August 9, 2022

*Via Email, and Certified Mail, Return Receipt Requested*

Michael S. Regan  
Administrator  
U.S. Environmental Protection Agency  
1200 Pennsylvania Ave., N.W.  
Washington, D.C. 20460  
Regan.Michael@epa.gov

Martha Guzman  
Regional Administrator, Region 9  
U.S. Environmental Protection Agency  
75 Hawthorne Street  
San Francisco, CA 94105  
Guzman.Martha@epa.gov

Misael Cabrera, Director  
Arizona Dept. of Environmental Quality  
1110 W. Washington Street  
Phoenix, AZ 85007  
cabrera.misael@azdeq.gov

**RE: Notice of Intent to Sue EPA Under the Clean Water Act**

Dear Administrators Regan and Guzman:

The Arizona Mining Reform Coalition, Grand Canyon Chapter of the Sierra Club, Center for Biological Diversity, Earthworks, and the Concerned Citizens & Retired Miners Coalition, through their undersigned counsel, provide notice of their intent to sue the United States Environmental Protection Agency (“EPA”) under the Clean Water Act, 33 U.S.C. § 1365(a)(2), for failing to establish and promulgate a Total Maximum Daily Load (“TMDL”), for copper, lead, selenium, and other pollutants in Queen Creek in Arizona, a nondiscretionary duty under the Clean Water Act that EPA has failed to meet. 33 U.S.C. § 1313(d).

Unless EPA remedies these violations, these organizations intend to file suit in U.S. District Court under the citizen suit provision of the Clean Water Act following the expiration of the sixty-day notice period, seeking injunctive and declaratory relief as well as reasonable attorney fees and litigation expenses.
The Ongoing and Un-remediated Impairment of Queen Creek and the Failure of Arizona and EPA to Promulgate the Required TMDL

Queen Creek will be on the receiving end of discharges from the copper mining project proposed by Resolution Copper Co. (corporate name for the joint Rio Tinto and BHP Copper “Resolution Copper Project”). This massive copper mining project will discharge significant amounts of copper and other pollutants into Queen Creek.

The Resolution Copper Project is one of the most controversial mining projects in the country, and its immense and permanent impacts to, and destruction of, irreplaceable Native American sacred sites, such as Oak Flat and Ga’an Canyon, as well as the pollution of Queen Creek, deserve EPA’s immediate attention and action. EPA has correctly recognized its duties to Indian Tribes and indigenous communities to protect vital cultural, religious, and historical resources as part of EPA’s commitment to Environmental Justice. See https://www.epa.gov/environmentaljustice/environmental-justice-tribes-and-indigenous-peoples (viewed August 8, 2022).

Arizona, under section 303(d) of the Clean Water Act, is required to identify its polluted waters and to establish a total maximum daily load for each pollutant in the water body. A TMDL analysis must then be completed to establish baseline measurements of pollutant materials in those water bodies and to identify potential reductions needed to attain standards.

Queen Creek Reach No. 15050100-014A, (headwaters to the Superior Wastewater Treatment Plant discharge), has been listed on Arizona’s 303(d) list as impaired for dissolved copper since 2002. Reach No. 15050100-014B, (Superior Wastewater Treatment Plant discharge to Potts Canyon) has been listed as impaired for dissolved copper since 2004. Reach No. 15050100-014C (Potts Canyon confluence to the Whitlow Dam) has been listed as impaired for dissolved copper since 2010. This first reach is also impaired for lead (2010) and selenium (2012). See Arizona’s 303(d) List of Impaired Waters. See Arizona’s current (2022) 303(d) List of Impaired Waters: “ARIZONA’S 2022 CLEAN WATER ACT ASSESSMENT (JULY 1, 2012 TO JUNE 30, 2021) Integrated 305(b) Assessment and 303(d) Listing Report.” pn_draft2022cwaa.pdf (azdeq.gov) (viewed August 8, 2022); https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fstatic.azdeq.gov%2Fwqd%2Fwqa%2F2022_cwaa_app.xlsx&wdOrigin=BROWSELINK (appendices to Assessment Report, listing Queen Creek as a Priority 5 Impaired Water) (viewed August 8, 2022).

Just recently, EPA approved ADEQ’s proposed 303(d) list (with objections for waters not relevant here). June 16, 2022 letter from Tomás Torres, Director, EPA Region 9 Water Division, to Trevor Baggiore, Director, ADEQ Water Quality Division. As EPA stated to ADEQ, for Priority 5 Waters such as Queen Creek: “Available data and/or information indicate that at least one designated use is not being support[ed] or is threatened, and a TMDL is needed.” EPA Torres letter, at 2 (emph. added)(attached).

Yet neither EPA nor ADEQ has taken any meaningful action, for years, to promulgate the TMDL. And this continues to be the case, despite EPA’s statement that “a TMDL is needed” for a Priority 5 Water such as Queen Creek.

