



**Community Rating System (CRS)  
ACTIVITY 510  
Floodplain Management Plan (FMP)  
2017-2018 Annual Progress Report  
Town of Fairfield, CT  
Community #0900007**

**Background and Purpose:**

The Town of Fairfield was accepted into the FEMA CRS program effective in January of 2017. As a Class 8 community, flood insurance policies within the Town qualify for a 10% rate reduction. One of the requirements for annual recertification with FEMA is an evaluation report on progress toward implementation of recommendations in the Natural Hazard Mitigation Plan.

The Town of Fairfield is part of the Greater Bridgeport Planning region and is a member municipality of the Connecticut Metropolitan Council of Governments (MetroCOG). MetroCOG includes six- member communities including Bridgeport, Easton, Fairfield, Monroe, Stratford, and Trumbull. MetroCOG facilitated workshops, mapping, and analysis and produced the Multi-jurisdictional Hazard Mitigation Plan (HMP) that includes Fairfield. Fairfield actively participated in the planning process and continues to participate in ongoing meetings of the Conservation Technical Advisory Committee (CTAC) which continues to review potential projects. The project list has also been reviewed with town staff to evaluate progress as indicated below. By next year's annual review – MetroCOG expects to be underway with the next HMP Update process.

**1. Name of the CRS Floodplain Management Plan (LMS or other):**

Greater Bridgeport Regional Council 2014 Natural Hazard Mitigation Plan Update

**2. Date Adopted:**

July 22, 2014

**3. Location where copies are available for review:**

Town of Fairfield  
Sullivan Independence Hall  
Engineering Department – 1<sup>st</sup> Floor  
Plan and Zoning Department – 2<sup>nd</sup> Floor  
725 Old Post Road  
Fairfield, CT 06824

Online at MetroCOG's website at  
<http://www.ctmetro.org/projects/environment-sustainability-2/nhmp/#.WkPKIVWGNEZ>

**4. Summary of any floods that occurred during the year (if any):**

Fairfield has only experience limited street flooding in the past calendar year (2017) during high rainfall events, during lunar high tide, and limited surge experienced during high sustained wind events.

**5. What impact did floods have on the repetitive loss areas:**

There have been no significant flooding events during the last calendar year that has affected the repetitive loss areas.

**6. List each element of the original plan and note how much was accomplished during the previous year.**

Area	Action #	Description	Status	Timeline
Prevention	1	Enroll Fairfield in FEMA's CRS Program.	Jan 2017 – Class 8	Annual Renewal Pending
	2	Develop a tree cutting and maintenance plan.	Community Forest Mgmt Plan approved in 2011	Updates as needed by Tree Warden
	3	Require underground utilities on new streets.	Within regulations	Per project
	4	Consider adopting standards to require two or more feet of freeboard when developing or redeveloping structures in tidally influenced floodplains.	List of flood regulations generated by staff	2018
	5	Integrate hazard mitigation plans and policies into town building codes, planning and zoning regulations, and the Town's Plan of Conservation and Development.	POCD scheduled for update	2018-2019
	5	Develop a comprehensive protective infrastructure analysis of the Town's coast and waterways that incorporates natural infrastructure (salt marsh, beaches, dunes and floodplains) and existing engineered infrastructure.	FECB developed Flood Mitigation Plan	2016
	7	Reassess the viability and cost-benefit of direct future capital investment in the coastal floodplain as an immediate and longer-term, proactive risk reduction action.	On going	Not specific
	8	Consider expanding town-wide energy efficiency policies and building codes with the goal of substantially reducing Fairfield's carbon footprint.	Clean Energy Task Force meets monthly	Initiatives ongoing
	9	Increase design standards for tidal flood control structures and improve inspection and maintenance requirements to avoid failures during future coastal storm events.	a) Riverside Dr Tide Gate replacement b) Pine Creek improvements c) Upgrade East Trunk Line	2018-2019 2017 2018-2019
	10	Assess the current conditions and potential impact from catastrophic dam failure; assess previous inundation contingency plans.	Samp Mortar Dam (class C) registered on the Land Records	Ongoing - DEEP Monitors
	11	Develop a better debris management plan with designated lead for flood control structures before and after extreme events, particularly for the 28 town-owned and three state-owned tide gates in Fairfield.	In-progress	Completion in 2018
	12	Modify and integrate building codes, land use policies, and zoning regulations to minimize the exposure to sea level rise, storm surge, and inland flooding of	Building Code now includes 1 ft freeboard in the	P&Z

