

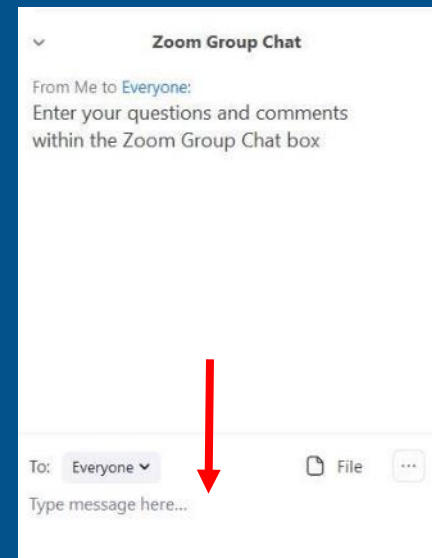
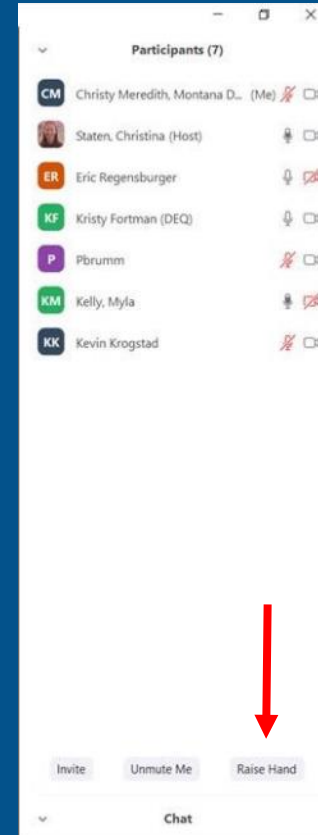
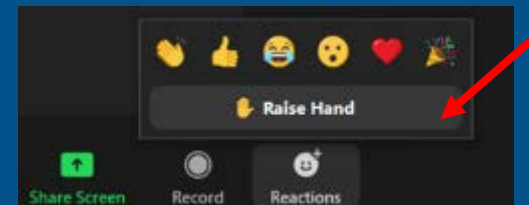


Nutrient Work Group Session Eight

October 27, 2021

Welcome!

- Please keep your microphone muted until called on
- Only NWG Members may participate during discussions
- Please reserve public comment until the end
- *6 unmutes your phone
- State your name and affiliation before providing your comment
- Enter questions in the chat box or raise hand
- Turning off your video feed provides better bandwidth
- Please sign-in to the chat box with name and affiliation



Agenda

Meeting Goal: Provide an overview of the draft rule package and present a case study of the Adaptive Management Program

9:00 a.m. Welcome and NWG Roll Call (Ted Barber, Facilitator)

9:10 a.m. Circular DEQ-12A Repeal (Myla Kelly)

9:15 a.m. Draft Rule Package Overview (Amy Steinmetz)

9:35 a.m. AMP Case Study (Rainie DeVaney)

10:05 a.m. Public Comment

Introductions

DEQ Staff

- Christopher Dorrington, Director
- George Mathieus, Deputy Director
- Kurt Moser, Legal Counsel
- Moira Davin, Public Relations
- Amy Steinmetz, Water Quality Division Administrator
- Jon Kenning, Water Protection Bureau Chief
- Rainie DeVaney, Discharge Permitting Section Supervisor
- Galen Steffens, Water Quality Planning Bureau Chief
- Myla Kelly, WQ Standards & Modeling Section Supervisor
- Kristy Fortman, Watershed Protection Section Supervisor
- Darrin Kron, WQ Monitoring & Assessment Section Supervisor
- Michael Suplee, Water Quality Science Specialist

