



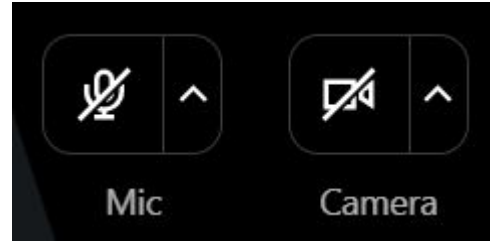
Engineering Bulletin 10

Chapter 4: Treatment

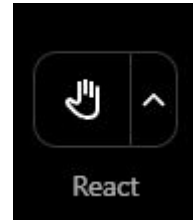
July 16, 2026

Online Tools

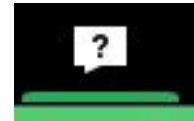
Muted (bottom, middle)



Raise hands (bottom, left)



Use the Question Tool (top, right)



Agenda

- Welcome, Housekeeping, and Team Introductions
- MDCR High Level Update
- Summary on Previous Session
- What Have We Heard Thus Far?
- Present Identified Gaps in Engineering Bulletin 10
- Open Discussion (Chapter 4: Treatment)
- Additional comments
- Closeout / Next steps



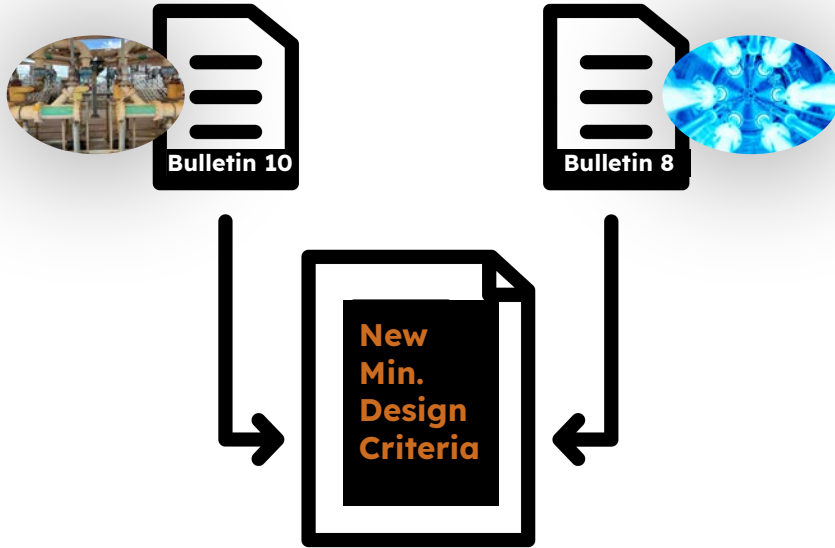
Tips for a Good Meeting

- Share from your experience and perspective
- Please listen when others are speaking
- Allow space for all to participate
- Be generous
- We ask that all present be respectful and kind and we believe that this will lead to good outcomes



What is the Minimum Design Criteria Rule (MDCR) Update?

MDCR will update 18 A.A.C. 5, Article 5 design criteria and associated rules, since existing design requirements reflect 1978 standards and practices.



Key Benefits:

- Improve **regulatory clarity**
- Ensure **public health protections**.
- Modernize to **current industry practices**.
- Align with **Safe Drinking Water Act (SDWA)** requirements

Your Voice Matters!

Take our survey and visit our site to keep up with our project progress.



Minimum Design Criteria for Public Water Systems and Related Infrastructure

Revised On: Feb. 10th, 2026 - 08:49 am

Summary:

ADEQ intends to update its public water system design and application process rules in 18 A.A.C. 5, Article 5, Minimum Design Criteria for Public Water Systems.

- Article 5: Minimum Design Criteria for Public Water Systems | [View Article 5 >](#)

ADEQ's rules for public water system Minimum Design also include Engineering Bulletins 8 and 10 via incorporation by reference in A.A.C. R18-5-502:

- Engineering Bulletin 8 — Disinfection of Water Systems | [View Bulletin 8 >](#)
- Engineering Bulletin 10 — Guidelines for the Construction of Water Systems | [View Bulletin 10 >](#)

The Minimum Design Criteria Guidelines (Engineering Bulletin 10) and rules for public water systems and related infrastructure in Article 5 currently reflect engineering standards and practices from 1978. The rules and incorporated technical requirements will be updated to reflect current industry standards and practices.

