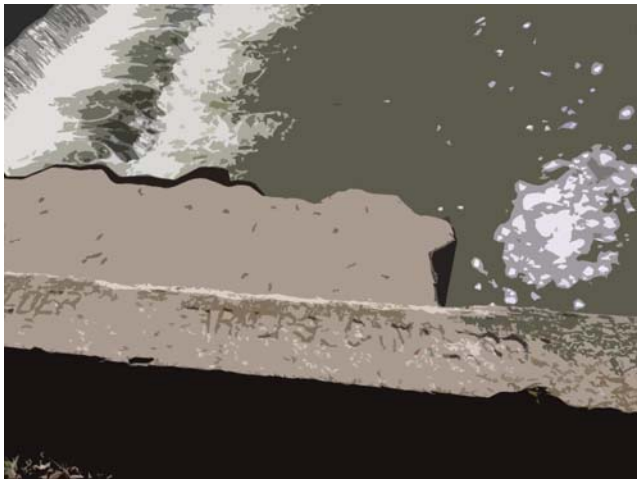

Issues of water availability and supply

A report from the 2015-16 Water Policy Interim Committee

Legislative Environmental Policy Office

Water Policy Interim Committee members

Before the close of each legislative session, the House and Senate leadership appoint lawmakers to interim committees. The members of the WPIC, like the members of other interim committees, serve one 20-month term. Members who are reelected to the Legislature may serve again on an interim committee, if appointed, and are subject to overall term limits. This information is included to comply with 2-15-155, MCA.

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This report summarizes the work of the Water Policy Interim Committee specific to the topic of water availability and supply. Members received additional information and public testimony on the subject, and this report highlights key information and the processes followed by the WPIC. To review additional information, including written minutes, written public comments, exhibits, and audio minutes, visit the WPIC website: www.leg.mt.gov/water.

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Lands of the Arid Region

Though speculators and regional boosters might ignore him, one-armed, legendary geologist and explorer John Wesley Powell knew the particular challenges of providing water for what he called the "Arid Regions" of the American West. And though his studies didn't often include Montana, what was evident to Powell nearly 150 years ago is embedded in the minds of Montana lawmakers: the state has limited water resources and must create its legal structures carefully. In this vein, the 2015-16 Water Policy Interim Committee studied issues related to water availability, water planning, water supply, and providing water for growing communities during its 20 months' work.

Study of water availability and supply

This document serves as a summary of the committee's work in this area. The WPIC chose a broad range of related topics. Specifically, the committee discussed and examined:

- Exempt groundwater wells
- Water marketing and water banking
- Development of DEQ water quality standards (including those for ammonia)
- Use of gray water
- Efficiency of irrigation and legal availability
- Water availability
- Providing water to growing communities, including case studies
- Timelines for permit and change applications

The committee discussed many of these issues during a May 2016 field trip in the Gallatin Valley. The committee did not develop specific findings or recommendations.

The State Water Plan

State law requires the Department of Natural Resources and Conservation to update the WPIC on implementation of the 2015 State Water Plan.[1]

The DNRC presented the State Water Plan[2] to the Legislature in January 2015 after years of work. Volunteers in basin advisory councils across Montana's four major river basins developed specific plans for each region. The department recommendations are based on these basin advisory plans; some of these recommendations require legislative approval and changes to state law.

The State Water Plan identifies many short-term recommendations across areas, such as water use administration, water information, and collaborative water planning and coordination. The department will implement 12 recommendations over the next two years, including:

1. Support water use efficiency and water conservation
2. Improve and expand effort to quantify surface water supplies and availability
3. Integrate natural storage to benefit water supplies and ecosystems

[1] Section 85-1-203, MCA.

[2] http://dnrc.mt.gov/divisions/water/management/state-water-plan

4. Support and expand existing drought preparedness and planning efforts
5. Complete an accurate and enforceable water right adjudication
6. Complete all outstanding tribal and federal compacts and work closely with federal partners to better manage federal water projects
7. Support improvement to the Montana Water Information System
8. Monitor water supply and distribution
9. Improve and expand efforts to quantify groundwater supplies and availability
10. Expand support for basin and community-based watershed planning
11. Encourage collaboration, coordination, and communication across local, state, and federal agencies and tribal governments
12. Develop a plan to deliver water-related training, education, and outreach.

