



22 New Britain

Community Overview

The City of New Britain encompasses 13.3 square miles of land area and is home to 73,206 residents as of the 2010 census, a population density of 5,504 people per square mile.

Elevation in New Britain ranges from approximately 60 to 430 feet. The central and northern sections of the City drain to the Park River, the western portion drains to the Quinnipiac River, and the southern portion drains to the Mattabeset River. Significant waterways other include the Quinnipiac River, Bass Brook, Piper Brook, Willow Brook, and Webster Brook.

New Britain is located at the junction of Interstate 84, Route 72, and Route 9. Its major businesses and industries include health care, State government, city government (including schools), and manufacturing. An active segment of the Hartford, Providence and Fishkill Railroad is operated by Pan Am Southern for freight between New Britain and Waterbury. CTfastrak, a regional Bus Rapid Transit System, has stations in New Britain.

The City is relatively built-out, with most recent commercial and industrial development occurring on properties that have previously been developed (either infill or redevelopment). One exception is the Costco that was recently built adjacent to Target on Route 71 on property that was formerly part of the Stanley Golf Course. Another exception is the Pinnacle Business Park; approximately 16 acres remain available for development. With only about 3% of its land remaining vacant, New Britain has focused on preservation of designated open spaces, encouraging low impact development, transportation oriented development, and neighborhood revitalization. Although nearly 1,500 new dwelling units could be built in the city under existing zoning, this level of development is unlikely to occur. Similarly, although there is the potential for 2.9 million square feet of additional commercial and industrial development under existing zoning, this level of development is unlikely to occur.

Critical Facilities

Critical Facilities throughout the Capitol Region are listed in Appendix B. In New Britain these include the Police Department (EOC), City Hall (Backup EOC), six Fire Stations, High School, EMS facility, and sewage pumping stations.

All critical facilities in the city have generators. The majority of these generators are relatively dated, including the generators on the following list:

- Two of the Fire Stations have generators that are more than 45 years old, two have generators that are 30 years old, two have generators that are between 10 and 30 years old, and the two newest fire station generators are both around 10 years.
- The Police Department generator is relatively new, but the EMS generator is closer to 10 years in age.

A new fuel cell has been installed at the High School, creating a local microgrid that is independent of Eversource Power and not vulnerable to regional power outages. The High School now has sufficient backup power capabilities to serve as an emergency shelter and the City is in the process of outfitting it as such. It is expected that the High School will become the City's primary shelter within the next five years.

Capabilities

New Britain has many emergency operation procedures in place to respond to the effects of natural hazards. In addition to maintaining an Emergency Operations Plan (updated annually) and an Emergency Operations Center, the City maintains shelters, has identified warming and charging stations, and has identified a variety of resources to assist with natural hazard event response. The City also maintains a training program for its emergency personnel. The City makes regular use of the statewide CT Alerts emergency notification system when residents need to be informed about a hazard event. The City has recently revamped its website and intends to add more information about preparedness and mitigation in the coming years. The City utilizes a radio system that allows for intra-department communication. The New Britain Fire Department also provides fire prevention training in school each year. Hazard mitigation is incorporated into the community's Plan of Conservation and Development (POCD). POCD actions specifically address natural hazards.

New Britain continually coordinates with Charter Oak State College and Central Connecticut State University regarding emergency procedures. Both schools have sheltering facilities that are utilized (primarily for their students) during emergencies.

City regulations limit any activities on floodplains that would increase flood heights and velocities or reduce or alter naturally occurring floodplains and catchment areas. The New Britain Flood and Erosion Control ordinance generally requires all new construction to locate its lowest floor at least two feet above Base Flood Elevation. All new culvert and bridge construction is designed using the most recent NRCC rainfall return periods in accordance with December 2014 CT DOT guidance.

New Britain pays close attention to its most vulnerable citizens, including people living under the poverty line, people with limited or no English proficiency, minorities, and people who are dependent on transit.

Removal of the ice and snow for city-owned roads is handled by a combination of city staff and contractors; the City handles debris removal. The City pre-treats hilly streets with salt before a big storm. The City has set plowing routes that are tweaked regularly; snow routes were updated in the last two years to focus on the two major arterial routes (north and south primaries) and other minor internal routes. The City has an informal program to review snow accumulation on city-owned roofs each winter, with clearing occurring when depths are sufficiently deep or wet.



The Greater New Britain Chamber of Commerce recommends that businesses prepare backup systems and have procedures for reaching out to their employees if they cannot access their place of work. After recent storms, many businesses have sought to become entirely self-sufficient so they do not need to rely on anyone else to get them up and running; many have purchased their own plows and backup generators. Following the recent storms, Eversource has increased their outreach to businesses as well as to the City.

Tree maintenance occurs on a daily basis. The Tree Warden is in charge of municipal trimming, has a full tree crew, and hires contractors for larger jobs. Much of the trimming near power lines is conducted by Eversource. City staff are currently working on a tree ordinance that, among other goals, will limit the amount of pruning Eversource performs. Staff have observed Eversource trimming trees “from sky to ground” in a method that is damaging the trees.

The City maintains mutual aid agreements with all surrounding communities for fire protection. The City does not maintain any dry hydrants or cisterns; public water system is available in nearly the entire city and is generally relied upon to provide fire protection. Tanker trucks are used when water is not immediately available. If necessary, the City can draft water from surface water sources. Section 8-36 of the municipal code bans open burning without a permit except for the use of outdoor wood-burning stoves. Three Open Burning Officials have been certified by the Connecticut DEEP Open Burning Program and oversee the local permit program.

