



FEMA

Community Coordination Meeting

Merrimack and Nashua Watersheds:
Hillsborough and Merrimack Counties

December 13, 2022, 9:00 AM – Virtual Meeting

December 15, 2022, and December 21, 2022 – Virtual Breakout Sessions

RiskMAP
Increasing Resilience Together



Agenda

- **Project Timeline**
- **Flood Hazard Analysis Recap**
- **Flood Risk Products**
 - Regulatory and Non-Regulatory
- **Action: Hazard Mitigation and Flood Insurance**
- **Post-Preliminary Processing**
 - Public Review and Appeal Period
 - Effect on Existing Letters of Map Change
 - Community Adoption Process

Community Involvement

- Four meetings during the study when involvement from communities are needed:

Merrimack Watershed

Nashua Watershed

- ***Discovery meetings*** – 7/2015, 4/2016
- ***Work Map meetings*** – 7/2019, and 11/2019
- ***CCO meetings*** – 12/2022
- ***Open House meeting*** –

Community Involvement

- ***Massachusetts Communities in the Merrimack and Nashua Watershed had their CCO Meeting October 2021***
- ***Rockingham County, New Hampshire Communities in the Merrimack Watershed will have their CCO meeting in 2023.***

Study Area Timelines

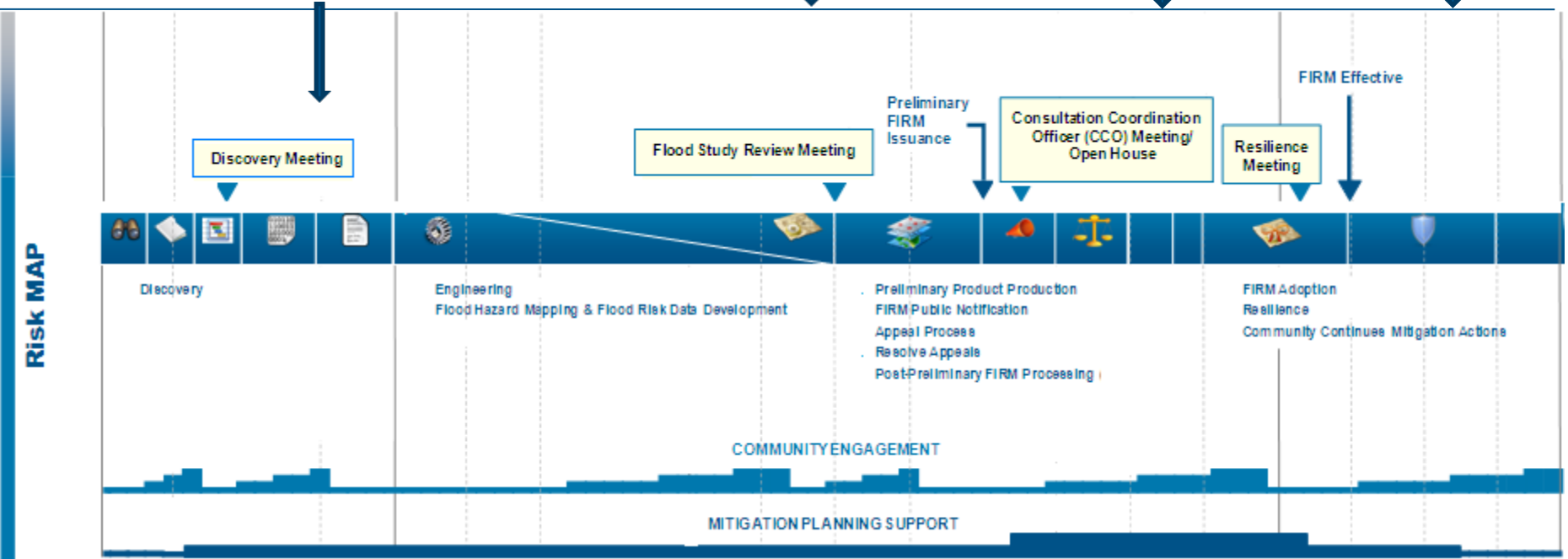
- Activities
- Project Timeline
- Products

Discovery Meeting
July 2015
April 2016

Flood Study Review
(Work Map Meetings)
July 2019
Nov. 2019

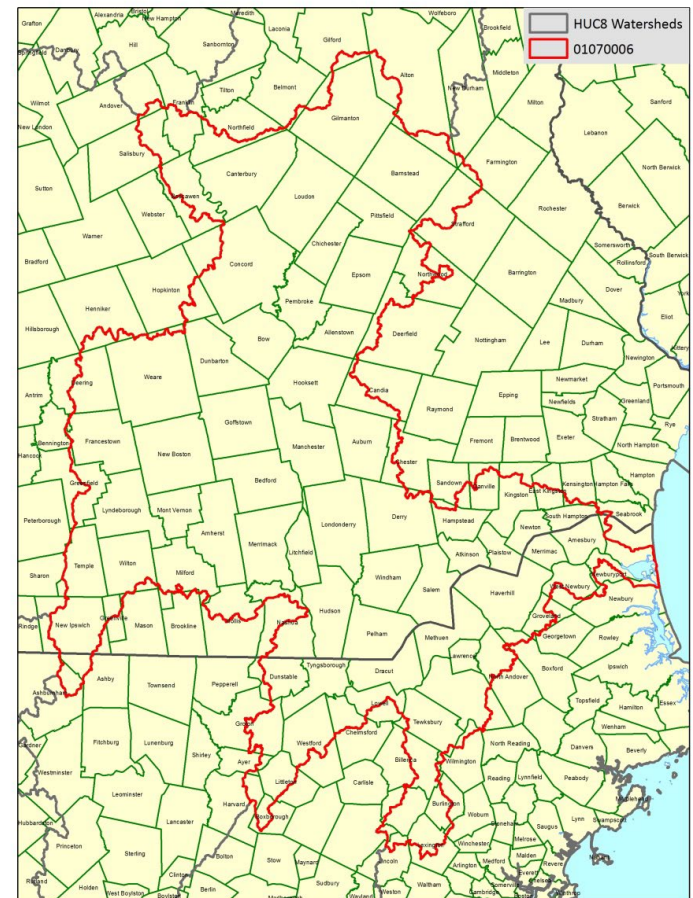
CCO Meeting
December 2022

Open House Meeting



Merrimack Watershed Communities

- The Merrimack Watershed contains or touches:
 - 8 counties in MA and NH
 - 110 towns & cities
 - 3,724 total stream miles
 - Around 1.5 million residents