Indeed, some of these short-term recommendations have already been achieved.[3] For example, the legislature passed Senate Bill 57 (2015) to provide long-term funding to the agency and the Water Court to complete the adjudication of historic (pre-1973) water rights.

Under the State Water Plan, the DNRC plans to gather more and better water data. For example, the department and the Montana Bureau of Mines and Geology will build a real-time network of stream gauges, using the existing backbone operated by the U.S. Geologic Survey. The Surface Water Assessment and Monitoring Program will gather data from the network. The DNRC has installed nine new stream gauges, with an ultimate goal of installing 100 within the next 10 years.[4]

The department has also launched a drought resiliency project in the Upper Missouri River Basin to explore options during water shortages with local water users and other stakeholders.

Development of DEQ water quality standards

Under the authority of the Clean Water Act, the Montana Department of Environmental Quality has the authority to develop water quality standards.[5] The DEQ believes that future ammonia standards will be the next large-scale regulatory push by the Environmental Protection Agency.[6] Most recently, a working group developed standards for nutrients, such as nitrogen and phosphorous.[7]

According to the DEQ, ammonia is found in water from some industries, agriculture, and municipal wastewater treatment facilities. Heightened ammonia standards may

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[3] Department of Natural Resources and Conservation, *Status of Implementing Short-Term Recommendations (0-2 Years) Found in 2015 Montana State Water Plan* (2015). See Appendix A.
[4] Testimony of Tim Davis, DNRC Water Resources Division administrator, to the WPIC, Sept. 3, 2015.
[5] Legislative Environmental Policy Office, *Program Evaluation Water Protection Bureau* (2015), 1.
[6] Testimony of Eric Urban, DEQ Water Quality Standards Section bureau chief, to WPIC, June 2, 2015.
[7] In 2015, the Montana Board of Environmental Review adopted numeric nutrients standards, capping years of work by a work group comprised primarily of industrial and municipal wastewater dischargers.

negatively affect nearly 100 older treatment systems in Montana's small towns. The DEQ is considering seven actions to potentially help small towns and communities meet these new standards, including:[8]

1. Research optimization and best management practices to achieve best the ammonia removal from wastewater lagoons
2. Recalculate ammonia criteria applicable only to specific aquatic life
3. Collect better pH and temperature data for receiving waters
4. Understand mixing zones
5. Include appropriate compliance standards in permits
6. Allow variances
7. Review stream classifications where needed, but only after work has been done to improve lagoon ammonia removal.

Exempt groundwater wells

Although the 2015-16 WPIC did not dedicate as much time as past committees had to the topic of exempt wells, the issue remained a perennial one. The issue mostly revolved around a 2014 district court decision, which tossed more than 20 years of agency practice related to exempt groundwater wells.

State law[9] allows a water right permit exemption for anyone drilling a well that flows at less than 35 gallons per minute and uses less than 10 acre feet of water annually.[10] This exemption is allowed unless the appropriation is deemed "a combined appropriation from the same source by two or more wells or developed springs."

In 1987, the DNRC interpreted a combined appropriation as

> an appropriation of water from the same source aquifer by two or more groundwater developments, the purpose of which, in the department's judgement, could have been accomplished by a single appropriation. Groundwater development need not be physically connected nor have a common distribution system to be considered a 'combined appropriation.'[11]

This rule would appear to hamstring a development of new homes each with a domestic well. In 1993, the agency changed the rule to define a combined appropriation as "two or more groundwater developments, that are physically manifold into the same system."[12]

In October 2014, Judge Jeffrey Sherlock ruled that the agency's "exempt well regulation violates not only the legislative history of the statute but also the purpose behind the Water Use Act."[13] The judge reinstated the 1987 rule, and the agency issued

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[8] Department of Environmental Quality, *The Ammonia Standard: Addressing Difficulties with Regulatory Compliance* (2015). See Appendix B.
[9] Section 85-2-306, MCA.
[10] Increased restrictions exist in controlled groundwater areas and stream depletion zones.
[11] *Clark Fork Coalition v. DNRC*, Cause No. BDV-2010-874 (First Jud. Dist. Court, 2014). See Appendix C.
[12] Ibid.
[13] Ibid.

