

National Flood Insurance Program

Linn County, Iowa

Preliminary Digital Flood Insurance Rate Maps

CCO Meeting

May 30, 2019

AECOM



Introductions

- Jason Conn – Iowa DNR Local Floodplain Program
- Erin Cobb – FEMA Region 7
- Chris Kahle – Iowa DNR Floodplain Mapping Program
- Dan Curley – AECOM
- Ken Bouma – Iowa DNR Local Floodplain Program

Agenda

- National Flood Insurance Program (NFIP)
- Flood Mapping Process
- Preliminary Study for Linn County
- Viewing Preliminary Products
- Timeline & Project Schedule
- Appeals Process
- Flood Insurance
- Questions

What is the National Flood Insurance Program (NFIP) ?

The NFIP is a federal program:

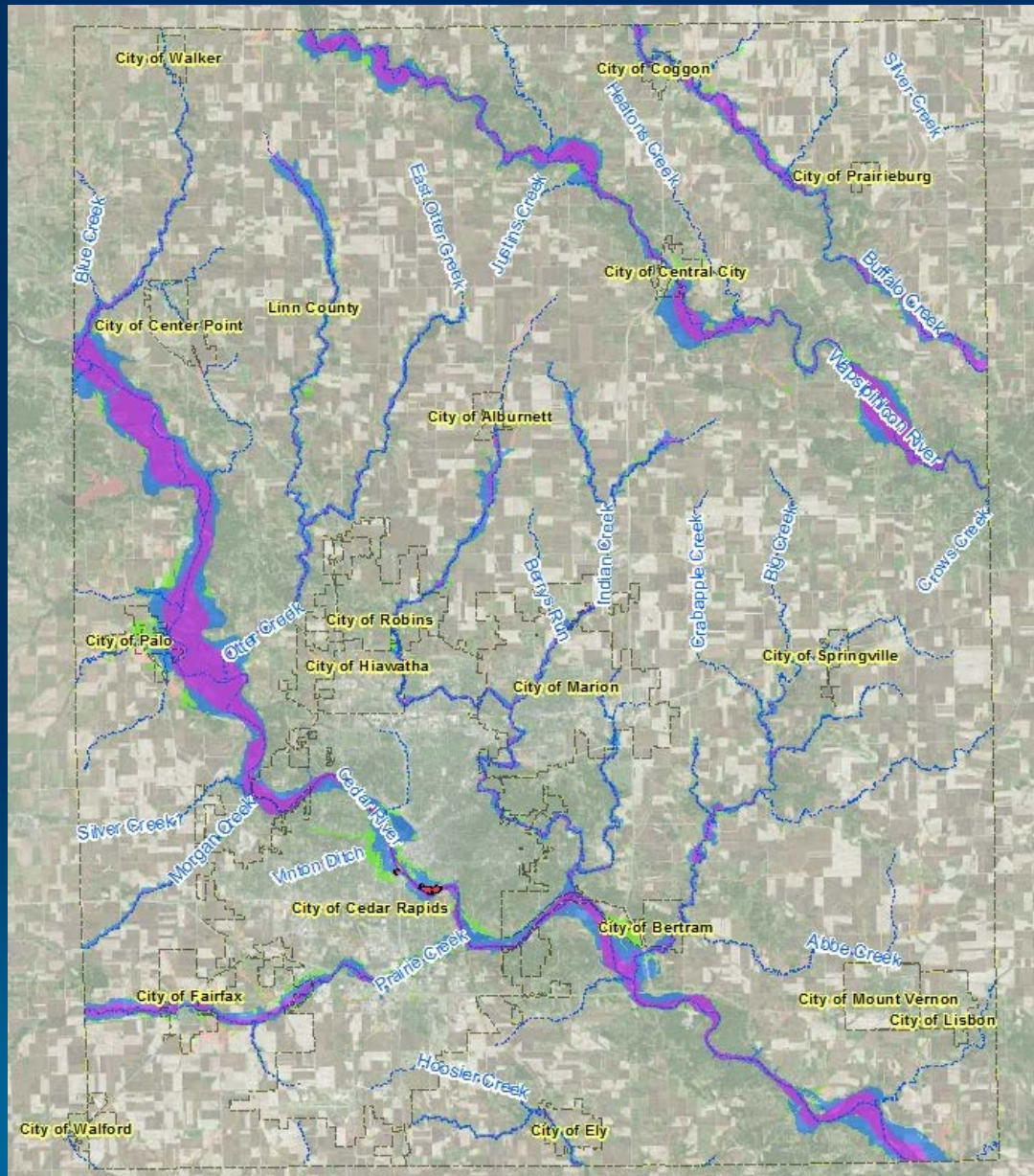
- Established with the passage of the National Flood Insurance Act of 1968
- Enables property owners in participating communities to purchase insurance as protection against flood losses
- Participation is voluntary and based on an AGREEMENT between local communities and the Federal Government

AGREEMENT: Federal Government makes flood insurance available within communities as a financial protection against flood losses, and communities adopts and enforces a floodplain management ordinance to reduce flood risk to new construction in floodplains

Federal & State Roles

- Federal Emergency Management Agency (FEMA)
 - Administers the NFIP
 - Produces maps that identify community flood risks
 - Region VII in Kansas City, MO
- Iowa Department of Natural Resources (IDNR)
 - Regulates construction on all floodplains and floodways in the state to protect life and property from flood damage
 - Cooperating Technical Partner (CTP) with FEMA
 - CTP Agreement signed August 12, 2009
 - Agree to work together to create and maintain accurate, up-to-date flood hazard data for the IDNR
 - Consult each other to fully integrate each other's contributions into flood hazard identification efforts

