

**NJ Department of Environmental Protection
State Plan Endorsement
Opportunities & Constraints Assessment Report
Township of Bedminster, Somerset County**

April 1, 2022

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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 Bedminster Township, Somerset 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

Bedminster Township encompasses 26.3 square miles (16,875 acres) in Somerset County. 24.72 square miles of the Township is located within in the New Jersey Highlands Region Planning Area and 1.58 square miles of the Township is located within the Highlands Preservation Area (PA13).

In addition to Highlands Preservation Area noted above, the underlying Planning Areas in the Township is made up of 24.5 square miles (93%) of Environmentally Sensitive (PA5) Planning Area, 0.28 square miles (1%) of Suburban (PA2) Planning Area, and approximately 23 acres (<1%) of Rural Environmentally Sensitive (PA42) Planning Area.

Existing Centers

Bedminster Township submitted a Municipal Self-Assessment which was deemed complete by the Department of State's Office of Planning Advocacy (OPA) on November 29, 2021. The MSA proposes renewing the designation for the Bedminster Village Center (264.95 acres) and the Pluckemin Town Center (493.95 acres) with a boundary change for one of these Center to include the AT&T campus on Block 43, Lot 1, a currently underutilized commercial lot proposed for redevelopment.

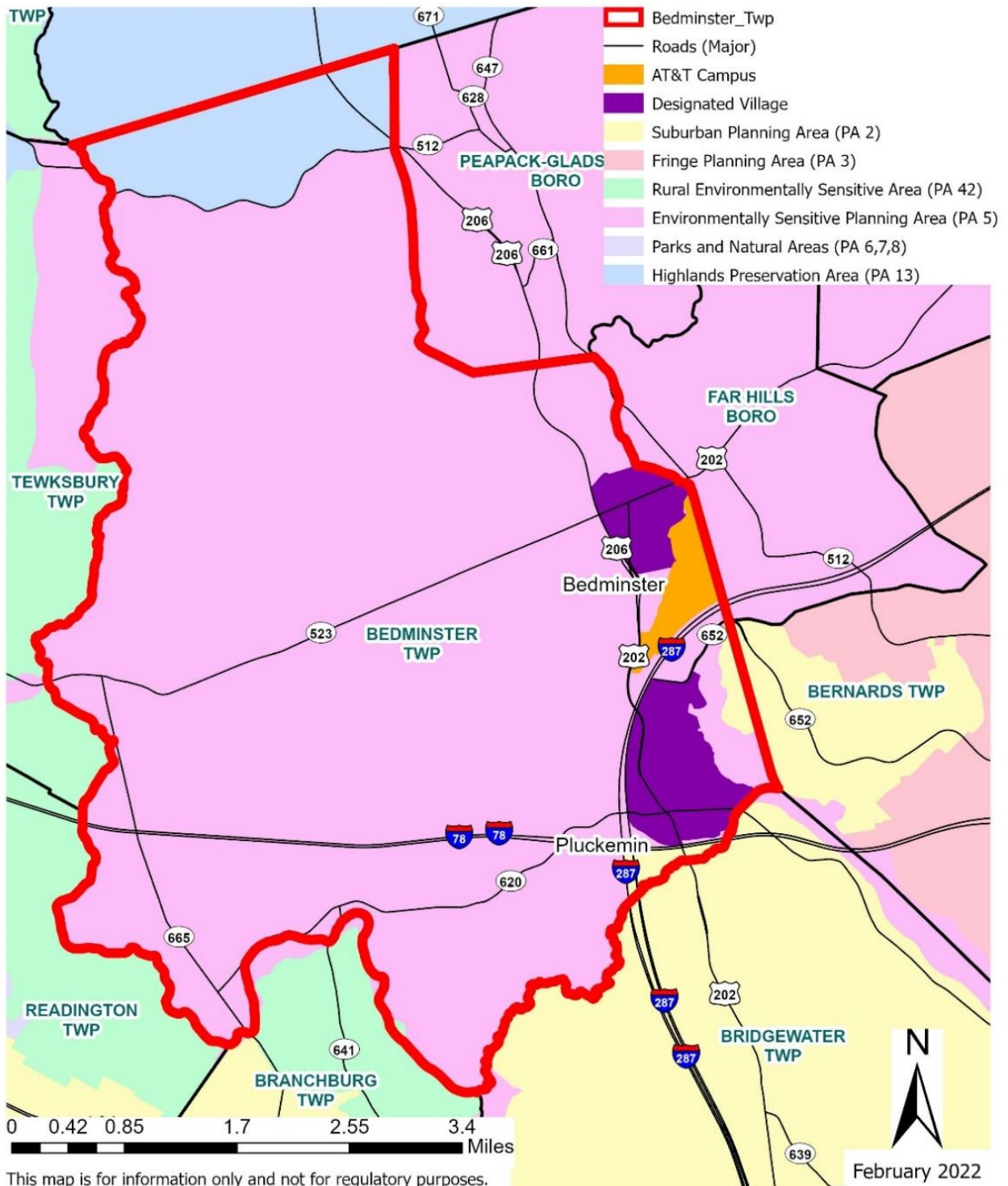
There are approximately 87.7 acres of land within the 1% floodplain on the eastern and southeastern portions of the Bedminster Village Center from the North Branch Raritan River. Additionally, there are 72.1 acres of Rank 5 habitat and 3.6 acres of Rank 4 habitat in the existing Bedminster Village Center. Due to these environmental constraints, DEP recommends renewing a revised Bedminster Village Center boundary that excludes these areas of flood hazard and habitat. However, there is opportunity to extend the western boundary of this village center to included existing development. There are minimal environmental constraints within the

Pluckemin Town Center, therefore DEP supports renewing the Pluckemin Town Center boundary.

The Bedminster MSA indicates that the Township would like one of these existing center boundaries to be extended to include the AT&T campus on Block 43 Lot 1. The lot borders the Bedminster Village Center to the northwest. However, due to the flood concerns and existing habitat noted above, the inclusion of the AT&T Campus in the Bedminster Village Center is not possible. Alternatively, DEP can support a new node for the AT&T Campus that is limited to existing development on the lot. Limiting the new proposed node in this way avoids significant impacts to the rank 5 habitat and the 1% floodplain that exist on the lot.

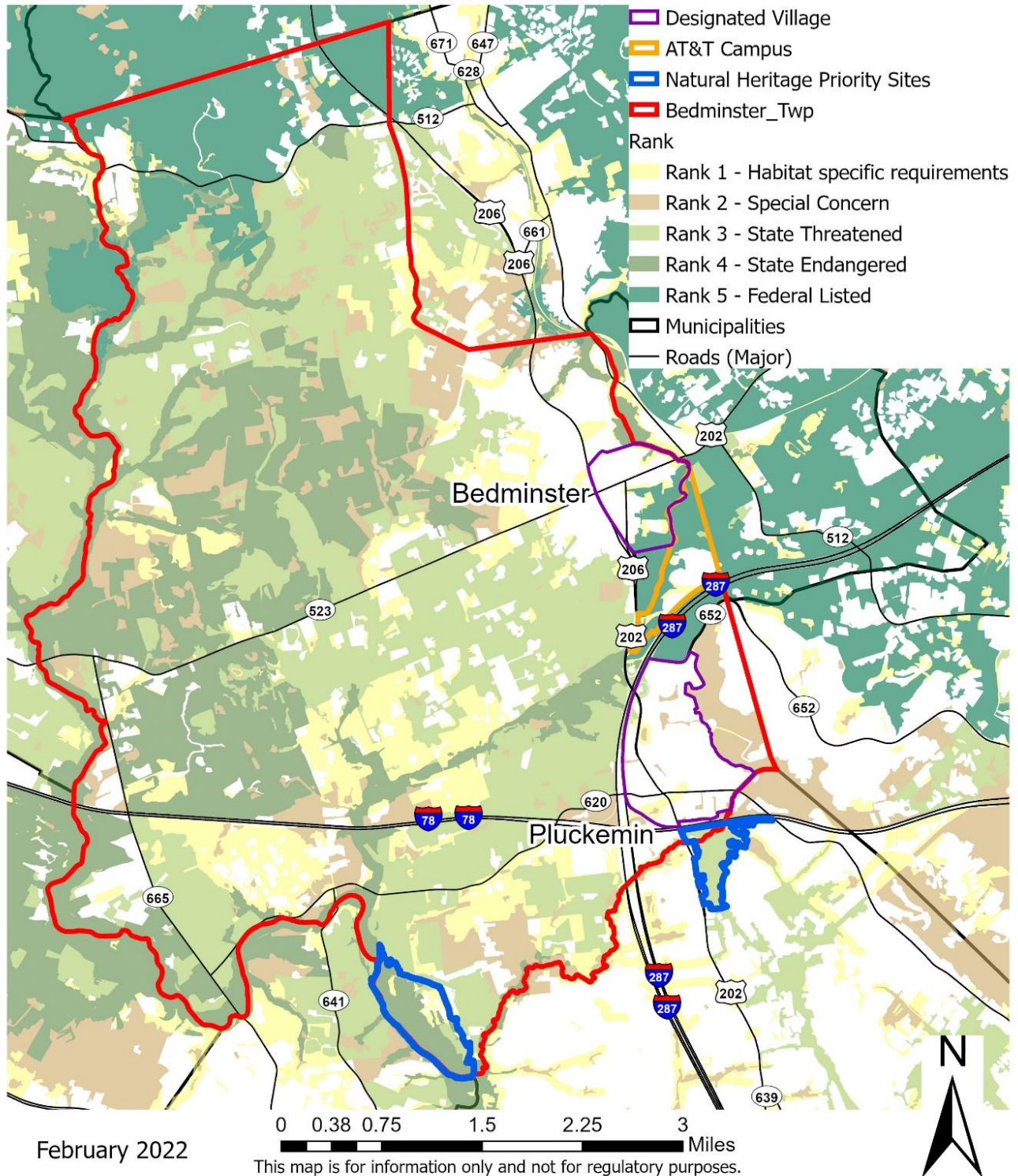
The Township does not propose changing any State Planning Areas in the MSA. However, DEP has identified the Pluckemin Overlook Natural Heritage Priority Site in the Suburban Planning Area just south of the Pluckemin Town Center. DEP recommends amending the Planning Area for this Natural Heritage Priority Site from Suburban (PA2) to Environmentally Sensitive (PA5) and connecting it to the existing PA5 in Bedminster Township.

Bedminster Twp. Somerset Existing State Plan Centers and AT&T Campus

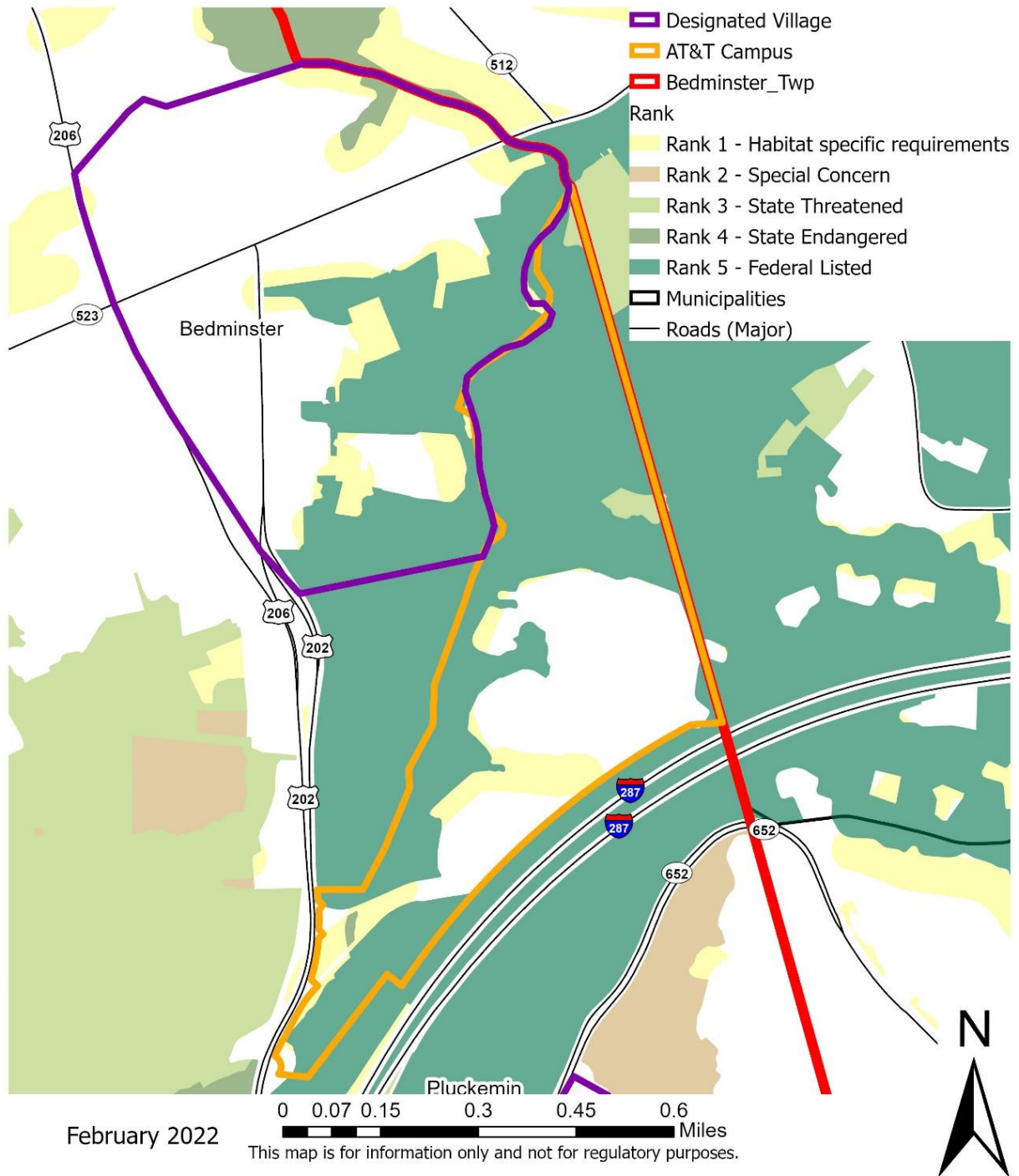


Bedminster Twp. Somerset

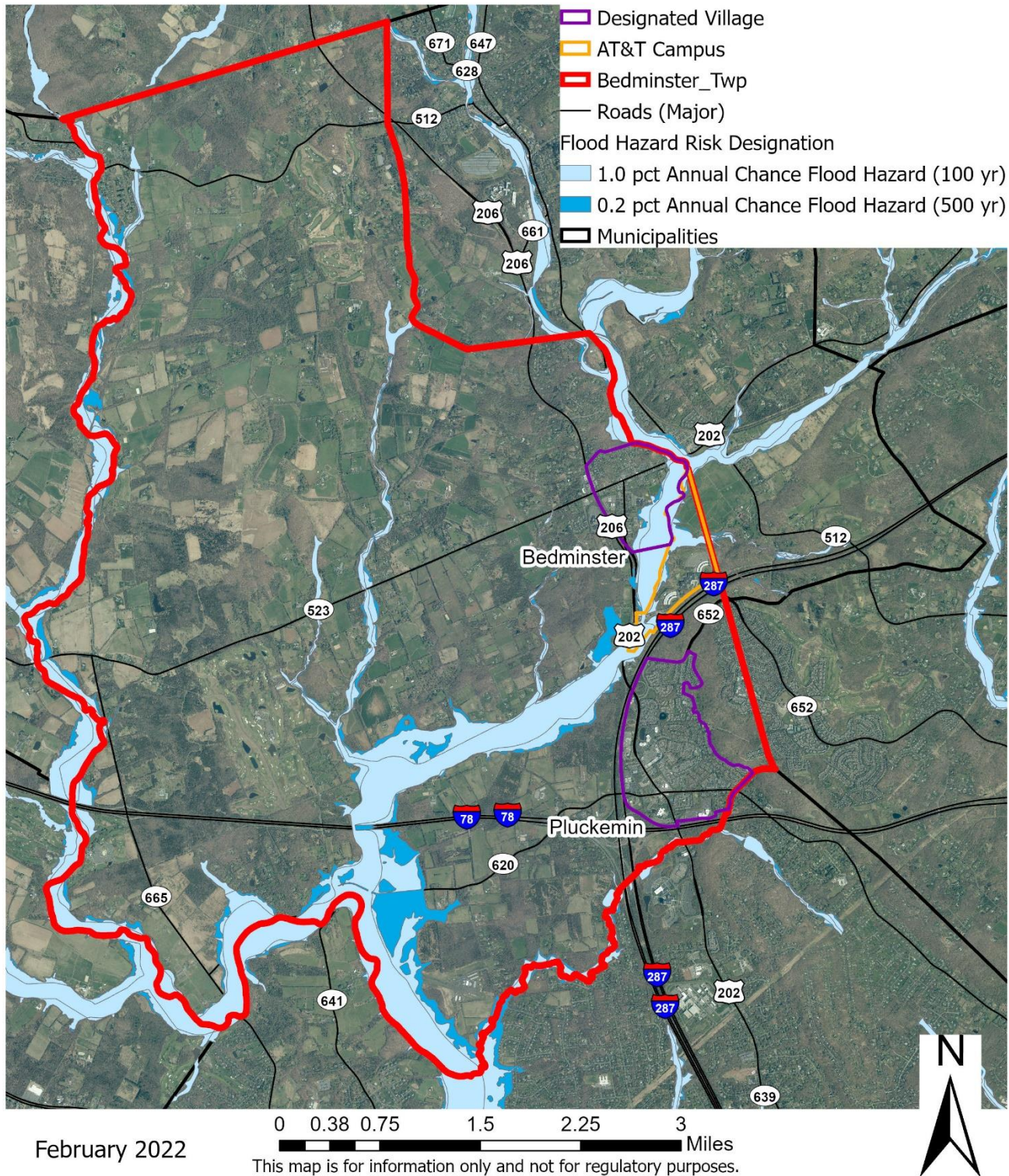
Existing State Plan Centers with Landscape Project T&E Habitat & Natural Heritage Priority Sites



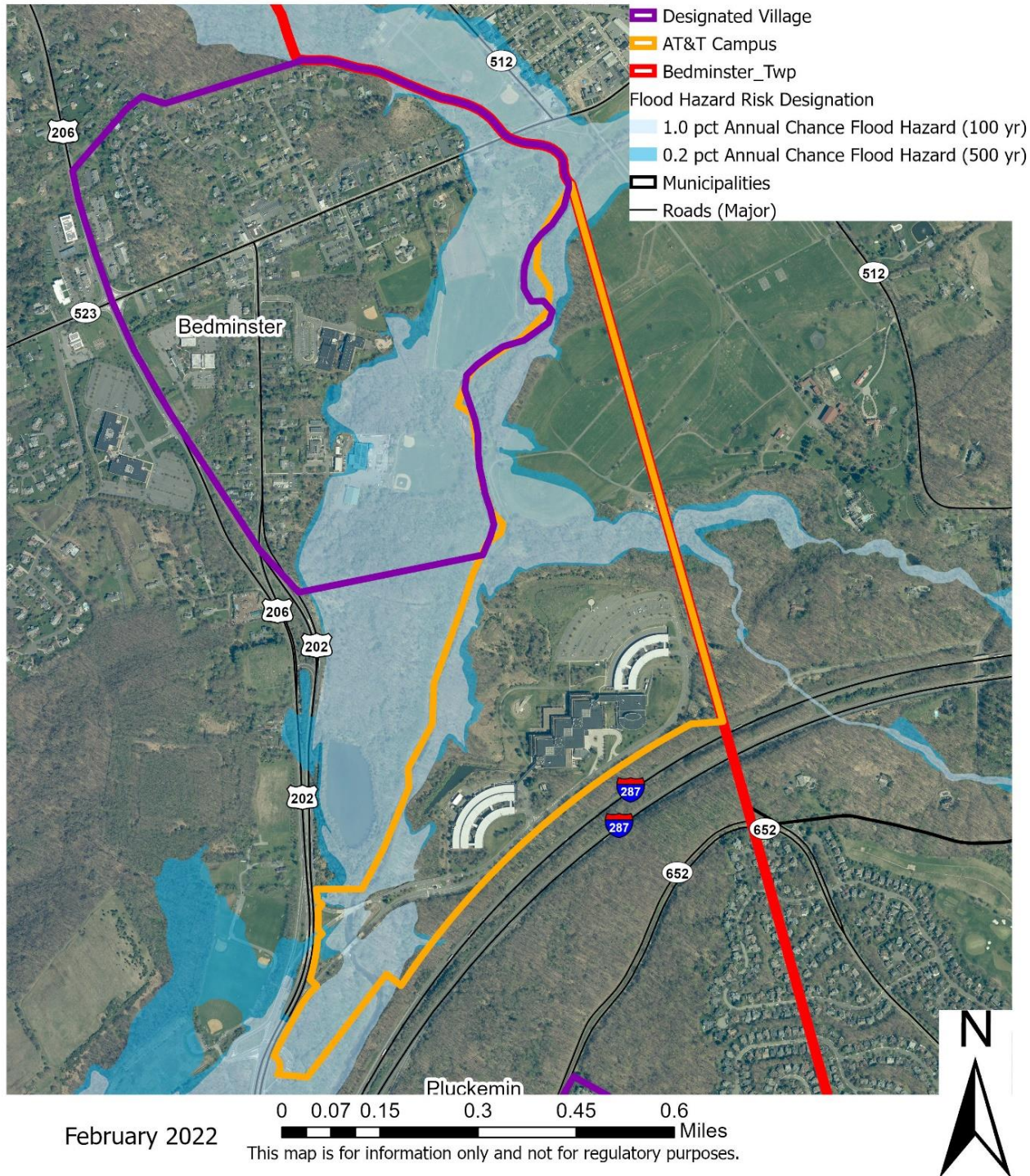
Bedminster Twp. Somerset Landscape Project T&E Habitat within Existing Bedminster Center and AT&T Campus (Block 43, Lot 1)



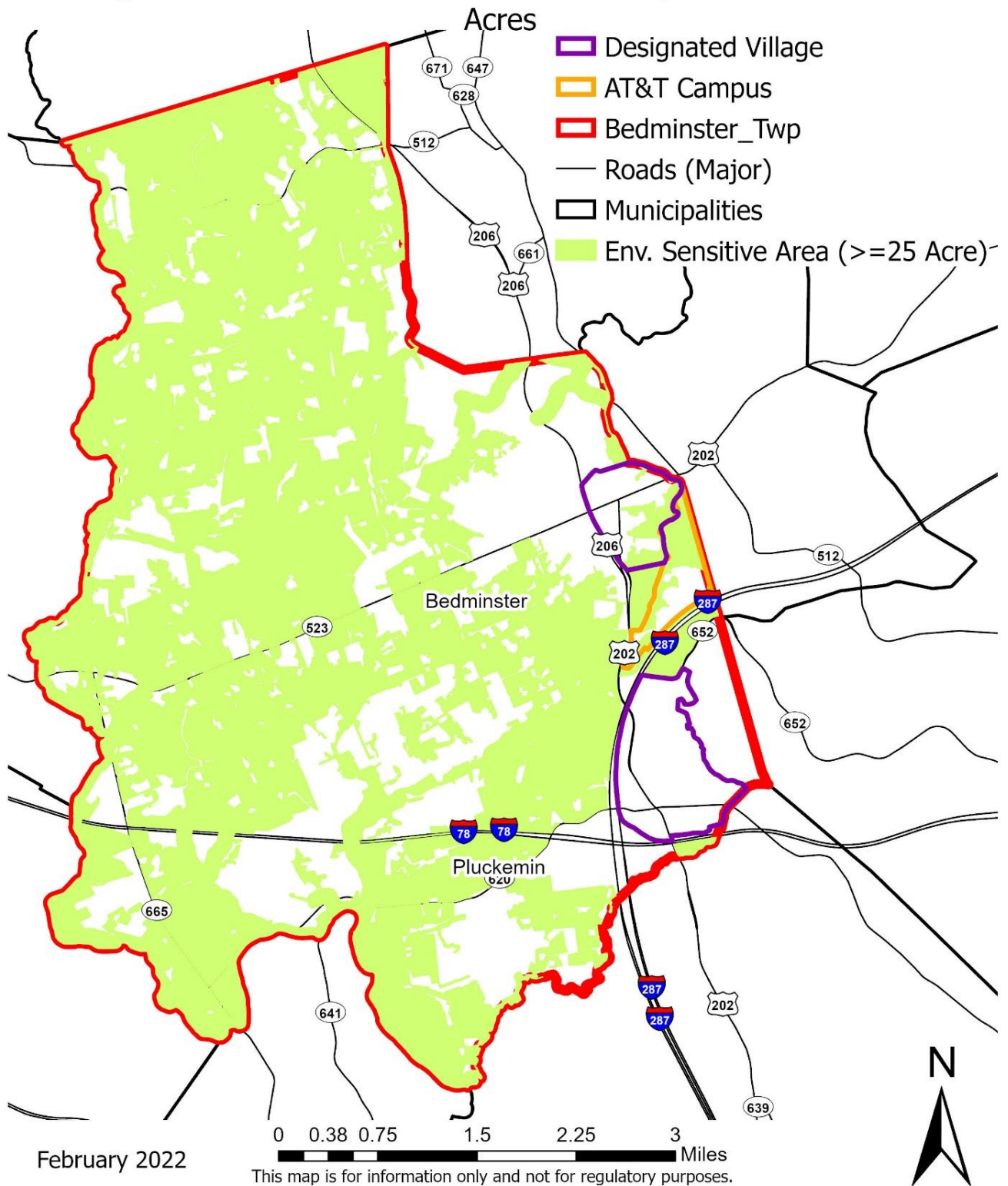
Bedminster Twp. Somerset Existing State Plan Centers with 1% and 0.2% FEMA Flood Hazard Areas



