



MEETING RECORD

Project Name:	<i>Animas Risk MAP Study – Phase 2: Data Development</i>
Meeting:	<i>Project Kickoff</i>
Date & Time:	<i>March 23, 2018, 2 PM – 3:45 PM</i>
Place:	<i>County Administration, 1101 E 2nd Ave, Durango, CO 81301, USA</i>

Action items are **bolded red**

1. Introductions & Intent of Meeting

- Colorado Water Conservation Board (CWCB): Thuy Patton (*State Floodplain Mapping Coordinator*), Madeline Kelley (*Hazard Mapping Coordinator*)
- City of Durango: Ricky Szmajter (*GIS Analyst*), Shannon Waggoner (*Public Information Officer*)
- La Plata County (LPC): Aaron McKelvey (*Planning Engineer*), Butch Knowlton (*Building Department Director, Emergency Manager, Floodplain Administrator*), Chuck Stevens (*County Assistant Manager*), David Kirk (*GIS Analyst*), Leslie Jakoby (*Environmental Specialist*), Tom McNamara (*Emergency Management Coordinator*)
- San Juan County (SJC)/Silverton: Mark Reavis (*Planning Director & Floodplain Administrator*)
- Southern Ute Indian Tribe (SUIT): Cathy Condon (*Representative - Attorney at Law*), Don Brockus (*Risk Management Officer*), Shelly Riddle (*GIS Manager*)
- AECOM: Geoffrey Uhlemann (*Project Manager/Engineer*), Remmet deGroot (*Program Manager*), Rigel Rucker (*Project Manager/Engineer*)

2. Risk Mapping, Analysis and Planning (Risk MAP) Study Background (Phase 2) and Connection to Discovery (Phase 1)

- Geoff Uhlemann described that the end result of this project will be products to help mitigate disaster, and an update to the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Maps (FIRMs) and National Flood Hazard Layer (NFHL). There is a slightly different outcome for each entity which include:
 - LPC's and Archuleta County's digital information and FIRMs will be updated with the latest study information.
 - SJC is still operating with paper FIRMs. The update will move the information to a digital format, and update paper firm format.
 - SUIT will have an update to move the information to a digital format. In addition, they are currently not participating in the NFIP, but are interested in joining. If they do not join, mapping on FIRMs could prompt lenders to require flood insurance. However, buyers would not be able to purchase flood insurance if not a member of the NFIP. **SUIT to confirm that Tribe will join NFIP before mapping begins.**

3. Discovery Debrief

- Process overview & takeaways: **communities are advised to review respective actions in Section 6 of Discovery Report**
- Documents on website: <http://www.coloradohazardmapping.com/riskMap/animas/>



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4. Phase 2 Study Overview

- Approved Project Scope: funded by FEMA grant to CWCB
- Multi-risk focus and components: mostly focused on flood risk, but includes other non-standard assessments
- Data use: will likely be used to update FIRMs, but also has direct beneficial use for community