Linn County

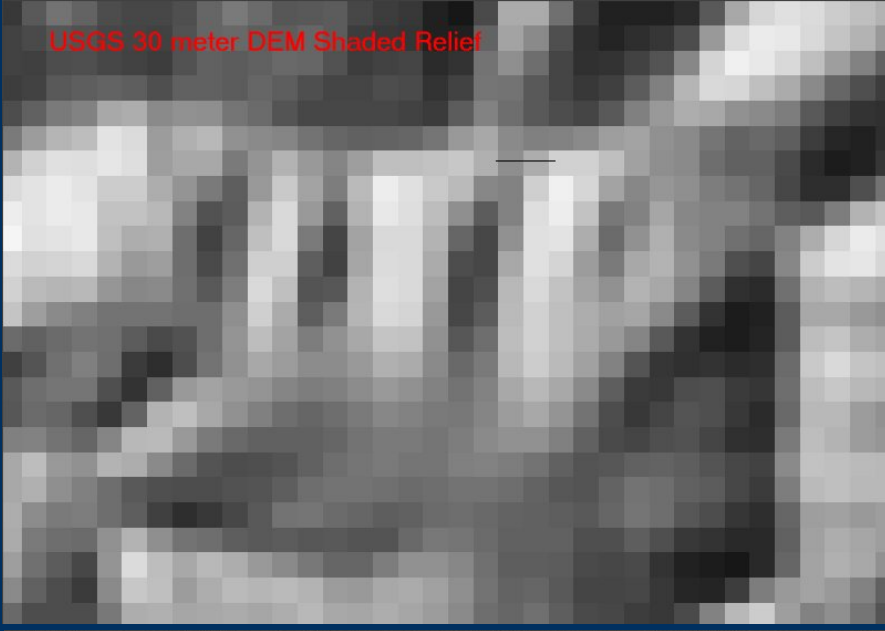


- A,
- AE,
- AE, FLOODWAY
- X, 0.2 PCT
- X,

Iowa Mapping Process

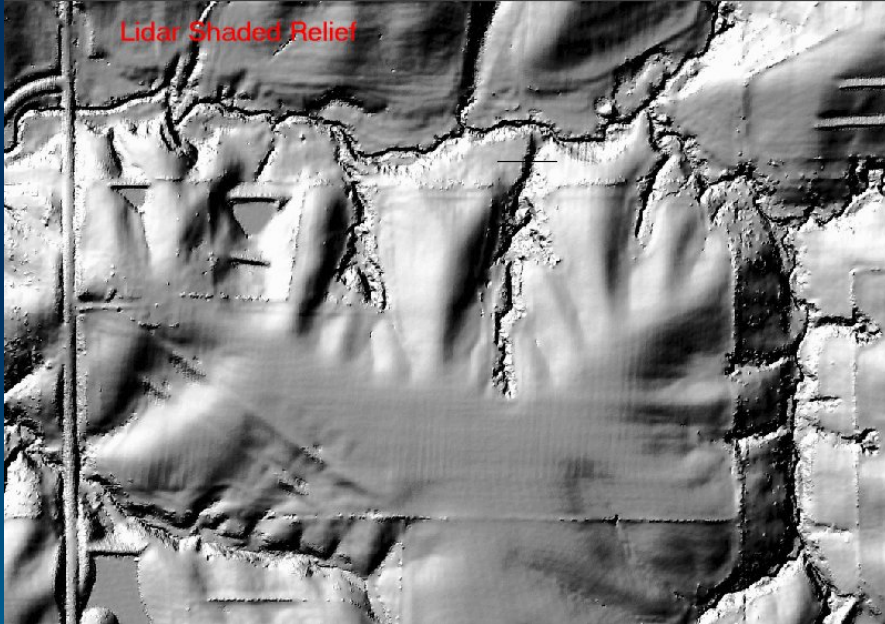
- Floodplains Mapped on Accurate Topography (LiDAR) - Accurate to +/- 8 Inches
- Flood Hazard Boundaries
 - Base Level (Zone A)
 - Enhanced Level (Zone AE)
 - Numerous New Studies
- Maps satisfy FEMA's mapping standards

USGS 30 meter DEM Shaded Relief



Topographic Data used in current maps

Lidar Shaded Relief



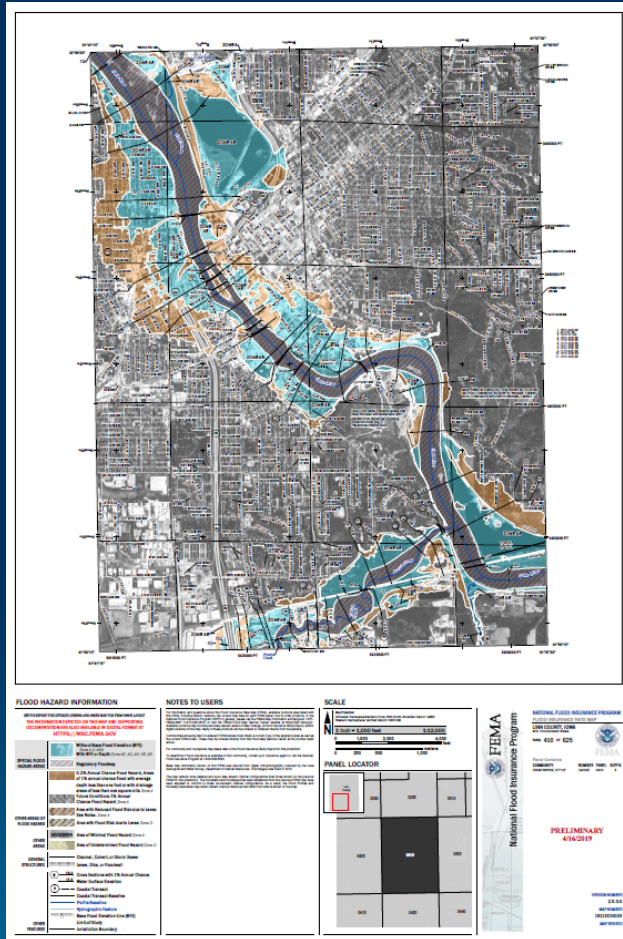
Topographic Data used in the new preliminary maps

Iowa Mapping Process

- Floodplains Determined & Mapped
 - 1% annual chance (100 year) & 0.2% annual chance (500 year)
- Iowa Flood Center Flood Hazard Analysis
- Additional Flood Risk Products
 - Flood Risk Gradient
 - Depth Grids (GIS)