Watershed Communities

- For this CCO meeting the “study area” is the areas of Hillsborough and Merrimack Counties of New Hampshire within the Merrimack and Nashua Watersheds:
 - 31 communities in Hillsborough County
 - 27 communities in Merrimack County

Merrimack Watershed NH River Reaches Studied in Detail

Zone AE – areas that have a 1% probability of flooding every year

Beaver Brook (26.5 mi)

From confluence with Merrimack River, Lowell, MA, to headwaters at Beaver Lake, Derry, NH

Hassells Brook (0.5 mi)

From confluence with Salmon Brook, Nashua, NH, to effective limit of study below Everett Turnpike, Nashua, NH

Soucook River (10.7 mi)

From corporate boundary, Loudon, NH, to headwaters at confluence of Bumfagon and Gues Meadow Brooks, Loudon, NH

Merrimack Watershed NH River Reaches Studied in Detail

Zone AE – areas that have a 1% probability of flooding every year

Spicket River (14.0 mi)

From confluence with Merrimack River, Lawrence, MA, to headwaters at Arlington Mill Reservoir, Salem, NH

Suncook River (31.8 mi)

From confluence with Merrimack River, Suncook, NH, to headwaters at Lower Suncook Lake, Barnstead, NH

Nashua Watershed NH River Reaches Studied in Detail

Zone AE – areas that have a 1% probability of flooding every year

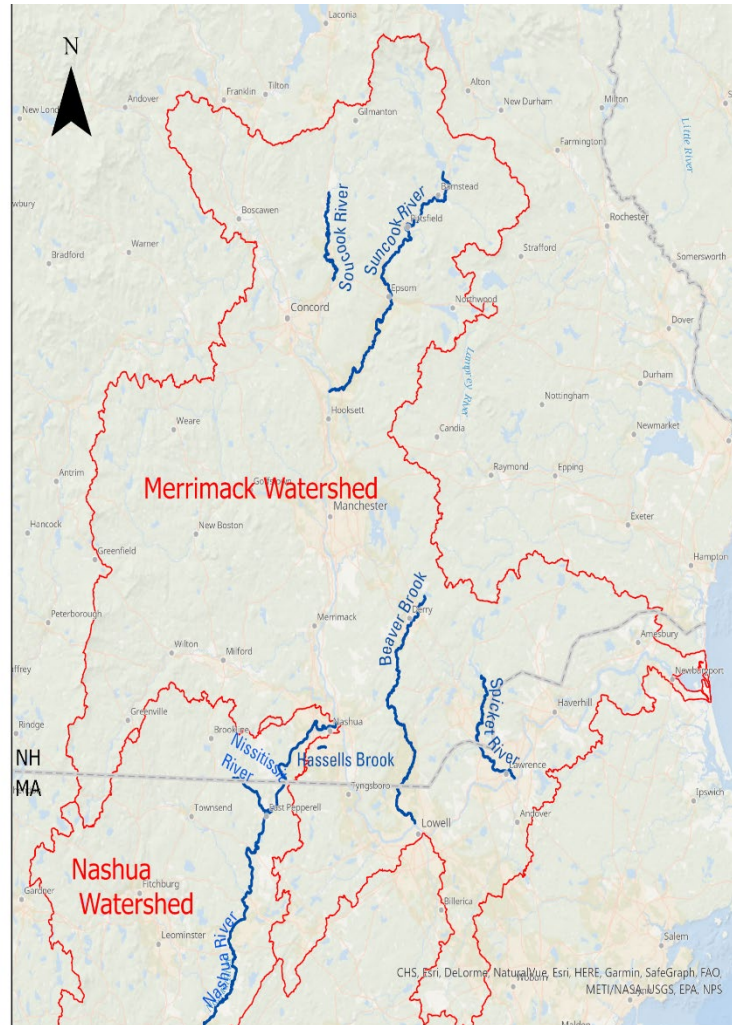
Nashua River (45.3 mi)

Confluence with Merrimack River, Nashua, NH, to headwaters at Wachusett Reservoir, Clinton, MA

Nissitissit River (4.3 mi)

From confluence with Nashua River, Pepperell, MA, to confluence with Gulf Brook, Brookline, NH

Nashua Watershed MA River Reaches Studied in Detail



488 - FIRM PANELS UPDATED

FIRM Panels in Hillsborough and Merrimack Counties (maps provided for communities)

- Hillsborough County, NH (164 panels)
- Merrimack County, NH (97 panels)

