Fact Sheet

Colorado Hazard Mapping Program (CHAMP)

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

AECOM

COMMON QUESTIONS REGARDING CHAMP FLOODPLAIN MAPPING

What is CHAMP Floodplain Mapping?

CHAMP is a State of Colorado funded study to provide a mitigation and land use framework in areas likely to be affected by future flooding, erosion, and debris flow events. Following the 2013 flood, Colorado's Legislature passed a funding bill to reanalyze potential hazards including flooding for streams affected by the flooding. Once the study is complete, the Federal Emergency Management Agency (FEMA) will use the data in their Risk Mapping, Analysis, and Planning Program (Risk MAP) to update Flood Insurance Rate Maps (FIRMs).

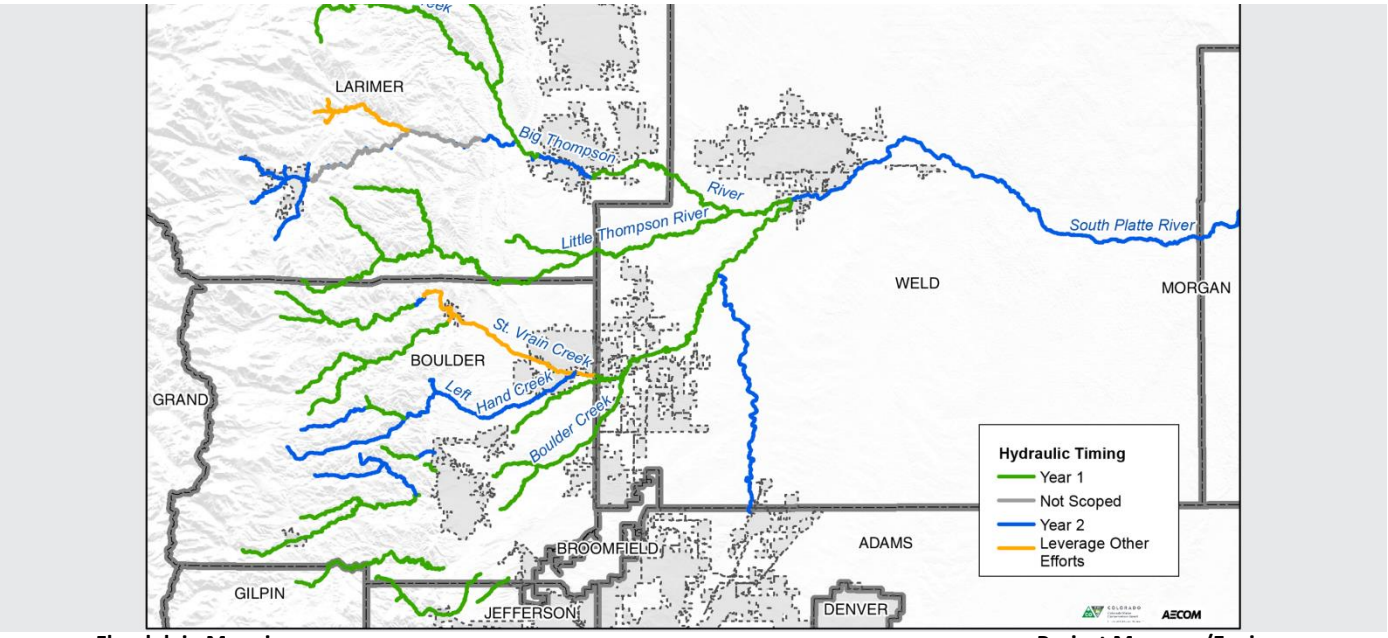
Why was CHAMP initiated?

The historic rainfall in 2013 led to significant changes to floodplains, and therefore flood hazard risks. Typically, communities participating in the National Flood Insurance Program are required to identify when these risks change and perform studies to update risk information that is maintained by FEMA. In this case, the State determined that updated risk information was needed quickly to properly communicate rebuilding efforts so that homes, businesses and infrastructure could be rebuilt safely. It was also clear that communities would likely have to prioritize funding towards rebuilding. The State therefore passed a bill that would help identify updated flood risk across the flood affected areas, allowing communities to be able to focus on recovery and rebuilding efforts.

