



State of New Jersey
THE PINELANDS COMMISSION
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Application Specific Information: AppInfo@pinelands.nj.gov

LAURA E. MATOS
Chair
SUSAN R. GROGAN
Executive Director

MEMORANDUM

To: Members of the Pinelands Climate Committee

From: Susan R. Grogan 
Executive Director

Date: December 5, 2023

Subject: Meeting materials

Enclosed please find the agenda for the Pinelands Climate Committee's upcoming meeting on Wednesday, December 13, 2023. We have also included:

- The minutes from the September 20, 2023 Committee meeting; and
- A memorandum summarizing the Pinelands management area boundary assessment and staff recommendations.

The Committee meeting will be conducted in-person and via teleconference. Specific access information will be provided to all Committee members in a separate email. The public will be able to attend the meeting in-person or view and participate in the meeting through the following YouTube link:
www.youtube.com/c/PinelandsCommission



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PINELANDS CLIMATE COMMITTEE MEETING

December 13, 2023 – **9:30 a.m.**

This meeting will be held in-person and virtually

Richard J. Sullivan Center for Environmental Policy and Education
Terrence D. Moore Conference Room
15C Springfield Road
New Lisbon, New Jersey

Watch the meeting on the Pinelands Commission's YouTube channel:

www.youtube.com/c/PinelandsCommission

To Provide Public Comment, Please Dial: 1-929-205-6099 Meeting ID: 880 2612 9577

Agenda

1. Call to Order
2. Adoption of the September 20, 2023 Climate Committee meeting minutes
3. Update on state initiatives
 - Board of Public Utilities Dual-Use Solar Pilot Program straw proposal
 - Interagency Council on Climate Resilience
4. Update on office initiatives
5. Pinelands management area boundary assessment: staff presentation and recommendations
6. Public comment

PINELANDS CLIMATE COMMITTEE MEETING

This meeting was conducted in-person and available remotely.

The public could view/comment through Pinelands Commission YouTube link:

<https://www.youtube.com/c/PinelandsCommission>

Zoom Meeting ID: 852 2351 0486

September 20, 2023

MINUTES

MEMBERS IN ATTENDANCE: Chairman Mark Lohbauer, Jerome H. Irick, Theresa Lettman, Mark Mauriello, Jonathan Meade

MEMBERS ABSENT: Commission Chair Laura E. Matos, Alan Avery

STAFF PRESENT: Susan R. Grogan, Stacey Roth, Ernest Deman, Dawn Holgersen, Paul Leakan, and Steven Simone. Also present was Janice Venables with the Governor's Authorities Unit

1. Call to Order

Chairman Lohbauer called the Pinelands Climate Committee meeting to order at 2:02 p.m.

2. Adoption of the July 19, 2023 Climate Committee meeting minutes

Commissioner Irick moved the adoption of the minutes of the July 19, 2023 Committee meeting. Commissioner Lettman seconded the motion. All voted in favor.

3. Pinelands management area boundary assessment

Ms. Grogan delivered a presentation on the Pinelands management area boundary assessment (*attached to these minutes*).

Ms. Grogan said the Committee was advised to look at boundaries and management area designations throughout the Pinelands as it relates to climate change impacts. She said the focus was primarily on areas where residential and non-residential development growth would be encouraged.

She said the Pinelands Land Capability Map outlines nine management areas. She said the three main areas where growth would be encouraged are the Regional Growth Areas (RGA), Pinelands Towns (PT), and Pinelands Villages (PV). She said most existing and future development is in the RGA.

She said that large communities that were established prior to the enactment of the Comprehensive Management Plan (CMP) were given the PT management area designation. She said the PT area contains various types of development.

Ms. Grogan said the PV designation was given to smaller existing communities. She said on the original Land Capability Map, those areas were designated by circles or dots; there were no defined boundaries. She said the municipalities created the village boundaries as part of the conformance process. She said that growth is somewhat restricted in the PV area, but some development is possible.

Chairman Lohbauer inquired as to whether the boundaries for the Village areas are the same as the Town areas. Ms. Grogan said they were not. She said that the Commission's Conformance Committee met with the municipalities to come up with mutually acceptable boundaries for the 47 villages. She said most development in villages relies on septic systems. She said that the New Lisbon area of Pemberton Township is one PV that is connected to sewer.

Chairman Lohbauer asked about the newly established infill areas in Bass River as it relates to a village designation. Ms. Grogan said the infill areas are outside the PV area of New Gretna in Bass River.

Ms. Grogan said that the PV areas are small, but still have areas of development. She said many Villages could be expected to be more affected by climate related factors due to the Preservation and Forest areas that surround them.

She said the first level of analysis identified the specific climate change factors that would be considered and defined the management areas that would be studied. She said the focus would be on wildfire hazards, flood hazards, sea level rise, threatened & endangered species habitat, and land acquisition targets. She said those considerations would be combined with GIS mapping to determine areas that would need further consideration for management area changes.

She said staff used multiple data sources to research the impacts. She said each factor was rated on a numeric scale. She said a higher score would equate to higher susceptibility to climate risks.

She said that over 2,000 discrete areas were identified covering approximately 2,500 acres. She said while the identified acreage is a large number, it is small in comparison to the overall acreage of the management areas studied.

Ms. Grogan said that a second level of analysis was performed on the areas identified in the first analysis. She said the factors that were considered included tract size, existing development, preservation status, wetlands, Commission application status, and its proximity to preserved lands and/or other management areas.

In response to Chairman Lohbauer's question as to the development potential of the acreage identified in the analysis, Ms. Grogan said that the areas identified were all zoned for some form of development.

Ms. Grogan said that the second analysis revealed only 39 areas with a size of at least 10 acres. She said the 39 areas spanned a total of approximately 1,500 acres. She said those areas ranged from 10 acres to 169 acres, with an average of 38 acres. She said the areas were in the RGA, PT, and PV areas. She said that the areas are in 12 municipalities.

She said that out of the 39 areas identified, many of them are heavily constrained by wetlands. She said a few contain existing development or have active development applications. She said that some areas contain preserved lands. She said an in-depth analysis of individual lots may be necessary to identify the appropriate action.

She said a third analysis would identify ownership of the lands. She said it would detail the proximity to preserved lands, acquisition target areas, and more restrictive management areas. She said it would identify the tract configuration, lot lines, and municipal zoning.

She said that potential recommendations for the area could include management area boundary changes, municipal zoning changes, targeting for preservation, special wetlands buffer provisions, no action, or a combination of the recommendations.

Ms. Grogan said that more information and recommendations should be available for the Committee's December meeting.

Commissioner Irick expressed concern for the density of development in the RGA and municipalities' potential for establishing redevelopment areas. He suggested the inclusion of wooded areas and consideration of development intensity for the RGA in the land analysis.

Ms. Grogan said that the analysis was designed to provide for reevaluation to recalculate risk factors. She said the information could be used in the future for guidance when a municipality proposes a redevelopment plan.

Commissioner Mauriello said he is interested in the Commission's acquisition priorities and asked how the Commission works with other agencies to establish targets for land acquisition and identify funding.

Ms. Grogan said the Commission designated target areas in the early 1980s and added more areas in the years after. She said that information is used for the Commission's own acquisition efforts with grants from the Pinelands Conservation Fund (PCF). She said that during a round of acquisitions, public agencies non-profit conservation organizations are encouraged to apply and that bonus points are added during evaluation when a project is in an already defined target area. The Commission then selects projects and offers PCF funding up to one third of the project cost.

She said the Commission is working to establish a closer relationship with the New Jersey Department of Environmental Protection (NJDEP). She said the Commission is also working closely with the counties for land acquisition projects. She said the current acquisition priorities are mostly based on climate change factors similar to those used by NJDEP in its recent acquisition efforts.

She said that the Commission intends to open a new round of acquisitions during the spring. She said the information from the management area boundary assessment may help in revising acquisition priorities.

Chairman Lohbauer praised the process for the boundary area analysis. He expressed concerns related to development pressure and the difficulty with rezoning. He suggested the creation of a 10th zoning district for climate sensitive areas.

Ms. Grogan said that the Commission can create new management areas or overlays. She said the creation of an overlay could provide additional protection and limit development in identified areas. She clarified that an overlay cannot ban all development.

Chairman Lohbauer said that special wetland provisions should be implemented throughout all the management areas to provide relief for potential river flooding from increased rain due to climate change.

Ms. Grogan said the current analysis was focused on the management areas where development is permitted and expected to occur.

Ms. Roth said that NJDEP regulates flooding under its flood hazard rules. She said that not all rivers have wetland areas.

Commissioner Meade expressed praise for the approach taken for the management area boundary analysis. He expressed concern on identifying targets for preservation. Ms. Grogan said that further analysis will be presented at the next meeting and should inform future acquisition planning.

Commissioner Lettman commented that she anticipated a larger area would be identified during the boundary analysis. She asked whether there might be other matters for the Committee to focus on that could have a greater climate impact.

Ms. Grogan said that the Committee previously expressed interest in working with the New Jersey Board of Public Utilities (NJBPU) on its dual use solar pilot program and regulations. She said that the staff and Committee can continue to work on both matters simultaneously. .

4. Discussion of FY24 Climate Committee work plan, including state & office initiatives

Ms. Grogan delivered a presentation on the FY24 work plan (*attached to these minutes*).

Ms. Grogan said that a special climate-related reserve account was created as part of the FY23 budget. She said the reserve account was intended to purchase office equipment, employ the services of a solar energy facility consultant, the future installation of an electric charging station, purchase of new Commission vehicles, and the replacement of the HVAC systems. She said the Commission accomplished the task of purchasing new and replacement office equipment and new Commission vehicles.

She said the funding in this account remains and the Commission will continue to work on the rest of the goals established.

She outlined climate related accomplishments from FY23. She said that the management area boundary assessment is underway. She said the Commission participated in the review and comment on the NJDEP inland flood protection rules. She said presentations were made on the subjects of no net loss of trees and the statewide water supply plan. She said presentations were conducted with NJBPU for the Dual Use Solar Act and upcoming pilot program. She said the Commission also continued to participate with the Interagency Council on Climate Resilience for the preparation of a resilience action plan for extreme heat.

She said the office initiatives for the FY24 workplan are to install an electric vehicle charging station, create a long-term plan for replacing the HVAC system, receive services from a solar energy facility consultant, implement a paperless application submission with online payment of application fees, and develop a composting program. She said that an online application fee payment system was recently launched and is linked on the Commission website.

She said that projects during the FY24 workplan are to complete the analysis of the management area boundaries and present recommendations to the Policy & Implementation (P&I) Committee, coordinate with NJBPU for solar energy programs, and continue to participate in the Interagency Council on Climate Resilience.

In response to Commissioner Irick's question as to the use of agrivoltaics, Ms. Grogan said that the CMP allows for the accessory use of solar panels; but they must primarily serve the needs of the principal use on the property.

Commissioner Irick expressed concern on the use of solar panels for off-site infrastructure projects due to the lack of capacity from the local electric companies' current infrastructure.

Ms. Grogan said that CMP currently does not allow large dual use solar projects in the Agricultural Production Area or Forest Area. She said the staff will need to conduct research on ways to allow farmers in these management areas to participate in the BPU pilot program, with or without Commission rulemaking.

Chairman Lohbauer suggested the use of on-site energy storage facilities for dual use solar. Ms. Roth recommended the suggestion be forwarded to NJBPU during their stakeholder process.

Commissioner Lettman inquired as to whether the Rural Development Area (RDA) was evaluated during the management boundary area assessment and if it identified a greater amount of affected land. Ms. Grogan replied that the RDA is not usually considered when evaluating growth areas, as permitted development is more limited in that management area. She said it would be possible for staff to go back and analyze the RDA in the future. She said it would likely increase the area of concern.

Chairman Lohbauer inquired as to the role of the Commission in outreach for community solar and agrivoltaics without having the Pinelands Municipal Council. Ms. Grogan said that the Municipal Council is in the process of reformation. She said the staff provided information to towns and offered its assistance to NJBPU and NJDEP in their review of specific projects in the Pinelands Area.

Chairman Lohbauer recognized the limited staff resources and suggested research on the subject of no net loss of trees when time permits. He stressed the importance of carbon sequestration while also allowing development.

5. Public Comment

There was no public comment offered.

There being no further discussion, Commissioner Irick moved to adjourn the Committee meeting. Commissioner Mauriello seconded the motion. The meeting concluded at 3:25 p.m.

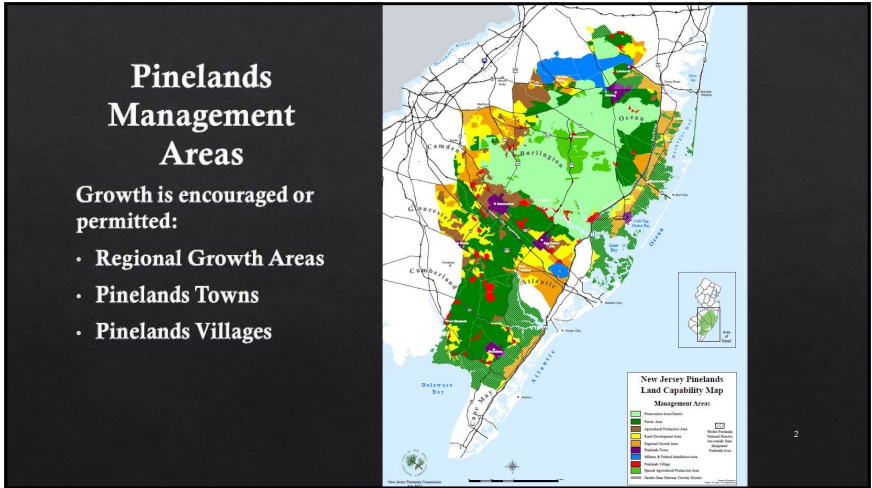
Certified as true and correct:

A handwritten signature in black ink, appearing to read "Dawn Holgersen", with a stylized flourish at the end.

