



Transportation Department

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BOULDER COUNTY BOARD OF COUNTY COMMISSIONERS

December 12, 2019 – 1:00 P.M.

Hearing Room, Third Floor
Boulder County Courthouse

PUBLIC HEARING

STAFF PLANNERS: Kelly Watson, Floodplain Program Planner and Varda Blum, Floodplain Program Manager, Boulder County Transportation Department

Docket Z-19-0001: Zoning Map Amendments to the Floodplain Overlay District

Request: Zoning map amendments to the Floodplain Overlay District (FO District), specifically the Boulder County Floodplain and Floodway, based upon the floodplain remapping of the Colorado Hazard Mapping Program (CHAMP), Federal Emergency Management Agency (FEMA) Risk MAP and other best available information.

Location: Waterways throughout unincorporated Boulder County

Zoning: Areas to be rezoned as other flood risk zones within the FO District

Applicant: Boulder County Transportation Department

AGENDA:

1. Staff Presentation
2. Public Hearing
3. Board of County Commissioners Discussion
4. Board of County Commissioners Decision

PACKET CONTENTS

Item	Pages
○ Staff Recommendation	1 – 10
○ Best Available Information: A Tool for Your Community to Reduce Flood Risk (FEMA & State of Colorado, 2017) (Exhibit A)	A1 – A6
○ Summary of Public Comments and Referral Responses Received Regarding Docket Z-19-0001 (Exhibit B)	B1 – B5
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BACKGROUND

The 2013 flood event caused widespread damage along waterways throughout Boulder County and other areas of the state. In response, the State of Colorado took steps to bolster long-term planning and resiliency efforts by approving funds through Senate Bill 15-245 for the Colorado Hazard Mapping Program (CHAMP), managed by the Colorado Water Conservation Board (CWCB). CHAMP is updating local hazard information, including producing new regulatory floodplain maps for the most affected waterways (Figure 1).

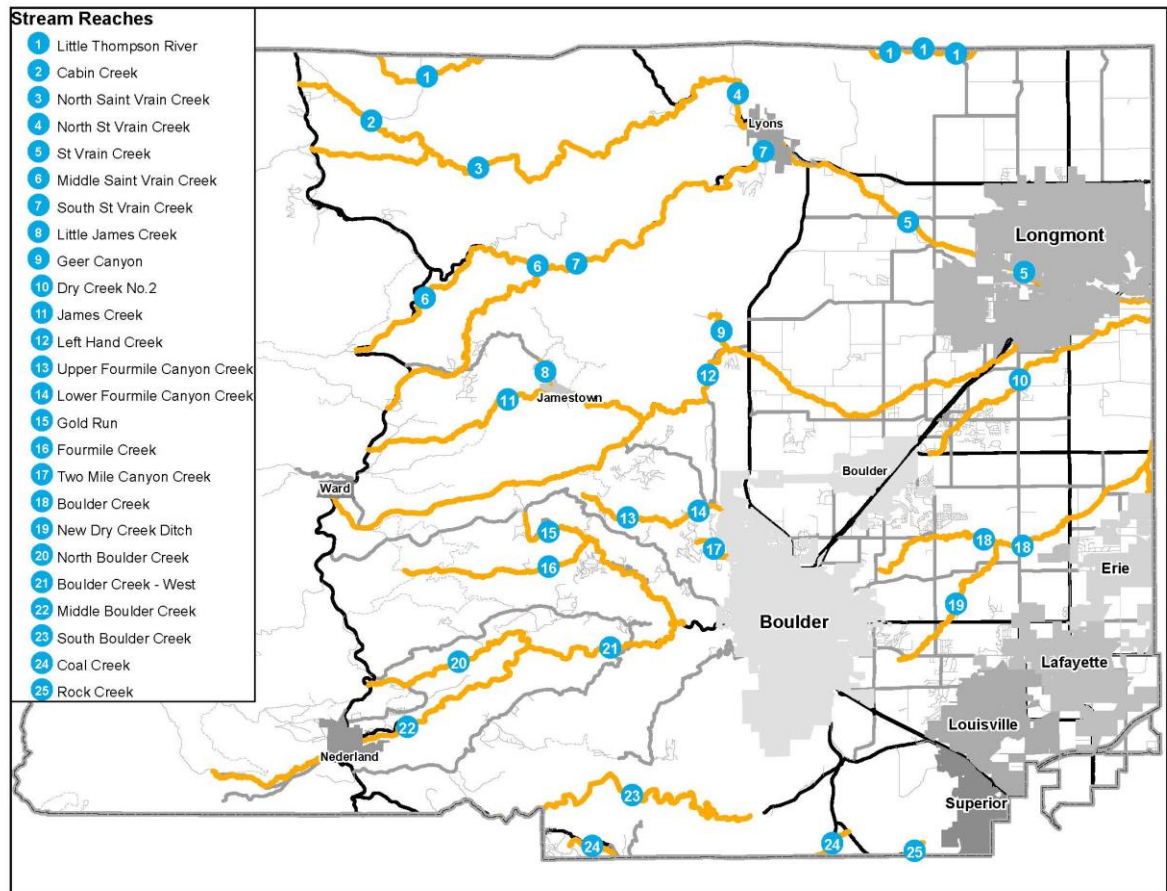


Figure 1. All Stream Reaches included in CHAMP study within unincorporated Boulder County.

Boulder County has already incorporated draft CHAMP data into its Regulatory Floodplain Maps. In 2017 and 2018, Boulder County undertook comprehensive zoning map amendments to the Floodplain Overlay District (FO District), specifically the local Boulder County Floodplain and Floodway, to adopt the two phases of CHAMP draft floodplain mapping (Dockets Z-17-0001 and Z-17-0002). These map amendments were accomplished through the map adoption process set forth in the floodplain regulations in Article 4-400 of the Boulder County Land Use Code, and included technical review, public notification, and hearings before the Planning Commission and the Board of County Commissioners. The draft CHAMP data were adopted via Board of County Commissioners Resolutions 2017-68 and 2018-78.

In September 2019, the Federal Emergency Management Agency (FEMA) released Preliminary Flood Insurance Rate Maps (Preliminary FIRMs) based on the CWCB/CHAMP remapping efforts. The Preliminary FIRMs have several minor differences compared to the

already adopted draft CHAMP maps; however, most of the differences are due to the smoothing of boundaries. The Preliminary FIRMs are likely to be very similar to the future effective final FIRMs; however, the final FIRMs are unlikely to be ready for another two years. Local adoption of the Preliminary FIRMs, as compared to waiting two or more years for release of the final FIRMs, will accelerate the ability for staff and residents to rely on floodplain risk mapping and associated zoning that will be most similar to the county's and FEMA's final floodplain mapping.

Further, FEMA requires the extents of the FEMA effective 100-year floodplain to remain a part of the FO District until it adopts the local studies as new FIRMs. Per guidance from FEMA and CWCB (Exhibit A), in locations within the FO District where there is overlapping FEMA and Boulder County Floodplain and Floodway, the most conservative study controls. When the CHAMP study is eventually adopted by FEMA into the effective FIRM, the Boulder County Floodplain and Floodway will become one and the same with the FEMA effective map in CHAMP reaches. FEMA flood insurance requirements and rate calculations will not change until FEMA adopts the final FIRMs.

In addition to the CHAMP remapping process, FEMA periodically conducts new floodplain studies through its Risk Mapping, Assessment, and Planning (Risk MAP) process. One such study on portions of Coal Creek and Rock Creek resulted in a recent (August 15, 2019) update to the effective FIRM and reflects multiple topographical and drainage changes from the previously effective flood studies conducted in the 1980s. The FIRM update was automatically incorporated into the FO District, as required by Article 4-403.A.1 of the Land Use Code. The Boulder County Floodway in this reach is now superseded and is proposed for removal from the FO District.

CHAMP Floodplain Mapping

Floodplain mapping is based on hydraulic studies involving data collection, analysis, and numerical modeling of the interaction between the existing topography and the predicted flow in creeks during the 1% annual chance flood event. The CHAMP mapping incorporates post-flood topographic survey and analysis of flow that incorporates rainfall and stream data collected during the 2013 floods.

Traditionally, information about revised flood hazards is not received by the communities until after FEMA has already created Preliminary FIRMs and distributed those Preliminary FIRMs at the beginning of a formal appeal period. However, at the request of county staff, CWCB committed to delivering 'draft' mapping associated with the CHAMP project to the county much earlier than typical so that county staff would be able to:

- Engage in technical review and provide feedback to CWCB/FEMA early in the process when change is easier to make,
- Engage community members that have site specific on-the-ground knowledge to also provide timely feedback to the remapping process, and
- Allow the county, after a period of technical review and outreach, to adopt the draft floodplain mapping as best available information.

As a result, before the draft floodplain mapping was adopted in 2017 and 2018, county staff engaged in technical review, requested revisions to draft data, and conducted extensive outreach to residents. Based on this review and feedback from residents, the most significant changes to the floodplain mapping occurred before the draft maps were adopted; therefore,

the changes between the draft maps and the Preliminary FIRMs in this docket are relatively minor.

SUMMARY OF PROPOSED FO DISTRICT ZONING MAP AMENDMENTS

The proposed zoning map amendments include updates to the Boulder County Floodplain and Floodway within the Floodplain Overlay (FO) District, along approximately 230 miles of stream reaches within unincorporated Boulder County (Figure 2). This includes both CHAMP reaches and sections of Coal Creek and Rock Creek where Boulder County Floodway was superseded by FEMA Risk MAP analysis.

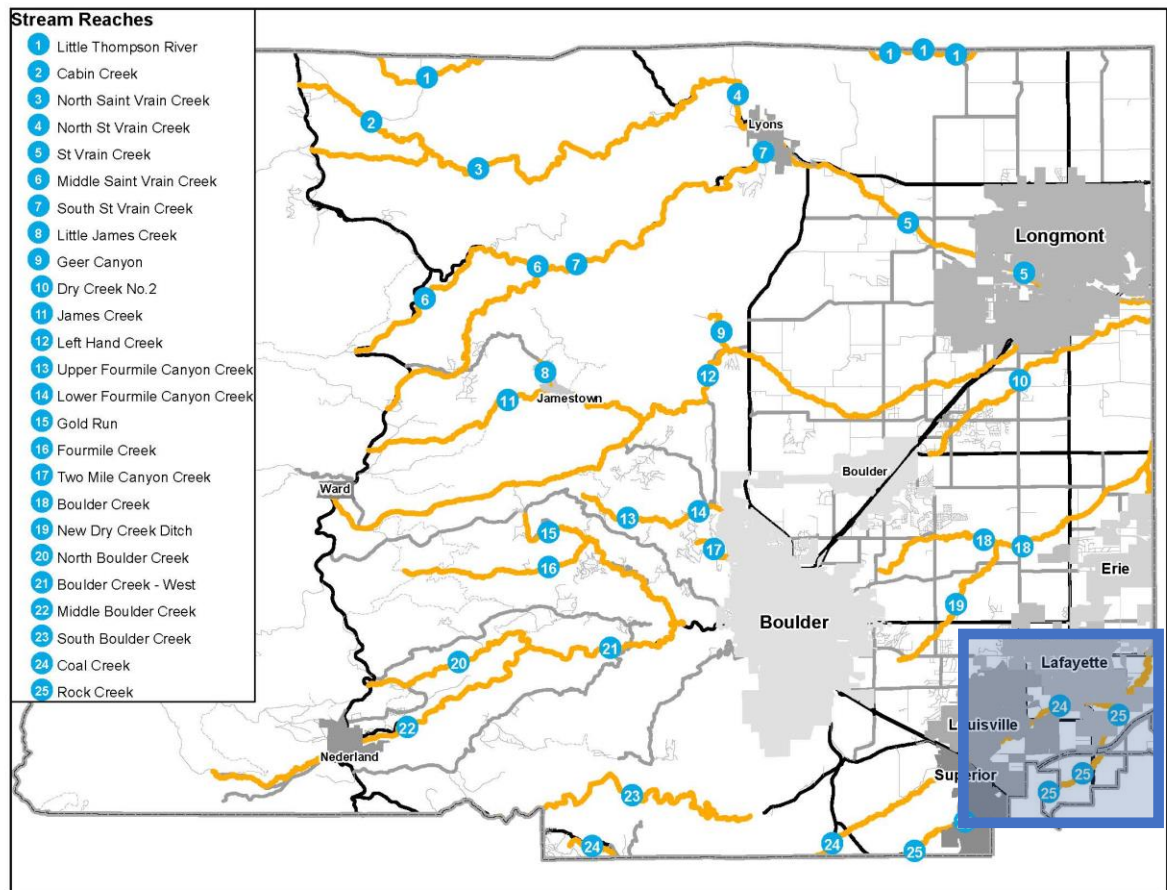


Figure 2: Locations of Proposed Zoning Map Amendments to Boulder County Floodplain within the Floodplain Overlay District (Z-19-0001), including both CHAMP reaches and sections of Coal Creek and Rock Creek where Boulder County Floodway has been superseded by FEMA map updates (highlighted in blue square).

The details of the proposed zoning map amendments are shown on an interactive web map at www.boco.org/FloodplainMapUpdate. The web map can also be accessed from the www.BoulderCounty.org homepage, by going under 'Property & Land' in the main heading, then going to 'Floodplain Management' in the drop-down window that appears. A link at the top of the Floodplain Management main page will connect the viewer to the Floodplain Remapping Project pages where all remapping-related information is located. On that page, the viewer can click the 'View Proposed Changes to Flood Risk Zones' button to access the web map.

On the web map, the proposed amendments to the FO District are on the layer labeled 'Proposed Regulatory Flood Risk Zones'. This layer includes changes to the FO District based upon the layer titled 'Preliminary CHAMP Flood Risk Zones'. In order to see which areas of the FO District are currently effective FEMA Floodplain and Floodway versus Boulder County Floodplain and Floodway, toggle on and off the 'Boulder County Regulatory Flood Risk Zones' and 'FEMA Flood Risk Zones' layers.

REFERRAL, PUBLIC NOTICE, AND PUBLIC COMMENT

Staff held regular coordination meetings with FEMA and the CWCB throughout the technical review and outreach portions of the CHAMP remapping project. All agencies are in support of the proposed map amendments.

Referral Responses

The rezoning application was referred to relevant agencies and stakeholders. Copies of all comments received by the Floodplain Remapping Team are compiled in Exhibit B. The following agencies reviewed the proposal and had no conflicts / no comment:

- Boulder County Building Safety and Inspection Services
- Boulder County Parks and Open Space
- Boulder Valley Conservation District
- City of Boulder Open Space & Mountain Parks
- City of Longmont
- Colorado Division of Water Resources
- Coal Creek Canyon Improvement Association
- Larimer County Engineering Department
- Larimer County Planning
- Longs Peak Water District
- Niwot Sanitation District

Additional Public Comments

Notification of property owners and stakeholders affected by the proposed comprehensive zoning map amendments in Docket Z-19-0001 occurred in a variety of ways, including:

1. Maintenance of a [Floodplain Remapping Project website](#) (over 600 unique visits since September 1st, 2019) and [docket webpage](#) established September 23rd, 2019
2. [Floodplain Remapping Newsletter](#) distributed to approximately 2,400 email addresses on October 17th, 2019
3. Maintenance of an interactive [web map](#) for comparison of current regulatory and proposed regulatory floodplain zones (over 650 total visits since September 1st, 2019)
4. Boulder County Planning Commission Public Hearing on November 20th, 2019 (1,646 postcard notifications mailed to property owners and 2,440 email addresses contacted via Boulder County listservs)

Property owners were able to provide comments through an online comment form linked to the web map, as well as through email and telephone inquiries. All public comments that county staff received regarding Docket Z-19-0001 are compiled in Exhibit B. Members of the public will have another opportunity to review maps and provide technical input to FEMA during the formal FEMA appeal period, expected in 2020.

PLANNING COMMISSION PUBLIC HEARING

This docket was considered by the Boulder County Planning Commission at a public hearing on November 20, 2019. Commissioners Ann Goldfarb, Melanie Nieske, Mark Bloomfield, Todd Quigley, Sam Fitch, and Sam Libby were present. Staff members presented the docket and staff's recommendation to recommend approval of the zoning map amendments to the Boulder County Board of County Commissioners.

Following the staff presentation, the Planning Commission posed questions to the staff members related to the presentation and information presented in the Staff Report.

Commissioner Libby asked about the public notification and comments received by staff members concerning this docket. Staff explained that they received comments from people who were notified of the proposed map changes via listserv notifications, Public Hearing Notice postcards, as well as the referral notice. Commissioner Libby also asked about how many parcels and structures would be impacted by the zoning map amendments. Staff showed that the Preliminary FIRMs change less than 2% of the floodplain area compared to the previously adopted draft CHAMP maps, with about half of that change representing a decrease in the floodplain or floodway.

Commissioner Quigley asked about the FEMA appeal process. Staff explained that they expect FEMA's 90-day appeal window to begin in March of 2020. That window would be the best opportunity for residents and property owners to challenge the Preliminary FIRMs if they believe the model is incorrect or if they have additional data that was not included in the model. The Floodplain staff are planning additional outreach in advance of the appeal period to prepare residents for that process.

Commissioner Bloomfield asked whether Floodway is the same as a conveyance zone. Kevin Doyle, a consultant for Boulder County working for Michael Baker International, explained that a conveyance zone is not formally defined by FEMA. The formal definition of the Floodway in Colorado is the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood (100-year flood) without cumulatively increasing the water surface elevation more than 0.50 feet.

Commissioner Libby asked about which reaches were covered by the CHAMP study and noted that it is important to communicate to the public why the CHAMP reaches were updated. Staff responded that CHAMP's goal was to study reaches that were most affected by the 2013 flood. Mr. Doyle added that CHAMP prioritized reaches that FEMA, the county, and the state were concerned about and were areas of moderate to high flood risk. Commissioner Libby also asked how this affected the other municipalities in the county. Staff responded that they have been working with other municipalities, but that they each have their own unique floodplain regulations and maps that must be updated separately.

The Planning Commission then opened the public hearing. One property owner spoke. He showed the commissioners pictures of potentially illegal culverts in the area of Four Mile Canyon Drive and Alpine Gulch Road. He requested that the county address the culverts and other Flood Recovery Access Permits before adopting the new maps.

The public hearing was closed. Mr. Doyle addressed the public testimony by noting that the CHAMP team must map the current flood risk. Any culverts that are present, whether or not

they are illegal, are incorporated into the CHAMP models and maps. If the culverts were present in 2013-2014, they would have been field surveyed and incorporated into the CHAMP models. If the culverts are removed in the future, FEMA's Letter of Map Revision (LOMR) process would subsequently update the maps.

The Planning Commission entered deliberation. Commissioner Goldfarb commented that the concerns about the culverts raised during the public testimony would probably be best dealt with in another forum. Commissioner Libby asked about the basis for the LiDAR data. Mr. Doyle responded that LiDAR data were collected in 2013 and 2014 and supplemented with field surveys from 2013-2015. Projects completed after the surveys were done will be incorporated into the maps via FEMA's LOMR process. A motion was made by Commissioner Bloomfield to recommend approval of docket Z-19-0001 to the Board of County Commissioners. The motion was seconded by Commissioner Libby and passed [6-0] unanimously.

CRITERIA REVIEW

Staff reviewed the conditions and standards for approval for zoning map amendments under Article 4-1102 of the Boulder County Land Use Code, and finds the following:

1) A public need exists for the map amendment;

Local adoption of the Preliminary FIRMs, as compared to waiting two or more years for release of the final FIRMs, will accelerate the ability for staff and residents to rely on floodplain risk mapping and associated zoning that will be the most similar to the county's and FEMA's final floodplain mapping. The proposed map amendments are based on best available information that will more accurately represent where flooding is likely to occur; provide detailed information for property owners regarding flood risks; and, enable more effective floodplain management that will better protect the health, safety, and welfare of Boulder County residents.

Therefore, staff determines that this criterion is met.

2) The amendment is consistent with and in furtherance of the stated intent and purposes of this Code;

Staff finds that the proposed FO District map amendments are consistent with and in furtherance of the stated intent and purpose of Article 4-400 of the Land Use Code, FO District as noted in Criteria 1 above:

Section 4-401, Purpose, '*...to protect life, property, and health; to ensure the best available data is used in making development decisions; ...*'.

Therefore, staff determines that this criterion is met.

3) The amendment is in accordance with the *Boulder County Comprehensive Plan* and any applicable intergovernmental agreement affecting land use development;

Staff finds the proposed map amendment is in accordance with the Boulder County Comprehensive Plan, Natural Hazards Element, Goals, Policies, & Maps including:

- Natural Hazard Goal L.1: *‘Inappropriate development in natural hazard areas should be reduced as much as possible or eliminated in order to minimize potential harm to life, health, and property’*
- Natural Hazards Policy NH1.02: *‘Natural hazards potentially affecting the county should continue to be identified and made known to the public and public officials. The county should promote a high level of public awareness about the risks of these identified hazards which may impact people, property, and their environment...’*
- Natural Hazards Policy NH4.01: *‘The county should strongly discourage and strictly control land use development from locating in designated floodplains, as identified in the Boulder County Zoning Maps’*

Adopting the best available floodplain information to the FO District will help significantly reduce inappropriate development in known flood risk areas. The proposed amendments will also make the best available flood risk information known to the public and public officials and result in the desired high level of public awareness of the risks of the identified flood hazards. This information will allow property owners to make better informed decisions about their property and will enable the county to make better regulatory decisions.

Therefore, staff determines that this criterion is met.

4) The subject property is an appropriate site for the map amendment, and is a reasonable unit of land for such reclassification;

Staff finds that their technical review of the hydrologic data, modeling procedures, and floodplain mapping support the proposed amendments. CHAMP and FEMA have also engaged in extensive quality assurance, indicating that the proposed amendments represent the best available flood hazard information and that the subject properties are appropriate sites for the map amendment and should be reclassified as proposed.

Therefore, staff determines that this criterion is met.

5) The map amendment would not have a material adverse effect on the surrounding area;

Staff finds that this map amendment will benefit the welfare, health, and safety of surrounding areas by supporting appropriate regulation of development within identified flood hazard areas, minimizing development that might increase flood hazard risks for those surrounding areas.

Therefore, staff determines that this criterion is met.

6) The map amendment will not result in an over-intensive use of land;

Staff finds this criterion is not applicable.

7) The map amendment will not have a material adverse effect on community capital improvement programs;

Staff finds that appropriate regulation of development within identified flood hazard areas will benefit community capital improvement programs.