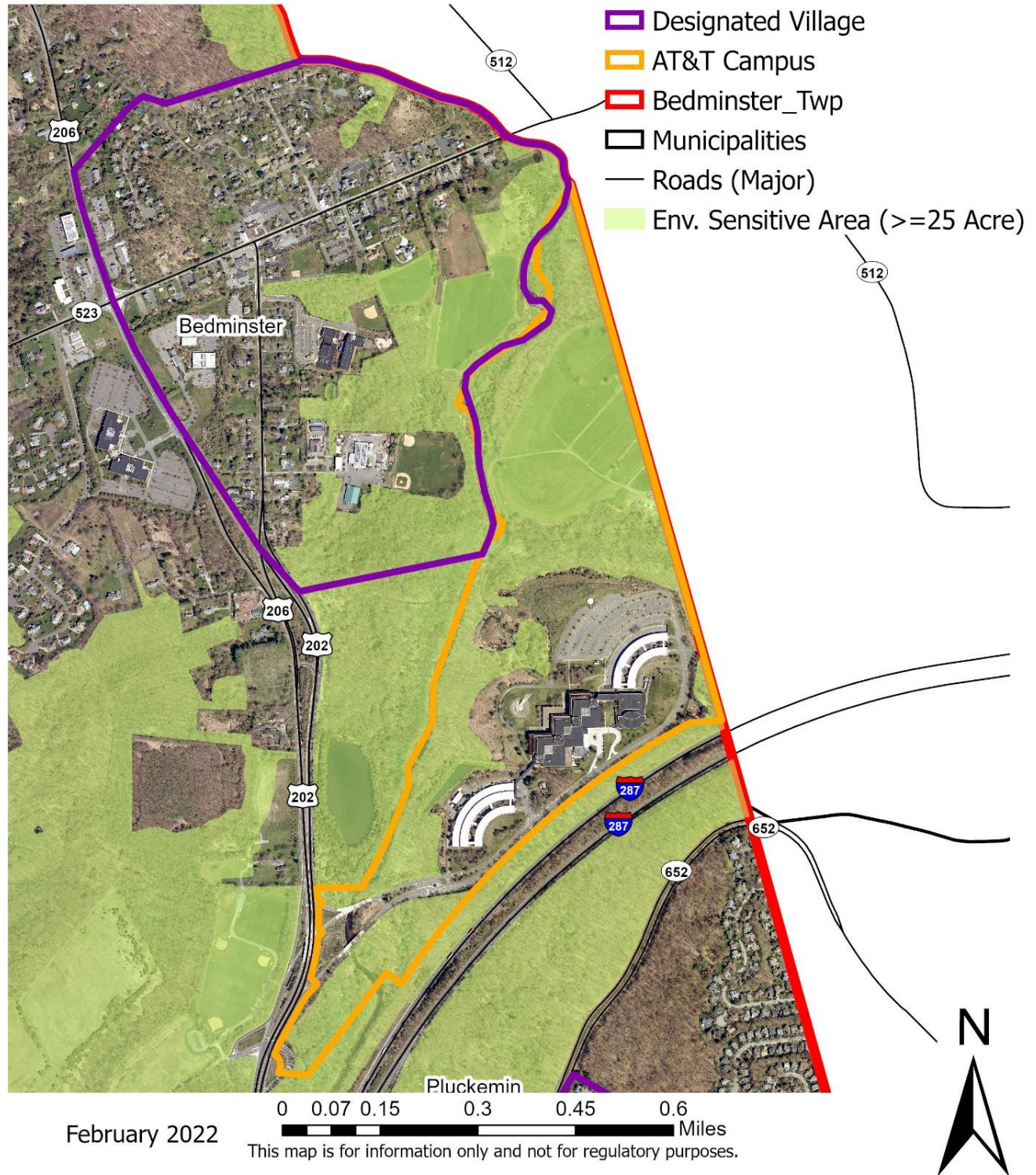
Bedminster Twp. Somerset Landscape Project T&E Habitat within Existing Bedminster Center and AT&T Campus (Block 43, Lot 1)



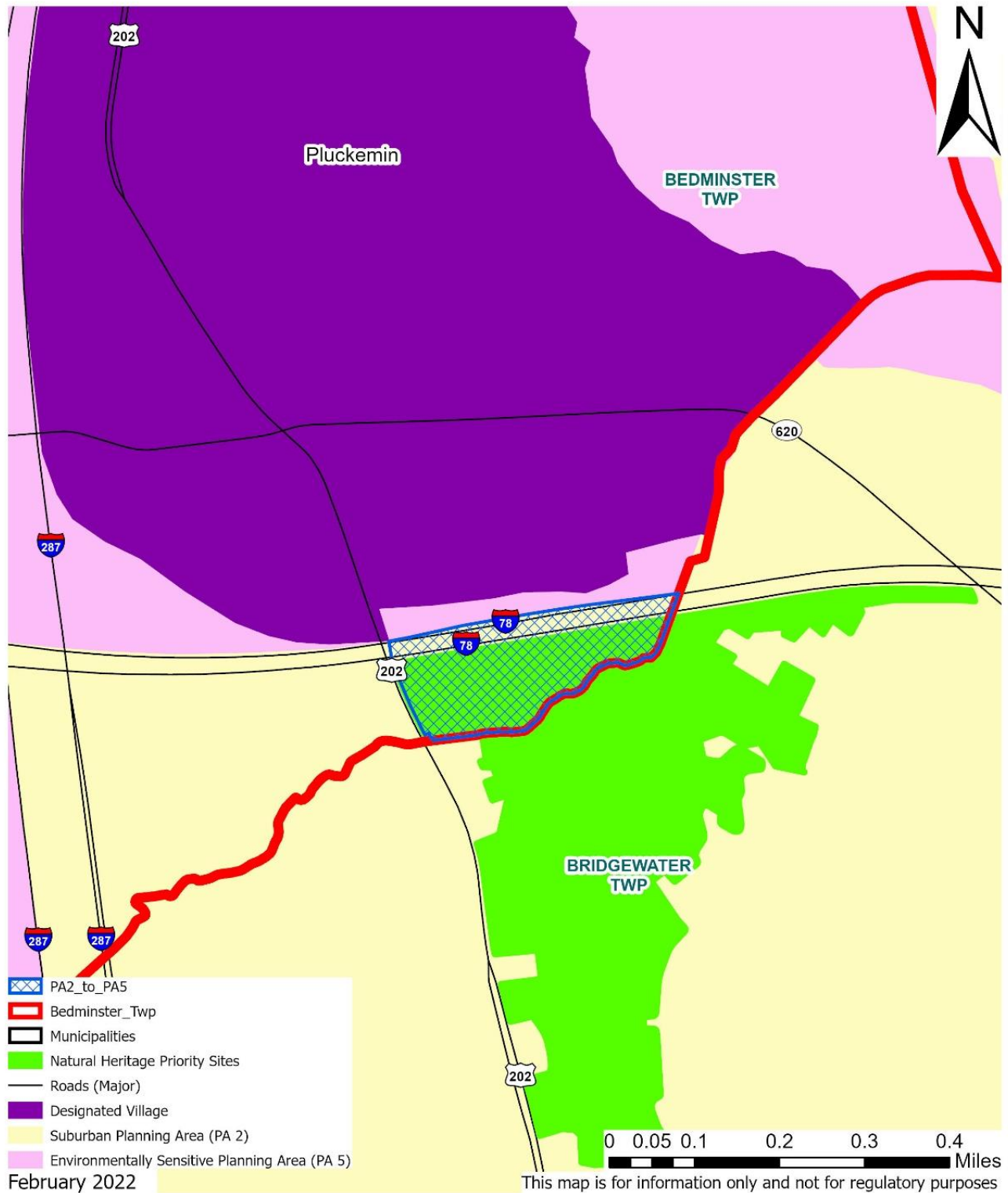
Bedminster Twp. Somerset Existing State Plan Centers with Environmentally Sensitive Areas ≥ 25



Bedminster Twp. Somerset Environmentally Sensitive Areas Greater that 25 Acres within Existing Bedminster Center and AT&T Campus (Block 43, Lot 1)



Bedminster Twp. Natural Heritage Priority Site and Recommended Planning Area Change



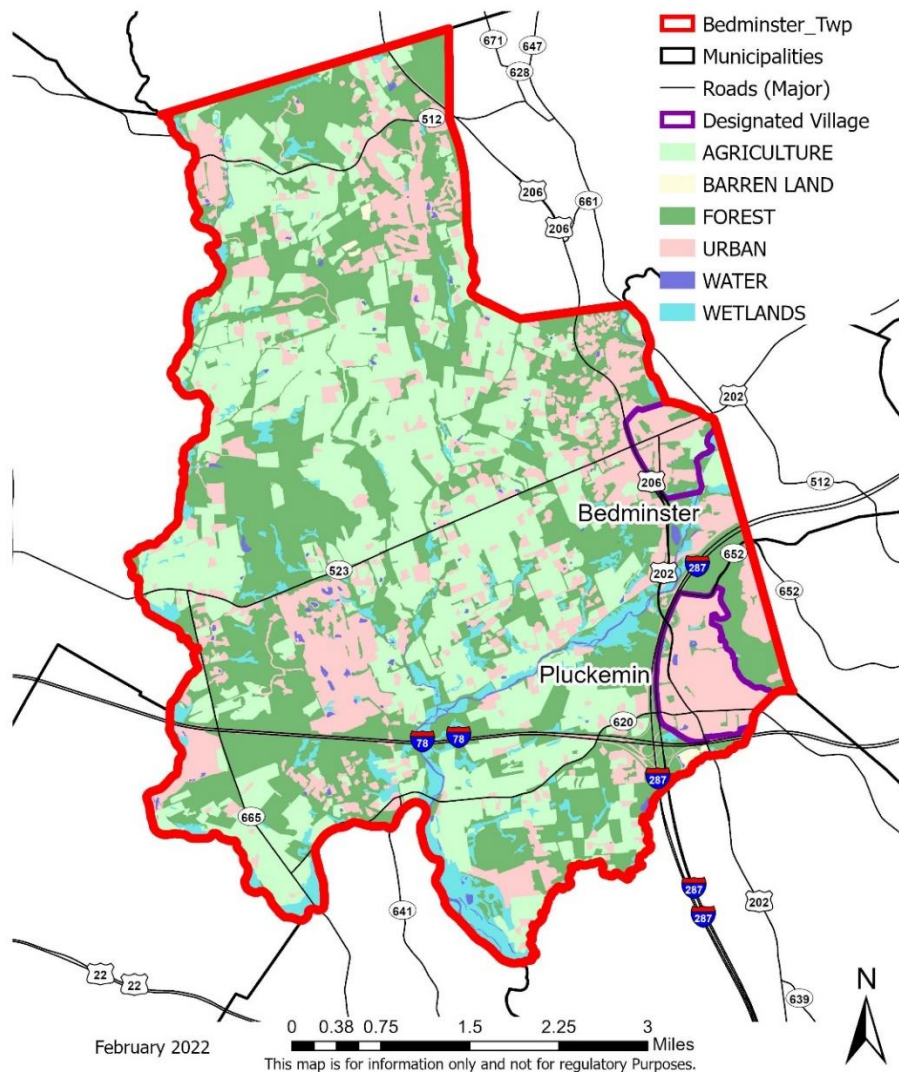
Land Use/Land Cover

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

Land Cover	Acres	Percent of Twp. Land Are
Forest	6,119.8	36%
Agriculture	5,820.6	34%
Urban	3,634.8	22%
Wetlands	1,051.5	6%
Water	222.7	1%
Barren	28.1	>1%

Note: Numbers may not equal 100% due to rounding

Bedminster Twp.
Land Use Land Cover 2015



Impervious Surfaces

Twenty-one percent of Bedminster Township is covered by some percentage of impervious surface according to Department data. A majority of the high-percentage impervious cover is located in the existing Center boundaries while the land area that contains impervious cover throughout the rest of the township is less than 20% impervious. This pattern is a strong indication of appropriate center-based development.

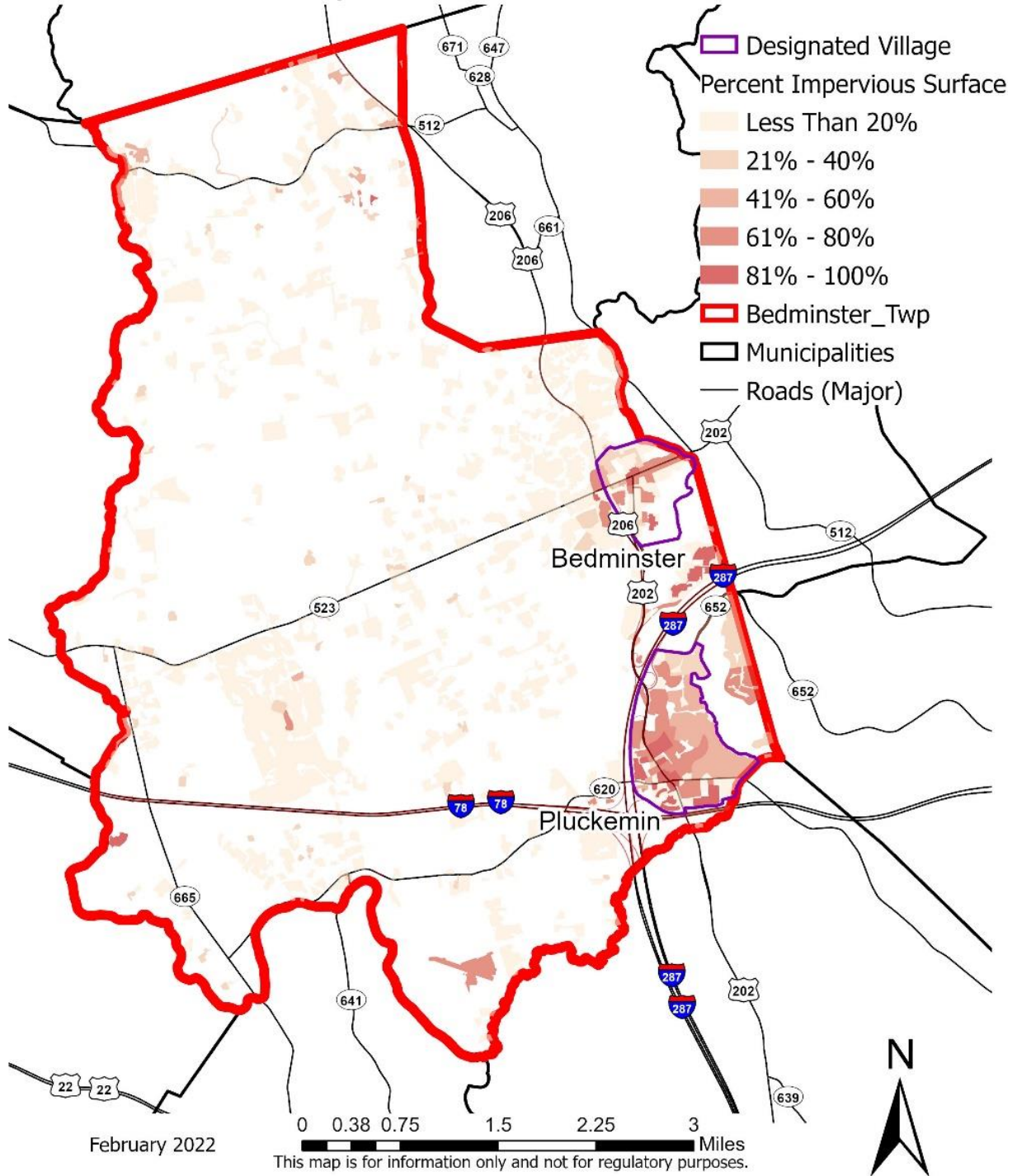
As a result of changing climate conditions, including increases in temperature and precipitation, the ability of the municipality to manage an increase stormwater on site will be challenged by an increase in new construction impervious surfaces. An increase in stormwater runoff may result in a discharge 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. Bedminster should consider these expected increases in precipitation in their stormwater management planning.

The new Center boundaries proposed by the Department result in a reduction in the overall impervious cover of the centers by about 9%. However, the proposed node is 80.1 acres in size, and is nearly entirely cover in impervious surfaces.

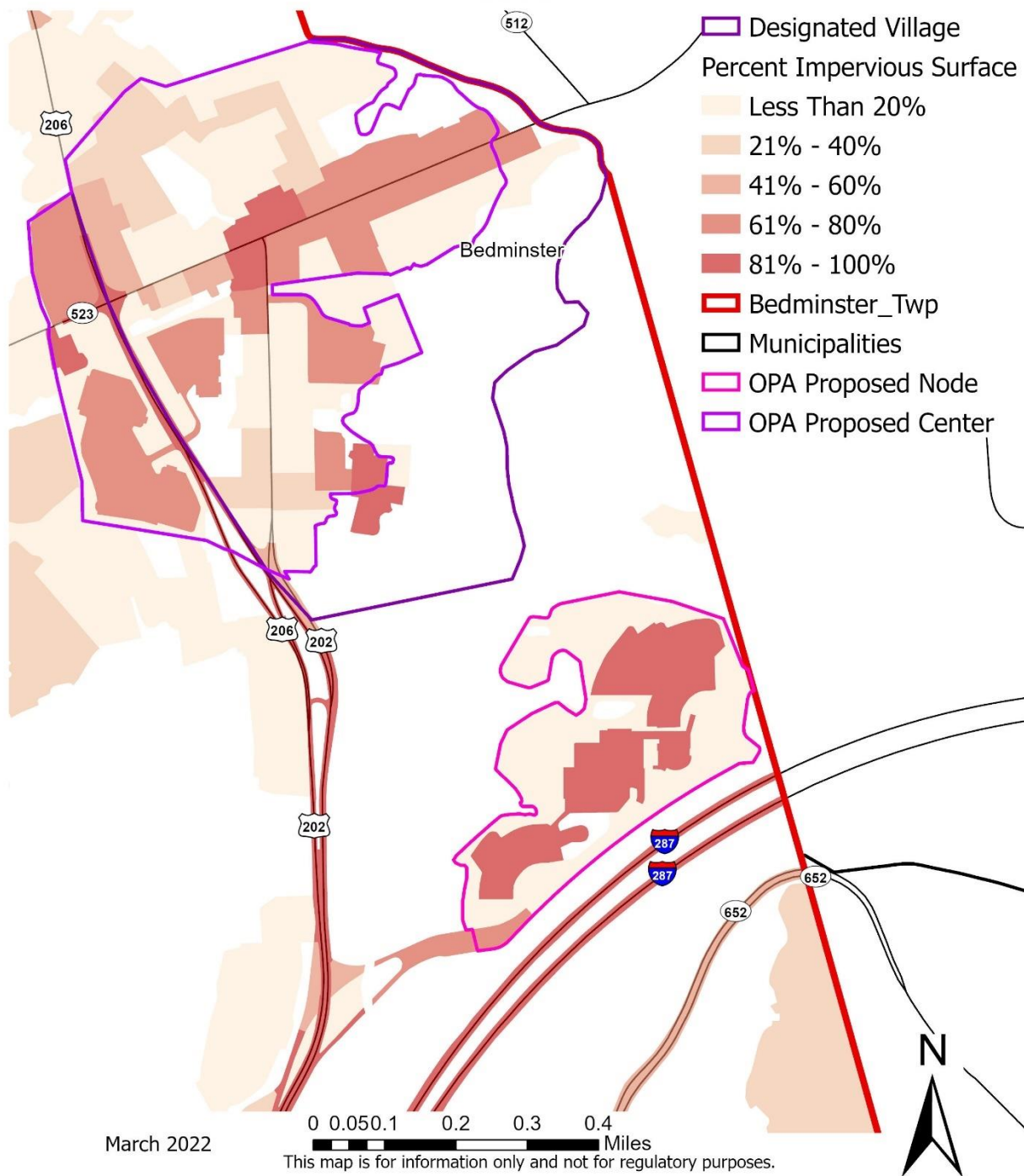
	Acres of Impervious	Pct. Impervious
Township (16,875 ac)	3,549.1	21.0%
Existing Centers (758.9 ac)	732.3	96.5%
OPA Proposed Centers (690.5 ac)	605.4	87.6%
OPA Proposed Node (71.9 ac)	68.8	95.7%

Note: Numbers are approximate.

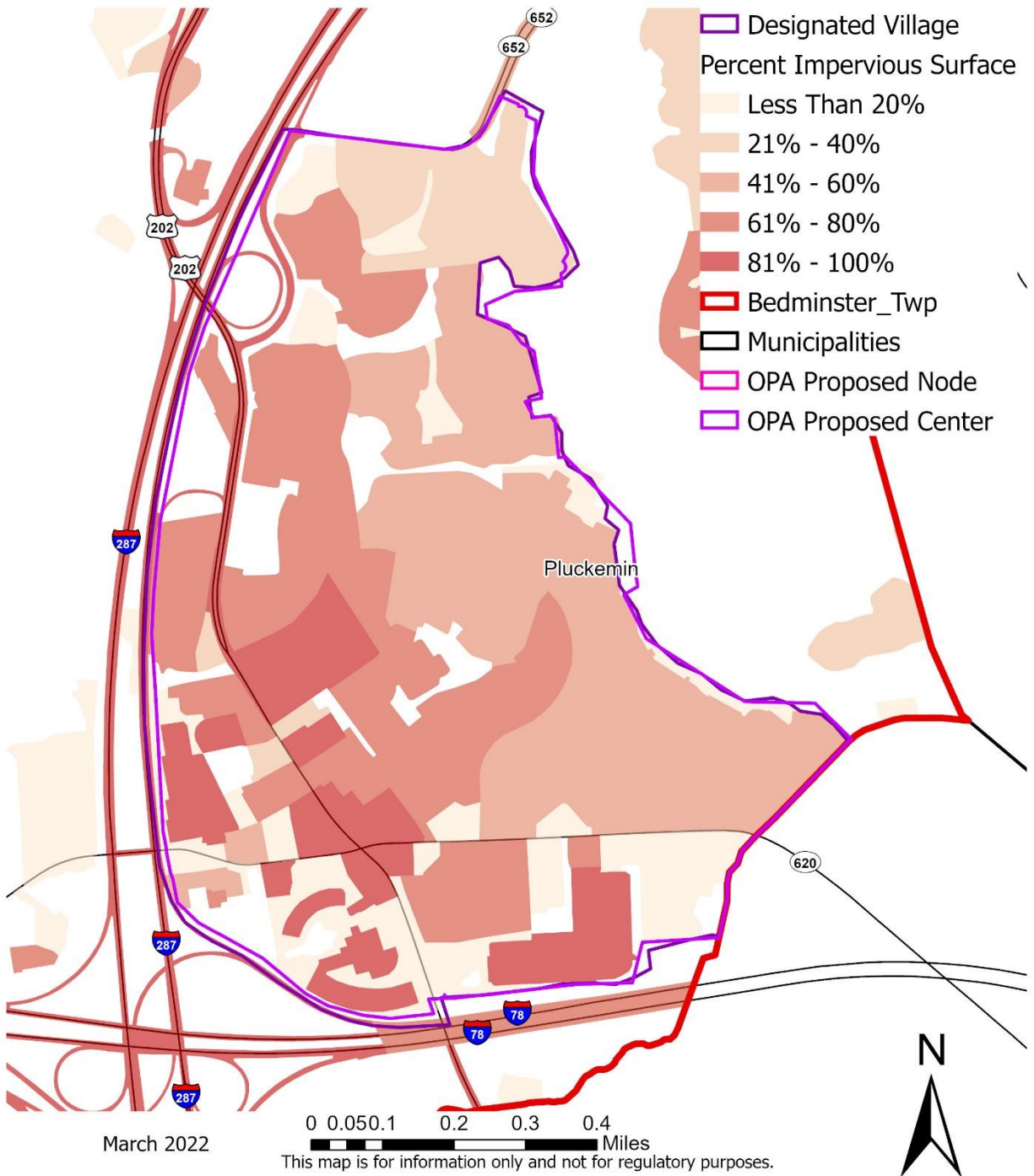
Bedminster Twp., Somerset County Impervious Surface 2012



Bedminster Twp., Somerset County Bedminster Village Center & Proposed Node with Impervious Cover



Bedminster Twp., Somerset County Pluckemin Town Center with Impervious Cover



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 will consider 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, Bedminster Township 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 Bedminster Township.

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.

Precipitation

- Climate change could result in a 55% increase in summer heat-related mortalities.
- 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 flood will increase as annual precipitation increases.
- DEP released an additional precipitation study in November 2021, which projects higher extreme rainfall totals than previously anticipated. Somerset County may experience up to a 48% increase in rainfall during the 1%, 24-hour storm event by the year 2100. A fact sheet for the report is available at <https://www.nj.gov/dep/dsr/publications/nj-rainfall-studies-summary.pdf>

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.

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

Water Resources: Supply and Quality

- Water supplies will be stressed from the increase in the growing season and extreme temperatures expected due to climate change.
- Rising sea levels may lead to increased saltwater intrusion in New Jersey aquifers where wells are over pumped.
- Freshwater intakes and aquifer recharge areas may be threatened if sea-level rise pushes the salt front further upriver.
- Combined sewer overflow communities may be further challenged as sealevel rise and/or increased rain events submerge discharge points that are currently above the waterline.
- Surface and groundwater quality will be impaired as increased nutrients and contaminants enter waters due to runoff from more intense rain events.

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 winterchills.

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.

