



Town of Guilford



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Community Resilience Building Workshop

Summary of Findings

September 2019



Town of Guilford

Community Resilience Building Workshop

Summary of Findings

Overview

The need for municipalities, academic institutions, 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 of 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 Guilford 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 the spring of 2019, the Town of Guilford embarked on certification via Sustainable CT. As part of that certification, Sustainable CT and the Nature Conservancy provided the Town with a voluntary process to conduct an assessment of climate change impacts. In August 2019, a municipal-based core team organized a Community Resilience Building Workshop facilitated by the Nature Conservancy in partnership with Sustainable CT. The core directive of this effort was the engagement with and between community stakeholders to facilitate the assessment of climate vulnerabilities and the education, planning and ultimately implementation of priority adaptation actions for Guilford.

The Guilford Community Resilience Building Workshop's central objectives were to:

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

For the Workshop, the Town of Guilford 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 workshop process to provide both decision-support and risk visualization around shared values and priorities across Guilford. The Guilford section of the South Central Regional Multi-Jurisdictional Hazard Mitigation Plan (2018) was also incorporated. Using this CRB process, rich with information, experience, and dialogue, the participants produced findings which are outlined in this summary report. The following report provides an overview of the top hazards, current concerns and challenges, current strengths, and proposed actions to improve Guilford’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 Guilford 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 Guilford. The hazard of greatest concern to the participants was intense wind often associated with Nor’easters and winter storms. The other top hazards highlighted included hurricanes, snow and ice storms, and coastal flooding from storm surge and sea level rise. Secondary hazards discussed included extreme temperatures or heatwaves and precipitation-driven inland flooding. These hazards have direct and increasing impacts on Guilford’s residents and resources such as its neighborhoods, natural areas (coastal wetlands, river corridors, wetlands, watersheds, parks), roads, bridges, places of employment, schools, marinas, residential drinking and wastewater systems, social support services to vulnerable populations, transportation options, and other critical infrastructure and community assets.



Top Hazards and Areas of Concern for the Community

Top Hazards

- Wind
- Hurricanes
- Snow and Ice Storms (including Nor'easters)
- Flooding (storm surge, sea level rise)

Others hazards discussed: Extreme Temperatures and/or Heatwaves, Inland Flooding.

Areas of Concern in Guilford*

Ecosystems: Hazardous Trees (along transportation corridors and municipal-owned property), Gypsy Moth and Drought Stress on Trees across Municipality, Riparian Buffers, Stream Banks, Natural Storm Debris, Coastal Wetlands, Beaches & Dunes, East River Marsh Complex, Jacobs Beach, Chittenden Park, Munger Brook.

Roads, Road Networks, Bridges: Route 146, Railroad Viaducts, County Road, Circle Beach Road, Seaside Avenue, Whitfield Street, Culverts, Quarry Road, Seaview Avenue, River Street, Water Street, Route 77, Long Hill Road, Spinning Mill Brook Crossing, Route 1, Sachems Head Road, Chimney Corner, Shell Beach Road, Vineyard Point Road.

Infrastructure: Residential Homes (coastal and inland), High School, Community Center, Public Works Facility, Town Garage, Marina, Private Businesses, Nursing Home/Senior Living (i.e. Apple Rehab, The Gables, Boston Terrace), Private Septic Systems (100% of municipality), Private Drinking Water Wells (salt water intrusion), East River Marsh Sluice Gate, Power Substations, Limited Fire Hydrants, Cottage (conversions), Fuel Storage (Seaview), Fire Station (Water Street), Repetitive (63 units) and Severe Repetitive (3 units) Loss Properties, Natural Gas Pipelines.

Developments and Neighborhoods: Marina Area (Seaside Avenue/Whitfield Street), Mulberry Point, Quarry Road, Shell Beach Area, West River Corridor, Sachems Head, Vineyard Point, Leetes Island, Tuttle's Point, Indian Cove.

Vulnerable Populations: Homebound/Isolated Elderly, Developmentally Disabled, Non-English Speaking, Working Poor, Volunteers (decline over time), Tourists.

*Information above from workshop participants as well as from the Guilford section of the South Central Regional Multi-Jurisdictional HMP (2018).



Current Concerns and Challenges Presented by Hazards

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

This series of extreme weather events highlights that for Guilford the impacts from hazards are diverse. They range from flooding of roads and low-lying areas along the coast and tidal inlets as well as areas near rivers 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 disabled. 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 Guilford.

The workshop participants were generally in agreement that Guilford is experiencing more intense, frequent, and longer duration storms and heat waves. The impacts have affected the daily activities of most residents. Additionally, there was a general concern about the 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: firenews.com)



(Credit: flickr.com)



(Credit: ci.guilford.ct.us)



Specific Categories of Concerns and Challenges

As in any community, Guilford is not uniformly vulnerable to hazards and climate change, and certain locations, resources, and populations have and will be affected to a greater degree than others. Workshop participants identified the following items as their community's key areas of concerns and challenges across three categories - Infrastructure, Societal, and Environmental.

Infrastructure Concerns and Challenges

Roads, Road Networks, Bridges:

- Large geographic area with different needs from and impacts to road network.
- Concerns about dependence on limited east-west connections subject to closure during major events (i.e. flooding on Route 146).
- Long term prognosis for marina area due to growing impacts from storms.

Emergency Management and Preparedness:

- Need for more business continuity and recovery planning for major events.
- No Citizens Emergency Response Team (CERT)

Housing:

- Large number of homes in floodplain - both coastal and inland.
- Isolation of homes when road network is compromised for extended periods.
- Level of awareness about potential for current and future impacts to structures.
- Increasingly compromised septic systems due to flooding and high water tables.
- Equity issues between coastal and inland property owners and residents.

Societal Concerns and Challenges

Vulnerable Populations:

- Isolated pockets of residents who live in more rural parts of community.
- Older housing stock including homes without air conditioning.
- Implications on disproportionately disadvantaged populations (i.e. elderly, working poor, etc.) due to flooding, winter storms, and heat waves.
- Cost of flood insurance for properties not previous identified on FEMA's Flood Insurance Rate Maps (FIRMs).



Specific Categories of Concerns and Challenges (cont'd)

Societal Concerns and Challenges (cont'd)

Vulnerable Populations:

- Need for long-term residents to educate and support new residents on emergency preparedness including available resources, evacuation procedures, and reducing amount of household contaminants vulnerable to flooding.