ADEQ obtained primacy to administer Section 402 discharge permits (NPDES permits) under the Clean Water Act in 2002. https://www.epa.gov/npdes/npdes-state-program-authority. In doing so, ADEQ agreed,
among other things, that it would “[d]evelop and maintain, to the maximum extent possible, the legal
authority and the resources required to carry out all aspects of the AZPDES program” and [m]aintain a
vigorous program of taking timely and appropriate enforcement action” under the Clean Water Act. See
National Pollutant Discharge Elimination System Memorandum of Agreement Between the State of Arizona
and the United States Environmental Protection Agency Region 9 (“NPDES MOA between State of Arizona
npdes.pdf (viewed August 8, 2022). ADEQ’s longstanding failure to complete a TMDL for Queen Creek,
while simultaneously renewing or reissuing AZPDES permits that will allow continued waste loading to
Queen Creek fails to meet ADEQ’s obligations under the law and the commitment it gave to EPA when it
secured primacy under Section 402 of the CWA. In fact, ADEQ’s failings in administering its obligations
under the CWA was recently noted by the Arizona Auditor General, who observed ADEQ “has not developed
all required aquifer water quality standards, conducted key ongoing groundwater monitoring of the State’s
aquifers, monitored for agricultural pesticides in groundwater and surrounding soil, or reduced the number
of impaired surface waters in the State, limiting its ability to keep these waters safe from pollution.” AZ
Auditor General Report No. 21-116 (Ariz. Dept. of Environmental Quality - Water Quality Protection
Responsibilities), Sept. 2021 (emph. added).\(^1\)

ADEQ and EPA have long known that Queen Creek does not meet the water quality standards for copper,
lead, and selenium, and that because of this pollution, beneficial uses of the stream are not being
protected. Recognizing this, in 2017, ADEQ proposed a TMDL for Queen Creek, stating that: “The
Arizona Department of Environmental Quality (ADEQ), in accordance with Section 303(d) of the Clean
Water Act, has developed a Total Maximum Daily Load (TMDL) analysis for three reaches of Queen
Creek located near Superior, Ariz. TMDL’s have also been developed for Arnett Creek and two unnamed
drainages. ADEQ has determined through sample collection and data analysis that the six separate stream
reaches are impaired for dissolved copper.” Public Notice 9-27-17.\(^2\) ADEQ further noted the need to
promulgate a TMDL for Queen Creek: “The objective of the federal Clean Water Act is to restore and
maintain the chemical, physical, and biological integrity of the nation's waters. To fulfill this objective,
states assess their surface waters and identify which waters do not meet state surface water quality
standards. A TMDL must be completed for each pollutant ‘impairing’ (or not meeting surface water
quality standards) these waterbodies.” Queen Creek TMDL Factsheet: https://azdeq.gov/sites/default/files/middlegila_qc_headwater_fs.pdf (viewed August 8, 2022) (emph. added).

Although ADEQ published its intent to complete the Queen Creek TMDL in 2017, it has since refused to
take any further action towards developing any plan to remediate Queen Creek or promulgate the TMDL.

Instead of doing any substantive work to promulgate a TMDL for Queen Creek, ADEQ renewed an AZPDES
discharge permit to Resolution Copper for discharges into Queen Creek from the proposed Resolution Copper
Project, without the benefit and protections afforded by a TMDL. (Permit No. AZ0020389). The AZPDES
permit allows discharges of mine site stormwater from Outfall 001 and discharges of treated mine project

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\(^1\) https://www.azauditor.gov/reports-publications/state-agencies/environmental-quality-

\(^2\) https://www.azdeq.gov/notices/comment-period-begins-extended-tmdl-analysis-three-reaches-queen-creek-
arnett-creek-and-two (notice); https://static.azdeq.gov/pn/draft_tmdl_queen_arnett.pdf (Draft TMDL)(viewed
August 8, 2022).
water from Outfall 002 (as of 2010) to an unnamed wash, tributary to Queen Creek, located upstream of Boyce Thompson Arboretum and the local community of Queen Valley. Without any plan to remediate the impairments to Queen Creek, and without taking any action since 2017 to complete a TMDL, ADEQ renewed its AZPDES permit for Resolution.\(^3\) That permit renewal is currently being challenged in the Arizona appeals court by the San Carlos Apache Tribe, and ADEQ has proposed another renewal this year.

ADEQ has recognized the need for, and the obligation under the CWA to, establish a TMDL for Queen Creek since at least 2002 when Queen Creek was first recognized as being impaired for copper. While ADEQ appears to have, in initial, sporadic and limited efforts, made an attempt to initiate completion of a TMDL as required by law, ADEQ abruptly stopped work on the TMDL in 2017. In September 2018, after nine months of silence following the close of the 2017 Draft TMDL public comment period, ADEQ circulated an email with the subject: “Queen Creek TMDL Update: Project on Hold.” The email stated:

Greetings Interested Parties,
Thank you for your interest in the Queen Creek TMDL project.
Following two public meetings held by ADEQ to discuss the draft report, written feedback was gathered which revealed technical issues needing to be addressed. In order to best achieve our mission to protect public health and the environment of Arizona, ADEQ is suspending normal project activities until these issues can be completely resolved. Once resolved, we will provide an update and the TMDL project can move forward.

In April 2022, a public records request with ADEQ was filed, seeking updated documents and materials on the status of this long-overdue Queen Creek TMDL. In May 2022, the ADEQ Records Division responded, stating that “[t]here has been no movement on completing the Queen Creek TMDL,” therefore ADEQ “didn’t expect to find any more recent documentation” than the September 2017 Queen Creek TMDL draft (emph. added). This response, coupled with the years of inaction by ADEQ on the TMDL makes it clear that ADEQ has no discernible plan to promulgate the TMDL.

Instead of establishing the TMDL in conformance with the Clean Water Act, ADEQ has instead simply chosen to forego this mandatory requirement. ADEQ has not, however, decided to forego renewal of the AZPDES permit to Resolution Copper, which will result in unlawful copper loading to Queen Creek.

