

**Water Planning and Growth and Exempt Wells
Working Document for Discussion Purposes Only¹
Updated during PGE subworking group meeting
12.21.2023**

Problem Statement

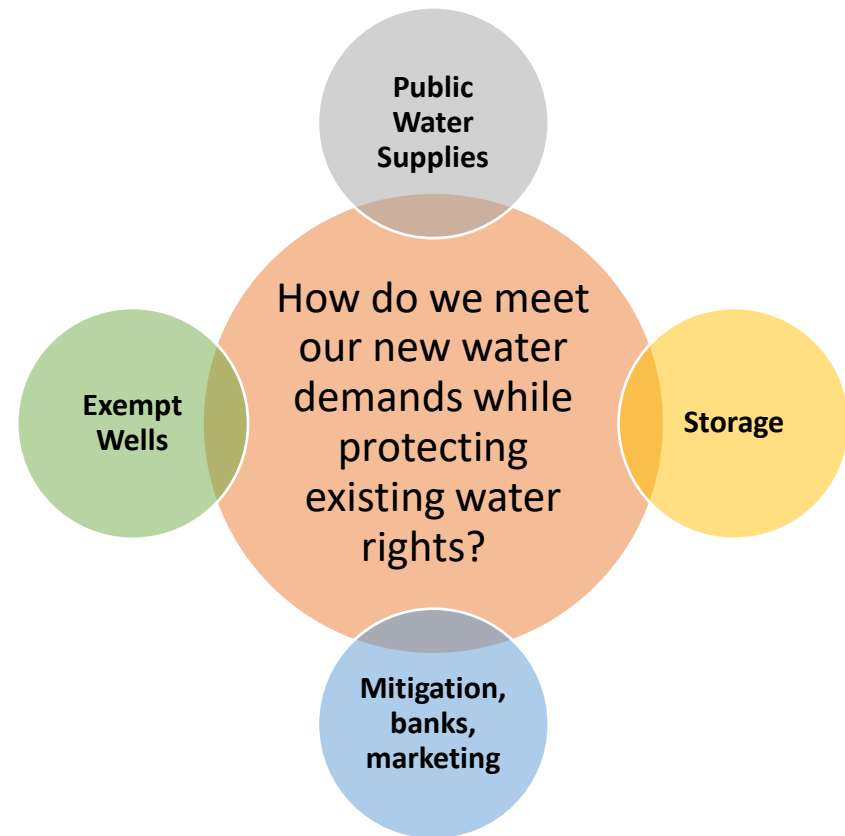
- Montana is challenged in our ability to meet new water demands, with a limited supply. We do not want to cause an adverse effect to existing water rights and watershed function/our water resources.

Goals

- Protect water resources existing water rights.
- Develop new-holistic policy solutions that address:
 - changing water needs,
 - increase demand,
 - decrease supply,
 - changes in the timing of need and use,
 - new and existing needs for water,

Values

- Equity- equal access to process
- Fairness (recognizing prior appropriations)
- Consistency
- Transparency
- Timely
- Maintain culture/tradition of Montana & incorporate growth
- Coordination of multiple regulatory agency authorities



¹ This document captures the problems, goals, values, and needs to frame the conversation around how Montana is going to meet its changing water needs. These problems, goals, values, and needs are not specific to a particular outcome or policy but will be used to assess the holistic suite of policy options that this group will be exploring and recommending. This document also captures the potential solutions developed by working group members to date.

Potential Solutions

Action: DNRC identify drought plan and state water plan recommendations

1. Public Water Supplies (in focus areas)

Context:

- Developers are incentivized to use more centralized services (public water and sewer) over individual wells and septic systems.
- Link to future water use planning and water use. Where are the people going to be. SMART growth
- Types of PWS
 - o Municipal
 - o County water and sewer
 - o HOA (not applicable here)- private entity
- Addresses both water quality and quantity
- Evaluate if tied to SB 382 or not- water quality, quantity, planning (**action: Kelly 101 on SB 382- January**)
 - o Data used to define these focus areas would tie into county planning processes.
- **Where this applies: “Focus areas- problem areas”**

Policy changes that need to be addressed:

- **How to make it easier for cities to grow into their water rights and systems**
 - i. Not be limited to the focus problem areas, they are applicable statewide.
 - ii. Hooking into the system is already the developer’s first choice – barriers like service areas, DEQ public water supply restrictions, limitations in wet water, make it difficult for municipalities to actually add subdivisions to the system
- **Water available (DNRC)- needing a new permit.**
 - Ability for cities to grow into the water decreed or permitted and not have incremental changes needed.
 - Does this mean grow into the diverted volume or consumed volume?
 - When cities need more water
 - Some public water systems do not have any additional supply, how to deal with this?
 - Adverse effect at the basin scale and irrigation conversion (consumptive use)
 - What is historic use for a municipality for a change?
 - Is there a consideration of looking at consumptive use differently for municipalities.
 - Challenge: for the city to serve the development, mitigation plan is not working, HCU- location requirements mitigation, mitigation standards are too high. (zone of impacts?)
 - Mitigation challenges

- Ability to annex
- Make it so that policies related to irrigation salvage water do not prevent municipalities from getting the benefit of implementing efficiencies/reducing irrigated areas/etc).
- **Service areas changes made easier**
 - Service areas/water rights need volume limitations
 - Cut out going through change application or municipal service areas to be recognized.
 - The adverse effect analysis when the area is expanded by pipe
 - Determination when you don't have to go through a change (e.g., when the cities do this through SB 382, don't have to go through a change for new boundary)
- **Requirement for water measurement for any municipal system (and generally in policy)**
- **(hold) Growing communities' doctrine exploration– get more water as they grow**
- **Action: Brian, Ryan, Nate, Spencer** – draft ideas

Water Quality & Quantity coordination and permitting challenges:

- **Flow rate and volume quality (DEQ):**
 - Permitting review, subdivision review process, concurrent review
 - Statue- have to have discharge permit in hand for a water right permit
 - Timing of permitting between DNRC and DEQ
 - Requirement for developers meet with DNRC and DEQ prior to preliminary plat approval (county planning); help developers understand the water quality/quantity planning (is this a county requirement).
 - Continuing to reapply for greater flow rates.
 - Existing location of wells and DEQ flow rate requirements over their population
 - Water quality/DEQ requirement waste water treatment
 - (e.g., mitigation plan and DEQ changes amount of water treated; larger flow rate needed for entire system)
 - E.g., discharge for mitigation, then the nutrient water quality std changes, then no longer have mitigation and discharge will have to be taken out of river
 - There are infrastructure needs to divert, treat and transmit that water to end users. E.g., treatment plan capacity limitation. Need additional sources of supply to meet the capacity needs.
 - Water quality regulations; make return the source not always true; discharge.
 - Disconnect between water rights permits and water quality std. change method of effluent treatment, land apply, water right does not allow them to do that (communication between DNRC and DEQ on limitations of waste water use).
- **(Action: DEQ/DNRC discussion barriers and Incentives)**

Funding and incentive needs

- **Cost of hooking up to PWS for the developer, passed on to end users, affordability challenges.**
 - Impact fees – paid to municipalities for capacity expanding improvements (e.g., master plans, water mains, sewer collection pipes, stormwater)
 - Local/developer share of infrastructure cost- cost of extending water and sewer to development to meet minimum standards
 - Late comer fees- if developer does extensions in a place or at a size that serves future development
 - Pay your way for water fee- Municipality runs out of water, cost to get it (water right in hand or cost to get more)
 - Infrastructure to serv municipalities
 - Updates to growth/cities plans (municipality bears cost)
- **Buckets of money that can be used to offset/structured approach for developers to rely upon**
 - Special improvement districts- you build streets, water and sewer, parks, creates a district around this development, people who by that property, that cost is on their property tax. can impact fees be rolled into these?
 - Special purpose districts- for improvement in services, generally city wide, not generally counties, set up an assessment fee. Create city wide districts. Pays for infrastructure.
 - Tax increment financing – urban/industrial develop districts. Tax snap shot of the tax value, any increase in taxes goes to the district for ~15 years, then do a bond for big infrastructure improvement. Specific to urban renewal district.
 - Targeted economic district- generally in counties,
 - Influx from state government- new program influx of HB2 (e.g., 355), MCEP- difficult for big communities to get.
 - Board of investments- impact fee loan program, buy down interest rate on developer’s capitol to make affordable house pencil out
 - Montana Chamber is looking at TIF to protect it as a tool
 - Bonding and levee by cities for infrastructure
- **What happens when only a water district? Goal to have domestic and sewer together.**
 - One challenge to thinking holistically about water supply/wastewater management is that districts are sometimes created simultaneously with new development, but can also be created piecemeal later to address issues that emerge
 - HB 435 doesn’t address the sewer component
- **ACTION (Kelly, Mark, Clayton, Anna)**
 - What does a financing package look like?
 - What worked from last session and didn’t work
 - Future forward what do we need?
 - Coordination with other efforts
- **Access – property owner can block access to public water and sewer.**
 - Relying on easement approvals Easements, etc. to extend across private prop
 - **ACTION:?**

