



Colorado Hazard Mapping Program (CHAMP) & Mile High Flood District

Boulder County Public Meeting



FEMA



MEETING OVERVIEW



**NFIP and Flood Hazard
Mapping Refresher**



Study Review and Timeline



**Results, Timeline and
Resources**



**Flood Insurance &
Appeals**

NFIP OVERVIEW

- ◆ Voluntary Federal Program
 - ◆ Overseen by FEMA
 - ◆ Managed by Communities
 - ◆ Enforced by Lenders
- ◆ Requires participating NFIP communities to regulate development
- ◆ Provides homeowners/renters with option to purchase insurance based on flood zones
- ◆ Provides federal assistance for mitigating risks
- ◆ Local engineers determine flood risk after extensive analysis, determining insurance rates



CHAMP ROLES

Ongoing Partnership

FEMA



- Provides funding for new flood risk studies
- Oversees NFIP

Community Officials



- Administer NFIP
- Communicate risk
- Manage development
- Flood risk mitigation
- Enforce regulations
- Identify new risk

State Partners



- Respond to community requests for updated risk information
- Initiate flood risk identification projects
- Support community
- FEMA partner

Private Stakeholders



- Partner with community officials to update flood risk information
- Includes residents
- AECOM, Michael Baker Int'l, Compass, etc.



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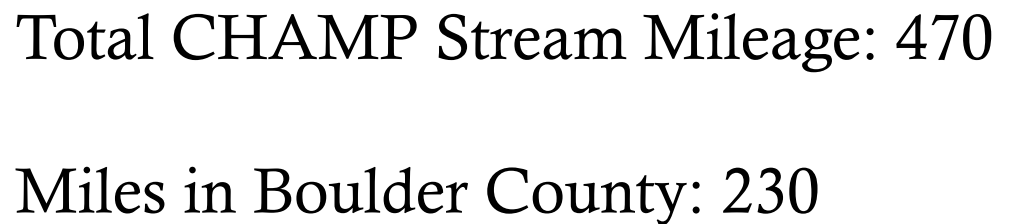


**Flood Insurance &
Appeals**





FLOOD RISK STUDY AREA



ARE THE RESULTS ACCURATE?

- ◆ Flood events can have different results every time
 - ◆ Dam failures
 - ◆ Bridge and culvert clogging
 - ◆ Debris
 - ◆ Fires
- ◆ Models are based on conditions from topographic data and survey information
- ◆ Models are based on best available information at the time
- ◆ Flood maps do not recreate a specific event



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STUDY DETAILS

Terrain



- ◇ Virtual land surface created from Light Detection And Ranging (LiDAR)

Survey



- ◇ Surface information not in topographic data (Culverts, bridges, submerged channel, etc.)



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STUDY DETAILS

Terrain



Survey

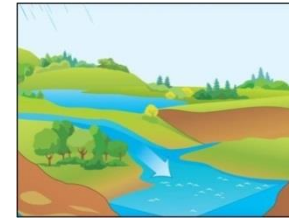


Hydrology



- ◇ Historic flood information used along with historic rainfall, stream gage data, and land usage information included
- ◇ Discharges both increased and decreased

Hydraulics



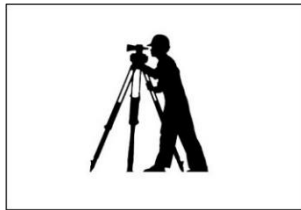
- ◇ Determines how water moves through a system
- ◇ Calculate Water Surface Elevations (WSEL)

