

**Water Planning and Growth and Exempt Wells
Updated Working Document for Discussion Purposes Only
SWG Meeting November 14th and 15th, 2023**

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.

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.

Goal

- 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,
- Develop new-holistic policy solutions that address protect water resources existing water rights.

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

NEEDS	CONTEXT (want to connect data to these needs)
Provide wet water for people to live and account for growth	<ul style="list-style-type: none"> – New uses and existing uses need more water – Supply & demand of housing- to what extent is water for housing a challenge? – Tension between new users and protection of existing property rights – Need to maintain the option to drill exempt stockwater wells and get a water right for them.
Protect existing water rights and the prior appropriation doctrine	<ul style="list-style-type: none"> – Providing certainty in water rights system – Ensure tribal, treaty, federal rights are not impacted – Protecting instream flow rights (permitted rights); Provide for healthy rivers, protecting seasonal flow variations for fisheries, maintain base flow for fisheries – Protecting our property rights/investment (i.e., instream permits & changes); fairness, equity – Protect our ability to make call; Safe from calls; increases call risk to surface water rights – Existing water rights are a property right; exempt wells impact that property right and there is no mechanism to protect it – Not lose right to exempt wells while still protecting seniority – Prior appropriation – rule of law, MT constitution – Inability to oppose exemptions means “no seat at the table” for existing WR holder
Address the nexus of water quantity to water quality and land use planning	<ul style="list-style-type: none"> – Growth, housing, water quality, and water supply are all related – Protecting timing, preserving water quality – Exemptions promote suburban sprawl (open space reductions); zoning – Are we using water to restrict land use & growth? – County planning process- does it address water concerns? – No unintended consequences to DEQ’s water quality administration
Ensure that the burdens between permitting and exception process are the same.	<ul style="list-style-type: none"> – Costs of collecting data, burden of proof

NEEDS	CONTEXT (want to connect data to these needs)
Develop long term solutions (100 year) that take accounts for long term weather patterns and variability, prolonged drought	<ul style="list-style-type: none"> – Solution needs to address long term (100 year) water needs – Plan for a changing climate and hydro regime that may make wells more vulnerable
Ensure lack of Adverse Impact	<ul style="list-style-type: none"> – How to ensure? – What isn't working now?
Accessibility to a water right	<ul style="list-style-type: none"> – Exempt wells are a result that a water right is not accessible

Overarching Values Incorporate into ALL Solutions	CONTEXT
Implementation/process of new solutions <ul style="list-style-type: none"> • common sense, • provide equal access, • certainty, • transparency, and • fairness (recognizing prior appropriation) 	<ul style="list-style-type: none"> – Clarity of process for all users/applicants – Consistency of process (and outcome to a certain extent) for users/applicants – Provide certainty for users in the process – Timeliness – Equity - Access to process – ability for small users to obtain exemption at minimal cost and without legal assistance (define small) – Consistency: Concentrated use of exempt wells has the same impact to existing water rights as a permitted well. Should have same requirements – Fair rules that don't injure people; system should not injure water rights. – Fairness - People who apply for permits and mitigation are held to a totally different standard than those who can meet exemption.
Solutions driven by data about uses, externalities, impacts, and hydrogeologic realities (e.g., measurement, studies, monitoring) with funding and resources identified. Building data requirements in the decision-making process (permits, exempt wells, or other solutions).	<ul style="list-style-type: none"> – What data do we have that will provide clarity and help drive informed solutions? What data is needed to address the needs/issues? – Where we don't have data, how can we get it, who collects it, to demonstrate impact or not? – Is the data clear enough to make informed decisions? – What data exists that states domestic use on exemptions is having a detrimental effect on senior water, and where? – Burden of cost associated with data collection – quantity/senior rights, and provide for additional development? – SW/GW connection and impacts to SW property rights – Building the science over time, decreasing the cost of analysis. – Duty to put water to use and better understanding of specific uses and new uses – How do dev. patterns affect overall hydrology? (ag to subdivision land conversion long-term consequences?) – Aquifer capacity analysis – How are aquifers evaluated to protect

