U.S. Department of Homeland Security
FEMA Region I
99 High Street, 6th Floor
Boston, Massachusetts, 02110-2320

FEMA

October 17, 2018

The Honorable Amy M. Bello, Mayor
Town of Wethersfield
Town Hall
505 Silas Deane Highway
Wethersfield, Connecticut 06109

Subject: Town of Wethersfield, Hartford County, Connecticut
Community No.: 090040

Dear Mayor Bello:

On November 10, 2016, the United States Geological Survey (USGS), in partnership with the Federal Emergency Management Agency (FEMA), conducted a Discovery meeting for the Lower Connecticut Watershed as part of FEMA's Risk **M**apping, **A**ssessment, and **P**lanning (Risk MAP) program. The Lower Connecticut Watershed is the 8-digit hydrologic unit code (HUC) 01080205. During the meeting, the USGS discussed areas of flooding concern and project goals, milestones, and products with a variety of stakeholders, including FEMA officials, state and community officials, and watershed interest groups. Flooding sources considered during this meeting included major rivers such as Back, Blackledge, Coginchaug, Connecticut, Deep, Duck, East Branch Eightmile, Eightmile, Falls, Green, Hockanum, Jeremy, Lieutenant, Mattabesset, Mill, Moodus, Mud, North Branch Mill, North Branch Park, Park, Podunk, Salmon, Scantic, South Branch Mill, South Branch Park, South Fork Hockanum, Tankerhoosen, and Westfield Rivers, as well as other smaller rivers and tributaries in the watershed.

The Discovery process marked the beginning of a Risk MAP project that started in October 2016, and it assisted in identifying the scope of the Lower Connecticut Watershed study. The Discovery meetings are part of the Discovery process, and the information exchanged between FEMA and communities within the Lower Connecticut Watershed during Discovery improved our understanding of the watershed's flood hazard mapping and mitigation planning. At the Discovery meetings, we reviewed the flood risk data gathered to date. We also discussed your community's flooding history, flood risk concerns and mitigation. During the Discovery process, officials in your community may have provided information, comments, or questions to the USGS. Any comments or questions have been addressed, and information provided was considered while setting the scope of the flood risk project.

At the website below, you can download a copy of the Lower Connecticut Watershed Discovery Report, which collates information presented at the Discovery Meetings; information collected from communities prior to, at, and following the Discovery Meetings; and other information collected from other sources. Appendices to the report may be available upon request.

https://newengland.water.usgs.gov/fema_lowerct/

Using this information that we collected during the Discovery process, **the following rivers in the Lower Connecticut Watershed were selected for detailed studies — Beaver Brook, Coginchaug River, Falls River, Farm Brook, Folly Brook, Freshwater Brook, Gages Brook, Goff Brook, Hockanum River, Judd Brook, Lydall Brook, Mattabesset River, Plum Gulley Brook, Scantic River, Sumner**

Brook, Tributary A to Goff Brook, and Willow Brook. The scope of the engineering and mapping covered for each river reach in this project is summarized in Table 1.

As discussed in the Discovery Meetings, FEMA's goal is to offer useful, credible data, and a fair process to help you make informed decisions to continue building a safer and stronger community. As such, we want to notify you of the engineering data models that are being used in FEMA's ongoing flood risk project. These engineering data models will form the basis for the proposed Special Flood Hazard Areas (SFHAs) that will be presented on the Flood Insurance Rate Map (FIRM). An SFHA is an area that is subject to inundation by the 1-percent-annual-chance flood (also called the base flood). Over time, water flow and drainage patterns on the selected reaches (Table 1) may have changed dramatically due to surface erosion, land use, and natural forces. Given these factors, the likelihood of flooding along these reaches may have increased or decreased over time, changing the SFHA designations.

Upon receipt of this notification, the communities affected by the selected reaches will have 30 days to consult with FEMA Regional Office staff (identified in the last paragraph of this letter) regarding the appropriateness of the models selected for the project. Communities will have additional opportunities to comment on and provide feedback about the models and other draft flood hazard information throughout the project. If there are uncertainties about the mapping data that have been collected and analyzed, a formal appeals process and period will be available to help resolve any remaining questions before the flood hazard information becomes effective.

