



COLORADO

Colorado Water Conservation Board

Department of Natural Resources



CWCB Risk MAP News!

This quarterly publication includes information related to ongoing Risk MAP projects across the State, as well as management and mitigation information for floodplain managers. For more information visit www.coloradohazardmapping.com. For program questions, contact marta.blancocastano@state.co.us.

Continued Community Partnership and CWCB Support during COVID-19 and the Fires in Colorado

The Colorado Water Conservation Board (CWCB) is continuing to advance flood study efforts as best as possible during these times of emergency response and uncertainty, amidst the pandemic and ongoing fires. While it may seem like more pressing matters are at hand, to experience a flood would be devastating now more than ever. So we are striving to provide current and accurate flood risk information to help you keep your community safe.

All active projects and relevant information is available at www.coloradohazardmapping.com. Internally, we will be communicating primarily through email, phone calls, and virtual meetings.

If there is anything we can do to support your community's operational capabilities or mitigate against any challenges you may be facing, please reach out at marta.blancocastano@state.co.us. You may also respond to the email that transmitted this newsletter.

Best Wishes,
Marta



Staff Changes at CWCB – Thuy Patton's Departure ☹️

After 14 great years at the CWCB, Thuy Patton is moving on. Thuy began as the NFIP Community Assistance Program Coordination and then assumed management of the Flood Mapping Program for the last 12 years. In September, Thuy began a new opportunity at FEMA Region VIII, where she will be fulfilling a portfolio management role for the Region. While the CWCB program will undoubtedly miss her, we wish her the best in her new journey!

Marta Blanco Castaño has been working closely with Thuy over the last 8 months and will assume leadership of the program in the interim. She is excited to take on the new challenges and support the program in new ways. To do this, she will continue fostering strong partnerships with local communities, other agencies, contractors, and the public. She is also looking forward to additional learning and development opportunities within the program, and CWCB as a whole.



LiDAR Update

Figure 1 shows where LiDAR is already available and/or currently being collected. We expect that the rest of the project areas currently being acquired (e.g., Denver Metro Area, northwest CO, southwest CO, eastern plains) will be available for distribution in 2021. Available LiDAR may be requested at <http://coloradohazardmapping.com/lidar>.