The Ninth Circuit Court of Appeals, in Columbia Riverkeeper v. Wheeler, 944 F.3d 1204 (9th Cir. 2019), rejected this sort of obfuscation, delay, and failure to issue a TMDL. That case involved a citizen suit to compel the EPA to develop and issue a long-overdue TMDL for the Columbia and Snake Rivers, after years of inaction by the states of Washington and Oregon. The Ninth Circuit found that “[w]here a state has failed to develop and issue a particular TMDL for a prolonged period of time, and has failed to develop a schedule and credible plan for producing that TMDL, it has no longer simply failed to prioritize this obligation. Instead, there has been a constructive submission of no TMDL, which triggers the EPA’s mandatory duty to act.” Id. at 944 F.3d at 1211 (emph. added).

ADEQ’s prolonged failure to promulgate the Queen Creek TMDL for over 20 years, the agency’s suspension of work on the TMDL since at least 2018, coupled with ADEQ’s May 2022 admission of “no movement on completing the Queen Creek TMDL,” indicates that ADEQ lacks a schedule or credible plan

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\(^3\) ADEQ Public Notice (azdeq.gov) (2016); fs_resolution_cu.pdf (azdeq.gov); https://static.azdeq.gov/pn/draft_permit_resolution_cu.pdf (viewed August 8, 2022).
for producing the TMDL and protecting Queen Creek.

Indeed, ADEQ has done the opposite of complying with this obligation, as ADEQ has renewed the AZPDES permit to Resolution Copper that will result in more copper loading to an already impaired water.

Notably, Arizona’s TMDL statutes (A.R.S. § 49-231 et seq.) require that 303(d)-listed impaired waters be developed within at least 15 years, “Total maximum daily loads that are required to be developed for WOTUS that are included for the first time on subsequent lists shall be developed within fifteen years of the initial inclusion of the water on the list.” (A.R.S. § 49-233(B))(emph. added). This has not occurred for Queen Creek. Indeed, ADEQ continues to rank the priority ratings on these water bodies as Medium and Low. See 2022 Water Quality in Arizona 305(b) Assessment Report, Appendix D.⁴

ADEQ, and EPA’s, failure to promulgate the required TMDL compounds the 20-year failure of ADEQ and EPA to address the ongoing water quality violations and impairment of Queen Creek. The following timeline highlights the agencies’ failures.

2002: Dissolved copper loading found to be exceeding surface water quality in Queen Creek (upper reach). See Arizona’s 2018 303(d) List.

2002: ADEQ reportedly began work on Queen Creek TMDL. Draft TMDL, p. 1, ¶ 2.

2004: Dissolved copper loading found to be exceeding surface water quality in Queen Creek (middle reach). Arizona’s 2018 303(d) List.

2005: ADEQ (potentially) submits grant proposal to EPA for federal funding to complete Queen Creek TMDL (est. completion 2007). See ADEQ Grant Proposal dated 2005.

2010: Lead loading found to be exceeding surface water quality in Queen Creek (upper reach). Dissolved copper found to be exceeding surface water quality in Queen Creek (lower reach). Arizona’s 2018 303(d) List.


Jul. 2010: ADEQ email to attorneys for the Inter Tribal Association of Arizona (ITAA): “Although we are nearing the end of the project, we still have a few loose ends to account for. The sampling has shown some hot spots with elevated levels of lead and copper. We are currently attempting to see if we can verify the numbers and assign a possible source.” (Excerpt) Email from ADEQ dated July 8, 2010.

2012: Selenium loading found to be exceeding surface water quality in Queen Creek (upper reach). See Arizona’s 2018 303(d) List.


Sept. 2018: ADEQ sends the following email: “Greetings Interested Parties, Thank you for your interest in the Queen Creek TMDL project. Following two public meetings held by ADEQ to discuss the draft report, written feedback was gathered which revealed technical issues needing to be addressed. In order to best achieve our mission to protect public health and the environment of Arizona, **ADEQ is suspending normal project activities until these issues can be completely resolved.** Once resolved, we will provide an update and the TMDL project can move forward.” ADEQ Email sent Sept. 18, 2018 (emph. added).

April 2021 (approx.): EPA sends what is referred to by ADEQ as a PPG Warning Letter inquiring what work ADEQ has done in lieu of the Queen Creek TMDL.

April 2022: ADEQ proposes to renew the Queen Creek AZPDES discharge permit to Resolution.

May 2022: In response to a Public Records Request for updated TMDL materials, ADEQ states: “Per the programs, the TMDL document they have for Queen Creek is dated September 18, 2017. Since there has been no movement on completing the Queen Creek TMDL, They didn’t expect to find any more recent documentation. The TMDL is officially on pause until it is reestablished by the TMDL program.” ADEQ Email sent to Montgomery & Interpreter law firm, May 17, 2022 (attached).

June 2022: EPA approves ADEQ 303(d) list, recognizing ADEQ’s ranking of Queen Creek as a “low” or “medium” priority for issuing a TMDL, but with no plans for development of the TMDL.

**EPA’s Failure to Prepare the TMDL, In the Face of ADEQ’s Refusal and Constructive Submission, Violates the Clean Water Act**

Section 303(d)(2) of the CWA requires each state to prepare and “submit to the Administrator from time to time” a list of “waters identified and loads established under” subsections 303(d)(1)(A)-(D), including (among other components) a list of waters for which technology-based effluent limitations “are not stringent enough to implement any water quality standard applicable to such waters.” 33 U.S.C. § 1313(d)(2); see also 40 C.F.R. §§ 130.7(b); 130.10(b), (d). These loads, known as TMDLs, must be “established at a level necessary to implement the applicable water quality standard with seasonal variations and a margin of safety which takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality.” 33 U.S.C. § 1313(d)(1)(C), see also 40 C.F.R. § 1365(a)(2).

