficit/Surplus analysis for the Borough indicates that AWTP has sufficient treatment capacity and infrastructure to meet public demand via the two active potable supply wells and the Church Street water treatment plant has a capacity of 0.194 MGD. This capacity is more than their summer and peak demand.

- Total capacity of all combined sources - 1.102 MGD
- Firm capacity (total capacity-largest source) - 0.382 MGD
- Water Allocation limits = 9 MGM, 100 MGY
- Current (utilized) peak demands = 0.188 MGD (06/2020), 5.644 MGM (06/2020), 57.795 MGY (2016)
- Surplus (available) water = 0.194 MGD, 3.36 MGM, 42.20 MGY

Water Supply Infrastructure in Floodprone Areas

Potable drinking water is provided to Allentown by the Borough. Approximately 51 acres of the water purveyor area is within a flood zone.

Allentown should identify any water supply infrastructure located in the flood zone and determine their specific vulnerability to flooding events.

A Well Search should be conducted to determine if there are any private domestic wells within the Borough and their vulnerability to flooding. DEP recommends that Allentown both inform the owners of their vulnerability and identify potential solutions to that vulnerability.

Well Head Protection Areas

Areas of land surrounding public community wells, known as Well Head Protection Areas, from which contaminants may move through the ground to be withdrawn in water taken from the well have been delineated. Protection of the public health, safety, and welfare through protection of ground water resources, ensures a supply of safe and healthful drinking water.

Well Head Protection Areas (WHPA) are mapped areas calculated around a Public Community Water Supply (PCWS) well in New Jersey that delineates the horizontal extent of groundwater captured by a well pumping at a specific rate over a two-, five-, and twelve-year period of time for confined wells. The confined wells have a fifty-foot radius delineated

around each well that defines the well head protection area, which must be acquired and controlled by the water purveyor in accordance with Safe Drinking Water Regulations (see NJAC 7:10-11.7(b)1). WHPA delineations are conducted in response to the Safe Drinking Water Act Amendments of 1986 and 1996 as part of the Source Water Assessment Program (SWAP). The delineations are the first step in defining the sources of water to a public supply well. Within these areas, potential contamination will be assessed and appropriate monitoring will be undertaken as subsequent phases of the SWAP. WHPA delineation methods are described in *Guidelines for Delineation of Well Head Protection Areas in New Jersey*³.

Allentown should identify and map the wellhead protection area around the community public supply in its planning documents. Allentown shall adopt a Water Conservation Plan, including defining the wellhead protection area in Allentown Borough, and approximate acres of Tier 1, Tier 2, and Tier 3 for all wells in Community Wellhead Protection Areas in Allentown Borough and immediately adjacent to Allentown. This includes the one wellhead protection area around the two municipal water supply wells within Allentown Borough and two non-community wellhead protection areas outside of Allentown Borough - one over the border into in Upper Twp and one over the border into Robbinsville, both of which are adjacent to the proposed designated Village Center.

Stormwater Management

Improvements to surface water infiltration and stormwater management can be implemented in many ways including replacing impervious pavement with pervious surfaces, maintain and restore all surface water bodies potential for additional stormwater retention through dredging and silt control, constructing green infrastructure, requiring buffers to surface water bodies, restoring wetland areas, adhering to state requirements for stormwater management best management practices, and adding stricter municipal building codes. To reduce flooding as temperatures and precipitation rise, **DEP recommends that Allentown continue to address stormwater runoff and improve stormwater retention on site at its source.**

Allentown updated their Stormwater Management Plan and Ordinance on March 15, 2021. To achieve compliance with their MS4 permit by submitting to DEP updated outfall location maps **Allentown should also inventory and update maps of any stormwater outfalls located within the flood zone and determine their specific vulnerability to flooding events. Zoning ordinance and building codes should be updated to incorporate overlays for aquifer recharge, stream corridor and greenway conservation, and steep slope erosion control.**

Allentown should adopt an Impervious Surface Reduction Plan to evaluate and reduce impervious surfaces and improve stormwater in-situ recharge.

³ <https://www.state.nj.us/dep/njgs/whpaguide.pdf>

Allentown should seek opportunities to install green infrastructure measures and expand stream corridor buffer areas to offset increased stormwater, but also to lower the impacts of the heat-island effect by reducing the amount of impervious surfaces.

Social Vulnerability and Human Health

Population Assessment

Allentown Borough is a 395-acre community with a population of 1,825 (Allentown Master Plan 2018) with a designated Historic Village Center. Of the existing 735 housing units, there is a homeowner and rental vacancy of less than 1.5%. 499 units were classified as family households, 205 as non-family households and 158 units occupied by senior citizens over 65. The Borough is almost completely built out and only approximately 9% of land is vacant or underutilized. Those living below the poverty line include 1.8% of families and 2.8% of all residents. The median income of Allentown residents is at 65% of the national average.