Therefore, staff determines that this criterion is met.

8) The map amendment will not require a level of community facilities and services greater than that which is available;

Staff finds that local adoption of the best available flood hazard risk information serves to inform residents and visitors to the county of known flood hazards. Knowing the risk encourages preparation for that risk and ultimately results in a more resilient community and better use of community resources during flooding events.

Therefore, staff determines that this criterion is met.

9) The map amendment will not result in undue traffic congestion or traffic hazards;

Staff finds this criterion is not applicable.

10) The map amendment will not cause significant air, water, or noise pollution;

Staff finds this criterion is not applicable.

11) The map amendment will not permit the use of any area designated within the *Boulder County Comprehensive Plan* for the extraction of commercial mineral deposits in a manner which would interfere with the present or future extraction of such deposit by an extractor to any greater extent than under the present zoning of the property;

As an overlay zoning district, the proposed amendments to the FO District will not permit additional uses on impacted properties beyond the uses currently allowed by the existing underlying zoning. As such, the amendments will not permit uses which would impact extraction of mineral deposits to any greater extent than under present zoning.

Therefore, to the extent the proposed FO District amendments include any areas designated within the Boulder County Comprehensive Plan for the extraction of commercial mineral deposits, staff finds this criterion is met.

12) It must be demonstrated that any structures to be built on the property will not be affected by geologic hazards if they exist;

Staff finds this criterion is not applicable.

13) The map amendment will not otherwise be detrimental to the health, safety, or welfare of the present or future inhabitants of Boulder County;

Staff finds that the proposal to amend the extent of the FO District with best available information in the form of updated floodplain maps, as compared to the alternative of waiting for FEMA to adopt maps as FIRMs, is beneficial to the health, safety, and welfare of both present and future inhabitants of Boulder County because it provides more accurate hazard information critical for bolstering long term planning and resiliency efforts.

Therefore, staff determines this criterion is met.

STAFF RECOMMENDATION

Local adoption of best available information in the form of updated floodplain maps, through the proposed zoning map amendment, as compared to the alternative of waiting for FEMA to

adopt maps as final FIRMs, provides more accurate hazard information critical for bolstering long term planning and resiliency efforts, and enables land use planning and regulatory actions using the best available information. Use of the more accurate information prior to final adoption by FEMA allows county staff to better protect the health, safety, and welfare of the residents of and visitors to Boulder County in a more timely and transparent manner. For the reasons stated in this report, staff recommends the Board of County Commissioners approve the zoning map amendments set forth in Docket Z-19-0001 and further recommends an effective date for the zoning map amendments of January 10, 2020.

**STAFF RECOMMENDS THE BOARD OF COUNTY COMMISSIONERS APPROVE
Docket Z-19-0001: Zoning Map Amendments to the Floodplain Overlay District with
an effective date of January 10, 2020.**

ATTACHMENTS:

- Exhibit A: Best Available Information: A Tool for Your Community to Reduce Flood Risk (FEMA & State of Colorado, 2017)
- Exhibit B: Summary of Public Comments and Referral Responses Received Regarding Docket Z-19-0001
- Exhibit C: Public Comments and Referral Responses Received Regarding Docket Z-19-0001

LIST OF HYPERLINKS

- Floodplain Remapping Project website: www.BoCoFloodplainRemapping.com
- Z-19-0001 docket webpage: www.boco.org/Z-19-0001
- Floodplain Remapping Project Newsletter #9: <https://assets.bouldercounty.org/wp-content/uploads/2019/10/newsletter-9-Oct-2019-floodplain-remapping-project.pdf>
- Interactive web map for comparison of current regulatory and proposed regulatory floodplain zones: www.boco.org/FloodplainMapUpdate

Best Available Information

A Tool for Your Community to Reduce Flood Risk

FEMA and the State of Colorado

What is best available information?

The Federal Emergency Management Agency (FEMA) defines Best Available Information (BAI) as either:

- The existing flood hazard information adopted by a community and reflected on an effective Flood Insurance Rate Map (FIRM), Flood Boundary and Floodway Map and/or within a Flood Insurance Study report; or
- Draft or preliminary flood hazard information supplied by FEMA or from another source and reasonably used by the community.

In general, when draft or preliminary information is available, only that information which consists of more restrictive 1% annual-chance (100-year) flood discharges, flood hazard zone boundaries (including floodways), and water-surface elevations shall be considered BAI, so long as it meets FEMA's technical and accuracy standards.

Why is best available information important for Colorado communities?

BAI is an important component of local floodplain management because it represents the most suitable flood hazard information for performing community planning, engineering, development review, permitting, and emergency management functions, and helps communities become more hazard-resilient by working towards the following floodplain management goals:

- protection of life, health, and property
- protection of public and private infrastructure
- improving public flood risk awareness
- reduction in rescue and relief efforts
- reduction of economic and social hardships
- compliance with minimum National Flood Insurance Program (NFIP) Standards
- lower flood insurance premiums



How can my community use this data?

First, check the local codes and ordinances. Your community may have to go through a local adoption process before the data can be used to make planning, permitting, and development review decisions. Otherwise, you can use the new data starting immediately. The ways in which this data can be applied are almost limitless. We encourage you to think of unique ways your community can put this data to work, and have provided a few examples below.

- Zoning district updates
- Land use code/ordinance updates
- Permitting
- Community Rating System points
- Mitigation project planning
- Grant applications
- Stormwater management and design
- Flood evacuation route planning
- Reverse 911 system updates
- Emergency shelter planning
- Capital Improvement Project planning
- Outreach applications
- Social Vulnerability analyses

For an example of how adopting higher regulatory standards can benefit your community, check out the [case study that was conducted after the 2013 flood event in Colorado](#).

For more information on how your community can use BAI to guide development in potential and established flood areas, please visit the FEMA website at <https://www.fema.gov/use-flood-insurance-study-data-available-data>.

What qualifies as “reasonable” use of draft or preliminary flood hazard information?

The concept of ‘reasonable’ ensures that use of the data would not be detrimental to a proposed development or to the community’s standing within the NFIP. FEMA specifies that draft or preliminary information should be used in cases where it is more restrictive [i.e., where there are discharges, floodplain boundaries, or increasing Base Flood Elevations (BFEs)] when compared to the current effective information. FEMA prohibits its use when discharges or BFEs are decreasing when compared to the current effective information. This is because draft or preliminary information has not been through a formal appeal period and is subject to change. After draft or preliminary information proceeds through a formalized appeal process, any appeals have been resolved, and a final notice has been provided to the community through issuance of a Letter of Final Determination (LFD), the information is required to be used for floodplain management decisions, not for ‘reasonable’ use.



In Zones B, C, or X:

There is no requirement for a community to use the draft or preliminary flood risk data in these zones. FEMA does, however, encourage communities to reasonably use this information to help meet the floodplain management goals outlined on Page 1.

In Zone A:

Local officials are required by the NFIP regulations to reasonably utilize draft or preliminary flood risk data as BAI to manage development in Zone A areas. Examples of ways BAI must be used in Zone A areas are:

- 1) Use BAI to determine the required minimum elevation of the first floor, HVAC, electric, and plumbing fixtures for new residential construction/substantial improvements.
- 2) Use BAI to identify floodway boundaries, which can impact permitting submittal requirements for proposed development projects (proposed projects in the floodway must, at a minimum, demonstrate through hydraulic modeling that they will not result in any increase greater than 0.00 feet in 1-percent-annual-chance (100-year) water-surface elevations.

In Zone AE, A1-30, AH, and AO:

FEMA encourages communities to reasonably utilize draft or preliminary flood risk data in instances where it provides more restrictive 100-year flood discharges, flood hazard zone boundaries (including floodways), and water-surface elevations to ensure the floodplain management goals outlined on page 1 are met. The community cannot use the less restrictive data to regulate development until a LFD has been issued. Use of less-restrictive draft or preliminary flood hazard information prior to the issuance of a LFD may result in significantly higher flood risk to people and property if the data changes before it is finalized. Additionally, it may result in higher flood insurance premiums, and the community may be in violation of their locally-adopted Flood Damage Prevention Ordinance.

Using factors such as years of gage record, amount of development, and presence of new hydraulic structures, FEMA has inventoried many of the effective detailed study areas (Zone AE, A1-30, AH, AO, VE, and V1-30) to determine if the study information presented on the current effective FIRM is still a reasonable representation of flood risk. In areas where validated studies exist, these studies should take precedent over Large-Scale Automated Engineering or Base-Level Engineering studies.

For more on the application of BAI in different flood risk zones, refer to FEMA Policy #104-008-2 <https://www.fema.gov/use-flood-insurance-study-data-available-data>.

How does this data help me with disaster response and recovery activities?

BAI should be used to help plan and implement response activities such as creating evacuation zones, evacuation routes, emergency shelters, and emergency notification systems like Reverse-911.

Flood recovery projects funded by all Federal and most state grant programs must use BAI as the basis for design, unless a local design standard is more restrictive. An example of this is FEMA Public Assistance. The following is an example scenario which demonstrates how this data can be used:

- A public vehicular bridge on a county road is destroyed during a large flood event. Once the bridge is replaced, the county intends to apply for reimbursement through the Community Development Block Grant- Disaster Recovery program.
- Following the flood event, a state agency developed an updated 100-year flood discharge at the bridge (2,400 cfs), which turned out to be lower than the current effective flood discharge (3,100 cfs).
- The county's bridge design consultant must use the BAI to design the replacement bridge. In this case, the BAI is the higher of the 2 discharges; therefore, the bridge must be designed using the higher discharge of 3,100 cfs.

Additionally, much like its application to new construction and substantial improvements, BAI can be used to regulate repair of substantial damage. For example:

- A home has been determined to be 60 percent damaged (when compared to current market value) by a recent flood event. The current effective flood risk zone for the home is Zone AE and the current effective BFE is 1,110.0 feet NAVD88.
- Following the flood event, a draft Base-Level Engineering study completed by FEMA shows that the 100-year water-surface elevation at the home is approximately 1,112.0 feet NAVD88. This study should be considered the BAI for this specific home.
- Because the home was substantially damaged, during repair the first floor should be elevated to the higher of the two available BFEs, which is 1,112.0 feet NAVD88, plus any additional freeboard regulated by the local community.

What about other grant programs that are not related to flood recovery?

The requirement to use BAI applies to any Federal or state grant program.

How can I leverage this data to update my mitigation plan and/or apply for a mitigation project?

Mitigation planning relies on having quality data available to prioritize, design, and implement mitigation projects. In most cases, the highest-quality data will be synonymous with BAI. Good hazard mitigation plans will have procedures built in to account for updates to flood risk information. If BAI is available, local planners should use this information in conjunction with projects identified in the plan to determine if the project priority and design is still appropriate considering the hazard and risk identified with the BAI. In addition, as mitigation projects are funded, their designs should consider the best flood hazard information available at the time of design.

Furthermore, incorporating BAI into risk assessment tools or computer programs, such as Hazus, can produce more-refined flood loss information. These results can be directly incorporated into the local hazard mitigation plan or used for operational and response planning.

Can Best Available Information be used to submit a Letter of Map Change (LOMC)?

For Letters of Map Amendment (LOMAs)/Letters of Map Revision based on Fill (LOMR-Fs): In Zone A areas, BAI can, in some cases, be used to support a request to remove a structure, property, or portion of property from the Special Flood Hazard Area. The BAI study information should be submitted to FEMA with the LOMA/LOMR-F application, where it will be reviewed to determine whether it meets certain technical and accuracy standards in order to be used to process the LOMA/LOMR-F. In detailed flood risk zones such as Zone AE areas, however, FEMA must use the current effective BFEs compared to structure and/or property elevations to determine if that structure and/or property is eligible for a LOMA or LOMR-F.

For Letters of Map Revision (LOMRs): In certain instances, a draft study can be submitted to FEMA with a LOMR application. If the data is obtained from a source other than FEMA, FEMA will review the draft study information to determine whether it meets certain technical and accuracy standards in order to be published as effective information. Should FEMA determine that additional data is necessary, it may be up to the community to submit the additional data.

Can Best Available Information be downloaded and incorporated it into my local GIS software?

Yes. These days, most draft or preliminary study information is provided in digital/GIS format. FEMA encourages the use of BAI in-conjunction with other digital datasets to enhance floodplain management decision making. Examples of other digital datasets to pair with BAI include:

- Aerial imagery
- Local transportation data
- Zoning/land use information
- Building footprints
- Parcel boundaries
- Critical facility locations
- U.S. census bureau information

Who can I contact for more information?

For questions about specific applications of this data in your community, contact your State NFIP Coordinator, Stephanie DiBetitto at stephanie.dibetitto@state.co.us, 303-866-3441, ext. 3221 or Matt Buddie, the NFIP Specialist for FEMA Region VIII at matthew.buddie@fema.dhs.gov, 303-235-4730.

Agency Referral Responses

Count	Referral Agency	Date	Address/Location	Associated Stream Reach	Comment Summary	Date of Staff Response	Staff Response Summary
1	Fourmile Watershed Coalition	10/14/2019	Fourmile Watershed	Fourmile Creek	Is the county regulating to old FEMA maps (light green) that represent the proposed 100 yr floodplain? Some clarification about the two data sets and what the proposed regulations are would be helpful. As you know many homes in upper fourmile appeared to be mapped out of the floodplain with the CHAMP data, but it looks like they would be bank in with the proposed regulatory maps.	10/15/2019	Staff corresponded via email and in-person, clarifying that the zoning docket is only updating Boulder County floodplain; FEMA floodplain will not change until 2021 or later.
2	Fourmile Watershed Coalition	11/6/2019	Fourmile Watershed	Fourmile Creek	Summary of letter: 1) Please add language to the docket acknowledging that the FEMA portion of the FO District will change again in approximately 2021. 2) Please add structure outlines to the "Preliminary and Regulatory Flood Risk Zones" web map. 3) Please advertise the FEMA appeals process well in advance	11/8/2019	1) The docket does acknowledge that "the final FIRMs are unlikely to be ready for another two years." Additionally, this Staff Recommendation further clarifies future and present map changes. 2) Structure outlines were added to the web map on 11/7/2019. 3) The floodplain team is planning appeals-related outreach for December and January, including a new Newsletter, listserv mailings, an appeals webpage, and six public meetings in January.
3	Xcel Energy	11/8/2019	n/a	n/a	Public Service Company of Colorado's (PSCo) Right of Way & Permits Referral Desk has reviewed the request for the Zoning Map Amendments to the Floodplain Overlay District. Please be advised that Public Service Company has existing natural gas and electric transmission and distribution facilities throughout the proposed rezone areas. Public Service Company has no objection to this proposed rezone, contingent upon PSCo's ability to maintain all existing rights and this amendment should not hinder our ability for future expansion, including all present and any future accommodations for natural gas transmission and electric transmission related facilities.	11/8/2019	As an overlay zoning district, the proposed amendments to the FO District will not impact existing right-of-way or zoning for utility transmission and distribution.
4	Pine Brook Water District	10/3/2019	1905 and 1903 Linden Dr	Two Mile Canyon Creek	I am trying to determine what your mapping is showing as it relates to 1905 and 1903 Linden Drive (both properties owned by the Pine Brook Water District). During the preliminary mapping we noted two things/ 1 - that the 2013 flood which was in excess of a 100 flood didn't touch either building or even overtop on to the driveways, 2 - that it appeared that they forgot to include the flood storage in our reservoir and once they did they agreed that we were NOT in either designation. We would be in the 500 year flood plain/way though.	10/4/2019	Staff confirmed that 1903 and 1905 Linden are outside of the 100-year floodplain in the Preliminary FIRMs.

Additional Public Comments

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5	Email	10/9/2019	375 Arroyo Chico	Fourmile Creek	Does this change the flood zone status at 375 Arroyo Chico?	10/10/2019	No, the flood zone for this property will not change with this zoning docket.
6	Voicemail	10/14/2019	8768 Fourmile Canyon Dr	Fourmile Creek	Confused about why the county will still be regulating to the old FEMA floodplain.	10/14/2019	Staff left a voicemail offering to explain further.
7	Email	10/17/2019	5938 Heather Way	Left Hand Creek	There is an error in the "inundated" areas. Our home was not impacted by the 2013 flood. The water did not touch our home and we did not incur any damage. Who do I speak with to have this information changed?	10/21/2019	Staff explained that the "Inundated Areas" layer was not used for modeling. The CHAMP mapping is bringing most of this property out of the regulatory floodplain.
8	Map comment	10/20/2019	6472 Robin Dr	Left Hand Creek	Shouldn't the light green area noted as "Proposed Regulatory 100-Year Floodplain (Includes FEMA and CHAMP Zones AE, A, AO, and AH). Be corrected to exclude "100-Year" as it also includes zone X (500 year)? This is confusing as my house appears to be in both the 100 year floodplain as well as Zone X.	10/22/2019	Staff explained that the "Proposed Regulatory" layer is made up of both Preliminary FIRMs and effective FEMA floodplain.
9	Email	10/20/2019	not specified	not specified	I am wondering why the floodplain maps are not shown on a topographic base map. Having topographic contours would be very helpful in evaluating the maps.	10/21/2019	Staff explained how to view topographic basemaps in the online web map, but clarified that those topo maps were not the maps used to develop the floodplain mapping.
10	Email	10/21/2019	91 Fourmile Canyon Dr	Fourmile Creek	Upon purchasing our property five years ago, we were told that the new map would almost certainly bring our buildings out of the flood plan, after all they didn't flood during the 2013 100 year flood. I wonder if the new map reflects this? As I heard it actually is moving more land into the flood zone, land that did not flood in 2013.	10/24/2019	Staff explained the changes to the flood risk zones on the property.
11	Email	10/29/2019	6231 Fourmile Canyon Dr	Fourmile Creek	I'm 100% for keeping the "CHAMP" floodplain maps. They were done well and are reasonable. They were also done with community input. I'm against reverting to the old FEMA maps, as they were created with inaccurate data and techniques over 35 years ago!	10/31/2019	Staff explained that the old FEMA maps will remain the effective FEMA FIRMs for another couple years.
12	Map comment	11/8/2019	1896 Apple Valley Rd	North Saint Vrain Creek	I disagree with the proposed 100 year flood designation on my property. The property is sloped and the house, which is now shown in the proposed 100 year flood designation, was well above the high water line during the 2013 flood. There was no flooding then and the house should be clearly shown as outside the 500 year flood line as well. Kindly correct this and let me know when it has been done.	11/8/2019	Staff explained that the "Proposed Regulatory" layer is made up of both Preliminary FIRMs and effective FEMA floodplain. When the CHAMP mapping is adopted by the county and FEMA, the house will likely be outside of the 100-year floodplain.
13	Map comment	11/8/2019	270 Cactus Ct	Two Mile Canyon Creek	We have a LOMA for our property which appear to be shown on the wrong parcel. The LOMA removes our entire house structure from the flood map, however the proposed 100 year floodplain would appear to include the house.	11/12/2019	Staff explained that LOMAs are not reflected in floodplain maps, and further explained the current and proposed flood risk zones on the property.
14	Email	11/10/2019	225 Linden Dr	Two Mile Canyon Creek	Last year, I was told that my house was considered to be out of the 100-year floodplain. Now, the diagram at boco.org/FloodplainMapUpdate appears to show that the northwest corner of my house is back in the 100-year floodplain. Is that what you conclude from looking at the map? If so, when will this change back to the NW corner of my house being "officially" in the floodplain, be effective?	11/12/2019	Staff explained that the "Proposed Regulatory" layer is made up of both Preliminary FIRMs and effective FEMA floodplain. When the CHAMP mapping is adopted by the county and FEMA, the house will likely be outside of the 100-year floodplain.
15	Voicemail	11/12/2019	6536 Robin Dr	Left Hand Creek	Cannot attend the hearing. Please confirm the flood zone changes on this property.	11/12/2019	Staff explained that the "Proposed Regulatory" layer is made up of both Preliminary FIRMs and effective FEMA floodplain. When the CHAMP mapping is adopted by the county and FEMA, the house will likely be outside of the 100-year floodplain.

Additional Public Comments, Continued

Count	Comment Source	Date	Address/Location	Associated Stream Reach	Comment Summary	Date of Staff Response	Staff Response Summary
16	Voicemail	11/12/2019	7945 N 41st St	Left Hand Creek	Please confirm the flood zone changes on this property	11/12/2019	Staff explained that the Preliminary FIRMs are very similar to the existing Boulder County Floodplain on this property.
17	Voicemail	11/12/2019	22317 S St Vrain Dr	Middle Saint Vrain Creek	Please confirm the flood zone changes on this property	11/12/2019	Staff explained that the Preliminary FIRMs do not change the existing Boulder County Floodplain on this property
18	Voicemail	11/12/2019	16996 N St Vrain Dr	North Saint Vrain Creek	Please confirm the flood zone changes on this property	11/12/2019	Staff explained that the Preliminary FIRMs do not change the existing Boulder County Floodplain on this property
19	Voicemail	11/13/2019	47120 Peak to Peak Hwy	South Saint Vrain Creek	Please confirm the flood zone changes on this property	11/13/2019	Staff explained that the Preliminary FIRMs do not change the existing Boulder County floodplain on this property.
20	Voicemail	11/13/2019	15789 N 83rd St	Little Thompson River	Questions about PC hearing format	11/14/2019	Staff explained the proposed flood risk zones on the property and the public testimony process.
21	Voicemail	11/14/2019	505 Kneale Rd	South Boulder Creek	Please confirm the flood zone changes on this property	11/14/2019	Staff explained that the Preliminary FIRMs do not change the existing Boulder County floodplain on this property.
22	Voicemail	11/15/2019	8446 Valmont Rd	Dry Creek	Please confirm the flood zone changes on this property	11/15/2019	Staff explained that the Preliminary FIRMs do not change the existing Boulder County floodplain on this property.
23	Map Comment	11/15/2019	558 Apple Valley Rd	North Saint Vrain Creek	Please confirm the flood zone changes on this property	11/15/2019	Staff explained that the Preliminary FIRMs do not change the existing Boulder County floodplain on this property.
24	Voicemail	11/15/2019	Streamcrest Dr	Left Hand Creek	Is is possible to do a group LOMA?	11/18/2019	Staff explained that the Preliminary FIRMs do not change the existing Boulder County floodplain on this property. Staff explained the options for LOMAs during the FEMA 90-day appeal period.
25	Voicemail	11/18/2019	11331 Dillon Rd	Rock Creek	Please confirm the flood zone changes on this property	11/18/2019	Staff explained that the Boulder County Floodway along Rock Creek is proposed for removal on this property, but the existing FEMA FIRM will remain in effect.
26	Voicemail	11/19/2019	11939 Sugarmill Rd	Saint Vrain Creek	Please confirm the flood zone changes on this property	11/20/2019	Staff explained that the Preliminary FIRMs do not change the existing Boulder County floodplain on this property.
27	Map Comment	11/19/2019	3348 Plateau Rd	Left Hand Creek	On this version map it shows our home outline as being part in X and part in AE. I have confirmed several times with FEMA (for insurance purposes) and Boulder County that our entire dwelling/Home is located in Zone X. FEMA and Boulder County have previously agreed with the evidence I provided that determines that we are completely in Zone X.	11/21/2019	Staff explained that the proposed regulatory floodplain still reflects the effective FEMA maps, and that the LOMA for this structure will likely be revalidated in 2021.

