



MEETING MINUTES

Project Name:	<i>Colorado Water Conservation Board (CWCB) Animas River Watershed Discovery</i>
Meeting:	<i>Partner Coordination Call – Interest & Involvement</i>
Date & Time:	<i>June 9, 2016; 2:00 – 3:30 PM</i>
Call In	(888) 369-1427 Code 5261180

- Geoff Uhlemann with AECOM welcomed call participants and asked for introductions. Those on the call included (listed in alphabetical order by entity):

AECOM

Geoff Uhlemann, *Civil/Environmental Engineer*
Jim DeAngelo, *Hazard Mitigation Specialist*
Remmet deGroot, *Sr. Project Manager*
Rigel Rucker, *Project Manager*

Animas River Community Forum (ARCF)

Shannon Manfredi, *ARCF Coordinator*

Animas Watershed Partnership (AWP)

Ann Oliver, *AWP Coordinator*

Colorado Department of Public Health and Environment (CDPHE)

Andrew Ross, *Senior Hydrogeologist*
Patrick Pfaltzgraff, *Water Quality Control Division Director*

Colorado Division of Reclamation Mining and Safety (DRMS)

Tony Waldron, *Supervisor of Minerals Program*

Colorado Geological Survey (CGS)

Kevin McCoy, *Engineering Geologist*

Colorado State Forest Service (CSFS)

Kent Grant, *Durango District Forester*
Rich Edwards, *Assistant Staff Forester*

Colorado Water Conservation Board (CWCB)

Thuy Patton, *State of Colorado Floodplain Mapping Coordinator*

Dam Safety - Colorado Division of Water Resources

Kallie Bauer, *Dam Safety Engineer Division 1*

Earth Data Analysis Center (EDAC) - University of New Mexico

Brian Keller *GIS Manager*
Shawn Penman, *GIS Specialist/Manager*

Federal Emergency Management Agency (FEMA)

David Sutley, *Risk MAP Specialist – Region VIII*
Jerry Clark, *Civil Engineer – Region VI*
Matt Buddie, *Floodplain Management Specialist – Region VIII*
Scott Roscoe, *Tribal Specialist for Hazard Mitigation – Region VIII*

La Plata County

Butch Knowlton, *Building Department Director, Emergency Manager, and Flood Plain Administrator*
Leslie Jakoby, *Environmental Specialist*
Tom McNamara, *Emergency Management Coordinator*

Mountain Studies Institute

Marcie Bidwell, *Executive Director*

Natural Resources Conservation Service (NRCS)

Sterling Moss, *District Conservationist in Durango*

New Mexico Division of Homeland Security and Emergency Management (DHSEM)

Bill Borthwick, *Floodplain Coordinator*

San Juan Soil and Water Conservation District

Melissa May, *Natural Resource Specialist*

Southwestern Water Conservation District

Laura Spann, *Office Manager*

U.S. Fish and Wildlife Service (USFWS)

Greg Gerlich, *Assistant Regional Director for Fish and Aquatic Conservation*
William Rice, *Fish Passage Program and National Fish Habitat Program Coordinator*

United States Army Corps of Engineers (USACE), Albuquerque

Stephen Scissons, *Hydraulics Engineer*

United States Forest Service (USFS)

Cary Newman, *San Juan Forest Hydrologist*
Kelly Palmer, *San Juan Forest Hydrologist*

United States Geological Survey (USGS), Colorado Water Science Center

Bob Kimbrough, *Associate Director for Hydrologic Data*
Brian Caruso, *Chief of Hydrologic Studies*

- Rigel Rucker with AECOM provided an overview of the objective to Discovery. The goal of Discovery is to gain a more holistic picture of the flood and non-flood hazards within the watershed, to collect data to validate risks, identify opportunities to facilitate mitigation planning, and aid local communities in identifying further actions to reduce risk and increase resilience across the watershed. Discovery opens lines of communication and relies on local involvement for productive discussions and identification of local risk. CWCB is looking for partners to contribute information during Discovery or to participate in the Discovery effort. Rigel Rucker asked if there were any questions.
 - Patrick Pfaltzgraff with CDPHE asked what the requirement is for this type of study, as it seems similar to the watershed analysis that CDPHE does.
 - Rigel Rucker answered that the State and FEMA look at different watersheds in the State and prioritize which watersheds to study. The Animas Watershed was identified by both New Mexico