Entire Panel Re-Mapped

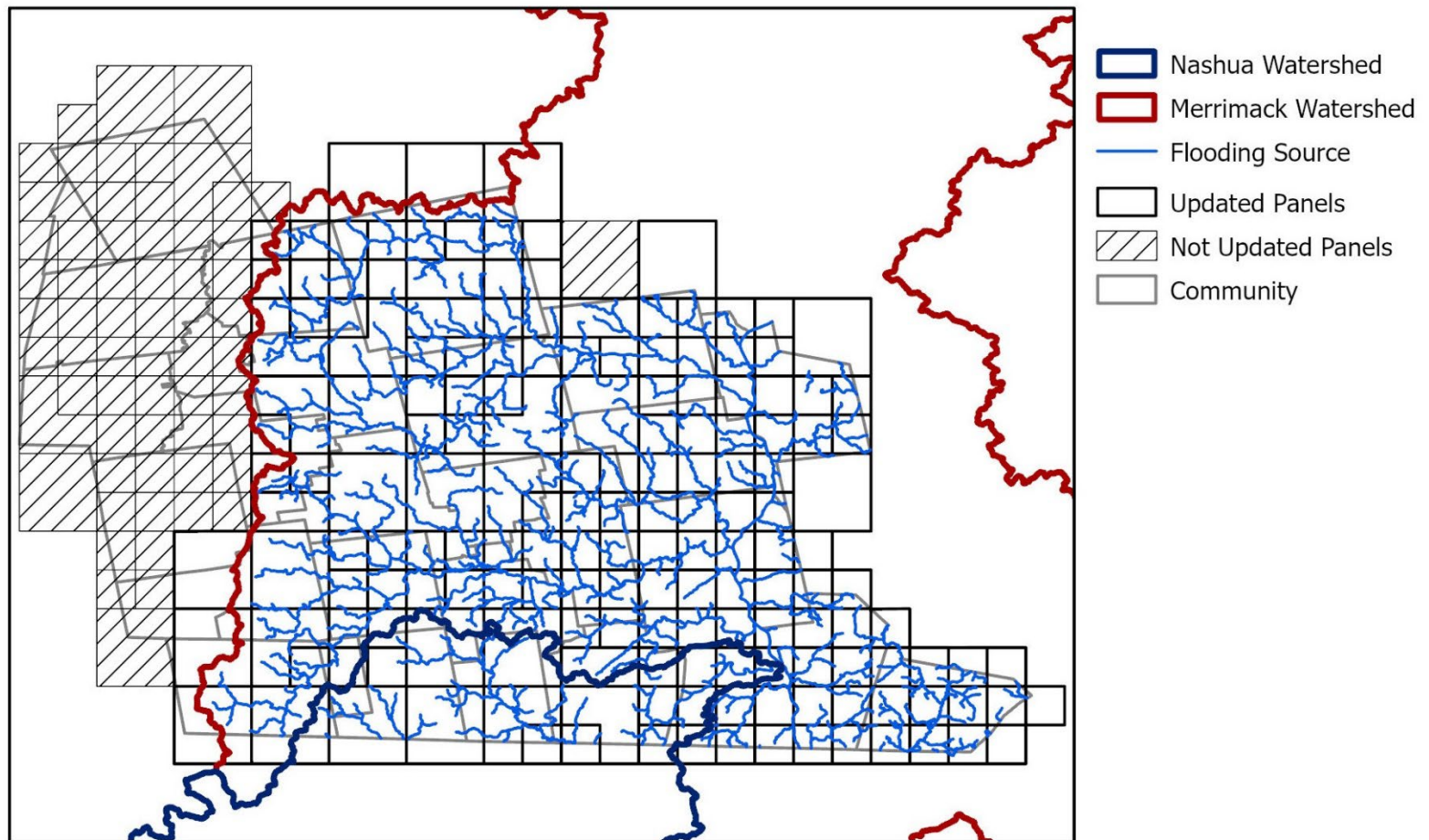
For any “effective” FIRM panels that contained “Flood areas” for the river reaches or flooding sources studied

Re-Mapping Process

New LiDAR topography for elevations and new areal imagery for base maps were used

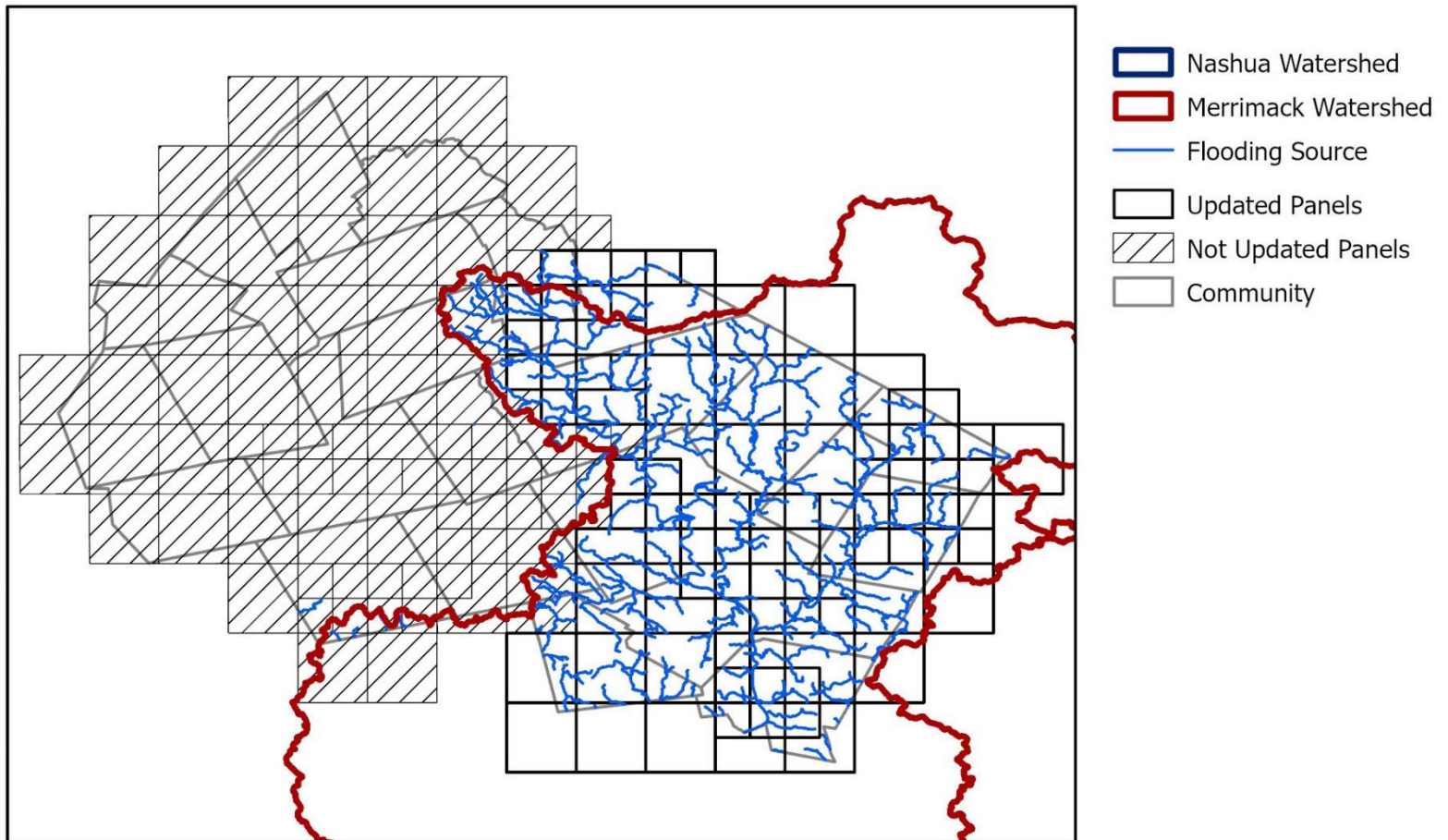
Merrimack and Nashua Watersheds Hillsborough County, NH