"guidance" on how it would now enforce its administrative rules. In the guidance,[14] the agency noted that the exemption still existed. For the exemption, the agency must now determine whether two or more wells were part of the same project or development, if those wells drew from the same source aquifer, and if one appropriation could have accomplished the same purpose. The agency also unveiled a new form which allows a person to reduce an exempt water right.[15]

It is unclear of the effects of Sherlock's ruling. DNRC data suggested developers have used permits and exempt wells at a rate similar to previous years.[16] Builders said the effects might not be evident now, but may become a problem in places like fast-growing Bozeman, which may exhaust its inventory of buildable lots within two years.[17]

The committee also had an array of scientific information to consider on this issue.

In addition to a wealth of knowledge at the DNRC and in the State Water Plan, the Montana Bureau of Mines and Geology monitors wells across the state as part of its Ground Water Assessment Program.[18] The bureau's Ground Water Investigation Program has conducted specific examinations, such as in the Gallatin's Four Corners area, where land-use changes and reduction in flood-irrigated acreages have reduced groundwater flow but caused only small changes in groundwater levels.[19] The Montana Association of Realtors presented the WPIC a commissioned study of groundwater wells, finding exempt wells cause no discernable impact on streamflows or water rights from streams.[20]

On Sept. 13, 2016, the Montana Supreme Court upheld most of Judge Sherlock's decision. The court found that "the 1993 rule was inconsistent with the purpose of the (Water Use) Act to protect senior appropriators and with the prior appropriation doctrine, and that it added a requirement not otherwise contained within the language of the statute."[21]

Since Sherlock's decision, the DNRC administrative rule requires the cumulative flow rate of all wells in a development to be less than 35 gallons per minute with a total volume of less than 10 acre-feet a year in order to qualify for the ground water exemption. Otherwise, developer needing more water would likely require a permit for a larger appropriation.

Before and after the Montana Supreme Court ruling, the committee considered draft pieces of legislation, taking public comment on two drafts (see Appendix G). Draft LCwp07 would require that two or more ground water wells need to be "physically connected" to be considered a combined appropriation, mirroring the 1993 administrative rule. Draft LCwp20 reflected the 1987 – and current – rule.

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[14] Department of Natural Resources and Conservation, *DNRC Guidance on Combined Appropriation* (2014). See Appendix D.
[15] Department of Natural Resources and Conservation, *Request to Reduce a Groundwater Certificate* (2015)
[16] Davis testimony to the WPIC, Jan. 11, 2016.
[17] Testimony of Dustin Stewart, Montana Building Industry Association to the WPIC, Jan. 11, 2016.
[18] Title 85, chapter 2, part 9, MCA.
[19] Montana Bureau of Mines and Geology, *Biennial Report of Activities and Programs* (2014), 7.
[20] Nicklin Earth & Water, Inc., *Water Resources Evaluation: Water use in Closed Basins* (2016).
[21] Montana Supreme Court, *Synopsis of the Case* (2016). The ruling is *Clark Fork Coalition v. Montana Well Drillers*, 2016 MT 229.

Water marketing and water banking

State law[22] allows an appropriator to change a water right to the purpose of "aquifer recharge or mitigation," allowing the appropriator to market that water for recharge or mitigation. This is a potentially useful tool in water-constrained basins, where a new permittee may need to mitigate "adverse effects" of a new appropriation on more senior water rights.

Thus an appropriator or appropriators could create a water bank – retiring, for example, irrigation water for use as domestic water somewhere else in the basin.

The Grass Valley French Ditch Company of Missoula was the first private water bank in Montana, when the DNRC granted a change in purpose for its members' irrigation rights. The bank has not sold any marketed water yet, but has received interest.[23]

Others presented the concept for a second water bank in the Gallatin Valley. The Gallatin Valley Water Exchange could purchase or lease water rights, shepherd these rights through the DNRC change process, and subsequently sell mitigation credits.[24] This water bank is only in its planning stages, but other valley interests are exploring options for their senior water rights in the face of changing land use. For example, the Farmers Canal Company testified it may change its internal structure to allow for future operational flexibility, while continuing to control its water rights and use of its delivery canal.[25]

Case studies on water availability

The committee sought case studies from the state's four major river basins for examples of "what works well and what doesn't related to supplying water for growing communities."[26] This request was sent to the 661 members of the committee's email list. The committee received 18 suggestions, which are summarized in Table 1.

