IN THE SUPREME COURT
STATE OF ARIZONA

SAN CARLOS APACHE TRIBE, Appellant, v. STATE OF ARIZONA, ARIZONA WATER QUALITY APPEALS BOARD, ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY, Appellees.	Supreme Court No. CV-22-0290-PF Court of Appeals Div. One No. 1-CA-CV-21-0295 Maricopa County Superior Court No. LC2019-000264-001
RESOLUTION COPPER MINING, LLC, Intervenor/Appellee.	

BRIEF OF *AMICI CURIAE* AMERICAN EXPLORATION AND MINING ASSOCIATION, NATIONAL MINING ASSOCIATION, ARIZONA MINING ASSOCIATION, AND MONTANA MINING ASSOCIATION IN SUPPORT OF INTERVENOR/APPELLEE RESOLUTION COPPER MINING, LLC

SQUIRE PATTON BOGGS (US) LLP
Brian A. Cabianca
2325 E. Camelback Road, Suite 700
Phoenix, Arizona 85016
Telephone: (602) 528-4160
Facsimile: (602) 253 8129
brian.cabianca@squirepb.com

Attorney for *Amici Curiae*

TABLE OF CONTENTS

Page

TABLE OF AUTHORITIES

Page(s)

Cases

Statutes

Other Authorities

INTEREST OF AMICI CURIAE

Amici curiae, [1] American Exploration & Mining Association ("AEMA"), National Mining Association ("NMA"), Arizona Mining Association ("AMA"), and Montana Mining Association ("MMA") (together "*Amici*"), are leading national and state mining associations whose members have been actively involved for decades in the entire mining life cycle, beginning with exploration and including development, mineral extraction, processing, and mine reclamation and closure.

AEMA is a 128-year-old, 1,400-member national trade association representing the mineral development and mining industry, with members residing in 45 states, including Arizona. Its members range from the largest independent, global mine owners to small exploration companies. AEMA is the recognized national representative for the exploration sector, the junior mining sector, and mineral developers interested in maintaining access to public lands.

The NMA is a national trade association whose approximately 280

[1] Pursuant to Rule 16(b)(2), A.R.C.A.P., no counsel for a party authored this brief in whole or in part and no person or entity other than Amici, their members, and their counsel made a monetary contribution to its preparation or submission.

members include most of the domestic producers of metals, coal, agricultural and industrial minerals; manufacturers of mining equipment; and firms serving the mining industry. NMA's members explore for and develop minerals on federal, state, and private lands throughout the United States, including in Arizona. NMA's members produce a range of mineral commodities, all of which are essential to U.S. national security and economic prosperity.

The AMA is a non-profit corporation comprised of entities engaged in mining and mineral processing in Arizona. In 2022, AMA member companies produced approximately 74 percent of the nation's newly mined copper and significant amounts of associated co-products (gold, silver, selenium, tellurium and molybdenum). Arizona's hardrock mining industry employs over 13,500 people directly and 47,000 indirectly, contributing an estimated $14.2 billion annually to the Arizona economy.

The MMA is a trade association dedicated to serving its members by protecting and promoting the hard rock mining industry in Montana for more than forty years. MMA members are engaged in the exploration, production, and processing of minerals, including gold, silver, copper,

molybdenum, platinum group, and industrial minerals including talc, limestone, and cement. MMA's membership includes associate businesses that provide essential goods and services to the mining sector. MMA serves its members by monitoring and acting on issues of concern to the mining industry at the state, regional, and national levels.

INTRODUCTION

Amici's mining member operations are subject to the Clean Water Act ("CWA"), 33 U.S.C. § 1251 *et seq*., and routinely seek National Pollutant Discharge Elimination System ("NPDES) permits, under Section 402 of the CWA, 33 U.S.C. § 1342, including mine drainage discharge permit renewals, like the permit at issue in the Court of Appeals' opinion in *San Carlos Apache Tribe v. State*, No. 1 CA-CV 21-0295 (Nov. 15, 2022) ("Opinion"). *Amici* have a direct interest in correct, nationally uniform application of the CWA to their members.