The City of New Britain owns one Class C (high hazard) and one Class B (significant hazard) dam. Many lower-hazard dams in the City are City-owned, and the Water Department owns several water supply dams outside of city limits. The Water Department will drawdown the water level behind its dams in anticipation of a heavy rainfall event if necessary. The City has copies of Emergency Action Plans (EAPs) prepared for other dams whose failure could affect New Britain; this information is maintained by the Emergency Management Director.

New Capabilities

Since adoption of the 2016-2021 Hazard Mitigation Plan for the Former Central Connecticut Region (“2016 HMP”), FEMA added a new Quinnipiac River flood zone and the City officially adopted this zone in April 2017.

A study of the West Canal has identified two potential solutions to nuisance flooding alongside that feature, which primarily is sourced from groundwater. The first is to relocate a pipeline feeding the canal, and the second is to line the canal with a geo-textile fabric to stop any flow that may be coming from the canal and exacerbating the groundwater flooding. The former option is estimated to cost \$700,000 and the latter around \$200,000.

The City has replaced road drainage systems as part of road re-construction. Improvements undertaken in recent years include Hart Street from Corban Avenue to Lynwood Street, and Broad Street from Horace to Burritt Street. Both of these systems were old and undersized, as are several other stormwater drainage systems in the City. The City has put in bonding



requests to fund upsizing of sanitary sewers in the area of Allen Street and Stewart street, but has yet to receive sufficient funds.

A new fuel cell has been installed at the High School, moving it towards designation as an emergency shelter.

New Britain previously had a Community Emergency Response Team (CERT) that assisted city personnel, supported emergency response functions, staffed the emergency shelter, and engaged with the community about disaster preparedness; however the CERT has been dissolved due to a lack of training capacity.

The City is in the process of instituting a vehicle tracking program which will allow emergency managers to track response vehicles in the field and be able to accurately plot downed trees, fires, and plowing conditions. This system will assist with data tracking and archiving information for future retrieval.

The City has implemented a SeeClickFix program to track resident complaints. The City also has a dispatch area where complaints are received and then dispatched to various agencies such as public works, utility division, and engineering.

Challenges

Challenges Overview

The top three natural hazards that present a high risk to New Britain include winter storms and tropical storms/hurricanes.

Webster Brook, Bass Brook, and the Quinnipiac River all produce minor flooding at times, while Willow Brook and West Canal can create more frequent and severe flooding problems. Areas of the city in or adjacent to flood zones tend to be heavily populated. Willow Brook in the southern section of the city generally causes the most severe flood damage; overflow from the brook floods a neighborhood where 60-80 properties are affected, as well as the New Britain stadium. The City has performed several projects along Willow Brook related to flood conveyance and bank protection. City staff indicate that there are not any good engineering solutions to the flooding along Willow Brook, and flooding is primarily caused by the volume of storm drainage. In general, repetitive loss properties are only affected during the very large rain events. Drainage is reportedly adequate for the typical smaller rain events.

West Canal is another source of frequent flooding in the city, although it is undocumented on FEMA's Flood Insurance Rate Maps (FIRMs) due to its high elevation. The West Canal directs water to Shuttle Meadow Reservoir. It is an open channel which includes a piped section. Homeowners have occasionally been affected by flooding when the canal overtops, and have observed water apparently leaking from the canal onto their properties. A study was performed showing that most of this apparent leakage was in-fact coming from groundwater.



The 1992 storm caused the canal (built in 1908) to breach; flooding washed out nearby streets and inundated homes.

Allen Street is an area outside of the floodplain that regularly floods due to undersized storm drains with design issues. Temporary sidewalks are in place. John Downing Drive near Newington is another flood-risk zone.

Drainage infrastructure and water and sewer lines throughout the City are in need of major upgrades. The majority of the infrastructure was constructed in or around 1872 and was not designed to support the level of development the city has seen. Undersized pipes result in flooding, sewer backups, system leaks, and other problems.

Areas typically prone to wind damage are Walnut Hill and Stanley Golf Course.

New Britain does not typically experience wildfires as the city is extensively developed. Less developed areas in New Britain highest risk for a wildfire, particularly the open lands near Interstate 84 and undeveloped lands in the southwestern corner of the city near Shuttle Meadow Reservoir.

Two Class C (high hazard) dams lie within the city boundaries. These include the Shuttle Meadow Reservoir dam and the dam at Stanley Quarter Park.

Hazard Losses

The economic losses faced by the community from natural hazards can be estimated by reviewing historic, and modeling future, loss figures. Loss estimates are summarized below.

Historic FEMA Payments

FEMA reimburses communities for hazard losses through programs including Public Assistance (PA) and the National Flood Insurance Program (NFIP). Combining PA and private flood insurance payments can give an estimate for total losses to a community.

A total of \$424,247.91 has been paid out to NFIP-insured properties for 103 total losses through August 2017. New Britain has 14 repetitive loss (RL) properties which have made 35 claims to the NFIP totaling \$264,340.

Total PA reimbursements to the community were as follows:

- Flood Events: \$273,706 (\$14,406 annually)
- Hurricane Events: \$85,991 (\$4,526 annually)
- Winter Storm Events: \$3,544,880 (\$186,573 annually)

These are summarized in the tables below.



