

The seven high-priority projects agreed upon by the CAT are described in more detail in the tables below. Generally, these projects were understood by the CAT to have broad community-wide risk-reduction benefits or to benefit vulnerable populations, to be feasible, to align with the town's long-term resilience goals, to build upon other plans, and to link to efforts already underway.

All other projects considered by the CAT are documented in [Appendix G](#). Some of the other projects considered were not prioritized because they had been completed or were already in progress since being identified in previous planning efforts. Others were very localized and not perceived by the CAT to have sufficient benefit to the community at large to be considered high priority. Others would not substantially contribute to reducing coastal hazard risks or were considered infeasible by the CAT for any of the reasons noted in the criteria above, and so were not prioritized.



**Figure 8. CAT members discuss potential projects at the February public meeting.**

## 7.3 High Priority Projects

The following eight projects were identified as high priority by the Windsor CAT. Projects are *not* listed in order of priority; they are all high priority projects. Click the links below to jump to more details for each project:

- 7.3.1 [Downtown Master Plan](#)
- 7.3.2 [Relocate Freeman Hotel](#)
- 7.3.3 [Relocate Windsor Utility Operations Center](#)
- 7.3.4 [Relocate or Retrofit the Community Building](#)
- 7.3.5 [School Road Bridge \(with Bertie County\)](#)
- 7.3.6 [Sterlingworth/Gatling Stormwater Improvements](#)
- 7.3.7 [Hoggard Mill Water Storage](#)
- 7.3.8 [Phased Water Infrastructure Upgrades](#)

### 7.3.1 Downtown Master Plan

<b>Project Description</b>	<p>Evaluate and develop a comprehensive plan for the way the Historic downtown is integrated into the residential community. With amenities like the Freeman Hotel/Community Building constantly flooding and the loss of commercially zoned properties due to buyout, the downtown needs re-development outside of the floodplain and potentially utilizing the Granville St/Sterlingworth/King St corridors as well as giving more flexibility to the adjacent residential properties.</p> <p>Potential strategies or elements of the plan to be considered include:</p> <ul style="list-style-type: none"> <li>• Dry or wet flood proofing of buildings at locations noted in the Downtown Flood Retrofit Report</li> <li>• Downtown floodproof zone - Use a floodproof "curtain" and sewer backflow valves to isolate core downtown area from flood waters (see Flood Retrofit Report)</li> <li>• Relocation and/or retrofitting of commercial buildings, hotel, bank, post office, and utilities building</li> <li>• Redevelop a new "downtown" area outside the floodplain</li> <li>• Conduct ecological restoration of flood-prone building sites where structures are demolished to increase flood attenuation capacity and reduce maintenance needs on these properties. Specific properties that may be good candidates for this include the warehouse properties on King St, the utilities property on York St, and the former attorney office on Dundee St.</li> </ul>
<b>Location</b>	Flood-prone buildings on Stokes Drive, and the Housing Authority offices at 104 White Street
<b>Source</b>	Downtown Flood Retrofit Report, Public meeting input, Discussion with CAT members
<b>Scoping Questions</b>	<p>Should relocation include only the three southernmost buildings on Stokes Drive that are most clearly at risk, or should it include the whole complex? [NOTE: this may depend on funding source and quantity of available funds]</p> <p>Would elevation be a more effective strategy than relocation for either site?</p>
<b>Hazard(s) Addressed by Project</b>	Precipitation-based flooding, storm surge, sea level rise
<b>FEMA Community Lifelines</b>	Safety and Security
<b>Type of Solution</b>	Non-regulatory Programs, Structure and Infrastructure, Nature-based Solutions
<b>Project Estimated Timeline</b>	To be determined
<b>Responsible Entity</b>	Town of Windsor with a contractor
<b>Potential Partners</b>	
<b>Existing Funding</b>	None identified by CAT
<b>Potential Funding Sources</b>	Building Resilient Infrastructure and Communities (BRIC)
<b>Project Estimated Cost</b>	Low – \$40,000
<b>Anticipated Benefit</b>	High – Action would have a significant impact on risk reduction. .
<b>Priority Rating</b>	High

