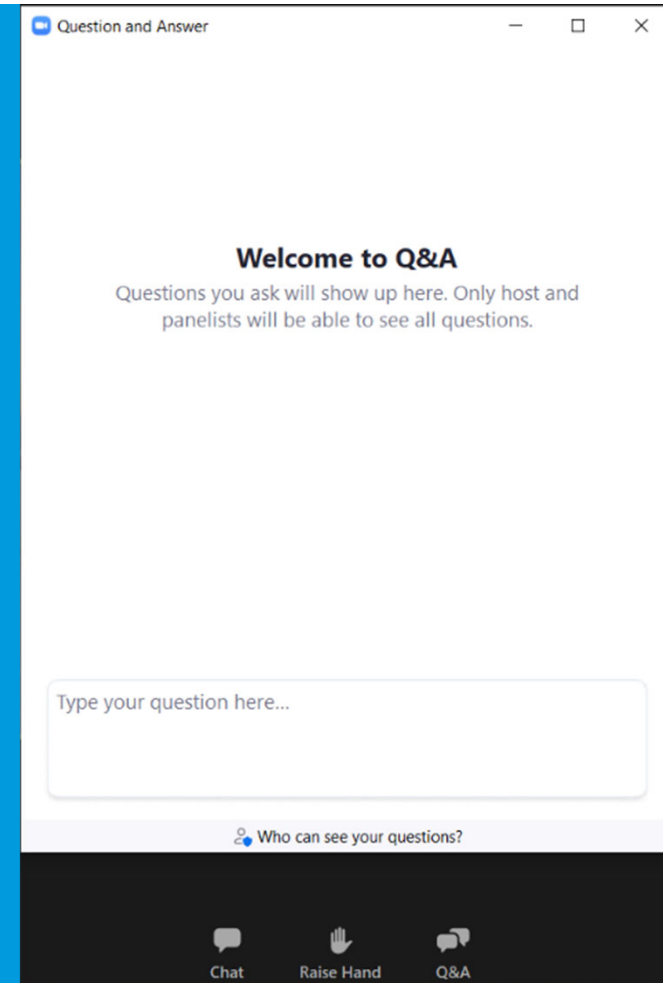


Clarks Fork Yellowstone Watershed Water Quality Project

Abbie Ebert

Questions or Comments

- Raise hand (*9 if on the phone) or type questions into the Q&A
- DEQ will unmute you if you wish to provide your comment orally
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Question and Answer


Welcome to Q&A

Questions you ask will show up here. Only host and panelists will be able to see all questions.

Type your question here...

Who can see your questions?

Chat Raise Hand Q&A

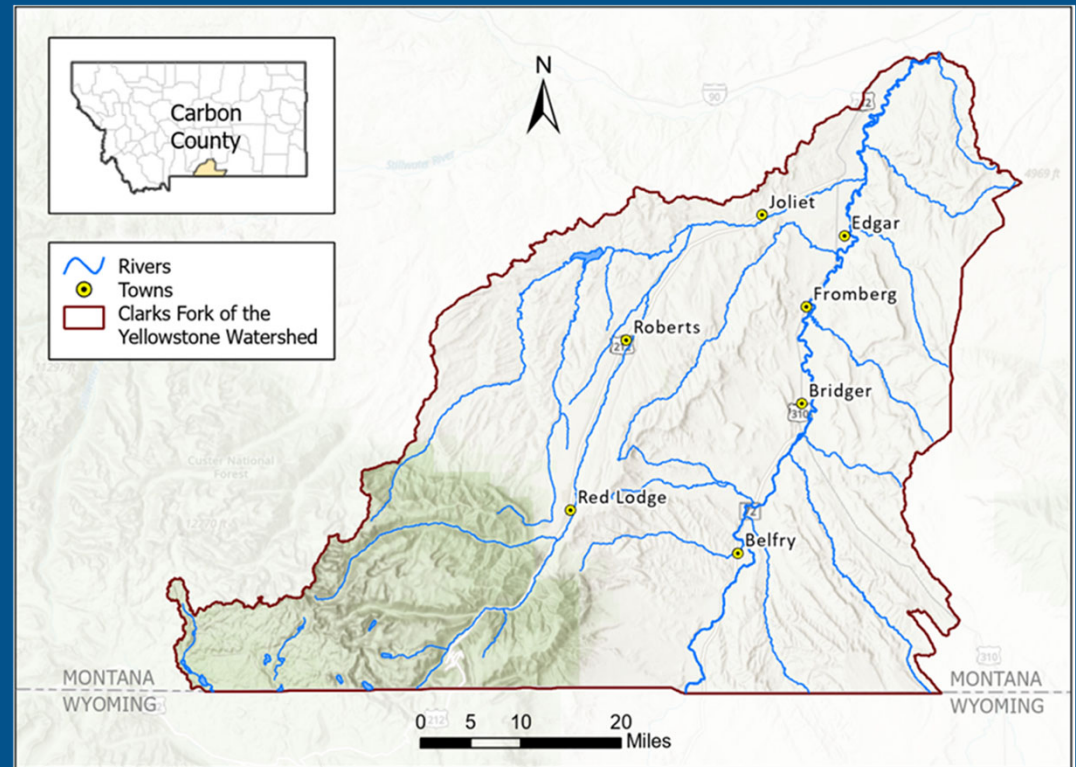


DEQ's Mission: To champion a healthy environment for a thriving Montana.