Area	Action #	Description	Status	Timeline
		existing and future development, infrastructure, critical facilities, and natural resources.	VE zone	
	13	Assess the safety and viability of existing water and sewer infrastructure in the coastal flood zone.	HMGP grant for WWTF	2018-2019
	14	Prepare an action plan to reduce the susceptibility of the low lying Fairfield Beach area to storm surges from Long Island Sound. Specifically the Plan should address the feasibility of installing a "hurricane barrier" and a storm water pump station.	a) Plan developed by FECB. b) PDM Grant for stormwater pump design c) PDM grants awarded for new generators at Sturgess and WWTP	2016 2017-2018 2017
	15	Reassess long-term viability of the wastewater treatment facility and determine the feasibility of hardening and flood-proofing the existing structure vs siting a new facility in lower risk area.	HMGP grant for WWTF	2018-2019
	16	Reassess the capacity of existing flood control structures (berms/dikes, tide gates, culverts, dams, reservoirs) with sea level rise impacts and likelihood of more significant precipitation events.	Ash Creek/ Riverside Drive Resiliency and Tide Gate Study	2016-2017
	17	Factor sea level rise into all critical infrastructure, development plans, and public amenity improvements and consider planning for a worse-case scenario based on 0.2% storm event or flood or a Category-3 Hurricane.	To be completed	On-going on a project basis
Property Protection	1	Strategically consider the acquisition of chronically flood prone and rep-loss properties, as well as properties that assist in the implementation of flood drainage improvements to protect against storm surge or to allow flood waters to recede after a flood event.	908 Fairfield Beach Road purchased in August 2015.	On-going. Pursuing additional purchases.
	2	Address equipment in library basements to prepare for when flooding occurs.	IT - Pending	Project in 2018/2019 Capital Plan
	3	Encourage home elevations for properties below the base flood elevation to comply with or exceed the standards of the National Flood Insurance Program.	HMGP Grant Program for almost 50 properties	2015-2018
	4	Promote elevating private properties in the flood hazard zones to the required base flood elevations plus a 2-to-3 foot freeboard above the base levels.	Zone regulations not yet proposed	TBD
	5	Ensure that the design criteria for future structures in the coastal floodplain include a determination of the probable factors of obsolescence during the structure's lifespan so that the design-service-life and value of a structure approximate the time when sea level rise or other factors would render the structure obsolete.	General policy discussion anticipated during POCD Update	
Structural	1	Install flood protection and harden existing berms to protect critical municipal facilities, including the wastewater treatment plant and pump station.	HMGP for WWTF pending	2017-2018
	2	Raise the berm around the wastewater treatment plant.	a) HMGP for WWTF- Design b) Construction	2017-2018 2019
	3	Install storm water pump stations and upgrading storm systems to keep up with rising sea levels, in area bounded by Old Post Road, Fairfield Beach Rd, Reef Rd and South Benson Road.	HMGP funds to study/design pump system. FEMA PDM Grant	2017-2018
St ru	4	Increase the height of the dike along Pine Creek by 2' to 3' to provide additional protection for	Apply for study grants when	Undetermined. Waiting on

