IN THE OFFICE OF ADMINISTRATIVE HEARINGS

Arizona Mining Reform Coalition, Concerned Citizens and Retired Miners Coalition; Save Tonto National Forest, Appellants, vs. State of Arizona, Arizona Department of Environmental Quality Respondent.	No. 17-001-WQAB **ADMINISTRATIVE LAW JUDGE DECISION**
San Carlos Apache Tribe, Appellant, vs., State of Arizona, Arizona Department of Environmental Quality Respondent.	

HEARING: February 5, 6, 7, 8, 9, 12 and 13, 2018

APPEARANCES: James Saul, Esq. (pro hac vice) with local counsel Howard Shanker, Esq. for Appellants the Arizona Mining Reform Coalition, the Concerned Citizens and Retired Miners Coalition, and Save Tonto National Forest; Alexander Ritchie, Esq. and Justine Jimmie, Esq. for Appellant San Carlos Apache Tribe; Jeffrey D. Cantrell, Esq. and James T. Skardon, Esq. for the Arizona Department of Environmental Quality; Christopher D. Thomas, Esq., Matthew Luis Rojas, Esq., and Hugh C. Thatcher, Esq. for Intervenor Resolution Copper Mining LLC.

ADMINISTRATIVE LAW JUDGE: Thomas Shedden

Office of Administrative Hearings
1740 West Adams Street, Lower Level
Phoenix, Arizona 85007
(602) 542-9826

FINDINGS OF FACT 2
Introduction and Background 2
The Issues for Hearing 5
Witnesses at hearing 7
The Resolution Ore Body 10
Existing and Proposed Works 11
The Mine Water Treatment Plant 13
The Receiving Water 14
Discharge Limitations 14
Whether RCM is a New Source 15
Whether the Permit's effluent limitation for copper ensure compliance with the applicable water quality standards 24
Whether removal of the effluent limitation for TDS violate the anti-backsliding rule 28
Information about the Coalition Appellants 29
Information about the San Carlos Apache Tribe 30
CONCLUSIONS OF LAW 32
ORDER 44

FINDINGS OF FACT

Introduction and Background[1]

1. On April 24, 2017, the Arizona Water Quality Appeals Board ("Board") issued a Notice of Hearing setting the above-captioned consolidated matter for hearing on June 7, 2017 at the Office of Administrative Hearings in Phoenix, Arizona. The matter was continued and the hearing was conducted on February 5, 6, 7, 8, 9, 12 and 13, 2018.[2]

2. This matter arises under the auspices of the federal Clean Water Act, 33 U.S.C. §§ 1251 – 1387 and Arizona's implementation of that program under ARIZ. REV. STAT. sections 49-255.01 – 265 (generally referred to as the "AZPDES" program). The implementing administrative rules are found at 40 C.F.R. Parts 122, 123 and 4401, and Ariz. Admin. Code Title 18, Chapter 9, Article 9. To administer this program, the Arizona Department of Environmental Quality ("ADEQ") issues AZPDES permits that regulate discharges of pollutants from point sources to navigable waters.

[1] Subheadings are used to assist the reader and the information in any subsection is not necessarily applicable solely to that subsection.
[2] The docket for this matter is publicly accessible at https://portal.azoah.com/oedf/documents/17-001-WQAB/index.html .

3. At issue are two appeals of ADEQ's decision to issue to Resolution Copper Mining LLC ("RCM")[3] a renewal of Permit No. AZ0020389 (the "Permit"), Authorization to Discharge Under the Arizona Pollutant Discharge Elimination System.

4. RCM is constructing an underground copper mine and related facilities in Pinal County. RCM's mine includes new and proposed works, and works that were previously used by Magma Copper and BHP Copper. Part of RCM's mine is on land that was formerly part of the Magma mine, but part is also on lands never owned or developed by Magma or BHP.

5. Appellants raised a number of issues in their appeals, but the evidence they presented was limited primarily to whether RCM's activities constitute a new source as defined in the Code of Federal Regulations, and whether the Permit ensures compliance with the water quality standard for copper.

6. Permit No. AZ0020389 was originally issued to Magma Copper Company by the U.S. Environmental Protection Agency ("EPA") on August 31, 1975. The permit has been in effect since 1975 through renewals issued to Magma, BHP Copper Inc., and RCM, first by EPA, then by ADEQ.[4]

7. On December 18, 2017, ADEQ and RCM filed a Request for Judicial Notice. Through Case Management Order No. 8 dated January 17, 2018, the tribunal took judicial notice of the facts set forth in paragraphs 1, 2, and 4 through 41 of Appendix A to that Request for Judicial Notice, and as to Exhibits 1 through 33 filed in support of the Request. Among other things, those facts provide information related to the history of the Permit.[5]

8. RCM's application for the Permit was filed with ADEQ on July 9, 2015. ADEQ deemed the application administratively complete on August 7, 2015.

9. On January 19, 2017, ADEQ issued to RCM the Permit, which has an effective date of January 23, 2017 and an expiration date of January 22, 2022.

---

[3] Resolution Mining Company LLC is an LLC between Resolution Copper Company, a wholly owned subsidiary of Rio Tinto (55%) and BHP Copper, Inc. (45%), a wholly owned subsidiary of BHP Billiton.

[4] EPA granted primacy to ADEQ to administer the AZPDES program (Arizona's version of the NPDES) on December 5, 2002.

[5] The Motion and Appendix are at docket entry 56, and the exhibits at entries 59 and 61.

10. The Arizona Mining Reform Coalition, the Concerned Citizens and Retired Miners, and Save Tonto National Forest (generally referred to as the "Coalition Appellants" or the "Coalitions"), filed with ADEQ a single Notice of Appeal on December 19, 2016.

11. The San Carlos Apache Tribe filed with ADEQ a Notice of Appeal on December 21, 2016, and filed with the Board an Amended Appeal on February 16, 2017.

12. While the appeals were pending at the Board, the Board consolidated the two matters and granted RCM's motion to intervene.

13. The Permit authorizes RCM to discharge pollutants to an unnamed wash tributary to Queen Creek near the Town of Superior, which is in the middle Gila River Basin. More specifically, the Permit authorizes RCM to discharge "mine site stormwater runoff from Outfall 001 and treated mine water, industrial water and seepage pumping from Outfall 002 from the Superior Operations in Pinal County [.]".

14. The Superior Operations (or mine) are located along the northern boundary of the Town of Superior. Surface facilities are located 0.22 miles north of Queen Creek in two non-contiguous areas identified as the West Plant Site ("WPS") and the East Plant Site ("EPS"). The WPS is located immediately northwest of the Town of Superior. The EPS is located two miles east of the Town near the intersection of Highway 177 and U.S. Highway 60.[6]

15. Outfalls 001 and 002 are side-by-side and both are located at Township 2S, Range 12E, Section 4, Latitude 33° 17' 02" N, Longitude 111° 07' 06" W.[7]

16. The EPS and WPS site are connected by the Never Sweat Tunnel that Magma constructed in during the 1970s. Other connections between the two sites have been backfilled.

17. Magma Copper began mining at the WPS in about 1912, and mining occurred in that area until 1996, at which time BHP owned the mine. Dewatering

---

[6] Exhibit AMRC 13, Figures 1.1 and 1.2 show the EPS and WPS, with figure 1.2 also showing the Magma workings and RCM's Shaft 10. Exhibit AMRC 8, Figures 1.5-3a and 1.5-3b show the EPS with the lateral extent of the Magma mine (aka Legacy Mine), and RCM's proposed mining area and features.

[7] Outfall 002 was added in 2010; prior to that time all discharges were through Outfall 001.

continued until May 6, 1998, when the dewatering pumps in the mine were shut off and the underground workings were allowed to fill with water.

18. After an "earn-in" period, RCM took control of the operations in 2004 and proposes to construct and operate an underground copper mine at the EPS, with ore being transferred to, and processed at, the WPS.

19. In March 2009, RCM started dewatering the existing Magma facilities to facilitate a feasibility study for its proposed copper mining operation. Prior to that time, the facility was considered by RCM to be an inactive metal mining facility.

20. Since 2004, RCM has constructed facilities including Shaft 10, a cooling tower, rock stockpiles, wash bays, and a Mine Water Treatment Plant ("MWTP"). RCM has plans to build a concentrator at the WPS and at least one tunnel to connect the EPS with the WPS.

The Issues for Hearing

Issue 1 – Is RCM a New Source

21. 40 C.F.R. §122.29(b), *Criteria for new source determination,* sets out the process for determining whether a "source" is a "new source." As pertinent to this matter, in essence, the regulation requires a finding that the source is a "new source" as defined in §122.2 and that it either "totally replaces the process or production equipment that causes the discharge of pollutants at an existing source" or its "processes are substantially independent of an existing source at the same site."

22. Appellants contend that RCM's activities are such that the mine is a "new source" as defined in the Code of Federal Regulations.

23. In their appeals, each Appellant also contended that RCM is a new discharger, but during the proceedings, each withdrew that allegation. Although the Tribe reasserted this allegation in its closing argument, it presented no substantial evidence on the issue.

24. ADEQ does not agree that RCM is a new source because mining at the site began in 1912, which was before the performance standards for copper mines were promulgated, and because these standards apply to mines, not mine shafts or the other features that RCM has constructed.

25. This issue is addressed below.

Issue2: Whether the effluent limitation for copper will ensure compliance with the water quality standards

26. Appellants assert that the Permit's effluent limitation for copper will not ensure compliance with the applicable water quality standard. This issue is addressed below.