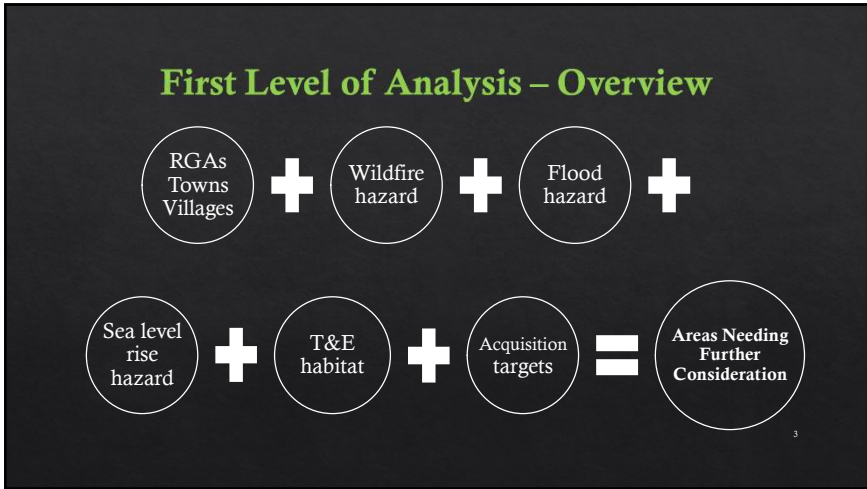
Dawn Holgersen
Office Assistant
November 27, 2023



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2



3

- First Level of Analysis – Data**
- ◆ Data Sources:
 - ◆ NASA/NJPC – Wildfire Hazards
 - ◆ NJ Flood Mapper – Flood Hazards, Sea Level Rise
 - ◆ NJDEP – T&E Habitat
 - ◆ NJPC – Areas targeted for acquisition
 - ◆ Each factor was weighted on a numeric scale
 - ◆ The higher the score, the more susceptible to climate risks

4

Results of First Level of Analysis

- ◆ Over 2,000 discrete areas
- ◆ ~2,500 acres identified
- ◆ For context:
 - ◆ Regional Growth Areas cover 77,500 acres
 - ◆ Pinelands Towns cover 21,500 acres
 - ◆ Pinelands Villages cover 26,000 acres

5

5

Second Level of Analysis

- ◆ Factors Considered:
 - ◆ Tract size
 - ◆ Existing development
 - ◆ Preservation status
 - ◆ Wetlands
 - ◆ Application status
 - ◆ Proximity to preserved lands and/or other Management Areas

6

6

Initial Second Level Tract Identification

- ◆ Only 39 areas were at least 10 acres in size
 - ◆ Cumulatively ~1,500 acres
 - ◆ Range: 10 acres to 169 acres
 - ◆ Average of 38 acres in size
 - ◆ Identified in Regional Growth Areas, Towns, and Villages
 - ◆ 12 municipalities

7

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Hypothetical Example 1

- ◆ Area located in Regional Growth Area
- ◆ 47 acres in size
- ◆ Not preserved
- ◆ 93% wetlands coverage
- ◆ No active applications
- ◆ Not contiguous with preserved land
- ◆ Not contiguous with a more restrictive Management Area



8

8

Hypothetical Example 2

- ◆ Area located in Pinelands Town
- ◆ 11 acres in size
- ◆ Not preserved
- ◆ 22% wetlands coverage
- ◆ No active applications
- ◆ Not contiguous with preserved land
- ◆ Not contiguous with a more restrictive Management Area



9

9

Hypothetical Example 3

- ◆ Area located in Pinelands Village
- ◆ 98 acres in size
- ◆ Not preserved
- ◆ 55% wetlands coverage
- ◆ No active applications
- ◆ Contiguous with preserved land
- ◆ Contiguous with a Pinelands Forest Area



10

10

Results of Second Level of Analysis

- ◆ Of the 39 initial tracts:
 - ◆ Many are heavily constrained by wetlands
 - ◆ A few contain existing development or have active development applications
 - ◆ Some contain preserved lands
- ◆ Suggests need for in-depth analysis of individual lots to identify appropriate action(s)

11

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Third Level of Analysis

- ◆ Ownership
- ◆ Proximity to preserved lands & acquisition target areas
- ◆ Proximity to more restrictive management areas
- ◆ Tract configuration
- ◆ Lot lines
- ◆ Municipal zoning

12

12

Potential Recommendations

- ◆ Pinelands Management Area boundary change
- ◆ Municipal zoning change
- ◆ Target for preservation
- ◆ Special Wetlands Buffer provisions
- ◆ No action at this time
- ◆ **Combination of these actions!**

13

13

Discussion



14

14



1

FY23 Accomplishments

- Established special “Climate” reserve account as part of FY23 budget
 - Office equipment: new and replacement
 - Solar energy facility consultant
 - Electric vehicle charging station
 - New Commission vehicles
 - Long-term plan for replacement of HVAC, etc.

2

FY23 Accomplishments

- Pinelands management area boundary assessment underway
- Review/comment on NJDEP Inland Flood Protection Rules
- Presentation on no net loss of trees and Statewide Water Supply Plan update
- Presentations on Dual Use Solar Act and upcoming BPU pilot program
- Continued participation on Interagency Council on Climate Resilience and preparation of Resilience Action Plan for Extreme Heat

3

FY24 Workplan

Office Initiatives

- Electric vehicle charging station
- Long-term plan for replacement of HVAC
- Solar energy facility consultant
- Paperless application submission, including on-line payment of application fees
- Composting program

4

FY24 Workplan

- Pinelands management area boundary assessment
 - Completion of analysis
 - Recommendations to P&I Committee for implementation
- Coordination with NJBPU on solar energy facility programs:
 - Permanent community solar program
 - Competitive solar program
 - Dual Use solar pilot program
 - MOA, MOU or other interagency agreement
- Interagency Council on Climate Resilience



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MEMORANDUM

To: Members of the Pinelands Climate Committee

From: Steven J. Simone 
Planning Specialist

Date: December 5, 2023

Subject: Potential Pinelands Management Area Boundary Changes in Response to Climate Change Hazards

In early 2023, the Climate Committee directed staff to investigate whether changes to Pinelands Management Area boundaries would be an effective means of mitigating hazards associated with climate change. Staff previously discussed the first two levels of analysis, reviewed below, with the Climate Committee at its April and September 2023 meetings. Subsequently, staff further evaluated the refined mapping and prepared recommendations for areas highlighted for further consideration through this evaluation process. This memorandum provides a summary of, and recommendations from, the analyses conducted to evaluate the need for Pinelands Management Area boundary changes. A discussion of the recommendations is scheduled for the December 13th Climate Committee meeting.

Key Considerations & First Level of Analysis

Based upon the potential risk to future development, staff limited the analysis to three specific management areas where the most development potential exists based on the Pinelands Comprehensive Management Plan and certified municipal zoning plans: Regional Growth Areas, Pinelands Towns, and Pinelands Villages. Final recommendations will focus on whether portions of these management areas should be redesignated to more restrictive management areas.

As this project relates to changes to the Pinelands Land Capability Map, mapped susceptibility to natural hazards was used in the first level of analysis. Staff consulted various sources of information, including publicly available and internally generated spatial data, county hazard mitigation plans, and past Pinelands Commission reports and projects to identify suitable data for the evaluation. The natural hazards considered in the first level of analysis included:

- Susceptibility to wildfire
- Susceptibility to flooding
- Susceptibility to sea level rise
- The presence of critical habitat for threatened or endangered species
- Land preservation/acquisition target area location

A composite GIS layer combining the above factors was superimposed over all Regional Growth Areas, Pinelands Towns, and Pinelands Villages in the entire Pinelands Area. Areas within these management areas showing multiple risk factors were identified as needing further consideration. The analysis assumed that factors which reflect current and recent conditions (i.e., wildfire risk and threatened or endangered species habitats) would largely continue in their current state for the foreseeable future.

Second Level of Analysis

The broad results of the first level of analysis were then refined through a second level of analysis. The second round of analysis considered the following factors:

- Acreage of the discrete impacted areas
- Extent of “urban” land use/land cover (existing development)
- Land preservation status
- Proportion of the area in wetlands
- Status of development applications
- Proximity to preserved lands
- Proximity to more restrictive management areas

After removing areas from consideration that are mapped as urbanized, permanently preserved, or in wetlands, the remaining distinct areas were further screened for size. A minimum patch size of ten acres was applied as a threshold for continued evaluation. Using this threshold reduced the areas under consideration from more than two thousand areas to just 39 areas. Cumulatively, these 39 areas totaled approximately 1,500 acres in size, ranged from 10 to 169 acres in size and averaged 38 acres in size. They are located in twelve different municipalities and in all three management areas of concern. These 39 areas were then subjected to a final level of analysis.

Third Level of Analysis

The purpose of this step was to recommend specific actions to address potential climate change impacts to the 39 identified areas. The final analysis looked at:

- Ownership of parcels within the area
- Municipal zoning standards
- Lot line configurations and existing development
- Agricultural land use/land cover
- Vacant/developable lands
- Regional context of risk factors near each area/grouping of areas

Review of these final factors found that 15 of the 39 areas are already subject to appropriate restrictions on future development, such as recorded deed restrictions or CMP wetlands protection standards, and require no further action. The remaining 24 areas are situated in one of five broader geographies, each requiring an individualized approach.

Summary and Recommendations

This project reviewed natural hazards that could be increased by climate change and mitigated through a Pinelands Management Area redesignation. The results indicated that the existing Management Area designations are appropriate and no changes are recommended. However, it also highlighted other actions that could afford greater protection from climate change impacts for a limited number of locations.

As noted above, five areas were identified for additional consideration. Those areas are located in:

- New Gretna Village in Bass River Township
- Sweetwater and Lower Bank Villages in Mullica and Washington Townships
- Port Elizabeth-Bricksboro Village in Maurice River Township
- Hamilton Township's Regional Growth Area
- Pemberton Township's Regional Growth Area

For each of these areas, staff are recommending certain actions to address the impacts of climate change. The recommended approaches are summarized in the table below. In addition, please see the attachments for a detailed discussion of the analysis for each of the five areas.

Location	Recommended Action(s)
New Gretna	Mandatory 300 foot wetlands buffer in select areas
Sweetwater & Lower Bank	Mandatory 300 foot wetlands buffer and additional uplands buffer in select areas
Port Elizabeth-Bricksboro Village	<ol style="list-style-type: none"> 1. Expansion of Acquisition Target Area (1 of 20 areas already designated by Commission) 2. Possible Density Transfer Program within the Village
Hamilton Township RGA	Continue to target for acquisition and preservation
Pemberton Township RGA	Include in new Acquisition Target Area

Although there are no management area boundary changes recommended at this time, the analyses produced recommended actions which will be helpful to other Commission programs. The recommendations could be used to update land preservation priorities for future rounds of Pinelands Conservation Fund grants, for example. They can also inform the staff's future work with municipalities on matters such as proposed zoning changes or redevelopment plans. Finally, a methodology for evaluating potential impact from climate change has been developed and could be applied in the future if new mapping data become available.

Attachments

- New Gretna Village Report
- Sweetwater & Lower Bank Villages Report
- Port Elizabeth-Bricksboro Village Report
- Hamilton Township RGA Report
- Pemberton Township RGA Report

REPORT: NEW GRETNA VILLAGE

Pinelands Management Area Boundary Assessment for Climate Risks

Context:

The Pinelands Village of New Gretna is the site of six areas in need of consideration, located mostly along the Village's western and northern periphery. These areas are largely covered by wetlands, with some forested uplands and some agricultural lands; existing development is minimal. Land ownership throughout is largely private. Zoning throughout the majority of the village, including all six areas, is VR (Village Residential), which allows for single family development on 1 acre lots.

No portion of the Village of New Gretna has been previously targeted for land preservation by the Commission. Wildfire risk throughout the periphery ranges from low to high. Most of the village periphery is mapped as Landscape Rank 4 (mapped in the NJDEP Landscape Project as having at least one documented occurrence of a State Endangered species), while a portion in the southwest is mapped as Landscape Rank 3 (documented occurrence of State Threatened species). Flooding and inundation are the greatest climate change related threats in the areas in question. Most of the village periphery is situated in an AE flood zone, indicating a one percent annual chance of flooding, and with base flood elevations established. The portions of New Gretna that will be inundated in a five-foot sea level rise scenario generally conform to the boundaries of mapped wetlands.

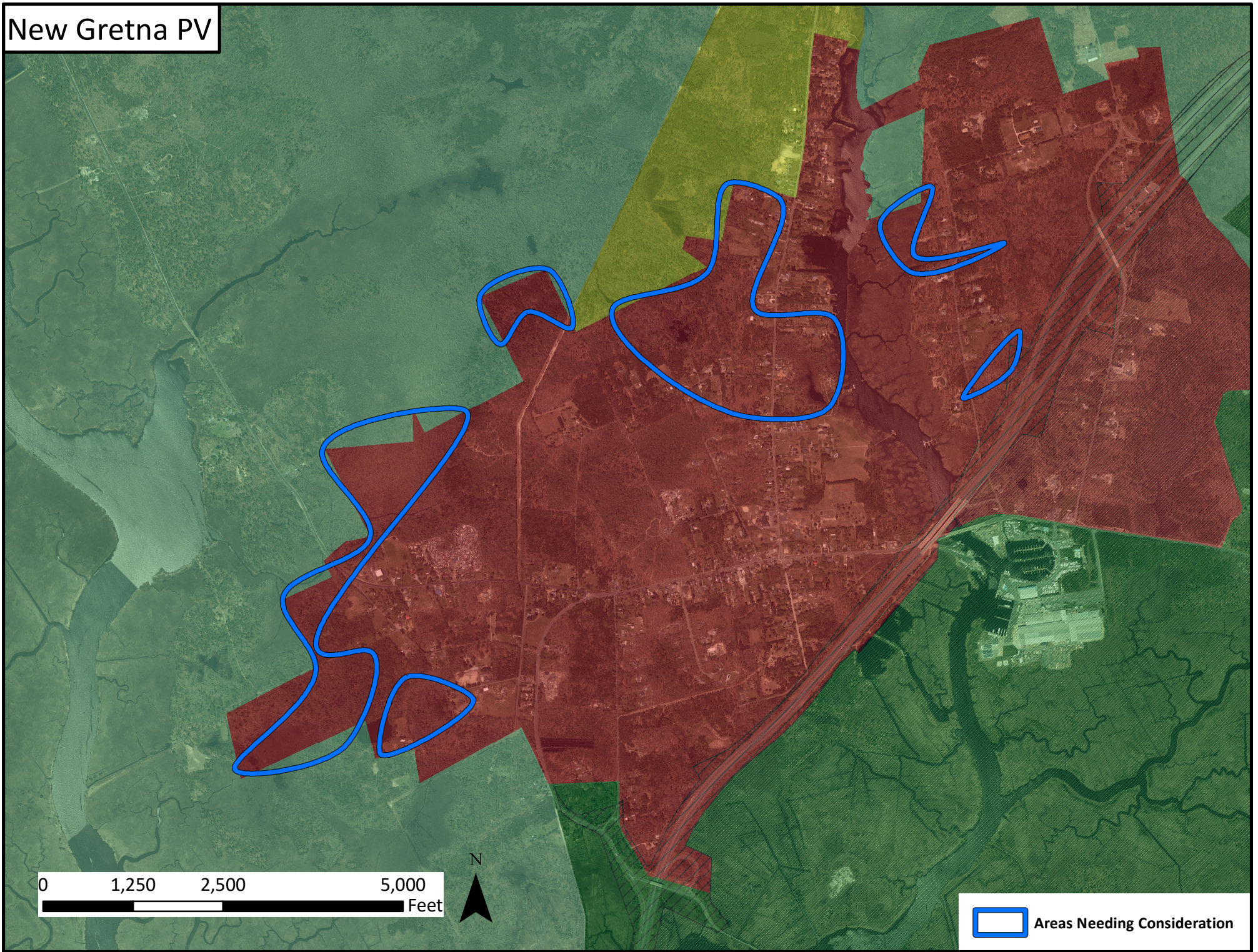
Recommendations:

Given the severity of the risks posed by flooding and sea level rise, and the general correlation of higher risk areas to mapped wetlands, it is recommended that a 300-foot wetlands buffer be required within and around the six areas. This would mean that the Pinelands Wetlands Buffer Delineation Model could not be used to justify a reduced buffer requirement for new development. No management area changes are recommended at this time.