2. Water Storage & regional water storage (main working group next)

Context:

- Stop blowing water out of the bottom; we need to keep water from leaving the state enhancing availability
- Develop an implementation plan for the state water plan and state drought plan to develop storage.
- Implementation-State Water projects 2.0 to take this on.
- Suite of storage tools:
 - Opportunity to store high spring flow water; different color of water
 - Groundwater, aquifer recharge, Storage and Recovery
 - Recharge aquifer using surface water in priority to fill a mitigation bank serving a defined geographic area
 - Aquifer storage and recovery model - class 3 injection well - meets standards (WA state does this)
 - New storage
 - Not new big projects.
 - Old model of relying on feds to spearhead large projects untenable now due to magnitude of environmental assessments and other roadblocks (this needs to be a funding consideration/awareness)
 - Small scale storage, such as former gravel pits, Impoundments
 - Building on existing storage; first priority to increase functionality of existing facilities.
 - Rainwater harvesting
 - Use exiting storage & contracting:
 - Regional storage
 - Contracting for existing storage (Federal and State)
 - Opportunity for DNRC to pre-load contracting out of canyon ferry for use
 - Natural storage:
 - Wetlands and undeveloped or agricultural riparian areas where floodwaters can spread out and recharge aquifers
 - Flooding easements. Allow flooding to occur and reimburse.
 - Pre-capture water
 - on big projects so we are not paying to pipe back upstream (policy question)
 - Ditches:
 - Ditch companies selling shares to HOAs or subdivisions
 - Incentivizing ditch companies and irrigators to keep water flowing through (leaky) ditches that recharge “man-made” aquifers such as West Billings
 - Infiltration gallery - Irrigator takes an acre, digs a pit. Some lined, some not. Staying out of ground water.

Policy changes that need to be addressed (statewide):

- How do we address ownership/allocation of new and existing stored water? Want all use type to access and use storage.
 - i. DNRC SWP challenges: Need to explore limitation in federal law, SWP limitations for the type of uses. Want to be broad access for users. Don't want to impact agriculture reliance on storage, but opportunities to expand. Are the statutes what we want today?
Action: DNRC review SWP limitations.
 - ii. GW ownership is more difficult. Other states have statutory provisions on control of GW (e.g., Colorado). **Action: DNRC/Clayton/Nicole what are other states doing?**
- Service area limitations for storage and when is a change is required.
 - i. **Action: DNRC (Kerri can start with a information document that can be summarized as needed for this)**
- Natural storage (e.g., BDA), control of GW source? Who owns that water? Do you have to file a changes?
 - i. **Action: DNRC (Kerri and Evan)** pull information. **Future action:** is a policy change needed?
- Policy options to transfer federal contracts to the state for mitigation (hungry horse, Canyon ferry) existing transferred to the state for mitigation or take on the facility. **Action: DNRC review current policies**
- Existing storage policy does not allow secondary use of a water right (e.g., irrigation) as storage (e.g., for an infiltration gallery). Review the marketing for mitigation; mitigation; water for sale statutes **Action: Julie review for changes - Jan 5th**
 - i. E.g., Irrigation districts/ditch companies ability to store water; Is it ok to let them skip the change process for water storage?
- Do we need policy to allow for off stream bucket to hold for a period of time for later use (e.g., a bulge in the system)
 - i. Should you have to go through the change to do this? Should it be easier to do this? Don't have the Historic use analysis?
 - ii. SWP vs User associations vs private vs Municipality (don't need a change for tank). **Action: Krista**
- Basin closure and ability to create storage- high spring flow exceptions
 - i. **Action: DNRC analysis-** high spring flows availability in the focus areas and closed basins; major rivers
 - ii. Legal availability analysis for storage and new water. Trigger flows/exceedance probabilities used
- Other states have a storage water substitute provision (between storage facilities, and between types of rights); trans basin swaps. You need a working measurement and reporting system first **Action: Ryan-** share concept; future action: TBD