Introductions

Nutrient Work Group Members

Interest Group	Representative	Substitute
Point Source Discharger: Large Municipal Systems (>1 MGD)	Susie Turner	
Point Source Discharger: Middle-Sized Mechanical Systems (<1 MGD)	Shannon Holmes	
Point Source Discharger: Small Municipal Systems with Lagoons	Rika Lashley	
Point Source Discharger: Non-POTW	Alan Olson	
Municipalities	Kelly Lynch	
Mining	Tammy Johnson	
Farming-Oriented Agriculture	John Youngberg	
Livestock-Oriented Agriculture	Jay Bodner	
Conservation Organization - Local	Kristin Gardner	
Conservation Organization – Regional	Sarah Zuzulock	
Conservation Organization – Statewide	David Brooks	
Environmental Advocacy Organization	Guy Alsentzer	
Water or Fishing-Based Recreation	Wade Fellin	
Federal Land Management Agencies	Andy Efta	
Federal Regulatory Agencies	Tina Laidlaw	
State Land Management Agencies	Jeff Schmalenberg	
Water Quality Districts / County Planning Departments	Pete Schade	
Soil & Water Conservation Districts – West of the Continental Divide	Samantha Tappenbeck	
Soil & Water Conservation Districts – East of the Continental Divide	Dan Rostad	
Wastewater Engineering Firms	Scott Buecker	
Timber Industry	Julia Altemus	

Ground Rules

- Speak one at a time – refrain from interrupting others.
- Wait to be recognized by facilitator before speaking.
- Facilitator will call on people who have not yet spoken before calling on someone a second time for a given subject.
- Share the oxygen – ensure that all members who wish to have an opportunity to speak are afforded a chance to do so.
- Be respectful towards all participants.
- Listen to other points of view and try to understand other interests.
- Share information openly, promptly, and respectfully.
- If requested to do so, hold questions to the end of each presentation.
- Remain flexible and open-minded, and actively participate in meetings.



Roles and Responsibilities

The Nutrient Work Group is an advisory group to DEQ.

Members agree to:

- Provide specific local expertise, including identifying emerging local issues;
- Review project reports and comment promptly;
- Attend as many meetings as possible and prepare appropriately;
- Complete all necessary assignments prior to each meeting;
- Relay information to and from their broader interest group counterparts after each meeting and gather information/feedback from their counterparts as practicable before each meeting;
- Articulate and reflect the interests that NWG members bring to the table;
- Maintain a focus on solutions that benefit the entire state;
- Present recommendations for the rulemaking throughout the planning process.



Circular DEQ-12A Repeal Overview

DEQ-12A Repeal

- Remove most rule language added in 2014 12A/12B adoption. Exceptions:
 - Keep 14Q5 dilution value for TN and TP in MPDES/MGWPCS permits
 - Re-insert non-significance criteria for total inorganic nitrogen and total inorganic phosphorus into ARM 17.30.715(1)(c)
- References to DEQ-12A (and 12B) removed;
 - Rules affected: ARM 17.30.507, 17.30.516, 17.30.602, 17.30.619, 17.30.622 thru 17.30.629, 17.30.635, 17.30.660, 17.30.702, 17.30.715;
- Add new criteria for nonsignificant changes in water quality for TN and TP in ARM 17.30.715 as adopted in 75-5-317(2)(u) per SB 358.



Draft Rule Package Overview

How Rule, Circular, and Guidance Work Together

	Law			Policy
	Statute	Rule	Circular	Guidance
Contents	Directs DEQ to develop rules	What has to be done	How to do it	More background, explanation, and technical support
Process to Change	Legislature must change	Department rulemaking	Department rulemaking	Stakeholder review and notice of changes

Each builds on the other, layering details

Example - Rule

(b) Permittees must select a compliance option in the initial and each subsequent submission of the watershed scale monitoring plan. The compliance options are described Department Circular DEQ-15. The selected compliance option will be used during the entire term of the MPDES permit. Permittees may not request or select a different compliance option during the term of the permit.

Example - Circular

5.2. SIMPLE METHOD

Permittees must monitor each applicable response variable at the department-approved near field upstream and downstream sites. Sampling events for a specific parameter must be within the defined index period, at the minimum frequency described in the permit, and may not exceed 24 hours between upstream and downstream sample collection. Sampling events at near field sites located upstream and downstream of a point source are paired (i.e., they occur on the same day or within a day of one another). If, during any one of these paired sampling events, the concentration, density, or biological metric (HBI) at the downstream near field site(s) exceeds that of the upstream near field site(s) then the permittee is not in compliance with the response variable effluent limit. Similarly, if a response variable with a specified threshold is exceeded at the downstream near field site(s), then the permittee is not in compliance with the response variable effluent limit.