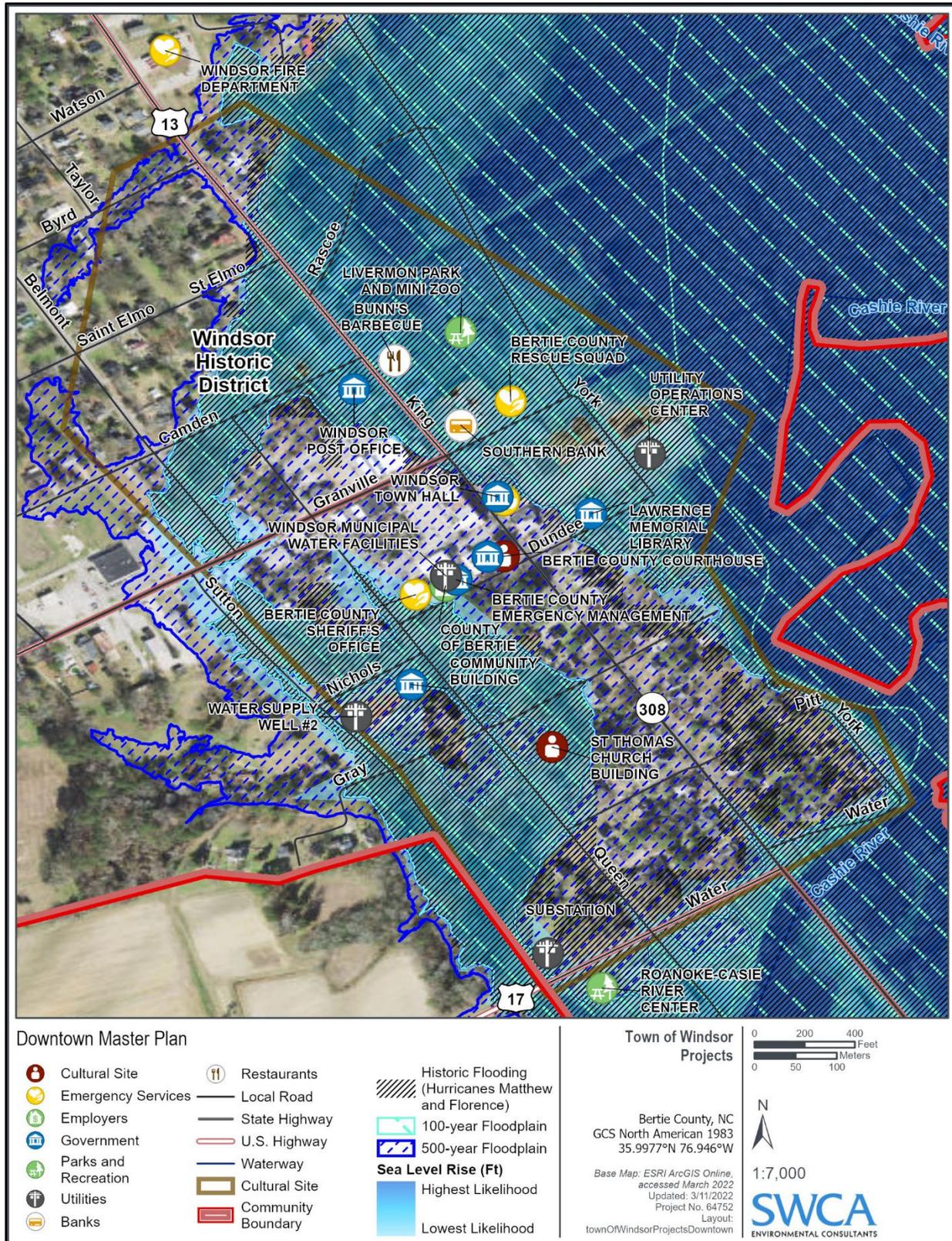


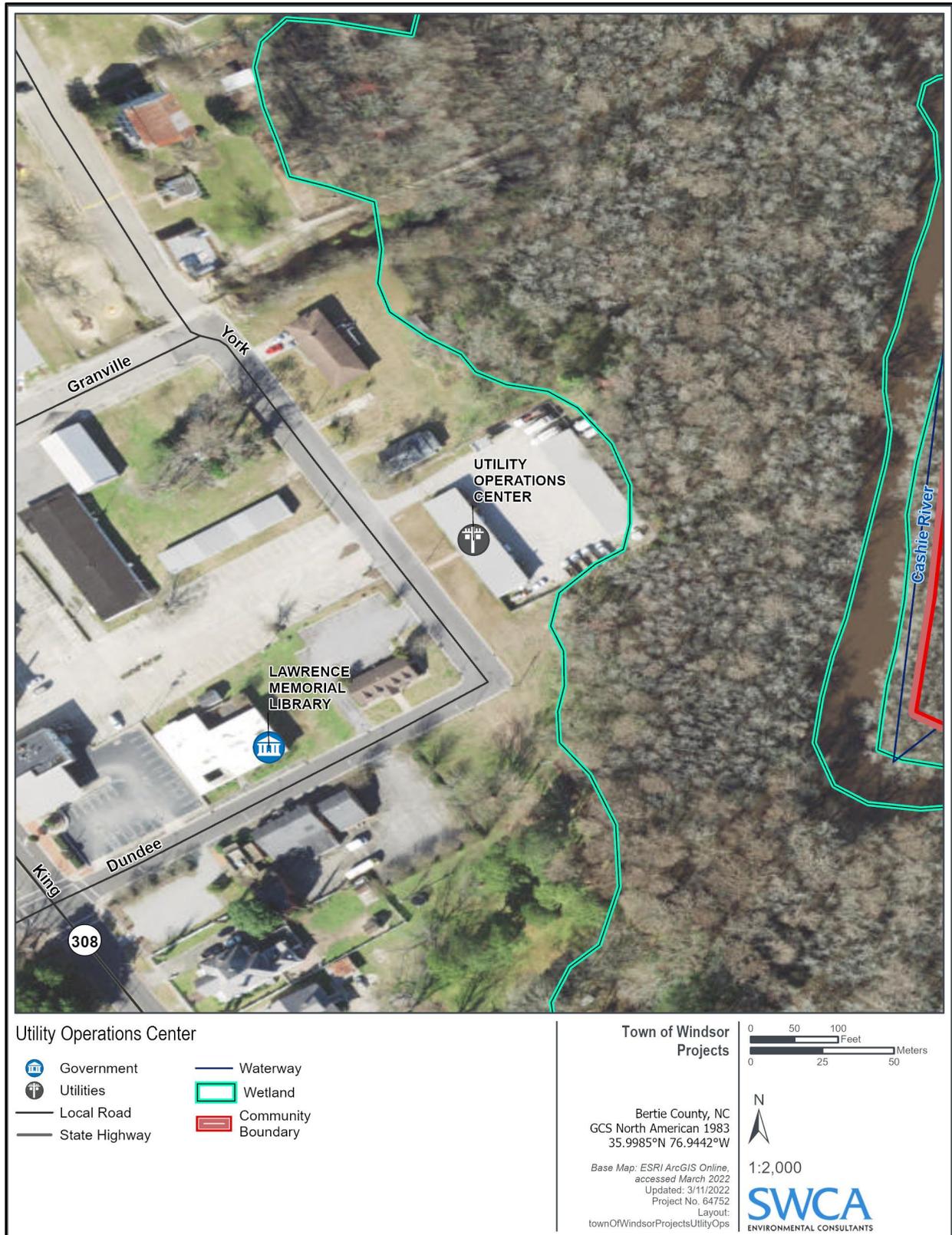
Figure 9. Location of Downtown Master Plan Area, showing assets and historic district location within historically flooded areas, the 100-year and 500-year floodplains, and at risk from sea level rise.

### 7.3.2 Relocate Freeman Hotel

<b>Project Description</b>	This project involves moving the existing historic Freeman Hotel building to a less flood-prone location.
<b>Location</b>	Relocate to 308 West Camden St
<b>Source</b>	Public Meeting Input
<b>Scoping Questions</b>	Can this be integrated into the Downtown Master Plan to maximize economic development benefit of this project?
<b>Hazard(s) Addressed by Project</b>	Precipitation-based flooding, storm surge, sea level rise
<b>FEMA Community Lifelines</b>	Safety and Security
<b>Type of Solution</b>	Structure and Infrastructure
<b>Project Estimated Timeline</b>	2 years
<b>Responsible Entity</b>	Town of Windsor
<b>Potential Partners</b>	
<b>Existing Funding</b>	The Town is awaiting response to an application for funding to support this project.
<b>Potential Funding Sources</b>	Florence funding may support this
<b>Project Estimated Cost</b>	Medium – \$239,225 This includes the set-up at the new site and the clearance of the old site and any professional services needed.
<b>Anticipated Benefit</b>	Medium – Action would have an impact on risk reduction
<b>Priority Rating</b>	High