In planning for climate change related resilience measures, Allentown must also consider the vulnerability of various populations within the Borough to adverse effects of climate change. All residents of Allentown are vulnerable to adverse impacts of a climate change, including an increase in temperature and precipitation and a degradation of natural resources. However, climate change also impacts residents differently based on their location in the Borough, their social and economic situation, and their ability to anticipate, resist, or recover from a natural hazard.

	Allentown Borough	Monmouth County	New Jersey
Land Area (sq.mi)	0.6172	468.79	8,723.09
Population	1,825	618,795	8,881,845
Households	713	235,362	3,213,362
Avg. Household Size	1.85	2.61	2.73
Housing Units	735	262,925	3,605,401
Median Household Income	\$61,101	\$99,733	\$93,902
Per Capita Income	\$45,481	\$51,700	\$40,895
Poverty Rate (% of Families)	1.8	6.2	7.6
Civilian Population in Labor Force over 16	1036/100%	409,642.29/66.2%	4,675,686/52.6%

Data Source: Social Explorer Tables: ACS 2018 (5 yr estimates) (SE) ACS 2018 (5 yr estimates), US Census Bureau

For those living near Allentown's flood zones, increased stormwater runoff under elevated precipitation and current impervious cover conditions could lead to catastrophic flooding. Any vulnerable residents that are adjacent to or in the floodplain may be at greater risk to flooding. **Allentown should evaluate residents living in tracts close to or in the floodplain including the elderly, disabled, minorities, and those without personal transportation to identify the social vulnerabilities they may face as a result of increased flooding.** For example, if there are people without cars who rely on public transportation, increased flooding could result in loss of wages or their jobs if they cannot get to work on flooded days.

Environmental Justice

As of September 2020, New Jersey has passed new environmental justice legislation and guidance, building on Executive Order 23 to mandate integration of equity considerations into government decision-making. All municipalities should seek to reduce disproportionate environmental and public health stressors and increase environmental and public health benefits for communities of concern, which defined as community block groups having concentrations of low-income, minority, or limited English-proficient residents. **Municipalities should empower residents, particularly their most socially vulnerable residents, to meaningfully participate in decision-making that affects their environment, communities, and health.** More information can be found on the Office of Environmental Justice Website, <https://www.nj.gov/dep/ej/>.

The Borough Housing and Fair Share Plan in accordance with Municipal Land Use Law (MLUL) is included in the Housing Element of the Master Plan update (2018), supersedes the 2008 adopted plan, and addresses requirements of the Council on Affordable Housing (COAH). Most recently revised in 2018, a vacant land inventory totaling approximately 9 acres, was completed under COAH rules NJSA 5:97-5.1 and has been utilized to meet affordable housing obligations on limited available property through development of vacant land and rehabilitation of vacant or underutilized existing buildings. Although difficult to meet required affordable housing units because the lack of available vacant land, the DEP does not support affordable housing in flood zones. Several lots listed on Allentown's vacant lot inventory have regulated wetlands or potential flood areas.

For areas in need of redevelopment outside the limit of the proposed village center and have further environmental constraints may not be considered by DEP to be eligible for necessary permits to redevelop a vacant property. **As Allentown explores siting of affordable housing, it should note that two of the vacant lots between the north shore of the Millpond and Waker Avenue (County Rt 526) have significant wetlands.**

Healthy Communities

Department of Health data is limited, at this time, for Allentown due to its size. DOH data is more available for municipalities with larger populations. Data for Allentown can be found at <https://www-doh.state.nj.us/doh-shad/>.

Contaminated Sites, Solid and Hazardous Waste, & Recycling

Known Contaminated Sites

To protect public health, Allentown shall maintain a map of known contaminated sites and their remediation status. Allentown shall also conduct an inventory of home sources of contamination including residential underground heating oil tanks and septic systems.

Approximately 2 known contaminated sites have been identified within municipal boundaries that have an impact on ground water quality and are or have been subject to remediation measures. These include gas station underground storage tanks and a former municipal landfill. Adhering to DEP regulations for spill prevention and completing any required remediation and long-term groundwater monitoring of existing contamination are required in order to protect this valuable resource and public health. Allentown Borough Known Contaminated Sites:

Program Interest Name	Address	PI #
Allentown Shell Service Station	3 Waker Avenue at North Main Street	0022197
Allentown William Penn Ink	148 South Main Street	000830

These two known contaminated sites in the proposed center were also identified with Groundwater Contamination Areas.