146 panels



Merrimack and Nashua Watersheds Merrimack County, NH

203 panels



Why the mapped floodplain boundaries may be different

Detailed Studies

- Improvements in hydrologic or hydraulic analyses
- New topography data, new aerial imagery
- New or modified bridges, culverts, dams
- Stream channel changes

Redelineation (no change to BFE)

- New topography data, new aerial imagery

Zone A (no BFE)

- New approximate models, topography and imagery

FLOOD RISK PRODUCTS

REGULATORY PRODUCTS

- **Flood Insurance Rate Maps (FIRMs)**
- **Flood Insurance Report (FIS)**
- **Flood Insurance Rate Database (stores the digital GIS data used in the map production process, as well as tabular data in FIS report)**

Note – digital files are available from FEMA Flood Map Service Center (MSC)

NON-REGULATORY PRODUCTS

New Flood Risk MAP Products

These datasets include:

- Changes Since Last FIRM (CSLF)

- Flood Depth Grids

- Analysis Grids (Annual and 30-year Chance)

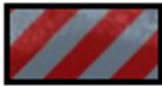
- Flood Risk Assessment

Changes Since Last FIRM

CHANGES
SINCE
LAST
FIRM



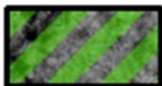
SFHA Increase



Floodway Increase



SFHA Decrease



Floodway Decrease



SFHA No Change



Floodway No Change

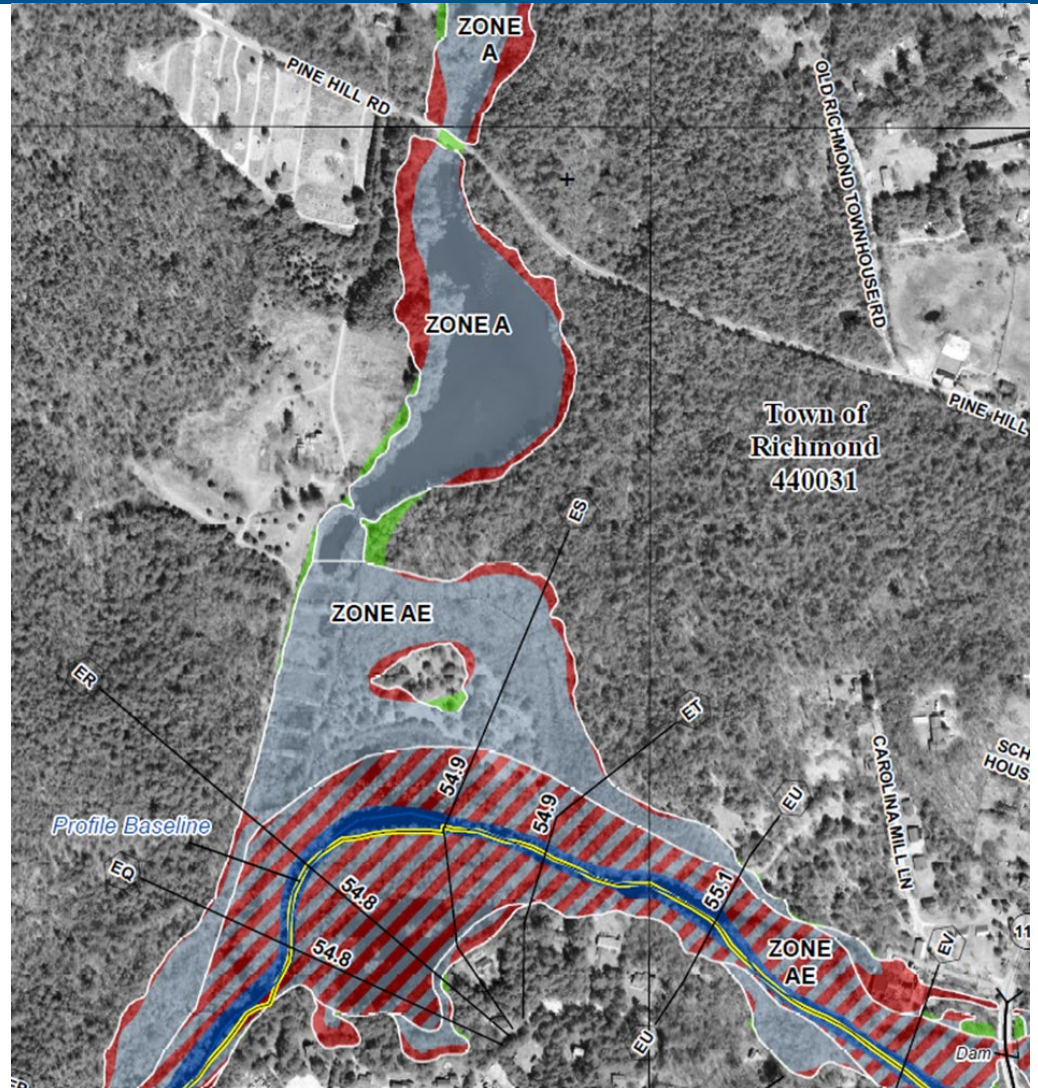
OTHER
FEATURES



Watershed Boundary

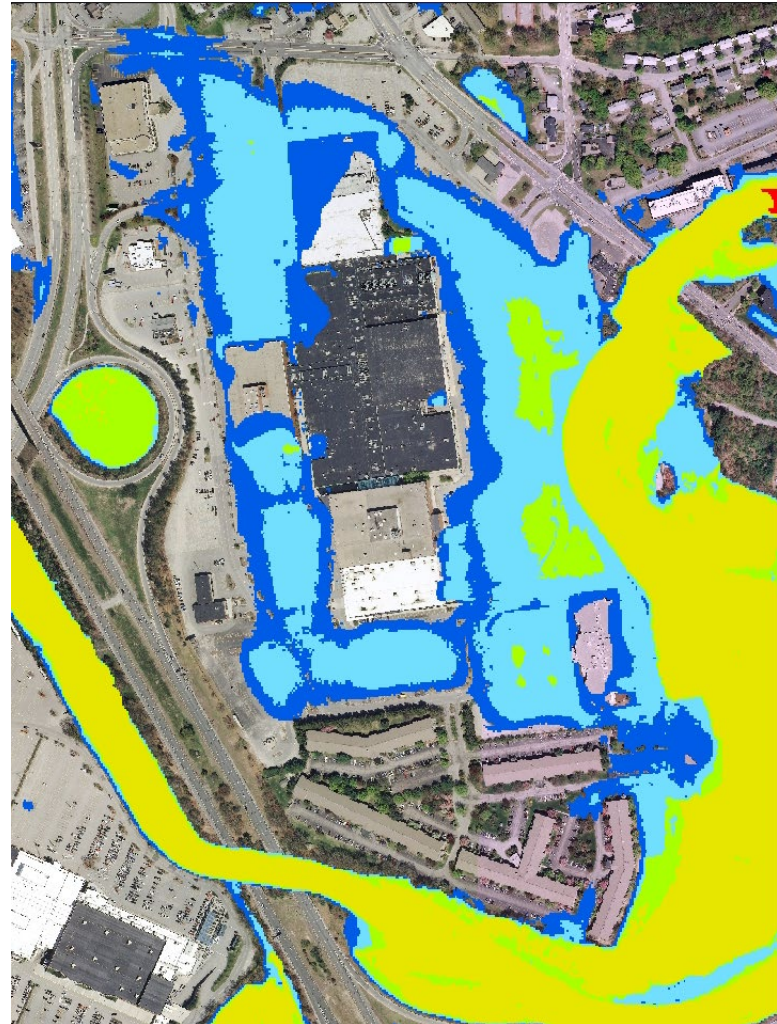
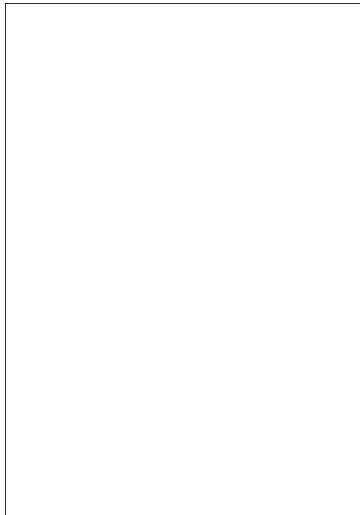


Political Boundary



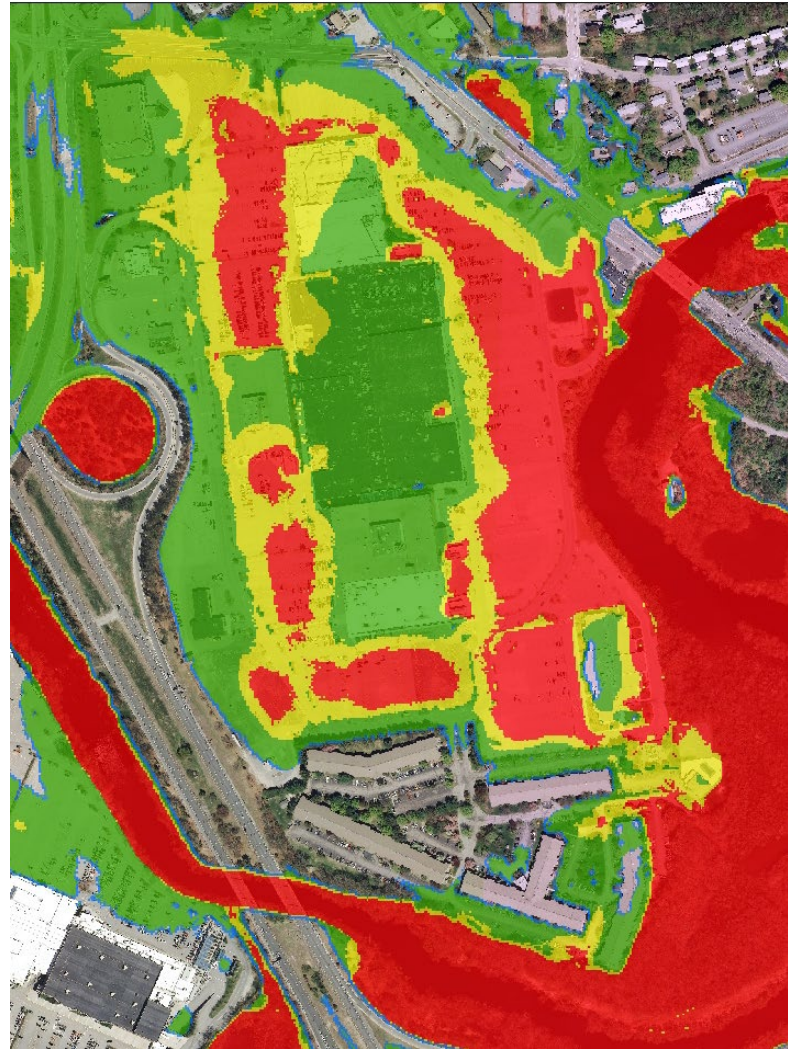
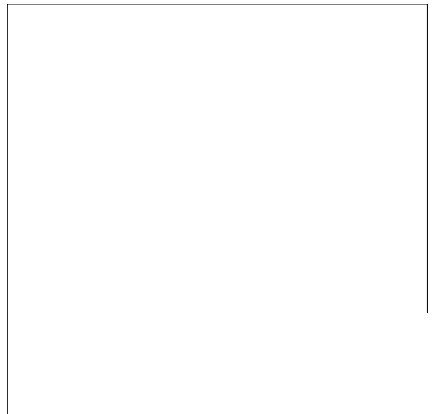
Flood Depth Grids

