

**STATE OF NEW MEXICO  
BEFORE THE SECRETARY OF ENVIRONMENT**



**IN THE MATTER OF: )  
THE APPLICATION OF )  
NEW MEXICO COPPER CORPORATION )  
FOR A GROUNDWATER DISCHARGE )  
PERMIT FOR THE COPPER FLAT MINE )  
(DP-1840). )  
\_\_\_\_\_ )**

**Docket No. GWB-18-06 (P)**

**JOINT CLOSING ARGUMENTS BY  
TURNER RANCH PROPERTIES, L.P. AND HILLSBORO PITCHFORK RANCH, LLC**

Pursuant to the New Mexico Environment Department’s Permit Procedures, 20.1.4.500.B NMAC, Turner Ranch Properties, L.P., owner of the Ladder Ranch, and Hillsboro Pitchfork Ranch, LLC, owner of the Hillsboro Pitchfork Ranch, (collectively the “Ranches”) hereby jointly submit their closing arguments on the proposed groundwater discharge permit, DP-1840, for the Copper Flat Mine located near Hillsboro, in Sierra County, New Mexico. The New Mexico Environment Department (“Department”) proposes to issue the discharge permit to New Mexico Copper Corporation (“N.M. Copper Corp.”), the current operator of the Copper Flat Mine, under the New Mexico Water Quality Act (“WQA”), NMSA 1978 §§ 74-6-1 to 74-6-17 (1993), and the Water Quality Regulations and Copper Mine Regulations issued thereunder, 20.6.2 NMAC and 20.6.7 NMAC. The proposed discharge permit would authorize the discharge of up to 25,264,000 gallons per day of mine tailings, process water, impacted stormwater, and domestic wastewater to a lined tailing impoundment. It would also authorize an indeterminate quantity of mine influenced water from a large open pit, waste rock piles, ore stockpiles, mineral processing units, process water impoundments, tanks, pipelines, ditches, sumps, and other mine facilities. The proposed permit would also establish a closure plan intended to prevent and abate pollution of ground water at the Copper Flat Mine during and after closure. The permit would also establish financial assurance for closure, although the amount

of financial assurance and the form of financial assurance has not yet been determined. A hearing on the proposed permit was held from September 24 through September 28, 2018, in Truth or Consequences, New Mexico.

## **I. THE WATER QUALITY ACT AND THE REGULATIONS**

### **A. THE WATER QUALITY ACT**

The New Mexico Legislature enacted the WQA in 1967. The purpose of the WQA is “to abate and prevent water pollution.” *Bokum Res. Corp. v. N.M. Water Quality Control Comm’*, 93 N.M. 546, 555, 603 P.2d 285, 294 (1979). The WQA created the Commission. NMSA 1978, § 74-6-3. The WQA authorizes the Commission to “adopt water quality standards for surface and ground waters of the state.” NMSA 1978, § 74-6-4(D). The standards, at a minimum, must “protect the public health or welfare, enhance the quality of water[,] and serve the purposes of the [WQA].” *Id.* The WQA also authorizes the Commission to adopt regulations “to prevent or abate water pollution in the state.” NMSA 1978, § 74-6-4(E).

The WQA authorizes the Commission to adopt regulations requiring persons “to obtain from [the Department] a permit for the discharge of any water contaminant.” NMSA 1978, § 74-6-5(A). The WQA further authorizes the Commission to adopt regulations “for the operation and maintenance of the permitted facility, including requirements, as may be necessary or desirable, that relate to continuity of operation, personnel training and financial responsibility, including financial responsibility for corrective action.” NMSA 1978, § 74-6-5(H). The WQA authorizes the Commission to adopt regulations that “impose reasonable conditions on permits” requiring permittees to conduct monitoring and sampling, to keep records, to provide information to the Department, and to notify the Department of changes in the discharge. NMSA 1978, § 74-6-5(J).

As amended in 2009, the WQA requires the Commission to adopt regulations specific to the copper industry. NMSA 1978, § 74-6-4(K).

Finally, the WQA requires public participation in permitting decisions, requiring the Commission to adopt regulations notifying the public in detail of permit applications. NMSA 1978, § 74-6-5(F). The WQA also provides that “[n]o ruling shall be made on any application for a permit without opportunity for a public hearing at which all interested persons shall be given a reasonable chance to submit evidence, data, views[,] or arguments orally or in writing and to examine witnesses testifying at the hearing.” NMSA 1978, § 74-6-5(G).

#### **B. THE WATER QUALITY REGULATIONS**

In accordance with the WQA, the Commission has adopted water quality standards and regulations requiring discharge permits and requiring abatement of ground water contamination. 20.6.2 NMAC. Significantly, the express purpose of the Commission Regulations is “to protect all ground water of the state of New Mexico which has an existing concentration of 10,000 milligrams per liter or less [total dissolve solids (“TDS”)], for present and potential future use as domestic and agricultural water supply.” 20.6.2.3101.A NMAC.

The Commission has adopted regulations for discharge permits. 20.6.2.3101-3114 NMAC. The regulations provide that “no person shall cause or allow effluent or leachate to discharge so that it may move directly or indirectly into ground water unless he is discharging pursuant to a discharge plan approved by the [Department] secretary.” 20.6.2.3104 NMAC. In the case of copper mine facilities, however, the general permit requirements are partially eclipsed by the permit requirements of the Copper Mine Rule, discussed below.

The Commission has also adopted water quality standards for ground water with concentrations of 10,000 milligrams per liter or less of total dissolved solids. The regulations set

maximum numerical standards for 33 contaminants for protection of human health; maximum numerical standards for 9 contaminants and a range for pH for protection of domestic water supplies; and maximum numerical standards for five contaminants for protection of water for irrigation use. 20.6.2.3103 NMAC. The regulations also list some 54 contaminants that are designated as “toxic pollutants.” 20.6.2.7.WW NMAC.

The Commission has adopted regulations requiring abatement of contaminated ground water. 20.6.2.4101-4115 NMAC. The purpose of the abatement regulations is to “[a]bate pollution of subsurface water so that all ground water of the state of New Mexico which has a background concentration of 10,000 mg/L or less TDS, is either remediated or protected for use as domestic and agricultural water supply.” 20.6.2.4101.A.1 NMAC.

Finally, the Commission has adopted regulations for public participation in discharge permit proceedings. 20.6.2.3108 NMAC. The regulations require public notice of an initial permit application within 30 days after the application is administratively complete (sometimes referred to as “PN1”). 20.6.2.3108.B NMAC. They require a second public notice of the proposed approval or disapproval of the permit within 60 days after the application is administratively complete and all required technical information is available (sometimes referred to as “PN2”). 20.6.2.3108.H NMAC. The regulations require a period of at least 30 days during which members of the public can submit comments and request a hearing. 20.6.2.3108.K NMAC. The regulations also specify procedures for a public hearing. 20.6.2.3110 NMAC.

### **C. THE COPPER MINE RULE**

In accordance with 2009 amendments to the WQA, the Commission adopted the Copper Mine Rule in 2013. 20.6.7 NMAC. The purpose of the Copper Mine Rule is to supplement the water quality regulations “to control discharges of water contaminants specific to copper mine

facilities and their operations *to prevent water pollution.*” 20.6.7.6 NMAC (emphasis added). In simple terms, the Copper Mine Rule establishes the discharge permit requirements for copper mines.

The Copper Mine Rule has been very controversial, particularly its provisions that allow, rather dubiously, groundwater to be contaminated in excess of standards within an “area of open pit hydrologic containment,” 20.6.7.7.B(5) NMAC, and within an “open pit surface drainage area,” 20.6.7.7.B(42). Nevertheless, the Copper Mine Rule has been upheld by the New Mexico Supreme Court. *Gila Res. Info. Project v. N.M. Water Quality Control Comm’n*, 2018-NMSC-025, 417 P.3d 369.

Mirroring the Water Quality Regulations, the Copper Mine Rule, or the “Copper Mine Regulations,” provides that “no person shall discharge effluent or leachate from a copper mine facility so that it may move directly or indirectly into ground water without a discharging permit approved by the [D]epartment.” 20.6.2.7.8.A NMAC. The regulations specify in some detail the procedures for a copper mine facility to submit an application to the Department for a discharge permit. 20.6.7.10 NMAC. The regulations also specify the technical information that must be included in a permit application. 20.6.7.11 NMAC. Within 90 days after determining that an application is technically complete, the Environment Department is required to publish a public notice proposing either to approve or to deny the permit. 20.6.7.10.H NMAC; *see also* 20.6.2.3108.H NMAC. Members of the public may comment on the proposed approval or denial, and may request a hearing. 20.6.7.10.H NMAC; *see also* 20.6.2.3108.K NMAC. The regulations provide that the Department must approve the discharge permit if “it poses neither a hazard to public health nor undue risk to property,” and if it meets the requirements of the Copper Mine Rule. 20.6.7.10.J NMAC.

The Copper Mine Regulations include technical requirements for all major facilities at copper mines, including water rock piles, 20.6.7.21 NMAC; copper ore crushing and milling facilities and tailings impoundments, 20.6.7.22 NMAC; pipelines and tanks, 20.6.7.23 NMAC; open pits, 20.6.7.24 NMAC; and truck and equipment washing facilities, 20.6.7.22 NMAC. The regulations also include detailed requirements for groundwater and surface water monitoring, 20.6.7.28 NMAC. The regulations include contingency requirements in the event that groundwater quality standards are exceeded, a spill or other unauthorized discharge of contaminants occurs, a tailings impoundment structure is compromised, or any of a variety of other things goes wrong, 20.6.7.30 NMAC. Finally, the regulations include requirements for a closure plan, 20.6.7.33 NMAC.