Feasibility and Studies- as a part of the funding package:

- **Action: DNRC/Ryan** (discrete ask): Pull other states on their funding models and support of feasibility studies; presentation to the SWG (near term)
- SWP - All the feasibility studies on SWP; potential for increasing storage; other water rights in those facilities
- Locate previous studies conducted in **focus areas**, potential locations that have been previously identified
 - i. **Action (year out):** have the cities identify what studies that have been done; e.g., PL566; BOR studies?
- Surface Storage:

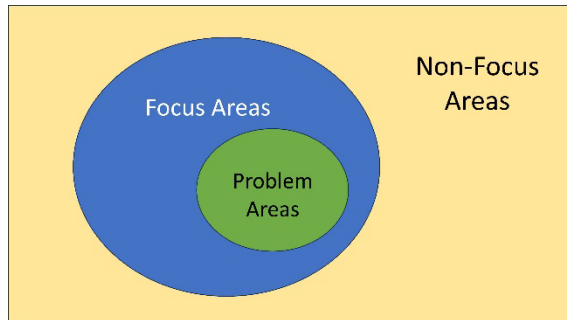
- i. A focused feasibility study in a particular basin to result in real on the ground action (funding ask)
 - ii. Identify the barriers to implementation- land use, land availability, etc.
 - iii. Identify opportunity potential for trust lands/SWP lands for new storage
 - iv. Focus are could be ripe for the pilot areas.
 - 1. Build off the studies that have already been done.
 - v. Potential Surface Storage locations and projects that have previously been identified
 - vi. Need to understand physical/operational constraints around existing storage, i.e.,: winter releases, minimum pool, legal/policy constraints, etc..
- GW Storage
 - i. Pilot- Ditch companies for feasibility to do aquifer recharge with irrigation
 - ii. Science around when and how you create groundwater storage, what quantity is available for extraction and when and where it may show up.
 - iii. Aquifer studies – No full aquifer studies have been completed for 5 focus aquifers; however, numerous partial aquifer studies exist as a starting point
 - iv. Potential Groundwater Storage locations need to be identified
 - v. Infrastructure limitations.
 - vi. Missing technical expertise to implement ASR. What are all the right questions that need to be answered? Both SW & GW
 - 1. Water physical and legal availability analysis needed.
 - 2. High spring flow analysis is needed in key drainages.
 - SWAMP (MBMG), DNRC funding for data and information
 - Economic benefits of stored water facilities;

Funding and incentive need for the storage projects

- **ACTION: DNRC** Other states have incentivized & funded water storage – lessons learned/models
- **Action:** Kelly research on funding
- Conversation around what are efforts that should be for grants, loans, incentives for private entities, direct appropriation?
- Need stable funding and FTE for existing storage facilities DNRC State Water Project
- Funding for private facilities to maintain what we have
- Funding for technical feasibility analyses and pilot activities in specific locations (see above)

- Funding on the science needed (see above)
- Funding for new and building on infrastructure
- **ACTION:** (Clayton, APS, Mark) informal conversation with WPIC members on funding proposal and needs and how to move forward and participate on the WPIC panel
 - i. OTO/grant; difficult to build it into base; need conversation on how to put in base
 - ii. SWP funding model
 - iii. When is the time to make this ask?
 - iv. Stop having DNRC asking for grants to DNRC

3. Exceptions to the permitting process (problem, focus, and statewide policies)



General

- Once the problem areas are identified; drill down into where SB 382 applies, what counties are doing, know challenges to tying into PWS, water quality challenges, water availability challenges. There are some places that you will not be able to get water. (Hold)

Focus/problem areas:

Policy options:

- Explore use of Controlled Ground Water Areas (DNRC Action Item to describe)
- If you're in a *problem* area, you need to go through the permitting process or hook up
 - i. What if you can not get mitigation, can not hook up, exigent circumstances, the real one-offs, what do you do?
 1. Ag, domestic, leave out lawn and garden/irrigation.
- Requirement to go through the SB 382 process
- Metering & enforcement requirement and ability to make call

Criteria or trigger to be focus/problem area (DEQ and DNRC):

- ?