Power:

- Power outages to residential homes and business particularly during the winter months increasing isolation and cost due to closure.
- Low income households vulnerability due to power outages.

Environmental Concerns and Challenges

Coastal Wetlands & Beaches:

- Loss of salt marsh due to erosion and additional water volume from accelerating sea level rise and more intense coastal storms.
- Declining opportunities for salt marsh advancement with continued sea level rise.
- Shifting of sand and beaches resulting in changes in areas of erosion and accretion.

Watersheds, Aquifers:

- Change in ownerships and potential development of lands associated with watersheds and drinking water supply.

Trees and Forest:

- Increasing impacts to tree health from pests and pathogens resulting in dead and standing trees which pose risk to power lines, people, and property if not managed.
- Need to maintain good working relationships with utilities to ensure appropriate level of tree management.



Current Strengths and Assets

Because of the recent experiences with extreme weather, the Town of Guilford is well acquainted with existing and shared strengths. Reinforcing best practices and enhancing available assets will generate greater benefits to the Town and adjoining communities through increased resiliency to more frequent and intense storms, as well as to long term impacts from increases in temperatures and precipitation.

- Clearly, the responsive and committed leadership exhibited by officials and staff is a very appreciated strength within the Town of Guilford. Ongoing collaboration between the Town, adjoining municipalities, South Central Regional Council of Government, DEMHS Region 2, business community, faith-based organization, and NGOs among others on the priorities identified herein will help to advance comprehensive, cost-effective approaches to community resilience building.
- The Town has solid, highly experienced, staff with access to adequate resources for most emergency situations. The coordination amongst various departments including leadership, Police, Fire, and EMS was cited as an ongoing and highly valued community strength despite the need to maintain volunteerism over time.
- Relatively intact coastal wetland and estuarine systems coupled with forested watershed surrounding ponds, wetlands and rivers and riparian corridors which provide flood storage, enhance public amenities for recreation and gathering, and increase ecological function and biodiversity.
- Emergency Operations Center with well maintained, back-up power generation.
- Network of support facilities and organizations to provide sheltering, food, heating/cooling, and charging options for residents (Community Center (primary shelter with back-up power and pets allowed: Guilford High School (sheltering with back-up power: Library (heating/cooling center: St. George Food Pantry: Meals on Wheels: Women and Family Life Center).
- Emergency communications with residents via Reverse 911, social media, municipal website, and public information sessions.
- Hazard Mitigation Committee that conducts routine meetings to review action items implemented from the Hazard Mitigation Plan and reports actions to COG.
- Self-reliant and resilient residents that look out for one another and pride themselves on preparedness.



- Adoption of progressive and more stringent floodplain building codes to help reduce the longer-term risks to structures with climate change.
- Increased allowances for higher density development for increased open space set asides.
- Extensive planning and community engagement on issue of risk across municipality as expressed in the Guilford Community Resilience Plan (2014).
- Large and active town land trust focused on conserving the natural systems, ecological function, and protective co-benefits for people and property as well as a strong Wetlands Commission and Conservation Commission.
- Transportation options available for mobility-challenged elderly and/or disabled residents during times of emergency.
- Elderly Tax Relief and Supplemental Tax Relief to help cover costs based on age as well as income for residents.
- Fire Department has special information list where residents can report special needs or circumstances for staff to incorporate into emergency response operations.
- Active affordable housing efforts to identify municipal-owned properties to develop via the Guilford Housing Authority towards an overall 10% goal.
- Publicly available outdoor swimming facility at Lake Quonnipaug to serve as cooling station during late summer heatwaves.
- Recent installation of solar panels on municipal buildings to help diversify and localize power sources in the event of compromised grid.
- Ordinance requiring property owner to remove identified dangerous trees on private property that will impact public right-of-ways or face a lien on property until remedied.
- Municipality currently enrolled in FEMA's Community Rating System (CRS).
- Large and increasing availability of households with personal generators.
- VEOCI System with live updates on emergency maps for first responders.



Top Recommendations to Improve Resilience

A common thread throughout the workshop discussions was the recognition that Guilford needs to be better prepared through longer term, community-based, contingency planning across all areas of concern. This need and additional central highlights surfaced by the Workshop participants are addressed below across Infrastructure, Societal, and Environmental categories.

Infrastructure

- Continue to recheck on an annual basis with utility the priority list for power restoration across municipality.
- Identify culverts in need of replacement, repair, or retrofit and prioritize construction that incorporates future storm scenarios into to design.
- Assess the condition of Community Center roof and determine cost to repair, replace, or upgrade to withstand future extreme weather scenarios.
- Accelerate the current and future risk assessment of municipal facilities by the Facilities Task Force and advance meaningful recommendation that will improve property resilience to extreme weather and climate change.
- Explore options for relocating the Public Works Facilities to area outside the current position in the flood zone.
- Work with marina and businesses at end of Whitfield Street as well as the Guilford Boat Launch area to identify potential actions to reduce impacts from flooding.
- Identify areas across municipality where Low Impact Development (LID) practices along with installation of green stormwater infrastructure could help to minimize localized flooding and improve the resilience of the environment.
- Assess the current and potential impacts of flooding and seasonally high groundwater on residential septic systems across municipality and subsequent impacts on water quality due to failure of systems.
- Monitor and define the extent and rate of salt water intrusion in private drinking wells.
- Advance salt water intrusion remedy (approximately 145 properties) as part of the Mulberry Point Water Project.