Table 1. List of submitted case studies to WPIC (March 2016)

Submitter	Summary
Alcala	Use of reclaimed water for irrigation purposes
City of Bozeman	Various issues, including places of use for municipal water rights, stormwater reuse in a closed basin, groundwater mitigation, exempt wells within a municipal service area, nutrient trading for discharge permit compliance
Baldwin	What works and doesn't work regarding the expansion policies of the city of Bozeman
DEQ	Issues include: city versus county development, regional water districts, MBMG studies and local water quality districts, funding improvements to existing private water systems, water well drillers

[22] Section 85-2-420, MCA.
[23] Testimony of Carl Saunders, Grass Valley French Ditch Company vice president, to WPIC, Jan. 11, 2016.
[24] DMS Natural Resources, *Gallatin Valley Groundwater Mitigation Bank concept paper* (2015).
[25] Testimony of Colleen Coyle, Farmer's Canal Co. of Gallatin Valley, to WPIC, May 2, 2016.
[26] Motion of WPIC, Sept. 3, 2015.

Submitter	Summary
DNRC	Four examples of water for growth created within prior appropriation system: city of Billings, Mountain Water Co. (Missoula), Utility Solutions (Gallatin Valley), Grass Valley French Ditch (west of Missoula)
Gilbertz	Residential and commercial development west of Billings
Lawler	Citizen-at-large on Lower Missouri River Basin Advisory Council with suggestions for case study process
McFadden	Issues that arise with unannexed subdivisions at town borders
McKinney	Two study articles: "Linking growth and land use to water supply," which describes four policy options to link land use decisions and growing a water supply; and "Bridging the governance gap: Strategies to integrate water and land use planning," which discusses two visions of integrated land use and water planning.
Montague	Gallatin County's management of area surrounding city of Bozeman by requiring developers to tie into municipal water and sewer if within a certain distance of an existing system.
Montana Association of Counties	Concern that county powers are being limited by issues related to water availability and supply; suggests legislation be based on site-specific scientific information; and that county commissioners shouldn't determine legal availability of water
Richland County	Water users association created in 1970s not able to meet demand for a subdivision's second phase and may be supplying water to unapproved lots. City-county partnership allows water and wastewater services outside municipal limits, a process not possible through the federal Rural Water Act and the Bureau of Reclamation
Stockton	Ten Mile Pleasant Valley Water and Sewer District supplies 315 houses in the Helena Valley
Various	Verbal suggestions made to staff regarding water issues near Stevensville, Polson, Sheridan
Water Well Drillers Association	Options and obstacles for cities to grow beyond 1973 boundaries; community water system regulations; and a perspective on the amount of water being discussed
Ziemer	Description of proposed water mitigation bank in west Gallatin Valley

After discussion of these case studies, the committee decided on further discussions of how the city of Bozeman is planning its future water supply and of Montana's aging water supply and storage infrastructure.[27]

[27] Motion of WPIC, Jan. 12, 2016

Case study: How the city of Bozeman is planning for future water supply

In 2013, the Bozeman City Commission adopted an Integrated Water Resources Plan "to guide its water supply and water use policy and practices for the next 50 years."[28] The plan was in response to 15 years of substantial city growth and increased demands on its water and wastewater systems. The city has estimated its future population will outstrip its current water supply by the mid-2030s.

The city commission adopted recommendations that focus mostly on aggressive water conservation. In fact, the city hired the state's only water conservation officer as part of the plan. Other recommendations in the plan include:

- Purchasing more shares of Hyalite Reservoir water
- Optimizing Lyman Creek as a water source
- Using nonpotable irrigation water
- Impounding Sourdough Creek
- Developing new groundwater sources
- Raising Hyalite Dam
- Exploring mitigation banking

Case study: Examining Montana's aging water supply and storage infrastructure

In 2014, the Montana section of the American Society of Civil Engineers issued a report card on Montana's infrastructure. While the report card included issues such as schools, highways, transit, and solid waste, the WPIC focused on wastewater, dams, drinking water, and irrigation canals and waterways. In these water-related areas, the ASCE gave mostly middle-of-the-road marks, suggesting millions in improvements to get a backlog of systems up to standards. Among other points in the report:[29]

- It may take up to 90 years to make necessary improvements to Montana's 180 public wastewater treatment systems
- Maintenance and rehabilitation for the state's 3,316 dams is inadequate
- 20 percent of Montana's 700 public water systems do not meet regulatory requirements
- Attention is needed for the state's aging 246 private irrigation companies and 37 state and federal irrigation projects

The committee discussed how the Legislature funds local government water and wastewater projects.[30] The three major state sources are the

- Grants from the Treasure State Endowment Program (House Bill 11)
- Grants from the Renewable Resource Grant and Loan Program (HB 6)
- Loans from the state revolving loan fund (75-5-1106 and 75-6-211, MCA)

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[28] City of Bozeman memo to WPIC (March, 2016) and *Integrated Water Resources Plan, Bozeman, MT: Executive Summary* (2013). See Appendix E.