The Copper Mine Regulations authorize the Department to impose conditions on discharge permits according to the applicable substantive requirements of the regulations, 20.6.7.10.H NMAC. Moreover, the regulations authorize the Department to impose additional conditions on permits that go beyond the substantive requirements of the regulations. If it imposes any such additional conditions, the Department must prepare a written explanation of the reasons for the condition. The Department must make the statement available for public review and comment when it proposes to approve the permit, 20.6.7.10.I NMAC.

## **II. HISTORICAL BACKGROUND**

### **A. HISTORY OF THE MINE**

Over the past fifty years, several mining companies have endeavored to operate the Copper Flat Mine profitably, with little success. Inspiration Development, a mining company based in Arizona, acquired the mine in 1967 and conducted an investigation of the site's mineral reserves. Inspiration also conducted a feasibility study and developed a plan for an open pit mine. *New Mexico ex rel Office of the State Eng'r v. Elephant Butte Irrigation Dist.*, slip op. at 11 (3d Jud. D.

Dec. 28, 2017) (AR-17747); Kuipers Test. Tr. vol. 3, p. 925, lines 9-11. However, Inspiration leased the mine out to other parties to develop because it was not a project Inspiration had confidence would make money. Kuipers Test. Tr. vol. 3, p. 925, lines 20-22.

On July 15, 1974, Quintana Minerals Corporation (“Quintana”) leased the Copper Flat Mine from Inspiration and undertook an exploration program to estimate its ore reserves. Quintana’s investigation continued through 1976 at a cost of \$3.32 million. But Quintana suspended its work at the mine in late-1976 largely due to the low price of copper. *Elephant Butte*, slip op. at 12 (AR-17748).

In 1980, Quintana and Phibro, Inc., a Delaware corporation, formed a partnership, Copper Flat Partnership, to develop a mining operation at Copper Flat. *Id.* Copper Flat Partnership leased Copper Flat Mine from Inspiration Development. *Id.*

In March 1982, Copper Flat Partnership began producing copper concentrate. *Elephant Butte*, slip op. at 17 (AR-17753); Kuipers Test. Tr. vol. 3, p. 926, lines 4-5. The 1982 Copper Flat Mine operation included several waste rock stockpiles, an open pit, a tailings storage facility, mineral processing facilities, impoundments, and associated infrastructure. Ranches Ex. 1 at p. 3. The 1982 operation excavated approximately three million tons of overburden and 1.2 million tons of metal ore. *Id.* In April, May, and June 1982, Copper Flat Partnership processed an average of 14,908, 15,981, and 14,014 tons per day, respectively, of copper ore. *Elephant Butte*, slip op. at 17 (AR-17753). The 1982 operation disturbed approximately 689 acres of land; it created an open pit, which is partially filled by a pit lake having a surface area of 12.8 acres and a depth of 40 feet; it produced waste rock piles around the open pit; and it created a tailings impoundment containing approximately 1.2 million tons of mill tailings and covering 60 acres. AR-00042. Then, in July 1982, after only three months of operation, Copper Flat Partnership ceased mining at the Copper Flat Mine. *Elephant*

*Butte*, slip op. at 17 (AR-17753); Kuipers Test. Tr. vol. 3, p. 926, lines 5-8. It ceased mining due to the combination of a fall in the price of copper and the partnership having a heavy debt load from constructing the mine facilities. *Elephant Butte*, slip op. at 17 (AR-17753); Kuipers Test. Tr. vol. 3, p. 926, lines 15-20.

After it ceased mining operations, Copper Flat Partnership removed the surface facilities and equipment. It sold the equipment to pay back some of the debt from the capital loan. Kuipers Test. Tr. vol. 3, p. 926, lines 22-25. On December 31, 1986, Copper Flat Partnership cancelled its lease interest in the Copper Flat Mine property, and the property reverted to Inspiration Development. *Elephant Butte*, slip op. at 29 (AR-17765).

In February 1987, Copper Flat Partnership informed the Environmental Improvement Division of the New Mexico Health Department (predecessor to the Department) that “the Copper Flat property is [p]ermanently [c]losed and will not be restarted.” *Id.* By February 5, 1987, Copper Flat Partnership completed reclamation of Copper Flat Mine facilities on land belonging to the U.S. Bureau of Land Management (BLM). *Elephant Butte*, slip op. at 29 (AR-17765); Kuipers Test. Tr. vol. 3, p. 927, lines 1-2. In 1987, Copper Flat Partnership abandoned its mining operations at the Copper Flat Mine. *Elephant Butte*, slip op. at 32 (AR-17768); Kuipers Test. Tr. vol. 3, p. 927, lines 1-2.

For several years after 1987, there were no active operations or activities at the Copper Flat Mine. Several successive companies owned the mine property, but there was no mining, reclamation, maintenance, construction, or other activities at the mine site. Kuipers Test. Tr. vol. 3, p. 927, lines 3-7. On November 16, 1989, Inspiration Development sold the mine to Hydro Resources. *Elephant Butte*, slip op. at 37 (AR-17773). On July 25, 1989, Cobb Resources, Inc., which controlled Hydro Resources, entered into an agreement to sell the mine property to the Copper



Flat Mining Company, based in Denver, Colorado. Copper Flat Mining Co. planned to develop the mine with prospective partners, but those plans never materialized. *Id.* at 38 (AR-17774.)

On April 11, 1990, Copper Flat Mining Co. sold the Copper Flat Mine property to Gold Express Corporation. *Id.* at 39 (AR-17775). On January 31, 1991, Gold Express Corp. submitted to the BLM a proposed plan of operations for the mine. Gold Express Corp. proposed to “rebuild the entire Copper Flat mining facility as it existed in 1986.” Gold Express Corp. did not implement the plan. *Id.* at 40 (AR-17776). Kuipers Test. Tr. vol. 3, p. 927, lines 3-7.

In 1994, Alta Gold Corporation, a publicly-traded company that engaged in gold, silver, lead, and zinc mining, purchased the mine from Gold Express Corp. *Elephant Butte*, slip op. at 40 (AR-17776); Kuipers Test. Tr. vol. 3, p. 927, line 8. Alta Gold Corp. planned to reopen the mine for a cost of \$35 million. Alta Gold Corp.’s proposed operations at the mine were very similar to those of Copper Flat Partnership, and Alta Gold Corp. planned to recover and reuse the salvageable infrastructure remaining from Copper Flat Partnership’s operations. Ultimately, however, Alta Gold Corp. never reopened the mine. *Elephant Butte*, slip op. at 41-42 (AR-17777 to AR-17778).

In 1999, Alta Gold Corp. filed for bankruptcy in the United States Bankruptcy Court for the District of Nevada. *Id.* at 42 (AR-17778); Kuipers Test. Tr. vol. 3, p. 927, lines 17-18. Alta Gold’s assets, including those associated with the Copper Flat Mine, were liquidated in an auction ordered by the bankruptcy court. *Elephant Butte*, slip op. at 42 (AR-17778). After the bankruptcy liquidation, the mine property was again abandoned. Kuipers Test. Tr. vol. 3, p. 927, lines 24-25.

On July 23, 2009, Hydro Resources entered into an agreement with N.M. Copper Corp. extending to N.M. Copper Corp. an option to purchase the Copper Flat Mine and the associated mineral claims. *Elephant Butte*, slip op. at 45 AR-17781. N.M. Copper Corp. acquired the Copper Flat Mine in 2011.

Despite the reclamation efforts conducted at the mine, previous mining operations have left a legacy of environmental pollution. A pit lake has formed in the existing open pit. Baseline sampling of the pit lake conducted in 2011 and 2012 showed that it exceeded surface water standards for aluminum, cadmium, copper, lead, manganese, selenium, and zinc from 2011 through 2012. Myers Test. Tr. vol. 3, p. 954, lines 10-20. The existing tailings impoundment has contributed to groundwater contamination. The Environment Department required N.M. Copper Corp. to begin abatement of the contamination under the abatement regulations, 20.6.2.4101 to 4115 NMAC, but that action has been stalled for years pending the permit application proceeding. As of the date of the hearing, N.M. Copper Corp. had not submitted to the Environment Department a final Stage 1 Abatement investigation report as required by the regulations, 20.6.1.4106.C(6) NMAC. Reid Test. Tr. vol. 3, p. 694, line 8 to p. 697, line 13.

#### **B. PROCEDURAL HISTORY**

On March 31, 2011, N.M. Copper Corp. submitted to the Department an application for a modification of the existing groundwater discharge permit (DP-001) for the Copper Flat Mine. Smith Test. Tr. vol. 1, p. 47, lines 16-17; AR-00299 to AR-01709. On May 13, 2011, the Department notified N.M. Copper Corp. that the permit application was administratively complete. AR-01711 to AR-01714.

The original permit application became obsolete, however, when the Commission adopted the Copper Mine Rule on December 1, 2013. Consequently, on December 9, 2015, N.M. Copper Corp. submitted an amended application, taking the Copper Mine Rule into account. The amended application superseded the March 31, 2011 application. AR-12354 to AR-13547. On January 15, 2016, the Department notified N.M. Copper Corp. that the amended permit application was administratively complete. AR-13560 to AR-13561. On January 15, 2016, the Department

published a public notice (“PN 1”) stating that the application had been received and was under review. *See* 20.6.2.3108.E NMAC (notice requirement). The notice assigned the permit application the number DP-1840 rather than DP-001. AR-13567 to AR-13569. On March 10, 2016, N.M. Copper Corp. sent to the Department proof, as required under section 20.6.2.3108.D NMAC, that it had published a public notice, as required under section 20.6.2.3108.B NMAC. The notice contained some, but not all, of the items required under section 20.6.2.3108.F NMAC. AR-13631 to 13640.

