



Jennifer Thacher, *Chair*
Steve Glass, *Vice-Chair*
Suzanne Busch
John S. Derr
Kerry J. Howe

Roland Penttila
Russell D. Pederson
Caroline Scruggs

Water Protection Advisory Board
c/o ABCWUA
P.O. Box 568
Albuquerque, NM 87103

Minutes: May 12, 2017
Location: Bernalillo County Public Works Division, 2400 Broadway
Time: 8:35 a.m. – 9:50 a.m.

Board Members Present: Chair Jennifer Thacher, Vice Chair Steve Glass, Suzanne Busch, Russell Pederson, Caroline Scruggs, John Derr, and Julia Maccini (new member)

Board Members Absent (excused): Kerry Howe and Roland Penttila

PIC Members Present: Mark Kelly, Kali Bronson, Ken Ziegler, and Kathleen Verhage

Guests: Anne Tillery (USGS) Andre Ritchie (USGS) Kim Beisner (USGS) and Kerry Bishop (Water Authority)

I. Call to Order

Chair Dr. Jennifer Thacher called the meeting to order at 8:35 a.m.

II. Approval of Agenda

Chair Dr. Jennifer Thacher requested a motion to approve the agenda.

Motion was made by member Mr. John Derr seconded by member Mr. Russell Pederson. Motion to approve the agenda carried unanimously.

III. Approval of Minutes

Chair Dr. Jennifer Thacher requested a motion to approve the draft March 2017 meeting minutes.

Motion was made by Mr. Steve Glass and seconded by member Mr. John Derr. Motion to approve the draft March minutes carried unanimously.

IV. Welcome New Member – Julia Maccini

V. Presentation: USGS Post-Fire Debris Flow Modeling

Dr. Tillery of the United States Geological Survey (USGS) provided information to the board on post-wildfire erosion and debris flows. She told the board that the USGS has analyzed the available data to come up with equations to predict where debris flows are most likely to occur after a wildfire.

Dr. Tillery told members that in 2011 the modeling was applied to Los Conchas fire and the Track fire. In 2012, the Whitewater Baldy and the Little Bear fire reports were written from this data. Dr. Tillery said that there are two models available, one for probability and one for volume. Both models are combined for land managers to make decisions faster and easier due to lack of time between fire season and monsoon season. Dr. Tillery added that in 2014, the Landslide Hazard Section of the USGS in Colorado automated these two models into an interactive web map. Dr. Tiller explained that as soon as a fire is contained, and the burn severity map is finalized, the information is made available to the public on the USGS website. Dr. Tillery provided the web address for more detailed information https://landslides.usgs.gov/hazards/postfire_debrisflow/.

Dr. Tillery explained to the board that the U.S. Forest Service has a suite of fire models, and one of these is a FLAM map (Fire Behavior Model), which simulates how a fire is going to behave, how it is going to travel across the landscape, and what type of fire it will be (surface or crown). Dr. Tillery added that the USGS uses the crown fire potential output from the model as a proxy for a high- and moderate burn severity. She said the first fire-shed modeling project was in cooperation with Bernalillo County, spearheaded by the Nature Conservancy-Rio Grande Water Fund. Dr. Tillery said the study areas near Albuquerque included both the Manzano and Sandia Mountains.

Dr. Tillery told the board that the Missoula Fire Science Lab developed a new fire model called FSIM, which simulates thousands of fire seasons, varying the weather patterns randomly from the past 30 years. Dr. Tillery explained that the output from the model is an annual burn probability for each pixel on the map. It provides a statistical analysis on how many times each pixel burned in approximately 30,000 fire seasons. Dr. Tillery also informed the board that the Missoula Fire Science Lab approached the USGS and offered to incorporate their model with the USGS pre-fire assessment to determine the probability of landscapes that are going to burn in study area. The USGS did a press release in 2014 to introduce this new model.

Dr. Tillery said that in August 2016, a report¹ was released containing an analysis of the Jemez Mountains with cooperation and matching funds from five agencies; the Water Authority, U.S. Forest Service, Army Corp of Engineers, Los Alamos County, Buckman Direct Diversion and USGS. Dr. Tillery said that the USGS put together a user-friendly interactive map available to the public to observe hazard areas in certain jurisdictions. Dr. Tillery also said that the data included in the report can be

cited by individuals applying for grants for mitigation work that will reduce burn severity.

Dr. Tillery told the board that the models from 2010 did not include data points in New Mexico. Dr. Tillery also said that after the Little Bear Fire USGS worked with Landscape Hazard Section and the Forest Service to collect more data points for New Mexico. Using this new data, equations were redone in 2017 in hopes that New Mexico would be better- represented. In response to a question asked about the variables involved in the probability of landslides, Dr. Tillery said that the variables are burn severity, rainfall, intensity, soil and terrain. Dr. Tillery also replied to a question regarding the risk for more intense flows, she stated that the area will return to a healthy run off efficiency of 2% after 5.5 years.

