

HAZARD MITIGATION PLAN UPDATE ANNEX FOR THE TOWN OF FRANKLIN

Southeastern Connecticut Council of Governments
Multi-Jurisdictional Hazard Mitigation Plan Update

DECEMBER 2017

ADOPTED

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1 INTRODUCTION

1.1 Purpose of Annex

The purpose of this HMP annex is to provide an update to the natural hazard risk assessment and capability assessment provided in the previous HMP, and to evaluate potential hazard mitigation measures and prioritize natural mitigation projects specific to mitigating the effects of natural hazards on the town of Franklin. Background information and the regional effects of pertinent natural hazards are discussed in the main body of the Southeastern Connecticut Council of Governments (SCCOG) Multi-Jurisdictional Hazard Mitigation Plan. Thus, this annex is designed to supplement the information presented in the Multi-Jurisdictional HMP with more specific detail for Franklin and is not to be considered a standalone document.

The primary goal of this hazard mitigation plan annex is to identify risks to natural hazards and potential mitigation measures for such natural hazards in order to **reduce the loss of or damage to life, property, infrastructure, and natural, cultural, and economic resources**. This includes the reduction of public and private damage costs. Limiting losses of and damage to life and property will also reduce the social, emotional, and economic disruption associated with a natural disaster. Franklin, with an approved Mitigation Plan, may apply for assistance from FEMA directly as a subgrantee through the state of Connecticut under the various grant programs.

1.2 Setting

Franklin was originally referred to as the "West Farms" section of Norwich. The first permanent settler, John Ayer, arrived in Franklin in 1663. The area remained known as such until the first book of town records which states that the first town meeting was held on June 20, 1786. The town is 12,590 acres (19.67 square miles) in size and lies on the northern border of New London County. Franklin borders Windham (north), Lebanon (west), Bozrah (south), Norwich (southeast), and Sprague (east). The most significant surface water bodies include a small portion of the Yantic River lies in the extreme southern end of town and the Susquetonscut Brook which flows northwest-southeast across the southwestern portion of town. The three major transportation routes through town consist of Routes 32, 87 and 207.

1.3 Plan Development

The 2012 HMP and its annexes were developed through a series of meetings and the completion of written questionnaires, personal interviews, and workshops as described in the Multi-Jurisdictional HMP update. Since that time, the HMP has been available in municipal offices and available to emergency personnel. Residents were encouraged to contact the First Selectman or the Deputy Fire Marshall/Director of Civil Preparedness with any concerns regarding emergency response or potential projects related to natural hazard damage.

Based on the existing plan, existing information, and hazards that have occurred since 2012, SCCOG determined that the following data collection program would be sufficient to collect data to update the Multi-Jurisdictional plan and each annex.

- ❑ A data collection meeting was held with the First Selectman and the Emergency Preparedness Director on December 15, 2016 to discuss the scope and process for updating the plan and to collect information. The meeting focused on reviewing each section of the existing hazard mitigation plan and annex, critical facilities, and various types of hazards that have affected Franklin and that should be addressed in the update.
- ❑ The SCCOG issued a press release on November 4th, 2016 announcing two public information meetings on the multi-jurisdictional HMP update. This press release was published in the Norwich Bulletin and The Day, as well as in relevant local "Patch" news websites. This notice was also posted on the SCCOG Facebook page and website. The public information meetings were held on November 28 and December 1, 2016, at the Town of Groton Library and the SCCOG office, respectively.
- ❑ A survey soliciting public input was hosted at www.surveymonkey.com/r/SCCOGHazard from October 17, 2016 through March 17, 2017. Topics addressed by the survey included the types of natural hazards that concern participants, the assets, infrastructure, and government services they feel are most at risk, and the types of mitigation measures they support. The survey link was publicized along with the public meetings in The Day, The Norwich Bulletin, and local *Patch* websites, and at all public meetings.
- ❑ The draft that is sent for State review will be posted on the town website (www.franklinct.com) as well as the SCCOG website (www.seccog.org) for public review and comment. In addition, a hard copy will be made available in the SCCOG office in Norwich. A press release will announce the availability of the HMP for review. This will provide residents, tribal members, and other stakeholders throughout the SCCOG region the opportunity to review and comment on a relatively complete draft with all annexes. Comments received from the public will be incorporated into the final draft where applicable following State and Federal comments.

The adoption of this HMP update by Franklin will be coordinated by SCCOG and the Franklin First Selectman and Emergency Preparedness Director. The HMP update must be adopted within one year of conditional approval by FEMA, or Franklin will need to update the HMP and resubmit it to FEMA for review. The adoption resolution is located in Appendix A of this annex.

1.4 Progress Monitoring

Following adoption, the First Selectman will continue to administer this HMP (as he has since 2005) under the authority of the Town of Franklin and will be the local coordinator of the HMP. The Emergency Preparedness Director will serve as deputy coordinator and assist with HMP administration and integration with other town planning documents and efforts. The local coordinator and deputy coordinator will coordinate with responsible departments as listed in Table 11-1 and ensure that the recommendations of this HMP are considered or enacted. Refer to Section 1.8 of the Multi-Jurisdictional HMP for a description of how the local coordinators will perform progress monitoring. The majority of recommendations in this annex can be accomplished within or with only a slight increase in the operating budgets of the various

departments. Projects that require capital improvements or additional funding will need to be approved by Franklin's Board of Selectmen.

Franklin plans to have the HMP on file in Town Hall as well as posted to the Town website. It will be available to all departments, providing a valuable resource in making growth decisions. See Section 2.5 for recommendations related to integrating the findings of this HMP into town planning documents. Franklin will continue to encourage town residents to contact the First Selectman's Office, the Emergency Preparedness Director, or the Department of Public Works with concerns related to natural hazards via the town's website and in applicable municipal offices as often as possible. Such announcements will also state that the HMP is available for public review at the Janet Carlson Calvert Library, Town Hall, and online. This level of public coordination is believed sufficient given the relatively disaster-resilient nature of the town and the relatively low number of residents.

The Franklin First Selectman and the Emergency Preparedness Director will review the status of plan recommendations each year. The First Selectman and the Emergency Preparedness Director will be in charge of overseeing recommended projects and coordinating an annual meeting with applicable departments (those listed in Table 11-1) and other interested departments. Refer to Section 1.8 of the Multi-Jurisdictional HMP for a list of matters to be discussed at the annual meeting, including a review of each recommendation and progress achieved to date, or reasons for why the recommendation has not been enacted. The First Selectman's Office will keep a written record of meeting minutes and the status of the recommendations. These records of progress monitoring will form the basis for the next HMP update.

The Town of Franklin understands that the multi-jurisdictional HMP and this annex will be effective for five years from the date of FEMA approval of the first SCCOG jurisdiction regardless of the date of adoption by SCCOG. The First Selectman's Office will coordinate with SCCOG for the next HMP update which is expected to occur in 2022.

2 COMMUNITY PROFILE

2.1 Physical Setting

The Town of Franklin is approximately 20 square miles in area and is located in north central New London County, approximately 40 miles southeast of the City of Hartford. Franklin is bordered by the Town of Sprague to the east, the City of Norwich to the southeast, the Town of Bozrah to the southwest, and the Town of Lebanon to the west.

Franklin is a rural community with a 2010 U.S. Census population of 1,922. The community is spread out over a large area of land. The Franklin Swamp Wildlife Management Area, which is just over 680 acres of open space dedicated to wildlife preservation, is located in the center of town. There are several ponds in Franklin including Gagers Pond, Mahoney Pond, and Kahn Pond. The two major rivers in town are the Yantic River and the Susquetonscut River. The Yantic River flows for approximately 850 feet from west to east crossing the southern tip of Franklin, while the Susquetonscut River flows from northwest to southeast across the southeast portion of town.

Franklin contains various bedrock types, which lie in fairly diagonal bands having a generally northeast-southwest orientation. There are no known faults in Franklin. Bedrock geology across the town has two major formations: Scotland Schist and Hebron Gneiss. The third largest formation is Canterbury Gneiss, while Lebanon Gabbro, the Yantic Member of Tatnic Hill, and the Quartzite Unit in Scotland Schist complete the bedrock formations in town. The predominant formations are described below:

- ❑ Scotland Schist: Consists of gray to silvery, locally rusty, fine- to medium-grained schist;
- ❑ Hebron Gneiss: Consists of interlayered dark-gray schist and greenish gray, fine- to medium-grained calc-silicate gneiss;
- ❑ Canterbury Gneiss: Consists of light grey, medium-grained, variably foliated, locally strong lineated gneiss.

In respect to Franklin's surficial geology, the town is covered primarily by glacial till. Till contains an unsorted mixture of clay, silt, sand, gravel, and boulders deposited by glaciers as a ground moraine. The remaining portions of Franklin are covered by swamp, sand and gravel, and alluvium associated with floodplains and watercourses throughout the town. The amount of stratified drift present in the town is important as areas of stratified materials are generally coincident with floodplains. These materials were deposited at lower elevations by glacial streams, and these valleys were later inherited by the larger of our present day streams and rivers. Even smaller watercourses with glacial till surficial material can cause flooding.

2.2 Land Use and Development Trends

According to the "2006 Land Cover by Area" data developed by the University of Connecticut Center for Land Use Education and Research (CLEAR), land use in Franklin includes but is not limited to agriculture, deciduous and coniferous forests, forested and non-forested wetland, turf and grass and other grasses, barren land, agriculture, open water, utility ROWs, and developed

land cover. This data shows approximately 64% of town covered by either deciduous or coniferous forest or wetlands, with only 8% "developed."

SCCOG data on land use collected in 2011 indicates that approximately 18% of town land is developed, 31% has been dedicated to open space, and 51% remains hypothetically open to development. Much of the gap between the CLEAR and SCCOG figures may be due to differences in land use designation criteria. For example, very low density residential is considered developed land by SCCOG, despite the fact that a large portion of each parcel may be open space.

According to the 2011 SCCOG data, 51% of Franklin's developed area is low and very low density residential land, while 13% is medium and high density residential. 20% is transportation, communications, or utility usage. The remaining approximately 16% of the developed area consists of industrial, commercial, and institutional uses.

Franklin continues to be a rural town characterized by a slightly increasing population since the advent of the Connecticut Turnpike (I-95) in 1956. Both residential and commercial development increased following the establishment of Route 2 and I-395. Several large agricultural and nursery employers operate in the town. The New England Central Railroad runs through Franklin linking freight service to Montreal, Canada.

The continued expansion of the Foxwoods and Mohegan Sun Casinos to the southeast has contributed to a slight increase in residential development, while easy access to Route 2 places Franklin within commuting distance from Hartford. While most of the Town does not have access to water and sewer service, expansion of water and sewer service is being considered in the south end of town where existing service is provided by Norwich Public Utilities. A proposed plan to extend water and sewer lines north from Route 2 to Murphy Road, along Route 32, was rejected by residents in 2015. The Town is still interested in this expansion, and will continue to work on passing a measure to make it happen.

At the time of development of the previous HMP, a significant proposal had been advanced in the Town of Franklin. The proposal consisted of two mixed-use projects. "Franklin Hills Estates and Country Club" was to be made up of approximately 337 acres of land extending east of Route 32. This site is zoned Planned Recreational Development District which allows for a golf course community. "Poppins Hills" was to be made up of approximately 274 acres extending west from Route 32, with plans to acquire additional acreage totaling 311 acres.

The Franklin Hills and Poppins Hills projects collectively include golf courses, a clubhouse (200 seats); a 250-unit hotel; a health spa; a beauty salon; 120 condominium units; and an active adult community of 800 residential units, a community center, a 3,000 square-foot bank, a 3,000 square foot pharmacy, and a 2,000 square foot convenience store.

There has been no movement on either of these developments in the last five years. The Franklin Hills Estates and Country Club developers are waiting for the Route 32 public water service extension project to be completed (referenced above), and it is expected that this

development will commence in the future. Town staff believe that the Poppins Hill development is likely to be dropped.

