



Nutrient Work Group Session Two

June 23, 2021

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	Affiliation
Point Source Discharger: Large Municipal Systems (>1 MGD)	Susie Turner	City of Kalispell
Point Source Discharger: Middle-Sized Mechanical Systems (<1 MGD)	Shannon Holmes	City of Livingston
Point Source Discharger: Small Municipal Systems with Lagoons	Rika Lashley	Morrison-Maeirle
Point Source Discharger: Non-POTW	Alan Olson	Montana Petroleum Association
Municipalities	Kelly Lynch	Montana League of Cities and Towns
Mining	Tammy Johnson	Montana Mining Association
Farming-Oriented Agriculture	John Youngberg	Montana Farm Bureau
Livestock-Oriented Agriculture	Jay Bodner	Montana Stockgrowers Association
Conservation Organization - Local	Kristin Gardner	Gallatin River Task Force
Conservation Organization – Regional	Sarah Zuzulock	Zuzulock Environmental Services
Conservation Organization – Statewide	David Brooks	Montana Trout Unlimited
Environmental Advocacy Organization	Guy Alsentzer	Upper Missouri Waterkeeper
Water or Fishing-Based Recreation	Wade Fellin	Big Hole Lodge
Federal Land Management Agencies	Andy Efta	U.S. Forest Service
Federal Regulatory Agencies	Tina Laidlaw	U.S. Environmental Protection Agency
State Land Management Agencies	Jeff Schmalenberg	Dept. Natural Resources & Conservation
Water Quality Districts / County Planning Departments	Pete Schade	Lewis & Clark County Water Quality Protection District
Soil & Water Conservation Districts – West of the Cont. Divide	Vacant	
Soil & Water Conservation Districts – East of the Cont. Divide	Dan Rostad	Yellowstone River Cons. District Council
Wastewater Engineering Firms	Scott Buecker	AE2S
Timber Industry	Julia Altemus	Montana Wood Products Association

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.

Agenda

Meeting Goal: Finalize AMP Definition, Review AMP Details and Watershed Scale Framework

- Technical Subcommittee Report
 - AMP definition
 - AMP flowchart-DEQ
 - AMP flowchart-feedback from TSC
- Discussion of AMP Step #2 – Watershed Scale approach
- Opportunities for public input – future listening sessions, comment feature on NWG webpage