Studies needed and monitoring needed (DNRC):

- Monitoring and study criteria

Focus/non-problem areas:

Policy options:

- Explore the use of stream depletion zones
- Possible exception for de minimus?
- Possible exception for development/uses that are covered under an umbrella mitigation bank/plan: State Water Project?
- Ag, domestic, leave out lawn and garden/irrigation.
- Curtail consumptive uses during drought conditions?
- Decrease authorized volumes/restrict types of uses; exclude large lot development; *MT does not prioritize by uses
 - i. County limitations on parcel sizes
- Metering & enforcement requirement and ability to make call
 - Who collects and stores the data? Is it public data? Is it readily available?
 - Current law does not provide an adequate process for existing water users to protect themselves.
- Requirement to go through the SB 382 process

Triggers/criteria (DEQ and DNRC):

Studies needed and monitoring needed (DNRC):

Non-focus area

Policy:

- Metering/measurement/enforcement requirements
 - a. Notice and opportunity for water rights holders to protect themselves
 - b. Futile call challenges ability to protect right
- Prevent non-problem areas from becoming problems: How to identify when a non-focus/non-problem area becomes a focus area/trigger?
- Stock tank carveout
- Address phased development loophole and combined appropriation challenges
- Consider reducing volumes down to what is reasonable and necessary for domestic use
- Evaluate DNRC standards and update them for accuracy
- Status quo for exempt wells

4. Mitigation, mitigation banks, and marketing for mitigation (next step- Main SWG conversation)

Challenge:

- Having mitigation plans that can demonstrate that are effective, not creating adverse effect, timing, location, amount, and priority date requirements are too high of a bar. Realistic the level we are holding people to with the mitigation plan.
- Access to mitigation water is a challenge, finding water rights
- Mitigation needs to be wet water and not paper water.

Solutions:

- Policy changes and address the policy gaps on time/location/amount/priority of adverse effect & mitigation requirements
 - Defining geographic extents for mitigation zones given GW/SW interactions
 - As under adverse effect, are instances where more flexibility in timing and location needed?
 - Challenges with changing seasonal irrigation rights to year-round municipal
 - Reliable solution for other people, surface water mitigation, going through change process to do that isn't going to be practical
- Policy changes for marketing for mitigation
 - Strike contract language.
 - Cannot market to yourself
 - Divert water when in priority and put it in the ground "Prospective" mitigation (contrast with reactive)
- Create a bank of water for future permits to draw from for mitigation
 - Water users need the ability to object - guarantee or insurance that you get that water back if you share the water amount with neighbor on your off year
- Policy update; presumption that depletion = adverse effect
 - Just because there is a depletion in the model, does not mean that there is an adverse effect.
 - Lack of measure, then you cant do this.
- Data and science:
 - Water measurement requirements for mitigation.
 - Need to know who is in priority on any given date.
 - Depletion analysis is too simplistic.
 - Build on the depletion analysis discussions from last SWG

5. Parking Lot (on hold)

- Change process: Historic consumptive use conversation; wet water vs paper water. Do we want to change it? Land use has changed, but that water still sit on the books. Nonuse? How can use that water, without haircut.
 - Remote sensing to get a better consumptive number
 - Look-back period change?
 - Need for accurate wet water use on paper
 - Calculation of consumed water (Remote sensing)
- Are there things in the policy basket that agriculture/conservation wants to see move forward?
 - Leasing
- Adverse effect definition.
 - Return flows that takes current use into consideration
 - Are instances where more flexibility in timing and location needed?
 - Waiver of adverse effect. look at other state models.
- Enforcement
 - What policy questions are being asked here on illegal use vs. Commissioners powers via statute?
- Transfer water from historic ag to municipal uses. Challenging in closed basins
- Legal and physical availability
- How do you go through the change process
- Claims that don't have a decreed volume - without using historic consumptive use
- Going through change, is doing something different. Other users on that source aren't changing anything. Consumptive use analysis
- **Enforcement of property rights**
 - 'unties' DNRC's hands
 - Advancing science of small storage
 - Working with individual producers who have access, or using state land
 - Reframe from few massive structures to many small ones
- **Bring Back Waiver of Adverse Effect and Temporary Leasing Statute**
 - Need to get information out to people who don't understand the limitations of exempt wells
- **Education & Outreach**
- **Weather modification**
 - Feasibility study just contracted with NCAR; next step would be a potential pilot project if feasibility modeling demonstrates promise in MT