Overarching Values Incorporate into ALL Solutions	CONTEXT
Understand and define “de Minimus” AND understand and define cumulative impacts.	<ul style="list-style-type: none"> – Need shared concept of what we mean by “de minimus” <ul style="list-style-type: none"> ○ Different when talking about exemption v authorization. Related to the volume question. – Issue of “de minimus” – in the very rural areas this means something different entirely. Location, density, site-specific. – Legal standard is no adverse effect, so de minimus isn’t the same – Understanding why there is so much concern over the smallest use of water in Montana – Cumulative effects of de minimus is not actually de minimus – Site-specific analysis of adverse effect, amount of water isn’t the only question – There is a place for exemptions, but any exemption will always be used to the greatest extent possible if it saves money – Unmeasured and cumulative impacts of subdivisions – Concentrated use impact – Prevention of unreasonable depletion & extent of depletions – Enforce the line
Solutions developed need to NOT be one-size fits all (e.g., by purpose or geography) but also work statewide	<ul style="list-style-type: none"> – Recognition that different types/purposes may require different forms or information for equitable application and/or consistency of process – Understanding DNRC regulations vs. the law – are there discrepancies that impact usage? – Exempt wells may contribute to stream depletion harming senior water right holders and degrading aquatic habitat. We don’t really know where this is happening or where it’s more theoretical – Use must work statewide & from basin to basin, or source to source. This is tricky because it’s all different – “One size does not fit all” throughout the state
Policy solutions recognize potential for unintended consequences	<ul style="list-style-type: none"> – Collateral impacts (water quality, transportation, traffic – city residents pay) – Impacts of exempt wells on hydro electric facilities

Overarching Values Incorporate into ALL Solutions	CONTEXT
	<ul style="list-style-type: none"> – How has the exception morphed over time – Water security or vulnerability of unsuspecting homeowners
<p>Discussion of current policy: equity differences between permitting and exemption. Is equity a goal?</p>	<ul style="list-style-type: none"> – Is there a different way to meeting the needs/values without the exemption? – Evaluation of HB114, how it helped and changes needed – The current exemption process vs. permit/mitigation is unfair – if you can fit into the exemption process, you get 10AF; if you can't, you start at 0

POTENTIAL SOLUTIONS (statewide/limited geography)	CONTEXT/DETAIL	CHALLENGES
1.0 Public Water Supplies (specific areas)	<ul style="list-style-type: none"> - Incentivize/require developers to use more centralized services (water and sewer) over individual wells and septic systems - Development - reasonably close to a community water source, if there is capacity, that its hooked into it, if circumstance work - Design incentives for development (more commercial) to use water supplies - Some public water systems do not have any additional supply, how to deal with this? Or availability but preventing next person down the line so then leapfrog development - Do we want community sewer system? - Individual waste water systems - Limited it to system that have septic ? - Deep aquifer and dump into shallow, that is a problem - but most aquifers are leaky confined and connected to source - More remote - get a bigger well, on-site return, inside use only, if there is onsite infiltration - What about when they pipe it out of the drainage area? - Design Storm Water Retention Specific to subdivision development; would need to evaluate impact downstream 	<ul style="list-style-type: none"> - How to incentivize/transactional cost - How to pay for it? Financing - Legal availability of water - Access to land/easements/authorization to expand/extend - Easements, etc. to extend across private prop - Relation to proposed subdivisions and DEQ sanitation in subdivisions review, mitigation requirements - Historically we have treated everyone the same. How can we get development to legally and physically available public water systems?
2.0 Use Water/Land Use Planning	<ul style="list-style-type: none"> - Continue to provide for some exempt well use (ag, stock, tied to tax definition) - Use S382 in pilot areas - DNRC provides data analysis for quantity - DEQ for quality 	<ul style="list-style-type: none"> - Politics of zoning and planning - Big picture, comprehensive planning to project future water needs - At-risk areas