Brownfields

Although Allentown identifies two contaminated sites within the proposed center, **Allentown should identify if any of these Known Contaminated Sites (KCS) meet the DEP definition of a brownfield site.**

The Brownfield Act (N.J.S.A. 48:3-51) defines “brownfield” as:

“[A]ny former or current commercial or industrial site that is currently vacant or underutilized and on which there has been, or there is suspected to have been, a discharge of a contaminant.”

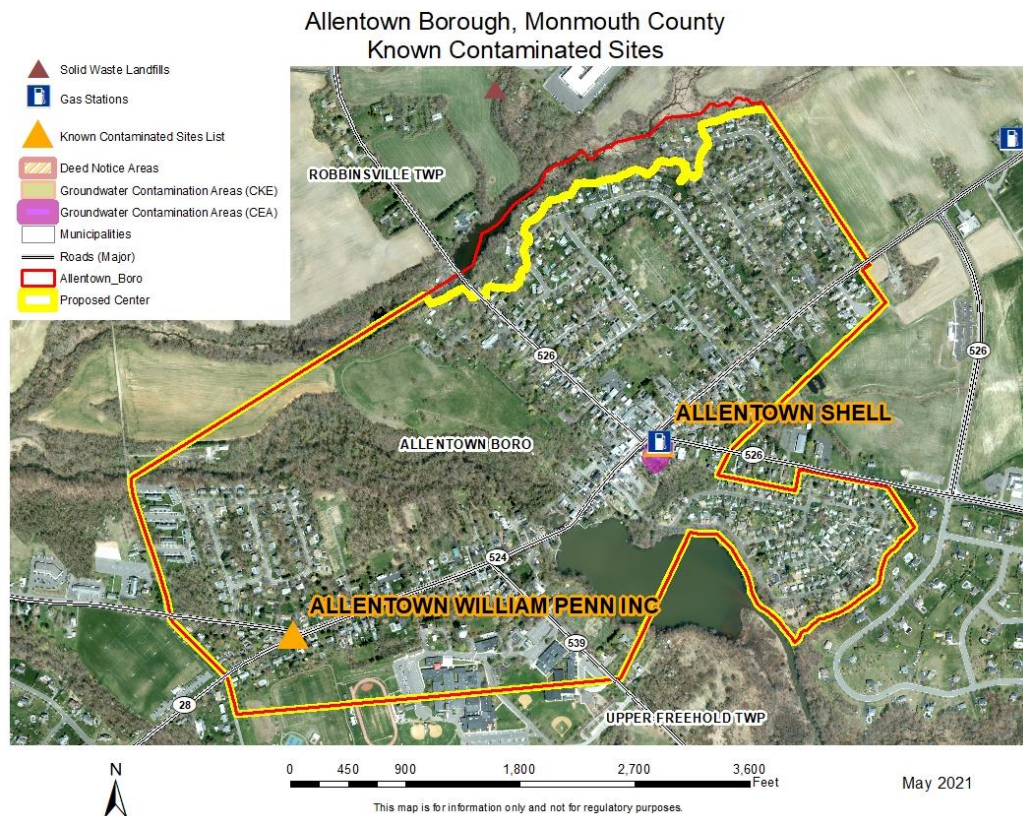
The Solar Act (N.J.S.A. 48:3-51) also defines “brownfield” as:

“[A]ny former or current commercial or industrial site that is currently vacant or underutilized and on which there has been, or there is suspected to have been, a discharge of a contaminant.”

If the Township pursues brownfield cleanup and development in the future, DEP recommends taking actions as part of the Sustainable Jersey Certification Program. These actions include Brownfield Inventory and Prioritization, Brownfield Reuse Planning, Brownfield Marketing, and Brownfield Assessment and Investigation. Each of these Sustainable Jersey Actions provide information on why they are important and how they can be accomplished. There are also resources provided to help municipalities accomplish the Action goals and examples of what other municipalities have done. The DEP has also created programs to aid municipalities with the cleanup of their brownfield sites.

Contaminated Sites and Waste Facilities in Flood prone Areas

The Shell Service Station undergoing remediation related to underground storage fuel tanks is not located in the flood zone but is adjacent to it.



Solid and Hazardous Waste

DEP recommends that Allentown update their waste management plan to encourage increased recycling and reduction of solid waste removal by public, and private facilities that either collect, transfer, process, or dispose of solid waste or recyclables on its municipal inventory.