Regulatory Products

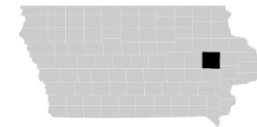
Available at: <https://msc.fema.gov>



FLOOD INSURANCE STUDY

FEDERAL EMERGENCY MANAGEMENT AGENCY

VOLUME 1 OF 3



**LINN COUNTY,
IOWA**
AND INCORPORATED AREAS

COMMUNITY NAME	NUMBER	COMMUNITY NAME	NUMBER
ALBURNETT, CITY OF	190692	LISBON, CITY OF	190607
BERTRAM, CITY OF	190438	MARION, CITY OF	190191
CEDAR RAPIDS, CITY OF	190187	MOUNT VERNON, CITY OF	190192
CENTER POINT, CITY OF	190439	PALO, CITY OF	190442
CENTRAL CITY, CITY OF	190188	PRAIRIEBURG, CITY OF*	190130
COGGON, CITY OF	190189	ROBINS, CITY OF	190443
ELY, CITY OF	190440	SPRINGVILLE, CITY OF	190444
FAIRFAX, CITY OF	190190	WALFORD, CITY OF	190820
HAWATHA, CITY OF	190441	WALKER, CITY OF	190445
LINN COUNTY, UNINCORPORATED AREAS	190829		

*No Special Flood Hazard Areas Identified

PRELIMINARY
04/16/2019

REVISED:
TBD

FLOOD INSURANCE STUDY NUMBER
19113CV001B
Version Number 2.5.3.0



FEMA

AECOM



FEMA

Letters of Map Change (LOMC)

SOMA-1

PRELIMINARY SUMMARY OF MAP ACTIONS

Community: WALKER, CITY OF Community No: 190445

To assist your community in maintaining the Flood Insurance Rate Map (FIRM), we have summarized below the effect of the enclosed revised FIRM panel(s) on previously issued Letter of Map Change (LOMC) actions (i.e., Letters of Map Revision (LOMRs), Letter of Map Revision based on Fill (LOMR-Fs), and Letters of Map Amendment (LOMAs)).

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	Original Panel	Current Panel
NO CASES RECORDED					

2. LOMCs Not Incorporated

The modifications effected by the LOMCs listed below are either not located on revised FIRM panels, or 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.

2A. LOMCs on Revised Panels

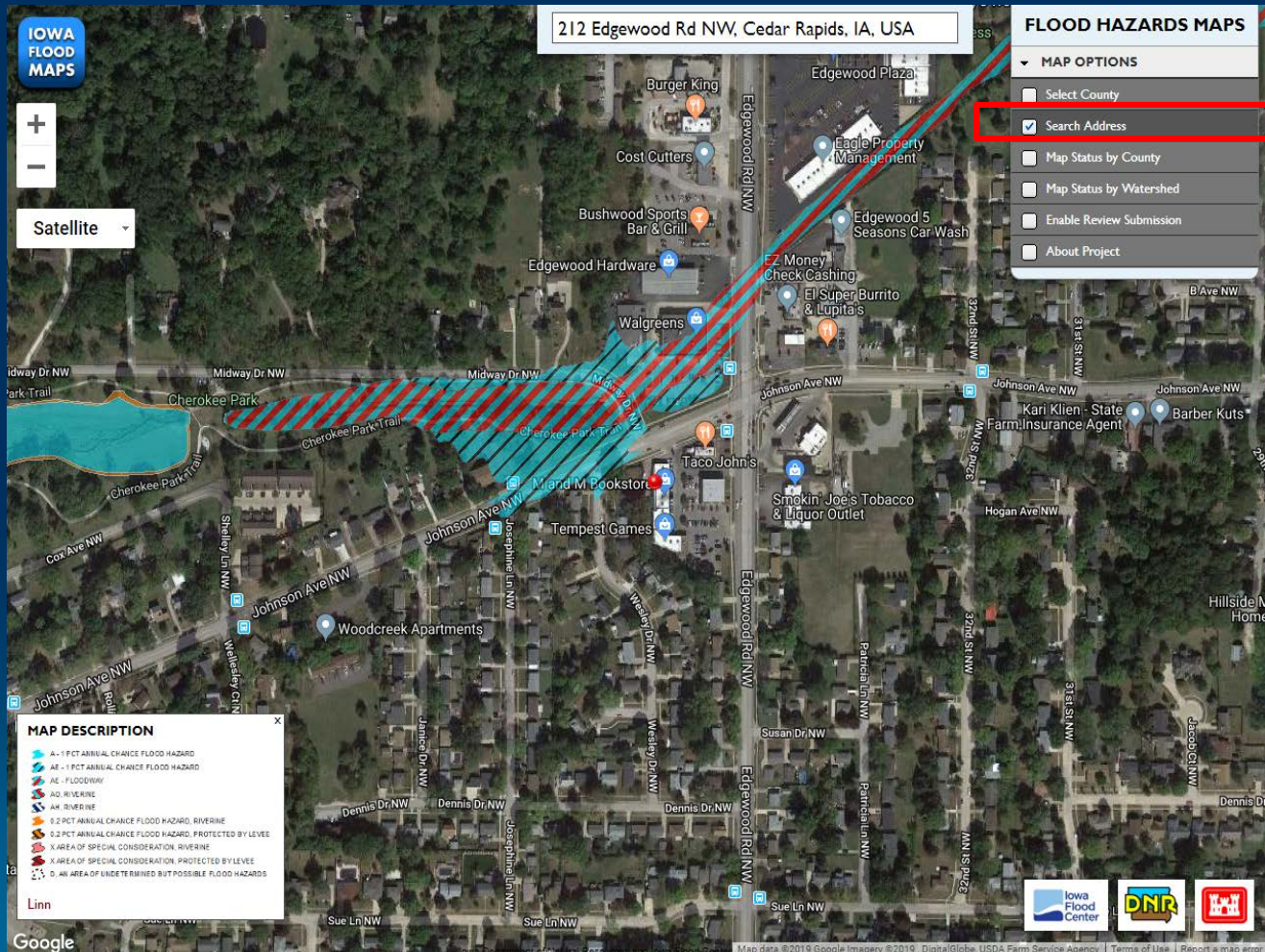
LOMC	Case No.	Date Issued	Project Identifier	Original Panel	Current Panel
LOMA	07-07-0999A	04/26/2007	KESTER FIRST ADDITION, LOT 1 -- 4391 SPENCERS GROVE ROAD (IA)	1908290005B	19113C0016E
LOMA	10-07-1987A	08/12/2010	513 WALKER STREET	19113C0016D	19113C0016E
LOMA	10-07-2219A	12/09/2010	LOT 9 JOHNSON'S FIRST ADDITION -- 49 PRAIRIE DRIVE	19113C0019D	19113C0019E
LOMA	11-07-0518A	01/04/2011	LOTS 5 & 8, BLOCK 1, NEUMEYER'S 1ST ADD -- 710 BUFFALO COURT	19113C0017D	19113C0017E
LOMA	11-07-2487A	08/16/2011	NEUMEYER'S 1ST ADDITION, BLOCK 2, LOTS 6 & 7 -- 711 ELK COURT	19113C0017D	19113C0017E
LOMA	12-07-1276A	02/14/2012	419 AND 503 MILL STREET	19113C0016D	19113C0016E
LOMA	17-07-0728A	02/08/2017	SECTION 4, T86N, R8W -- 4351 SPENCERS GROVE ROAD	19113C0016D	19113C0016E