Issue 3: Whether removal of the 2010 permit's limit on total dissolved solids violates the CWA's anti-backsliding provision

27. The 2010 permit included provision that prohibited discharges with total dissolved solids (TDS) of greater than 1200 milligrams per liter ("mg/l"). At RCM's request, ADEQ eliminated this requirement from the Permit.

28. Appellants contend that this was a violation of the Clean Water Act. ADEQ found that elimination of the TDS limitation was not a violation of the CWA's anti-backsliding provision because RCM provided new information warranting the change.

29. This issue is addressed below.

Issue 4: Simultaneous discharge from 001 (stormwater) and 002 (mine drainage)

30. Appellants assert that ADEQ failed to consider the impact to the receiving water of a simultaneous discharge from Outfalls 001 and 002.

31. ADEQ presented credible evidence showing that in developing the Permit limits, ADEQ considered simultaneous discharges from both outfalls.

Issue 5: The Public Meeting

32. Among the facts for which Judicial Notice was taken, is a description of the public-comment and public-hearing process for the Permit. Those facts show that ADEQ conducted two public hearings, with the second conducted because there was only one member of the public in attendance at the first.

33. Appellants presented no substantial evidence or legal argument to show that there was a violation of statute or rule.

Issue 6: Whether the draft fact sheet failed to disclose pertinent information or otherwise misled the public

34. Appellants presented no substantial evidence or legal argument to show that ADEQ's draft fact sheet was in violation of statute or rule.

Issue 7: Whether the Appellants meet the requirements to bring an appeal

35. In its Closing Argument, ADEQ argues that none of the Appellants meet the requirements to bring an appeal, which requirements are set out in ARIZ. REV. STAT. section 49-323.

36. In ADEQ's answers to Appellant's appeals, it did not assert that Appellant's did not meet the requirements of section 49-323, nor did it request that the appeals be dismissed on that basis.

37. In ADEQ's disclosure statements, it did not assert as a legal theory that Appellants did not meet the requirements of section 49-323.

38. ADEQ first raised the issue in Motions to Dismiss filed May 23, 2017. Those Motions were denied in Case Management Order No. 3 issued on July 20, 2017.

39. In its Closing Argument, ADEQ asserts that:

(1) The San Carlos Apache Tribe is not adversely impacted and will not with reasonably probability be adversely impacted by the Permit issued by ADEQ and therefore has no standing to challenge ADEQ's issuance of the Permit under ARIZ. REV. STAT. section 49-324(A).

(2) Appellants Concerned Citizens and Retired Miners and Save Tonto National Forest are unincorporated associations and therefore lack the capacity to challenge ADEQ's issuance of the Permit. And,

(3) Appellant Arizona Mining Reform Coalition, Inc. failed to comply with ARIZ. ADMIN. CODE section R2-17-103(A) and therefore lacks the capacity to challenge ADEQ's issuance the Permit.

40. In its Response Brief, ADEQ adds that the Concerned Citizens and Retired Miners and Save Tonto National Forest do not have standing to bring an appeal.

<u>Witnesses at hearing</u>

ADEQ

41. Andy Koester, Manager of the AZPDES Permit Unit, who was the supervisor during the processing of RCM's application. Mr. Koester supervised ADEQ's permit drafters as part of the process, and he also drafted ADEQ's Summary and Response to Public Comments for the Permit on behalf of ADEQ. Mr. Koester testified about ADEQ's processes and the decisions it made regarding issuance of the Permit.

42. Jason Sutter, Senior Surface Water Hydrologist – Mr. Sutter has been involved with ADEQ's TMDL study of Queen Creek throughout the life of that study.

RCM

43. Casey McKeon, Ph.D. – RCM's Environmental Manager. Dr. McKeon has worked at RCM since 2005. Dr. McKeon testified about current and historic activities at the RCM site, including preparing applications for permits.

44. Under subpoena issue at the request of the Appellants, Victoria Peacey, RCM's Senior Manager of Environment, Permitting and Approvals. Ms. Peacy testified about current and historic activities at the RCM site, including preparing applications for permits.

The Coalitions

45. Roy Chavez – Chairperson of, and spokesperson for, the Concerned Citizens and Retired Miners Coalition. Mr. Chavez testified about the Concerned Citizens and as to his and other members' concerns about potential environmental impact of RCM's proposed discharges.

46. John Krieg - President of Save Tonto National Forest. Mr. Krieg lives approximately ten miles downstream from the RCM mine and he gets his water from the aquifer beneath Queen Creek. Mr. Krieg testified about Save Tonto National Forest and about his personal concerns about the potential environmental impact of RCM's proposed discharges.

47. Roger Featherstone – one of the founders of the Arizona Mining Reform Coalition and now its Board secretary. Mr. Featherstone testified about the Reform Coalition, the other two Coalition Appellants, and as to his personal concerns about the potential environmental impact of RCM's proposed discharges.

48. Henry Munoz – a member of both AMRC and the Concerned Citizens and Retired Miners Coalition. He has lived in Superior for 62 years, he has been its mayor and its town manager, and he is a former miner. Mr. Munoz testified about his involvement with the two Coalitions and as to his personal concerns about the potential environmental impact of RCM's proposed discharges.

49. Danette Schepers – a member and supporter of the Arizona Mining Reform Coalition who resides in Superior. Ms. Schepers and her husband own property on both sides of Queen Creek about six or seven miles downstream of RCM's Outfalls. The Schepers' well is approximately 500-600 feet from Queen Creek. Ms. Schepers testified as to their use of water from the aquifer, her enjoyment watching wildlife in and near Queen Creek, and as to her concern that RCM's proposed discharges might impact the quality of water in her well and affect the wildlife in the area.

The Tribe

50. Terry Rambler – the Tribe's elected Council Chairman and an enrolled member of the Tribe. Mr. Rambler testified about the structure of Tribe's government and the governing Council's duties and responsibilities. Mr. Rambler is a 100%, "full-blooded" Apache whose family and clan have historic ties to the land in the Queen Creek area. Mr. Rambler testified as to his and other Apaches' relationship to the land in general and the Queen Creek area specifically.

51. Vernelda Grant – the San Carlos Apache Tribal Historic Preservation Officer (i.e., the cultural official dealing with historic preservation issues on and off tribal lands). Ms. Grant has expertise in Southwestern and Apache archaeology. Ms. Grant testified as to her duties working to protect Apache historic and cultural resources within the Tribe's traditional homelands, traditional cultural properties in the Queen Creek watershed, the importance of the Apache names for such places, the use of those "place names" in prayer and oral histories, and the power that these place names carry.

52. Ms. Grant explained that she was reluctant to provide too many specific details about these sites because "collectors" were often trying to learn where the sites are located.

53. James T. Wells, PhD, PG – Chief Operating officer at L. Everett & Associates, an environmental consulting firm that assists clients with water quality and soil quality issues. Dr. Wells has been involved in similar professional work for about twenty-five years. Dr. Wells testified about operations at the RCM site, the Queen Creek watershed, and as to his opinions about the Permit and related environmental issues.

54. John R. Welch, Ph.D. - an archaeology professor at Simon Fraser University and the director of the school's professional graduate program in heritage resource management. Dr. Welch is a Registered Professional Archeologist who has worked on cultural and historic issues with all the Arizona Apache tribes, the Bureau of Land Management, and various private employers. Dr. Welch testified as the Apaches' historic homelands, including lands that had been ceded to the United States, and he provided background or foundation evidence for various documents that had been accepted into evidence.

55. Seth Pilsk – a botanist and ethnobotanist who has been employed by the Tribe since 1990, and who has been a coordinator for the Tribe's Elders Cultural Advisory Council. Mr. Pilsk testified about the Apache Natural World Project, and its efforts to learn about traditional cultural elements of the natural world, including plants, animals, humans, elements of the earth and sky, place names and geography. He also testified as to the Apaches' use of plants, animals and foodstuffs that are present in the Queen Creek area, and the sacred nature of those plants, animals and foodstuffs.

56. Mr. Pilsk explained that he was hesitant to testify because he had gained information that the elders did not believe belonged in the "white world."

57. Dee Randall – Forest Manager for the Tribe's Forest Resource Program. Mr. Randall is an enrolled member of the Tribe. Mr. Randall testified as to the four guiding principles by which the Tribe manages its forest lands, Traditional Ecological Knowledge (TEK), and about various Apache clans.

<u>The Resolution Ore Body</u>

58. RCM will be mining ore from what is now known as the Resolution ore body located at the EPS. Although Magma owned this ore body, it is a separate ore body from that which Magma mined.[8]

59. The Resolution ore body is a porphyry type deposit containing about 1 to 1.5% copper, whereas the Magma ore was a replacement body with a high percentage of copper (up to 5%).

60. The Resolution ore body ranges from about 4500 to 7000 feet below ground surface ("bgs"), which is about is about 2000 feet deeper than the Magma ore body. The footprint area of the Resolution ore body is a little over one square mile and the ore body is up to 1600 feet thick.

61. The Magma mine was mined using adits and tunnels.

62. The RCM ore will be mined using panel caving, which is a variation of the high-volume mining technique known as block caving. In this method, caving is induced by undercutting the ore zone removing its ability to support the overlying rock material, causing it to collapse. As the ore is extracted from the bottom of the mine, fractures will gradually propagate upward through the geologic sequence and will eventually intersect the ground surface (i.e., there will be ground subsidence).