### 7.3.3 Relocate Windsor Utility Operations Center

<b>Project Description</b>	Develop a new facility for the Windsor Utility Operations Center at a new location to maintain water, sewer, power, and sanitation. Assists the Town of Windsor in adequately responding to utility calls and quickly providing a response. County has identified a suitable location for a new facility. The former site would then be restored to a more natural state to help attenuate flooding in this area and reduce long-term maintenance costs for the site.
<b>Location</b>	New location to be determined
<b>Source</b>	Hurricane Matthew Resilient Redevelopment Plan
<b>Scoping Questions</b>	Are there any known contaminants stored on the existing site? Could prevent restoration or make it significantly more expensive
<b>Hazard(s) Addressed by Project</b>	Precipitation-based flooding, Storm Surge, Sea Level Rise
<b>FEMA Community Lifelines</b>	Safety and Security; Food, Water, Shelter; Energy; Communications
<b>Type of Solution</b>	Structure and Infrastructure, Nature Based Solutions
<b>Project Estimated Timeline</b>	2 years
<b>Responsible Entity</b>	Town of Windsor
<b>Potential Partners</b>	
<b>Existing Funding</b>	None identified by CAT
<b>Potential Funding Sources</b>	NFWF, for design and implementation of the nature-based elements, Building Resilient Infrastructure and Communities (BRIC), Hazard Mitigation Grant Program (HMGP)
<b>Project Estimated Cost</b>	Medium – \$251,000–\$500,000 (from Hurricane Matthew Resilient Redevelopment Plan)
<b>Anticipated Benefit</b>	High – Action would have a significant impact on risk reduction. .
<b>Priority Rating</b>	High



