

Project Name:	Mesa County Risk Mapping, Assessment and Planning Study
Meeting:	Mesa County and Communities Phase 2 (Data Development) Check In
Date & Time:	December 3 rd , 2021 from 10:00-11:30am
Location (Virtual)	Zoom Meeting

- **Welcome, Introductions, and Intent of Meeting**

- Carrie Gudorf – Mesa County
- Care' McInnis – Town of De Beque
- Ken Haley, Chris Spears – City of Grand Junction
- Brian Rusche – Town of Palisade
- Sam Atkins – City of Fruita
- Terri Fead, Marta Blanco Castano, Doug Mahan - CWCB
- Chris Gaynes – FEMA
- Liz Jefferson, Josh Hill – Wood

- **National Flood Insurance Program (NFIP) Recap**

Marta Blanco Castano gave an overview of the NFIP

- NFIP is a voluntary program
- Community participation in the program enables property owners to purchase federally backed flood insurance.
 - Flood insurance is enforced by lenders.
 - Flood insurance is mandated for properties within the Special Flood Hazard Area (SFHA) that have federally-backed mortgages.
 - Flood insurance is typically optional for properties outside the SFHA (unless enforced by lenders).
- Community participation makes federal disaster assistance grants available.

- **Roles and Responsibilities**

- FEMA provides funding for flood studies, maintains Flood Insurance Rate Maps (FIRMs), administers NFIP, reviews flood studies for compliance, and offers outreach assistance.
- CWCB conducts the flood risk studies on behalf of FEMA; facilitates communication between communities, contractors (Wood), and FEMA; provides resources, data, and general assistance to communities; and puts forth the State's floodplain management requirements.
- Stakeholders such as Wood (engineering contractor) produce science and engineering data for the flood studies and assist CWCB with communicating the results of the study and providing data to the communities.
- Communities participate in the NFIP, help identify and communicate flood risk or changes to flood risk, adopt & enforce regulations, and communicate the results of the flood study to the public and other community leaders. This role is important by providing timely feedback and information to the study leads at CWCB so we don't miss or misrepresent anything.

- **Risk Mapping Assessment and Planning (Risk MAP) Overview**

- Program maps flood hazards (via floodplain mapping), provides risk assessment tools and products, and helps communities plan for mitigation or other resilience-building actions.

- **Project Goals**

- Goal 1 – Update flood risk information and floodplain delineations
- Goal 2 – Keep everyone informed for path forward through this study
- Goal 3 – Protect life and property and seek mitigation opportunities in high-risk areas.

- **Base Level Engineering (BLE) Overview**

Josh Hill provided an overview of the BLE process and available data:

- BLE provides base level floodplain information at a countywide or watershed level.
- This information can be used as best available data for areas currently unmapped on FIRMs and can be used for planning, development, mitigation, and emergency management purposes.
- The BLE data can be used to assist in determining areas that would benefit from more detailed studying and mapping.
- This draft data is available for viewing on the [ArcGIS Online website](#) for 60-days, or can be requested in geospatial format by signing a Memorandum of Agreement ([MOA](#)).

- **FEMA Mapping Update Check-In**

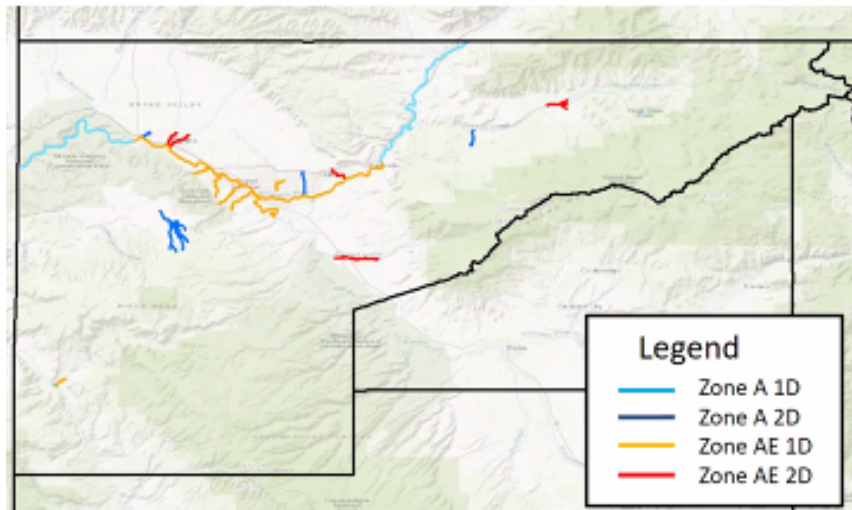
Elizabeth Jefferson gave an overview of the Risk Mapping, Assessment and Planning (Risk Map) study timeline and details about the current stage of the project: Data Development.

