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**Subject:** SWQB Comments Lee Ranch Coal Mine 1st Draft UAA work plan  
**Date:** Thursday, October 1, 2015 2:14:14 PM  
**Attachments:** [image001.png](#)  
[image002.png](#)  
**Importance:** High

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Jimmy,

As I mentioned in our phone conversation today, key points in follow-up to our call on last Tuesday are below.

We understand Peabody intends to conduct a Use Attainability Analysis (UAA), including application of the Hydrology Protocol (HP), for streams at Lee Ranch Coal Mine with field work slated for late October. A draft UAA work plan submitted via email on September 14, 2015, was reviewed and discussed with you during the conference call on Tuesday, September 29, 2015. We understand that you anticipate submitting a revised UAA work plan.

As you are aware, the UAA process is allowed in the standards under Section 20.6.4.15 NMAC. UAAs based on application of the HP are covered in 20.6.4.15 C NMAC and requirements for those conducted by outside entities are in 20.6.4.15.D NMAC. Outside entities submit a UAA work plan to the Department and EPA for review and comments. The work plan is subject to approval by the Department before the UAA is conducted:

**"D. Use attainability analysis conducted by an entity other than the department.** Any person may submit notice to the department stating the intent to conduct a use attainability analysis. The proponent shall develop a work plan to conduct the use attainability analysis and shall submit the work plan to the department and region 6 EPA for review and comment. The work plan shall identify the scope of data currently available and the scope of data to be gathered, the factors affecting use attainment that will be analyzed and provisions for public notice and consultation with appropriate state and federal agencies. Upon approval of the work plan by the department, the proponent shall conduct the use attainability analysis in accordance with the approved work plan. The cost of such analysis shall be the responsibility of the proponent. Upon completion of the use attainability analysis, the proponent shall submit the data, findings and conclusions to the department. The department or the proponent may petition the commission to modify the designated use if the conclusions of the analysis support such action."

Therefore, as mentioned during the call, the proposed HP work scheduled for this fall may be considered provisional until the associated UAA work plan is approved by the Department.

We've prepared a summary of Tuesday's discussion points we hope are helpful for revisions.

### **Background/Narrative**

Include a brief narrative about the purpose of the UAA study in the work plan – such as in this example:

"...In order to remove a §101(a)(2) use or change it to one with less stringent criteria, a UAA must be conducted demonstrating the use is not attainable due to one or more of the six factors listed in 40 CFR 131.10(g), and to determine the most protective

aquatic life and contact uses that are attainable. New Mexico's UAA procedure is described in 20.6.4.15 NMAC. The HP is a methodology used to distinguish among ephemeral, intermittent, and perennial streams and rivers in New Mexico and generate documentation of the existing uses supported by a stream or river's naturally existing hydrology. Results of the HP may be used as technical support for a UAA, and are a required component of the UAA process for ephemeral waters as described in Subsection C of 20.6.4.15 NMAC. However, application of the HP is only one line of evidence being considered and evaluated for this UAA. All information and data collected during this UAA study, which is focused on 40 CFR 131.10(g)(2) or "Factor 2," will be considered in a weight of evidence approach to determine if current designated uses under 20.6.4.98 NMAC are attainable and, if not, what the most protective and attainable uses are for the evaluated waters."

Structure the content of work plan, use of the HP and purpose of the UAA in consideration of the reviewing audience (Department, EPA and the public).

As guidance, here are several UAA documents for your consideration, including a department UAA based on the HP and Chino's HP UAA+ technical memo (responses to EPA comments):

<https://www.env.nm.gov/swqb/documents/swqbdocs/Standards/UAA/HP/HydrologyProtocol-2013.pdf>

<https://www.env.nm.gov/swqb/UAA/Chino/index.html>

[https://www.env.nm.gov/swqb/TriennialReview/2013/20/Exh36\\_RTCS\\_ChinoHPReport\\_2014-10-23.pdf](https://www.env.nm.gov/swqb/TriennialReview/2013/20/Exh36_RTCS_ChinoHPReport_2014-10-23.pdf)

#### **Data Sources and Use of Data**

- In the work plan provide clear Identification of data sources and purpose of their use.
- Use the HP-recommended SPI and if not, explain source and use of other SPIs. Having said that, since our conference call we have learned the source link to the recommended SPI is not accessible. However, the 12 month SPI for New Mexico ending yesterday from the Western Regional Climate Center indicates moderately wet to very wet conditions.  
<http://www.wrcc.dri.edu/cgi-bin/spiFmap.pl?spi12>
- You mentioned pre-mining or other permit data about the site that's relevant to the UAA. Clarify in the work plan how these and other available sources of information will be used in the UAA process as lines of evidence. For example, briefly discuss how pre- and post-mining data about topography, springs and hydrologic routing is relevant to the UAA study.
- The work plan should also identify any information about discharges and/or diversions to the study streams as related to the receiving stream hydrology.
- A table detailing existing and future discharge outfalls in relation to study sites is strongly suggested (i.e., table w/ columns aligning each tributary to outfall(s), HP sites upstream/downstream coordinates, stream length, etc.).
- Well data - the use of available Office of State Engineer or pre-mine data may provide significant understanding of the existing hydrology, especially knowledge of depth to groundwater. Current pump rates and their influence on hydrologic flow paths should also be examined, if possible.

An introductory discussion of these data sources and their uses should be included in the revised work plan. However, a full discussion of these topics and information should be reserved for the final UAA. Once you've completed the UAA study, it should be clear how

this information was used and how it supports the conclusions. As Ellen mentioned during our call, this would be fully explained in the UAA report but the work plan will need to initially outline the data sources and considerations used in the generation of the sampling plan.

### Sampling Plan

- Provide a rationale for HP site selection and spatial extent for the study reaches (also see last bullet under “Maps”).
- Define “disturbed” vs. “undisturbed” and your selection criteria for these sites.
- As mentioned in the call, study reaches may need to be extended to characterize the stream reach (even if off property boundary).
- Indicate in the plan how revisions based on field ground-truthing and reconnaissance will be communicated to the Department.

### Maps

- Maps need to show improved scale, ownership boundaries, surficial disturbance, gravel pits and topography. If applicable and if possible, locations of springs and/or wells (historical/existing should be clearly differentiated on map).
- Identify all watershed boundaries, especially of two major watersheds – Mulatto Canyon and Doctor Arroyo.
- Identify 1<sup>st</sup> receiving water/tributary for each outfall.
- Plot all facility permitted outfalls. You mentioned both existing and planned outfalls which should be clearly differentiated on the map.
- Plot the beginning and end of each proposed HP Evaluation Stream Reach.

We look forward to receiving a revised UAA work plan and please contact me if you have questions about these comments.

Best regards,  
Kris

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