

**Water Planning and Growth and Exempt Wells**  
**Working Document for Discussion Purposes Only<sup>1</sup>**  
**Updated 2.12.2024**

**Problem Statement**

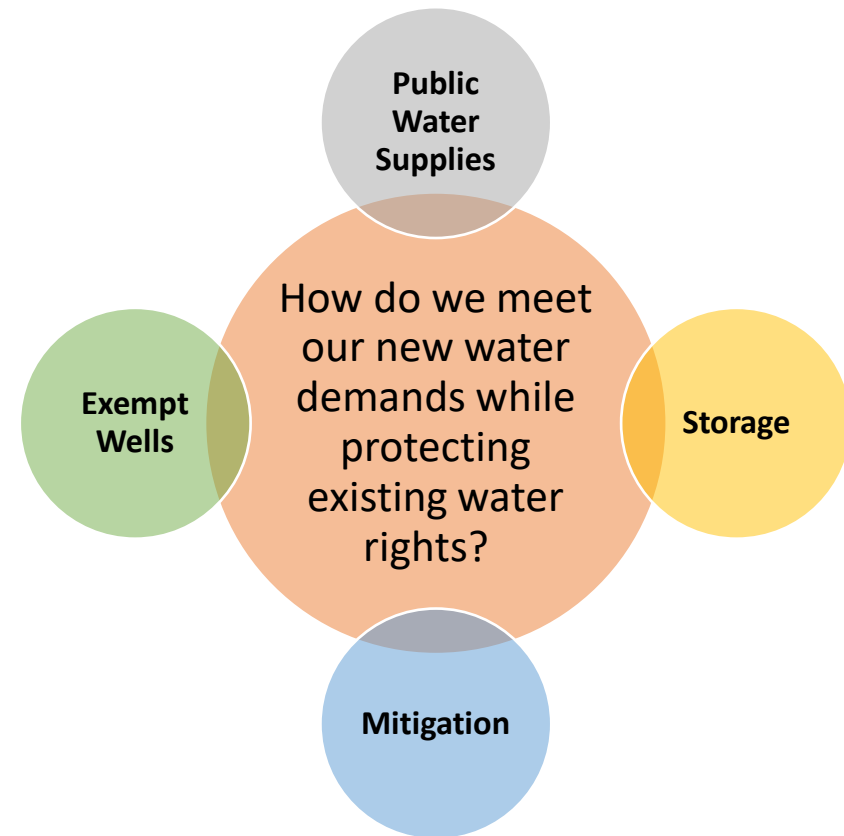
- Montana is challenged in our ability to meet new water demands, with a limited supply. We do not want to cause an adverse effect to existing water rights and watershed function/our water resources.

**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



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<sup>1</sup> 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.