**Figure 10. Location of Utility Operations Center immediately adjacent to Cashie River wetland areas that regularly flood.**

### 7.3.4 Relocate or Retrofit the Community Building

<b>Project Description</b>	This long-standing meeting space is an affordable location for residents to hold private events and is also used for public events such as voting. It floods frequently and would benefit from relocation or retrofits to reduce the extent and cost of recovery after flood events.
<b>Location</b>	201 S Queen St
<b>Source</b>	Community Action Team
<b>Scoping Questions</b>	Need to evaluate best options for protecting this facility or whether to relocate it
<b>Hazard(s) Addressed by Project</b>	Precipitation-based flooding, storm surge, sea level rise, runoff
<b>FEMA Community Lifelines</b>	Safety and Security
<b>Type of Solution</b>	Structure and infrastructure
<b>Project Estimated Timeline</b>	2–5 years depending on approach
<b>Responsible Entity</b>	Town of Windsor
<b>Potential Partners</b>	
<b>Existing Funding</b>	None identified by CAT
<b>Potential Funding Sources</b>	Building Resilient Infrastructure and Communities (BRIC), Hazard Mitigation Grant Program (HMGP)
<b>Project Estimated Cost</b>	Medium – TBD depending on methods to be used. Retrofit could be somewhat cheaper than relocation.
<b>Anticipated Benefit</b>	Medium – Action would have an impact on risk reduction.
<b>Priority Rating</b>	High