- Terrain: Light Detection and Ranging (LiDAR) data collected between 2015 and 2016. – If you know of projects that could impact the terrain/topographic data we are using, please share with us as soon as possible!
- Survey: Colorado River areas collected in 2020. Rest of the county survey is ongoing; should be completed by the end of the year. Data will be posted to [Colorado Hazard Mapping](#) website once complete.
- Hydrology: Use a variety of hydrology methodologies based on data available. Hydrology for the Colorado River has been approved by FEMA. Other flood sources to be submitted for review once the Kannah Creek decision is made.
- Hydraulics: Approximate and detailed hydraulics throughout the county. 1-Dimensional (1D) and 2-Dimensional (2D) methodologies recommended based on flooding sources.
- Mapping: Floodplains plotted against terrain data. Approximate methods for 1% and 0.2% floodplains. Detailed studies get 1%, 0.2% floodplains as well as floodway and Base Flood Elevations (BFEs)
- Effective data: All communities currently participate in the NFIP. Joined between 1978 and 1989. Last countywide flood risk study update in 2010. Since then, countywide LiDAR, HEC-RAS 2D methodologies, and the BLE study have been acquired.

Current Scope of Work:

Upcoming Flood Study Scope Overview

164.7 miles of streams being studied



Colorado River

Zone A 1D – 44.2 miles
 Zone AE 1D – 35.7 miles

Other Flood Sources

Zone A 1D – 0.7 miles
 Zone A 2D – 37.4 miles
 Zone AE 1D – 25.8 miles
 Zone AE 2D – 20.9 miles

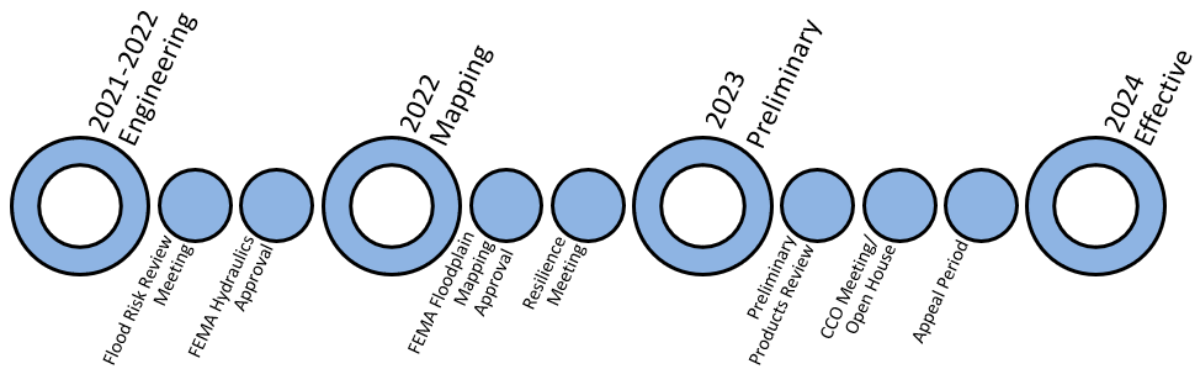
Kannah Creek

- Scoped to restudy only lower portion. Updated hydrology came back lower than effective hydrology – this could cause tie-in and mapping issues. Three options to proceed exist:
 - Restudy the whole mapped reach (with new hydrology and new hydraulics) – After discussion with the County, this was the selected option. CWCB/Wood will proceed with studying this stream with 2D methods.
 - Restudy only the lower portion and use effective hydrology (use old hydrology and produce new hydraulics)
 - Proceed as currently scoped and work with FEMA to resolve tie-in issues (only lower portion uses new hydrology and new hydraulics, hoping these will tie-in nicely with the upper portion)