Although construction has not yet begun in either of the two developments, the situation demonstrates that the Town of Franklin is potentially poised for growth relative to its current rural population. However, no other significant development projects are planned at this time.

2.3 Drainage Basins and Hydrology

Franklin drains to two regional basins; the Shetucket and Yantic Rivers. The town is divided among five sub-regional basins: Beaver Brook, Pease Brook, Shetucket River, Susquetonscut Brook and Yantic River. All drainage basins eventually drain to the Thames River via the Shetucket or Yantic Rivers. The Thames River flows to New London and Groton, which flank its mouth at the Long Island Sound.

The Shetucket River and Beaver Brook regional basins drain either directly or ultimately to the Shetucket River regional basin, while the Pease Brook, Susquetonscut Brook, and Yantic River basins drain either directly or eventually to the Yantic River.

Gagers Pond is a large impoundment located at the north-central section of Franklin. The pond is an impoundment of Beaver Brook created by the Gagers Pond Dam. Beaver Brook flows from the southeast end of the pond in an easterly direction, crossing under Route 207 four times before entering the adjacent Town of Sprague. Several tributaries discharge to Beaver Brook within the town, including Bailey Brook, Ayers Brook, Mountain Brook (the outflow of the Mahoney Pond Dam), and Bellow Brook.

2.4 Governmental Structure

Franklin is governed by a Town Meeting and Board of Selectmen form of government. The Town Meeting is the legislative body of the Franklin and the Board of Selectmen is responsible for the administration of town policies. The authority of town officials is granted by Connecticut General Statutes. Various Boards and Commissions are composed of elected and appointed officials who supervise, manage and organize the diverse functions of local government.

Many municipal departments, commissions, and boards are involved with hazard mitigation. The various town departments, boards and commissions which play a role in the implementation of this plan include:

- First Selectman
- Wetlands Enforcement Officer/Inland Wetlands and Watercourses Commission
- Zoning Enforcement Officer/Planning & Zoning Commission
- Recreation Commission
- Building Official
- Director of Health
- Public Works Department
- Emergency Management Office

- Representative to the Southeastern Connecticut Water Authority
- Agriculture and Conservation Commission
- Fire Department

The following subsections describe general departmental responsibilities, and duties related to hazard mitigation. Where applicable, one or more of the six types of mitigation (prevention, property protection, natural resource protection, structural projects, emergency services, and public education) are identified as relevant for each department.

First Selectman

It is the First Selectman's duty to ensure that the town's residents and business people are safe. The First Selectman is the Local Coordinator of the subject Plan. The First Selectman is charged with the duty of maintaining, updating and coordinating any changes to the subject Plan.

Wetlands Enforcement Officer/Inland Wetlands and Watercourses Commission

The Wetlands Enforcement Officer enforces the Inland Wetlands and Watercourses Regulations.

Zoning Enforcement Officer/Planning & Zoning Commission

The Zoning Enforcement Officer enforces the local zoning and subdivision regulations, provides staff assistance to the Planning and Zoning Commission, and performs long-term planning activities related to land use and community development.

The Zoning Enforcement Officer provides assistance to the Health Department and Building Department and is responsible for housing and economic development planning. The Zoning Enforcement Officer enforces the zoning regulations.

Because the Zoning Enforcement Officer assists the applicable commissions with administration of the Zoning Regulations, Subdivision Regulations, and Inland Wetland Regulations, the department is responsible for elements of almost all six facets of mitigation (prevention, property protection, natural resource protection, structural projects, emergency services, and public education).

Recreation Commission

The Recreation Commission is involved in the planning and upkeep associated with the recreation areas in town. The members work alongside many other departments in regards to different topics relative to recreational sites.

Building Official

The Building Official administers Franklin's building inspection program adhering to and enforcing all code requirements of the State of Connecticut relating to building construction. Additional responsibilities include administering and enforcing all related state codes for the safety, health, and welfare of persons and properties in town, supervising departmental policies and procedures, and providing technical assistance to town officials.

The Building Official has a unique responsibility when it comes to hazard mitigation as he or she is responsible for overseeing a number of codes such as those related to wind damage

prevention as well as those related to flood damage prevention. Although other departments and commissions may review development plans and develop or revise regulations, many important types of pre-disaster mitigation are funneled through and enforced by the Building Department. For example, the Building Department enforces A-zone standards for floodproof construction and building elevations, maintains elevation certificates, and enforces building codes that protect against wind and fire damage. Thus, the types of mitigation that are administered by the Building Department include prevention and property protection.

The primary role of the Building Department during disaster situations is to provide damage assessment, inspect damaged buildings and issue permits for temporary structures and actions necessary to maintain safety standards.

Director of Health

The Director of Health works alongside the Building Official and other employees to maintain high quality of health in town.

Public Works Department

Franklin has a Public Works Department whose responsibilities include construction and maintenance of roadways, sidewalks, and drainage systems; maintenance of all parks and school properties; street sweeping, sanding, and snow removal; the preservation, care and removal of trees within the Franklin's rights-of-way and/or public places; and maintenance of town vehicles and equipment.

As is common throughout Connecticut, Public Works Departments are often charged with implementing numerous structural projects that are related to hazard mitigation. Specifically, roadway/infrastructure maintenance and complaint logging/tracking are the two primary duties of the Public Work Department. For example, the Public Works Department tracks, plans, prepares for, and responds to flooding, inundation, and/or erosion of roads and infrastructure such as the sewer pumping station and the wastewater treatment plants. The Public Works Department also conducts snow removal and deicing on roads; tree and tree limb removal in rights-of-way; and maintains and upgrades storm drainage systems to prevent flooding caused by rainfall.

Because of the duties described above, the Public Works Department is often the de facto first responder during emergencies. The Public Works Department must maintain access prior to and throughout events to provide the Police and Fire Departments proper egress to respond to emergencies.

Emergency Management Office

The mission of the Emergency Management Office is to maximize survival of people, prevent and/or minimize injuries, and preserve property and resources in Franklin by making use of all available manpower, equipment, and other resources in the event of natural or technological disasters or national security threats. In addition to coordinating activities during disasters, the Emergency Management Office coordinates all early warning activities and is involved in educating the public on how to react during emergency situations. The Franklin Fire

Department plays a vital role in assisting the Emergency Management Office with coordination of emergency activities.

Franklin is registered with the State of Connecticut's Alerts "Everbridge" System. The system uses the state's Enhanced 9-1-1 database for location-based notification to the public for life-threatening emergencies. The Town encourages residents to submit their contact information such that they can be notified in case of an emergency.

Department of Fire – Rescue – EMS

The Franklin Volunteer Fire Department provides fire emergency and rescue services. The Fire Department is the primary agency involved with hazard mitigation through emergency services and public education.

Police Department

The town does not have a police department or a resident state trooper. When police services are needed, they contact the Connecticut State Police Troop K in the Town of Colchester. Colchester is located two towns to the west of Franklin at a driving distance of approximately 15 miles. Duties related to natural hazard mitigation include planning and coordination of personnel, equipment, shelters, and other resources necessary during an emergency. The types of mitigation that are directly administered by the police include mainly emergency services and public education. Communication and coordination with the Fire Department is critical before, during, and after natural hazard emergencies. The town must work closely with State Police Troop K to ensure that, in the event of a natural disaster, their involvement in preparation and involvement throughout the event is fully understood by both parties.

Additional Groups

In addition to town offices, the American Red Cross and the Salvation Army provide services related to mitigation and emergency management. The American Red Cross and the Salvation Army help provide shelter and vital services during disasters and participates in public education activities.

2.5 Review of Existing Plans and Regulations

Franklin has several sets of plans and regulations that address elements of hazard mitigation and disaster preparedness.

Plan of Conservation and Development

The Town's Plan of Conservation and Development (POCD) was updated with an effective date of June 1, 2013. The Plan seeks to be a statement of policies, goals and standards for the physical and economic development of the Town and recommends the most desirable uses types and population densities in various parts of the municipality.

The 2013 Town of Franklin POCD includes the following actions:

- Development is limited in areas with steep slopes, wetlands, and areas of rock outcrops and shallow-to-bedrock soils.

- ❑ Certain collector roads should be brought up to town standards to provide better access for emergency vehicles.
- ❑ Reconstruction of Route 87 should help alleviate drainage problems.
- ❑ Town should consider acquiring land for watershed protection, if the town decides to pursue public water supply in the future.
- ❑ Ensure Stormwater management practices win new developments does not contaminate waterways with siltation, point and non-point source pollution.

The Franklin POCD is considered somewhat consistent with the current goals and actions of the hazard mitigation plan. However, it does not directly address several of the hazards such as winter storms, floods, earthquakes, and wind. The next update to the POCD (scheduled for 2023, beyond the life of the current hazard mitigation plan) should incorporate more elements of the hazard mitigation plan.

Emergency Operations Plan

Franklin has an Emergency Operations Plan (EOP) that is updated annually which includes a flooding section. The EOP is signed by the Town Selectman, approved by the Board of Selectman and extends the duties and powers of the First Selectman and/or his designee in the event of a declared emergency. In the event of an emergency the public will be notified and kept informed as events unfold and situations change.

Franklin Elementary School Snow Removal Plan

Snowload became a serious issue during the intense snow storms in January and February of 2011. In response, Franklin developed a Snow Removal Plan to prohibit damage to the school.

Zoning and Subdivision Regulations

Hazard prevention includes identification of risks and the use of land-use regulatory and other available management tools to prevent future damage. The Town of Franklin has planning and zoning tools in place that incorporate floodplain management, emergency access requirements, and other development and design constraints relevant to hazard mitigation.

The town's planning and zoning regulations and the building department's enforcement of the Connecticut Basic Building Code are all important existing regulatory mechanisms that address hazard prevention and incorporate floodplain management.

Flood damage prevention is covered by Section 9.14, "Special Flood Hazard Area Requirements" of Franklin's Zoning Regulations (effective date May 18, 2017). This section is the town's articulation of the NFIP regulations. Stormwater requirements are enumerated in Section 11.5 entitled "Drainage." The stormwater regulations provide required design practices and technical standards for drainage system networks in regards to site development within town. Emergency access and slope constraints are also included in the Zoning Regulations.

Franklin's Subdivision Regulations (effective June 15, 2011) include additional flood-protection and emergency access regulations.

Wetland Regulations

The town's inland wetlands and watercourses regulations are important regulatory mechanisms that addressed hazard prevention and incorporate floodplain management. Franklin's regulations regarding the protection of wetland and watercourses which describes regulated a "regulated activity" in Section 2. Largely, a regulated activity is described as "removal or deposition of material, or any obstruction, construction, alteration or pollution, of such wetlands or water course, or within 50' of wetlands or watercourses...", not including activities described in Section 4 of the *Regulation Book*.

School Emergency Plan

The Franklin Emergency Preparedness Director is coordinating with the school administration to review the School Emergency Plan, and ensure school staff are familiar with it.

2.6 Critical Facilities, Sheltering Capacity, and Evacuation

The Town considers that several categories of facilities are critical for these are needed to ensure that emergencies are addressed while day-to-day management of the community continues. In addition, locations with populations that may be at additional risk during an emergency are also considered to be critical. Critical facilities are presented on figures throughout this annex and summarized in Table 2-1. A few notable categories of critical facilities are discussed below.

