

Panel Discussion Executive Summary Making the Community Whole Again

Panel discussion Thursday, June 21, 2017

Moderator:

Virginia T. McLemore, NM Bureau of Geology and Mineral Resources

Panel participants:

Kathleen Sullivan, U.S. Environmental Protection Agency, Athens, GA

Dennis McQuillan, New Mexico Environment Department

Bonnie Hopkins, New Mexico State University, San Juan County

Karletta Chief, Department of Soil, Water and Environmental Science,
University of Arizona

Steve Austin, Navajo Nation EPA

Rich Dembowski, Chairman, Gold King Mine Citizens' Advisory Committee

Kevin Lombard, New Mexico State University, Farmington

Kim Carpenter, San Juan County

Editor's Note: The following represents a transcription of panelist remarks made at the conference. Remarks were edited for publication by the editor. Some panelists did not review this version of their presentation and the editor is responsible for any errors.

Virginia McLemore: This panel will address how to make the communities whole again. Scientists welcome input from the public and we could even use your help with sampling and interpreting data. Stakeholders should also be invited to the table. We will have a third conference next year

and urge everyone to come. Everyone has a unique perspective and sometimes there are those who have not heard other perspectives. The teamwork on this project is phenomenal and is continuing. We want to focus on the science even though there are a lot of emotions.

Dennis McQuillan: From the beginning of the Gold King Mine (GKM) spill, NM wanted to be compensated. We wanted people who have been damaged to be compensated, and we wanted the source problem to be addressed in the mining district. The Environmental Protection Agency (EPA) came out after the spill about owning this and making things right and asked people to fill out claim cards. The people who were damaged need to be compensated. Also, the agencies who responded to the emergency need to be compensated. It was an emergency situation, so EPA should write the responders a check. We also need a comprehensive holistic watershed scale monitoring program. This is collaborative monitoring program. We want to make sure the public drinking water is protected. We need to have USGS complete the study that they have mentioned of surrogate parameters. We also need to figure out how to safely deliver drinking water. We also feel strongly that the emergency operation centers need to be upgraded. There has been a lot of tax revenue loss due to decreased business. The stigma that is attached to Ag products is not based on data and it's still damaging our Ag industry. Regarding the Superfund process, EPA needs to be honest, transparent, and use good science. They also need to include NM as a stakeholder.

Kim Carpenter: I want to talk about some of the issues regarding the parties that have come together. I've requested a modeling solution in the event that this kind of issue happens again. There should be an automatic model that allows all parties to come together. There is a stigma that once the feds are on the ground, everything is under control, but it is actually under the command of local jurisdiction. I applaud the New Mexico Environment Department (NMED) for being a big provider of information. There are a number of different agencies doing things, and my biggest part in this is to continue to provide helpful avenues to concerned people. San Juan County is continuing to facilitate and collaborate with other entities. We want to make sure we keep open avenues of informational sources that are out there for use. There needs to be aggressive steps taken to avoid this in the future. We need to work collectively to find a solution to remediate the problem and to instill a sense of benchmark for others.

Karletta Chief: It is clear that Navajo people have been impacted beyond financial loss to include cultural and mental impacts. I like to see this recognized. Also, how to disseminate and do it more effectively is important. I like to see more innovative types of dissemination, such as videos. Going forward, I think this includes building trust and that involves dialogue in ways that are effective as well as working to build a capacity of community to respond to future spills, and taking steps towards being more prepared.

Steve Austin: Building trust is key. We need a relationship. It is useful to have public meetings, but I do better when I deal with folks one-on-one. This would require us to be more available. In addition, we need to understand how these metals are going through the system and how they will affect livestock and other things that are valued. We need more data on those effects. Our standards are based on studies done in the sixties, seventies, and eighties, so we need better information to back up the results that we have. It would be useful for us to be able to communicate that information knowing that there is updated science behind those standards. I think it would be useful to use source tracking. We also need to determine what else is contributing to what we see in the San Juan River.