Table 22-1: Flood Event PA Reimbursements, New Britain

Incident	Sep 1999	Oct 2005
Declaration	9/23/1999	12/16/2005
Disaster No.	1302	1619
Entity	FEMA PA Reimbursement	
State	\$9,738	\$32,239
Municipal	\$39,164	\$113,517
Nonprofit	\$0	\$79,048
Total	\$48,902	\$224,804
Annualized	\$2,574	\$11,832

Table 22-2: Hurricane Wind Event PA Reimbursements, New Britain

Incident	Aug - Sep 2011 (T.S. Irene)
Declaration	9/2/2011
Disaster #	4023
Entity	FEMA PA Reimbursement
State	\$10,877
Municipal	\$75,114
Nonprofit	\$0
Total	\$85,991
Annualized	\$4,526

Table 22-3: Winter Storm PA Reimbursements, New Britain

Incident	Mar 2003	Dec 2003	Jan 2005	Feb 2006	Jan 2011	Oct 2011	Feb 2013
Declaration	3/11/03	1/15/04	2/17/05	5/2/06	3/3/11	11/17/11	3/21/13
Disaster #	3176	3192	3200	3266	1958	4046	4106
Entity	FEMA PA Reimbursement						
State	\$63,474	\$56,902	\$75,760	\$91,118	\$221,132	\$53,739	\$462,827
Municipal	\$100,831	\$70,414	\$146,393	\$126,627	\$169,593	\$747,356	\$412,598
Nonprofit	\$0	\$49,383	\$84,098	\$127,236	\$30,872	\$440,835	\$13,695
Total	\$164,305	\$176,698	\$306,251	\$344,981	\$421,596	\$1,241,930	\$889,120
Annualized	\$8,648	\$9,300	\$16,118	\$18,157	\$22,189	\$65,365	\$46,796

National Centers for Environmental Information Losses

The table below summarizes events in the National Centers for Environmental Information (NCEI) severe storm database that were specifically noted as having impacted the community since 2012.



Table 22-4: NCEI Database Losses since 2012, New Britain

Date	Event	Property Damage
7/18/2012	Lightning Hail	\$10,000 \$0
7/18/2012	Flood	\$10,000
8/5/2012	Flood	\$0
9/8/2012	Thunderstorm Wind	\$5,000
9/18/2012	Flood	\$0
9/2/2013	Flood	\$5,000
7/3/2014	Thunderstorm Wind	\$12,000
2/25/2016	Thunderstorm Wind	\$2,000
7/18/2016	Thunderstorm Wind	\$5,000
7/22/2016	Thunderstorm Wind	\$30,000
6/27/2017	Hail	\$0
Total Thunderstorm		\$64,000
Total Flood		\$15,000

NCEI losses under other event categories (such as drought, high wind, flooding, and winter storms) were not specifically noted as impacting this community, though they did impact Hartford County and nearby towns. NCEI losses are reported in Section II of this Plan.

HAZUS-MH Losses

CRCOG used FEMA’s Hazus-MH model to analyze the risks that the community might face from flooding, hurricanes, and earthquakes. The model estimates economic losses to the City due to damage to buildings and building contents, as well as other economic disruptions. Both residential and commercial structures are addressed. Losses from different hazards are summarized below. Where available, estimates from the previous and current versions of the HMP are provided side-by-side; differences between the two may have been caused by a combination of the following:

- Changes in methodology: such as hazard zone mapping
- Changes in data: such as population and property values
- Changes in the model: this HMP utilized Hazus-MH version 4.0 rather than 2.1
- Other factors: inherent in a complex software like Hazus-MH

More details are available in the Multi-Jurisdictional HMP. Ultimately, changes in the loss estimates reflect the reality that small differences in hazard event features can have a significant impact on losses incurred.



Table 22-5: Estimated Damages to New Britain from a 1% Annual-Chance Flood

Loss Type	2014 Results	2018 Results
Households Displaced	1,027	500
People Needing Shelter	2,419	826
Buildings at Least Moderately Damaged	73	0
Economic Losses		
Residential Building & Content Losses	\$29,830,000	\$18,343,005
Other Building & Content Losses	\$64,440,000	\$14,132,951
Total Building & Content Loss	\$94,270,000	\$32,475,956
Total Business Interruption Losses	\$440,000	\$1,111,270
TOTAL	\$94,700,000	\$33,587,225

Table 22-6: Estimated Damages to New Britain from a 1% Annual-Chance Hurricane

Loss Type	2014 Results (1938 event)	2018 Results (1% track)
Buildings at Least Moderately Damaged	7,271	3
Buildings Completely Damaged	61	0
Total Debris Generated	333,729	3049
Truckloads (at 25 tons/truck) of building debris	13,349	122
Economic Losses		
Residential Building & Content Losses	\$229,324,530	\$12,875,703
Other Building & Content Losses	\$51,927,310	\$530,353
Total Building & Content Loss	\$281,251,840	\$13,406,056
Total Business Interruption Losses	\$6,174,330	\$877,755
TOTAL LOSSES	\$287,426,170	\$14,283,811

Losses were calculated from a modeled probabilistic earthquake (1% annual-chance of occurrence), as well as for four specific scenarios with epicenters around Connecticut.

Table 22-7: Estimated Damages to New Britain from a Probabilistic Earthquake

Loss Type	2018 Results
Wage Loss	\$9,442
Rent Loss	\$10,517
Relocation Loss	\$14,018
Income Loss	\$6,377
Inventory Loss	\$1,153
Total Business Disruption	\$41,506
Structural Loss	\$27,969
Non-Structural Loss	\$91,826
Total Building Loss	\$119,795
Total Content Loss	\$34,334
TOTAL LOSSES	\$195,635



Table 22-8: Estimated Damages to New Britain from Modeled Earthquake Scenarios

Epicenter Location	Magnitude	Estimated Total Losses
East Haddam	6.4	\$1,288,631.63
Haddam	5.7	\$403,505.70
Portland	5.7	\$2,122,621.09
Stamford	5.7	\$23,460.95

Other Hazard Costs

A storm from June 1992 caused widespread damage in the city totaling approximately \$650,000.

Following the breach of the West Canal during the 1992 storm, the City paid out \$30,000 in damages to homeowners who were not eligible for reimbursements under the NFIP.