63. Ore from the RCM mine will be sent via a yet-to-be-built underground tunnel to the WPS for processing.

Existing and Proposed Works

64. Magma Copper began mining at the WPS in about 1912. As Magma "chased the vein" of copper, it constructed eight shafts (Nos. 1 through 8) on the west side of Superior (i.e. at the WPS).

65. Although the Magma ore body was not located under the EPS, in the 1970s, Magma constructed Shaft 9 at the EPS to facilitate continued mining of the Magma ore body. Shaft 9 and the EPS are connected to the WPS through the Never Sweat Tunnel.

---

[8] Exhibit SCAT 26, at page 5, shows the Magma ore body (identified as the Replacement Ore body), historic workings (horizontal lines emanating from Shaft 9), and the Resolution ore body (marked as the >1% copper zone).

66. When the Magma mine was operational, the Never Sweat Tunnel was used to transport copper ore from Shaft 9 to the processing facilities at the WPS.

67. Some of the underground workings at the Magma mine were backfilled after the mine closed in 1996. The majority of stoped areas within the mine were backfilled with a 10:1 ratio of cement and tailings; portions of tunnels and drifts were backfilled; and connections between the east and west sides of the mine at the 3200, 3300 and 3500-foot levels were backfilled.

68. The majority of the Magma mine's shafts and tunnels are no longer in operation or accessible. Exceptions include the Never Sweat Tunnel and Shafts 8 and 9. Of the preexisting Magma mine workings, RCM plans to continue to use Shaft 9 and the Never Sweat Tunnel, both of which were used by RCM during its construction of Shaft 10. RCM may also use other existing shafts, but not the tunnels.

69. Shaft 9 was used for support during construction of Shaft 10 (e.g. ventilation), and when RCM's mine is operational it will continue to be used for support purposes, but not for extraction of ore.

70. RCM constructed Shaft 10 between 2008 and December 2014 at a ballpark, estimated cost of $500 million. Shaft 10 is located about 300 feet from Shaft 9.

71. Underground work to rehabilitate and extend the Never Sweat Tunnel in preparation of sinking Shaft 10 began in September 2006; pre-development, surface-level work on the shaft began in February 2007; actual sinking of the shaft began in January 2010; and Shaft 10 was completed in 2014.

72. Shaft 10 is thirty feet in diameter and extends to 6943 feet bgs. Shaft 9, extends to 4882 feet bgs, but RCM plans to extend Shaft 9 to about the same depth as Shaft 10.

73. RCM's development-rock was transported through the Never Sweat Tunnel to the WPS. The mineralized development rock was stockpiled at the Loadout Intermediate Stockpile and the inert rock was used for construction and the reclamation of the existing Magma facilities.

74. RCM does not necessarily consider the mineralized development rock to be ore, but it will process that rock once its mill is operational.

75. There are several connections between Shafts 9 and 10.

76. Water (mine drainage) drains from Shaft 9 into Shaft 10. This water, and mine drainage flowing directly into Shaft 10, is pumped out and conveyed through the Never Sweat Tunnel to the WPS, where it commingles with drainage water from the historic Magma workings at the WPS, and is treated in the MWTP. The WPS is dewatered through Shaft 8.

77. From 2012 through 2016, RCM removed about 628 gallons of water per minute from Shafts 9 and 10, which is effectively the inflow into those facilities.

78. From 1963 until pumping stopped in 1998, Magma was removing an average of 542 gallons per minute from its mine. Between 2009 and 2012, RCM dewatered the existing mine, removing both the water that had accumulated between 1998 and 2009 and the inflows occurring during that time.

79. Stormwater at the WPS is conveyed to Indian Pond (aka CP-105 Pond), which has a storage capacity of 68 acre-feet. Indian Pond is equipped with pumps capable of pumping 2000 gallons per minute. Usually the stormwater is pumped to the MWTP for treatment, but it can be pumped to Tailings Pond 6 for evaporation.

80. Stormwater discharges through Outfall 001 are permitted only in the 100-year, 24-hour storm event.

The Mine Water Treatment Plant

81. The MWTP became operational during 2010-permit term.

82. The MWTP uses chemical precipitation and a high density sludge process with hydrated lime and soda ash to remove dissolved metals and sand filtration to remove the remaining suspended solids.

83. The main source of the water sent to MWTP is from dewatering the underground mine workings, but small volumes of industrial water and seepage pumping are also sent to MWTP, as is stormwater from the WPS.

84. Mr. Koester testified that the terms “mine water” (the term used in the Permit) and “mine drainage” are used interchangeably. He also testified that “industrial water” includes water from the cooling tower blow-down, and that “seepage pumping”

would include any water that is pumped from any seeps coming from containment areas.

85. Although authorized to discharge the treated mine water/drainage and stormwater, rather than discharging that water, RCM delivers it to the New Magma Irrigation and Drainage District. RCM's intention is to continue to send its treated water to New Magma, rather than discharging it.

86. There were no discharges to either outfall during the term of the 2010 permit, during which time discharges from Outfall 002 were not allowed because the MWTP effluent had total dissolved solids exceeding the 2010 permit limit of 1200 mg/l.

The Receiving Water

87. The Permit authorizes RCM to discharge "mine site stormwater runoff from Outfall 001 and treated mine water, industrial water and seepage pumping from Outfall 002 from the Superior Operations in Pinal County [.]". Outfalls 001 and 002 are both located at Township 2S, Range 12E, Section 4, Latitude 33° 17' 02" N, Longitude 111° 07' 06" W.

88. The receiving water is an unnamed wash tributary to Queen Creek in the middle Gila River Basin. The wash drains to the Creek in the segment between the headwaters and the Town of Superior Wastewater Treatment Plant outfall, which is identified as Reach 14A.

89. The designated uses for the receiving water are Aquatic and Wildlife warm water (A&Ww), Partial Body Contact (PBC), Fish Consumption (FC), and Agricultural Livestock watering (AgL)

90. The receiving water is listed on the section 303 impaired-waters list for copper (2002), lead (2010), and selenium (2012).

91. As of the hearing dates, ADEQ had not completed the total maximum daily load or "TMDL" for the receiving water. Because RCM is an existing discharger, the Permit's allowable copper discharges are being incorporated into the TMDL calculations.

Discharge Limitations

92. As pertinent to this matter, there are two classes of discharge limitations: TBELs (or technology-based effluent limitations) and WQBELs (or water quality based effluent limitations). These limits exists for a number of pollutants.

93. The WQBELs are set by the State and are based on the receiving water's designated uses. The applicable narrative water quality standards are described in ARIZ. ADMIN. CODE section R18-11-108, and the applicable numeric water quality standards are listed in section R18-11-109 and Appendix A of Title 18, Chapter 11, Article 1.

94. TBELs are promulgated by the EPA (and listed in the Code of Federal Regulations). The TBELs for copper mines are found at 40 C.F.R. 440, Ore Mining and Dressing, Subpart J and apply to mine drainage.[9]

95. For copper mines, there are three TBELs: best practicable technology ("BPT"), best available technology ("BAT"), and the new source performance standards ("NSPS").[10] Because ADEQ found that RCM is not a new source, the NSPS were not applied, and the TBELS used for the Permit were BAT and BPT.

96. To determine the appropriate effluent limitations for a permit, the most stringent TBEL is determined. Then that TBEL is compared to the applicable WQBELs, with the more stringent of the two being applied. This is done for each specific pollutant.

97. Mr. Koester prepared Exhibit ADEQ 15 as a demonstrative aid to show the effluent limitation guidelines applicable the Permit. There is a typographical error in the exhibit in that the units for total suspended solids ("TSS") should be mg/l not µg/l, and on page two, the subheadings under the Maximum Allowable Discharge Limits have been reversed.

Whether RCM is a New Source

98. Appellants argue that Shaft 10, Shaft Nos.9 and 10 Area Intermediate Rock Stockpile and Loadout Intermediate Rock Stockpile, the East Plant CCTs, and the

[9] Mr. Koester considered "TBEL" and "effluent limitation guideline" to effectively be synonymous.
[10] There is a fourth TBEL, best conventional pollutant technology, but that TBEL does not apply to copper mining.

Wash Bay & Expanded Wash Bay are new sources within the meaning of 40 C.F.R. §§ 122.2 and 122.29.

99. Mr. Koester testified that while processing RCM's application, ADEQ did not consider 40 C.F.R. § 122.29, because it found that RCM did not meet the definition of new source found in 40 C.F.R. § 122.2.

100. Mr. Koester testified to the effect that ADEQ considers the entirety of the former Magma mine site and the proposed RCM site (and any adjacent land and infrastructure) to be the source from which there may be a discharge of pollutants. ADEQ also considers the entire mine to be the "site" and the "facility" as those terms are defined in the applicable regulations.

101. ADEQ takes the position that the mine is the only source (i.e. that Shaft 10, the stockpiles, the CCT and the wash bays are not themselves sources).

102. As such, and considering that construction at the Magma mine began in the early 1900s (before the 40 C.F.R. Part 440, Subpart J Effluent Limitation Guidelines for copper mines were promulgated), ADEQ did not assess whether any particular building or structure located at the RCM site was a new source.

