






## What's New in FEMA Mapping?

Eric Simmons  
September 6, 2018





## Discussion Topics

- FEMA Initiatives & Evolving Risk MAP
- FEMA's Flood Map Service Center
- National Flood Hazard Layer (NFHL)
- Draft NFHL and Changes Since Last FIRM Tools
- Change Viewer & Preliminary Comparisons Tool
- Base Level Engineering
- Questions & Answers



## Risk MAP Vision

- Deliver quality data that increases public awareness of flood risk and leads to action that reduces future losses
- We want to achieve this by:
  - Emphasizing mitigation and insurance
  - Close coordination with local officials
  - Providing access to a wealth of consolidated flood hazard and risk data from a variety of sources
  - Empowering risk reduction actions by providing timely and relevant information and messages

## FEMA Mapping Initiatives

- Improve data usability and delivery; eliminate most manual data exchanges
- Users can now rely exclusively on dynamic products, based on the National Flood Hazard Layer, rather than on static legacy maps, throughout the mapping lifecycle
- Provide public access to FEMA engineering models and other backup data, where appropriate, for completed projects and work in progress
- FEMA has strengthened IT systems to handle additional demand for dynamic products
- All in support of FEMA's Strategic Plan and Moonshots

**2018-2022 Strategic Plan**  
 Helping People. Together.

FEMA Mission: **Helping people before, during, and after disasters.**

**STRATEGIC GOALS**

- I. BUILD A CULTURE OF PREPAREDNESS**
  - 1.1 Incentivize investments that reduce risk, including pre-disaster mitigation, and reduce disaster costs at all levels
  - 1.2 Close the insurance gap
  - 1.3 Help people prepare for disasters
  - 1.4 Better learn from past disasters, improve continuity, and innovate
- II. READY THE NATION FOR CATASTROPHIC DISASTERS**
  - 2.1 Organize the "BEST" (Build, Engage, Sustain, and Train) scalable and capable incident workforce
  - 2.2 Enhance intergovernmental coordination through FEMA Integration Teams
  - 2.3 Posture FEMA and the whole community to provide life-saving and life-sustaining commodities, equipment, and personnel from all available sources
  - 2.4 Improve continuity and resilient communications capabilities
- III. REDUCE THE COMPLEXITY OF FEMA**
  - 3.1 Streamline the disaster survivor and grantee experience
  - 3.2 Mature the National Disaster Recovery Framework
  - 3.3 Develop innovative systems and business processes that enable FEMA's employees to rapidly and effectively deliver the agency's mission
  - 3.4 Strengthen grants management, increase transparency, and improve data analytics

**OBJECTIVES**

FEMA Vision: **A prepared and resilient Nation.**

**FEMA Mitigation Moonshots**

**Double Coverage by 2022**

**INCREASE INVESTMENT in Mitigation x4 by 2022**

**FEMA** **RiskMAP**  
 Helping People. Together.

**Mapping Alphabet Soup**

- FIRM** (Flood Insurance Rate Map) is the official map of a community on which FEMA has delineated risk premium zones
- MSC** (Map Service Center) is the official source for publicly available flood hazard data
- NFHL** (National Flood Hazard Layer) is a national geospatial database of digital FIRMs +
- LOMC** (Letters of Map Change)
- BE** (Base Flood Elevation)
- FEMA** (ForEver Moving Around)

**FEMA** **RiskMAP**  
 Helping People. Together.

**FEMA's Flood Data Lifecycle**

New flood hazard data goes through several stages before becoming effective for flood insurance. These stages are intended to make sure community officials and homeowners are aware of changes that may impact them.

**Draft flood hazard data** → **Preliminary flood hazard data** → **Pending flood hazard data** → **Effective flood hazard data**

- Draft flood hazard data**
  - Made available for early coordination with communities
  - Helpful to resolve issues early in the remapping process
- Preliminary flood hazard data**
  - Issued to communities and posted online for public review and awareness of proposed changes
  - Critical step in due process
- Pending flood hazard data**
  - Data is final with an effective date
  - Delivered to communities & posted online approximately five months prior to effective date
- Effective flood hazard data**
  - For official and regulatory uses
  - May be updated by Letters of Map Change (LOMCs) or future revisions

**FEMA** **RiskMAP**  
 Helping People. Together.

## Map Service Center (MSC)

FEMA Flood Map Service Center: Welcome!

Looking for a Flood Map?

Enter an address, a place, or longitude/latitude coordinates:

Enter an address, a place, or longitude/latitude coordinates:

Looking for more than just a current flood map?  
Visit [Search All Products](#) to access the full range of flood risk products for your community.



About Flood Map Service Center

**https://msc.fema.gov**

**Your authoritative source:**

- NFHL and effective flood hazard maps
- Search by community for Preliminary, Pending, and Historic flood maps
- Letters of Map Change (LOMCs)
- Other products and tools

**MSC is the gateway to all of FEMA's flood mapping products and tools**  
 · Create a free subscription and get emails when new products are published!