STUDY DETAILS

Terrain



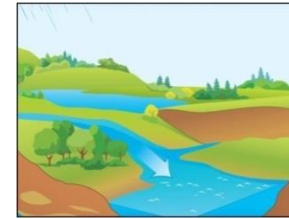
Survey



Hydrology



Hydraulics



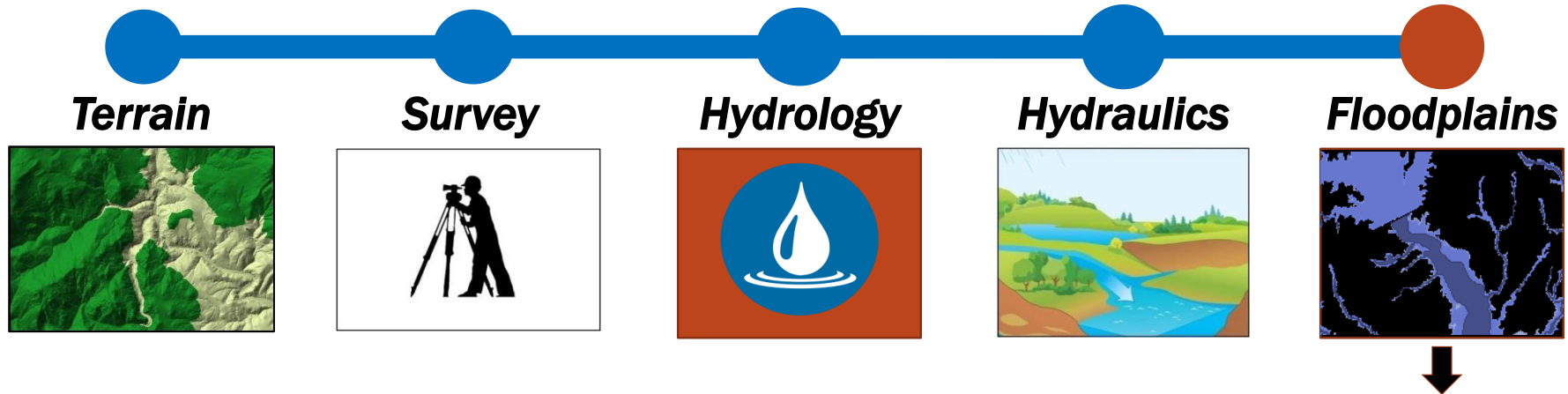
Floodplains



- ◇ Results are mapped for ease of use
- ◇ Description of results:
 - ◇ Zone A & AE
 - ◇ Cross Sections
 - ◇ Base Flood Elevation (BFE)
 - ◇ Floodway



STUDY DETAILS



◆ Quality Control

- ◆ Multiple engineers review data at various checkpoints
- ◆ Community leaders have the opportunity for input and feedback throughout the process
- ◆ FEMA contractors support quality control as needed