Page 1 of 2

- All LOMCs are addressed in the preliminary Summary of Map Actions (SOMA)
- Four categories
 1. Incorporated
 2. Not Incorporated (validated)
 3. Superseded
 4. To be Re-determined
- Local officials need to be sure to review the prelim SOMA for completeness
- If you note a LOMC missing from the list, submit the omission with your comments &/or appeals

Finding Preliminary Flood Hazard Mapping Data

[Iowa Flood Center: www.IowaFloodMaps.org](http://www.IowaFloodMaps.org)



Finding Preliminary Flood Hazard Mapping Data

[Flood Map Changes Viewer: https://msc.fema.gov/fmcv](https://msc.fema.gov/fmcv)

The screenshot displays the Flood Map Changes Viewer interface. At the top, the title "Flood Map Changes Viewer" is shown, along with the text "with Web AppBuilder for ArcGIS". The main map area shows an aerial view of a residential area with various flood hazard zones overlaid in different colors (purple, blue, green, yellow, red). A red circle highlights a specific location on the map. A search bar at the top right contains the address "212 Edgewood Rd NW, Cedar Rapids, IA, 52405, USA". A search results dropdown menu is open, showing the selected address. A processing dialog box is open on the left side of the map, containing instructions for printing a report and an "Execute" button. A red arrow points to the "Execute" button. A search results popup is also visible on the right side of the map, showing the address "212 Edgewood Rd NW, Cedar Rapids, IA, 52405, USA". The bottom of the interface shows navigation controls (zoom in, zoom out, home, refresh) and a scale bar indicating 200 feet. The bottom left corner shows the coordinates "-91.71441.975 Degrees".

Processing Dialog:

Input Output

To print Map Changes report:

- 1) Click the pin tool below.
- 2) Click a point on the map to select location.
- 3) Press Execute to receive a comparison report at 1 in = 500ft scale for the selected location.

The process may take up to one minute.*

Help **Execute**

Search Results:

212 Edgewood Rd NW, Cedar Rapids, IA, 52405, USA

City of Cedar Rapids 190187
191130405D
eff. 4/5/2010

AREA OF MINIMAL FLOOD HAZARD
Zone X

Finding Preliminary Flood Hazard Mapping Data

Flood Map Changes Viewer: <https://msc.fema.gov/fmcv>

Comparison of Flood Hazard

Effective & Preliminary Flood Hazards



Effective	Preliminary
Effective	Preliminary
POI Longitude/Latitude	-91.7169, 41.9738
Effective FIRM Panel	19113C0405D
Effective Date	4/5/2010
Flood Zone	AE
Static BFE*	Not Available
Flood Depth	Not Available
Vertical Datum	Not Available
POI Longitude/Latitude	-91.7169, 41.9738
Preliminary FIRM Panel	19113C0405E
Preliminary Issue Date	4/16/2019
Flood Zone	X
Estimated Static BFE*	Not Available
Estimated Flood Depth	Not Available
Vertical Datum	Not Available

* A Base Flood Elevation is the expected elevation of flood water during the 1% annual chance storm event. Structures below the estimated water surface elevation may experience flooding during a base flood event.

Hazard Level
High Flood Hazard **Flood Hazard Zone**
AE, A, AH, AD, VE and V Zones. Properties in these flood zones have a 1% chance of flooding each year. This represents a 26% chance of flooding over the life of a 30-year mortgage.

Moderate Flood Hazard **Shaded Zone X**. Properties in the moderate flood risk areas also have a chance of flooding from storm events that have a less than 1% chance of occurring each year. Moderate flood risk indicates an area that may be provided flood risk reduction due to a flood control system or an area that is prone to flooding during a 0.2% annual chance storm event. These areas may have been indicated as areas of shallow flooding by your community.

Unshaded Zone X. Properties on higher ground and away from local flooding sources have a reduced flood risk when compared to the Moderate and High Flood Risk categories. Structures in these areas may be affected by larger storm events, in excess of the 0.2% annual chance storm event.

Low Flood Hazard **Insurance Note**: High Risk Areas are called 'Special Flood Hazard Areas' and flood insurance is mandatory for federally backed mortgage holders. Properties in Moderate and Low Flood Risk areas may purchase flood insurance at a lower-cost rate, known as Preferred Risk Policies. See your local insurance agent or visit <https://www.fema.gov/national-flood-insurance-program> for more information.

Disclaimer: This report is for informational purposes only and is not authorized for official use. The positional accuracy may be compromised in some areas. Please contact your local floodplain administrator for more information or go to msc.fema.gov to view an official copy of the Flood Insurance Rate Maps.

