On August 5, 2015 the Environmental Protection Agency experienced a “blowout” while performing reclamation work at the Gold King Mine just north of Silverton, Colorado. The blow out resulted in the release of over 3 million gallons of contaminated mine waste water into Cement Creek, which flows into the Animas River and onto New Mexico where it joins the San Juan River. The acid mine wastewater that was released contained sediment, heavy metals and other chemicals and received global attention.

Immediately after being notified of the incident, a local Emergency Management team quickly formed. The team including the New Mexico Environment Department, the New Mexico Office of the State Engineer, the New Mexico Department of Health, the New Mexico Department of Agriculture, the New Mexico Department of Game and Fish, the New Mexico Department of Emergency Management and Homeland Security, the San Juan County Cooperative Extension office and local officials and employees from San Juan County, and the surrounding communities. The team coordinated an emergency response to ensure that public health and safety were protected. Governor Susana Martinez declared a state of emergency, authorized the use of up to $750,000 in emergency funds, and appointed a Long Term Impact Team.

The initial visible “plume” of contaminants reached the New Mexico State line early on August 8th, rapidly spreading throughout the Animas River and onto the San Juan River. The emergency management team and the NM State Engineer’s office acted quickly and had all of the irrigation ditch valves throughout San Juan County closed on August 7th to prevent the contamination of agricultural fields. Producers were without irrigation water until August 14, 2015. Producers along the river were also cautioned against utilizing well water until further testing could be performed.

The San Juan County Cooperative Extension Service Agriculture agent served on the Emergency Management team alongside many state and federal agencies. The initial concern for public safety was paramount, but the risk for local farmers and ranchers became a close second. The role of the Cooperative Extension Service was critical in determining the needs of the agricultural producers and the path moving forward. While the emergency management teams focused on public safety and needs, the extension service in cooperation with the department of agriculture, the state engineer’s office and the environment department were able to address the escalating needs of the agricultural producers.

Working together as agencies, we were able to immediately schedule the delivery of water for livestock in need. The San Juan County fire department rose to the demand until contracts could be set in place through the EPA. Once the livestock deliveries were well established, the need for irrigation water became apparent. The extension office began working directly with EPA contractors and scheduling irrigation deliveries as well.
After increased demand, the delivery of hay for livestock also began. The agent also made contact with the NM Cattle Growers Association to establish contingency evacuation plans if they became necessary. The extension service’s long established relationships with local agricultural producers aided in the efforts to address the agricultural needs. The office served as a major point of contact for information, requests, concerns and needs. The agents established email listserv and social media pages also served as a major point of distribution for research, updates and information.

The Emergency management team scheduled nightly public meetings to get the community as up to date as possible, and served as a forum to answer immediate concerns. These meetings were led by the San Juan County CEO, a panel of EPA professional along with the state agencies and the San Juan County Agricultural Extension Agent. Serving in an educational capacity, the agricultural agent was able to translate the scientific language that was presented into more understandable terminology. The cooperative extension office also helped to facilitate a meeting specifically for irrigators to have the panel address irrigation questions and concerns, as well as to provide feedback to the panel.

As the needs of agricultural producers progressed, the demand for additional research and quality information increased. Having an extension agent on the ground to provide feedback and concerns directly to the Department of Agriculture as well as the specialists at New Mexico State University became critical. Concerns regarding livestock toxicity rose and the specialists were able to quickly assemble a factsheet for local dissemination. Questions concerning heavy metal uptake by plants became apparent, and again, the communication between the local agents, the department of agriculture and our specialists became critical. The cooperative efforts quickly produced another factsheet of answers for producers regarding forage and plant toxicity.

As the plume and river sediment began to subside, the need to determine the safety of the irrigation ditches became a priority, as small amounts of contaminated water had penetrated the diversion sites in some areas. The researchers and agents from the local CES agricultural experiment station quickly coordinated with the NM State Engineers office, Soil and Water Conservation District, NRCS office and the NM Environment Department to perform sediment testing along the irrigation ditches. The initial test results were good, but the team continues to monitor for long-term impacts. Today, the water and sediment test results from both the Animas River and the irrigation canals continue to provide continuous positive data. The long term impact team and the agencies affiliated with the San Juan County emergency management team continue to monitor and research potential impacts.

As with any major disaster, either man-made or natural, agricultural producers are going to be directly impacted. It is imperative that cooperative extension sit at the emergency management table for those producers to be heard. Overall, the success of this event was a direct result of the cooperative efforts of all agencies involved.