Community comments:

- Carrie Gudorf: Possibly remove Bosley Wash from the scope of work. They constructed a detention basin upstream of I-70 so the downstream flood risk might be mitigated. Detention meets dam safety requirements. (project information at: <https://www.mesacounty.us/globalassets/public-works/bids/construction-pertinent-information/bosley-wash-detention-pond-ifb-18-03056-0373/hydrology-report.pdf>)
- Josh Hill: Wood is aware of detention pond construction. Our scope is downstream and we had intended to account for the effects of the basin. Options:
 - Remove from scope
 - Retain scope and acquire and review detention basin design information from County to determine downstream flow. – Option chosen
- Carrie Gudorf: Studying area downstream seems reasonable. Would not want to study upstream of the dam.

- Carrie Gudorf: Possibly add Douglas Wash to scope. The county is currently analyzing the flood risk in this area as part of a separate study. Since their study would not show up on FIRM panels there would be no regulatory control. The County would like regulatory control over development in this area by including this reach on the new FIRM. After discussion between CWCB/Wood and the County, we will not add Douglas Wash to the scope of work, and the regulatory mapping will be updated at a later date via a Letter of Map Revision.
- Next Steps & Timeline**
 - Last countywide update effective July 6, 2010. Revision provided limited updates in 2012.
 - Below is the estimated schedule for the remainder of the project.



- Please submit comments on study reaches and modeling methods by **January 13, 2022**.
- Please see presentation for list of upcoming meeting and links to project resources (including the CWCB website: <https://coloradohazardmapping.com/>)
- CWCB will follow up with a Study MOA and a Standard Identification (SID) 620 form.
 - Communities may request certain reaches be studied using 1D or 2D methods. CWCB can provide resources detailing the differences between managing 1D vs. 2D floodplains.
- Please provide CWCB with any data regarding community specific flood ordinances, planned/ongoing/recent development in or near floodplains in your community, Conditional Letters of Map Revision/Letters of Map Revision (CLOMR/LOMR), survey & topography, and local GIS data.

General Comments

Elizabeth Jefferson: We have heard about a LOMR in Grand Junction along Colorado River – we need the data if you would like it to be captured by this study.

Ken Haley: We have more than one project along the Colorado River in the Grand Junction area. We can get you that data, we weren't sure of the timeline for this study/who to send the data to.

Marta Blanco Castano: Please send to CWCB, and you can cc Wood.

Elizabeth Jefferson: If we can get data by January it won't delay the project or incur costs to incorporate.

Carrie Gudorf: There is also an open CLOMR near Gateway right now. Mesa County to provide that information to CWCB/Wood.

- **Review BLE Data and FEMA Mapping Scope / Open Discussion**

Marta Blanco Castano walked through the [Colorado Hazard Mapping](#) site.