Average Annualized Losses

Average Annualized Loss (AAL) figures are useful tools for comparison of the risks faced from different hazards with different likelihoods of occurring in a given time period. AAL estimates were prepared for New Britain based on the methodologies discussed in Section II of the Multi-Jurisdictional HMP. Dam failure, drought, tornado, and wildfire losses were sourced from the 2014 Connecticut Natural Hazard Mitigation Plan Update, with dam failure data supplemented by the National Performance of Dams Program and the Connecticut Department of Energy & Environmental Protection. Earthquake and hurricane losses were calculated in HAZUS-MH. Losses for flooding came from NFIP claims, for winter storms from Public Assistance Reimbursements, and for thunderstorms from the NCEI database. These are presented in the table below in thousands of dollars per year. Note that Hurricanes and Tropical Storms represent the largest share of total annualized losses.

Table 22-9: Average Annualized Losses, New Britain

Dam Failure	Drought	Earthquakes	Flooding	Hurricanes and Tropical Storms	Severe Winter Storms	Thunderstorms	Tornadoes	Wildfires	Total
\$131	\$0	\$195,635	\$25,570	\$4,589,178	\$186,573	\$9,723	\$1,074,069	\$2,489	\$6,083,367

Losses Summary

A review of the above loss estimates demonstrates that the City of New Britain has experienced significant expenses as a result of natural hazards, and is at risk for additional losses if some of the less-frequent events were to occur. These actual and potential losses justify hazard mitigation actions to reduce losses in the future.



Mitigation Strategies and Actions

Noted Hazard Mitigation Needs

During the course of this Plan development, multiple hazard mitigation needs of New Britain were noted. These are discussed here.

- The City would like to upgrade the generator to allow for the High School to act as a regional shelter with a capacity of 1000 people. While the city has sufficient shelter supplies at present, it would like more and would need more to stock a regional shelter. The City recognizes that most residents choose to shelter in place if possible, and recommends they stock three days of supplies.
- The City would like a new portable generator to provide backup to a 30-year old portable unit used to power the sewage pumping station. A permanent generator at this location would be preferred.
- There is a need for additional tree warden training.
- There is a need for additional and improved snow removal equipment, specifically more street plows, snow blowers, and heavy duty trucks. The Fire Department does not have four wheel drive equipment.
- Upsizing of sanitary sewers in the area of Allen Street and Stewart street is necessary, if funding can be obtained.
- A permanent generator at the Steele Street pump station would help maintain fire protection during power outages. An engineering consultant has already been consulted on this project.
- New Britain has a prioritized list of stormwater projects. The Town will pursue these projects in priority order. The top ten of these are as follows:
 1. Poplar Street at Sefton Drive
 2. Wells Street at Sefton Drive
 3. Barbour Road at #50
 4. Huber Street at Stanley
 5. Blake Road hollow
 6. Blake Road at McClintock Street
 7. Black Road east of Farmington Avenue
 8. Eddy Glover Boulevard at #358
 9. Allen Street between Lawlor and Tremont at the First National store
 10. Farmington avenue at #213, south of Biruta Street

Status of Previous Mitigation Strategies and Actions

The City of New Britain reviewed the mitigation actions proposed in the 2016 HMP and determined the status of each. That information is included in the table below.



Table 22-10: Status of Previous Mitigation Strategies and Actions, New Britain

Action #	Action	Notes	Status
GOAL: REDUCE LOSSES OF LIFE AND PROPERTY, AND MINIMIZE ECONOMIC CONSEQUENCES OF NATURAL HAZARDS			
Objective 1: Improve Municipal Response Capabilities			
1.1	Acquire generators to provide reliable backup power for critical facilities. The City has identified several backup generator needs. Two fire stations have generators greater than 45 years old, two others are 30 years old, and two others are more than 10 years old. The City would also like a new portable generator to provide backup to an existing 30-year old portable generator that is used to power the sewer pumping station during outages. Alternatively, a permanent generator for the sewer pumping station is desired.	Fire station is in the process of replacing generators with grant funding, two are scheduled for replacement next year, and one has no funding in place yet. Also, there are two others that have generators over 10 years old. Water Department has plans to add new generators. City needs portable generator for sewer pump station.	Carry Forward with Revisions
1.2	Upgrade generator at High School and outfit facility to act as regional shelter. The City wishes to upgrade the generator at the High School to be able to power more than a minimal part of the building. The High School would then be able to be used as a regional shelter that could house up to 1,000 people during and following disasters. Additional shelter supplies will be needed to outfit the shelter to that scale.	High school has a fuel cell that was funded through CT Green Bank that was obtained last year. No need of a generator.	Completed
1.3	Incorporate updated hazard mitigation information into community plan updates. Hazard mitigation information will be incorporated into future plan updates such as the POCD.	Continue action. POCD last updated in 2010. This action may be undertaken within the next update to the POCD (i.e., 2020).	Carry Forward
Objective 2: Enable residents to better help themselves through preparedness education			
2.1	Develop and distribute pamphlet about preparedness for residents and post on City website. The City wishes to prepare an emergency preparedness pamphlet for all residents in three languages (English, Polish, and Spanish).	No work done to date due to staffing and budget limitations.	Carry Forward
2.2	Add information about preparedness, mitigation, and City capabilities to the City website. The City is in the process of increasing the amount of information on its website. The website will be updated to include sections discussing preparedness for and mitigation of natural hazard impacts.	No work done to date due to staffing and budget limitations.	Carry Forward
2.3	Encourage sign-ups for the CT Alerts emergency notification system. The City uses CT Alerts to provide a city-wide emergency notification system. Targeted mailings may be used to encourage signups in particularly vulnerable areas, such as special flood hazard areas and dam failure inundation areas.	Links and information available on City website. Targeted mailings not carried out to date.	Carry Forward with Revisions