Rulemaking Landing Page

azdeq.gov/rulemaking/minimum-design-criteria



More information and content to come (e.g., external survey).

Finding MDCR Webpage from the ADEQ Homepage (azdeq.gov)



Click on the “Laws/Rules/Policy” tab.



Laws/Rules/Policies

Click “View” under Active Rulemakings
(azdeq.gov/active-rulemakings)



Active Rulemakings

ADEQ maintains a list of active rulemakings | [View >](#)

Under the Water Quality subheading, click
on “View” next to Minimum Design Criteria
for Public Water Systems



Water Quality

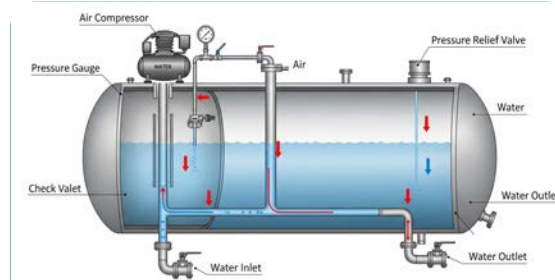
- Drinking Water Rule Updates to Conform to Federal Requirements | [View >](#)
- [Minimum Design Criteria for Public Water Systems](#) | [View >](#)
- Nonpoint Source Discharges: Remediation of Abandoned Hardrock Mines, Inc.

Summary from Session on 6/9/2026

EB 10 Chapter 3, 5 & 6



Chapter 3
Pumping Facilities

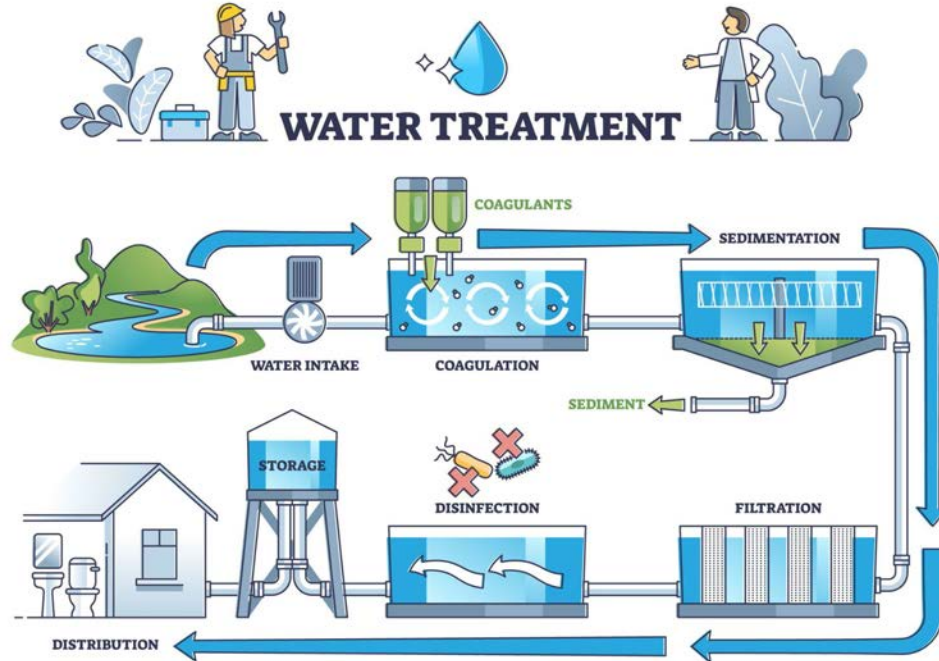


Chapter 5
Hydropneumatic Tanks



Chapter 6
Storage

Engineering Bulletin 10 Chapter 4: Treatment (Excluding Disinfection)



What have we heard thus far?

Update Treatment Technologies

- Generally update this chapter to current removal technologies including biological treatment and BAT versus non-BAT
- Include contaminant-specific removal technologies, such as methods for removing radioactive pollutants, arsenic, and PFAs

What have we heard thus far?