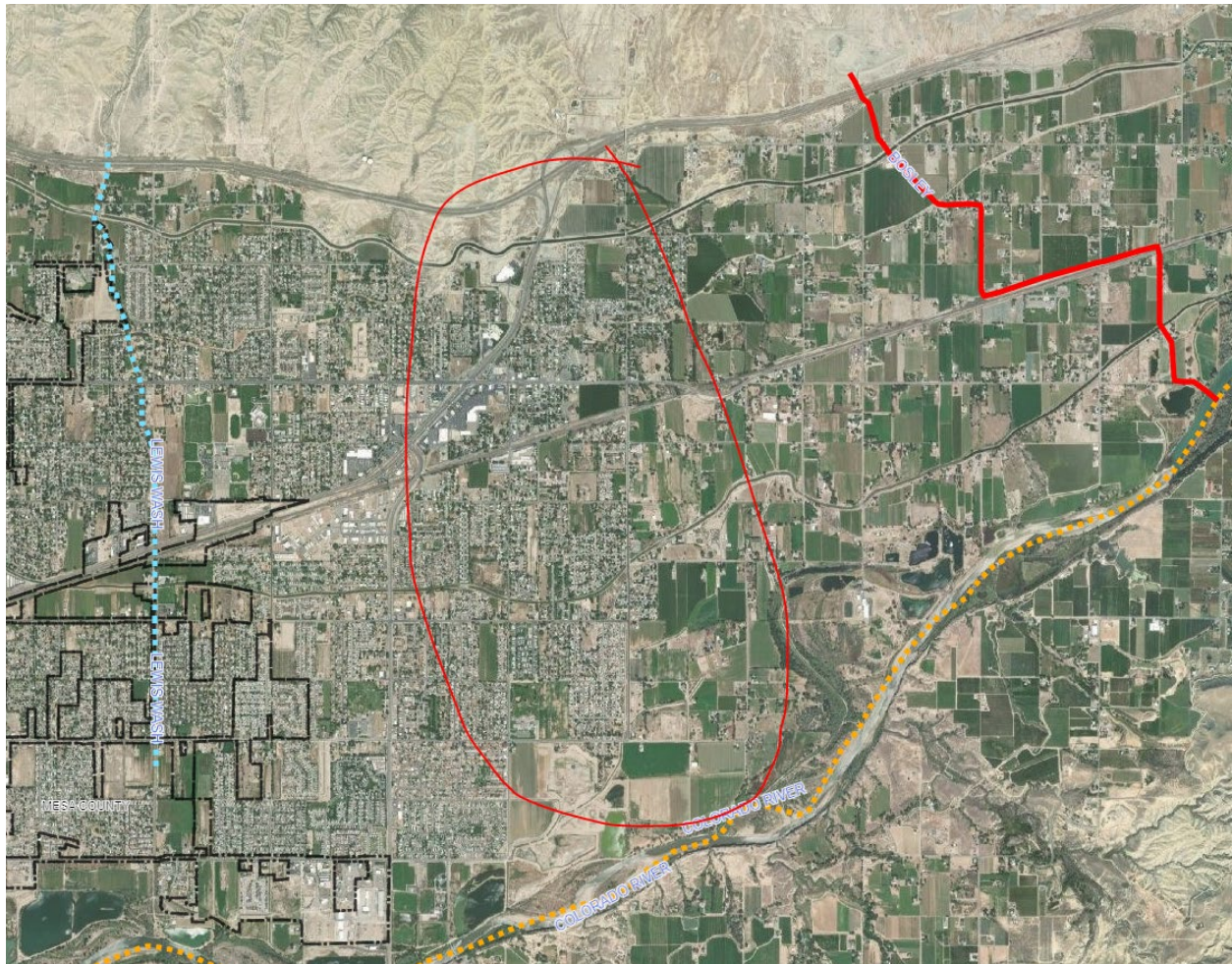
- [Library](#) includes resources as well as documentation from previous meetings
- The [Mesa County page](#) has information available from this study and will be updated as the study progresses

Elizabeth Jefferson walked through the [ArcGIS Online map](#).