Community Resilience Building Workshop Recommendations

Infrastructure (cont'd)

- Work with private association to maintain an updated emergency operation plan for Guilford Lakes Dam and determine the extent of impact due to a catastrophic failure.
- Routinely consider the current and potential impacts from agricultural runoff from the few remaining farms to adjoining water bodies.
- Initiate the development of management plan for both transfer stations in partnership with Town of Madison and Branford staff with an emphasis on the brush and leaf area. Transfer Station Management Plan should include consideration of debris accommodation, staging, and processing options post disaster.
- Explore the feasibility of establishing community-based septic systems in select locations to alleviate failure of individual units and reduce water quality concerns.
- Review and assess options for the sluice gate associated with the East River Marsh complex that will increase tidal flushing, reduce adjoining flooding, and increase the ecological resilience of the overall system.
- Advance the living shoreline design to installation for Chittenden Beach Park.
- Work to complete necessary steps to be in compliance with MS4 permit.
- Update zoning code to require underground utilities for all new subdivisions.
- Conduct a residential property level awareness campaign to reduce the amount of unwanted household contaminants that get liberated with flooding of basements.
- Explore options to increase the east-west roadway connectivity including alternative connections (Baldwin Drive with bridge), addition of third lane, and alternative connector between Route 80 and Route 1.
- Continue to define the location and extent of flooding along Route 146 and devise potential ways to minimize shore-term traffic interruptions and long-term modifications in enhance viability of transportation corridor.
- Explore regional sheltering agreement with adjoining municipalities.



(Credit: Torin Radicioni/ISE)



Community Resilience Building Workshop Recommendations

Societal

- Ensure process for refrigerating and storing critical medications for residents at the Fire House is maintained.
- Consider options to provide translation services at Town Hall for non-English speaking residents.
- Initiate a municipal-wide education program to help reduce traffic fatalities and rescues from automobiles in flood waters (i.e. “Don’t Drown, Turn Around”).
- On an annual basis check in with nursing home (i.e. Apple Rehab) management on emergency response and recovery plan for facility and residents in partnership with municipal staff.
- Continue to contribute to and participant in emergency preparedness, planning, and recovery table top exercised with DEMHS Region 2, adjoining municipalities, and regional entities.
- Strengthen the general awareness and understanding of evacuation procedures and protocols amongst residents including safe evacuation and restrictions on reentry to evacuated areas.
- Ensure cottages are staying summer versus year-round housing in high risk areas via permitting reviews of proposed upgrades (i.e. cottage conversion).
- Conduct outreach campaign to help educate homeowners better understand the changing costs of insurance if they bought property outside of the outdated Flood Insurance Rate Maps (FIRMs).
- Explore developing a Citizen Emergency Response Team - potentially in partnership with adjoining municipalities.
- Work with FEMA and USDA-NRCS to define possibilities of voluntary buy-outs of repetitive loss properties and create space for nature infrastructure and ecological restoration in same location to help reduce flooding risk.
- Create walkway for east-west shoreline access to increase access for public and enhance quality of life for residents.
- Continue to find ways to recruit volunteers based on skills and positions needed.



Community Resilience Building Workshop Recommendations

Environmental

- Work with Regional Water Authority to ensure lands currently owned for watershed protection in North Guilford and other adjoining lands are maintained as long-term open space to ensure high quality, drinking water source, improved recreational and health opportunities for residents, and intact ecosystems.
- Continue to develop and generate a new open space acquisition and management plan for open space across municipality that can enhance the overall resilience of the community (i.e. adjoining and within existing riparian corridors or coastal zones subjected to flooding currently and in the future).
- Look to prevent current agricultural lands from being developed via easements, acquisition, and leasing in ways that are affordable and accessible to the next generation of farmers.
- Communication with existing farmers regarding runoff of chemicals from agricultural lands into adjoining water bodies.
- Monitor over time the level of risk for the municipality due to wildfire given increased intensity of drought conditions in the future.
- Explore options to increase availability of water for fire suppression (i.e. hydrants, fire ponds).
- Utilize Salt Marsh Advancement Zone mapping (via TNC's Coastal Resilience website) to determine at the parcel scale where to manage and conserve lands for current and future salt marsh systems.
- Establish municipal matching funds for increased tree planting across municipality.
- Increase the installation of green storm-water infrastructure (i.e. bioswales) in downtown area, intersections, and road segments experiencing routine flooding currently.
- Develop natural storm debris management plan.



(Credit: Torin Radicioni/ISE)



CRB Workshop Participants: Department/Organization

Town of Guilford - First Selectmen's Office

Town of Guilford - Planning

Town of Guilford - Engineering

Town of Guilford - Fire Department

Town of Guilford - Parks and Recreation

Town of Guilford - Planning and Zoning Commission

Town of Guilford - Board of Finance

Town of Guilford - Sustainability Guilford Task Force

Town of Guilford - Residents

Guilford Foundation

CRB Workshop Project Team: Organization and Role

Guilford Core Team

Terri Cain - Town of Guilford - Sustainable Guilford Task Force

Howard Brown - Town of Guilford - Sustainable Guilford Task Force

Workshop Facilitation Team

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

Institute of Sustainable Energy - Jessica LeClair (Support Lead)

Institute of Sustainable Energy - Torin Radicioni (Scribe)

Recommended Citation

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This project was made possible in part through the generous contribution of The Nature Conservancy and Sustainable CT who conducted Guilford's Community Resilience Building Workshop in close partnership with the Town's Core Team.



Appendix

Base Map





Guilford's Section
South Central Regional Multi-Jurisdictional
Hazard Mitigation Plan (2018)

Guilford Mitigation Action Table
(6-501 to 6-503)

**Prepared by Jamie Caplan Consulting, Punchard Consulting,
Milone & MacBroom**



GUILFORD MITIGATION ACTIONS

Town of Guilford – Updated Mitigation Actions (2018-2023)							
Action #	Action Title	Action Description	Estimated Cost	Potential Funding Source	Lead Department	Implementation Schedule	Priority
1	Evacuation Signs	Acquire and install evacuation signs.	Low	PHEP Grant	BOS, DPW	2018	High
2	Expand Reverse 911 Coverage	Encourage the public to register their mobile phones with the reverse 911 system.	Low	PHED Grant	BOS, EMA	2018	High
3	Underground Utilities	Require that utilities be placed underground in new developments.	Low	NA	PZC	2018	High
4	Revetment Repair for Marina Area	Repair stone revetment in the marina area to protect adjacent road and sidewalk.	Medium	Unlikely - HMA	HMC, MC	2019	High
5	Increase Funding for Tree Warden	Increase funding for the Tree Warden to address a wider range of tree limb hazards than the current budget allows.	Medium	Town Budget	TW, BOS	2019	High
6	Extend Public Water Supply	Extend public water supply and fire protection to Mulberry Point, Tuttle Point, and Indian Cove.	Very High	Possible - DWSRF, AFGP, HMA	BOS	2018	High
7	Public Outreach and Education for Natural Hazards	Disseminate informational pamphlets regarding natural hazards to public and add pages to the Town website dedicated to citizen education and preparation for natural hazard events. These efforts will be aimed at promoting increased awareness and education on what businesses and property owners can do to prepare and prevent property damage and reduce injury and loss of life.	Low	Town	HMC, Engineering	2019	High
8	Coordinate with DOT on Flood Mitigation	Work with CT DOT to mitigate flooding problems along Route 146 at West River (upgrade bridge), Long Cove, Great Harbor/Hidden Lake (upgrade culverts) and along Leetes property.	Very High	State	Engineering	2018	High
9	Upgrade Community Center	Upgrade the Community Center to improve its viability as one of two primary shelters. Contract Engineer to inspect building and create recommendations regarding structural integrity for different storm events.	High	Possible - HMA, CEDAP, EOC	BOS, EMA, DPR	2020	Medium
10	CRS Participation	Consider enrolling in the Community Rating System.	Low	NFIP (insurance benefits only)	BOS, Engineering	2018	Medium