Table 2-1: Critical Facilities

Facility	Address or Location	Emergency Power Supply?	Shelter?	In Floodplain?
Emergency Services				
Volunteer Fire Department	5 Tyler Drive	Yes	Primary	No
Municipal Facilities				
Town Hall	7 Meetinghouse Hill	Yes	Secondary	No
Public Works Town Garage	171 Pond Road	No	No	No
Shelter: Franklin Elem. School	206 Pond Road	No	Yes	No
Health Care / Senior Living				
Elisha Brook (elderly housing)	56 New Park Ave	Yes	No	No
Private Group Home	Route 32	No	No	No
State Group Home	Old Route 87	Yes	No	No
Holton Road Group Home (State)	86 Holton Road	Yes	No	No
Other Infrastructure / Facilities				
Norwich Orthopedic Group	82 New Park Avenue	No	No	No
A B C's & 123's LLC	79 Connecticut 32	No	No	No

Fire Department Facilities

Franklin has one Volunteer Fire Department Station. The station is staffed completely by volunteer firefighters and is equipped with a generator that is less than a decade old. Additionally, the building has shower facilities. Recently, it was utilized as a washing and charging station following Tropical Storm Irene and Winter Storm Alfred. The Volunteer Fire

Department is located at 5 Tyler Drive. Although the fire station is located near a tributary to Gagers Pond, it is not located in a special flood hazard area. This is the Town's primary shelter.

Municipal Facilities

The Town Hall, located at 7 Meeting House Hill Road is the EOC, which is the most secure town-owned building and is equipped with a generator that is less than a decade old. This is the Town's secondary shelter.

Franklin's radio system has portable, vehicular, and base radios that are used at/by the Town Hall, the Fire Department, and the Public Works Department. Franklin can also communicate with several of its neighboring towns on the system. The radio base station is at Town Hall.

Shelters

Emergency shelters are considered to be an important subset of critical facilities as they are needed in emergency situations. These are not to be confused with safe rooms or individual storm shelters, such as designated rooms in certain buildings that are meant to provide increased levels of protection from winds. A primary shelter should have the ability to operate with a standby source of power such as an emergency generator. While FEMA's mitigation programs are not able to fund generators, other funding programs are available for purchase of generators. The most notable example is the "Emergency Operations Center and Emergency Shelter Generator Grant Program" administered by Connecticut Department of Emergency Management and Homeland Security (DEMHS). This program specifically targets emergency operations centers and shelters, and awards can only be made for municipal facilities.

As noted in the Town's EOP, the Fire Department, the Town Hall, and the Elementary School have been designated as the primary, secondary, and backup shelters, respectively, in Franklin. None of these facilities have been certified by the American Red Cross (ARC). Currently, the Elementary School does not have a generator. The sheltering capacity of Town Hall (103 seated) and the Fire Department (214 seated) are considerably less than the Elementary School. Franklin should make it a priority to acquire a generator for the Elementary School and certify at least one of the shelter facilities with the ARC.

Communications

The town conducts an ongoing evaluation to its emergency communication capabilities alongside its annual EOP update. The town has interdepartmental and inter-municipal radio-communication capability. Additionally, the town pursued funding to purchase new radios in 2013. The town is also working with the State of Connecticut to resolve the recognition problem relative to town residents which the CT Alerts "Everbridge" System is currently having.

Evacuation Routes

Franklin does not have a published evacuation map, but rather utilizes state or local roads to exit the town. Major roadways include Route 207, Route 32, Route 87 and Baltic Road. The SCCOG Long Range Regional Transportation Plan (FY 2011-2040) addresses the adequacy of the existing transportation system in southeast Connecticut to move large numbers of people in the event of some type of disaster. Just beyond the southern town boundary are Route 2, and Interstate 395 lies just east of the southern portion of town.

Franklin also has handicapped-accessible vans to transport seniors during weekdays (Tuesday and Thursday, by appointment). Additionally, the town leases school buses for public transportation. Franklin has a list of people who may need additional assistance during an emergency which is updated monthly by the Visiting Nurses Association (VNA). As a result, all residents who do not utilize VNA services are not on this list. Those residents that do not offer their special needs information to the town are unaccounted for during an emergency situation when the town is prioritizing course of action relevant to residents' needs.

3 INLAND FLOODING

3.1 Setting / Historical Record

In general, Franklin endures very few flooding problems and the potential for flooding is largely concentrated in areas along established SFHAs. The areas impacted by overflow of river systems are generally limited to river corridors and floodplains. Indirect flooding that occurs outside floodplains and localized nuisance flooding along tributaries is also a common problem in different areas in Franklin.

SFHAs in Franklin are delineated on a Flood Insurance Rate Map (FIRM) and Flood Insurance Study (FIS). The FIRM delineates areas within Bozrah that are vulnerable to flooding and was most recently published on July 18, 2011 combined with the remainder of New London County. The majority of the watercourses and water bodies in Franklin are mapped as Zone A, with the exception of the section of the Susquetonscut Brook downstream of Meeting House Hill Road that is mapped as Zone AE. All drainage complaints are reviewed by the First Selectman, but may be compiled by other departments such as the Public Works.

3.2 Existing Capabilities

The town has in place a number of measures to mitigate for flood damage. These include regulations, codes, and ordinances preventing encroachment and development near floodways; and monitoring efforts and emergency services. The Town attempts to mitigate flood damage and flood hazards by utilizing a wide range of measures: restricting activities in floodprone areas, replacing bridges, promoting flood insurance, acquiring floodprone structures, maintaining drainage systems, through education and outreach, and utilizing warning systems.

Franklin has a two-member highway crew responsible for inspecting and maintaining the Town's drainage infrastructure. This crew regularly performs "windshield" inspections of floodprone areas, drainage swales, and culverts as part of their standard operating procedures. Maintenance is performed on an as-needed basis. The Public Works department has arrangements in place to share equipment with neighboring towns, giving them access to equipment they would not be able to afford otherwise.

As outlined in Section 2.6 above, the town's flood regulations, which are its articulation of the NFIP regulations, are included in Section 9.14 of the Zoning Regulations. These regulations require elevation or floodproofing of new construction and substantial improvements to or above the base flood elevation. Construction and repair costs used to determine whether the substantial improvement threshold has been met are calculated over a one-year period.

Stormwater design regulations are included in Section 11.5 of the Zoning Regulations. Drainage complaints are directed to the First Selectman.

Additional flood-protection and drainage requirements are included in the Subdivision Regulations (2011).

Summary

In general, municipal capabilities to mitigate flood damage have not increased significantly since the 2012 edition of the hazard mitigation plan was adopted. This is likely because the Town has neither experienced flooding in recent years, nor has experienced development.

3.3 Vulnerabilities and Risk Assessment

This section discusses specific areas at risk to flooding within the Town. Inland flooding due to poor drainage and other factors is also a persistent hazard in the Town and can cause minor infrastructure damage, expedite maintenance, and create nuisance flooding of yards and basements.

3.3.1 Vulnerability Analysis of Areas along Watercourses

Town officials have not specified that any specific areas along watercourses in town are particularly susceptible to flooding. Nevertheless, there are a number of rivers and brooks that run through Franklin and present possible flood flooding problems during heavy storms. In general, there is limited development within the floodplains of these watercourses.

Franklin has several major transportation routes throughout town. These routes include Route 32, Route 207, Route 87, and Baltic Road. The potential for emergency response disruption exists due to a portion of Routes 87 and 207 lying in Zones AE and A. The Franklin First Selectman has indicated that the following areas adjacent to state roads experience drainage-related flooding:

- Manning Road at Route 32
- Plains Road at Route 32 (the Emergency Preparedness Director believes the issues at this site have been addressed)
- Murphy Road at Route 87

Flooding near roads that may impede vehicle travel include Route 207-Pond Road where Beaver Brook intersects the road at multiple locations with the potential for the road to become impassable for vehicles during heavy storms. Other roads potentially affected include, Under the Mountain Road, Plains Road, and Kahn Road. Although there are no structures in these flood zones, vehicle travel and thus emergency response to outlying areas may be hampered. Other problem areas include:

- The Yantic River forms the southern boundary of the community. The small segment of the Yantic River within the Town of Franklin has become a source of frequent overbank flooding. There are several houses in the floodplain in this area. The Susquetonscut Brook is a flooding concern because of the potential of development in portions of its floodplains.
- The March 2010 storms caused a guardrail and part of the road to wash out on Old Route 32 near the Yantic River. The Town received funding to replace the guardrail and stabilize the bank with riprap.

- ❑ Holton Road has a new drainage system that addressed nuisance flooding.
- ❑ Route 32 has two areas with a significant drainage problem. The problem is caused by heavy rainfall moving rocks and debris down the steep hillsides onto the roadway. This clogs the catch basins and leads to overflows, ponding, and erosion. The State has closed sections of Route 32 recently due to drainage issues such as during the March 2010 storms.

The Town is widening Murphy Road, which will require coordination with the State to perform the necessary drainage alterations at Route 87. The State is performing significant drainage work on Route 207 that should mitigate flooding; this work will occur just below Gagers Pond, at Ayer Brook, and near Baltic.

3.3.2 Vulnerability Analysis of Private Properties

Buildings located in flood hazard areas are primarily residential but also include some commercial and industrial structures. Most of the structures that are threatened by flooding are located within the 100-year floodplain. Based on a review of the Franklin's Flood Insurance Rate Maps and topographic maps, residential structures that are subject to flooding during significant flood events are located along the Yantic River section of the town. Repetitive flood insurance claims have been filed at three properties in Franklin, but the current list as of 2017 lists only two repetitive loss properties. These repeat claims demonstrate that repeated flooding has occurred.

According to the 2010 FEMA FIRM GIS data layers, a total of 22 acres are located within the 0.2 percent annual chance flood hazard area, while 991 acres are located in Zone A, and 113 acres are located in Zone AE. These floodplains are depicted on Figure 3-1.

In general, development in the mapped floodplains is limited in Franklin. The primary Zone A and Zone AE areas are associated with Beaver Brook, McCarthys Brook, and Susquetonscut Brook. The software platform *ESRI® ArcMap™ 10.0* was utilized along with Bing Maps Hybrid aerial mapping to determine the number of properties located within Zones A or AE in Franklin. There are approximately two structures with at least a portion of the structure located within the mapped 100-year floodplain of the Susquetonscut Brook, with one additional structure in the mapped 500-year floodplain. The only other development within a mapped floodplain is along Kahn Road, where two structures are located within the 100-year floodplain of an unnamed watercourse.

Town officials have expressed concern about Old Route 32 in the southeast corner of the town along the Yantic River. Flooding of the Yantic River corridor was problematic for many years until a FEMA buyout of the majority of homes in this area prior to the year 2000 left few floodprone structures remaining. One repetitive loss property was removed during this buyout program. Franklin officials noted that one house still remains in the area and is still potentially threatened by flooding; it is built on higher ground than the homes that were bought-out, and therefore is less susceptible to flooding than those other properties had been. This house is accessed from the City of Norwich.