The Opinion contains material errors in interpreting and applying the CWA federal "new source" regulations[2] and incorrectly interprets the

[2] The federal regulations at issue in this case have corresponding state regulations (e.g., A.A.C. R18-9-A901(25) ("new source" definition); A.A.C. R18-9-A905(A)(1)(e) (incorporating by reference the July 1, 2003, version of 40 C.F.R. § 122.29)). However, the parties and the Court of Appeals

definition of "mine" in CWA implementing regulations at 40 C.F.R. § 440.132(g). *Amici's* members will be adversely affected if the Opinion is not reversed. *Amici* can provide valuable information, perspective, and argument to help the Court evaluate the issues in this case from a national perspective, adding to the insights and argument of the parties.

FACTUAL BACKGROUND

Amici adopt the statement of facts presented by Intervenor Appellee, Resolution Copper Mining, LLC ("RCM") in the "BACKGROUND" section of RCM's Supplemental Brief ("RCM Brief").

ARGUMENT

A. Minerals are Key to the Energy Transition

Copper is the material of choice in electrical wiring and has been called "the metal of electrification." Global demand for copper is expected to rise dramatically as the world looks to vehicle electrification and clean energy. U.S. demand for copper doubled from 2017 to 2022[3] and is

---

almost exclusively relied on citations to and interpreted the federal statutes and regulations.

[3] *Critical Minerals Market Review 2023*, International Energy Agency, at 7, 12, https://iea.blob.core.windows.net/assets/afc35261-41b2-47d4-86d6-d5d77fc259be/CriticalMineralsMarketReview2023.pdf.

projected to double again by 2035,[4] principally driven by electric vehicles and renewables deployment and integration into the power grid, with more demand increases to come in the future.[5]

Congress has recognized the need for increased domestic mineral production. In the Infrastructure Investment and Jobs Act, Pub. L. 117-58, 135 Stat. 961 (Nov. 15, 2021), Section 40206(b), Congress identified critical minerals as fundamental to the nation's economy, competitiveness, and security. In the Inflation Reduction Act of 2022, Pub. L. 117-169, 136 Stat. 1818 (Aug. 16, 2022), Section 13401, Congress adopted a host of electric vehicle and battery component incentives to promote domestic extraction, processing, and recycling of the battery minerals and components. The U.S. Department of Energy has also recently listed copper as a critical material under the Energy Act of 2020. 88 Fed. Reg. 51,792 (August 4, 2023).

The mining industry also plays an important role in our domestic economy, contributing nearly $100 billion in value of domestically mined,

---

[4] *Inflation Reduction Act: Impact on North American Metals And Minerals Market, Final Report,* S & P Global (August 2023) at 70-71.
[5] *See* S&P Global, The Future of Copper: Will the Looming Supply Gap Short-Circuit the Energy Transition? 10 (2022).

nonfuel minerals to the United States' economy in 2022.[6] The estimated value of domestic metal mine production in 2022 was $34.7 billion, with copper production leading the way, representing 33 percent of that value. *Id.* at 6. Arizona is the leading copper-producing state in the U.S. and in 2022 accounted for approximately 70% of domestic output, valued at an estimated $7.7 billion. *Id.* at 62. However, the U.S. still imports 41 percent of the refined copper consumed. *Id.* at 7, Figure 2.

Why is any of this relevant? The Opinion's analysis of the CWA new source regulations is a matter of first impression and, as applied to the mining sector, is the most expansive scope of analysis of the issue by any federal or state court. If it stands and an individual shaft is interpreted to be a mine, it will upend CWA implementation by incorrectly triggering new source review requirements during each CWA NPDES discharge permit five-year renewal for every new feature or component at mines across the country, hindering our members' domestic production of minerals critical to the energy transition.

This is not a trivial concern; in a 2011 study, the U.S.

---

[6] U.S. Geological Survey, *Mineral Commodity Summaries 2023* (2023) at 5 and Figure 1, https://pubs.usgs.gov/periodicals/mcs2023/mcs2023.pdf.