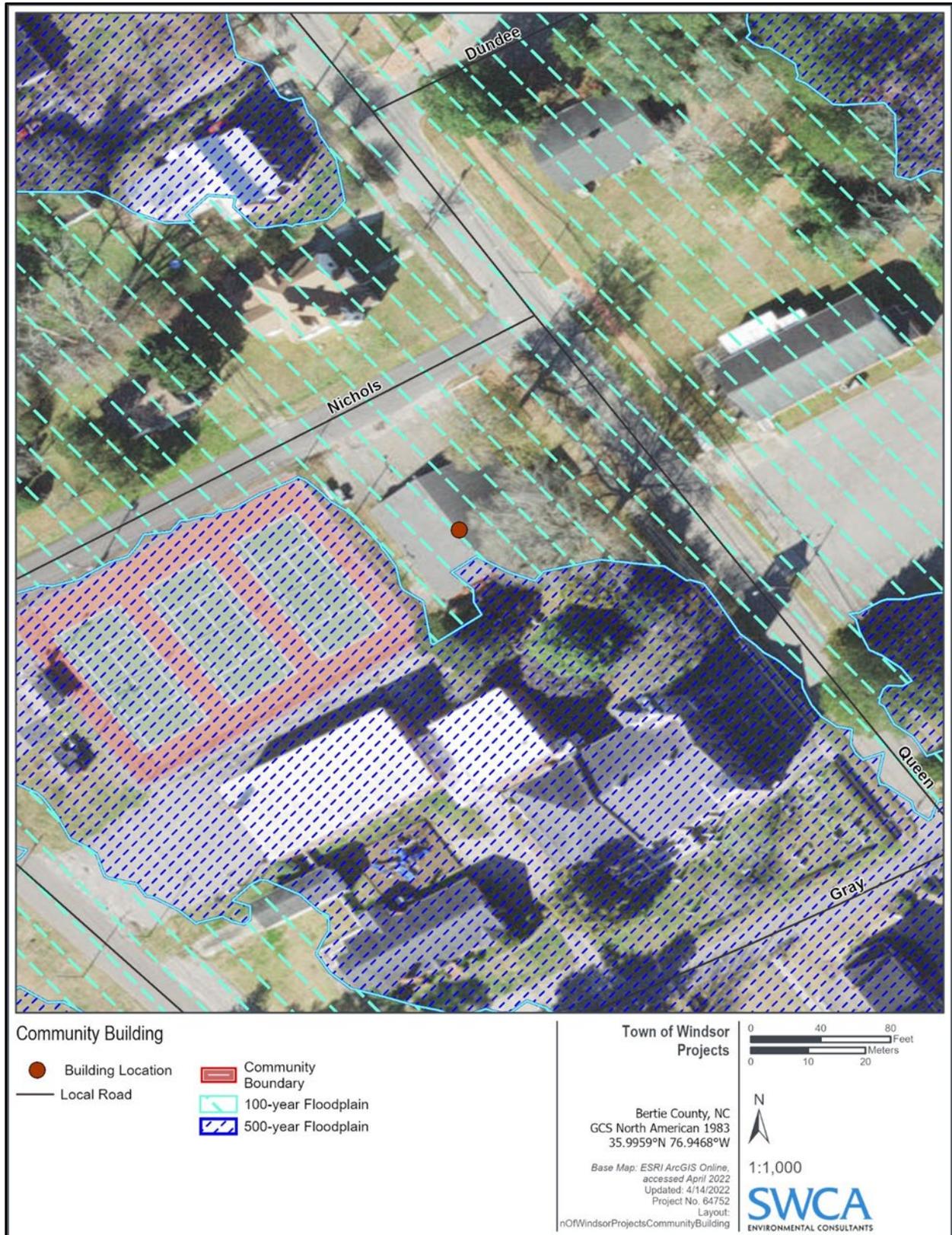


Figure 11. Location of Windsor Community building within the 100-year and 500-year floodplains.

### 7.3.5 School Road Bridge (with Bertie County)

<b>Project Description</b>	School Road washed out and stranded many people and the High School (emergency shelter) was cut off. This Cashie River swamp area floods regularly. The project involves construction of a higher bridge over the swamp area to maintain better access, and development of a water control process according to findings from the Windsor Flood Reduction Feasibility Study and/or the planned Bertie County Frequently Flooded Roadways Feasibility Study to reduce peak flows downstream that affect flooding in Windsor.
<b>Location</b>	School Road between Sand Pit Rd. and Route 13 (See map below)
<b>Source</b>	Hurricane Matthew Resilient Redevelopment Plan - Bertie County
<b>Scoping Questions</b>	
<b>Hazard(s) Addressed by Project</b>	Precipitation-based flooding
<b>FEMA Community Lifelines</b>	Safety and Security; Transportation
<b>Type of Solution</b>	Structure and Infrastructure
<b>Project Estimated Timeline</b>	2–5 years
<b>Responsible Entity</b>	Bertie County
<b>Potential Partners</b>	NCDOT, Town of Windsor
<b>Existing Funding</b>	None identified by CAT
<b>Potential Funding Sources</b>	Building Resilient Infrastructure and Communities (BRIC), Hazard Mitigation Grant Program (HMGP)
<b>Project Estimated Cost</b>	High – \$1 million +
<b>Anticipated Benefit</b>	High – Action would have a significant impact on risk reduction.
<b>Priority Rating</b>	High