Action #	Action	Notes	Status
Objective 3: Upgrade aging infrastructure to improve City's capacity to deal with inundation			
3.1	Enact flooding mitigation measures identified by the City consultant related to the West Canal. The City Water Department has a consultant studying flooding along the canal, which the Water Department believes are related to a high water table. The City should enact any reasonable flood mitigation measures that are identified by the consultant.	<p>Consultant has completed study, and determined that, while some water flooding properties comes from the canal, the majority comes from base flow or groundwater.</p> <p>A number of mitigation options have been explored. Relocation by 2,500 feet of a pipeline that feeds the canal is estimated to cost \$700,000. Lining the canal with a geo-textile fabric to mitigate flow from the canal is estimated to cost \$150-200 thousand.</p>	Carry Forward with Revisions
3.2	Perform targeted upgrades of aging and undersized drainage infrastructure throughout the city. The majority of infrastructure in the city was installed in or around 1872 and is undersized. The City plans to identify the most important systems to upgrade and begin devoting funding to the work.	The City performs these upgrades as part of its standard operations. This is a capability.	Capability
3.3	Encourage the City of Hartford to perform repairs to Batterson Park Pond Dike. Batterson Park Pond Dike was listed as being in "Poor" condition on the 2013 Connecticut DEEP dam summary list. City officials will contact the City and Connecticut DEEP to encourage repairs to reduce the likelihood of failure.	City feels that Hartford and CT DEEP are aware of the Batterson Park Dike condition and are capable of addressing issues. Action no longer necessary.	Drop
Objective 4: Align planning policies with affected areas			
4.1	Incorporate natural hazard mitigation planning into the 2020 POCD update. The New Britain POCD will be updated for 2020-2030 in a few years. The City intends to incorporate elements of natural hazard mitigation into the plan update.	Redundant with Action 1.3. Drop	Drop
4.2	Incorporate updated hazard mitigation information into community plan updates. Hazard mitigation information will be incorporated into future plan updates of other planning documents.	Redundant with Action 1.3. Drop	Drop



Action #	Action	Notes	Status
4.3	Participate in the statewide Water Utility Coordinating Committee process. The Connecticut DPH is preparing a Coordinated Water Supply Plan for the entire state beginning in 2016. The City Water Department will participate to address drought-related public water supply needs throughout the community.	New Britain is participating in WUCC process as a member of the Central WUCC. Drought concerns include changing rainfall patterns with more rainfall occurring in spot events and more time between rainfall events, resulting in drier soils, lower groundwater tables, and potential impacts to groundwater safe yield. Monthly WUCC meetings ended in June 2018 and return to an irregular schedule. This is a capability.	Capability
4.4	Ensure local officials have most updated version of the Connecticut Drought Management Plan. The Connecticut Drought Management Plan is periodically updated. Local officials, land use commissions, health departments, fire departments, and local water utilities should all be made aware of updates to this plan.	Current Drought Plan is still from 2003, update is still in development. City will make local officials aware of the newest plan when it is released.	Capability
Objective 5: Mitigate impacts to properties in the National Flood Insurance Program			
5.1	Work with RLP owners to mitigate RLPs upon property owner's request. Repetitive loss properties in New Britain are typically only damaged during severe flood events. 14 repetitive loss properties are located in New Britain that have experienced 35 flood losses. Mitigation could include acquisition/demolition, elevation, floodproofing, or other techniques.	City will work with property owners if approached. This is a capability. Current RL data indicates 9 RL properties.	Capability
5.2	Update the local floodplain management ordinance to meet current model ordinance requirements. The City of New Britain last updated this ordinance in 2008. Since that time, FEMA and the Connecticut DEEP have revised the model ordinance.	Ordinance was updated in April 2017, Quinnipiac River Watershed was the latest addition in flood zones. Green regulations are also in place as part of 2008 municipal standards for construction, which are referenced in DEEP's Stormwater Manual. Consultants working with the City on regulations relating to MS4 permit to ensure compliance with the permit requirements.	Completed



Action #	Action	Notes	Status
5.3	Work with property owners to mitigate flood damages when grant funding is available. 60-80 buildings are considered floodprone along Willow Brook as well as in other parts of the city. The City will work with property owners to perform localized or neighborhood mitigation actions upon property owner request when grant funding is available. Mitigation could include acquisition/demolition, elevation, floodproofing, or other techniques.	Remove action. Fifteen years ago cleared all trash, re-excavated channels in Hollow Brook, modified the spillway, etc. No major flooding issues since then.	Drop

Active Mitigation Strategies and Actions

The City proposed to initiate several new mitigation actions for the upcoming five years. Additionally, a number of actions from the previous planning period are being carried forward or replaced with revised actions. These are listed below.

Each of the following actions has been prioritized based on FEMA guidelines, listed from highest to lowest priority, and numbered.

<i>Action #1</i>	
Enter the Sustainable CT program through Registration and review actions that can be undertaken to pursue Certification. Make progress with the actions related to hazard mitigation.	
Goal	4. Increase the use of natural, “green,” or “soft” hazard mitigation measures, such as open space preservation and green infrastructure.
Category	Natural Resources Protection
Lead	Planning
Cost	\$0 - \$10,000
Funding	Town Operating Budget
Timeframe	01/2019 - 12/2019
Priority	High

<i>Action #2</i>	
Acquire a permanent generator at the Steele Street Pump Station to maintain fire protection in that area.	
Goal	5. Improve the resilience of local and regional utilities and infrastructure using strategies including adaptation, hardening, and creating redundancies.
Category	Preparedness & Emergency Response
Lead	Emergency Management
Cost	\$10,000 - \$25,000
Funding	Town Operating Budget / DEMHS
Timeframe	01/2019 - 12/2020
Priority	High



Action #3

Address the section of Willow Brook bank near the soccer fields that is washed out.