Area	Action #	Description	Status	Timeline
		several hundred homes, the sanitary sewer pump station, the municipal athletic complex, and Town roads. This project will also reduce potential flooding from a FEMA-defined 1% storm.	available	ACOE regional study/review
	5	Consider increasing beach nourishment.	a) Study completed b) Construction	2017 2018
	6	Improve and elevate tide gates and dikes to keep up with rising sea levels.	a) Design for Riverside Dr & Old Dam Rd b) Riverside project c) Old Dam project	2017- 2018  Fall 2018 Spring 2019
	7	Address the continued periodic tidal flooding of streets and properties in the coastal flood plain by making concerted efforts to design, construct, and maintain flood relief and drainage structures (e.g., dikes, tide gates, detention and natural marsh basins, storm sewers and natural channels) to ensure the discharge of flood waters during the receding tidal cycles immediately following the flood event.	DPW/ Conservation  Pine Creek culvert update	Ongoing  2017
	8	Continue to maintain flood gates on the McLevy property.	Routine Maintenance performed on a regular basis.	Ongoing
	9	Continue to keep debris clear of drainage systems; plan for improvement/ implementing routine management.	Work performed on as-needed basis.	Ongoing
	10	Waterproof manhole covers.	DPW?	Ongoing
	11	Continue to perform culvert maintenance and debris removal in the Rooster River, Ash Creek/Royal Avenue and Camden Street areas.	DPW performs as needed.	Ongoing
	12	Relocate the sanitary sewer transmission trunk line from the flood prone Rooster River and Ash Creek corridor.	a) Design b) Construction	2017-2018 2019
	13	Encourage green development and rehabilitation of existing impervious structures to reduce runoff generated in urbanized areas.	a) State MS4 b) CDBG Grant for Downtown Drainage Study	Per Project/ Ongoing 2017-2018
	14	Explore building modifications, use of pervious road materials and green infrastructure designs to improve on-site storm water retention and reduce storm water inflows into Fairfield's wastewater treatment system.	P&Z/Building/ Engineering	Per Project review/ Ongoing
	15	Prior to a storm, lower the volume of water in the wastewater treatment plant to increase capacity.	WPCA	Ongoing as needed.
	16	Design culverts for a 50-year or 100-year storm in the Rooster River, Ash Creek/Royal Avenue and Camden Street areas.	a) Study Complete b) Consolidate bridges on Scofield to improve flow	2017  Construction pending funding
	17	Consider improving the culvert at Merwins Lane.	DPW	Under review
	18	Evaluate methods to increase storage or improve drainage to alleviate flooding downstream of the Fairchild Wheeler golf course.	a) Study completed b) Need funding	2009 Ongoing
Structural	19	Install on site detention, relay new storm lines, incorporate bioswales and/or rain gardens in developed areas to help reduce or redirect runoff that contributes to flooding. For example, in the Fairfield	a) State MS4 b) drainage along Beach studied	Ongoing 2017

Area	Action #	Description	Status	Timeline
		Center and Railroad parking lot.	c) funding pending	2019+
	20	Continue to maintain/improve critical culverts and associated outlets/swales to remove debris, especially in advance of storms.	DPW/Conservation	Ongoing – As needed.
	21	Elevate Fairfield Beach Road as needed to keep up with rising sea levels.	Outreach	Ongoing
	22	Extend the dike system along the shoreline from the Riverside Drive and Post Road area to Sasco Hill. Obtain easements to extend and complete the system in areas where it does not presently exist.	Outreach/ Discussion/ opposition	Ongoing
	23	Extend the dike in Southport along Harbor Road in the AE flood zone.	Outreach/ discussion	Ongoing
	24	Improve the drainage system in the Downtown area, along Sanford and Reef Roads	DPW - Design in progress.	Estimated complete - Summer 2018
	25	Incorporate drainage improvements and best management practices to the Grasmere Brook watershed to reduce flooding.	DPW	Ongoing
	26	Consider acquisition of properties where it is prudent and feasible to extend and construct the dike system.	To be evaluated as needed	TBD
	27	Install pump stations to address flooding in the underpasses of New Haven rail line bridges.	Need to coordinate with Metro North RR	TBD
	28	Expand and repair flood gates along the Mill River.	DPW	Ongoing maintenance.
	29	Consider increasing the approved bulkhead elevation along Pine Creek to account for sea level rise.	Neighborhood opposition	TBD - ACOE review/No Funding
	30	Consider elevating all roads within the AE and VE flood zones, including Fairfield Beach Road and surrounding neighborhoods.	a) Richard White Way/Berm project	2018-2019
	31	Implement a dike system in the Rooster River, Ash Creek/Royal Avenue and Camden Street areas.	Under review with grant funds	2018
	32	Consider elevating Merwins Lane. This would require the abutting property owner's permission and permits.	Under review	Ongoing
	33	Reconstruct New Haven rail line bridges over town streets to prevent flooding, including at North Pine Creek Road, Mill Plain Road, and Round Hill Road.	DPW/Needs Metro-North coordination	No project funding
	34	Reconstruct and expand the culvert conveying Ash Creek and Rooster River under I-95 to reduce flooding in the Camden Street and Royal Avenue neighborhoods and to meet a 1% storm event. Include other local bridges on Rooster River in this project, so as to increase hydraulic capacity and reduce flooding.	Pipes recently lined and not likely to be replaced	Under review
	35	Improve and install flood control outlet pipes and tide gates along Pine Creek and Ash Creek to increase the removal of flood waters.	DPW	Project completed Summer 2017.
Natural Systems Protection	1	Incorporate improvements listed in Rooster River Watershed based Plan.	DPW/ Conservation	Under review
	2	Implement a comprehensive tree health, maintenance, and removal plan to reduce the number of downed trees and limbs during a storm event.	DPW/Tree Warden	Ongoing
	3	Update the Town's Plan of Conservation and Development to include riparian corridor restoration as well as acquisitions of open space and marsh advancement zones for storm surge defense and floodwater storage.	POCD Update pending	2018-2019
	4	Protect and restore natural systems (salt marshes, beaches, dunes, floodplains/riparian areas, forested lands) on both watershed and full coastline	Conservation - Tidal Wetlands along Reef	Ongoing- Town continues to