POTENTIAL SOLUTIONS (statewide/limited geography)	CONTEXT/DETAIL	CHALLENGES
	<ul style="list-style-type: none"> - In areas of low concern, possibly same process as now - In areas where moderate or high concerns, higher burden to show no adverse effect, water quality impacts, etc - Addresses nexus, wet water, protect existing rights - Appendices to Map 19 - The Montana Land Use Planning Act was mentioned as a tool for having these discussions ahead of time. 	<ul style="list-style-type: none"> - The property rights allowing a landowner to subdivide into 1-acre parcels without considerations of density and location precluded further discussion. - County planning departments generally have land use planners, but not water planners. - The need to identify a baseline for preservation (of land and water) came up several times.
<p>3.0 Water Storage (e.g., Groundwater, aquifer recharge, Storage and Recovery) (basin-scale or smaller)</p>	<ul style="list-style-type: none"> - Develop an implementation plan for the state water plan and state drought plan to develop storage. Potential locations that have been previously identified - Wetlands and undeveloped or agricultural riparian areas where floodwaters can spread out and recharge aquifers - Keep water from leaving the state enhancing availability - Ditch companies selling shares to HOAs or subdivisions - Use of small-scale storage, such as former gravel pits - Incentivizing ditch companies and irrigators to keep water flowing through (leaky) ditches that recharge “man-made” aquifers such as West Billings - Water harvesting (esp in Ag) - Impoundments - Recharge aquifer using surface water in priority to fill a mitigation bank serving a defined geographic area 	<ul style="list-style-type: none"> - How do we address ownership of new stored water? - What are the policy mechanisms for using the additional new supply? - Other states have incentivized water storage – lessons learned/models - How do we get water from the storage area to the area of need? - Permitting and infrastructure cost for proof of concept. - Adverse effect definition. - Enforcement - Funding – match federal dollar with state? - Prioritizing locations based on feasibility and demand for where water is needed - Additional Info Needed: - Aquifer studies - What are the different storage options - Aquifer storage and recovery model - class 3 injection well - meets standards (WA state does this)

POTENTIAL SOLUTIONS (statewide/limited geography)	CONTEXT/DETAIL	CHALLENGES
	<ul style="list-style-type: none"> – Infiltration gallery - Irrigator takes an acre, digs a pit. Some lined, some not. Staying out of ground water. – Stay away from high hazard dams – Higher up the storage the better – How low can you make a dam and still have it be meaningful? 	<ul style="list-style-type: none"> – Other state research - Idaho, Colorado, Washington, California
3.1 Regional Water Storage Projects	<ul style="list-style-type: none"> – Develop regional infrastructure solutions to make use of water available for contracting in federal storage projects. (canyon ferry, Clark canyon, Hungry horse, etc.) 	<ul style="list-style-type: none"> – Cost/Funding
4.0 Marketing for Mitigation	<ul style="list-style-type: none"> – Divert water when in priority and put it in the ground “Prospective” mitigation (contrast with reactive) – Ability to move water across the landscape – Create a bank of water for future permits to draw from for mitigation – 831 – offset or mitigation for adverse effect – 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 – How do these get documented – Date base, water measurement 	<ul style="list-style-type: none"> – Defining Time/location/amount of adverse effect & mitigation. – Defining geographic extents for mitigation zones given GW/SW interactions – 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 – Reliable solution for other people, surface water mitigation, going through change process to do that isn’t going to be practical
5.1 Permit lite (exempt wells for de minimus use only)	<ul style="list-style-type: none"> – At-risk areas – Exempt wells v permitting process – High cost and time of permitting v exempt wells fast, certain, and less costs – Need protection for other users – focus this on where there are known issues 	<ul style="list-style-type: none"> – Establishing policy distinctions that are contextually appropriate given: type of beneficial use, open/closed basin status; sustainable aquifer yields; population density (urban, suburban, rural)