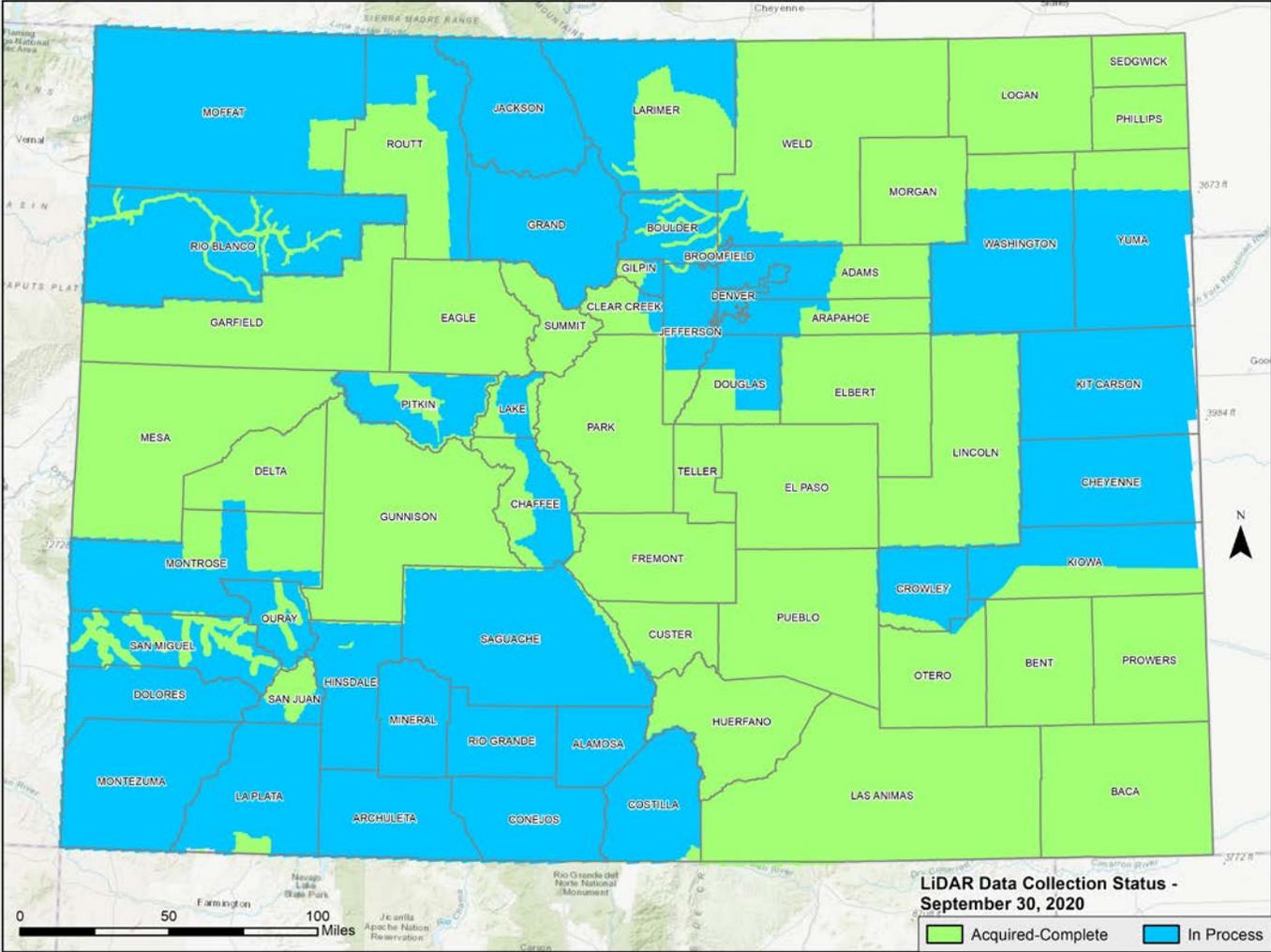


Figure 1. Colorado LiDAR Status as of September 2020



Ongoing Risk Map Projects Across Colorado

The CWCB team continues working to update flood risk information across Colorado. Figure 2 shows counties with ongoing Risk Map projects as of September 2020.

- The blue colors portray counties where CWCB is either conducting Base Level Engineering (a wide scale, automated approach to analyzing flood risk in order to provide communities with an initial, draft overview of local conditions) or LAMP efforts (Levee Analysis and Mapping Procedure)
- Counties in yellow are undergoing data development such as hydrology, hydraulics, and floodplain mapping
- Counties shown in red have preliminary FIRMs and are either in the appeal period or reaching the Letter of Final Determination (LFD) phase
- Counties with brown hashing have multiple projects and hence multiple statuses currently
- The rest of the fourteen counties do not have current in-progress projects as of late summer/early fall 2020.