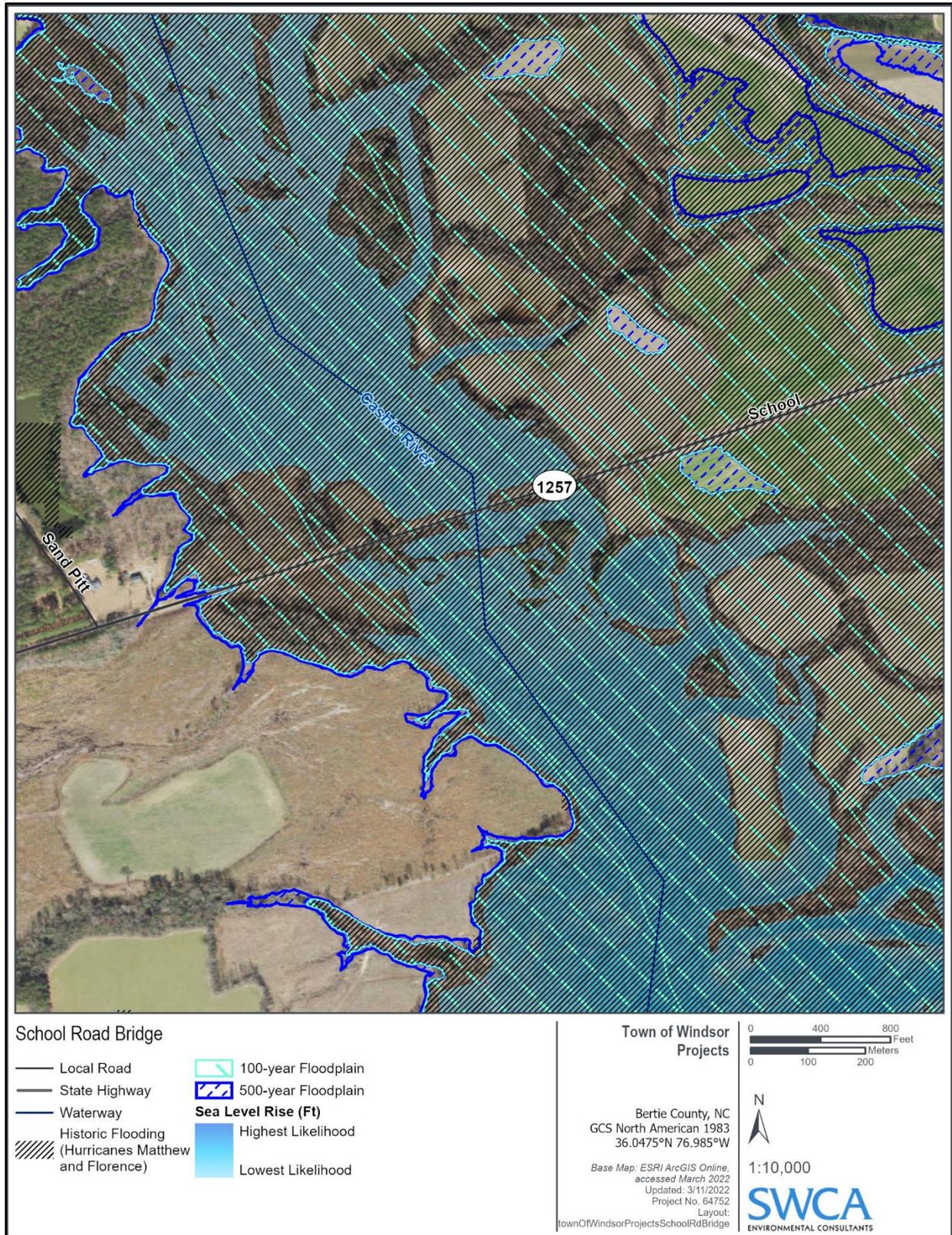


Figure 12. School Road bridge location within historically flooded areas, the 100-year and 500-year floodplains, and at risk from sea level rise.

### 7.3.6 Sterlingworth/Gatling Stormwater Improvements

<b>Project Description</b>	Continuation of successful stormwater management improvements from the Ghent/Gatling area into the Sterlingworth/Gatling area.
<b>Locations</b>	Pipe crossing in the vicinity of 606 Sterlingworth St
<b>Source</b>	Discussion with CAT
<b>Scoping Questions</b>	
<b>Hazard(s) Addressed by Project</b>	Runoff, Precipitation-based flooding
<b>Type of Solution</b>	Safety and Security
<b>FEMA Community Lifelines</b>	Structure and Infrastructure, Nature Based Solutions
<b>Project Estimated Timeline</b>	
<b>Responsible Entity</b>	NCDOT
<b>Potential Partners</b>	Town of Windsor
<b>Existing Funding</b>	None identified by CAT
<b>Potential Funding Sources</b>	Clean Water State Revolving Fund, NCDEQ Water Resources Development Grant
<b>Project Estimated Cost</b>	Medium – \$350,000 depending on exact nature of improvements to be made
<b>Anticipated Benefit</b>	High – Action would have a significant impact on risk reduction.
<b>Priority Rating</b>	High



Figure 13. Location of Sterlingworth and Gatling stormwater improvements.

### 7.3.7 Hoggard Mill Water Storage

<b>Project Description</b>	<p>There is an opportunity through an existing dam structure to impound approximately 3-5 miles of water and reduce downstream impacts on developed areas, including Windsor. The project involves redevelopment of the existing dam structure and fortification of the levee wall according to findings from the Windsor Flood Reduction Feasibility Study. The potential downstream water reduction from this project alone is roughly 30%.</p> <ol style="list-style-type: none"> <li>1.Repair the existing Hoggard Mill embankment and spillway</li> <li>2.Construct new Hoggard Mill lower embankment and spillway</li> <li>3.Construct new Hoggard Mill lower and upper embankments and spillways</li> <li>4.Construct new Hoggard Mill lower embankment and spillway plus embankment and reservoir on the mainstem of the Cashie River</li> <li>5.Construct new Hoggard Mill lower and upper embankment and spillway plus a third embankment and reservoir on the mainstem of the Cashie River</li> </ol>
<b>Location</b>	Near intersection of Hoggard Mill Road and Greens Cross Road
<b>Source</b>	Hurricane Matthew Resilient Redevelopment Plan – Bertie County, Windsor Flood Mitigation Study
<b>Scoping Questions</b>	Will have to show multiple benefits/uses for the project, not just flood control.
<b>Hazard(s) Addressed by Project</b>	Precipitation-based flooding
<b>Type of Solution</b>	Safety and Security
<b>FEMA Community Lifelines</b>	Structure and Infrastructure
<b>Project Estimated Timeline</b>	3 years
<b>Responsible Entity</b>	Town of Windsor
<b>Potential Partners</b>	Bertie County
<b>Existing Funding</b>	Funding has been received for previous phases of this project, including land acquisition.
<b>Potential Funding Sources</b>	Building Resilient Infrastructure and Communities (BRIC)
<b>Project Estimated Cost</b>	High – \$1 million +
<b>Anticipated Benefit</b>	Medium – Action would have an impact on risk reduction.
<b>Priority Rating</b>	High

