

# WY EQC Hearing

**WDEQ - Water Quality Division**  
**Water Quality Rules - Chapter 12**  
**November 15, 2022**

- Jennifer Zygmunt, Administrator
- Keenan Hendon, Water & Wastewater Section
- Gina Thompson, Policy Analyst
- Anthony Rivers, Regulatory and Enforcement



# CH 12 Overview

- **Incorporation by Reference (IBR)**
  - **the Great Lakes Upper Mississippi River Board (GLUMRB)**
    - **2018 Recommended Standards for Water Works**
    - **Ten State Standards or TSS**
    - **2018 TSS - WDEQ IBR**
  - **IBR - section (a) of sections 8 through 17**
- **Timeline - CH 12 Development**
  - **Last major update - 1985**

2018 TSS

CH 12  
Timeline

## 2018 TSS

- **the Great Lakes Upper Mississippi River Board**
  - **Started in 1950**
  - **Only open to current members in the Upper Mississippi River Basin States/Provinces**
- **Close to 40 States incorporate the GLUMRB/TSS**
  - **Montana, Idaho, Dakotas, Minnesota**
  - **Numerous Cities, Towns, Special Districts**
- **Current WDEQ CH 12 used 1982 GLUMRB/TSS**
- **Likley to see GLUMRB/TSS for CH 11 updates**

2018 TSS  
Part 2

**m1** DEPARTMENT OF HEALTH

HOME TOPICS ABOUT US


**10 States Standards**

- 10 States Standards
- Home
- Board and Committee
- Members
- Board Meetings
- Standards

**Environmental Health Division**

EH Division Home

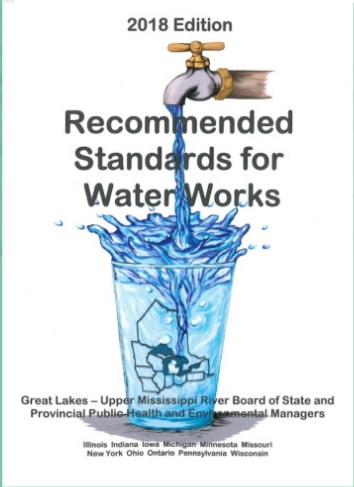
**Great Lakes - Upper Mississippi River Board (GLUMRB) Standards**



Standards for water and wastewater facilities are intended to serve as a guide in the design and preparation of plans and specifications for public water supply systems.

**Current Standards**

- [Recommended Standards for Wastewater Facilities 2014 Edition \(PDF\)](#)
- [Order Form for 2018 Edition of Recommended Standards for Water Works 2018](#)



**2018 TSS - GLUMRB**

**Hard Copy TSS \$19.99**

**Digital TSS \$13.95**

**WDEQ website - Free**

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CH 12  
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## **CH 12 Timeline**

- **1/2013 - WDEQ outreach on CH 12 for comments**
- **4/2013 & 10/2013 - Governor Mead & WDEQ committed to reducing CH12 size through IBR**
- **WWW District Engineer Working Sessions**
  - **19 working sessions 2016-2019**
  - **Group and individual reviews conducted 2020-2021**
- **5/2020 - WQD Administrator withdrew CH 12 from EQC due to public comments**
  - **Rule updates covered acidization**
  - **AG Edits prompted increased comments**

**Timeline  
Part 2**

## **Ch 12 Timeline Part 2**

- **10/2020 - Public comment outreach period, held meetings with WARWS/Engineering Firms**
- **9-10/2021 - AG and WWW District Engineers conducted final reviews**
- **11/2021 to 2/2022 - WWAB Public comment period**
- **12/2021, 3/2022, 5/2022 - WWAB MTGs**
- **9/2022-10/2022 - EQC Public comment period**
- **Public comment period open for 146 days**



