



Town of Trumbull



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Community Resilience Building Workshop Summary of Findings April 2019

Town of Trumbull

Community Resilience Building Workshop

Summary of Findings

Overview

The need for municipalities, regional planning organizations, states and federal agencies to increase resilience and adapt to extreme weather events and a changing climate is strikingly evident amongst the communities across the state of Connecticut. Recent events such as Tropical Storm Irene and Sandy have reinforced this urgency and compelled leading communities like the Town of Trumbull to proactively collaborate on planning and mitigating risks. Ultimately, this type of leadership is to be commended because it will reduce the vulnerability of municipal residents, infrastructure, and ecosystems and serve as a model for other communities in Connecticut, New England, and the Nation.

In 2018, the Town of Trumbull embarked in an update of their Natural Hazard Mitigation Plan (NHMP) under the leadership and coordination of the Connecticut Metropolitan Council of Governments (MetroCOG). As part of the NHMP update, MetroCOG engaged the Nature Conservancy to provide a voluntary, community workshop process to assess impacts and foster development of solutions to reduce risk across the Town. In March 2019, a municipal-based core team organized a Community Resilience Building Workshop facilitated by the Nature Conservancy in partnership with MetroCOG. The core directive of this effort was the engagement with and between community stakeholders to facilitate the assessment of vulnerabilities and strengths and the development of priority mitigation actions for Trumbull. The Workshop's central objectives were to:

- Define top local natural and climate-related hazards of concern;
- Identify existing and future vulnerabilities and strengths;
- Develop prioritized actions for the Town of Trumbull;
- Identify opportunities to collaboratively advance actions to increase resilience.



For the Workshop, the Town of Trumbull employed a unique “anywhere at any scale”, community-driven process known as Community Resilience Building (CRB) (www.CommunityResilienceBuilding.org). The CRB’s Risk Matrix and various data and maps were integrated into the CRB process to provide both decision-support and risk visualization around shared values and priorities across Trumbull. Using this CRB process, rich with information, experience and dialogue, the participants produced findings which are outlined in this Summary of Findings report. The following report provides an overview of the top hazards, current concerns and strengths, and proposed actions to improve the Town of Trumbull’s resilience to natural and climate-related hazards, today and in the future.

The summary of findings transcribed in this report, like any that concern the evolving nature of risk assessment and associated action, are proffered for comments, corrections and updates from workshop attendees and additional stakeholders alike. The leadership displayed by the Town of Trumbull on community resilience building will benefit from the continuous and expanding participation of all those concerned.

Summary of Findings

Top Hazards and Vulnerable Areas for the Community

During the CRB Workshop, community members were asked to identify the top hazards for the Town of Trumbull. The hazards of greatest concern to the participants included flooding from storms such as hurricanes that bring intense precipitation events and subsequent riverine flooding such as in September, 2018. The other hazards of greatest concern were winter storms that generated snow and ice - in particular Nor’easters - as well as extreme wind events. These hazards have direct and increasing impacts on Trumbull’s residents and resources such as its neighborhoods, natural areas (river corridors, wetlands, watersheds, parks), roads, places of employment, drinking and wastewater systems, health care facilities, social support service to vulnerable populations, and other critical infrastructure and community assets.



Top Hazards and Areas of Concern for the Community

Top Hazards

- Inland Flooding (precipitation-driven) & subsequent Riverine Flooding
- Storms: Snow, Ice - Nor'easters
- Extreme Wind Events

Areas of Concern in Trumbull*

Neighborhoods: 27 Group Homes, Housing Authority Units.

Ecosystems: Tree Canopy, Streams, Lakes, Rivers, Easton Reservoir, Indian Ledge Park, Canoe Brook, Streamside Buffers, Stormwater Runoff into Pequonnock River and other riparian areas.

Transportation: Roadways (center of Town), Daniels Farm Road, White Plains Road, Route 111, Old Town Road, Moose Hill Road, Strobel Road.

Infrastructure: Powerlines, Telecommunication Wires, Bridges, Culverts, Dams (Pinewood, New Brook), Storm Drains (clogged with debris), Septic Systems (flooding), Sewer Lines (185 miles), Sewer Pump Stations (13 across town), Water Towers, 2 Nursing Facilities, 1 Memory Care Facility, 2 Assisted Living Facilities, Child Care Facilities, Stern Village (state run), Hazardous Material Facilities, Grocery Stores, Gas Stations, Animal Shelters, Trumbull High School, Town Hall, Fire House (Trumbull Center), Industrial Park.