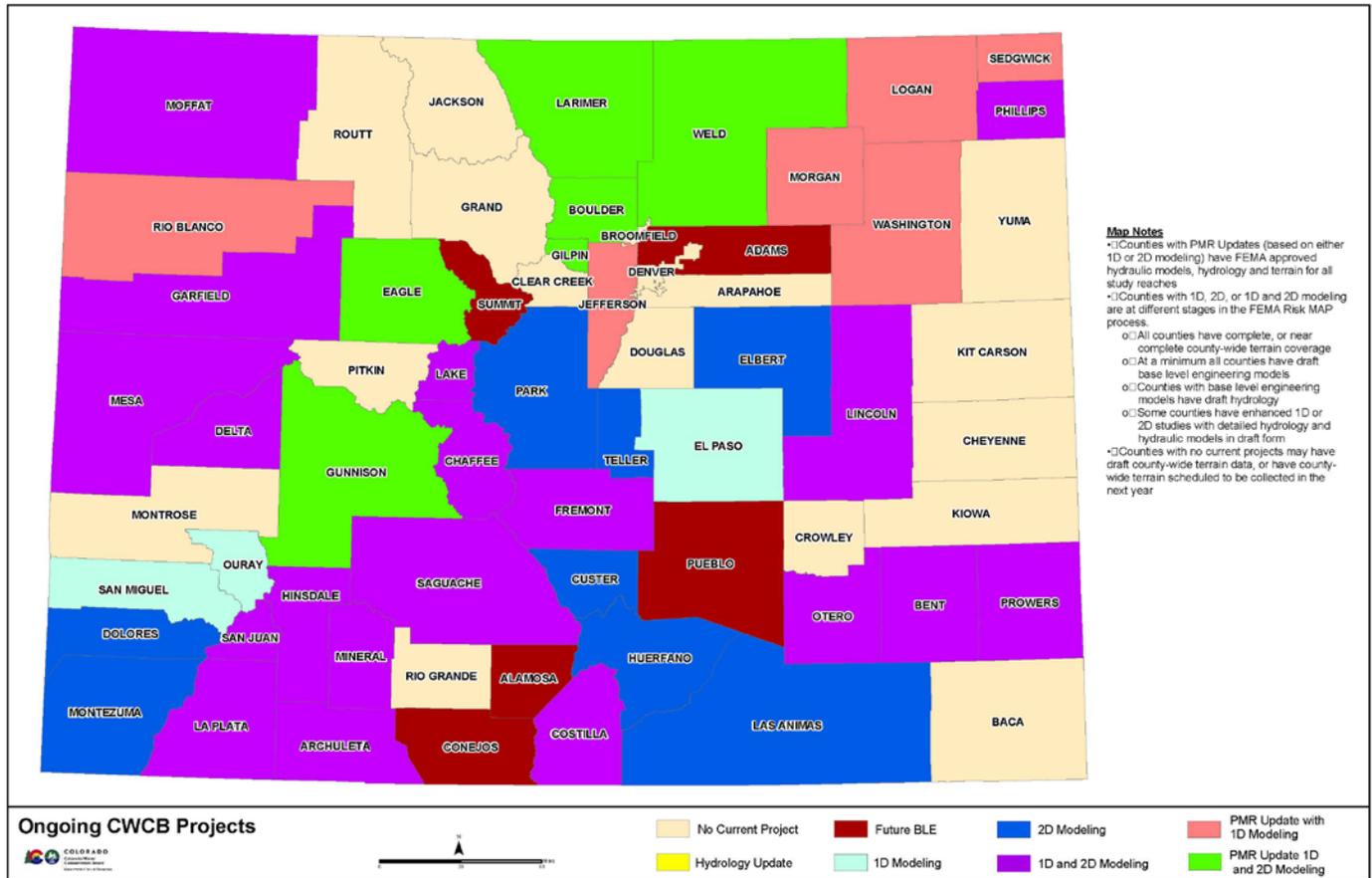


Figure 3. Ongoing CWCB Projects and Study Type/Modeling Method

Be on the lookout for more information if you are in one of these areas with ongoing projects; numerous community actions are necessary during this time for all affected communities. Visit www.coloradohazardmapping.com for important information on the process of any ongoing project, and for details on how your community can access, visualize, and manage the produced data. As always, if you have any questions or concerns regarding flood mapping projects, please reach out and our team will be happy to provide more information.

Colorado 2D Consortium (C2DC) Updates

Over the last year, the C2DC group has routinely met with several regulatory agencies and contractors within Colorado, to discuss common challenges arising from communicating 2D hydraulic modeling results for flood insurance studies, given that the engineering community as a whole has seen increases in the use of these enhanced models. Thanks to many of you for contributing!

Another key goal of these meetings has been to establish best practices for Rain-on-Mesh (RoM) modeling to assist the engineering community in providing an accurate and consistent approach. The recommendations are also being provided to FEMA to consider during their next guidance update. Their adoption would be a proactive step towards ensuring consistency in project





delivery, improve the accuracy of emerging science, and ease the use of the methods for risk identification (as most 2D produced results and information still falls in the ‘non-regulatory’ category).

As such, the C2DC group has developed a memorandum to outline key recommendations to better communicate and approach 2D modeling in our state. Training initiatives have also been suggested, to provide the general floodplain management audience with updated management techniques and improved technical information.

For more details on the C2DC, or to become involved with the ongoing efforts from this group, please reach out to Rigel Rucker (rigel.rucker@aecom.com) concerning the use and communication of 2D products or Geoff Uhlemann (geoff.uhlemann@mbakerintl.com) for technical collaboration on 2D best practices.

Other Recent Updates/Miscellaneous

The recent Colorado Association of Stormwater and Floodplain Managers (CASFM) annual conference was held virtually, from September 29-October 1. Exciting presentations were available, discussing both technical and qualitative topics from stormwater quality and green infrastructure, to 2D modeling, to lessons learned in the fields of stormwater and floodplain management, as well as providing updates on what’s new in Colorado (e.g., guidance documentation, technical processes, public safety improvements, etc.). For more information and to get more details on future events, please visit <https://www.casfm.org/annual-conference/>.