Once a state submits a TMDL, EPA must “either approve or disapprove” it “not later than thirty days after the date of submission[.]” 33 U.S.C. § 1313(d)(2); see also 40 C.F.R. § 130.7(d)(2). EPA’s obligation to review and either approve or disapprove a state-submitted TMDL is a non-discretionary duty, see San Francisco BayKeeper v. Whitman, 297 F.3d 877, 880 (9th Cir. 2002), and the district courts have jurisdiction to “order the Administrator to perform such act or duty” under the CWA’s citizen suit provision, 33 U.S.C. § 1365(a)(2).
In 2019, the Ninth Circuit affirmed EPA’s nondiscretionary duty to promulgate a TMDL when faced with a state’s refusal to do so:

[t]here is no dispute that under this scheme, a state has a nondiscretionary duty to submit to the EPA a TMDL for each of the waters identified on its § 303(d) list. Nor is it disputed that the EPA has a nondiscretionary duty to approve or disapprove this submission within 30 days. If the EPA disapproves the submission, it must develop and issue its own TMDL for the impaired water within 30 days. On its face, however, § 1313(d)(2) is silent as to what duties the EPA has when a state simply fails to submit a TMDL altogether.

In San Francisco BayKeeper v. Whitman (“BayKeeper”), we adopted the constructive submission doctrine to fill this statutory gap. 297 F.3d 877 (9th Cir. 2002). In Baykeeper, we acknowledged that where a state has “clearly and unambiguously” decided that it will not submit TMDLs for the entire state, that decision will be “construed as a constructive submission of no TMDLs, which in turn triggers the EPA's nondiscretionary duty to act.” Id. at 883, 880.

Columbia Riverkeeper v. Wheeler, 944 F.3d 1204, 1208 (9th Cir. 2019). In Columbia Riverkeeper, the Ninth Circuit held that EPA’s mandatory duty to act is triggered by a constructive submission “where a state fails to develop and issue a particular TMDL for a prolonged period of time and has failed to develop a schedule or credible plan for producing that TMDL.” Id. at 1211 (emph. added). Where a state, such as ADEQ here, has decided not to submit a TMDL to EPA for such a long period of time, that action will be construed as a constructive submission of a TMDL, which in turn triggers EPA’s mandatory duty to act. Id. at 1208, 1210.

“We reaffirmed this principle in City of Arcadia v. U.S. Environmental Protection Agency, holding that ‘[t]he EPA is also under a mandatory duty to establish a TMDL when a State fails over a long period of time to submit a TMDL; this prolonged failure can amount to the constructive submission of an inadequate TMDL, thus triggering the EPA's duty to issue its own.’” 411 F.3d 1103, 1105 (9th Cir. 2005)(internal quotation marks omitted).” Columbia Riverkeeper, at 1208.

Reading the constructive submission doctrine in this way does not rob states of this ability to prioritize particular TMDLs. Rather, it recognizes a meaningful difference between affording less priority to a particular TMDL and declining to develop and issue that TMDL at all. Where a state has failed to develop and issue a particular TMDL for a prolonged period of time, and has failed to develop a schedule and credible plan for producing that TMDL, it has no longer simply failed to prioritize this obligation. Instead, there has been a constructive submission of no TMDL, which triggers the EPA's mandatory duty to act.

Columbia Riverkeeper, at 1211.

“Because Washington and Oregon have conclusively refused to develop and issue a temperature TMDL for the Columbia and Snake Rivers, the EPA is obligated to act under §1313(d)(2). This constructive submission of no TMDL triggers the EPA's duty to develop and issue its own TMDL within 30 days, and it has failed to do so. The time has come—the EPA must do so now.” Columbia Riverkeeper, at 12011-12.

A similar situation exists at Queen Creek, as ADEQ has purposely refused to promulgate the Queen Creek TMDL, and indeed admits it has done nothing since 2017, with no intention of completing and submitting
the TMDL. As such, under the “constructive submission doctrine,” EPA has a “mandatory duty to act,” and its failure to prepare a TMDL for Queen Creek violates the CWA.

**PERSONS/PARTIES GIVING NOTICE**

**Arizona Mining Reform Coalition** works in Arizona to improve state and federal laws, rules, and regulations governing hard rock mining to protect communities and the environment. AMRC works to hold mining operations to the highest environmental and social standards to provide for the long term environmental, cultural, and economic health of Arizona. Members of the Coalition include: the Center for Biological Diversity, Concerned Citizens and Retired Miners Coalition, Concerned Climbers of Arizona, Courtland Ghost Town, Dragoon Conservation Alliance, Earthworks, Environment Arizona, Groundwater Awareness League, Maricopa Audubon Society, Save the Scenic Santa Ritas, Grand Canyon Chapter of the Sierra Club, Sky Island Alliance, Tucson Audubon Society, Arizona Trail Association, and the Valley Unitarian Universalist Congregation.

The **Concerned Citizens and Retired Miners Coalition** is a group of citizens who: 1) reside in Superior, Arizona, or do not reside in Superior, Arizona, but are affiliated with relatives who are residents; 2) are retired hard-rock miners who previously worked in the now non-operational mine in Superior, Arizona, and were displaced due to mine closure or personal disability; or 3) are individuals who are concerned that important U.S. public recreational land will be conveyed to a foreign mining company for private use.

**Earthworks** is a nonprofit organization dedicated to protecting communities and the environment from the adverse impacts of mineral and energy development while promoting sustainable solutions. Earthworks stands for clean air, water and land, healthy communities, and corporate accountability. We work for solutions that protect both the Earth’s resources and our communities.