[29] American Society of Civil Engineers Montana Section, *2014 Report Card for Montana's Infrastructure*.

[30] Legislative Fiscal Division spreadsheet on "Local Government Water and Wastewater Projects" (2015). See Appendix F.

In addition, local communities use federal programs (such as Community Development Block Grants) or provide their own funds (bonding).

Use of gray water

State law[31] allows use of domestic gray water systems. The law defines gray water as wastewater that is collected separately from sewage flow and that does not contain industrial chemicals, hazardous wastes, or wastewater from toilets. Furthermore, gray water may not be used to irrigate "plants to be consumed by humans."[32] The Board of Environmental Review adopts standards for gray water systems; the DEQ or local health officials review these systems.

Since 2012, the state has offered tax abatement for installation of these systems. The Department of Revenue reported no property owner had used this abatement as of tax year 2014.[33]

Only two gray water systems operate in Montana, owing in part to the cost and the need to have two wastewater systems.[34]

[31] Sections 15-24-3201, 75-5-305, and 75-5-325, MCA.
[32] Section 75-5-326, MCA.
[33] Montana Department of Revenue memo to the Revenue and Transportation Interim Committee, Aug. 19, 2014.
[34] Testimony of Barbara Kingery, Public Water and Subdivisions Bureau subdivision lead, to WPIC, March 7, 2016.

APPENDIX A
Status of Implementing Short-Term Recommendations (0-2 Years) Found in 2015 Montana State Water Plan

Water Supply and Demand

	Recommendations	Status
1. Support Water Use Efficiency and Water Conservation (P.67)	a) Support both site-specific investigations and long-term monitoring studies to quantify the effects associated with changes in irrigation methodologies and improvements to water distribution systems. These investigations will help to inform the development of water efficiency and conservation strategies that use water more effectively. b) Support state and federal programs that assist landowners with controlling discharge from uncontrolled flowing wells.	1a – Under development. 1b – Under development. Scoping with MBMG.
2. Improve and Expand Efforts to Quantify Surface Water Supplies and Availability (P.67)	a) DNRC will work with local water users and other government agencies to conduct a basin-wide physical water availability and water management assessment in the Upper Missouri Basin. The study will assess and analyze how the basin's existing water and power operations and infrastructure will perform under different water supply scenarios. The study will also analyze the effectiveness of adaptation and mitigation strategies for meeting the challenges of supplying adequate water in the future.	2a – In progress.
3. Integrate Natural Storage to Benefit Water Supplies and Ecosystems (P.69)	a) DNRC will explore the water right implications of integrating natural storage and artificial aquifer recharge into Montana's water use administration. b) DNRC will work with stakeholders to identify and develop at least one pilot project to quantify the capacity and explore the water right implications of using natural storage to enhance water supplies in smaller watersheds.	3a – Under development 3b – Under development. WRD supporting research conducted by MSU.
4. Support and Expand Existing Drought Preparedness and Planning Efforts (P.69)	a) Support the development of drought management plans in small to medium size watersheds. b) Assess potential threats to the state's water supply and economy resulting from extended periods of drought and increased climate variability by partnering with appropriate state and federal agencies to conduct one climate risk assessment pilot study in one of the four planning basins.	4a – In progress. NDRP in the Upper Missouri Basin 4b – In progress. Working with USBR.