Mapping Attachments:

- New Gretna PV – Management Areas
- New Gretna PV – Wildfire Risk
- New Gretna PV – FIRM Mapping
- New Gretna PV – Inundation with 5-Foot Sea Level Rise
- New Gretna PV – Wetlands

New Gretna PV

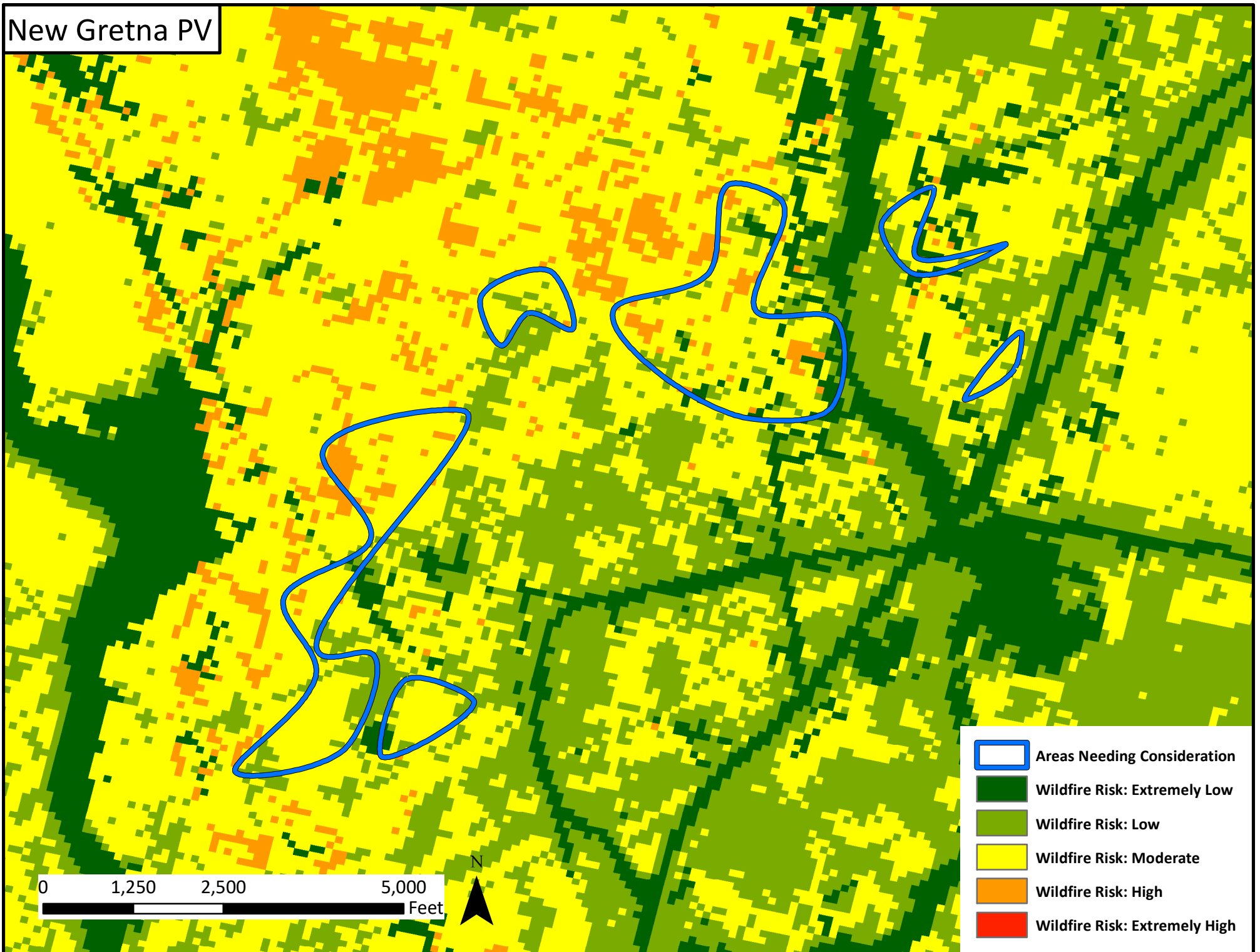


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Feet

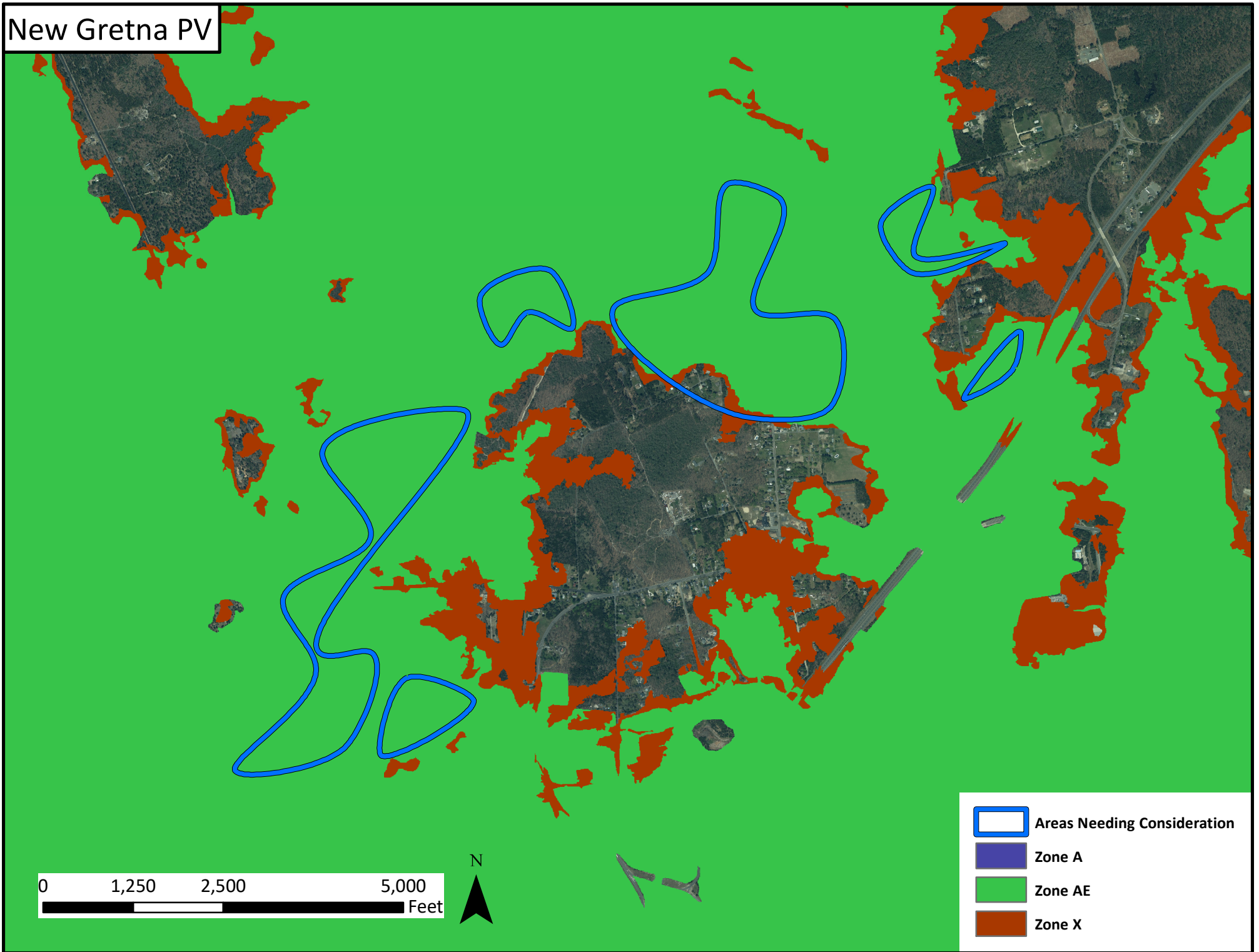


 Areas Needing Consideration

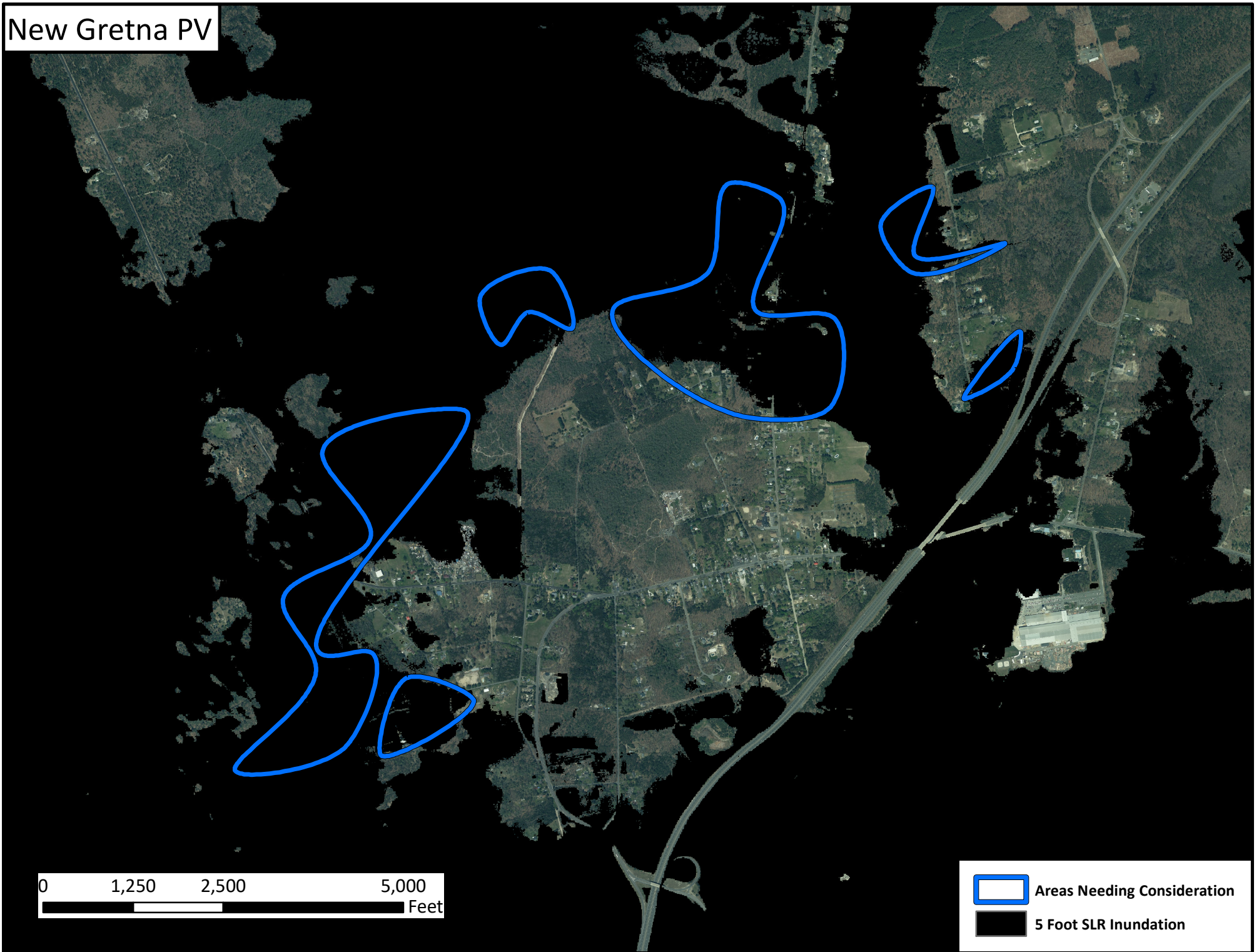
New Gretna PV





New Gretna PV



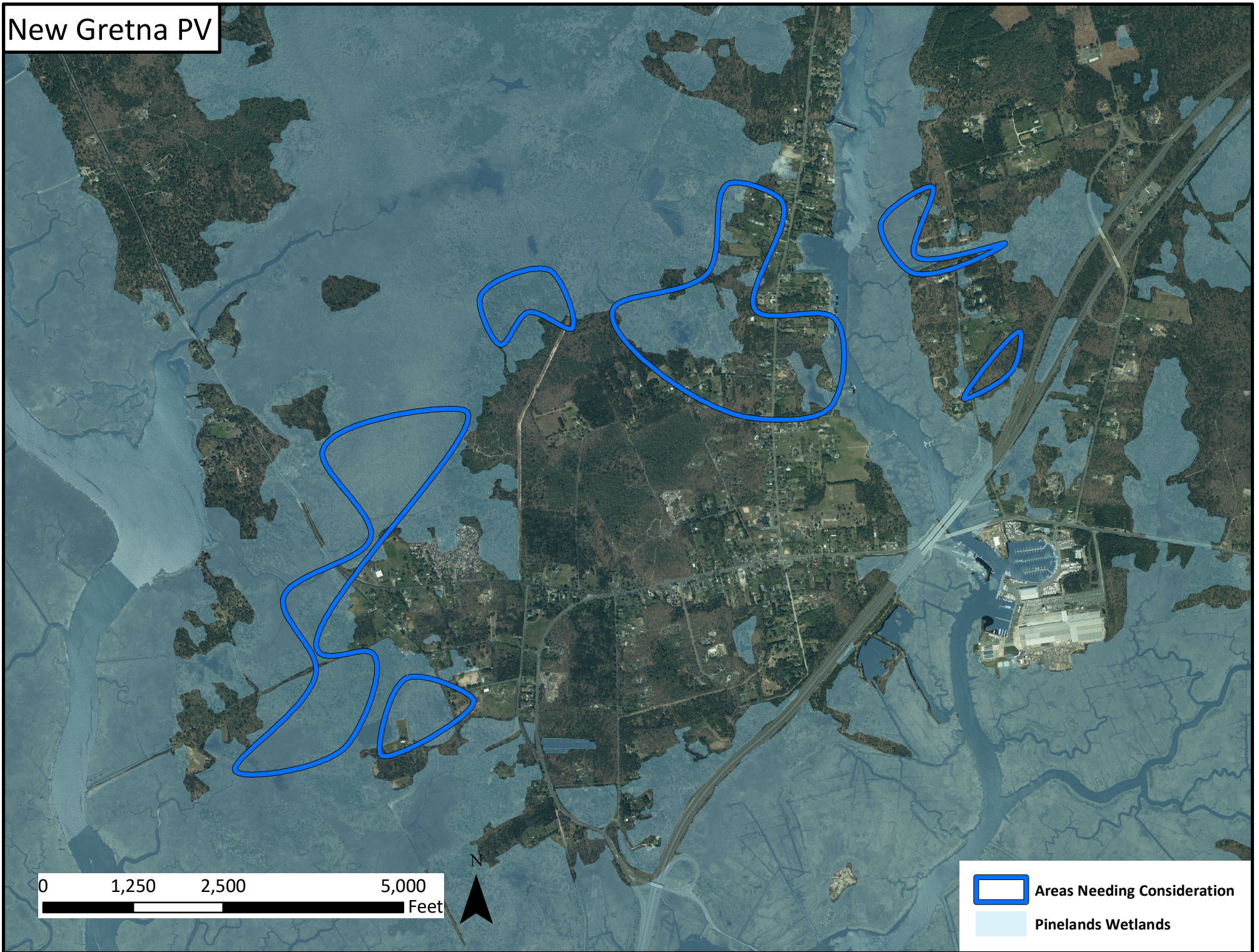
New Gretna PV



0 1,250 2,500 5,000
Feet

 Areas Needing Consideration
 5 Foot SLR Inundation

New Gretna PV



0 1,250 2,500 5,000
Feet



 Areas Needing Consideration
 Pinelands Wetlands

REPORT: SWEETWATER & LOWER BANK VILLAGES

Pinelands Management Area Boundary Assessment for Climate Risks

Context:

The Pinelands Village of Sweetwater in Mullica Township and the Pinelands Village of Lower Bank in Washington Township are both situated along the Mullica River, which forms the boundary between Atlantic and Burlington Counties. Sitting on opposite banks of the river, both villages have been identified as having climate change related hazards, mostly in their riverine and wetland areas.

Throughout both villages, most lots are utilized for private residential development, with some commercial, industrial, and public uses intermixed. Zoning in all of Sweetwater is SV, which allows for single family homes on 3.2 acre lots. Zoning throughout most of Lower Bank is PV-R, which also allows for single family homes on 3.2 acre lots. No portions of either village have been previously targeted for acquisition by the Commission.

Rank 4 habitat (mapped in the NJDEP Landscape Project as having at least one documented occurrence of a State Endangered species) is present in the undeveloped, wet areas of both villages. Wildfire risk generally ranges from moderate to high. Most of the riverine and wetland areas are in an AE flood zone (100-year flood zone, wherein flood insurance is required, and Base Flood Elevations are established). Due to topographical variation, inundation risks are not always greatest along the Mullica River.