On January 31, 2018, the Department formally announced its decision to propose approval of the discharge permit for the Copper Flat Mine. It published a public notice (“PN 2”) stating its proposed approval in the *Truth or Consequences Herald* and in the *Albuquerque Journal*. *See* 20.6.2.3108.H NMAC (notice requirement). The notice also stated that the Department would receive public comment on the proposed discharge permit, and requests for a public hearing, for a period of thirty days. AR-17417 to AR-17420. On February 2, 2016 the Department notified N.M. Copper Corp. that it was proposing approval of the discharge permit under section 20.6.7.10.H NMAC. Smith Test. Tr. vol. 1, p. 52, lines 19-21; AR-17360. The Department also sent N.M. Copper Corp. a proposed discharge permit, as required under section 20.6.7.10.H NMAC. AR-17360 to AR-17407.

The Department received requests from several parties, including Turner Ranch Properties and Hillsboro Pitchfork Ranch, the New Mexico Environmental Law Center, and the Elephant Butte Irrigation District to extend the period for public comment. AR-17432 to AR-17437; AR-17439 to AR-17441; AR-17443 to AR-17444; AR-17474 to AR-17476. On or about March 3, 2018, the Department extended the public comment period until May 5, 2018. AR-17486 to AR-17491. On May 4, 2018, the New Mexico Environmental Law Center, on behalf of Turner Ranch Properties and Hillsboro Pitchfork Ranch, submitted comments on the proposed discharge permit to the

Department. AR-17682 to AR-18150.

On June 7, 2018, the Department Secretary docketed the matter for hearing and appointed a Hearing Officer. AR-18661 to AR-18662. On August 10, 2018, the Department sent to N.M. Copper Corp., and other interested parties, a revised proposed discharge permit for the Copper Flat Mine. The revisions reflected some of the public comments that had been submitted to the Department. Ranches Ex. 1. The Department sent another revised version to the interested parties on November 17, 2008.

On August 15, 2018, the Department published in the *Truth or Consequences Herald* a public notice that a public hearing would be held on the proposed discharge permit for the Copper Flat Mine beginning on September 24, 2018 in Truth or Consequences, New Mexico. (AR-181715 to AR-18722). From September 24, 2018 through September 28, 2018, the Department held a public hearing on the proposed discharge permit at the Ralph Edwards Auditorium in Truth or Consequences. Tr. vols. 1-5. At the hearing, N.M. Copper Corp. presented the testimony of 6 technical witnesses; the Department presented the testimony of 3 technical witnesses; the Ranches presented the testimony of 4 technical witnesses; and the Elephant Butte Irrigation District presented the testimony of 4 technical witnesses. In addition, 48 members of the public made oral statements. Tr. vols. 1-5.

### **C. THE PROPOSED PERMIT**

The proposed discharge permit (DP-1840) for the Copper Flat Mine authorizes N.M. Copper Corp. to discharge a maximum of 25,264,000 gallons per day of tailings slurry which includes mine tailings, process water, mine impacted stormwater, and domestic wastewater, to a lined tailing impoundment, the Tailings Storage Facility. AR-18737. The permit also authorizes an indeterminate volume of discharges from other mine units including waste rock stockpiles, ore

stockpiles, mineral processing units, process water impoundments, open pit, sumps, tanks, pipelines, and other areas within the Mine Permit Area. *Id.*

The permit includes provisions describing and addressing most of the primary mine facilities. The permit first addresses the open pit. At full build out, the open pit will encompass approximately 161 acres, with a diameter of approximately 2,800 feet, and a depth of approximately 850 to 900 feet below the original pre-mining surface. AR-18741. During mining operations, water flowing into the pit will be removed and used as process water or for dust control. *Id.* The permit also addresses three new waste rock piles, designated WRSP-1, WRSP-2, and WRSP-3. Combined, the three waste rock piles will contain approximately 45 million tons of rock, and they will cover approximately 210 acres. AR-18741 to AR-18742. The permit addresses the mill and associated facilities. These units include a primary ore crusher, a coarse ore stockpile, a concentrator, and a mill. AR-18743 to AR-18744. The permit also addresses the Tailings Storage Facility, a lined tailings impoundment. The Tailings Storage Facility is designed to hold the total volume of tailings generated at the Copper Flat Mine during the life of the mine. Upon completion of mining operations, it will cover 564 acres. AR-18744. Next, the permit covers several surface impoundments: the Process Water Reservoir, the Tailings Underdrain Collection Pond, the Surge Pond, and three Impacted Stormwater Impoundments. AR-18745 to AR-18747.

The proposed permit includes detailed requirements on groundwater monitoring, including the requirement to install two additional groundwater monitoring wells. AR-18756 to 18758. The permit provides for a contingency plan to address emergencies and system failures. AR-18760. It also provides for a closure plan for the closure and reclamation of the mine after mining operations cease. AR-18760 to AR-18762. Finally, the proposed permit includes a very brief requirement for financial assurance. AR-18763.

### III. STANDARD OF REVIEW

The Copper Mine Regulations, together with the Water Quality Regulations and the WQA, establish the standards for approval of a discharge permit. Under the Copper Mine Regulations, the Department Secretary can approve a discharge permit for a copper mine only if the permit poses neither a hazard to public health nor undue risk to property; only if it meets the requirements of the Copper Mine Rule, 20.6.7 NMAC; only if the applicable provisions for Secretary approval under section 20.6.2.3109 NMAC are met; and only if denial is not required under the WQA, NMSA 1978, § 74-6-5(E). 20.6.7.10.J NMAC.

Under section 20.6.2.3109, the Secretary must review and approve or disapprove the application for a discharge permit based on the information in the administrative record. 20.6.2.3109.A, B NMAC. Further, the Secretary may not approve a discharge permit if the discharger has not proposed flow measurement and sampling; if the discharge will cause a stream standard to be violated; or if a discharge of any water contaminant may cause a hazard to public health. 20.6.2.3109.H(1), (2), (3) NMAC.

Under the WQA, the Secretary must deny a discharge permit if the discharge would violate any state or federal effluent regulations, standards or limitations; would violate any provision of the WQA; or would cause or contribute to water contaminant levels in excess of any state or federal standard. NMSA 1978, § 74-6-5(E). The Secretary must also deny the permit if the applicant has, within the previous ten years, acted in bad faith. *Id.*

The Department's permit regulations establish the burden of proof. First, the applicant has the burden of proving that the permit should be approved. Second, the Department has the burden of proving that a permit condition it has proposed, and that has been challenged, should be adopted. To meet this burden, the Department must show that the permit conditions are reasonable. *See* NMSA

1978, § 74-6-5(J). Finally, any person who contests a permit condition has the burden of proving that the condition is inadequate, improper, or invalid; and any person who proposes a permit condition has the burden of proving that the condition should be adopted. 20.1.4.400.A(1) NMAC.

Further, the “Department has a duty to interpret the regulations liberally in order to realize the purposes of the Act.” *Colonias Dev. Council v. Rhino Env'tl. Servs.*, 2005-NMSC-024, ¶ 34, 138 N.M. 133, 142, 117 P.3d 939, 948.

#### **IV. ARGUMENT**

##### **A. NEW MEXICO COPPER CORPORATION HAS NOT MET ITS BURDEN OF PROVING THAT THE PERMIT SHOULD BE APPROVED**

Under the Department’s Permit Procedures, the applicant for a groundwater discharge permit bears the burden of showing that the permit should be approved. N.M. Copper Corp. has failed to meet that burden. The permit application that N.M. Copper Corp. has submitted is defective or incomplete in several ways. The permit application fails to include an adequate evaluation of the andesite bedrock underlying much of the Mine Permit Area. Similarly, the permit application fails to include an adequate evaluation of potential leaks from the Tailings Storage Facility. The groundwater monitoring plan proposed in the permit application is insufficient to detect groundwater contamination. The permit application does not actually include a proposal for financial assurance, although the company’s preliminary proposal can be obtained through MMD. The proposal is both substantively and procedurally flawed. The permit should therefore be denied.

##### ***1. The Evaluation of the Andesite Bedrock Is Not Adequate***

As was discussed repeatedly during the hearing, N.M. Copper Corp. has not submitted an adequate evaluation of the andesite bedrock that underlies a significant portion of the mine site. Full evaluation of the andesite is required by the Copper Mine Regulations. Full evaluation of the

andesite is critical because undetected fractures in the andesite could provide a conduit for the transport of contaminants off-site, particularly leachate from the waste rock piles. Yet the location and extent of fractures in the andesite at the mine site is virtually unknown. Further evaluation of the andesite is necessary before the Copper Flat Mine project can proceed.

The Copper Mine Regulations require that for new waste rock piles located outside the so-called open pit surface drainage area, an applicant must submit a design report that includes:

An aquifer evaluation to determine the potential nature and extent of impacts to ground water from the waste rock stockpile based on the proposed waste rock stockpile design and geochemical characteristics. The aquifer evaluation shall include a complete description of aquifer characteristics and hydrogeologic controls on the movement of leachate from the waste rock stockpile and ground water impacted by the waste rock stockpile based on actual field data.

20.6.7.B(1)(d)(vii) NMAC. Two of the three proposed waste rock piles, those designated as WRSP-2 and WRSP-3, will be outside the open pit surface drainage area. NMED Ex. 3, p. 12. However, N.M. Copper Corp. has not completed such an evaluation for the andesite aquifer.

Andesite is an extrusive igneous or volcanic rock that forms when magma reaches the ground surface and quickly crystallizes. Myers Test. Tr. vol. 4, p. 1168, lines 11-13. As an igneous rock, it is often fractured. Fractures can form in rocks as a result of thermal cooling, lithostatic changes in the weight of overburden due to, for example, uplift and erosion, or volcanic activity.<sup>1</sup> Andesite bedrock underlies a large portion of the Mine Permit Area, including the area where the proposed waste rock piles will be deposited. AR-12473.