Water Quality Division Vision: Clean water from peaks to prairies for all Montanans.

Why are we monitoring here and now?

- Watershed value and vulnerability
- Local interest
- Time lapse in data



Beneficial Uses

- Are goals and expectations specified in water quality standards for state surface waters uses.



Clarks Fork Yellowstone Watershed Beneficial Uses

- Drinking, culinary, and food processing purposes, after conventional treatment;
- Bathing, swimming, and recreation;
- Growth and propagation or marginal propagation of salmonid fishes and associated aquatic life, waterfowl and furbearers;
- Agricultural water supply; and
- Industrial water supply (ARM 17.30.623).

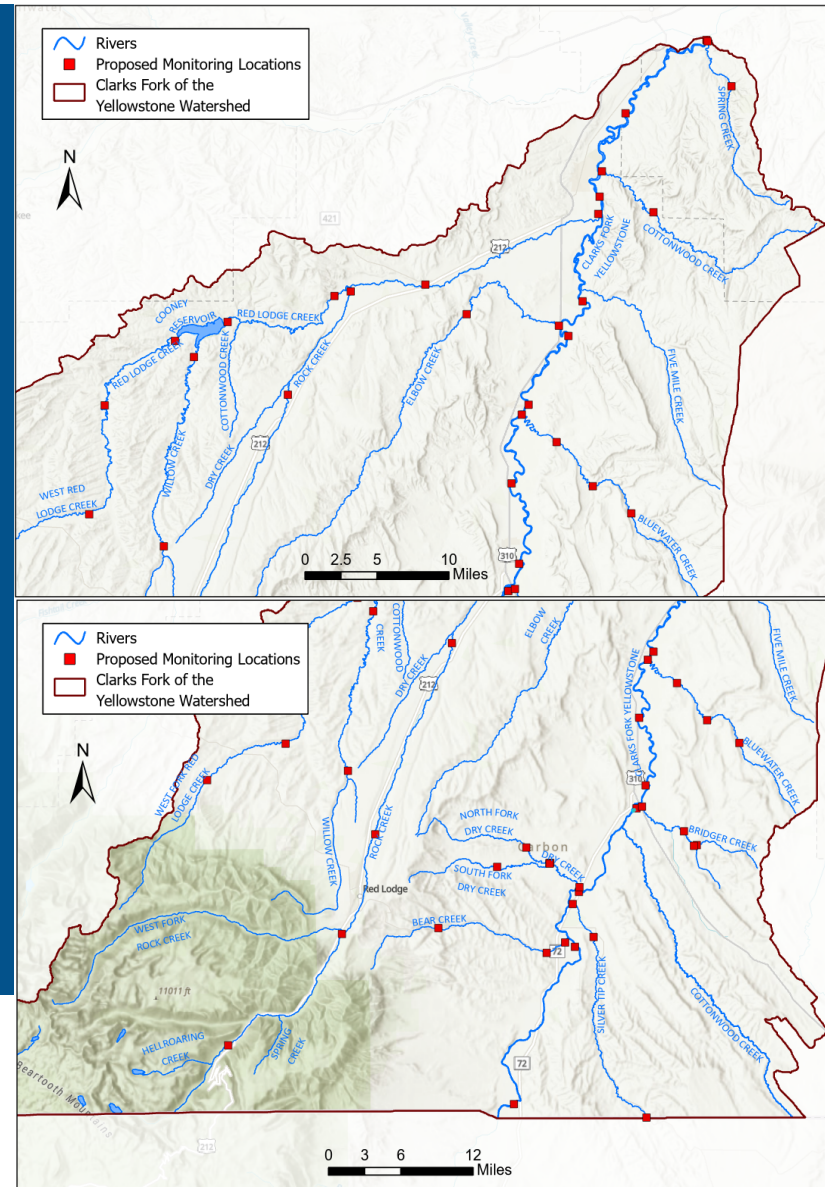
Monitoring Process

- Initiate the Project
- Monitor Water Quality
- Compile Data
- Data Analysis



2022 Monitoring

- 5 Monitoring Events
- 15 Waterbodies
- 53 Sampling Locations
- Water Quality Parameters
 - Nutrients
 - Metals



2023-2024 Monitoring

- Addition of Water Quality Parameters
 - *E.coli*
 - Sediment
 - Dissolved Oxygen
 - Temperature
 - Algae
- Potential changes in site visit frequency or length of time
- Updates in sampling locations or number of sites



Community Impacts

- Impacts to the community and individual landowners
 - Request land access to monitor.
 - May see monitoring activity in the watershed from our field crews.
 - DEQ public engagement throughout the process



What's Next?