5.3. EXACT BINOMIAL TEST METHOD

This method carries out a statistical evaluation of the threshold-based response variable data and then combines those results with the response variable data which do not have thresholds. Threshold-based response variable data are allowed to have a certain exceedance rate; that is, a certain percentage of sampling events may exceed the thresholds without necessarily resulting in a non-compliance

Example - Guidance

5.2. GUIDANCE FOR THE EXACT BINOMIAL TEST METHOD

The department has available an Excel spreadsheet tool by which the number of allowable exceedences of a response variable threshold can be calculated for any given sample size. **The Excel file name is "MT-NonComplianceTool_test1" and it has two tabs; users only need to use the tab labelled "BTNonCompliance."** In the upper left-hand corner, ensure that cell B5 = 0.27, cell B6 = 0.1, and cell B7 = 0.25, then push the large gray square button located near cell G23. The spreadsheet will then provide the number of exceedences for each sample size, in columns D and C, that indicate that the allowable exceedance rate has been surpassed. So long as the number of exceedences is less than that indicated in column D, the allowable exceedance rate has been attained and, as described in Table 5-2 of **Circular DEQ-15**, the conclusion is "pass." (In contrast, if the number of exceedences is greater than or equal to the value in column D, the conclusion is "fail.") Evaluation should be carried out independently for each response variable dataset (e.g., in the western ecoregional zone that would be for Chla/AFDW, and % bottom cover by filamentous algae).

For response variable data that do not have thresholds (e.g., the macroinvertebrate HBI metric), users should compute an arithmetic average for all the data available up to that time. For example, if four years of sampling has been completed and there are four HBI scores of 3.0, 4.5, 5.2, and 3.5, the arithmetic average would be 4.05.

The results from the Exact Binomial Test spreadsheet can then be combined with the averaged results from the non-threshold based response variables per the tables in Section 5.3 of **Circular DEQ-15**. Those tables and the conditions of the MPDES permit will inform permit compliance.

Relationship with Federal Law

Federal Clean Water Act (CWA)

Sets minimum bar for water quality protection nationally

Federally Delegated Montana holds primacy to implement some Clean Water Act programs. Montana must implement these federally delegated programs consistent with applicable federal regulations.

Cooperative Federalism Montana interacts cooperatively with the federal government to solve common problems. EPA is our main federal counterpart. Water quality standards rules we adopt must receive EPA review and only become applicable for CWA purposes after EPA approval.

Case Studies



Two Case Studies

- Case Study One
 - Minor POTW with One Point Source in Watershed
- Case Study Two
 - Multi-discharger Watershed

Case 1: POTW with One Point Source in Watershed

Facility Information

- Lagoon with continuous discharge
- Pre-AMP Permit Conditions:
 - Nutrient Monitoring Requirements: Effluent TN/TP
 - Nutrient Limits: None
- Design Flow: 0.2 mgd

Receiving Water/Watershed

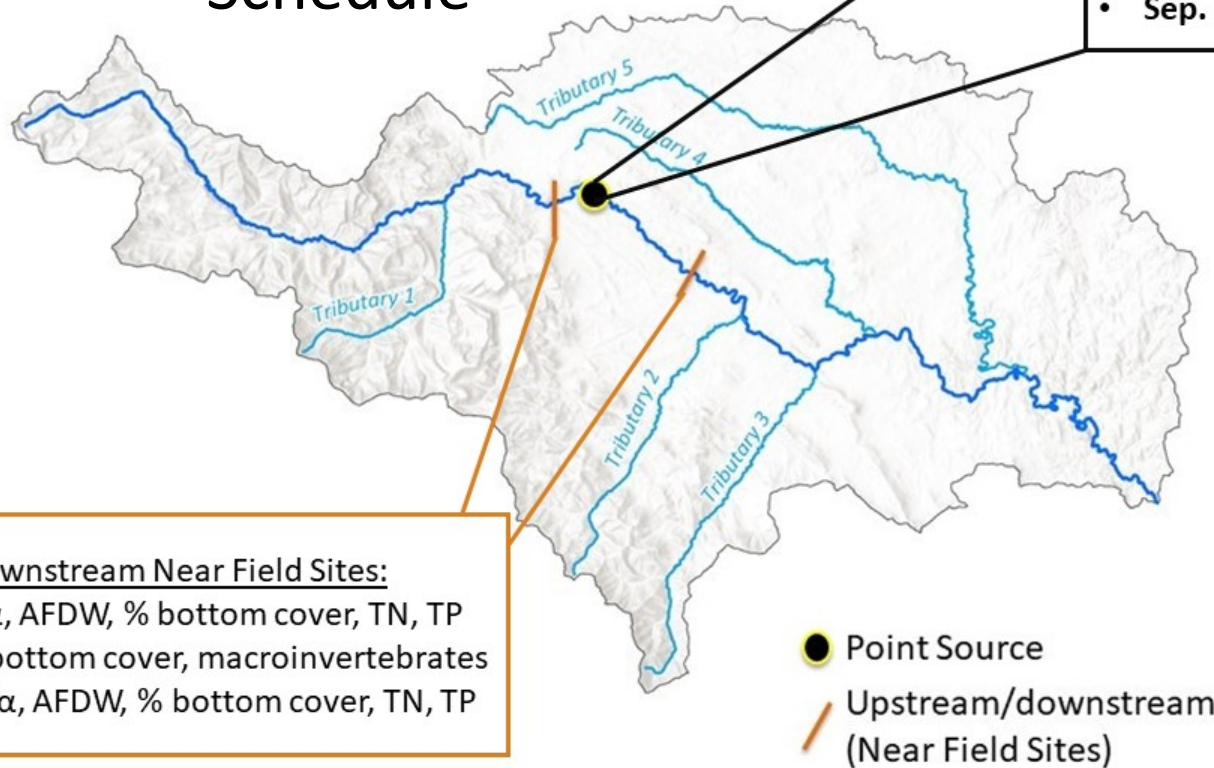
- Ecoregional Zone: Western
- Waterbody size: Medium River
- Low Flow: 1,000 mgd
- Impairment Status: Not listed for nutrients