The discharge permit application that N.M. Copper Corp. has submitted states that the andesite bedrock underlying the proposed waste rock piles will serve as a "natural liner protective of groundwater," and as a "natural liner system." AR-12433, AR-12434. The application adopts an

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<sup>1</sup> NAT'L RESEARCH COUNCIL, ROCK FRACTURES AND FLUID FLOW: CONTEMPORARY UNDERSTANDING AND APPLICATIONS 33 (1996).



estimate of the hydraulic conductivity of the andesite bedrock as less than  $1 \times 10^{-6}$  centimeters per second, a very low conductivity. AR-12433. Aside from the questionable notion of using bedrock as a liner system,<sup>2</sup> there is remarkably little support for this estimate and many reasons to question it.

The estimate of the hydraulic conductivity of the andesite is based on only three data points from two borings. The first data point is from well GWQ-5R, which was the subject of a pressure test. The second and third data points are from monitoring well GWQ96-22A and B (which are two screened intervals at different depths in the same well), which was the subject of a slug test. AR-02206; NMED Ex. 4, p. 5. None of the tests accounted for fractures. Ranches Ex. 23, pp. 6-7 (AR-17947 to AR-17948). Significantly, one of the N.M. Copper Corp. consultants, in a Stage 1 Abatement Plan document, states that the slug test analysis estimates an extremely low range of hydraulic conductivity for the “unfractured andesite . . . rocks.” AR-02206 (emphasis added).

The tests used to estimate the conductivity of the andesite were conducted deep in the bedrock formation, and are likely not representative of conditions at the surface. The pressure test performed on well GWQ-5R was conducted at a depth of between 64 and 100 feet below the ground surface. Monitoring well GWQ96-22 was completed at 174 to 244 (22A) and 340 to 380 (22B) feet below the ground surface. Myers Test. Tr. vol. 4, p. 1170, line 24 to p. 1171, line 1; AR-02201 (Table 2); AR-02206 (Table 4). But hydraulic conductivity closer to the surface is likely to be higher than it is at depth, due to weathering of surface rock and a greater likelihood for fracturing near the

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<sup>2</sup> The Copper Mine Regulations define a “liner system” as “an engineered system required by the copper mine rule for the containment, management or storage of process water, leach stockpile material, waste rock, tailings or other materials that have the potential to generate water contaminants including all constructed elements of the system and may include the subgrade, liner bedding, leak detection systems, synthetic liners, earthen liners, overlayers, solution collection systems, anchor trenches, and berms, or other system elements, as applicable.” 20.6.7.7.B(34) NMAC. The andesite bedrock does not meet this definition.

surface. Moreover, leachate from the waste rock pile would infiltrate at the surface. Myers Test. Tr. vol. 4, p. 1173, line 23 to p. 1174, line 7.

Further, evidence in the record indicates that the hydraulic conductivity of the andesite is actually much higher than the N.M. Copper Corp.'s estimate of less than  $1 \times 10^{-6}$  centimeters per second. Groundwater monitoring well GWQ96-22, which is completed in andesite, shows substantial variations in the concentrations of total dissolved solids and sulfate over time. These variations indicates that water is flowing freely through portions of the andesite material, and the overall conductivity of the andesite is higher than N.M. Copper Corp. has assumed. Myers Test. Tr. vol. 4, p. 1247, line 16 to p. 1249, line 6; AR-07479; AR-02868. Moreover, one of the Stage 1 Abatement Plan documents lists eight water supply wells that were completed in andesite. Those wells are identified by the names GWQ-4, GWQ-6(N); GWQ-6(S); Pague, Delores, Paxton, LRG-4156, and LRG-4159. Production wells could not be sustained in bedrock with a conductivity as low as  $1 \times 10^{-6}$  centimeters per second. AR-02201; Myers Test. Tr. vol. 4, p. 1249, lines 15-25.

Because N.M. Copper Corp. has not conducted a full evaluation of the andesite aquifer beneath the proposed waste rock piles, contrary to the Copper Mine Regulations, it has not met its burden of proving that the discharge permit should be approved. The permit therefore should be denied. At a minimum, the final permit should include a condition requiring a full characterization and evaluation of the andesite. If the evaluation indicates that the hydraulic conductivity of the andesite is greater than N.M. Copper Corp. estimates, the Environment Department should require additional measures to protect groundwater quality. *See Ranches Ex. 30.*

## ***2. The Evaluation of Leakage from the Tailings Storage Facility Is Not Adequate***

N. M. Copper Corp. has not submitted an adequate evaluation of leakage from the proposed Tailings Storage Facility at the Copper Flat Mine. Because the Tailings Storage Facility is designed

with a liner system, the company assumes that leakage will be minimal and therefore that it will not significantly affect groundwater. But the company is assuming a “best case” outcome; experience has shown that liner systems leak, sometimes substantially. Further evaluation of the potential effects of leakage from the Tailings Storage Facility, including a robust sensitivity analysis, is necessary before the Copper Flat Mine project proceeds. Such an evaluation is necessary to meet the requirements of the Copper Mine Regulations.

The Copper Mine Regulations require that an applicant must submit a design report for new tailings impoundments that includes:

An aquifer evaluation to determine the potential nature and extent of impacts on ground water from the tailings impoundment based on the proposed tailings impoundment design. The aquifer evaluation shall include a complete description of aquifer characteristics and hydrogeologic controls on movement of tailing drainage and ground water impacted by the tailings impoundment.

20.6.7.22.A(4)(d)(vii) NMAC. By not fully evaluating the potential for leaks from the Tailings Storage Facility, and the potential effects on groundwater, N.M. Copper Corp. has failed to meet this requirement.

The primary component of the of the liner system for the Tailings Storage Facility is an 80-mil geomembrane liner. Geomembrane liners typically leak, due to design defects, manufacturing defects, and improper installation. Ranches Ex. 6, pp. 56-66; Ranches Ex. 23, p. 4. In support of its permit application, N.M. Copper Corp. has assumed that leakage from the Tailings Storage Facility will be no more than 0.5 gallons per minute. Finch Test. Tr. vol. 1, p. 178, lines 3-12. But according to the Ranches’ expert witness James Kuipers, a mining engineer, this is a “best case” estimate and not a realistic one. According to Mr. Kuipers, experience shows that when we have seepage through liner systems, it does not resemble the theoretical estimates, it is always orders of magnitude higher. Kuipers Test. Tr. vol. 3, p. 979, lines 12-14.

Again, because N.M. Copper Corp. has not conducted a full evaluation of the potential for leakage from the Tailings Storage Facility, contrary to the Copper Mine Regulations, it has not met its burden of proving that the discharge permit should be approved. The permit should be denied. At a minimum, the final permit should include a condition requiring a full evaluation of the potential for leaks from the Tailings Storage Facility. The evaluation should include a robust sensitivity analysis, reviewing the potential effects on groundwater of various realistic leakage rates.

### ***3. The Groundwater Monitoring Plan Is Not Adequate***

The groundwater monitoring plan that N.M. Copper Corp. has submitted to the Environment Department is not adequate, and does not meet the requirements of the Copper Mine Regulations. Although, to its credit, the Department has proposed two additional monitoring wells in the August 10, 2018 revision of the permit, NMED Ex. 1, p. 22, the proposed groundwater monitoring well network remains inadequate. Diligent groundwater monitoring is critical at the Copper Flat Mine site, given its proximity to private property, fragile ecosystems that depend on clean water, and business activities that depend on those ecosystems. A tighter groundwater monitoring network is necessary for this project to proceed.

The Copper Mine Regulations require an applicant for a discharge permit to submit to the Department a groundwater monitoring plan showing the location of proposed monitoring wells. 20.6.7.28.A NMAC. Monitoring wells must be spaced “as close as practicable around the perimeter and downgradient of” each specified mine facility, including open pits, waste rock piles, and tailings impoundments. 20.6.7.28.B NMAC. The regulations further specify:

Monitoring wells shall be located pursuant to this section to detect an exceedance(s) or a trend towards exceedance(s) of the applicable standards at the earliest possible occurrence, so that investigation of the extent of contamination and actions to address the source of contamination may be implemented as soon as possible.

*Id.* The Department may require additional wells around the perimeter of mine units that are underlain by areas where ground water flow directions are uncertain. Such areas may include areas of potential fracture flow and areas around mine units that have the potential to cause ground water mounding. *Id.*

The Ranches' expert hydrologist-hydrogeologist, Dr. Tom Myers, has concluded that the proposed groundwater monitoring wells are not adequately spaced. Using an interpretive model, Dr. Myers calculated the effects on groundwater of a 4-gallon per day leak from the tailing storage facility into the Santa Fe Group aquifer formation; a 20-gallon per day leak from the tailing storage facility into the Santa Fe Group aquifer formation; and a 4-gallon per day leak from the waste rock piles into the andesite formation. Each simulated leak was modeled to last for 15 years. Ranches Ex. 24, pp. 12-25; Myers Test. Tr. vol. 4, p. 1200, line 13 to p. 1203, line 22, p. 1207, line 10 to p. 1212, line 16. Dr. Myers conservatively assumed a low hydraulic conductivity rate for the andesite in his interpretive model, 0.01 feet per day ( $3.53 \times 10^{-6}$  centimeters per second). The model did not account for possible fractures in the andesite. Ranches Ex. 24, p. 12; Myers Test. Tr. vol. 4, p. 1223, lines 10-13.