- Data Analysis
- Impairment listing updates if needed
- Potential TMDL Development
- Potential Watershed Restoration



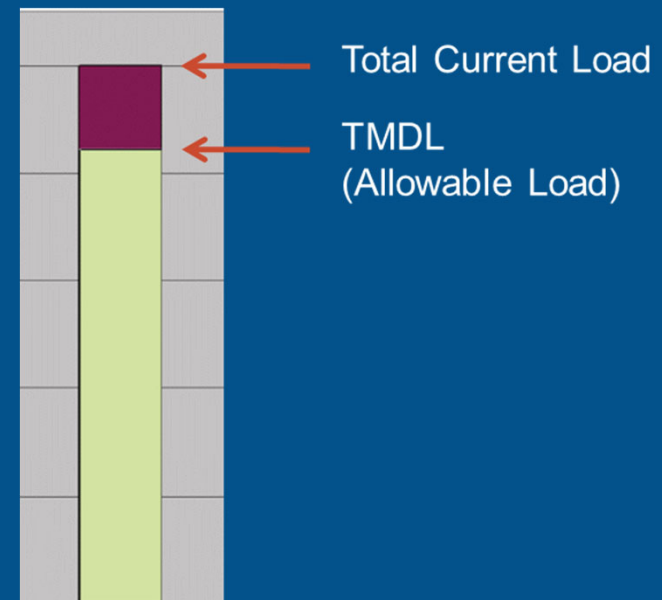
TMDL Development

- Begins after DEQ assesses the water quality monitoring data and impairments are known/listed
- Typically a ~2-year process
- Multiple opportunities for public input and comment
- EPA submittal and approval



Total Maximum Daily Loads (TMDLs)

- A Total Maximum Daily Load is the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards and beneficial uses.
- TMDLs must be developed for each waterbody-pollutant impairment identified in the watershed.



Source Assessment

- Determined by monitoring results, listings, and apparent need for source-specific investigation
- At a minimum, relative contribution from point and nonpoint sources of pollution needed (more specific is better)



Benefits of TMDLs

- Incorporate multiple source types, both regulated and non-regulated
- Address cumulative impact
- Guide future restoration work and prioritization of projects
- Help the local community and landowners identify the best ways to protect water quality



Point Source / Nonpoint Source

Point Source Pollution

- Pollution discharged into surface or groundwater from a discernible, confined and discrete conveyance (e.g., a pipe, ditch, or concentrated animal feeding operation)
- Regulated by a discharge permit from DEQ
- Example: Municipal Wastewater Treatment Plant

Nonpoint Source Pollution

- Pollution discharged into surface or groundwater from anything that is not regulated as a point source
- Compliance with water quality standards is VOLUNTARY
- Examples: runoff from farm fields; loss of streamside vegetation due to development

Tools For Addressing Nonpoint Source Pollution

- Education
- Monitoring
 - Citizen monitoring programs
 - Agency-led monitoring
- Project Funding and Technical Support
 - Clean Water Act Section 319 Grants
 - Natural Resources Conservation Service (USDA/NRCS)
 - Montana Department of Natural Resources and Conservation (DNRC)
 - Montana Department of Fish, Wildlife and Parks (FWP)



Watershed Restoration Plan (WRP)

- Locally developed road map for improving water quality
- Nine minimum elements ensure an effective, integrated approach to water quality restoration and protection
- WRPs are required by EPA in order to be eligible for 319 funding.



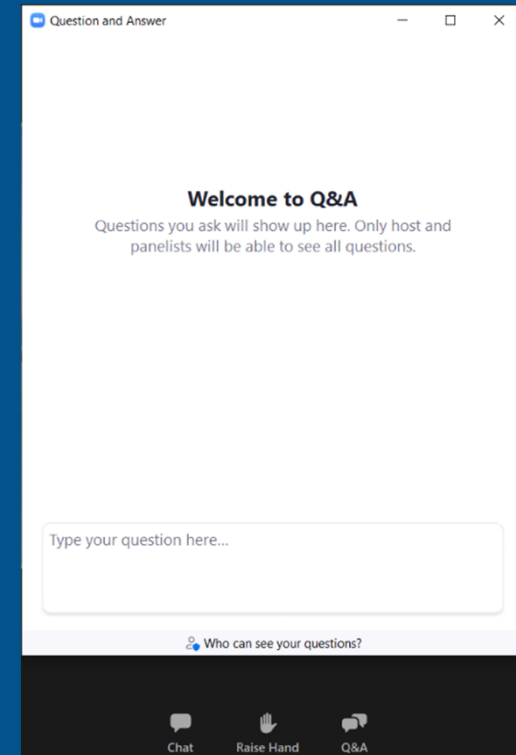
End Goals

- Gain knowledge on the water quality issues.
- Water quality improvements
- Funding opportunities
- The opportunity for clearer streams and greener landscapes.



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