5. Flood Risk Study Methodology

- Topographic Data & Terrain Development
 - The Project Team anticipates having corrected/revised LiDAR for San Juan County in May 2018.
 - David Kirk stated that La Plata County flew pictometry/LiDAR within last couple years and covers much of the Animas River valley – uncertain whether Durango was flown. **David to provide pictometry/LiDAR to Project Team.**
 - State is applying for funding for additional LiDAR flights, likely to be flown in Summer 2019 if funded, and will notify communities of status. Looking for additional agency partners in the request, such as the United States Geological Survey (USGS) or United States Forest Service (USFS). Rick Szmajter interested in which returns are being provided so that the County can use to assess canopy condition for wildfire risk assessment. **Thuy Patton to look into what returns are requested.**
 - **Shelly Riddle will confirm with the Tribe that their LiDAR, provided during Discovery, can be used for the flood study and submitted to FEMA.** Data will be publicly available if submitted.
- Survey (base vs. enhanced): structures & cross sections
 - **Rick Szmajter and David Kirk to check whether kayak park was covered by new LiDAR. If not, then City to provide as-built information to Project Team.**
 - **Project Team will coordinate with communities for property access prior to beginning survey activities.** Points of contact include Butch Knowlton for LPC, Mark Reavis for SJC and Silverton, and Shelly Riddle for SUIT. **Shannon Waggoner to identify contact for City of Durango.**
 - LPC has as-builts for select structures on several Zone A streams including the Florida River, Basin Creek, and Wildcat Canyon. Also, Basin Creek's discharges are regulated by releases from the dam at Nighthorse Reservoir and can be estimated with stage-discharge curves. **Aaron McKelvey to send County as-builts and discharge table for Nighthorse Reservoir to Project Team.**
- Hydrology: 10%, 4%, 2%, 1%, 1%+, and 0.2% intervals; gage & regression.
 - Rick Szmajter noted that there are some significant intakes along the Animas River with varying pumping rates (sometimes not at all), so this should be considered during hydrology.
- Hydraulics: 1D HEC-RAS 5.0.3, all recurrence intervals
- Floodplain Mapping
 - Butch Knowlton mentioned that floodways are helpful and should be calculated. It would also be helpful to see mapping results for different recurrence intervals. This could help for evacuation planning. Geoff Uhlemann and Rigel Rucker indicated that mapping from different recurrence intervals could be exported to help with this. Vallecito is a good example where evacuation would be needed for the 25-year and 50-year events.
- Regulatory Update (pending funding)

6. Flood Study Areas – Stream Segments (see attached exhibit)

- Survey: 9 streams, comprising 51 miles with estimated 85 structures, and 50 cross sections
- Hydrology: gage analysis where appropriate, otherwise regression, post-fire HEC-HMS along Junction Creek



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- Hydraulics: 30 streams comprising 266 miles of base and 51 miles of enhanced
 - All discussed that this would be helpful. Some of the Zone A's that were studied previously used USGS topographic data, so they do not match elevations when surveyed. Others were non-model backed. AECOM will only be studying areas with quality topographic data.

7. Additional Analyses

- Post-fire flooding for Junction Creek with rainfall-runoff hydrology for three burn scenarios and leveraging new Junction Creek hydraulic model
 - Butch Knowlton interested in assessing areas with greatest impact of beetle kill. Junction Creek is one of these areas, as well as area northeast of Baker's Bridge along Animas River, and upper Lightner Creek. The Project Team will assess Junction Creek, which will provide a sense of level of impact that might occur in other portions of the watershed too.
- Sediment-bulked flooding for 8 miles of the Animas River (centered on Durango) with increased discharges
 - Butch Knowlton indicated that this exercise might not be as useful as other potential assessments. Suggested assessing risks associated with the Florida River, which serves as drinking water for the City of Durango. Chuck Stevens concurred. **Butch and Chuck to talk with Durango staff and recommend an alternate risk evaluation to Project Team.**
- Flood risk from ice jamming in Silverton with additional recon, research, and analyses
- Composite risk mapping for Silverton and San Juan County by digitizing the 1976 Institute of Arctic and Alpine Research (INSTAAR) maps and updating risks for wildfire, avalanche, and flooding.
- Estimating travel times from upper portions of Animas Watershed –26 miles of model development.
 - The Project Team will develop a tool allowing estimation of travel times from various origins and receptors, as there are many diversions and intakes.
 - It was discussed that this would be helpful, especially if it could be predicted using different flow rates.
- Developing strategies and materials for Southern Ute Indian Tribe to use in outreach
 - **Shelly Riddle to inquire of Emergency Management what would be useful.**