Vulnerable Populations: Renters or Transient, Elderly, Developmentally Disabled, Non-English Speaking, Children, Low Income, Young Families, Mobility-Limited.

* Information above from workshop participants as well as from the NHMP Update for Trumbull (2014).



Current Concerns and Challenges Presented by Hazards

The Town of Trumbull has several concerns and faces multiple challenges related to the impacts of natural hazards and climate change. In recent years, Trumbull has experienced a series of highly disruptive and damaging weather events including Tropical Storm Irene (August 2011), Storm Alfred (October 2011), Tropical Storm Sandy, (October 2012), winter Nor'easter Nemo (February 2013), and intense, short duration, rain events (September 2018). Impacts from Irene included inland flooding and wind damage. Sandy caused extensive power outages across large portions of Trumbull. Winter storms drop excessive snow on the Town knocking out power and isolating residents and neighborhoods. The magnitude of these events and others across Connecticut has increased awareness of natural hazards and climatic change, while motivating communities like Trumbull to comprehensively improve resilience.

This series of extreme weather events highlights that for Trumbull the impacts from hazards are diverse. They range from flooding of surface streets and low-lying areas near rivers and impoundments during intense storms and heavy precipitation events to property damage from trees, wind, snow, and ice. Longer periods of elevated heat, particularly in July and August, have raised concerns about vulnerable segments of the population including the elderly and children. The combination of these issues presents a challenge to preparedness, response and mitigation priorities and requires comprehensive yet tailored actions for particular locations and/or areas across Trumbull.

The workshop participants were generally in agreement that Trumbull is experiencing more intense and frequent storms events. The impacts have affected the daily activities of most residents. Additionally, there was a general concern about the need for and challenges of being prepared with contingency plans for worst case scenarios during different times of the year (i.e. major disasters, storms, major hurricanes (Cat-3 or above)) particularly in the fall/winter due to more intense storms.



(Credit: vanderblue.com)



(Credit: theodysseyonline)



(Credit: activerain)



Current Strengths and Assets

Because of the recent experiences with extreme weather, the Town of Trumbull is well acquainted with existing and shared strengths. Reinforcing best practices and enhancing available assets will generate greater benefits to the Town through increased resiliency to more frequent and intense storms, as well as to long term impacts from the ongoing increases in air temperature, wind, and snow.

- Clearly, the responsive and committed leadership exhibited by officials and senior staff is a very appreciated strength within the Town of Trumbull.
- The City has solid, highly experienced, staff with access to adequate resources for shorter duration events. The overarching coordination amongst various departments including Emergency Management, Police, and Fire among others was cited as an ongoing, and highly valued community strength with the continuous need to update and improve emergency management/action plans.
- Active Citizen Emergency Response Teams and regional Medical Reserve Core programs that compliment the emergency management and preparedness strengths within the community.
- Rich natural resources, recreational areas, parks, and green infrastructure that provides buffering, water storage, and protective capacity to the Town along rivers and adjoining wetlands. Plans in place to revegetate with native plants, shrubs and trees to help reduce erosion and increase flood retention.
- Sheltering facilities in Trumbull all have back-up generators as well as alternative power for majority of critical municipal facilities.
- Pump stations (13 in total) for wastewater system all have alarms to alert of flooding as well as back-up generators in place.
- Proximity of regional hospitals in Bridgeport to assist with critical care needs.
- Active and engaged community that provides services for various disadvantaged populations on a continuous basis.



DEMHS Region 1 Credit: DEMHS



Top Recommendations to Improve Resilience

A common thread throughout the workshop discussions was the recognition that Trumbull always needs to be better prepared through longer-term, community-based, contingency planning across all areas of concern. This need and additional key issues surfaced by the Workshop participants are provided below.