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PROJECT MILESTONES





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FLOOD INSURANCE RATE MAPS

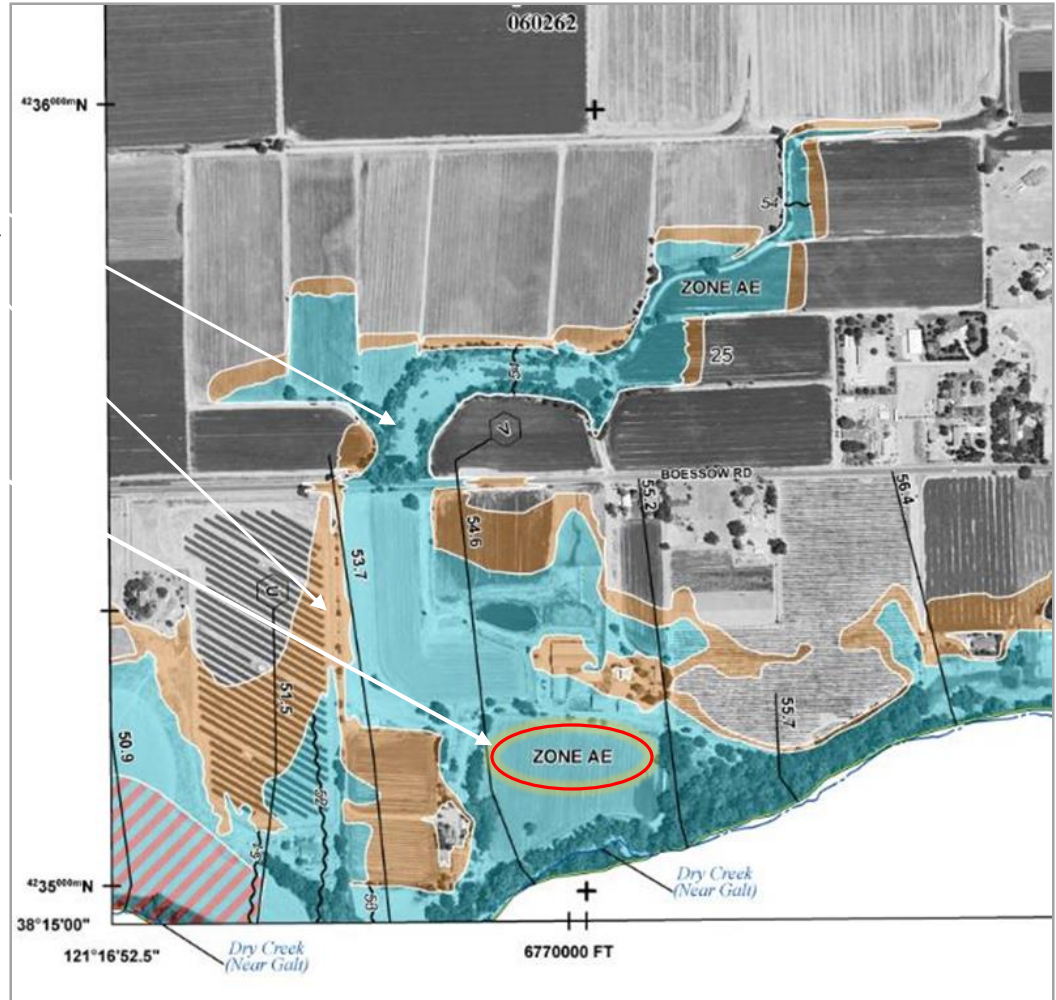
Show Flood Risk

-  1% Annual Chance Flood
-  0.2% Annual Chance Flood

Used to determine the level of flood risk at the property level

Available Online:

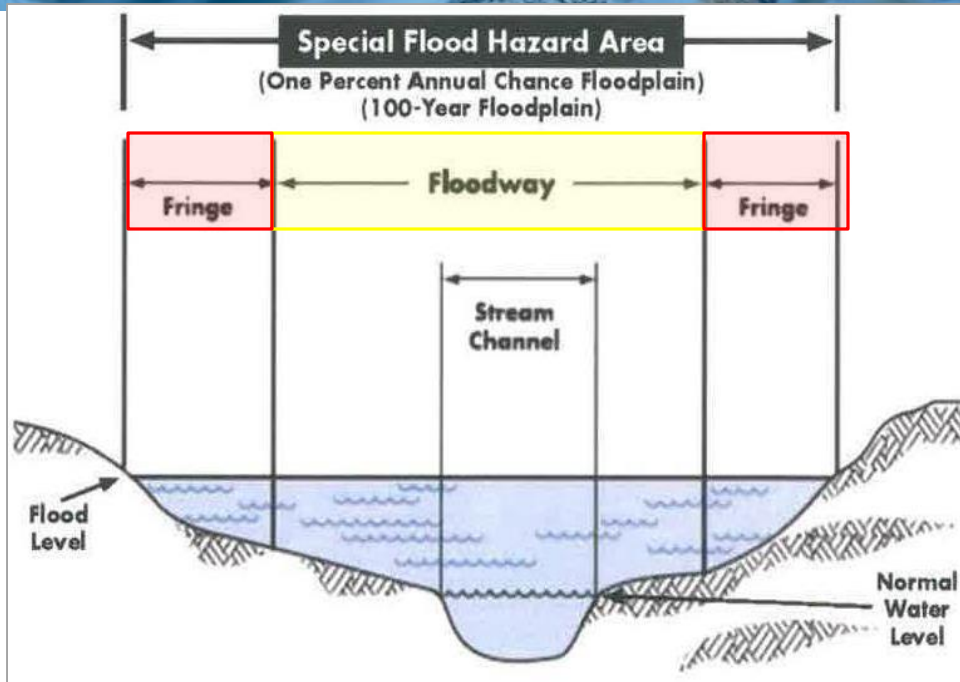
- FEMA Map Service Center (MSC)
- FEMA National Flood Hazard Layer (NFHL)