Area	Action #	Description	Status	Timeline
		scales, as well as diked and isolated wetlands to better withstand and absorb storm surges and flooding.	Road were successfully restored in summer 2017	investigate other possible restoration sites
	5	Renourish engineered beaches, Town and private beaches after storm events, including Fairfield Beach, Jennings Beach, Sasco Hill Beach and Southport Beach.	DPW/ Conservation - beach plan completed in Summer 2017	Projects/ CT DEEP permits pending - 2018.
	6	Restore upland storm water discharges in Pine Creek to their historical locations around the marsh and thereby utilize the large acre foot- volume of storage capacity of the diked marshes with tide gates closed during storms to detain floodwaters during a high tide and heavy rain.	DPW/ Conservation	No existing timeframe
<b>Education &amp; Awareness</b>	1	Train and equip neighborhood storm response teams (i.e., CERT), especially in neighborhoods that have in the past been cut off from emergency services by floodwaters or downed trees, as well as to assist lower-income populations.	Health Department	Status
	2	Ensure that residents are aware of the location and operations of emergency shelters, warming/cooling centers, and charging stations and establish procedures for their use via routine notifications	Health Department	Status
	3	Communicate with residents about the importance of removing debris in marshes after storms.	Conservation	Ongoing public outreach effort
	4	Develop tree planting guidelines.	DPW/Tree Warden	Status
	5	Improve warning of residents that may become isolated by downed trees during an extreme weather event.	DPW	Ongoing public outreach effort
	6	Utilize GIS to inform responders and residents during a severe weather event, or in the event of an evacuation.	Emergency Services	Ongoing
	7	Erect signs and install barricades on Merwins Lane to encourage residents to take alternate routes during flooding events.	Fair Oaks Drive area	Ongoing outreach
<b>Emergency Services</b>	1	Address road access by prioritizing snow clearing during storms, providing water pumpouts during flooding and identifying alternate routes to closed-off areas.	DPW/ Emergency Management	Ongoing
	2	Reassess needs and capacity for shelters, warming/cooling centers, and charging stations.	Emergency Management	Ongoing
	3	Continue use of pre-disaster communications (Code Red), social media and EOC communications.	Emergency Management	Ongoing – As needed.
	4	Use vehicles (school buses, etc.) to transport vulnerable, senior and disabled populations to shelters.	Emergency	Ongoing – As needed.
	5	Protect/ flood-proof town services and data. Develop a plan for stockpiling food, water and gas in case of emergencies.	Emergency Management	Ongoing – As needed.
	6	Identify demographics to prevent shut-ins during emergency events.	Emergency Management	Ongoing – As needed.
	7	Clarify relationship with UI for downed power lines.	DPW/Tree warden/ Emergency Management	Ongoing
	8	Identify vulnerable neighborhood egress chokepoints and identify alternate access routes to neighborhoods and facilities when those chokepoints are not passable; harden and flood proof these chokepoints	Emergency Management	Completed 2017