Mitigation Minute/Lessons Learned

Share your successes or lessons learned! If you have a mitigation story or flood risk update story that would benefit other communities, please reach out to us so we can include it in our next newsletter!

Training! New How-Tos, Video Tutorials, and Templates

CWCB recognizes that many floodplain managers would be interested in additional training and in being able to access common resources easily, especially as COVID-19 is limiting in person interactions including upcoming learning opportunities. As such, the CWCB has begun creating how-to documents, training videos, and templates for communities to use. CWCB will publish on these tools on www.coloradohazardmapping.com under **Flood Hazard >> General Information**.

As of September 2020, we have included a few additional videos such as what to expect from Community Public Meetings, and even an interview with our NFIP Community Assistance Program Coordinator who discusses flood after fire risks and the importance of securing flood insurance. On the website, we also have available self-paced document trainings (with video tutorials to follow up soon) on processing and submitting Letters of Map Amendment (LOMAs) based on using high resolution LiDAR data, and much more!

In the meantime, you may access a set of materials and resources from the table below, which we will update from time to time or if new resource requests are made.



Resource and Training Materials

SECTION	DOCUMENT	DESCRIPTION	FORMAT	SOURCE	LINK
1) INTRODUCTION VIDEOS	Colorado Hazard and Risk Mapping Video Series	Short flood risk training video announcement	Video	CWCB 2020	https://www.youtube.com/watch?v=qaVipiqXwsF&feature=youtu.be
	FEMA Risk Map Introduction	Introduction to Risk Map - A Customer Experience Toolkit Video	Video	FEMA 2019	https://www.youtube.com/watch?v=1pzFsrulfpE&t=7s
2) CONTACTS AND GENERAL INFORMATION	CWCB points of contact	State agencies involved in floodplain management and flood risk studies.	Web Link	CWCB 2020	http://coloradohazardmapping.com/Contact https://cwcb.colorado.gov/focus-areas/hazards/flood-information-resources
	FAQs regarding floodplain administration and resources (e.g. CRS program)	A summary of your roles and responsibilities as the floodplain manager for your community or county.	Web Link	CWCB 2020	http://coloradohazardmapping.com/faqs ; http://coloradohazardmapping.com/crs#!/resources
	Frequently Used NFIP Acronyms and Abbreviations	A list of acronyms and terms typically used by floodplain management professionals.	Web Link	FEMA 2006	https://www.fema.gov/media-library-data/20130726-1543-20490-4591/mh_v2_appe.pdf
3) RECOMMENDED TRAINING	Recommended Training	List of recommended training to assist with fulfilling a local floodplain manager role organized by beginning, intermediate and advanced levels. Online Course Information Available.	Web Link	Idaho Dept. of Water Resources 2015	https://silverjackets.nfrmp.us/portals/0/doc/Idaho/SoYouAreAFloodplainManager/3-Recommended_Training/3a_RecommendedTrainingLocalFloodplainMgr/DWR2015.pdf
	FEMA Online Tutorials	Tutorials by FEMA educating users on the use and application of flood risk data and floodplain mapping software, products, GIS, etc.	Web Link	FEMA 2019	https://www.fema.gov/online-tutorials https://fema.maps.arcgis.com/apps/MapSeries/index.html?appid=8093679c21fe4930831bc32dbf38e8f0
		Flood Insurance 101 - Tutorials and FAQs	Video	FEMA	https://www.youtube.com/results?search_query=fema+flood+insurance+101
		Flood Insurance Rate Map (FIRM) Tutorial	Video	FEMA 2018	https://www.youtube.com/watch?v=kX3Xu782ecA
		Floods and Mitigation Training Videos and Background Information	Video	FEMA	https://www.youtube.com/playlist?list=PLBE5091FB57452734
	Basics of the NFIP	A summary about the NFIP and FAQs	Web Link	FEMA 2020	https://www.fema.gov/media-library-data/1481032638839-48ec3cc10cf62a791ab44ecc0d49006e/FEMA_480_Complete_reduced_v7.pdf https://www.fema.gov/media-library-data/20130726-1438-20490-1905/f084_atq_11aug11.pdf https://www.fema.gov/national-flood-insurance-program
	Building Public Support for Floodplain Management	A guidebook to help the local floodplain officials gain support from the public, including practices and approaches.	Web Link	ASFPM 2010	https://s3-us-west-2.amazonaws.com/asfpm-library/General/BPS_Guidebook_ASFPM_2010.pdf
Increased Cost of Compliance Coverage – Guidance for State and Local Officials (FEMA 301)	A quick-reference tool providing guidance to local officials on Increased Cost of Compliance Coverage under the NFIP and how it relates to your community's administration of floodplain management laws or ordinances.	Web Link	FEMA 2013	http://www.fema.gov/pdf/plan/floodplain/fema301_section4.pdf	
4) MODEL ORDINANCES, REGULATIONS, STANDARDS, TEMPLATES, FORMS, AND SPECIFIC ACTIVITIES	Colorado Floodplain Rules and Regulations	CWCB adopted floodplain rules and regulations, CWCB Policy #21, BCAs, development permit applications, floodplain and stormwater criterial manual, and other such resources	Web Link	CWCB 2020	https://cwcb.colorado.gov/focus-areas/hazards/flood-information-resources
	Community Rating System (CRS) Resources	Information on the CRS program, FAQs, approved activities, resources, etc.	Web Link	CWCB 2020	https://www.fema.gov/national-flood-insurance-program-community-rating-system http://coloradohazardmapping.com/crs#!/home
	No-Rise Certification	Procedures for No-Rise Certification for Proposed Developments in the Regulatory Floodway.	Web Link	FEMA 2013	http://www.fema.gov/no-rise-certification-floodways
	Change a Flood Zone Designation - Online Letter of Map Change	Link to FEMA's Online Letter of Map Change web application intended for homeowners and other interested parties that wish to submit the application online instead of using the paper form method.	Web Link	FEMA	https://www.fema.gov/change-flood-zone-designation-online-letter-map-change