Wetlands

- Some freshwater wetlands may be lost due to inundation with saltwater.
- Some New Jersey tidal wetlands may not gain elevation at a rate that equals the rate of sea-level rise and thus some are expected to be lost to increased rates of sea-level rise.
- Increased flooding and salinity are projected to lead to a loss of 92% of brackish marshes, 32% of tidal swamps, and 6% of tidal fresh marshes in the Delaware Estuary by 2100.
- Atlantic white cedar, a globally rare species, is expected to lose habitat in New Jersey because of rising sea levels.

Terrestrial Carbon Sequestration

- The loss of coastal wetland and 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.
- Saltmarsh Sparrows, a globally endangered species, may reach quasiextinction population numbers by 2040 due to habitat loss from sea-level rise.

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 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>.

Bedminster Township should review the Plan endorsement Guidelines for a list of possible actions to help in reducing greenhouse gas emission and increasing overall energy efficiency and incorporate those actions into a Greenhouse Gas Reduction Action Plan.

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

Climate Resilience

Pursuant to Governor Murphy's Executive Order 89, the state is developing a 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.

In compliance with the 2021 amendment to the Municipal Land Use Law, Bedminster shall prepare a Climate Change-Related Hazard Vulnerability Assessment (CCRHVA) as part of the Land Use Element of its next master plan. 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, drought, and sea level rise, as well as other natural hazards that the Township experiences, pose for these assets and the population. It should also include a buildout analysis of future residential, commercial, industrial, and other development in the municipality, a statement of policy consistency between plans, and provide strategies and design standards that may be implemented to reduce or avoid risks associated with natural hazards.

Based on the MSA, the Department recognizes that the Township has considered resilience to some degree in the Somerset County Hazard Mitigation Plan from 2019. Some of the actions included in that plan are to identify repetitive loss properties in the Township for relocation, elevation, or mitigation, relocation of the Route 202 rescue squad facility, joining NOAA's Storm Ready Program, and consideration for underground utilities. The Department encourages Bedminster to build upon the work that has been done so far to complete the CCRHVA.

Bedminster should prepare for climate impacts described in the state Climate Change Science Report by adopting a Climate Resiliency Plan and incorporating the findings from the CCRHVA into all applicable planning documents and ordinances. These ordinances may include, but are not limited to, land development and zoning, building codes, tree and forest protection, wetlands protection, and capital improvements planning decisions.

Flooding

Bedminster Township participates in the National Flood Insurance Program (NFIP) and participates in the Community Rating System with a current class of 6. Bedminster adopted an updated flood damage prevention ordinance in 2016, however the Township should update its ordinance to be consistent with the Department's riverine model code coordinated Flood Damage

Prevention Ordinance. The model ordinance can be found at <https://www.nj.gov/dep/floodcontrol/modelord.htm>.

Flood Zones

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 Bedminster Township. Most of Bedminster's floodplains are along the North Branch Raritan River which runs from the northeast boundary of the municipality, south and west through the Township, and continue through the southern boundary of the municipality. Included in these floodplains are parts of the Bedminster Village Center and AT&T Campus. There are also mapped floodplains along the Lamington River, which serves as the western and southwestern municipal boundary. The SFHA for the 1% storm (100-year) covers an area of 1,754.8 acres – 10.4 % of Bedminster's total surface area, while the SFHA associated with 0.2% storm (500-year) covers an additional 455.4 or 2.7%. In total, approximately 2,210.2 acres fall within a FEMA SFHA.

Flood Hazard Area	Acres	% of Total Municipal Area
100-year (1%) floodplain	1,754.8	10.4
500-year (0.2%) floodplain	455.4	2.7
Total	2,210.2	13.1

Note: Numbers may not equal 100% due to rounding

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 Bedminster utilize the SFHA for the 0.2 percent (500-year) storm for planning purposes.** This will allow Bedminster to inform its current decisions in a manner that is protective of health and safety from future impacts.

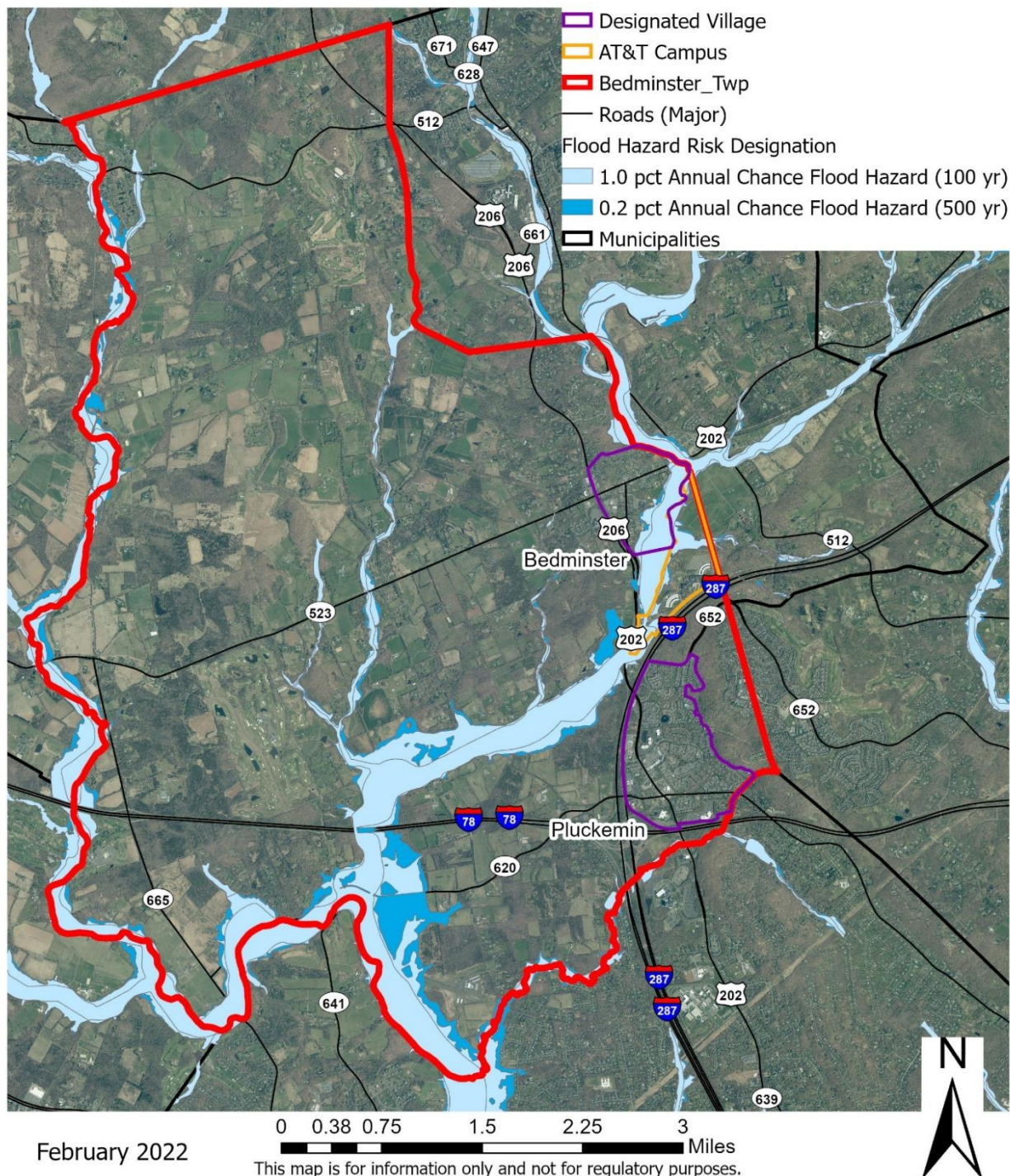
Bedminster Township should also consider flood hazard area riparian buffers of any waterway in future planning. The regulated area of the riparian zone (50, 150 or 300 feet) that may restrict future development in these areas depends on the designation of that regulated waterbody as per the Flood Hazard 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.

Bedminster Twp. Somerset Existing State Plan Centers with 1% and 0.2% FEMA Flood Hazard Areas



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 impact to existing assets, infrastructure and buildings within the flood zones, and how a municipality will mitigate for potential increased vulnerability to flooding. 110 buildings have been identified in flood zones in Bedminster, including 60 structures in the 1% FEMA flood hazard area, and 50 in the 0.2% FEMA flood hazard area, some of which are critical facilities. The Far Hills-Bedminster Fire Department Station 2 at 55 Miller Lane and the Far Hills-Bedminster First Aid Squad at 500 US HWY 202 bot within the 1% FEMA flood hazard area. While not in a mapped FEMA flood Hazard Area, the Bedminster Police Department at 55 Miller Lane is adjacent to the Fire Department and the surrounding floodplain. Additionally, the municipal building at One Miller Lane is also in the 1% FEMA flood hazard area.

Bedminster Township should keep a regularly updated inventory and map of areas that frequently flood, 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 use the list for planning purposes, a request must be made 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. A desktop analysis shows approximately 7.8-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.

If not already done, **Bedminster should identify and map areas that flood regularly, including roadways/intersections, with particular attention given to evacuation routes or critical access areas.**

Bedminster Township should also consider enhancing 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.

When evaluating any construction within a mapped flood hazard area, Bedminster Township should 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 flood plains, one can avoid adverse impacts also to critical roadways and provide a safe level of distance in the event of a flood.

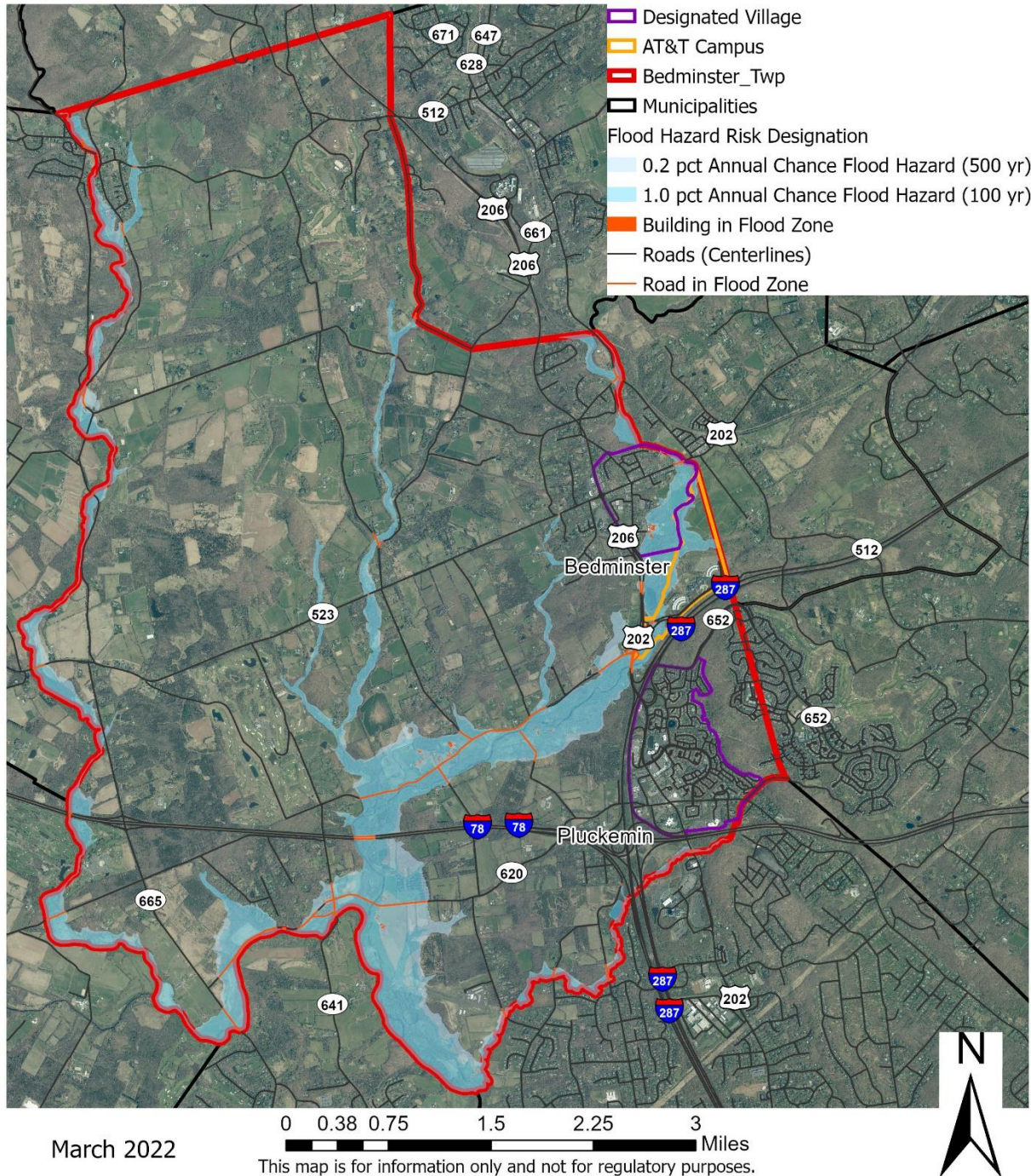
The Department's flood damage prevention model ordinance was updated in 2021 to comply with FEMA and National Flood Insurance Program (NFIP) regulations and was simplified to two versions; riverine and coastal. **DEP recommends that Bedminster Township update their flood damage prevention ordinance to make sure that it is consistent with the most recent model and standards in order to stay compliant with NFIP requirements.** The model ordinance is available at

<https://www.nj.gov/dep/floodcontrol/modelord.htm#:~:text=The%20Model%20Ordinance%20now%20requires,Higher%20Standards>. Bedminster should use the *riverine model*. Assistance can be provided by the Department's Division of Dam Safety and Flood Engineering.

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 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 also be encouraged to be incorporated into all projects within the floodplain. By creating more open public space, Bedminster gains flood zone buffer areas and additional recreation area as well 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.

Bedminster Twp. Somerset Existing State Plan Centers with Buildings and Roads in FEMA Flood Hazard Areas



Open Space

Open space provides residents not only with recreational opportunities but also acts as a means of climate change mitigation through enhanced tree cover shade and carbon sequestration. It also improves natural resources by mitigating stormwater runoff, acting as flood storage, and protecting habitat for threatened and endangered species. In Bedminster, there are approximately 1,744 acres of open space broken down as follows:

Open Space Owner Type	Area (acres)
County	433.5
Municipal	1,042.9
Nonprofit	249.4
State	18.2
Total	1,744.0

The retention and preservation of open space has long been a principle of Bedminster's planning, according to the 2018 Master Plan Reexamination. **Bedminster should review and update their Opens Space and Recreation Plan Element from 2003 and continue preserving open space practices.**

Bedminster should also update its Conservation Plan Element from 2003.

DEP recommends that Bedminster Township further work with Somerset County, NJ Highlands Council and surrounding municipalities to provide and expand corridors of open space and natural features to support habitat connectivity and adaptation to changing climate conditions.

Bedminster Township has approximately 2,306 acres of preserved farmland. As practicing farmland preservation and agricultural industry to the best management standards remains a Township object according to the 2018 Master Plan Reexamination, **DEP recommends that Bedminster work with the NJ State Agricultural Development Committee to update its 2003 Farmland Preservation Plan and continue its farmland preservation efforts.**

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.

Bedminster Township has previously had seven acquisition projects under the Green Acres program, but no currently active acquisition or development projects with the Green Acres program. There are no compliance issues with the town's recreational facilities or conservation lands.

Within the existing center boundaries, some lots are Green Acres encumbered. In the Bedminster Village Center, these are Block 36, Lots 14, 19, and 21. In the Pluckemin Town Center these are

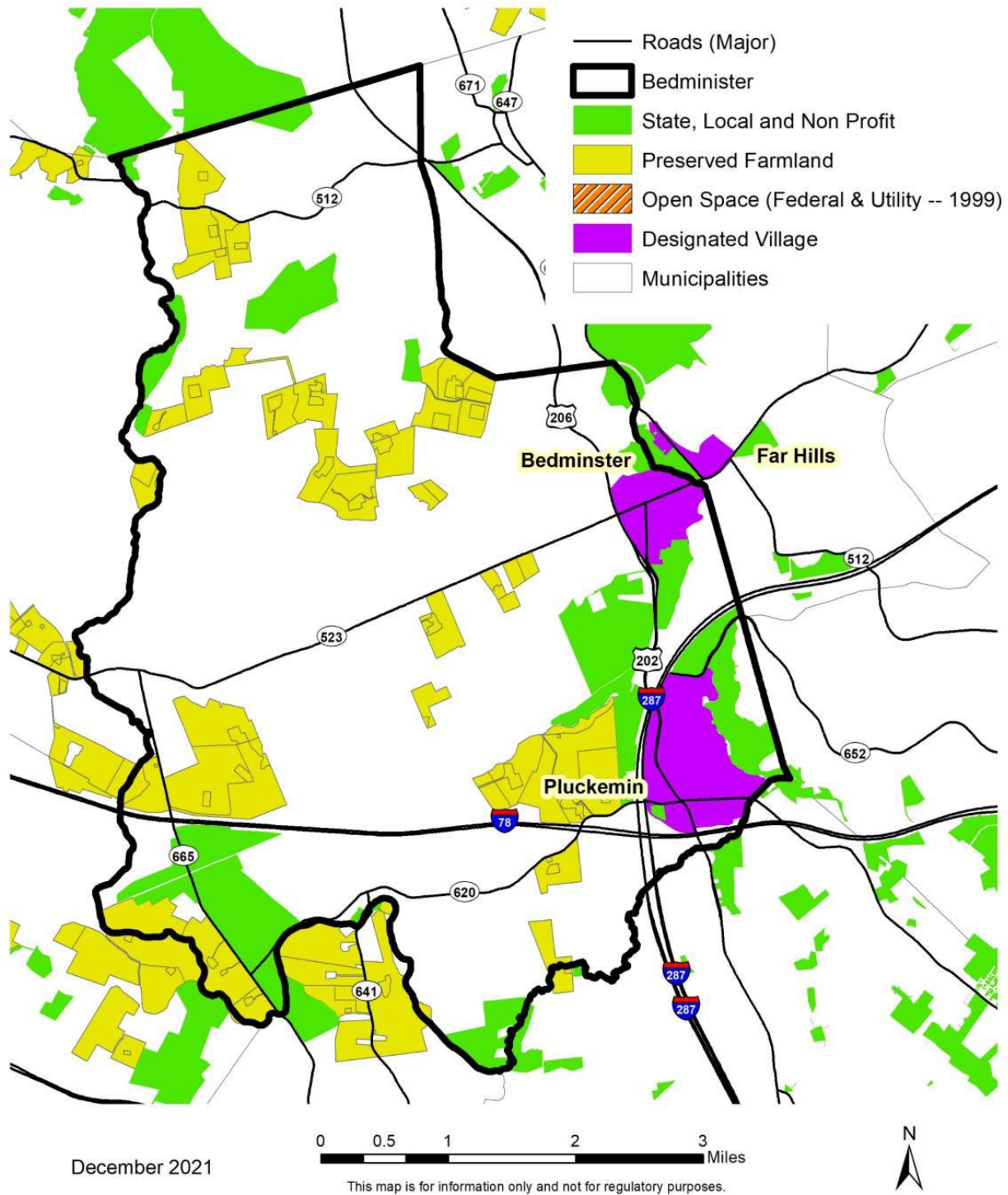
Block 71, Lots 3, 4, 4.01, 5, and 6. The OPA proposed Bedminster Village Center and AT&T Node boundaries would not include any Green Acres encumbered land. The Pluckemin Town Center would remain unchanged. There are approximately 1,738 acres of Green Acres encumbered land in the Township. The DEP has identified parcels of encumbered open space which do not appear on the Township's Recreation and Open Space Inventory. **Bedminster should work with the Department's Green Acres program to review the 2013 Recreation and Open Space Inventory (ROSI) and update it as appropriate to include all encumbered land.**

Any use of Green Acres-encumbered parkland for purposes other than recreation and conservation, even temporary use, requires Green Acres review and approval at a minimum. Any easements or other conveyance of land granted for other than conservation and recreation purposes (such as for utilities or road right-of-ways) on Green Acres-encumbered parkland must be reviewed by the Green Acres Program and will require Commissioner and State House Commission approval. A full jurisdictional determination by the Green Acres Program is required for any land which may have been held for recreation and conservation purposes by the municipality or the county at the time that they accepted Green Acres funding, regardless of whether the lands were listed on a Recreation and Open Space Inventory (ROSI). Please contact the Somerset County Steward, Jessica Patterson, at jessica.patterson@dep.nj.gov with any questions or concerns.

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)

Bedminster Twp., Somerset Existing State Plan Centers with Open Space

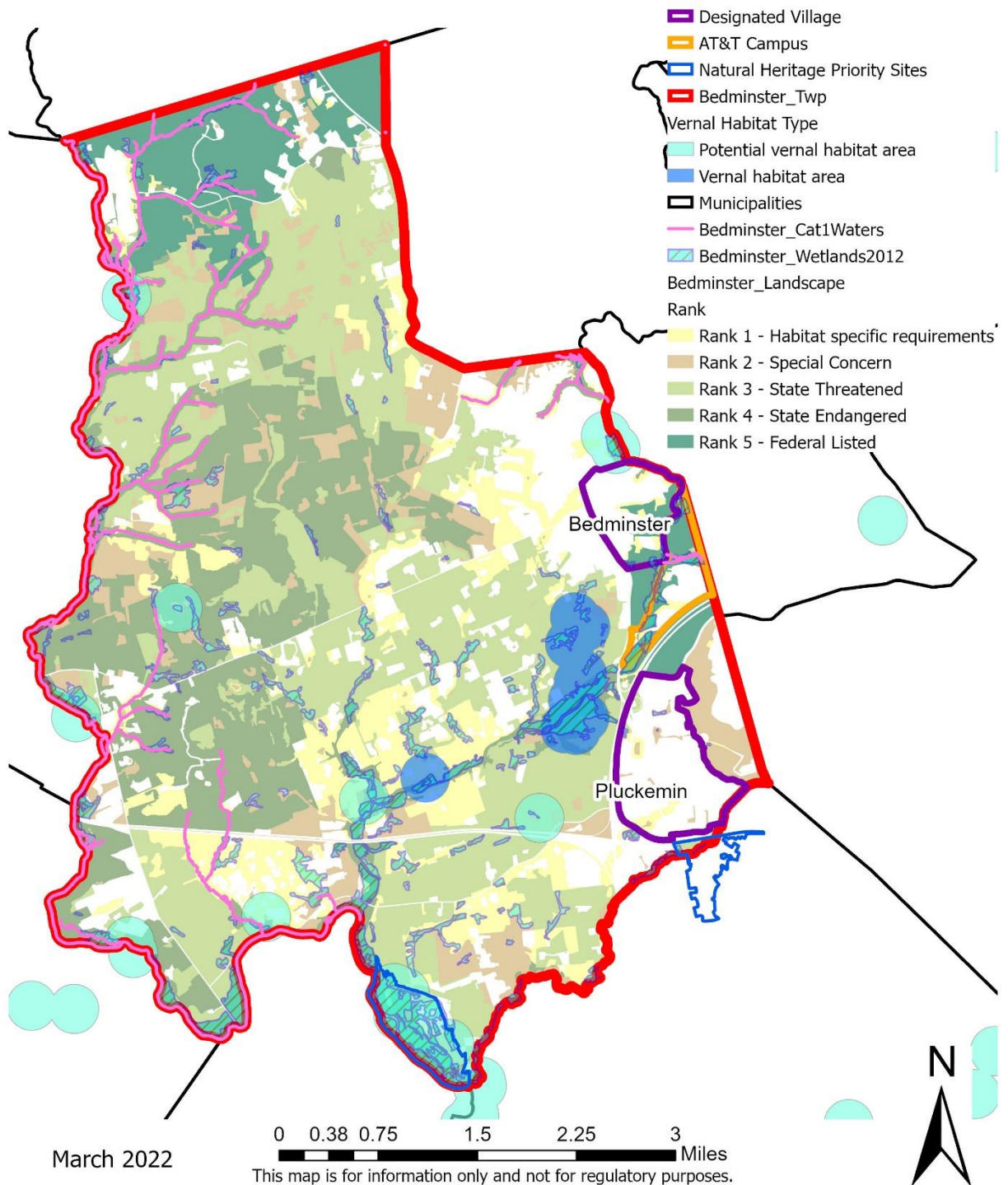


Natural and Historic Resources

New Jersey is the most densely populated state in the nation. One of the consequences of being the most densely populated state in the nation 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.

Bedminster Twp. Somerset Existing State Plan Centers with Environmental Features



Wetlands

Freshwater wetlands and transition areas (buffers) are regulated by the Freshwater Wetlands Protection Act rules (NJAC 7:7A). The Highlands rule (NJAC 7:38), which implements the Highlands Water Protection and Planning Act, prohibits nearly all disturbance within all wetlands within the Highlands Preservation Area. 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 - called the transition area or buffer.

Bedminster has approximately 1,053 total acres of wetlands that are protected under state and federal regulation. **DEP suggests that the Township include strategies for the management and mitigation of its wetlands in the Conservation Plan Element of the Master Plan.**

Surface Water

Bedminster Township is traversed by multiple streams, rivers, tributaries, lakes, and ponds, several of which are valuable from a resource and recreation perspective. Several of these water bodies face a potential impact to water quality due to increased stormwater runoff because of increases in precipitation. Stormwater runoff is exacerbated by an increase in impervious cover and a decrease in stormwater's ability to infiltrate the ground.

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 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](#).