6-501



Town of Guilford – Updated Mitigation Actions (2018-2023)							
Action #	Action Title	Action Description	Estimated Cost	Potential Funding Source	Lead Department	Implementation Schedule	Priority
11	Improve Egress for Indian Cove	Create design plans to elevate Daniel Avenue or West Lane to provide multiple modes of egress for Indian Cove residents.	High	Possible - HMA	DPW	2021	Medium
12	Elevate Low Spots on Chimney Corner Road	Create design plans to elevate low spots on Chimney Corner Road.	High	Unlikely - HMA	DPW	2023	Medium
13	Erosion Control Study	Conduct study of erosion control alternatives at Jacobs Bch, Chittenden Bch, Grass Is., and Chaffinch Is; create conceptual designs; implement feasible/prudent alternatives.	High	Unlikely - HMA	HMC, DPW	2019	Medium
14	Construct Walkways for Areas of Erosion Concern	Construct pile-supported walkways where foot traffic is exacerbating erosion.	High	Unlikely - HMA	HMC, DPW, B&E, DPR	2021	Medium
15	Municipal Roof Load Study	Conduct a study to identify municipal buildings, critical facilities, and others that are vulnerable to roof damage or collapse due to heavy snow.	Medium	Possible – HMGP; Capital Budget	DPW, B&E, BOE	2019	Medium
16	Incorporate Dam Failure Areas into Reverse 911 System	Include dam failure areas in the Reverse 911 emergency contact database.	Low	NA	EMA	2018	Medium
17	Inspections for Town-owned Dams	Conduct formal inspections of Town-owned dams, especially Lake Quonnipaug Dam.	Low	NA	Engineering	2019	Medium
18	Living Shoreline for Chittenden Beach	Chittenden Beach living shoreline – Develop permit-level plans with required studies to obtain permits from CT DEEP and USACE.	Medium	Grants	Natural Resources, Harbor Management	2020	Medium
19	Relocate Public Works Facility	Relocate the Public Works Facility outside a flood zone and hurricane surge zone.	Very High	Possible - HMA, EOC	BOS, DPW	2023	Low
20	Mutual Aid for Brown's Boat Yard	Develop mutual aid agreement with Brown's Boat Yard to enable its assistance prior to disasters. Town to assist boat yard in locating upland storage area.	Low	NA	BOS, HMC	2023	Low
21	Mutual Aid for Guilford Boat Yard	Develop mutual aid agreement with Guilford Boat Yard to enable its assistance prior to disasters. Town to assist boat yard in locating upland storage area.	Low	NA	BOS, HMC	2023	Low
22	H&H Modeling for West River Watershed	Develop hydrologic and hydraulic model of the West River watershed as a way to prioritize mitigation	Medium	NA	B&E, DPW	2023	Low

6-502



Town of Guilford – Updated Mitigation Actions (2018-2023)							
Action #	Action Title	Action Description	Estimated Cost	Potential Funding Source	Lead Department	Implementation Schedule	Priority
		activities such as culvert and bridge upgrades, property acquisitions and elevations, and retention/detention.					
23	Infrastructure Upgrades along West River	Upgrade bridges and culverts along West River south of Lake Quonnipaug.	High	Unlikely - HMA	DPW	2023	Low
24	Drainage Improvements for Munger Brook	Improve drainage and Munger Brook flood conveyance in the area that floods between County Road and Route 80.	Medium	Possible - HMA	DPW	2023	Low
25	Elevation of Whitfield Street	Create design plans to elevate Whitfield Street from Seaview Terrace to the entrance of the marina to minimize flooding and improve drainage.	High	Possible - HMA	DPW	2023	Low
26	Elevate Low Spots on Seaside Avenue	Create design plans to elevate selected locations along Seaside Avenue.	High	Unlikely - HMA	DPW	2023	Low
27	Accommodate Migration of Tidal Wetlands	Set aside sufficient land for landward migration of tidal wetlands.	Very High	Bonds	BOS	2018	Low
28	Assistance and Outreach to Dam Owners	Provide technical assistance and outreach to owners of private Class B and Class C dams regarding inspections and maintenance.	Low	NA	Engineering	2019	Low
29	Evaluate Unclassified Dams	Evaluate and classify the seven unranked dams in Guilford.	Low	NA	Engineering	2019	Low
30	Public Outreach for Wildfire Hazards	Continue to support public outreach programs to increase awareness of forest fire danger, equipment usage, and protecting homes from wildfires.	Low	NA	FD	2018	Low
31	Phragmites Control	Develop a program of phragmites control that minimizes fires (work with CT DEEP on Phragmites Control Projects).	Medium	NA	FD, Natural Resources	2020	Low

Lead Departments: BOE = Board of Education; BOS = Board of Selectmen; B&E = Buildings and Engineering Department; DPR = Department of Parks and Recreation; DPW = Department of Public Works; EMA = Emergency Management Agency; FD = Fire Department; HMC = Hazard Mitigation Commission; PZC = Planning and Zoning Commission; TW = Tree Warden.