Draft flood hazard information will be developed by FEMA's mapping partner, the USGS. USGS will use the engineering models shown in Table 1, which lists the flooding sources to be studied, along with details regarding the selected models and the rationale for their use. The engineering models were selected based on a variety of factors including, but not limited to, the type of study performed (e.g., base or enhanced, shallow flooding, coastal, alluvial fan, etc.), the size of the drainage area affecting the flooding source, and the type of terrain present (e.g., flat, hilly, mountainous, etc.).

FEMA wants to ensure that the most up-to-date and accurate technical data are used to develop the flood risk products. FEMA relies on the community's feedback, partnership, and knowledge during this important project to determine the extent of flood risk in the communities affected by the selected reaches in Table 1 and to support efforts to reduce those risks. We look forward to working with community officials and other stakeholders to increase flood risk awareness and reduce the risk to life and property from flooding. Initial feedback will not affect any community's ability to provide feedback later or to formally appeal the flood hazard information during a future appeal period.

If your community is listed in Table 1 and you would like to discuss the proposed modeling, please contact Liz Ahearn, the project manager, no later than November 16, 2018. We will consider all comments and suggestions received during this period before making a final model selection and commencing with data collection.

Liz Ahearn
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Regardless of the model used, detailed studies involve field surveys to obtain structural geometry and elevation data and new hydrologic and hydraulic analysis resulting in new flood elevations. **The field surveying on the previously listed river reaches will be occurring during 2019. Be aware that you**

and residents in your communities may see USGS survey crews on the bridges, dams, and rivers, during the next several months. At the following website, you can view or download a copy of the flyer that the surveyors carry to inform the public of the project.

https://newengland.water.usgs.gov/fema_lowerct/

As this project continues, the USGS will be conducting a number of other meetings with the stakeholders in the Lower Connecticut Watershed to communicate the progress of the project and to solicit comments about draft and preliminary products. After the Discovery meeting, the next meeting to be held will be the work map meetings. In the work map meetings, the USGS and FEMA will be meeting with officials from each community affected by the project scope to discuss the draft flood insurance rate map products – the work maps – for that community. Communities in the project scope can expect to receive an invitation to these meetings at least four weeks before their scheduled dates.

If you have any questions regarding the Discovery process and results, the selected reaches or models, or the planned work map meetings, please contact Liz Ahearn, Project Manager, USGS, by e-mail (eaahearn@usgs.gov) or by calling (860) 291-6745. I am also available to answer any questions at (617) 956-7576 or Kerry.Bogdan@fema.dhs.gov.

Sincerely,

Kerry Bogdan
Risk Analysis Branch Chief
Mitigation Division
FEMA Region 1

cc: Anthony Dignoti, Fire Marshall, Town of Wethersfield
Dolores Sassano, Town Clerk, Town of Wethersfield
James F. Ritter, Director, Department of Emergency Management, Town of Wethersfield
Kathy Bagley, Interim Town Manager, Town of Wethersfield
Steve Lattarulo, Chief Building Official, Town of Wethersfield
Derrick Gregor, P.E., Town Engineer, Town of Wethersfield
Diane Ifkovic, State NFIP Coordinator, Connecticut Department of Energy and Environmental Protection
Karen Michaels, State RiskMAP Coordinator, Connecticut Department of Energy and Environmental Protection
Liz Ahearn, Project Manager, U.S. Geological Survey

