

Madison Watershed Planning Meeting

January 25, 2017

6:00—7:30 PM

Ennis School Cafeteria

Introductions

Attendees introduced themselves (see attached list).

Meeting Objectives

Discussed the objectives of the meeting, which included:

- Provide background information on watershed planning efforts
- Provide an understanding of conditions in the watershed.
- Discuss opportunities this process provides to our community
- Present a timeline for this planning process
- Identify topics for future meetings and presentations
- Complete activity to UNDERSTAND water-related concerns

Opening Discussion

The presentation began with a brief discussion about the issues we face with water management, and the fact that water is a limited resource used by multiple entities with diverging interests. Some of these challenges include: variable precipitation timing, climate uncertainty, growing demand, and growing uses. Additionally, our basin is closed to new water right appropriations, and some waterbodies are already overappropriated. Then, there was a discussion about how we can begin to address these management challenges through this planning process by: better understanding conditions, planning for future concerns, improving watershed health and resiliency, and encouraging responsible use of water.

A “Comprehensive” Water Planning Approach

Next, we presented on the integrated approach we are taking by combining our “Watershed Restoration Plan” efforts and our “Drought Resilience Plan” efforts. These individual plans looking at water quality and drought resilience (water supply) are often done independently. However, we are combining these elements into one watershed plan that takes a comprehensive approach to addressing water resource concerns in the Madison.

Water Quality—Items we will address in this plan include: identifying impaired streams, identifying “ideal” conditions, identifying improvement opportunities, and securing funding to implement improvement measures.

Water Supply—Items we will address in this plan include: identifying water supply concerns, identifying future threats/vulnerabilities to water supply, identifying opportunities to build drought resilience, and securing funding to implement drought resilience measures.

The End Goal—“Develop a long-term watershed management plan that identifies conservation projects and practices to improve, or maintain, water resources in the Madison Watershed.”

Watershed Conditions

There was a brief discussion on water quality impairments in the Madison Watershed. These concerns include: temperature, pathogens, sediment, metals, and nutrients (see attachment for a matrix of these water quality stream impairments). Additionally, we discussed some of the opportunities for improving these impaired streams, such as: streamside buffers, improving roads, restoring streambanks, improving upland management, improving stormwater, etc.

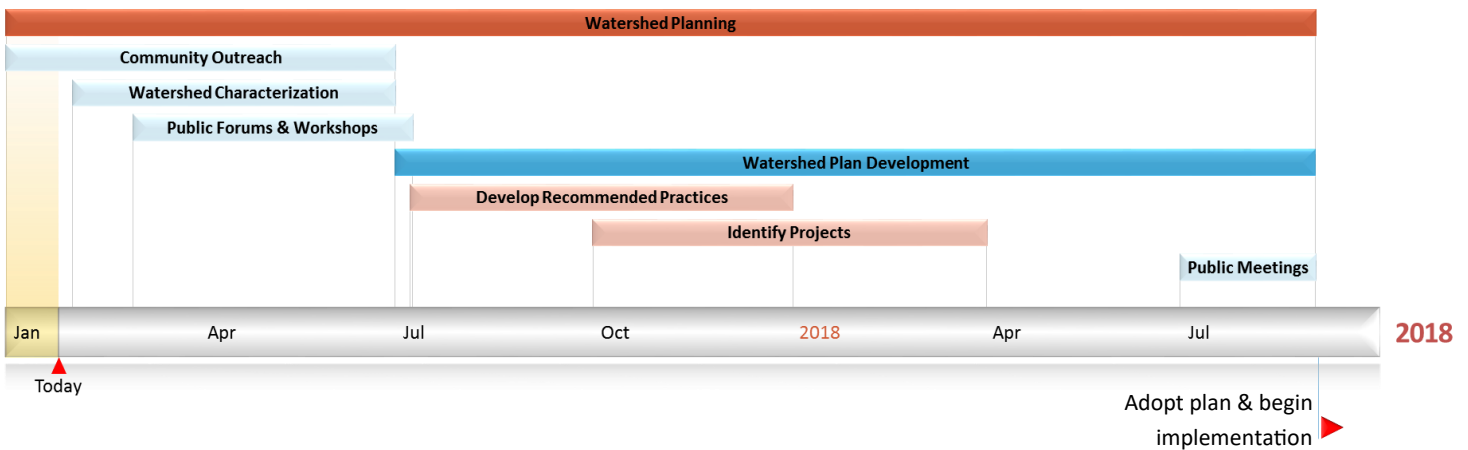
Next, we discussed the concept of “drought” and what that means. Definitions of drought vary widely, but simply put, it can be described as “a shortage or deficiency of water at the time it is needed or expected”. Drought will impact different types of people in different ways at different times. Ultimately, the cause of drought comes down to two things: climate conditions, and land use and/or land management. We can’t necessarily control climate conditions. However, we can control the way land is used and managed to provide resiliency to uncertain climate conditions and/or changes in water demand. Examples practices that can build resiliency in the landscape to drought include: improving soil health (every 1% increase in soil organic matter results in up to 25,000 gallons/acre of water storage), improving vegetation management, and providing capacity for natural water storage.