	MT-EZ - Single Residential Structure or Lot Amendments to NFIP Maps (Not Built on Fill)	PDF and web link providing forms and instructions for single residential structure or lot amendments to NFIP Maps (not built on fill).	Web Link	FEMA 2012	http://www.fema.gov/mt-ez-form-instructions
	MT-1: Conditional and Final LOMAs and LOMR -F (for Single or Multiple Lots/Structures)	PDF and web link to forms and instructions to request changes for multiple lots or structures, for proposed structures, and for map changes based on fill.	Web Link	FEMA 2013	http://www.fema.gov/mt-1-application-forms-instructions
	MT-2: Conditional Letters of Map Revision (CLOMR), LOMRs, and Physical Map Requests	The web page provides a series of 12 forms and instructions for LOMR application submitted through the mail. The page is intended for home and property owners and community officials who wish to submit a MT-2 application via paper form.	Web Link	FEMA	http://www.fema.gov/mt-2-application-forms-and-instructions
5) MAPPING AND DATA	Using the Colorado Hazard Mapping Data Visualization Tools	The online CO Flood Hazard Mapping Tool can be used to determine if a structure or parcel is located within a SFHA, whether in effective or preliminary status	Web Link	CWCB 2020	http://coloradohazardmapping.com/map
	FEMA's Flood Map Service Center- Accessing the National Flood Hazard Layer data and metadata	The FEMA Flood Map Service Center provides GIS data and metadata that includes the SFHA zones, BFEs, updated LOMA, LOMR, and LOMR-F information, and FIRM panels. Instructions for retrieving data can be found in the PDF file provided.	Web Link	FEMA 2020	https://msc.fema.gov/portal
	FEMA's Preliminary Flood Hazard Data Viewer	Page with information on the online viewers and data sharing sites which FEMA supports for accessing preliminary flood hazard data	Web Link	FEMA	https://www.fema.gov/view-your-communitys-preliminary-flood-hazard-data
	Colorado Fluvial Hazard Zone	Information, data, and resources regarding fluvial hazard zone (FHZ) studies recently completed or currently being conducted. The FHZ is the area which a stream has occupied in recent history, may occupy, or may physically influence as it stores and transports water, sediment, and debris.	Web Link	CWCB 2020	https://www.coloradofhz.com/
6) FLOOD HAZARD MITIGATION PLANS/ PLANNING PREPAREDNESS	State Hazard Mitigation Plan (SHMP)	Identifies hazards, analyzes risks and vulnerabilities, determine potential losses, and develops mitigation strategies to reduce impacts, including flood hazards. Includes information on data collected, reports, products, and information available from NOAA National weather Service, U.S. Geological Survey, Colorado's Division of Homeland Security & Emergency Management, and others as related to flooding events and general flood hazards in CO.	Web Link	DHSEM 2019	https://www.colorado.gov/pacific/mars/colorado-natural-hazard-mitigation-plan
	Local Mitigation Planning Handbook	FEMA's guide for developing local hazard mitigation plans (HMPs). Local mitigation plans include the same information as the SHMP at the local level, identify policies and risk reduction actions, build partnerships, increase awareness, and are tools for officials.	Web Link	FEMA	http://www.fema.gov/media-library/assets/documents/31598?id=7209
	Colorado's Future Avoided Cost Explorer (FACE)	A tool designed to explore the economic impacts that flood, drought, and wildfire may cause in the future	Web Link	CWCB 2020	https://cwcb.colorado.gov/FACE
	USGS Flood Inundation Mapper	USGS online flood inundation map library and GIS mapper program showing where flooding may occur over a range of water levels in the	Web Link	USGS	https://fim.wim.usgs.gov/fim/
	FEMA's Outreach Materials for NFIP State and Local Officials	Outreach materials and other emergency management resources related to managing flooding	Web Link	FEMA 2020	https://www.fema.gov/nfip-state-and-local-officials-materials
7) FUNDING ASSISTANCE AND GRANT PROGRAMS (INCLUDING OPPORTUNITIES FOR PARTNERSHIP AND COLLABORATION)	Colorado Hazard Mapping & Risk Map Portal Grants and Resources	FAQs which facilitate communication, share information, and provide 'one-stop' on grants and other flood risk reduction documentation.	Web Link	CWCB 2020	http://coloradohazardmapping.com/faqs
	Federal Flood Risk Management Programs	Website provides summaries of Federal programs related to flood risk management, and has points of contact as well	Web Link	FFRMP	https://ffrmp.nfrmp.us/
	Colorado Silver Jackets	Information, points of contact, webinar resources, and more related to the Colorado Silver Jackets interagency partnership dedicated to finding long-term solutions for Colorado's flood risk management. They bridge the gap between USACE and FEMA efforts	Web Link	Silver Jackets	https://silverjackets.nfrmp.us/State-Teams/Colorado