Allentown should also continue to inform its residents of any opportunities for recycling including additional drop-off depot locations and opportunities for residents, any Borough plans to build additional waste management facilities in town, and any additional waste facilities or services to provide a more holistic view of how the Borough manages its waste.

Recycling

Allentown Borough has provided a recycling statement of consistency in its self-assessment to meet the requirement. Per [N.J.S.A. 13:1E-99.11 et seq.](#) (Recycling Act), NJ Statewide Mandatory Source Separation and Recycling Act, Allentown should build on this statement and identify a recycling coordinator, include provisions for recycling in its master plans,

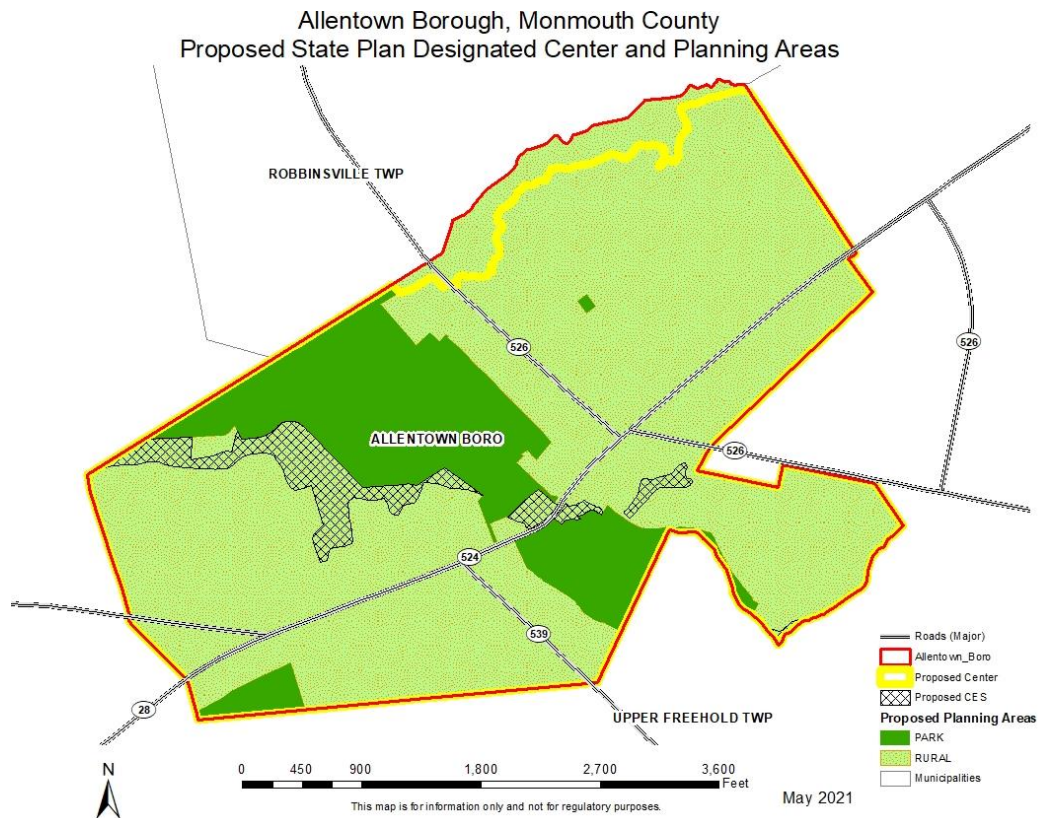
provide the State with tonnage reports each year, and publicize recycling provisions every six months.

Similarly, the Borough has met its obligation to list at least one municipal recycling ordinance, (Borough Code Section 17-1,2) although this can be expanded upon. **DEP recommends that the Township notify the State of any future recycling ordinances adopted through a statement of consistency, pursuant to N.J.S.A. 13:1E-99.16(b).** Future communication with the State should also include long-term plans including recycling education campaigns, how the municipality plans to enforce proper recycling practices, and potential plans to build upon the current recycling infrastructure in order to provide the State with an understanding of how the municipality plans to improve its current recycling system.

Assessment of Proposed Center(s) and Planning Area(s)

The MSA presented by Allentown Borough includes a proposal to re-endorse the existing village center boundary that encompasses the entire 395 acres of the Borough. The Borough is entirely in Planning Area Rural PA-4. **The DEP recommends a revised Village Center of 380 acres that includes most of the Historic District but excludes 12 full lots and 14 partial lots in the one-percent (100-year) flood zone along the northeast border of the Borough.** The proposed Village Center boundary reduces the existing boundary and avoids potential conflicts with threatened and endangered species' habitat and flood vulnerability.