Table 1: Detailed study reaches in the Lower Connecticut Watershed, Connecticut

River	Communities	Limits of study	Hydrologic model proposed	Hydraulic model proposed	Model rationale
Beaver Brook	Wethersfield, CT	From confluence with Connecticut River, Wethersfield, CT, to effective limit of detailed study immediately below Jordan Lane, Wethersfield, CT	Regression equations	HEC-RAS one-dimensional steady	Regression equations are applicable to the study reaches and peak discharges are sufficient for the hydraulic analysis. Reaches with streamgage data also are close to a USGS gaging station with at least 20 years of data. One-dimensional, steady-flow hydraulic models are used where flow is modeled as steady in time, one-dimensional, and generally gradually varied in space, and where channel slope is generally less than 10%.
Coginchaug River	Middletown, Middlefield, and Durham, CT	From confluence with Mattabesset River, Middletown, CT, to effective limit of detailed study at county boundary, Durham, CT	Regression equations and streamgage statistics		
Falls River	Essex, Westbrook, and Deep River, CT	From confluence with Connecticut River, Essex, CT, to headwaters at Messerschmidt Pond, Deep River and Westbrook, CT	Regression equations		
Farm Brook	South Windsor, CT	From confluence with Plum Gulley Brook, South Windsor, CT, to effective limit of detailed study immediately above Oakland Road, South Windsor, CT	Regression equations		
Folly Brook	Wethersfield, CT	From upstream end of underground tunnel below Stillman Road, Wethersfield, CT, to effective limit of detailed study below Dix Road, Wethersfield, CT	Regression equations		
Freshwater Brook	Enfield, CT	From confluence with Connecticut River, Enfield, CT, to effective limit of detailed study at state boundary, Enfield, CT	Regression equations		
Gages Brook	Vernon and Tolland, CT	From confluence with Railroad Brook to form Tankerhoosen River, Vernon, CT, to Mountain Spring Road, Tolland, CT	Regression equations		
Goff Brook	Wethersfield, CT	From effective limit of detailed study at Interstate 91, Wethersfield, CT, to headwaters at 1860 Reservoir, Wethersfield, CT	Regression equations		
Hockanum River	East Hartford, Manchester, and Vernon, CT	From confluence with Connecticut River, East Hartford, CT, to Wells Road, Vernon, CT	Regression equations and streamgage statistics		

River	Communities	Limits of study	Hydrologic model proposed	Hydraulic model proposed	Model rationale
Judd Brook	Hebron and Colchester, CT	From effective limit of detailed study at Old Hebron Road, Colchester, CT, to effective limit of detailed study at Halls Hill Road, Colchester, CT	Regression equations and streamgage statistics	HEC-RAS one-dimensional steady	Regression equations are applicable to the study reaches and peak discharges are sufficient for the hydraulic analysis. Reaches with streamgage data also are close to a USGS gaging station with at least 20 years of data. One-dimensional, steady-flow hydraulic models are used where flow is modeled as steady in time, one-dimensional, and generally gradually varied in space, and where channel slope is generally less than 10%.
Lydall Brook	Manchester, CT	From confluence with Hockanum River, Manchester, CT, to effective limit of detailed study approximately 1,100 feet below Lake Street, Manchester, CT	Regression equations		
Mattabesset River	Middletown, Cromwell, Berlin, and Rocky Hill, CT	From confluence with Connecticut River, Cromwell and Middletown, CT, to headwaters at Harts Ponds, Berlin, CT	Regression equations and streamgage statistics		
Plum Gulley Brook	South Windsor, CT	From confluence with Podunk River, South Windsor, CT, to effective limit of detailed study approximately 300 feet above Nevers Road, South Windsor, CT	Regression equations		
Scantic River	Somers, CT and Hampden, MA	From Somersville Pond Dam, Somers, CT, to unnamed dam approximately 900 feet above Somers Road, Hampden, MA	Regression equations and streamgage statistics		
Sumner Brook	Middletown, CT	From confluence with Connecticut River, Middletown, CT, to effective limit of detailed study approximately 1,800 feet below corporate boundary, Middletown, CT	Regression equations		
Tributary A to Goff Brook	Wethersfield, CT	From confluence with Goff Brook, Wethersfield, CT, to effective limit of detailed study approximately 100 feet above Coppermill Road, Wethersfield, CT	Regression equations		
Willow Brook	Berlin and New Britain, CT	From confluence with Mattabesset River, Berlin, CT, to effective limit of detailed study approximately 400 feet below New Hampshire Drive, New Britain, CT	Regression equations and streamgage statistics		