Bedminster Township has about 106.3 miles of streams and rivers and about 83.3 acres of lakes and ponds within or along its municipal boundaries. Approximately 38.9 miles of the streams and rivers are classified as Category 1 waters. The following are streams and rivers in the Township, and whether they intersect with either of the existing Bedminster Village or Pluckemin Town Centers:

Name	Category	Length in Twp (miles)	In Existing Center?
Alex Brook	FW2-TPC1	2.5	n/a

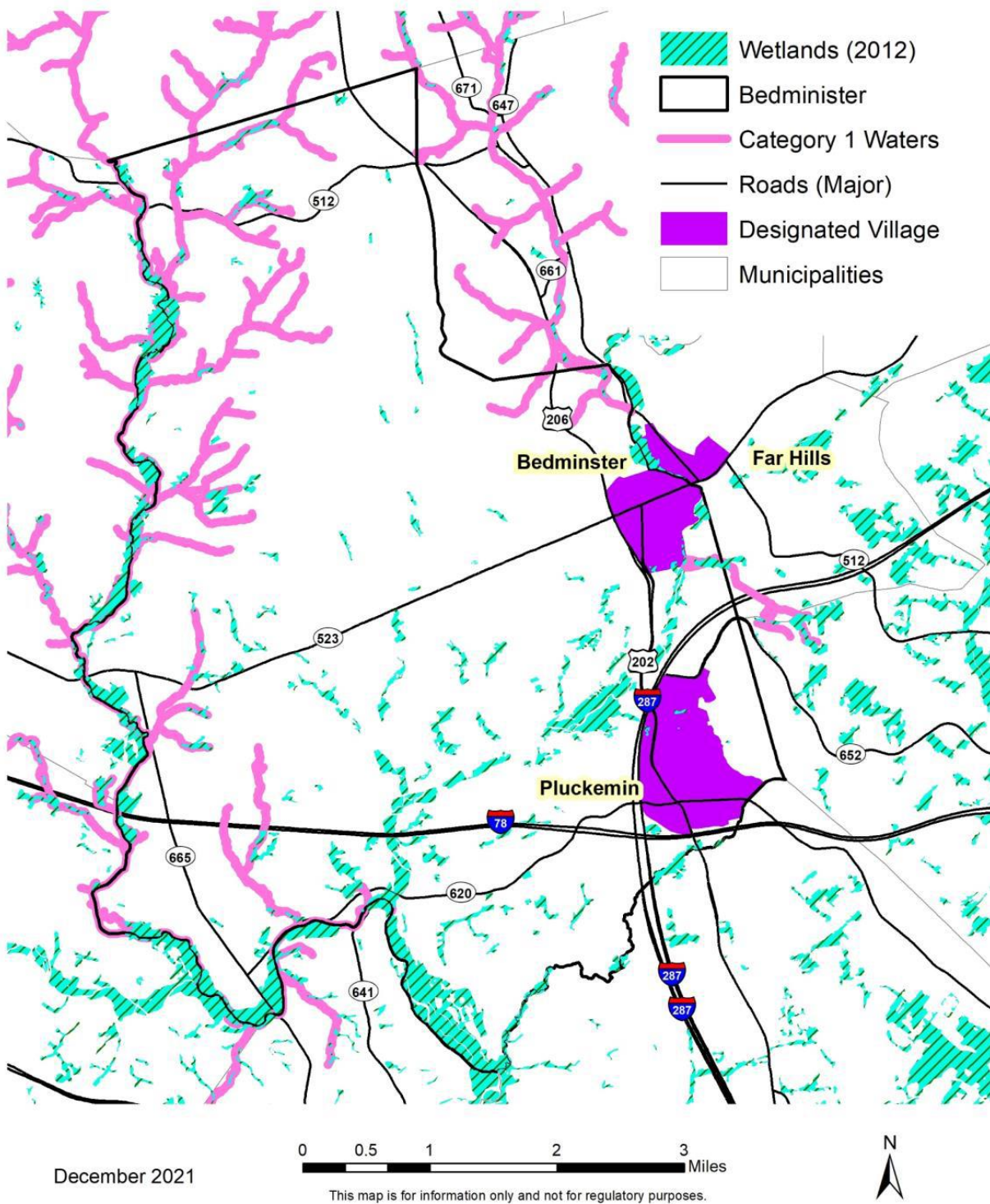
Alex Brook UNT	FW2-TPC1	2.2	n/a
Chamber Brook	FW2-NT	3.9	n/a
Chamber Brook UNT	FW2-NT	2.0	Pluckemin
Herzog Brook	FW2-TPC1	1.4	n/a
Herzog Brook UNT	FW2-TPC1	4.4	n/a
Hoopstick Brook	FW2-NT	4.3	n/a
Hoopstick Brook UNT	FW2-NT	2.6	n/a
Lamington River	FW2-NTC1	4.0	n/a
Lamington River	FW2-TPC1	9.2	n/a
Lamington River UNT	FW2-NTC1	0.9	n/a
Lamington River UNT	FW2-TPC1	7.9	n/a
Middle Brook	FW2-NT	7.6	n/a
Middle Brook UNT	FW2-NT	8.5	n/a
Mine Brook	FW2-NT	0.01	n/a
Muddy Run	FW2-NTC1	2.0	n/a
Muddy Run UNT	FW2-NTC1	0.9	n/a
North Branch Raritan River	FW2-NT	9.9	Bedminster
North Branch Raritan River	FW2-TM	0.4	n/a
North Branch Raritan River UNT	FW2-NT	24.0	Pluckemin & Bedminster
North Branch Raritan River UNT	FW2-TPC1	0.6	n/a
Peapack Brook	FW2-TPC1	0.6	n/a
Peapack Brook UNT	FW2-TPC1	1.4	n/a
Quail Brook	FW2-TPC1	0.9	n/a
Uncoded Tributary	FW2-NT	4.1	n/a
URWA Farm Pond	FW2-TPC1	0.1	n/a
Total Miles		106.3	

Note: Numbers may not equal 100% due to rounding

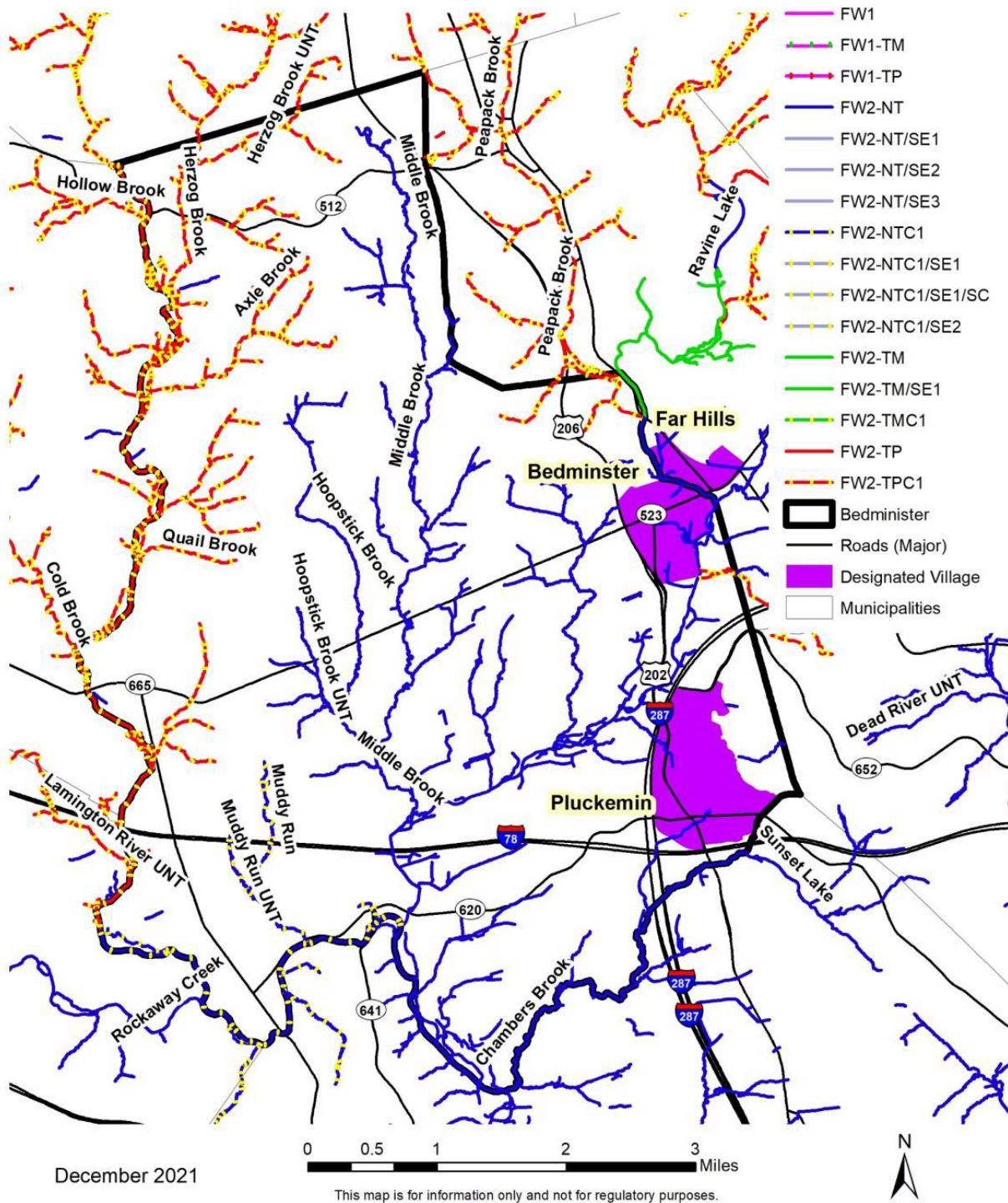
Category 1 waters require a 300 foot riparian zone buffer according to the the Flood Hazard Area Control Act N.J.A.C. 7:13. **If not already done, Bedminster should develop a stream corridor buffer, specifically for Category One waters to reduce degradation.**

DEP's TMDL lookup tool (<https://www.nj.gov/dep/dwq/tmdl/0506.html>) shows relevant TMDLs for several waterways impacted by high levels of total phosphorous, dissolved oxygen, pH, and total suspended solids. **Bedminster Township should consult with NJDEP's Division of Water Quality as to how it may incorporate identified TMDLs into its stormwater management plan and ordinance.**

Bedminster Twp., Somerset Existing State Plan Centers with C1 Waters and Wetlands

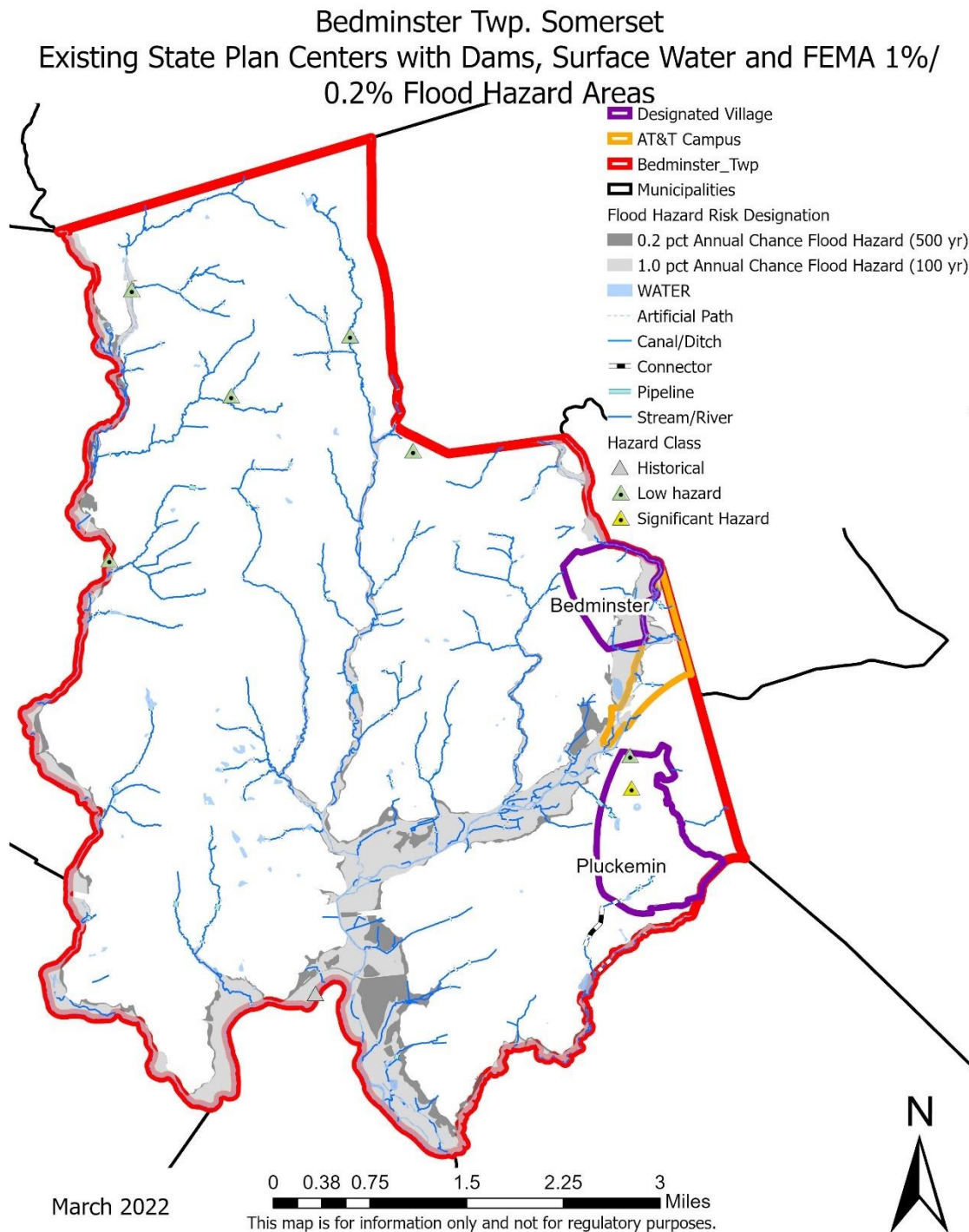


Bedminster Twp., Somerset Existing State Plan Centers with Surface Water Quality Standards



Dam Safety

Bedminster Township has eight dams. One historical dam, six dams designated as low hazard, and the Ellsworth Dam is classified as a significant hazard. **The Township should notify the Department's Division of Dam Safety and Flood Engineering of any planned rehabilitation for Ellsworth Dam.**



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.

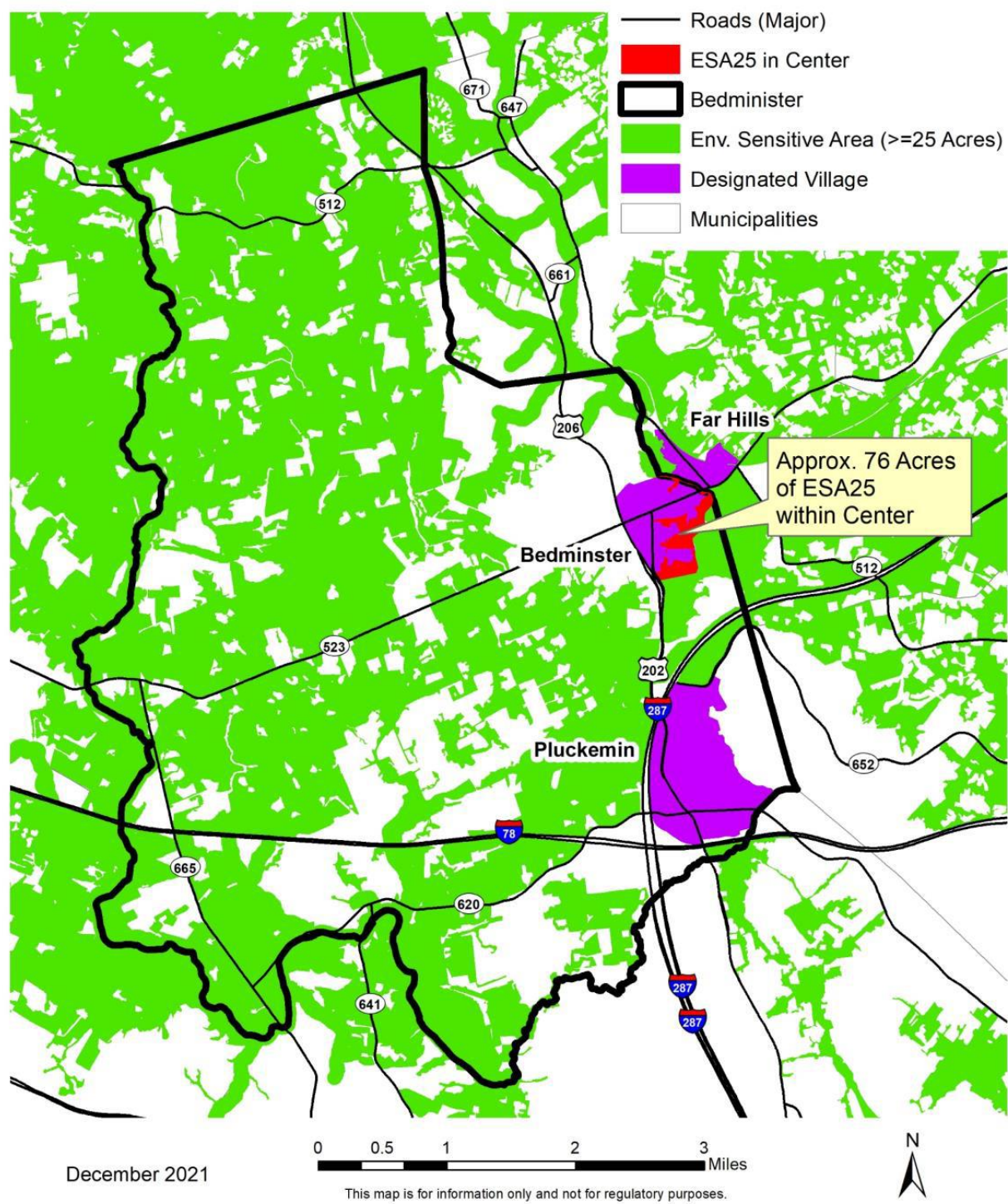
Endangered Species are those whose prospects for survival in New Jersey are in immediate danger because of a loss or change in habitat, over-exploitation, predation, competition, disease, disturbance or contamination. Assistance is needed to prevent future extinction in New Jersey.

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>.

The map below identifies areas of contiguous environmental features that are at least 25 acres in size or larger. Areas in red indicate where those environmentally sensitive features overlap with the existing Bedminster Village and Pluckemin Town Centers.

Bedminster Twp., Somerset Existing State Plan Centers with Environmental Sensitive Area (≥ 25 acres)



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>.

Bedminster Township Landscape Rank 2, 3, 4, and 5 Species are the following:

Rank	Species
2	Cooper's Hawk
2	Great Blue Heron
2	Big Brown Bat
3	Wood Turtle
4	Bald Eagle
4	Little Brown Bat
4	Tri-colored Bat
4	Eastern Small-footed Myotis
5	Indian Bat
5	Northern Myotis

Bedminster Township Wide Landscape Habitat Rank 1, 2, 3, 4, and 5 covers the following:

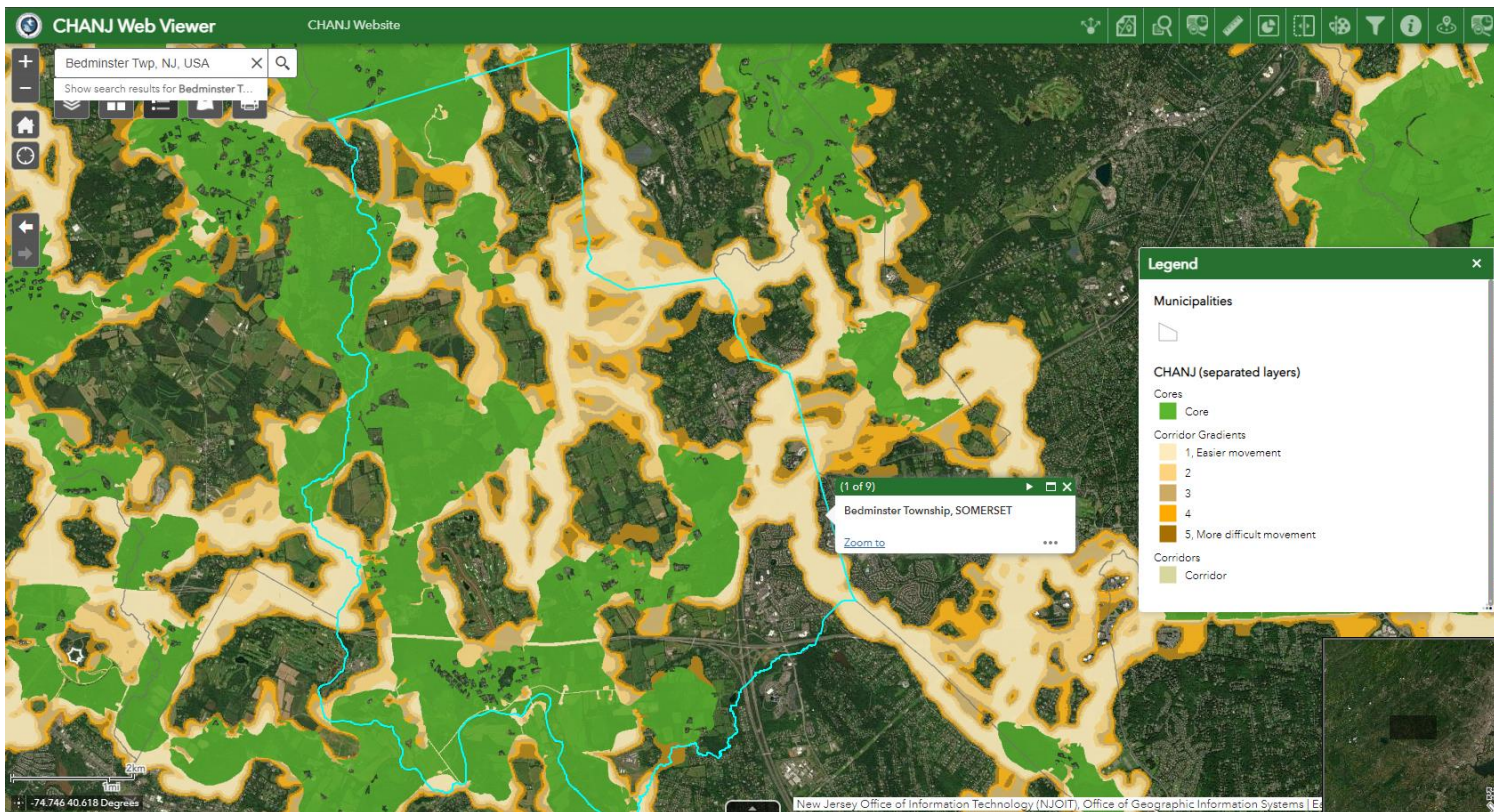
Rank	Acres
1	1,889.5
2	1,637.5
3	4,859.4
4	3,984.8
5	1,397.6

DEP supports Bedminster's effort to encourage renewable energy, although it encourages the Township to pursue it in an ecologically responsible manner. **Bedminster 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.

Connecting Habitat Across NJ (CHANJ)

Connecting Habitat Across New Jersey (CHANJ) is an effort to make our landscape and roadways more permeable for terrestrial wildlife by identifying key areas and actions needed to achieve habitat connectivity across the state. CHANJ offers two main products – statewide Mapping and a Guidance Document – to help prioritize land protection, inform habitat restoration and management, and guide mitigation of road barrier effects on wildlife and their habitats. A review of the Department's CHANJ mapping program can be found at <https://www.nj.gov/dep/fgw/ensp/chanj.htm>).

The online CHANJ mapping indicates Bedminster Township has a number of well-connected habitat cores and corridors. **DEP recommends that this information be incorporated into an updated Conservation Plan to inform where habitat and open space efforts can be concentrated.** Go to CHANJ Online Map link here: <https://njdep.maps.arcgis.com/apps/webappviewer/index.html?id=53339ff12f27488d8462e5e2c4c21b5c>



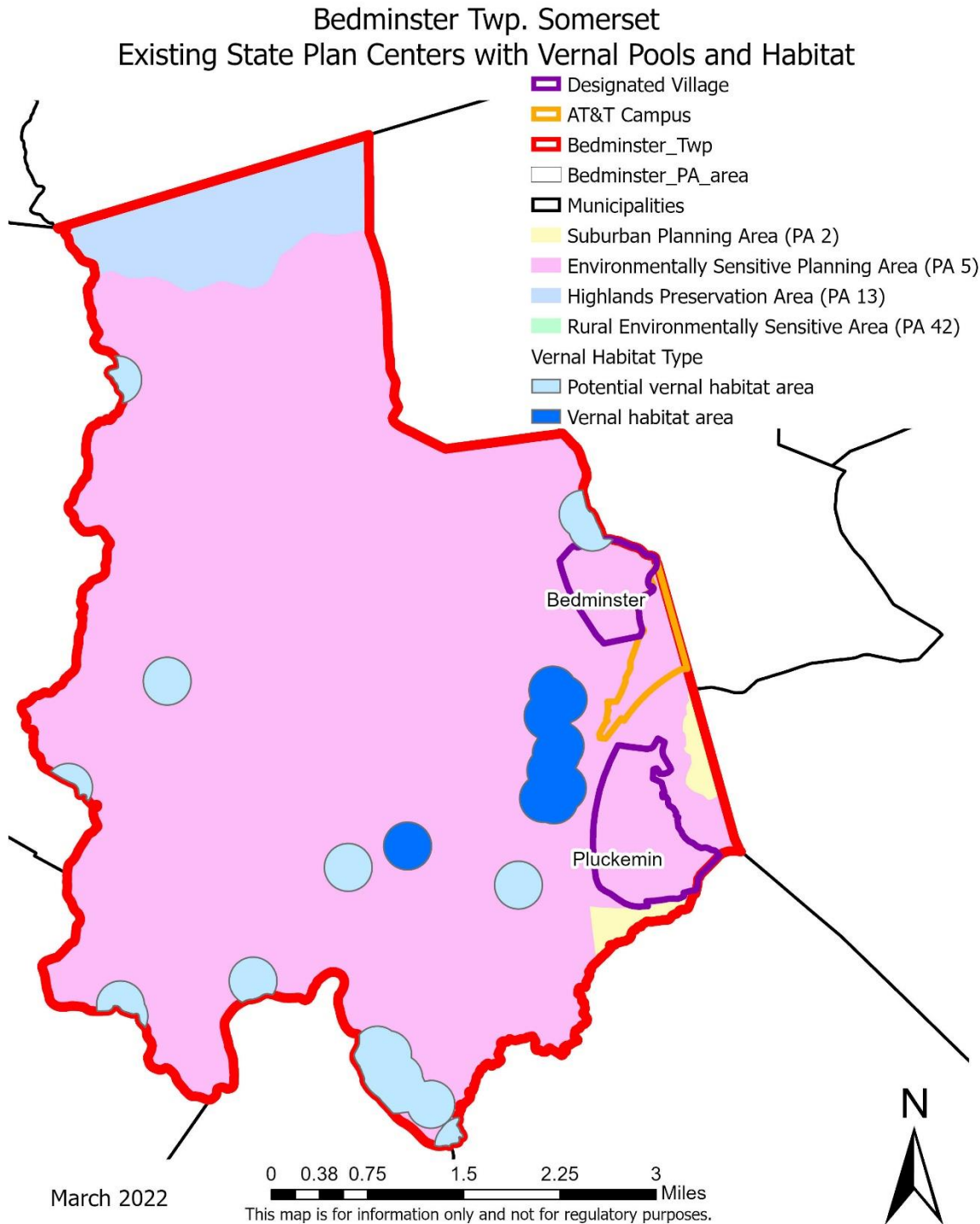
Bedminster Township CHANJ mapping.