The simulated plumes of groundwater contamination (in the Santa Fe Group formation) from the Tailings Storage Facility produced by the interpretive model are, in some cases, 500 to 700 feet wide. If monitoring wells are spaced at 1000-foot intervals, it is very possible for a contaminant plume to pass through undetected. Myers Test. Tr. vol. 4, p. 1221, lines 1-5. Thus, Dr. Myers concludes that monitoring wells downgradient of the proposed Tailing Storage Facility need to be spaced approximately every 500 feet. That would require a total of about 18 monitoring wells along the downgradient perimeter of the facility. Ranches Ex. 24, p. 38; Myers Test. Tr. vol. 4, p. 1222, lines 9-16.

The simulated plumes of groundwater contamination (in the andesite) from the Waste Rock Piles produced by the interpretive model are relatively wide, almost circular. But the plumes move slowly in the andesite. Monitoring wells need to be spaced sufficiently to detect the plume during mine operations. Ranches Ex. 24, pp. 38-39; Myers Test. Tr. vol. 4, p. 1222, lines 17-22. Dr. Myers concludes that monitoring wells downgradient of the proposed waste rock piles also need to be spaced approximately every 500 feet, although somewhat wider spacing would be acceptable. That would require a total of approximately 10 monitoring wells along the downgradient perimeter of the waste rock piles. Ranches Ex. 24, p. 39; Myers Test. Tr. vol. 4, p. 1222, line 23 to p. 1223, line 5.

Because the groundwater monitoring plan that N.M. Copper Corp. has proposed is inadequate, it has not met its burden of proving that the discharge permit should be approved. The permit should be denied. Alternatively, the final permit should include a condition requiring wells to be spaced at approximately 500-foot intervals downgradient of the Tailings Storage Facility and downgradient of the waste rock piles. Ranches Ex. 34; Myers Test. Tr. vol. 4, p. 1223, line 19 to p. 1224, line 16. In addition, to address the potential for fracture flow, the final permit should include a condition requiring N.M. Copper Corp. to conduct an investigation locate fractures in the andesite bedrock that could transport contaminants. If such fracture zones are discovered, additional monitoring wells should be installed in the fracture zones. Ranches Ex. 24, p. 39; Myers test. Tr. vol. 4, p. 1223, lines 10-15.

***4. The Financial Assurance Proposal Is Not Adequate Either Substantively or Procedurally***

On August 9, 2018, N.M. Copper Corp. submitted a preliminary financial assurance cost estimate (“Preliminary FA Proposal”) to the Mining and Minerals Division (MMD) of the New Mexico Energy, Minerals and Natural Resources Department. Smith Test. Tr. vol. 1, p. 55, lines 7-8.

The Preliminary FA Proposal is, at best, preliminary; it is also seriously inadequate; and it has not been included in the administrative record for this permit proceeding. As with other elements of the permit application, the cost estimate adopts “best case” projections for closure of the mine. Yet such “best case” projections are unlikely to hold true.

Financial assurance is particularly important in this case considering the history of the Copper Flat Mine. One company stopped production after only three months. Another company went into bankruptcy. Several others considered reopening the mine, but ultimately did not. The mine has been abandoned repeatedly. The profitability of the ore body is marginal. This history renders the company’s “best case” projections especially doubtful. Moreover, the current owner and operator of the mine, N.M. Copper Corp., holds no assets other than the mine itself. Smith Test. Tr. vol. 1, p. 63, lines 1-16. It is a wholly-owned subsidiary of a Canadian corporation. If the financial assurance that N.M. Copper Corp. ultimately obtains is inadequate because, for example, the cost estimate is too low, and the company goes into bankruptcy before completing closure, the State of New Mexico will have little recourse. The State, and ultimately its taxpayers, will bear the additional costs of closure. Vollbrecht Test. Tr. vol. 2, p. 548, line 9 to p. 549, line 1.

As mentioned earlier, the WQA specifically authorizes the Commission to adopt regulations, “as may be necessary or desirable, that relate to continuity of operations . . . and financial responsibility.” NMSA 1978, § 74-6-5(H). Accordingly, the Copper Mine Regulations provide that an application for a permit “shall include a proposal for financial assurance for those portions of a copper mine facility to be reclaimed in accordance with a closure plan.” 20.6.7.11.U NMAC. The Preliminary FA Proposal is substantively inadequate and thus fails to meet this requirement. The Preliminary FA Proposal is also procedurally flawed in the way it has been presented for review.

### **a. Substantive Defects**

To begin with, the Preliminary FA Proposal, does not include two key components of financial assurance. It does not include a proposed form that the financial assurance will take, such as a bond or a letter of credit. Vollbrecht Test. Tr. vol. 2, p. 554, lines 10-17. And it does not include either the discount rate or the escalation rate that will be applied to the cost estimate. Vollbrecht Test. Tr. vol, 2, p. 549, lines 2-23. It is impossible for the Environment Department – or interested members of the public – to evaluate the adequacy of the Preliminary FA Proposal without these essential components.

Furthermore, the Preliminary FA Proposal adopts a closure cost estimate that is not grounded in reality. It is based on the notion that, after 25 years, the company will be able to simply “walk away” from the mine. The Preliminary FA Proposal is based on the assumption that groundwater monitoring will be necessary at the Copper Flat Mine for only 25 years. Smith Test. Tr. p. 65, lines 3-14; Vollbrecht Test. Tr. vol. 2, p. 551, lines 15-22. The proposal is also based on the assumption that water will continue to drain from the Tailings Storage Facility for only 25 years. Smith Test. Tr. p. 64, lines 18-22; Vollbrecht Test. Tr. vol. 2, p. 550, line 25 to p. 551, line 7. Both of these 25-year projections are implausible. Monitoring and maintenance activities will likely be necessary for much longer than 25 years. In other jurisdictions, monitoring and maintenance activities are generally projected to continue for 100 to 500 years. Kuipers Test. Tr. vol. 54, p. 1035, lines 3-12, p. 1046, lines 8-12. Indeed, Department staff have, appropriately, concluded that a minimum of 100 years will be necessary for monitoring of groundwater and for management of tailings drainage. Vollbrecht Test. Tr. vol. 2, p. 543, line 16 to p. 544, line 17.

The Preliminary FA Proposal also omits a number of important elements of the closure of this mine, and their associated costs. It does not include monitoring of the water level in the pit lake,



stability of the Tailings Storage Facility, erosion, vegetation growth, or wildlife. Kuipers Test. Tr. vol. 2, p. 1047, line 21 to p. 1049, line 7. The Preliminary FA Proposal includes only a one-time expenditure for post-mining maintenance in year 7 in the amount of \$686,791, which is most likely insufficient. Kuipers Test. Tr. vol. 4, p. 1050, lines 8-13, 22-23. And the proposal does not include costs for the maintenance of roads, storm water control structures, the pit lake, or the Tailings Storage Facility capture system. Kuipers Test. Tr. vol. 4, p. 1051, lines 10 to p. 1052, line 13.

Finally, the Preliminary FA Proposal applies an indirect cost rate of only 26 percent, which apparently is substantially lower than MMD draft guidance would require (42 percent). Kuipers Test. Tr. vol. 4, p. 1058, lines 9-13; Ranches Ex. 20. Indirect costs, which include such things as administration and overhead, are a significant component of closure costs.

Because the financial assurance proposal is inadequate, N.M. Copper Corp. has not met its burden of proving that the permit should be approved. For this reason, as well, the permit should be denied.

#### **b. Procedural Defects**

The WQA stresses the importance of public participation, requiring public notice of permit applications, NMSA 1978, § 74-6-5(F), and directing that “[n]o ruling shall be made on any application for a permit without opportunity for a public hearing at which all interested persons shall be given a reasonable chance to submit evidence, data, views[,] or argument orally or in writing and to examine witnesses testifying at the hearing,” NMSA 1978, § 74-6-5(G). The regulations, in similar fashion, include detailed requirements on public notice and participation, 20.6.2.3108 NMAC, and on public hearings, 20.6.2.3110 NMAC.

Financial assurance is a critical component of a discharge permit, especially for this mine. The Copper Mine Regulations expressly require a financial assurance proposal as part of a discharge

permit application. 20.6.7.11.U NMAC. The regulations also provide that the Department can propose to approve or disapprove a discharge permit – and issue a public notice on that proposal – only after “all required technical information is available,” or after “an application is deemed technically complete or all information has been submitted to the department pursuant to a technical deficiency notification.” 20.6.2.3109.B NMAC, 20.6.7.10.H NMAC.

But because the Preliminary FA Proposal is so flawed and so incomplete, all required technical information is *not* available, and the permit application is *not* technically complete. The hearing on the permit was premature. Moreover, the public has not had a meaningful opportunity to review an adequate financial assurance proposal, comment on the proposal, and present evidence, data, views, and arguments on the proposal in a public hearing. The discussion of financial assurance at the September hearing was largely speculation on what the financial assurance proposal might ultimately look like. The Department witness offered that the public could comment on the financial assurance at the Mining Commission hearing on the mining permit. Vollbrecht Test. Tr. vol. 2, p. . . By the time of the Mining Commission hearing, however, the discharge permit will already have been issued.

The procedural defect with the financial assurance proposal is compounded by the omission of the Preliminary FA Proposal from the administrative record. The regulations provide that the Department “shall evaluate the application for a discharge permit . . . based on information contained in the [D]epartment’s administrative record.” 20.6.2.3019.A NMAC. And the Secretary “shall . . . approve, approve with conditions, or disapprove the proposed discharge permit . . . based on the administrative record.” 20.6.2.3019.A NMAC. Without an adequate and complete financial assurance proposal in the administrative record, the Secretary must make a final decision on the permit without a complete record to guide him.

To correct this procedural defect, the Environment Department should reopen the hearing record for the limited purpose of establishing the record on financial assurance. The Department should allow N.M. Copper Corp. to submit an adequate and complete financial assurance proposal, and allow the public an opportunity to review, comment on, and request a hearing on that proposal.