Environmental Protection Agency ("EPA") identified 263 active mines in the relevant regulatory category (40 C.F.R. Part 440 Subpart J "Copper, Lead, Zinc, Gold, Silver, and Molybdenum Ores").[7] These mines are subject to comprehensive state and federal environmental requirements, including but not limited to the CWA. Adding new source performance standard ("NSPS") requirements for every new feature or component at a mine (e.g., a tunnel, shaft, material conveyor system, etc.) every five years will unnecessarily delay an already protracted permitting process.[8] Reversal of the Opinion is vital to provide a stable CWA NPDES permitting framework for *Amici's* members and to support national energy transition goals, while continuing to ensure protection of water quality.

B. Shaft 10 is Not a "Mine"

The Opinion misinterprets the definition of a mine. Shaft 10 is not itself a "mine"; it is a component of an existing mine that has been

[7] *Ore Mining and Dressing Preliminary Study Report*, EPA-820-R-10-025 (September 2011) at 1-1.

[8] *See, e.g.*, Western Governors' Association June 2022 National Minerals Policy (Policy Resolution 2022-08), ¶ B.8., https://westgov.org/images/editor/WGA-PR-2022-08-National-Minerals-Policy81.pdf.

operating since 1912 and has been permitted under the CWA for decades. In light of the Court of Appeals' fundamental misunderstanding of the scope and operation of the term "mine," *Amici* provide some perspective.

1. A "Mine" Includes Many Features and Operations

At the request of Congress, the National Research Council ("NRC") conducted a study of the regulatory framework for hardrock mining on federal lands.[9] NRC's analysis recognizes that "[m]any [new] discoveries of ore deposits are made in or near old mining districts." *Id.* at 135, Appendix A. Once exploration has revealed an economic mineral deposit, mining activity typically consists of continued exploration, mine development, mining (extraction), mineral processing, and reclamation. *See id.*, at 138. In addition to ore production—which may be by open pit or underground and include shafts and tunnels—a mine may include infrastructure such as roads and power lines; support facilities, including office and maintenance shops; processing facilities such as heap leach pads and solvent extraction/electrowinning units; and surface locations for waste piles and stockpiles. *See id.*, at 141.

[9] National Research Council, *Hardrock Mining on Federal Lands* (The National Academies Press 1999).

Mines may be located on private property or public lands open for mineral entry under the General Mining Laws (30 U.S.C. § 22 *et seq*.). The geographic extent of a mine on public lands is established by mining claims (*see* 43 C.F.R. Part 3833 (U.S. Bureau of Land Management); 36 C.F.R. Part 228 (U.S. Forest Service)) and its operations are set by its mine plan of operations (*see* 43 C.F.R. Subpart 3809; 36 C.F.R. § 228.5).

Given that a mine's purpose is to produce ore, mines frequently expand as exploration identifies new ore sources. A mine plan for a mine on public lands can be modified at any time during operations to expand the mine or incorporate new facilities or operations. *See* 43 C.F.R. § 3809.430; 36 C.F.R. § 228.4(e).

2. EPA's CWA "Mine" Definition Includes Many Structures as Part of a Single "Mine"

In the regulations implementing the CWA's Section 402 NPDES permitting program, EPA defines a "mine" as:

> 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.

40 C.F.R. § 440.132(g) (emphasis added). The definition explicitly includes a broader geographic site and set of structures than a single mine shaft.

This broad language was no mistake; EPA well understood the full scope of activities at a "mine" when it developed the Ore Mining and Dressing Point Source Category effluent limits and new source performance standards. EPA described the industry as both "large and diverse" and defined a mine as a location where minerals, known as "ore," are extracted from natural deposits, including extraction and recovery of metal ores from mining or concentration. 47 Fed. Reg. 25,682, 25,683 (June 14, 1982). EPA identified four principal mining methods, among them underground mining and, in that category, included various excavation as well as caving methods. *Id.* EPA recognized mine drainage management as "an integral part of most mining systems." *Id.* at 25,684.

A mine necessarily includes the ore body and access to ore via shafts, tunnels, or open pits. *See, e.g.*, 47 Fed. Reg. 25,682, 25,684 (June 14, 1982) ("mining follows the ore body"). As EPA explained, a mine generally includes drill sites; processing facilities such as mills, smelters, and flotation circuits; waste rock and tailing disposal areas; support

facilities, structures, and buildings; and access routes. *Id.* at 25,683-25,684; 43 C.F.R. § 3809.401; 36 C.F.R. §§ 228.4-228.5.