Additional Public Comments, Continued

Count	Comment Source	Date	Address/Location	Associated Stream Reach	Comment Summary	Date of Staff Response	Staff Response Summary
28	Web Inquiry	11/20/2019	11780 Kenosha Rd	Boulder Creek	The notice for this docket is legally insufficient, as it fails to adequately describe the comprehensive zoning map amendments to which it refers....In addition, the notice refers to the "smoothing of boundaries", but fails to explain what that means...Our postcard also includes an incorrect zip code (80501) when the zip code for our property is 80504....As noted in our comments on the original docket adding our property to the floodway, the technology used by the County and others (AECOMM, CWCBC) in developing these maps is fatally flawed....Finally, the new maps fail to consider the massive improvements to Boulder Creek at the intersection of County Line Road and Mineral Road (State Highway 52), or any of the improvements performed in Boulder Creek on the County open space north of Kenosha Road....We would request that both the Planning Commission and Board of County Commissioners reject not only this docket, but revisit the 2018 docket that originally adopted these maps. At a minimum, the County should reconsider the 2D mapping technology that was used in this area and produced such unrealistic floodway maps.	11/20/2019	Staff confirmed that the comment would be provided to the Planning Commission and that they would address the comments more fully in due course.
29	Web Inquiry	11/20/2019	2180 Lefthand Canyon Dr	Left Hand Creek	Will changes to the mapping require that we purchase flood insurance? What is the impact on property taxes? Does this impact resale value if future homeowners are required to purchase flood insurance?	11/20/2019	Staff explained that the house will remain outside of the floodplain, and so there is no requirement to purchase flood insurance.
30	Voicemail	11/20/2019	6507 Robin Dr	Left Hand Creek	Please confirm the flood zone changes on this property	11/20/2019	Staff explained that the Preliminary FIRMs do not change the existing Boulder County floodplain on this property.
31	Voicemail	11/20/2019	8493 Lefthand Canyon Dr	Left Hand Creek	Please confirm the flood zone changes on this property	11/20/2019	Staff explained that the Preliminary FIRMs do not change the existing Boulder County floodplain on this property.
32	Voicemail	11/20/2019	69 Hover St	Saint Vrain Creek	The property owner believes the Floodway zoning on his property is incorrect.	11/20/2019	Staff explained that the Preliminary FIRMs do not change the existing Boulder County floodplain on this property and offered to follow up with information about the appeals process.
33	Map Comment	11/20/2019	8073 Centrebridge Dr	Dry Creek	The proposed new 100 yr mapping appears to just clip the corner of my house. Has the 100 yr flood zone changed on my property under the new proposal? I am concerned that with the line touching my house that I will now be required to buy flood insurance. Is consideration made for close calls like this? Is that mapping that precise?	11/21/2019	Staff explained that the Preliminary FIRMs do not change the existing Boulder County floodplain on this property and explained that the elevation of a structure ultimately determines its flood zone.
34	Map Comment	11/20/2019	3920 Ogallala Rd	Left Hand Creek	I was living in my home throughout the 2013 flood and so, of course, experienced first hand EXACTLY where the flood waters flowed. I have been reviewing the various evolution of maps that you have been presenting over the past few years. Somewhere between a year or so ago and the present time this map has MORPHED to include my home in the floodway. If indeed that is a fact, my home would have certainly suffered major flood damage both cosmetically and structurally. THE FACT OF THE MATTER IS...MY HOME SUFFERED ABSOLUTELY NO FLOOD DAMAGE WHATSOEVER. So I guess what I am saying is that your mapping that includes my property is absolutely plain old WRONG....	11/20/2019	Staff spoke with the property owner before the Planning Commission hearing and explained the floodplain mapping in this area. Staff also responded with an email on 12/5/19.

Additional Public Comments, Continued

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35	Voicemail	11/20/2019	7090 Johnson Cir	Dry Creek #2	Resident tried to attend the PC hearing but had to leave before the floodplain docket was discussed.	11/21/2019	Staff explained that when FEMA updated their effective FIRMs (likely in 2021), this property will probably be outside of the regulatory floodplain for flood insurance purposes.
36	Voicemail	11/21/2019	3939 N 95th St	Boulder Creek	Please confirm the flood zone changes on this property	11/22/2019	Staff explained that the Preliminary FIRMs do not change the existing Boulder County floodplain on this property and that the structures will remain in Zone X.
37	Voicemail	11/22/2019	10901 Airport Rd	Saint Vrain Creek	A dyke in the City of Longmont is impacting flood risk on the property. Please confirm the flood zone changes on the property.	11/25/2019	Staff confirmed receipt of the voicemail and explained they would respond after the holiday.
38	Email	11/22/2019	16 Alpine Gulch Rd	Fourmile Creek	Concern with an illegal water crossing. "I would like to request that you work with...the Land Use Department and/or Transportation Department that are responsible for ensuring that any water crossing structure at the noted location is properly engineered and permitted and, any flood mapping is updated accordingly based on the required hydraulic modeling."	11/25/2019	Staff confirmed receipt of the email and explained that they would respond in due course.
39	Map Comment	11/29/2019	618 Apple Valley Rd	North Saint Vrain Creek	At the house location much work has occurred on at least three occasions in the federal restoration process. The mapping in the vicinity of the house and immediately downstream does not reflect this work, it appears to be an averaging of conditions.... The actual land level in those areas is above the BFE in many cases. This represents a potential usable future building area to us. We would like to see it represented on the mapping.	12/2/2019	FEMA's Preliminary FIRMs do not reflect the stream restoration work that took place along North Saint Vrain Creek. This is because the work was completed after the maps were sent to FEMA for review. However, the work will be incorporated into the new maps via a Letter of Map Revision (LOMR). We expect the LOMR to go effective the day after FEMA makes the CHAMP maps effective.
40	Voicemail	12/2/2019	4114 Oxford Rd	Left Hand Creek	Would like to discuss flood zone changes on this property.	12/5/2019	Staff met with the property owner in person. They discussed the remapping process, and options for demonstrating that the house is outside of the Floodway, including a LOMA.
41	Email	12/4/2019	6148 Fourmile Canyon Dr	Fourmile Creek	Property owner listed many concerns with flood risk near his property: "I understand that work performed by the watershed coalition and the engineered water crossings will be incorporated into the remapping, however, I believe that the data used to develop the floodplain mapping on my property is either insufficient, inaccurate, or both."	12/5/2019	Staff provided maps and LiDAR data showing that the floodplain mapping on this property is accurate, and addressed other comments.

**Z-19-0001: Zoning Map Amendments to the
Floodplain Overlay District**

Referral Responses and Public Comments

**Documented in the
Board of County Commissioners
Staff Recommendation**



Land Use

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Docket Z-19-0001: Zoning Map Amendments to the Floodplain Overlay District

Staff Leads: Kelly Watson, Floodplain Program Planner, Transportation Department
Varda Blum, Floodplain Program Manager, Transportation Department

October 3, 2019

Dear Stakeholder/Interested Party,

On September 19, 2019, the Boulder County Board of County Commissioners authorized staff to consider zoning map amendments for the Floodplain Overlay District ("FO District"), specifically the Boulder County Floodplain and Floodway, based upon the floodplain remapping of the Colorado Hazard Mapping Project ("CHAMP"), Federal Emergency Management Agency ("FEMA") Risk MAP and other best available data.

These floodplain zoning map amendments include public notification and hearings before the Planning Commission and Board of County Commissioners. The purpose of this referral is to provide interested stakeholders an opportunity to comment on the proposed changes to the floodplain maps and to have certainty about the floodplain mapping that affects property in the county.

More information can be found on the docket webpage: www.boco.org/z-19-0001

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Boulder County staff, County Commissioners, and Planning Commissioners value comments from individuals and referral agencies. Please check the appropriate response below or send a letter or email with your comments. All comments will be made part of the public record. Staff will address comments received in response to this referral before presenting zoning map amendments to the Boulder County Planning Commission at its November meeting with a recommendation for approval.

If you have any questions, please contact floodplainmapscomment@bouldercounty.org.

Please return responses to the above email address by **November 7, 2019**. Late responses will be reviewed as the process permits.

☒ We have reviewed the proposal and have no conflicts.
☐ Letter is enclosed.

Signed

Printed Name

Agency or Address

Ron Flax

Boulder County Building Safety & Inspection Services



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Printed Name

Agency or Address

Jeff Moline

Jeff Moline

Boulder County Parks & Open Space



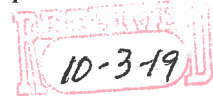
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Varda Blum, Floodplain Program Manager, Transportation Department

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Signed John McHugh

Printed Name JOHN McHUGH

Agency or Address Boulder Valley Conservation District

Docket Z-19-0001: Zoning Map Amendments to the Floodplain Overlay District

Staff Leads: Kelly Watson, Floodplain Program Planner, Transportation Department
Varda Blum, Floodplain Program Manager, Transportation Department

October 3, 2019

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☐ Letter is enclosed.

Signed Matt Ashley

Printed Name Matt Ashley, Associate Property Agent

Agency or Address City of Boulder Open Space and Mountain Parks



Land Use

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Varda Blum, Floodplain Program Manager, Transportation Department

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☐ Letter is enclosed.

Signed Jade Kneeger 10/21/19
Printed Name Jade Kneeger
Agency or Address City of Longmont



Land Use

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Varda Blum, Floodplain Program Manager, Transportation Department

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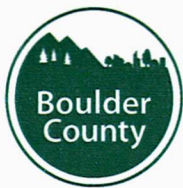
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Signed 
Printed Name Sarah Brucker

Agency or Address Colorado Division of Water Resources



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Varda Blum, Floodplain Program Manager, Transportation Department

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View the proposed zoning map amendments on the map review platform:
www.boco.org/floodplainmapupdate

Boulder County staff, County Commissioners, and Planning Commissioners value comments from individuals and referral agencies. Please check the appropriate response below or send a letter or email with your comments. All comments will be made part of the public record. Staff will address comments received in response to this referral before presenting zoning map amendments to the Boulder County Planning Commission at its November meeting with a recommendation for approval.

If you have any questions, please contact floodplainmapscomment@bouldercounty.org.

Please return responses to the above email address by **November 7, 2019**. Late responses will be reviewed as the process permits.

☒ We have reviewed the proposal and have no conflicts.
☐ Letter is enclosed.

Signed _____

Printed Name John Jay Baich - President

Agency or Address Coal Creek Canyon Improvement Association
POB 7331
Golden, CO 80403

Watson, Kelly

From: Devin Traff <traffdc@co.larimer.co.us>
Sent: Wednesday, October 9, 2019 9:24 AM
To: Planner On Call
Cc: Lesli Ellis; Milner, Anna; Watson, Kelly; Devin Traff; Tina Kurtz; Traci Shambo
Subject: Re: FW: Referral packet for Docket Z-19-0001: Zoning Map Amendments to the Floodplain Overlay District

Hi Anna,

Thank you for the opportunity to comment. The Engineering Department has no conflict with the preliminary CHAMP floodplain data which is being published for Boulder County.

On Wed, Oct 9, 2019 at 9:14 AM Planner On Call <poc@co.larimer.co.us> wrote:

Larimer County Planning received this referral and we have no comment. We are referring this to the Larimer County Engineering Department and the Floodplain administrators so that they have a chance to review it and provide you comments as well.

Planner on Call
Larimer County Planning Department
200 W. Oak Street, Suite 3100
PO Box 1190
Fort Collins, CO 80522-1190

Planner on Call phone (970) 498-7679
Planning Dept. main phone (970) 498-7683
planningoncall@larimer.org

On Thu, Oct 3, 2019 at 2:40 PM Milner, Anna <amilner@bouldercounty.org> wrote:

Anna Milner

Admin. Lead Tech. | Planning Division

Boulder County Land Use Dept. | PO Box 471 | Boulder, CO 80306

(720) 564-2638 (Direct) | (303) 441-4856 (Fax)

amilner@bouldercounty.org



Boulder County
C o l o r a d o

From: Milner, Anna

Sent: Thursday, October 03, 2019 12:34 PM

To: Milner, Anna <amilner@bouldercounty.org>

Cc: Watson, Kelly <kwatson@bouldercounty.org>; Blum, Varda <vblum@bouldercounty.org>; Wiseman, Christy <cwiseman@bouldercounty.org>; Wobus, Nicole <nwobus@bouldercounty.org>; Sanchez, Kimberly <ksanchez@bouldercounty.org>; Case, Dale <dcase@bouldercounty.org>

Subject: Referral packet for Docket Z-19-0001: Zoning Map Amendments to the Floodplain Overlay District

Please find attached the electronic Referral packet for ***Docket Z-19-0001: Zoning Map Amendments to the Floodplain Overlay District***. Feel free to forward along to any other interested parties.

Please return responses and direct any questions to [Kelly Watson](#) by **November 7, 2019**.

Best Regards,

Anna

Anna Milner

Admin. Lead Tech. | Planning Division

Boulder County Land Use Dept. | PO Box 471 | Boulder, CO 80306

(720) 564-2638 (Direct) | (303) 441-4856 (Fax)

amilner@bouldercounty.org

www.bouldercounty.org



Boulder County
C o l o r a d o



Devin Traff, P.E.
Civil Engineer

Engineering Department
200 W Oak St, Fort Collins, 80521 | 3rd Floor
W: (970) 498-5731
traffdc@larimer.org | www.larimer.org



Land Use

Courthouse Annex • 2045 13th Street • Boulder, Colorado 80302 • Tel: 303.441.3930 • Fax: 303.441.4856
Mailing Address: P.O. Box 471 • Boulder, Colorado 80306 • www.bouldercounty.org

Docket Z-19-0001: Zoning Map Amendments to the Floodplain Overlay District

Staff Leads: Kelly Watson, Floodplain Program Planner, Transportation Department
Varda Blum, Floodplain Program Manager, Transportation Department

October 3, 2019

Dear Stakeholder/Interested Party,

On September 19, 2019, the Boulder County Board of County Commissioners authorized staff to consider zoning map amendments for the Floodplain Overlay District ("FO District"), specifically the Boulder County Floodplain and Floodway, based upon the floodplain remapping of the Colorado Hazard Mapping Project ("CHAMP"), Federal Emergency Management Agency ("FEMA") Risk MAP and other best available data.

These floodplain zoning map amendments include public notification and hearings before the Planning Commission and Board of County Commissioners. The purpose of this referral is to provide interested stakeholders an opportunity to comment on the proposed changes to the floodplain maps and to have certainty about the floodplain mapping that affects property in the county.

More information can be found on the docket webpage: www.boco.org/z-19-0001

View the proposed zoning map amendments on the map review platform:
www.boco.org/floodplainmapupdate

Boulder County staff, County Commissioners, and Planning Commissioners value comments from individuals and referral agencies. Please check the appropriate response below or send a letter or email with your comments. All comments will be made part of the public record. Staff will address comments received in response to this referral before presenting zoning map amendments to the Boulder County Planning Commission at its November meeting with a recommendation for approval.

If you have any questions, please contact floodplainmapscomment@bouldercounty.org.

Please return responses to the above email address by **November 7, 2019**. Late responses will be reviewed as the process permits.

☒ We have reviewed the proposal and have no conflicts.
☐ Letter is enclosed.

Signed

Brian S. Morse

Printed Name

BRIAN S. MORSE

Agency or Address

Longs Peak Water District



Land Use

Courthouse Annex • 2045 13th Street • Boulder, Colorado 80302 • Tel: 303.441.3930 • Fax: 303.441.4856
Mailing Address: P.O. Box 471 • Boulder, Colorado 80306 • www.bouldercounty.org

Docket Z-19-0001: Zoning Map Amendments to the Floodplain Overlay District

Staff Leads: Kelly Watson, Floodplain Program Planner, Transportation Department
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If you have any questions, please contact floodplainmapscomment@bouldercounty.org.

Please return responses to the above email address by **November 7, 2019**. Late responses will be reviewed as the process permits.

☒ We have reviewed the proposal and have no conflicts.
☐ Letter is enclosed.

Signed Karen Behne

Printed Name Karen Behne

Agency or Address Niwot Sanitation District

November 6, 2019

Ms. Kelly Watson
Floodplain Program Planner
Boulder County Department of Transportation
2525 13th Street, Suite 203
Boulder, Colorado 80304

Dear Ms. Watson:

Please find comments from the Four Mile Watershed Coalition Board on Docket Z-19-0001 Zoning Map Amendments to the Floodplain Overlay District. Thank you for taking the time on October 25 to meet with members of the Coalition and further explain the purpose and intent of this docket. Your offices response to the Coalition's general and specific comments are appreciated.

COMMENTS

- 1) Since the 2013 flood event, Boulder County floodplain management staff and the Colorado Water Conservation Board (CWCB) undertook extensive data collection and modeling to provide accurate scientifically-based floodplain mapping. This work accounted for changes in the floodplain (largely due to the 2013 flood), updated elevation data, accurate flow calculations, and up-to-date modeling techniques. The floodplain team and CWCB were successful in defining criteria-based risk maps for the floodplain and floodway. The County's staff were also successful in communicating the accuracy and importance of implementing these updated maps. The floodplain management team conducted outreach through mailings, numerous community meetings, meeting with local groups (such as the Four Mile Watershed Coalition), as well as answering numerous questions on an individual basis. Staff consistently portrayed the CWCB maps as those to be reviewed by FEMA and then adopted as Boulder County's Regulatory Floodplain. We appreciate your explanation, during our October 25 meeting, that this process is still underway. However, the docket fails to acknowledge that there will be further changes to the floodplain mapping in approximately 2021. Please add language to the docket acknowledging that these additional floodplain map changes will also occur in the future.
- 2) The interactive webmap labeled "Preliminary and Regulatory Flood Risk Zones" shows the proposed changes for the subject docket. It is difficult to see the location of structures. Please update this map to better show structures by providing a darker line around them. Flood maps labeled "Official Regulatory Floodplain" already do this and it is very helpful. Also, please review these maps for structures that may no longer be present or those that were not included.

- 3) During our October 25 meeting, it was clarified that the appeals process for those who believe the CHAMP maps may have an error on their property will begin in Spring 2020. This time period may be confusing to some as these maps have yet to be approved by FEMA (and two years have passed since outreach on the CHAMP maps). Please clearly advise impacted residents (those either in the new or old floodplain) of this process well prior to the January meetings that will be held by floodplain staff.

Thank you again for taking the time to clarify this docket and the upcoming steps in the process of adapting the CHAMP maps. The Four Mile Watershed Coalition looks forward to supporting your outreach in our community. Please feel free to contact Maya MacHamer, Watershed Coordinator, at fourmilewatershed@gmail.com, or Brian Schuller, Coalition Board Vice-Chair, at bschuller@q.com.

Very Respectfully,

Four Mile Watershed Coalition



Right of Way & Permits

1123 West 3rd Avenue
Denver, Colorado 80223
Telephone: **303.571.3306**
Facsimile: 303. 571.3284
donna.l.george@xcelenergy.com

November 8, 2019

Boulder County Land Use
PO Box 471
Boulder, CO 80306

Attn: Kelly Watson

**Re: Zoning Map Amendments to the Floodplain Overlay District
Case # Z-19-0001**

Public Service Company of Colorado's (PSCo) Right of Way & Permits Referral Desk has reviewed the request for the **Zoning Map Amendments to the Floodplain Overlay District**. Please be advised that Public Service Company has existing natural gas and electric *transmission* and *distribution* facilities throughout the proposed rezone areas. Public Service Company has no objection to this proposed rezone, contingent upon PSCo's ability to maintain all existing rights and this amendment should not hinder our ability for future expansion, including all present and any future accommodations for natural gas transmission and electric transmission related facilities.

Donna George
Right of Way and Permits
Public Service Company of Colorado dba Xcel Energy
Office: 303-571-3306 – Email: donna.l.george@xcelenergy.com

Watson, Kelly

From: Doyle, Kevin <KDoyle@mbakerintl.com>
Sent: Friday, October 4, 2019 12:17 PM
To: bob@pinebrookwater.com
Cc: Watson, Kelly; Blum, Varda
Subject: RE: Reference Flood Plain Mapping

Resending to include Boulder County on this response

From: Doyle, Kevin
Sent: Friday, October 4, 2019 12:16 PM
To: 'bob@pinebrookwater.com' <bob@pinebrookwater.com>
Subject: Reference Flood Plain Mapping

Mr. de Haas,

Boulder County asked me to respond to your questions below. I can confirm that structures at 1903 and 1905 Linden are outside of the 100-yr floodplain on FEMA's Preliminary Flood Insurance Rate Maps (FIRMs) and supporting digital mapping files (DFIRM). I have attached a copy of FEMA's Preliminary FIRM panel that includes 1903 & 1905 Linden and the first screenshot below shows a zoomed in look at the two properties. The 100-yr floodplain is coincident with the floodway in this location and is very narrow (<20 ft wide). The structure at 1905 is within the 500-yr floodplain while the structure at 1903 is above the 500-yr floodplain.

Preliminary DFIRM: Cross hatched = floodway, beige = 500-yr floodplain (100-yr floodplain is coincident with the floodway boundary at this location)



The screenshot below shows the original floodplain mapping at 1903/1905 Linden before you provided additional information on the dam/reservoir to the CHAMP team. This information has been superseded by the Preliminary FIRMs and DFIRM.

Original (**superseded**) floodplain mapping: Cross hatched = floodway, blue = 100-yr, beige = 500-yr



After receiving your email, we noticed that there was an error in the information on Boulder County's Proposed Changes Flood Risk Viewer. The "Preliminary CHAMP Flood Risk Zones" layer has the correct information for Two Mile Canyon Creek, but the "Proposed Regulatory Flood Risk Zones" layer has the superseded (old) flood risk zones. Boulder County will update this with the correct information in the next couple of days. We would like to thank you for bringing this to Boulder County's attention

If you have any follow up questions or comments, please let me know.