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 Bedminster, there are 2 documented vernal pools and 27 potential vernal pools identified by the DEP. Of these, no documented or potential vernal pools are located within the existing or proposed center and node boundaries, but 2 potential vernal pools are located adjacent to the Bedminster Village Center. If these vernal pools were to be confirmed, the buffers associated with them may impact a portion of that center.



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

As New Jersey continues to experience industrial and economic growth, it is imperative that we take steps to ensure that remaining areas of natural significance be preserved for their resource potential, their educational and research use, and their aesthetic and cultural values for present and future generations. The protection of New Jersey's natural heritage can be accomplished in harmony with older human concerns as long as planning accompanies growth. Information from the Natural Heritage Database facilitates the sound evaluation of lands by ecological resources in the state and focusing on the most threatened significant natural areas.

Through its Natural Heritage Database, the DEP Office of Natural Lands Management (ONLM) identifies critically important areas to conserve New Jersey's biological diversity, with particular emphasis on rare plant species and ecological communities. The database provides detailed information on rare species and ecological communities to planners, developers, and conservation agencies for use in resource management, environmental impact assessment, and both public and private land protection efforts.

In addition, each NHPS includes a Biodiversity Rank according to its significance for biological diversity using a scale developed by The Nature Conservancy, the network of Natural Heritage Programs and the New Jersey Natural Heritage Program. The ranks can be used to distinguish between sites that are of global significance for conservation of biological diversity vs. those that are of state significance. The global biodiversity significance ranks range from B1 to B5. Within the Highlands Region the global biodiversity significance rank has been combined with a state

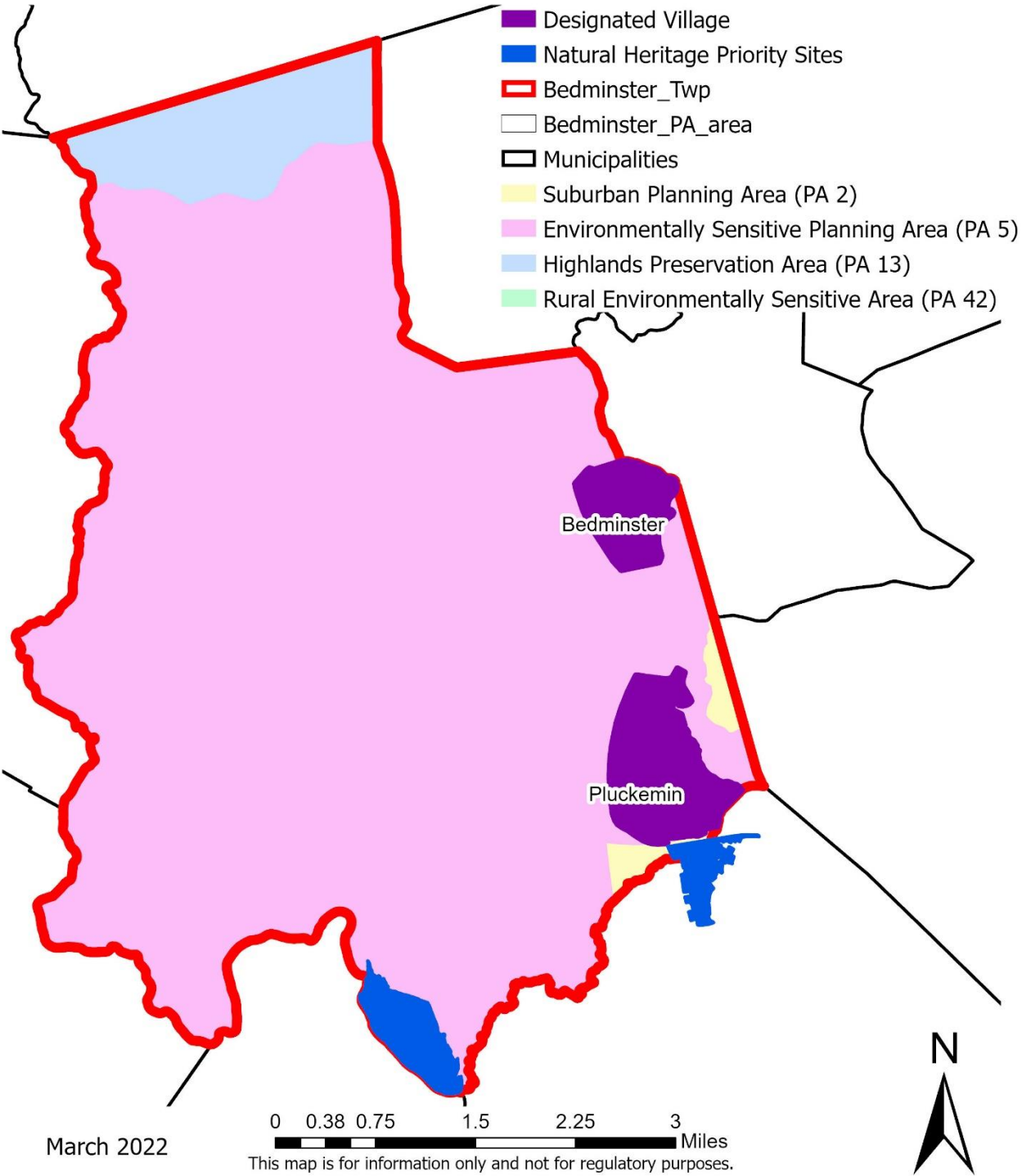
biodiversity significance rank which provides information about the significance of the site on a state level. The state biodiversity significance ranks for sites in the Highlands Region range from V1 to V5. Therefore, all sites have been assigned a global biodiversity rank (B rank), but not all sites have been assigned a state biodiversity rank (V rank).

Rank	Description
B1	Outstanding significance on a global level, generally the "last of the least" in the world, such as the only known occurrence of any element (species or ecological community), the best or an excellent occurrence of an element ranked critically imperiled globally, or a concentration (4+) of good or excellent occurrences of elements that are imperiled or critically imperiled globally. The site should be viable and defensible for the elements or ecological processes contained.
B2	Very high significance on a global level, such as the most outstanding occurrence of any ecological community. Also includes areas containing other occurrences of elements that are critically imperiled globally, a good or excellent occurrence of an element that is imperiled globally, an excellent occurrence of an element that is rare globally, or a concentration (4+) of good occurrences of globally rare elements or viable occurrences of globally imperiled elements.
B3	High significance on a global level, such as any other viable occurrence of an element that is globally imperiled, a good occurrence of a globally rare element, an excellent occurrence of any ecological community, or a concentration (4+) of good or excellent occurrences of elements that are critically imperiled in the State.
B4	Moderate significance on a global level, such as a viable occurrence of a globally rare element, a good occurrence of any ecological community, a good or excellent occurrence or only viable state occurrence of an element that is critically imperiled in the State, an excellent occurrence of an element that is imperiled in the State, or a concentration (4+) of good occurrences of elements that are imperiled in the State or excellent occurrences of elements that are rare in the State.
B5	Of general biodiversity interest.
V1	Outstanding significance on a state level. Only known occurrence in the state for an element; or Site with an excellent occurrence or the best occurrence in the state for an element ranked critically imperiled in the state; or a concentration (4+) of good or excellent occurrences of elements that are imperiled or critically imperiled in the state.
V2	Very high significance on a state level. Includes sites containing other occurrences of elements that are critically imperiled in the state; or a concentration (4+) of other occurrences of state imperiled elements and/or good or excellent occurrences of state rare elements.
V3	High significance on a state level. Includes sites containing the best occurrence in the state or an excellent occurrence of a state imperiled element; or multiple (2+) other occurrences for state imperiled elements and/or excellent, good or moderate quality occurrences of state rare elements.
V4	Moderate significance on a state level. Includes sites containing the best occurrence in the state or an excellent occurrence of a state rare element; or any site with other occurrences of a state imperiled element; or multiple (2+) other occurrences of state rare elements.
V5	Any site with any other occurrence of a state rare element.

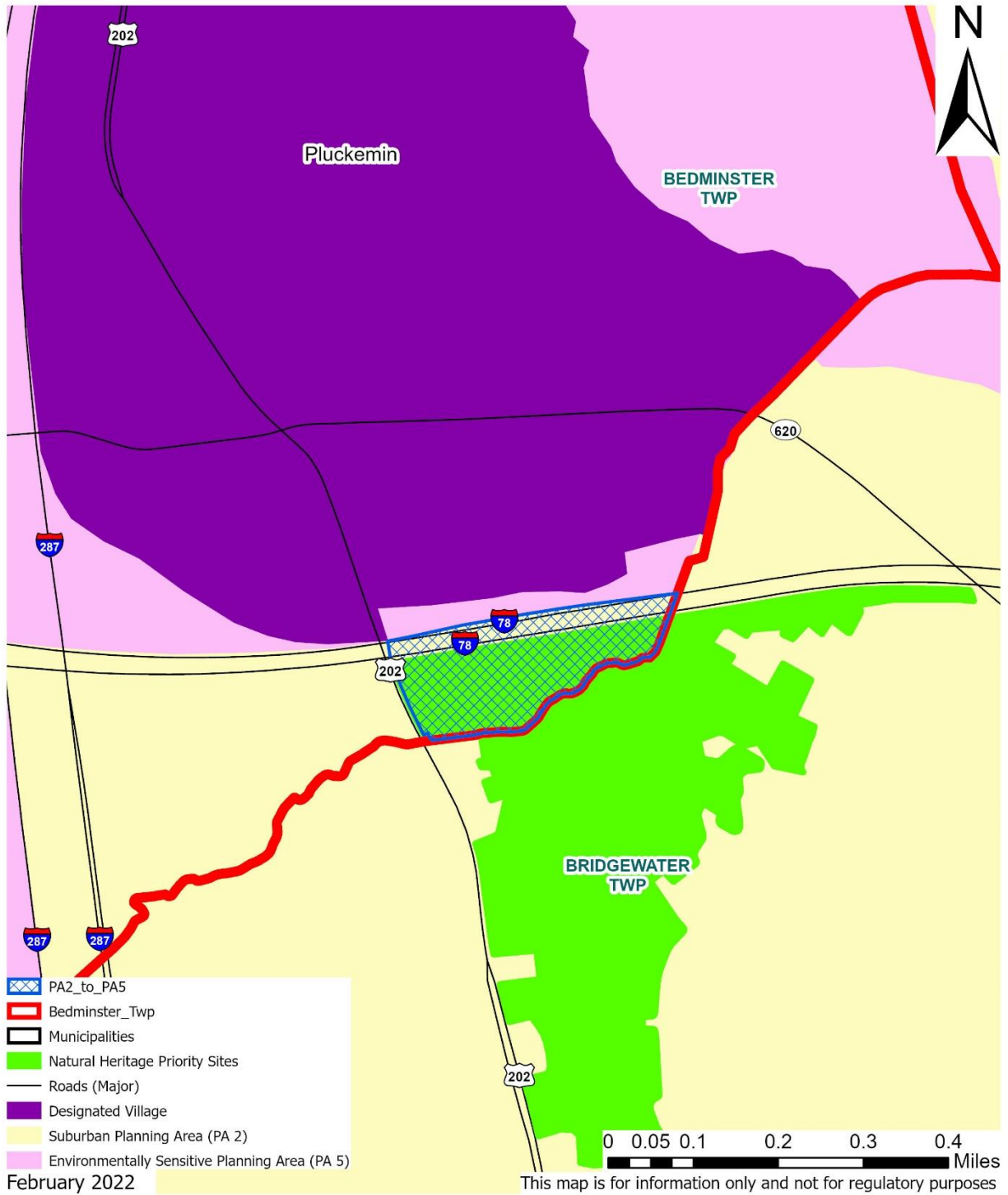
Bedminster Township contains two Natural Heritage Priority Sites; the Pluckemin Overlook site is ranked B5V3 and the Burnt Mills site is ranked B4V5. Although neither site overlaps with any center or node boundaries, the Pluckemin Overlook site contains occurrences for two state imperiled plant species and is located within a Suburban Planning Area (PA2). **DEP recommends that the portion of the Pluckemin Overlook Natural Heritage Priority Site that is within the Township be converted from a PA2 to PA5 to preserve the natural value of the imperiled species.**

A full listing of Rare Plant Species and Ecological Communities Presently Recorded in the NJ Natural Heritage Database for Somerset County can be found at <https://www.nj.gov/dep/parksandforests/natural/docs/somerset.pdf>.

Bedminster Twp. Somerset
Existing State Plan Centers with Natural Heritage Priority Sites



Bedminster Twp. Natural Heritage Priority Site and Recommended Planning Area Change



Forest Fire Management and Mitigation

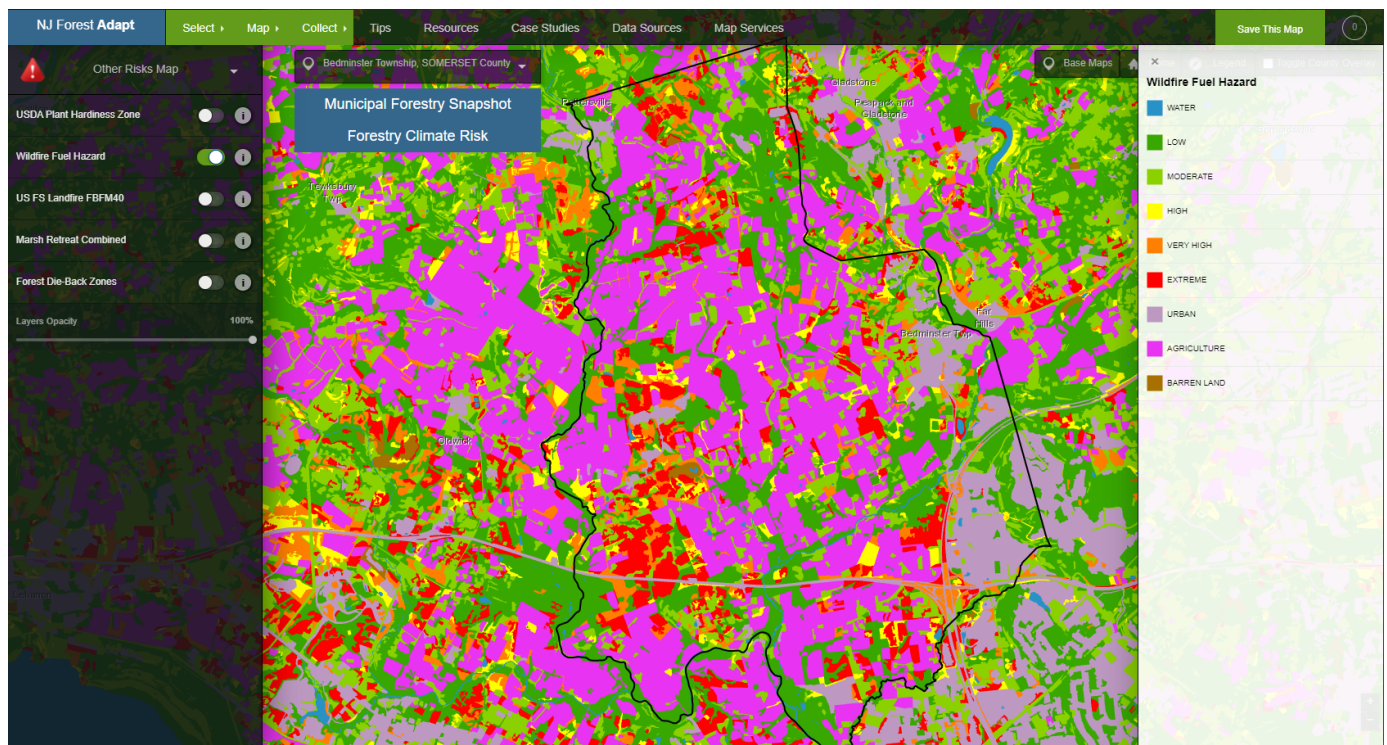
Adverse effects of climate change increases in average daily temperature contribute to an increase in the potential for forest fires. Public and private property, infrastructure, public safety, and utilities could be compromised in a wildfire emergency. The impacts of a wildfire event can be reduced 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.

Bedminster should use Rutgers' NJ Adapt online tool to identify unique forest risks, including fuel hazard.

Bedminster Township should explore the creation and adoption of a Community Wildfire Protection Plan (CWPP) with the NJ Forest Fire Service. Best Management Practices for the preparation of such plans are available at

<https://www.nj.gov/dep/parksandforests/fire/docs/CWPPHandbook3-26-04.pdf>

This may draw on elements of the recent county hazard mitigation plan, which has identified Bedminster Township's risk of wildfires as medium. Rutgers NJ Forest Adapt mapping shows that there are some areas of Bedminster that qualify as an extreme or very high wildfire fuel hazard.



Cultural and Historic Resources

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 Land Use Regulation Program. 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 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.

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.

The Bedminster MSA highlights the significance of historic preservation in the Township. The MSA identifies approximately 150 historic properties and four historic districts, three of which are listed. However, Department data indicates that there are four listed historic districts and three more historic districts are eligible for the New Jersey and National Register of Historic Places, shown on the table below:

Cultural Resource Name	Designation Status	Designation Status Update
Hamilton Farm Stable Complex	Listed	5/18/2018
Pottersville Village Historic District	Listed	9/18/1990
Lamington Historic District	Listed	6/21/1984
Pluckemin Village Historic District	Listed	7/26/1982
Peapack Brook Rural Industrial Historic District	Eligible	5/2/1997
Greater Cross Roads Historic District	Eligible	6/13/1997
Lesser Crossroads / Bedminster Village Historic District	Eligible	7/21/1992

Also, the Township contains many nationally significant archaeological sites including the Revolutionary War Pluckemin Continental Artillery Cantonment site and the deposits associated within the Jacobus Vanderveer house. In addition, the submitted information acknowledges the value in cultural tourism and developing a greater focus building better, walkable historic village environments. Finally, the MSA identifies that Bedminster Township has its own advisory Historic Preservation Commission (HPC) and recommends that the Bedminster Township HPC should pursue and participate in the Certified Local government program. **The Department supports all these initiatives for considering and maintaining the physical and visual beauty and historic significance of the Township's structures, districts, landscapes, and archaeological sites.**

In summary, the HPO supports the development philosophy outlined in the MSA and recommends sustainability and limiting environmental impacts through rehabilitation of existing structures over 50 years old and leadership in energy & environmental design (LEED)-based compatible design for new construction within districts and historic villages. Known historic properties, identified resources, and areas containing known archaeological sites discussed above are available for consideration during municipal planning through the HPO's LUCY data viewer.

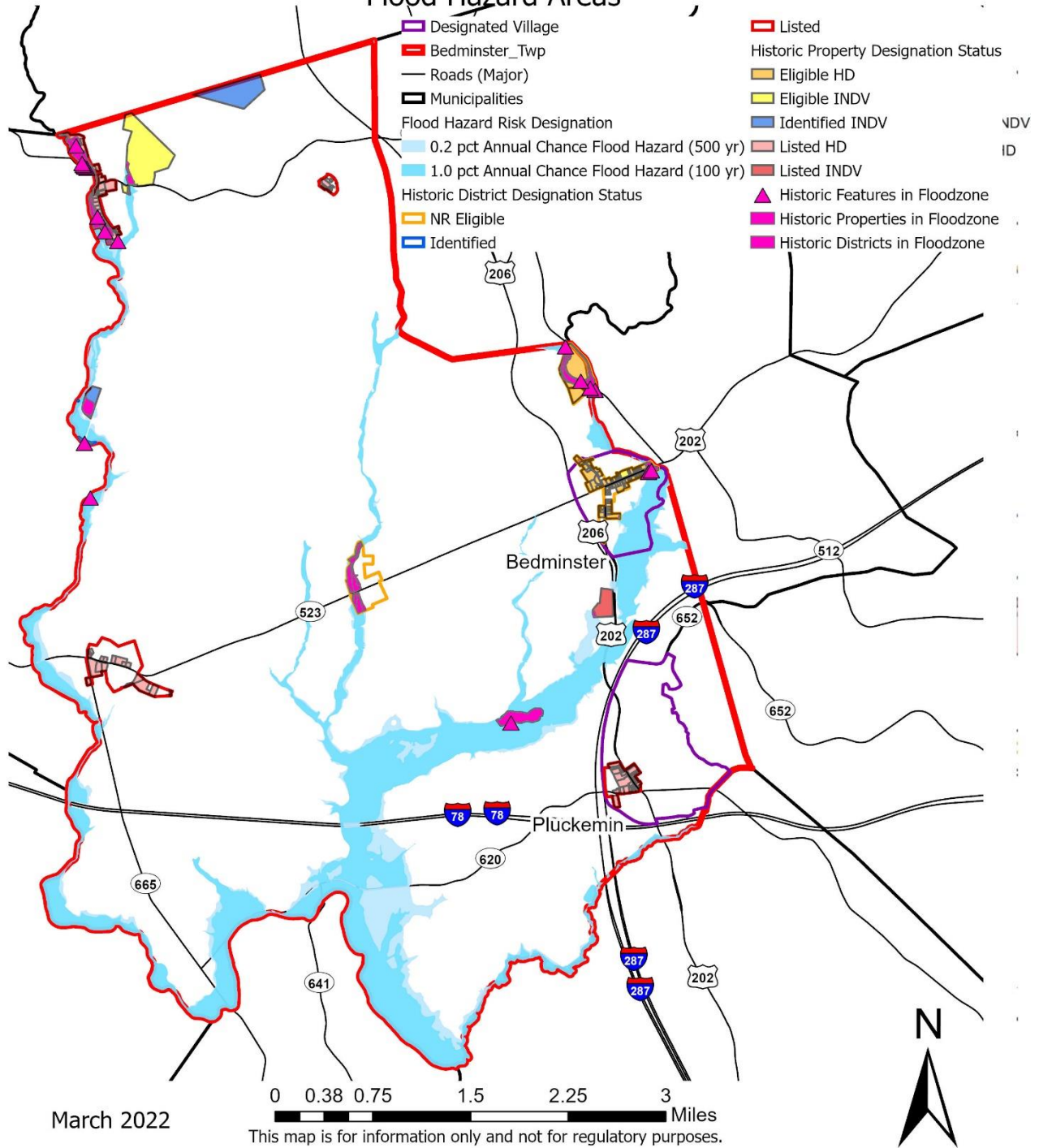
Bedminster Township should update its 2003 Historic Preservation Plan Element and coordinate with the HPO to review and update the inventory of historic sites as necessary.

Bedminster Township should consider appropriate changes to its zoning ordinance to protect these historic districts and resources while also encouraging the placement of solar and other renewable energies in other locations in order to comply with MLUL requirements, as noted in the 2018 Master Plan Reexamination Report.

Historic Resources in Floodprone Areas

There are 19 Historic Structures or buildings in Bedminster Township that are within the FEMA 1% or 0.2% flood hazard area. **Historic structures should be evaluated and protected with enhanced stormwater management plans and flood minimization plans.** The Department 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.

Bedminster Twp. Somerset Existing State Plan Centers with Cultural and Historic Resources in FEMA Flood Hazard Areas



Wastewater and Water Supply

Wastewater Analysis

Bedminster Township is primarily served by one wastewater treatment plant; Environmental Disposal Corporation (EDC) Wastewater Treatment Plant (#NJ0033995), which services both the Bedminster Village and Pluckemin Town Centers, the AT&T campus, as well as some surrounding areas. The EDC WTP has a current capacity of 2.1 million gallons per day (MGD). The Township has five wastewater pump stations.

The Township has two smaller package treatment plants at the Purnell School and the Willow School. The Purnell School WTP (#NJG0136328) has a permitted capacity of 0.00489 MGD. The Willow School WTP (#NJ0141801) has a permitted capacity of 0.005 MGD.

