



Kerry Howe, *Chair*  
Russell Pederson, *Vice-Chair*  
Suzanne Busch  
Julia Maccini  
Roland Penttila

John Pietz  
Roberto Roibal  
Caroline Scruggs  
Jennifer Thacher

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

Minutes: August 10, 2018

Location: Bachechi Environmental Education Building, 9521 Rio Grande Blvd NW

Time: 8:30 to 10:30 a.m.

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**Board Members Present:** Chair Kerry Howe, Vice Chair Russell Pederson, Suzanne Busch, Steve Glass, Julia Maccini, and Jennifer Thacher

**Board Members Absent (excused):** Roland Penttila and Caroline Scruggs

**PIC Members Present:** Bart Faris, Ken Ziegler, Diane Agnew, and Rick Shean

**Guests:** Dr. Eric Nuttall (Citizen Action) and Meagan Oldham (Water Authority)

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## **I. Call to Order**

Chair Dr. Kerry Howe called the meeting to order at 8:35 a.m.

## **II. Approval of Agenda**

Chair Howe requested a motion to approve the agenda. Mr. Steve Glass motioned to approve the agenda and Mr. Russell Pederson seconded the motion. Motion to approve the agenda carried unanimously.

## **III. Approval of July Minutes**

Chair Howe asked board members if there were any comments on the July meeting minutes. Mr. Glass and Dr. Jennifer Thacher both abstained due to their absence from the July meeting, but gave praise to the thorough minute notes. Ms. Julia Maccini moved to approve the July minutes and Mr. Pederson seconded the motion. Motion to approve the July meeting minutes carried unanimously.

## **IV. Board Business**

### **a. PIC Agency Updates**

Chair Howe asked if there were any questions or any updates from the Policy Implementation Committee (PIC).

Mr. Bart Faris, PIC member, told the board that the U.S. Air Force and the New Mexico Environment Department (NMED) are going to be having public meetings on the Kirtland Air Force Base (KAFB) Bulk Fuels Facility (BFF) project soon. He highlighted the fact that they will be reinstituting technical working groups to be more transparent and include more details about the recent drilling operations for core samples and monitoring wells.

Mr. Faris continued with information about the City pushing for the redevelopment of the Rail Yards downtown. He emphasized that issues with stormwater need to be fixed. The main challenge are the costs associated with connecting to the City storm drains. He also stated that soil and groundwater contamination at the site still need to be addressed.

Mr. Ken Ziegler, PIC member, reminded the board that the EPA would be holding the Region 6 Stormwater Conference here in Albuquerque soon. at the conference was scheduled to occur at the Hotel Albuquerque at 800 Rio Grande Blvd. from Aug 19-23, 2018. Link to the website is: <http://tamuk-isee.com/conferences/epa2018conference/>

Mr. Rick Shean, PIC member, stated that the Rivers and Aquifers Protection Plan (RAPP) is moving forward with policy statements, and that they will be redesigned. One of the main thoughts was to explain how the policy is addressed by each agency and the PIC will have a discussion about the policy statements.

Chair Howe asked Mr. Shean if there was any update as to whether or not the Water Authority's surface water treatment plant was looking to shut down due to low river flows as was projected earlier in the summer. Mr. Shean responded that the Bureau of Reclamation was planning to lease 20,000 acre-feet (AF) from the Water Authority to help with flows during the irrigation season. Chair Howe asked, just to clarify, whether the surface water treatment plant will be operating through the fall, and Mr. Shean responded that that was the current plan.

**b. Response to letters from the New Mexico Environment Department and U.S. Air Force Letters Regarding the KAFB BFF project**

Chair Howe told members that the response letters from the WPAB to the Air Force and NMED needed approval from the board before being sent out, and asked if there were any questions or edits that need to be made. No one on the board had any questions or edits. Ms. Suzanne Busch moved to have them approved and Dr. Thacher seconded the motion. All board members were in favor.

**V. Presentation: Modified Stage 2 Abatement Plan, Los Angeles Landfill**

Mr. Bart Faris and Mr. Ken Ziegler, Albuquerque Environmental Health Department (AEHD), gave a presentation regarding the current work being done and the proposed modification to groundwater abatement at the Los Angeles Landfill site. Mr. Faris told the board that the landfill follows New Mexico Water Quality Control Commission (WQCC) standards for groundwater and that the City's end goal is to meet those requirements. A description of the history of the site highlighted that the landfill received 4.37 million cubic

yards (80 acres) of waste from 1978-1984, and at that time it was a sand and gravel quarry. The site is regulated under the 20.6.2.4000 New Mexico Administrative Code (NMAC) in the WQCC Abatement Plan Regulations which requires the abatement activities to follow landfill monitoring and groundwater standards. Mr. Faris also presented that AEHD started abatement in 1997 and in 2004 modifications were made to also address groundwater contamination.