Contrary to the arguments of the San Carlos Apache Tribe ("Tribe"), in developing the CWA limits applicable to mining discharges, EPA did not limit a "mine" to extraction; did not distinguish caving methods as a new or different mining operation; and included mine drainage management as an integral part of a mine.

3. The RCM Mine Includes the Entire Mine Site

Applying EPA's "mine" definition to the RCM mine, the Arizona Department of Environmental Quality properly considered all mining claims and areas within RCM's mine plan of operations as within the definition of the "mine." The undisputed facts establish that the mine site includes "two non-contiguous areas identified as the West Plant Site (the 'WPS') and the East Plant Site (the 'EPS')" (Opinion ¶¶ 5–6) that are approximately two miles apart and connected by the Never Sweat Tunnel. "The mining site included two large copper-ore deposits. The first was . . . located in the WPS. The second is . . . located in the EPS." *Id.* Both ore deposits were owned by Magma Copper Company, the original mine owner. *Id.*; Petitioner's Appendix to Petition for Review, APP080 ¶ 58.

The mining site includes ten mine shafts (including Shaft 10), the MWTP which treats all mine drainage (defined in 40 C.F.R. § 440.132(h)), and various other ancillary facilities. Opinion ¶¶ 6, 9, 11.

4. The Opinion Erred in Defining "Mine"

The Court of Appeals' Opinion misinterprets the definition of the term "mine" under 40 C.F.R. § 440.132(g). The Opinion properly quotes from that provision, noting that a "mine" includes "all land and property" "used in or resulting from the work of extracting metal ore or minerals from their natural deposits." *Id.* Then, without basis, the Opinion determines that a single feature at the RCM mine—Shaft 10—is a mine. The Opinion errs by inserting the words "discrete structure," incorrectly characterizing a "mine" as a "*discrete structure* used for 'extracting ores or minerals.'" Opinion ¶ 43 (emphasis added). The words, "discrete structure," do not appear anywhere in the EPA definition; indeed, they are contrary to the EPA's broad definition of a "mine," which includes "all land and property" "used in or resulting from the work of extracting metal ore or minerals from their natural deposits." 40 C.F.R. § 440.132(g).

And even if such language did appear in the regulatory definition, Shaft 10 is not a discrete structure. It is fully integrated with the mine

workings, is connected to Shaft 9, provides ventilation, supports removal and treatment of mine drainage, and is connected via the Never Sweat Tunnel to the WPS. Opinion ¶¶ 5, 6, 9. A single mine shaft simply does not include the necessary facilities to remove ore from a natural deposit, provide access, or ventilate and dewater the shaft. Shaft 10 is no exception; it, alone, does not meet the EPA's definition of "mine." Shaft 10 is not a mine.

The Opinion further errs by conflating the terms "active mining area" and "mine," using these defined terms interchangeably. *See* Opinion ¶ 42 ("[I]f a source would qualify as an 'active mining area,' it would also qualify as a 'mine.' . . . [B]oth an 'active mining area' and 'mine' neatly fit into the term 'site.'"); *id.*, ¶ 45 (asserting that EPA "provided an independently applicable standard for mining shafts—at least to the extent they qualify as 'mines' or 'active mining areas'"). This approach violates a fundamental rule of statutory construction—that all provisions should be given meaning. *See State v. Francis*, 243 Ariz. 434, 435 ¶ 6 (2018). The Court should not use this incorrect interpretation to treat Shaft 10 as a "mine."