¹ Tillery, Anne C. and Jessica R. Haas, 2016. "Potential postwildfire debris-flow hazards—a prewildfire evaluation for the Jemez Mountains, north-central New Mexico. Scientific Investigations Report 2016-5101. <https://doi.org/10.3133/sir20165101>

VI. Presentation: Middle Rio Grande Surface Water Quality Sampling Update

Mr. Andre Ritchie and Ms. Kim Beisner of the United States Geological Survey (USGS), presented information on surface water quality and monitoring performed on the Rio Grande and Rio Chama since 2004 in cooperation with the Water Authority. Mr. Ritchie informed the board that the purpose of the monitoring is to look at seasonal long-term trends in surface water quality upstream from the Water Authority's riverside diversion structure and to look at the potential effects of natural and anthropogenic factors on water quality. Mr. Ritchie told the board that samples are taken from several sites along the Rio Grande (Cochiti, Alameda, Taos, Otowi and San Felipe), on the Rio Chama at Chamita and on the Jemez River above Jemez Dam. Mr. Ritchie said that the Alameda and Jemez River sampling began in 2004 and the sampling at Cochiti began in 2010, to replace the San Felipe due to pueblo data release restrictions.

Mr. Ritchie informed the board that the factors that affect water quality are: snow melt, irrigation diversion, return flows, rainfall, waste water inputs, groundwater inflow, evapotranspiration, and reservoir operations. Mr. Ritchie also said seasonal sampling occurs three times a year – during the spring snowmelt runoff period, the irrigation/monsoon period, and the fall/winter period (with sampling only done during the spring runoff period in Jemez). The water is sampled for major and trace elements, nutrients, dissolved organic carbon, mercury, total dissolved solids, microorganisms, suspended sediment and field parameters. Middle Rio Grande sites are also sampled for organic compounds and radioisotopes.

Explaining the lab results from the sampling, Mr. Ritchie said that two terms are used frequently when describing contaminants in water, MCL and secondary MCL. The MCL (Maximum Contaminant Level) is a legally enforceable limit under the USEPA, while the Secondary MCL is non-enforceable. Noting that the standards are for drinking water, Mr. Ritchie reported that sampling of untreated water taken directly from the Rio Grande and Rio Chama has shown MCL secondary levels well below the standards, but the Jemez River routinely exceeds MCL for Arsenic. Mr. Shean of the Albuquerque Bernalillo County Water Utility Authority (Water Authority) informed the board that the Water Authority is using the USGS data as a base line prior to treatment. Mr. Kelly of the Water Authority added that the utility wants to be responsive and make sure it keeps up with technology.

Website is www.waterdata.usgs.gov/nm/nwis/qw

VII. Board Discussion on Presentations

Mr. Glass stated that this data is going to be useful for a study conducted by the Water Conservation District in collaboration with AMAFCA on regrowth of E. coli in river sediments. The sample sequence starts at Alameda and runs to Isleta; the study will include E. coli in the water column and E. coli in the sediments over a one-year period. The purpose of the study is to see if there are any indications if E. coli is replicating in sediments.

Mr. Glass suggested that Mr. Fluke from Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA) can provide a presentation on AMAFCA's study on the regrowth of E. coli in sediment, once it is completed.

Mr. Kelly stated that the Water Authority is conducting an internal study (revamped from 2012) to see what concentrations of pharmaceuticals and personal care products are in the water.

VII. Board Business PIC Agency Update

Mr. Shean stated that the Water Authority is reviewing proposals from USGS for more work and to put a new 5 year agreement in place. Both agencies have been meeting a lot within the past 6 months, and he said he is pleased with the new relationship with USGS and the new team.

Mr. Kelly informed the board that the Consumer Confidence Report just came out and it talks about water quality. In addition, Mr. Kelly said that this report would be discussed at the Water Authority Board meeting on Wednesday May 17, 2017. In response to a question asked about voluntary water testing, Mr. Kelly informed the board that water testing is open and last year the WUA tested 177 homes for water quality, this year they are already up to 70. Mr. Kelly responded to a report from the National Resources Defense Council, stating that the Water Authority has not received any calls about that article. Mr. Kelly also said that the Water Authority does not have any reporting violations or violations of the MCL.

Mr. Ziegler informed the board that NMED filed a petition Water Quality Control Commission (WQCC) for amendments to the state’s water quality regulations, which will be heard by the WQCC during their May 9th meeting. Mr. Ziegler added that the WQCC will still accept comments after May 9th.

Ms. Bronson from Bernalillo County informed the board that the Storm Water Quality Ordinance was passed and it will take 30 days after the County Commission approval to implement the regulations. Ms. Bronson added that Bernalillo County is also working on septic system education outreach, and will be holding an information session open to the public at the McGrane Center.

Legislative Update

Mr. Shean handed out a summary on the 2017 State Legislative Session. He informed the board that HB 468 (direct elections for the Water Authority Board) did not pass, but said that the Water Utility Authority has been responsive to the sponsors of the bill. Mr. Shean said that one of the complaints is that there is no current County Commission representation from the South Valley on the board, so the utility will be holding some public meetings in that area to get more input from the residents. Mr. Shean also said that there was a press conference on May 11, 2017 regarding the Los Padillas water system expansion project.

HB 468 Elected Water Authority Board	Did not pass
SB 85 Uniform Environmental Covenants Act	Did not pass
SB 307 Oil and Gas Act Powers and Penalties	Did not pass
SJM 15 Study Lead Contamination	passed
SM 78 Bernalillo County Oil and Gas Development	passed

VIII. Other Board Business

Chair Thacher thanked member Dr. John Derr for his dedicated service to the Board for the past five years.

Mr. Shean told the board that the Water Authority Governing Board would be considering a nomination for their WPAB vacancy during their May 17th meeting.

IX. Public Comment

X. Adjournment

A motion was made by Chair Thacher and seconded by Mr. Glass for adjournment. The motion carried unanimously and the meeting adjourned at 9:50 a.m.