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Additional Flood Risk Products

www.iowafloodmaps.org

The screenshot shows the website header with logos for DNR, Iowa Flood Center, and IIHR (Hydroscience & Engineering, College of Engineering). The main title is "Iowa Statewide Floodplain Mapping Project" with a subtitle "A collaboration between the Iowa Flood Center and the Iowa Department of Natural Resources". A navigation menu includes Home, Maps by County, Events, Project Status, Methodology, Partnerships, Staff, Links, Contact, and Maps. The main content area has a "Home" section with three main categories: "Draft Flood Hazard Maps", "Draft Flood Hazard Products", and "Draft Flood Hazard Product Review Meetings". Each category has a brief description and a "View the Maps" button. A red arrow points to the "View the Maps" button under "Draft Flood Hazard Products".

Home

Draft Flood Hazard Maps

100- and 500-year Draft Flood Hazard Products are available online.

[View the Maps](#)

Draft Flood Hazard Products

In partnership with the [Iowa Department of Natural Resources \(DNR\)](#), the [Iowa Flood Center \(IFC\)](#) is completing draft flood hazard products for the [85 Iowa counties](#) that were declared Presidential Disaster Areas following the 2008 floods. The flood hazard products will delineate boundaries of flooded areas for the 1-percent annual chance (100-year) and 0.2-percent annual chance (500-year) flood.

The work is being completed and made available to the public in [sequence](#). When completed, the draft flood hazard products will be available by county via an online Google Maps-based interface.

Important Note: While some of the products created may be adopted by FEMA and become regulatory maps provided at the [Iowa Flood Maps](#) link are **not** regulatory maps. The products are being provided on this site for informational purposes. Iowans interested in map information for flood insurance purposes should visit the [FEMA Map Service Center](#) or contact local officials to view the current regulatory map for their jurisdiction.

Draft Flood Hazard Product Review Meetings

None scheduled.

Last modified on February 20th, 2015
Posted on September 27th, 2013

Flood Risk Management Maps

Scour-prone floodplain areas, flood depths, and gradients of flood risk.

[View the Maps](#)

The screenshot shows the "IOWA FLOOD RISK MANAGEMENT MAPS" page. It features a list of map categories: "Scour-prone Floodplain Areas", "Flood Depth Maps", and "Flood Risk Maps". Each category has a brief description and a "VIEW MAPS" button. A red arrow points to the "VIEW MAPS" button for "Flood Risk Maps". Below the categories is a "DISCLAIMER" section with three bullet points. At the bottom, there are six navigation buttons: "ABOUT MAPS", "HELP & TUTORIAL", "VIDEO TUTORIAL", "WEB SERVICE", "DATA DOWNLOAD", and "CONTACT US".

IOWA FLOOD RISK MANAGEMENT MAPS

Scour-prone Floodplain Areas
Areas likely to experience floodplain scour during major flood events

Flood Depth Maps
High-resolution maps of flood depths associated with the 50-, 20-, 10-, 4-, 2-, 1-, 0.5-, and 0.2-percent annual probabilities

Flood Risk Maps
Floodplain areas associated with varying degrees of risk

[VIEW MAPS](#)

DISCLAIMER
Supplemental flood map data can be viewed with the understanding and concurrence to the following conditions:

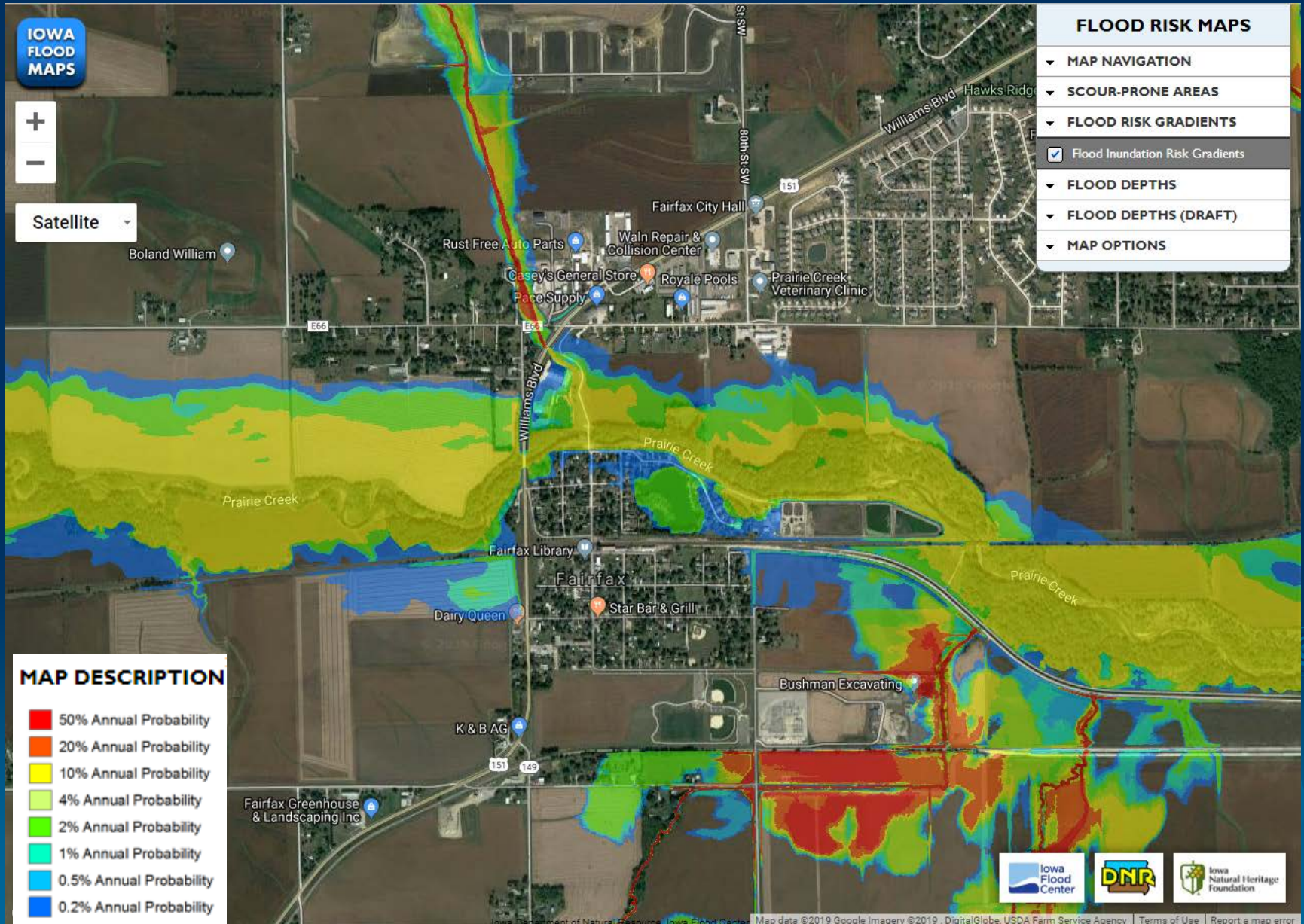
- Flood hazard information provided is preliminary and subject to revision
- Flood hazard information provided should not be used for regulation, enforcement, or insurance rating purposes.
- Flood hazard information provided is intended for outreach, advisory, and review purposes.