POTENTIAL SOLUTIONS (statewide/limited geography)	CONTEXT/DETAIL	CHALLENGES
	<ul style="list-style-type: none"> - Defining de minimis – create a “permit-lite” to avoid the entire permitting process 	<ul style="list-style-type: none"> - Existing well density or dispersion; % consumptive use; ensuring equity to process; process burden, costs, and timeframes - Establishing appropriate criteria and thresholds including taking into account geographic differences
5.2 Exemption only for domestic use/new permit class for domestic (drinking water; in house/lawn require permit)	<ul style="list-style-type: none"> - Double pipe & well head - Domestic: 1-1.25 AF domestic (sq ft & beds) DEQ, domestic metered & limited to volume, no call - Landowner goes for lawn & garden use; permit-subject to call 	<ul style="list-style-type: none"> - What do you do with existing houses, that have lawn and garden? How do you incentivize owners to get rid of lawn. Integrate existing users into this new system. - Barriers included in DEQ calls
5.3 Require Permits for All New Uses (do away with exemption)	<ul style="list-style-type: none"> - Original intent of exemption was to accommodate dispersed, rural water uses - Need to understand further perspectives on barriers and challenges between different user groups - Drill one well, get a permit - Additional information needed: aquifer studies 	<ul style="list-style-type: none"> -
6.0 policy: Real accounting of water rights	<ul style="list-style-type: none"> - Hundreds of exempt wells ‘on the books’ that are no longer in use - Move away from “desktop analysis” and toward real monitoring, measurement, and reporting - Once you finish adjudication, your water right is what it is. Do we start moving from what’s on paper to what’s wet water 	<ul style="list-style-type: none"> - No measurement or reporting requirements now. - How to account for wet water vs paper water - Water measuring – education around helpfulness - that it isn’t a ‘gotcha’
6.1 policy: Enforcement of property rights	<ul style="list-style-type: none"> - The difficulty of making a call, in essence prioritizes uses. 	<ul style="list-style-type: none"> - Enforcement will take money, resources needed.

POTENTIAL SOLUTIONS (statewide/limited geography)	CONTEXT/DETAIL	CHALLENGES
6.2 policy: Bring Back Waiver of Adverse Effect and Temporary Leasing Statute	<ul style="list-style-type: none"> – ‘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 	–
7.0 Education & Outreach	<ul style="list-style-type: none"> – Need to get information out to people who don’t understand the limitations of exempt wells 	– How best to do so?

ADDITIONAL DISCUSSION NOTES

- Non-public supplies – domestic, commercial, agriculture (stock, irrigation), exempt wells to address this. At-risk basins v non at-risk basin – for example, allow irrigation in the latter and not the former. What constitutes “de minimis”?
- How to incentivize ag to have more efficient water uses. How to enhance the fisheries by reducing ag use. Right now, what is in it for them to do anything? How can we better position small operations to position themselves against water right fights?
 - Nicole – if more efficient, then do what with the water? Lease it? Yes, Mark is thinking that the idea would be to allow them to ... MSU effort with TU to incentivize that behavior. Lots of ideas. TU works to change irrigation (use temporary change permit) and then turn that into instream flow use for example. Statute based on coal bed methane. Wildlife is the beneficiary.
 - Availability of meaningful mitigation. How convert irrigation/mitigation into 365-day use.
 - Nicole – federal programs available through the farm bill, are there additional things you have in mind at the state level? Mark – guesses less than 50% of ag producers today water rights are totally accurate. How can we make it easier through change process to reflect what they actually do. Ex: year-round stream – can you build side channel for groundwater recharge during run-off period.
- Works in permitting world to accomplish their goals. Working with developers and ag interests to expand into where the exempt well need is – would have originally thought we should just get rid of exemptions, now sees the need.
- Incentives – working to subsidize the transaction costs for these things. TU looks for situations to subsidize the process and transaction to make things occur that wouldn’t otherwise happen. How could this be used in other situations that can benefit a watershed and other users?
- Difference between domestic and lawn and garden – but coupled with meaningful wet water mitigation? What does that mean? If there is available mitigation, who cares how much it is? Need to provide access to mitigation and reduce barriers to put wet water on the ground.
 - Mark wants to focus on at-risk v non at-risk basins
 - Clayton – geo-specific where the risk could be lower but how do we identify those? Don’t necessarily overlay with the data related to high growth.
 - Mark – number 1 (storage) plus number 4 (incentives in at-risk areas)
- HB 114 – made it easier to go through the change process but what is still not working in this process that would allow for us to accommodate certain uses.
 - Kelly – an emergency process?
 - Mark – going through the permitting process (on system or well/septic) – economics around making those decisions. If create the district need to back that into the financials. Sophisticated developers use software to make a decision. Unsophisticated developers (minors, family, etc) need to figure out how to maximize what they have. If access to water can sell. Tweeners – novice professional subdividers. All varies by at-risk/not at-risk.
 - Mark – state needs to invest in monitoring wells (at least in at-risk basins)