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- and Colorado prior to the Gold King Mine incident. A combination of factors are taken into account including population, risk, and available data to start discussions with the objective of identifying additional projects— particularly flood studies. This effort relates to hazard mitigation plans (HMPs) by reviewing and seeing if Discovery can build off or expand upon actions identified in the HMPs, or fund or help implement them.
- Patrick Pfaltzgraff asked if it is associated with homeland security.
 - Rigel Rucker answered that Discovery is a FEMA/homeland security requirement prior to beginning Risk MAP studies in an area. Discovery is designed to prompt discussions so that projects can be identified and prioritized.
 - David Sutley with FEMA Region VIII added that the goal of Discovery is to get partners together to see where there is risk in the watershed and how to mitigate it.
 - Jerry Clark with FEMA Region VI stated that Discovery is meant to be multi-hazard oriented with consideration given to future hazards.
 - Rigel Rucker added that for this reason we reach out to a wide audience.
 - Butch Knowlton from La Plata County asked if there are other examples of mitigation projects that have arisen from Discovery.
 - Rigel mentioned the Big Thompson Discovery effort. An example of a mitigation action is to increase access points to a restricted area during flooding. An example of multi-hazard analysis is how a fire might influence subsequent flooding.
 - Butch Knowlton stated that the level of study and dating of floodplains varies throughout the La Plata County and asked whether we would look at additional hazards?
 - Rigel Rucker answered that Discovery is a process to identify the additional hazards and help evaluate how to advance mitigation actions, whether by funding or technical assistance.
 - Butch asked if the Gold King Mine release is a central focus of the study.
 - Rigel answered that it will be considered during Discovery, but that this process doesn't involve particular actions to address that release.
 - Rigel Rucker overviewed the Discovery schedule, speaking to relevant dates and the process going forward.
 - The Colorado Discovery meeting is tentatively scheduled for late July – we are not planning on having partners attend in person; however, we are interested in any messaging that we can relay to the communities. The Colorado meetings will be community-based; likely in Silverton, Durango, and with the Southern Ute Tribe. Rigel asked the New Mexico team to speak to their effort.
 - Brian Keller and Shawn Penman with EDAC stated that their Discovery meeting is scheduled for July 28th at the County Building in Atzec from 1 to 5 pm and are in the process of putting together letters to stakeholders. The meeting will be an open house format and people from Colorado are welcome to attend, although EDAC will not be reaching out to people in Colorado specifically.
 - There was a question on why there are two separate Discovery efforts. Rigel Rucker answered that New Mexico and Colorado have different funding sources and that the size of the watershed merited having different foci and meeting locations. The results will likely be combined in one report, but potentially tailored to the different communities.
 - Rigel Rucker explained that the Discovery process should be mutually beneficial – we want to involve interested partners. He overviewed the general partner roles, including:
 - Any partners attending the meetings to have discussions with the communities; however, in this case we are not asking partners to attend due to the limited size of the community officials present for the Colorado portion. The New Mexico portion will have an open house and solicit partner attendance.
 - Those who are not interested; please let us know if you'd like to be removed from our correspondence.
 - Those who do not want to participate, but would like to remain informed.
 - Those who have, or are aware of, data that would be helpful to use.
 - Those with messaging to bring to communities (e.g., a fact sheet about your agency).

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- Geoff Uhlemann identified each person/agency on the call to discuss partner involvement or contribution.
 - Kevin McCoy with CGS
 - Would like to stay informed, but nothing in particular to add. Will circle back with Matt Morgan at CGS.
 - The region is somewhere in the middle priority for debris flow mapping, but strongly reliant on detailed LiDAR data.
 - Tom McNamara with La Plata County stated that they recently flew very detailed LiDAR within a 2 mile buffer from the river corridor. Rigel Rucker states that Thuy Patton with CWCB requested this dataset.
 - Rigel Rucker states that New Mexico has new LiDAR and a recent flight was performed by NASA in Colorado. There also is a missing strip of LiDAR in Colorado.
 - Patrick Pfaltzgraff and Andrew Ross with CDPHE
 - They do not anticipate much input on this effort as CDPHE's focus with respect to flooding would be on response actions or recovery efforts concerning drinking water or waste water infrastructure. CDPHE does monitor spillways with the addition of contaminants to the waterways and maintains a robust monitoring network.
 - Geoff Uhlemann stated that AECOM would be interested in that data for hazard mitigation and evacuation plans. For example, to assess travel times from contaminant sources to potential receptors.
 - This effort may not fit within CDPHE's program focus; however, they are available to provide data and Andrew Ross would be the point of contact for obtaining data.
 - Rich Edwards with the CSFS, located in Fort Collins in State office.
 - Rich Edwards will defer to Kent Grant in the Durango Office, but mentioned that CSFS can provide mainly online resources:
 - Colorado Wildfire Risk Assessment Portal (CO-WRAP) is a web mapping tool that provides access to the State-wide risk assessment information.
 - CSFS maintains a grants assistance database for the public to use and it stores forestry and wildfire-related grants.
 - Kent Grant stated that the district is involved with a few other collaboratives in the surrounding area, including the San Juan headwaters partnership in Archuleta County, and the Dolores Watershed and Resilient Forest (DWARF) collaborative, which commenced in August 2015 and has Rebecca Samulski as its coordinator. However, they are not working with anyone in the Animas Watershed, so they would be interested in this Discovery effort.
 - The CSFS assists with the management of non-federal forest lands and has some competitive grants that are not robustly funded, but pertain to wildfire mitigation and forest treatments. Wildfire is likely to be a focus in this Discovery based on hazards in the watershed.
 - Bob Kimbrough and Brian Caruso with the USGS Colorado Water Science Center
 - Overviewed stream gage data available on the web. The USGS currently has 10 stream gages operating on the Animas with some having records back to the early 1900s. Each has annual peak flow data. There are some gages on tributaries and there are archives of discontinued sites that could be located if needed.
 - Mentioned the numerous investigative reports that are available online with a fair amount of water quality data, many of which are based on historical mining. The USGS has water quality and flow data associated with the Gold King release and mining in the watershed.
 - Rigel Rucker stated that we will be conducting a base-level engineering (BLE) study on the Animas and several of its tributaries, for which we will utilize the hydrologic data from USGS.