The **Center for Biological Diversity** is a non-profit public interest organization with headquarters located in Tucson, Arizona, representing more than 1.7 million members and supporters nationwide dedicated to the conservation and recovery of threatened and endangered species and their habitats. The Center has long-standing interest in projects of ecological significance undertaken in the National Forests of the Southwest, including mining projects.

**Sierra Club** is one of the nation’s oldest and most influential grassroots organizations whose mission is “to explore, enjoy, and protect the wild places of the earth; to practice and promote the responsible use of the earth’s ecosystems and resources; and to educate and enlist humanity to protect and restore the quality of the natural and human environments.” Sierra Club has more than 3.7 million members and supporters with more than 12,000 members in Arizona as part of the Grand Canyon (Arizona) Chapter. Our members have long been committed to protecting and enjoying the Tonto National Forest, Arizona waters, and have a significant interest in the proposed Resolution Copper Mine and related activities.

Any correspondence related to this matter should be directed to the following attorneys for the notifying groups:

Roger Flynn  
Western Mining Action Project  
P.O. Box 349; 440 Main St., #2  
Lyons, CO 80540
(303) 823-5738
roger@wmaplaw.org

Attorney for the Notifying Groups

Allison Melton
Center for Biological Diversity
P.O. Box 3024
Crested Butte, CO 81224
(970) 309-2008
amelton@biologicaldiversity.org

Attorney for the Center for Biological Diversity

The names, addresses, and telephone numbers of the parties providing this notice are:

Roger Featherstone
Arizona Mining Reform Coalition
P.O. Box. 43565
Tucson, AZ 85733
P: (520) 777-9500

Henry C. Munoz, Sr.
Concerned Citizens and Retired Miners Coalition
200 W. Grey Dr.
Superior AZ 85173
P: (520) 827-9945

Aaron Mintzes
Earthworks
1612 K St. NW, Suite 904
Washington, DC 20006
P: (202) 887-1872 x 116

Russ McSpadden
Center for Biological Diversity
P.O. Box 710
Tucson, AZ 85702-0710
P: (928) 310-6713

Sandy Bahr
Sierra Club – Grand Canyon Chapter
514 W. Roosevelt St.
Phoenix, AZ 85003
P: (602) 253-8633

If you wish to discuss these allegations, or potential settlement of this matter, please contact the undersigned at your earliest convenience.
Sincerely,

/s/ Roger Flynn  
Director and Managing Attorney  
WESTERN MINING ACTION PROJECT  
P.O. Box 349; 440 Main St., #2  
Lyons, CO 80540  
(303) 823-5738  
roger@wmaplaw.org

Attorney for the Notifying Groups

/s/ Allison Melton  
Senior Attorney  
Center for Biological Diversity  
P.O. Box 3024  
Crested Butte, CO 81224  
(970) 309-2008  
amelton@biologicaldiversity.org

Attorney for the Center for Biological Diversity

Cc:  Merrick Garland, U.S. Attorney General  
U.S. Department of Justice  
950 Pennsylvania Ave., NW  
Washington, D.C. 20530-0001

Attachments
Re: Arizona’s 2020-2022 List of Impaired Waters under Clean Water Act (CWA) section 303(d) (2020-2022 List)

Dear Director Baggiore:

I am pleased to partially approve the subject List, including all water quality-limited segments and associated pollutants identified by the Arizona Department of Environmental Quality as requiring a total maximum daily load (TMDL) under CWA section 303(d). As requested, I am also disapproving the State’s omission of Horsethief Lake and Santa Fe Lake for methylmercury-in-fish-tissue impairments and am identifying both waters for inclusion on the 2020-2022 List.

The Environmental Protection Agency’s (EPA) review and rationale is in the enclosure to this letter. EPA finds Arizona developed its list partially consistent with the requirements of CWA section 303(d) but found Arizona’s decision not to list Horsethief Lake and Santa Fe Lake for mercury-in-fish-tissue impairments was inconsistent with Arizona’s methylmercury numeric criterion for fish consumption. EPA will issue a public notice providing for a 30-day public comment period on the inclusions of the two impairments to Arizona’s 2020-2022 List. After considering any comments received, EPA may make revisions, as appropriate, and will transmit its listings to Arizona for incorporation into the State’s water quality management plan.

I look forward to our continued partnership to protect Arizona water quality and advance human health and wildlife protection. Please call me if you would like to discuss further, or your staff may contact Matt Bolt at (415) 972-3575 or bolt.matthew@epa.gov with specific questions concerning this decision.

Sincerely,

Signature on file, dated June 16, 2022

Tomás Torres
Director, Water Division

Enclosure

cc: Erin Jordan, ADEQ
I. Purpose

Section 303(d) of the Clean Water Act (CWA) requires each state and territory to “identify those waters within its boundaries for which [current pollution control technologies] … are not stringent enough to implement any water quality standard applicable to such waters.” This list is referred to as the Impaired Waters List, 303(d) List or Category 5 (see Five Reporting Categories below). In addition to section 303(d) lists of impaired waters (List), states are required to submit CWA section 305(b) water quality reports that provide information on the water quality status of all waters in the state. EPA recommends that states combine the section 305(b) report and section 303(d) List into a single “Integrated Report” (IR). EPA reviews CWA 305(b) reports but is only required to approve or disapprove CWA 303(d) Lists. EPA reviews Integrated Report submittals for consistency with the CWA and its implementing regulations, as well as EPA Guidance addressing assessment, listing and reporting requirements under CWA sections 303(d), 305(b) and 314 (see References).