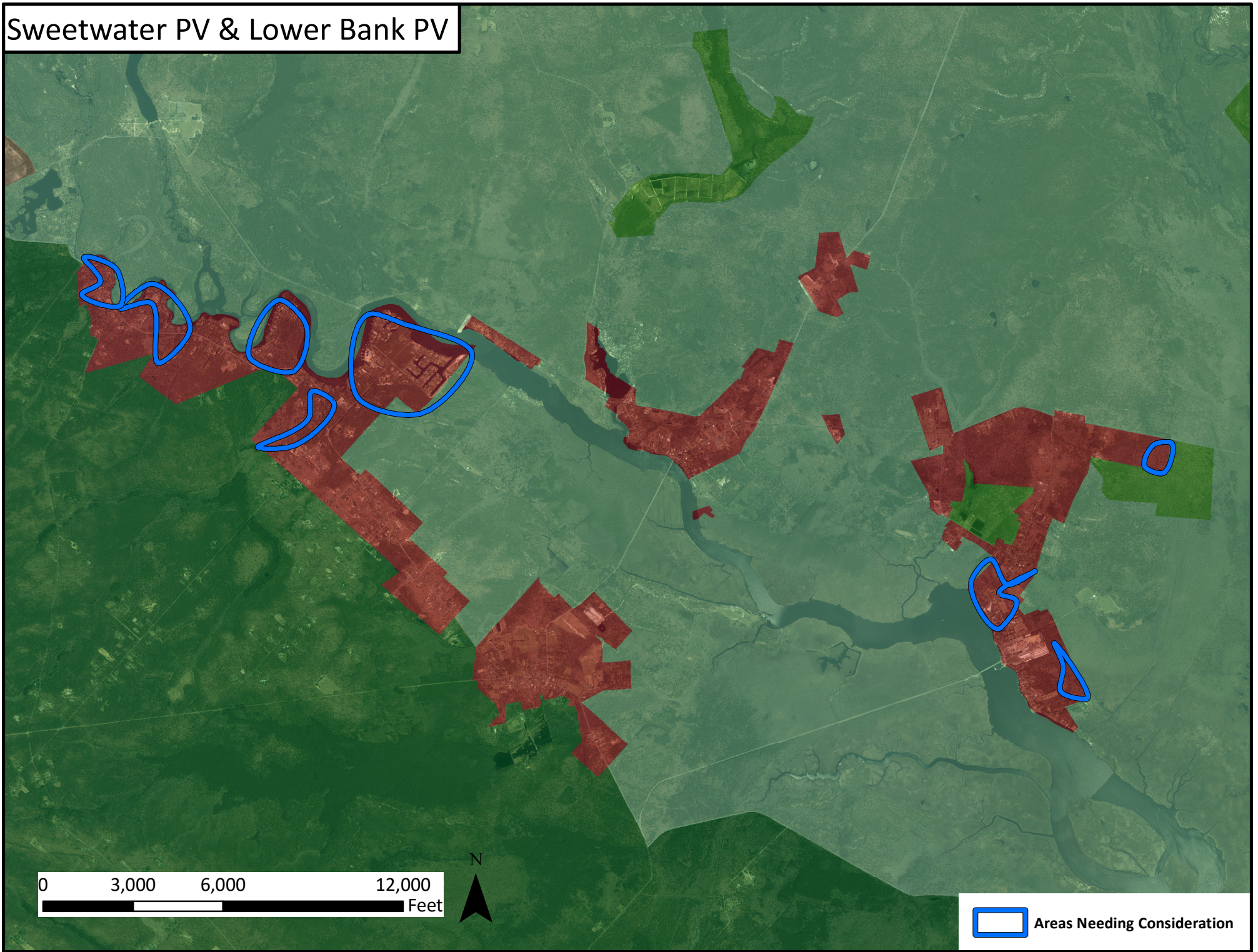
Recommendations:

Due to the presence of vacant, developable lands proximate to the areas of concern which are themselves at risk of wildfire, flooding, and inundation, it is recommended that expanded wetland buffer requirements be implemented in select areas (for example, Blocks 55.01 and 55.05 in Washington Township). This would entail a mandatory 300 foot buffer plus an additional upland buffer of some extent, similar to what was implemented in the Toms River Corridor. No management area changes are recommended at this time.

Mapping Attachments:

- Sweetwater PV & Lower Bank PV – Management Areas
- Sweetwater PV & Lower Bank PV – Wildfire Risk
- Sweetwater PV & Lower Bank PV – FIRM Mapping
- Sweetwater PV & Lower Bank PV – Inundation with 5-Foot Sea Level Rise
- Sweetwater PV & Lower Bank PV – Wetlands

Sweetwater PV & Lower Bank PV

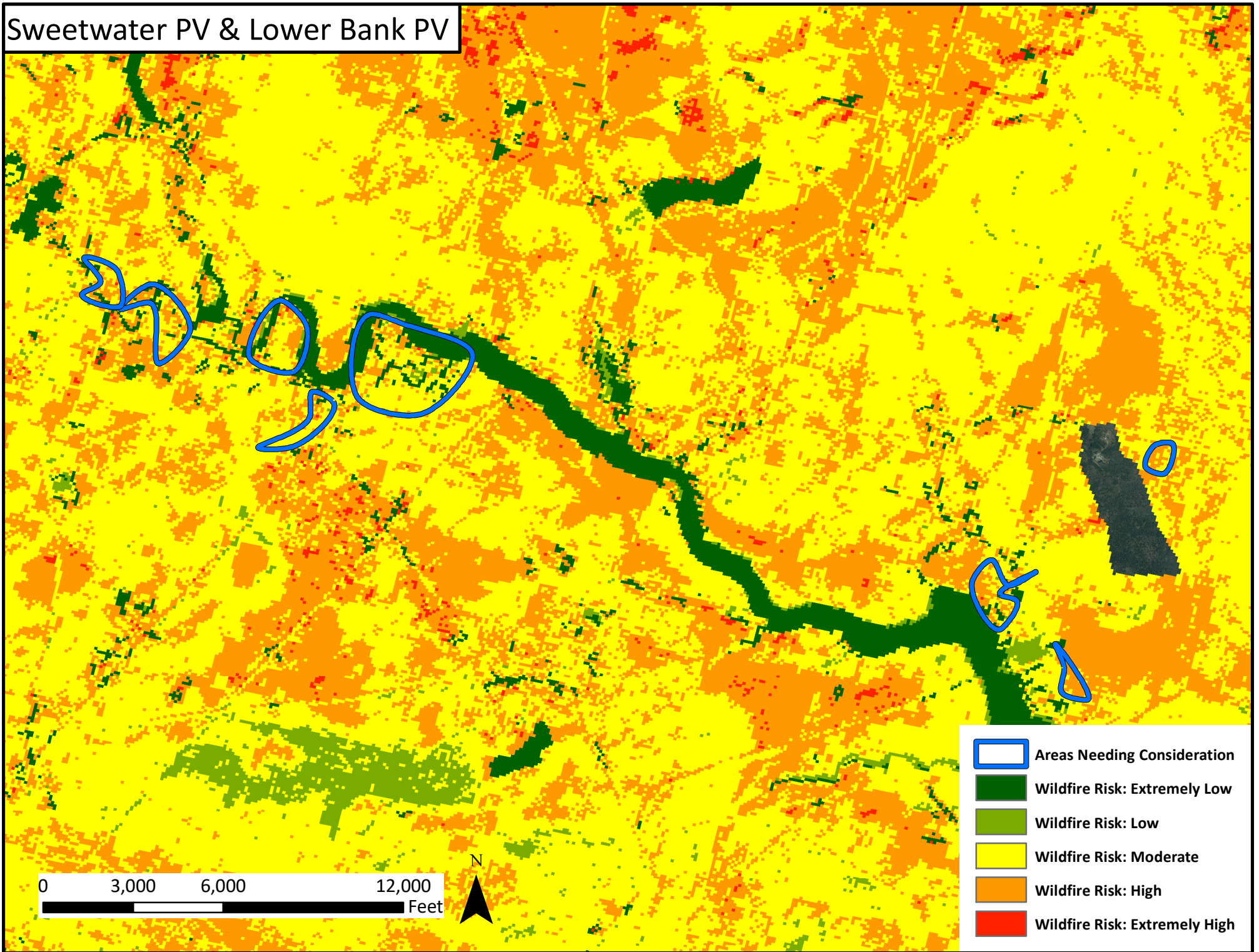


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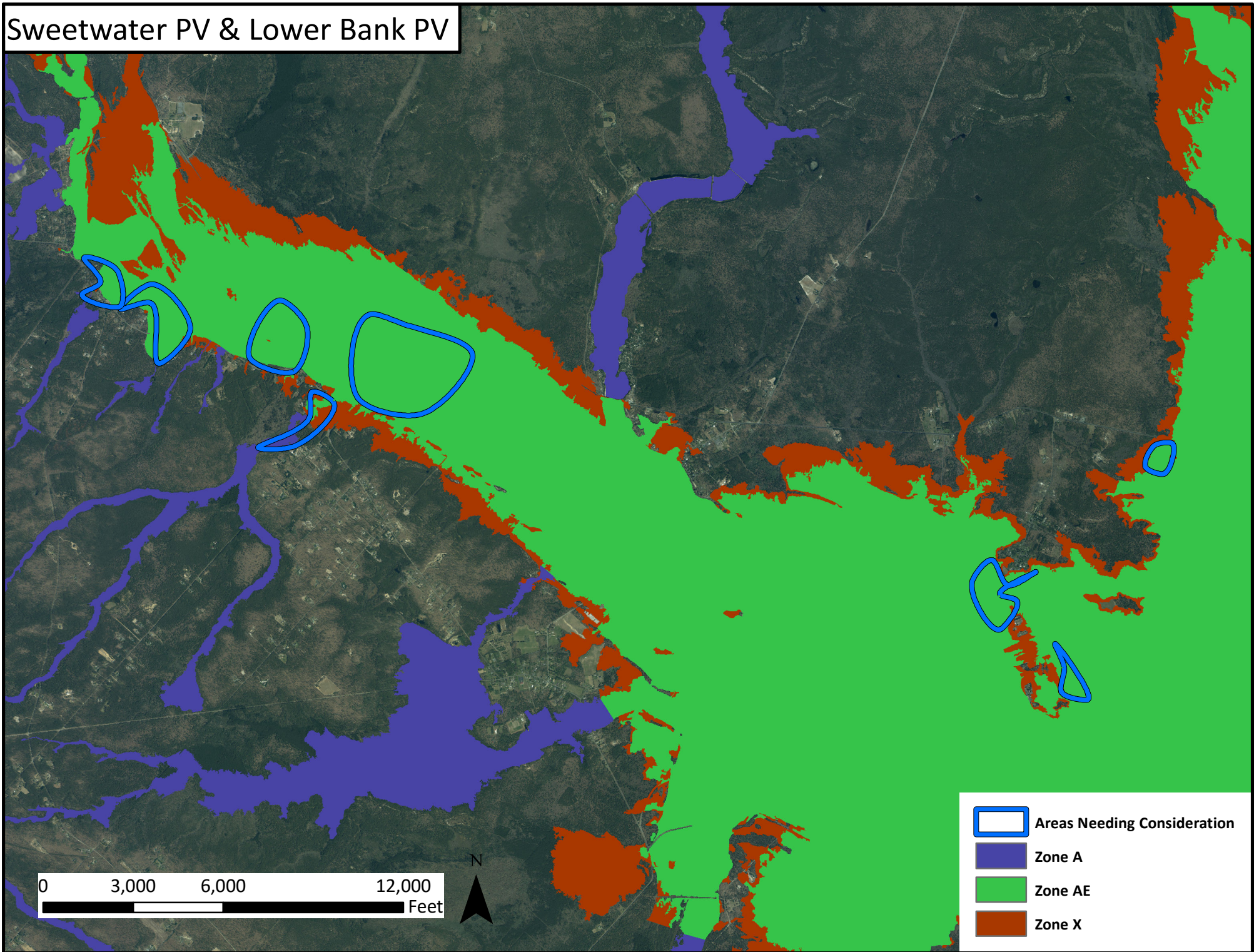


