

August 28, 2020

MEMORANDUM

To: Matt Litchfield, PE, Three Valleys Municipal Water District
From: Anthony Brown and Brandon Eisen, **aquilologic**
Subject: Status Report for the Bonanza Spring Study
Project No.: 052-03

In February 2020, the Three Valleys Municipal Water District (Three Valleys) approved a study of the Bonanza Spring (the Study) to be conducted by a technical team led by **Aquilologic**. Bonanza Spring is located on the southwesterly flank of the Clipper Mountains in the Mojave Desert. The Study will evaluate the degree of hydrologic connection between Bonanza Spring and the alluvial aquifer in the Fenner Valley below. The Cadiz Valley Water Conservation, Recovery and Storage Project (the Cadiz Water Project) plans to pump groundwater that originates in the Fenner Valley, approximately 11 miles away. Therefore, the Study will assist Three Valleys in assessing whether such proposed pumping would have any impact on Bonanza Spring, and whether any possible impact can be mitigated. Thus, the Study will assist Three Valleys in deciding whether to participate in the Cadiz Water Project.

The following is a chronology of activity for the period February through August 2020:

February 24, 2020

After hearing a presentation from **aquilologic** and reviewing the Scoping Plan for the Study, the Board of Three Valleys approved the Study.

February 28, 2020

The Scoping Plan for the Study was completed.

March 6, 2020

At the request of Three Valleys, Dr. Joe Lyons was added to the expert review panel for the Study.

March 17, 2020

The Scoping Plan for the Study was submitted to the US Bureau of Land Management Needles field office (USBLM) ahead of planned field visit/meeting with USBLM staff at Bonanza Spring.

Due to the Coronavirus Pandemic and the State of California statewide stay-at-home orders, no such in-person meeting could occur. Therefore, to date, all interaction with USBLM staff has been via email, telephone, and web conferencing.

March 24, 2020

Aquilologic held a conference call (via WebEx) with USBLM staff regarding the Study. USBLM indicated that they will review the study documents and will advise **aquilologic** as to the timing for access to the site.

March 31, 2020

Short follow-up conference call (via WebEx) held with USBLM staff regarding required access.

April 1, 2020

USBLM staff requests via email that a standard form (SF)-299 and Plan of Development (POD) for the Study be prepared and submitted to USBLM.

April 10, 2020

A hydrology monitoring team for the Cadiz Water Project inform **aquilologic** about local reports of a sinkhole at Bonanza Spring following a recent storm event. **Aquilologic** staff travel to the spring to visit the sink hole on April 11, 2020.

May 4, 2020

A letter from the California Regional Water Quality Control Board (RWQCB), Colorado River Region (dated April 29) was received. The letter detailed RWQCB concerns about, and possible State permitting requirements for, the Study, notably (1) dredged or fill material discharges, (2) discharges to land with a low threat to water quality, and (3) slug test and geochemical assessment.

May 5, 2020

Email received from John (Russell) Hansen of USBLM regarding potential “digging” near Bonanza Spring. **Aquilologic** responded that there had been no digging; however, a natural sinkhole had developed above Bonanza Spring during a recent storm event (see April 10).

May 6, 2020

Aquilologic responded to the April 29 letter from RWQCB (see May 4) noting that their concerns were based on misinformation and explained why no State permits are required for the Study. **Aquilologic** offered to meet with the RWQCB to brief them on the Study and invite them to participate in the peer review of the Study.

May 8, 2020

Between April 2 and May 8, 2020, **aquilogic** prepared a draft SF299 and POD for the Study.

May 12, 2020

Conference call with USBLM staff. USBLM staff indicated that, because of the monitoring well installation component of the Study, the Study will require an Environmental Assessment (EA) under the National Environmental Protection Act (NEPA). Monitoring well installation does not normally require an EA; however, due to the public attention on the Cadiz Water Project, including outreach to USBLM staff by the National Parks Conservation Association (NPCA), USBLM informed **aquilogic** it was considering an EA. In addition, USBLM would require a cost recovery agreement with the applicant prior to the submission of the EA. Prior studies at Bonanza Spring were discussed, including studies sponsored by Mojave Desert Land Trust (MDLT) that did not require an EA or even a categorical exemption (CX), and USBLM indicated that those studies should have sought approval from BLM.

May 27, 2020

Aquilogic submitted a letter to USBLM outlining a legally consistent approach that would allow an evaluation of monitoring well installation to be conducted while proceeding with less invasive work. The field work for the Study would be implemented in the following three phases, as indicated in the Scoping Plan schedule approved by the Board in February:

- Part A: geophysical surveys and hydrologic assessment
- Part B: monitoring well installation and ecological assessment
- Part C: aquifer testing and geochemical assessment

Separate SF299 and PODs would be prepared for each Part, and USBLM could consider appropriate NEPA review for each part.

June 26, 2020

Between May 28 and June 25, **aquilogic** prepared the three separate SF299 and PODs for the Study. These documents were submitted to BLM requesting a causal use or categorical exemption (CX) for Parts A and C, and supporting an EA for Part B should USBLM require such.

July 13, 2020

USBLM (Realty division) provided some preliminary comments on the SF299 and PODs regarding land ownership and access. The access to monitoring well MW-1 was adjusted slightly to remain on land managed by USBLM. The location of monitoring well MW-3 and adjacent thermistors will be adjusted to keep them outside of right-of-way dedicated to Southern California Gas (SCG) for a pipeline and cathodic protection. The southeasterly extent of the seismic survey will be shortened to remain on land managed by USBLM.

July 15, 2020

Call with USBLM (Realty) to discuss the status of internal review by USBLM staff. The USBLM review team meet each Monday to discuss the Study.

July 22, 2020

Status call with USBLM (Realty) to discuss the internal review by BLM staff - still underway.

July 29, 2020

Status call with USBLM (Realty) to discuss the status of internal review by USBLM staff. USBLM (Realty) staff stated that comments would be provided by Friday, July 31, 2020.

July 31, 2020

Call with USBLM (Realty). Staff stated that the review was still ongoing as input from certain science specialists outside of the Needles field office was needed.

August 3, 2020

Call with USBLM (Realty). Comments to PODs should be completed internally by August 7.

August 11, 2020

Call with USBLM (Realty). Input from all science specialists outside of the Needles field office had been received. USBLM internal deadline of August 14 for comments to PODs.

August 13, 2020

Email from USBLM (Needles Field Office) indicating they have completed their review and would like to have a web-call to discuss their comments and questions.

August 14, 2020

Agenda received from USBLM (Needles Field Office) for upcoming web-call.

August 17, 2020

Web-call between **aquilogic**, study steam specialists, and USBLM (Needles Field Office and Resource Specialists) scheduled for September 2, 2020.

August 24, 2020

Email from USBLM (Realty) with questions regarding the geophysical assessment.

August 27, 2020

Aquilogic providing response to questions from USBLM (Realty) on the geophysical assessment.