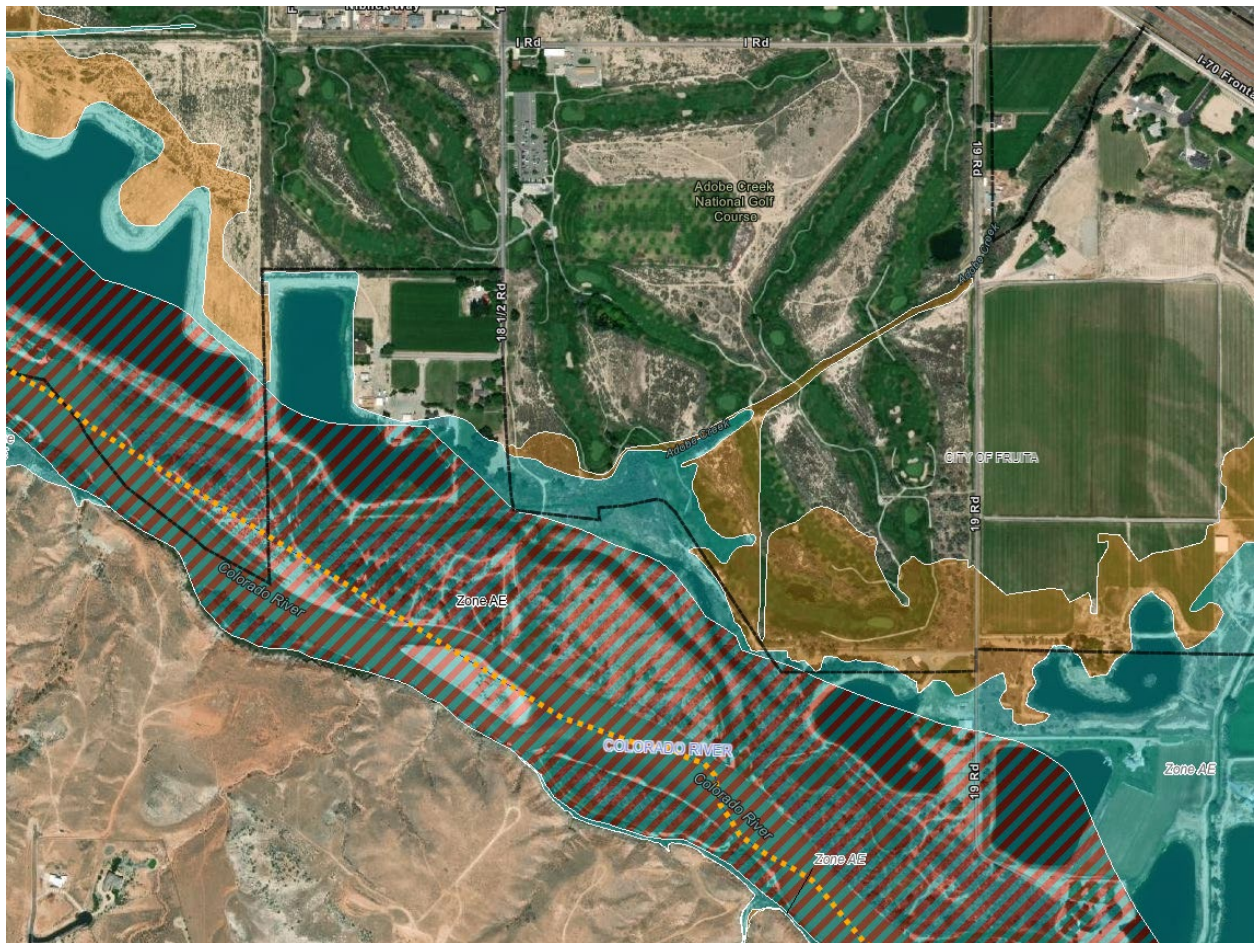
- Carrie Gudorf: Community would want to restudy the upper portion of Kannah Creek. They have had flooding issues here in the past. Could be a Zone A?
 - i. Terri Fead / Elizabeth Jefferson: Study will have to be either limited detailed (based on the effective mapping) or full detailed with floodway. Proposed to study with 2D. Differences between 1D and 2D management and regulation were discussed. Noted that since hydrology is lower, potentially more properties would be removed than added to the 1% annual chance floodplain. This is just an estimation and not a guarantee.
 - ii. Marta Blanco Castano: Recommended a delineated floodway for regulation.
 - iii. County will review options and decide on whether or not to model a floodway, and what methodology (1D vs 2D) they prefer.
 - iv. Terri Fead: CWCB can provide handouts to help communities make a choice. If choosing 2D, we are also developing additional process guidance on how to regulate development based on that modeling – you are not left to make these decisions alone. FEMA is improving guidance for 2D models and 2D floodways.
- Carrie Gudorf: Property along Colorado River is a repeat loss property in the Floodway. County wants to review this property at the Flood Risk Review meeting (likely in summer of 2022) to determine how the new maps may impact this property.
 - i. Marta noted that FEMA's new [Risk Rating 2.0](#) insurance methodology will change how flood insurance is rated, so this will also impact this property. Premium will change based on new variables. For more information on flood insurance and rating questions, please reach out to Diana Herrera, our FEMA Region VIII Insurance Liaison, at diana.herrera@fema.dhs.gov or 720.480.8338.
 - ii. This property is impacting the County's score on the Community Rating System (CRS).
 - iii. Owners will likely not move house. Been there since the 60's.
 - iv. Elizabeth Jefferson noted that the 1% BLE results are very similar to the effective 100-year results in this area and therefore may not be reasonable to expect that this study could remove them from the floodway.