**B. THE PROPOSED PERMIT POSES AN UNDUE RISK TO PROPERTY**

The Copper Flat Mine, as the location of the proposed discharge, is unusual in its proximity to private property encompassing unique and sensitive ecosystems, including plants, fish, and wildlife, that depend on a plentiful supply of clean water. That property is also host to an assortment of business enterprises that depend, in turn, on those sensitive ecosystems and the water that sustains them. The proposed discharges of water contaminants from the Copper Flat Mine seriously threaten the water on and beneath nearby private property, and it threatens the businesses dependent on that water.

The Copper Mine Regulations provide that the Environment Department Secretary can approve a discharge permit for a copper mine only if the permit does not pose undue risk to property. 20.6.7.10.J NMAC; *see also* 20.6.2.3109.C NMAC (similar provision). The Secretary has discretion in deciding whether the proposed permit would pose an undue risk. *Pickett Ranch, LLC v. Curry*, ¶ 36. 2006-NMCA-082, 140 N.M. 49, 61, 139 P.3d 209, 220. Yet the Copper Flat Mine is the rare case in which the evidence of an undue risk to property is overwhelming. The Secretary must exercise that discretion to conclude that the proposed discharge permit would pose an undue risk to property and deny the permit.

## **1. *The Property at Risk***

### **a. The Ladder Ranch**

The Ladder Ranch is located immediately to the north, to the northeast, and, in part, to the east of the Mine Permit Area. Ranches Ex. 4. Parts of the Ladder Ranch, particularly the Avant Pasture, are hydraulically downgradient of the Mine Permit Area. Myers Test. Tr. vol. 4, p. 1228, lines 4-11.

Stephen Dobrott, former manager of the Ladder Ranch, testified pht the ranch at the hearing. As he explained, the Ladder Ranch has excellent water resources, abundant wildlife, and a thriving ecosystem. Dobrott Test. Tr. vol. 3, p. 786, line 23 to p. 787, line 3. The Ladder Ranch is also conducting several projects to restore imperiled species. And the Ladder Ranch operates several business enterprises, including ranching, guided hunting expeditions, and ecotourism.

The Ladder Ranch property is incised by five semi-perennial creek systems that flow generally from west to east and drain into the Rio Grande Basin. The five creeks contribute to the biodiversity and biological richness of the ranch, but Las Animas Creek is the most notable for its biodiversity. Dobrott Test. Tr. vol. 3, p. 789, lines 4-13, p. 791, lines 17-19. Las Animas Creek has been nominated as one of New Mexico's Scenic Waterways, and it has also been designated as an Important Bird Area by the Audubon Society. Several springs feed into Las Animas Creek. Dobrott Test. Tr. vol. 3, 793, lines 11-24.

Las Animas Creek and its tributary, Cave Creek, are used by ranch livestock for drinking. Dobrott Test. Tr. vol. 3, p. 791, line 21 to p. 792, line 1. They are also a source of drinking water for numerous types of wildlife. Dobrott Test. Tr. vol. 3, p. 792, lines 5-9. The creeks provide riparian habitat and food used by waterfowl and migrating, breeding bird populations unique to New Mexico. Dobrott Test. Tr. vol. 3, p. 792, lines 10-23. The creeks also support populations of native Rio

Grande chub, native Rio Grande sucker, native Rio Grande cutthroat trout, and non-native longfin dace. Dobrott Test. Tr. vol. 3, p. 792, line 25 to p. 793, line 9. Among the creeks' most unique features are the ancient Arizona sycamore trees that occur only on this creek within the entire Rio Grande Basin. Tr. vol. 3, p. 789, line 22 to p. 790, line 8.

Several groundwater wells have been installed in the southern portion of the Ladder Ranch, including livestock wells, irrigation wells, and domestic wells. Dobrott Test. Tr. vol. 3, p. 795, lines 11-18. One well, the Feedlot Well, is located in the Avant Pasture at the Ladder Ranch, which is particularly vulnerable to groundwater contamination from the mine. Dobrott Test. Tr. Tr. vol. 3, p. 795, line 20 to p. 796, line 6. The Feedlot Well, along with the Evans Well, is used to supply "drinkers" for quail and stock tanks used by bison and large game for drinking. It also provides water to two important conservation facilities, the endangered Bolson tortoise facility, where young tortoises are raised, and the Feedlot steel rim water storage tank that is used for maintaining the threatened Chiricahua leopard frog. Dobrott Test. Tr. vol. 3, p. 796, lines 7-15.

Fifty-seven species of mammals have been recorded at the Ladder Ranch, including healthy populations of elk, mule deer, Coues' whitetail deer, pronghorn, javelina, black bear, and mountain lion. Ranches Ex. 4; Dobrott Test. Tr. vol. 3, p. 798, lines 20-24, p. 799, lines 4-5. Over 250 species of birds have been recorded at the Ladder Ranch, including wild turkey, three species of quail – Gimbel's, quail, scaled quail, and Mearn's quail – and threatened yellow-billed cuckoo. Ranches Ex. 4; Dobrott Test. Tr. vol. 3, p. 798, line 22 to p. 799, line 1, p. 799, lines 4-5. Over 400 species of plants have been recorded at the Ladder Ranch. Ranches Ex. 4; Dobrott Test. Tr. vol. 3, p. 798, lines 2-3. Wildlife, including elk, mule deer, pronghorn, javelina, mountain lion, turkey, and quail inhabit the Avant Pasture. Black bear pass through the Avant Pasture. Dobrott Test. Tr. vol. 3, p. 799, lines 13-18. The wildlife and plant life at the Ladder Ranch depend for their existence and survival on

pristine water that flows in creeks and springs on the ranch. Dobrott Test. Tr. vol. 3, p. 799, lines 20-23.

The Ladder Ranch is also home to several recovery projects for imperiled species. The non-profit Turner Endangered Species Fund is working with the United States Fish and Wildlife Service and the New Mexico Game and Fish Department in projects to benefit the listed Chiricahua leopard frog, the Mexican grey wolf, the Bolson tortoise, and the yellow billed cuckoo. Dobrott Test. Tr. vol. 3, p. 800, lines 7-12. The Turner Biodiversity Division is working to restore less imperiled species like the Rio Grande cutthroat trout and other native fish to Las Animas Creek. Dobrott Test. Tr. vol. 3, p. 800, lines 15-18. These restoration projects also depend on pristine water. Dobrott Test. Tr. vol. 3, p. 800, line 19 to p. 801, line 11.

The Ladder Ranch has several business enterprises. It operates a ranching business, raising bison and selling bison meat in markets and restaurants. The Ladder Ranch bison herd averages approximately 1,000 head. Dobrott Test. Tr. vol. 3, p. 802, lines 2-4, p. 803, line 13-14. Turner Ranch Outfitting organizes big game hunts on the Ladder Ranch for elk and mule deer. Dobrott Test. Tr. vol. 3, p. 802, lines 4-6. Ted Turner Expeditions, which is based in Truth or Consequences, conducts ecotourism trips at the Ladder Ranch, including game viewing, bird watching, and mountain biking. Dobrott Test. Tr. vol. 3, p. 802, lines 7-11, p. 803, lines 3-5. The big game hunting and ecotourism trips at the Ladder Ranch pursue game in the Avant Pasture. Dobrott Test. Tr. vol. 3, p. 802, line 22 to p. 803, line 5.

The Ladder Ranch employs between 15 and 20 people. The businesses of the Ladder Ranch contribute to the economy of Sierra County, through the payment of taxes and the purchase of goods and services. The businesses have been operated sustainably for 25 years. Dobrott Test. Tr. vol. 3, p. 802, lines 16-20, p. 803, lines 15-18. The business enterprises at the Ladder Ranch depend on

pristine water in the creeks, springs, and wells at the ranch. Dobrott Test. Tr. vol. 3, p. 803, lines 7-11.

**b. The Hillsboro Pitchfork Ranch**

The Hillsboro Pitchfork Ranch is located immediately to the west of and bordering the Mine Permit Area. Cunningham Test. Tr. vol. 3, p. 869, line 22 to p. 870, line 6. The Hillsboro Pitchfork Ranch is hydraulically upgradient of the Copper Flat Mine. The Hillsboro Pitchfork Ranch is located within 1,680 feet of the open pit at the Copper Flat Mine. The open pit can be seen from the ranch. Cunningham Test. Tr. vol. 3, p. 871, lines 2-23.

Robert Cunningham, the co-owner and caretaker of the Hillsboro Pitchfork Ranch testified about the ranch at the hearing. He explained that the ranch has excellent water resources, a varied natural ecosystem, and exceptional wildlife habitat. Cunningham Test. Tr. vol. 3, p. 878, line 22 to p. 879, line 23. It also conducts several business enterprises.

Grayback Canyon has its headwaters on the Hillsboro Pitchfork Ranch, flows through the eastern portion of the ranch, and drains a large portion of the ranch property. Tr. vol. 3, p. 875, line 24 to p. 877, line 18; Ranches Ex. 6. There are intermittent streams, springs, and seeps in Grayback Canyon that support a varied natural ecosystem, habitat for wildlife, and a forage area for livestock. Cunningham Test. Tr. vol. 3, p. 878, lines 12-25.

The Hillsboro Pitchfork Ranch owns and operates two groundwater wells near the eastern boundary, the Rodgers Well and the Grayback Well. Cunningham Test. Tr. vol. 3, p. 873, lines 6-8. The Rodgers Well is located on the eastern side of the ranch, approximately 3,270 feet from the open pit at the Copper Flat Mine. Cunningham Test. Tr. vol. 3, p. 873, lines 11-18, p. 875, lines 8-19. The Grayback Well is also located on the eastern side of the ranch, approximately 8,070 to 8,080 feet from the open pit at the mine. Cunningham Test. Tr. vol. 3, p. 874, lines 2-5, p. 875, lines 8-15. The

Rodgers Well and the Grayback Well are used for drinking by livestock and wildlife. Cunningham Test. Tr. vol. 3, p. 873, lines 20-24, p. 874, lines 7-16.