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- Kallie Bauer with Dam Safety
 - Can provide a shapefile of dam information within the watershed, including inundation mapping where allowable to share. Will provide brochures to share with communities and contact information for the dam safety staff in Durango.
- Matt Buddie with FEMA
 - Wants to remain involved and likely to have greater involvement with resulting projects than upfront in Discovery, but may have more coordination with David Sutley.
- Scott Roscoe with FEMA
 - Wants to be involved, particularly with anything pertaining to the Southern Ute Tribe.
 - Scott and Matt Buddie met with the Tribe last year and were aware of considerable data. Scott can provide HMPs and contact information for Kathi Gurule (Emergency Manager with Southern Ute. Scott mentioned some fulltime planners and GIS personnel.
- Greg Gerlich and William Rice with USFWS
 - Located in Denver and oversee the fish and aquatic program. USFWS does not have flood data, but does have grant opportunities. William Rice oversees the National fish passage program and National fish habitat program.
 - The USFWS tracks structures and stream crossing with respect to how it influences fish habitat and flooding impacts on fish. There are funding opportunities under a cost share program for projects that evaluate and map fish habitat, and how to reduce potential impacts to fish communities from flooding.
 - They want to stay involved.
- Cary Newman and Kelly Palmer with USFS
 - Cary Newman mentioned the San Juan National Forest and Rio Grande National Forest are in the process of conducting a wildfire risk assessment. May have data to provide by the end of July, particularly modeled wildfire behavior based on probability and intensity across a large landscape, including the entire Animas watershed. The risk assessment also looks at the susceptibility of valuable assets. Should be available near August 2016.
 - Kelly Palmer mentioned that the USFS is doing an inventory and risk assessment of abandoned mines on forest lands in the Animas Watershed; Ben Martinez would be the point of contact.
- Shannon Manfredi with ARCF
 - Stated that many of the partners on the call or their government agencies are part of the forum, which is less than 1 year old and was formed after the mine spill with the purpose of collaboration and coordination. Many communities, counties, non-profits, and the tribes are involved in discussions and data sharing.
 - Hold discussions on what data is available and what studies are being conducted. The group does community outreach and events. They meet every other month and are having a meeting in June, then August.
 - Rigel suggests that Shannon may be good to have present at the Discovery meetings as she is aware of many efforts.
 - The forum seeks to be an information hub for the watershed and link to other efforts. They would like help getting their website up. Talk more offline on coordination and contacts for the BLM.
- Ann Oliver with Animas Watershed Partnership (AWP)
 - Stated she is uncertain on what they would contribute, but would like to stay involved, as they share the same project interest area. Their focus is mostly on water quality, and these data should be available online via the Colorado Data Sharing Network (CDSN), but she can also provide directly.
 - They did a watershed based plan with non-point source funding in 2011 based on sampling of inflows from stems near Bakers Bridge to the San Juan River.
 - There have been three source water protection plans completed with 16 public water suppliers on the Colorado side and some plans completed in New Mexico as well. These plans provide