The Township also has three privately owned package treatment plants:

- The first is owned by Lamington Farm Club, LLC (#NJ0142883) at Trump National Golf Course. The MSA claims that this facility is currently operating at about double its permitted capacity of 840 gallons per day, treating approximately 1,600 gallons per day. However, this information seems to be outdated. According to an adopted WMP amendment date December 10, 2015, the Trump National STP is permitted to discharge 29,631 gallons per day.
- Fiddlers Elbow Wastewater Treatment Plant (#NJ0021865) which serves the Fiddler's Elbow Country Club currently has a capacity of 45,000 gallons per day and treats between 10,000 and 30,000 gallons per day depending on the season. The facility discharges to the Lamington River
- According to the MSA, Hamilton Farms Treatment Plan (#NJ0097343) serves Hamilton Farms and has a capacity 7,000 gallons per day. The facility discharges about 10,000 – 12,000 gallons per day to groundwater via a modified disposal field. Based on an adopted WMP amendment dated may 12, 2010, the Hamilton Farm STP has a permitted flow of 28,146 gallons per day.

The majority of Bedminster Township is currently served by on-site septic systems. The MSA identifies a residential area north of the Bedminster Village Center and east of Route 206 that is currently served by septic systems but has been identified in the 2008 and 2018 Master Plan Reexaminations as the location for a potential sewer service area extension to reduce stress on the surrounding soil conditions and surface waters. The area drains to the Peapack Brook, a Category 1 water. **Bedminster should assess if there are other septic systems in the township that may be vulnerable to flooding.**

The Township and Somerset County have begun discussing an amendment to the Wastewater Management Plan to address this issue. Any amendment to sewer service area, either through an amendment to the municipal chapter of the WMP or a site-specific amendment, would be subject to review based on the Department's Water Quality Management rules, specifically the requirement for sewer service areas to avoid contiguous composite environmentally sensitive areas (ESA) of 25-acres or more. There are limited areas in the Bedminster Village Center where the sewer service are conflicts with areas designated as ESA greater than 25-acres and FEMA flood hazard areas.

The Department agrees with the MSA statement that the Utility Services Plan element of the Master Plan should be reviewed an updated, with specific strategies to address the issues and deficiencies mentioned in this section.

Bedminster Township should continue to update the Septic Management Plan component of the County Wastewater Management plan as new information becomes available and regularly as required by rules.

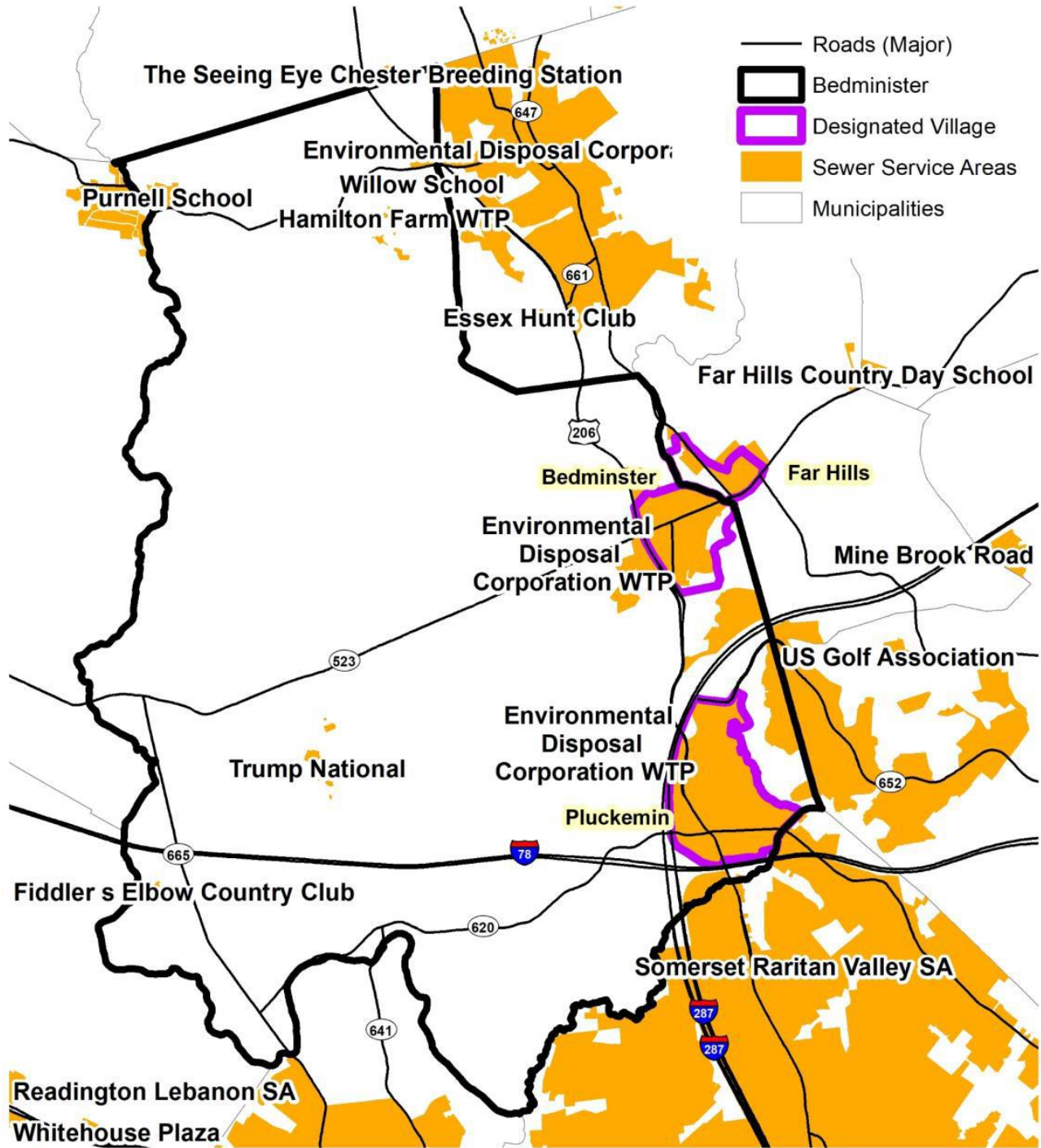
Wastewater Infrastructure in Floodprone Areas

Critical utility infrastructure like powerlines, sewers, and potable water lines can be adversely impacted by flooding. The sewer service area covers 1,078 acres of Bedminster Township and includes 53 acres in the flood zone. The Township's Municipal Building, including the sewer utility and associated wastewater pump station at 1 Miller Lane is partially within the FEMA 1% and 0.2% flood hazard areas. **Bedminster should evaluate and determine the vulnerability of the pump station to flooding events and develop appropriate resilience measures to ensure continuity of service in the event of a flood.**

Capacity Analysis

The WQMP rule at NJAC 7:15-4.5(b)5 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 EDC STP is currently permitted to discharge up to 2.1 MGD. Current capacity could not be confirmed, but a draft Wastewater Capacity Analysis developed by Somerset County as part of an effort to update the County-wide WMP estimates the existing flow for EDC STP at 1.29 MGD, or about 61% of its permitted capacity.

Bedminster Twp., Somerset Existing State Plan Centers with Sewer Service Area



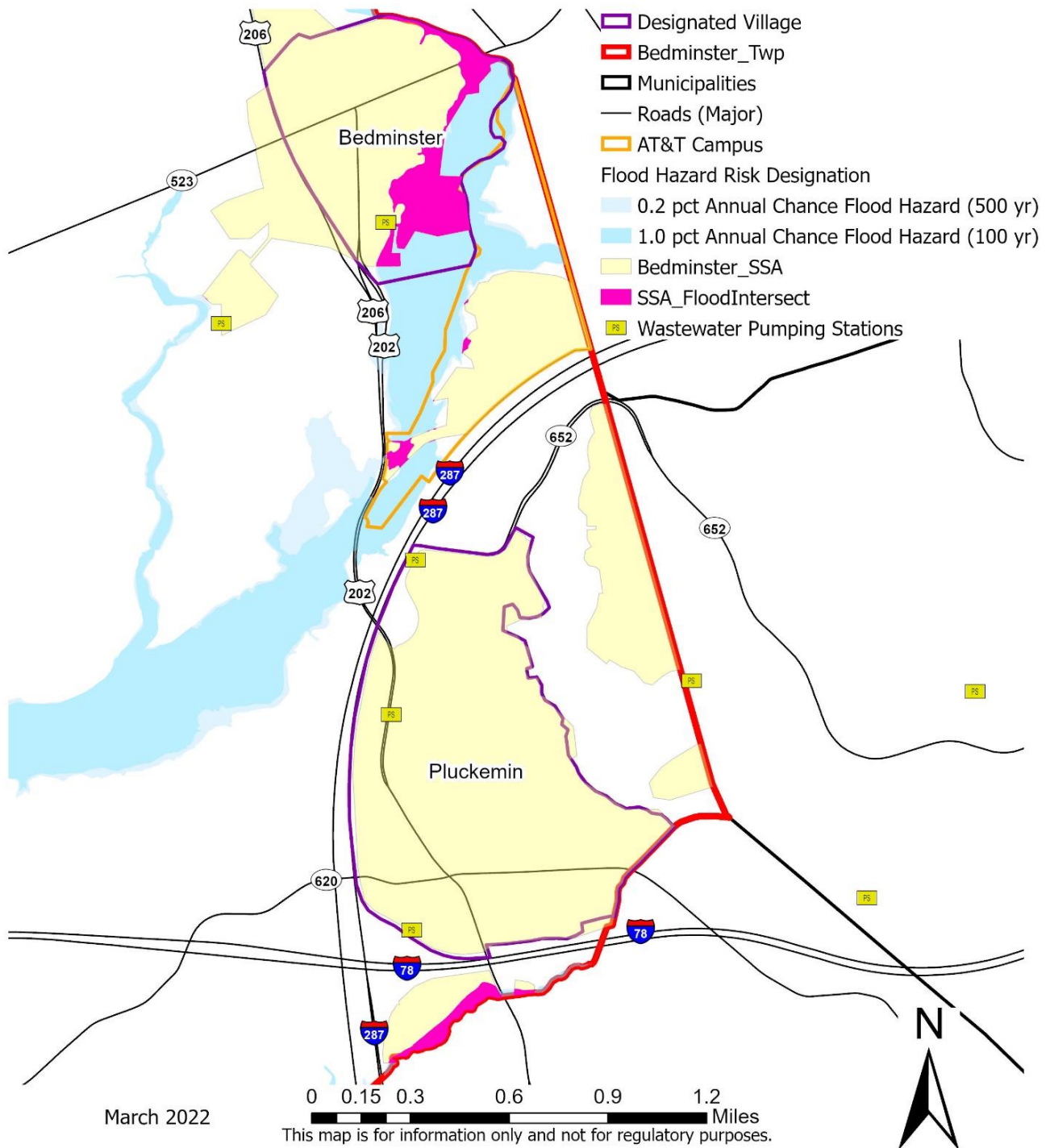
December 2021

0 0.5 1 2 3 Miles

This map is for information only and not for regulatory purposes.



Bedminster Twp., Somerset County Sewer Service Areas within FEMA 1% and 0.2% FEMA Flood Hazard Areas



Water Supply

The eastern portion of the Township including Bedminster Village and Pluckemin Town Centers lies within the public water service area served by New Jersey American Water – Passaic Basin (PWSID#: 0712001), which operates 23 active wells and 1 surface water plant. The system has a master permit which must be renewed every year for future projects. Bedminster should confirm the area of service of all public and private water systems utilized by residents. A small portion of the Township in the south, just west of Interstate-287, is served by New Jersey American Water – Raritan.

The MSA identifies water resources as a major concern because the majority of the Township is rural and relies on private wells for potable water supply. Bedminster has already taken some actions to address these concerns in the Master Plan such as:

- Implementing a program to maintain and pump existing septic tanks similarly to State health requirements for newer systems.
- Ongoing public education on water conservation and protection from pollutants.
- Reducing residential densities in areas not served by a sewer utility.
- Requiring native plants and irrigation minimization in landscaping requirements.
- Discouraging irrigation systems for new developments and encouraging drip irrigation systems.
- Adopted water quality best management practices to protect surface waters and habitat value.

In addition, the Township is considering the following:

- Conducting an audit of groundwater quality including existing groundwater samples and the identification of existing facilities which could potential adversely impact ground water quality.
- Considering a wellhead protection program for community water supply systems.
- Evaluating alternative well testing methodologies to assure accurate analysis.

The Department supports and encourages all of the water conservation and water quality protection actions mentioned above. The Department's Division of Water Supply and Geoscience can provide further technical assistance.

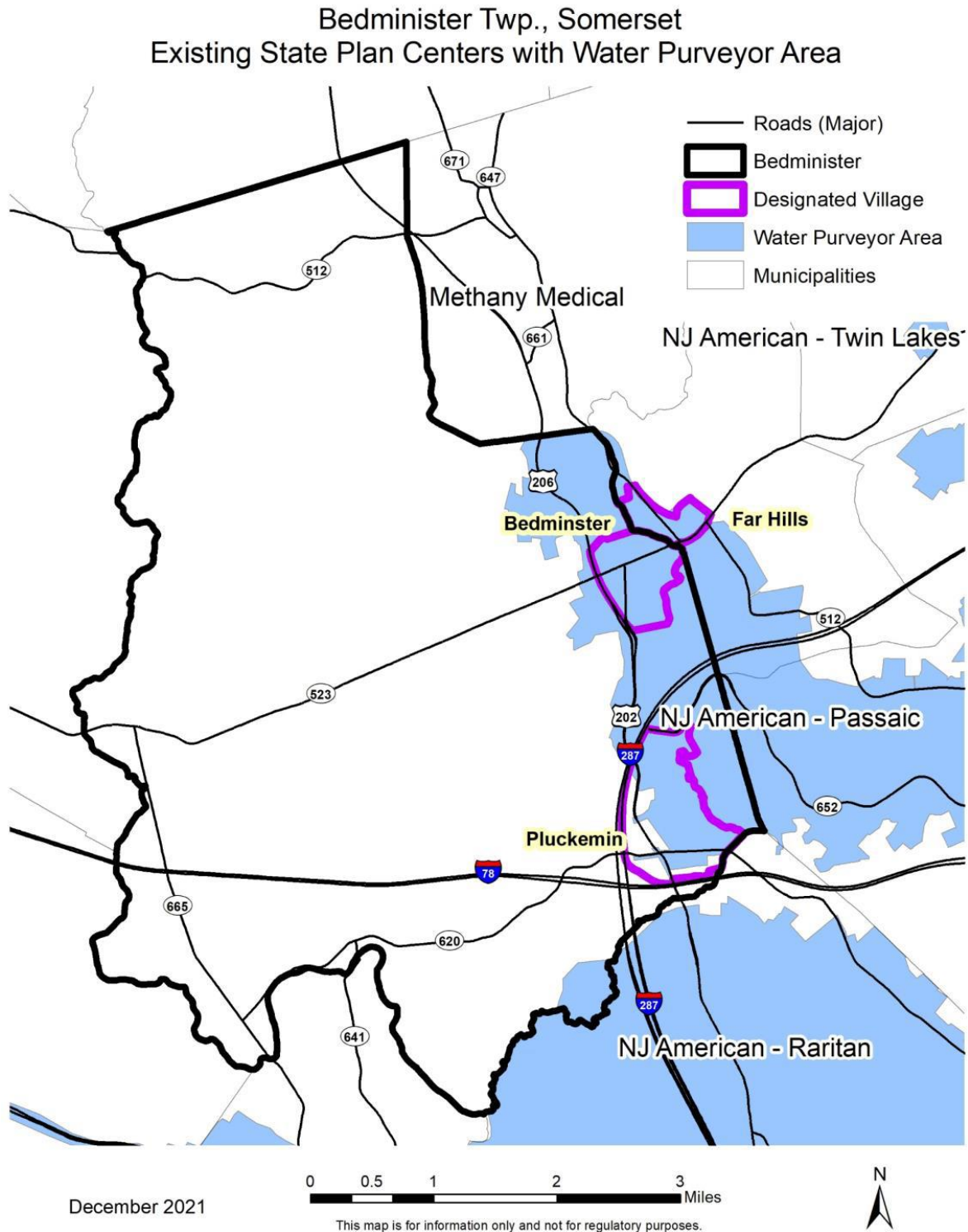
Capacity Analysis

The Bureau of Water Systems Engineering (BWSE) Deficit/Surplus webpage indicates that the system has a surplus of water available to service all pending and future projects that have received approval through the BWSE. The system is calculated to have a surplus of 25.258 million gallons per day, 861.94 million gallons per month, and 9,404.1 million gallons per year.

Water Supply Infrastructure in Floodprone Areas

Potable drinking water is provided to Bedminster residents by private wells and water purveyors including Community Well Protection Areas. By a desktop analysis it was shown that approximately 318 acres of the New Jersey American Water – Passaic Basin and Raritan purveyor area is within a flood zone. **Bedminster Township should identify any public potable water wells and pump stations located in the flood zone and determine their specific vulnerability to flooding events and develop appropriate solutions.**

Additionally, DEP recommends that Bedminster perform a similar analysis for private wells and both inform the owners of their vulnerability and identify potential solutions to that vulnerability.



Well Head Protection Areas

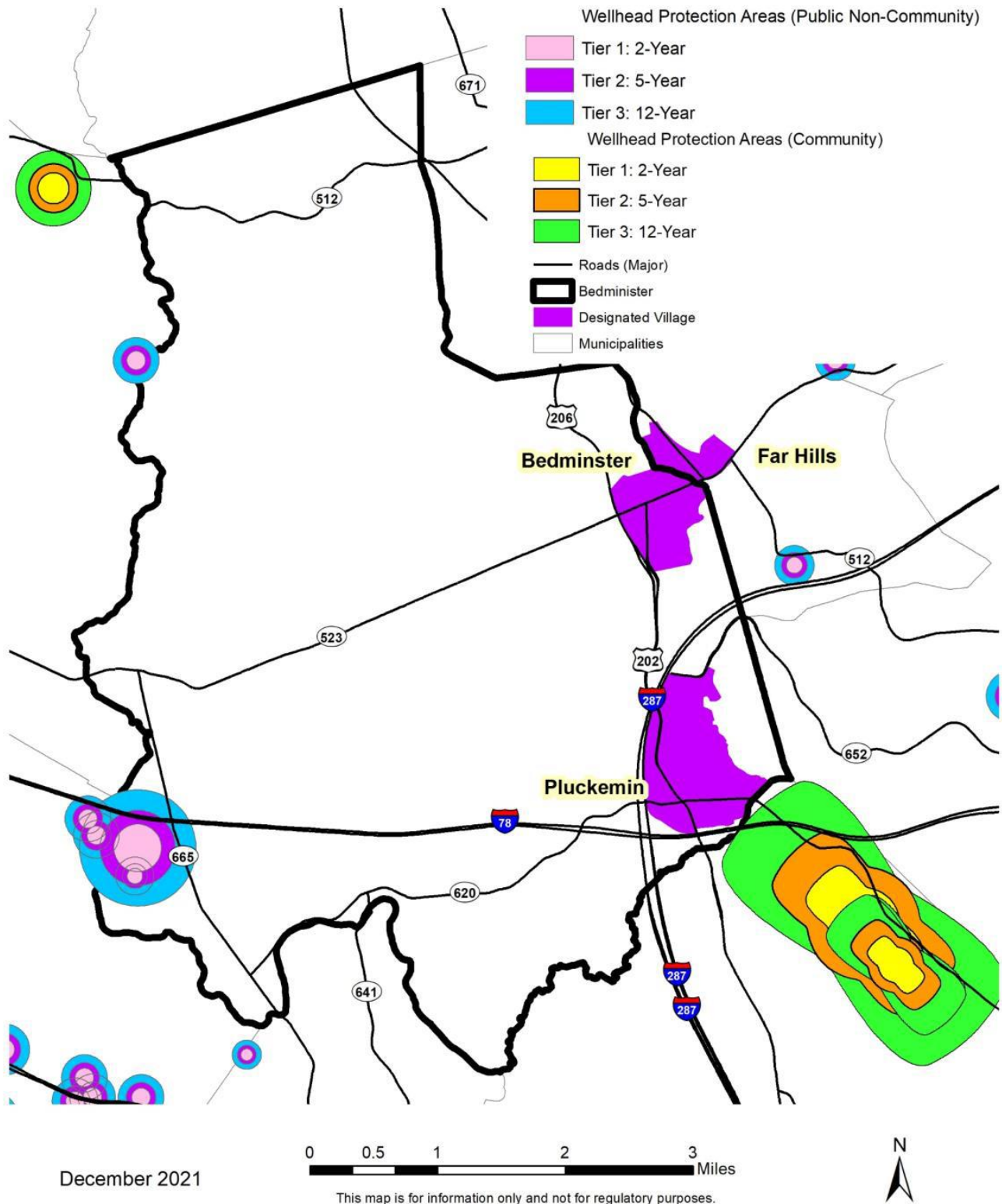
Areas of land surrounding public community wells, known as Well Head Protection Areas, from which contaminants may move through the ground to be withdrawn in water taken from the well, have been delineated. Protection of the public health, safety and welfare through protection of ground water resources,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

Consistent with the recommendation above, **Bedminster should identify all wellhead protection areas around public supply wells in its planning documents and adopt a wellhead protection ordinance.** A map of wellhead protection areas in and around Bedminster Township is provided below.

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

Bedminster Twp., Somerset Existing State Plan Centers with Wellhead Protection Areas



Stormwater

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 Bedminster continue to address stormwater runoff and improve stormwater retention on site at its source. The Township's 2005 Stormwater Management Plan should be updated and made consistent with the 2019 Stormwater Pollution Prevention Plan.**

If not already done, Bedminster must submit an update stormwater outfall location map to the Department in order to be compliant with their MS4 permit. Bedminster should also use that map to identify the location of any stormwater outfalls located within the flood zone and determine their specific vulnerability to flooding events.

Bedminster should seek opportunities to install green infrastructure measures to offset increased stormwater, but also to lower the impacts of heat-island effect which are directly related to the amount of impervious surface.

Social Vulnerability and Human Health

Population Assessment

In planning for climate change related resilience measures, Bedminster must also consider the vulnerability of various populations within the Township to adverse effects of climate change. All residents of Bedminster 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 Township, their social and economic situation, and their ability to anticipate, resist, or recover from a natural hazard.

The MSA noted that Bedminster Township had a population of 8,067 in 2018. It also noted that the median income per capita and education level of residents is much higher than both Somerset County and the State.

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.

For those living near Bedminster's flood zones, increased stormwater runoff under elevated precipitation and existing impervious cover conditions could lead to exacerbated flooding. Any vulnerable residents that are adjacent to or in the floodplain may be at greater risk to flooding.

Bedminster 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.

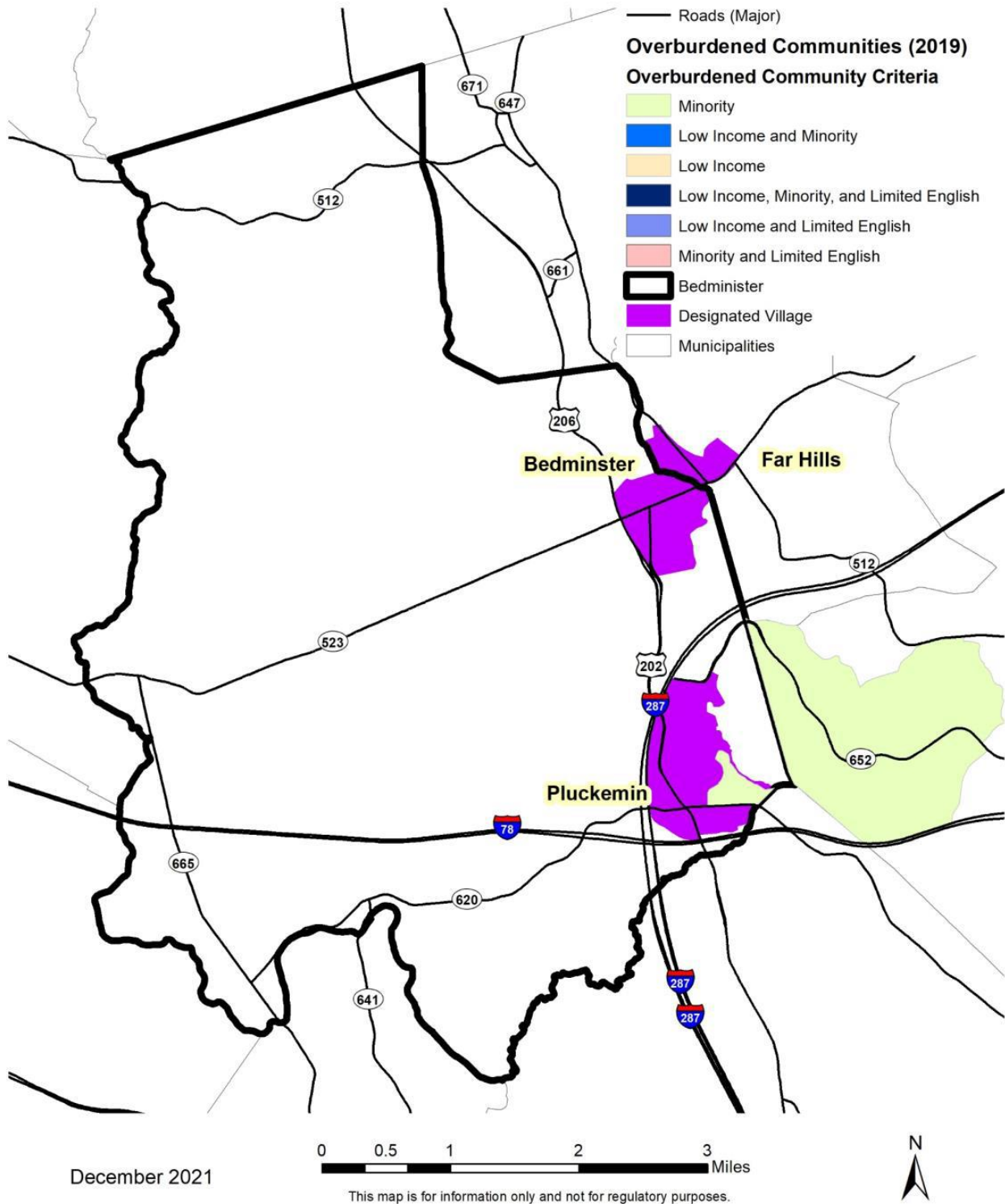
DEP also recommends that Bedminster review its Municipal Snapshot data for further information, available at <https://climatesnapshots.rutgers.edu/1801/socialVulnerability/>.