Nutrient Work Group

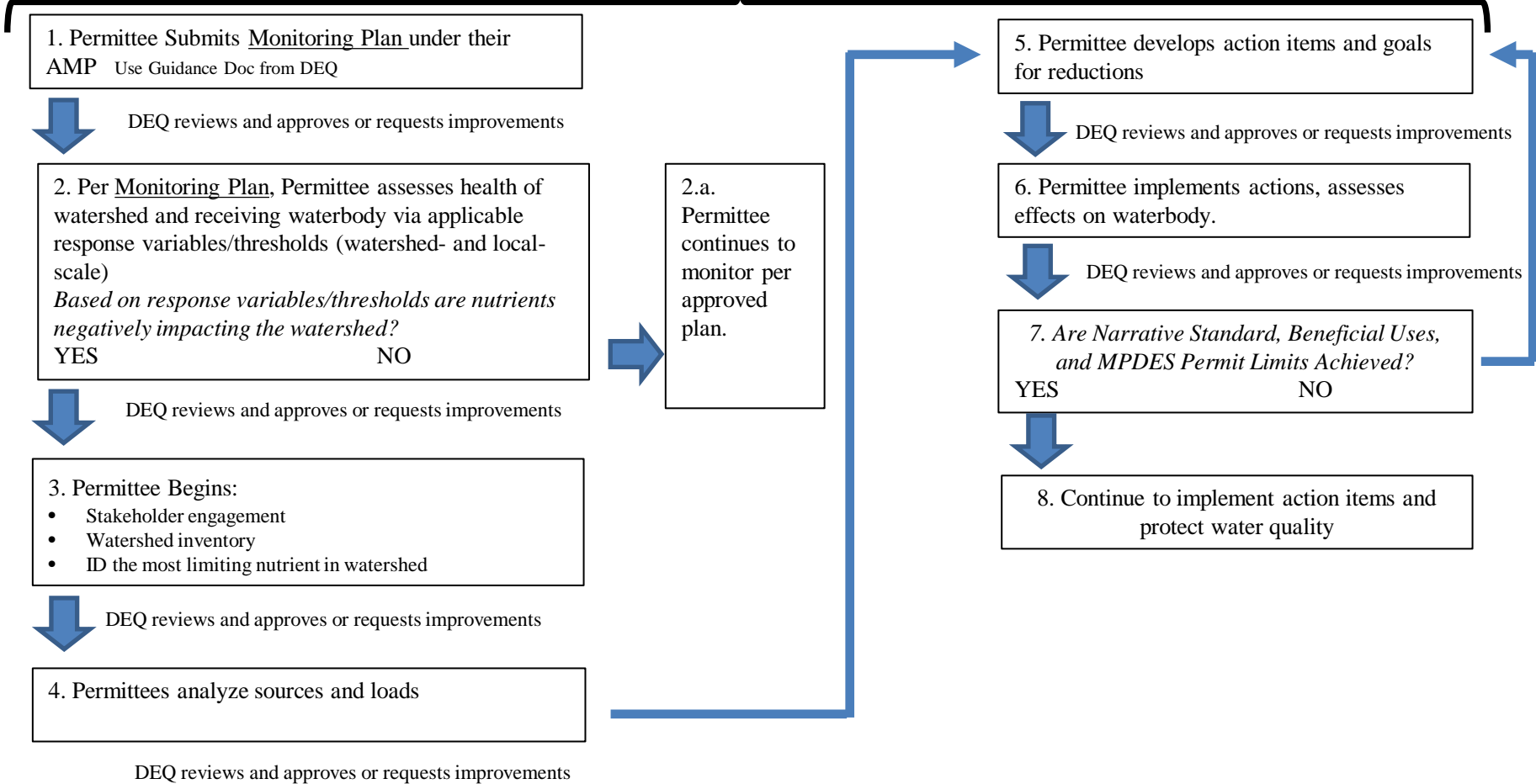
Technical Subcommittee Report

AMP Definition

Draft Definition: Adaptive Management Program means a watershed-scale system that protects water quality from point and nonpoint sources of nutrients by: (a) prioritizing phosphorus reduction while accounting for site specific conditions, (b) allowing for nutrient sources to be addressed incrementally over time by incorporating flexible decision-making which can be adjusted as management actions and other factors become better understood, (c) reasonably evaluating all factors impacting a waterbody while considering the relative cost of treatment options, their feasibility, and their expected water quality improvement, (d) documenting specific nutrient reduction requirements, and (e) setting as its goal the protection and achievement of beneficial uses of the waterbody.