Resources and Maps Used During Workshop



SOUTH CENTRAL REGION MULTI-JURISDICTION HAZARD MITIGATION PLAN UPDATE

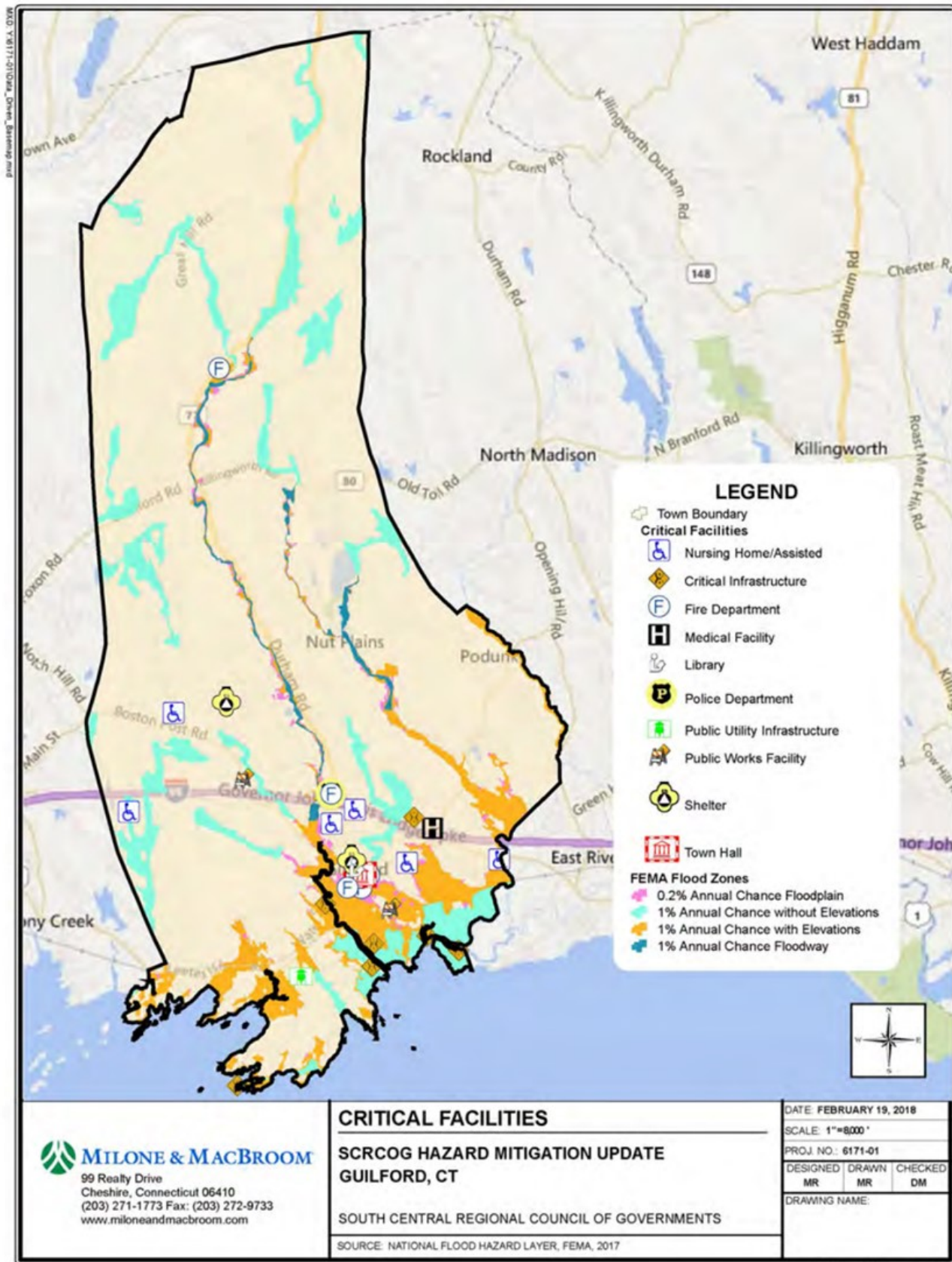
May 14, 2018
Addendum Included September 6, 2018

Prepared by:

South Central Regional Council of Governments
127 Washington Avenue, 4th Floor West
North Haven, Connecticut 06473

SCRCOG SOUTH CENTRAL REGIONAL COUNCIL OF GOVERNMENTS
Planning for Our Region's Future





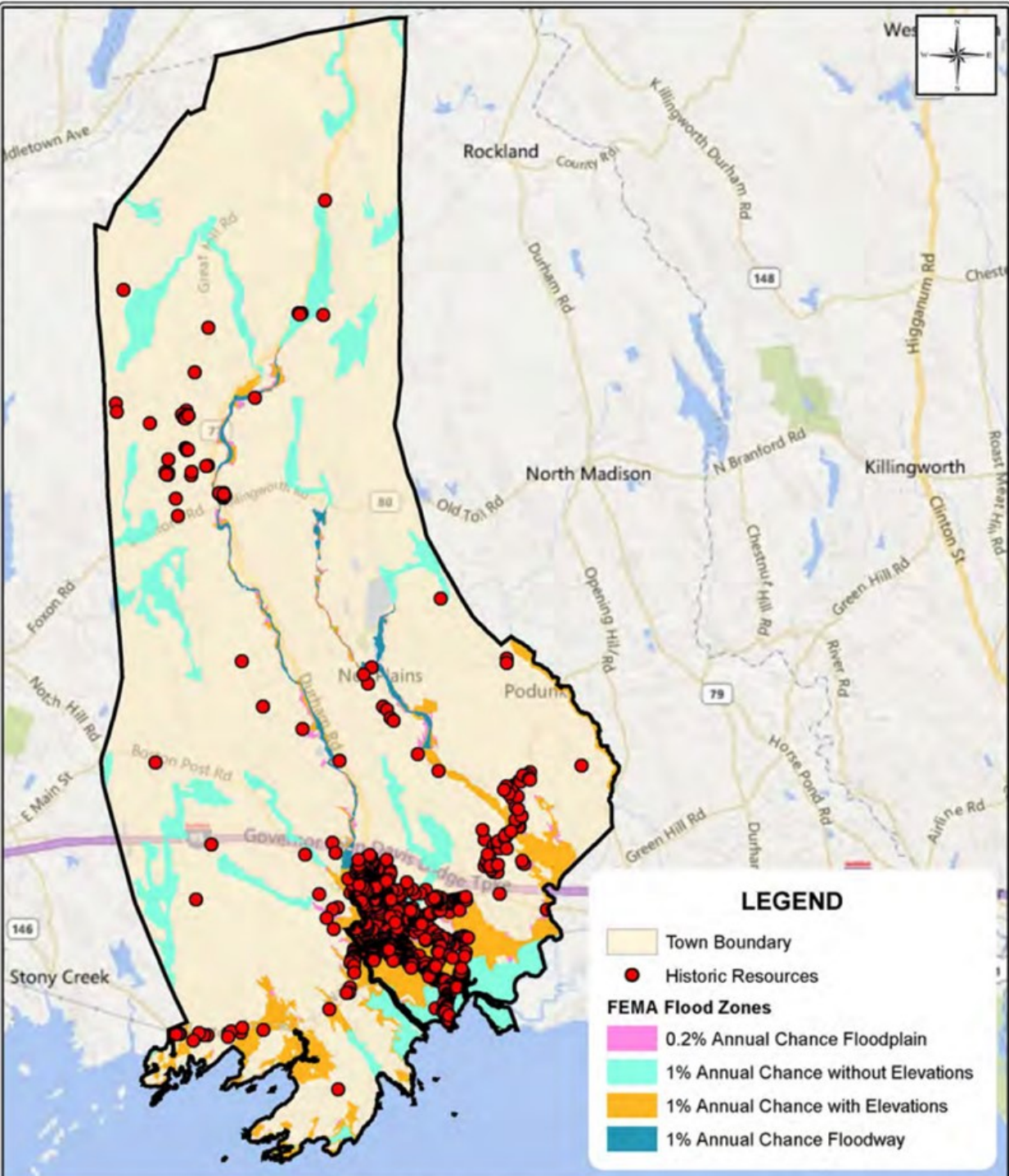
MILONE & MACBROOM
 99 Realty Drive
 Cheshire, Connecticut 06410
 (203) 271-1773 Fax: (203) 272-9733
 www.miloneandmacbroom.com