 Areas Needing Consideration

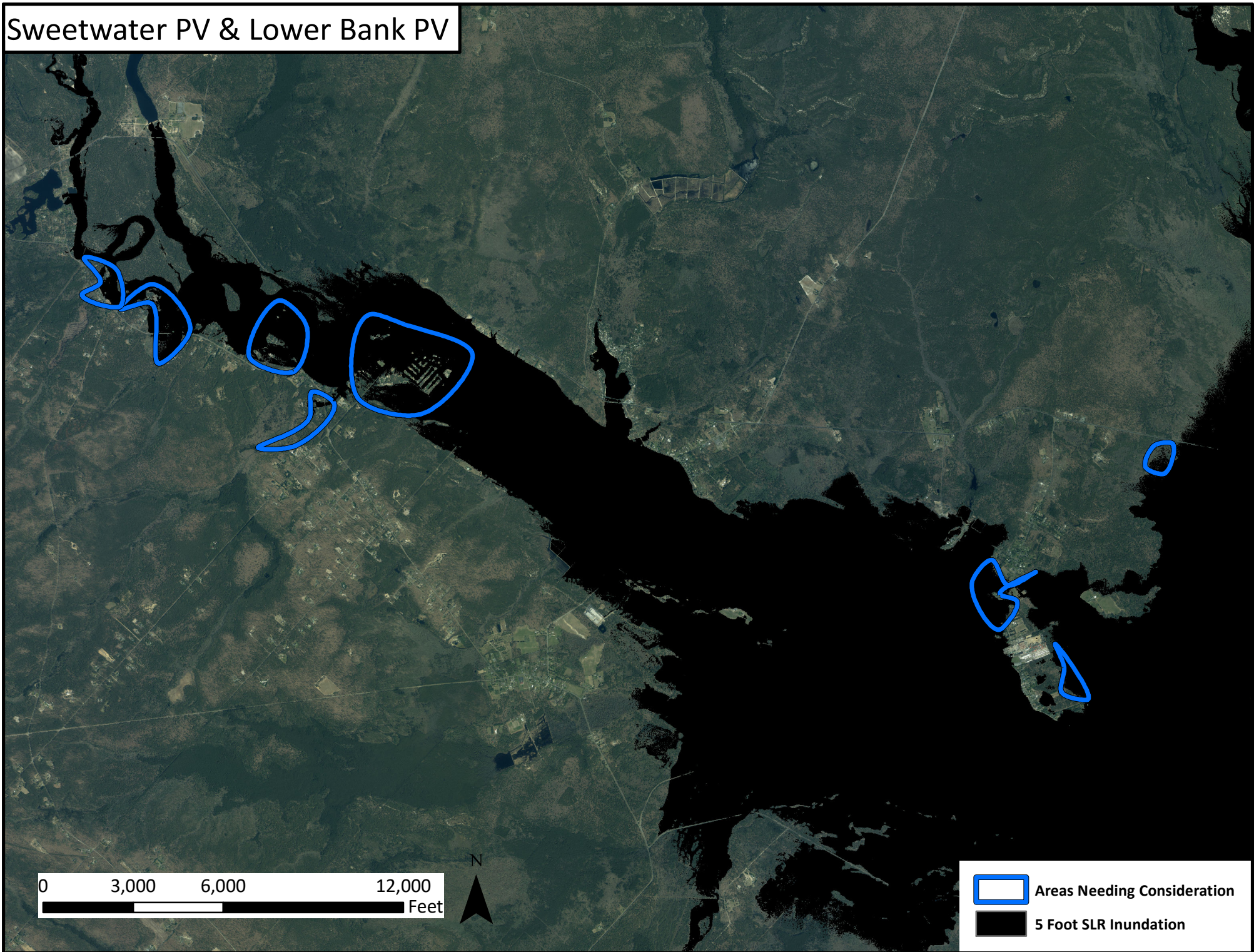
Sweetwater PV & Lower Bank PV



Sweetwater PV & Lower Bank PV





Sweetwater PV & Lower Bank PV

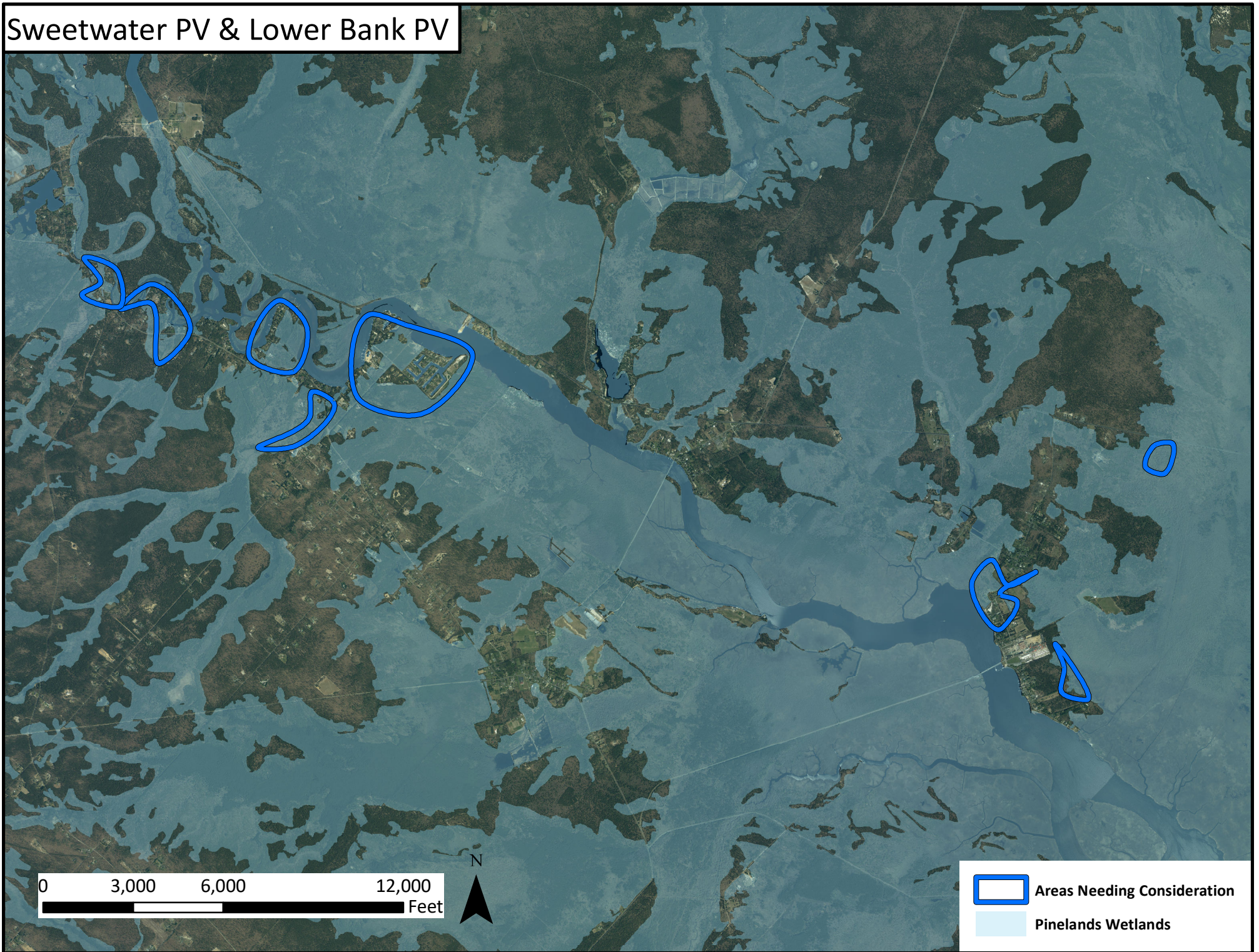


0 3,000 6,000 12,000 Feet





 Areas Needing Consideration
 5 Foot SLR Inundation

Sweetwater PV & Lower Bank PV



0 3,000 6,000 12,000 Feet



-  Areas Needing Consideration
-  Pinelands Wetlands

REPORT: PORT ELIZABETH-BRICKSBORO VILLAGE

Pinelands Management Area Boundary Assessment for Climate Risks

Context:

The Village of Port Elizabeth-Bricksboro was found to be most at risk of climate change hazards at its southern end, along Muskee Creek. The area of concern includes both wetlands and uplands. Here, ownership is a mix of the State, the local Board of Education, and private landowners. Zoning is PVC-3 (Pinelands Village Commercial), which permits a wide variety of commercial uses as well as single family homes on 1 acre lots. While wildfire risk is low to moderate, flooding and inundation risk due to sea level rise is high.

To the south, across Muskee Creek, is an area that was previously targeted for preservation. This is one of the twenty Acquisition Target Areas designated by the Commission.

Recommendations:

There are two recommendations proposed for this area:

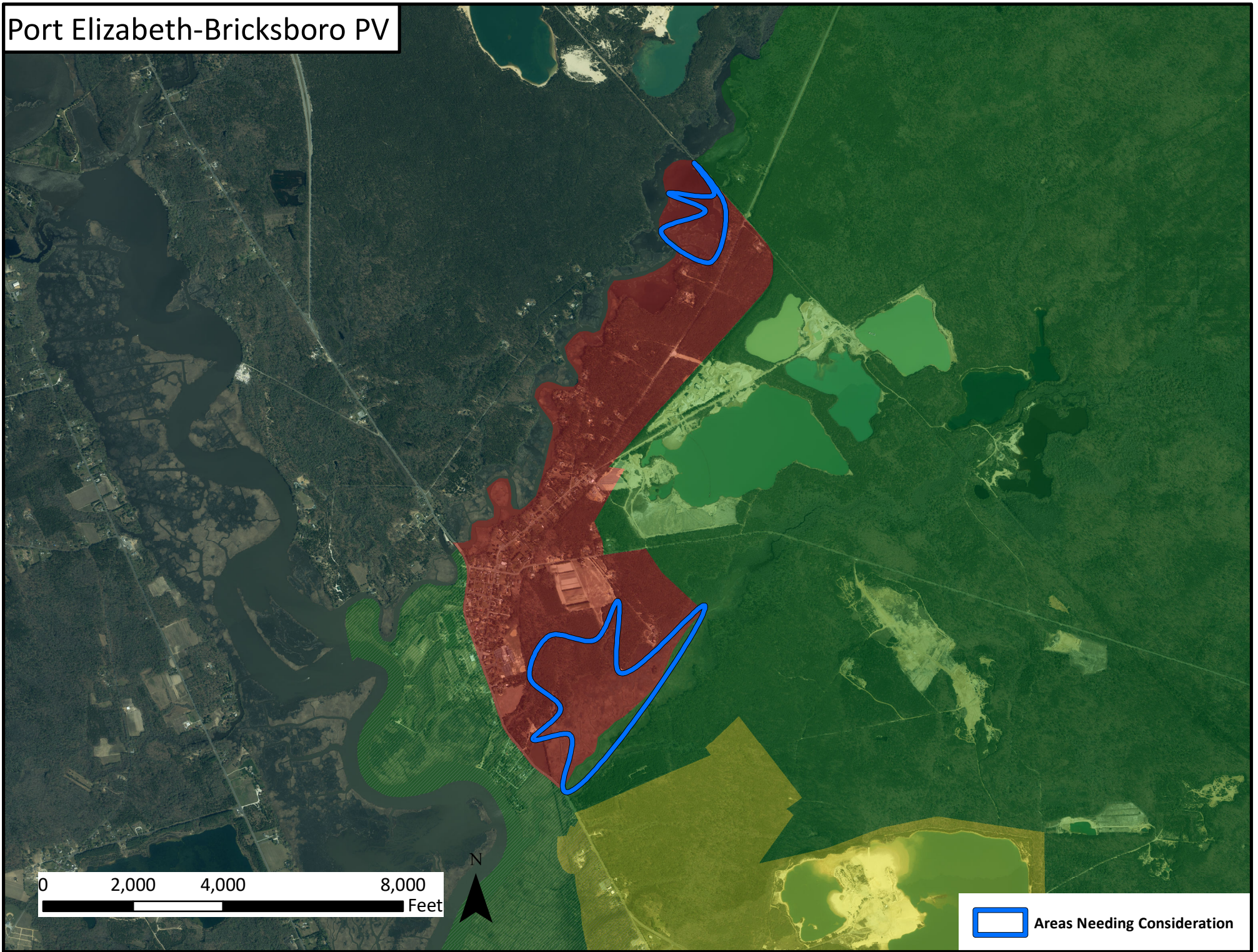
1. Due to the contiguity of a previously established Acquisition Target Area to the south, and the preponderance of climate change hazards directly to the north across Muskee Creek, it is recommended that the Acquisition Target Area be expanded into southern Port Elizabeth-Bricksboro to encourage additional land preservation in this portion of the village.
2. A new Density Transfer Program could be considered for implementation. Under such a program, developers have the option to increase the density of their projects or build on otherwise undersized lots by “transferring” density from off-site locations, usually within the same Pinelands management area and zoning district. By allowing for noncontiguous lands in the village to meet minimum lot size requirements, this may serve to protect the most vulnerable portions of the village while allowing for new development to occur in less constrained portions of the village.

No management area changes are recommended at this time.

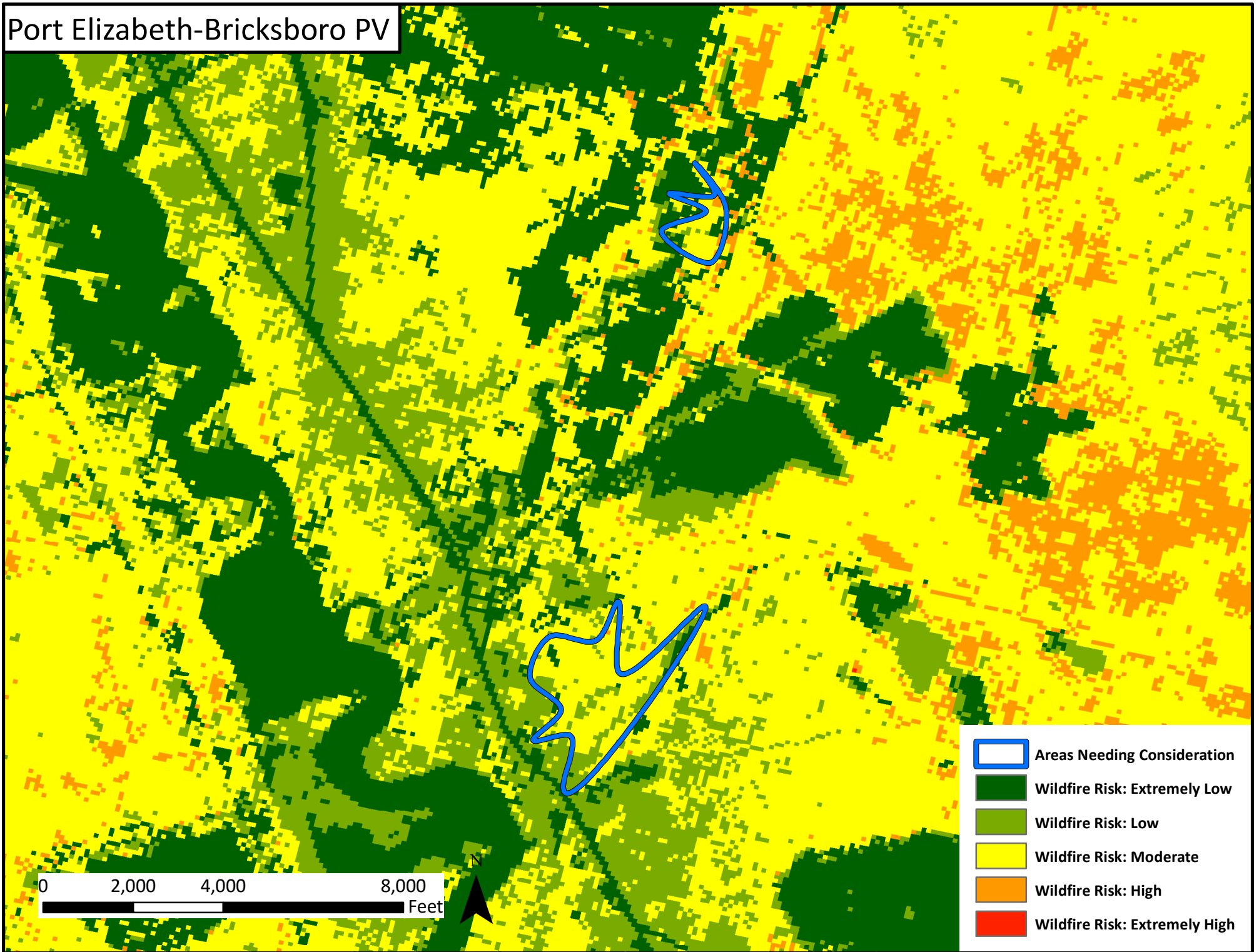
Mapping Attachments:

- Port Elizabeth-Bricksboro PV – Management Areas
- Port Elizabeth-Bricksboro PV – Wildfire Risk
- Port Elizabeth-Bricksboro PV – FIRM Mapping
- Port Elizabeth-Bricksboro PV – Inundation with 5-Foot Sea Level Rise
- Port Elizabeth-Bricksboro PV – Wetlands
- Port Elizabeth-Bricksboro PV – Planning Areas
- Port Elizabeth-Bricksboro PV – PLP Restrictions