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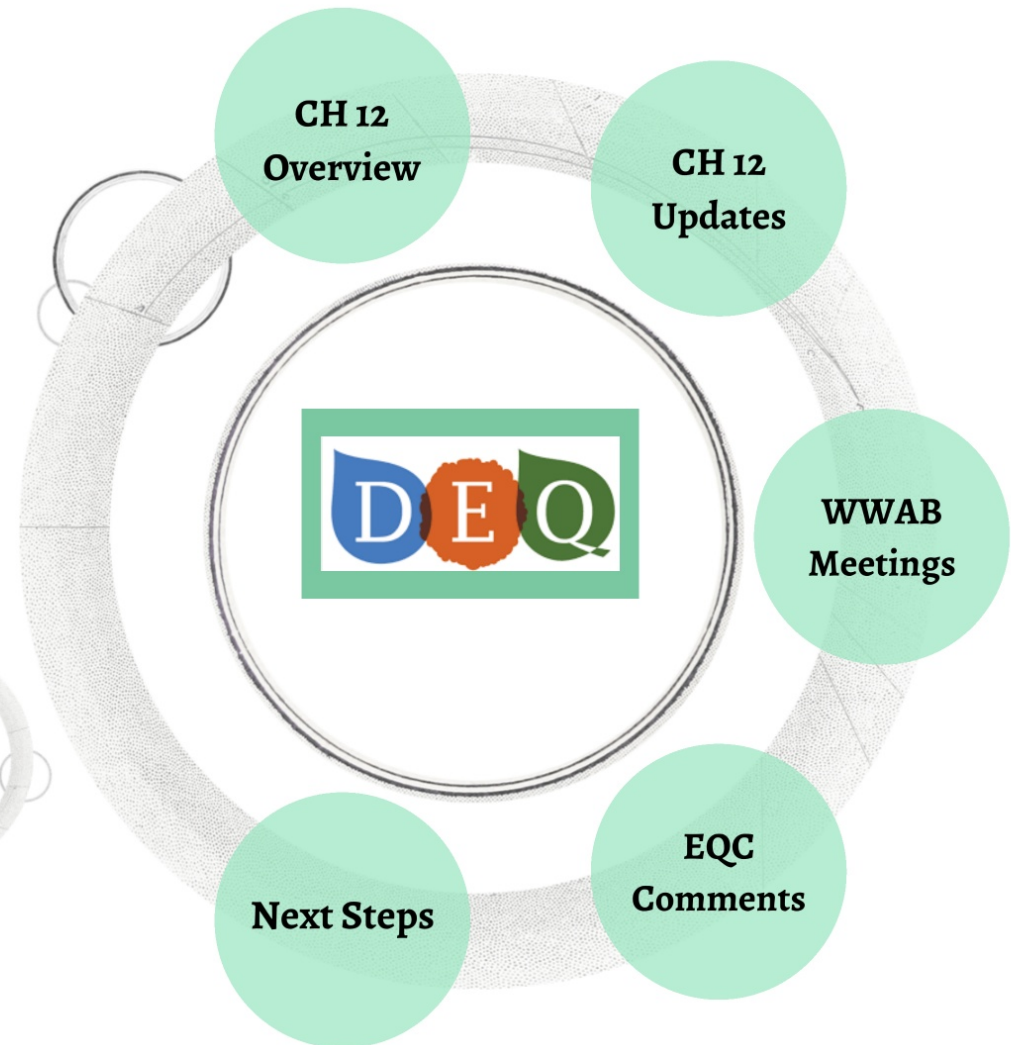
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## CH 12 Update

- Sections have been organized for continuity or consolidating similar passages and to address grammar / spelling errors
- Formatted to meet AG and Secretary of State requirements
- Sections updated for use of new technologies
  - Ex. UV and media for water treatment
- Remove requirements not within the statutory authority of the Water Quality Division
- Align regulations with SDWA and EPA Sanitary Surveys
- Organized sections to coordinate with the 2018 TSS
- Any facility issued a permit prior to the effective date of the new CH 12 shall remain covered under that permit

Section 11

Section 15

# Section 11

## § 11 - Source Development

- **§11.e.i.c - - Groundwater Source Development**
  - **Allows for economical rule option for Transient Non-Community water systems**
  - **Transient Non-Community water systems are generally gas stations, campgrounds or places where people do not remain long periods of time**
- **§11.e.ii - - Isolation Distances**
  - **Isolation Distances have been updated to correctly align with Chapter 25 - Septic/Small Wastewater System Regulations**
    - **Chapter 25 updated June 2018**