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APPENDIX A
Status of Implementing Short-Term Recommendations (0-2 Years) Found in 2015 Montana State Water Plan

Water Use Administration

	Recommendations	Status
5. Complete an Accurate and Enforceable Water Rights Adjudication (P.70)	a) Continue funding of both the Water Court and the DNRC efforts to complete the current adjudication process at the necessary level of staffing to meet legislatively established benchmarks.	5a - Complete
6. Complete all Outstanding Tribal and Federal Compacts and Work Closely with Federal Partners to Better Manage Federal Water Projects (P.72)	a) Continue to support and implement all adopted compacts. The state and the state's Congressional delegation must continue working with the tribes and the Departments of Justice and Interior to complete all the federal and tribal water compacts still in process. b) Montana must remain actively engaged in an ongoing dialogue with adjacent states and Canada to protect Montana's interest through the implementation of treaties and compacts that affect Montana's water resources.	6a – In progress. DNRC has three dedicated FTEs. 6b – In progress

Water Information

	Recommendations	Status
7. Support Improvements to the Montana Water Information System (P.72)	a) Provide the State Library with additional staff resources dedicated to the development of new water resource related data sets, interactive applications, and maps. b) DNRC will work with the State Library to develop a systematic workflow for revising the Montana Spatial Data Infrastructure (MSDI) Hydrography Framework based on the US Geological Survey National Hydrography Dataset (NHD). c) Develop a process for transmitting water data generated by local, state and federal agencies, and watershed groups to the State Library for inclusion in the WIS in a consistent and timely fashion.	7a – Completed. 7b - In progress. MOU with State Library in place. 7c – Under development

APPENDIX A

Status of Implementing Short-Term Recommendations (0-2 Years) Found in 2015 Montana State Water Plan

Water Information

	Recommendations	Status
	d) Continue working with the U.S. Geological Survey on the development of StreamStats—an interactive Web-based map application for providing streamflow statistics on streams and rivers with limited hydrologic information.	7d - In progress. Phase 1 released in July 2015. Phase 2 scheduled for early 2016.
8. Monitor Water Supply and Distribution (P.73)	a) Expand the funding base for the USGS Co-Op Program beyond traditional state and federal agency partners by educating local organizations and private entities on the purpose and need for stream gages. b) Begin to develop a network of 100 state operated permanent, year-round stream gages to gather and distribute real-time streamflow information on smaller streams and tributaries not monitored through the USGS Co-Op Program. Streamflow information generated through the network will allow water users and water managers to manage and distribute water in real-time and will assist DNRC with administering the Montana Water Use Act. c) Encourage support of all existing sites and further expansion of the NRCS's SNOTEL and SCAN systems to provide actionable and long term water supply and soil moisture condition data.	8a – Under development 8b – In progress. 5 gages installed. Developing web portal with MBMG 8c - Under development
9. Improve and Expand Efforts to Quantify Groundwater Supplies and Availability (P.73)	a) The Montana Bureau of Mines and Geology's (MBMG's) Groundwater Steering Committee should re-assess the criteria used in selecting studies conducted under both the Groundwater Assessment and Groundwater Investigation Programs to better reflect critical needs and statewide priorities.	9a – Complete.

APPENDIX A
Status of Implementing Short-Term Recommendations (0-2 Years) Found in 2015 Montana State Water Plan

Collaborative Water Planning & Coordination

	Recommendations	Status
10. Expand Support for Basin and Community Based Watershed Planning (P.75)	a) Provide funding to periodically convene the Basin Advisory Councils to evaluate, update and implement the recommendations adopted in the State Water Plan.	10a – Pending
11. Encourage Collaboration, Coordination, and Communication across Local, State, and Federal Agencies and Tribal Governments (P.75)	a) Address watershed, sub-basin and basin wide water management issues through increased interaction and communication between water users, watershed groups, technical specialists, and policy makers at all levels of government.	11a – Under development.
12. Develop a Plan to Deliver Water Related Training, Education and Outreach (P.76)	DNRC will expand on current efforts to create and deliver public awareness and training programs, working through the Montana Watercourse, Conservation Districts, Water Quality Districts, municipalities and community-based watershed groups that provide information on a) Water efficiency and hydrology related topics: 1. Benefits and consequences of sprinkler and flood irrigation system conversions, 2. Municipal water conservation measures, 3. Consumptive and non-consumptive use, 4. Groundwater/ surface water interactions. b) Water Rights Administration: 1. Water right basics, 2. The process to obtain water for new or expanded uses, 3. DNRC's improved/simplified change process, 4. The process for filing an objection to an application for a new, expanded, or changed use of water,	12 – In progress. DNRC, through the Montana Watercourse, continues to provide outreach and educational materials on water related topics. Other aspects of the recommendation are under development.