Reasonable potential to cause or contribute to an exceedance of narrative standard? No

Case 1: POTW with One Point Source in Watershed

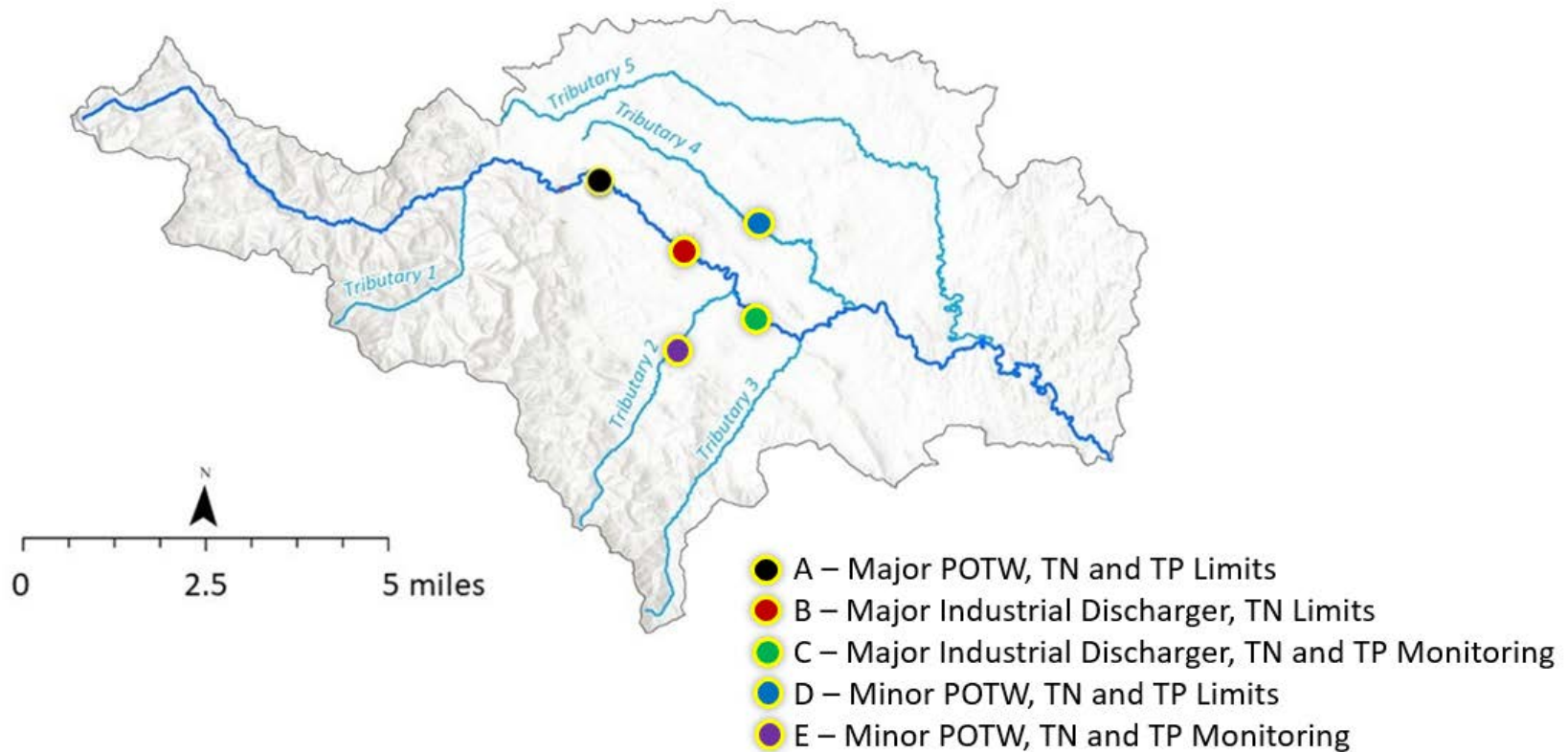
- AMP Watershed Monitoring Plan submitted to and approved by DEQ
 - Implemented upon approval
- AMP Watershed Monitoring Plan
 - Monitoring Requirements (July 1 – September 30, annually)
 - Effluent: monthly TN, TP
 - Near Field Downstream: TN, TP, and response variables (schedule per DEQ-15)
 - Near Field Upstream: TN, TP, and response variables (schedule per DEQ-15)
 - Nutrient Limits: None
 - Annual Report required
- Upcoming Permit Renewal: AMP incorporated into permit