103. In its November 18, 2016 Response to Public Comments addressing the "new source" issue, ADEQ stated:

> The standards of performance under section 306 of the Clean Water Act applicable to ore mining are listed in 40 CFR 440, Sub Part J. The technology based effluent limitation guidelines and the new source performance standards for ore mining were both promulgated in 1982. The current RCM[ ] site was previously the Magma mine that was in operation from 1912 to 1995. <u>The RCM[ ] operations and construction is not a New Source because the operation is on a site that was active as an ore mine prior to 1982.</u>
>
> Exhibit RCM 58 p. 8 (underscore added).

104. In its answer to the Coalitions' Notice of Appeal, ADEQ responded as follows to the Coalitions' allegation that RCM mine was a new source:

Outfalls 001 and 002 are existing sources because they do not meet the definition of a new source. A new source designation requires that a building, structure, facility, or installation that may discharge pollutants commence construction after promulgation of the standards of performance for that source. A.A.C. R18-9-A901(25); 40 C.F.R. 122.2. The standards of performance for copper ore mining were promulgated in 1978 (originally promulgated under the Base and Precious Metals Subcategory). See 43 Federal Register 29771. This Permit is for Outfalls 001 and 002 which are part of a facility that was constructed and began operations in 1912. Because this Permit is for a facility that was constructed prior to 1978, it is not a new source.

ADEQ Answer p.5 (underscoring added).

105. In its Prehearing Disclosure, ADEQ provided that:

ADEQ determined that the renewal of the Permit was for an existing discharger and existing source based on the definitions found in A.A.C. R18-9-A901, 40 C.F.R. 122.2 and 122.29.

****

Also, ADEQ determined that the facility was constructed and discharged pollutants prior to the promulgation of standards for copper ore mining; therefore, it does not meet the requirements of a new source. See A.A.C. R18-9-A901(25). The expansion of the existing mine does not create a new discharger or new source based on the statutory and regulatory definitions.

ADEQ Prehearing Disclosure pp. 3-4 (underscore added).

106. In its Opening Statement, ADEQ provided that:

ADEQ personnel will then testify that using the definitions contained within this regulatory program, Outfall 002 is not a new source. A new source requires that a building, structure, facility, or installation that may discharge pollutants commence construction after promulgation of the standards of

> performance for that source. ADEQ will testify that the standards for copper mining were promulgated in 1978, well after the beginning of operations at the mine. Therefore, Outfall 002 is not a new source.
>
> ADEQ Opening Statement p. 8 (underscoring added).

107. In its Closing Argument, ADEQ provided:

> ADEQ properly issued the AzPDES permit no. AZ0020389 because the Resolution Copper mine is not a new source under the Clean Water Act. The mine does not meet the definition of "new source" contained in 40 C.F.R. § 122.2 because it was in operation prior to the promulgation of new source performance standards in 1982. This determination is consistent with all prior permits issued by both ADEQ and the US EPA. Moreover, as mines work ore deposits, they necessarily add features to facilitate those mining operations. Those features are not new sources because there are no performance standards that apply to them. This is true of open pit mines as well as underground mines. The permitted source is the mine, not particular features within the mine. This determination is supported by not only the language of the applicable statutes and rules, but also by EPA guidance. Further, Appellants' arguments that the mine is a new source are ... inconsequential as well as incorrect because ADEQ included water quality standards (WQS) based limits in the permit, and the WQS-based limits are more stringent than the rule-based new source performance standards.
>
> ADEQ Closing Argument pp. 2 -3 (underscore added).

108. RCM's Permit application shows that the rock stockpiles produce stormwater and rock water, the CCT produces blowdown water, and the wash bays produce wash and stormwater, all of which is treated in the MWTP and permitted to be discharged through Outfall 002. During the hearing, ADEQ, through Mr. Koester's testimony, acknowledged that Shaft 10 is a structure at the mine that is "related to the

extraction, removal or recovery of metal ore" at the RCM site, and that water pumped out of Shaft 10 is "mine drainage."

109. There is no dispute that Shaft 10, the rock stockpiles, the CCT, and the expanded wash bay were constructed after the Subpart J performance standards were promulgated.

110. Nevertheless, according to Mr. Koester, prior to issuing the Permit, ADEQ did not independently assess whether Shaft 10 was, itself, a new source under 40 C.F.R. § 122.2 and 122.29 because there are "no performance standards associated with a shaft."

111. Mr. Koester provided similar testimony to the effect that because there are no performance standards specifically for rock stockpiles, CCTs, or wash bays, ADEQ did not assess whether any of these mine features were new sources within the meaning of the applicable regulations.

112. At the hearing, through Mr. Koester's testimony, ADEQ took the position that any site with a copper mine that began operations prior to the applicability date of the Subpart J Guidelines could never be a new source under 40 C.F.R. § 122.2.

113. Thus, according to ADEQ, regardless of what copper-mining features RCM adds or constructs, even if it conducts copper mining operations in other parts of Pinal County, as long as RCM treats the mine drainage on the existing site, these new features will not be new sources. Mr. Koester testified to the effect that these new features would not be new sources because by adding more structures RCM is just expanding the Magma mining operations and producing more mine drainage.

114. Mr. Koester testified that because ADEQ had determined that RCM did not meet the threshold definition of "new source" under 40 C.F.R. § 122.29(a), it was not necessary for ADEQ to also address the additional new-source criteria in § 122.29(b).

115. Mr. Koester spoke to EPA's Elizabeth Sablad about the relationship between 40 C.F.R. § 122.2 and §122.29, and she confirmed that the analysis is a two-step process. But Ms. Sablad did not provide an opinion as to whether ADEQ's determination that RCM is not a new source was correct, and EPA did not have a copy

of RCM's permit application or any other documents relating to the specific buildings or structures located at the RCM site.

116. Although ADEQ did not consider 40 C.F.R. § 122.29(b) when evaluating RCM's application, during the hearing, ADEQ took the position is that RCM would not be a new source if those criteria were considered.[11]

117. Mr. Koester testified that even if RCM was a new source, the applicable discharge limitations would not be more stringent than those in the Permit. Appellants argue that RCM's discharges will contribute to the violation of water quality standards, so no permit can be issued to RCM based on 40 C.F.R. § 122.4.

118. When adopting the new source criteria found in 40 C.F.R. § 122.29, EPA provided the following comment in the Federal Register:

> [EPA suspended the existing rule in response to] industry criticism that the language of the third criterion ... was overly broad and could be interpreted as classifying some structures as new sources that more appropriately should be considered as modifications of existing sources. On the same day, *(45 FR 59343),* EPA proposed that, in those situations where there was new construction but less than total replacement at existing facilities, the classification decision should be based on the degree to which the constructed facility functions independently of the existing source. The substantial independence test was aimed at ascertaining whether an existing source which undertakes major construction that legitimately provides it with the opportunity to install the best and most efficient production processes and wastewater treatment technologies should be required to meet new source performance standards at that facility....
>
> ***
>
> Today's amendment, therefore, adds two factors to be examined in deciding if new processes are substantially independent of existing facilities.

[11] For its part, in a Motion for Summary Judgment filed on December 18, 2017, RCM argued that although Shaft 10, the rock stockpiles, the CCTs, and the wash bays were sources, these were not new sources within the meaning of § 122.29(b). RCM's Motion was denied in Case Management Order No. 8 issued on January 17, 2018. In its Closing Argument, RCM reasserted its position.

The first factor is the degree of integration of a new process with existing processes. Under this first factor, if the new facility is fully integrated into the overall existing plan, the facility will not be a new source. For example, a plant may decide to improve the quality of a product by installing a new purification step into its process, such as a new filter or distillation column. Such a minor change would be integral to existing operations and would not require the facility to be reclassified as a new source. However, on the other extreme, if the only connection between the new and old facility is that they are supplied utilities such as steam, electricity, or cooling water from the same source or that their wastewater effluents are treated in the same treatment plant, then the new facility will be a new source.

[Standing alone, that a new process or plan uses existing wastewater treatment equipment, is not sufficient to rule out finding that it is a new source.]

A newly constructed facility can clearly meet the statutory definition of "source," which covers any "building, structure, facility, or installation from which there is or may be the discharge of pollutants" (section 306(a) of the Act). When a similar claim was raised in *Mahelona v. Hawaiian Electric Co., 9 ERC 1625 (D. Hawaii 1976),* the Court held that the point source was the facility generating the discharge, not the system treating it.

The second clarifying factor that EPA has added is the extent to which the construction results in facilities or processes that are engaged in the same general type of activity as the existing source. Under this second factor, if the proposed facility is engaged in a sufficiently similar type of activity as the existing source, it will not be treated as a new source.... Of course, to the extent the construction results in facilities engaged in the same type of activity because it essentially replicates, without replacing, the existing source, the new construction would result in a new source.

***

> The test in § 122.29(b)(1)(iii) [CPR § 122.66(1)(iii)] will continue to be whether the processes of the new facility *are* substantially independent.
>
> ***
>
> In a similar situation, if a facility replicates an existing facility, the fact that it shares or uses common land with another source does not prevent it from being considered a new source. The same criteria would be applied on a case specific basis.
>
> 49 FR 37998 New Source Criteria at § V (underscoring added).