Short Film

The group watched a short film illustrating how landscape restoration and vegetation management can improve groundwater recharge. The film titled, “Water from Stone” can be found online at: <https://vimeo.com/158492815>.

Project Timeline

We then presented a project timeline for this planning process:



Next Steps

Finally, we discussed the “next steps” of the process which include: community outreach, creating a watershed characterization, and hosting public forums and educational meetings.

Community Outreach—We are seeking input from stakeholders and community members to determine current, and future, water-related concerns in the Madison. Identifying these concerns will help shape the focus of this watershed plan, and will help us determine the priorities within the community. Prior to the meeting, we met with some stakeholders to obtain their feedback on concerns. Those concerns and/or needs included: fisheries, water measurement infrastructure, natural water storage, subdivision impacts, well & septic impacts, climate change impacts, population growth, etc. We then asked meeting attendees to provide us with three of their own concerns related to water that we might address through this planning process (see attachment).

Watershed Characterization—Additionally, we asked attendees to provide us with feedback on topics or concerns that we can better understand to inform stakeholders and community members through this process. The Madison CD will work to compile this information into a “watershed characterization” that will include maps and summary reports. When completed, this watershed characterization will help the Madison CD work with the community to determine priority concerns that can be addressed through this plan. This characterization might include: groundwater recharge areas, pond inventories, well inventory and monitoring, future subdivision locations, impaired streams, population growth estimates, climate data, etc.

Public Forums and Educational Meetings—Using feedback from stakeholders and meeting attendees we identified a need to have future meetings to help educate the community on certain topics pertaining to water resources. We are tentatively looking at having 3-4 of these meetings throughout the months of March, April, May, and June. Topics that we are looking to cover during these meetings include: groundwater/surface water connectivity in the Madison, how climate might impact agricultural practices and fisheries, and best management practices for large and small acreage landowners. Additionally, we will have a final meeting to discuss how information from the previous meetings and the watershed characterization will be incorporated into the watershed plan.

Closing Thoughts

We will soon be announcing the dates of additional meetings. If you have any comments, questions, or suggestions, please contact Ethan Kunard at ethan@madisoncd.org or (406) 682-7289.

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Attendee List

Name	Affiliation
Lander Bachert	Big Sky Chamber of Commerce
Sue Provenza	Community Member
Richard Lessner	Community Member/Madison River Foundation Member
Janet Endecott	Madison CD
Madeline Pruszenski	Madison CD
Kaye Suzuki	Madison CD
Neil Kent	Madison CD
David Hoag	Madison Farm to Fork/Madison Stream Team Member
Parker Redmond	Madison River Fishing Company
Liz Davis	Madison River Foundation
Chelsea Pardo	Madison River Foundation
Bruce Richards	Madison River Foundation
Pamela Kimmey	Madison River Foundation
Lawrence Anderson	Madison Stream Team & Madison River Foundation Member
Manu Redmond	Madison Valley Ranch
Kevin Suzuki	Madison Valley Ranchlands Group - Weed Committee
Abigail Dennis	Madisonian Newspaper
Ann Schwend	Montana DNRC
Jessie Wiese	Montana Land Reliance/Madison CD
William Griffiths	Montana State University - Student
Sarah Garland	Morrison Maierle
Dan Durham	Natural Resources Conservation Service
Jeff Dunn	RESPEC
Zac Collins	RESPEC
Dave Delisi	Ruby Habitat Foundation
Lucinda Morris	Wildlife Conservation Society

During the January 25, 2017 meeting, attendees were asked to provide three of their water-related concerns in the Madison Watershed, as well as three things we should better understand related to water resources. The table below summarizes those responses.