CRITICAL FACILITIES
SCRCOG HAZARD MITIGATION UPDATE
GUILFORD, CT
 SOUTH CENTRAL REGIONAL COUNCIL OF GOVERNMENTS
 SOURCE: NATIONAL FLOOD HAZARD LAYER, FEMA, 2017

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DESIGNED	DRAWN	CHECKED
MR	MR	DM
DRAWING NAME:		

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LEGEND

- Town Boundary
- Historic Resources

FEMA Flood Zones

- 0.2% Annual Chance Floodplain
- 1% Annual Chance without Elevations
- 1% Annual Chance with Elevations
- 1% Annual Chance Floodway

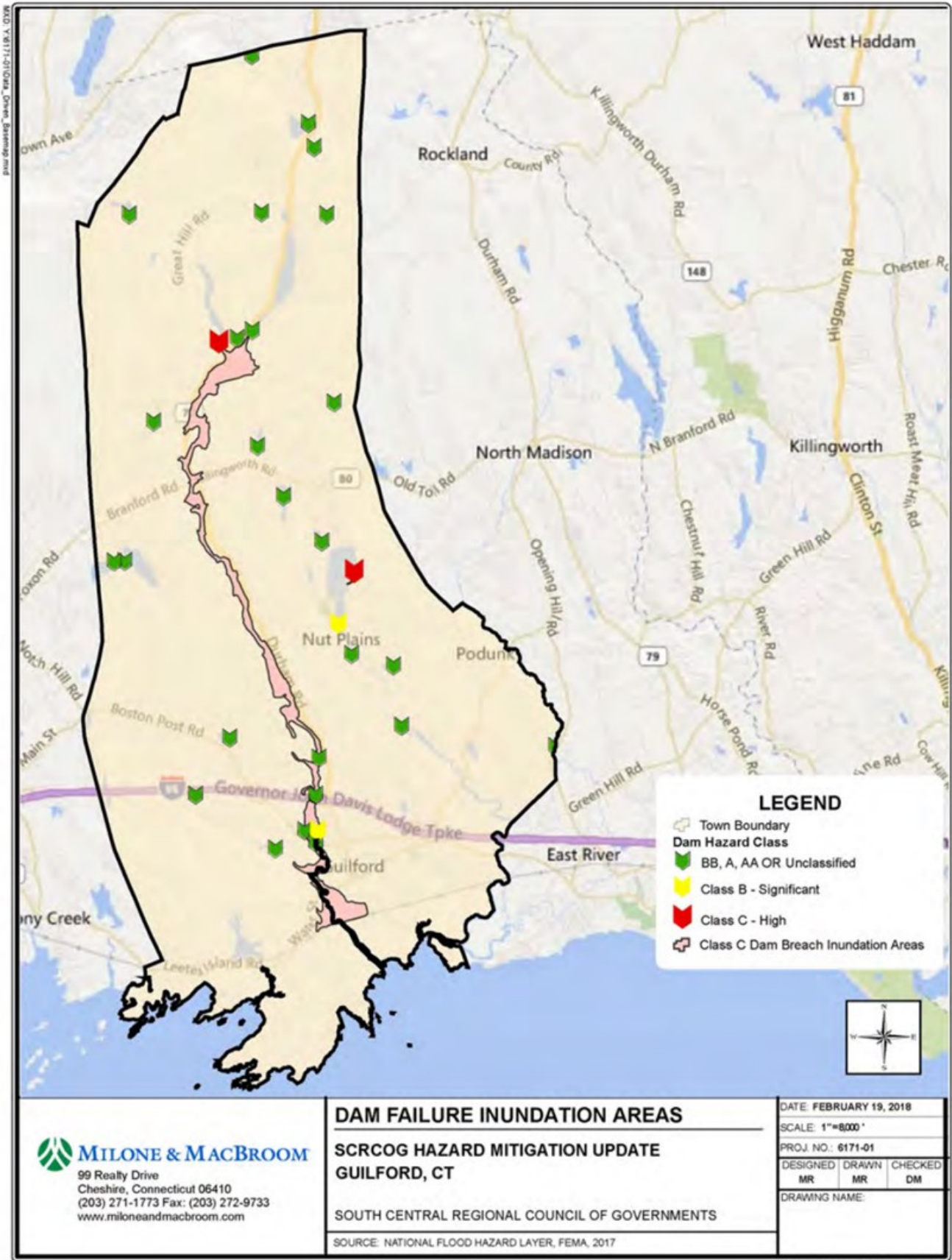
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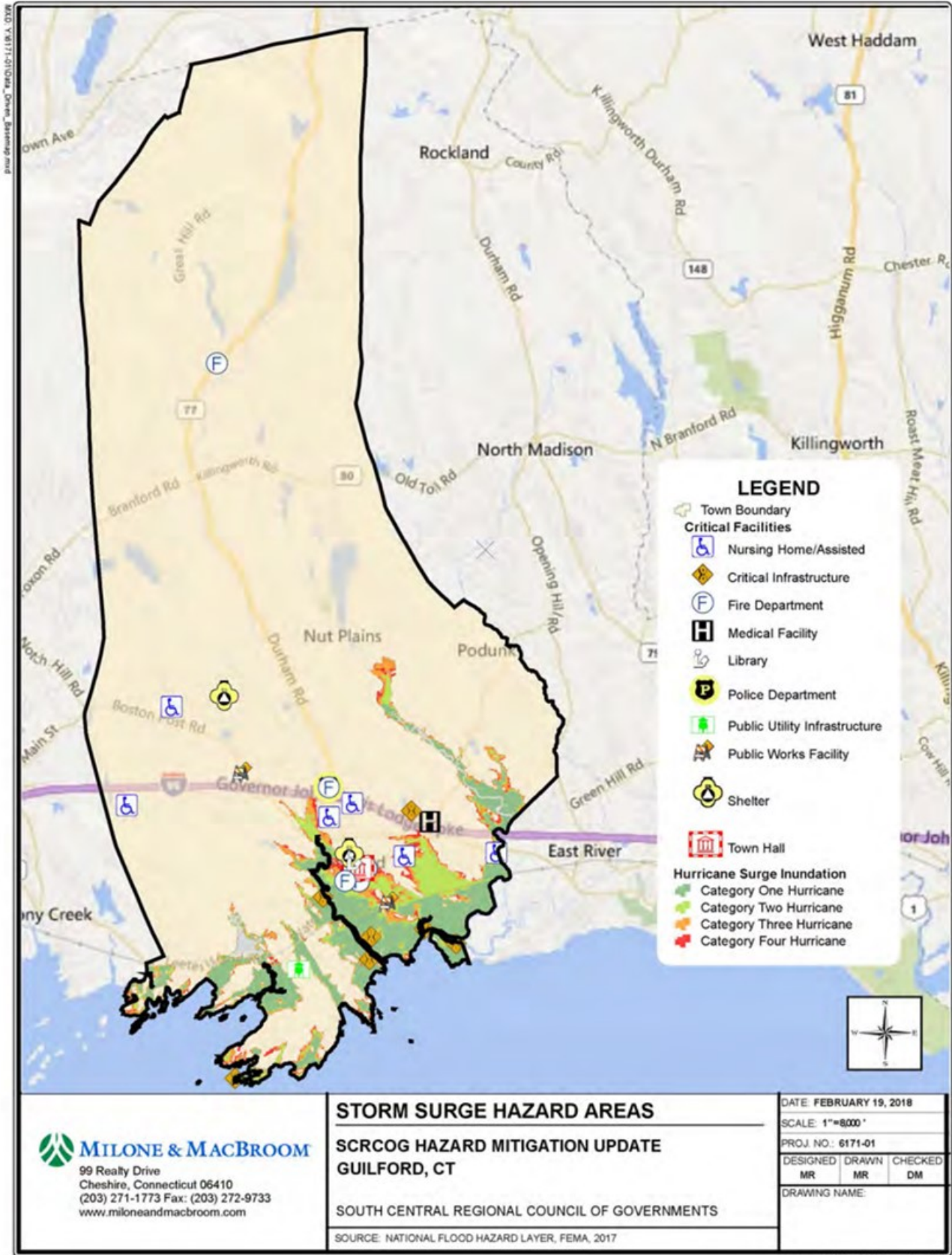
HISTORIC RESOURCES
SCRCOG HAZARD MITIGATION UPDATE
GUILFORD, CT

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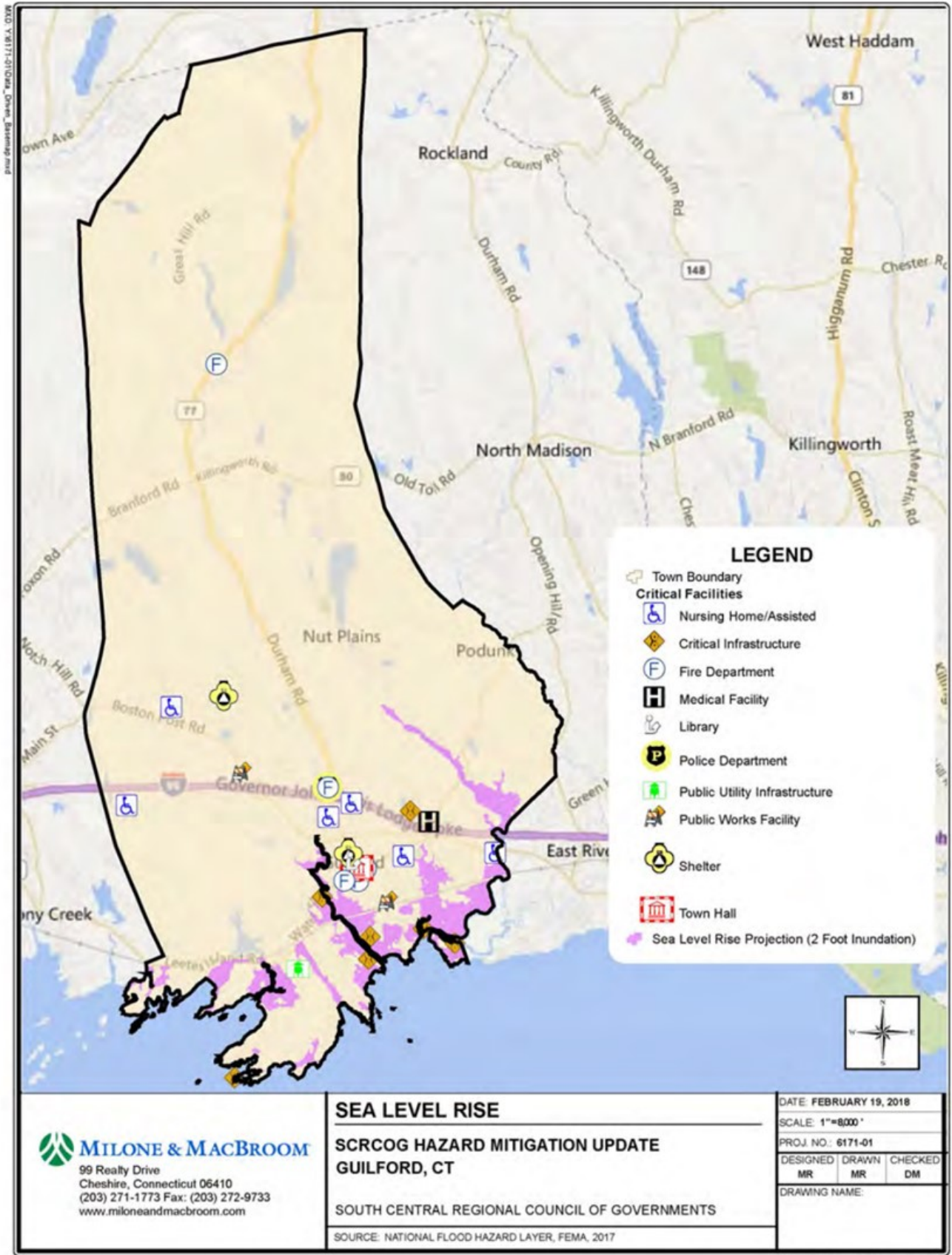
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STORM SURGE HAZARD AREAS
SCRCOG HAZARD MITIGATION UPDATE
GUILFORD, CT