119. EPA's September 28, 2006 Memorandum "New Source Dates for Direct and Indirect Dischargers," (Exhibit ADEQ 6) provides:

> This memorandum summarizes EPA regulatory requirements for determining what sources are new sources. Specifically, this document provides a summary of relevant regulatory criteria for consideration in this determination as well as a listing of applicable new source dates used in making new source determinations.
>
> ***
>
> If construction results in a new source, the discharger will be affected differently depending on what changes occurred at the site. The discharger's entire facility may be subject to new source standards, or, if the new source is a new installation of process equipment at an existing facility, part of the facility may be subject to existing source standards and other parts of the facility subject to new source standards.
>
> ***
>
> The term "source" means any building, structure, facility or installation from which there is or may be a discharge of pollutants. Because the statute broadly defines "construction" as "any placement, assembly, or installation of facilities or equipment" a number of activities may give rise to new source status....
>
> ***

EPA emphasizes that a source, whether it is a direct or indirect discharger, may be either something as large-scale as a facility or something as small as a piece of equipment installed as part of an existing operation. The CWA defines "source" to include "any building, structure, facility, or installation" and defines construction to include "any placement, assembly, or installation of facilities and equipment." Thus, under the CWA, "construction" refers both to the construction of any building, structure, or facility, and to the installation of equipment. A "new source," then, is the placement, assembly or installation of facilities or equipment which commenced after the new source date and which satisfies the other regulatory criteria discussed below....

***

[T]he "source" of a discharge from an industrial operation is the facility generating the discharge, not the system treating it. Mahelona v. Hawaiian Electric Company, Inc., 418 F. Supp 1328 (Aug. 27, 1976), 49 Fed. Reg. 38044 (Sept. 26, 1984). More specifically, the source of the discharge is the production or wastewater generating processes of the operation. The treatment system used to reduce pollutants in the waste stream, on the other hand, is not the source of the discharge....

***

One type of [construction] activity is the "placement, assembly, or installation of facilities or equipment." 40 CFR 122.29(b)(4)(i)(A), ... The scope of the activities covered highlights the fact that the regulations capture not only the construction of a new or renovated building, structure, or facility, but also smaller scale activities, such as the installation of equipment (e.g., a new process tank).

***

If construction commenced after the new source date, there is a possibility that the source could be considered a new source if it meets the regulatory criteria on 40 CFR 122.29(b) or 403.3(m)(1). However, if the construction begins before the new source date, the source will generally be considered an existing source, not subject to new source standards, unless there was other construction after the new source date which

> constitutes a "total replacement" or is "substantially independent from the existing source" (see 40 CFR 122.29(b)(ii) and (iii) and 40 CFR 403.3(m)(1)(ii) and (iii)). Similarly, <u>if construction commenced before the new source date, and ends after the new source date, the source would generally be considered an existing source, unless there was other construction after the new source date which constitutes a total replacement or is substantially independent from the existing source</u>.
> (Underscoring added.)

120. RCM had entered into evidence a number of other permits and facts sheets and elicited testimony about those documents from Mr. Koester to the effect that the RCM Permit was consistent with these other permits in that they too consisted of only one source. In most cases however, Mr. Koester was not familiar with the permits or fact sheets and had not seen these before the hearing.

<u>Whether the Permit's effluent limitation for copper ensure compliance with the applicable water quality standards</u>

121. Appellants assert that the Permit will not ensure compliance with Arizona's water quality standards for copper applicable to Queen Creek because: (1) ADEQ failed to include a mass-based limit on the discharge of copper in violation of 40 C.F.R. § 122.45(f)(1) and ARIZ. ADMIN. CODE section R18-9-A905(A)(3)(e); (2) based on the Draft TMDL, RCM's discharges of copper will prevent Queen Creek from ever attaining the copper water quality standard; and (3) ADEQ should not have calculated the water quality standard for copper based on the hardness of the water samples submitted by RCM.

122. In setting the Permit limits, ADEQ followed its normal practices, which are for the most part set out in EPA's Technical Support Document (Exhibit ADEQ 3) and EPA's Permit Writer's Manual (Exhibit ADEQ 2).

Mass-based limits

123. The Permit limits RCM's discharges of copper to a daily maximum of 17 micrograms (µg) per liter and a maximum monthly average of 8.5 µg/l.

124. Because the Permit does not include either a mass-based limit on copper discharges or a limit on RCM's discharge flow rate, there is no limit on the mass of copper that RCM can discharge.

125. Arizona's water quality standards for copper are expressed in concentrations, not mass.

126. 40 C.F.R. § 122.45 provides in pertinent part: "(f) *Mass limitations.* (1) All pollutants limited in permits shall have limitations, standards or prohibitions expressed in terms of mass except: … (ii) When applicable standards and limitations are expressed in terms of other units of measurement".

Total Maximum Daily Load

127. A total maximum daily load (or TMDL) is the maximum amount, or load, of a water quality parameter that can be carried by a surface waterbody on a daily basis without causing an exceedance of surface water quality standards. TMDL calculations are made for waters listed as impaired on the State's 303(d) list.

128. Because Queen Creek is impaired for copper, ADEQ is developing a TMDL for the Creek, but as of the hearing dates, it was in draft form. The TMDL does not need to be finalized before ADEQ can issue an AZPDES permit.

129. The draft TMDL shows that for the impaired reaches of Queen Creek to meet applicable water quality standards and the TMDL, reductions in the daily loading of dissolved copper must occur.

130. Any discharge of copper to Queen Creek adds an additional load to the creek.

131. Although RCM's MWTP has a maximum capacity of 2700 gallons per minute, the Permit does not limit the discharge flow-rate because there is no regulatory maximum for flow rates.

132. Because the Permit does not limit the flow rate at which RCM may discharge, in the draft TMDL ADEQ accounted for discharges from RCM through concentration-based waste load allocations ("WLA").

133. EPA recognizes that concentration-based WLAs can be appropriate when discharge volumes are not known.

134. Consistent with its policy, even though the Permit shows a maximum flow rate from the MWTP, ADEQ used a concentration-based WLA because there is no prescribed limit on the discharge flow-rate. Mr. Sutter explained that ADEQ's policy has been applied to other TMDLs that were approved by EPA.

135. Mr. Sutter testified that as long as RCM remains in compliance with its concentration-based WLA, it will be in compliance with the TMDL. This is the case because even though RCM's discharges would add additional loading to the Creek, the discharge would also increase the flow rate in the Creek, which would cause the target load to increase as well.

Average Hardness

136. Copper is a hardness-dependent metal, meaning the standards vary based on the hardness of the receiving water. This is because the toxicity of copper in water is dependent on the hardness of the water, with the toxicity increasing as the hardness of the water decreases.

137. As such, the water quality standards for copper are specified not as fixed concentrations but rather as a set of formulas in which hardness is a variable.

138. As pertinent to this issue, ADEQ received from RCM ten to twelve samples of the receiving water from Queen Creek that were analyzed for hardness, and sixty-five samples of effluent from the MWTP that were analyzed for hardness and for copper.

139. Mr. Koester considered sixty-five samples to be an unusually high number, and he explained that because the samples were being statistically analyzed, more samples is better.

140. The receiving-water samples were taken from monitoring locations known as QCAMP-1, which is approximately 370 feet upstream of the confluence of Queen Creek and the unnamed wash into which Outfall 002 discharges, and QCAMP-2, which is located approximately 335 feet downstream from that unnamed wash and Queen Creek. These locations are also referred to as AMP-1 and AMP-2.

141. The hardness of the RCM samples ranged from 53 mg/l to 270 mg/l, with an average of 128 mg/l. The hardness of the water in Queen Creek's Reach 14A

increases going downstream and the hardness upstream of RCM's discharge point is lower than downstream of that discharge point.

142. There is no rule specifying what hardness value must be used. Using the average hardness has been ADEQ's practice since it began issuing AZPDES permits, and that practice has been approved by EPA.

143. When setting permit limitations, ADEQ conducts an analysis to determine whether there is a "reasonable potential" for a water quality standard to be exceeded. For copper, ADEQ considers both acute and chronic toxicity, with the limits for chronic toxicity being more stringent than those for acute toxicity. As such, in setting permit limitations, ADEQ uses the average value for hardness rather than the lowest value because the average value better reflects conditions related to chronic toxicity.

144. ADEQ used the 128 mg/l average to determine the water quality criterion for the receiving water, because it found this value to be representative of the portion of Reach 14A to which RCM discharges. Using 128 mg/l hardness, ADEQ calculated the water quality standard to be 11 µg/l.

145. For the sixty-five effluent samples provided by RCM, the average copper level was 2.7 µg/l, the maximum was 9.7 µg/l, and the standard deviation was 1.8 µg/l.

146. Based on this data and statistical analysis methods set out in the Technical Support Document (Exhibit ADEQ 3), ADEQ set the Permit limits for copper at 8.5 µg/l on a monthly average basis and 17 µg/l as the daily maximum.

147. Considering these values, ADEQ determined that there was less than a 1% probability that RCM's discharges would exceed the standard of 11 µg/l. Mr. Koester's opinion was that this means that the discharge of treated effluent from RCM will not cause or contribute to a violation of a water quality standard.

148. RCM's sixty-five effluent samples had a hardness of between 350 and 400 mg/l. As such, the toxicity of the copper in RCM's samples is less than it would be in water with a hardness of 128 mg/l.

149. Reach 14A is usually dry, meaning that any discharge that occurs is likely to be to a dry river bed, and the toxicity of the discharges would be a function of the hardness of the effluent.

150. Mr. Koester was of the opinion that in a discharge during a rain event, it is likely that the hardness in the Creek would be increased above the average value of 128 mg/l because the effluent's average hardness is greater than 128 mg/l.

151. Mr. Koester determined that as long as RCM's discharges meet the Permit's discharge limitations, the discharges will meet the water quality standard for Queen Creek and will not cause or contribute to a violation of the water quality standard.