APPENDIX A

Status of Implementing Short-Term Recommendations (0-2 Years) Found in 2015 Montana State Water Plan

Collaborative Water Planning & Coordination

	Recommendations	Status
	5. Water reservations, legal status and availability for development as a beneficial use. c) Adjudication and Tribal and Federal Compacts progress and outcomes d) How to access water data through the Water Information System e) Technical trainings, assistance and incentives to support voluntary water measurement programs f) Educate local organizations and private entities on the value, purpose, and need for stream gages, as well as how and where to access the data.	

APPENDIX B

The Ammonia Standard: Addressing Difficulties with Regulatory Compliance

The following actions are being undertaken or are being considered by DEQ for the purpose of addressing the difficulties small communities face in meeting wastewater ammonia standards:

(**1**) researching optimization and best management practices (BMPs) to achieve the best ammonia (and total nitrogen and phosphorus) removal possible from wastewater lagoons; (**2**) re-calculate ammonia criteria so they are only applicable to specific, naturally-occurring aquatic life; (**3**) collect better pH and temperature datasets for their receiving waters; (**4**) understand mixing-zones; (**5**) include appropriate compliance schedules in permits; (6) provide opportunity to request a variance; (**7**) review stream classification where needed, but only after substantial work has been done to improve lagoon ammonia removal.

Additional details pertaining to each of these subjects is provided below.

(1) BMPs to achieve best ammonia, TN and TP removal from wastewater lagoons: DEQ commissioned a report (completed 5/2015) to identify available technologies, best management practices (BMPs), and optimization methods for increasing ammonia (NH_3), total nitrogen (TN), and total phosphorus (TP) removal efficiencies of facultative lagoon systems in Montana. Emerging, innovative technologies were reviewed along with more established methods. All technologies were evaluated in their overall ability to remove ammonia, total nitrogen, and total phosphorus, as well as site specific limitations and performance criteria related to Montana. No single technology or approach was found to be optimal; rather, several technologies and BMPs were offered up as having very good potential, depending upon the site-specific characteristics of the lagoon and the community. For example, a technology showing good promise for ammonia removal is floating barriers in accompaniment with mechanical aeration. Both can be added to existing lagoons. A User's Guide was also developed which can be used by lagoon operators to assist them in selecting the most appropriate approach for their situation. The report and the User's Guide are available on DEQ's website at:

http://deq.mt.gov/wqinfo/srf/WPCSRF/technicalassistance.mcpx

DEQ intends to work with several communities in 2016 to pilot selected technologies, BMPs, and optimization methods in their lagoons. Water quality improvements resulting from the changes will be monitored and reported upon at a later date.

(2) Re-calculate ammonia criteria for specific, naturally-occurring aquatic life: Ammonia criteria are toxicity-based, and are calculated by EPA using groups of organisms intended to represent the overall aquatic community. It is permissible under federal rules to recalculate ammonia criteria based only on the sensitivity of the organisms that are naturally present. Thus a different, and less stringent, ammonia criterion might be developed for waterbodies where specific fauna and age classes are naturally absent, and which contain organisms which are less sensitive to ammonia. Specifically, the natural absence of mussels, and the absence of early life stages of fish during certain times of the year would provide the greatest relaxation of the criteria, primarily in eastern Montana.

(3) Collect better pH and temperature datasets for their receiving waters: Permits are currently developed on relatively small (or even non-existent) pH and temperature datasets collected from the receiving waterbody. Collecting more accurate, longer-term pH and temperature datasets from their receiving streams will be beneficial. Potentially, ammonia permits could then be written to reflect

seasonal pH and temperature patterns (i.e., different limits for summer, fall, winter, and spring runoff). Evaluations show that ammonia concentrations would often be somewhat relaxed in fall, winter, and spring, compared to summer. At times of the year when early fish life stages are absent (September 1st to January 31st) *and* mussels are naturally absent, major relaxation of the standard would occur (see **2** above). DEQ training of operators in calibration and use of low-cost pH meters would be essential (temperature monitoring is fairly straight forward using low-cost units).

(4) Understanding mixing-zones: Presently, the Department allows small fractions of the 7Q10 flow for mixing with ammonia standards. The 7Q10 is a relatively low flow, and these fractions of that low flow drastically cut the volume of water available for mixing. Understanding the science behind the appropriate mixing may provide for higher low flow volumes. These fractions could then be revisited to see if higher values (e.g.,100%, 40%,10%) *may* protect the fish passage and still prevent "toxics in toxic amounts" on a case-by-case basis.