1. SOLUTION: EXCEPTIONS TO THE PERMITTING PROCESS (CHALLENGE/PROBLEM, FOCUS, AND STATEWIDE AREAS)

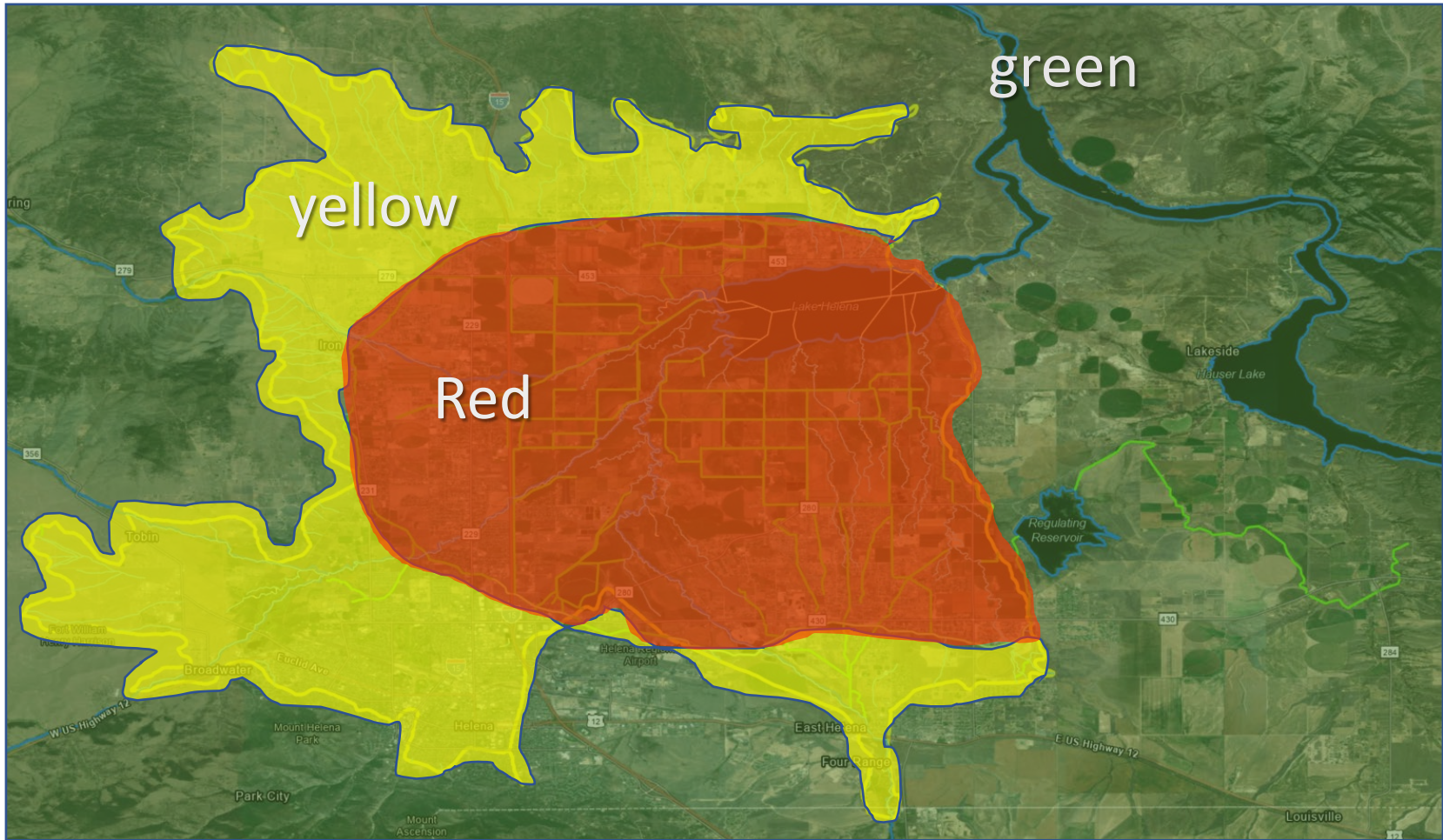


Figure 1: Example of non-focus, focus, and challenge/problem areas

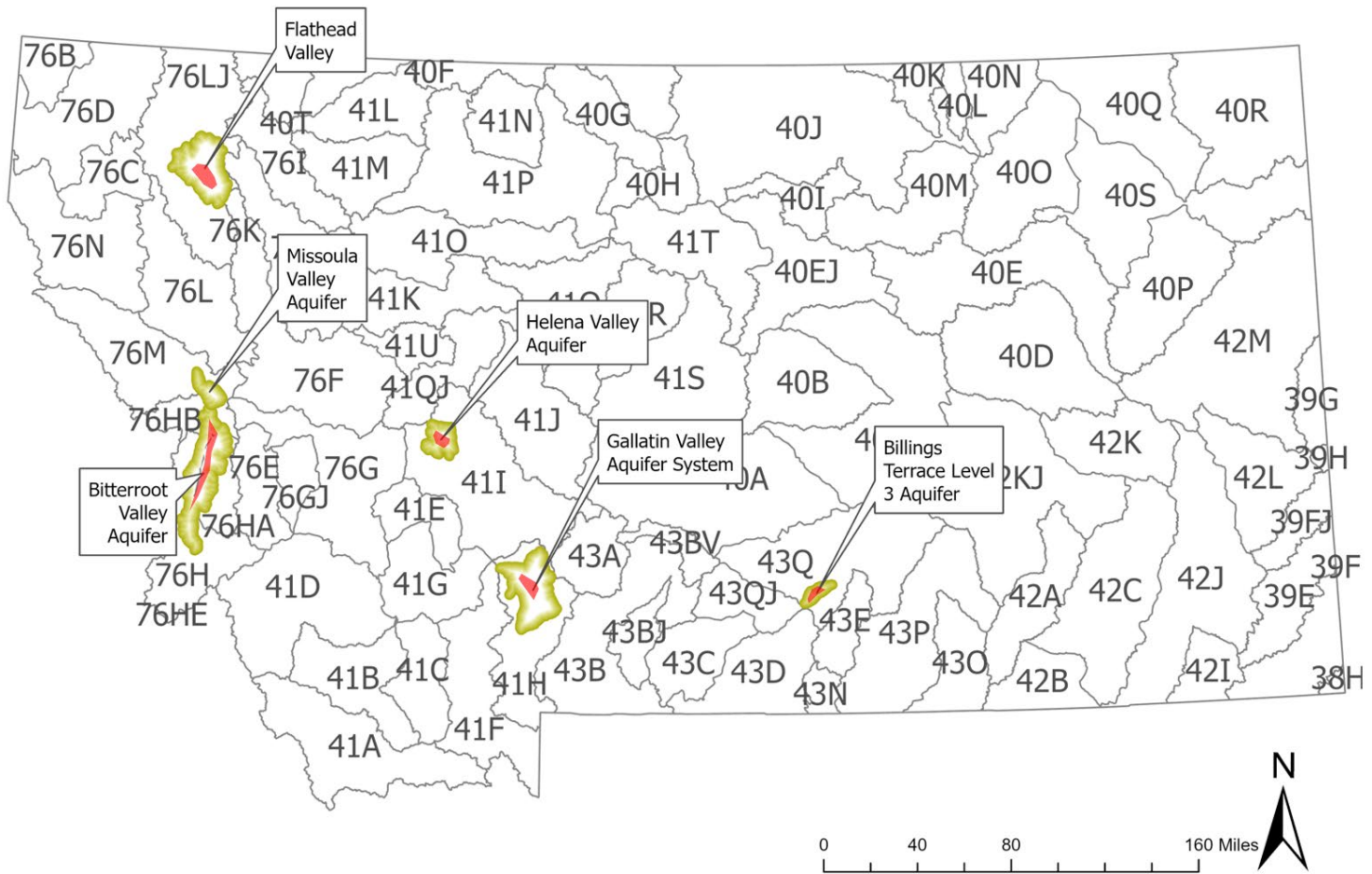


Figure 2: Location of focus areas

## **“Critical GW Areas” or “Challenge” or “problem areas” (red):**

### *Framework of options:*

- Metering & measurement requirements
- No exceptions: If you’re in a *problem* area, you need to go through the permitting process or hook up to public water and sewer
- Exigent circumstances: What if you cannot get mitigation, cannot hook up, the real one-offs, what do you do? (e.g., Ag, domestic, leave out lawn and garden/irrigation)
- Proactive depletion limitation: GW wells, pumping today impacts tomorrow
- Enforcement requirements: Notice and opportunity for water rights holders to protect themselves; futile call
- Explore use of Controlled Ground Water Areas (**Action: DNRC describe**)

### *Criteria to become & leave a “challenge area”:*

- In focus areas
- **Action: DEQ and DNRC**

### *Studies and monitoring needed:*

- Monitoring and study criteria
- **Action: DNRC develop with other agencies**

## **“Focus areas” or “Managed GW areas” (yellow)**

### *Where*

- Helena Valley Aquifer (41I)
- Gallatin Valley Aquifer (41H)
- Missoula and Bitterroot Aquifers (76H & 76M)
- Billings Terrace Aquifer (43Q)
- Flathead Valley Aquifer (76LJ)

### *Framework of options:*

- Metering & measurement requirements
- Exception for de minimus
- 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

- Study only
- Enforcement requirements: Notice and opportunity for water rights holders to protect themselves; futile call
- Explore the use of stream depletion zones (**Action: DNRC describe**)

*Triggers/criteria to become and leave* (**Action: DNRC develop**):

- \*DNRC: what are the other areas? And clear criteria
- Groundwater aquifers
- Aquifers with high concentration of exempt wells, where density could have cumulative impacts.
- Surface Water Basin Closures, or lack of SW legal availability.
- Aquifers with known hydraulic connection to surface water.
- New ground water permitting is likely to require mitigation, if there is SW/GW connectivity, potential to deplete surface waters resulting in adverse effect.

*Studies and monitoring needed:*

- Monitoring and study criteria
- **Action: DNRC develop with other agencies**

**Statewide “Non-focus areas” (green)**

*Where*