8. Ongoing Projects, Coordination Efforts, and LOMRs/CLOMRs

- Leveraging existing data (spatial, models, as-builts) – data provided from community needs endorsement
- Study tie ins and planned construction
 - Communities indicated there were no ongoing or upcoming large construction or restoration projects nor study efforts in scoped areas.
 - Some small bridge projects were mentioned after the meeting. **Communities, Counties and Tribe will provide any as-built data that can be used for the studies.**
- Data Sharing and QC: CWCB has been sharing data as it is developed as long as stakeholders acknowledge that it is draft and data distribution occurs through the local jurisdiction. CWCB is also asking that stakeholders review data prior to or during FEMA review so that they are comfortable with what is produced.
- Use in Hazard Mitigation Plan for San Juan County and La Plata County. Both are still in draft stage.
- Lengthy process: models will be based on currently available data (existing conditions up until Summer 2018). Many times stakeholders ask why studies don't have all projects and changes up until time of release. The study is based on a snapshot in time, and takes time for approval for official use. It will be made available earlier as best available data.

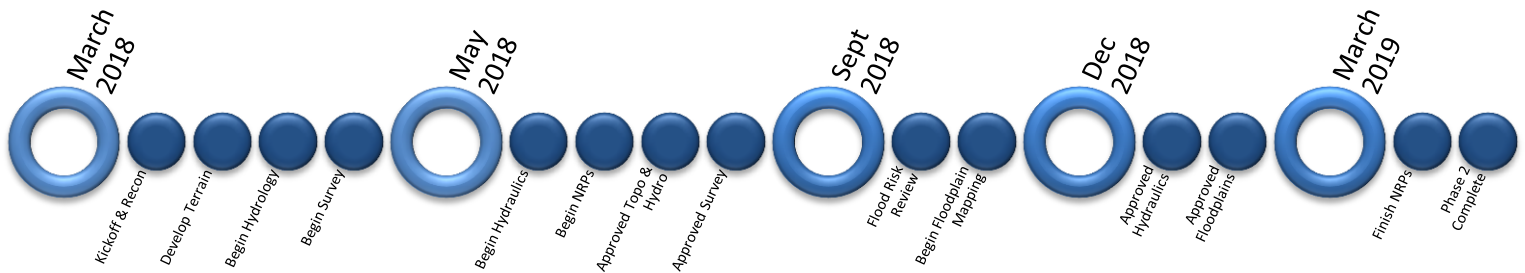


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9. Public Outreach, Partners, and Roles

- CWCB strives for a community partnership for planning and conducting public outreach. CWCB asks that communities provide public outreach since the State is providing updated flood information required by the NFIP. CWCB and FEMA can support outreach efforts and provide expertise.
- Project website and resources, includes fact sheets and other outreach tools
- Community website and newsletters
- Community contacts & private property access for survey efforts
- **Project Team to send community-specific memoranda of understanding (MOU) within next couple weeks and communities to return signed copy within 30 days of receipt.** Signature indicates awareness of project and approval to perform study – does not indicate concurrence with or ownership of results.

10. Next Steps & Estimated Timeline



- Newsletters planned to provide updates. flood risk review meeting to be conducted prior to submitting hydraulics to FEMA
- If a FIRM update is funded in FY19, anticipate putting data on FIRMs for preliminary issuance in late 2019/early 2020 with effective FIRMs in 2021

11. National Flood Insurance Program (NFIP) Implications and Hazard Mitigation Planning

- This project will likely result in updated FIRMs. This means that there are implications for homeowners from an insurance perspective in addition to updated risk information. It is important that the public becomes aware of the project and is kept informed. CWCB and FEMA can help provide outreach materials and messaging if needed. **One step that could occur now is to add a link to the project website to local jurisdiction websites.**

12. Open Discussion and Review of Scope & Study Areas: discussion commenced and meeting adjourned

Project Website: <http://www.coloradohazardmapping.com/riskMap/animas>

Project Contacts

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Meeting minutes were prepared by Geoffrey Uhlemann and distributed on 3/29/18. Unless any revisions are received by 4/5/18, they are deemed final.