Mr. Faris presented a conceptual model of the landfill that showed the locations of natural gas probes sites, soil vapor extraction wells, gas extraction wells, groundwater monitoring wells, and air injection wells. Chair Howe asked how many pump and treat wells there were and Mr. Faris responded that there are four wells that are capable of working at 300 gallons per minute (gpm) but that they have been working at a rate of 70 gpm.

Mr. Faris then showed a surface geology map with cross sections transecting the landfill. Another map from 2002 showed the monitoring wells in respect to the cross section and showed that the ground was made up of mostly sand and some silt layers. He said this information was critical in deciding where to install soil vapor and landfill gas wells.

Mr. Ziegler explained the different types of conveyance lines and wells that run throughout the landfill. The yellow lines on the map presented the landfill gas lines with the dots representing the wells, the red lines showed the soil vapor extraction (SVE) wells that were below the trash level, and the blue were the air injection system wells that are at two screened intervals. He explained that there is a crucial balance with the SVE and landfill gas systems to help prevent landfill fires.

With respect to solvent removal there are tests done twice a year to measure the tetrachloroethene (PCE), Vinyl Chloride (VC), trichloroethene (TCE), and dichloroethene (DCE) levels in the landfill gas flare and SVE in order to make sure that these chemicals are being captured and removed in the vapor phase in the landfill and vadose zone.

Regarding the graph showing cumulative solvents removed by the landfill gas flare, Chair Howe asked why it looked as though the levels of chemicals seemed to go flat, indicating no removal or not sampled. Mr. Ziegler explained that the contaminants did not stop being monitored or disappear per se, the levels merely showed that rate of removal was decreasing. Mr. Ziegler added that the City is looking closely at the removal of methane and chlorinated ethenes (CE's), and that there are still CE's being measured in the vadose zone although a significant amount has been removed.

Mr. Ziegler discussed groundwater monitoring at the site and showed the board a map that illustrated the groundwater flow direction and path. As of June 2018, groundwater is flowing from the north-northwest on a fairly flat gradient, which results in relatively slow movement. Mr. Ziegler also mentioned that there were several wells that were off with surveyed elevation, but that the surveyed elevation issue has been fixed. GIS was used to calculate Darcy flow in order to estimate groundwater flow rate and direction at the site. In order to evaluate plume migration rate and direction, GIS was used to generate a particle track path with a starting concentration of 23 micrograms per liter ( $\mu\text{g/L}$ ). In early 2018, using the data from the groundwater monitoring that was done, one extraction well was mapped with an approximate 200-foot radius plume and a measured PCE concentration of 5  $\mu\text{g/L}$ . Mr. Ziegler explained that 5  $\mu\text{g/L}$  was used in the analysis as it would be the new groundwater

standard with recent changes to New Mexico groundwater regulations, although this was already being considered the ultimate goal.

Chair Howe asked if there were four extraction wells in the area. Mr. Ziegler answered yes, but the first well is not in use because it is too shallow and the third well has low concentrations of PCE so it is not used much either. The second and fourth extraction wells are the primary wells being used in the pump and treat system. Mr. Ziegler went on to say that the system started operating in 2006-2007 and in 2010 the concentrations being measured in groundwater started dropping significantly, with the majority below the goal of 5 µg/L. In multiple graphs Mr. Ziegler explained the different concentrations of TCE and PCE over time and mentioned that although the TCE concentrations were not as high as PCE it was nevertheless worth noting their trends over time.

Mr. Faris then presented on vapor intrusion and how the New Mexico Environment Department (NMED) had provided guidance on monitoring for this in residential areas near the landfill. He continued by going through the list of removal technologies used for the vadose zone and groundwater and in-situ destruction technologies. He provided descriptions of the preferred abatement options, broken out by landfill gas extraction, soil vapor extraction, and monitored natural attenuation for groundwater. Mr. Faris then identified that Monitored Natural Attenuation (MNA) is the proposed modification to abate groundwater contamination. The proposal includes changes to the current Monitoring Program for groundwater at the site.