*Framework of options:*

- Metering & measurement requirements
- Status quo for exempt wells
- Address phased development loophole and combined appropriation challenges
- Consider reducing volumes down to what is reasonable and necessary for domestic use
- Stock tank carveout
- Evaluate DNRC standards and update them for accuracy
- Enforcement requirements: Notice and opportunity for water rights holders to protect themselves; Futile call challenges ability to protect right

## 2. SOLUTION: PUBLIC WATER SUPPLIES (IN FOCUS/PROBLEM AREAS)

### Context:

- Developers are incentivized to use more centralized services (public water and sewer) over individual wells and septic systems.
- Types of PWS: Municipal & County water and sewer
- Addresses both water quality and quantity
- Where: “Focus areas- problem areas”

### 2.1 Policy changes:

- **Action:** Brian, Ryan, Nate, Spencer (met on 1/5/24; next steps- summary of discussion; present ideas to main working group in February)
  - Change 85-2-402 or new statute (2025) and rule change (e.g., 36.12.1902)
- **How to make it easier for cities to grow into their water rights and systems?(statewide challenge)**
  - 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) challenges for municipalities and large water systems-**
  - Ability for cities to grow into the water decreed or permitted and not have incremental changes needed.
  - 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?
    - Mitigation 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?)
  - Policies related to irrigation salvage water prevent municipalities from getting the benefit of implementing efficiencies
    - Service areas/water rights need volume limitations. Ability to annex
    - 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

### 2.2 Measurement:

- **Action:** SWG needs to further define this
- Requirement for water measurement for any municipal system

### 2.3 Water Quality & Quantity permitting Incentives:

- **Action:** DEQ/DNRC review & generate ideas
  - (likely rule/Statute change; low hanging fruit & 2027 session)
- **Flow rate and volume quality (DEQ):**

- Permitting review, subdivision review process, concurrent review
- Statute- 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).
- Mitigation plan and DEQ changes amount of water treated; larger flow rate needed for entire system; 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.
- 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 wastewater use).