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- potential sources of contamination and possible actions the public water suppliers would like to conduct or partner with others to complete. Ann can provide.
- Ann Oliver is a member of Southwest Basin Roundtable, which is a local board that helps distribute funds from the Water Supply Reserve account from CWCB. This entity makes grants local for projects.
 - Marcie Bidwell with Mountain Studies Institute (a research education center in Silverton and Durango)
 - Partnered with AWP and San Juan watershed group to collect water quality data (available on CDSN) and have nutrient data.
 - ARCF recently circulated a community survey asking what residents are concerned about and interested in going forward.
 - Partnering with San Juan National Forest and the Colorado Natural Heritage Program to develop climate projections of downscaled information for the San Juan, working on a community effort to look at potential future under different scenarios for climate change in the watershed. This information is available by request only, but is not numeric in nature.
 - Tony Waldron with DRMS
 - DRMS has a good database of permitted mines throughout the basin and an inventory of inactive and abandoned mines maintained by Jeff Graves with DRMs (couldn't attend today).
 - They are working on an inventory of draining mines. Also have sites that are in-stream and/or streamside gravel pits, which can be impactful to the stream.
 - Butch Knowlton with La Plata County
 - Butch stated La Plata County was very impacted from the 2002 fires and debris flows; so are interested in impacts from fire coupled with flood. Debris fans are of interest.
 - For floodplains, they have Zone AE mapped from Durango south to the New Mexico line and would consider remapping this section. They may want to revisit the Animas River study completed in the late 1970s to see if there are any significant changes that may warrant a restudy in the area.
 - Melissa May with San Juan Soil & Water Conservation District
 - Mostly relevant to New Mexico. Have been partnering with AWP and Mountain Studies Institute on nutrient data collection from the state line to San Juan River.
 - Just completed the lower Animas watershed base plan to mitigate stormwater quality info and relieving non-point source pollution. Some of the projects identified that would alleviate stormwater pollution would also be relevant for flood control. The plan is currently awaiting final acceptance by the State, but should be available soon.
 - District is collocated with the NRCS and are working to update maps of irrigation and conveyance structures in the area and determining where they cross arroyos. They can provide an updated map.
 - Also have historical flood control data, where some structures constructed in the 1960s are not being maintained or operated anymore and would be relevant to flood control.
 - The City of Aztec recently commissioned an Arroyo study that would include some of the tributaries to the Animas near Aztec. Jim DeAngelo with AECOM is also involved in this study.
 - USACE dropped off the call. AECOM will follow up with them separately.
 - Laura Spann, Southwestern Water Conservation District
 - District would like to continue to remain informed. Don't have data to share, but more of a regional water umbrella policy program. They do have a "healthy grant program" focused on water-related projects for local mitigation efforts to share, accessible at: <http://swwcd.org/programs/financial-assistance-program>
 - Side discussion on requesting data:
 - Kevin McCoy with CGS is interested in information from past events of debris or mud flows from any partners – CGS is compiling into a single repository. Information from damages or



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events, whether it is watershed, road, or structural damage that has been logged, would be helpful.

- AECOM is interested in the above data, as well as information on high water marks associated with a particular flow frequency.
- Tom McNamara with La Plata County stated they have extensive data on past events, including frequency and types of severity. Data including historical accounts, photography, and numerical. Looking at getting a HMP update next year and asking for \$100,000 to do so. La Plata has been working with the National Weather Service, USGS, and Colorado's DOLA to find project money and support for a radar station in La Plata to evaluate how much water they are receiving in the watershed.
- AECOM will create a table of grants or funding opportunities, considering a number have been mentioned.
- David Sutley with FEMA
 - Nothing more to add. Would like to remain as a partner and resource throughout the project and subsequent Risk MAP projects.
- Sterling Moss with NRCS
 - Have soil survey data available online. Did a rapid watershed assessment on the Animas in 2010. They give general planning assistance to private landowners in the area. Much conversation planning could be considered as mitigation work to prepare fire or flood. They have an EWP program that can offer post-disaster funding. Had considerable involvement after the fire on Missionary Ridge in 2002, so have the knowledge base and funding opportunities through the program. They also have an environmental quality and sediment program.
- Recommendations for additional partners
 - Greg Gerlich recommended contacting the following Colorado Parks & Wildfire (CPW) personnel:
 - James White: Aquatic Biologist out of Durango
 - Matt Thorpe: local District Wildlife Manager
 - Trout Unlimited
 - Drew Peternell is State level; should contact the local chapter (5 rivers branch)
 - Ann Oliver states that Trout Unlimited has been very active with Parks and Wildlife on barriers program. Have been very active with floods and hazard mitigation.
 - Marcie Bidwell had forwarded call information to Ty Churchwell (Backcountry Coordinator) and also recommends reaching out to Buck Skillen.
 - Shannon Manfredi recommended contacting BLM
 - Ann Oliver recommended contacting CDOT and NMDOT from a debris flow standpoint
 - Additional Contacts recommended by La Plata
 - Brian Devine, Communications Specialist and Water Specialist with San Juan Basin Health
 - Patricia Gavelda, Colorado Hazard Mitigation Program Manager for Southwest Colorado
 - Trevor Denney, Southwest Field Manager for the Colorado Division of Homeland Security and Emergency Management

These notes are an interpretation of discussions held. Please provide any additions or corrections to the originator within 5 days of the date signed; otherwise the will be assumed correct as written.

Prepared by: Geoffrey Uhlemann, AECOM

Date completed: 6/21/2016