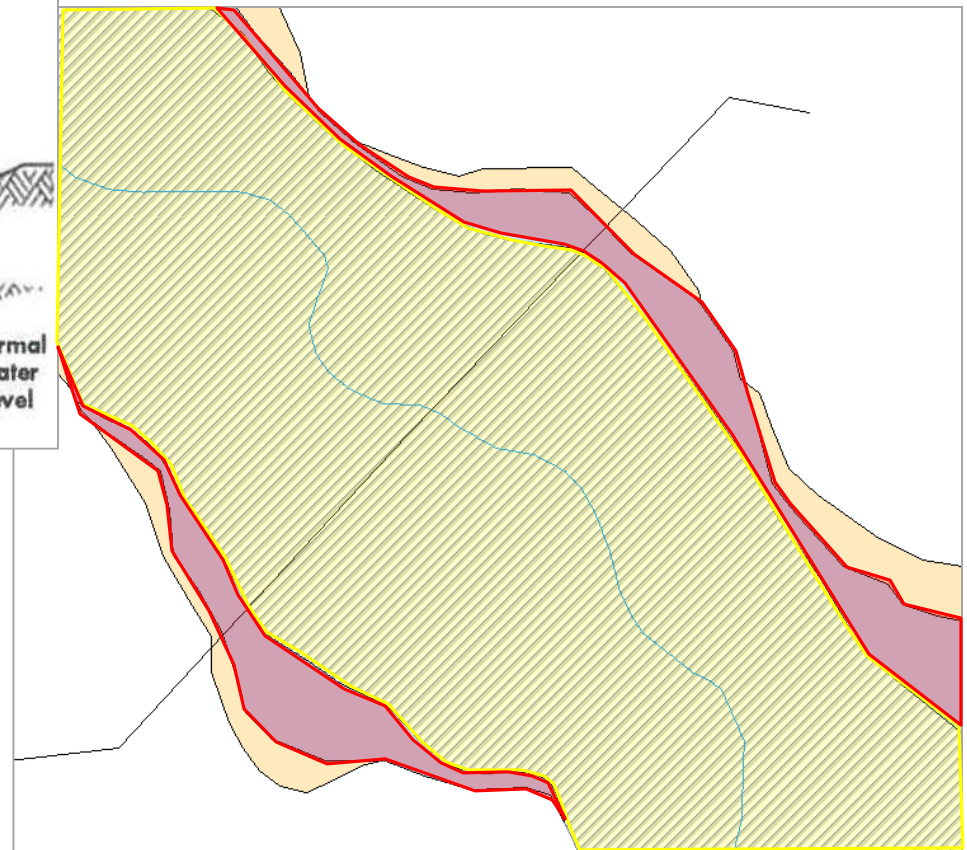
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FLOODWAYS



- Implications of Floodway vs. Floodplain
- Impact to Your Neighbors



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WHO IS AT RISK OF FLOODING?

So...

- ◆ It's not just a line on a map
- ◆ Best available engineering data and analysis used
- ◆ Scientific process allows for changes to topography and land use
 - ◆ New information
 - ◆ Changed information

But...

- ◆ Wherever it can rain, it can flood!



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WHO IS AT RISK OF FLOODING?