Thanks
Kevin

Kevin Doyle | Water Resources Group Manager
165 South Union Boulevard, Suite 1000 | Lakewood (Denver), CO 80228 | [O] 720-514-1102
kdoyle@mbakerintl.com | www.MBakerintl.com





From: ROBERT DE HAAS <bob@pinebrookwater.com>
Sent: Thursday, October 3, 2019 2:54 PM
To: !floodplainmapscomment <floodplainmapscomment@bouldercounty.org>
Subject: Reference Flood Plain Mapping

Kelly,

I am trying to determine what your mapping is showing as it relates to 1905 and 1903 Linden Drive (both properties owned by the Pine Brook Water District.

It appears to me that it is placing 1905 Linden in either the 100 year flood plain or the 100 year flood way (not sure which), as I right? I think that you have 1903 Linden outside of either those limits, again am I right?

We went thru this whole discussion back during the preliminary mapping and they kept trying to put our buildings in the flood plain/way and we noted two things/ 1 - that the 2013 flood which was in excess of a 100 flood didn't touch either building or even overtop on to the driveways, 2 - that it appeared that they forgot to include the flood storage in our reservoir and once they did they agreed that we were NOT in either designation. We would be in the 500 year flood plain/way though.

Thanks,

Robert de Haas, Manager

Pine Brook Water District

303-443-5394

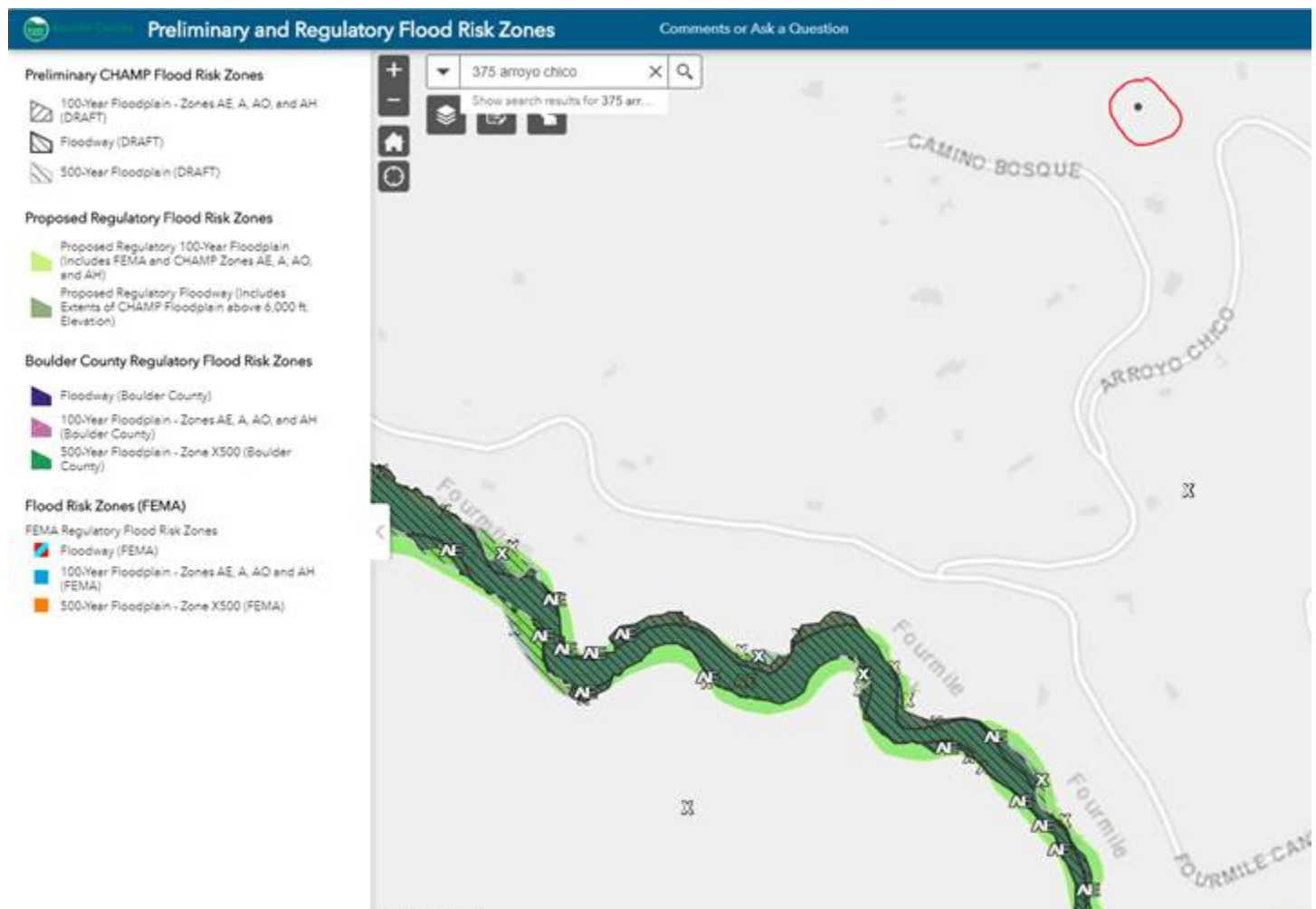
Watson, Kelly

From: !floodplainmapscomment
Sent: Thursday, October 10, 2019 8:02 AM
To: Brian Lehman
Subject: RE: [Four Mile Canyon] Referral packet for Docket Z-19-0001: Zoning Map Amendments to the Floodplain Overlay District

Hello Mr. Lehman,

No, the food zone for 375 Arroyo Chico will not change with this zoning docket. As you can see in the screenshot below, this property is well outside the floodplain. The property will continue to be located in FEMA and Boulder County Zone X (i.e. above than the elevation of the 100-year flood).

Let me know if you have further questions.



Best,

Kelly Watson

Floodplain Program Planner
Boulder County | Transportation Department

From: Brian Lehman <the.lehman.report@gmail.com>

Sent: Wednesday, October 9, 2019 2:04 PM

To: !floodplainmapscomment <floodplainmapscomment@bouldercounty.org>

Subject: Fwd: [Four Mile Canyon] Referral packet for Docket Z-19-0001: Zoning Map Amendments to the Floodplain Overlay District

Hi Kelly,

Does this change the flood zone status at 375 Arroyo Chico?

----- Forwarded message -----

From: **Grace Miller** <jgracemiller@msn.com>

Date: Wed, Oct 9, 2019 at 12:48 PM

Subject: [Four Mile Canyon] Referral packet for Docket Z-19-0001: Zoning Map Amendments to the Floodplain Overlay District

To: bouldermtntcontact@gmail.com <bouldermtntcontact@gmail.com>

Folks,

See information below, if you are interested in providing responses for feedback on this subject.

Folks,

Please find attached the electronic Referral packet for ***Docket Z-19-0001: Zoning Map Amendments to the Floodplain Overlay District***. Feel free to forward along to any other interested parties.

Please return responses and direct any questions to [Kelly Watson](#) by **November 7, 2019**.

Best Regards,

Anna

Anna Milner

Admin. Lead Tech. | Planning Division

Boulder County Land Use Dept. | PO Box 471 | Boulder, CO 80306

(720) 564-2638 (Direct) | (303) 441-4856 (Fax)

amilner@bouldercounty.org

www.bouldercounty.org



Boulder County
C o l o r a d o

Thanks,

J. Grace Miller

720-244-6712; jgracemiller@msn.com

--

You received this message because you are subscribed to the Google Groups "Four Mile Canyon" group. To unsubscribe from this group and stop receiving emails from it, send an email to four-mile-canyon+unsubscribe@googlegroups.com.

To view this discussion on the web visit <https://groups.google.com/d/msgid/four-mile-canyon/CY4PR01MB3205E9C21242862E43F190CACE950%40CY4PR01MB3205.prod.exchangelabs.com>.

--

Brian Lehman | Data Scientist | 720.443.2462 | @BrianLehman

--

Brian Lehman | Data Scientist | 720.443.2462 | @BrianLehman

Watson, Kelly

From: Watson, Kelly
Sent: Monday, October 21, 2019 1:49 PM
To: K Magill
Cc: Marty
Subject: RE: Correction of error on Official Regulatory Floodplain Map
Attachments: 5938 Heather Way BC+Prelim floodplain.PNG; 5938 Heather Way FEMA effective floodplain.PNG

Hello Kim,

Thank you for following up on your question. First, I should explain a bit about the “Inundated Areas of the 2013 Flood” layer that you are looking at on the county’s Official Regulatory Floodplain map. My understanding is that this layer was put together fairly quickly after the 2013 flood, mostly based on aerial imagery. However, this layer was NOT used for any modeling or hydraulic analysis, and it is not used for regulatory purposes. We post it online for informational purposes only.

As you can see in the attached screenshots, your house is currently in FEMA flood zone AE, 100-year floodplain. However, the CHAMP mapping that occurred after the 2013 flood, and which is reflected in the Preliminary FIRMs and current Boulder County floodplain, has mapped your house mostly *outside* of the regulatory floodplain—in Zone X, 500-year floodplain. Once FEMA adopts the Preliminary FIRMs as effective FIRMs (likely in 2021, pending any appeals), your house could potentially be completely outside the regulatory floodplain and floodway.

I understand it is disconcerting when our maps are not accurate, and I thank you for bringing this to my attention. I will ask our IT folks to add a disclaimer and/or explanation for the “Inundated Areas” layer.

Let me know if you have further questions.

Best,

Kelly Watson

Floodplain Program Planner
Boulder County | Transportation Department
720-564-2652 | 2525 13th Street, Suite 203 | Boulder, CO 80304
kwatson@bouldercounty.org

From: K Magill <kmagillco@yahoo.com>
Sent: Thursday, October 17, 2019 2:59 PM
To: Watson, Kelly <kwatson@bouldercounty.org>
Cc: Ifloodplainmapscomment <floodplainmapscomment@bouldercounty.org>; Marty <marty.magill@wheelabratorgroup.com>
Subject: Fw: Correction of error on Official Regulatory Floodplain Map

Hi Kelly,

I just received the email from Boulder County pertaining to the Preliminary Flood Insurance Rate Maps (FIRMSs). I reviewed the links provided in that email and the issue I raised back on May 29th

to Mr. Reinhardt (pls see below) has not been addressed according to what I can tell by the Preliminary FIRMs.

To confirm, our home (5938 Heather Way) was not impacted by the 2013 flood. The water did not touch our home and we did not incur any damage.

My question then is who do I speak with to have this information changed? How do I go about this request and what information can I provide? I would be happy to invite a member of your department out here to survey our lot. I can provide testimonials from adjoining neighbors, home insurance records and/or photos in support of my claim.

I am trying to be proactive in this matter and appreciate any assistance you can provide.

Thank you for your time,
Kim Magill

----- Forwarded Message -----

From: K Magill <kmagillco@yahoo.com>

To: FloodplainMapsComment@bouldercounty.org <FloodplainMapsComment@bouldercounty.org>

Cc: Marty Magill <marty.magill@wheelabratorgroup.com>

Sent: Wednesday, May 29, 2019, 09:13:57 AM MDT

Subject: Correction of error on Official Regulatory Floodplain Map

Good Morning Mr Reinhardt,

I realize you are the specialist for regulatory flood hazards and maybe not the correct person to contact regarding this issue. However, If this isn't your area, if you could please forward to the right person and "cc" me that would be greatly appreciated.

I just received the postcard in the mail from Boulder County regarding our property and the flood map. I'm still reviewing the flood map information, but the 1st issue I have is on the "inundated areas impacted by the 2013 flood."

Mr Reinhardt, as I view my property, 5938 Heather Way, on your Official Regulatory Floodplain map there is a noticeable error in the "inundated" areas, the flood is shown as tracking across our property covering the majority of our home. Our home was not touched by the 2013 flood, nor did the river impact our neighbor's home to our east (5956 Heather Way). Please see attached screenshot with a more corrected flow below.

Thank you so much for assisting me with this correction,
Kim Magill
5938 Heather Way

Watson, Kelly

From: Watson, Kelly
Sent: Tuesday, October 22, 2019 2:33 PM
To: jamestfay@comcast.net
Cc: Floodplain Admin
Subject: 6472 Robin Dr - floodplain map comment
Attachments: 2019-10-22_ 6472RobinDr_Prelim+BC_Floodplain.PNG; 2019-10-22_ 6472RobinDr_Prelim+FEMA_Floodplain.PNG

Hello Mr. Fay,

Thanks for your question. The Floodplain Overlay District is made up of both Boulder County Floodplain and the effective FEMA FIRMs. While Boulder County is in the process of adopting the Preliminary FIRMs, which are based on the CHAMP remapping effort, as Boulder County Floodplain, FEMA will not make the Preliminary FIRMs effective until at least 2021. Therefore, the county must continue regulating to the “old” FEMA maps, as well as the new CHAMP data. As a result, the green “Proposed Regulatory” layer is an amalgamation of both the Preliminary FIRMs and the FEMA effective FIRMs.

I have attached a couple screenshots that hopefully make this clearer. The “Prelim+BC_Floodplain” file shows that the Preliminary FIRMs are no different from the existing Boulder County floodplain on your property. However, since your house is in the 100-year floodplain on the FEMA effective map (see “Prelim+FEMA_Floodplain”), it shows up as light green in the “Proposed Regulatory 100-Year Floodplain (Includes FEMA and CHAMP Zones AE, A, AO, and AH)” layer.


In other words, there are no upcoming regulatory floodplain changes on your property. Only when FEMA adopts the Preliminary FIRMs as effective FIRMs will your house be in Zone X for both the FEMA and Boulder County floodplains.

I hope that makes sense. The maps are a bit confusing just now because Boulder County and FEMA are adopting the Preliminary FIRMs at different times. Let me know if you have further questions.

Best,

Kelly Watson

Floodplain Program Planner
Boulder County | Transportation Department
720-564-2652 | 2525 13th Street, Suite 203 | Boulder, CO 80304
kwatson@bouldercounty.org

Name	James Fay
Email	jamestfay@comcast.net
Address	 6472 Robin Dr. Longmont, CO 80503 United States

Location of area you are commenting on if not the address provided Robin Drive

Comment or question *

Shouldn't the light green area noted as "Proposed Regulatory 100-Year Floodplain (Includes FEMA and CHAMP Zones AE, A, AO, and AH). Be corrected to exclude "100-Year" as it also includes zone X (500 year)? This is confusing as my house appears to be in both the 100 year floodplain as well as Zone X.

Watson, Kelly

From: !floodplainmapscomment
Sent: Monday, October 21, 2019 3:01 PM
To: Bill Ellis
Subject: RE: question regarding floodplain maps

Hello Mr. Ellis,

There are a couple of topographic basemaps available in the online web viewer. In the upper right corner of the map, the button with four squares allows you to choose the basemap.



As with all of the available basemaps, the topographic maps are generic maps provided by our online mapping program. They are not the topographic maps that were used to develop the floodplain mapping. However, I hope you find them useful in viewing the updated floodplains.

Let me know if you have further questions.

Best,

Kelly Watson

Floodplain Program Planner
Boulder County | Transportation Department
720-564-2652 | 2525 13th Street, Suite 203 | Boulder, CO 80304
kwatson@bouldercounty.org

-----Original Message-----

From: Bill Ellis <wlellis@comcast.net>
Sent: Sunday, October 20, 2019 4:24 PM
To: !floodplainmapscomment <floodplainmapscomment@bouldercounty.org>
Subject: question regarding floodplain maps

I am wondering why the floodplain maps are not shown on a topographic base map. Having topographic contours would be very helpful in evaluating the maps.

Bill Ellis

Watson, Kelly

From: Watson, Kelly
Sent: Thursday, October 24, 2019 7:40 AM
To: Asa Firestone
Subject: RE: Flood Remapping in Fourmile Canyon
Attachments: FEMA floodplain_91FMCD_2019-10-24.PNG; BoCo+Prelim floodplain_91FMCD_2019-10-24.PNG

Hello Asa,

Thanks for your email. You can sign up for the newsletter by visiting <https://www.bouldercounty.org/transportation/floodplain-mapping/stay-informed/> and clicking the link under "Email Listservs." Any public hearings will also be posted on that page when they are confirmed.

I have attached a couple screenshots from our online floodplain map review platform (www.boco.org/FloodplainMapUpdate).

- The "FEMA" file shows the FEMA floodplain on your property. This was the existing regulatory floodplain before the 2013 flood, based on flood studies from the 1980s.
- The "BoCo+Prelim" file shows the current Boulder County regulatory floodplain and floodway in purple (green is 500-year floodplain, which is not used for regulatory purposes). This floodplain/floodway reflects the draft CHAMP maps that were adopted by the county in 2017 and 2018. As you can see, the CHAMP remapping did decrease the width of the floodplain on your property.
- The CHAMP team submitted the draft maps to FEMA, which has now produced Preliminary Flood Insurance Rate Maps (FIRMs). These Preliminary FIRMs have some small differences compared to the current Boulder County floodplain/floodway, which I have circled in red in the "BoCo+Prelim" file.

Until FEMA adopts the Preliminary FIRMs as final FIRMs (in 2021 or later), the county must continue regulating to the "old" effective FEMA maps, in addition to any locally-adopted Boulder County floodplain/floodway. This is why the "Proposed Regulatory" layer on the web map (light and dark green) is the sum of the FEMA flood risk zones and the Preliminary CHAMP flood risk zones.

I hope this email has addressed your questions. I understand the maps are confusing just now because Boulder County is adopting the CHAMP mapping before FEMA. Let me know if you have further questions.

Best,

Kelly Watson

Floodplain Program Planner
Boulder County | Transportation Department
720-564-2652 | 2525 13th Street, Suite 203 | Boulder, CO 80304
kwatson@bouldercounty.org

From: Asa Firestone <asa@a-lodge.com>
Sent: Monday, October 21, 2019 12:22 PM
To: Watson, Kelly <kwatson@bouldercounty.org>
Subject: Flood Remapping in Fourmile Canyon

Dear Ms. Watson,

My name is Asa Firestone, I am the owner of the Boulder Adventure Lodge at 91 Fourmile Canyon Dr. I wanted to check in on the status of the new flood plain mapping in Fourmile Canyon and discuss the method as to how this new map was developed. I also wanted to know how to sign up for your newsletter and when the next public hearing would be?

Upon purchasing our property five years ago, we were told that the new map would almost certainly bring our buildings out of the flood plan, after all they didn't flood during the 2013 100 year flood. I wonder if the new map reflects this? As I heard it actually is moving more land into the flood zone, land that did not flood in 2013.

Would certainly be interested in learning more about this and how it may affect our community as well as our business.

Thanks,

-Asa

--

Asa Firestone
CEO & Co-Founder
Boulder Adventure Lodge
A-Lodge.com
(o) 303.444.0882
(m) 720.204.0011



There is no better metaphor for life than climbing mountains

-Gil Weiss

Watson, Kelly

From: !floodplainmapscomment
Sent: Thursday, October 31, 2019 9:09 AM
To: Mark Hoge
Subject: RE: FW: [four-mile-fire-department] Referral packet for Docket Z-19-0001: Zoning Map Amendments to the Floodplain Overlay District

Hello Mark,

Thank you for your comment. Unfortunately, the "old" FEMA maps are still the effective FEMA maps, and we are required to continue regulating to the effective FEMA Flood Insurance Rate Maps (FIRMs) until FEMA changes them. We expect FEMA will make the CHAMP maps effective in 2021. At that time, the old FEMA floodplain will go away.

In the meantime, I recognize that the floodplain maps are more complicated and confusing than usual. Let me know if you have any questions.

Best,

Kelly Watson

Floodplain Program Planner
Boulder County | Transportation Department
720-564-2652 | 2525 13th Street, Suite 203 | Boulder, CO 80304
kwatson@bouldercounty.org

From: Mark Hoge <markhoge@gmail.com>
Sent: Tuesday, October 29, 2019 4:37 PM
To: !floodplainmapscomment <floodplainmapscomment@bouldercounty.org>
Subject: Fwd: FW: [four-mile-fire-department] Referral packet for Docket Z-19-0001: Zoning Map Amendments to the Floodplain Overlay District

Hello Kelly,

I'm 100% for keeping the "CHAMP" floodplain maps. They were done well and are reasonable. They were also done with community input.

I'm against reverting to the old FEMA maps, as they were created with inaccurate data and techniques over 35 years ago!

Sincerely,
Mark Hoge
6231 Fourmile Canyon Drive,
Boulder CO 80302

From: four-mile-fire-department@googlegroups.com <four-mile-fire-department@googlegroups.com> **On Behalf Of** Grace Miller
Sent: Wednesday, October 9, 2019 1:48 PM
To: bouldermtncontact@gmail.com
Subject: [four-mile-fire-department] Referral packet for Docket Z-19-0001: Zoning Map Amendments to the Floodplain Overlay District

Folks,

See information below, if you are interested in providing responses for feedback on this subject.

Folks,

Please find attached the electronic Referral packet for ***Docket Z-19-0001: Zoning Map Amendments to the Floodplain Overlay District***. Feel free to forward along to any other interested parties.

Please return responses and direct any questions to [Kelly Watson](#) by **November 7, 2019**.

Best Regards,

Anna

Anna Milner

Admin. Lead Tech. | Planning Division

Boulder County Land Use Dept. | PO Box 471 | Boulder, CO 80306

(720) 564-2638 (Direct) | (303) 441-4856 (Fax)

amilner@bouldercounty.org

www.bouldercounty.org



Thanks,

J. Grace Miller

720-244-6712; jgracemiller@msn.com

--

You received this message because you are subscribed to the Google Groups "Four Mile Fire Department" group. To unsubscribe from this group and stop receiving emails from it, send an email to four-mile-fire-department+unsubscribe@googlegroups.com.

To view this discussion on the web visit <https://groups.google.com/d/msgid/four-mile-fire-department/CY4PR01MB3205E9C21242862E43F190CACE950%40CY4PR01MB3205.prod.exchangelabs.com>.

--

Mark Hoge
c 720-280-3579

6231 Fourmile Canyon Drive
Boulder, CO 80302

=====
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Watson, Kelly

From: Mary Jane Howell <maryjanehowell@msn.com>
Sent: Friday, November 8, 2019 12:11 PM
To: Watson, Kelly
Cc: !floodplainmapscomment
Subject: Re: 1896 Apple Valley Rd - Floodplain Remapping Program comments

Thank you Kelly for responding so very quickly. I think I now understand the very complex information included in the website map. I appreciate your giving me a timeline for when this will be completed by FEMA. And I'm glad it is progressing towards the more accurate representation. I appreciate your help.