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EPA received the Arizona Department of Environmental Quality’s (ADEQ) submittal: Arizona’s 2022 Clean Water Act Assessment (2020-2022 IR) in the ATTAINS database on April 19, 2022. The 2020-2022 IR submittal includes Arizona’s 2020 and 2022 CWA section 303(d) list of water quality-limited segments (WQLSs) requiring a Total Maximum Daily Load (TMDL) pursuant to 40 C.F.R. § 130.7 (2020-2022 List) and its required CWA section 305(b) report.

This document describes EPA’s decision to partially approve Arizona’s 2020-2022 List identified in the 2020-2022 IR, Arizona’s 2022 Clean Water Act Assessment Appendix C and the 303(d) listings in EPA’s ATTAINS database. This review also describes the basis for EPA’s decision to disapprove the State’s omission of two waterbodies (Horsethief Lake and Santa Fe Lake) from its list of WQLSs requiring a TMDL for methylmercury in fish-tissue consistent with

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Arizona’s water quality standards. Pursuant to CWA section 303(d) EPA is only acting on Arizona’s listing decisions in Arizona’s 2022 Clean Water Act Assessment.

II. Statutory and Regulatory Background

A. Identification of WQLSs for Inclusion in the List

CWA section 303(d)(1) directs states to identify those waters within its jurisdiction for which effluent limitations required by CWA section 301(b)(1)(A) and (B) are not stringent enough to achieve applicable water quality standards, and to establish a priority ranking for addressing such waters, taking into account the severity of the pollution and the designated uses of such waters. CWA section 303(d) listing requirements apply to waters impaired by both point sources and nonpoint sources of pollution.

As provided at 40 C.F.R. § 130.7(b)(1), a state need not include WQLSs in Category 5 when specific circumstances exist. Such WQLSs are included in Category 4 as follows:

- Category 4a: A TMDL to address a specific segment/pollutant combination has been approved or established by EPA.
- Category 4b: A use impairment caused by a pollutant is being addressed by the state through other pollution control requirements.
- Category 4c: A use is impaired, but the impairment is not caused by a pollutant.

B. Consideration of Existing and Readily Available Water Quality-Related Data and Information

EPA regulations require each state to “assemble and evaluate all existing and readily available water quality-related data and information to develop the list” and provide a rationale, subject to EPA approval, for any decision not to use existing and readily available data and information. 40 C.F.R. § 130.7(b).

The regulations at 40 C.F.R. § 130.7(b)(5) specify that this requirement includes, but is not limited to, all the existing and readily available data and information about the following categories of waters:

- Waters identified as partially meeting or not meeting designated uses or as threatened in the state’s most recent CWA section 305(b) report.
- Waters for which dilution calculations or predictive modeling indicate nonattainment of applicable standards.
- Waters for which water quality problems have been reported by governmental agencies, members of the public, or academic institutions.
- Waters identified as impaired or threatened in any CWA section 319 nonpoint source assessment submitted to the EPA.
Pursuant to 40 C.F.R. § 130.7(b)(6), each state must include, as part of its submittal to EPA, documentation to support decisions to rely or not rely on particular data and information, and decisions to list or not list waters. Such documentation needs to include, at a minimum, the following information: (1) a description of the methodology used to develop the list; (2) a description of the data and information used to identify waters; and (3) any other reasonable information requested by EPA.

C. Priority Ranking

EPA regulations at 40 C.F.R. § 130.7(b)(4) also require each state to prioritize WQLSs for TMDL development, and to specifically identify those targeted for TMDL development in the next two years. In prioritizing and targeting waters, each state must, at a minimum, take into account the severity of the pollution and the uses of such waters. CWA section 303(d)(1)(A). A state may consider other factors including immediate programmatic needs including vulnerable aquatic habitats, recreational, economic, and aesthetic importance, degree of public interest and support, and state or national policies and priorities.2,3

III. Analysis of Submittal

A. Identification of WQLSs for Inclusion in the List

EPA has reviewed Arizona’s submittal and concludes Arizona’s 2020-2022 List is in partial compliance with CWA section 303(d) and 40 C.F.R. § 130.7.

Arizona based its 2020-2022 List on its analysis of readily available data and information to determine whether additions to or deletions from its 2018 List were necessary (Arizona 2018 303(d) List of Impaired Waters). Arizona’s approach, wherein previously listed waters remain WQLSs unless the existing and readily available water quality-related data no longer indicate impairment, is consistent with federal requirements. EPA finds it was reasonable for the State to include most of the previously listed waters on its 2020-2022 List. The State also added new listings based on review of new data.

B. Assembly of Data

EPA evaluated whether Arizona reasonably considered existing and readily available water quality-related data and information and reasonably identified waters required to be listed and finds Arizona’s approach to be reasonable.

EPA’s finds the State’s data compilation process was clear and provided an adequate basis for assessments. The State considered data provided by government and non-government agencies and water quality data collected by the ADEQ staff between July 1, 2012 through June 30, 2021.

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ADEQ compiled data and information from multiple sources, including those identified in 40 C.F.R. § 130.7(b)(5)(iii). The State opened a public call for water quality data between February 9, 2021 and April 30, 2021 via the ADEQ website (https://www.azdeq.gov/programs/water-quality-programs/surface-water-monitoring-and-assessment) and through its email list to interested parties. ADEQ also actively sought data from available websites, agencies, and groups likely to have data. Most of the data assessed in the 2020-2022 IR originated from ADEQ’s monitoring program and from the U.S. Geological Survey (USGS). Additional water quality data considered was provided by volunteer and other entities that report data to the State, however, the primary sources of data are federal and state agencies.