Mr. Faris explained that the ideal location for a proposed new groundwater monitoring well was not available because it was on private property, so the well will be located farther southwest than planned. This well is meant to define the downgradient extent of the PCE plume and was discussed with the NMED. Mr. Faris explained that the Public Notice period will be going on until September 19, 2018 and that 1,700 letters have been sent out, neighborhood associations have been notified along with other entities and stake holders, and that AEHD and NMED are waiting for any responses.

Chair Howe asked if there was a projection for the source/landfill waste to be gone. Mr. Ziegler explained that with the dry New Mexico climate, landfill waste tends to break down slower than estimated in the EPA's standard landfill model. By EPA numbers and estimates the Los Angeles landfill source/waste should be gone by now, but that would be based off of getting 25 inches of rain a year, which is more than twice as much as the local average rainfall. As an example, Mr. Ziegler explained that paper waste, which should be broken down by now given the age of the landfill, is still present in core samples, with a recent one producing a Peanuts cartoon from the 1970's that was still legible. Mr. Faris reiterated that EPA models don't work in our dry climate and that and that the City has an engineer, Paul, who is working on dry climate models now. Based on this work, early estimates are for the source to be gone in 50-100 years

Mr. Glass asked if the flare that burns extracted landfill gases, was going to be able to continue on its own given its proximity to Balloon Fiesta Park. Mr. Ziegler stated that it does not currently need any supplement such as natural gas but that could all be changed if the amount of gas in the landfill changes. Mr. Glass then asked when the proposal would go to the Commission, to which Mr. Faris replied that it will depend on the public comments and that they do not anticipate a need for a public meeting or hearing.

Chair Howe asked if there was any other discussion to be had about the presentation. Mr. Glass asked if it was appropriate for the WPAB to submit its own public comment on the proposal, to which Chair Howe responded that he thought it was important for the Board to do so.

Mr. Pederson asked if the proposal was available online. Mr. Faris said that he would send it to Ms. Agnew to disperse to the Board. Chair Howe stated that the Board could take a look and comment before the September 19<sup>th</sup> deadline. Mr. Faris mentioned to the Board that the Water Authority in the past has not supported Monitored Natural Attenuation as an abatement method and cautioned that the Board may not want to present something that would contradict the recommendation or position of the Water Authority.

Chair Howe then stated that everyone would look over the document and any public comment from the Board could be approved at the next meeting.

## **VI. Other Board Business**

During the discussion of other board business, the topic of board members' term expirations came up. Mr. Glass stated that his term would be expiring this week, mid-August, unless he was reappointed by the Bernalillo County Commission. He had heard that someone else is being nominated by another Commissioner.

Ms. Agnew then mentioned that Ms. Maccini's term had expired just a few days prior to the August meeting. She clarified that both Mr. Glass and Ms. Maccini's are County-appointed positions on the board. Resumes of those wishing to fill the positions were provided and passed around to the Board. Ms. Maccini explained that she had been appointed to fill the remaining term of a previous board member and that there was some confusion as to the possibility of it being a three-year term.

Mr. Glass stated that he had sent his resume via email to the Commission and may take hard copies the Commission meeting next week (August 14, 2018). He also stated that he was going to ask for support from the Board to keep his position.

Dr. Thacher then mentioned that her position will be up in September and that, unfortunately, she would not be able to continue in the position. She also mentioned that she will not be able to attend the September meeting but can attend the October meeting if her position has not been filled by then.

Ms. Agnew stated that the Water Authority will be considering an appointment to fill a position left open when Water Authority appointee Matt Earthman had to resign earlier in the year. Ms. Agnew provided the board members with copies of the resume for Mr. John Pietz, the proposed member for the open seat.

Mr. Glass asked for clarification of who was representing which agency.

- Kerry Howe – City and County
- Russell Pederson – City
- Suzanne Busch – City
- Steve Glass – County

- Julia Maccini – County
- Roland Penttila – City
- Caroline Scruggs – County
- Jennifer Thacher – Water Authority
- Vacant – Water Authority

Ms. Agnew stated that she could update this information once the County and Water Authority Governing Board approve their next appointments

## **VII. Public Comment Period**

There was no public comment made.

## **VIII. Adjourn**

Chair Howe asked for a motion to adjourn. Mr. Glass motioned to adjourn the meeting and Ms. Busch seconded the motion. Motion to adjourn the meeting passes unanimously. The meeting was adjourned at 9:52 a.m.