Higher Priority

- To ensure continuity of power and quicker recovery during major events work directly with utilities to develop a tree management plan for power lines across Trumbull and adjoining municipalities along critical corridors.
- Look to establish a communications recovery and response plan between municipality and the seven communications companies that service Trumbull.
- Conduct watershed-wide assessment of flooding extent and causes and seek to prioritize activities in Trumbull based on local and watershed needs.
- Identify, catalogue, assess and prioritize replacement, repairs, retrofits for all bridges and culverts across Trumbull. Ensure the study focuses on culverts that cause back-up and subsequent flooding of roadways and structures as well as floodwater storage opportunities via better land use and/or open space protection.
- Continue to communicate and facilitate grant applications to make improvements for two private dams (Pinewood and New Brook).
- Look to establish a back-up Emergency Operations Center to increase service continuity in the event of an unprecedented disaster.
- For municipal buildings – in particular the high school and senior center – look to install or make available alert radios to help improve emergency communications.
- Conduct routine extreme weather communications, emergency drills, and provide extreme weather training courses for teachers and administrators at schools, day care facilities, and after school programs.
- Continuously increase the effectiveness of the Town's evacuation plans.
- Secure an entirely new radio system for emergency communications and coordination to help increase reliability and effectiveness during major events for first responders.



Community Resilience Building Workshop Recommendations

Moderate Priority

- Continue to execute 5-year road improvement/paving plan with focus on reducing risk of flooding and erosion from inadequate or inappropriate drainage systems in coordination with state DOT when required. Implementation of the plan will require rebuilding of some particularly problematic road segments.
- Continue to provide education for private home owners across Trumbull that includes pre-disaster home preparedness, improved signage regarding evacuation routes and shelters, enhanced information on Town website, and communications through schools with alert radios.
- Locate additional open space parcels for acquisition that can help to reduce flooding and be enhanced with streamside buffers restoration projects that engage community members in positive, resilience building activities for Trumbull. Look to include residents, groups, and committees from adjoining municipalities in the watershed.
- Update zoning regulations to integrate future probable conditions for major rainfall events within a 24 hour period.
- Consider maximizing Town's video production expertise as an alternative means of communications regarding emergency preparedness and response for residents and staff and use content to enhance existing programming on Trumbull Community TV station.
- Continue to update records for TSNAP Program in Trumbull.
- Strengthen partnership with grocery store management to potentially secure provision of supplemental food and water during major events.
- Continue engagement with Sacred Heart University to ensure cooperative sharing options for resources are in place and ready to activate during major events, as needed.



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Community Resilience Building Workshop Recommendations

Moderate Priority

- Ensure emergency management plans and communication procedures are in place and reviewed annually for the multiple group homes and the nursing, memory care facility, assisted living, and child care facilities in Trumbull.
- Identify specific improvements needed at the sheltering facilities to ensure adequate resources and accommodations are available at a moment's notice.
- Find ways to enhance resilience of Old Mine Park that prevents erosion and maintains usability by residents which should include educational signage.
- Increase the continuity of service for select gas stations via back-up power generators.
- Routinely assess short and long-term viability of thirteen pump stations across Trumbull given increases in intensity and magnitude of weather events.
- Work to increase the business preparedness and recovery planning for business in Trumbull Center.
- Strengthen connections and coordination between municipalities and state housing authority to ensure support for disabled and elderly tenants is robust.
- Seek ways to increase communications with privately owned and operated companies that store hazardous materials within or adjoining the municipality.
- Maintain emergency communications via Everbridge system, call lists, and social media outreach to residents of Trumbull along with the use of sirens and new radio system via communications towers.
- Advance the Town's Tree Planting Plan to help reduce the impacts of heat and improve public amenities.
- Engage public in the update of Trumbull's Parks Master Plan (circa 1975) to ensure the recreational values are being maximized coupled with an assessment of how these community assets can be used to help reduce downstream and/or localized flooding to infrastructure and structures.
- Look to reinstall alert sirens at schools to ensure rapid awareness of emergencies for students, teachers, and staff during unexpected and sudden events (i.e. tornadoes).



Community Resilience Building Workshop Recommendations

Lower Priority

- Highlight the examples of rain garden installations on private property and look to education other home owners on value and costs of green stormwater infrastructure.
- Seek to rapidly clear storm drains of surface debris in advance of and immediately after major storm events.
- Secure more supplies for animal sheltering facility and increase options for post event and longer-term care during recovery with access to veterinarian services.
- Maintain interest amongst residents for volunteerism with the Fire Department, CERT, and MRC Programs.
- Monitoring runoff and leaching of hazardous materials from landfill over time.
- Update information on Town website regarding FEMA's National Flood Insurance Program and post-disaster recovery procedures to help elevate educate of residents.