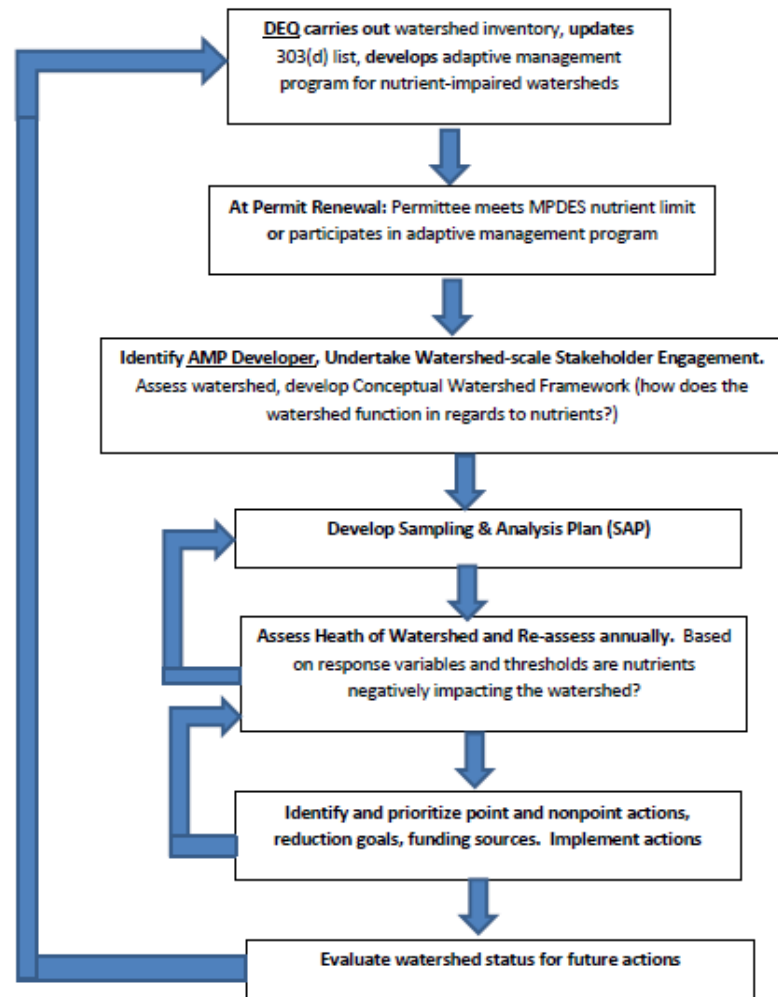


Adaptive Management Program



TSC Member Input on AMP Flowchart

- Key Differences: DEQ proposal puts all nutrient-discharging permittees in program who carry out assessment upfront; TSC proposal uses 303(d) list and existing watershed knowledge to target those likely to enter AM program.
- Overall: More upfront work by DEQ (watershed inventory). Assumes DEQ will identify a nutrient MPDES permit limit prior permittee assessing instream impacts. TSC proposal could reduce potentially unneeded instream monitoring by permittees.
- TSC members recognize their recommendations are preliminary and additional work to identify a final flow chart is needed



Simplified version of TSC recommendation



Today's Discussion

Watershed Scale Framework

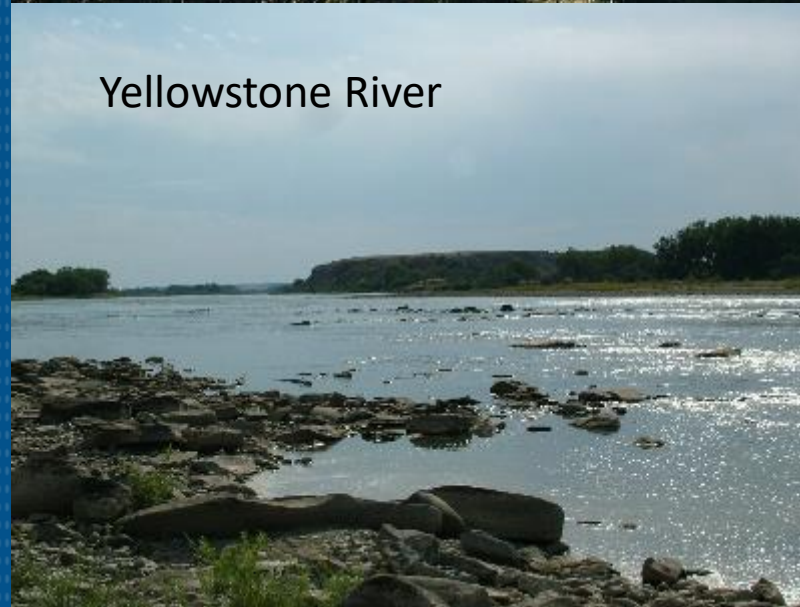
Why Adaptive Management Plans should Consider Watershed Scale

Wadeable streams/ivers vs. large rivers

- Wadeable Streams/ivers:
 - Influenced by local climate, geology, soils, plant life
 - Shorter runoff period
 - Process added nutrients over shorter distances due to shallower depth, lower velocities
- Large Rivers:
 - Drain multiple large watersheds, water quality often different from local streams
 - Longer runoff period
 - Process nutrients over much longer distances due to deeper depths, higher velocities



Wadeable Stream
(E. MT)



Yellowstone River

Nutrient Spiraling in Flowing Waters

Lake

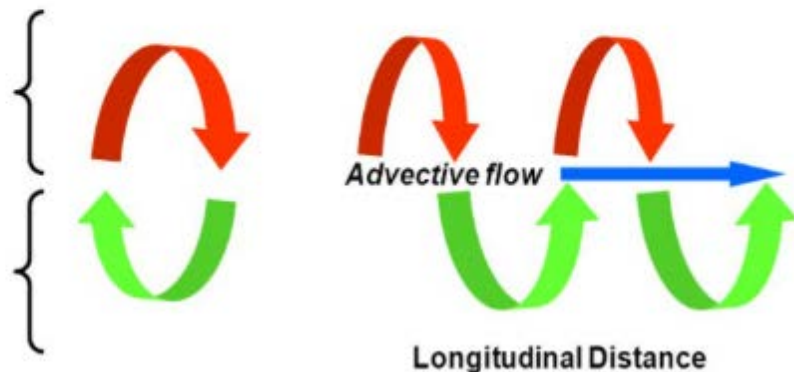
River or stream

1) Cycling in closed systems

2) Cycling in open ecosystems [creates spirals]