Water Resource Concerns	
Water Management Concerns	Climate Concerns
Not having enough water to meet minimum instream flows	Climate change concerns
Not having enough water for sustainable population growth	Water temperature
Not having adequate water quantity	Timing of runoff
Not having adequate water quality	Water temperature concerns related to climate
Concerned with having water access to water	
Keeping land covered with vegetation	Development
Quantity of water with increased demands	Future well demands
Quality of drinking and recreation water	Need community development plan
Sustaining and conserving water for future generations	Individual well and septic vs. community water systems
Concerned with condition and/or abundance of wetlands	Future well demands
Understand better how water is being used in the Madison	How neighbor's water use affects surrounding wells
Will we have enough water to maintain current lifestyle?	Well, septic, and groundwater issues
Streams drying up over the summer	
Quality of water from irrigation practices (e.g., chemical use)	Other
Losing water rights for traditional (agriculture) uses due to other demands	Access to streams for monitoring or projects
	Protection of traditional water rights - they are threatened in many states
Fish & Wildlife Concerns	Teach kids about using water consciously
Increased recreation pressure	Educational program for youth
Healthy waterways and riparian areas	Needs of grandchildren
Concerned with water providing habitat for healthy fisheries	Develop positive working relationship with ranchers
Concerned with water temperatures for fish	Water quality from pesticides
Recreation use of river becoming too great	Respect of all water uses and water users
Instream flow - water temperature for fish	What are the limitations of the city's water supply?
	What is the city doing for storm water management?
What information do we need to better understand as we go through this process?	
Climate Change	Successful Examples
Climate pattern models	Examples of successful agreements for water rights leasing
Understand climate change	Identify an outcome that is applicable to other watersheds
Climate models regarding precip in the western US	
Climate change understating	Water-Related Data
	Understand areas of high concern for ground water and surface water contamination
Water Management	Pesticides and affect on water quality through agriculture
Future needs	Quantify aquifer health
What grasses or plants are best?	Geologic factors - groundwater and surface water connections
How do existing water right claims fit in? Can they be adjudicated?	Water Budget
How hebgen dam management (flow) decisions are made	Better understanding of snow water equivalent; why is it important?
Dam operation and reservoir management	Understand gaining and losing reaches
Understand how much water is being used	Water rights information
Understand how much water is available	Groundwater studies
How can landscape improvements make better use of rainfall and snow	Continue Stream Team and involve other residents
Water conservation plans	
Better understanding of surface and groundwater use	Other
How do water rights fit into this plan?	Potential impacts on fish populations
How does irrigation effect shallow domestic wells	Educate people - fisher people need to know what's going on
How do irrigation systems effect water supply?	Lots of landowner's opinions
	How does pH relate to soil health, and what can we do on large scale?
Population & Development	Information on improving organic matter
Changing demands on water use	Identify governmental barriers
Analyze city water lines and septic efficiency	History & update of Hebgen Dam operations
Identify who all the stakeholders are (e.g, water right holders)	Map aquifers and wells
Projected future population growth and water availability	Understand the historical perspective of conditions in the Madison
Population projection	Impacts of upland (USFS and BLM)
Number of ranches that will remain	Incorporate the BLM Watershed Assessment
	Educate producers on best vegetation for our landscape
	Education for homeowners (water capture, soil health, vegetation management, etc.)

In addition to obtaining feedback on water-related concerns and information needs, we also asked attendees to provide ideas they have for improving water resources in the Madison. Those responses are summarized below.

What ideas do you have for improving water resources in the Madison Watershed?	
Domestic	Development/Planning
Community program to hold each other accountable for residential water use	Storm water plan
Reduce potential herbicide runoff from residential and agriculture sources	Sustainable residential development
Low flow toilets and showers	Best Management Practices around waterways
Fewer golf courses	Covenant language for efficiency
Smaller lawns with drought tollerant grass	Stricter requirements for protecting soil health in development areas
	Better weed control
	Grazing and land management plans
Water Efficiency and Management	Sustainable land use
Better water measurement	
Irrigate gardens early/late with no wind	Other
Improve ability to measure or control irrigation water	Community education and outreach
Even in years of good precip we should assume drought next year	Rain dance
	Education
Agriculture	Involve schools (e.g., MSU)
Growing appropriate grass species for Madison Valley	Potential regulations
Irrigation practices that use water efficiently	Education on new methods of conservation
Reduce irrigation losses	Education on water systems and how they work
Grazing management practices	Public outreach to disseminate information
Improve availability of information about grass seeding that will improve soil health	Educate people with compelling facts
Educate producers on best vegetation for our landscape	This work should be shared with other watershed groups, and vice-versa, to impact a larger geographic area
	Quantity and quality monitoring
Restoration Practices	Funding improvements
Wetland and riparian restoration	Partner with Yellowstone NP
Improve floodplain connectivity	Dam operation being optimized for water resource needs
Upland management, particularly conifer encroachment	Optimize storage of smaller reservoirs (historic and current)
More riparian plantings	Weed control and soil health to improve water availability
Streambank restoration	