Provided for 10, 4, 2, 1
and 0.2% annual
chance flood events
where data is
available



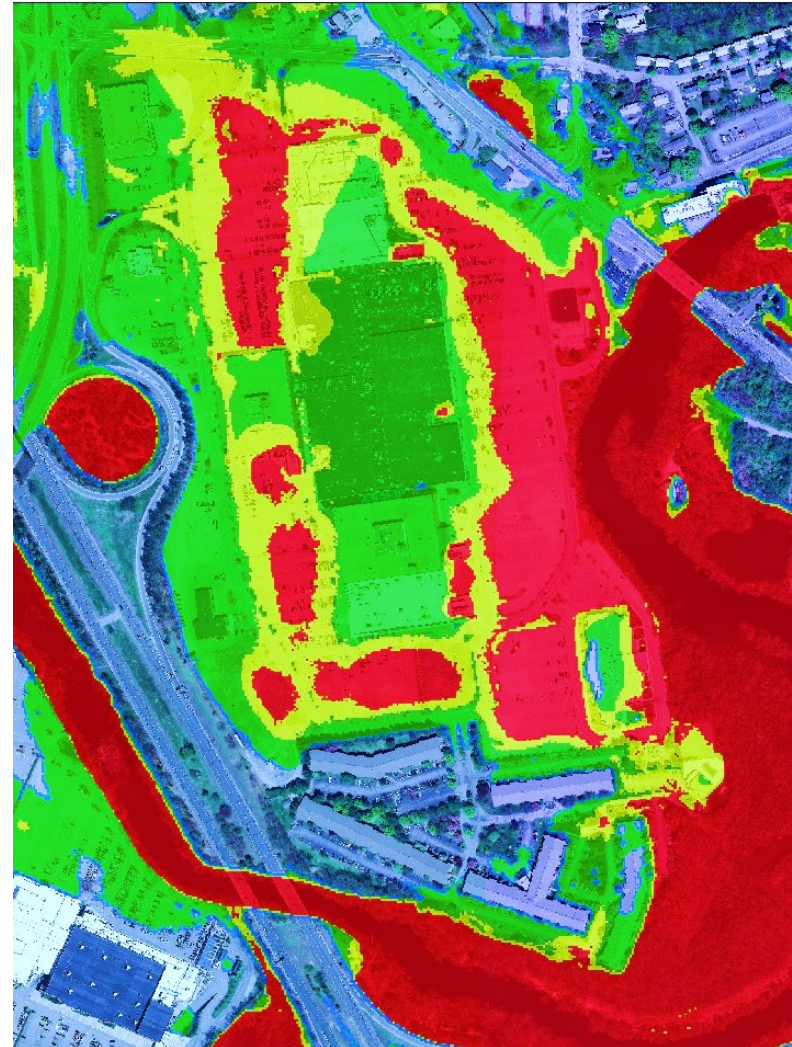
Percent Annual Chance Grids

Provides information regarding the annual chance of being flooded at discrete locations



Percent 30-year Chance Grids

Provides information regarding the chance of being flooded at a discrete location during a 30 year period (typical length of a residential mortgage).



Flood Risk Assessment

HAZUS ANALYSIS (assessment methodology for analyzing potential losses from floods and hurricane winds)

Guide community mitigation efforts by highlighting areas where risk assessment actions may produce the highest return on investment.



ACTION: HAZARD MITIGATION AND FLOOD INSURANCE

Mitigation Actions Categories



STRUCTURAL /NON- STRUCTURAL PROJECTS

Detention
Drainage
Acquisition
Elevation
Retrofits

PLANNING MECHANISMS

Zoning
Building Codes
Ordinances
Open Space Plan

EDUCATION & OUTREACH

Public Awareness
Outreach
Educational
programs

NATURAL RESOURCE PROTECTION

Stream and
wetland
restoration
Erosion control

HMA Grant Opportunities

- Hazard Mitigation Assistance (HMA) includes both post-disaster and pre-disaster grants



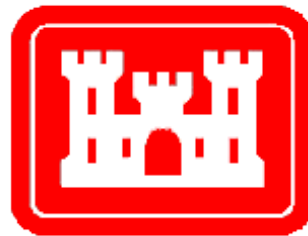
HMGP is a post-disaster grant program.

PDM and FMA are available annually, subject to Congressional appropriations.