Pilot Testing and Blending

- Provide guidance on pilot testing
- Provide guidance on blending plans to achieve compliance with MCLs

Identified Gaps

- Include additional figures
- Update sources of information being integrated into MDC
- Include new sections discussing:
 - Contaminants of concern (e.g. As, NO₃, PFAS)
 - Additional treatment processes
 - Packaged systems
 - Point of Entry and Point of Use (POE & POU)
 - Update disinfection process
- Modernize existing sections
 - Expand sections with additional details
 - Clarifying existing design criteria
 - Updating design criteria based on current references



UPDATING...

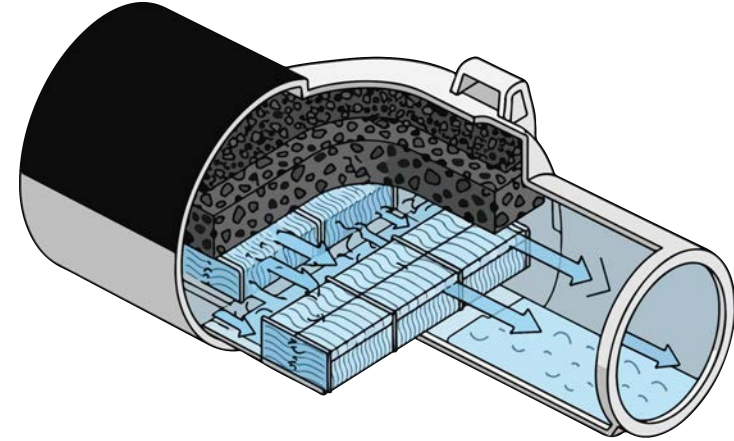


Open Discussion



Discussion – Chapter 4: Treatment

- **Schematics:** The new MDC will likely include introductory schematics for most major treatment processes.
 - Are there any specific treatment process related details that would be helpful (e.g., sample taps)?
 - Are there any particularly confusing aspects of certain treatment processes that might be clarified with a schematic?



Discussion – Chapter 4: Treatment

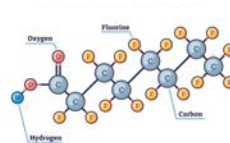
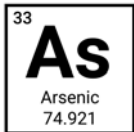
- **Technologies:** Activated carbon (PAC & GAC), biological treatment (aerobic & anoxic), advanced oxidation, and residuals management are just some of the new treatment processes to be added to the MDC.
 - Are there other specific treatment processes you feel should be included?
- **Blending Plan:** What are the challenges of developing a blending plan and why? (e.g., source water mixing, finished water mixing, finished water blending treatment, etc.)

Discussion – Chapter 4: Treatment

- Pilot and Bench-Scale Testing:
 - In what instances should a pilot or bench scale test be used to demonstrate effectiveness of treatment technologies? (e.g., what kind of non-BAT situations trigger the need for a pilot or bench scale test?)
 - What information would you consider valuable related to pilot and bench-scale testing?
 - What foundational criteria do you think must be included related to pilot and bench-scale testing?
 - What guidance would you like to see to assist in validating the criteria?

Discussion – Chapter 4: Treatment

- **Emerging Contaminants:** How should ADEQ best communicate updates on criteria and evaluation methods for emerging contaminants?
- **Treatment Approaches:** What commonly used approaches to treatment processes do you feel are missing from the current EB10 document?
- **Treatment Challenges:** What challenges have you seen with arsenic and nitrate treatment?
 - How about challenges with treatment for other contaminants?



Discussion – Chapter 4: Treatment

- **Variances:** Which minimum design criteria, if any, have you sought variances from (e.g., media replacement, elevated filtration rates) and is additional guidance needed?
- **Definitions and Terminology:** What treatment terms would be valuable to clarify within a definitions section?

Discussion – Chapter 4: Treatment

- **Treatment Process Waste:** What information related to process waste do you feel is missing from the current EB10 document?
- **Organization:** Are there any sections within the current EB10 document that require additional detail?



Any Additional Comments!



Thank You!

Join us for more virtual engagement sessions!



MDCR Team: PWS.MDCR@azdeq.gov

- Matthew Olson
- Sara Dekkiche
- Heidi Welborn
- Stephanie Huang
- Hafez Ahmed
- Nicole Rubenstein