CRB Workshop Participants: Department/Organization

Town of Trumbull - Office of the First Selectmen

Town of Trumbull - Emergency Management

Town of Trumbull - Engineering

Town of Trumbull - Public Works

Town of Trumbull - Fire Marshall

Town of Trumbull - Health Department

Town of Trumbull - Conservation Commission

Town of Trumbull - Sewer/WPCA

Town of Trumbull - Economic & Community Development Commission

Town of Trumbull - Residents

CRB Workshop Project Team: Organization and Role

Trumbull Core Team

Workshop Team

The Nature Conservancy – Adam Whelchel, Ph.D. (Lead Facilitator)

The Nature Conservancy - Kristie Giannetto (Facilitator)

MetroCOG - Meghan Sloan (Scribe)

MetroCOG - Patrick Carleton (Project Manager)

Recommended Citation

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Acknowledgements

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Appendix

Base Map



Trumbull



Trumbull






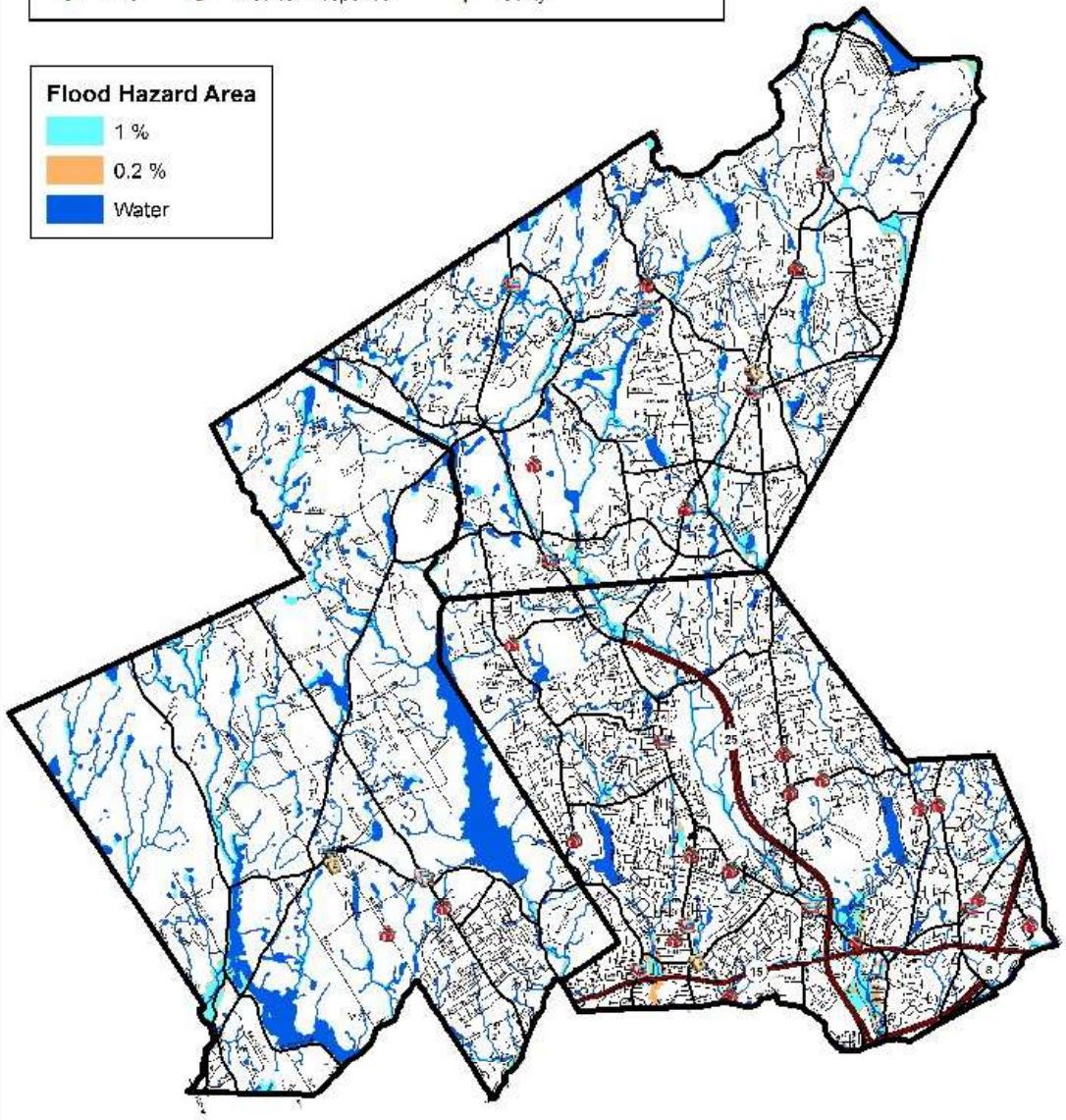
Resources and Maps Used During Workshop



Generalized FEMA FIRM Data

	Airport		Government Building		Police
	EOC		Hospital		Sewage Treatment Plant
	School		Long Term Care		School/Shelter
	Ferry		Maintenance/Recovery		Transportation
	Fire		Medical Response		Utility