Mary Jane

From: Watson, Kelly <kwatson@bouldercounty.org>
Sent: Friday, November 8, 2019 11:54:22 AM
To: maryjanehowell@msn.com <maryjanehowell@msn.com>
Cc: !floodplainmapscomment <floodplainmapscomment@bouldercounty.org>
Subject: 1896 Apple Valley Rd - Floodplain Remapping Program comments

Hello Ms. Howell,

Thank you for your comment. I have attached a couple of screenshots from our map review website that I hope clarify the proposed flood risk zones on your property.

Boulder County's Floodplain Overlay (FO) District is comprised of the effective FEMA Floodplain together with the Boulder County Floodplain. As you can see in the attached image titled "Effective FIRM," the effective FEMA Flood Insurance Rate Map (FIRM) shows your house inside the 100-year floodplain. This map was the existing regulatory floodplain before the 2013 flood.

Since the 2013 flood, the county, state, and FEMA have been working to update floodplain maps through the Colorado Hazard Mapping Program (CHAMP). The Boulder County Floodplain reflects draft CHAMP mapping. FEMA recently released Preliminary FIRMs also based on the CHAMP mapping. As you can see in the file titled "Prelim FIRM," the Preliminary FIRMs match the existing Boulder County Floodplain on your property. This updated mapping places parts of your property in the 100-year floodplain, but the house appears to be outside the 100-year floodplain.

Although Boulder County is locally adopting the CHAMP maps now, the FEMA process takes a little longer. We expect the CHAMP maps to become the effective FEMA FIRMs in 2021, pending any appeals submitted to FEMA. At that time, your house will likely be will outside of the regulatory floodplain. Until then, the county must continue regulating both the effective FEMA Floodplain and the locally-adopted Boulder County Floodplain. For this reason, the "Proposed Regulatory Flood Risk Zones" layer online (light and dark green) shows your house inside the 100-year floodplain.


I understand the maps are confusing just now because Boulder County is adopting the CHAMP mapping before FEMA. I hope this email has addressed your comment. Let me know if you have further questions.

Best,

Kelly Watson

Floodplain Program Planner
Boulder County | Transportation Department

From: Wufoo
Sent: Friday, November 8, 2019 10:27 AM
To: !floodplainmapscomment <floodplainmapscomment@bouldercounty.org>
Cc: Barth, Andrew <abarth@bouldercounty.org>
Subject: Floodplain Remapping Program comments

Name	Mary J Howell
Email	maryjanehowell@msn.com
Address	 1896 Apple Valley Road Lyons, CO 80540
Location of area you are commenting on if not the address provided	1896 Apple Valley Road
Comment or question *	<p>I disagree with the proposed 100 year flood designation on my property. The property is sloped and the house, which is now shown in the proposed 100 year flood designation, was well above the high water line during the 2013 flood. There was no flooding then and the house should be clearly shown as outside the 500 year flood line as well.</p> <p>Kindly correct this and let me know when it has been done.</p> <p>Thank you, Mary Jane Howell</p>

Watson, Kelly

From: !floodplainmapscomment
Sent: Tuesday, November 12, 2019 11:25 AM
To: wrightd@gmail.com
Subject: RE: Floodplain Remapping Program comments
Attachments: Effective FIRM 270 Cactus Ct 2019-11-12.PNG; Prelim FIRM 270 Cactus Ct 2019-11-12.PNG

Hello Mr. Wright,

Thank you for your comment. I have attached a couple of screenshots from our map review website that I hope clarify the proposed flood risk zones on your property. Please note that LOMAs remove specific structures from the 100-year floodplain, but they do not change the mapping that you see on FEMA's or Boulder County's websites. The LOMA document we have on file for 11-08-0607A matches your address (270 Cactus Court).

Boulder County's Floodplain Overlay (FO) District is comprised of the effective FEMA Floodplain together with the Boulder County Floodplain. As you can see in the attached image titled "Effective FIRM," the effective FEMA Flood Insurance Rate Map (FIRM) shows your house just inside the 100-year floodplain (but the LOMA confirms that your house is in fact above FEMA's Base Flood Elevation in this area). This map was the existing regulatory floodplain before the 2013 flood.

Since the 2013 flood, the county, state, and FEMA have been working to update floodplain maps through the Colorado Hazard Mapping Program (CHAMP). The Boulder County Floodplain reflects draft CHAMP mapping. FEMA recently released Preliminary FIRMs also based on the CHAMP mapping. As you can see in the file titled "Prelim FIRM," the Preliminary FIRMs are very similar to the existing Boulder County Floodplain on your property. This updated mapping places parts of your property in the 100-year floodplain and the floodway, but the house appears to be outside the 100-year floodplain.

Although Boulder County is locally adopting the CHAMP maps now, the FEMA process takes a little longer. We expect FEMA to update their effective FIRMs with the CHAMP mapping in 2021, pending any appeals submitted to FEMA. At that time, your house will likely be mapped outside of the regulatory floodplain. Until then, the county must continue regulating development in both the effective FEMA Floodplain and the locally-adopted Boulder County Floodplain. For this reason, the "Proposed Regulatory Flood Risk Zones" layer online (light and dark green) maps your entire property inside the 100-year floodplain (but again, LOMAs are not reflected in the flood risk maps).

I understand the maps are confusing just now because Boulder County is adopting the CHAMP mapping before FEMA. I hope this email has addressed your comment. Let me know if you have further questions.

Best,

Kelly Watson

Floodplain Program Planner
Boulder County | Transportation Department
720-564-2652 | 2525 13th Street, Suite 203 | Boulder, CO 80304
kwatson@bouldercounty.org


From: Wufoo

Sent: Friday, November 8, 2019 2:25 PM

To: !floodplainmapscomment <floodplainmapscomment@bouldercounty.org>

Cc: Barth, Andrew <abarth@bouldercounty.org>

Subject: Floodplain Remapping Program comments

Name	David Wright
Email	wrightd@gmail.com
Address	 270 cactus ct. Boulder, CO 80304 United States

Comment or question *

We have a LOMA for our property which appear to be shown on the wrong parcel. The LOMA is 11-08-0607A and is currently shown on parcel 146124206015.

It should apply to parcel 146124206003.

The LOMA removes our entire house structure from the flood map, however the proposed 100 year floodplain would appear to include the house.

Watson, Kelly

From: !floodplainmapscomment
Sent: Tuesday, November 12, 2019 10:50 AM
To: era@pobox.com; mtbera@gmail.com
Cc: Jacqueline Arnold
Subject: RE: recent mailing regarding floodplain remapping
Attachments: Effective FIRM 225 Linden Dr 2019-11-12.PNG; Prelim FIRM 225 Linden Dr 2019-11-12.PNG

Hello Mr. Arnold,

Thank you for your message. I have attached a couple of screenshots from our map review website that I hope clarify the proposed flood risk zones on your property.

Boulder County's Floodplain Overlay (FO) District is comprised of the effective FEMA Floodplain together with the Boulder County Floodplain. As you can see in the attached image titled "Effective FIRM," the effective FEMA Flood Insurance Rate Map (FIRM) shows your house just inside the 100-year floodplain. This map was the existing regulatory floodplain before the 2013 flood.

Since the 2013 flood, the county, state, and FEMA have been working to update floodplain maps through the Colorado Hazard Mapping Program (CHAMP). The Boulder County Floodplain reflects draft CHAMP mapping. FEMA recently released Preliminary FIRMs also based on the CHAMP mapping. As you can see in the file titled "Prelim FIRM," the Preliminary FIRMs are very similar to the existing Boulder County Floodplain on your property. This updated mapping places parts of your property in the 100-year floodplain and the floodway, but the house appears to be outside the 100-year floodplain.

Although Boulder County is locally adopting the CHAMP maps now, the FEMA process takes a little longer. We expect FEMA to update their effective FIRMs with the CHAMP mapping in 2021, pending any appeals submitted to FEMA. At that time, your house will likely be outside of the regulatory floodplain. Until then, the county must continue regulating development in both the effective FEMA Floodplain and the locally-adopted Boulder County Floodplain. For this reason, the "Proposed Regulatory Flood Risk Zones" layer online (light and dark green) shows your house inside the 100-year floodplain.

In terms of flood insurance, FEMA requires homes in the 100-year floodplain with loans from federally-regulated lenders to have flood insurance. And we always recommend that property owners consider buying flood insurance, even if they are not in the regulatory floodplain. I would direct you to an insurance agent for any specific rate questions.

I understand the maps are confusing just now because Boulder County is adopting the CHAMP mapping before FEMA. I hope this email has addressed your comment. Let me know if you have further questions.

Best,

Kelly Watson
Floodplain Program Planner
Boulder County | Transportation Department
720-564-2652 | 2525 13th Street, Suite 203 | Boulder, CO 80304 kwatson@bouldercounty.org

-----Original Message-----

From: Edward Arnold <mtbera@gmail.com>

Sent: Sunday, November 10, 2019 3:08 PM

To: !floodplainmapscomment <floodplainmapscomment@bouldercounty.org>

Cc: Jacqueline Arnold <JacqArnold@gmail.com>

Subject: recent mailing regarding floodplain remapping

I need further information about the floodplain remapping activity that is going on.

My property is at 225 Linden Drive. Last year, I was told that my house was considered to be out of the 100-year floodplain and, for that reason, I dropped insurance. Now, the diagram at boco.org/FloodplainMapUpdate appears to show that the northwest corner of my house is back in the 100-year floodplain.

Is that what you conclude from looking at the map? If so, when will this change back to the NW corner of my house being "officially" in the floodplain, be effective?

Thank you for your assistance.

Edward R. Arnold * 225 Linden Drive * Boulder, CO 80304 * USA era [at] pobox [dot] com * 303.442.2133 *
720.539.4083 text/vm

Watson, Kelly

From: Laura Dickson <dclaura13@me.com>
Sent: Tuesday, November 12, 2019 1:45 PM
To: Watson, Kelly
Subject: Re: 6536 Robin Dr - Preliminary FIRM mapping

Thank you so very much, Kelly!

Best,

Laura

Sent from my iPhone
303-818-3374

On Nov 12, 2019, at 1:34 PM, Watson, Kelly <kwatson@bouldercounty.org> wrote:

Hello Laura,

Following up on our phone conversation, I have attached a couple of screenshots from our map review website that I hope clarify the proposed flood risk zones on your property.

As you know, Boulder County's Floodplain Overlay (FO) District is comprised of the effective FEMA Floodplain together with the Boulder County Floodplain. As you can see in the attached image titled "Effective FIRM," the effective FEMA Flood Insurance Rate Map (FIRM) shows your house in the 100-year floodplain. This map was the existing regulatory floodplain before the 2013 flood. Since the 2013 flood, the county, state, and FEMA have been working to update floodplain maps through the Colorado Hazard Mapping Program (CHAMP). The Boulder County Floodplain reflects draft CHAMP mapping. FEMA recently released Preliminary FIRMs also based on the CHAMP mapping. As you can see in the file titled "Prelim FIRM," the Preliminary FIRMs are the same as the existing Boulder County Floodplain on your property. This updated mapping places parts of your property in the 500-year and 100-year floodplain, but the house appears to be outside all mapped floodplains. Although Boulder County is locally adopting the CHAMP maps now, the FEMA process takes a little longer. We expect FEMA to update their effective FIRMs with the CHAMP mapping in 2021, pending any appeals submitted to FEMA. At that time, your house will likely be outside of the regulatory floodplain. Until then, the county must continue regulating development in both the effective FEMA Floodplain and the locally-adopted Boulder County Floodplain. For this reason, the "Proposed Regulatory Flood Risk Zones" layer online (light and dark green) shows your house inside the 100-year floodplain.

I understand the maps are confusing just now because Boulder County is adopting the CHAMP mapping before FEMA. I hope this email has addressed your concerns. Let me know if you have further questions, and please watch our website www.BoCoFloodplainRemapping.com for information about upcoming public meetings in January related to the FEMA process going forward.

Best,

Kelly Watson

Floodplain Program Planner
Boulder County | Transportation Department
720-564-2652 | 2525 13th Street, Suite 203 | Boulder, CO 80304
kwatson@bouldercounty.org

<Effective FIRM 6536 Robin Dr 2019-11-12.PNG>

<Prelim FIRM 6536 Robin Dr 2019-11-12.PNG>

Watson, Kelly

From: Valentine, Christopher <christopher.a.valentine@medtronic.com>
Sent: Tuesday, November 12, 2019 2:15 PM
To: Watson, Kelly
Subject: RE: 7945 N 41st St - Preliminary FIRM mapping

Hi Kelly,

Thanks so much for taking the time to review this with me.

Regards,
Chris Valentine

From: Watson, Kelly <kwatson@bouldercounty.org>
Sent: Tuesday, November 12, 2019 2:05 PM
To: Valentine, Christopher <christopher.a.valentine@medtronic.com>
Subject: [EXTERNAL] 7945 N 41st St - Preliminary FIRM mapping

Hello Chris,

Following up on our phone conversation, I have attached a couple of screenshots from our map review website that I hope clarify the proposed flood risk zones on your property.

As you know, Boulder County's Floodplain Overlay (FO) District is comprised of the effective FEMA Floodplain together with the Boulder County Floodplain. As you can see in the attached image titled "Effective FIRM," the effective FEMA Flood Insurance Rate Map (FIRM) shows your house in the 100-year floodplain. This map was the existing regulatory floodplain before the 2013 flood.

Since the 2013 flood, the county, state, and FEMA have been working to update floodplain maps through the Colorado Hazard Mapping Program (CHAMP). The Boulder County Floodplain reflects draft CHAMP mapping. FEMA recently released Preliminary FIRMs also based on the CHAMP mapping. As you can see in the file titled "Prelim FIRM," the Preliminary FIRMs are very similar to the existing Boulder County Floodplain on your property, except for a few slivers I circled in red. This updated mapping places large parts of your property in the 500-year floodplain.

Although Boulder County is locally adopting the CHAMP maps now, the FEMA process takes a little longer. We expect FEMA to update their effective FIRMs with the CHAMP mapping in 2021, pending any appeals submitted to FEMA. At that time, only one corner of your house will potentially be in the regulatory (100-year) floodplain. Until then, the county must continue regulating development in both the effective FEMA Floodplain and the locally-adopted Boulder County Floodplain. For this reason, the "Proposed Regulatory Flood Risk Zones" layer online (light and dark green) shows your house inside the 100-year floodplain.

I understand the maps are confusing just now because Boulder County is adopting the CHAMP mapping before FEMA. I hope this email has addressed your concerns. Let me know if you have further questions.

Also, if you do plan on attending the hearing on November 20th, please check the Planning Commission agenda online (www.boco.org/z-19-0001). Unfortunately, the floodplain docket is the last item on the agenda. I expect the Commission will not start discussing our item until at least 3:00 PM.

Best,

Kelly Watson

Floodplain Program Planner

Boulder County | Transportation Department

720-564-2652 | 2525 13th Street, Suite 203 | Boulder, CO 80304

kwatson@bouldercounty.org

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Watson, Kelly

From: Watson, Kelly
Sent: Tuesday, November 12, 2019 2:56 PM
To: Don Metzner
Subject: RE: Mapping & Modeling at 22317 S St Vrain Dr
Attachments: Prelim FIRM_22317 S St Vrain Dr_2019-11-12.PNG; Effective FIRM_22317 S St Vrain Dr_2019-11-12.PNG

Hello Mr. Metzner,

Thank you for your voicemail and email. I hope I can answer some of your questions about timing with this email, but feel free to call or email me with further questions. I have attached a couple of screenshots from our map review website that I hope clarify the proposed flood risk zones on your property.

As you know, Boulder County's Floodplain Overlay (FO) District is comprised of the effective FEMA Floodplain together with the Boulder County Floodplain. As you can see in the attached image titled "Effective FIRM," the effective FEMA Flood Insurance Rate Map (FIRM) shows your property outside of the regulatory floodplain. This map was the existing regulatory floodplain before the 2013 flood.

Since the 2013 flood, the county, state, and FEMA have been working to update floodplain maps through the Colorado Hazard Mapping Program (CHAMP). It looks like you discussed this remapping effort with Erin Cooper (who is no longer with the county). The Boulder County Floodplain reflects draft CHAMP mapping. FEMA recently released Preliminary FIRMs also based on the CHAMP mapping. As you can see in the file titled "Prelim FIRM," the Preliminary FIRMs match the existing Boulder County Floodplain on your property. This updated mapping places parts of your property in the 500-year floodplain, and a bit in the Floodway.

Although Boulder County is locally adopting the CHAMP maps now, the FEMA process takes a little longer. We expect FEMA to update their effective FIRMs with the CHAMP mapping in 2021, pending any appeals submitted to FEMA. At that time, the FEMA FIRM will match the CHAMP mapping. Until then, the county must continue regulating development in both the effective FEMA Floodplain and the locally-adopted Boulder County Floodplain. For this reason, the "Proposed Regulatory Flood Risk Zones" layer online (light and dark green) reflects both the effective FEMA FIRM and the Preliminary FIRM.

Let me know if you would like to discuss further.

Best,

Kelly Watson

Floodplain Program Planner
Boulder County | Transportation Department
720-564-2652 | 2525 13th Street, Suite 203 | Boulder, CO 80304
kwatson@bouldercounty.org

From: Don Metzner <dfmetzner@gmail.com>
Sent: Tuesday, November 12, 2019 11:10 AM

To: Watson, Kelly <kwatson@bouldercounty.org>
Subject: Fwd: Mapping & Modeling at 22317 S St Vrain Dr

Hello Kelly,

I just left you a voice message. This is the information I last received from the county. I have some follow up questions about technical details, such as surveying, regulations, and where the county is in the process of the remapping and FEMA, etc.

Thank you,
Don Metzner

----- Forwarded message -----

From: Cooper, Erin S. <escooper@bouldercounty.org>
Date: Fri, Jun 16, 2017 at 2:40 PM
Subject: Mapping & Modeling at 22317 S St Vrain Dr
To: dfmetzner@gmail.com <dfmetzner@gmail.com>

Hello Mr. Metzner,

Thanks for speaking with me last week about the mapping at your property and the surrounding area along the South St. Vrain. In response to your question about the changes that you see in the revised floodplain mapping, there are multiple components of the modeling used to create the maps that have influenced the changes you see.

First, the discharge (flow) rate that was used for the predicted “100-year” flow in previous maps was slightly lower than what the new models show. Essentially, the flow that is expected for a “100-year” flood event with the updated model is about 33% higher – an increase from 5,430 cfs to 7,230 cfs (cubic feet per second). This increased flow rate often results in a wider floodplain because we are modeling more water moving through the channel and surrounding floodplain.

Second, the topography of the entire floodplain and channel for the South St. Vrain is different than it was prior to the 2013 flood. As a result, the water itself moves differently through the system. The model shows how we expect it to move given the shape of the land, the location of development, and the impact of other infrastructure on water flow. According to the state engineer team leading the mapping, the culvert just upstream of your property (near 21921 South St. Vrain Dr.) was surveyed for this mapping as well as the bridge at the Ketchum property. The movement of water through these structures would have likely had some impact on the hydraulic model, causing the mapping to indicate where water may flow as a result. The topography of the curve in the river downstream of your home along with these structures potentially impacting the flow may be the cause for the additional flow over the road onto your property.

The image and PDF that I have attached are of the cross sections (color map image) on and near your property and the cross section profiles (PDF) that correspond to the numbered cross sections on the image. You can see on the profiles that there is a large green area of “ineffective flow” on the north side of the road that is an example of an expected backwater area if waters were to reach the 500-year, or 0.2% (‘0.2 PCT’) chance flood event, level. This is likely caused by something slowing or obstructing flow at the base of the curve in the river channel.

Finally, regarding the mapping at 23064 South St. Vrain Drive and the shifted FEMA floodplain in this area, the revised mapping more accurately shows the channel location and the expected location of the floodplain. However, we must regulate to any FEMA floodplain that is currently in place in addition to the Boulder County Floodplain (newly adopted mapping), and any development within that area must still meet the requirements of floodplain development per the [Boulder County Land Use Code Article 4-400](#).

Please let me know if you have further questions.

Sincerely,

Erin Cooper

Erin S. Cooper

Floodplain Specialist

Boulder County Transportation Dept.

720-564-2866 (office)

escooper@bouldercounty.org

Watson, Kelly

From: Watson, Kelly
Sent: Thursday, November 14, 2019 2:24 PM
To: Mary Dunn
Subject: RE: Floodplain Remapping--Public Hearing 11/20

Hello Mary,

We are preparing specific guidance for the appeals process that will be disseminated in the next month or so. Basically, the county will collect all comments and appeals received during the 90-day appeal period and then forward them all to FEMA. FEMA will not consider appeals received outside of the 90-day window.

The best way to receive the latest information on appeals would be to sign up for our [listserv](#). We are also planning a series of public meetings in mid- to late-January where FEMA, county, and state officials will be available to answer questions. The schedule for those meetings will be available on our website and listserv within the next few weeks.

I hope to see you at the public hearing next Wednesday!

Best,
Kelly

From: Mary Dunn <mary.liz.dunn@gmail.com>
Sent: Thursday, November 14, 2019 1:15 PM
To: Watson, Kelly <kwatson@bouldercounty.org>
Subject: Re: Floodplain Remapping--Public Hearing 11/20

Thank you Kelly for your clear and detailed reply. I will attend the hearing if nothing else to observe the proceedings and to see if there are others who are impacted by the new flood plain maps and what their plans are for next steps.

Do I need to sign up for the FEMA Appeals or am I already on the list? Is it possible to verify?
Also, is it worthwhile to send any analysis, mitigation reports, or other documentation to FEMA before the appeal process starts or is it preferred to just wait for the 90 day window in the Spring?

Thanks again for your help,
Mary

On Thu, Nov 14, 2019 at 7:32 AM Watson, Kelly <kwatson@bouldercounty.org> wrote:

Hello Mary,

Thank you for your voicemail and for following up with an email.

First, I have attached a couple of screenshots from our map review website that I hope clarify the proposed flood risk zones on your property.