- ◆ Changes Since Last FIRM (all jurisdictions):

- ◆ Total structures in SFHA → 1,510

- ◆ New structures identified in SFHA → 420

- ◆ ...out of SFHA → 396

***** Numbers are approximate building counts*****

- ◆ Review of FIRMs (See PDFs of FIRMs or website)

- ◆ <http://boco.org/FloodplainMapUpdate>

- ◆ <http://coloradohazardmapping.com/floodhazard>

- ◆ <https://msc.fema.gov/fmcy>



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OUTLINE



**NFIP and Flood Hazard
Mapping Refresher**



Study Review



**Results, Timeline and
Resources**



**Flood Insurance &
Appeals**



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FLOOD INSURANCE

- ◆ Everyone can purchase flood insurance (homeowners and renters), even those not in a mapped floodplain
- ◆ Insurance is required for federally backed mortgages in Special Flood Hazard Areas (SFHAs)
 - ◆ Zone A, AE, AH, AO
- ◆ New Zones go into effect with effective FIRMs, not before
- ◆ Banks can require insurance anywhere
- ◆ How can I save money on Flood Insurance?
- ◆ Contact your insurance agent or visit [Floodsmart.gov](https://www.floodsmart.gov) for more information



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DEVELOPMENT IMPLICATIONS

- ◆ Boulder County Land Use Code / Lyons floodplain ordinance specify requirements
- ◆ Different requirements in a floodway and a non-floodway
- ◆ Community may adopt flood risk data as best available information
 - ◆ Use the most restrictive of old and new until final
- ◆ Contact your Floodplain Administrator with development questions



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CAN RESULTS BE CHANGED?

- ◆ Appeal – requires technical data
 - ◆ Survey or topographic data
 - ◆ New analysis
- ◆ Must be submitted to community during the 90-day Appeal and Comment period (expected to begin in March 2020)
- ◆ The county forwards all appeals to FEMA for review
- ◆ For unincorporated areas - see Appeals page on www.BoCoFloodplainRemapping.com



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CAN RESULTS BE CHANGED?

◆ Letter of Map Amendment (LOMA)

- ◆ Applies to individual structures or properties
- ◆ Requires Elevation Certificate
- ◆ Can be submitted online
- ◆ Should be submitted 30-60 days prior to effective date

◆ Letter of Map Revision (LOMR)

- ◆ e.g for projects not included in Preliminary FIRMs



Navigation

Search

Languages

Flood Insurance

Got a problem?

How do I Buy Flood Insurance?

Flood Insurance Forms

▼ National Flood Insurance Program Policy Index

> Floodplain Management

Letter of Map Amendment (LOMA)

The purpose of this page is to define a Letter of Map Amendment (LOMA), a common

> [Expand All Sections](#)

▼ Definition/Description

A Letter of Map Amendment (LOMA) is an official amendment, by letter, to an effective map. A LOMA establishes a property's location in relation to the Special Flood Hazard because a property has been inadvertently mapped as being in the floodplain, but is base flood elevation.

Because a LOMA officially amends the effective NFIP map, it is a public record that should be noted on the community's master flood map and filed by panel number in



In Lyons?