Flood Hazard Area	
	1 %
	0.2 %
	Water

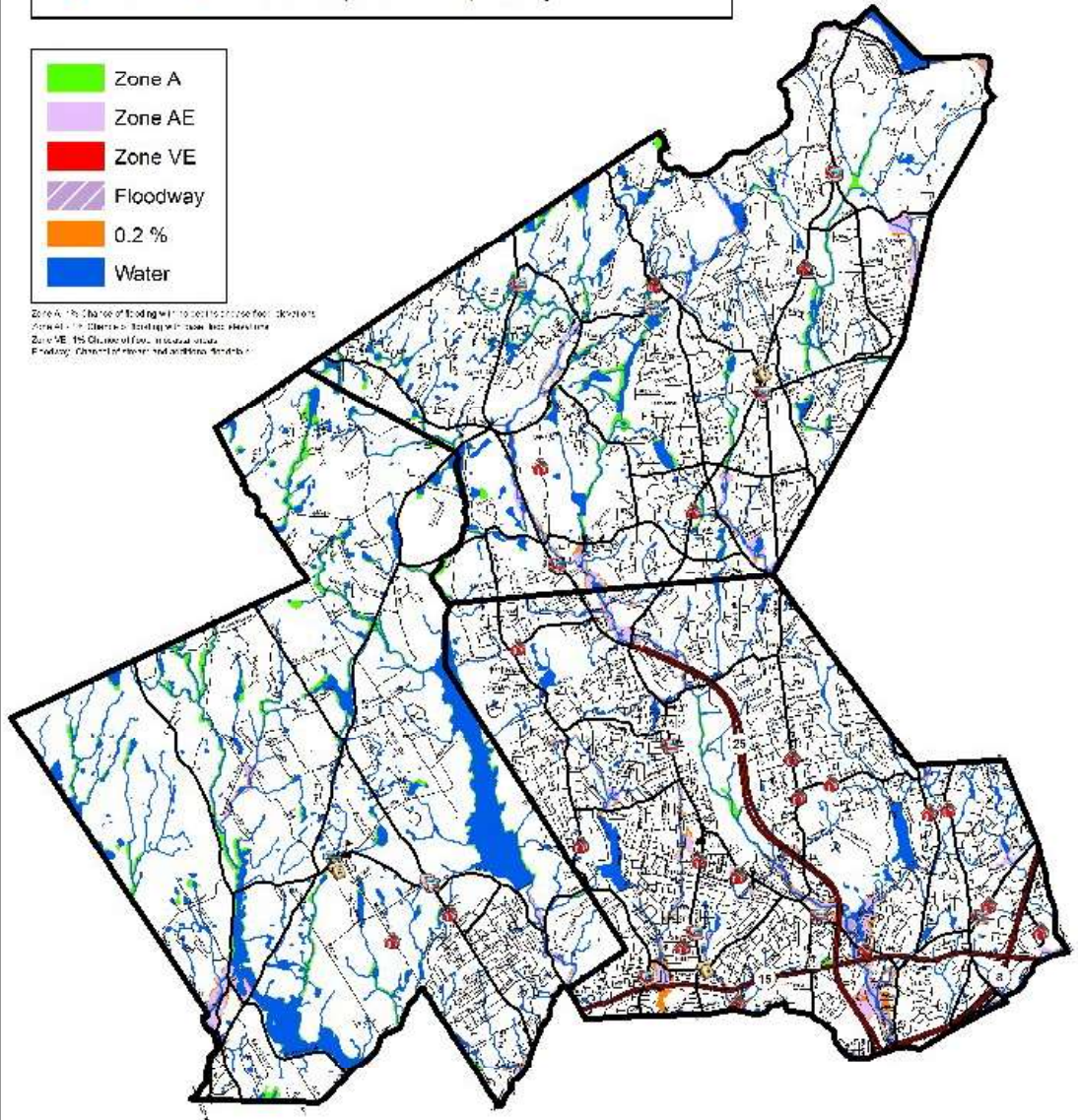


Detailed FEMA FIRM Data

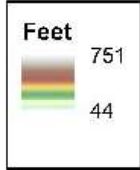
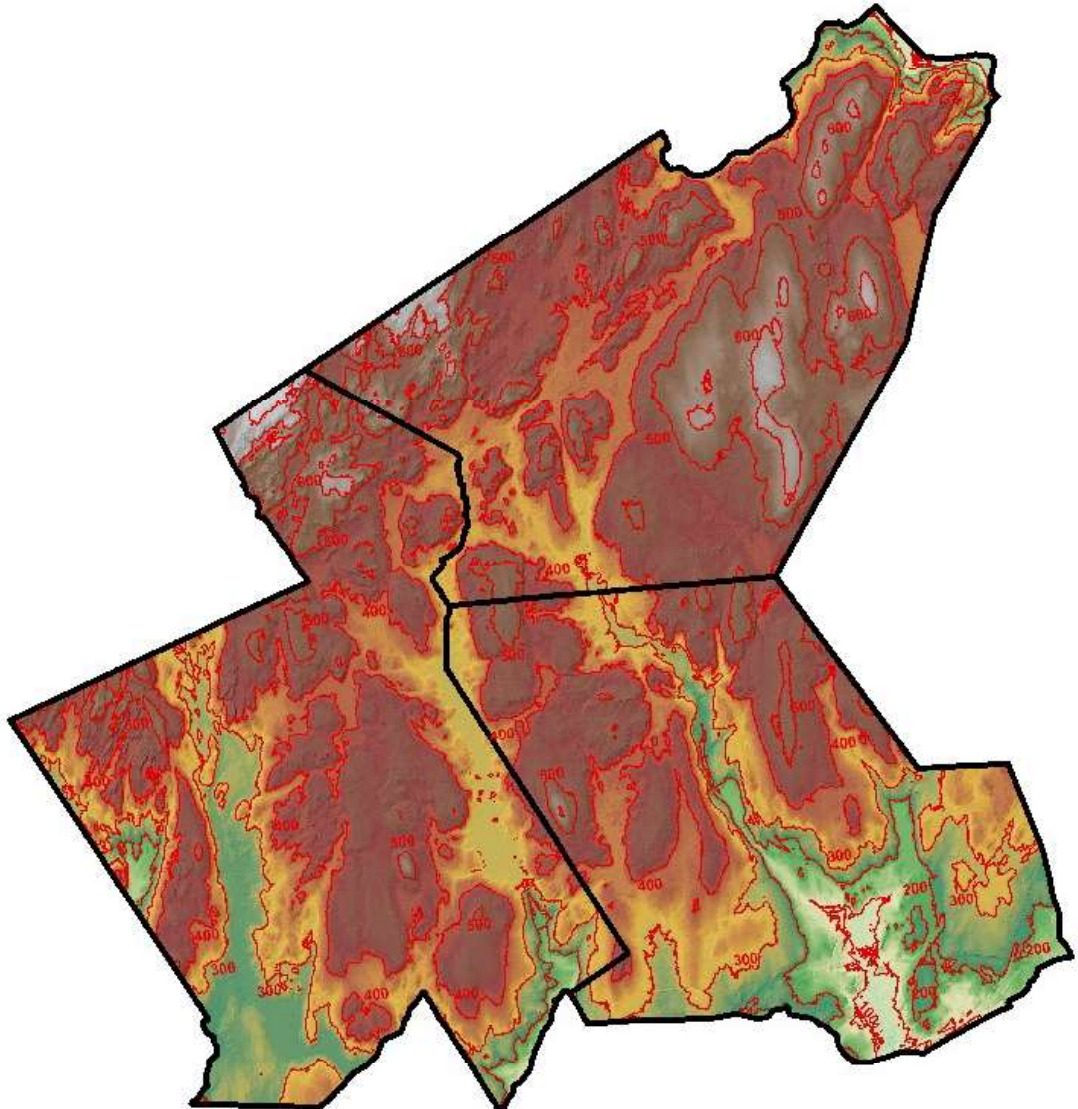
	Airport		Government Building		Police
	EOC		Hospital		Sewage Treatment Plant
	School		Long Term Care		School/Shelter
	Ferry		Maintenance/Recovery		Transportation
	Fire		Medical Response		Utility