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## **Section 15**

### **§ 15 - Finished Water Storage**

- **Moved laboratory items to § 17 -Laboratory Requirements**
- **IBR - Specific Sections of 2018 TSS**
- **Tank Overflow options - mechanical device or #24 mesh**
- **Tank Vents - #24 mesh**

**Overflows  
& Vents**

# Overflows & Vents

## Overflows

- Mechanical device (flap/flapper or duckbill valve) and #4 Mesh, OR
- #24 Mesh

## Vents

- Openings protected with #24 Mesh
  - Existing CH 12 requirement for ground/buried tanks

## EPA Sanitary Surveys - Outreach

- 2014 - two cycles of surveys with #24 mesh
- Inspect Tribal Systems

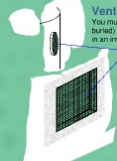
Examples





**EPA Region 8 Drinking Water Unit Tech Tips**  
 With special thanks to the Washington State Department of Health's Office of Drinking Water  
**Sanitary Protection of Reservoirs (Tanks)- Vents, Drains and Overflows**

Finished Water Storage Sanitary Protection: Storage tanks must have dedicated vents, overflow and discharge pipes, and drain lines to operate. However, to prevent the water supply from being contaminated, you must protect these openings from birds, bats, other animals, insects, rain and windborne contaminants. Be sure to consider the potential for vandalism, physical damage, and ice buildup when choosing a design.



**Vents**

You must screen all vents with 24-mesh non-corrosible screen. For below ground (buried or partially buried) storage tanks, vent openings should be 24 to 36 inches above the roof or ground, terminate in an inverted U construction, and be covered with 24-mesh non-corrosible screen.

**Poor Designs**

Vents are screened but not protected from rain and windborne contaminants.

**Non-inverted U**

design acceptable solely for ground level or elevated tanks.



24-mesh Screened Openings



24-mesh Screened Openings

It is important to inspect all screens for damage at least weekly.



24-mesh non-corrosible screen (0.03 inch openings)

**Good Design**

Vents are inverted U construction, screened and are adequately protected from rain and windborne contamination.

**Overflow and Drain Lines**

Overflow and drain lines must be protected with 24-mesh screen or a mechanical device, such as a properly sized flapper valve or duckbill valve. Overflow lines should extend open to an elevation of 12 to 24 inches above ground level and discharge into a splash plate or rocked area. Do not connect overflow or drain lines directly to a sewer or storm drain without a properly designed air-gap. Discharge and pipes must be located where they can be routinely inspected. See WY DEQ policy dated 6/17/11 for design requirements.



**Flexible "Duckbill" Check Valves**

Rubber check valves are commercially available for overflow and drain lines. Some of the valves are designed to resist the gap and should be installed in the vertical position. No 24-mesh screen is yet recommended inside check valve.



**Poor Design**

Open vent is not protected from birds, bats or insects.



**Good Design**

Overflow and is screened with splash plate to direct water away from base of tank.



12 inch 12-24 inch splash pad



24-mesh Screened Openings



24-mesh Screened Openings

April 8, 2012

**Closed**



**Open**



**Flapper Valves**

Flapper valves are commonly available for overflow and drain lines. They help to exclude bats, birds and other animals and do allow the flow of water. No 24-mesh screen is recommended inside the flapper valve.



Bats can squeeze into very small spaces and into many damage screens to gain entrance into a storage tank.



