STATE OF NEW MEXICO
WATER QUALITY CONTROL COMMISSION

IN THE MATTER OF: PROPOSED AMENDMENTS TO SURFACE WATER QUALITY STANDARDS FOR SAN ISIDRO ARROYO AND TRIBUTARIES 20.6.4 NMAC

WQCC 19-03(R)

DIRECT TECHNICAL TESTIMONY OF JENNIFER FULLAM

I. INTRODUCTION

My name is Jennifer Fullam, and I am presenting this written testimony (**NMED Exhibit C**) on behalf of the New Mexico Environment Department ("Department") concerning the proposals to amend the water quality standards for San Isidro Arroyo and its tributaries. I am currently employed as the Standards, Planning and Reporting Team Supervisor and serve as the Water Quality Standards Coordinator with the Department's Surface Water Quality Bureau ("SWQB"). A copy of my resume is included as **NMED Exhibit D**. It is accurate and up-to-date.

I will be presenting testimony in regards to the use attainability analysis ("UAA") proposal from Peabody Natural Resources Company (hereby referred to as "Peabody") to amend water quality standards by removing the current designated aquatic life and human recreation uses for portions of San Isidro Arroyo, Mulatto Canyon, Arroyo Tinaja, San Isidro Arroyo, and Doctor Arroyo and designating the demonstrated highest attainable aquatic life uses based on naturally low flow conditions. My testimony will outline the regulations for making such a revision, the administrative process for changing the State's Water Quality Standards which are codified under 20.6.4 New Mexico Administrative Code ("NMAC"), the actions taken by Peabody for this UAA.

II. REGULATIONS TO CHANGE A DESIGNATED USE

The Federal Water Pollution Control Act (also known as the "Clean Water Act" or "CWA"), Section 101(a)(2), requires that, wherever attainable, water quality shall provide for the

protection and propagation of fish, shellfish and wildlife and for recreation in and on the water. In accordance with 40 C.F.R. 131.10(a), each State must specify appropriate water uses to be achieved and protected. The requirements as outlined under 40 C.F.R. 131 and the CWA have been codified under the Standards for Interstate and Intrastate Surface Waters, 20.6.4 NMAC. All waters within the State of New Mexico, as defined under 20.6.4.7.S(5) NMAC, have established designated uses to meet the goals of Section 101(a)(2) of the CWA.

Although all waters of the State have established designated uses for aquatic life and human recreation, there are cases in which the established designated use is later found to have evidence supporting a change in the highest attainable use. There are varying conditions to which this may occur. The conditions as they pertain to this particular petition being brought before the Water Quality Control Commission ("WQCC") during this hearing will be discussed in greater length further in my testimony.

Before proceeding with any designated use change, according to 40 C.F.R. 131.10(g), a State cannot remove a designated use that is the existing use. The term existing use is defined in both the CWA and the State's Standards for Interstate and Intrastate Surface Waters as being the use [including the quality of water to support that use] actually attained in a surface water on or after November 28, 1975 whether or not it is a designated use. The designated use, being the goal of the waterbody, cannot be less stringent than the existing use as it has already been demonstrated that the existing use was able to be met at some time in the past and therefore should be attainable.

If the current designated use is not the existing use, a State may demonstrate the designated use is not attainable through a UAA based on one of the six conditions listed under 40 C.F.R. 131.10(g)(1-6). In accordance with 40 C.F.R. 131.10(g), if the State adopts a new or revised water quality standard based on the findings of the UAA, the state will adopt the highest attainable use.

A UAA is a scientific study conducted for the purpose of assessing the factors affecting the attainment of a use. The UAA must assess the physical, chemical, biological, economic or other factors affecting the attainment of a use and the analysis shall rely on scientifically defensible methods. The action being petitioned by Peabody is a proposal to change the aquatic life and recreational designated uses for San Isidro Arroyo and its tributaries.

II. BACKGROUND ON WATER QUALITY STANDARDS FOR SAN ISIDRO ARROYO AND TRIBUTARIES

San Isidro Arroyo is located in McKinley County. San Isidro Arroyo originates southwest of the Lee Ranch Mine footprint and discharges to Arroyo Chico northeast of the Lee Ranch Mine. Mulatto Canyon, Arroyo Tinaja, and Doctor Arroyo are primary tributaries to San Isidro Arroyo.

Currently portions of San Isidro Arroyo, Mulatto Canyon and Arroyo Tinaja are identified as ephemeral under New Mexico's Standards for Interstate and Intrastate Surface Waters, 20.6.4.97 NMAC. The portions of San Isidro Arroyo, Arroyo Tinaja and Mulatto Canyon identified under 20.6.4.97 NMAC were designated through a UAA based on natural low-flow conditions which prevented the attainment of the previous designated use for intermittent waters under 20.6.4.98 NMAC. The UAA was presented by the Department during the 2013 Triennial Review and was approved by the WQCC on January 10, 2017; made effective for state purposes on March 2, 2017; and approved by the United States Environmental Protection Agency ("EPA") for purposes of the CWA on August 11, 2017.