Whether removal of the effluent limitation for TDS violate the anti-backsliding rule

152. In order to implement the Clean Water Act's goal of continued further progress towards eliminating pollutant discharges, EPA established an "anti-backsliding" policy reflected in the NPDES regulations at 40 C.F.R. § 122.44. This provision prohibits the reissuance of an NPDES or AZPDES permit with limitations, standards, or conditions less stringent than those in the previous permit unless the circumstances on which the previous permit was issued have materially and substantially changed, with that change constituting cause for a permit modification.

153. The 2010 permit includes a limit on total dissolved solids (TDS) of 1200 mg/l. Although installing a reverse osmosis unit was not a condition of the 2010 permit, RCM planned to meet the 1200 mg/l limit by constructing an RO unit, but this was not done.

154. In its application for this Permit, RCM requested that the 1200 mg/l limit on TDS be removed and ADEQ agreed to do so, finding that there was no backsliding violation.

155. When the 2010 permit was issued, the MWTP was not operational, so no effluent was available for whole effluent toxicity (WET) tests. Instead, WET testing was conducted on simulated effluent from a bench-scale study. That WET testing showed failures at TDS of 1200 mg/l, which was adopted as the 2010 permit limit.

156. The MWTP became operational during the 2010-permit term and with the current application, RCM submitted the results from WET tests of samples for MWTP effluent taken in 2013 to 2015.

157. RCM also submitted TDS influent and effluent data from 2009-2015. The TDS concentration has declined from an estimated average of 6000 mg/L in 2009 to the current average concentration of 2100 mg/l.

158. The WET testing results demonstrated that all three surrogate WET species passed acute and chronic toxicity testing criteria at TDS concentrations of 1900 to 2140 mg/l. ADEQ found that this data suggest the TDS is not causing toxicity.

159. The Permit requires RCM to conduct WET testing in any month for which the TDS exceeds 2140 mg/l.

160. The WET testing results for effluent from the MWTP is information that was not available when the 2010-permit was issued, and that information would have justified application of a less stringent TDS effluent limit if the information had been available in 2010. Consequently, the removal of the TDS limit is allowed pursuant to the exception listed in 40 C.F.R. § 122.44(l)(2)(B)(1).

161. ADEQ also considered the Clean Water Act section 402(o)(3)'s absolute limitation on backsliding. Because there are no applicable TDS standards to be applied, ADEQ determined that the removal of the TDS limit does not result in a violation of the anti-degradation requirements.

Information about the Coalition Appellants

162. Arizona Mining Reform Coalition ("AMRC") is a not-for-profit conservation organization. AMRC was unincorporated until 2017, and became incorporated on June 14, 2017.

163. AMRC is an association of groups and individuals that provides educational and technical assistance to its members and the general public. Its mission is to ensure that responsible mining contributes to healthy communities, a healthy environment, and when all costs are factored in, a net benefit to Arizona.

164. AMRC consists of sixteen member groups and about 5200 individual members. Save Tonto National Forest and Concerned Citizens and Retired Miners Coalition are unincorporated associations and are both organizational members of AMRC.

165. AMRC has participated in agency decisions regarding RCM, and to Mr. Featherstone's recollection, it has participated in every permitting decision to date.

166. Save Tonto National Forest is an organization whose purpose includes educating its members and the public about RCM and advocating against adverse environmental effects from the mine. Save Tonto National Forest has approximately 30 to 40 members in the Superior area and as many as 200 members in total.

167. Save Tonto National Forest participates in meetings with the National Forest Service regarding RCM.

168. Concerned Citizens and Retired Miners Coalition is an organization formed for the purpose of supporting responsible mining and protecting the environment. Concerned Citizens and Retired Miners Coalition has approximately thirty active members.

169. Concerned Citizens and Retired Miners Coalition joined this AZPDES permit appeal to advance its interests, and it actively participates in public meetings about the RCM mine.

Information about the San Carlos Apache Tribe

170. The San Carlos Apache Tribe is a federally recognized Indian Tribe.

171. The Tribe is located on the San Carlos Apache Reservation ("Reservation") of approximately 1.8 million acres in eastern Arizona.

172. The Reservation is located within the much larger aboriginal territory of the Tribe, which once covered many millions of acres throughout eastern New Mexico, most of Arizona, and into the Republic of Mexico.

173. The lands within the Queen Creek and Middle Gila River watersheds were a part of the Apache aboriginal homelands. Mr. Rambler explained that to the Apaches, these ancestral lands will always be their land.

174. The Tribe has an Amended Constitution and Bylaws adopted in 1954. The Tribe's governing body is the San Carlos Council. Article V, Section 1 sets forth the Council's duties.

175. The Tribe's government, acting through the Council, officially opposes RCM because it believes that the mine will harm the Apache people, the Apache ancestral homeland, and the Apache way of life.

176. The Tribe's individual members do not have the financial wherewithal, the legal knowledge, or the equipment and supplies need to appeal ADEQ's decision to issue the Permit.

177. Mr. Rambler testified to the effect that the Council has a duty to protect the well-being, health, and safety of the Tribe's members, to preserve and promote Apache culture, and to represent the Tribe and act in all matters that concern the welfare of the Tribe and its members.

178. As an elected official, Mr. Rambler is concerned that discharges from RCM will affect the Apache way of life because those discharges will affect the water in the area.

179. The Apache people believe that it is through respect for the land, the animals and the environment that they are tied to their Creator, and that this respect makes Apache prayers powerful.

180. Some Apaches have clan origins from the Queen Creek area, particularly the Pinal Band or Cottonwood Band called T'iis Tsebán Band, and the Surrounded by Rocks Clan, Tse Binest'i'e.

181. Members of the these bands, including Mr. Rambler and his brother, go to places in the Queen Creek watershed and use those places for prayers and prayer services.

182. Tribal members including Mr. Rambler and his brother collect plants in the area including along the Queen Creek riparian areas.

183. A "Traditional Cultural Property" is a property or place that is eligible for the National Register of Historic Places because of its association with a community's cultural practices and beliefs that are rooted in the community's history and, maintains the continuity of that community's traditional practices and customs.

184. There are at least five Apache Traditional Cultural Properties within the Queen Creek watershed. These are places that have been identified in Apache oral

histories, prayers and songs, and that have significance to Apaches as part of origin stories, unique ecosystems and unique mountain ranges, for prayers, and for gathering plants and foodstuffs.

185. The Tonto National Forest required RCM to alter its test-drilling plans to avoid impacting Apache cultural resources located in the Queen Creek watershed.

186. The Western Apache Natural World Project acquires traditional cultural information from Apache elders about all elements of the natural world including plants, animals, birds, reptiles, insects, humans and human anatomy, elements of the earth, elements of the sky, place names and geography, and almost anything having to do with what the Apache people consider to be alive.

187. The Western Apache Natural World Project also acquires information about pre-reservation diet, the lifestyle that supported that diet, and traditional Apache healthcare and support systems to deal with chronic healthcare problems facing Apaches today.

188. The Western Apache Natural World Project has identified over 500 Apache plants that are used for food, medicine, as well as other things that Apache people use for everyday and ceremonial life, and many of them are found in the Queen Creek area.

189. Streams, seeps and springs are important in Apache culture and tradition because of the importance of water to the Apache people and that it comes from Mother Earth.

190. Apaches believe when the land is natural, just as it was created, it is at is most powerful.

191. Apache traditional life and culture is rooted in the natural world and following the natural cycles of the world. The Apache people rely upon traditional values to leave minimal impacts on their world, the land and the environment. These traditional values are known as Traditional Ecological Knowledge.

192. Traditional Ecological Knowledge principles have been recognized by various federal agencies.

CONCLUSIONS OF LAW

1. The burden of proof at an administrative hearing falls to the party asserting a claim, right or entitlement. A party asserting an affirmative defense bears the burden of proving that defense. The standard of proof on all issues in this matter is that of a preponderance of the evidence. ARIZ. ADMIN. CODE § R2-19-119.

2. A preponderance of the evidence is:

> The greater weight of the evidence, not necessarily established by the greater number of witnesses testifying to a fact but by evidence that has the most convincing force; superior evidentiary weight that, though not sufficient to free the mind wholly from all reasonable doubt, is still sufficient to incline a fair and impartial mind to one side of the issue rather than the other.

BLACK'S LAW DICTIONARY 1373 (10th ed. 2014).

3. Decisions by ADEQ's Director shall be affirmed by the Water Quality Appeals Board unless, considering the entire record before the Board, it concludes that the Director's decision is arbitrary, unreasonable, unlawful or based upon a technical judgment that is clearly invalid. ARIZ. REV. STAT. § 49-324(C).

4. "Statutes shall be liberally construed to effect their objects and to promote justice." ARIZ. REV. STAT. § 1-211(B).

5. The primary goal when construing statutes is to fulfill the legislature's intent, with the entire statutory scheme being given effect. *Backus v. State of Arizona*, 220 Ariz. 101, 104, 203 P.3d 499, 502 (2009) (citations omitted).

6. Statutes and rules are construed using the same principles. *Gutierrez v. Industrial Commission of Arizona,* 226 Ariz. 395, 249 P.3d 1095 (2011).

7. Statutes should be interpreted to provide a fair and sensible result. *Gutierrez v. Industrial Commission of Arizona*; *see also State v. McFall*, 103 Ariz. 234, 238, 439 P.2d 805, 809 (1968) ("Courts will not place an absurd and unreasonable construction on statutes.").