#### 2.4 Funding incentives:

- **ACTION:** Kelly, Mark, Clayton, Anna develop funding package (funding/statute change 2025)
- 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)
- Sources of funds 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 snapshot 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
  - Bonding and levee by cities for infrastructure

### 3. SOLUTION: WATER STORAGE & REGIONAL WATER STORAGE (FOCUS AREAS/STATEWIDE)

#### Context:

- Stop blowing water out of the bottom; we need to keep water from leaving the state enhancing availability
- 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.

#### 3.1 Policy changes (statewide):



- How do we address ownership/allocation of new and existing stored water? Want all use type to access and use storage. GW ownership is more difficult. Other states have statutory provisions on control of GW (e.g., Colorado)
  - i. **Action:** [Aquifer Storage Dominion and Control colorado.docx](#)
- DNRC SWP challenges: Need to explore limitation in federal law, SWP limitations for the type of uses. Want to have broad access for users. Don't want to impact agriculture reliance on storage, but opportunities to expand. Are the statutes what we want today?
  - i. **Action:** DNRC review SWP limitations.
- Service area limitations for storage and when a change is required.
  - i. **Action:** DNRC information document
- Natural storage (e.g., BDA), control of GW source? Who owns that water? Do you have to file a changes?
  - i. **Action:** DNRC: [Stream Wetland Restoration Water Right Guidance - Final - 04-2016.pdf](#)
  - ii. **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.
  - i. Can the state approach federal facilities for contracting for mitigation?
  - ii. Transfer federal facilities to the state?
  - iii. **Action:** ?
- 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 (see below)
  - i. E.g., Irrigation districts/ditch companies ability to store water; Is it ok to let them skip the change process for water storage?
  - ii. **Action:** ?
- 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).
  - iii. **Action:** ?
- Basin closure and ability to create storage- high spring flow exceptions
  - i. 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
  - i. **Action:** future action: TBD

- Definition of aquifer recharge: Drought plan “DNRC should use its Comprehensive Water Review process to explore broadening the definition of “aquifer recharge” (§ 85-2-102(3), MCA) to clearly authorize recharge as a standalone use, outside of mitigation or marketing for mitigation.”
  - i. **Action:** ?

### 3.2 Funding Incentives

- **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
- **Action:** DNRC Pull other states on their funding models and support of feasibility studies
  - i. Conversation around what are efforts that should be for grants, loans, incentives for private entities, direct appropriation?
- Feasibility:
  - i. Identify opportunity potential: new storage generally, previous studies, trust lands, SWP for new storage & building on existing storage
  - ii. Identify the barriers to implementation: land use, land availability, physical/operational constraints around existing storage, legal/policy constraints; Water physical and legal availability analysis needed.
  - iii. High spring flow analysis is needed in key drainages.
- Pilots
  - i. Pilot- Ditch companies for feasibility to do aquifer recharge with irrigation
  - ii. Aquifer studies – No full aquifer studies have been completed for 5 focus aquifers; however, numerous partial aquifer studies exist as a starting point
  - iii. Potential Groundwater Storage locations need to be identified
- Studies & science needed
  - i. SWAMP (MBMG), DNRC funding for data and information
  - 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. Missing technical expertise to implement ASR.
- Existing facilities
  - i. SWP existing infrastructure Need stable funding and FTE for existing storage facilities DNRC State Water Project
  - ii. Funding for private facilities to maintain what we have
- Infrastructure:
  - i. Funding for new and building on infrastructure

## 4. SOLUTION: MITIGATION

### Challenge:

- Access to mitigation water is a 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.
- **Action:** ?

### Solutions:

- 2023 Stakeholder Working Group focus:
  - Potential change to "Aquifer recharge" in MCA 85-2-102 to include groundwater; definition of mitigation
  - Reviewing policy manuals for clarity and updates (DNRC and Julie)
- Beyond 2025:
- There are a suite of options: Julie spreadsheet: [List of mitigation statutes rules etc.xlsx](#)
- 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
- Data and science:
  - Water measurement requirements for mitigation.
  - Need to know who is in priority on any given date.
  - Build on the depletion analysis discussions from last SWG
- DNRC depletion & return flow analysis
  - Building on the last SWG technical conversation

## 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