Kathleen Sullivan: EPA's goal had been to be very transparent in all of the work we have done and we strive to make it understandable. We will post all of the data and analyses that we did as part of the scientific report released in December 2017 and in the presentations given during this conference very soon. There will be monitoring going forward. I need to figure how we can consult the expertise within EPA that to help address the additional questions raised in this meeting. I do get the opportunity to advise policy makers, so I can share the concerns we have heard today with them. EPA's scientific role going forward is a question.

Kevin Lombard: I research fruit crops, medicinal herbs, grains, potatoes, and we are always looking at varieties that fit our growing climate and economic impact. My perspective on the GKM comes from a growing Ag base and the impact. Market farmers make up a big chunk of economic revenue. How do we be whole again? I do not want to see the next generation of farmers and

ranchers be discouraged. I want the institutions (land grant) to be supportive. Regarding Ag research and point source solutions, I want to make sure our farmers are able to sell and trade their products, and consumers of these products are satisfied. We need to restore consumer confidence. I do think we can benefit the scientific community and public at large.

Bonnie Hopkins: We have a unique role as extension agents. We have an appointment to help with community development. This incident has shaped a new role for us to be part of an emergency management-planning role. We are all encouraged to participate in FEMA training so that we can speak the same language as EPA when they are around. We have discussed expanding opportunities by perhaps giving farmers more opportunity in the community to expand their market access. We have had community discussion to provide more markets for alfalfa productions. We have discussed exporting alfalfa pelletizing machines. As a community, we are gradually overcoming the stigma that may have once been attached to our local produce, through good practices and communication with customers. When asked how the local agricultural community could be made whole again, we suggested expanding opportunities for both the Aztec and Farmington Growers Markets. There are teaching opportunities that should not be overlooked. It is important to support the farmers, education, and resources that are already in the works. It is also important that we direct the questions and concerns to research based information, and try to steer the conversation toward recovery, and not put the burden of this issue on the backs of our farmers and ranchers. We need to support them now more than ever.

Rich Dembowski: I have heard concerns repeatedly, but there are four things that need to happen for the healing to take place, and they revolve around trust and faith in government. We need 1. Honesty and transparency from EPA 2. EPA to accept liability and full accountability 3. Payment by the EPA for all claims 4. Investigation by a third party. We need an attitude change for all of these things to happen. I recently had a conversation with a member of EPA and NMED and I asked where do we stand on criminal investigation and the response was “you need to understand that EPA is an organization made up of people and people make mistakes” and I said if I had done that, I would be in jail that night. I don’t

want a double standard. EPA is not exempt from the law. I suggest that we as citizens need to hold EPA accountable with Facebook or phone calls or whatever outlet you choose. Another suggestion is that someone in the upper levels of EPA needs to look at jurisdictional boundaries. The people in San Juan County, NM do not understand and do not accept that they are in a different region than where the GKM spill occurred. That is not acceptable. People’s questions need to be answered.

Question from Susan Palko-Schraa, Member of Gold King Mine Citizens’ Advisory Committee:

We need to have a watershed district. A lot of problems come from three watershed districts. Kathleen, this may not be in your jurisdiction, but I would like to ask you to get back to us with a name of who to contact to come up with a watershed district.

Kathleen Sullivan: Yes, I think I know who to talk to about this.

Susan Palko-Schraa: It is essential. The river is contiguous. We need to be aggressive.

Virginia McLemore: I know the Chesapeake Bay area is large watershed, so perhaps we should research how they handled it, because I know it is also a coal mining area.

Rich Dembowski: Everyone has experience with large government organization and EPA is no different. They will be slow, so, Kathleen, please convey the message that we want someone to stand up and be a decision maker.

Question from Justin Yazzie, San Juan County Farmer: When you people mention getting whole again, as a grassroots farmer, it can be very hard to get trust back because we just think about a yellow river. I think it will take years for us to regain trust. Have the heavy metals been in the river for the last one hundred years? Was there any monitoring of heavy metals before the GKM spill? Have we been getting contaminated for the last hundred years?

Dennis McQuillan: The answer is that there is ferricrete in Cement Creek that is at least 9,000 years old. We also have legacy mining issues and various spills. GKM was not the first event. We need to sort out effects of the background. A lot of what was released by GKM is now in Lake Powell. We need to try to prevent ongoing discharges but also prepare for the potential of other spills.