Goal	1. Minimize the impact of natural hazards on physical buildings and infrastructure
Category	Structural Projects
Lead	Public Works
Cost	\$50,000 - \$100,000
Funding	Town Operating Budget / Grants
Timeframe	07/2021 - 06/2022
Priority	High

Action #4

Address damaged retaining walls along the brook at Stanley Quarter Park.

Goal	1. Minimize the impact of natural hazards on physical buildings and infrastructure
Category	Structural Projects
Lead	Public Works
Cost	\$50,000 - \$100,000
Funding	Town Operating Budget / Grants
Timeframe	07/2021 - 06/2022
Priority	High

Action #5

Implement dam repairs at Stanley Quarter Park.

Goal	1. Minimize the impact of natural hazards on physical buildings and infrastructure
Category	Structural Projects
Lead	Public Works
Cost	\$50,000 - \$100,000
Funding	Grants
Timeframe	07/2021 - 06/2022
Priority	High



Action #6

Upsize storm drains in Allen street to increase capacity. Designs are in place, implementation is grant dependent.

Goal	1. Minimize the impact of natural hazards on physical buildings and infrastructure
Category	Structural Projects
Lead	Public Works
Cost	More than \$100,000
Funding	Grants
Timeframe	07/2022 - 06/2023
Priority	High

Action #7

Conduct outreach to local small businesses with the aim of preventing the accidental release and pollution from chemicals stored and used at their facilities during or following natural hazard events.

Goal	6. Improve public outreach, education, and warning systems
Category	Education & Awareness
Lead	Planning, in coordination with DEEP
Cost	\$0 - \$10,000
Funding	Materials & Resources Provided by CT DEEP
Timeframe	01/2019 - 12/2019
Priority	Medium

Action #8

Develop a prioritized list of needed acquisitions, upgrades, and maintenance of critical facility generators.

Goal	7. Improve the emergency response capabilities of the region and its communities
Category	Preparedness & Emergency Response
Lead	Emergency Management
Cost	\$0 - \$10,000
Funding	Town Operating Budget
Timeframe	01/2020 - 12/2020
Priority	Medium



Action #9

Coordinate with NEMO and CRCOG to share resources and gain technical support for hazard mitigation actions involving stormwater management and public outreach, which have parallel benefits related to MS4 stormwater permit compliance.

Goal	1. Minimize the impact of natural hazards on physical buildings and infrastructure
Category	Prevention
Lead	Public Works
Cost	\$0 - \$10,000
Funding	Town Operating Budget
Timeframe	01/2020 - 12/2020
Priority	Medium

Action #10

Participate in EMI courses or the seminars and annual conference held by the Connecticut Association of Flood Managers.

Goal	3. Improve institutional awareness and understanding of natural hazard impacts and mitigation within municipal governments and other decision-making bodies
Category	Education & Awareness
Lead	Planning
Cost	\$0 - \$10,000
Funding	Town Operating Budget
Timeframe	07/2019 - 06/2024
Priority	Medium

Action #11

Incorporate natural hazard mitigation planning into the 2020 POCD update.

Goal	2. Ensure Municipal Codes and Regulations support hazard mitigation
Category	Prevention
Lead	Planning
Cost	\$10,000 - \$25,000
Funding	Town Operating Budget / Grants
Timeframe	01/2019 - 06/2020
Priority	Medium



Action #12

Implement plan to line west canal with geo-textile fabric to mitigate flooding from that source. Monitor the effectiveness of this measure and determine whether additional studies need to be performed to address flooding from groundwater.

Goal	1. Minimize the impact of natural hazards on physical buildings and infrastructure
Category	Structural Projects
Lead	Public Works
Cost	More than \$100,000
Funding	Grants
Timeframe	07/2022 - 06/2024
Priority	Medium

Action #13

Acquire a portable generator for sewer pumping stations.

Goal	5. Improve the resilience of local and regional utilities and infrastructure using strategies including adaptation, hardening, and creating redundancies.
Category	Preparedness & Emergency Response
Lead	Emergency Management
Cost	More than \$100,000
Funding	Town Operating Budget / DEMHS
Timeframe	01/2022 - 12/2024
Priority	Medium

Action #14

Contact the owners of Repetitive Loss Properties and nearby properties at risk to inquire about mitigation undertaken and suggest options for mitigating flooding in those areas. This should be accomplished with a letter directly mailed to each property owner.

Goal	1. Minimize the impact of natural hazards on physical buildings and infrastructure
Category	Property Protection
Lead	Planning
Cost	\$0 - \$10,000
Funding	Town Operating Budget / DEMHS
Timeframe	07/2021 - 06/2022
Priority	Low



Action #15

Add information about preparedness, mitigation, and City capabilities to the City website.

Goal	6. Improve public outreach, education, and warning systems
Category	Education & Awareness
Lead	Emergency Management
Cost	\$0 - \$10,000
Funding	Town Operating Budget
Timeframe	01/2021 - 12/2022
Priority	Low

Action #16

Develop an emergency preparedness pamphlet for residents in English, Polish, and Spanish, distribute to residents, and post on City website.

Goal	6. Improve public outreach, education, and warning systems
Category	Education & Awareness
Lead	Emergency Management
Cost	\$0 - \$10,000
Funding	Town Operating Budget
Timeframe	01/2021 - 12/2022
Priority	Low

Action #17

Coordinate with CT SHPO to conduct outreach to historic property owners to educate them on methods of retrofitting their properties to be more hazard-resilient while maintaining historic character.

Goal	8. Ensure community character and social equity are addressed in mitigation activities
Category	Education & Awareness
Lead	Planning, in coordination with SHPO
Cost	\$0 - \$10,000
Funding	SHPO
Timeframe	01/2021 - 12/2022
Priority	Low



Action #18

Identify and send the City Tree Warden to relevant training opportunities. Contact the UConn Extension for assistance.