Grayback Canyon has particularly good grasses, including side oats and black grama, and it has an abundance forbes, including Gambel oak and thick concentrations of mountain mahogany. Wildlife feed on the forbes; mountain mahogany is a preferred feed for mule deer. Wildlife utilize the area year-round due to good forage, thermal cover, and access to water. Because the deep canyons make the area very secluded, and because the canyon has good feed and good water, the area has become premium mule deer habitat. Cunningham Test. Tr. vol. 3, p. 878, line 23 to p. 879, line 19.

For the last 11 years, the Pitchfork Ranch has collaborated with the New Mexico Game and Fish Department in a program to improve mule deer habitat. Most of the habitat restoration has been conducted in Grayback Canyon. Cunningham Test. Tr. vol. 3, p. 879, line 23 to p. 880, line 2.

Cattle ranching is the primary business of the Hillsboro Pitchfork Ranch. The ranch has about 210 head of cattle – all cows and calves. Cunningham Test. Tr. vol. 3, p. 868, lines 8-19. Hunting is also a primary business of the ranch. Hunting species include mule deer, elk, dove, and two species of quail, Gimbel's quail and Mearn's quail. Cunningham Test. Tr. vol. 3, p. 868, line 25 to p. 869, line 5. Beginning this year, the Hillsboro Pitchfork Ranch will host a Wounded Warrior hunt, donating a big game hunt to a service member who has suffered injury in the line of duty. Cunningham Test. Tr. vol. 3, p. 869, lines 6-9. The ranching and hunting businesses of the ranch depend on fresh water. Cunningham Test. Tr. vol. 3, p. 869, lines 20-21.

## ***2. Undue Risk to Property Due to Water Contamination***

If the proposed discharge permit is approved for the Copper Flat Mine, there is a substantial likelihood that water contaminants will reach the Ladder Ranch. The unique and sensitive



ecosystems of the ranch, its water resources, its wildlife, its species restoration programs, and its businesses will be put at risk.

As Mr. Kuipers testified, copper porphyry mines, such as the Copper Flat Mine, generally cause water pollution from acid rock drainage, leaching of heavy metals, and releases of toxic substances. Kuipers Test. Tr. vol. 3, p. 999, line 23 to p. 1000, line 3; Ranches Ex. 16, p. 4. For example, there have been multiple leaks and spills from the Freeport-McMoRan Chino mine in Grant County, New Mexico, including a spill of 3.25 million gallons of tailings into Whitewater Creek in 1999. Kuipers Test. Tr. vol. 3, p. 1000, line 10 to p. 1002, line 16; Ranches Ex. 16, pp. 15-16. There have also been multiple leaks and spills from the Freeport-McMoRan Tyrone mine in Grant County, New Mexico, including a spill of 2.6 million cubic yards of tailings into the Mangas Valley. Kuipers Test. Tr. vol. 3, p. 1002, line 19 to p. 1006, line 22; Ranches Ex. 16, pp. 24-25. In addition to routine leaks and spills at copper mines, tailing impoundments can be subject to catastrophic failure. Several such failures have occurred in the last few years. Kuipers Test. Tr. vol. 4, p. 1023, lines 20-24.

It is very likely that leaks and spills from the facilities at the Copper Flat Mine – particularly the waste rock piles and the Tailings Storage Facility – will occur. *See* Kuipers Test. Tr. vol. 3, p. 1007, lines 5-7. Since geomembrane liners typically leak, as explained above, it is likely that leachate will leak from the Tailings Storage Facility. The waste rock piles, which are unlined, will also release contaminants. The contaminants may then move through fractures in the underlying andesite bedrock, which has not been well characterized. Unlined stormwater channels, which will convey mine influenced stormwater from around the waste rock piles to the Impacted Stormwater Impoundment during operations, would also be a potential source of leaks of mine influenced water.

Myers Test. Tr. vol. 4, p. 1185, line 9 to p. 1186, line 9; Ranches Ex. 23, pp. 14-15 (AR-17955 to AR-17956).

Furthermore, groundwater contaminants that leak or spill from Copper Flat Mine facilities have the potential to migrate outside the Mine Permit Area to the adjacent private property. Ranches Ex. 4, p. 12; Myers Test. Tr. vol. 4, p. 1226, lines 12-14. As described earlier, Dr. Myers calculated the effects on groundwater of various leak scenarios from the waste rock piles and the Tailings Storage Facility. Ranches Ex. 24, pp. 12-25; Myers Test. Tr. vol. 4, p. 1200, line 13 to p. 1203, line 22, p. 1207, line 10 to p. 1212, line 16. His calculations showed the potential for contaminants to move beneath the Ladder Ranch, particularly the Avant Pasture. He explained that dispersion of a groundwater plume causes the plume to expand in directions transverse to groundwater flow. Myers Test. Tr. vol. 4, p. 1208, line 24 to p. 1209, line 5. Dispersion could easily cause contaminants from the proposed waste rock piles to move north or northeast to the southern part of the Ladder Ranch, including the Avant Pasture. Myers Test. Tr. vol. 4, p. 1228, lines 4-17. Mounding of groundwater resulting from leakage from mine facilities, such as the waste rock piles, could also cause the groundwater gradient to flow to the north. Myers Test. Tr. vol. 4, p. 1284, line 12 to p. 1285, line 2. Although fracture flow was not incorporated into Dr. Myers' calculations, fractures in the andesite or monzonite bedrock could transport groundwater contaminants in unpredictable ways. A fracture zone that is transverse to the groundwater flow could intercept the groundwater and cause it to move along the fracture. Myers Test. Tr. vol. 4, p. 1224, line 21 to p. 1225, line 11. Fracture zones are often associated with faults. Groundwater contaminants could move north or northeast through fractures along the north-south trending fault on the east side of the proposed Tailings Storage Facility. Myers Test. Tr. vol. 4, p. 1225, line 12 to p. 1226, line 6.

### ***3. Undue Risk to Property Due to Water Depletion***

If the proposed discharge permit is approved for the Copper Flat Mine, there is a substantial likelihood that the drawdown of the water table created by the open pit – which will lower the water table outside the Mine Permit Area – will deplete water resources on both the Ladder Ranch and the Hillsboro Pitchfork Ranch. Consequently, the water resources of these ranches, and the ecosystems, the wildlife, the species restoration programs, and the successful businesses that depend on this water, will be put at risk.

During proposed operation of the Copper Flat Mine, the open pit will be dewatered, expanded, and deepened. AR-12438. Expanding and dewatering the open pit will draw groundwater from the surrounding area. As an Environment Department witness acknowledged, the open pit will affect groundwater much like a huge well, creating a cone of depression and drawing water into it. Vollbrecht Test. Tr. vol. 2, p. 566, lines 6-11. After 5 years of mining operations, the groundwater table will have been lowered substantially for a distance around the open pit extending, beyond the Mine Permit Area, to property of both the Ladder Ranch and the Hillsboro Pitchfork Ranch. AR-13543; AR-13811.

As Dr. Myers explained, the pit lake will draw groundwater from surrounding areas to the north and southwest (and elsewhere). Myers Test. Tr. vol. 4, p. 1237, line 7 to p. 1238, line 1. Drawdown of the open pit will lower the water table in those areas. Myers Test. Tr. vol. 4, p. 1237, line 7 to p. 1238, line 1. This drawdown will affect the adjacent private land belonging to the Ladder Ranch and the Hillsboro Pitchfork Ranch. Myers Test. Tr. vol. 4, p. 1235, lines 10-12.

The pit drawdown could reduce the flows of water in Las Animas Creek, and it could reduce the flow of the springs on the southern portion of the Ladder Ranch. Ranches Ex. 15, p. 22-23 and Exhibit A thereto, p. 3. The pit drawdown could also reduce the flows in the intermittent streams

and seeps in Grayback Canyon on the Hillsboro Pitchfork Ranch. It could reduce the production of the wells on the east side of the ranch, the Rodgers Well and the Grayback Well. Cunningham Test. Tr. vol. 3, p. 881, lines 10-17.

Nevertheless, the Department has taken the position that the potential for water depletion from operations at the Copper Flat Mine is not a proper consideration for a groundwater discharge permit, as counsel for the Department insisted in his opening statement. Knight Statement Tr. vol. 2, p. 36, line 21 to p. 37, line 4. According to this view, water “quantity” issues, as opposed to water “quality” issues, are the prerogative of the Office of the State Engineer, not the Environment Department. But the Office of the State Engineer will insist, with equal ardor, that it has no authority to consider environmental or ecological concerns when reviewing an application for a permit to change the place or purpose of use of a water right. *See* Fuchs Test. Tr. vol. 5, p. 1450, line 18 to p. 1451, line 7; EBID Ex. 1. The Office of the State Engineer considers only whether issuance of the permit would be “contrary to the conservation of water within the [S]tate or detrimental to the public welfare of the [S]tate,” as narrowly interpreted, NMSA 1978, § 72-5-7, or whether the permit would “be detrimental to [another user’s] water right,” NMSA 1978, § 72-5-5. If the self-imposed constraints of both these State agencies are obeyed, many concerns will fall through the regulatory cracks, the concerns of the Ranches among them. The Ranches are concerned that the lowering of the water table by the expanded open pit will harm the environment, the ecosystems on their property, not simply that it will impair their water rights.