As noted in the report above, there are wetlands, threatened and endangered species habitat, and floodprone areas that remain within the DEP-Proposed Center. These areas located outside of preserved open space have been identified as Critical Environmental Sites.



Summary of Recommendations

Assessment of Proposed Center(s) and Planning Area(s)

In reviewing the Allentown Master Plan adopted June 4, 2018 and the State Plan endorsement Municipal Self Assessment dated March 23, 2021, the Municipality proposes the 395 acre Allentown Village Center for re-endorsement. As a small, mature community, the Borough does not anticipate any new major development or population growth. Re-endorsement of a State Plan designated Village Center promotes preservation of the historic district, preservation of natural resources, and growth of public access conservation areas. A desktop analysis has shown that a portion of the proposed center has identified critical species habitat and extensive flood zone areas.

- The Borough needs to further identify in proposed preservation or redevelopment areas any vulnerabilities to future flooding and adverse impacts related to climate change. Resiliency actions and restrictions should be applied to any sections in flood zones. DEP can offer Technical Assistance in clarifying development constraints for sites.
- Due to the documented threatened and endangered species habitat and areas in flood zone, DEP recommends that portions of the existing Village Center as documented in the tables above (12 full lots and 14 partial lots) be removed from the MSA proposed center in order to protect state endangered species and resources. The resulting Village Center is 380 acres and includes 97.5% of the Borough and the Historic District.
- Future development in the Borough will likely be limited by a shortage of available vacant and open land, overlapping restrictions of Special Flood Hazard Areas, and regulated riparian zones. The Borough's zoning ordinance should be updated to include overlays that address stormwater management, aquifer recharge, steep slopes, 100-year

flood zones and critical habitat and habitat corridors. This includes a CES overlay for structures in the 100-year flood zone and environmentally sensitive areas (ESA).

- Allentown should update its Land Development Ordinance to include sustainable development practices.

Climate Change Resiliency

- Allentown should prepare for climate impacts described in the state Climate Change Science Report and available on the NJDEP website by completing a climate vulnerability assessment, adopting a Climate Resiliency Plan and incorporating climate resiliency into all applicable ordinances.
 - The vulnerability assessment should take an inventory of critical facilities, specifically water, sewer, transportation, and energy infrastructure, as well as redevelopment areas and land use plans. It should then assess the risk that future projections of climate conditions such as increased temperature, precipitation, and sea level rise, as well as other natural hazards that the Borough experiences, pose for these assets and the population.
- This analysis has an extended focus on increased precipitation and flooding. The Borough should also prepare for impacts of increased heat.
- Allentown should update its Hazard Mitigation Plan or annex to the county Hazard Mitigation Plan on a regular interval to address changing climate conditions.
- Allentown adopted a Hazard Mitigation Plan (2017) and shall include a NJ State Police approval letter for the Local Emergency Management Plan.

Flooding

- To address flooding increases, largely due to increases in intense short-term rain events and stormwater runoff, DEP recommends that Allentown utilize the Special Flood Hazard Area for the 0.2 percent (500-year) storm. In assessing flood vulnerability, the Township should evaluate its sewer, water, and stormwater infrastructure, as well as its transportation and evacuation routes.
- The Borough has identified open space, vacant, and underutilized land vulnerable to future flooding and should maintain up to date mapping and inventory of areas that flood regularly, including repetitive loss (RL) and severe repetitive loss (SRL) properties, roadways and intersections, with particular attention to evacuation routes or critical access areas.
- Future development in the Borough will likely be limited by overlapping restrictions of Special Flood Hazard Areas and riparian zones, wetlands, and critical environmental species habitat.
- When evaluating any construction within the identified floodplain of Allentown, the Borough and others involved must also consider the cost of damage and replacement in the event of flooding.
 - Any proposed conceptual redevelopment or conservation plan should be presented to DEP early in review process, before planning board approval, and before submittal of any permit applications to determine if the project has any fatal flaws rendering it un-permittable in its current design.
- The DEP recommends that Allentown Borough, as per the 2018 Master Plan, enhance its own zoning regulations and building codes to encourage building outside of the flood

zone and to minimize construction in flood prone areas to reconstruction of existing buildings. Flood zone area new construction or redevelopment of existing buildings should avoid high density concentration and areas of severe flooding.