8. Each word, phrase, clause, and sentence of a statute or rule must be given meaning so that no part will be void, inert, redundant, or trivial. *See Deer Valley, v. Houser*, 214 Ariz. 293, 296, 152 P.3d 490, 493 (2007)

9. "We construe words and phrases according to the common and approved use of the language. *A.R.S. § 1-213* (2002). 'In determining the ordinary meaning of a word, we may refer to an established and widely used dictionary.'" *United Dairymen of Arizona v. Rawlings*, 217 Ariz. 592, 596, 177 P.3d 334, 338 (App. 2008) (quoting *State v. Mahaney, 193 Ariz. 566, 975 P.2d 156* (App. 1999).

10. "In Arizona, 'arbitrary action' has been characterized as 'unreasoning action, without consideration and in disregard of the facts and circumstances.' .... An 'arbitrary' action is one taken 'capriciously or at pleasure,' or an action taken 'without adequate determining principle.'" *Maricopa County Sheriff's Office v. Maricopa County Employee Merit System Commission*, 211 Ariz. 219; 119 P.3d 1022 (2005)(citations omitted).

11. Any person who is adversely affected by ADEQ's issuance of the Permit or who may with reasonable probability be adversely affected by that action and who has exercised any right to comment on the action as provided in section 41-1092.03 may appeal ADEQ's decision. ARIZ. REV. STAT. § 49-323.

12. For purposes of the AZPDES permit program:

> "Person" means an individual, employee, officer, managing body, trust, firm, joint stock company, consortium, public or private corporation, including a government corporation, partnership, association or state, a political subdivision of this state, a commission, the United States government or any federal facility, interstate body or other entity.
>
> ARIZ. REV. STAT. § 49-201(27)

13. 40 C.F.R. § 122.2 provides the following definitions:

> ***
>
> *New source* means any building, structure, facility, or installation from which there is or may be a "discharge of pollutants," the construction of which commenced:
> (a) After promulgation of standards of performance under section 306 of CWA which are applicable to such source, or
> (b) After proposal of standards of performance in accordance with section 306 of CWA which are applicable to such source,

but only if the standards are promulgated in accordance with section 306 within 120 days of their proposal.

***

Site means the land or water area where any "facility or activity" is physically located or conducted, including adjacent land used in connection with the facility or activity.

14. 40 C.F.R. §122.29 "New sources and new dischargers," provides in pertinent part:

(a) *Definitions.*

(1) *New source* and *new discharger* are defined in §122.2. [....]

(2) *Source* means any building, structure, facility, or installation from which there is or may be a discharge of pollutants.

(3) *Existing source* means any source which is not a new source or a new discharger.

(4) *Site* is defined in §122.2;

(5) *Facilities or equipment* means buildings, structures, process or production equipment or machinery which form a permanent part of the new source and which will be used in its operation, if these facilities or equipment are of such value as to represent a substantial commitment to construct. It excludes facilities or equipment used in connection with feasibility, engineering, and design studies regarding the source or water pollution treatment for the source.

(b) *Criteria for new source determination.* (1) Except as otherwise provided in an applicable new source performance standard, a source is a "new source" if it meets the definition of "new source" in §122.2, and

(i) It is constructed at a site at which no other source is located; or

(ii) It totally replaces the process or production equipment that causes the discharge of pollutants at an existing source; or

(iii) Its processes are substantially independent of an existing source at the same site. In determining whether these processes are substantially independent, the Director shall

> consider such factors as the extent to which the new facility is integrated with the existing plant; and the extent to which the new facility is engaged in the same general type of activity as the existing source.
>
> (2) A source meeting the requirements of paragraphs (b)(1) (i), (ii), or (iii) of this section is a new source only if a new source performance standard is independently applicable to it. If there is no such independently applicable standard, the source is a new discharger. See §122.2.
>
> (3) Construction on a site at which an existing source is located results in a modification subject to §122.62 rather than a new source (or a new discharger) if the construction does not create a new building, structure, facility, or installation meeting the criteria of paragraph (b)(1) (ii) or (iii) of this section but otherwise alters, replaces, or adds to existing process or production equipment....

15. 40 C.F.R. §122.4 provides that "No permit may be issued: .... (i)To a new source or a new discharger, if the discharge from its construction or operation will cause or contribute to the violation of water quality standards."

16. 40 C.F.R. Subpart L, "General Provisions and Definitions," at § 440.132 "General definitions, " provides:

> (a) ''Active mining area'' is a place where work or other activity related to the extraction, removal, or recovery of metal ore is being conducted, except, with respect to surface mines, any area of land on or in which grading has been completed to return the earth to desired contour and reclamation work has begun.
>
> ***
>
> (g) ''Mine'' is an active mining area, including all land and property placed under, or above the surface of such land, used in or resulting from the work of extracting metal ore or minerals from their natural deposits by any means or method, including secondary recovery of metal ore from refuse or other storage piles, wastes, or rock dumps and mill tailings derived from the mining, cleaning, or concentration of metal ores.

***

(h) "Mine drainage" means any water drained, pumped, or siphoned from a mine.

17. "The term 'construction' means any placement, assembly, or installation of facilities or equipment (including contractual obligations to purchase such facilities or equipment) at the premises where such equipment will be used, including preparation work at such premises." 33 U.S.C. § 1316(A)(5).

18. 40 C.F.R. §122.44 "Establishing limitations, standards, and other permit conditions," provides in pertinent part:

> (l) *Reissued permits.* (1) Except as provided in paragraph (l)(2) of this section when a permit is renewed or reissued, interim effluent limitations, standards or conditions must be at least as stringent as the final effluent limitations, standards, or conditions in the previous permit .... [(l)(2)] (B)(*1*) Information is available which was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and which would have justified the application of a less stringent effluent limitation at the time of permit issuance....

<u>Whether RCM is a new source</u>

19. ADEQ considers the former Magma mine site, the proposed RCM site, and any adjacent land and infrastructure to be the "source," the "site," and the "facility" as those terms are defined in the applicable regulations. ADEQ also asserted that Outfalls 001 and 002 are the "source."

20. In doing so, ADEQ misconstrues the applicable regulations, because these terms have separate and distinct meanings under those regulations.

21. "Site" means the land or water area where any "facility or activity" is physically located or conducted, including adjacent land used in connection with the facility or activity. 40 C.F.R. § 122.2. This definition shows that a "site" and "facility" are not synonymous under the rules.

22. A comparison of the definition of "site" to that of "source" (any building, structure, facility, or installation from which there is or may be a discharge of

pollutants), 40 C.F.R. § 122.29, shows that "site" and "source" also have different meanings under the applicable rules

23. ADEQ's interpretation of these words also runs afoul of principles of statutory construction because ADEQ has not given each word independent meaning. *See Deer Valley*. In addition, the EPA guidance shows that the Outfalls are not sources because these are not the facilities that generate the waste. *See* September 28, 2006 Memorandum, Exhibit ADEQ 6.

24. ADEQ's determination that Shaft 10 and the other features are not new sources as defined in 40 C.F.R. § 122.2 was in error because it was based on an incorrect and improper reading of the applicable rules.

25. ADEQ takes the position that any new buildings, structures, facilities, or installations constructed at a copper mine that began operation before Subpart J was promulgated can never be a new source. This is not consistent with 40 C.F.R. § 122.29, 49 FR 37998 "New Source Criteria", or the EPA's September 28, 2006 Memorandum that show that new buildings, structures, facilities, or installations constructed at a site with an existing source can themselves be new sources.

26. ADEQ also asserts that it was not necessary to conduct an analysis under § 122.29(b) because there are no performance standards for shafts, stockpiles, CCTs, or wash bays, but rather the only performance standard is for "mines." ADEQ has however misconstrued the applicable regulations.

27. ADEQ concedes that Shaft 10 and these other features are producing mine drainage. By definition, mine drainage means "any water drained, pumped, or siphoned from a <u>mine</u>." (Underscore added.) As such, Shaft 10 and these other features are by definition mines and subject to the Subpart J standards.

28. ADEQ's determination that 40 C.F.R. § 122.29(b) did not apply because features at the RCM site were constructed prior to the promulgation of Subpart J was in error, and on the facts of this matter, ADEQ was required to apply § 122.29(b)'s criteria for new source determination.

29. Even accepting that construction at the Magma mine started before Subpart J was promulgated, as EPA's September 28, 2006 Memorandum shows, to

determine whether RCM's construction constitutes a new source requires an analysis of whether those new features constitute a total replacement of, or are substantially independent from, the existing source.

30. ADEQ and RCM argue that if the § 122.29(b) analysis was conducted, that analysis would show that Shaft 10 and the other features are not new sources. Appellants argue the opposite. Because ADEQ did not conduct that analysis, the tribunal has no authority to address that argument. *See* ARIZ. REV. STAT. § 41-1092.07(F)(6)(scope of the hearing is limited to facts officially noticed).

31. And assuming that the tribunal is allowed to consider this argument, it has not been proven that Shaft 10 and the other features are not new sources.

32. ADEQ argues that it would not matter if Shaft 10 and the other features are new sources, because the Permit's effluent limitations are as strict as those that a new source would be subject to. But this argument fails to account for 40 C.F.R. § 122.4(i)'s prohibition on discharges from new sources.

33. By failing to properly apply the applicable definitions, ADEQ has acted "without adequate determining principle," and its decision is arbitrary. *See Maricopa County Sheriff's Office*.