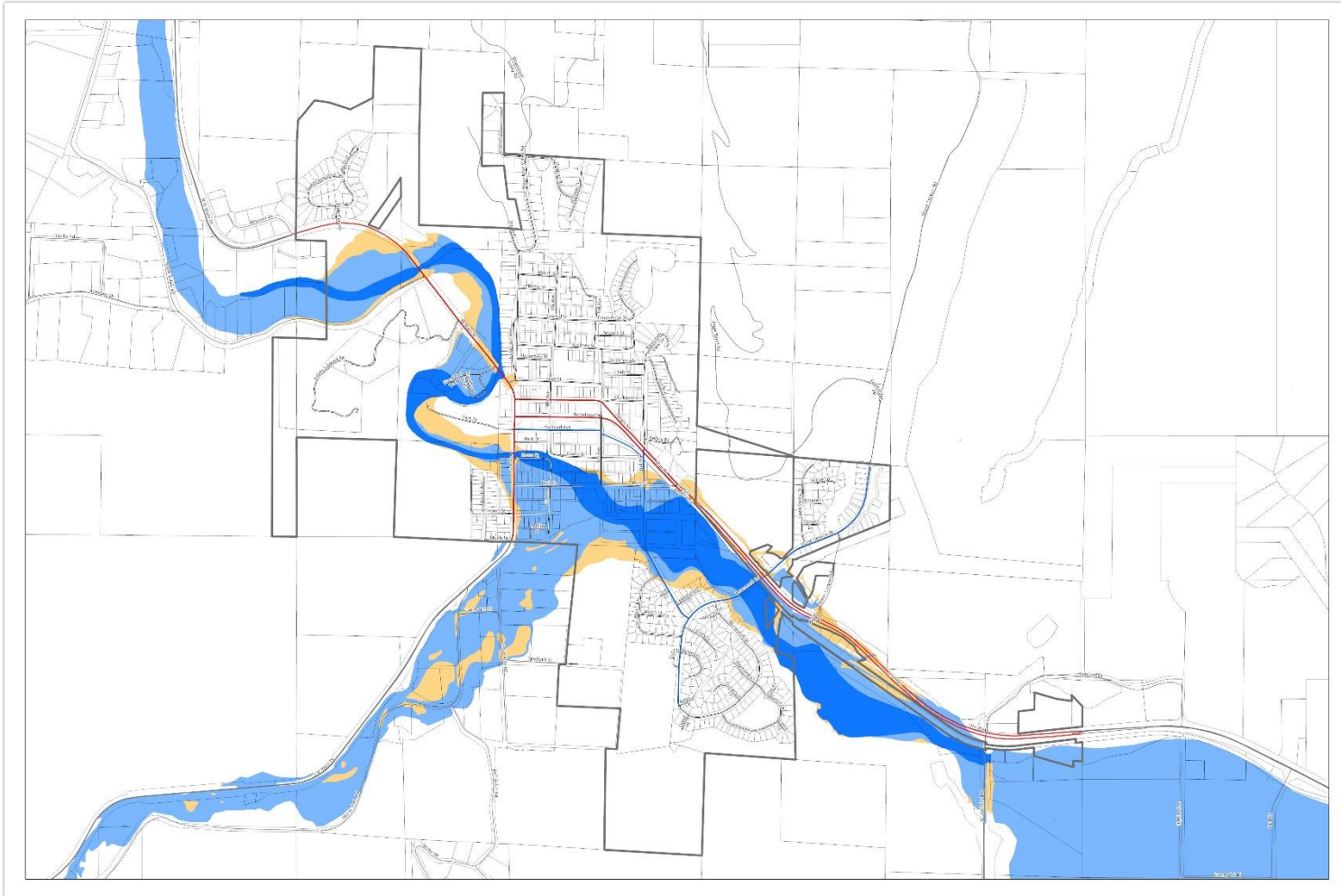
- ◆ Lyons will be reviewing the Town's Flood Damage Prevention ordinance in the next 6-12 months
- ◆ Town of Lyons adopted the best available data on 1/21/20
- ◆ Lyons specific meeting will be held on Feb 10 at 5:30 also at the Lyons Regional Library