[ABOUT MAPS](#) [HELP & TUTORIAL](#) [VIDEO TUTORIAL](#) [WEB SERVICE](#) [DATA DOWNLOAD](#) [CONTACT US](#)

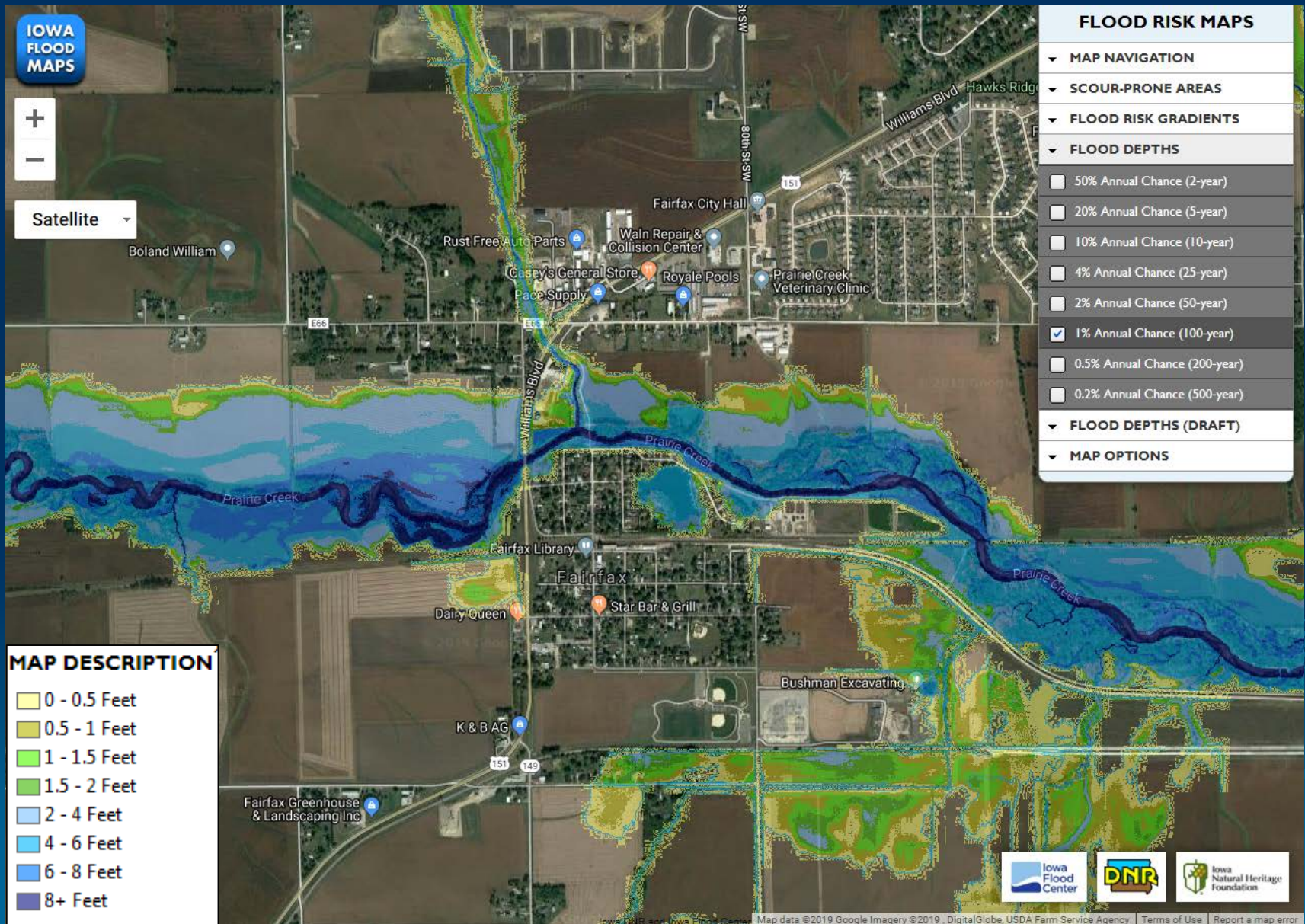
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Iowa Flood Center IIHR THE UNIVERSITY OF IOWA Iowa Natural Heritage Foundation DNR