- Construction of any critical utility line and associated infrastructure, emergency services, or public services buildings (schools, hospitals, churches, etc.) should be avoided in the flood hazard area.
- DEP recommends that Allentown Borough adopt an updated floodplain development ordinance (<https://www.ecode360.com/35610472>) that is consistent with the most recent standards and National Flood Insurance Programs. For Guidance please review the riverine model ordinance at <https://www.nj.gov/dep/floodcontrol/modelord.htm#:~:text=The%20Model%20Ordinance%20identifies%20the,not%20be%20the%20Construction%20Official> and FEMA guidance at <https://www.fema.gov/floodplain-management/manage-risk/local>.
- DEP encourages any town that has homes and neighborhoods that repetitively flood to consider contacting the DEP Blue Acres program regarding buyouts. (https://www.nj.gov/dep/greenacres/blue_flood_ac.html)
- Green infrastructure should be incorporated into all projects within the floodplain.
- Allentown shall continue to develop a stream corridor buffer area and protection ordinance, which would reduce sedimentation to Conines Millpond and improve stormwater management.

Historic Resources

- Allentown amended its Historic and Cultural Resources Inventory and Historic Preservation Implementation Ordinance in 2018. Historic structures within the Borough's Historic District should continue to be evaluated and protected with enhanced stormwater management and flood minimization plans within the municipal code.
- Revise the Borough code to implement within the historic district the following:
 - Adopt an updated historic district overlay with defined historic district buffer area;
 - Adopt architectural and development standards within and adjacent to the district;
 - Maintain an Historic Preservation Commission;
 - Continue to update the historic sites inventory and include historic sites in capital improvement program especially related to flood resiliency; and
 - Adopt an historic vista ordinance - <https://www.ecode360.com/35605049?highlight=vistas&searchId=4417242711656817#35605049>)

Open Space and Wildlife

- DEP recommends that Allentown regularly update their natural resources inventory and adopt a resource conservation protection overlay.
- DEP recommends that Allentown incorporate a habitat corridor overlay into the zoning ordinance.
- Allentown shall expand its conservation corridors connecting parks and walkable community areas via easements and additional open space preservation.
- Allentown should update its Open Space and Recreation Plan to protect Borough open spaces and expand conservation easements.

- Continue to work with Monmouth County and surrounding municipalities to provide and expand corridors of open space and natural features.
- Support habitat connectivity, adaptation to changing climate conditions, and to protect historic structures in areas such as Conines Millpond/Allentown Lake, Heritage Park, Indian Lake, Doctors Creek, Indian Run and their tributaries, and other municipal parks and recreation areas.
- Allentown should also incorporate conservation easement tracking and monitoring in its Open Space and Recreation Plan and a habitat conservation protection ordinance.
- Allentown should expand on long-term adaptive management practices for tree shade and forestry to preserve its tree cover as precipitation and temperatures increase.
 - Expand tree ordinance 12-2017 to protect trees during development and in accordance with 2016 Community Forest Management Plan.
 - Explore adopting a Community Wildfire Protection Plan utilizing guidance from NJ Forest Fire Service.
- Allentown should promote the recolonization and reuse of open field habitats for ground nesting and foraging birds.
- Allentown shall continue to expand public outreach and educational opportunities.
- Although Allentown has identified only 0.9 acres of open farmland, the Borough should adopt a Farmland Preservation ordinance.
- Allentown should provide an update on its schedule to address the Indian Dam rehabilitation.

Wastewater, Water Supply, and Stormwater

- Allentown should regularly re-assess vulnerability of the municipal stormwater, wastewater management system and potable water supply system infrastructure that serves the town including any treatment plants, pump stations, delivery piping or outfalls in the flood zone, determine their specific vulnerability to flooding events, and evaluate resiliency solutions.
- DEP recommends that Allentown continue to address stormwater runoff, improve retention on site at its source, reduce flooding and maintain water quality as temperatures and precipitation rise. Improvements can be implemented in many ways, including replacing impervious pavement with pervious surfaces, maintaining and restoring all surface water bodies' potential for additional stormwater retention through dredging and silt control, constructing green and natural infrastructure, requiring buffers to surface water bodies, restoring wetland areas, adhering to state requirements for stormwater management best management practices, and adding stricter municipal building codes.
- Stormwater Management - DEP recommends that Allentown continue to address stormwater runoff and improve stormwater retention on site at its source.
 - Allentown updated their Stormwater Management Plan and Ordinance on March 15, 2021.
 - Allentown shall achieve compliance with the MS4 permit by submitting to DEP updated outfall location maps at its wastewater treatment plant and elsewhere in the borough.