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/>.

Bedminster has overburdened communities at the block group level designated as minority under the New Jersey Environmental Justice Law (N.J.S.A. 13:1D-157). There is a very limited section of the MSA that discusses environmental justice and socially vulnerable populations that does not address this minority population or their needs. While there is only limited mapped overburdened populations in Bedminster, **DEP recommends that the Township continue to monitor for the potential growth of socially vulnerable populations and overburdened communities in the future.**

Bedminster Twp., Somerset Existing State Plan Centers with Overburdened Communities



Contaminated Sites, Solid and Hazardous Waste, & Recycling

Known Contaminated Sites

To protect public health, Bedminster should maintain a map of known contaminated sites and their remediation status. Although the MSA does not identify any known contaminated sites (KCS), Department data shows 12 known contaminated sites have been identified within municipal boundaries. 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. Known Contaminated Sites in Bedminster:

Name	Address	PI Number	In Center?
Bedminster Maintenance Yard	455, 457 Rt. 206	012709	Pluckemin
Bedminster Shell	1525 US HWY 206	015940	n/a
Village Cleaner	462 RT 206	G000060421	Pluckemin
Marthas Cleaners	75 Washington Valley Rd	254783	Pluckemin
Tiger Claw Inc.	30 Washington Valley Rd	007960	Pluckemin
Central Jersey Construction Company	1225 Rt 206	G000023827	n/a
350 Longview Rd	350 Longview Rd	G000028141	n/a
835 Lamington Rd	835 Lamington Rd	G000029785	n/a
Purnell School	Pottersville Rd	020441	n/a
475 Larger Cross Rd	475 Larger Cross Rd	221492	n/a
Lamington Road LLC	2435 Lamington Rd	697686	Bedminster
155 Klines Mill Rd	155 Klines Mill Rd	2407300	n/a

Brownfields

Of the 12 known contaminated sites identified above, five of them were found within the existing Bedminster Village and Pluckemin Town Centers. Additionally, the Bedminster Shell KCS is within the boundaries of the proposed new Bedminster Village Center as well as within a groundwater contamination area (CEA). **Bedminster 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.”

Four groundwater contamination areas (CEA) were identified in the Pluckemin Town Center.

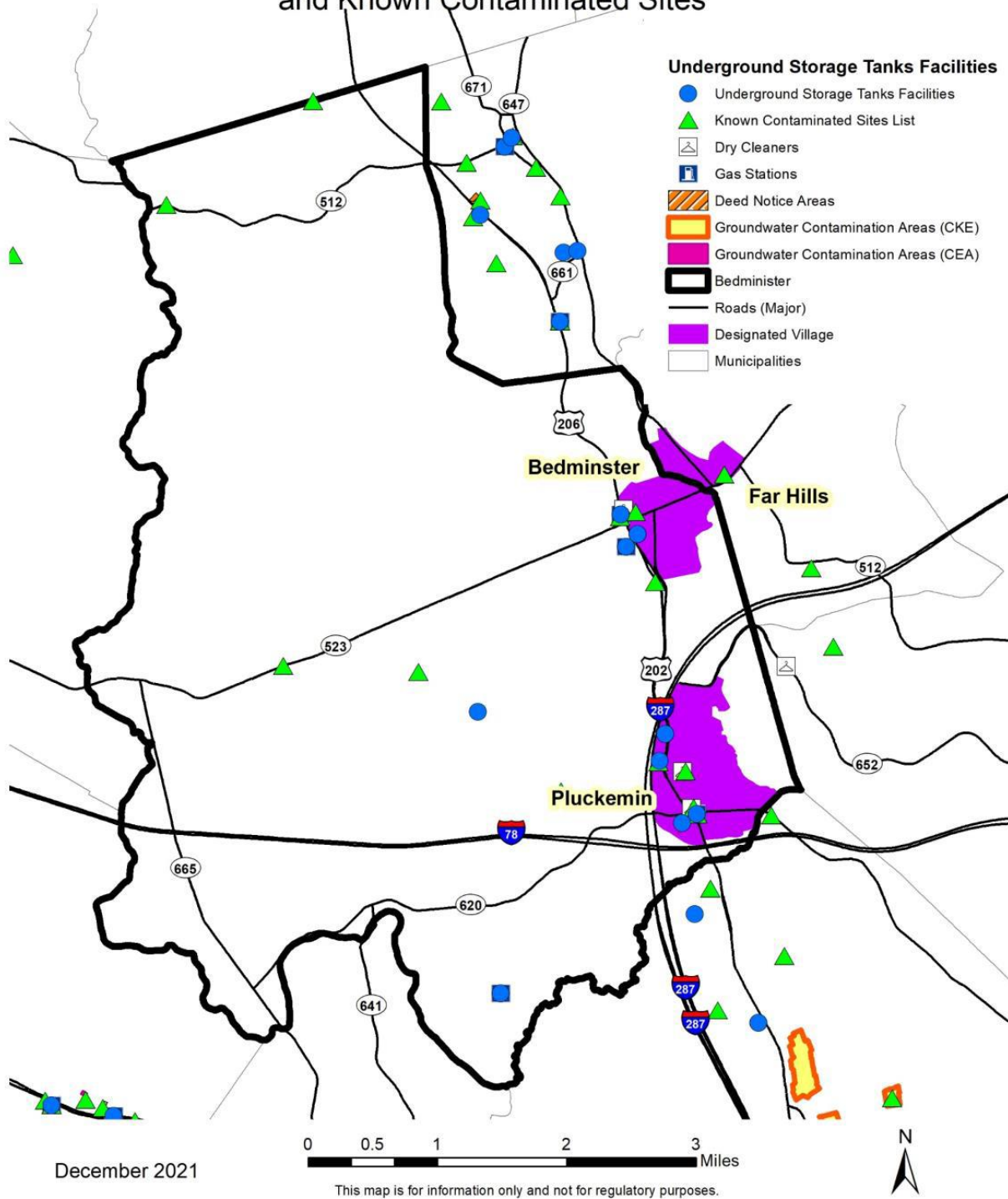
If the Township pursues brownfield cleanup and development in the future, DEP recommends taking actions as part of the Sustainable Jersey Certification Program. These actions include Brownfield Inventory and Prioritization, Brownfield Reuse Planning, Brownfield Marketing, and Brownfield Assessment and 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 Floodprone Areas

One KCS was identified at 475 Larger Cross Road adjacent to a groundwater contamination area (CES) that intersects with the FEMA 1% flood hazard area in the center of the municipality. No known contaminated sites, gas stations, underground storage tanks, etc. were identified in either the FEMA 1% or 0.2% flood hazard areas.

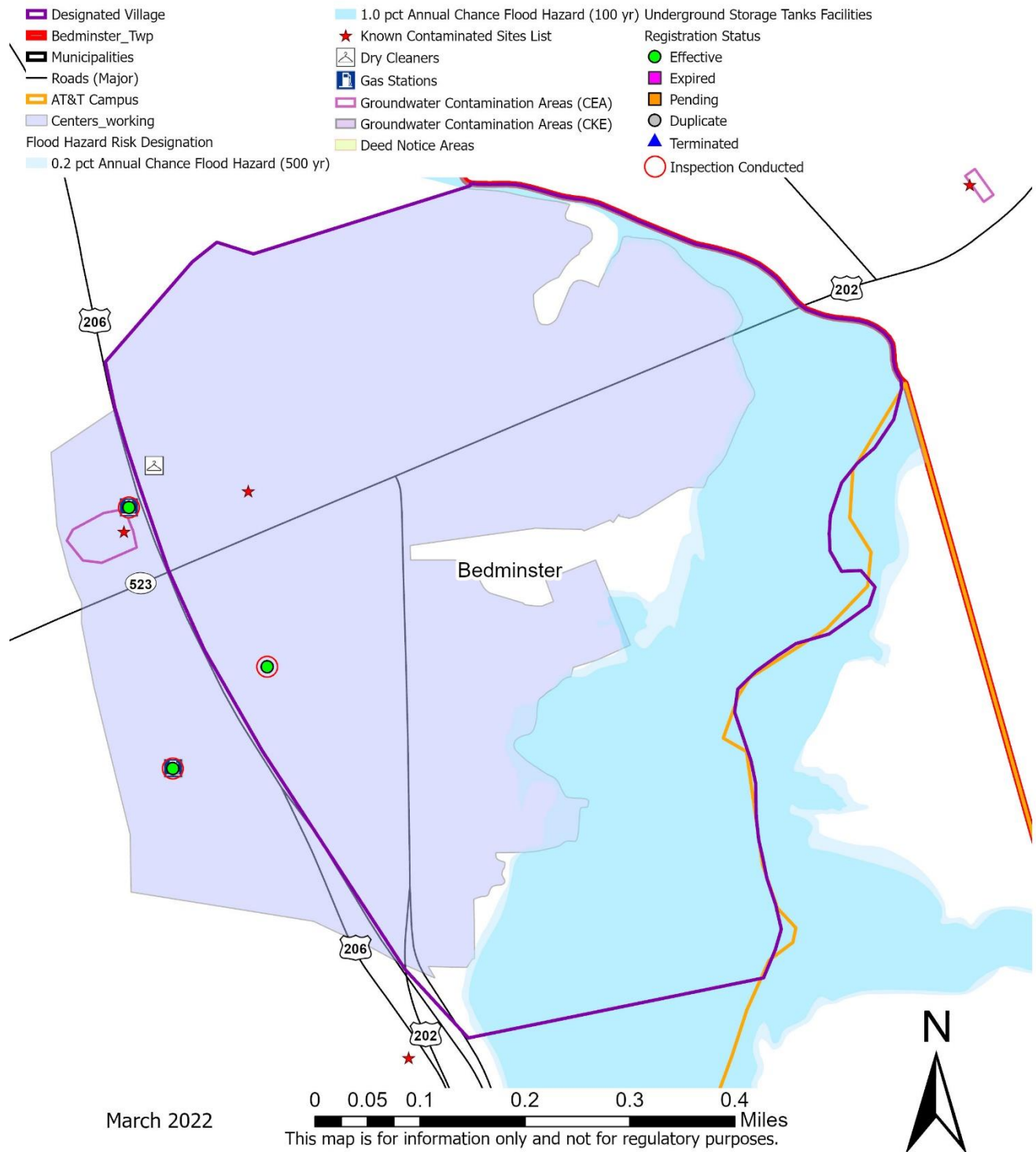
Bedminster could consider adopting a buffer ordinance to prevent serious water contamination from identified sites during and after flood events. The Township could also consider amending its zoning ordinance to avoid placing potentially harmful land uses in or around flood prone areas.

Bedminster Twp., Somerset Existing State Plan Centers with Underground Storage Tanks and Known Contaminated Sites



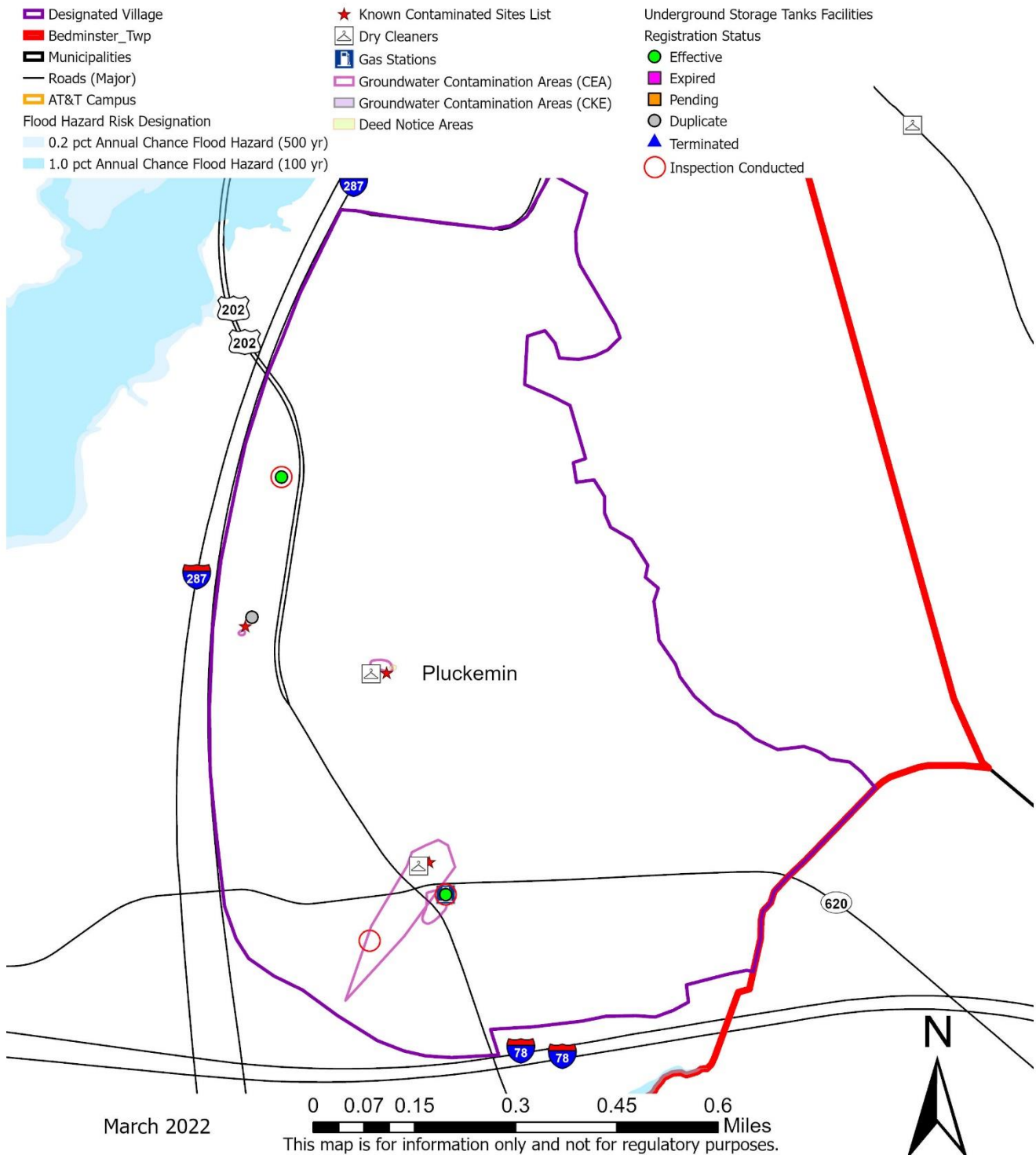
Bedminster Twp., Somerset County

Known Contaminated Sites in Existing and Proposed Bedminster Village Center

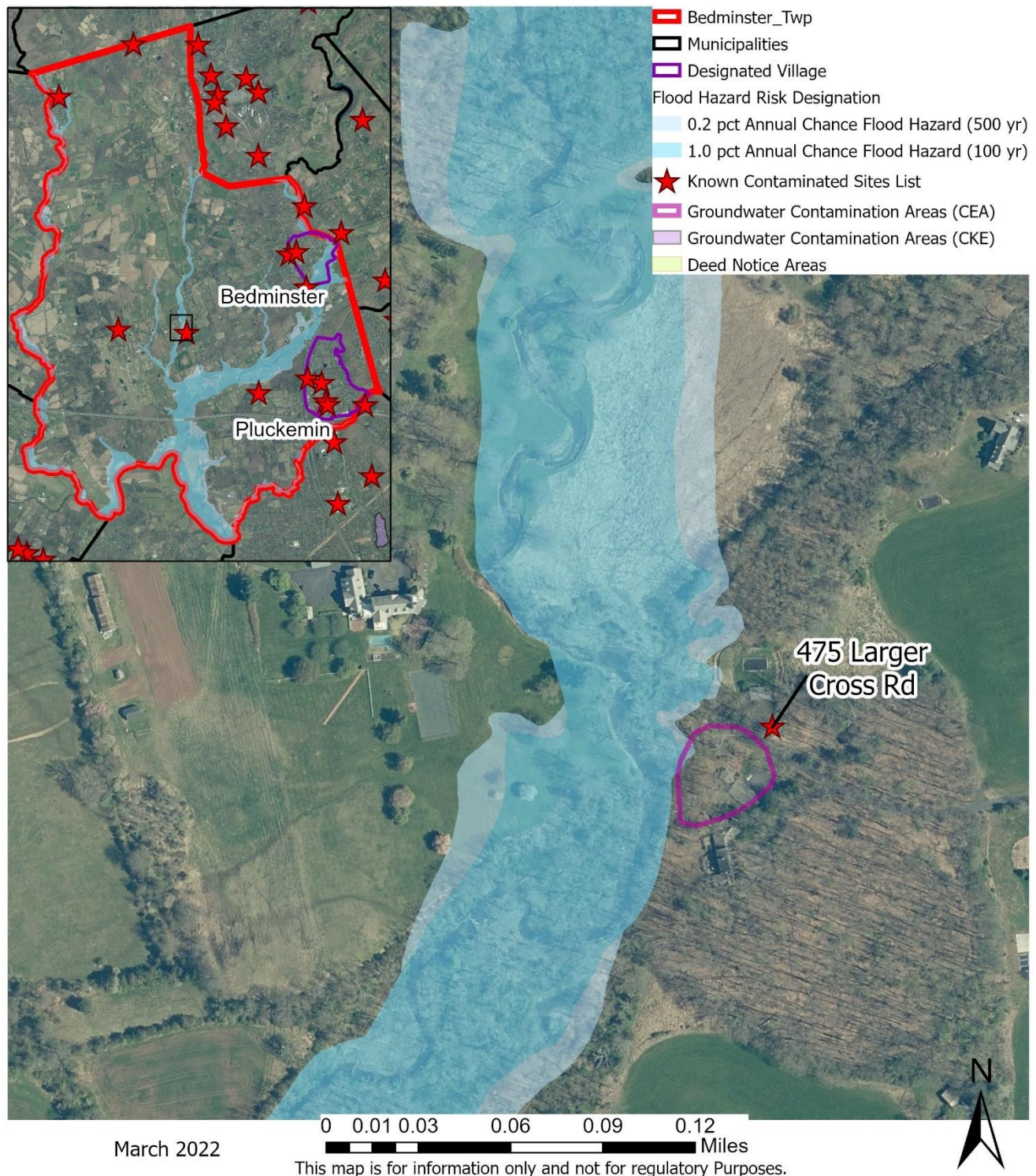


Bedminster Twp., Somerset County

Known Contaminated Sites in Existing and Proposed Bedminster Village Center



Bedminster Twp. Known Contaminated Sites with FEMA 1% and 0.2% Flood Hazard Areas



Solid and Hazardous Waste

The MSA does not make detailed mention of the municipality's solid waste management plan, but does maintain that the Township strives to meet the goals set by both the County and the State. Bedminster Township has no solid or hazardous waste landfills and/or facilities.

DEP recommends that Bedminster Township identify not only public, but also private facilities that either collect, transfer, process, or dispose of solid waste or recyclables on its municipal inventory. The Township should also continue to inform its residents of any opportunities for recycling or waste disposal including drop-off depot locations for residents, any Township plans to build waste facilities in town, and any additional waste facilities or services to provide a more holistic view of how the Township manages its waste.

Recycling

According to the MSA, Bedminster Township has appointed a municipal recycling coordinator, adopted a recycling ordinance, submits yearly tonnage reports to the county, and has adopted recycling requirements in its Land Management Ordinance. Somerset County provides residential recycling pick-up services while non-residential facilities must contract with a private waste hauler.

DEP recommends that Bedminster evaluate and update the Recycling Plan Element of the 2003 Master Plan as appropriate.

If not done already, DEP recommends that the Township notify the State of all 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 Bedminster includes the expansion of either the Bedminster Village or Pluckemin Town Center boundaries to include the AT&T Campus at Block 43, Lot 1 for redevelopment, and no changes to planning areas. Following are DEP's issues and concerns with the proposed changes.

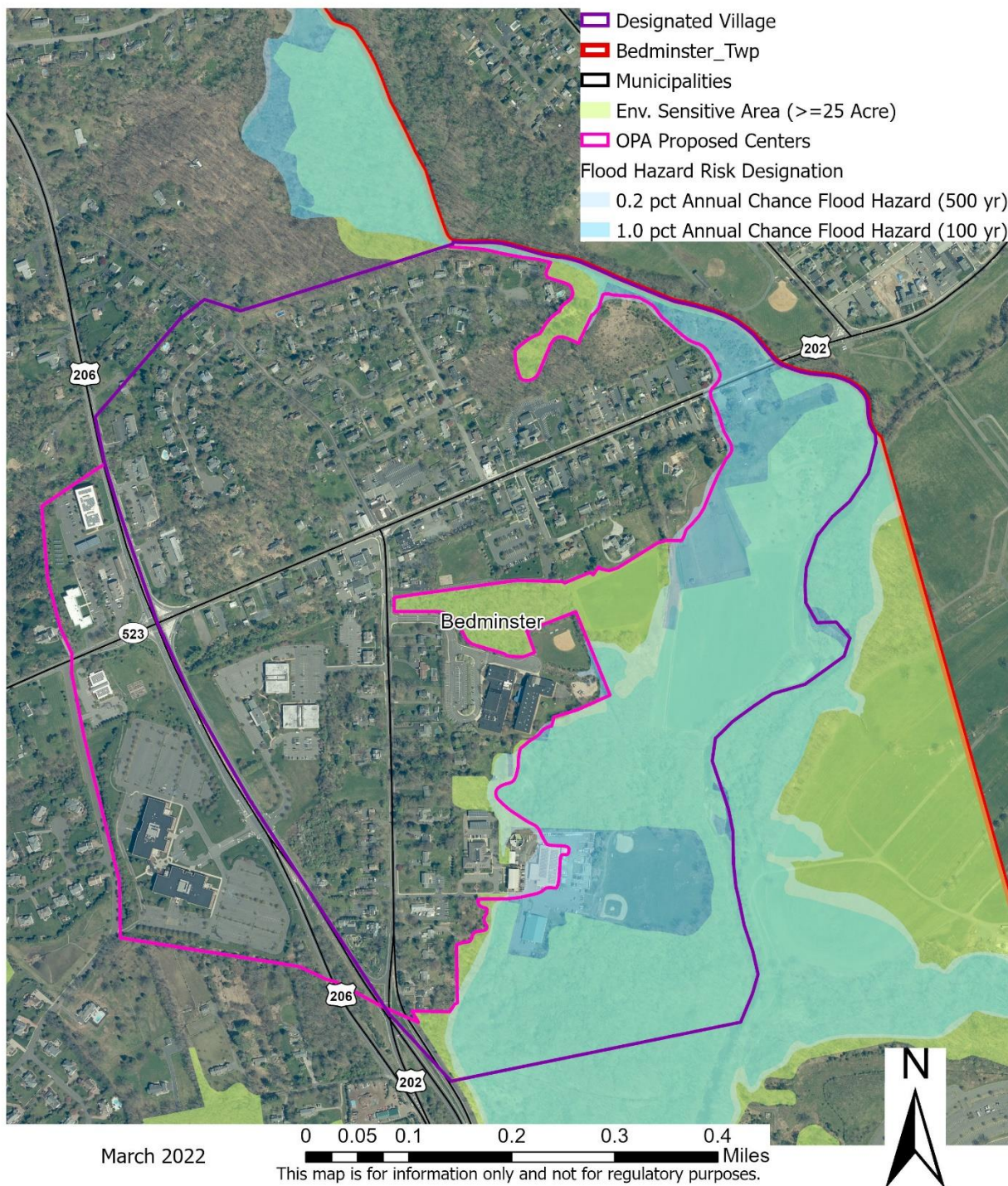
Bedminster Village Center

While there are a number of streams that run throughout Bedminster Township, only the existing Bedminster Village Center is severely impacted by FEMA flood hazard areas. All of the eastern and southern center boundaries are within the 1% FEMA flood hazard area of the North Branch Raritan River. Additionally, large portions of the eastern and southern parts of the Village Center contain environmentally sensitive areas at least twenty-five acres in size. Part of this area includes suitable habitat for grassland bird species. For these reasons DEP recommends amending the Village Center boundary to exclude these portions of flood prone and environmental sensitive areas

However, where the existing Village Center boundary terminates at Route 206, the Office of Planning Advocacy proposed extending the Village Center westward to encompass some existing development. DEP supports this proposed amended Bedminster Village Center Boundary, shown below.