## Map Service Center (MSC) Updates

Enter an address, place, or coordinates:

Search Results—Products for LEWES, CITY OF


The flood map for the selected area is number 100602114K - Effect 4 - 03/16/2018



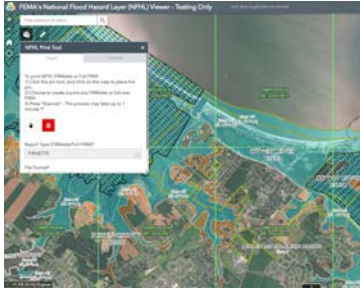
**Now all can:**

- View the NFHL in an address search
- Create/Print a FIRMette from the NFHL
- Export GIS data
- Advance to the NFHL Viewer to access additional options

**Simplest way to access the NFHL, create flood maps for your area, and print FIRMettes**



## National Flood Hazard Layer (NFHL) Viewer





**msc.fema.gov/nfhl**

**Now all can:**

- Create a FIRMette after selecting a point of interest
- View all features found on a FIRM with standardized symbology
- View LOMA and revalidation statuses
- All with LOMCs in place

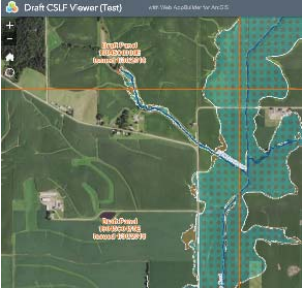


**Powerful tool for viewing flood hazards and creating mapping products for official purposes**

## Draft NFHL Viewer + CSLF

**msc.fema.gov/draft**

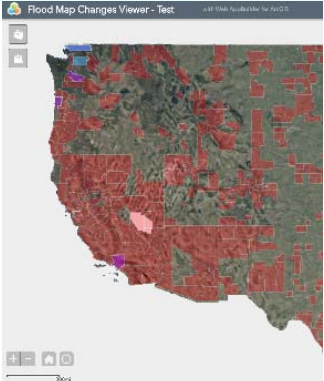
- Draft Changes Since Last FIRM (CSLF) data
- As Letters of Map Revision (LOMRs) update the NFHL, the draft CSLF is also updated
- **Valuable Tool for Community Meetings**







## Flood Map Changes Viewer

**[msc.fema.gov/fmccv](https://msc.fema.gov/fmccv)**


This viewer is intended to show users proposed changes to the flood hazard mapping through the issuance of Preliminary flood hazard data shown in a national layer





## Flood Map Changes Viewer – CSLF

- Preliminary Changes Since Last FIRM
- LOMR and Revised Preliminary auto-updates
- Preliminary CSLF data can be exported as shapefiles





 13 



## Flood Map Changes Viewer – Preliminary Map Comparison Tool

- Create side-by-side report of Preliminary and Effective data in the Preliminary Map Comparison Tool
- Provides MSC links to unmodernized maps

**Comparison of Flood Hazard**  
Effective & Preliminary Flood Hazards

Effective	Preliminary
	
PFD Long/Short/Latitude: 118.0015, 34.0815 Effective FIRM Panel: 60217C0102	PFD Long/Short/Latitude: 118.0015, 34.0815 Preliminary FIRM Panel: 60217C0102
Effective Date: 5/26/2008	Preliminary Issue Date: 3/15/2018
Flood Date: 0	Flood Date: 0
Depth 8ft: Not Available	Estimated Flood Depth*: Not Available
Flood Depth: Not Available	Estimated Flood Depth: Not Available
Vertical Datum: Not Available	Vertical Datum: Not Available

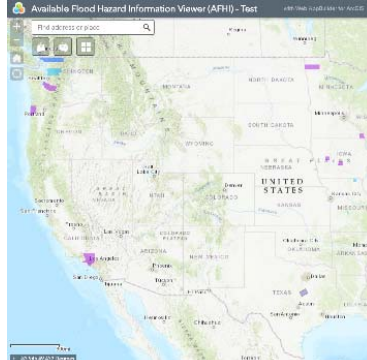
Standard: The information on this page is provided as a service to the public. It is not intended to be used as a basis for any legal action. The information is provided as a service to the public and is not intended to be used as a basis for any legal action. The information is provided as a service to the public and is not intended to be used as a basis for any legal action.



 

## Available Flood Hazard Information

**[msc.fema.gov/afhi](https://msc.fema.gov/afhi)**



- Shows the best available flood hazard data for a location
- Data Development footprints
- Data availability report by community
- Valuable tool for State/FEMA Joint Field Offices



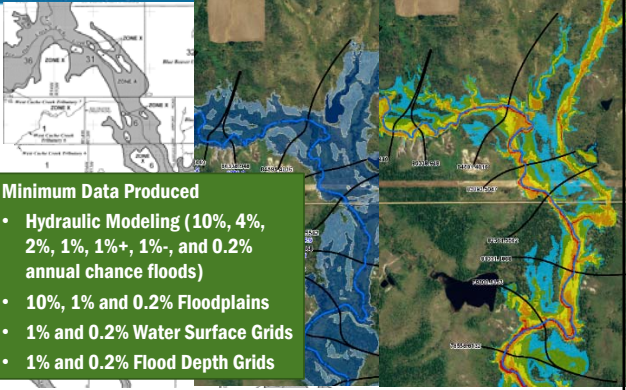
 

## Base Level Engineering

- **Automated engineering analysis using LIDAR topography to provide flood hazard data**
  - Measuring stick to allow FEMA to assess the adequacy of current/effective flood zones
  - Flood hazard data that provides a platform for broad risk communication
  - Engineering modeling that may be used and leveraged by local communities to review the effect of development in and around floodplains


16


## Base Level Engineering Products






**Minimum Data Produced**

- Hydraulic Modeling (10%, 4%, 2%, 1%, 1+, 1-, and 0.2% annual chance floods)
- 10%, 1% and 0.2% Floodplains
- 1% and 0.2% Water Surface Grids
- 1% and 0.2% Flood Depth Grids

## FEMA Mapping Policy & Guidelines


- **2015 - 2017 Updates**
  - Elevation data standards (from USGS)
  - ESA requirements for CLOMRs
  - Zone AR/A99 eligibility
  - Key Decision Points
- **2018 and Beyond**
  - Complete guidance transformation
  - Additional legislative reforms
  - GAO, OMB & OIG reports
  - TMAC recommendations
  - Customer experience
  - LiDAR for LOMAs
  - Technology?




18


## Questions?

Eric.Simmons@fema.dhs.gov


19