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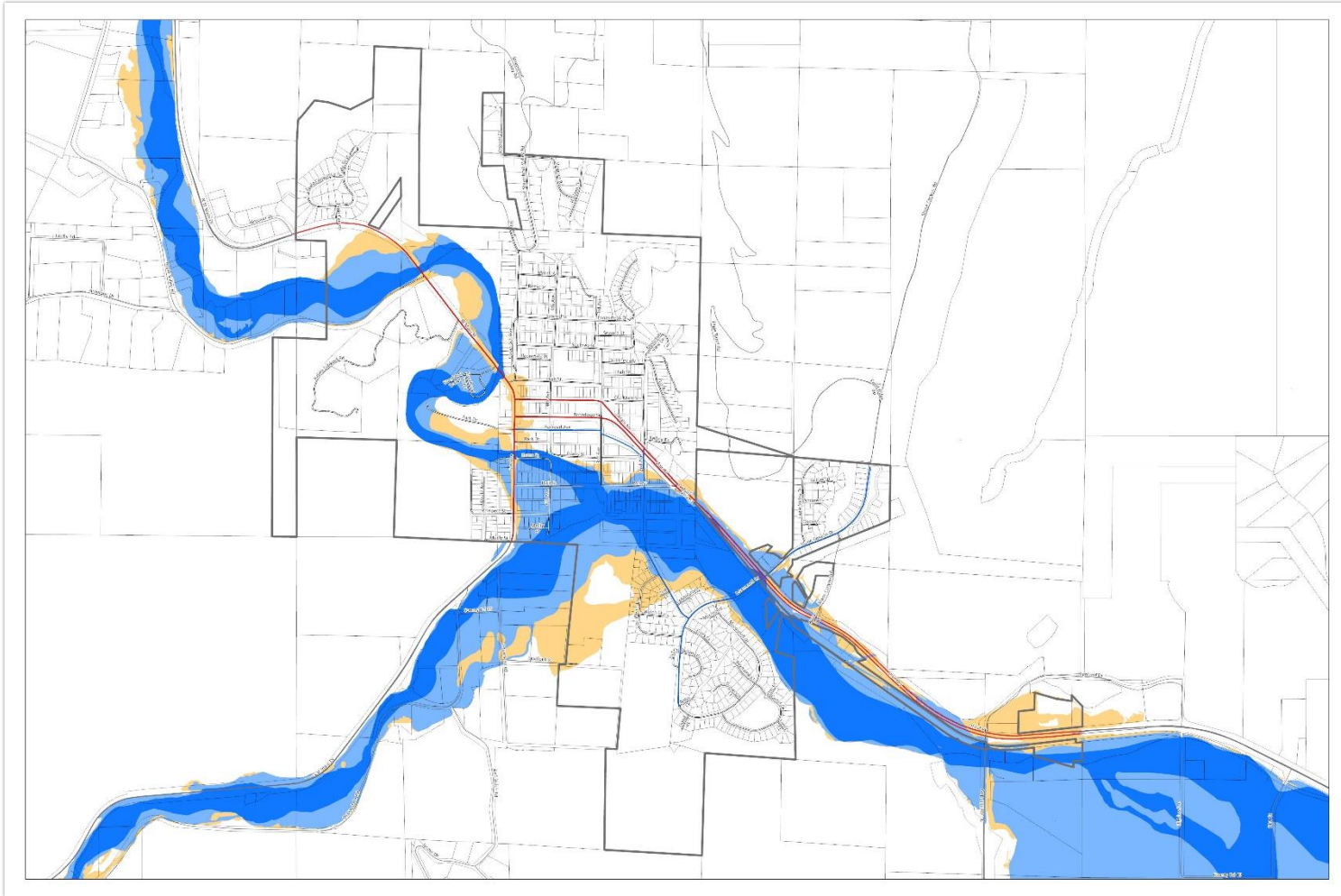
In Lyons? (current regulatory)