The portion of the waterbodies described under 20.6.4.97 NMAC have a secondary contact use and a limited aquatic life use designation. Secondary contact has *Escherichia coli* (*E. coli*) limits which include a monthly geometric mean of 548 colony forming units (cfu) per 100 milliliter (mL) and a single sample limit of 2,507 cfu/mL. The limited aquatic life use designation has acute

limits for metals listed under Table I of 20.6.4.900 NMAC and pollutants listed under Table J of 20.6.4.900 NMAC, but does not have limits for pH, temperature or dissolved oxygen.

Doctor Arroyo and the portions not specifically described under 20.6.4.97 for San Isidro Arroyo, Mulatto Canyon and Arroyo Tinaja are currently considered unclassified non-perennial tributaries and are protected under the highest attainable uses for non-perennial waterbodies, which is intermittent waters with designated uses identified under 20.6.4.98 NMAC which include marginal warmwater and primary contact. Primary contact has *E. coli* limits which include a monthly geometric mean of 126 cfu/100 mL and a single sample of 410 cfu/100 mL within a range of 6.6 to 9.0 pH. The marginal warmwater aquatic life use designation has limits for dissolved oxygen, pH and temperature along with both chronic and acute limits for metals listed under Table I of 20.6.4.900 NMAC and pollutants listed under Table J of 20.6.4.900 NMAC.

The designated use change approved in 2017 for San Isidro Arroyo, Arroyo Tinaja and Mulatto Canyon were not inclusive of those tributaries within the Lee Ranch Mine site. The purpose the UAA being presented today, as proposed by Peabody, was to evaluate the natural low-flow conditions along the San Isidro Arroyo, Arroyo Tinaja, Mulatto Canyon and Doctor Arroyo within the Lee Ranch Mine site, not already evaluated in the previous study, which are preventing attainment of the designated aquatic life uses. The UAA presented by Peabody also demonstrates what is believed to be the highest attainable designated aquatic life and recreational use based on naturally occurring low-flow conditions.

III. UAA ADMINISTRATIVE PROCESS

In accordance with 20.6.4.15.D NMAC, upon completion of the UAA, Peabody submitted the UAA, findings and conclusions to the Department on June 29, 2018 **(NMED Exhibit K)**, with request for comments by the Department and EPA within 45 days. On August 24, 2018, the

Department provided a response **(NMED Exhibit L)**, clarifying that Peabody had the option to petition the WQCC for a designated use change and that any non-ephemeral portions would be not be admissible for the consideration as low-flow conditions did not prevent the attainment of the use. On September 26, 2018, EPA requested additional information be included in the UAA **(NMED Exhibit M)**, including inclusion of additional images and maps of the site locations, additional information on the Army Corp of Engineers CWA Section 404 permit and additional maps as it may pertain to EPA's evaluation under the Endangered Species Act. Peabody submitted a cover letter and revised UAA dated November 6, 2018 **(NMED Exhibit N)** to address the technical comments presented by the Department and EPA. The Department had no further comments on the revised UAA dated November 6, 2018.

On March 4, 2019, Chad Gaines with Peabody contacted me regarding the upcoming public comment period and public meeting for the UAA. On March 6, 2019, the Department received notice of the public comment period **(NMED Exhibit O)** along with the UAA which was substantially the same with the exception of a compact disc that contained interactive maps. The notice stated the 30-day public comment period would begin March 13, 2019 and a public meeting was being held in Grants on March 26, 2019, to which the Department was the only attendee. On March 29, 2019, during the public comment period, the Department submitted comment and proposed alternative language to 20.6.4.97 NMAC from that being proposed by Peabody in the UAA **(NMED Exhibit P)**. This alternative language was proposed based on the already existing references to the tributaries under 20.6.4.97 NMAC and to clearly identify that this only establishes designated uses for those portions that have been determined to be ephemeral. During the survey and in the UAA, Peabody identified at least one section of Doctor Arroyo which has intermittent and perennial portions. The extent of these intermittent and perennial reaches have more stringent

protections under 20.6.4.98 NMAC and 20.6.4.99 NMAC, respectively, and the scope of the UAA presented by Peabody did not support changing any designated uses for the intermittent and perennial reaches of Doctor Arroyo.

IV. PROPOSED AMENDMENTS

The findings of the investigation conducted by Peabody through this UAA support designated use changes from marginal warmwater and primary contact to limited aquatic life and secondary contact for portions of San Isidro Arroyo, including unnamed tributaries to San Isidro Arroyo, from Arroyo Chico upstream to its headwaters; Arroyo Tinaja, including unnamed tributaries to Arroyo Tinaja, from San Isidro Arroyo upstream to 2 miles northeast of the Cibola National Forest boundary; Mulatto Canyon from Arroyo Tinaja upstream to one mile northeast of the Cibola National Forest boundary; and Doctor Arroyo, including unnamed tributaries to Doctor Arroyo, from San Isidro Arroyo upstream to its headwaters, and excluding Doctor Spring and Doctor Arroyo from the spring to its confluence with the unnamed tributary approximately one-half mile downstream of the spring. These changes would be reflected by specifically identifying those ephemeral portions in accordance with 20.6.4.97 NMAC.

This concludes my direct testimony.