C. Shaft 10 Is Not a Clean Water Act New Source

1. EPA's NPDES Permitting Framework Is Nationally Applied and Implemented by States and Tribes

Under CWA Section 306, EPA established minimum discharge limits for existing and new sources. NPDES permits are issued for five years, subject to renewal. The CWA Section 402 NPDES permit program is delegable, in whole or part, to states and tribes that meet minimum requirements. The Section 306 standards set a floor and authorized states may impose more stringent requirements. *See, e.g.,* Ore Mining and Dressing Point Source Category, Copper, Lead, Zinc, Gold, Silver, and Molybdenum Ores Subcategory, 40 C.F.R. Part 440, Subpart J. All states except Massachusetts, New Hampshire, New Mexico, and the District of Columbia have been fully or partially authorized.[10]

The Court of Appeals' analysis of 40 C.F.R. Part 440, Subpart J, is a matter of first impression and the most expansive treatment of the issue by any federal or state court. Since these CWA provisions are delegable, the interpretation may be followed by other states throughout

[10] https://www.epa.gov/npdes/npdes-state-program-authority; *see also Ore Mining and Dressing Preliminary Study Report*, EPA-820-R-10-025 (September 2011) at 4-1.

the country, with negative consequences for mining operations that will thwart efforts to increase domestic mineral production. A majority of mines have a discharge permit[11] and each such permit must be renewed on a five-year cycle. If each new mining technique or mine component—whether a shaft, a pit expansion, or an adit—were to trigger a new source permit, already complex and protracted permitting procedures would be exacerbated; industry expansion and innovation would grind to halt. That is not how 40 C.F.R. § 122.29 was intended to operate. And often, as with RCM, the additional permitting time, money, and effort would not yield additional environmental benefit beyond that already achieved by state standards and permitting and monitoring requirements.

The Opinion erred by, *inter alia*, misinterpreting 40 C.F.R. §122.29(b) to define "new source" incorrectly. *See* Opinion ¶¶ 49, 52–57, and 61. The Court of Appeals compounded this error by failing to hue to the language in § 122.29(b)(2) (*id.* ¶ 49) and creating its own, new "substantially separate" test (*id.* ¶ 61). Lastly, the Opinion reflects a fundamental misunderstanding of the CWA Section 306 performance

[11] *Id.* at 1-1 (reporting that 294 of 345 U.S. ore mines at the time of the study had an NPDES permit).

standards in concluding that "shaft 10 is subject to [new source performance standards] under 40 C.F.R. § 440.104(a)." *Id.* ¶ 49. No Section 306 standards apply to an individual shaft.

2. Shaft 10 is Not a New Source Because it is Not Substantially Independent of Existing Site Sources

The EPA regulations at the heart of this dispute—40 C.F.R. §§122.2 and 122.29—must be read together to define "new source" under the Clean Water Act because 40 C.F.R. § 122.29(b)(1) defines a source as a "new source" only "if it meets the definition of 'new source' in § 122.2, *and* [one of the three new source criteria in paragraphs (b)(1)(i), (ii), or (iii)]." 40 C.F.R. § 122.29(b)(1) (emphasis added). Here, Shaft 10 does not meet any of the new source criteria set out in § 122.29(b)(1).

There is no dispute that neither criterion in 40 C.F.R. §122.29(b)(1)(i) or (ii) apply to Shaft 10. 40 C.F.R. § 122.29(b)(1)(i) is not met because Shaft 10 is not at "a site at which no other source is located"; the shaft is a component of the existing RCM mine. *See* Opinion ¶ 5. This is consistent with EPA's interpretation of "new source," as it explained after evaluating examples of new construction at an existing source site, it found only the example of construction at a "green field"

site would qualify as a new source under the § 122.29(b) criteria.[12]

Likewise, 40 C.F.R. § 122.29(b)(1)(ii) is not met because Shaft 10 does not "totally replace[ ] the process or production equipment that causes the discharge of pollutants at an existing source [the RCM mine]". *See, e.g.*, Opinion ¶ 11 ("Resolution uses shaft 8 to dewater the WPS . . . shaft 9 to support shaft 10, such as for ventilation and flowing mine drainage from shaft 9 to shaft 10 . . . [and] uses the Never Sweat Tunnel to pump mine drainage from shaft 10 to the WPS, where the MWTP processes it."); ¶ 59 ("none of the parties have given us any reason to determine Resolution is using shaft 10 to replace shaft 9").