Case 1: Example Monitoring Schedule



Schedule based on Table 4.2 in Draft Circular DEQ-15

Case 2: Watershed with Several Dischargers, Large River, No Nutrient Impairment



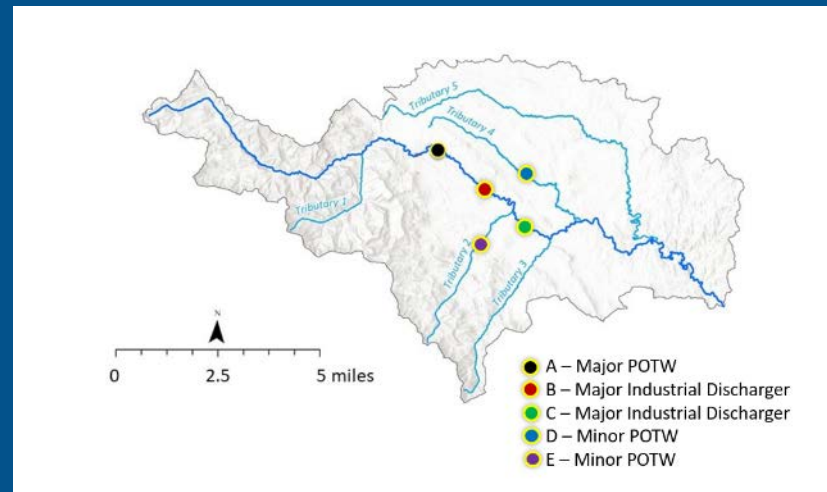
Case 2: Watershed with Several Dischargers, Large River

Facility B – Major Industrial Discharger

- Current Permit Conditions
 - Monitor nitrogen and phosphorus
 - Nutrient limits – Cap at current load
 - Nitrogen – 97 lb/day
 - Phosphorus – 76 lb/day
- Design flow 1.5 mgd
- Design flow: receiving water 670:1

Receiving Water/Watershed

- Waterbody size: Large River
- Low Flow: 1,005 mgd
- Not impaired for nutrients



Phase I Permit Conditions

- DEQ assembles preliminary watershed inventory
 - Notifies all permitted dischargers in the watershed by June 30, 2022.
- Point sources partner on AMP watershed monitoring plan
 - Propose plan to DEQ by March 1, 2023
 - Implement plan immediately after obtaining DEQ approval
 - Model results due December 2024

Phase I Permit Renewal Conditions	
Permit Type	Permit Renewal Requirements
A – Major POTW	2022 – 2024: AMP watershed monitoring plan End 2025 reduce TP effluent concentrations by 20% and TN concentrations 3.6%
B – Major Industrial	
C – Major Industrial	
D – Minor POTW	2022 – 2024: AMP watershed monitoring plan End 2025: optimize facilities nutrient reductions, reduce TP loads by .3 lb/day
E – Minor POTW	
All permittees submit annual reports summarizing monitoring efforts and plans for upcoming year	