List of sources of data used for the 2020-2022 IR

- Arizona Department of Environmental Quality
- United States Geological Survey
- Adventure Scientists
- Aravaipa Group
- Butte Creek Restoration Council
- Colorado River Water Quality Improvement Program
- Coronado Resource Conservation & Development
- Friends of the Forest
- Friends of the Tonto
- Gila Watershed Partnership
- Oak Creek Watershed Improvement Council
- Prescott Creeks
- Sierra Club
- Verde River Institute
- Arizona Game and Fish
- Arizona State Parks Park
- Bureau of Land Management
- Bureau of Reclamation
- City of Tucson
- City of Tempe
- National Park Service
- Pima County
- Slide Rock State Park
- US Fish and Wildlife Services
- US Forest Service
- US Environmental Protection Agency
- Allied Signal Engines
- ASARCO
- BHP
- Capstone Mining
- Golder and Associates
- Hargis & Assoc. Inc.
- International Boundary and Water Commission
- Pinal Creek Group
- Resolution Copper
- Salt River Project
- University of Arizona
- Verde River Institute
- Walker Ecological Services

ADEQ considered water quality data that met the state’s credible data requirements as described in Chapter 3 of the 2020-2022 IR. ADEQ also considered fish catch consumption advisories and associated fish tissue data that were jointly published by the Department and the Arizona Game and Fish Department (AZGFD).

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4 Arizona’s 2022 Clean Water Act Assessment. Arizona Department of Environmental Quality (ADEQ). Figure 2-2.
C. Listing Methodology

The State’s listing methodology identifies impaired waters and specifies explicit factors for making listing and de-listing decisions for different pollutant types based on different kinds of data and information. In general, the State lists a waterbody based on adequate documentation that water quality standards (WQS), as defined in the Arizona Administrative Code (AAC), Title 18, Chapter 11, Article 1: Water Quality Standards for Surface Waters, and approved by EPA, were not met during the assessment period.

Decisions to list or de-list are based on the quality and quantity of data, water body type and the applicable WQS. The State’s surface waters are monitored to determine if water quality conditions support aquatic life, human health, recreational uses, and ecosystem health. Chapter 3-26 of the 2022 Integrated Report notes “In the past, EPA has identified assessment units and pollutants of concern that needed to be added to Arizona’s impaired water list to make the list consistent with federal regulations (over-filings). In subsequent assessments, EPA must decide when these additional impairments are removed from Arizona’s 303(d) List. In this respect, these impairments are tracked separately. However, once listed by EPA, ADEQ recognizes these waters as impaired, initiates TMDL according to priorities, and protects them from further pollutant loadings according to Arizona’s antidegradation rules and permit requirements.” EPA clarifies that de-listing of all impairments, including those added by EPA, are the responsibility of the State and should be based on ADEQ’s review of exiting and readily available data.

The State’s assessment methodologies and quantitative assessment factors include statistical methods for evaluating potential WQS exceedances, and data quality requirements. These decision factors are applied to various types of data, including water chemistry, bacteria, nutrients, and other parameters. The State used the assessment decision factors as the basis for its decisions. EPA has reviewed the assessments and concludes they are consistent with federal listing regulations and applicable WQS. However, EPA, relying on federal listing regulations under 40 C.F.R. § 130.7, has determined that Horsethief Lake and Santa Fe Lake are impaired for mercury-in-fish-tissue and were omitted from the State’s list of WQLSs requiring a TMDL. In this action EPA disapproves the omission as it is inconsistent with Arizona’s approved methylmercury criterion for fish consumption (FC).

**Basis for EPA decision to add two waterbodies to Arizona’s 2020-2022 List**

This section describes the basis for EPA’s decision to disapprove the State’s omission of Santa Fe Lake (Coconino County) and Horsethief Lake (Yavapai County) and to identify them for addition to the 2020-2022 List. When determining whether to add waters to Arizona’s 2020-2022 List, EPA considered the State WQSs as well as EPA’s listing regulations at 40 C.F.R. § 130.7(b) and considerations described in EPA’s guidance documents.

The applicable Arizona water quality standards for Santa Fe Lake and Horsethief Lake is the FC criterion of 0.3 mg methylmercury per kg of wet weight fish tissue (0.3 mg/kg). This criterion was adopted in 2009 in accordance with the requirements of CWA Section 303(c) and approved by EPA. However, under Arizona law, implementation procedures must be adopted in its Impaired Waters Identification Rule (IWIR) in order for the state to list impairments. The IWIR
does not include fish tissue assessment procedures therefore the State cannot use the available data information that includes fish consumption advisories, associated fish tissue data, and individual exceedances as the basis to add waters to the List. Arizona did evaluate fish tissue methylmercury data and information and shared its findings with EPA. Based on its analysis of methylmercury in fish tissue, in January of 2021 ADEQ and AZGFG, issued fish consumption advisories for largemouth bass in Horsethief Lake and for black crappie in Santa Fe Lake. In Chapter 2 of the 2022 IR, Arizona also identified exceedances of the FC methylmercury criterion in both lakes. However, ADEQ did not identify these waters as impaired on its 2020-2022 List.

In its submittal to EPA, ADEQ requested that the EPA add Horsethief Lake and Santa Fe Lake to its list of impaired waters due to methylmercury in fish tissue. 5

EPA reviewed the methylmercury data and information and found that the arithmetic mean methylmercury concentrations exceeded Arizona’s FC criterion of 0.3 mg methylmercury/kg in fish tissue in both Horsethief Lake and Santa Fe Lake. EPA concludes the Fish Consumption use is impaired and these waterbodies are required to be identified as WQLSs under 40 C.F.R. § 130.7. Therefore EPA disapproves Arizona’s omission of Horsethief Lake and Santa Fe Lake from the 2020-2022 List.