What are the Roles of Specific Stakeholders?

- The State of Colorado, Colorado Water Conservation Board (CWCB) – CWCB is in charge of managing the CHAMP program and overseeing work being conducted. CWCB partnered with AECOM, a nationally recognized firm, to complete flood risk studies under CHAMP. They are also partnering with community officials to provide outreach support.
- FEMA – FEMA will take final study information to update FIRMs. FEMA is also reviewing results and providing feedback. Ultimately, FEMA administers the NFIP and oversees any regulatory floodplain updates .
- Local Counties and Communities – Local officials are being updated regularly on the progress of the study

Figure 1: CHAMP Study Limits - South Platte River Study Extends to Nebraska Border



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and being given the opportunity to review draft results. This will allow concerns to be communicated to CWCB before preliminary information is released for public review. Local officials are also being asked to identify public outreach opportunities so that homeowners and businesses can also see project results. The data will ultimately be owned by community leaders as local administrators of the NFIP and they will communicate and adopt flood risk, manage development and construction, and enforce regulations.

- Property Owners – Property owners will have an opportunity to review results of the analysis prior to FIRMs being finalized. The forum to view this information will vary depending on each community, so contact your local floodplain administrator for more information.

What is the Study Process?

The study includes a science and engineering based approach to identify potential flood risk zones:

- Topographic data is obtained to determine ground elevation. This elevation information, obtained via aircraft, was acquired in 2013 and 2014 after the flood, and provides a snapshot in time to conduct the study.
- Survey data was obtained to supplement the topographic information and to gain the necessary detail on bridges, culverts and the ground below the water line. Streams that will not show base flood elevations on FIRMs will not include survey.

Figure 2: Field Survey Effort

- Hydrology uses historical rainfall data, including but not limited to 2013 flood information, to determine amounts of water anticipated during select flood events. Parameters such as ground cover and infiltration are used with statistics to determine flow rates.
- Hydraulic models are then built to simulate flow through rivers using topographic, survey and hydrologic information. These models simulate river conditions and produce potential water surface elevations anticipated during floods. These results are compared to known flood elevations of similar events to verify findings, if available.
- Results are mapped on work maps for review and use. These include calculated floodplain limits and other helpful information.

Figure 3: Sample Results

Since topographic data is a snapshot in time, local communities and counties have also been providing updated information for areas where there are multiple concurrent construction and/or recovery efforts happening. If it is possible within the project timeline, updated information is incorporated into the CHAMP modeling; if they are not captured, additional changes still can be made to these studies after CHAMP is finalized through FEMA's Letter of Map Change (LOMC) process.

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Who Approves these Changes?

CWCB is working with FEMA to review results of the study throughout the process. That will expedite the process of data being used to update FIRMs. Community officials are also being asked to review the results to avoid concerns when the results are released. Finally, everyone is given an opportunity to review the maps when FEMA publishes them on preliminary FIRMs. After the preliminary FIRMS are released, FEMA will also initiate a statutory appeal period, where the new floodplains can be appealed using technical data.

What are the Anticipated Results of these Changes?

This study will result in more reliable flood risk information. This information may be different from currently available flood risk information, as streams may have shifted; and better, updated, information is now available to analyze flood risk.

How are These Changes Communicated?

In most cases, local officials will be setting up meetings to review results of the study with interested property owners. The timing of these meetings will vary depending on each community. Contact your local floodplain administrator for more information.

How does this Study Impact Me?

Ultimately the results of this study will be used by insurance companies to rate flood insurance, and by local officials for issuing building permits near special flood hazard areas (SFHA). Locals will also have access to current risk information to help make more informed decisions resulting in safer, more resilient communities.

What is the Timeline for Changes?

The timeline below shows an anticipated schedule for most of the study. However, portions of Boulder County, Jefferson County, and Gilpin County are on expedited schedules.

Where can I get more information on CHAMP Floodplain Mapping?

- The project website can be viewed for updates and additional information at www.coloradohazardmapping.com.
- Your local floodplain manager can be contacted for most questions related to flood insurance rate maps.
- For fact sheets related to flood insurance studies, see www.fema.gov/fact-sheets.

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