Phase 2 Permit Conditions

Phase 2 Permit Conditions	
Permit Type	Permit Renewal Requirements
A – Major POTW	2024-2026: Continue AMP watershed monitoring plan Maintain 2025 reductions required Plan and implement non-point source upstream reductions
B – Major Industrial	
C – Major Industrial	
D – Minor POTW	2024 – 2026: Continue AMP watershed monitoring plan Maintain 2025 reductions required, continue optimization efforts
E – Minor POTW	
All permittees submit annual reports summarizing model results	

Nutrient Work Group Discussion and Feedback

Comment Timeline

October 18: Draft Rule Package Provided to NWG for NWG Review and Comment

October 27: NWG Meeting to Review Draft Rule Package

October 29: Comments Due from NWG Members

November 3: NWG Meeting to Review Comments and Draft Rule Package

Comment Submittal

Preferred Method: Submit Comments in MS Teams
(use track changes and save file with your affiliation name)

Secondary Method: via Email: CStaten@mt.gov



Next Meeting

Next Meeting

- Wednesday, November 3: 9 – 11 a.m.

Topic:

- Discuss NWG comments
- Review draft rule package
- What's still being developed

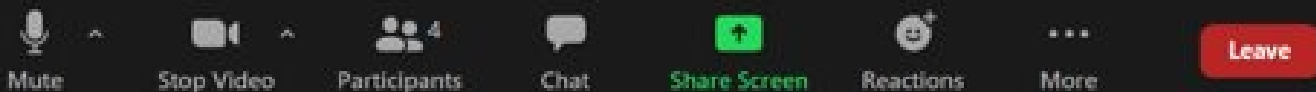
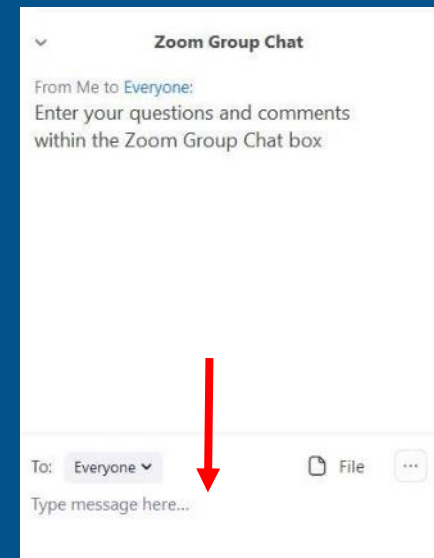
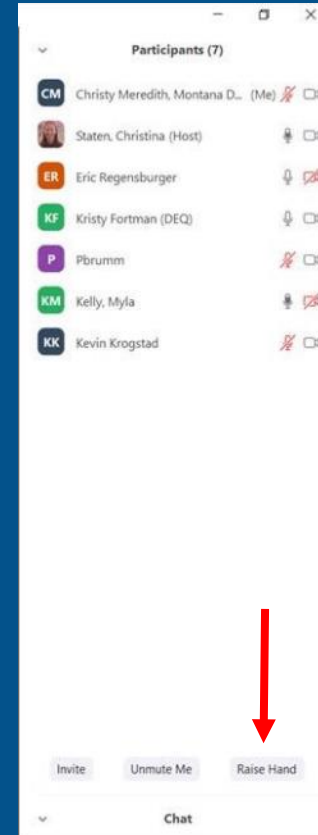
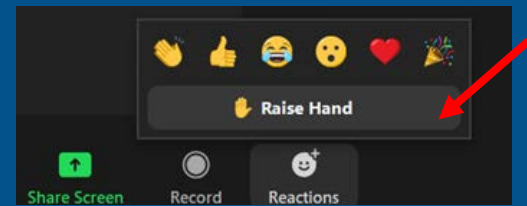




Public Comment

Questions/ Comments

- Raise hand or type questions into the chat
- Please keep your microphone muted until called on
- If calling by phone, press*6 to unmute
- State your name and affiliation before providing your comment



Thanks for Joining Us

Contact:
Christina Staten
CStaten@mt.gov

To submit comments or questions



<https://deq.mt.gov/water/Councils>