When EPA disapproves a listing decision, EPA must propose listing in accordance with 40 C.F.R. § 130.7(d)(2). Therefore, EPA is adding WQLSs for Santa Fe Lake and Horsethief Lake to the 2020-2022 List which do not meet WQS for fish consumption.

D. New Impairment Listings

The State added 42 new WQLSs and 33 new waterbodies in the 2020-2022 List compared to its 2018 List. New listings are shown in Chapter 2 of the 2020-2022 IR. The most common pollutants associated with new listings are copper, selenium, E. coli, mercury, zinc, lead, and dissolved oxygen.

As discussed above in Section C, EPA is adding new impairment listings for Horsethief Lake and Santa Fe Lake, for a total of 44 WQLSs added to the 2020-2022 List.

E. Waters Removed from Arizona’s 303(d) List

The State’s 2020-2022 IR removes 10 WQLS and nine waterbodies that were identified on the 2018 List. The de-listings and their rationales are shown in Arizona’s 2022 Clean Water Act Assessment, Chapter 2. EPA requested and the State provided additional details by email demonstrating good cause for de-listing decisions consistent with 40 C.F.R. § 130.7(b)(6)(iv). The most frequent waterbody/pollutant de-listings are for selenium, dissolved oxygen, ammonia-nitrogen, arsenic, and E. coli. EPA has reviewed the information provided and concludes that the State’s decision to de-list the waters identified in its submittal is consistent with federal listing requirements.

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5 Email from Jason Jones, ADEQ, to Matt Bolt, U.S. EPA April 5, 2022; see also Letter from Trevor Baggiore, ADEQ, to Tomás Torres, U.S. EPA August 15, 2018 for previously waters added at ADEQ’s request “Arizona does not currently have impairment identification procedures for listing waters based on mercury in fish tissue, but does believe these waters to be impaired.”
F. Public Comment

Arizona solicited public comments on its draft 2020-2022 IR over a 31-day period from December 6, 2021 through January 6, 2022, through the ADEQ’s website and through its email list to interested parties. The full list of public comments from commenters and ADEQ’s responses to comments are included in the 2020-2022 IR submittal to EPA and in the ATTAINS database. EPA reviewed the public comments and the State’s responses. EPA finds the State’s List was developed with opportunities for public participation.

IV. TMDL Priority Ranking and Schedule

The State’s submittal includes a priority ranking for TMDL completion for those waters requiring a TMDL, using a low/medium/high scale. The State’s TMDL priority rankings are shown in Appendix D – 2022 TMDL Priority Ranking of the 2020-2020-2022 IR. EPA finds that the State developed a priority ranking for TMDL development consistent with the requirements in 40 C.F.R. § 130.7(b).
References


Arizona’s 2018 303(d) List of Impaired Waters. Submitted via mail, email, and ATTAINS from Trevor Baggiore, ADEQ to Tomás Torres, Water Division, U.S. EPA Region 9 (August 20, 2018).


Fish consumption Advisories. AZGFD. https://www.azgfd.com/fishing/fishconsumption/


U.S. Environmental Protection Agency. 2003. “Guidance for 2004 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d) and 305(b) of the Clean Water Act,” Diane Regas, Office of Wetlands, Oceans, and Watersheds, Washington, DC.


Hi Alexandra,

Per the programs, The TMDL document they have for Queen Creek is dated September 18, 2017. Since there has been no movement on completing the Queen Creek TMDL, They didn’t expect to find any more recent documentation. The TMDL is officially on pause until it is reestablished by the TMDL program. Are you still interested in the Any and all “Materials” section of your request?

Regards,

Jesus Barreras
ADEQ Records Center
Ph: 602-771-4411

Please Note: You can now research facilities independently from our website and submit record requests online. Please see the MegaSearch link at www.azdeq.gov. This application allows you to search records by facility name, file number, and address and submit a records request from the list of results. Please direct questions to the Records Management staff. We look forward to serving you.

On Mon, May 9, 2022 at 11:13 AM Jesus Barreras <barreras.jesus@azdeq.gov> wrote:

Alexandra,

We have received your request and will be contacting you once the files have been located, please use the CTS# in the subject line to refer to your request. If you have any questions, please contact the Records Management Center at (602) 771-4380.
Your feedback matters to ADEQ. Visit azdeq.gov/feedback

-------- Forwarded message --------
From: RecordsCenter - AZDEQ <recordscenter@azdeq.gov>
Date: Mon, May 9, 2022 at 10:55 AM
Subject: Fwd: Public Records Request
To: Jesus Barreras <barreras.jesus@azdeq.gov>

-------- Forwarded message --------
From: Alexandra Corcoran <acorcoran@milawaz.com>
Date: Thu, Apr 14, 2022 at 1:56 PM
Subject: Public Records Request
To: recordscenter@azdeq.gov <recordscenter@azdeq.gov>
Cc: Susan Montgomery <smontgomery@milawaz.com>

Good afternoon,

Please find the attached Public Records Request letter for processing. If there are any questions or concerns, please reach out by email or phone. Thank you.

Sincerely,

Alex M. Corcoran-Shannon
Research & Policy Analyst, M.A., A.C.P.
MONTGOMERY & INTERPRETER, PLC
3301 E. Thunderbird Rd.
Phoenix, AZ 85032
Ph. (480) 513-6825
Fax (480) 513-6948