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		as necessary to ensure they remain open.		
	9	Continue Fairfield University and Sacred Heart University as Alternate EOC locations	Emergency Management	Ongoing
	10	Build redundancies into EOC/EEC emergency communications systems and networks to ensure continuity of communications between town emergency services and residents. Utilize existing community networks (churches, etc.) as supplements to "technological" methods of communication.	Emergency Management	Ongoing
	11	Provide and install generators at senior housing complexes and other complexes that serve vulnerable populations to allow them to shelter in place.	Funding not yet identified	TBD
	12	Provide adequate generators at evacuation facilities (Ludlowe High School, Warde High School and Ludlowe Middle School).	Funding not yet identified	TBD
	13	Ensure Emergency Operation Plans of private dam facilities are adequate, including Aquarion Water Company facilities at Aspetuck Reservoir and Hemlock Reservoir.	DPW/CTDEEP	On file with CTDEEP Dam inspection unit.
	14	Enter into a mutual aid agreement with long term care facilities to share generators during an evacuation.	Emergency Services	Status
	15	Provide water/ ice/ showers for owners of private systems without power.	Work with NGOs as needed	Ongoing
	16	Ensure the ability of cell phone towers to generate power; talk to cell companies about generation/ disaster recovery plans.	Public Utilities	Ongoing
	17	Consider alternate locations for ECC and EOC during weather events	Police/Fire - Dispatch relocation to former GE	Completion - late 2018.
Emergency Services (cont.)	18	Expand the energy reliability of critical Town facilities, including the use of distributed generation and micro-grids. Relocate IT equipment out of municipal building basements in low lying areas.	a) Micro-grid construction b) IT Relocation Pending	2017-2018 TBD
	19	Enhance flood protection at the DPW (immediate and surrounding areas) garage or consider feasibility of moving garage to an alternate location Study/explore how to evacuate water and relocate equipment prior to a threatening event.	a) Town-wide study completed b) Construction TBD	2016 No funding available at this time
	20	Conduct a study to identify the highest risk locations for prioritized mitigation and emergency response efforts before, during and/or after an extreme event during a variety of hazard scenarios.	Police/Fire Department	Completed 2017 for Beach Area

**7. Were any objectives not reached or is implementation behind schedule? If so, state why:**

Fairfield has made good progress on many of the action items listed. Some of the actions items are ongoing initiatives with no clear deadlines and some items require waiting for future funding opportunities. Raising roads and dikes requires some acquisition of adjacent property which has resulted in opposition. Property owners have instead focused on private property mitigation by elevating existing homes or replacing with new construction.

**8. Should new projects be started to should any of the recommendations or objectives be revised:**

MetroCOG will be initiating the process to update the Multi-town Hazard Mitigation Plan in mid-2018 and the recommendations and objectives will be

more fully discussed to determine whether additional projects need to be added or existing projects revised. New design standards to higher standards as well as incorporation of future sea level rise impacts should be added in order to ensure that mitigation projects are long-lasting.

**9. Progress Report discussed and/or made publicly available.**

The FMP update report was prepared by Fairfield's CRS Coordinator and was reviewed with town staff to update progress on Action Items. It was presented to the Board of Selectmen on January 17, 2018.

The Town issued a press release on January 19, 2018

A copy of this report can be obtained on Fairfield's Plan and Zoning Department website under the Forms and Documents tab.

For more information please contact Emmeline Harrigan, AICP, CFM, CRS Coordinator at [eharrigan@fairfieldct.org](mailto:eharrigan@fairfieldct.org).