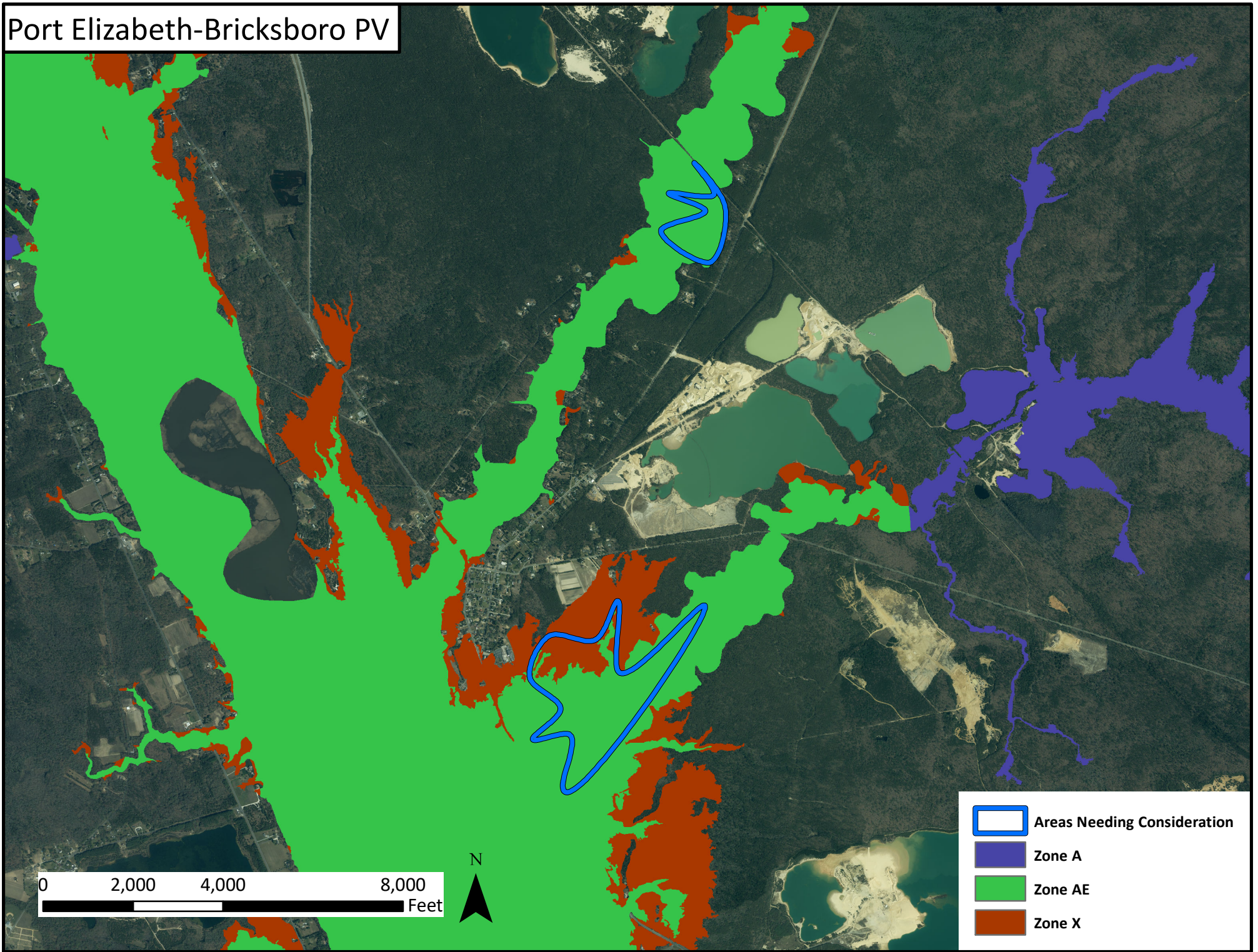
Port Elizabeth-Bricksboro PV



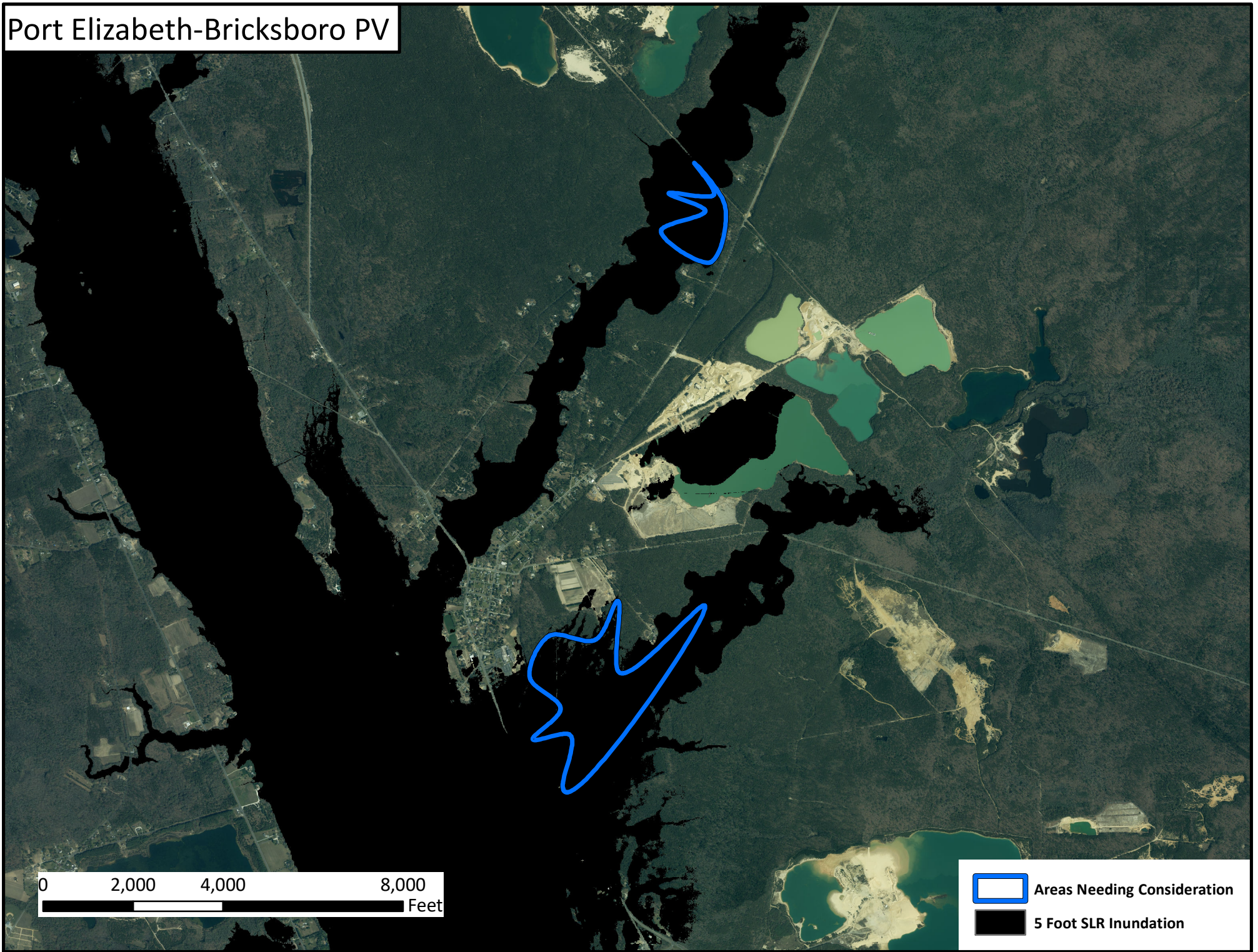
Port Elizabeth-Bricksboro PV



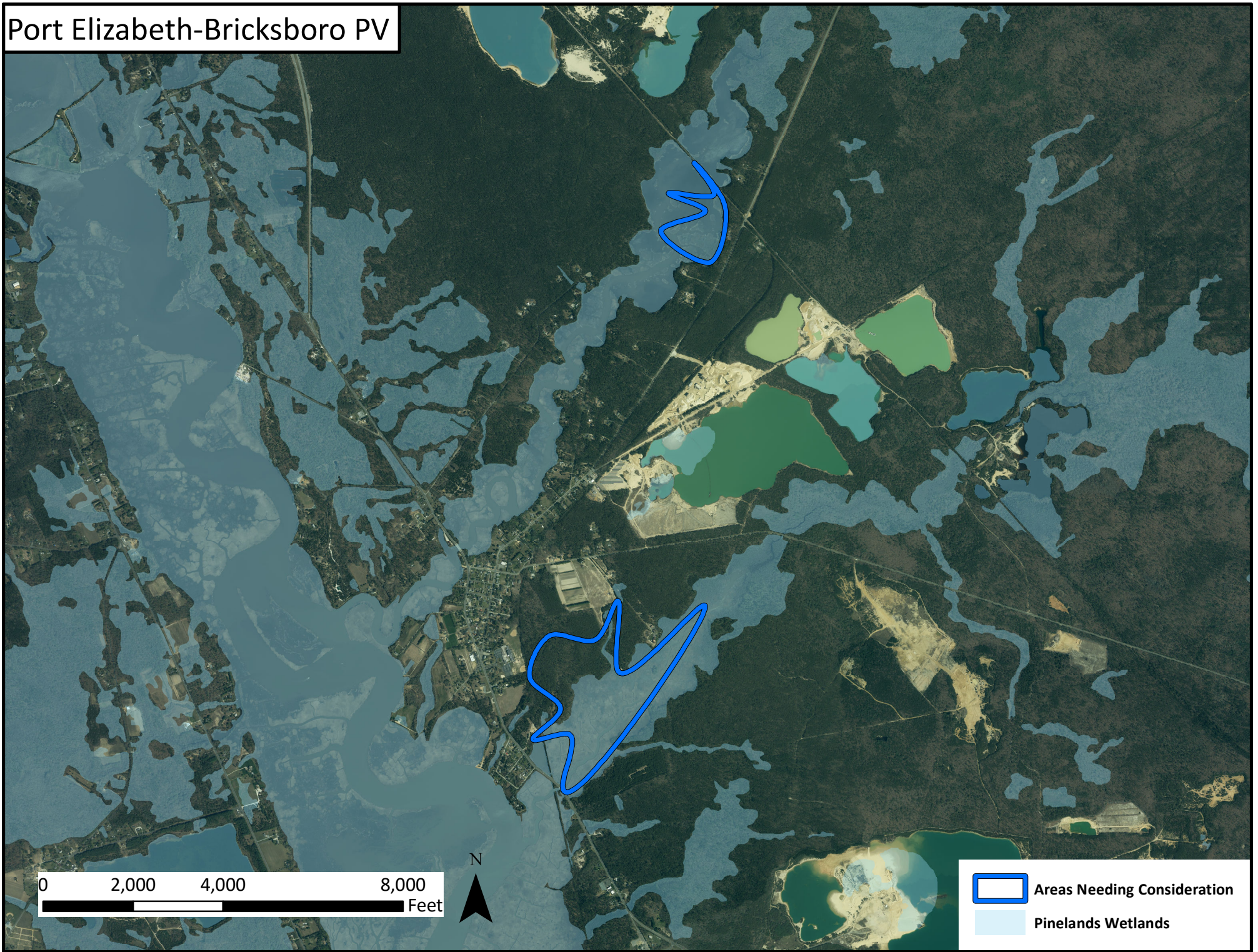
Port Elizabeth-Bricksboro PV



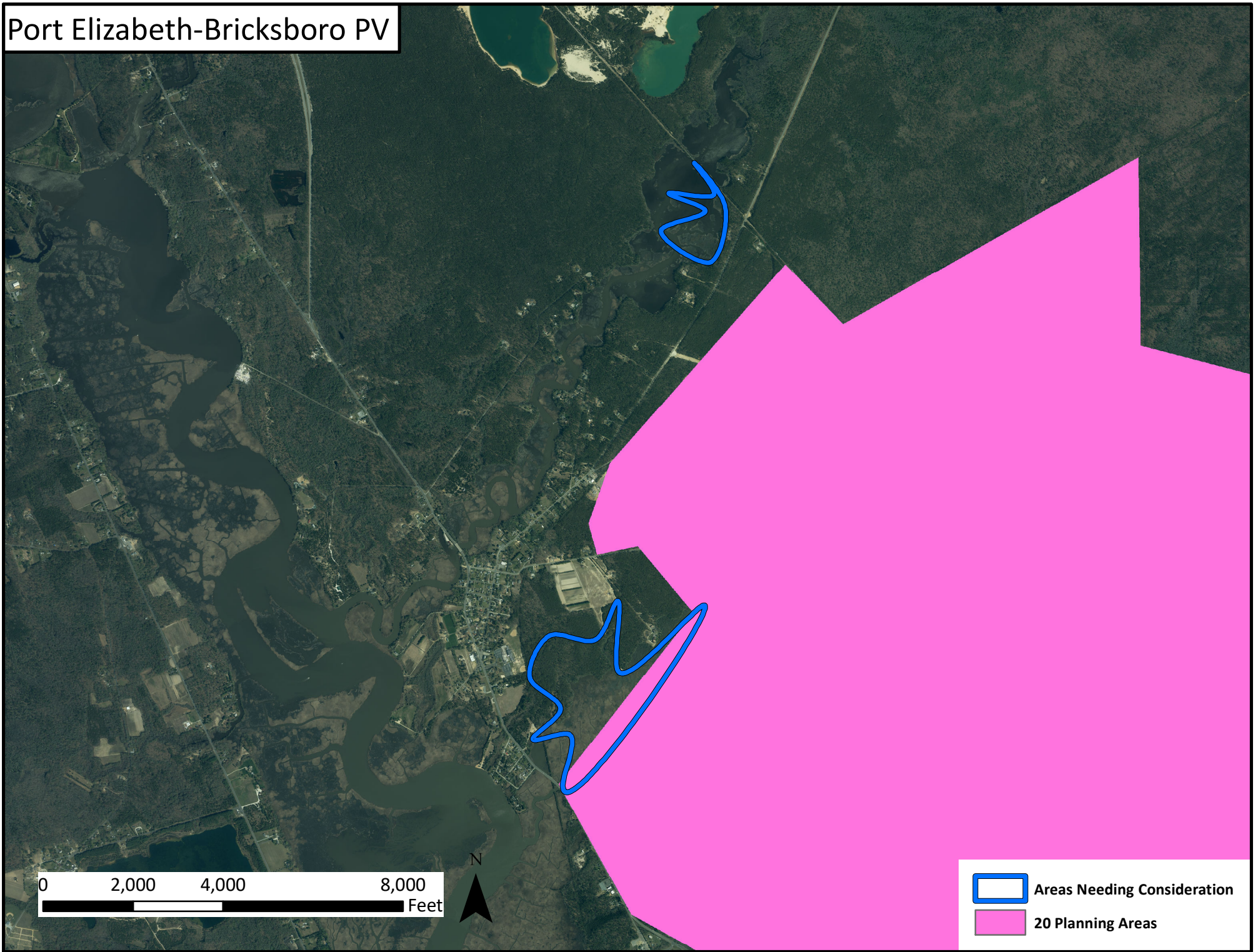
Port Elizabeth-Bricksboro PV



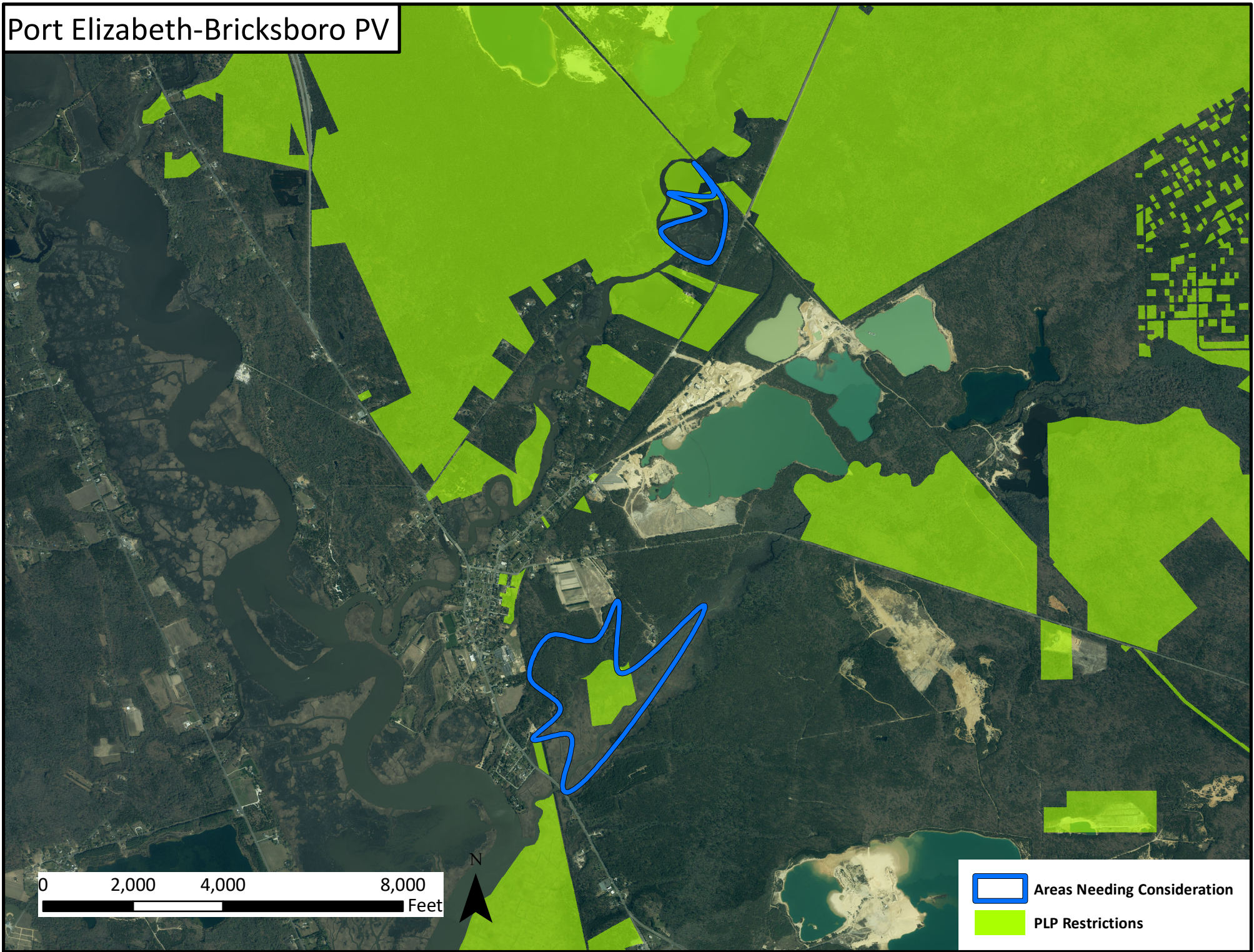
Port Elizabeth-Bricksboro PV



Port Elizabeth-Bricksboro PV



Port Elizabeth-Bricksboro PV



0 2,000 4,000 8,000 Feet



Areas Needing Consideration
PLP Restrictions

REPORT: HAMILTON TOWNSHIP RGA

Pinelands Management Area Boundary Assessment for Climate Risks

Context:

Seven areas of concern were identified in the Regional Growth Area in Hamilton Township. These areas are located in a largely undeveloped swath of land to the east of downtown Mays Landing. Zoning in this area is largely either GA-I (Growth Area – Intensive) or GA-M (Growth Area-Moderate), both of which allow for residential development at a maximum density of 2.5 units per acre. Planned residential development, consisting of a variety of housing types, is permitted in the GA-M Zone at a density of 4.3 units per acre and in the GA-I Zone at a density of 5.45 units per acre. Both zones require the use of Pinelands Development Credits to achieve these densities. The owners of the properties in this portion of the Township are comprised of private interests, the municipality, and Atlantic Cape Community College.