LEGEND

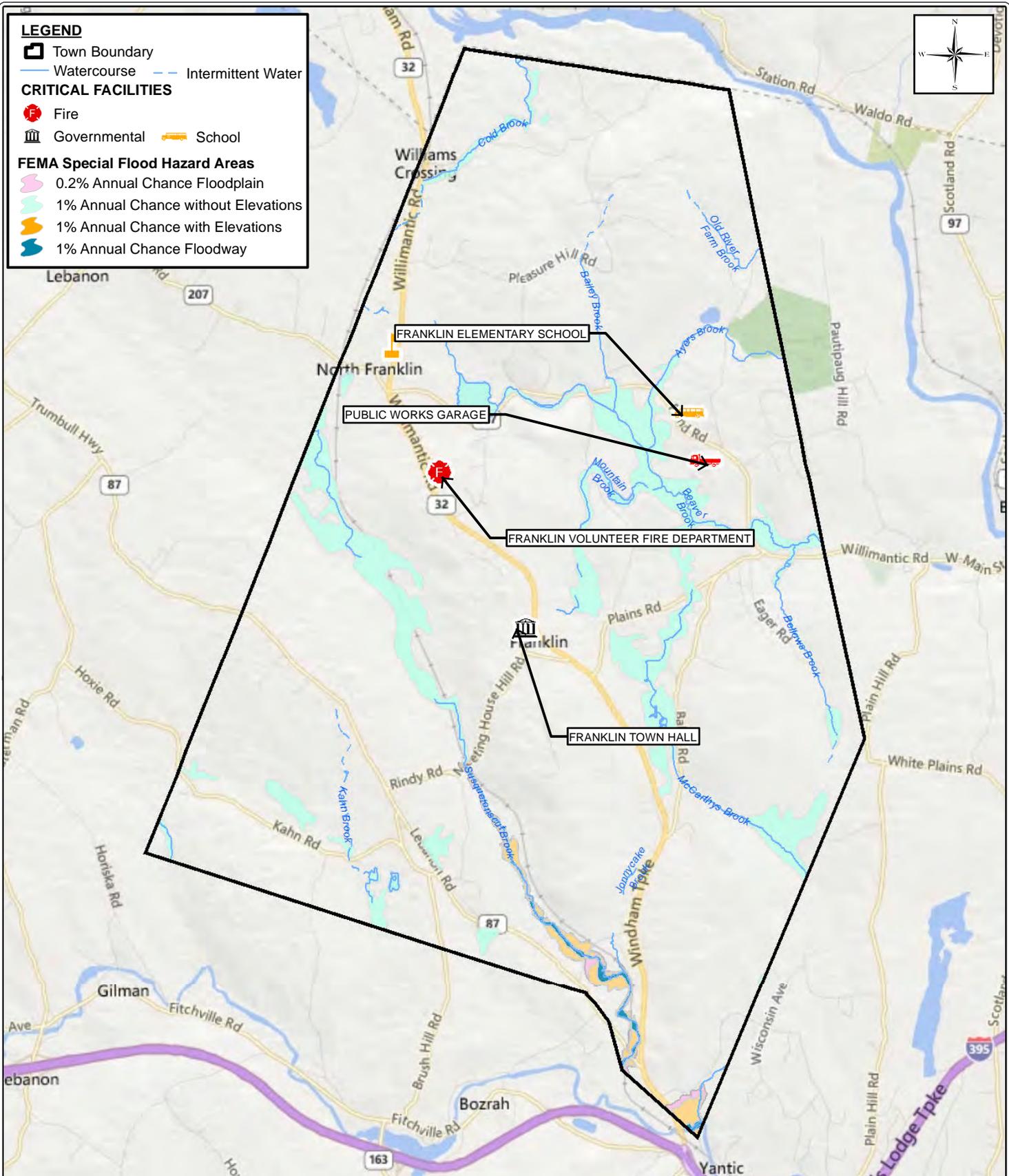
- Town Boundary
- Watercourse
- Intermittent Water

CRITICAL FACILITIES

- Fire
- Governmental
- School

FEMA Special Flood Hazard Areas

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



DATE: JULY 26, 2017		
SCALE: 1"=4,500'		
PROJ. NO.: 3570-09		
DESIGNED SB	DRAWN PS	CHECKED DM
DRAWING NAME:		

FIG. 3-1

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

FEMA SPECIAL FLOOD HAZARD AREAS
SCCOG HAZARD MITIGATION UPDATE
TOWN OF FRANKLIN ANNEX

FRANKLIN, CONNECTICUT
 SOURCE: NATIONAL FLOOD HAZARD LAYER, FEMA, 2017

The remaining repetitive loss property is located near Beaver Brook in the eastern part of Franklin. This property may be affected by riverine flooding from Beaver Brook.

Birch Heights, located off Baltic Road in the eastern portion of the town, is a residential development constructed in the early 1970s. At the time of construction, Franklin did not have any zoning regulations to address stormwater issues. Town officials are often contacted regarding flooding and erosion of properties in this subdivision along with a residence on Route 87 closest to the Susquetonscut Brook for the same reasons.

There are portions of commercial properties that have been identified as located within the Zone A or AE floodplain and are considered to possibly be susceptible to flooding damage. In particular, town officials have expressed concern for a storage facility on Murphy Road located within or adjacent to a flood zone and as such may be at risk to damage. The structure is located in Zone AE.

The Town recognizes that some number of private properties may suffer flood damage that is not reported because the structures are not insured under the NFIP. These residents and business owners are likely repairing structures on their own. Flood mitigation as recommended in this plan will likely help many of these properties owners.

3.3.3 Vulnerability Analysis of Critical Facilities

The list of critical facilities provided by Franklin (in Table 2-1 above) was used with Bing Maps aerial photography to locate each critical facility throughout the town. None of the critical facilities are floodprone or located in flood hazard areas.

3.4 Mitigation Strategies and Actions

A number of measures can be taken to reduce the impact of a flood event. These include measures that prevent increases in flood losses by managing new development, measures that reduce the exposure of existing development to flood risk, and measures to preserve and restore natural resources. Full descriptions of methods can be found in the regional plan, and general and specific recommendations are presented in Section 11 of this annex.

4 COASTAL FLOODING & STORM SURGE

4.1 Setting / Historic Record

Franklin is not located along the coastline or along any tidally-influenced river. It is also not located in a potential hurricane surge zone. No coastal flooding or storm surge has affected the town since the last HMP. Therefore, Franklin is considered to be immune to the direct effects of coastal flooding and storm surge.

4.2 Existing Capabilities

Franklin does not require any regulations to restrict development due to coastal flooding hazards.

4.3 Vulnerabilities and Risk Assessment

No areas of Franklin are vulnerable to coastal flooding or storm surge.

4.4 Mitigation Strategies and Actions

No mitigation measures for reducing the impact of coastal flooding or storm surge are necessary or are proposed within Franklin.

5 HURRICANES AND TROPICAL STORMS

5.1 Setting / Historic Record

Several types of hazards may be associated with tropical storms and hurricanes including heavy or tornado winds, heavy rains, and flooding. Wind hazards are widespread and can affect any part of Franklin. However, some buildings within town are more susceptible to wind damage than others.

Tropical Storm Irene impacted the town in August 2011. Branches, trees, utility lines, and other items fell throughout town, while areas along roads and near residences being the hardest hit areas. Some residents were without electricity for up to a week following the storm. Town staff delivered informational flyers to homes without power, keeping residents informed of shelters and major road issues during the storm.

The last major hurricane or tropical storm wind event to affect the town was associated with Hurricane Sandy in 2012. Although Franklin's inland located insulated it from the most damaging effects of the storm, wind gust of over 60 mph damaged trees and brought down power lines as well. The town received under \$10,000 from FEMA in emergency relief funds.

5.2 Existing Capabilities

Existing mitigation measures appropriate for flooding were discussed in Section 2.0. These include the ordinances, codes, and regulations that have been enacted to minimize flood damage.

Wind loading requirements are addressed through the state building code. The Connecticut State Building Code was most recently adopted with an effective date of October 1, 2016. The code specifies the design wind speed for construction in all the Connecticut municipalities. The ultimate design wind speed for Franklin ranges from 120 to 140 miles per hour depending on the building use (for example, hospitals must be designed to the higher wind speed). Note that changes in design wind speed figures since the previous HMP are largely the result of a shift from "nominal" to "ultimate" wind speeds, for compatibility purposes; see the Connecticut Building Code or the American Society of Civil Engineers website for more information. Franklin has adopted the Connecticut Building Code as its building code.

Connecticut is located in FEMA Zone II regarding maximum expected wind speed. The maximum expected wind speed for a three-second gust is 160 miles per hour. This wind speed could occur as a result of either a hurricane or a tornado. The American Society of Civil Engineers recommends that new buildings be designed to withstand this peak three-second gust.

Parts of trees (limbs) or entire tall and older trees may fall during heavy wind events, potentially damaging structures, utility lines, and vehicles. Tree damage can occur

anywhere in the town. The town has a tree warden, along with a limited budget for trimming trees of \$5,000 per year; this is an increase over the \$3,000 budgeted at the time of the previous HMP. The town seeks to trim trees along a few roads each year. The entire town lost power and some areas were out of power for up to a week following Tropical Storm Irene in 2011.

Since the previous HMP, Eversource Energy acquired Connecticut Light and Power (CL&P). All transmission lines within Franklin are now owned by Eversource, which trims trees along those lines. Eversource has implemented new, more aggressive tree maintenance regimes than existed in the past. The Algonquin Gas Company also performs trimming along its natural gas transmission line in town. Coordination between the Town and Eversource is reported to be good, and the utility company has told the Town it intends to continue to improve the reliability of the electric grid and of its response to outages.

Franklin's Subdivision Regulations (2011) require utility lines be located underground in new subdivisions. Utilities must be located underground in age-restricted housing units (Zoning Regulations, 2017).

Prior to severe storm events, Franklin ensures that warning/notification systems and communication equipment are working properly and prepares for the possible evacuation of impacted areas. Information on wind hazards and wind-resistant construction techniques are available to all construction permit applicants through the Building Inspector.

Summary

At the time of the previous edition of this HMP, the Town reported that time and budgetary constraints hamper the ability of the Tree Warden to effectively manage trees in Town. Since that time, the tree maintenance budget has increased, and Eversource has strengthened its own management program. Therefore, municipal capabilities to mitigate hurricane damage have increased since the 2012 edition of the hazard mitigation plan was adopted.

5.3 Vulnerabilities and Risk Assessment

Franklin is located well away from the shoreline; however the town is still vulnerable to hurricane and tropical storm wind damage. Of particular concern are the blockage of roads and the damage to the electrical power supply from falling trees and tree limbs. Many of the roads are narrow and bordered by private forest land, which is not cleared back from the right-of-way to prevent serious problems resulting from high winds.

Damage to trees and buildings, and resulting power outages, as a result of winds has historically been one of the most problematic issues facing Franklin during storms including high winds. Capabilities have increased as noted above. The Town should continue to work to improve its management practices, but the major vulnerability posed by inadequate trimming activities has lessened significantly.

5.4 Mitigation Strategies and Actions

Mitigating damage to utility lines, infrastructure, property, and person continues to be a large component of mitigating the impacts of storms that impact Franklin. As a result, the following further describes the importance of ongoing tree maintenance in town.

The town wishes to bury power lines underground and away from possible tree damage, although its limited budget does not accommodate this activity. In regards to requirements for new utilities to be placed underground wherever possible, only one zone in Franklin holds such a requirement. To prevent wind damage, the Town should update its current regulations to require all new utilities be placed underground and not specifically the lone industrial area. Whenever possible, the town should look for opportunities to have projects relocate utilities underground.

General potential mitigation measures that can be taken to reduce the effects of wind damage from hurricanes and tropical storms were discussed in Section 5.7 and in Section 11.2.3 of the Multi-Jurisdictional HMP. General and specific recommendations pertinent to all natural hazards and wind damage that could affect the town are listed in Section 11 of this annex.

6 SUMMER STORMS AND TORNADOES

6.1 Setting / Historic Record

Similar to hurricanes and winter storms, wind damage associated with summer storms and tornadoes has the potential to affect any area of Franklin. Furthermore, because these types of storms and the hazards that result (flash flooding, wind, hail, and lightning) might have limited geographic extent, it is possible for a summer storm to harm one area within town without harming another. Such storms occur in Franklin each year, although hail and direct lightning strikes to areas within Franklin are rarer. No tornadoes have occurred within the town since the last HMP.

Several severe thunderstorms have impacted Franklin since the last HMP update. Notable storms include the following:

- ❑ On July 26, 2011, an approaching cold front triggered scattered severe thunderstorms across Southern Connecticut producing damaging wind gusts across the region. A tree was reported down across Franklin Heights Road in Franklin.
- ❑ On June 23, 2015 a passing cold front triggered multiple severe thunderstorms across the entirety of Southern Connecticut. A tree was reported down on Route 32, causing some damage.
- ❑ On July 20, 2015, an isolated severe storm felled multiple trees on Babcock Hill Road in North Franklin.