	Zone A
	Zone AE
	Zone VE
	Floodway
	0.2 %
	Water

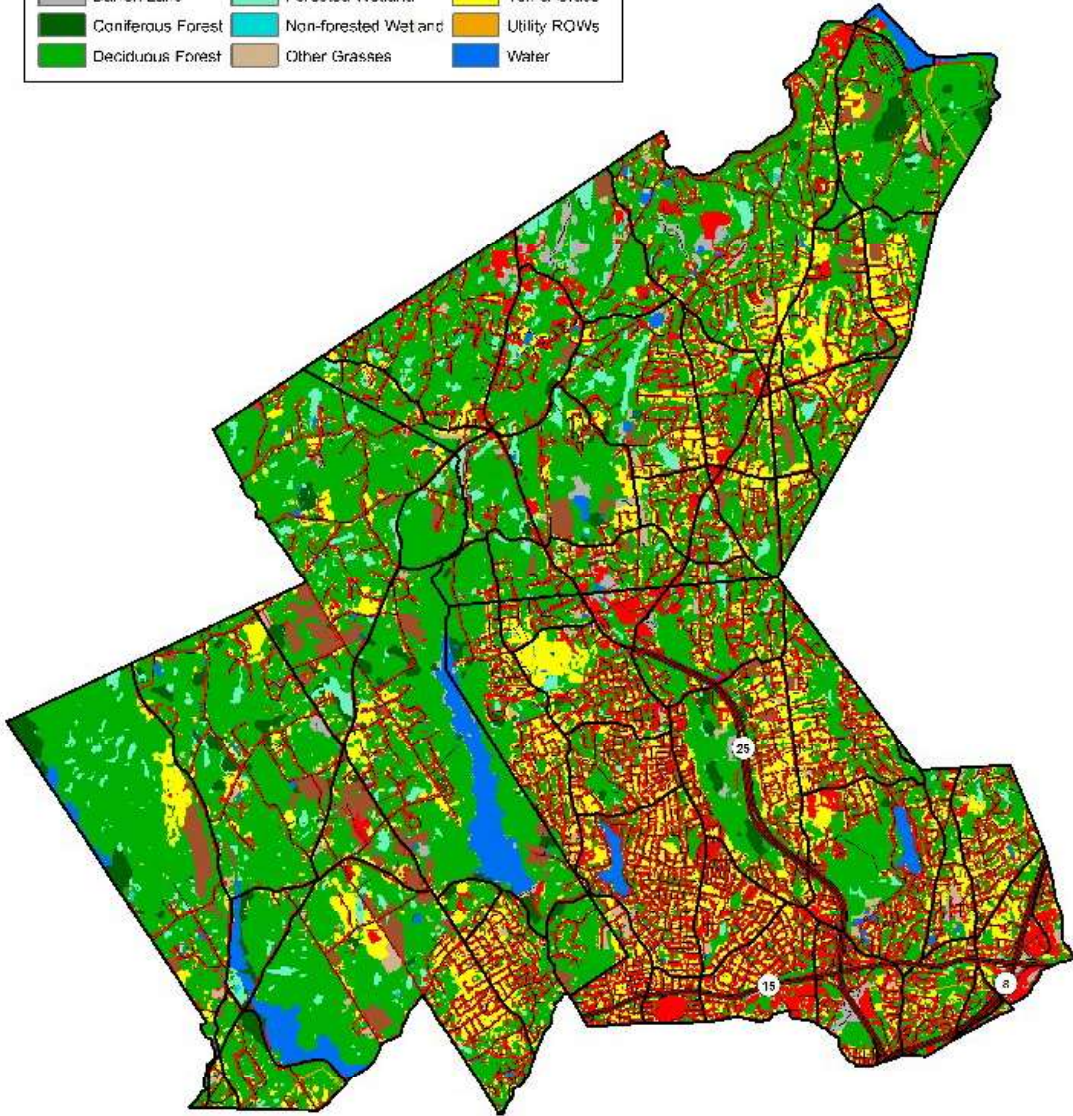
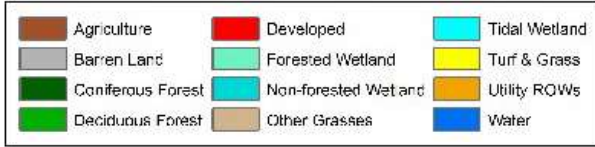
Zone A: 1% Chance of flooding with 100 year recurrence period
 Zone AE: 1% Chance of flooding with 100 year recurrence
 Zone VE: 1% Chance of flow, structural damage
 Floodway: Channel of river and additional floodway