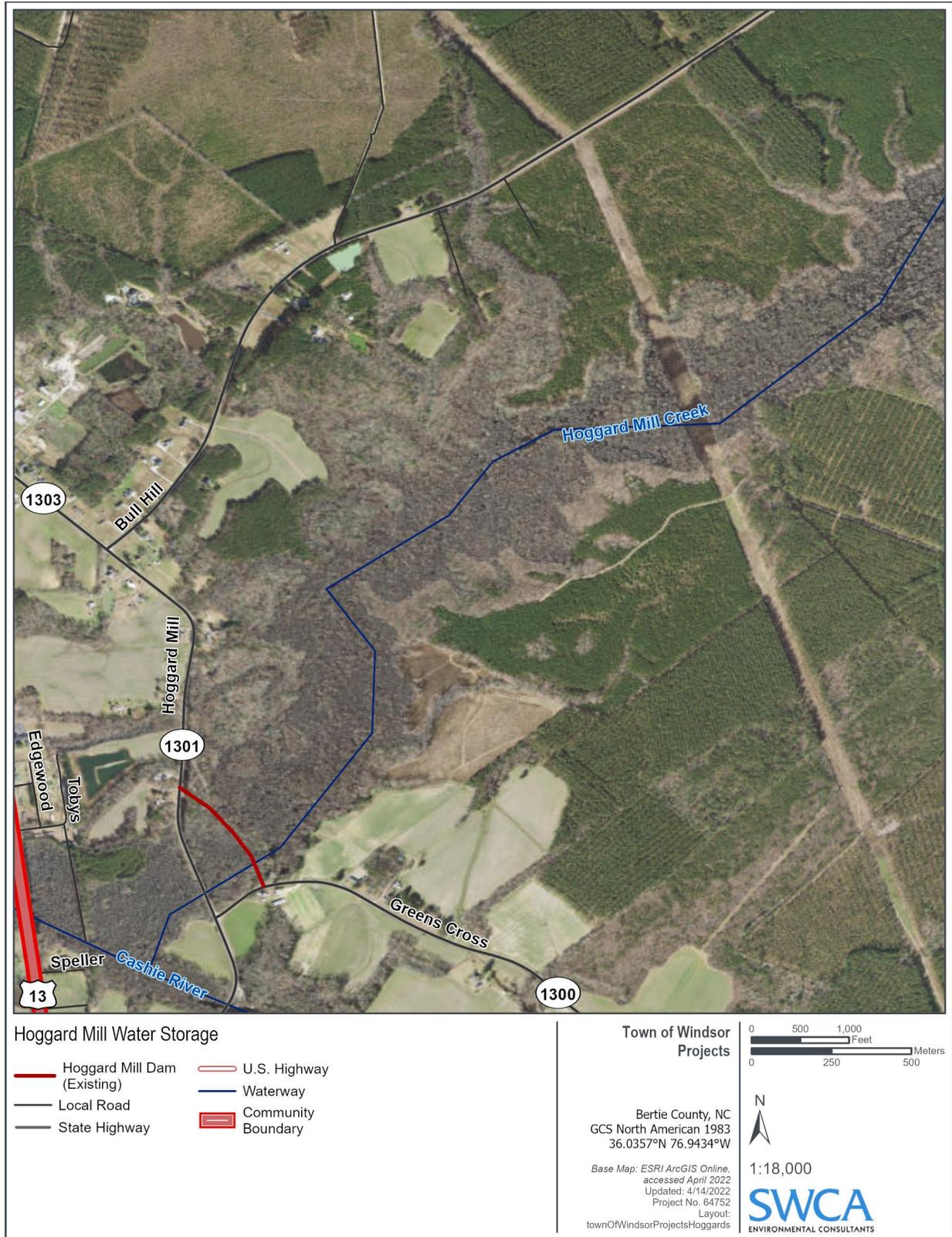


Figure 14. Location of Hoggard Mill water storage.