SOUTH CENTRAL REGIONAL COUNCIL OF GOVERNMENTS
 SOURCE: NATIONAL FLOOD HAZARD LAYER, FEMA, 2017

DATE: FEBRUARY 19, 2018		
SCALE: 1"=8,000'		
PROJ. NO.: 6171-01		
DESIGNED	DRAWN	CHECKED
MR	MR	DM
DRAWING NAME:		

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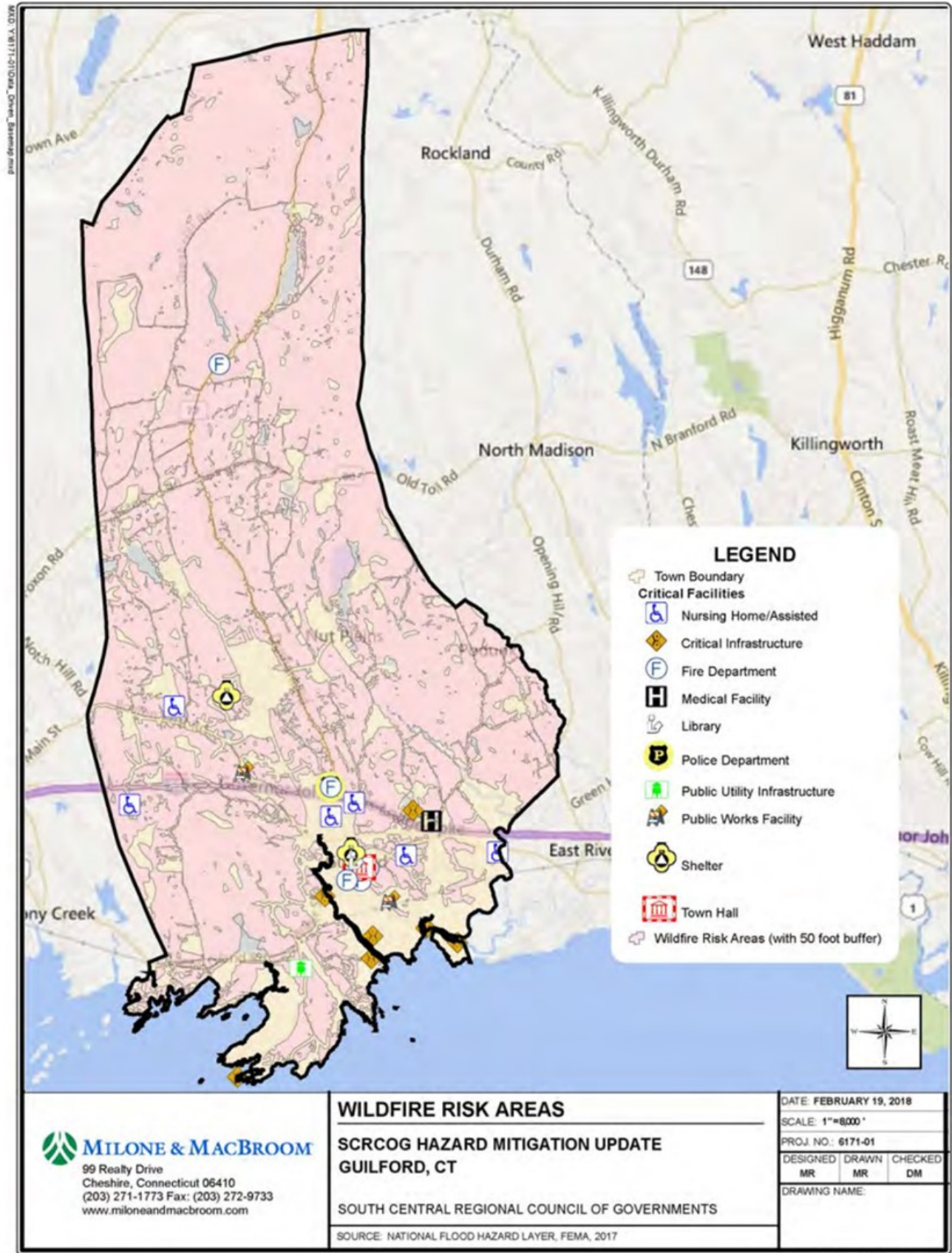


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SEA LEVEL RISE
SCRCOG HAZARD MITIGATION UPDATE
GUILFORD, CT
 SOUTH CENTRAL REGIONAL COUNCIL OF GOVERNMENTS
 SOURCE: NATIONAL FLOOD HAZARD LAYER, FEMA, 2017

DATE: FEBRUARY 19, 2018		
SCALE: 1"=8000'		
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