- Mitigation Plan Requirement
- Local/State Cost Share
- States Manage Programs and Set Funding Priorities
- State Hazard Mitigation Officer (SHMO) is contact
- These grants share the common goal of reducing risk to life and property due to natural hazards



Mitigation Grants/Programs: OFAs



US Army Corps
of Engineers®



Community Rating System (CRS)

- Rewards NFIP communities taking additional actions to reduce risk
- Most flood insurance policies can receive insurance premium rate reductions (In New England generally ranging from 5%-15%)
- To be eligible FEMA must determine that the community is in full compliance with the NFIP
- For additional information please contact:

Katie Rand, FEMA Region 1 CRS Coordinator

katie.rand@fema.dhs.gov (617) 956-7618

POST-PRELIMINARY PROCESSING (PPP)

Responsibility each community has for preliminary Flood Insurance Rate Maps (FIRMs)

- Review your preliminary FIRMS and make corrections, comments, and appeals when appropriate
- Conduct outreach to those citizens affected by the changes on the FIRMs
- Adopt a new floodplain ordinance that meets the National Flood Insurance Program (NFIP) requirements

After CCO Meeting

- Publication in Federal Register announcing new flood maps for community
- Two local newspaper notices (7-days apart)
- Statutory 90-day Appeal Period (Public Review) begins after local newspaper notifications
- After comments and appeals have been resolved, a Letter of Final Determination (LFD) will be issued, notifying each community that in six months the maps will be effective
- Open House Meeting



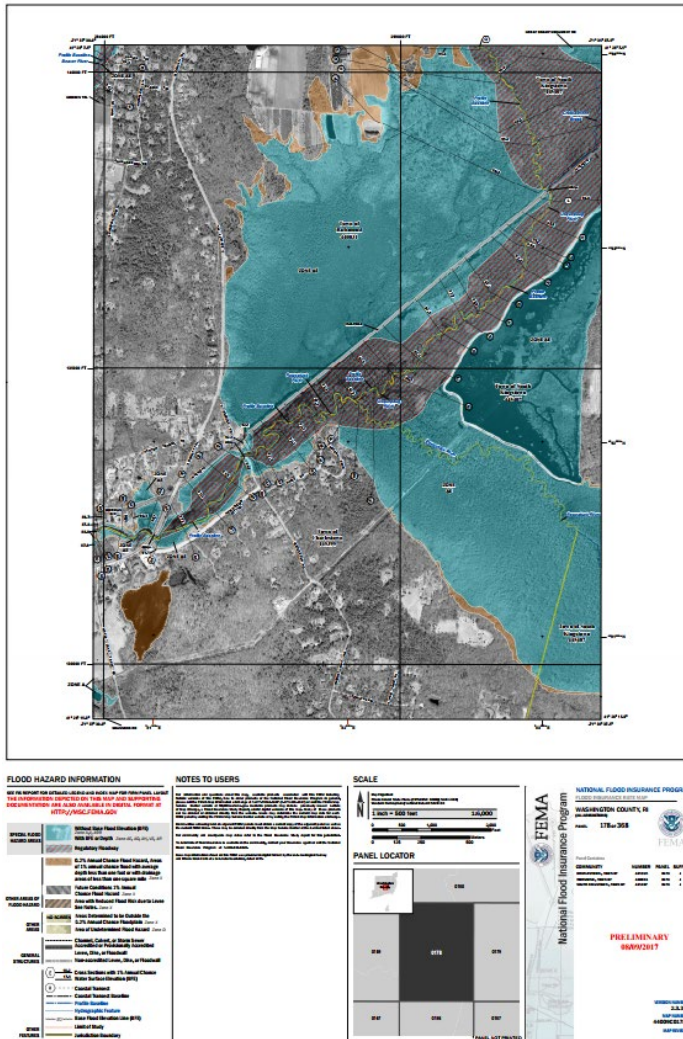
View Your Community's Preliminary Flood Hazard Data

<http://www.fema.gov/view-your-communitys-preliminary-flood-hazard-data-0>

Web link

“preliminary data search tool”

Web site geared towards homeowners, community officials who want to understand how their current effective FIRM may change when the preliminary data becomes effective.



View Effective Flood Maps google "FEMA Flood Maps"

www.msc.fema.gov

Home ▾ FEMA Flood Hazard Resources Map Modify Map Sign In

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About | Content | Legend

Contents

- ▾ National Flood Hazard Layer (Official) ***
- ▾ Imagery

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CRCOG/State of CT, USDA FSA, Microsoft

Appeals

Appeal is a formal objection to the addition/modification of:

- Preliminary BFEs/flood depths

Included under the Expanded Appeals Process:

- SFHA boundaries and or zone designations (newer delineation are often based on more detailed or recent topography)
- Regulatory floodway boundaries

** An appeal must be based on data that show the flood hazard information is scientifically or technically incorrect.*

Comments

Comments are objections to a base map feature change or any non-appealable change

Non-technical changes or inaccuracies

- Incorrect or misspelled road/stream names
- Municipal boundary changes, etc.
- Base map errors

Initial comments are due 30 DAYS from the CCO Meeting (*due Thurs. Jan. 12, 2023*)

Additional Comments can be submitted during the 90 day appeal period

Appeal Period Process

- Appeals must be submitted during the 90-day regulatory appeals period
- Individual property owners and community officials can propose appeals
- All appeals should be sent to
 - Scott Olson, USGS, Project Manager
 - Cc: Gardner Bent, USGS, Project Manager;
 - Cc: Greg Stewart, USGS, Project Manager; and
 - Cc: Kerry Bogdan, FEMA Region I, Risk Analysis Branch Chief

Summary of Map Actions (SOMA) and Revalidation Letter

When a revised Flood Insurance Rate Map (FIRM) becomes effective, all previous map changes are superseded. New panels are updated to include appropriate changes made via Letters of Map Change (LOMCs).

- SOMA identifies if a current LOMC is likely to be incorporated into the revised panel, superseded by new information, or revalidated once the revised panel becomes effective
- Revalidation Letter lists previously issued LOMCs that have been reaffirmed for the new FIRM

Post-Preliminary Processing

■ Summary of Map Actions (SOMA)

An assessment of all existing LOMCs compared with the new FEMA maps

- all LOMCs are reviewed and revalidated by letter, as appropriate, as part of the map update process.
- Letters of Map Change (LOMCs) are legally binding changes to the map

SOMA-1

PRELIMINARY SUMMARY OF MAP ACTIONS

Community: SOMERSET, TOWN OF Community No: 255220

To assist your community in maintaining the Flood Insurance Rate Map (FIRM), we have summarized below the previously issued Letter of Map Change (LOMC) actions (i.e., Letters of Map Revision (LOMRs) and Letters of Map Amendment (LOMAs)) that will be affected by the preparation of the enclosed revised FIRM panel(s).

