

Aquifer Water Quality Standards (AWQS) — Update



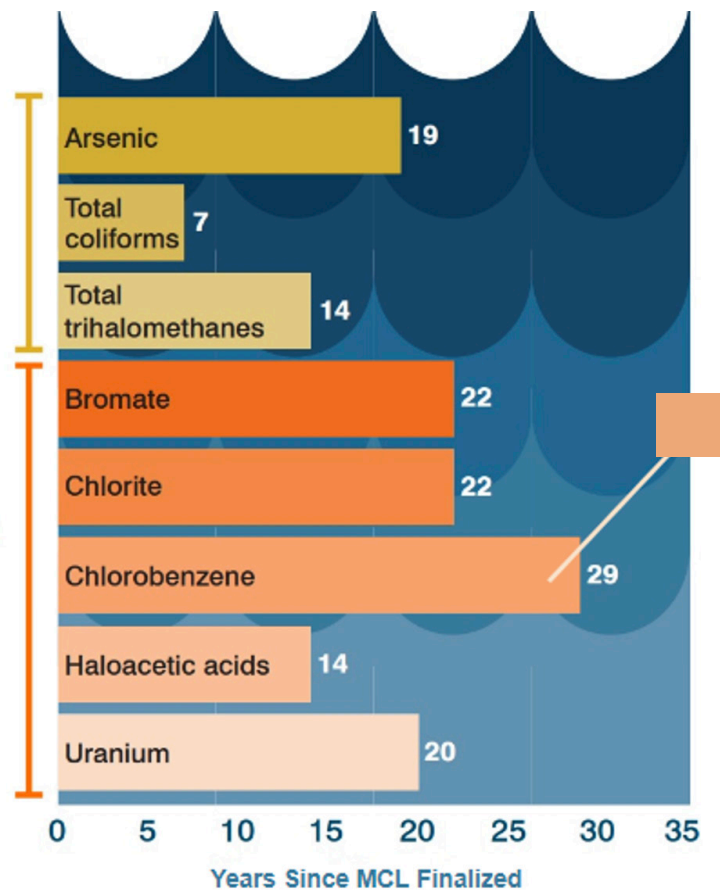
Overview

The Arizona Department of Environmental Quality (ADEQ) Water Quality Division, is responsible for administering the Department’s water protection and improvement programs, including the development of aquifer water quality standards (AWQS) that protect the State’s groundwater.

The 2021 Arizona Auditor General reported¹ that ADEQ has not updated the AWQS as required in Arizona Revised Statutes § 49-223(A) and (B).² The Auditor recommended the Department open a rulemaking docket to either adopt the federal drinking water maximum contaminant levels (MCLs) as AWQSs or develop state-based alternative AWQSs for the 7 identified pollutants.

ADEQ plans to execute the statutory mandate and the Auditor’s recommendation in the immediate future. The water quality criteria will have sufficient coverage and adequate stringency.

The graphic to the right shows seven (7) pollutants that have a Federal MCL, but either do not have a corresponding AWQS or have a corresponding AWQS that is misaligned. It also shows the number of years the AWQS and the MCL have been incongruent:




¹ https://www.azauditor.gov/sites/default/files/21-116_Report.pdf#PAGE=13

² <https://www.azleg.gov/viewDocument/?docName=http://www.azleg.gov/ars/49/00223.htm>

 **Contaminants with an AWQS that the Department needs to update**

 **Contaminants without an AWQS that the Department needs to develop**

 **Note: Chlorobenzene/ Monochlorobenzene are the same chemical. The AWQS for Monochlorobenzene is 0.1 mg/L. The EPA MCL for Chlorobenzene is 0.1 mg/L.**

The following table shows the pollutant, Federal MCL, state AWQS and the type of pollutant in relation to another:

Pollutant	DW MCL	DW AWQS	Type
Arsenic (As)	0.01 mg/L	0.05 mg/L	IC
Microbiological Contaminants	³	⁴	MC
Total Trihalomethanes (TTHM)	0.08 mg/L	0.1 mg/L	DB
Bromate (Br)	0.01 mg/L	NONE	DB
Chlorite (ClO ₂ -)	1 mg/L	NONE	DB
Haloacetic Acids (HAA5)	0.06 mg/L	NONE	DB
Uranium (U)	30 µg/L	NONE	RN

- DB: Disinfectant Byproduct
- IC: Inorganic Contaminant
- RN: Radionuclide
- OC: Organic Contaminant
- MC: Microbiological Contaminant

*Any APP facility can establish site-specific Aquifer Quality Limits (AQLs) in their permit that are above the corresponding AWQS if the following three criteria are met: (1) the applicant provides ADEQ with an approved sampling history, (2) the pollutant is shown to naturally occur at the site at a level above the AWQS, and (3) the proposed AQL is shown to not contribute to aquifer degradation.⁵

³ See 40 C.F.R. 141.63 here: <https://www.law.cornell.edu/cfr/text/40/141.63>

⁴ See A.A.C. R18-11-406(F) here: https://apps.azsos.gov/public_services/Title_18/18-11.pdf#page=63

⁵ A.A.C. R18-9-A205(C)(2)