6.2 Existing Capabilities

Warning is the most viable and therefore the primary method of existing mitigation for tornadoes and thunderstorm-related hazards. The NOAA National Weather Service issues watches and warnings when severe weather is likely to develop or has developed, respectively. As previously mentioned, Franklin can access National Weather Service forecasts via the internet as well as listen to local media outlets (television and radio) to receive information about the relative strength of the approaching storm. This information provides the town the opportunity to make a decision whether or not to activate its EOP and encourage residents to take protective measures wherever appropriate. Dispatch services are responsible for monitoring weather reports and relaying information as appropriate.

The state has provided NOAA weather radios to all public schools as well as to many local governments for use in public buildings. The general public continues to rely on mass media for knowledge of weather warnings. Warning time for tornadoes is very short due to the nature of these types of events, so pre-disaster response time can be limited. However, the NOAA weather radios provide immediate notification of all types of weather warnings in addition to tornadoes, making them very popular with communities. These warnings include lightning, thunderstorms, and hailstorms.

The town also utilizes the CT Alert "Everbridge" system as a warning system for its residents.

Aside from warnings, several other methods of mitigation for wind damage are employed by the town as explained in Section 5.2 within the context of hurricanes and tropical storms. In addition, the Building Code includes guidelines for the proper grounding of buildings and electrical boxes to protect against lightning damage.

As previously explained Franklin has a full time tree warden who conducts tree trimming on a few roads annually.

Summary

In general, municipal capabilities to mitigate thunderstorm and tornado damage have not increased significantly since the 2012 edition of the hazard mitigation plan was adopted, with the exception of increases in the tree trimming budget.

6.3 Vulnerabilities and Risk Assessment

Summer storms are expected to occur each year and are expected to at times produce heavy winds, heavy rainfall, lightning, and hail. All areas of Franklin are equally likely to experience the effects of summer storms. Tornadoes are far less frequent than less powerful summer storms and, although they can cross all areas of town, Franklin is not likely to experience a tornado in any given year.

Most thunderstorm damage, typically associated with summer storms, is caused by straight-line winds exceeding 100 mph. Experience has generally shown that wind in excess of 50 miles per hour (mph) will cause significant tree damage during the summer season as the effects of wind on trees is exacerbated when the trees are in full leaf. The damage to buildings and cable utilities due to downed trees has historically been the biggest problem associated with wind storms. Heavy winds can take down trees near power lines, leading to the start and spread of fires and widespread power outages. Such fires can be extremely dangerous during the summer months, especially during dry and drought conditions. Downed trees affecting utility structures are of great concern to Franklin, especially during dry and drought conditions as not all utilities are located underground.

Lightning and hail are generally associated with severe thunderstorms and can produce damaging effects. All areas of town are equally susceptible to damage from lightning and hail, although lightning damage is typically mitigated by warnings and proper grounding of buildings and equipment. Hail is primarily mitigated by warning. These are considered likely events each year, but typically cause limited damage within. Most buildings within town are sufficiently constructed and meet current building codes.

Although tornadoes pose a threat to all areas of Connecticut, their occurrence is least frequent in New London County as compared with the rest of the State. Thus, while the possibility of a tornado striking Franklin exists, it is considered to be an event with a very low probability of occurrence.

6.4 Mitigation Strategies and Actions

General potential mitigation measures that can be taken to reduce the effects of wind damage were discussed in Section 5.7 and in Section 11.2.3 of the Multi-Jurisdictional HMP. No additional recommendations are available specific to reducing damage from summer storms and tornadoes. Refer to Section 11 of this annex for recommendations related to wind damage and general recommendations related to emergency services in Bozrah.

7 WINTER STORMS AND NOR'EASTERS

7.1 Setting / Historic Record

Similar to summer storms and tornadoes, winter storms have the potential to affect any part of Franklin. However, unlike summer storms, winter events and the hazards that result (wind, snow, and ice) have more widespread geographic extent. The entire town is therefore susceptible to winter storms and due to its location on the shoreline can have more snowfall totals during ocean-effect snowstorms. In general, winter storms are considered highly likely to occur each year (major storms are less frequent), and the hazards that result (nor'easter winds, snow, and blizzard conditions) can potentially have a significant effect over a large area of the town.

Winter storms and nor'easters have affected Franklin since the last HMP, but only storms during the winter of 2010-2011, and fall 2011 had a significant snow load effects.

- ❑ In January and February of 2011, Franklin Elementary School was threatened with a heavy snow load. The town needed to remove the snow before the structure was damaged. As a result, the town now has a Snow Removal Plan for the School.
- ❑ Winter Storm Alfred in October 2011 caused downed trees and electrical outages in different areas of town, but much of the damage was attributed to wind damage rather than snow load damage. Power was out for over a week across Town.
- ❑ On January 1 2013, a warm front brought mostly rain to the area. Heavy winds accompanied the storm, knocking down trees on Route 187 and the Pleasure Hill Road area.
- ❑ Heavy snow from two storms impacted the region in February and March 2013. Several feet of snow fell between the two storms, taxing the town's snow removal abilities. The town received approximately \$20,000 to cover expenses related to the storms.

7.2 Existing Capabilities

Existing programs applicable to winter storm winds are the same as those discussed in Sections 5.2 and 6.2. Programs that are specific to winter storms are generally those related to preparing plows and sand and salt trucks; tree trimming and maintenance to protect power lines, roads, and structures, and other associated snow removal and response preparations.

As it is almost guaranteed that winter storms will occur annually in Connecticut, it is important for municipalities to budget fiscal resources toward snow management. Snow is the most common natural hazard requiring additional overtime effort from town staff, as parking lots and roadways need constant maintenance during storms. Collectively, the Connecticut DOT and the Franklin Public Works Department (DPW) conduct the majority of plowing in Franklin. The Connecticut DOT plows the state routes in town, while Franklin DPW takes care of all municipal roads. Private roads are not plowed by the town. Plowing routes are planned and assigned, and the town owns several plows. A new plow truck was purchased and delivered to the Town in

June of 2017. The Franklin DPW also has funds in its snow budget to hire private snow removal contractors as needed.

Treated salt is used for de-icing, though the Public Works department is currently in the process of performing an assessment of the costs and benefits of using sand versus salt for road maintenance. Completion of this assessment will help ensure the long-term sustainability, as well as the effectiveness, of the Town's road-deicing program. Snow-fencing is used as necessary to mitigate the impacts of snow-drifting (especially on Pleasure Hill Road and Robinson Hill Road. The Town considers its snow-removal capabilities to be adequate.

Prior to winter storms, the town ensures that all warning/notification and communications systems are ready before a storm and ensures that appropriate equipment and supplies, especially snow removal equipment, are in place and in good working order.

The Building Code specifies that a weight of 30 pounds per square foot be used as the base "ground snow load" for computing snow loading for roofs. Town officials have indicated that Franklin has no significant problems with icing, and that there are no known snow load issues with private buildings. No snow issues were reported for Winter Storm Alfred in October 2011. Additional tree damage and the subsequent power outage were the primary issue.

The Snow Removal Plan for Franklin Elementary School was formulated following the problems caused by snow load in January and February of 2011. Additionally, the snow-load capacity of the roof was recently determined to assist with effective snow management. Regular implementation of the plan has so far been effective, and will continue to decrease or eliminate any future issues with snow load at the site.

Many critical facilities in Franklin have emergency backup power in case of a winter-storm-caused power outage. Refer to section 2.6.

Summary

In general, municipal capabilities to mitigate snowstorm damage have increased slightly since the 2012 edition of the hazard mitigation plan was adopted. This is because the Town continues to experience heavy snow each winter.

7.3 Vulnerabilities and Risk Assessment

Severe winter storms can produce an array of hazardous weather conditions, including heavy snow, blizzards, freezing rain and ice pellets, flooding, heavy winds, and extreme cold. Further "flood" damage could be caused by flooding from frozen water pipes. Often, tree limbs on roadways are not suited to withstand high wind and snow or ice loads.

This section focuses on those effects commonly associated with winter storms, including those from blizzards, ice storms, heavy snow, freezing rain, and extreme cold. Warning and education can prevent most injuries from winter storms. Most deaths from winter storms are indirectly related to the storm, such as from traffic accidents on icy roads and hypothermia from

prolonged exposure to cold. Damage to trees and tree limbs and the resultant downing of utility cables are a common effect of these types of events. Secondary effects can include loss of power and heat.

One issue of concern to Franklin is the effects of snowdrifts piling up on roads. Drifting issues are known to occur on Plains Road, Route 207, and Route 32; in general, higher elevation areas with adjacent farmland (and therefore few trees) are susceptible to drifting snow.

7.4 Mitigation Strategies and Actions

Potential mitigation measures for flooding caused by nor'easters include those appropriate for flooding that were discussed in Section 3.7 of the Multi-Jurisdictional HMP and Section 11 of this annex. Winter storm mitigation measures must also address blizzards, snow, and ice hazards. General potential mitigation measures that can be taken to reduce the effects of wind damage were discussed in Section 5.7 and in Section 11.2.3 of the Multi-Jurisdictional HMP. General recommendations pertinent to all natural hazards that could affect Franklin are listed in Section 11 of this annex along with measures pertinent to reducing damage from winter storms under the categories of prevention, property protection, emergency services, public education and awareness, natural resource protection, and structural projects.

8 EARTHQUAKES

8.1 Setting / Historic Record

An earthquake is a sudden rapid shaking of the earth caused by the breaking and shifting of rock beneath the earth's surface. Earthquakes can cause buildings and bridges to collapse; disrupt gas, electric, and telephone lines; and often cause landslides, flash floods, fires, avalanches, and tsunamis. Earthquakes can occur at any time and often without warning. Detailed descriptions of earthquakes, scales, and effects can be found in Section 8 of the Multi-Jurisdictional HMP. Despite the low probability of an earthquake occurrence, earthquake damage presents a potentially catastrophic hazard to Franklin. However, it is very unlikely that the town would be at the epicenter of such a damaging earthquake. No major earthquakes have affected Franklin since the last HMP.

8.2 Existing Capabilities

The Building Codes include design criteria for buildings specific to each jurisdiction as adopted by Building Officials and Code Administrators (BOCA). These include the seismic coefficients for building design in Franklin. The town has adopted these codes for new construction, and they are enforced by the Building Code Enforcement office.

Due to the infrequent nature of damaging earthquakes, Franklin land use policies do not directly address earthquake hazards. However, the potential for an earthquake and emergency response procedures is addressed in the town EOP.

Summary

In general, municipal capabilities to mitigate earthquake damage have not increased since the 2012 edition of the hazard mitigation plan was adopted. This is because the hazard continues to pose a low risk of damage to the Town.

8.3 Vulnerabilities and Risk Assessment

Surficial earth materials behave differently in response to seismic activity. Unconsolidated materials such as sand and artificial fill can amplify the shaking associated with an earthquake. As mentioned in Section 2.1, a small portion of town is covered by stratified drift. The areas covered by stratified drift are likely more at risk of earthquake damage than the areas of town underlain by glacial till. The best mitigation for future development in areas of sandy material is the application of the most stringent standards in the Building Code, exceeding the building code requirements, or, if the town deems necessary, the prohibition of new construction. The areas that are not at increased risk during an earthquake due to unstable soils are the areas underlain by glacial till. Also noted in Section 2.1, fault lines do not traverse Franklin.

The built environment in Franklin includes a wide age range of structures. Any older structures in town, especially those composed of brick and the like, would be the most prone to significant damage if an earthquake were to affect the town. Areas of steep slopes can collapse during an

earthquake, creating landslides. In Franklin, the two areas along Route 32 which pose nuisance flooding issues, also move some rocks and debris down the steep hillside. If an earthquake were to affect town, the area at the base of the steep slopes would likely be impacted.