1. LOMCs Incorporated

The modifications effected by the LOMCs listed below have been reflected on the Preliminary copies of the revised FIRM panels. In addition, these LOMCs will remain in effect until the revised FIRM becomes effective.

| LOMC | Case No. | Date Issued | Project Identifier | Old Panel | New Panel |
|------|----------|-------------|--------------------|-----------|-----------|
| | | | NO CASES RECORDED | | |

2. LOMCs Not Incorporated

The modifications effected by the LOMCs listed below have not been reflected on the Preliminary copies of the revised FIRM panels because of scale limitations or because the LOMC issued had determined that the lot(s) or structure(s) involved were outside the Special Flood Hazard Area, as shown on the FIRM. These LOMCs will be revalidated free of charge 1 day after the revised FIRM becomes effective through a single revalidation letter that reaffirms the validity of the previous LOMCs.

| LOMC | Case No. | Date Issued | Project Identifier | Old Panel | New Panel |
|------|-------------|-------------|--|-------------|-------------|
| LOMA | 03-01-0204A | 12/18/2002 | 3301 RIVERSIDE AVENUE | 2552200002B | 25005C0244G |
| LOMA | 07-01-0103A | 12/05/2006 | ESTATE OF JOSEPH HOLT, PARCEL B - 1321 RIVERSIDE AVENUE (MA) | 2552200002B | 25005C0332G |
| LOMA | 10-01-0308A | 12/23/2009 | 3313 RIVERSIDE AVENUE | 25005C0244F | 25005C0244G |
| LOMA | 10-01-0053A | 01/14/2010 | 150 POPLAR ST, SOMERSET MA | 25005C0244F | 25005C0244G |
| LOMA | 10-01-0207A | 01/14/2010 | LOT 15-4365 COUNTY STREET | 25005C0242F | 25005C0242G |
| LOMA | 10-01-1021A | 04/15/2010 | LOT 10, BROAD COVE ESTATES - 917 PLEASANT STREET | 25005C0242F | 25005C0242G |
| LOMA | 10-01-0623A | 05/11/2010 | 1276 & 1284 Riverside Avenue | 25005C0332F | 25005C0332G |
| LOMA | 10-01-0842A | 06/08/2010 | 184 Main Street | 25005C0244F | 25005C0244G |

12/13/2012
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Post-Preliminary Processing

■ Revalidation Letter Distribution

- Community
- FEMA Regional Office
- NFIP State Coordinator
- ***NOT*** to Homeowners or Developers
- ***IS*** available through FEMA Map Service Center:
<http://msc.fema.gov/>

Post-Preliminary Processing

- The compliance and map adoption period (6 months) begins the date the **Letter of Final Determination** is sent; and ends at the effective date.
- Community officials review and, if appropriate, revise the community's floodplain ordinances to ensure they are compliant with NFIP regulations.
- To avoid suspension from the NFIP, the community must adopt a compliant floodplain management ordinance. Communities should contact their State NFIP Coordinator's Office for model language and any questions regarding higher standards.
- Once the State has reviewed the ordinance and the community has adopted it, the ordinance must be approved by FEMA before close of business on the effective date.

Points of Contact Merrimack and Nashua Watershed

■ NH state contacts:

- Jennifer Gilbert, State NFIP Coordinator, NH OSI, jennifer.r.gilbert@livefree.nh.gov
- Katie Paight, Principal Planner, NH OSI, Kathryn.o.paight@livefree.nh.gov
- Natasha Cole, State Hazard Mitigation Officer, NH DOS, natasha.l.cole@dos.nh.gov

■ USGS Contacts:

- Scott Olson, Project Manager, USGS solson@usgs.gov
- Gardner Bent, Project Manager, USGS gbent@usgs.gov
- Greg Stewart, Project Manager, USGS gstewart@usgs.gov

■ FEMA Regional Service Center:

- Alex Sirotek, RSC Lead, ARC PTS, alexander.sirotek@woodplc.com

■ FEMA Region 1 Contacts:

- Kerry Bogdan, Project Manager, FEMA Region I, kerry.bogdan@fema.dhs.gov
- Bob Desaulniers, Floodplain Management & Insurance Branch, FEMA Region I, robert.desaulniers@fema.dhs.gov
- Jay Neiderbach, Planner, Risk Analysis Branch, FEMA Region I, Josiah.neiderbach@fema.dhs.gov

Please send comments/appeals to:

Scott Olson, U.S. Geological Survey
331 Commerce Way
Pembroke, NH 03275

Gardner Bent, U.S. Geological Survey,
10 Bearfoot Rd.
Northborough, MA 01532

Please copy:

Kerry Bogdan, FEMA Region 1
99 High Street, 6th Floor
Boston, MA 02110

Who Do I Contact With Questions?

- For general FEMA mapping and Letter of Map Change (LOMC) questions, contact FEMA's Map Information Exchange (FMIX): 1-877-FEMA MAP (1-877-336-2627) or email a Map Specialist: FEMAMapSpecialist@riskmapcds.com
- Map Service Center (MSC) – view effective maps online for free: <http://msc.fema.gov/>
- To learn more about the National Flood Insurance Program (NFIP), call 1-888-379-9531 or visit <http://www.floodsmart.gov/floodsmart>

Optional Breakout Sessions

QUESTIONS?

- We will have one hour time slots on Thursday, December 15 and Wednesday, December 21 for one-on-one meetings with towns
- Email Katherine Wares at kwares@usgs.gov if you have not scheduled a breakout session yet