1. Boulder County's Floodplain Overlay (FO) District is comprised of the effective FEMA Floodplain together with the Boulder County Floodplain. As you can see in the attached image titled "Effective FIRM," the effective FEMA Flood Insurance Rate Map (FIRM) shows your house in the 500-year floodplain (Zone X, not a regulatory floodplain), and other parts of your property in the 100-year floodplain (Zone AE). This map was the existing regulatory floodplain before the 2013 flood.
2. Since the 2013 flood, the county, state, and FEMA have been working to update floodplain maps through the Colorado Hazard Mapping Program (CHAMP), as I'm sure you know. The current Boulder County Floodplain reflects draft CHAMP mapping. FEMA recently released Preliminary FIRMs also based on the CHAMP mapping. As you can see in the file titled "Prelim FIRM," the Preliminary FIRMs are very similar to the existing Boulder County Floodplain on your property, except for a few slivers around the floodway boundary. This updated mapping places the house in the 100-year floodplain.

Although Boulder County is locally adopting the CHAMP maps now, the FEMA process takes a little longer. We expect FEMA to update their effective FIRMs with the CHAMP mapping in 2021, pending any appeals submitted to FEMA. At that time, the Boulder County and FEMA maps will match. Until then, the county must continue regulating development in both the effective FEMA Floodplain and the locally-adopted Boulder County Floodplain. For this reason, the "Proposed Regulatory Flood Risk Zones" layer online (light and dark green) is a composite of the Preliminary and effective FIRMs.

Regarding the Planning Commission hearing and your specific questions, please refer to the guidelines in the following document: <https://assets.bouldercounty.org/wp-content/uploads/2017/03/p53-guidelines-for-planning-commission-hearings.pdf>. Public testimony will be taken for the floodplain docket item, so residents will each have 3 minutes to speak.

Because Boulder County already adopted an earlier draft of the CHAMP mapping, the changes being considered in this zoning docket are really quite small. Most of the differences between the existing Boulder County floodplain and the Preliminary FIRMs being considered for adoption are due to smoothing of the floodplain boundaries that FEMA did. The purpose of this zoning docket is more to align the county maps with the future FEMA maps rather than a significant update to the floodplain mapping. All of this to say: you are welcome to provide testimony from experts to the Planning Commission. However, a better venue for those comments may be the 90-day FEMA appeal period, which we expect will begin in spring of 2020. The Preliminary FIRMs that Boulder County is adopting through this docket *will* become the final FEMA FIRMs unless an appeal is submitted to FEMA. We are planning much more outreach next year in advance of the appeal period, including public meetings around the county and additional information on the website.

Finally, if you do plan on attending the hearing on November 20th, please check the Planning Commission agenda online (www.boco.org/z-19-0001). Unfortunately, the floodplain docket is the last item on the agenda. I expect the Commission will not start discussing our item until at least 3:00 PM.

Feel free to call or email with additional questions.

Best,

Kelly Watson

Floodplain Program Planner

Boulder County | Transportation Department

720-564-2652 | 2525 13th Street, Suite 203 | Boulder, CO 80304

kwatson@bouldercounty.org

From: Mary Dunn <mary.liz.dunn@gmail.com>

Sent: Wednesday, November 13, 2019 2:53 PM

To: Watson, Kelly <kwatson@bouldercounty.org>

Subject: Floodplain Remapping--Public Hearing 11/20

Hello Kelly,

I left you a voicemail this afternoon regarding the Boulder County Floodplain Remapping. We live at 15789 N. 83rd St., Longmont, CO 80503. If I am reading the maps correctly, it appears as though our house will change from a designation of 500 year floodplain to 100 year floodplain.

We would like to understand the nature of the public input that will be permitted at the hearing. A few questions to help me prepare for next week:

1. Will there be time for each affected homeowner to speak?
2. Or, will the review be focused on regional flood remediation to save time?
3. Is it acceptable to bring flood mitigation experts to provide testimony to describe the work completed to date and the risk reduction associated with these efforts?
4. How much time will be allotted each speaker?

Thank you for your guidance.

Regards,

Mary Dunn

cell: 303-885-8955

Watson, Kelly

From: !floodplainmapscomment
Sent: Friday, November 15, 2019 2:54 PM
To: monica_mcguckin@yahoo.com
Subject: RE: Floodplain Remapping Program comments
Attachments: Effective FIRM 558 Apple Valley Rd 2019-11-15.PNG; Prelim FIRM 558 Apple Valley Rd 2019-11-15.PNG

Hello Monica,

Thank you for your comment. I have attached a couple of screenshots from our map review website that I hope clarify the proposed flood risk zones on your property.

1. Boulder County's Floodplain Overlay (FO) District is comprised of the effective FEMA Floodplain together with the Boulder County Floodplain. As you can see in the attached image titled "Effective FIRM," the effective FEMA Flood Insurance Rate Map (FIRM) shows your house outside of the 100-year floodplain, with two accessory structures inside the 100-year floodplain. This map was the existing regulatory floodplain before the 2013 flood.
2. Since the 2013 flood, the county, state, and FEMA have been working to update floodplain maps through the Colorado Hazard Mapping Program (CHAMP). The current Boulder County Floodplain reflects draft CHAMP mapping. FEMA recently released Preliminary FIRMs also based on the CHAMP mapping. As you can see in the file titled "Prelim FIRM," the Preliminary FIRMs exactly match the existing Boulder County Floodplain on your property. This updated mapping places your house in the 100-year floodplain and the accessory structures in the floodway.

Although Boulder County is locally adopting the CHAMP maps now, the FEMA process takes a little longer. We expect FEMA to update their effective FIRMs with the CHAMP mapping in 2021, pending any appeals submitted to FEMA. At that time, the Boulder County and FEMA maps will match. Until then, the county must continue regulating development in both the effective FEMA Floodplain and the locally-adopted Boulder County Floodplain.

Because Boulder County already adopted an earlier draft of the CHAMP mapping, the changes being considered in this zoning docket (and being discussed at the November 20th Planning Commission hearing) are really quite small. The purpose of this zoning docket is more to align the county maps with the future FEMA maps rather than make a significant update to the floodplain mapping. The Preliminary FIRMs that Boulder County is adopting through this docket *will* become the final FEMA FIRMs unless an appeal is submitted to FEMA. If you are interested in that appeal process, we are planning much more outreach next year in advance of FEMA's 90-day appeal period, including public meetings around the county in January and additional information on the website. All the latest information will be distributed through our [listserv](#).

Finally, if you do plan on attending the hearing on November 20th, please check the Planning Commission agenda online (www.boco.org/z-19-0001). Unfortunately, the floodplain docket is the last item on the agenda. I expect the Commission will not start discussing our item until at least 3:00 PM.

I hope this email has addressed your comment. Let me know if you have further questions.

Best,

Kelly Watson

Floodplain Program Planner
Boulder County | Transportation Department
720-564-2652 | 2525 13th Street, Suite 203 | Boulder, CO 80304


From: Wufoo

Sent: Friday, November 15, 2019 12:59 PM

To: !floodplainmapscomment <floodplainmapscomment@bouldercounty.org>

Cc: Barth, Andrew <abarth@bouldercounty.org>

Subject: Floodplain Remapping Program comments

Name	Monica McGuckin
Email	monica_mcguckin@yahoo.com
Address	 558 Apple Valley Rd Lyons, CO 80540 United States
Location of area you are commenting on if not the address provided	558 Apple Valley Road, Lyons
Comment or question *	<p>It appears that the proposed BOCO Floodplain encompasses our home whereas the FEMA boundaries did not. Are we looking at this correctly?</p> <p>Will questions be answered at the meeting on Nov 20?</p> <p>Should we set up an appointment to discuss this?</p> <p>Please reply to monica_mcguckin@yahoo.com</p> <p>Thank you,</p> <p>Monica & Ron McGuckin</p>

Watson, Kelly

From: Watson, Kelly
Sent: Wednesday, November 20, 2019 8:17 AM
To: Mark Schueneman
Subject: RE: Streamcrest appeals

Hello Mark,

I followed up with some colleagues regarding the LOMAs your neighborhood would like to submit. The timeline is actually much longer than I indicated in my previous e-mail. LOMAs are different than appeals, so you should not submit your group's LOMAs during FEMA's 90-day appeal period in the spring of 2020.

Rather, you should wait until FEMA has issued their "Letter of Final Determination," which we expect to happen in late 2020. This letter is issued exactly 6 months before the effective date for the new Flood Insurance Rate Maps (FIRMs). You should submit the LOMA applications at least 60 days before the FIRM effective date (but not more than 6 months before the effective date). This will allow FEMA time to review the group's LOMAs and have them go effective the day after the FIRM effective date, sometime in 2021. Of course, you will likely want to hire a surveyor well before you plan to submit the LOMAs.

Let me know if you have any questions or would like to discuss on the phone. I know FEMA's process can be confusing!

Best,
Kelly

From: Mark Schueneman <huffnpuff@q.com>
Sent: Monday, November 18, 2019 12:51 PM
To: Watson, Kelly <kwatson@bouldercounty.org>
Subject: Re: Streamcrest appeals

Thanks so much Kelly. I have passed this on to the appropriate neighbors who are interested. We will look forward to hearing from Boulder County as the FEMA appeals period approaches.

With Gratitude,
Mark Schueneman

From: "Watson, Kelly" <kwatson@bouldercounty.org>
To: "Mark Schueneman" <huffnpuff@q.com>
Sent: Monday, November 18, 2019 11:45:54 AM
Subject: Streamcrest appeals

Hello Mark,

I left you a voicemail earlier today, but wanted to follow-up in writing. Erin (who no longer works at the county) saved the attached email thread, which mentions discussions between the county, CWCB, and FEMA regarding "group

LOMAs;" I will have to follow-up on the outcome of those discussions. In the meantime, I hope the attached screenshots from our map review website and the information below clarify the process going forward.

As I am sure you know, Boulder County's Floodplain Overlay (FO) District is comprised of the effective FEMA Floodplain together with the Boulder County Floodplain. The attached image titled "Effective FIRM" shows the effective FEMA Flood Insurance Rate Map (FIRM) in the Streamcrest area. This map was the existing regulatory floodplain before the 2013 flood. Since the 2013 flood, the county, state, and FEMA have been working to update floodplain maps through the Colorado Hazard Mapping Program (CHAMP). The current Boulder County Floodplain reflects draft CHAMP mapping. FEMA recently released Preliminary FIRMs also based on the CHAMP mapping. As you can see in the file titled "Prelim FIRM," the Preliminary FIRMs exactly match the existing Boulder County Floodplain in your area.

Because Boulder County already adopted an earlier draft of the CHAMP mapping, the changes being considered in this zoning docket (and being discussed at the November 20th Planning Commission hearing) are really quite small. The purpose of this zoning docket is more to align the county maps with the future FEMA maps rather than make a significant update to the floodplain mapping.

Although Boulder County is locally adopting the Preliminary FIRMs now, the FEMA process takes a little longer. We expect FEMA to update their effective FIRMs with the CHAMP mapping in 2021, pending any appeals submitted to FEMA. I believe the "group survey" process you discussed with Erin would take place during that appeals period, which we think will begin in spring of 2020. We are planning much more outreach next year in advance of FEMA's 90-day appeal period, including public meetings around the county in January and additional information on the website. However, I will try to confirm what surveys and information your group could prepare in advance.

Finally, if you do plan on attending the hearing on November 20th, please check the Planning Commission agenda online (www.boco.org/z-19-0001). Unfortunately, the floodplain docket is the last item on the agenda. I expect the Commission will not start discussing our item until at least 3:00 PM.

Let me know if you have further questions.

Best,

Kelly Watson

Floodplain Program Planner

Boulder County | Transportation Department

720-564-2652 | 2525 13th Street, Suite 203 | Boulder, CO 80304

kwatson@bouldercounty.org

Watson, Kelly

From: !floodplainmapscomment
Sent: Thursday, November 21, 2019 1:49 PM
To: charlie@papazian.org
Subject: RE: Floodplain Remapping Program comments
Attachments: 2019-11-21_Prelim FIRM_3348 Plateau Rd.PNG; 2019-11-21 Preliminary SOMA excerpt.PNG; 2019-11-21_Effective FIRM_3348 Plateau Rd.PNG

Hello Charlie,

Thank you for your comment. Due to the large volume of comments I received in the past two days, I was unable to respond to you before the Planning Commission hearing yesterday; however, your comment was printed and provided to the commissioners before the docket was discussed.

As Erin mentioned in her reply to you last year, LOMAs remove specific structures from the 100-year floodplain, but they do not change the mapping that you see on FEMA's or Boulder County's websites. However, when FEMA delivered the Preliminary Flood Insurance Rate Maps (Preliminary FIRMs) to the county in September, they provided a list of LOMAs that they expect to revalidate. Your LOMA is on that list. I cannot find a publicly-available copy of this list on FEMA's website, so I have attached a screenshot of it to this email.

Additionally, I have attached a couple of screenshots from our map review website (www.boco.org/FloodplainMapUpdate) that I hope clarify the proposed flood risk zones on your property, and the timeline of those updates.

1. Boulder County's Floodplain Overlay (FO) District is comprised of the effective FEMA Floodplain together with the Boulder County Floodplain. As you can see in the attached image titled "2019-11-21_Effective FIRM," the effective FEMA Flood Insurance Rate Map (FIRM) indeed shows your house in the 100-year floodplain. However, your LOMA confirms that the house is in fact above the Base Flood Elevation in this area. This map was the existing regulatory floodplain before the 2013 flood.
2. Since the 2013 flood, the county, state, and FEMA have been working to update floodplain maps through the Colorado Hazard Mapping Program (CHAMP). The Boulder County Floodplain reflects draft CHAMP mapping. FEMA recently released Preliminary FIRMs also based on the CHAMP mapping. As you can see in the file titled "2019-11-21_Prelim FIRM," the Preliminary FIRMs are very similar to the existing Boulder County Floodplain on your property. This updated mapping shows your house in the 500-year floodplain.

Although Boulder County is locally adopting the CHAMP maps now, the FEMA process takes a little longer. We expect FEMA to update their effective FIRMs with the CHAMP mapping in 2021, pending any appeals submitted to FEMA. At that time, your house will likely be mapped outside of the regulatory (100-year) floodplain. Until then, the county must continue regulating development in both the effective FEMA Floodplain and the locally-adopted Boulder County Floodplain. For this reason, the "Proposed Regulatory Flood Risk Zones" layer online (light and dark green) shows your house inside the 100-year floodplain. But again, we know that the LOMA removes the structure from the 100-year floodplain.

Finally, I just wanted to mention that I spoke with your friend Roger before the meeting yesterday and that he had very complimentary things to say about you.

I understand the maps are confusing just now because Boulder County is adopting the CHAMP mapping before FEMA. I hope this email has addressed your comment. Let me know if you have further questions.

Best,

Kelly Watson

Floodplain Program Planner
Boulder County | Transportation Department
720-564-2652 | 2525 13th Street, Suite 203 | Boulder, CO 80304
kwatson@bouldercounty.org

From: Wufoo**Sent:** Tuesday, November 19, 2019 10:20 PM**To:** !floodplainmapscomment <floodplainmapscomment@bouldercounty.org>**Cc:** Barth, Andrew <abarth@bouldercounty.org>**Subject:** Floodplain Remapping Program comments

Name	Charlie Papazian
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Email	charlie@papazian.org
--------------	--

Address	 3348 Plateau Road Longmont, CO 80503 United States
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Location of 3348 Parcel Number in Boulder County: 131719000007
area you are
commenting
on if not the
address
provided

Comment or question *

I view the current Preliminary and Regulatory Flood Risk Zones at <https://bouldercounty.maps.arcgis.com/apps/webappviewer/idx/3348> portion of our home in the 100 year flood plain. I had the property surveyed and submitted to FEMA to revise and was accepted that we would not get any water intrusion near or in the house or immediately west of the house. BoCo Map is still incorrect.

I am resubmitting the same comments I submitted on April 1, 2018:

On this version map it shows our home outline as being part in X and part in AE. I have confirmed several times with FEMA (for insurance) that our dwelling/Home is located in Zone X. FEMA and Boulder County have previously agreed with the evidence I provided that determines the location of our home. If I need to provide information regarding this matter a third time, please let me know.

Thank you. Charlie@papazian.org

The reply I received on April 4, 2018:

From: Cooper, Erin S. [<mailto:escooper@bouldercounty.org>]

Sent: Wednesday, April 4, 2018 3:11 PM

To: Charlie Papazian <charlie@papazian.org>

Subject: RE: Floodplain Remapping Program comments

Hello Mr. Papazian,

Thank you for your email. The LOMA that you have on record with FEMA (LOMA 04-08-0368A, effective 4/7/2204) remains in good standing. The LOMA is not reflected on the mapped floodplain that you see online – it only updates the record for your structure – so you will not see this designation as a change. The LOMA designation is reflected, however, on the map with the purple LOMA place marker that you should be able to see on the Property Status Map (when the 'Floodplain' tab is open) and on FEMA's National Flood Hazard Layer (

<https://fema.maps.arcgis.com/home/signin.html?returnUrl=http%3A//fema.maps.arcgis.com/home/webmap/viewer.html%3Fwebmap=04-08-0368A>)

We have this information on record and you do not need to provide it to us again. Please do stay in touch as we go forward with re-mapping. When new maps in a few years, they will decide whether your LOMA will once again be revalidated and remain in good standing with the new maps.

Thanks,

Erin Cooper

Watson, Kelly

From: Watson, Kelly
Sent: Wednesday, November 20, 2019 12:47 PM
To: klc@hpwclaw.com
Cc: Floodplain Admin
Subject: RE: Ask a Planner - Web inquiry from KENDRA CARBERRY - z-19-0001

Hello Ms. Carberry,

Thank you for your message. A copy will be provided to the Planning Commissioners before today's docket is discussed.

Although I am unable to address all your comments this morning before the hearing, I will reply more fully in due course.

Best,

Kelly Watson
Floodplain Program Planner
Boulder County | Transportation Department
720-564-2652 | 2525 13th Street, Suite 203 | Boulder, CO 80304 kwatson@bouldercounty.org

-----Original Message-----

From: Wufoo
Sent: Wednesday, November 20, 2019 7:52 AM
To: #LandUsePlanner <Planner@bouldercounty.org>
Subject: Ask a Planner - Web inquiry from KENDRA CARBERRY - z-19-0001

Boulder County Property Address : 11780 Kenosha Road If your comments are regarding a specific docket, please enter the docket number: z-19-0001

Name: KENDRA CARBERRY

Email Address: klc@hpwclaw.com

Phone Number: (303) 951-2095

Please enter your question or comment: The notice for this docket is legally insufficient, as it fails to adequately describe the comprehensive zoning map amendments to which it refers. The notice states that our property "may" be affected, and then gives a website address for a map, but the map does not show the differences in the new map as compared to the last map. It is thus impossible to tell if our property is actually affected.

In addition, the notice refers to the "smoothing of boundaries", but fails to explain what that means. No layperson should be expected to understand this technical term and how it would be applied to their property.

Our postcard also includes an incorrect zip code (80501) when the zip code for our property is 80504. This time, we were lucky enough to receive the postcard, but in the past, we have not. We have contacted the Assessor's office on multiple occasions, but they refuse to fix this problem.

As noted in our comments on the original docket adding our property to the floodway, the technology used by the County and others (AECOMM, CWCB) in developing these maps is fatally flawed. The maps for this area do not include any floodplain surrounding the floodway, which makes no technical or logical sense - instead, the entire width is

floodway. This is the only area in the entire County where the maps look like they do, and we still have received no explanation as to why. The map literally changes at Kenosha Road.

Finally, the new maps fail to consider the massive improvements to Boulder Creek at the intersection of County Line Road and Mineral Road (State Highway 52), or any of the improvements performed in Boulder Creek on the County open space north of Kenosha Road.

We would request that both the Planning Commission and Board of County Commissioners reject not only this docket, but revisit the 2018 docket that originally adopted these maps. At a minimum, the County should reconsider the 2D mapping technology that was used in this area and produced such unrealistic floodway maps.

Public record acknowledgement:

I acknowledge that this submission is considered a public record and will be made available by request under the Colorado Open Records Act.

Watson, Kelly

From: Watson, Kelly
Sent: Wednesday, November 20, 2019 11:41 AM
To: jtarav@prodigy.net
Subject: FW: Ask a Planner - Web inquiry from JANET LIEBER - Docket Z-19-0001
Attachments: Effective FIRM 2180 Lefthand Canyon Dr 2019-11-20.PNG; Prelim FIRM 2180 Lefthand Canyon Dr 2019-11-20.PNG

Hello Ms. Lieber,

I have attached a couple of screenshots from our map review website that I hope clarify the proposed flood risk zones on your property:

1. Boulder County's Floodplain Overlay (FO) District is comprised of the effective FEMA Floodplain together with the Boulder County Floodplain. As you can see in the attached image titled "Effective FIRM," the effective FEMA Flood Insurance Rate Map (FIRM) shows your house outside of the 100-year floodplain. This map was the existing regulatory floodplain before the 2013 flood.
2. Since the 2013 flood, the county, state, and FEMA have been working to update floodplain maps through the Colorado Hazard Mapping Program (CHAMP). The Boulder County Floodplain reflects draft CHAMP mapping. FEMA recently released Preliminary FIRMs also based on the CHAMP mapping. As you can see in the file titled "Prelim FIRM," the Preliminary FIRMs are the same as the existing Boulder County Floodplain on your property. This updated mapping places parts of your property in the 100-year floodplain and Floodway, but the house appears to be outside all mapped floodplains.

Although Boulder County is locally adopting the CHAMP maps now, the FEMA process takes a little longer. We expect FEMA to update their effective FIRMs with the CHAMP mapping in 2021, pending any appeals submitted to FEMA. Until then, the county must continue regulating development in both the effective FEMA Floodplain and the locally-adopted Boulder County Floodplain.

To answer your questions, then: your house will remain outside of the regulatory floodplain, so you will not be required to purchase flood insurance. However, you may purchase flood insurance (at a highly discounted rate because the house is outside the floodplain) if you wish—contact your insurance agent for more information. I am not sure about the impact on property taxes—please contact the Assessor's Office for tax questions. Finally, future homeowners would also not be required to purchase flood insurance as long as these proposed maps are in effect.

Let me know if you have further question.

Best,

Kelly Watson

Floodplain Program Planner
Boulder County | Transportation Department
720-564-2652 | 2525 13th Street, Suite 203 | Boulder, CO 80304
kwatson@bouldercounty.org

-----Original Message-----

From: Wufoo

Sent: Wednesday, November 20, 2019 9:47 AM

To: #LandUsePlanner <Planner@bouldercounty.org>

Subject: Ask a Planner - Web inquiry from JANET LIEBER - Docket Z-19-0001

Boulder County Property Address : 2180 Lefthand Canyon Dr If your comments are regarding a specific docket, please enter the docket number: Docket Z-19-0001

Name: JANET LIEBER

Email Address: jtarav@prodigy.net

Please enter your question or comment: Will changes to the mapping require that we purchase flood insurance? What is the impact on property taxes? Does this impact resale value if future homeowners are required to purchase flood insurance?