- Update zoning ordinance and building codes to incorporate overlays for aquifer recharge, stream corridor and greenway conservation, and steep slope erosion control.
- Inventory and update maps of any stormwater outfalls located within the flood zone and determine their specific vulnerability to flooding events.
- Adopt an Impervious Surface Reduction Plan to evaluate and reduce impervious surfaces and improve stormwater in-situ recharge.
- Seek opportunities to install green infrastructure measures and expand stream corridor buffer areas to offset increased stormwater runoff and to lower the impacts of heat-island effect directly related to the amount of impervious surfaces.
- Wastewater Management – Allentown’s wastewater treatment plant is located in the 100-year flood zone. The Borough is currently engaged in constructing resiliency improvements at its wastewater management facility.
 - DEP supports ongoing resiliency improvement measures at the Allentown wastewater treatment plant as recommended in the 2017 Monmouth County Hazard Mitigation Plan including constructing a floodwall, elevating critical infrastructure and relocating an outfall pipe.
 - While the sewer service area includes all of Allentown Borough, Allentown should also identify any active commercial or home septic systems.
 - The current sewer service area also includes areas identified as habitat for threatened and endangered species. Future evaluation of the County approved sewer service area may eliminate those species habitat areas. Such parcels would be subject for review either through a Municipal Chapter of the Monmouth County Wastewater Management Plan or through a site-specific amendment pursuant to the DEP Water Quality Management rules.
- Potable water supply system – Allentown’s potable water treatment facility is partially located in the 100-year flood zone. Allentown shall identify any water supply infrastructure located in the flood zone and determine their specific vulnerability to flooding events.
 - Additionally, DEP recommends that Allentown determine if there are any private domestic wells within the Borough and both inform the owners of their vulnerability and identify potential solutions to that vulnerability.
 - Allentown shall identify and map the wellhead protection area around the community public supply wells in its planning documents. This action includes including defining the wellhead protection area in Allentown Borough, and approximate acres of Tier 1, Tier 2, and Tier 3 for all wells in Community Wellhead Protection Areas in Allentown Borough and immediately adjacent to Allentown.
 - Allentown shall adopt a Water Conservation Ordinance.
- Steep Slopes –
 - Allentown has prepared an inventory of steep slopes and should adopt a steep slope ordinance to prevent erosion, limit disturbance and preserve open space especially in and adjacent to riparian conservation corridors.

- Allentown should require a restriction of any disturbance of a steep slope unless it is either (1) redevelopment within the limits of existing impervious surface, or (2) new disturbance necessary to protect public health, safety, or welfare, provide environmental benefit, or to prevent hardship.

Contaminated Sites, Solid and Hazardous Waste, and Recycling

- Allentown identifies two contaminated sites within the proposed center that are currently undergoing remediation efforts and groundwater monitoring. Allentown should identify if any of these Known Contaminated Sites (KCS) also meet the current DEP definition of a brownfield site and evaluate for redevelopment.
- If the Borough pursues brownfield cleanup and development in the future, DEP recommends taking actions as part of the Sustainable Jersey Certification Program.
- To protect public health, Allentown shall maintain a map of known contaminated sites and their remediation status. Allentown should also expand its inventory of potential sources of contamination by identifying all commercial and private home underground storage tanks and septic systems.
- DEP recommends that Allentown update their waste management plan to encourage increased recycling and reduction of solid waste removal by public, and private facilities that either collect, transfer, process, or dispose of solid waste or recyclables on its municipal inventory.
- Allentown should also continue to inform its residents of any opportunities for recycling including additional drop-off depot locations and opportunities for residents, any Borough plans to build additional waste management facilities in town, and any additional waste facilities or services to provide a more holistic view of how the Borough manages its waste.
- Allentown should update its 2010 recycling ordinance and municipal solid waste and recycling management plan to identify not only public, but also private facilities that either collect, transfer, process, or dispose of solid waste or recyclables on its municipal inventory. Allentown should notify the State of any update to its recycling ordinances adopted through a statement of consistency, pursuant to N.J.S.A. 13:1E-99.16(b).
- Allentown should build on its statement of consistency and identify a recycling coordinator, include provisions for recycling in its master plans, provide the State with tonnage reports each year, and publicize recycling provisions every six months.

Environmental Justice and Social Vulnerability

- As per new environmental justice legislation, all municipalities should seek to reduce disproportionate stressors and increase benefits for socially vulnerable populations and frontline communities. Allentown can do this by empowering residents, particularly its most socially vulnerable residents, to meaningfully participate in decision-making that affects their environment, communities, and health.
- Allentown shall update its available land inventory of 2015 to further identify sustainable development potential while meeting conservation and environmental protection goals.