Kathleen Sullivan: The USGS did extensive studies on this and they produced a comprehensive analysis. They did geology, biology, and hydrologic studies. Their intent was to identify the mines and prioritize them in as to provide the most benefit from remediation. There are data along the river in various places that make enough to piece together the story of existing contamination. In the headwaters between Silverton and Bakers Bridge, USGS measured high concentrations of metals in the river's sediment. By the time the GKM spill got down to the San Juan River, the concentrations were not very high. A treatment plant was built to treat the headwaters of the Animas River and it has been receiving all of the water from GKM. They are collecting 11 million kg of metals every year and are successfully reducing 90% of the material. EPA contractors also said they went into the streams and found additional sediment eroded during the mine spill, and stabilized that situation. The GKM has been effectively treated and now they are working on additional mines in the area.

Justin Yazzie: What about seepage?

Kathleen Sullivan: These hillsides have a lot of interconnection so there is leakage, but it's hard to tell what part of the mountain the drainage is coming from. They are probably catching most of it from the GKM, but they are up there investigating a number of other mines so they can be remediated as well.

Kim Carpenter: The American Tunnel mine in Colorado is also a concern. There are a number of other sites that are having to be addressed.

Kathleen Sullivan: I have been looking at water quality data and it's beginning to trend downward in the stream, so perhaps the treatment is effective at a large scale. EPA continues to remediate and monitor the upper Animas River in the mining district as part of the Superfund effort.

Justin Yazzie: I am afraid to farm during monsoons because metals spike.

Kathleen Sullivan: Yes, you are seeing natural metals for the most part. You will get a brief period when you will see some metals from the Animas headwaters mining area. You will see spikes in the metals with the sediment levels.

Dennis McQuillan: Those are good questions. There was a mill in Durango that discharged high concentrations, there were no fish and barely algae,

and once the discharge stopped, it went back to normal.

Bonnie Hopkins: I hope our media sources do not attack the farmers and ranchers. We need to stay focused on education and research. We are not questioning the food safety. It is the long-term impacts of our community as a whole and we cannot put the burden on the farmers and ranchers. I would hate to see questioning of the food safety.

Dennis McQuillan: We just put out a fact sheet that indicates crops are safe based on our data. Is it safe to plant? Yes.

Kevin Lombard: The Fruitland series. The pH of the soils typically run above 7 with 0 being the most acidic and 14 being basic. The pH of our soils is working in our favor. We need to have positive marketing backed up by the science combined with all the other disciplines.

When the Animas levels out and calms, would it would a benefit to have a water treatment plant there to intercept acid mine drainage? Would it lower the pH of the water?

Virginia McLemore: Recovery of these metals rarely works out. When the Animas River levels out, there is not much to treat. The problem is the sludge that comes through during monsoon season or rapid snowmelt.

Dennis McQuillan: A feasibility study will be done during this Superfund.

Kim Carpenter: What has been overshadowed are the nitrates in that river. There has been ongoing efforts to work with Colorado, Arizona, San Juan County, and the Navajo Nation on these issues. We do not want to overshadow what came to us from the mine and other human caused issues in the river.

Dennis McQuillan: Our long-term monitoring plan keeps those things in mind.

Question from Patricio Sanchez, San Juan County Native: Regarding sampling and material released from the mine, I would like to know if there are any radionuclides that could have been included in this release.

In addition, it is my understanding that when the initial abatement took place, there was not a professional engineer that reviewed the abatement.

Can they assure us that a licensed professional engineer reviews the plans?

Dennis McQuillan: No, radionuclides were not present. The public water system is required to test for these under the Safe Water Drinking Act.

Rich Dembowski: Regarding advertising for food growers, the San Juan County Citizens' Advisory Committee coordinated with Bonnie Hopkins to make sure we get the word out when NMED provides data. We physically distribute brochures so we can get the word out to people, so they know the produce is safe to consume.

Question from Fred Johnson, Navajo EPA Water Quality Program: We have met with chapters along the river numerous times and told them it is ok to irrigate with the river water. How do we share the science with the Navajo to where they understand and believe that science is good? The Navajo people don't listen to us and want to continue to think that the acid drainage is still in the system, but science has said otherwise.