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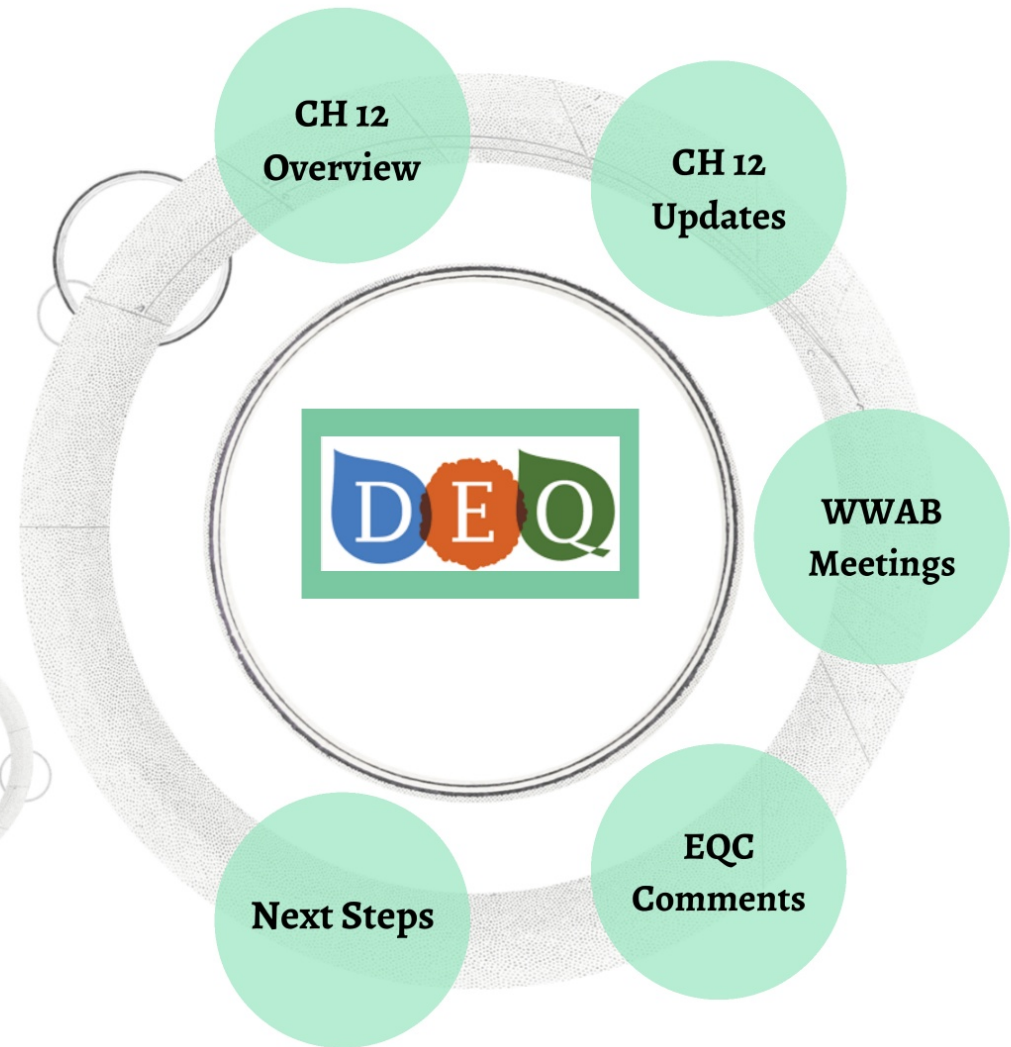
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## **WWAB Meetings**

- **WWAB Meetings - held three meetings on:**
  - **December 21, 2021**
  - **March 15, 2022**
  - **May 3, 2022**
- **Conducted a CH 12 Outreach Session**
  - **1/27 - Hosted CH 12 Zoom Outreach Session**
    - **Contacted: WESS, WAM, WARWS, & WY ListServ to seek participation**
  - **2/1 - Held CH 12 Zoom Q&A session**

**WWAB  
Commenter  
Outreach**

## **Commenter Outreach**

- **December and March WWAB Meetings**
  - **Reached out to all commenters**
  - **Coordinated discussions via:**
    - **Zoom**
    - **Phone**
    - **In-person**
    - **E-Mail**
- **Discussions held with all interested commenters to discuss and review comments**