- Common misperception that ag hates exempt wells
- Even 5 years ago we wouldn't have talked about storage but now with such a difficult environment with drought its becoming more of a possibility. How do we get wet water somewhere based on where the storage is.
- Our water projects/storage are from the WPA days, we missed the boat on using storage dams with hydro-energy generation on them.
 - Mark – greenfield projects moving large amounts of runoff water. Should put a huge irrigation project on the Lower Yellowstone.
 - Kinsey Irrigation Project example. Long-term vision – water available for generations to come. Putting durable laws in place to protect all users.
 - Mark - Taboo to share a well
- She will take a lot of convincing to separate out the uses on exempt wells. Worries about the prioritization of uses, ag will lose. Want to see a new solution entirely instead of breaking out the uses.
 - Mark – sensitive to the idea of separating out uses on exempt wells.
 - Clayton – on paper, talking about where the “problems” are – need to domestic water for more houses
 - Kelly – But it used to be in the WUA?
 - Nicole - Weren't thinking of domestic outside of the ag/stock contact?
- Continue to provide for some exempt well use for agriculture/stock – change in tax definition for agriculture and tie to this
- Use SB 382 in the pilot areas
 - DNRC provides the data/analysis for water availability issues (mapping?)
 - DEQ provides the data/analysis for water quality issues (mapping?)
 - Exempt wells continue to be available for domestic use only (not lawn and garden/irrigation) in those areas of no/minimal concerns
 - In areas of moderate/high concerns, must go through a more extensive process to show no adverse effect, mitigation, provide for ww treatment system, etc based on the facts
- If don't use SB 382, no exempt wells available for domestic. Full permitting required.

General challenges: sharing the burden of transaction costs; availability of meaningful mitigation (and converting irrigation mitigation into 365 day use); complicated and no way to know what the state will look like in 100 years, but desire to protect existing uses and allow for future we can't predict;

- Capturing efficiency savings so you can put the saved water to use somewhere else

Challenge: irrigation are the best water rights for mitigation

- 4 month water right, divert it, storage it, mitigate it year round

Political will: you have some irrigation companies/districts with areas that have already been developed, but they are concerned that there will be a haircut if they go through a formal change process to include mitigation as a use

Base the amount of the exemption on location - smaller amounts for areas that are heavily developed and bigger for less developed areas

Limit to domestic only

For mitigation need \$ more than information - should consider funding national security considerations and treat water rights like infrastructure

PUBLIC

Like other groups, we discussed the challenges between accounting for wet water and paper water. We agreed it's difficult to make management decisions or policy decisions with the disconnect between the exempt claim amount and the DEQ household use amount. The issue of how "nonconsumptive" domestic use really is further complicates this discussion.

The concept of use prioritization was raised, if only to note that agricultural and other water users see it as a very dangerous concept. Once the legislature starts a ranking, it may be revisited and changed. Nonetheless, others want to ensure that domestic supply and stock water is always available.

While a use (e.g. domestic) may be nonconsumptive with equal volumes withdrawn from a well and discharged via a drainfield, it's very likely that represents a transfer of water from one aquifer to another. In the case of an intermountain valley like the Gallatin, the domestic well is probably in semi-confined or leaky confined Tertiary sediments and the drainfield is discharging to the near surface. Very little if any of that water returns to the source aquifer.

Paying to offset different types of use and mitigation

Creating a quick, easy, streamlined mitigation process