Flood Risk Gradient

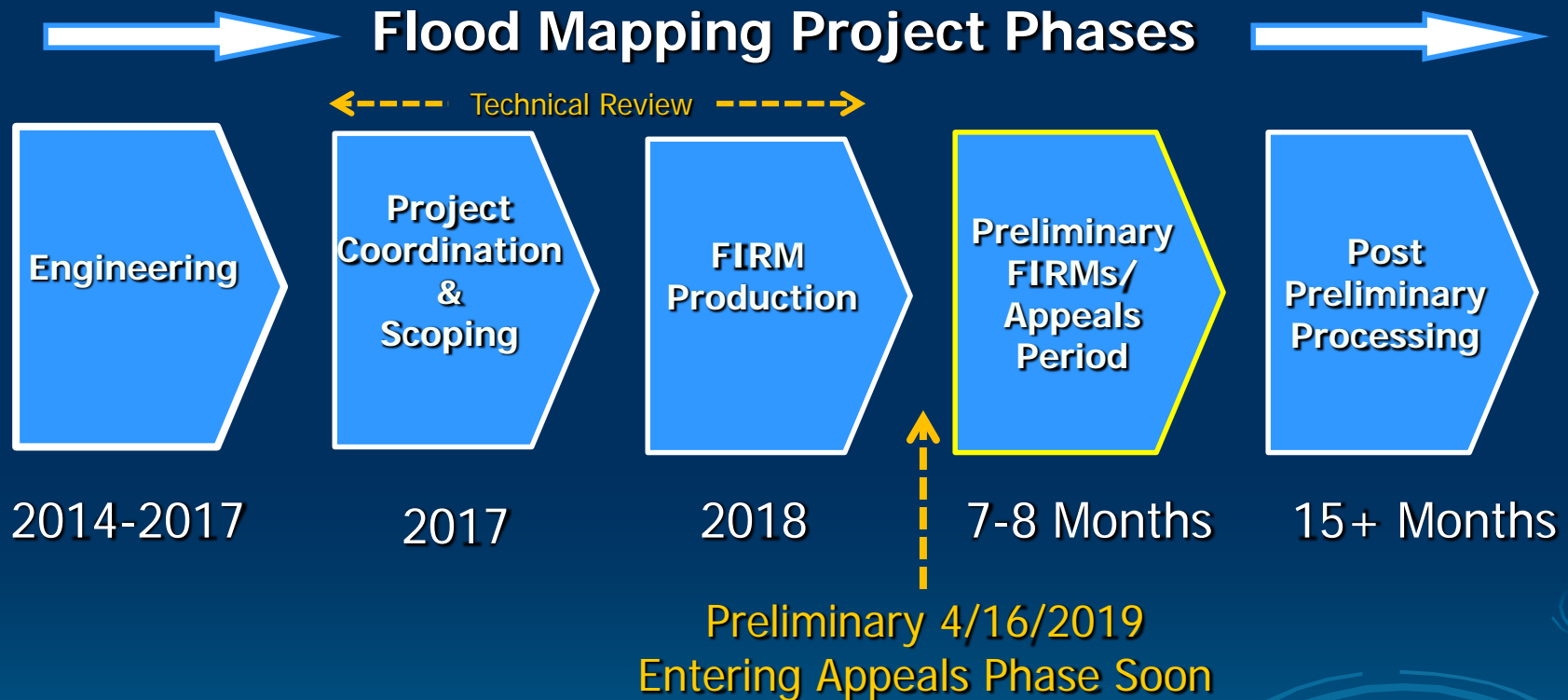


Flood Depth Grids



Flood Mapping Process

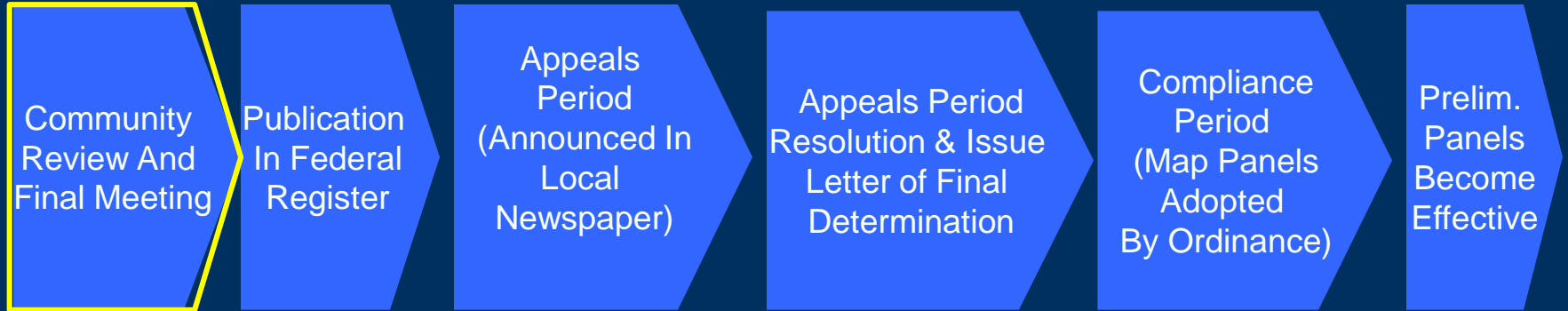
Project Timeline



Timeline is approximate and is subject to change

Remaining Project Schedule

Post-Preliminary Processing 



45-60 Days

90 Days

90 Days

160-200 Days

6 Months

Feb 2021
(Approx.)

Appeal/Comment Process

- **Comments**
 - Referring to base map feature changes
 - Provide new base map features
- **Appeals**
 - **Must relate to SFHA boundaries or SFHA zone designations. Otherwise they are not considered appeals.**
 - **Alternative analysis must be provided with an appeal.**
 - **All analysis and data submitted must be certified by a Registered Professional Engineer or Licensed Land Surveyor, as appropriate.**
 - **Must be submitted through the local community**
 - **Must be submitted during the 90-day window**

Appeals Process

Scientific Resolution Panel

- Described in Procedure Memorandum # 58
- Available after FEMA and community engaged in a collaborative consultation process for at least 60 days without a mutually-acceptable resolution of an appeal
- Independent third party review of the appellant's information



The image shows a FEMA Fact Sheet titled "Scientific Resolution Panels" dated November 1, 2010. The document is presented in a white box with a blue header and a red title bar. The FEMA logo is in the top left, and the text "FEMA Fact Sheet" is in the top right. The title "Scientific Resolution Panels" is centered in the red bar. The main text is in black, with section headers in blue. A quote from FEMA's mission statement is at the bottom.

FEMA **Fact Sheet**
November 1, 2010

Scientific Resolution Panels

FEMA's new Scientific Resolution Panel (SRP) process reinforces FEMA's commitment to work with communities to ensure the flood hazard data depicted on Flood Insurance Rate Maps (FIRMs) is built collaboratively using the best science available.