### 7.3.8 **Phased Water Infrastructure Upgrades**

<b>Project Description</b>	Elm Street Pump Station (highest priority) – Install wheeled generator that can be moved as needed to avoid damage. Elevate control panels. Water Street Pump Station – Install wheeled generator that can be moved as needed to avoid damage. Elevate control panels. Sutton Drive Well House (lowest priority) – Elevate the entire pump station to withstand future storm events.
<b>Location</b>	See Figure 15 below
<b>Scoping Questions</b>	Hurricane Matthew Resilient Redevelopment Plan – Bertie County
<b>Hazard(s) Addressed by Project</b>	Precipitation-based flooding, Storm surge, sea level rise
<b>FEMA Community Lifelines</b>	Safety and Security
<b>Type of Solution</b>	Structure and Infrastructure
<b>Project Estimated Timeline</b>	5-7 years
<b>Responsible Entity</b>	Town of Windsor
<b>Potential Partners</b>	
<b>Existing Funding</b>	None identified by CAT
<b>Potential Funding Sources</b>	Goldenleaf Grants (the town has used these previously to fund retrofit/elevation of a pump station), Clean Water State Revolving Fund, NCDEQ Water Resources Development Grant
<b>Project Estimated Cost</b>	Medium – \$150,000–\$250,000 (based on estimates provided in Hurricane Matthew Resilient Redevelopment Plan)
<b>Anticipated Benefit</b>	High – Action would have a significant impact on risk reduction.
<b>Priority Rating</b>	High

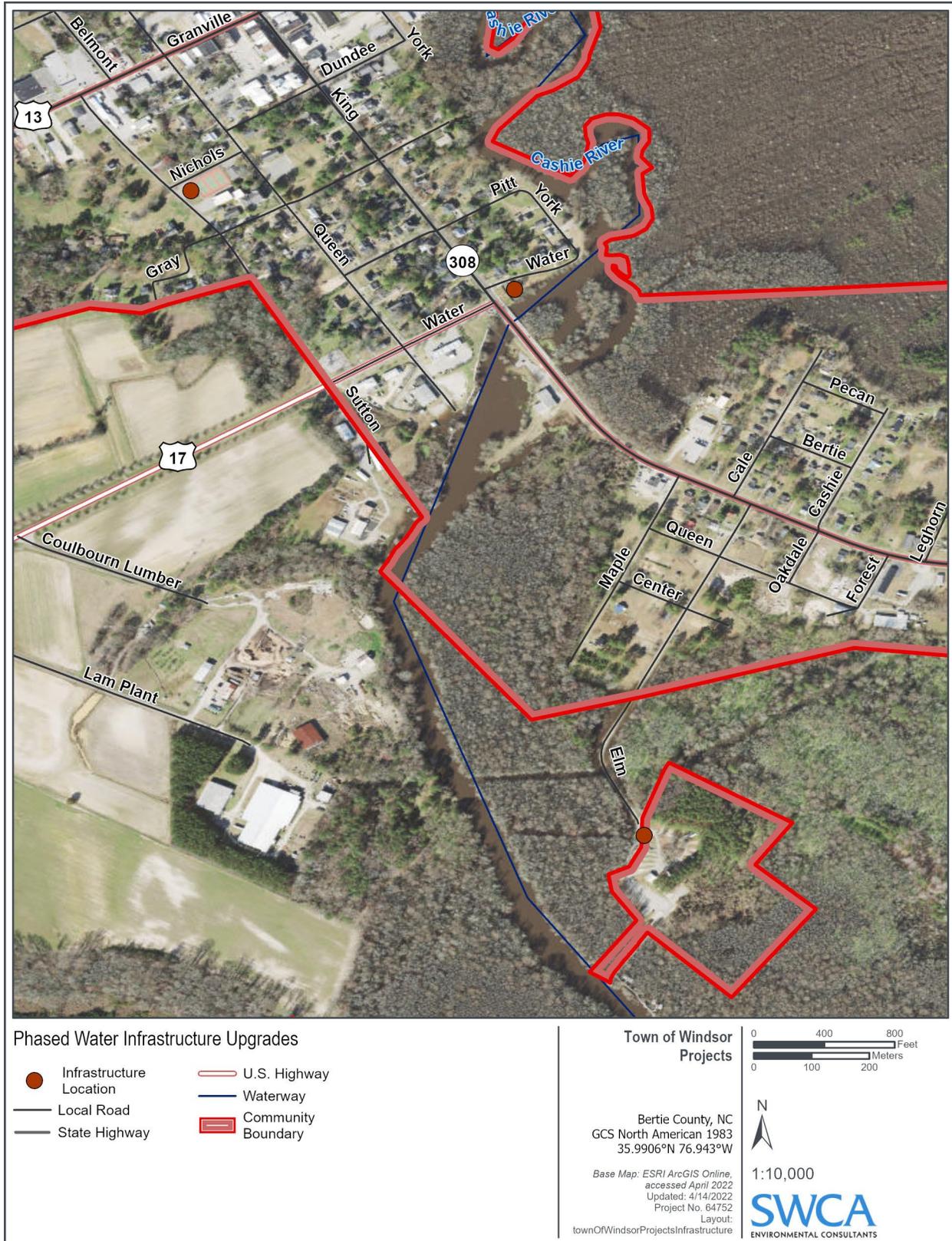


Figure 15. Locations of water infrastructure upgrades.