Seismic activity can also break utility lines such as water mains, gas mains, electric and telephone lines, and stormwater management systems. Damage to utility lines can lead to fires, especially in electric and gas mains. Dam failure can also pose a significant threat to developed areas during an earthquake. For this HMP, dam failure has been addressed separately in Section 10.0. As noted previously, a fair amount of utility infrastructure in town remains above ground. An emphasis on moving existing and placing new utility infrastructure below grade must remain a priority of Franklin. Aside from the municipal efforts, a coordinated call and response with Connecticut Light & Power and Algonquin Gas will be necessary to inspect damaged utilities following an earthquake, to isolate damaged areas, and to bring backup systems online. The post-earthquake recovery process is covered in the town's EOP.

A *HAZUS-MH* analysis of the potential economic and societal impacts to the SCCOG region from earthquake damage is detailed in the Multi-Jurisdictional HMP. The analysis addresses a range of potential impacts from any earthquake scenario, estimated damage to buildings by building type, potential damage to utilities and infrastructure, predicted sheltering requirements, estimated casualties, and total estimated losses and direct economic impact that may result from various earthquake scenarios.

8.4 Mitigation Strategies and Actions

Due to the low probability of occurrence, potential mitigation measures related to earthquake damage primarily include adherence to building codes, emergency response services, and the placement of utility infrastructure underground. These are mitigation measures common to all hazards as noted in Section 11 of this annex. The Multi-Jurisdictional HMP also includes additional recommendations for mitigating the effects of earthquakes. The pertinent recommendations to Franklin are reprinted in Section 11 of this annex.

9 WILDFIRES

9.1 Setting / Historic Record

Wildfires are considered to be highly destructive, uncontrollable fires. The most common causes of wildfires are arson, lightning strikes, and fires started from downed trees hitting electrical lines. Thus, wildfires have the potential to occur anywhere and at any time in both undeveloped and lightly developed areas.

9.2 Existing Capabilities

Monitoring of potential fire conditions is an important part of mitigation. The DEEP Forestry Division uses the rainfall data recorded by the Automated Flood Warning system to compile forest fire probability forecasts. This allows the DEEP and Franklin to monitor the drier areas of the state to be prepared for forest fire conditions. The town can access this information on the internet.

Existing mitigation for wildland fire control is typically focused on Fire Department (entirely volunteer) training and maintaining an adequate supply of equipment. The Department moves to the location of the fire as quick as possible. The Fire Department has access agreements with property owners to get to hydrants since almost all are located on private property and Norwich Public Utilities provides water service near Routes 32 and 87 in the southern end of town where hydrants are available, and the town also has dry hydrants in outlying areas. Additionally, the Fire Department can place lines into streams or ponds if necessary. The amount of fire protection is believed to be sufficient for fire coverage and the town has no plans to install additional dry hydrants.

The Town's water supply was tested in the summer of 2016, when extreme dry conditions led to very low water levels in ponds that serve dry hydrants. The Town was forced to reevaluate water supply capabilities that historically had been sufficient. This reevaluation was completed, and the Town has noted areas where additional firefighting water supply capabilities are needed.

The Connecticut DEEP has recently changed its Open Burning Program. It now requires individuals to be nominated and designated by the Chief Executive Officer in each municipality that allows open burning and to take an online training course and exam to become certified as an "Open Burning Official." Franklin has designated an Open Burning Official. Permit template forms were also revised that provide permit requirements so that the applicant/permittee is made aware of the requirements prior to, during, and after burn activity. The regulated activity is then overseen by the Town.

Franklin has performed some public education programming related to fire safety. In 2016 the Volunteer Fire Department visited a senior center, a daycare, and an elementary school to educate staff as well as residents and students about general fire mitigation (not specifically wildfire mitigation).

Finally, Franklin requires that all new development construct sufficiently wide roads, as well as two means of egress, for emergency fire access.

Summary

In general, municipal capabilities to mitigate wildfire damage have increased since the 2012 edition of the hazard mitigation plan was adopted, with the completion of the study of firefighting water supplies and further public education, along with the State's changes to the Open Burning Program.

9.3 Vulnerabilities and Risk Assessment

The extensive forests and fields covering the state are prime locations for a wildfire. In many areas, structures and subdivisions are built abutting forest borders, creating areas of particular vulnerability. Wildfires are more common in rural areas than in developed areas as the majority of fires in populated areas are noticed and contained in a relatively fast manner.

Wildfires have been practically non-existent in Franklin, although the threat exists with areas of inaccessible forest and many open fields used for agriculture. The northeastern section of town, north of Pleasure Hill Road, is particularly isolated with little to no access. If a fire were to occur in this area, they would need to rely on Sprague's equipment to access the area and tie hoses into surface water and/or transport water supply into the area from a roadway. However, the town does not have an ATV or off-road vehicle for firefighting, which makes such scenario a considerable vulnerability to the town. A wildfire occurred off Holton Road in 2003 or 2004 that burned approximately three acres prior to being contained. The Holton Road event is the last major wildfire in the Franklin.

The Franklin Emergency Preparedness Director has also expressed concern about cold-weather fires, which can be particularly complicated to respond to. Cold weather fires are most likely to occur in buildings, rather than as wildfires, and so are not addressed further in this document.

Educational materials should also be made available at the Fire Department and all pertinent municipal offices. Education of homeowners on methods of protecting their homes is far more effective than trying to steer growth away from potential wildfire areas, especially given that the available land that is environmentally appropriate for development may be forested. Franklin's involvement in "Fire Prevention Week", typically the first full week in October, is an opportune time to provide the public with fire safety material. The most budget-straining option to mitigate wildfires is to make improvements to the current water system.

9.4 Mitigation Strategies and Actions

Potential mitigation measures for wildfires include a combination of prevention, education, and emergency planning as presented in Section 11.

10 DAM FAILURE

10.1 Setting / Historic Record

Dam failures can be triggered suddenly with little or no warning and often in connection with natural disasters such as floods and earthquakes. Dam failures can occur during flooding when the dam breaks under the additional force of floodwaters. In addition, a dam failure can cause a chain reaction where the sudden release of floodwaters causes the next dam downstream to fail. While flooding from a dam failure generally has a limited geographic extent, the effects are potentially catastrophic depending on the downstream population. A dam failure affecting Franklin is considered an unlikely event each year as the town only has three known dams and none are classified higher than Class B. According to town officials, there are no known historical failures causing damage in Franklin.

The risk of a dam failure affecting Franklin is considered to be minimal as no major dams exist within Franklin or upstream along water bodies flowing through town. Dam failures have not affected the town since the time of the last HMP.

10.2 Existing Capabilities

Franklin has three known dams in town: Gager's Pond Dam (Class B), Mahoney Pond Dam (Class A), and Kahn Pond Dam (unranked). Franklin does not own any dams in town. Gager's Pond Dam is the only listed dam in Franklin included in the "Listing of High, Significant, and Moderate Hazard Dam Owners and Dams in Connecticut," which was last updated in January 2016. Town staff indicate that the dam has an EOP on file from 2010. They also indicated that the CT DEEP is working to get the owner to make necessary repairs to the dam.

The two remaining dams listed above are included in the "Connecticut Dams" datalayer which was published in 1996 by the DEEP. There may also be other small, unranked dams on private property in Franklin that are not inventoried by the Connecticut DEEP.

The dam safety statutes are codified in Section 22a-401 through 22a-411 inclusive of the Connecticut General Statutes. Sections 22a-409-1 and 22a-409-2 of the Regulations of Connecticut State Agencies have been enacted, which govern the registration, classification, and inspection of dams. Dams must be registered by the owner with the DEEP according to Connecticut Public Act 83-38. Owners of high and significant hazard dams are required to maintain Emergency Action Plans (EAPs), updated every two years, for such dams. As such, the owner(s) of Gager's Pond Dam should maintain an EAP.

10.3 Vulnerabilities and Risk Assessment

The risk of dam failure impacting any areas of Franklin is minimal. Gager's Pond Dam is not located upstream of any developed areas. Route 207 and a single residence are located adjacent to the east of the dam, but are the only two significant types of infrastructure located

near the dam. Both pieces of infrastructure are unlikely to be affected by a failure of the dam. Nevertheless, an updated EAP is required for the dam.

It is believed that Franklin would not be affected by the failure of any dams located outside of town. This is because dams located upstream of the town's municipal boundary are not close in proximity, and the majority of the developed areas of town are located above the 0.2% annual chance floodplain and the storm surge areas predicted for a Category Four hurricane for a failure event associated with heavy rainfall.

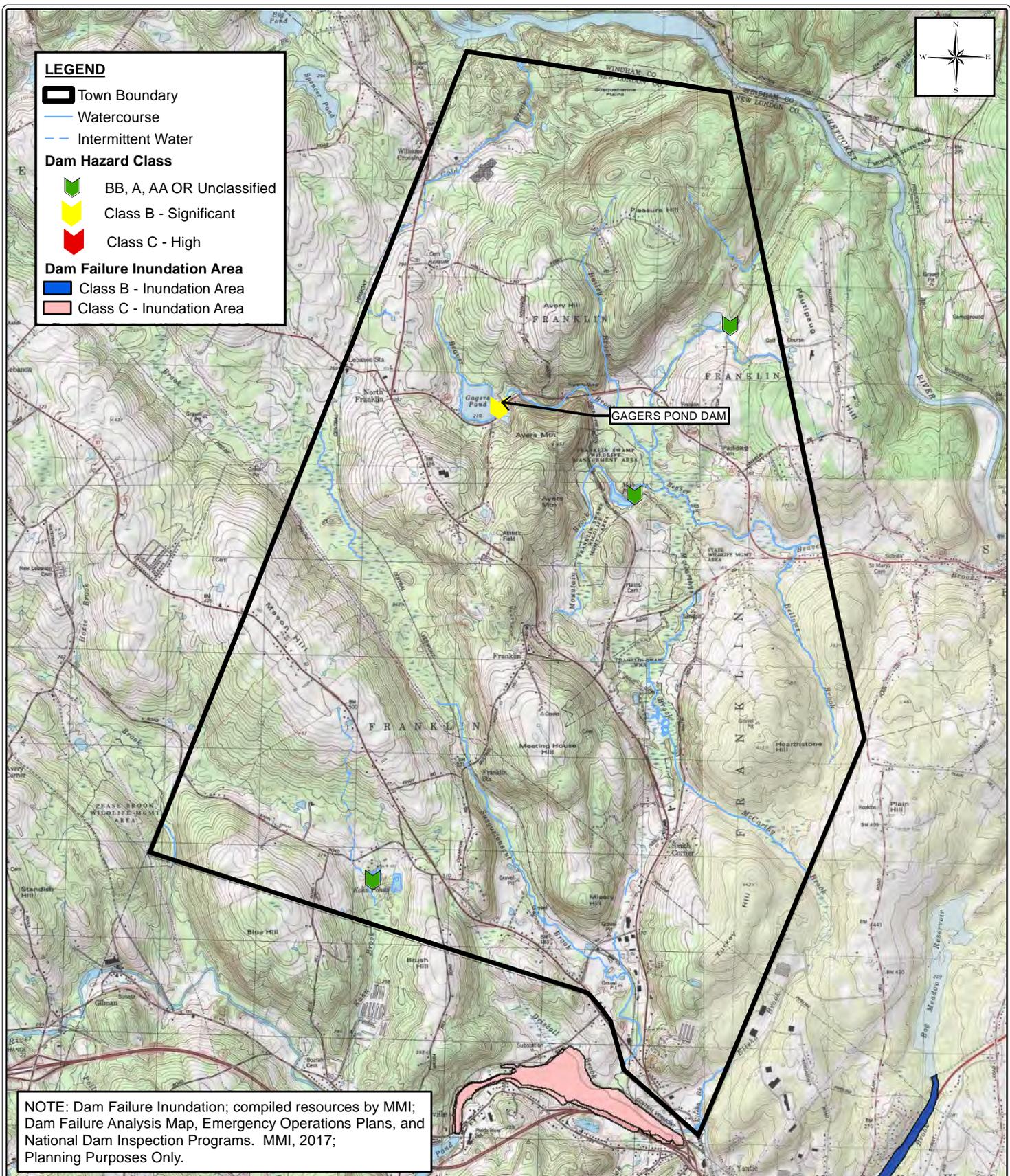
10.4 Mitigation Strategies and Actions

Potential mitigation measures for dam failure include a combination of prevention, education, and emergency planning, as well as dam removal projects as discussed in Section 11.