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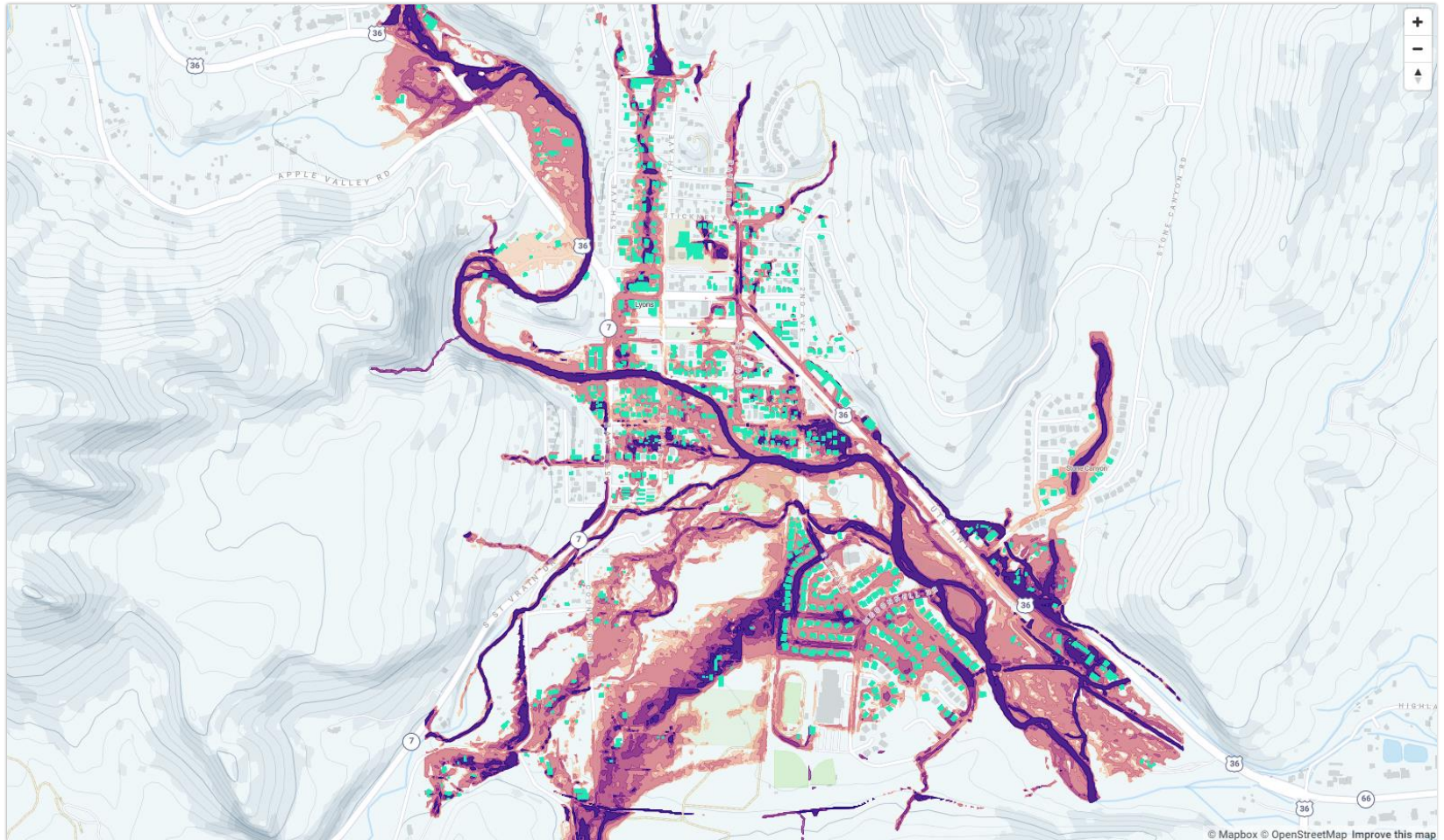
In Lyons? (best available data)



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In Lyons? (stormwater flooding)



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MULTI-HAZARD MITIGATION PLAN UPDATE

mitigation: *activities designed to minimize the losses from disaster*

Purpose

1. Evaluate potential risks in the community
2. Identify actions that can mitigate risks
3. Make Boulder County eligible for grant funding

We need your help to update the plan!

Take our online survey. Your answers will help determine the community's concerns and questions about the plan and guide the update.

<https://www.boulderoem.com/mitigation/mitigation-plan/>



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FLOODPLAIN PARTNERS

- ◆ “Floodplain Partners” is a pilot program designed to evaluate possible candidates for FEMA Flood Mitigation Assistance (FMA) funding to conduct flood mitigation projects on individual properties in Boulder County
- ◆ Possible mitigation projects:
 - ◆ **Home Elevation** above the regulatory flood protection elevation
 - ◆ **Home Relocation** out of the regulatory floodplain
 - ◆ **Voluntary Property Buy-Out**
- ◆ Currently seeking Boulder County property owners interested in participating in preliminary property-specific evaluations to determine funding eligibility.
- ◆ For more information, contact Stacey Proctor
sproctor@bouldercounty.org
- ◆ Or, visit <https://www.bouldercounty.org/transportation/floodplain-management/floodplain-partners/>



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FINAL THOUGHTS

- ◆ Results show risk that is already there!
- ◆ Data will be used for Flood Insurance Rate Maps (FIRMs)
- ◆ Floodplains are not “Effective” for flood insurance rating until FIRMs are released
- ◆ Ask questions



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QUESTIONS?

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