- Allentown shall update its affordable housing ordinance (11-2017) and shall develop an overlay for proposed affordable housing on vacant or underutilized land including the Towne Mews Apartments at 55 Breza Road and Rt 524.
- The Borough should update any assessment of any Redevelopment Areas vulnerable to future flooding, with regulated wetlands and/or with identified critical species habitat during the planning process that would limit any future affordable housing.
- As Allentown explores siting of affordable housing, it should note that two of the vacant lots between the north shore of the Millpond and Waker Avenue (County Rt 526) have significant wetlands, which will constrain development.
- Allentown should evaluate residents living in tracts close to or in the floodplain including the elderly, disabled, minorities, and those without personal transportation to identify the social vulnerabilities they may face as a result of increased flooding.

Greenhouse Gas Reduction and Energy

- Allentown should conduct an energy audit of all municipal owned buildings to identify energy inefficiencies. Allentown should also explore utilization of alternative fuels and green energy.
- All communities are encouraged to implement actions to meet New Jersey's goals for greenhouse gas emissions reduction. The Sustainable Jersey Gold Star in Energy identifies a suite of actions and levels of performance that municipalities can take to reduce greenhouse gas emissions. Information on the standard can be found at <https://www.sustainablejersey.com/actions/gold-star-standards>.
- Allentown shall update its Energy Master Plan in accordance with options outlined in updated Plan Endorsement guidelines.
- Allentown shall adopt a Greenhouse Gas Emissions Reduction Ordinance that encompasses energy efficiency and sustainable alternatives to transportation including bike paths, walking trails and contiguous sidewalks and potential congestion relief bypass route around downtown historic Allentown. For guidance please refer to the Great Plains Institute database of climate ordinances at:
https://www.betterenergy.org/blog/database-of-climate-ordinances-now-available-to-planners/?mc_cid=ee681f368d&mc_eid=64c234231d

NJ DEPARTMENT OF TRANSPORTATION

**State Development and Redevelopment Plan
Plan Endorsement
Opportunities and Constraints Analysis**

For:

Borough of Allentown, Monmouth County

September 21, 2021

This document constitutes the New Jersey Department of Transportation's component of the State Opportunities and Constraints Analysis conducted as part of the Plan Endorsement process. This document provides a collection of the most recent data and information that exists in the Department pertaining to transportation features, studies, projects, grants, designations and other significant issues as applicable. The document should serve as a baseline to inform the remainder of the Plan Endorsement process. It should be understood that this assessment reflects conditions as they presently exist, and that changes may occur at any time during the Plan Endorsement process.

NJDOT has examined the following categories for pertinent data:

State Highways

No state highways traverse Allentown Borough.

State Highway Access Management Code – Access Levels and Desirable Typical Sections

Not Applicable

Congestion Management System

Not Applicable

Major Capital Projects/Initiatives and Mitigation Projects

No projects appear in the FY 2020-21 Study and Development Program, the FY 2020-29 Statewide Transportation Improvement Program (STIP), or the draft FY 2022-31 STIP.

Designated Transit Villages

Not applicable.

Designated Scenic Byways

The Allentown Historic District is located within the Upper Freehold Historic Farmland Scenic Byway corridor. The Municipal Self-Assessment (MSA) states that the Borough assisted Monmouth County with the Upper Freehold Historic Farmland Scenic Byway Corridor Management Plan in 2010. The MSA also states that the Borough participates in a byway committee, along with Upper Freehold Township, Monmouth County and the Monmouth Conservation Foundation.

Open Local Aid Grant Projects

Allentown received \$375,000 in FY 2021 Municipal Aid for a sidewalk improvements program. The MSA includes this allotment as well as other funds received from various Local Aid programs.

Corridor Studies

Not Applicable.

Local Planning Assistance Projects

Not Applicable.

Bicycle and Pedestrian Local Planning Assistance Projects

No local assistance studies have been conducted.

Allentown has not adopted a Complete Streets policy according to the NJ Bicycle and Pedestrian Resource Center.

Public Use/General Aviation Airports

Not applicable.

Rail and Truck Freight

Moving Mindfully: Monmouth/Mercer Comprehensive Freight-Related Transportation Study for Western Monmouth and Southern Mercer Counties, the study area of which includes Allentown Borough, was released by NJTPA in September 2019 and is attached.

Traffic Engineering and Safety Initiatives

Traffic Engineering has no projects at this time.

Existing and Planned Park-and-Rides

Allentown Borough does not have any NJDOT-owned or leased park-and-rides at this time.

Other Significant Issues

None at this time.

ATTACHMENTS

**Moving Mindfully: Monmouth/Mercer Comprehensive Freight-Related
Transportation Study for Western Monmouth and Southern Mercer Counties**

NOTE: OPA may access NJDOT GIS data layers as needed.