The Opinion goes astray in its interpretation of the third criterion, 40 C.F.R. § 122.29(b)(1)(iii), in evaluating whether Shaft 10 "processes are substantially independent of an existing source at the same site," resulting in the Court of Appeals incorrectly concluding that Shaft 10 is a "new source." The Opinion erroneously concludes that Shaft 10 is not integrated with the existing mining operations by applying a newly

[12] Preamble to Final Rule, Ore Mining and Dressing Point Source Category Effluent Limitations Guidelines and New Source Performance Standards, 47 Fed. Reg. 54602 (Dec. 3, 1982).

minted test: "shaft 10 is not some insignificant process." Opinion ¶ 57. EPA's factors instead demonstrate that the third criteria is *not* met.

The EPA's first factor to determine whether a source is "substantially independent" is "the extent to which the new facility is integrated with the existing plant." 40 C.F.R. § 122.29(b)(1)(iii). EPA has determined that "management of mine drainage is an integral part of most mining systems." 47 Fed. Reg. 25,682, 25,684 (June 14, 1982). Thus, the integrated use of multiple shafts, including Shaft 10, and the Never Sweat Tunnel for mine drainage management, along with the "use of other facilities from other areas of the mining site to assist in ore production" (Opinion ¶ 57), reflect that Shaft 10 is integrated with the existing plant. As noted by the dissent:

> The use of Shaft 9, the Never Sweat Tunnel, and Shaft 10 for interlocking systems of ventilation and drainage are not mere utilities . . . but are part of the mining process itself and essential physical features of the mine structure . . . Even assuming these are utilities, they nonetheless support a finding of the substantial integration of Shafts 9 and 10.

Dissent, ¶¶ 86, 87.

The second factor EPA considers to determine whether a source is "substantially independent" is "the extent to which the new facility is engaged in the same general type of activity as the existing source." 40

C.F.R. § 122.29(b)(1)(iii). EPA explains that this second factor focuses on whether "the proposed facility is engaged in a sufficiently similar type of activity as the existing source," in which case the facility "*will not* be treated as a new source." 49 Fed. Reg. 38,044 (Sept. 26, 1984) (emphasis added).

Even the Opinion recognized that shafts 8, 9, and 10 were used for ventilation and managing mine drainage and were connected via the Never Sweat Tunnel to the MWTP. Opinion ¶¶ 9, 10, and 11. Shaft 10's use is "a sufficiently similar type of activity as the existing source," making Shaft 10 an existing source. The Opinion errs by concluding that Shaft 10 replicates the existing RCM mine. Opinion ¶¶ 58–59. When applied correctly, none of the factors in 40 C.F.R. § 122.29(b)(1) are met regarding Shaft 10.

3. NSPS Applies to Mines, Not Shafts

EPA conducted an extensive study of the ore mining and dressing industry, including copper mines, to develop the applicable point source discharge standards for the ore mining industrial category. 47 Fed. Reg. 25,682, 25,685, 25,715-25,717 (June 14, 1982). EPA only subcategorized mines based upon two factors: (i) ore type (e.g., base and precious metals

(including copper)); and (ii) whether the facility is a mine or a mill. *Id.* at 25,690. EPA adopted the 40 C.F.R. § 122.29(b)(2) new source performance standards for copper mines and mills. *See* 40 C.F.R. Part 440, Subpart J. There are no new source performance standards for individual shafts. *See* 40 C.F.R. §§ 440.100(a) and 440.104(a). Shaft 10 is not a new source and the Court of Appeals erred in finding the contrary.

CONCLUSION

Neither Shaft 10 nor the mine is a CWA "new source." The Court of Appeals' incorrect reading could have serious implications for domestic mining and the minerals needed for the energy transition. For the foregoing reasons, this Court should vacate the Court of Appeals' decision and affirm the Superior Court's judgment.

Respectfully submitted this 26th day of September, 2023.

SQUIRE PATTON BOGGS (US) LLP

/s/ Brian A. Cabianca
Brian A. Cabianca
2325 E. Camelback Road, Suite 700
Phoenix, Arizona 85016
Telephone: (602) 528-4160
Facsimile: (602) 253 8129
brian.cabianca@squirepb.com

Attorneys for *Amici Curiae*