Goal	3. Improve institutional awareness and understanding of natural hazard impacts and mitigation within municipal governments and other decision-making bodies
Category	Prevention
Lead	Public Works
Cost	\$0 - \$10,000
Funding	Town Operating Budget
Timeframe	07/2021 - 06/2022
Priority	Low

Action #19

Work with CT DEEP to complete a formal validation of the Repetitive Loss Property list and update the mitigation status of each listed property.

Goal	1. Minimize the impact of natural hazards on physical buildings and infrastructure
Category	Property Protection
Lead	Planning
Cost	\$10,000 - \$25,000
Funding	Town Operating Budget / CT DEEP / DEMHS
Timeframe	07/2021 - 06/2023
Priority	Low

Action #20

Coordinate with CT SHPO to conduct historic resource surveys, focusing on areas within natural hazard risk zones (such as flood or wildfire hazard zones and areas near steep slopes), to support identification of vulnerable historic properties and preparation of resiliency plans across the state. This action leverages existing resources and best practices for protection of historic and cultural resources through an ongoing statewide initiative by CT SHPO.

Goal	8. Ensure community character and social equity are addressed in mitigation activities
Category	Property Protection
Lead	Planning, in coordination with SHPO
Cost	\$10,000 - \$25,000
Funding	SHPO
Timeframe	07/2021 - 06/2023
Priority	Low



Action #21

Use targeted mailings to particularly vulnerable areas, such as special flood hazard areas and dam failure inundation areas, to encourage signups for the CT Alerts emergency notification system.

Goal	6. Improve public outreach, education, and warning systems
Category	Education & Awareness
Lead	Emergency Management
Cost	\$10,000 - \$25,000
Funding	Town Operating Budget
Timeframe	01/2021 - 12/2023
Priority	Low

Action #22

Dredge pond at Stanley Quarter Park.

Goal	4. Increase the use of natural, "green," or "soft" hazard mitigation measures, such as open space preservation and green infrastructure.
Category	Prevention
Lead	Public Works
Cost	\$25,000 - \$50,000
Funding	Grants
Timeframe	01/2023 - 12/2024
Priority	Low





Capitol Region Natural Hazards Mitigation Plan Update

New Britain, Connecticut

Flood Plains, Dams & Critical Facilities

Critical Facilities

-  Emergency Center
-  Fire Station
-  Healthcare Facility
-  Police Station
-  Public Infrastructure
-  School
-  State Facility
-  Town Facility
-  Waste Water Facility
-  NRHP Buildings/Sites
-  NRHP Districts/Areas