The risk of wildfire is mostly moderate in this vicinity, while the most prevalent flood zone is A (100-year flood zone where no Base Flood Elevations are established). No inundation due to sea level rise is expected under the moderate risk scenario used in this analysis, as the area is situated inland. Of note, this entire portion of the municipality was included in one of the Commission's twenty Acquisition Target Areas. Some of the parcels in question have already been preserved.

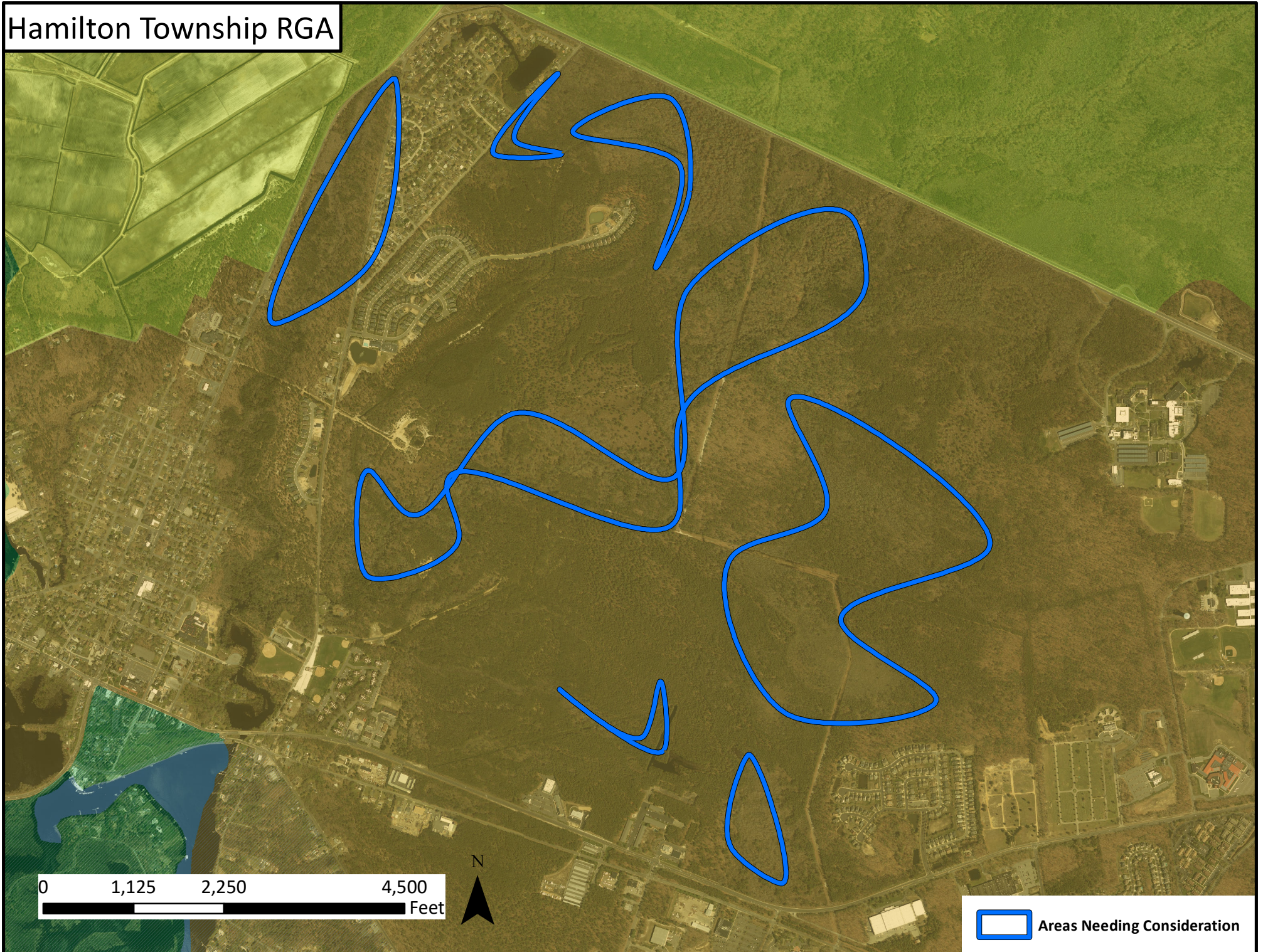
Recommendations:

Given the region's inclusion in an Acquisition Target Area, no change in this status is recommended at this time. Instead, it is recommended that the Commission continue to pursue land acquisition in this area, forming linkages with previously preserved properties wherever possible. No management area changes are recommended at this time.

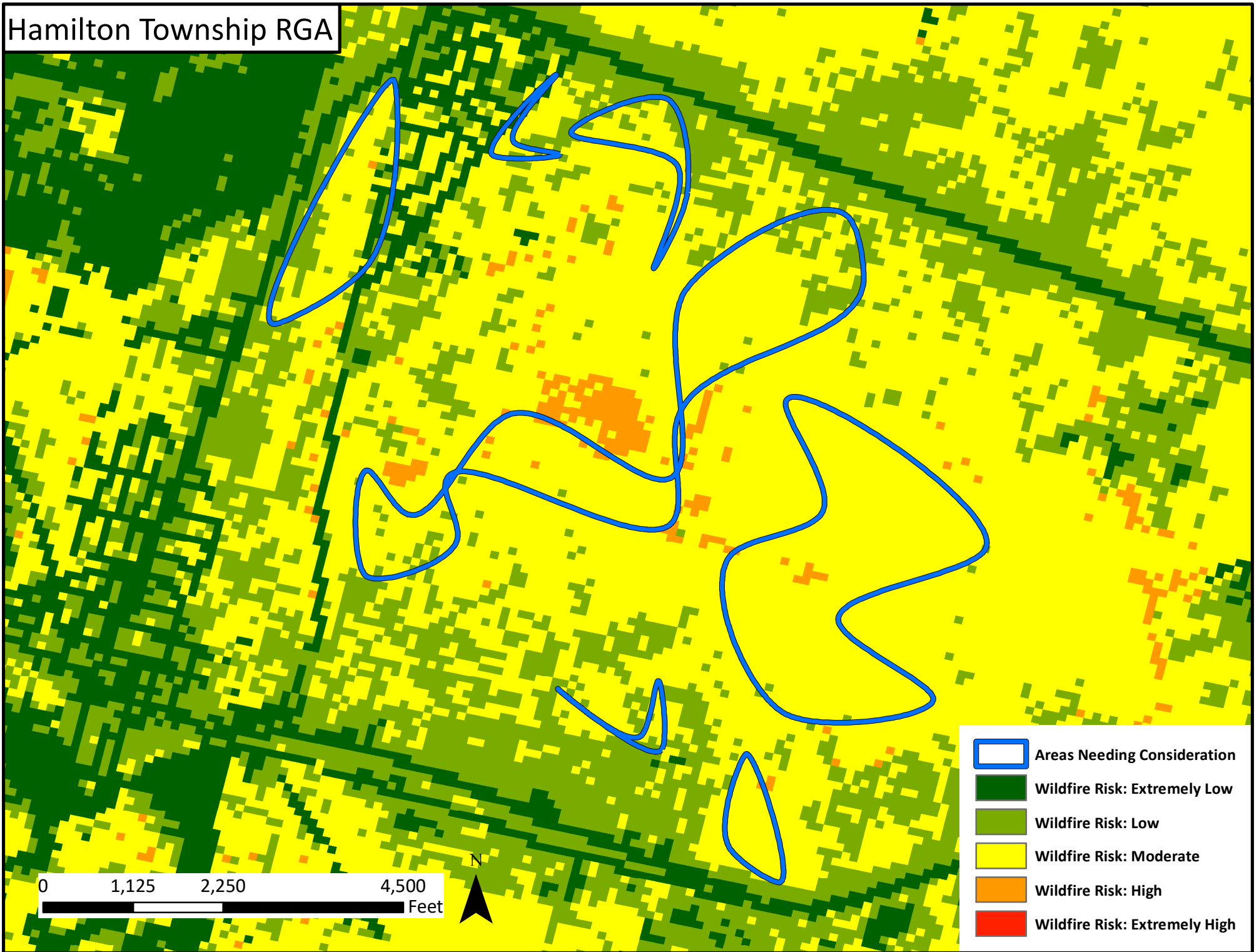
Mapping Attachments:

- Hamilton Township RGA – Management Areas
- Hamilton Township RGA – Wildfire Risk
- Hamilton Township RGA – FIRM Mapping
- Hamilton Township RGA – Planning Areas
- Hamilton Township RGA – PLP Restrictions