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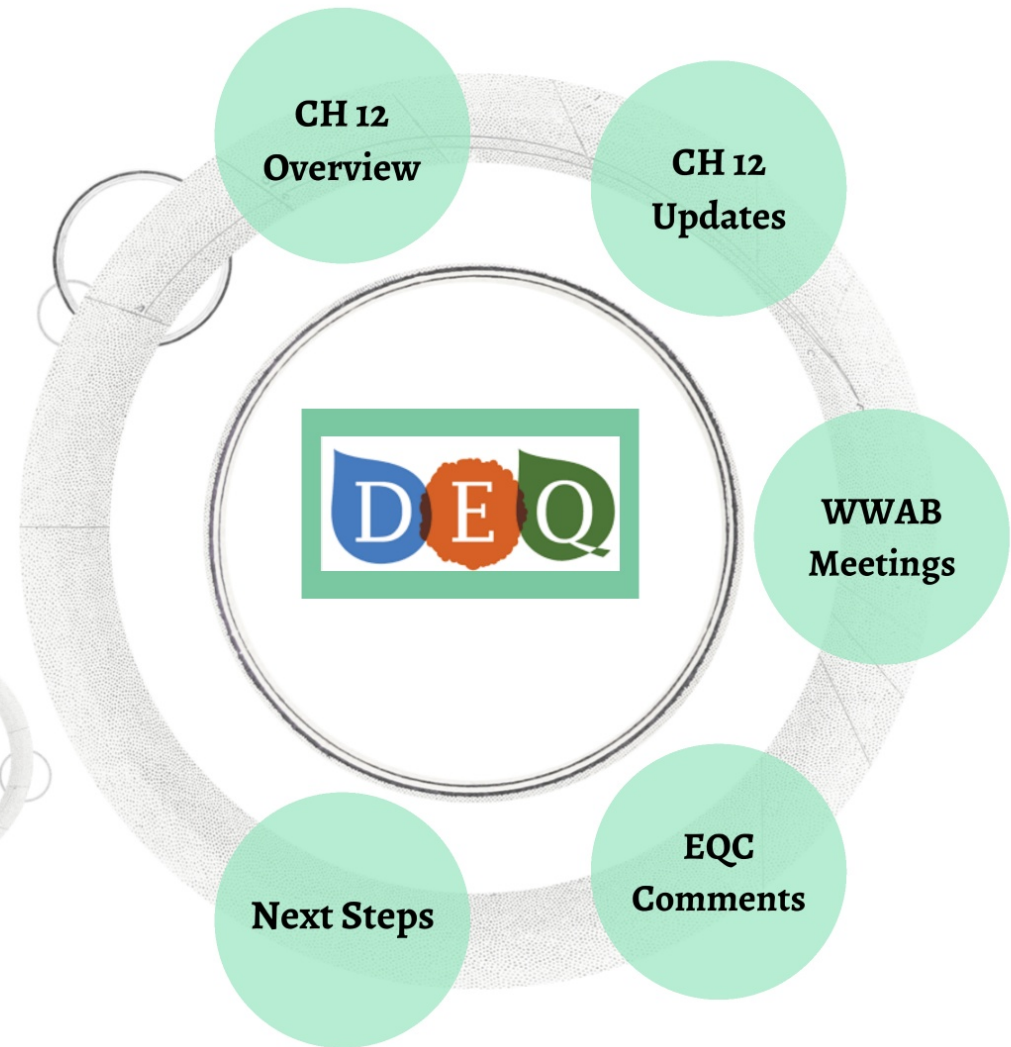
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## EQC Comments

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- **Received Three Comments**

- **Philip Gyr, Nelson Engineering**

- UIC PWS well isolation distance concerns

- **Tammy Reed, Trihydro**

- Request for additional public comment time

- **Richard Cripe, Y2 Consultants**

- Request to consider #16 mesh instead of #24 mesh on tank vents and overflows

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## **Next Steps**

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- **Post Promulgation Tasks**
  - **Strengthen our community outreach**
  - **Implement Education, Training or Workshops**
    - **Partner with Midwest Assistance Program, Wyoming Association of Rural Water Systems, and others**
  - **Generate tools and materials to assist deployment**
    - **Supplemental materials**
    - **Helpful documents**

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