LEGEND

- Town Boundary
- Watercourse
- Intermittent Water
- Dam Hazard Class**
- BB, A, AA OR Unclassified
- Class B - Significant
- Class C - High
- Dam Failure Inundation Area**
- Class B - Inundation Area
- Class C - Inundation Area



NOTE: Dam Failure Inundation; compiled resources by MMI; Dam Failure Analysis Map, Emergency Operations Plans, and National Dam Inspection Programs. MMI, 2017; Planning Purposes Only.

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HIGH & SIGNIFICANT HAZARD DAMS
SCCOG HAZARD MITIGATION UPDATE
TOWN OF FRANKLIN ANNEX

FRANKLIN, CONNECTICUT

SOURCE: DAM HAZARD CLASS; DAMS, CTDEEP 1996 & LISTING OF DAMS; CTDEEP, 2016

DATE: JULY 26, 2017		
SCALE: 1"=4,500'		
PROJ. NO.: 3570-09		
DESIGNED SB	DRAWN PS	CHECKED DM

DRAWING NAME:

FIG. 10-1

11 MITIGATION STRATEGIES AND ACTIONS

11.1 Status of Mitigation Strategies and Actions

The previous edition of the SCCOG Multi-Jurisdictional HMP and Town of Franklin annex listed a suite of hazard mitigation actions applicable both locally and region-wide. These actions, along with commentary regarding the status of each, are listed in the tables in this section. Additionally, new actions were developed in the process of developing this HMP update. These are listed at the end of each hazard section below.

11.1.1 Actions Applicable to All Hazards

Actions Applicable to All Hazards		
Action	Status	Notes
Regional Coordination		
Continue to promote inter-jurisdictional coordination efforts for emergency response.	<i>Capability</i>	<i>Completed through mutual-aid agreements and SCCOG regional hazard management initiatives. This action is reclassified as a capability.</i>
Continue to promote local and regional planning exercises that increase readiness to respond to disasters.	<i>Capability/ Carry Forward / Modify</i>	<i>Town participates in regional and statewide exercises, and performs tabletop drills locally. The regional aspect of this action is reclassified as a capability. The Town does not have the personnel to run local drills on their own, but is interested in finding a way to do so. Carry forward "run local planning exercises that increase readiness to respond to disasters."</i>
Continue to evaluate communication capabilities and pursue upgrades to communication and ensure redundant layers of communication are in place within Franklin and other SCCOG communities, New London County, and the State of Connecticut.	<i>Capability</i>	<i>Town has upgraded its communication abilities to allow for interdepartmental and inter-municipal radio-communication capabilities. Its radio bands are as follows: - Ultra-high frequency for DEMHS Region 4 - Low frequency for the Fire Department - High frequency for the DPW This action is reclassified as a capability.</i>
Continue to promote regional transportation planning through SCCOG to balance general transportation, shipping, and potential evacuation needs.	<i>Capability</i>	<i>This action is the responsibility of, and is being performed by, SCCOG. This action is redefined as a regional capability, and is dropped.</i>
Work with SCCOG to perform a regional study to identify the vulnerability of critical facilities that may be unable to withstand natural hazard damage. Emphasis should be placed on critical infrastructure, shelters and other sites to ensure structural integrity against various hazards and adequacy of backup supplies.	<i>Capability</i>	<i>This action is the responsibility of, and was performed by, SCCOG. None of the facilities in the analysis were located in Franklin.</i>
Work with SCCOG to develop regional evacuation scenarios that include but build upon the Millstone evacuation plan.	<i>Capability</i>	<i>This action is the responsibility of, and is being performed by, SCCOG. This action is redefined as a regional capability, and is dropped.</i>
Local Emergency Response		
Continue to review and update the Franklin EOP at least once annually.	<i>Capability</i>	<i>Performed by Emergency Preparedness Director. This action is redefined as a capability.</i>
Continue to maintain emergency response training and equipment and upgrade equipment when possible.	<i>Capability</i>	<i>Performed by Emergency Preparedness Director and Volunteer Fire Department. This action is reclassified as a capability.</i>

Actions Applicable to All Hazards		
Action	Status	Notes
Encourage Franklin officials to attend FEMA-sponsored training seminars at the Emergency Management Institute (EMI) in Emmitsburg, Maryland.	<i>Delisted/ Capability</i>	<i>Staff attend locally-held seminars and participate in on-line trainings, but the Town has not had the capacity to send any of its very limited staff to seminars at EMI. Staff attendance of local and online trainings is an ongoing policy and considered sufficient for the Town's needs. Travel to EMI is dropped. Local and online training attendance is reclassified as a capability.</i>
Continue to evaluate emergency shelters, update supplies, and check communication equipment.	<i>Capability</i>	<i>Performed by Emergency Preparedness Director. EPD prepares shelter budgets and acquires necessary equipment. A recent evaluation determined that additional cots and blankets were needed; these are being acquired. This action is reclassified as a capability.</i>
Continue to promote dissemination of public information regarding natural hazard effects and mitigation measures into local governmental and community buildings.	<i>Capability</i>	<i>Flyers are available at the Town Hall. Hazard information is occasionally sent to residents along with tax bills. This action is reclassified as a capability.</i>
Prevention		
Form a committee to review planning documents and regulations in the Planning and Community Development office and integrate appropriate elements of this HMP into those planning documents.	<i>Carry Forward</i>	<i>Carry forward, applied to this new edition of the HMP.</i>
Continue reviewing building plans to ensure proper access for emergency vehicles.	<i>Capability</i>	<i>Performed by the Building Official. This action is reclassified as a capability.</i>
Continue to require the burying of utility lines where appropriate.	<i>Delisted</i>	<i>This action is dropped and replaced with more specific actions, below.</i>
Continue to enforce the appropriate building code for new building projects and exceed code design when possible.	<i>Capability</i>	<i>Performed by the Building Official. This action is reclassified as a capability.</i>
Encourage Franklin residents and businesses to install and maintain lightning rods on their buildings.	<i>Delisted</i>	<i>The Town has not seen strong evidence that installation of lightning rods on private residential property will be helpful. Additionally, there is little access in this area to companies capable to performing such installations.</i>

New actions or strategies developed during the HMP update include:

- Run local planning exercises that increase readiness to respond to disasters.
- Update Zoning Regulations and Subdivision Regulations to require utilities be placed underground in new developments
- Bury utilities in areas at high risk of outages due to downed limbs
- Develop a checklist for land development applicants that cross-references the specific regulations and codes related to disaster resilience
- Acquire an emergency generator for the elementary school shelter

11.1.2 Actions Applicable to Inland Flooding

Actions Applicable to Inland Flooding		
Action	Status	Notes
Continue to prohibit new development activities within SFHAs to the greatest extent possible within the Franklin land use regulations.	<i>Capability</i>	<i>Accomplished through Town Ordinance, Zoning and Subdivision regulations, and permitting procedures. This action is reclassified as a capability.</i>

Actions Applicable to Inland Flooding		
Action	Status	Notes
Make available FEMA-provided flood insurance brochures at public accessible places such as the local government buildings and the Janet Carlson Calvert Library. Encourage residents to purchase flood insurance if they are located within a FEMA SFHA.	Capability	Brochures are available at the Town Hall. It is important to note that the Town does not believe there are any structures located within the SFHA in Town; they also do not feel that lack of awareness about flood insurance is a problem in Town.
Pursue the acquisition of additional open space in SFHAs	Delisted	Franklin has significant open space and few areas in SFHAs that need additional protection.
Continue to aggressively pursue wetlands protection and incorporate performance standards into subdivision reviews	Capability	Accomplished through Town Ordinance, Zoning and Subdivision regulations, and permitting procedures. This action is reclassified as a capability.
Encourage the use of floodplain storage and other flood control methods in new developments and at existing properties where appropriate	Capability	Accomplished through Town Ordinance, Zoning and Subdivision regulations, and permitting procedures. This action is reclassified as a capability.
Utilize recently available extreme rainfall data to determine existing sizing of culverts. Encourage bridge replacements and culvert replacements in areas found to be undersized.	Delisted	It appears that extreme rainfall data is used for some projects, but the procedure is not be formalized. This action is dropped and replaced with that listed below this table.
Continue to perform catch basin and culvert surveys to determine the need for maintenance and cleaning and to identify and prioritize structures in need of replacement or upgrades.	Capability	Performed by the DPW through regular visual "windshield" inspections. This action is reclassified as a capability.
Investigate funding and feasibility of mitigating frequent drainage problems	Complete	Action completed.
Work with the CT DOT to improve the roadway drainage at the two problem areas on Route 32	Complete	Action completed.

Other mitigation actions performed in the Town since the previous HMP include:

- An upgraded drainage system has been installed in the golf course, and has been seen to mitigate some flooding downstream of that site.
- Upgrades were performed on Old Route 32, including installation of riprap to stabilize the river and protect the road in that area (completed in 2011)

New actions or strategies developed during the HMP update include:

- Develop formalized guidance for culvert and bridge construction and replacement that requires utilization of the most up-to-date extreme rainfall data from <http://precip.eas.cornell.edu> (update to Zoning Regulations Appendix 1 S:2.1)

11.1.3 Actions Applicable to Wind Damage from Hurricanes, Tropical Storms, Summer Storms, Tornadoes, and Winter Storms

Action	Status	Notes
Consider allocating an increase in annual funding for tree-trimming activities, especially on the major town roads such as Pleasure Hill Road, and New Park Avenue.	Complete	Budget increased from \$3,000 annually to \$5,000. This action is completed.

Action	Status	Notes
Promote the use of functional shutters for older buildings within town to guard against window breakage which can result in structural failure. Investigate funding sources to promote this relatively inexpensive type of retrofitting on a large scale.	<i>Delisted</i>	<i>Window blow-out has not been an issue in the Town, and staff do not feel this is a useful or necessary action. This action is dropped.</i>
Consider surveying all town buildings to determine their ability to withstand wind loading, especially those designated as town shelters.	<i>Carry Forward</i>	<i>The Town wishes specifically to survey the Volunteer Fire Department Headquarters. This action is carried forward as applying specifically to the VFD Headquarters.</i>
Visit schools and educate children about the risks of natural hazard events and how to prepare for them.	<i>Capability</i>	<i>The Town does not feel this action would be helpful. This action is dropped.</i>
Consider adding tree maintenance and trimming language into regulations wherever possible.	<i>Carry Forward</i>	<i>This action has not yet been performed. Carry forward.</i>

New actions or strategies developed during the HMP update include:

- Assess wind loading capacity of the Volunteer Fire Department.

11.1.4 Actions Applicable to Other Damage from Winter Storms

Action	Status	Status
Make funding available to the Public Works Department each budget year for clearing snow roads and parking lots and be mindful that clearing snow from roofs may be needed in the future.	<i>Capability</i>	<i>This action is reclassified as a capability.</i>
Continue to implement the Franklin Elementary School Snow Prevention Plan and identify any additional locations that may need a similar plan in the future.	<i>Capability</i>	<i>No new locations in need of such a plan have been identified. This action is reclassified as a capability.</i>
Provide information for generally protecting residents during cold weather and for mitigating icing and insulating pipes at town residences.	<i>Carry Forward</i>	<i>Emergency Preparedness Director will acquire pamphlets from FEMA and will work on setting up educational programs. This action is carried forward.</i>
Continue to identify areas that are difficult to access during winter storm events and develop contingency plans for emergency personnel.	<i>Capability/ Carry Forward</i>	<i>The Fire Department and Public Works collaborate during storm events, so formal identification of difficult-to-access areas and development of contingency plans has not been necessary up to this point. However, the EPD wishes to carry this action forward. This action is carried forward.</i>

Other mitigation actions performed in the Town since the previous HMP include:

- Public Works is in the process of assessing the costs and benefits of using salt versus sand for road maintenance.
- Public Works acquired a new plow truck in June 2017
- The school roof snow-load capacity study was completed.