Public record acknowledgement:

I acknowledge that this submission is considered a public record and will be made available by request under the Colorado Open Records Act.

Watson, Kelly

From: Watson, Kelly
Sent: Wednesday, November 20, 2019 11:28 AM
To: niwotmarti@aol.com
Subject: 6507 Robin Dr - floodplain map updates
Attachments: Effective FIRM 6507 Robin Dr 2019-11-20.PNG; Prelim FIRM 6507 Robin Dr 2019-11-20.PNG

Hello Bernadine

Following up on our phone conversation, I have attached a couple of screenshots from our map review website that I hope clarify the proposed flood risk zones on your property.

As you know, Boulder County's Floodplain Overlay (FO) District is comprised of the effective FEMA Floodplain together with the Boulder County Floodplain. As you can see in the attached image titled "Effective FIRM," the effective FEMA Flood Insurance Rate Map (FIRM) shows your house in the 100-year floodplain. This map was the existing regulatory floodplain before the 2013 flood.

Since the 2013 flood, the county, state, and FEMA have been working to update floodplain maps through the Colorado Hazard Mapping Program (CHAMP). The Boulder County Floodplain reflects draft CHAMP mapping. FEMA recently released Preliminary FIRMs also based on the CHAMP mapping. As you can see in the file titled "Prelim FIRM," the Preliminary FIRMs are the same as the existing Boulder County Floodplain on your property. This updated mapping places parts of your property in the 500-year floodplain and Floodway, but the house appears to be outside all mapped floodplains.

Although Boulder County is locally adopting the CHAMP maps now, the FEMA process takes a little longer. We expect FEMA to update their effective FIRMs with the CHAMP mapping in 2021, pending any appeals submitted to FEMA. At that time, your house will likely be outside of the regulatory floodplain. Until then, the county must continue regulating development in both the effective FEMA Floodplain and the locally-adopted Boulder County Floodplain. For this reason, the "Proposed Regulatory Flood Risk Zones" layer online (light and dark green) shows your house inside the 100-year floodplain.

I understand the maps are confusing just now because Boulder County is adopting the CHAMP mapping before FEMA. I hope this email has addressed your concerns. Let me know if you have further questions, and please watch our website www.BoCoFloodplainRemapping.com for information about upcoming public meetings in January related to the FEMA process going forward.

Best,

Kelly Watson

Floodplain Program Planner
Boulder County | Transportation Department
720-564-2652 | 2525 13th Street, Suite 203 | Boulder, CO 80304
kwatson@bouldercounty.org

Watson, Kelly

From: Watson, Kelly
Sent: Wednesday, November 20, 2019 2:29 PM
To: catherine price
Subject: RE: 8493 Lefthand Canyon Drive - Floodplain Status
Attachments: Effective FIRM 8493 Lefthand Canyon Dr 2019-11-20.PNG; Prelim FIRM 8493 Lefthand Canyon Dr 2019-11-20.PNG

Hello Cat,

Thanks for emailing. I have attached a couple of screenshots from our map review website that I hope clarify the proposed flood risk zones on your property.

Boulder County's Floodplain Overlay (FO) District is comprised of the effective FEMA Floodplain together with the Boulder County Floodplain. As you can see in the attached image titled "Effective FIRM," the effective FEMA Flood Insurance Rate Map (FIRM) shows your house in the 100-year floodplain. This map was the existing regulatory floodplain before the 2013 flood.

Since the 2013 flood, the county, state, and FEMA have been working to update floodplain maps through the Colorado Hazard Mapping Program (CHAMP). The Boulder County Floodplain reflects draft CHAMP mapping. FEMA recently released Preliminary FIRMs also based on the CHAMP mapping. As you can see in the file titled "Prelim FIRM," the Preliminary FIRMs match the existing Boulder County Floodplain on your property. This updated mapping places a small part of your property in the 500-year floodplain.

Although Boulder County is locally adopting the Preliminary FIRMs now, the FEMA process takes a little longer. We expect FEMA to update their effective FIRMs with the CHAMP mapping in 2021, pending any appeals submitted to FEMA. At that time, your property will likely be outside of the regulatory (100-year) floodplain. Until then, the county must continue regulating development in both the effective FEMA Floodplain and the locally-adopted Boulder County Floodplain. For this reason, the "Proposed Regulatory Flood Risk Zones" layer online (light and dark green) shows your house inside the 100-year floodplain.

I hope this email has addressed your concerns. Let me know if you have further questions.

Best,

Kelly Watson

Floodplain Program Planner
Boulder County | Transportation Department
720-564-2652 | 2525 13th Street, Suite 203 | Boulder, CO 80304
kwatson@bouldercounty.org

From: catherine price <catprice17@gmail.com>
Sent: Wednesday, November 20, 2019 12:51 PM
To: Watson, Kelly <kwatson@bouldercounty.org>
Subject: 8493 Lefthand Canyon Drive - Floodplain Status

Hi Kelly,

Sorry I missed your call. Thanks for such a quick response. If you wouldn't mind putting the flooplain information for 8493 Lefthand Canyon Drive into a reply e-mail for me, that would be great.

Thanks so much!

Best,
Cat

--

cat price
903 235 7754

Watson, Kelly

From: !floodplainmapscomment
Sent: Thursday, November 21, 2019 2:37 PM
To: Dana Roueche
Subject: RE: concern with flood plain remapping
Attachments: Effective FIRM_8073 Centrebridge Dr_2019-11-21.PNG; Prelim FIRM_8073 Centrebridge Dr_2019-11-21.PNG

Hello Dana,

Thank you for your questions. Due to the large volume of comments I received in the past two days, I was unable to respond to you before the Planning Commission hearing yesterday; however, your comment was printed and provided to the commissioners before the docket was discussed.

First, a bit of background on the remapping process:

- Boulder County's Floodplain Overlay (FO) District is comprised of the effective FEMA Floodplain together with the Boulder County Floodplain. As you can see in the attached image titled "Effective FIRM," the effective FEMA Flood Insurance Rate Map (FIRM) shows your house outside of the 100-year (regulatory) floodplain. This map was the existing regulatory floodplain before the 2013 flood.
- Since the 2013 flood, the county, state, and FEMA have been working to update floodplain maps through the Colorado Hazard Mapping Program (CHAMP). The Boulder County Floodplain reflects draft CHAMP mapping. FEMA recently released Preliminary FIRMs also based on the CHAMP mapping—these were the maps being discussed by the Planning Commission yesterday. As you can see in the file titled "Prelim FIRM," the Preliminary FIRMs are the same as the existing Boulder County Floodplain on your property. As you say, a corner of your house may be in the 100-year floodplain according to this updated mapping.
- Although Boulder County is locally adopting the CHAMP maps now, the FEMA process takes a little longer. We expect FEMA to update their effective FIRMs with the CHAMP mapping in 2021, pending any appeals submitted to FEMA. This is when any flood insurance requirements would change.

What ultimately determines a structure's Flood Zone is not the footprint you see online, but rather the structure's elevation as related to the Base Flood Elevation (the elevation of the water surface expected during a 100-year flood). The structure footprint you see on the county's online map was created from aerial imagery, and as you can imagine, the angle of the plane/camera when the photo was taken can influence the mapped outline of a structure. I cannot say whether your insurance company would require you to carry flood insurance in 2021, or what rate they would charge, but you may want to investigate having a surveyor complete an [Elevation Certificate](#) for your house. If the Elevation Certificate shows your house above the Base Flood Elevation, you would likely have a much lower flood insurance premium, if flood insurance were required at all.

Let me know if you have further questions.

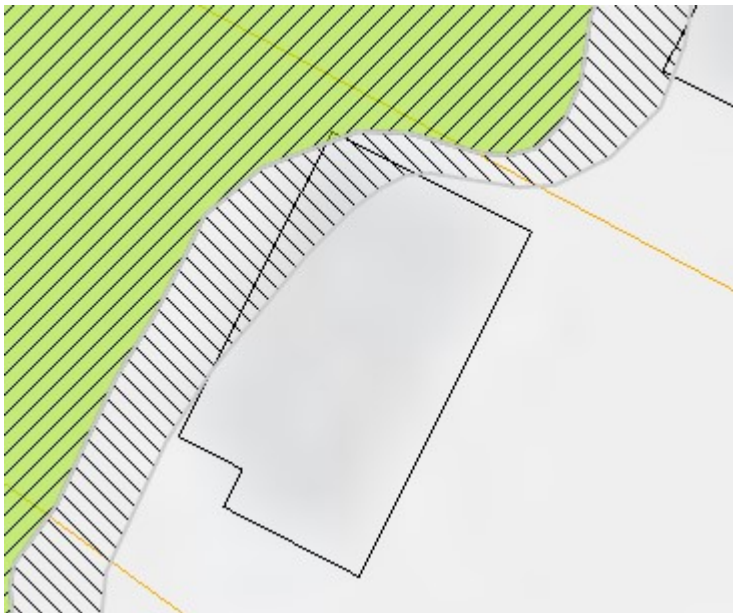
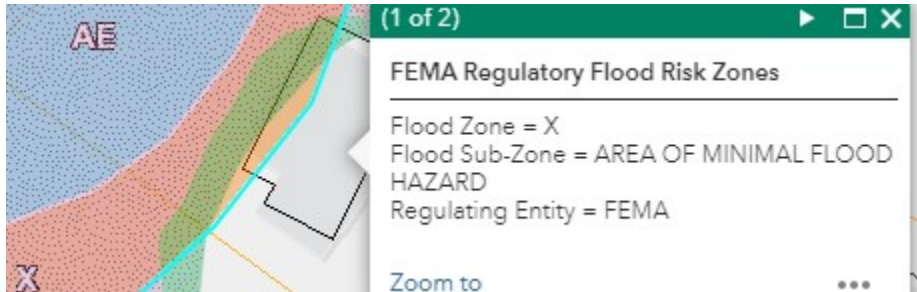
Best,

Kelly Watson

Floodplain Program Planner
Boulder County | Transportation Department
720-564-2652 | 2525 13th Street, Suite 203 | Boulder, CO 80304
kwatson@bouldercounty.org

From: Dana Roueche <danaroueche@gmail.com>
Sent: Wednesday, November 20, 2019 10:42 AM
To: !floodplainmapscomment <floodplainmapscomment@bouldercounty.org>
Subject: concern with flood plain remapping

Kelly, I live at 8073 Centrebridge Drive in Niwot. The proposed new 100 yr mapping appears to just clip the corner of my house. Has the 100 yr flood zone changed on my property under the new proposal? I am concerned that with the line touching my house that I will now be required to buy flood insurance. Is consideration made for close calls like this? Is that mapping that precise?



Thank you

--

Dana Roueche

Watson, Kelly

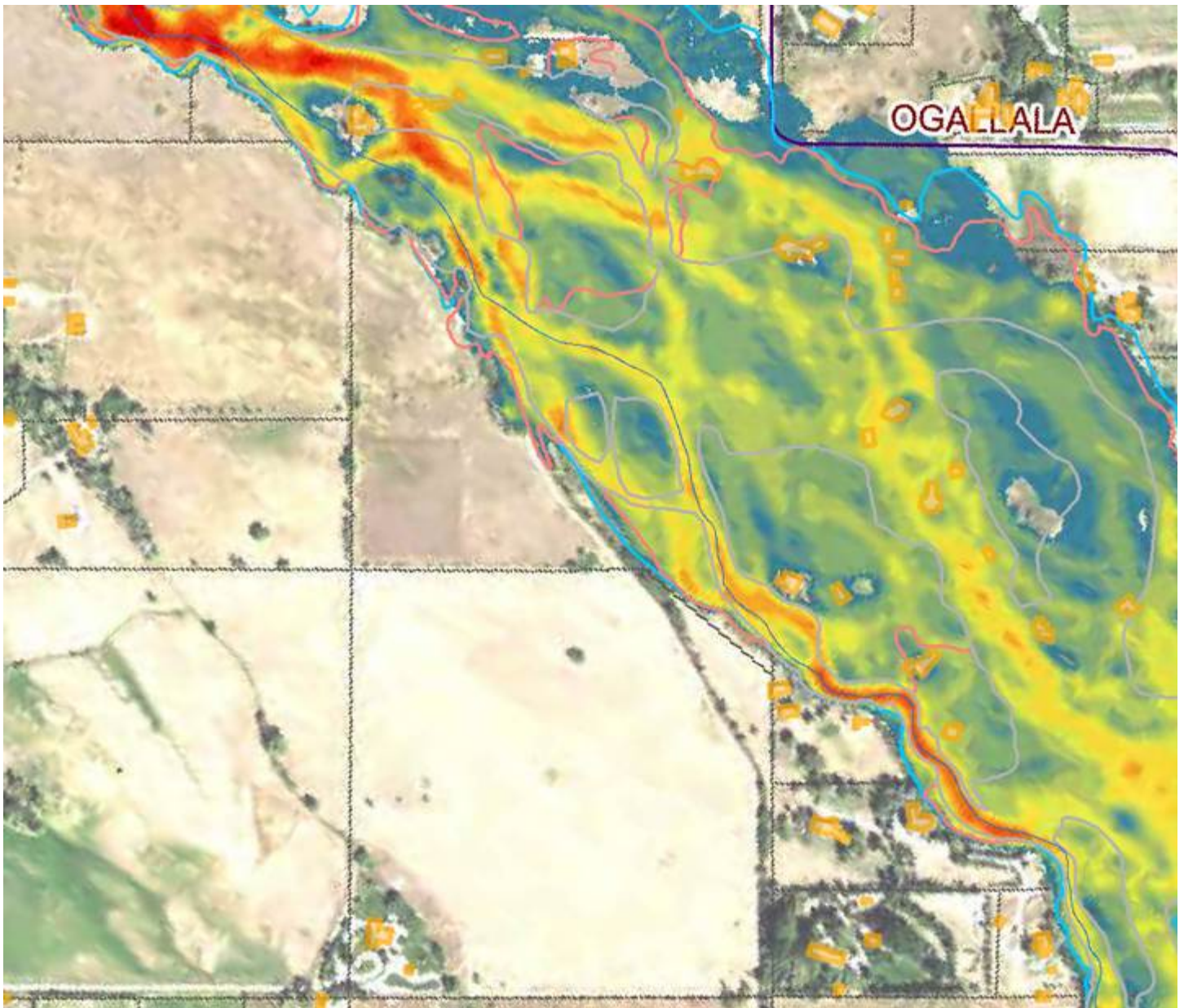
From: !floodplainmapscomment
Sent: Thursday, December 5, 2019 8:35 AM
To: Michael Janeczko
Cc: Floodplain Admin
Subject: RE: floodplain/floodway mapping

Mr. Janeczko,

Thank you for your comments and concerns about the floodplain and floodway mapping of Left Hand Creek in the vicinity of 41st St. Both Boulder County and the Federal Emergency Management Agency (FEMA) performed independent technical reviews of the hydraulic analysis and floodplain mapping on Left Hand Creek performed by the Colorado Water Conservation Board (CWCB) and their contractor (AECOM) as part of the Colorado Hazard Mapping Program (CHAMP). Boulder County and FEMA both concluded that the analysis met FEMA's Guidelines and Standards for identifying regulatory flood risk mapping for FEMA's National Flood Insurance Program.

Based on comments Boulder County received from residents along Left Hand Creek after the July 24th 2018 public meeting, we re-reviewed the hydraulic modeling and floodplain mapping of Left Hand Creek in the vicinity of 41st St, and asked the CWCB (& AECOM) to confirm their analysis of this area. Based on Boulder County's re-review and CWCB's (AECOM's) re-assessment of this area we concluded that the hydraulic analysis is correct and the flood risk mapping is justified.

One of the checks that Boulder County performed was comparing the results of the CHAMP modeling to a model created by another engineering firm independent of the CHAMP effort. The image below is hydraulic model output from an independent engineering firm that shows expected 100-yr flood depths in the reach of Left Hand Creek in the vicinity of 41st St. These hydraulic model results correspond well with the results of the CHAMP study:



We also compared the model output with post 2013 flood aerial imagery. Note that the flood risk mapping produced by the CHAMP team will not match the 2013 event exactly because of a variety of reasons, including: the discharges in this reach may have been different, the conditions during the flood may have been different than what exist now, FEMA has specific Guidelines and Standards for how to model and map flood risk that may differ from what happened during the flood, etc. However, the results of the CHAMP model are similar to what was experienced during the 2013 flood in this reach:



Boulder County also coordinated with the CHAMP team and the engineers with the Colorado Emergency Watershed Protection (EWP) program to ensure that the stream recovery projects that were performed in this reach of Left Hand Creek were incorporated into the hydraulic analysis. We can confirm that the stream recovery projects in this reach are reflected in the hydraulic analysis.

FEMA released Preliminary Flood Insurance Rate Maps (FIRMs) for Left Hand Creek (and other flooding sources in Boulder County) on September 30th, 2019. FEMA, CWCBC, and Boulder County will host a series of meetings to discuss the results of the analysis with the public in January of 2020. The schedule for the public meetings can be found here: <https://www.bouldercounty.org/transportation/floodplain-mapping/stay-informed/>. If you would like to ask additional questions of the engineers who performed and reviewed the analysis, we would recommend attending one of the meetings. After the meetings, there will be a formal 90 day appeal period for the Preliminary FIRMs. If a resident has scientific or technical data that proves the proposed flood hazard information is incorrect, it can be submitted as part of the appeal period and FEMA will consider the submitted data.

Finally, as I mentioned in my previous email, Boulder County is currently seeking property owners who are interested in participating in a voluntary pilot program that will help property owners determine whether they qualify for financial

assistance from FEMA for elevation of their home, relocation of their home, or acquisition of their home to reduce flood risk. The program is called Floodplain Partners. If you are interested, you can visit the [Floodplain Partners program website](#) for more information. You may also contact Stacey Proctor at sproctor@bouldercounty.org or 303-441-1107 with any questions.

Please let us know if you have additional questions.

Best,

Kelly Watson

Floodplain Program Planner

Boulder County | Transportation Department

720-564-2652 | 2525 13th Street, Suite 203 | Boulder, CO 80304

kwatson@bouldercounty.org

From: Michael Janeczko <majaneczko@gmail.com>

Sent: Wednesday, November 20, 2019 11:51 AM

To: Floodplain Admin <floodplainadmin@bouldercounty.org>; !floodplainmapscomment <floodplainmapscomment@bouldercounty.org>

Subject: floodplain/floodway mapping

Hi,

My name is Mike Janeczko. I live at 3920 Ogallala Road, Longmont, Colorado.

I was living in my home throughout the 2013 flood and so, of course, experienced first hand EXACTLY where the flood waters flowed.

I have been reviewing the various evolution of maps that you have been presenting over the past few years.

Somewhere between a year or so ago and the present time this map has MORPHED to include my home in the floodway.

If indeed that is a fact, my home would have certainly suffered major flood damage both cosmetically and structurally.

THE FACT OF THE MATTER IS...MY HOME SUFFERED ABSOLUTELY NO FLOOD DAMAGE WHATSOEVER.

So I guess what I am saying is that your mapping that includes my property is absolutely plain old WRONG.

I understand that the current version was generated by computer modeling. I am an engineer who is pretty familiar with computer modeling techniques. It is my personal/professional opinion that this current version for whatever reason is completely erroneous in the vicinity of my property.

Specifically, the floodway version shows the north boundary path to be proceeding basically in a due south direction as it follows the Left Hand Creek creekbed directly to the west of my home. SOMEHOW, IT THEN MAGICALLY TURNS ABRUPTLY TO THE NORTHEAST **UPHILL** FOR A DISTANCE OF SOME 300 HUNDRED YARDS TO ENGULF MY HOME AND OUTBUILDINGS.

In sum, I find this current computer generated map to be completely erroneous in this vicinity.

As an aside, I suffered through the two year million dollar plus reconstruction of the creekbed itself below US 36 to way past my property lines. The creekbed in this area was redesigned to include some 20 foot high embankments to alter its flow and keep it flowing in the southerly direction. Was this reconstruction work considered in the current mapping ?

By this time, you must obviously be aware of the consequences of this type of floodplain/floodway designation. I am a 71 year old retiree. A fair amount of my net worth (as is the case with most people in my station in life) is tied up in the value of my home.

Magically and erroneously including it in the floodway of Left Hand Creek will have a devastating effect on the value of my property, if not make it completely unsaleable. I therefore hereby strongly object to the adoption of this regulatory mapping update.

I welcome your reply to this e-mail.

I am ready willing and able to discuss what I consider to be this quite obvious mapping error ON THE GROUND with whomever is in charge of this project.

Respectfully,
Mike Janeczko

Watson, Kelly

From: Watson, Kelly
Sent: Thursday, November 21, 2019 11:23 AM
To: andrewlattan@comcast.net
Subject: 7090 Johnson Circle - floodplain remapping
Attachments: Effective FIRM 7090 Johnson Cir 2019-11-21.PNG; Prelim FIRM 7090 Johnson Cir 2019-11-21.PNG

Hello Andrew,

Following up on our phone conversation earlier today, I want to let you know about Boulder County's Open Meeting Portal: <https://bouldercountyco.igm2.com/Citizens/default.aspx>. The video of yesterday's Planning Commission hearing should be available under "Past Meetings." Future agendas will also be posted on this portal. The agenda for the December 12th Board of County Commissioners hearing will also be posted on www.boco.org/z-19-0001 a week prior to the hearing, as it was for the Planning Commission hearing.

Some additional background on the remapping process and your property at 7090 Johnson Circle: I have attached a couple of screenshots from our map review website (www.boco.org/FloodplainMapUpdate) that I hope clarify the proposed flood risk zones on your property.

1. Boulder County's Floodplain Overlay (FO) District is comprised of the effective FEMA Floodplain together with the Boulder County Floodplain. As you can see in the attached image titled "Effective FIRM," the effective FEMA Flood Insurance Rate Map (FIRM) shows your house in the 100-year floodplain. This map was the existing regulatory floodplain before the 2013 flood.
2. Since the 2013 flood, the county, state, and FEMA have been working to update floodplain maps through the Colorado Hazard Mapping Program (CHAMP). The Boulder County Floodplain reflects draft CHAMP mapping. FEMA recently released Preliminary FIRMs also based on the CHAMP mapping. As you can see in the file titled "Prelim FIRM," the Preliminary FIRMs are the same as the existing Boulder County Floodplain on your property. This updated mapping places parts of your property in the 500-year and 100-year floodplain, but the house appears to be outside of the 100-year (regulatory) floodplain.