But the Department’s authority is not so constrained as its counsel suggests. Again, the Ranches’ concerns are not simply “water supply and impairment concerns,” which would be within the authority of the Office of the State Engineer, as both the Department and N.M. Copper Corp. have argued. Rather, they are *environmental* concerns, which are not at all within the authority of the

Office of the State Engineer. They are within the authority of the Environment Department. As our Supreme Court has ruled, “the Environment Department cannot ignore concerns that relate to environmental protection simply because they are not mentioned in a technical regulation.” Further, the “Department has a duty to interpret the regulations liberally in order to realize the purposes of the Acts.” *Colonias Dev. Council v. Rhino Envtl. Servs.*, 2005-NMSC-024, ¶ 34, 138 N.M. 133, 142, 117 P.3d 939, 948. Thus, the Environment Department cannot ignore this issue.

**C. THE PROPOSED PERMIT WOULD CAUSE WATER CONTAMINANT LEVELS IN EXCESS OF STATE STANDARDS**

Under the WQA, the Secretary must deny a discharge permit if “the discharge would cause or contribute to water contaminant levels in excess of any state or federal standard.” NMSA 1978, § 74-6-5(E). The discharge from the Copper Flat Mine into the pit lake will most certainly cause water contaminant levels in excess of State surface water standards. For this reason, the Secretary must deny the proposed discharge permit.

**1. *State Surface Water Standards Will Be Exceeded***

It is undisputed that discharges from the Copper Flat Mine into the future pit lake will cause State of New Mexico surface water standards to be exceeded. N.M. Copper Corp.’s own modeling shows that the future pit lake will exceed the surface water quality standard for mercury for protection of wildlife, the surface water quality standard for selenium for protection of wildlife, and the surface water quality standard for vanadium for livestock watering. AR-07969 to AR-07970, AR-07976. An Environment Department witness also acknowledged during the hearing that State surface water standards for aquatic wildlife will be exceeded in the open pit. Vollbrecht Test. Tr. vol. 2, p. 564, lines 14-19. It is likely, moreover, that water quality in the pit lake will deteriorate over time as the result of evapoconcentration. Vollbrecht Test. Tr. vol. 2, p. 564, lines 21-25.

## ***2. The Pit Lake Will Be a Water of the State***

While neither N.M. Copper Corp. nor the Department dispute that the open pit will exceed State surface water standards, they have maintained that the future pit lake will not be a water of the State, and those standards therefore will not apply. They are not correct.

The New Mexico Standards for Interstate and Intrastate Surface Waters define “water of the state” broadly as follows:

[A]ll surface waters situated wholly or partly within or bordering upon the state, including lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, reservoirs or natural ponds. Surface waters of the state also means all tributaries of such waters, including adjacent wetlands, any manmade bodies of water that were originally created in surface waters of the state or resulted in the impoundment of surface waters of the state, and any "waters of the United States" as defined under the Clean Water Act that are not included in the preceding description. Surface waters of the state does not include private waters that do not combine with other surface or subsurface water or any water under tribal regulatory jurisdiction pursuant to Section 518 of the Clean Water Act. Waste treatment systems, including treatment ponds or lagoons designed and actively used to meet requirements of the Clean Water Act (other than cooling ponds as defined in 40 CFR Part 423.11(m) that also meet the criteria of this definition), are not surface waters of the state, unless they were originally created in surface waters of the state or resulted in the impoundment of surface waters of the state.

20.6.7.S(5) NMAC. Under this definition, the future pit lake at the Copper Flat Mine will be a surface water of the State, although parsing this rather convoluted definition is a tedious exercise.

To begin with, the future pit lake falls within the affirmative part of the definition. Obviously, the pit lake will be a lake, and the definition includes “lakes.” But the definition also limits “manmade bodies of water” to those “that were originally created in surface waters of the state.” The future pit lake will be a “manmade bod[y] of water.” But it nevertheless, meets this part of the affirmative definition. The existing pit was created in the original channel of Grayback Arroyo, and the future pit lake will occupy essentially the same location. *Compare* AR-13302 (map

of surface hydrology of Mine Permit Area pre-Quintana mining) *with* AR-13306 (map of surface hydrology of Mine Permit Area post-Quintana mining showing proposed open pit). Grayback Arroyo is itself a surface water of the State for two reasons. First, Grayback Arroyo is an intermittent stream, and the definition includes both “streams” and “intermittent streams.” Second, Grayback Arroyo is a tributary to the Rio Grande, which is certainly a surface water of the State. Finch Test. Tr. vol. 1, p. 166, lines 21-23. The definition includes “all tributaries” of surface waters of the State.

Grayback Arroyo has been artificially diverted around the open pit. Finch Test. Tr. vol. 1, p. 158, lines 6-14; AR-02202. It therefore might be asserted that only the new channel, not the old channel, is a surface water of the State. But such an interpretation would allow someone to avoid the regulations by diverting a stream and creating a new body of water in the old stream channel, a rather absurd result. Moreover, the diversion structure for the Grayback Arroyo could fail, and most likely eventually will fail, and the stream will return to its original channel. Kuipers Test. Tr. vol. 3, p. 1102, line 10 to p. 1103, line 1. The original channel should not be viewed as losing its status of a surface water of the State.

Next, the definition excludes “private waters that do not combine with other surface or subsurface water.” N.M. Copper Corp. and the Environment Department conclude that the pit lake will be constructed entirely on private property. But this conclusion is fraught with uncertainty. As depicted by N.M. Copper Corp. consultants, the edge of the future pit lake will be within 100 feet of the private property boundary. Ranches Ex. 36 (AR-15853). It is very difficult to predict the exact dimension of the lake in a pit that has yet to be excavated. And the water level in the pit lake will fluctuate, due to both seasonal variations and longer-term variations in temperature and precipitation. Myers Test. Tr. vol. 3, p. 1230, lines 5-11. Further, the configuration of the pit, and the pit lake, will

change as the pit walls erode and slough. Kuipers Test. Tr. vol. 3, p. 1083, lines 18-22, p. 1086, lines 10-15; Ranches Ex. 43.

Moreover, the future pit lake will “combine with other subsurface waters.” The future pit lake, as discussed above, will act as a hydraulic sink, drawing in groundwater from the surrounding areas; indeed, it will draw in clean groundwater from outside the Mine Permit Area. Myers Test. Tr. vol. 4, p. 1235, lines 10-25. Consequently, the future pit lake will not fall within the “private waters” exclusion.

The Environment Department has recently argued that that the phrase “does not combine with other surface or subsurface waters” refers only to water flowing out of a polluted water body into surrounding water, and does not refer to surrounding water flowing into the polluted water body. To “combine” with other waters, in other words, is a one-way street: water that flows out of a polluted water body is combining with other waters, but water that flows into a polluted water body is not. This interpretation is at odds with the plain meaning of the phrase “does not combine with other surface or subsurface waters,” which makes no such distinction. The Department’s recent interpretation also diverges from previous interpretations. In the October 2003 hearing on the discharge permit for the Phelps Dodge Tyrone Mine, Marcy Leavitt, then Chief of the Environment Department’s Surface Water Quality Bureau, testified under oath that the phrase applies when water flows “from areas where water is clean to areas where water is contaminated and vise-versa.” Ranches Ex. 41, p. 867. Ms. Leavitt also stated that the “private waters” exclusion is a “very limited” one. *Id.* at 866. An Environment Department witness conceded at the September 2018 hearing that Ms. Leavitt’s statements were contrary to the Department’s recent interpretation. Vollbrecht Test. Tr. vol. 2, p. 571, lines 6-18. He also agreed that he gives Ms. Leavitt’s interpretation of New Mexico water quality regulations a high degree of respect. Vollbrecht Test. Tr.



vol. 2, p. 570, line 23 to p. 571, line 1. Ms. Leavitt served in the Department for many years as Chief of the Ground Water Quality Bureau, Chief of the Surface Water Quality Bureau, and Director of the Water and Waste Management Division (now the Water Protection Division), which encompasses both those bureaus. Vollbrecht Test. Tr. vol. 2, p. 569, line 6 to p. 570, line 14.

Lastly, N.M. Copper Corp. has claimed the open pit was a groundwater point of diversion with an attendant vested water right as declared by its predecessors. In a recent order, the New Mexico District Court, Third Judicial District, determined that N.M. Copper Corp. owns certain water rights in the Lower Rio Grande Underground Basin. According to the order, the rights have a point of diversion at the proposed open pit. Ranches Ex. 38. Under the New Mexico water code, water in designated underground basins “is declared to belong to the *public* and is subject to appropriation for beneficial use.” NMSA 1978, § 72-12-1 (emphasis added). Although the validity of those rights has been appealed, N.M. Copper Corp.’s claim in the water rights proceeding – and the water rights proceeding itself – indicate that the pit water is public water, not private water.

Thus, the future pit lake will not be covered by the “private waters” exclusion. It will be a surface water of the State as that term is defined in the Interstate and Intrastate Surface Water Regulations, 20.6.7.S(5) NMAC.

## V. CONCLUSION

For the foregoing reasons, the Ranches respectfully request that the Hearing Officer recommend denial of the proposed discharge permit, DP-1840, for the Copper Flat Mine. The permit application is inadequate in several respects and, for this reason, N.M. Copper Corp. has not met its burden of proving that the permit should be approved. The permit poses an undue risk to property – the water, ecosystems, and business enterprises of the Ladder Ranch and the Hillsboro Pitchfork Ranch. Finally, the permit would cause or contribute to water contaminant levels in excess

of State surface water standards.

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Respectfully submitted,



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CERTIFICATE OF SERVICE

I hereby certify that on this 19th day of November 2018, a copy of the foregoing Joint Closing Arguments by Turner Ranch Properties, L.P. and Hillsboro Pitchfork Ranch, LLC was sent by first class mail, postage prepaid, or electronic mail to:

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