Bedminster Twp., Somerset County

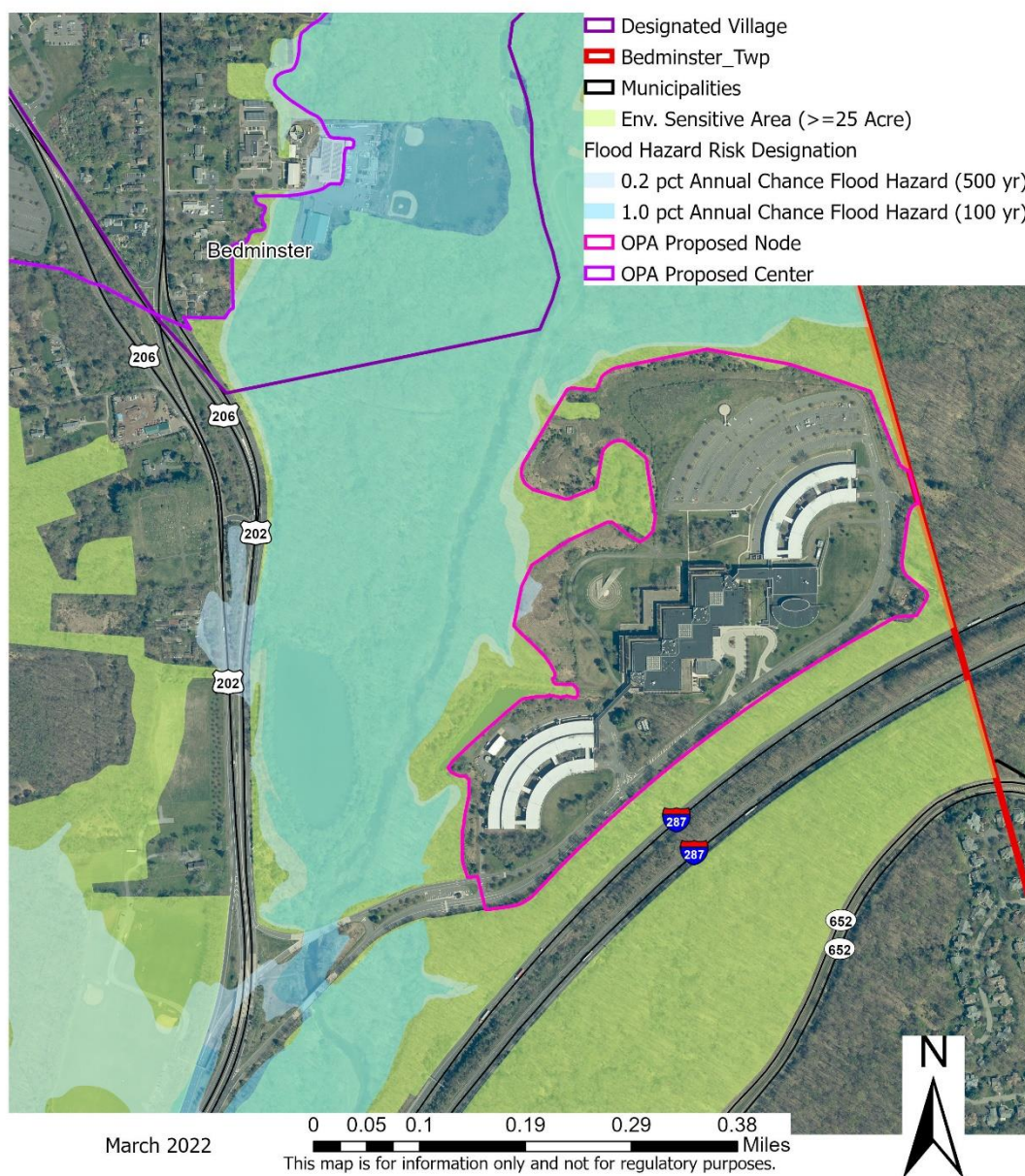
Bedminster Village Center: Existing and Proposed Boundary



AT&T Node

The Townships MSA identified Block 43, Lot 1 as an area they would like included within a center for redevelopment purposes. The area is currently an underutilized AT&T campus. However, due to environmental constraints surrounding the developed portion of the lot, there is no feasible way to include the entire lot into either of the existing Centers. As a solution, the Office of Planning Advocacy proposed a node for the campus that is generally limited to the areas of the lot not impacted by environmentally sensitive areas and flood hazard areas. DEP supports the proposed node boundary as shown below.

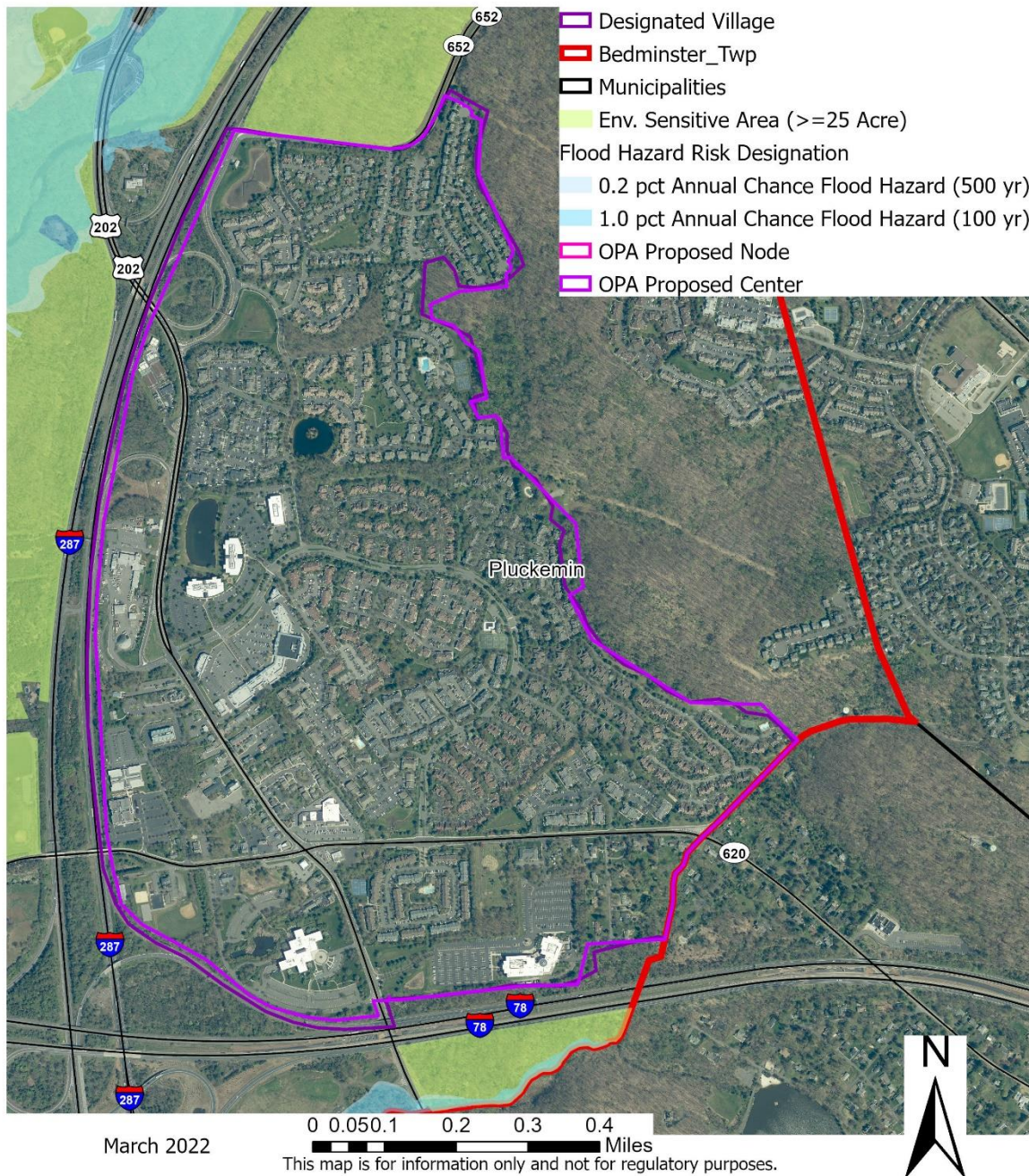
Bedminster Twp., Somerset County Proposed OPA Node



Pluckemin Town Center

DEP does not propose any changes to the Pluckemine Town Center. However, OPA has proposed a slightly modified center boundary, shown below, which DEP would also support.

Bedminster Twp., Somerset County Pluckemin Town Center: Existing and Proposed Boundary

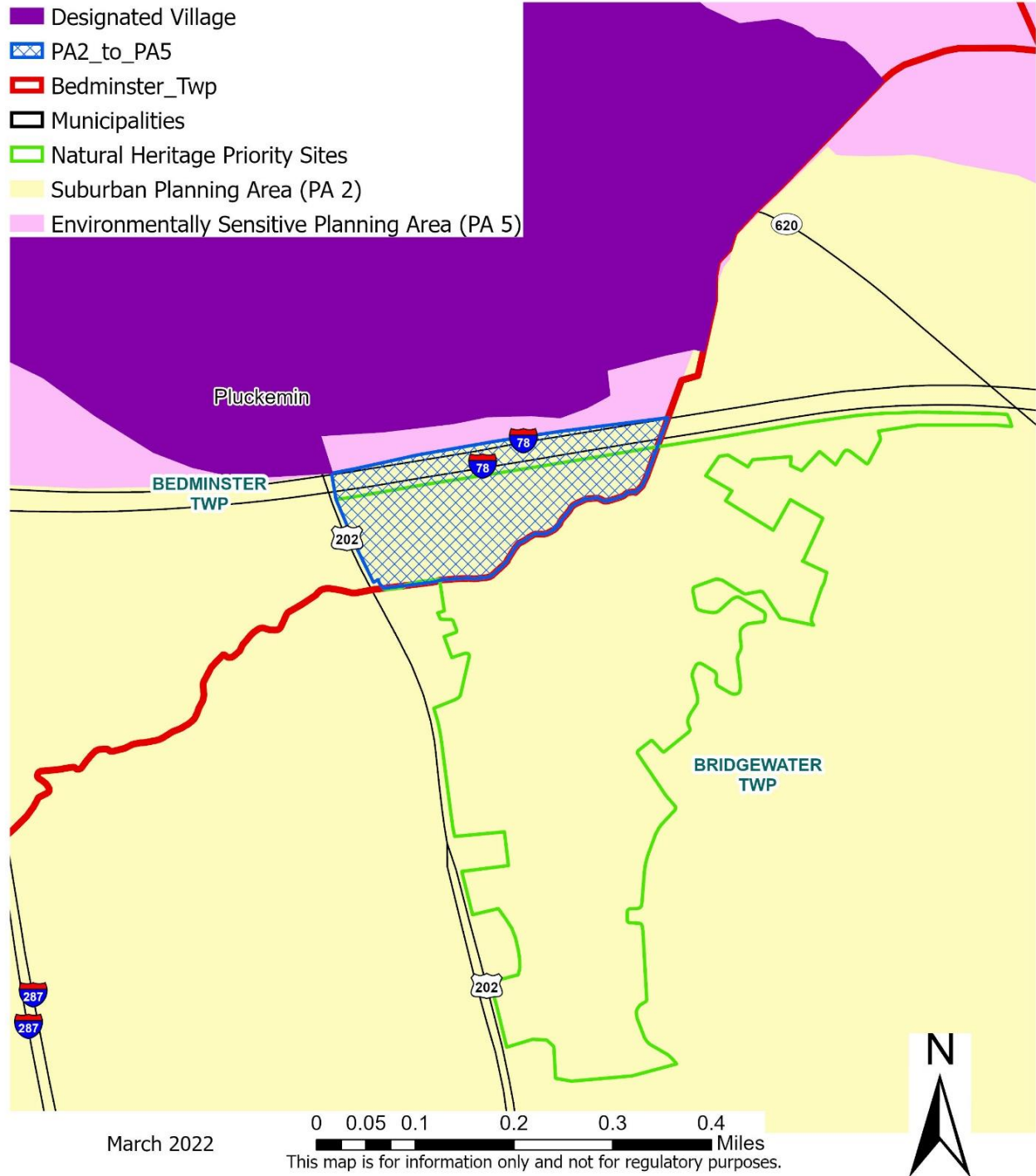


Proposed Planning Area Changes

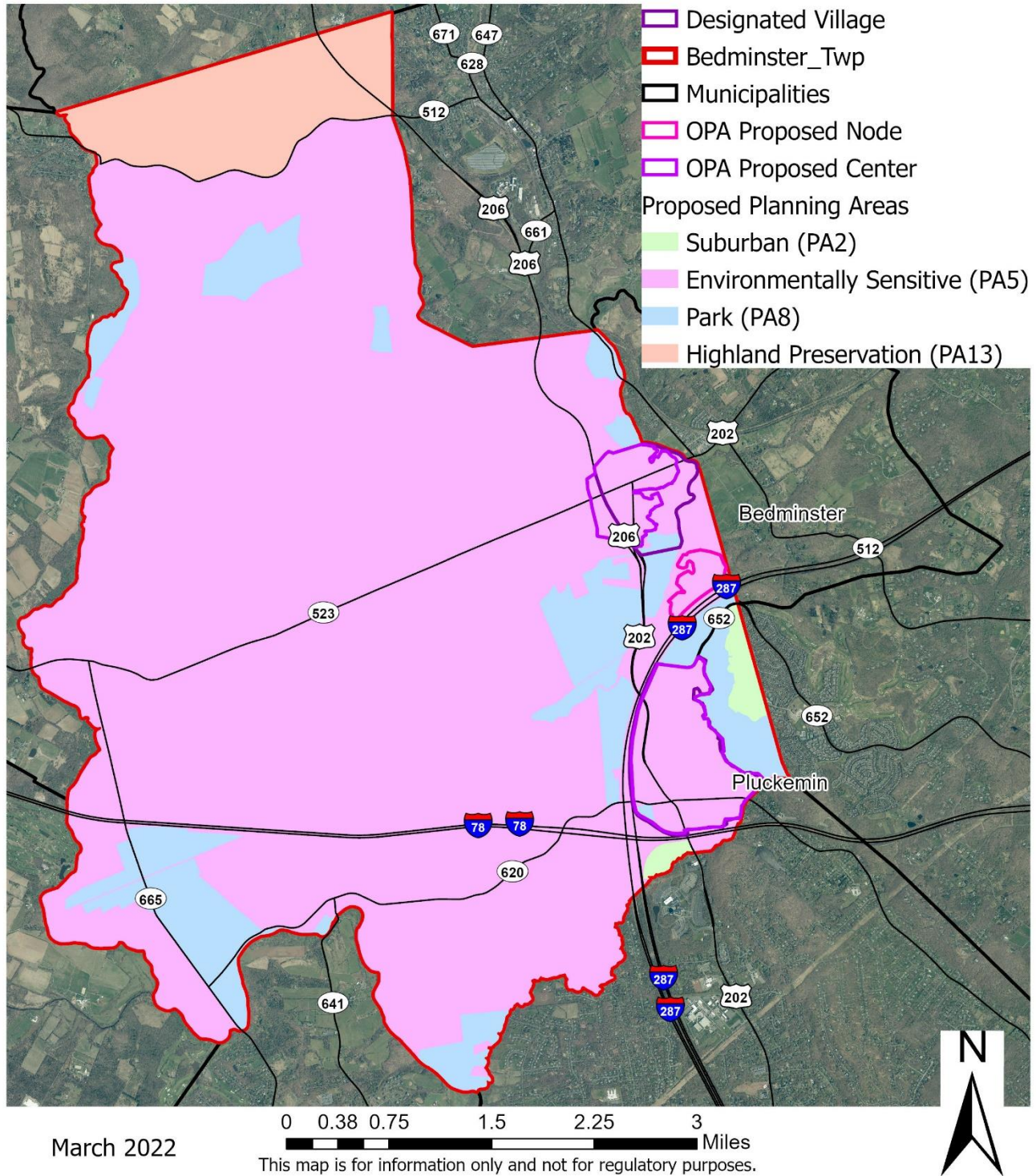
A majority of Bedminster Township is currently mapped as Environmentally Sensitive Planning Area on the State Plan Map. One of the few areas that is mapped as Suburban Planning Area is a small portion of the town south of the Pluckemin Town Center. This area, however, contains the Pluckemin Overlook Natural Heritage Priority Site. Due to the critically important nature of the resources located within this NHPS, DEP strongly recommends that the Planning Area of the NHPS be changed from Suburban to Environmentally Sensitive so that it is contiguous with the Environmentally sensitive Planning Area in the rest of the Township. Though it may be outside the purview of this Opportunities & Constraints Analysis for Bedminster Township, DEP also recommends changing the Planning Area for the remaining extent of the Pluckemin Overlook NHPS that is within the adjacent municipality, Bridgewater Twp.

In addition to the recommendation above, OPA has proposed changing the planning area for the existing opens space within the Township from Environmentally Sensitive (PA5) to Parks and Natural Areas (PA8). According to the State Plan, the intent of the Parks and Natural Areas designation is provide for the protection of critical natural resources, provide public recreational and educational opportunities, ensure the maintenance of associate facilities and ensure the connection of these areas into a system of open lands. Considering Bedminster's history of open space acquisition and farmland preservation, DEP does not object to this proposed planning area change .

Bedminster Twp., Somerset County Pluckemin Overlook Natural Heritage Priority Site and Recommended Planning Area Change



Bedminster Twp. Somerset
Existing State Plan Centers with Buildings and Roads in FEMA Flood
Hazard Areas



Conclusion

DEP agrees with the proposed amendments to the Bedminster Village Center and the Pluckemin Town Center. DEP also agrees with the proposed Node boundary for the AT&T campus. DEP does not object to the proposed planning area change for open space in the Township from Environmentally Sensitive PA5 to Parks and Natural Areas PA8. Finally, DEP strongly recommends changing the Planning Area of the NHPS south of the Pluckemin town Center from a PA2 to a PA5. These new and amended boundaries successfully avoid or minimize impacts threatened & endangered species and habitat, flood hazard areas, wetlands, and other natural resources. These amendments are responsive to climate change impacts, allowing the Township to avoid, better prepare for, and recover from extreme weather events and changes in environmental conditions that have the potential to adversely affect the resources and residents of Bedminster Township. The Proposed Bedminster Centers and Node boundaries illustrated in the maps above are based on a series of discussions between DEP and OPA, and is updated from that proposed within the MSA.

Summary of Recommendations

Climate Change Mitigation

- **Bedminster Township should review the Plan endorsement Guidelines for a list of possible actions to help in reducing greenhouse gas emission and increasing overall energy efficiency and incorporate those actions into a Greenhouse Gas Reduction Action Plan.**

Climate Resilience

- **In compliance with the 2021 amendment to the Municipal Land Use Law, Bedminster shall prepare a Climate Change-Related Hazard Vulnerability Assessment (CCRHVA) as part of the Land Use Element of its next master plan.**
- **Bedminster should prepare for climate impacts described in the state Climate Change Science Report by adopting a Climate Resiliency Plan and incorporating the findings from the CCRHVA into all applicable planning documents and ordinances.**

Flooding

- **DEP recommends that Bedminster utilize the SFHA for the 0.2 percent (500-year) storm for planning purposes.**
- **The Township's municipal code should minimize new construction in flood hazard areas and mitigate for any redevelopment of existing structures.**
- **Bedminster Township should keep a regularly updated inventory and map of areas that frequently flood, including, but not limited to, repetitive loss (RL) and severe repetitive loss (SRL) properties.**
- **Bedminster should identify and map areas that flood regularly, including roadways/intersections, with particular attention given to evacuation routes or critical access areas.**

- **Bedminster Township should also consider enhancing 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.**
- **When evaluating any construction within a mapped flood hazard area, Bedminster Township should 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.**
- **DEP recommends that Bedminster Township update their flood damage prevention ordinance to make sure that it is consistent with the most recent model and standards in order to stay compliant with NFIP requirements.**
- **Any proposed conceptual 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.**
- **Green infrastructure should also be encouraged to be incorporated into all projects within the floodplain.**

Open Space

- **Bedminster should review and update their Opens Space and Recreation Plan Element from 2003 and continue preserving open space practices.**
- **Bedminster should also update its Conservation Plan Element from 2003.**
- **DEP recommends that Bedminster Township further work with Somerset County, NJ Highlands Council and surrounding municipalities to provide and expand corridors of open space and natural features to support habitat connectivity and adaptation to changing climate conditions.**
- **DEP recommends that Bedminster work with the NJ State Agricultural Development Committee to update its 2003 Farmland Preservation Plan and continue its farmland preservation efforts.**
- **Bedminster should work with the Department's Green Acres program to review the 2013 Recreation and Open Space Inventory (ROSI) and update it as appropriate to include all encumbered land.**

Natural Resources

Wetlands

- **DEP suggests that the Township include strategies for the management and mitigation of its wetlands in the Conservation Plan Element of the Master Plan.**

Surface Water Quality

- **If not already done, Bedminster should develop a stream corridor buffer, specifically for Category One waters to reduce degradation.**
- **Bedminster Township should consult with NJDEP's Division of Water Quality as to how it may incorporate identified TMDLs into its stormwater management plan and ordinance.**

Dam Safety

- **The Township should notify the Department's Division of Dam Safety and Flood Engineering of any planned rehabilitation for Ellsworth Dam.**

Threatened and Endangered Species and Habitat

- **Bedminster should continue to protect the Township's open spaces and the recolonization and reuse of open field habitats for ground nesting and foraging birds.**
- **DEP recommends that CHANJ information be incorporated into an update Conservation Plan to inform where habitat and open space efforts can be concentrated.**

Natural Heritage Priority Sites

- **DEP recommends that the portion of the Pluckemin Overlook Natural Heritage Priority Site that is within the Township be converted from a PA2 to PA5 to preserve the natural value of the imperiled species.**

Forest Fire Management and Mitigation

- **Bedminster should use Rutgers' NJ Adapt online tool to identify unique forest risks, including fuel hazard.**
- **Bedminster Township should explore the creation and adoption of a Community Wildfire Protection Plan (CWPP) with the NJ Forest Fire Service. Best Management Practices for the preparation of such plans are available at <https://www.nj.gov/dep/parksandforests/fire/docs/CWPPHandbook3-26-04.pdf>**

Cultural and Historic Resources

- **The Department supports all of the Townships initiatives for considering and maintaining the physical and visual beauty and historic significance of the Township's structures, districts, landscapes, and archaeological sites.**
- **Bedminster Township should update its 2003 Historic Preservation Plan Element and coordinate with the HPO to review and update the inventory of historic sites as necessary.**
- **Bedminster Township should consider appropriate changes to its zoning ordinance to protect these historic districts and resources while also encouraging the placement of solar and other renewable energies in other locations in order to comply with MLUL requirements, as noted in the 2018 Master Plan Reexamination Report.**
- **Historic structures should be evaluated and protected with enhanced stormwater management plans and flood minimization plans.**

Wastewater and Water Supply

- **Bedminster should assess if there are other septic systems in the township that may be vulnerable to flooding.**

- The Department agrees that Utility Services Plan element of the Master Plan should be reviewed and updated, with specific strategies to address the issues and deficiencies mentioned in this section.
- Bedminster Township should continue to update the Septic Management Plan component of the County Wastewater Management plan as new information becomes available and regularly as required by rules.
- The Department agrees with the MSA statement that the Utility Services Plan element of the Master Plan should be reviewed and updated, with specific strategies to address the issues and deficiencies mentioned in this section.
- Bedminster Township should continue to update the Septic Management Plan component of the County Wastewater Management plan as new information becomes available and regularly as required by rules.
- Bedminster should evaluate and determine the vulnerability of the pump station to flooding events and develop appropriate resilience measures to ensure continuity of service in the event of a flood.
- The Department supports and encourages all of the water conservation and water quality protection actions mentioned above. The Department's Division of Water Supply and Geoscience can provide further technical assistance.
- Bedminster Township should identify any public potable water wells and pump stations located in the flood zone and determine their specific vulnerability to flooding events and develop appropriate solutions.
- Additionally, DEP recommends that Bedminster perform a similar analysis for private wells and both inform the owners of their vulnerability and identify potential solutions to that vulnerability.
- Bedminster should identify all wellhead protection areas around public supply wells in its planning documents and adopt a wellhead protection ordinance.

Stormwater

- DEP recommends that Bedminster continue to address stormwater runoff and improve stormwater retention on site at its source. The Township's 2005 Stormwater Management Plan should be updated and made consistent with the 2019 Stormwater Pollution Prevention Plan.
- If not already done, Bedminster must submit an update stormwater outfall location map to the Department in order to be compliant with their MS4 permit. Bedminster should also use that map to identify the location of any stormwater outfalls located within the flood zone and determine their specific vulnerability to flooding events.
- Bedminster should seek opportunities to install green infrastructure measures to offset increased stormwater, but also to lower the impacts of heat-island effect which are directly related to the amount of impervious surface.

Social Vulnerability and Human Health

- **Bedminster 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.**
- **DEP also recommends that Bedminster review its Municipal Snapshot data for further information, available at <https://climatesnapshots.rutgers.edu/1801/socialVulnerability/>.**
- **Municipalities should empower residents, particularly their most socially vulnerable residents, to meaningfully participate in decision-making that affects their environment, communities, and health.**
- **DEP recommends that the Township continue to monitor for the potential growth of socially vulnerable populations and overburdened communities in the future.**

Contaminated Sites, Solid and Hazardous Waste, & Recycling

- **Bedminster should identify if any of these Known Contaminated Sites (KCS) meet the DEP definition of a brownfield site.**
- **If the Township pursues brownfield cleanup and development in the future, DEP recommends taking actions as part of the Sustainable Jersey Certification Program.**
- **Bedminster could consider adopting a buffer ordinance to prevent serious water contamination from identified sites during and after flood events. The Township could also consider amending its zoning ordinance to avoid placing potentially harmful land uses in or around flood prone areas.**
- **DEP recommends that Bedminster Township identify not only public, but also private facilities that either collect, transfer, process, or dispose of solid waste or recyclables on its municipal inventory.**
- **DEP recommends that Bedminster evaluate and update the Recycling Plan Element of the 2003 Master Plan as appropriate.**
- **If not done already, DEP recommends that the Township notify the State of all recycling ordinances adopted through a statement of consistency, pursuant to N.J.S.A. 13:1E-99.16(b).**