Although Boulder County is locally adopting the CHAMP maps now, the FEMA process takes a little longer. We expect FEMA to update their effective FIRMs with the CHAMP mapping in 2021, pending any appeals submitted to FEMA. At that time, your house will likely be outside of the regulatory floodplain. Until then, the county must continue regulating development in both the effective FEMA Floodplain and the locally-adopted Boulder County Floodplain. For this reason, the "Proposed Regulatory Flood Risk Zones" layer online (light and dark green) shows your house inside the 100-year floodplain for now.

Let me know if you have further questions.

Best,

Kelly Watson

Floodplain Program Planner
Boulder County | Transportation Department
720-564-2652 | 2525 13th Street, Suite 203 | Boulder, CO 80304
kwatson@bouldercounty.org

Watson, Kelly

From: Watson, Kelly
Sent: Friday, November 22, 2019 7:50 AM
To: jrc@sgcus.com
Subject: 3939 N 95th St - floodplain status
Attachments: Effective FIRM 3939 N 95th St 2019-11-22.PNG; Prelim FIRM 3939 N 95th St 2019-11-22.PNG

Hello John,

Thanks for your voicemail yesterday. I thought I would follow-up with an email, since I can attach some screenshots from our map review website (www.boco.org/FloodplainMapUpdate) that I hope clarify the proposed flood risk zones on your property.

1. Boulder County's Floodplain Overlay (FO) District is comprised of the effective FEMA Floodplain together with the Boulder County Floodplain. As you can see in the attached image titled "Effective FIRM," the effective FEMA Flood Insurance Rate Map (FIRM) shows most of your buildings in the 500-year floodplain (Zone X). The 500-year floodplain is not a regulatory floodplain; in other words, you are not required to purchase flood insurance or obtain Floodplain Development Permits for buildings in the 500-year floodplain.
2. Since the 2013 flood, the county, state, and FEMA have been working to update floodplain maps through the Colorado Hazard Mapping Program (CHAMP). The Boulder County Floodplain reflects draft CHAMP mapping. FEMA recently released Preliminary FIRMs also based on the CHAMP mapping. As you can see in the file titled "Prelim FIRM," the Preliminary FIRMs are the same as the existing Boulder County Floodplain on your property. This updated mapping places parts of your property in the 500-year and 100-year floodplain, but the house appears to be well outside of the 100-year (regulatory) floodplain.

Although Boulder County is locally adopting the CHAMP maps now, the FEMA process takes a little longer. We expect FEMA to update their effective FIRMs with the CHAMP mapping in 2021, pending any appeals submitted to FEMA. Until then, the county must continue regulating development in both the effective FEMA Floodplain and the locally-adopted Boulder County Floodplain. For this reason, the "Proposed Regulatory Flood Risk Zones" layer online (light and dark green) reflects the composite of the two floodplains. Again, your house will remain outside of the regulatory floodplain.

Let me know if you have further questions.

Best,

Kelly Watson

Floodplain Program Planner
Boulder County | Transportation Department
720-564-2652 | 2525 13th Street, Suite 203 | Boulder, CO 80304
kwatson@bouldercounty.org

Watson, Kelly

From: Whited Mike <michaelwhited@yahoo.com>
Sent: Friday, November 22, 2019 10:26 AM
To: Watson, Kelly
Cc: Kevin Doyle
Subject: Culverts at 16 Alpine Gulch Road
Attachments: IMG_1403.JPG; IMG_1398.JPG

Ms. Watson,

When I spoke at BC Planning Commission meeting Wednesday night regarding Docket Z-19-0001, I was not provided sufficient time to discuss all the flood risk issues that affect my home as well as the Town Site of Wall Street. Given the limited time to speak I chose to discuss the issue of an illegal water crossing that poses an added flood risk for many homes and structures in Wall Street, not just my home.

On October 16, 2018, while Garry Sanfacon was in Wall Street on other county related matters, I asked Mr. Sanfacon to take a look at the culverts (photo attached) installed at 16 Alpine Gulch Road (due south of the Assay Office Museum in Wall Street). I do not know if Mr. Sanfacon ever inspected the culverts at this water crossing and, although I have inquired with Boulder County, I have not been able to determine if the culverts were installed illegally without benefit of a FRAP, or if a FRAP was issued post ex facto. However, these culverts were installed post 2013 flood and pose a significant increase in flood risk for the Town Site of Wall Street.

I do not know if these culverts have been included in any hydraulic modeling, especially any modeling used to create the proposed floodplain remapping, but it is my understanding that the county requires hydraulic modeling for permit approval of any permanent bridge or culvert. Since these culverts are not permitted as a permanent installation, and do not appear to have been permitted for temporary purposes, it would seem that the legitimacy of the proposed floodplain remapping is compromised by allowing this obstruction in the floodway to remain.

Since the county willingly purchased the property at 16 Alpine Gulch Road in 2016, I presume they did so with the knowledge that the water crossing for access to this property was not a permitted permanent structure. Allowing this un-permitted structure to remain in the floodway has a very high potential to force floodwaters straight down the paved county road, in lieu of the creek channel, similar to what happened in the 2013 flood (see attached photo of post flood damage in front of the Assay Office Museum) as a result of a compromised bridge at the same location. Millions of taxpayer dollars have been spent building new bridges and improving the creek channel downstream of this un-permitted structure in the floodway; it would be an utter travesty if these improvements are rendered ineffective because floodwaters are flowing down the county road in lieu of the creek channel due to this obstruction in the floodway.

I would like to request that you work with those individuals within the Land Use Department and/or Transportation Department that are responsible for ensuring that any water crossing structure at the noted location is properly engineered and permitted and, any flood mapping is updated accordingly based on the required hydraulic modeling.

Also, I would like to discuss with you and Boulder County consultant, Kevin Doyle, concerns I have previously raised with Boulder County officials regarding the floodplain remapping associated with my property in Wall Street. However, I will re-visit my concerns in a separate email to you and Mr. Doyle.

Sincerely,

Michael Whited
6148 Fourmile Canyon Dr
303-447-3868

Watson, Kelly

From: !floodplainmapscomment
Sent: Monday, December 2, 2019 10:17 AM
To: john1king2@msn.com
Subject: 618 Apple Valley Rd - Floodplain Remapping Program comments

Hello Mr. King,

Thank you for your comment. You are correct that FEMA's Preliminary Flood Insurance Rate Maps (FIRMs) do not reflect the stream restoration work that took place along North Saint Vrain Creek. This is because the work was completed after the maps were sent to FEMA for review. However, the work will be incorporated into the new maps via a Letter of Map Revision (LOMR). We expect the LOMR to go effective the day after FEMA makes the CHAMP maps effective (sometime in 2020, we think).


Let me know if you have further questions.

Best,

Kelly Watson

Floodplain Program Planner
Boulder County | Transportation Department
720-564-2652 | 2525 13th Street, Suite 203 | Boulder, CO 80304
kwatson@bouldercounty.org

From: Wufoo
Sent: Friday, November 29, 2019 9:01 AM
To: !floodplainmapscomment <floodplainmapscomment@bouldercounty.org>
Cc: Barth, Andrew <abarth@bouldercounty.org>
Subject: Floodplain Remapping Program comments

Name	John King
Email	john1king2@msn.com
Address	 618 Apple Valley Rd Lyons, CO 80540 United States

Location of area you are commenting on if not the address provided 618 House location and downstream on the north bank of the St Vrain.

Comment or question *

618 House location and downstream on the north bank of the St Vrain. At the house location much work has occurred on at least three occasions in the federal restoration process. The mapping in the vicinity of the house and immediately downstream does not reflect this work, it appears to be an averaging of conditions. This has effects on the house and the usability of the land on the north bank downstream of the house. The actual land level in those areas is above the BFE in many cases. This represents a potential usable future building area to us. We would like to see it represented on the mapping.

Watson, Kelly

From: Watson, Kelly
Sent: Thursday, December 5, 2019 8:33 AM
To: Whited Mike
Cc: Kevin Doyle
Subject: RE: Floodplain Remapping
Attachments: 2019-12-04_Effective FIRM_6148 Fourmile.PNG; 2019-12-04_Prelim FIRM_6148 Fourmile.PNG

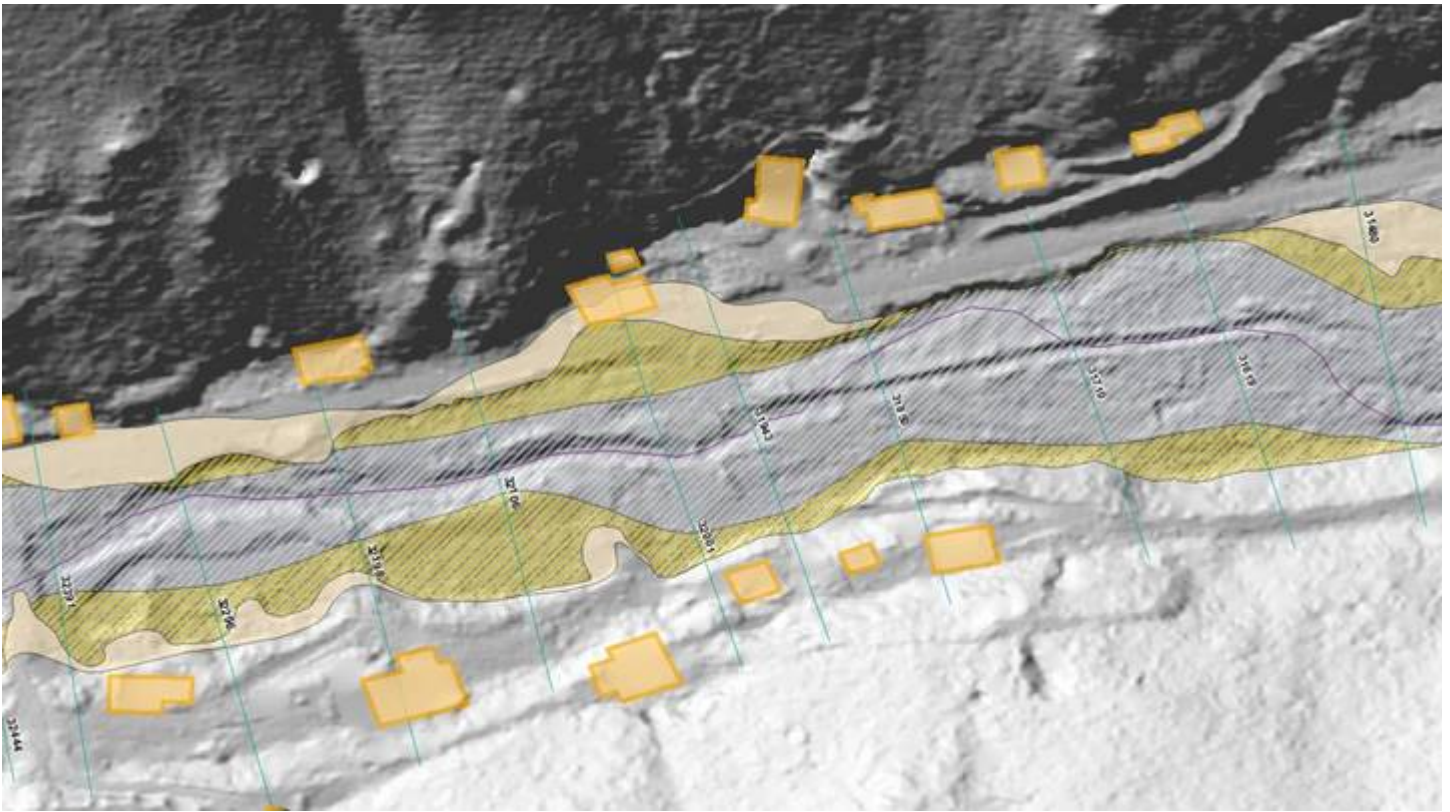
Hello Mr. Whited,

Thank you for your email. I hope I can address your concerns about the floodplain remapping at 6148 Fourmile Canyon Dr in this response. I am still asking colleagues about the culverts at 16 Alpine Gulch Rd.

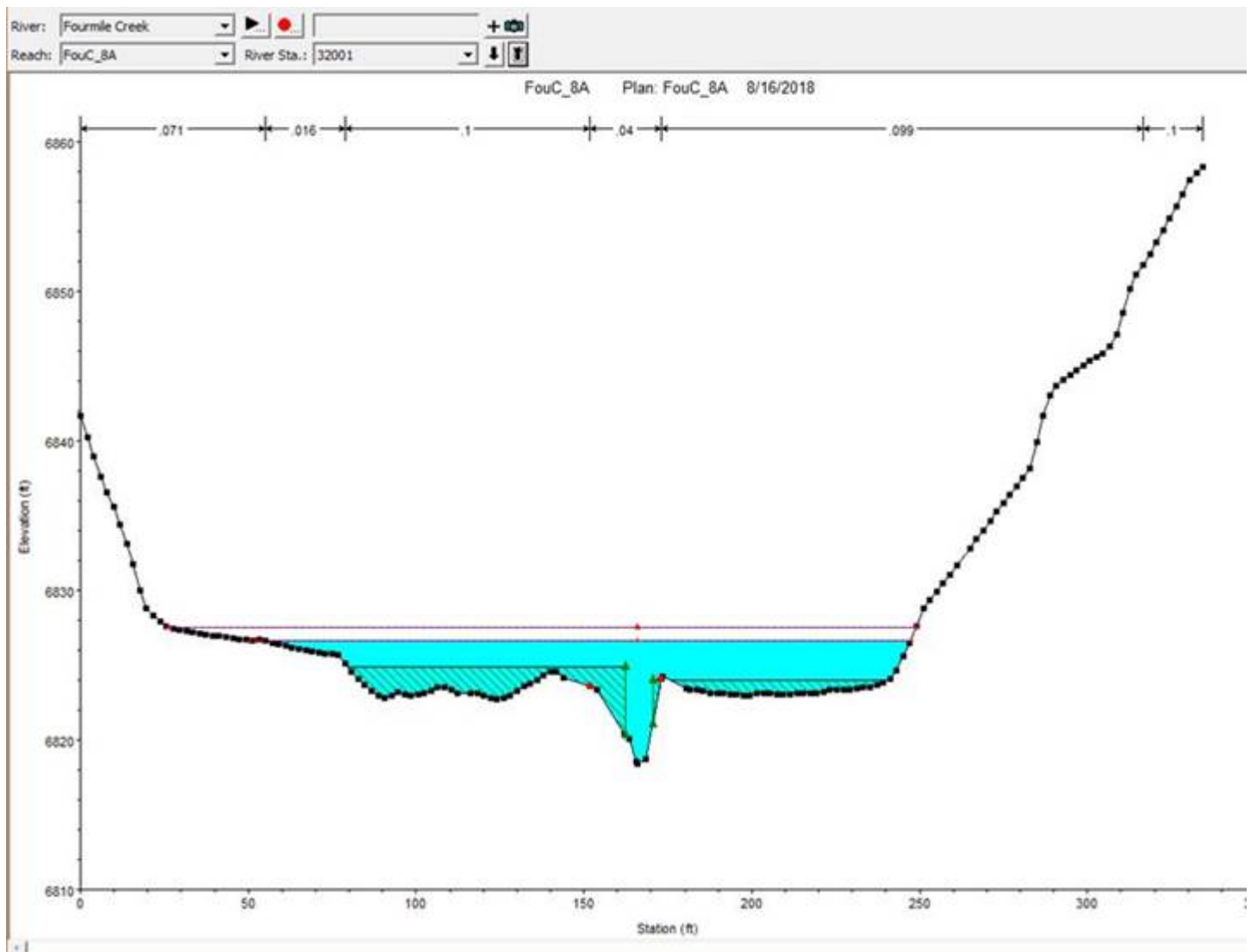
First, I want to reiterate Erin's comment that the Preliminary CHAMP mapping does not extend beyond the rock wall to the west and north of your house. I have attached a couple of screenshots from our map review website that I hope clarify the proposed flood risk zones on your property.

1. As you know, the county's Floodplain Overlay (FO) District is comprised of the effective FEMA Floodplain together with the Boulder County Floodplain. As you can see in the attached image titled "Effective FIRM," the effective FEMA Flood Insurance Rate Map shows your house and the rock wall in the 100-year floodplain. This "old" FEMA map was the exiting floodplain before the 2013 flood and, obviously, needs to be updated.
2. The CHAMP map (shown in the attached file titled "Prelim FIRM") shows your house mostly in the 500-year floodplain, which is not part of the regulatory floodplain. However, the county must continue regulating development in both the effective FEMA Floodplain and the locally-adopted Boulder County Floodplain. For this reason, the "Proposed Regulatory Flood Risk Zones" layer online (light and dark green) shows your house in the 100-year floodplain. We expect FEMA to update their effective FIRMs in 2021, at which time your house would potentially be outside of the regulatory floodplain.

As you can see below, the LiDAR used by CHAMP clearly captures the rock face around your house. (Note the different color scheme: Tan is 500-year floodplain; Yellow and grey crosshatching are both Floodway.)



There is a CHAMP cross section (32001) directly through your property. I have included that cross section below. It is oriented looking downstream. The top of the blue represents the water surface elevation of the modeled 100-year flood.



Please see my responses to your other comments in red, below.

Let me know if you have further questions.

Best,

Kelly Watson

Floodplain Program Planner

Boulder County | Transportation Department

720-564-2652 | 2525 13th Street, Suite 203 | Boulder, CO 80304

kwatson@bouldercounty.org

From: Whited Mike <michaelwhited@yahoo.com>

Sent: Wednesday, December 4, 2019 6:57 AM

To: Watson, Kelly <kwatson@bouldercounty.org>

Cc: Kevin Doyle <kdoyle@mbakerintl.com>

Subject: Floodplain Remapping

Ms. Watson,

This email is a followup to the email I sent to you on February 22, 2019 (RE: Culverts at 16 Alpine Gulch Road) and is meant to raise concerns regarding the proposed floodplain remapping as it relates specifically to my property located at 6148 Fourmile Canyon Drive (in unincorporated Boulder County).

On March 4, 2018 I sent comments (attached) to Erin Cooper regarding floodplain remapping as it related to my property. On March 22, 2018 I received Boulder County's responses to my comments and a copy of the proposed CHAMP map (both also attached).

I feel that the responses provided did not fully address my concerns and still feel that the remapping is inaccurate. When I can look out my window and see a near vertical rock face that essentially wraps around the west and north sides of my home and then see the mapping showing flood waters extending beyond this physical feature, then it doesn't take a rocket scientist to know the mapping is flawed; it is physically impossible for flood waters to extend north of the back of my home as shown on the proposed remapping. Also, I don't feel that it should be my responsibility to hire a surveyor in order to provide the county with data needed to make their remapping accurate.

In addition to my comments sent to Erin Cooper, the following items should be taken into consideration:

1. Approximately the same time the CHAMP map was sent out to residents (early 2018) the Fourmile Watershed Coalition completed work on my property which included widening of the creek channel, stabilizing the creek channel's north embankment with large boulders, and installing a rip-rap overflow channel paralleling the creek channel. Based on the timing it's doubtful that any of this work was captured in the CHAMP map. Although some of this work may be captured in future remapping what is not known by those preparing the remapping is that the creek has actually carved a deeper channel since the coalition work was completed (the channel is over a foot deeper than it was a year ago). **This work will be captured in a LOMR (Letter of Map Revision) for Fourmile Creek. We expect the LOMR will become effective the day after the CHAMP maps become FEMA effective (in 2021). I am not sure exactly when the surveys for the stream work were completed, but they do reflect the post-construction conditions in the creek.**
2. In early 2019, the home access project, which consisted of a new bridge, for 6149 Fourmile Canyon Drive was completed. The flooding of the southeast portion of my property in 2013 was a result of the old wooden bridge that collapsed at this location. The CHAMP map sent out in 2018 did not consider the new bridge, with its widened span, that was completed in 2019. **This bridge will be incorporated into the LOMR for Fourmile Creek. The survey for the bridge has already been completed.**
3. The property to the south of the creek channel, that parallels my property on the south side of the county road, sits at a lower elevation than all my property on the north side of the county road. Flood waters would more easily flow to the south than as depicted on the CHAMP map. **Yes, you can see this elevation difference in the cross-section above, where the right (south) side is lower than the left. However, the water surface elevation of the predicted 100-year flood is higher than the ground on both sides of the creek, resulting in the floodplain being mapped both north and south of the creek.**
4. Since LIDAR uses non-vegetation data, it discounts the mature trees along the south edge of the county road and the mature lilac hedge (and fencing) that runs the length of my property on the north edge of the county road. Since water flows in the path of least resistance, the mature vegetation bordering both sides of the county road will further assist in directing flood waters further to the more open terrain to the south. **Vegetation is included and considered in the**

hydraulic modeling through a coefficient called the Manning's Roughness coefficient. Dense vegetation generally has an impact of slowing the velocity of flood water and increasing the water surface elevation. The impact of vegetation (of lack thereof) is included in the hydraulic model computations.

5. My home was built in 1890 and was not threatened in the 2013 flood or any flood events prior. This bit of empirical data along with the physical features surrounding my home should have influence over the theoretical modeling that is being used to develop the floodplain remapping. As Erin mentioned, the 2013 flood was a 25 to 50 year event in this area, so the predicted 100-year event would behave differently than what you experienced in 2013. Additionally, "100-year flood" is a bit of a misnomer. The 100-year floodplain actually maps a flood event that has a 1 in 100 (1%) chance of occurring in any given year. So, a 130-year old house would not necessarily have experienced a "100-year flood."
6. Sometime in 2014 a large portion of Lot 9 of Block 2 of the Town Site of Wall Street (the northeast corner of my property) was backfilled with over 50 cu-yds of material. This backfill elevated this portion of my property several feet. However, this portion of my property is still shown as being in the floodplain. If this fill was not included in the LiDAR data and there is post fill survey available, this information could be submitted as part of the appeal period and FEMA would consider if it had an impact on the results of the hydraulic analysis.

Based on my previous comments, and the additional comments above, I would like to request that the county perform additional field surveying in this general area to supplement the LIDAR data so that the remapping is using accurate data, not just best available data. I understand that work performed by the watershed coalition and the engineered water crossings will be incorporated into the remapping, however, I believe that the data used to develop the floodplain mapping on my property is either insufficient, inaccurate, or both.

Thank You,

Michael Whited
6148 Fourmile Canyon Dr
303-447-3868