Flood hazards are constantly changing, and as such, FEMA regularly updates FIRMs through several methods to reflect those changes. When changes to the FIRMs are met with conflicting technical and scientific data, an independent third party review of the information may be needed to ensure the FIRMs are updated correctly. The Scientific Resolution Panel will serve as the independent third party.

Who can request an SRP?

A community, Tribe or political entity that has the authority to adopt and enforce floodplain ordinances for the area under its jurisdiction can request FEMA use the SRP when conflicting data are presented. Chief Executive Officers or authorized community representatives must make or endorse the SRP request if they did not develop or propose the conflicting technical data.

When can communities request an SRP?

A community can request an SRP if it has:

- Not received a Letter of Final Determination (LFD);
- Submitted an appeal or protest during the 90-day appeal period with scientific or technical data resulting in different flood hazards than those proposed by FEMA;
- Allowed at least 60 days of community consultation with FEMA (but no more than 120 days)

Additionally, a community that has received a FEMA-issued resolution letter and has not exercised the SRP process will have 30 days from the issuance of the letter to request an SRP. Communities that have submitted appeals or protests, but as of November 1, 2010 have not received an LFD, will have until January 15, 2011, to request an SRP.

Independent Panel Sponsor

The SRP process is managed by the National Institute of Building Sciences (NIBS), a non-profit organization independent from FEMA. NIBS will act as the Panel Sponsor, coordinating the SRPs, ensuring that proper regulations and procedures are employed and maintaining a cadre of experts from which Panel members are selected.

Panel Member Selection

For each appeal or protest, an SRP (or Panel) of three or five members will be convened. Panel members are technical experts in surface water hydrology, hydraulics, coastal engineering, and other engineering and scientific fields that relate to the creation of Flood Hazard Maps and Flood Insurance Studies throughout the United States.

"FEMA's mission is to support our citizens and first responders to ensure that as a nation we work together to build, sustain, and improve our capability to prepare for, protect against, respond to, recover from, and mitigate all hazards."

Flood Insurance Basics

- Mandatory flood insurance purchase in 1% (100-yr) floodplain (Zone A/AE)
 - Only required for structures with federally insured mortgages, accepted disaster assistance or received a federal grant
- No mandatory flood insurance purchase in 0.2% (500-yr) floodplain (Zone X)
- Potential Flood Insurance Savings
 - Preferred Risk Policies (PRPs)
 - Grandfathering of Flood Insurance Rates
 - Community Rating System

Flood Insurance

CHANGE IN RISK	INSURANCE REQUIREMENTS
Low / Moderate Risk to High Risk	<ul style="list-style-type: none">• Flood insurance is mandatory. Flood insurance will be federally required for most mortgage holders. Insurance costs may rise to reflect the high risk.
High Risk To Low / Moderate Risk	<ul style="list-style-type: none">• Flood insurance is optional, but recommended. Risk has only been reduced, not removed.• Flood insurance can be obtained at lower rates.• 20-25% of all flood insurance claims come from low- to moderate-risk areas.• Conversion offers savings. An existing policy can be converted to a lower-cost Preferred Risk Policy.
No change in risk level	<ul style="list-style-type: none">• No change in insurance requirements. Property owners should talk to their insurance agent to learn their specific risk and take steps to protect their property and assets.

Flood Insurance Reform

- Biggert-Waters NFIP Reform Act of 2012
 - Enacted July 6, 2012
 - NFIP to become actuarially sound
 - Phase-out of subsidies and discounts

- Homeowner Flood Insurance Affordability Act of 2014
 - Enacted March 21, 2014
 - Scaled back premium increases on subsidized policies for primary residential structures

National Flood Insurance Program

- Encourage your citizens to consider flood insurance
- NFIP Participating Communities:
 - Update Floodplain Management Ordinances
 - Adopt the new DFIRMs
- Permit required for development located in mapped SFHA prior to start of construction
- Lowest floor (including basement) of any new or substantially improved structure must be located 1 ft above BFE
- DNR Floodplain Permits

Local Official Responsibilities

- Review Preliminary DFIRM panels, FIS Report, and submit comments to DNR
- Work with Mapping Contractor to resolve any issues
- Provide outreach materials and links to citizens upon request
- Make wise land use decisions that support good floodplain management

Flooding In Iowa

<http://www.extension.iastate.edu/floodinginiowa>

- In collaboration with Iowa State University Extension & Outreach
- Educate local officials and general public about flood risks and basic floodplain management principles
- Topic Areas
 - National Flood Insurance Program
 - Flooding and Natural Systems
 - Floodplain Mapping
 - Floodplain Regulations
 - Flood Insurance

IOWA STATE UNIVERSITY
Extension and Outreach

Flooding in Iowa

Home | Introduction to the NFIP | Understanding Flooding | Floodplain Mapping | Floodplain Regulation

Flood Insurance

FLOODING IN IOWA

INTRODUCTION TO FLOODING IN IOWA

The Flooding in Iowa Project is a series of web-based videos designed to educate local officials and the general public about floodplains, flood risks, and basic floodplain management principles. The videos are divided into five categories: Introduction to the NFIP, Understanding Flooding, Floodplain Mapping, Floodplain Regulation, and Flood Insurance. The tabs located on the top of this web page take you to each of these categories where you will find the related videos and participant materials.

Use this three minute video to familiarize yourself with the navigation of the website, website features, and the resources provided through the Flooding in Iowa Project.

FLOODING IN IOWA

View Videos

In collaboration with
Iowa Department of Natural Resources
DNR

Important Links
Use the following links to learn more about flooding, and to connect with several of the resources referenced in this video series.

- Flooding in Iowa Program Brochure Available for Download
- Flooding in Iowa: Check reference for Local Officials Available for Download
- NFIP Key Terms (FEMA Glossary)
- FEMA Home Page
- FEMA Map Service Center
- floodsmart.gov
- Iowa DNR Floodplain Management Division
- Iowa Flood Center
- Iowa Floodplain and Stormwater Management Association (IFDMA)
- Association of State Floodplain Managers

FAQs
Frequently asked questions about topics covered in the Flooding in Iowa series.
[Get answers to your questions here!](#)

Contact
For questions, comments, or feedback about the Flooding in Iowa Project, contact:
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Contact Information

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