Inorganic forms

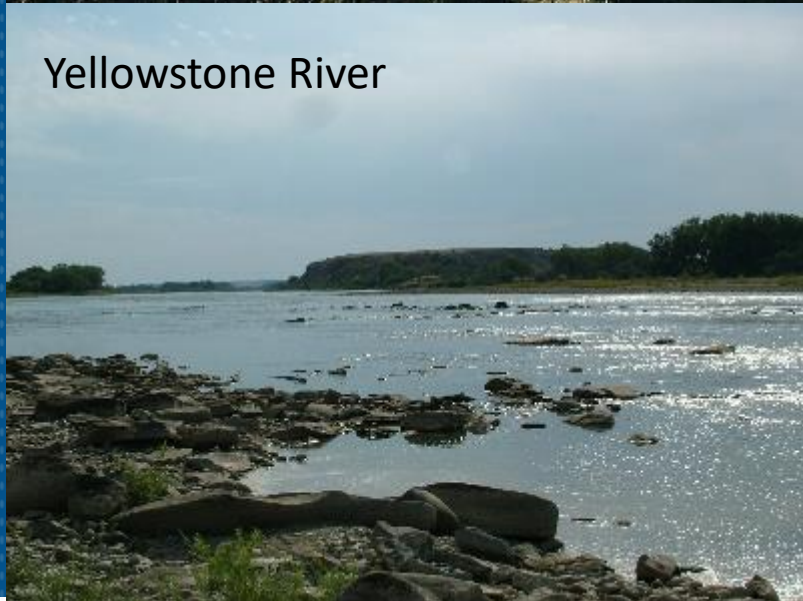
Organic forms



Wadeable Stream (E. MT)



Yellowstone River



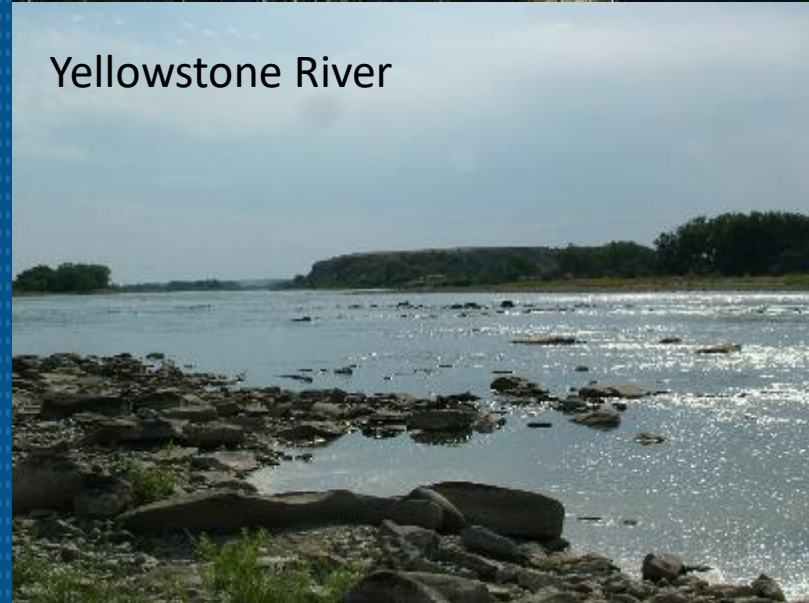
Why Adaptive Management Plans should Consider Watershed Scale

Wadeable streams/ivers vs. large rivers

- Wadeable Streams/ivers:
 - Often have a single point source (in MT)
 - Easier to sample & monitor for direct assessment of nutrient response variables (bottom-attached algae, daily DO changes, etc.)
- Large Rivers:
 - Often have multiple dischargers
 - Difficult to sample, require deployed instruments and often boats to emplace equipment
 - Response variables better addressed through modeling (DO, pH, shore-area algae, etc.)



Wadeable Stream
(E. MT)



Yellowstone River



Next Steps & Technical Subcommittee

Public Input

- Listening Session Summary Themes:
 - Federal approval
 - Assessment Method/Impairment Listings
 - Sources
 - Nutrient Limits & Specifics
 - TMDLs
 - Existing Science
 - AMPs
 - Treatment Ramifications & Economics
- Future listening sessions
- NWG Website question submittal button
- General Questions



Next Meeting

- Wednesday, July 28th from 9:00 – 11:00 am
- Next meeting topics:
 - Any wrap-up from today's meeting?
 - Outstanding questions
 - Implementation of Watershed Scale Framework
- Technical Subcommittee meeting
 - Tuesday, July 6th from 1:00 – 3:00 pm
 - Topic forthcoming



Thanks for Joining Us

Contact:

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To submit comments or questions



<http://deq.mt.gov/water/resources>