Kim Carpenter: We have reached out to chapter houses and we have found something that works well. I had made a comment to someone that we need to unify at the table. We find that we have residents come to county government more so than the Navajo government for answers. We had to facilitate. It is important for Navajo EPA to consolidate an effort to have meetings at the chapter house with all entities, so we can further provide as much info as possible. I told a frustrated rancher that I would eat his crops. I can assure you that if there were issues that deemed food unsafe, someone on this panel/conference would have spoken up by now. There would be dialogue regarding unsafe water. How can we provide facts to the people in a way that they understand and who are the key stakeholders who can help confirm the information?

Dennis McQuillan: One of the hardest challenges we face is how to disseminate information in a way that it is understandable to the public.

Karletta Chief: I want to encourage you to distill your one hundred pages of data to one page. Stay away from graphs and hire a Navajo translator who can translate for you. I do not think the Navajos have been receiving information regularly. You can talk about your results on Navajo radio stations. We need more of that dialogue.

Bonnie Hopkins: I do not necessarily see the farmers from Navajo Nation. The Ag community believes and trusts the science. I haven't had farmers come to me and say they aren't comfortable using the water. Our issue is consumer confidence.

Question from Leon Spencer, Navajo Nation, Shiprock: Can we use some of these data, look at one of our ditches, and take some samples to see if there are similar results, so that we can show it to the people and say their situation is similar to ours? That type of information is effective.

Steve Austin: I say that all the data are publically funded and publically available. We are trying to get all of our data out there by the end of the summer, and you can use it to communicate.

Leon Spencer: We have not seen something on the ground. We have seen people out there taking samples. We need to install a passive system before the irrigation gate. We need three ponds with an overflow at the end. We want to see something implemented to show the people that we are putting things on the ground to gain their trust. We can also do this on a larger scale if the pilot project is successful. I work with emergency management and I was in charge of the incident command center during the GKM spill. It was chaotic but we got flyers out and told people to corral animals with alternative water sources. Many of the spill impacts will be long-term.

Steve Austin: Regarding passive treatment, that kind of system will be installed and it will be useful to see what they learn, and to learn how feasible it is with the kinds of sediment levels we are seeing on the San Juan Rivers.

Question from Melissa May, San Juan Soil and Water Conservation District: This is about distinguishing the incident's water quality from social impacts. As a scientist, I thought it was crazy, exciting, and it encouraged me to look up water quality standards. I thought maybe it was not that bad, but obviously the social impacts are a very real part of the incident. Rich, one of your big initiatives was to hold EPA accountable. Has your committee been framing it in those three categories?

Rich Dembowski: We have not framed it in those terms except recently. One of the big flaws is in conjunction with NMED. I wrote three emails

to EPA inviting them to make a presentation. They ignored us. I think it is because there is a jurisdictional issue between EPA Region 6 and 8. Each one is trying to protect one of their resources. What we are trying to do now is focus the committee on communicating with growers, producers, and consumers. Your question might make me refocus the committee a little bit. As a committee, we need to carry the message from the citizens to NMED, and distribute that message throughout the state government. We can then generate the attitude change. We have seen a movement change at EPA since the change of administration.

Karletta Chief: In the focus groups that we conducted, we found that there was a lot of trauma that comes from the past of Native Americans. Adding the GKM spill to their past connects to their connection with the environment. Their perspective is desecrated which causes emotional trauma. People wanted to have the ability to share that pain. Chili Yazzie was trying to get a group to look into the mental health impacts and how there can be healing done. There is that need and I have been trying to voice that for the people in that there needs to be a look into the mental health impacts.

Virginia McLemore: I want to commend those who have responded to the GKM spill to-date.

We are starting to learn interesting information. We as scientists have to trust that our government officials will do what they need to do to protect the environment. We really do care about what is going on up here. Legacy mine issues are all over and have more impact today than seen in the past. We need to stop pointing fingers and work together. EPA did not go do this deliberately. We as scientists need to communicate our results better.