Upcoming Meetings around the State

CWCB Contacts

Multiple meetings are scheduled with communities in the coming months. *Note that meetings are currently being conducted, and expect to continue being delivered, in virtual format. We can accommodate for hybrid meetings if desired, with some staff in-person and some attending virtually.*

Delta County:

Early 2021 – Flood Risk Review Meeting

Garfield County:

Late October 2020 – Flood Risk Review Meeting

Gunnison County:

Winter 2020/2021 – Flood Risk Review Meeting

Hinsdale County:

Winter 2020/2021 – Flood Risk Review Meeting

Huerfano County:

Winter 2020/2021 – Discovery Meeting

La Plata/San Juan/Archuleta Counties (Animas Watershed Project):

Late 2020 – CCO and Public Meetings

Larimer County:

Late 2020 – CCO and Public Meetings

Las Animas County:

December 2020 - BLE kickoff meeting

Ouray County:

Late 2020 – Flood Risk Review Meeting

Prowers County:

December 2020 - Pre-Levee and BLE kickoff meeting

Towns of Holly/Granada

October 2020 - Arkansas River Hydrology Meeting

Saguache County:

Winter 2020/2021 – Flood Risk Review Meeting

San Miguel County:

Late 2020 – Flood Risk Review Meeting

Flood Mapping Program:

Marta Blanco Castaño

marta.blancocastano@state.co.us

Colorado NFIP Community Assistance Program:

Doug Mahan

doug.mahan@state.co.us

More Information/Resources

- Specific Project and Homeowner Information: www.coloradohazardmapping.com/floodHazard
- Learn about the Community Rating System (CRS): www.coloradohazardmapping.com/Crs/#!/home
- Information on FEMA’s NFIP: www.fema.gov/floodplain-management
- More about FEMA Flood Insurance: www.floodsmart.gov