New actions or strategies developed during the HMP update include:

- Complete the assessment of costs and benefits of using salt versus sand for road maintenance and implement the appropriate management regime based on its conclusion.

11.1.5 Actions Applicable to Earthquakes

Action	Status	Notes
Ensure that Franklin departments have adequate backup supplies and facilities for continued functionality in case earthquake damage occurs to these buildings where critical facilities are housed.	Capability	<i>The Town believes that it is sufficiently prepared with backup supplies and facilities. This action is reclassified as a capability.</i>
Consider preventing residential development in areas prone to collapse such as at the base of steep slopes or in areas underlain by stratified drift and most prone to liquefaction.	Capability	<i>Development applications are assessed on a case-by-case basis. This action is reclassified as a capability</i>

11.1.6 Actions Applicable to Wildfires

Action	Status	Status
Continue to evaluate fire flows, available water supply, and areas at risk of wildfire within Franklin.	Complete/ Capability	<i>Fire flows are continually assessed. The extreme dry conditions of summer 2016 tested this fire-flow evaluation protocol, as water levels in ponds that serve dry hydrants were very low. The Town had to reevaluate water supply capabilities that historically had been sufficient. This is indicative of their ongoing evaluations. This action is reclassified as a capability.</i>
Consider the purchase of off-road firefighting vehicle(s)/equipment to provide additional response capability to respond to forest fires.	Carry Forward	<i>The Town has not yet pursued this action due to budget constraints. This action is carried forward</i>
Extend public water supply and fire protection to future areas identified as being particularly at risk.	Delisted	<i>This action is considered too ambiguous. It is dropped and replaced with more specific actions below.</i>
Pursue other sources of fire-fighting water where adequate supplies do not exist, such as through the installation of dry hydrants.	Delisted	<i>This action had not been deemed necessary until the summer of 2016. It is replaced with more specific actions below. This action itself is dropped.</i>
Continue to support public outreach programs to increase awareness of forest fire danger, equipment usage, and protecting homes from wildfires. Educational materials should be made available at the Town Hall and at the Janet Carlson Calvert Library.	Carry Forward / Modify	<i>The VFD performs education and outreach at schools and senior centers. Distributing educational materials to more locations is carried forward as an action.</i>
Ensure that provisions of town regulations regarding fire protection facilities and infrastructure are being enforced.	Capability	<i>This action is reclassified as a capability.</i>

New actions or strategies developed during the HMP update include:

- Install additional dry hydrants in underserved areas with suitable ponds.
- Install cisterns in underserved areas without suitable ponds, such as:
 - o The area near Town Hall
 - o The area near Uncas Gas
- Adopt a new ordinance or regulation requiring cisterns be installed in new developments

- ❑ Acquire a new fire engine

11.1.7 Actions Applicable to Dam Failure

Action	Status	Notes
Work with the owners of known dams such as Gager's Pond Dam to develop an EOP.	<i>Delisted</i>	<i>CT DEEP has been working with Class B and C dam owners to develop EAPs.</i>

11.2 Prioritization of Specific Actions

As explained in Section 11.3 of the Multi-Jurisdictional HMP, the STAPLEE method was utilized in this annex to prioritize actions. Table 11-1 presents the STAPLEE matrix for the Town of Franklin. Each action includes the town department responsible for implementing the action, a proposed schedule, and whether or not the action is new or originally from the previous HMP.

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Action or Strategy #	Table 11-1: Mitigation Actions and Strategies for Franklin 2016 - 2021	Status	Responsible Department ¹	Fiscal Year					Cost	Potential Funding Sources ²	Weighted STAPLEE Criteria ³												Total STAPLEE Score	Priority for Community				
				7/2018-6/2019	7/2019-6/2020	7/2020-6/2021	7/2021-6/2022	7/2022-6/2023			Benefits						Costs											
											Social	Technical (x2)	Administrative	Political	Legal	Economic (x2)	Environmental	STAPLEE Subtotal	Social	Technical (x2)	Administrative	Political			Legal	Economic (x2)	Environmental	STAPLEE Subtotal
1	Run local planning exercises that increase readiness to respond to disasters	Carried Forward	EM	x	x	x	x	x	Low	OB	1	1	1	1	1	0	0	6.0	0	0	0	0	0	0	0	0.0	6.0	Medium
2	Form a committee to review planning documents and regulations in the Planning and Community Development office and integrate appropriate elements of this HMP into those planning documents.	Carried Forward	FS					x	Minimal	OB	1	1	1	1	1	0	0	6.0	0	0	0	0	0	0	0	0.0	6.0	Medium
3	Update Zoning Regulations and Subdivision Regulations to require utilities be placed underground in new developments	New	FS	x					Low	OB	1	1	1	1	1	1	0.5	8.5	0	0	0	0	0	0	0	0.0	8.5	High
4	Bury utilities in areas at high risk of outages due to downed limbs	New	DPW					x	High	CIB	0.5	0.5	1	1	1	1	0.5	7.0	0	0	0	-0.5	0	-1	0	-2.5	4.5	Low
5	Develop a checklist for land development applicants that cross-references the specific regulations and codes related to disaster resilience	New	FS		x				Low	OB	1	1	1	1	1	0	0	6.0	0	0	0	0	0	0	0	0.0	6.0	Medium
6	Acquire an emergency generator for the elementary school shelter	New	EM		x				Moderate	OB	1	1	1	1	1	0	0	6.0	0	0	0	0	0	-0.5	0	-1.0	5.0	Low
7	Develop formalized guidance for culvert and bridge construction and replacement that requires utilization of the most up-to-date extreme rainfall data from http://precip.eas.cornell.edu (update to Zoning Regulations Appendix 1 S:2.1)	New	DPW		x				Low	OB	1	1	1	1	1	0.5	0	7.0	0	0	0	0	0	0	0	0.0	7.0	High
9	Consider adding tree maintenance and trimming language into regulations wherever possible.	Carried Forward	FS	x					Minimal	OB	1	1	1	1	1	0.5	0.5	7.5	0	0	0	0	0	0	0	0.0	7.5	High
10	Assess wind loading capacity of the Volunteer Fire Department.	Carried Forward	EM			x			Low	OB	1	1	1	1	1	0	0	6.0	0	0	0	0	0	0	0	0.0	6.0	Medium
11	Provide information for generally protecting residents during cold weather and for mitigating icing and insulating pipes at town residences.	Carried Forward	EM	x					Low	OB	1	1	1	1	1	0.5	0	7.0	0	0	0	0	0	0	0	0.0	7.0	High
12	Continue to identify areas that are difficult to access during winter storm events and develop contingency plans for emergency personnel.	Carried Forward	EM	x	x	x	x	x	Minimal	OB	1	1	1	1	1	0.5	0	7.0	0	0	0	0	0	0	0	0.0	7.0	High
13	Complete the assessment of costs and benefits of using salt versus sand for road maintenance and implement the appropriate management regime based on its conclusion.	Carried Forward	DPW	x					Low	OB	1	1	1	1	1	0	0	6.0	0	0	0	0	0	0	0	0.0	6.0	Medium
14	Consider the purchase of off-road firefighting vehicle(s)/equipment to provide additional response capability to respond to forest fires.	Carried Forward	EM			x			Moderate	CIB	1	1	1	1	1	0.5	0.5	7.5	0	0	0	0	0	-0.5	0	-1.0	6.5	Medium
15	Educational materials should be made available at the Town Hall and at the Janet Carlson Calvert Library.	Carried Forward	EM	x					Low	OB	1	1	1	1	1	0.5	0	7.0	0	0	0	0	0	0	0	0.0	7.0	High
16	Install additional dry hydrants in underserved areas with suitable ponds.	New	EM				x		Moderate	CIB	1	1	1	1	1	0.5	0.5	7.5	0	0	0	0	0	-0.5	0	-1.0	6.5	Medium
17	Install cisterns in underserved areas without suitable ponds, such as near Town Hall and near Uncas Gas	New	EM				x		Moderate	CIB	1	1	1	1	1	0.5	0	7.0	0	0	0	0	0	-0.5	0	-1.0	6.0	Medium
18	Adopt a new ordinance or regulation requiring cisterns be installed in new developments	New	FS	x					Minimal	OB	1	1	1	1	1	0.5	0	7.0	0	0	0	0	0	0	0	0.0	7.0	High
19	Acquire a new fire engine	New	EM					x	High	CIB	1	1	1	1	1	1	0.5	8.5	0	0	0	0	0	-1	0	-2.0	6.5	Medium

¹Notes

DPW = Department of Public Works & Engineering
EM = Emergency Management
FS = First Selectman

²Notes

CIB = Capital Improvement Budget
EOC = EOC Grants
HMA = FEMA Grant Programs
OB = Operating Budget

³Notes

Beneficial or favorable ranking = 1
Neutral or Not Applicable ranking = 0
Unfavorable ranking = -1

Technical and Economic Factors have twice the weight of the remaining categories (i.e. their values are counted twice in each subtotal).

APPENDIX A

ADOPTION RESOLUTION

CERTIFICATE OF ADOPTION
TOWN OF FRANKLIN BOARD OF SELECTMEN

A RESOLUTION ADOPTING THE HAZARD MITIGATION PLAN UPDATE, 2017

WHEREAS, the Town of Franklin has historically experienced severe damage from natural hazards and it continues to be vulnerable to the effects of those natural hazards profiled in the plan (e.g. *flooding, high wind, thunderstorms, winter storms, earthquakes, dam failure, and wildfires*), resulting in loss of property and life, economic hardship, and threats to public health and safety; and

WHEREAS, the Franklin Board of Selectmen approved the previous version of the Plan in 2012; and

WHEREAS, the Southeastern Connecticut Council of Governments, of whom the Town of Franklin is a member, has developed and received conditional approval from the Federal Emergency Management Agency (FEMA) for its Hazard Mitigation Plan Update, 2017 under the requirements of 44 CFR 201.6; and

WHEREAS, committee meetings were held and public input was sought in 2016 and 2017 regarding the development and review of the Hazard Mitigation Plan Update, 2017; and

WHEREAS, the Plan specifically addresses hazard mitigation strategies and Plan maintenance procedures for the Town of Franklin; and

WHEREAS, the Plan recommends several hazard mitigation actions that will provide mitigation for specific natural hazards that impact the Town of Franklin, with the effect of protecting people and property from loss associated with those hazards; and

WHEREAS, adoption of this Plan will make the Town of Franklin eligible for funding to alleviate the impacts of future hazards; now therefore be it

RESOLVED by the Board of Selectmen:

1. The Plan is hereby adopted as an official plan of the Town of Franklin;
2. The respective officials identified in the mitigation strategy of the Plan are hereby directed to pursue implementation of the recommended actions assigned to them;
3. Future revisions and Plan maintenance required by 44 CFR 201.6 and FEMA are hereby adopted as a part of this resolution for a period of five (5) years from the date of this resolution.
4. An annual report on the progress of the implementation elements of the Plan shall be presented to the Board of Selectmen.

Adopted this _____ day of _____, 201_ by the Board of Selectmen of Franklin, Connecticut

First Selectman

IN WITNESS WHEREOF, the undersigned has affixed his/her signature and the corporate seal of the Town of Franklin this _____ day of _____, 201_.

Town Clerk