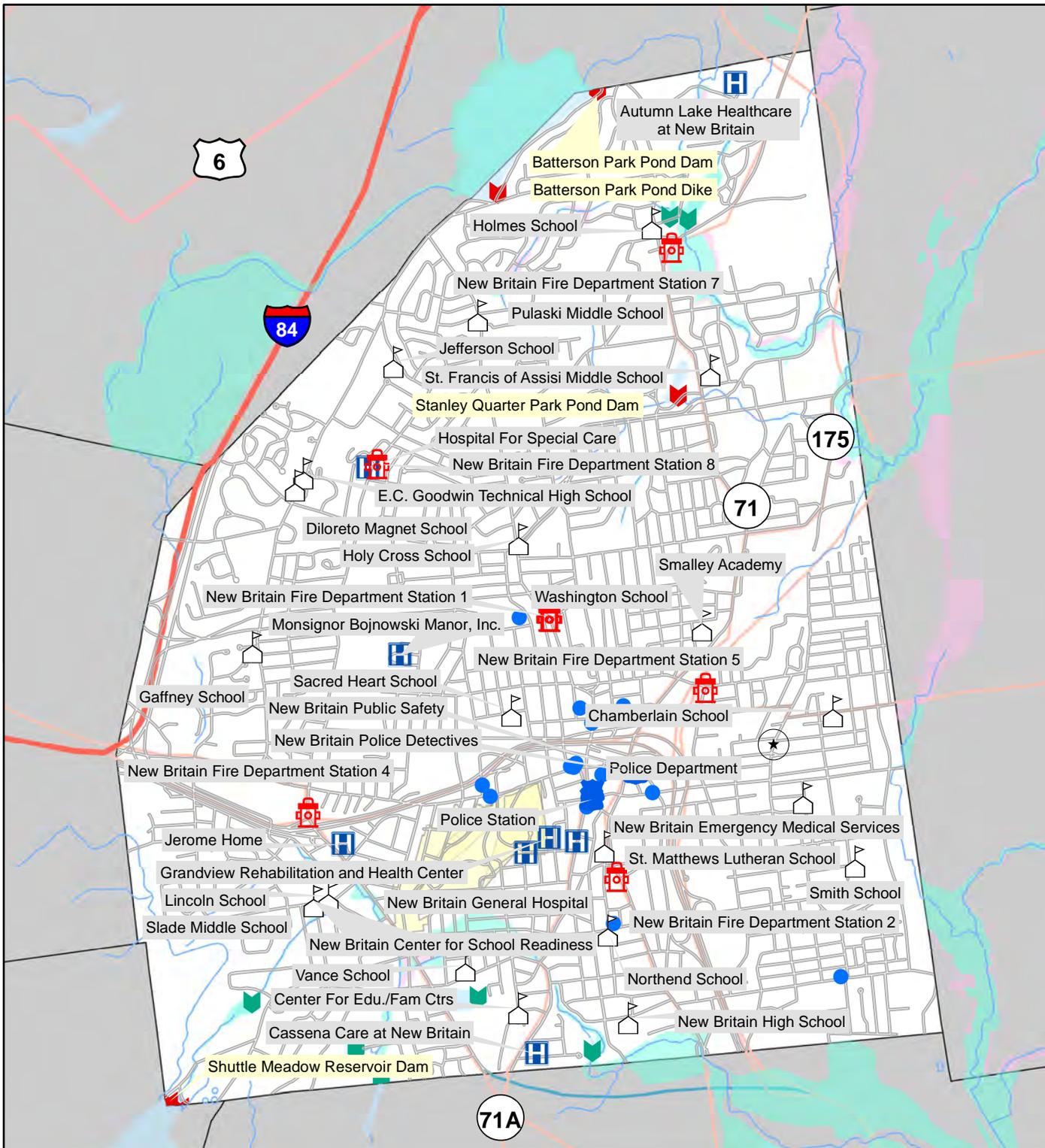
Dam Hazard Class

-  A, AA, BB or Unclassified
-  Class C- High Hazard

FEMA Flood Hazard Area

-  100 Year Flood Zone
-  500 Year Flood Zone

Data Sources: FEMA, National Register of Historic Places, CT DEEP, CRCOG, ESRI



Capitol Region Natural Hazards Mitigation Plan Update

New Britain, Connecticut

Dam Breach Inundation Areas & Critical Facilities

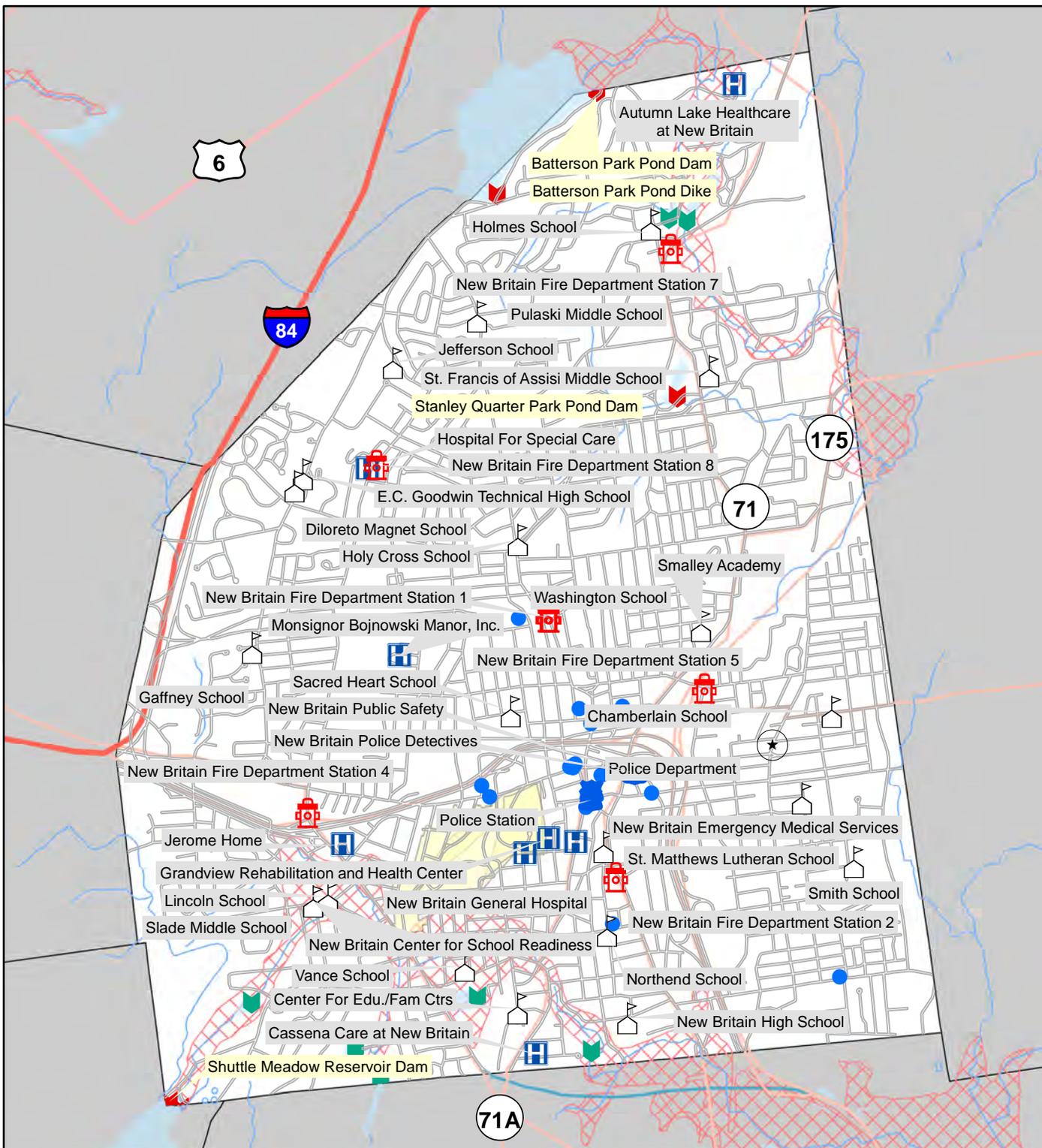
Critical Facilities

-  Emergency Center
-  Fire Station
-  Healthcare Facility
-  Police Station
-  Public Infrastructure
-  School
-  State Facility
-  Town Facility
-  Waste Water Facility
-  NRHP Buildings/Sites

 NRHP Districts/Areas

Dam Hazard Class

-  A, AA, BB or Unclassified
-  Class C- High Hazard
-  Dam Breach Inundation Areas



Data Sources: FEMA, National Register of Historic Places, CT DEEP, CRCOG, ESRI