Hamilton Township RGA



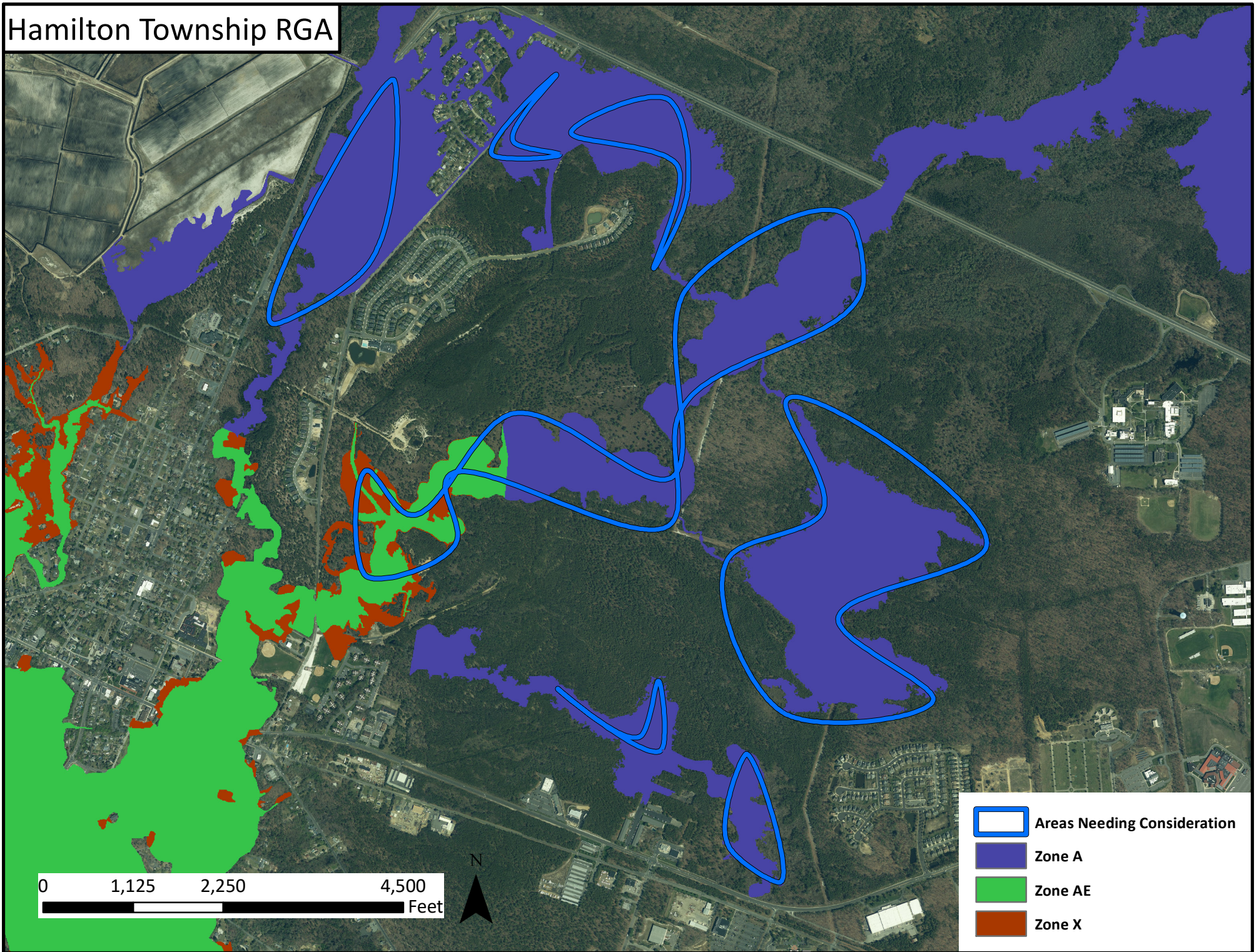
Hamilton Township RGA



0 1,125 2,250 4,500 Feet



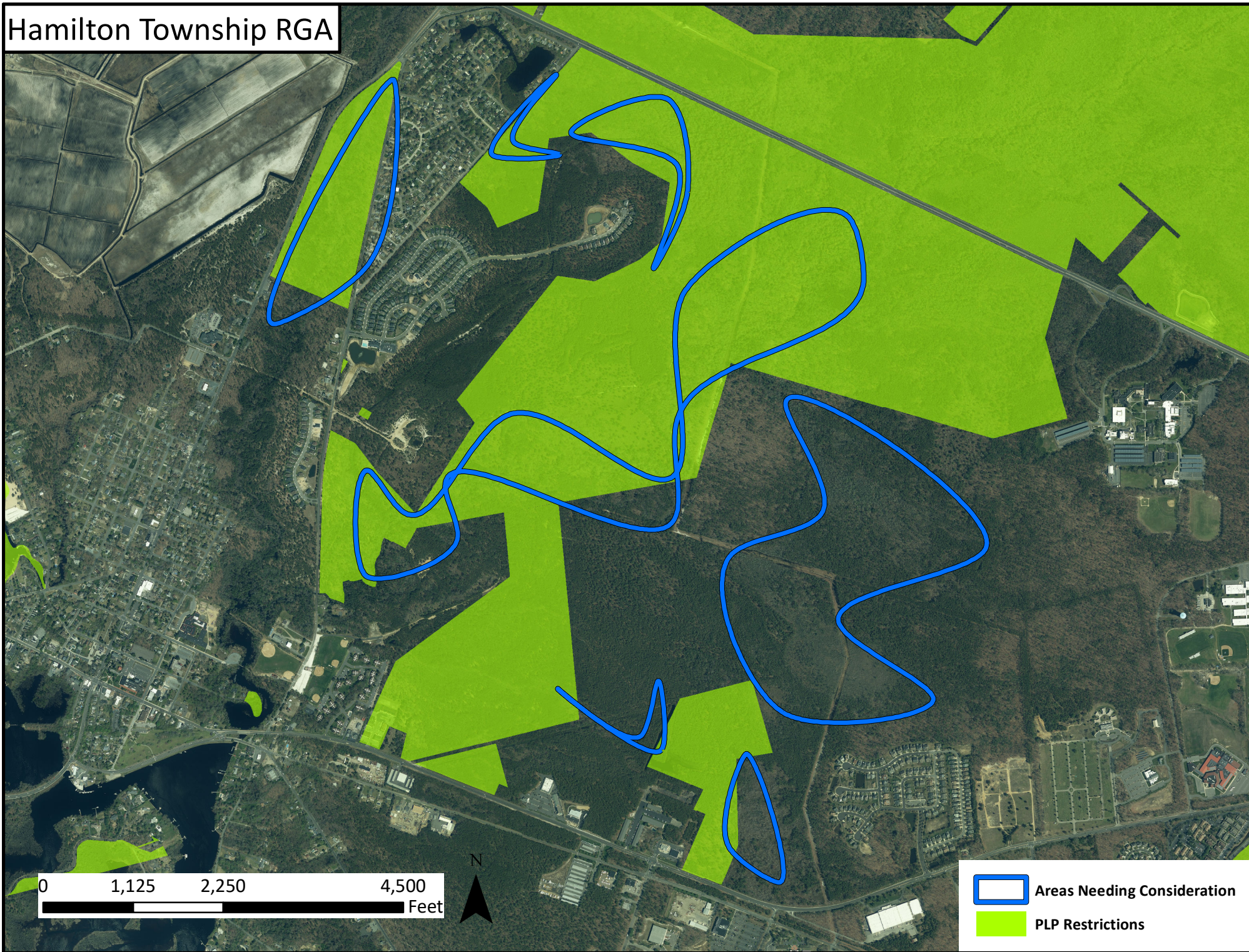
Hamilton Township RGA





Hamilton Township RGA



Hamilton Township RGA



 Areas Needing Consideration
 PLP Restrictions

REPORT: PEMBERTON TOWNSHIP RGA

Pinelands Management Area Boundary Assessment for Climate Risks

Context:

One area in need of further consideration in Pemberton Township's Regional Growth Area has been identified. This piece of land is approximately 22.5 acres in size and is comprised of two lots which are owned by the same private entity. This property is located to the west of Browns Mills and is directly adjacent to Joint Base McGuire-Dix-Lakehurst.

Zoning on this property is a mix of R-1, which allows for single family homes on 1 acre lots, and R-3, which allows for single family homes on 3.2 acre lots. The property is mostly covered by wetlands, and yet wildfire risk is mostly high. Flood zone designation is A (100-year flood zone and no Base Flood Elevations are established), but no inundation from a five-foot sea level rise scenario is expected. Rank 3 habitat (mapped in the NJDEP Landscape Project as having at least one documented occurrence of a State Threatened species) is present throughout. The property was not previously targeted for preservation by the Commission.

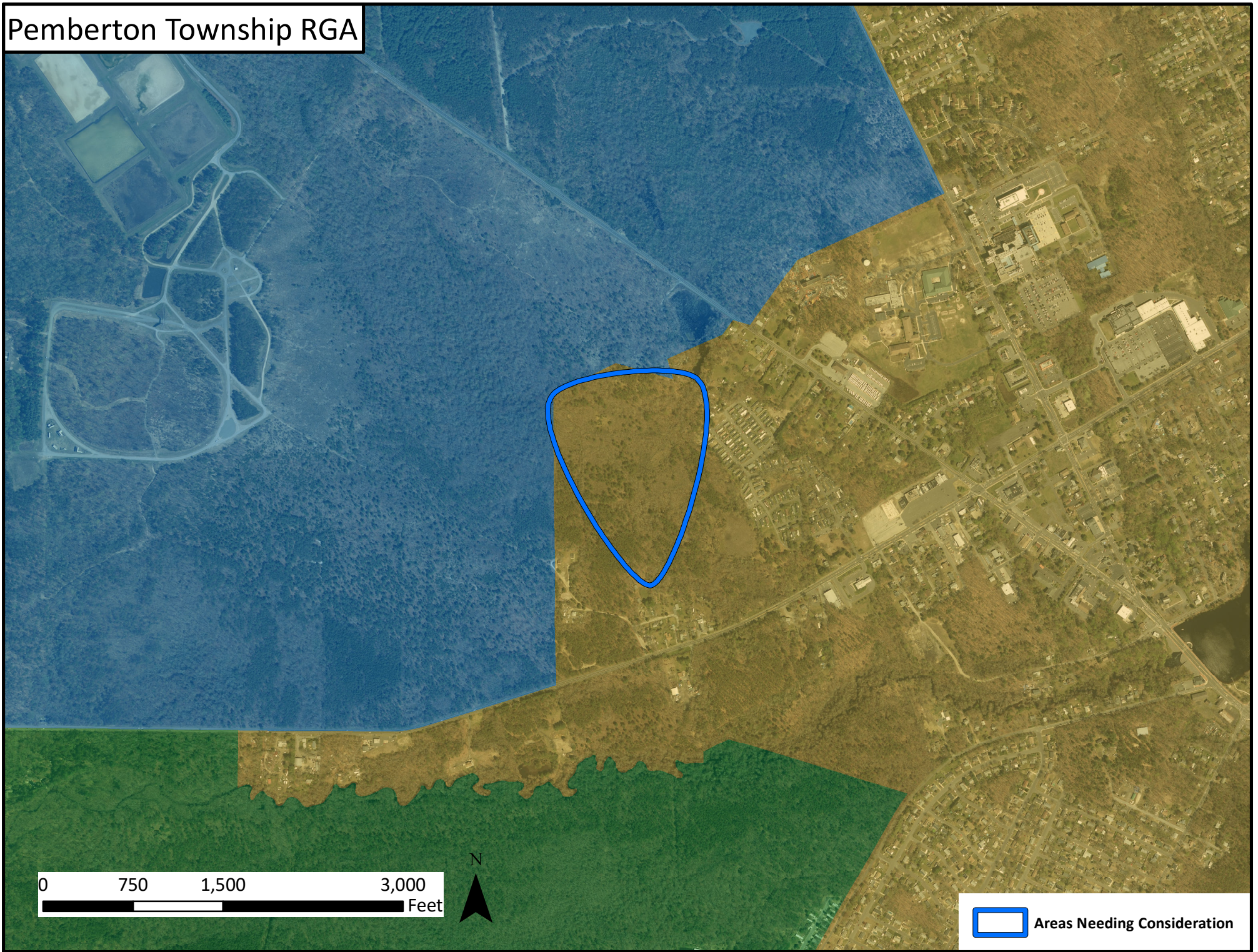
Recommendations:

Given the acute climate change risks prevailing upon this piece of land, it is recommended that the Commission pursue the acquisition of this property for preservation. This could entail creating a new Acquisition Target Area that encompasses this area. Given its proximity to the Joint Base and residential zoning, there may be an opportunity to partner with the Department of Defense to advance an acquisition that eliminates potential land use conflicts. No management area changes are recommended at this time.

Mapping Attachments:


- Pemberton Township RGA – Management Areas
- Pemberton Township RGA – Wildfire Risk
- Pemberton Township RGA – FIRM Mapping

Pemberton Township RGA

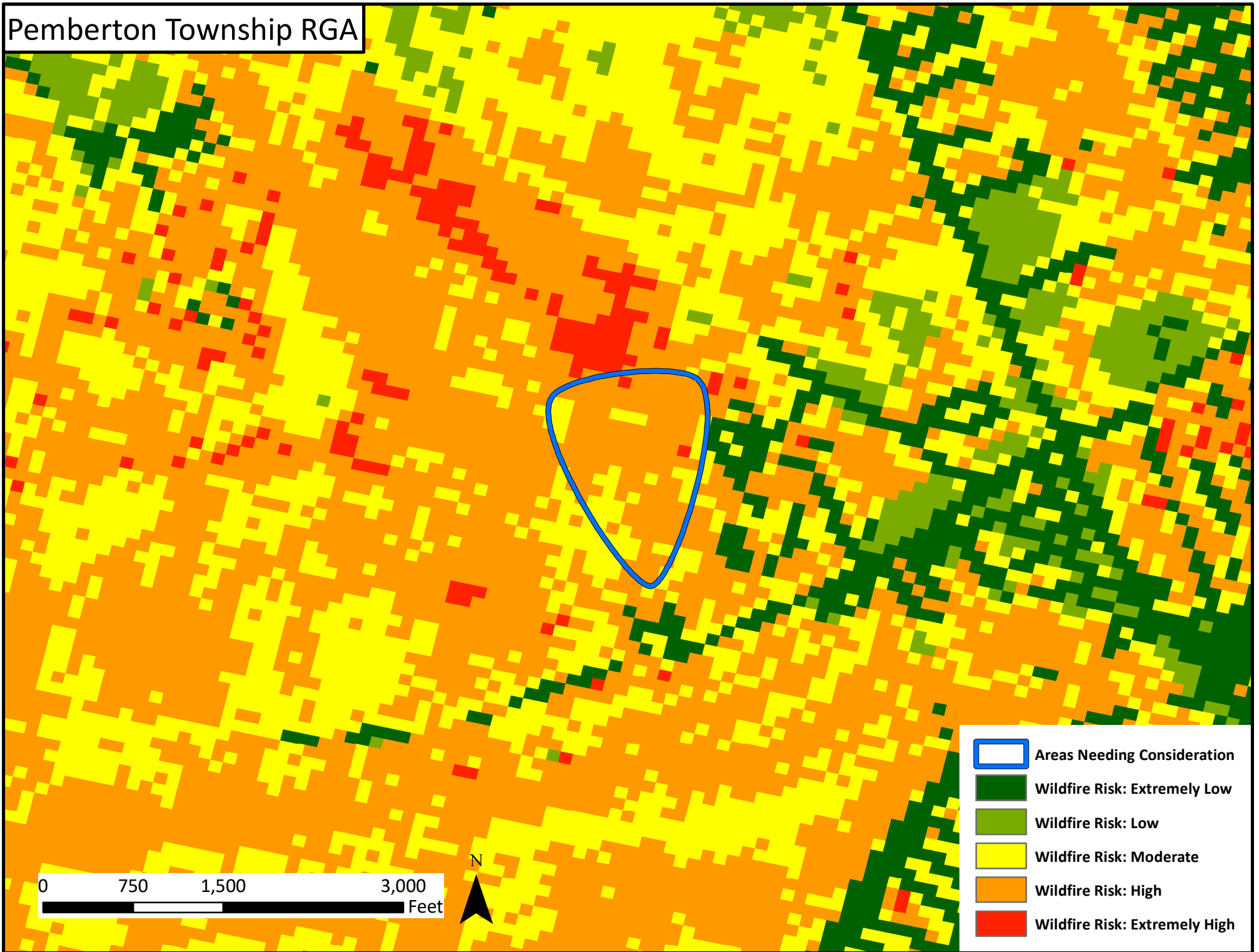


0 750 1,500 3,000
Feet

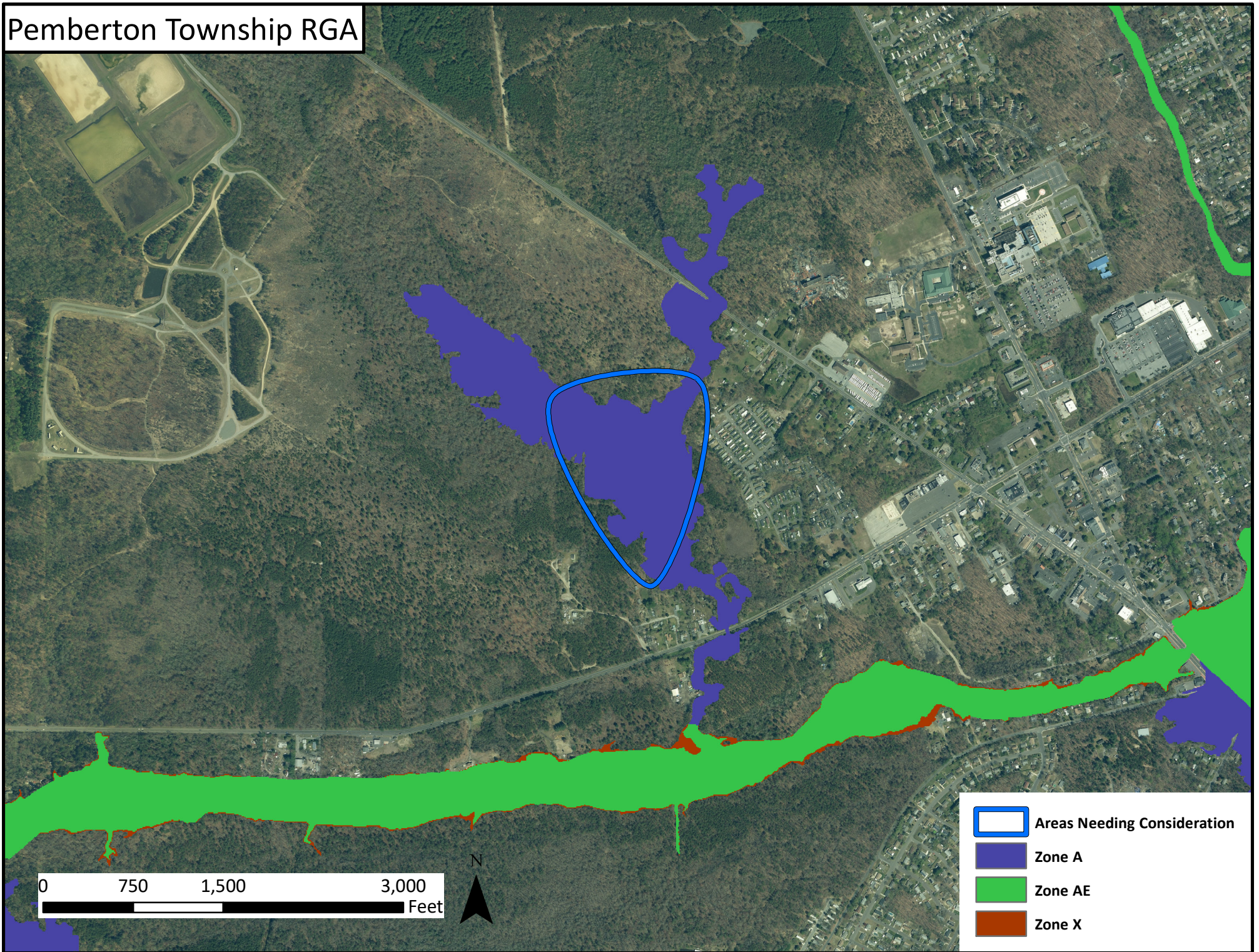






 Areas Needing Consideration

Pemberton Township RGA



Pemberton Township RGA



	Areas Needing Consideration
	Zone A
	Zone AE
	Zone X