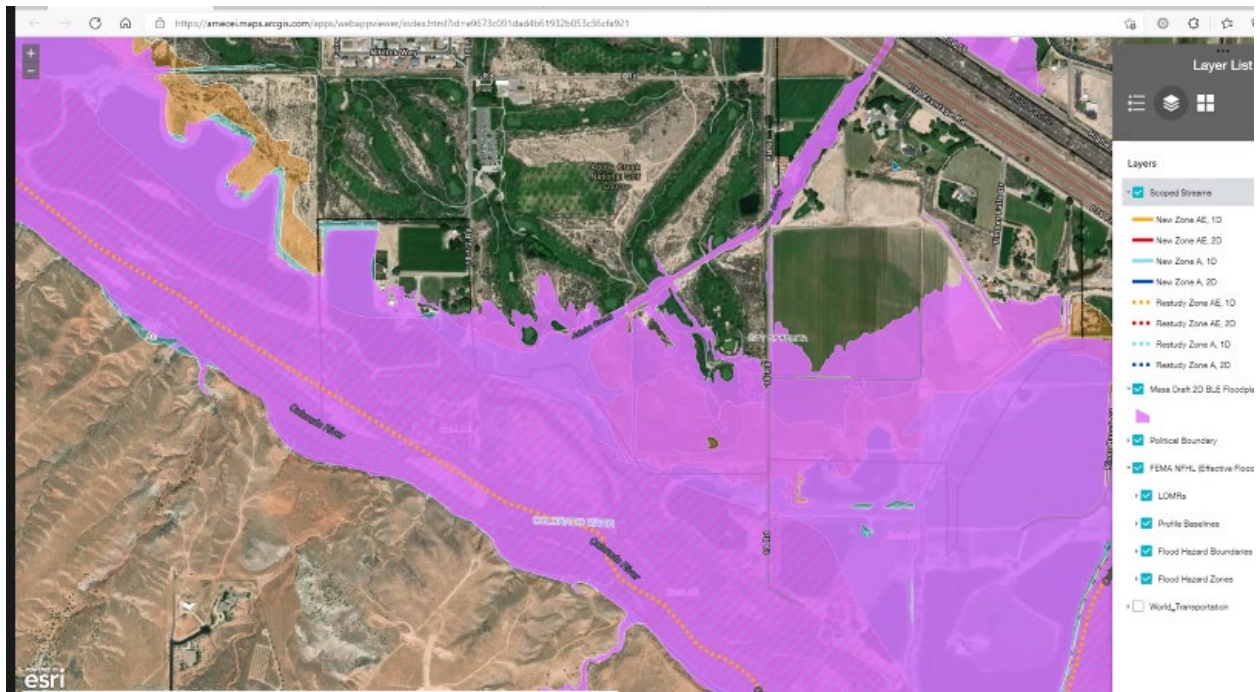
Bosley Wash – Location of new detention can be seen at upstream scope extent



Douglas Wash – Approximate location of ongoing detention basin study



Repeat Loss Property - General area (near 18 ½ Rd and golf course)



Repeat Loss Property - BLE results vs effective data

- **Meeting Adjourn – Thank you for your participation**