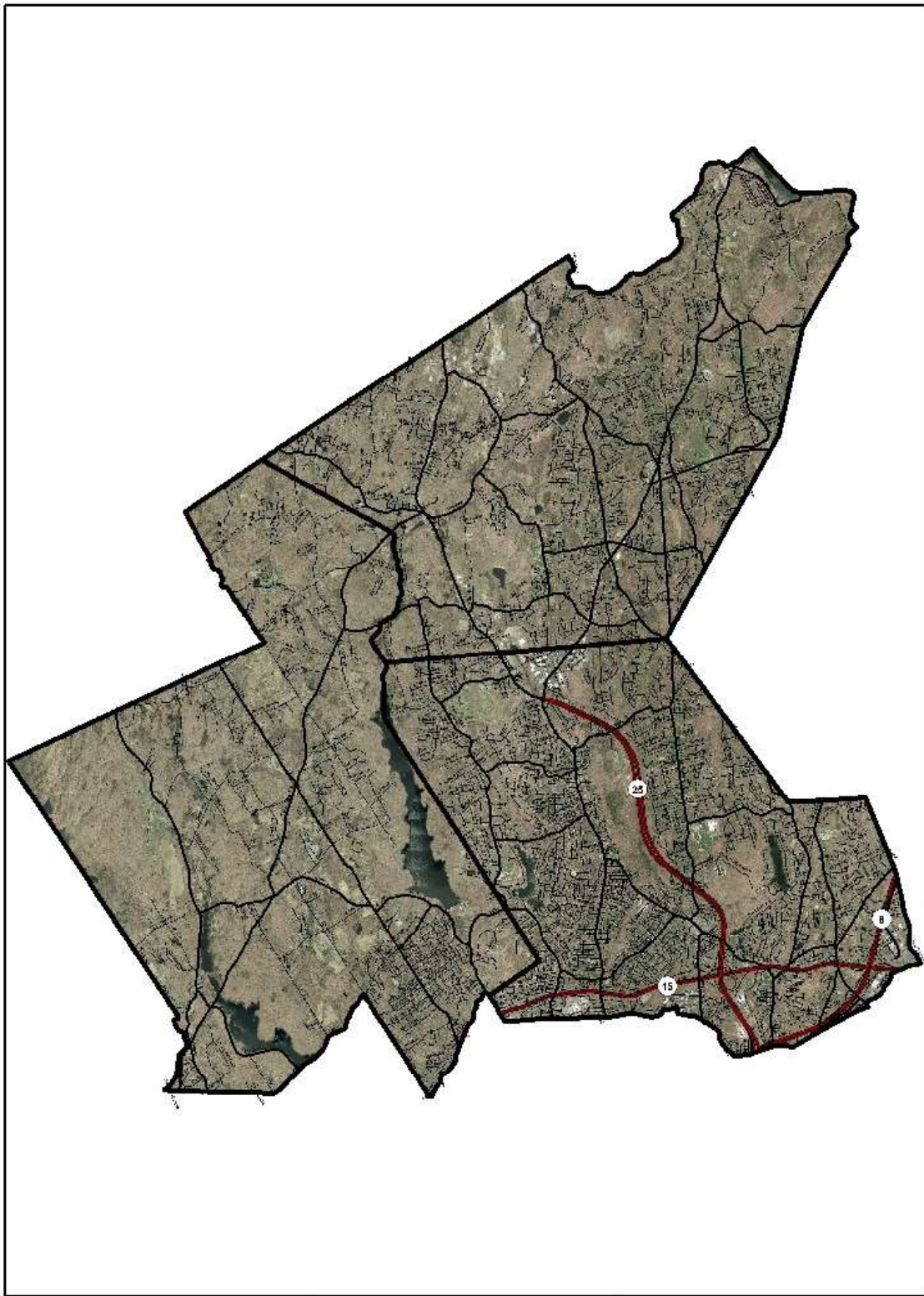


Elevation



Land Cover





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