34. The matter should be remanded to ADEQ to allow it to conduct an analysis as required by 40 C.F.R. § 122.29(b).

<u>Whether the effluent limitation for copper will ensure compliance with the water quality standards</u>

35. In setting the Permit limitations, ADEQ followed its standard procedures, which have been accepted by EPS, in determining the Permit's effluent limitation for copper.

36. ADEQ provided credible evidence showing that the effluent limitation for copper ensures compliance with the applicable water quality standard.

37. The Appellants have not shown that ADEQ's decision was arbitrary, unreasonable, unlawful or based upon a technical judgment that is clearly invalid.

<u>Whether removal of the 2010 permit's limit on total dissolved solids violates the CWA</u>

38. ADEQ's decision to eliminate from the Permit the requirement that prohibited discharges with total dissolved solids (TDS) of greater than 1200 mg/l was not a violation of the anti-backsliding provision because the WET testing results RCM provided ADEQ is new information that would have justified eliminating this provision from the 2010 permit had those test results been available at that time. *See* 40 C.F.R. § 122.44(l)(2)(B)(1).

39. The requirements of RCM's Aquifer Protection Permit are not at issue in this matter.

40. The Appellants have not shown that ADEQ's decision was arbitrary, unreasonable, unlawful or based upon a technical judgment that is clearly invalid.

Simultaneous discharge from 001 (stormwater) and 002 (mine drainage)

41. ADEQ presented credible evidence showing that in developing the Permit limits, ADEQ considered simultaneous discharges from both outfalls.

42. The Appellants have not shown that ADEQ's action was arbitrary, unreasonable, unlawful or based upon a technical judgment that is clearly invalid.

The Public Meetings

43. Appellants presented no substantial evidence or legal argument to show that ADEQ committed a violation of statute or rule.

44. The Appellants have not shown that ADEQ's action was arbitrary, unreasonable, unlawful or based upon a technical judgment that is clearly invalid.

Whether the draft fact sheet failed to disclose pertinent information or misled the public

45. Appellants presented no substantial evidence or legal argument to show that there was a violation of statute or rule.

46. The Appellants have not shown that ADEQ's action was arbitrary, unreasonable, unlawful or based upon a technical judgment that is clearly invalid.

Whether the Appellants meet the requirements to bring appeals

47. In its Closing Argument, ADEQ argues that none of the Appellants meet the requirements to bring an appeal, which requirements are set out in Ariz. Rev. Stat. section 49-323.

48. In its answer to Appellants' appeals, ADEQ was required describe the relief it was requesting. ARIZ. ADMIN. CODE § R2-17-109(3). In ADEQ's answers, it did not assert that Appellant's did not meet the requirements of ARIZ. REV. STAT. section 49-323, nor did it request that the appeals be dismissed on that basis.

49. In ADEQ's disclosure statements, it did not assert as a legal theory that Appellants did not meet the requirements of section 49-323. In its disclosure statement, ADEQ was required to provide the legal theories on which its response was based, including citations of pertinent legal authorities. ARIZ. ADMIN. CODE § R2-17-110(A)(2).

50. ADEQ first raised the issue in Motions to Dismiss it filed on May 23, 2017. In its Motions, ADEQ argued that the Coalition Appellants are not "persons" within the meaning of sections 49-323 and 49-201(27), and that the Tribe could not show that it will suffer the requisite harm. Those Motions were denied in Case Management Order No. 3 issued on July 20, 2017.

51. In its Closing Argument, ADEQ asserts that:

(1) The San Carlos Apache Tribe is not adversely impacted and will not with reasonable probability be adversely impacted by the Permit and therefore has no standing to challenge ADEQ's issuance of the Permit under section § 49-324(A).

(2) Appellants Concerned Citizens and Retired Miners and Save Tonto National Forest are unincorporated associations and therefore lack the capacity to challenge ADEQ's issuance of the Permit. And,

(3) Appellant Arizona Mining Reform Coalition, Inc. failed to comply with section R2-17-103(A) and therefore lacks the capacity to challenge ADEQ's issuance of the Permit.

52. ADEQ's arguments are effectively that of an affirmative defense in which it bears the burden of proof. *See* ARIZ. ADMIN. CODE § R2-19-119 (burden on the proponent of a motion and burden on party asserting an affirmative defense).

The Tribe

53. ADEQ asserts that the Tribe has no "standing" to bring its appeal. ADEQ's argument conflates standing, "which is a prudential doctrine by which courts eschew

deciding issues when the plaintiff fails to allege a sufficient injury … with the question of who is statutorily authorized … to file objections in [a WQAB] administrative proceeding under" section 49-323. *See Ariz. Dep't Water Res. v. McClennen*, 238 Ariz. 371, 376, 360 P.3d 1023, 1028 (2015)(citation omitted).

54. Although section 49-323 requires an appellant to show it will, or with reasonable probability may be, adversely affected by ADEQ's action, that statute has "has nothing to do with satisfying standing to file a lawsuit. Rather, [as pertinent to this matter] it allows certain persons to file objections to" ADEQ's decision to issue the Permit. Id. at 377, 360 P.3d at 1029.

55. As such, the relevant inquiry is whether the Tribe meets the statutory requirements set out in section 49-323(A). The preponderance of the evidence shows that the Tribe does meet those requirements.

56. The Tribe is a person within the meaning of sections 49-201(27).

57. The Tribe presented substantial, credible evidence showing that within the meaning of section 49-323(A), it is a "person who may with reasonable probability be adversely affected by" ADEQ's issuance of the Permit. The Tribe's evidence on this point went virtually unchallenged, and was wholly unrebutted.

58. To the extent that the standards for judicial standing should be considered, the Tribe presented substantial, credible, and unrebutted evidence supporting a finding that it meets the associational standing requirements as described in *Armory Park Neighborhood Ass'n v. Episcopal Cmty. Servs.*, 148 Ariz. 1, 712 P.2d 914 (1985), and that it meets the requirements of the *parens patriae* doctrine as described in *Snapp v. Puerto Rico*, 458 U.S. 592 (1982).

The Coalition Appellants

59. In ADEQ's Closing Argument, it asserts that because the Concerned Citizens and Retired Miners and Save Tonto National Forest are unincorporated associations, they lack the capacity to challenge ADEQ's issuance of the Permit, and that the Arizona Mining Reform Coalition, Inc. did not file an appeal and so does not meet ARIZ. ADMIN. CODE section R2-17-103(A)

60. In its Response Brief, ADEQ asserts that for the reasons raised in its Closing Argument, the Coalition Appellants do not have standing. ADEQ also adds that Concerned Citizens and Retired Miners and Save Tonto National Forest are not jural entities.

61. As set out above, the proper inquiry is not whether the Coalition Appellants meet the standing requirements used in the court system, but rather whether these Appellant meet the statutory requirements of section 49-323.

62. Section 49-323 on its face does not include a requirement that a person be a jural entity, and ADEQ provided no legal authority showing that the statute has such a requirement.

63. As defined in section 49-201(27), a "person" includes an "association." An "association" is "2. A gathering of people for a common purpose; the persons so joined. 3. An unincorporated organization that is not a legal entity separate from the persons who compose it." Black's Law Dictionary 148 (10th ed. 2014); see also American Heritage College Dictionary 87 (4th ed. 2002) (An "association" is "2. An organized body of people who have some interest, activity, or purpose in common; society.").

64. The preponderance of the evidence shows that Concerned Citizens and Retired Miners and Save Tonto National Forest are persons within the meaning of section 49-201(27) and meet the requirements to bring an appeal set out in section 49-323.

65. The Arizona Mining Reform Coalition before its incorporation also met the definition of a person. The issue with respect to the Arizona Mining Reform Coalition is whether its incorporation rendered it a new organization/person such that the appeal from the unincorporated association was no longer valid.

66. ADEQ presents no substantial evidence or legal argument to show that the Arizona Mining Reform Coalition's appeal was rendered inoperative by its decision to incorporate while the matter was pending.

67. The preponderance of the evidence shows that Arizona Mining Reform Coalition is a person within the meaning of section 49-201(27) and meets the requirements to bring an appeal set out in section 49-323.

Conclusion

68. ADEQ erred when it determined that Shaft 10 and the other mine features were not new sources as defined in 40 C.F.R. § 122.2 because it did not properly apply the applicable regulations' definitions. By failing to properly apply the applicable definitions, ADEQ has acted "without adequate determining principle," and its decision on this issue was arbitrary. *See Maricopa County Sheriff's Office.*

69. Appellants have not shown that any of ADEQ's other decisions were was arbitrary, unreasonable, unlawful or based upon a technical judgment that is clearly invalid.

70. The preponderance of the evidence shows that the Coalition Appellants and the Tribe meet the requirements to appeal ADEQ's decision to issue the permit.

71. Considering the above, the matter should be remanded to ADEQ to allow it to conduct an analysis as required by 40 C.F.R. § 122.29(b).

ORDER

IT IS ORDERED that this matter is remanded to ADEQ to allow it to conduct an analysis as required by 40 C.F.R. § 122.29(b);

IT IS FURTHER ORDERED that the remainder of Appellants' appeals are denied.

In the event of certification of the Administrative Law Judge Decision by the Director of the Office of Administrative Hearings, the effective date of the Order is five days after the date of that certification.

Done this day, October 15, 2018.

/s/ Thomas Shedden
Thomas Shedden
Administrative Law Judge

Transmitted electronically to:

Lisa Kautz, Clerk
Water Quality Appeals Board