(5) Include appropriate compliance schedules in permits: 75-5-401(2), MCA gives DEQ authority to grant permittees compliance schedules. Compliance schedules allow permittees to come into compliance with a water-quality standard over time; DEQ policy has usually restricted this to about one permit cycle (5 years). Scenarios may exist where longer compliance schedule may be necessary.

(6) Provide opportunity to request a variance: A variance from a water quality standard is an appropriate tool when you have certainty that the water quality criteria are accurate (see 2 above) and designated uses are appropriate and accepted. Most likely an individual permittee would request a variance supported by an individual economic demonstration that shows the permmittee cannot afford to improve treatment to comply with the standard. The variance and justification would be reviewed regularly and adjusted if economic conditions or affordable technology improve.

(7) Review stream classification where needed, but only after substantial work has been done to improve lagoon ammonia removal: DEQ could request that the Board of Environmental Review change the underlying classification of stream reaches downstream of lagoons which release ammonia at concentrations above current or future standards. A reclassification example might be "marginal aquatic life tolerant of ammonia", with associated ammonia standards reflecting instream ammonia concentrations as influenced by the lagoon.

APPENDIX C

NANCY SWEENEY
CLERK DISTRICT COURT

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MONTANA FIRST JUDICIAL DISTRICT COURT
LEWIS AND CLARK COUNTY

THE CLARK FORK COALITION, a non-profit organization with senior water rights; KATRIN CHANDLER, an individual with senior water rights; BETTY J. LANNEN, an individual with senior water rights; POLLY REX, an individual with senior water rights; and JOSEPH MILLER, an individual with senior water rights,

Petitioners,

v.

JOHN E. TUBBS, in his official capacity as Director of the Montana Department of Natural Resources and Conservation; and the MONTANA DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION (DNRC), an agency of the State of Montana,

Respondents,

MONTANA WELL DRILLERS ASSOCIATION,

Intervenors,

Cause No. BDV-2010-874

ORDER ON PETITION FOR JUDICIAL REVIEW

MONTANA ASSOCIATION OF REALTORS and MONTANA BUILDING ASSOCIATION,

Intervenors,

and

MOUNTAIN WATER COMPANY,

Proposed Intervenors.

PROCEDURAL BACKGROUND

This matter is before the Court on a petition for judicial review. Petitioners filed a request for a declaratory ruling from the Montana Department of Natural Resources and Conservation (DNRC). Petitioners requested that DNRC declare an administrative rule invalid and to conduct rulemaking to bring the rule into conformance with Montana's Water Use Act – Montana Code Annotated § 85-2-101, et seq. Petitioners' request was supported by the Montana Department of Fish, Wildlife, and Parks (FWP), various ranchers, Trout Unlimited, the Tongue River Water Users Association, Missoula County, Mountain Water Company of Missoula, and the Northern Plains Resource Council. On August 17, 2010, DNRC issued a ruling denying the petition for declaratory ruling. This petition followed.

STANDARD OF REVIEW

Pursuant to Montana Code Annotated § 2-4-501, "[a] declaratory ruling or the refusal to issue such a ruling shall be subject to judicial review in the same manner as decisions or orders in contested cases." The standard of review for contested cases is contained in Montana Code Annotated § 2-4-704:

> **Standards of review.** (1) The review must be conducted by the court without a jury and must be confined to the record. In cases of alleged irregularities in procedure before the agency not shown in the

record, proof of the irregularities may be taken in the court. The court, upon request, shall hear oral argument and receive written briefs.

(2) The court may not substitute its judgment for that of the agency as to the weight of the evidence on questions of fact. The court may affirm the decision of the agency or remand the case for further proceedings. The court may reverse or modify the decision if substantial rights of the appellant have been prejudiced because:

(a) the administrative findings, inferences, conclusions, or decisions are:

(i) in violation of constitutional or statutory provisions;

(ii) in excess of the statutory authority of the agency;

(iii) made upon unlawful procedure;

(iv) affected by other error of law;

(v) clearly erroneous in view of the reliable, probative, and substantial evidence on the whole record;

(vi) arbitrary or capricious or characterized by abuse of discretion or clearly unwarranted exercise of discretion; or

(b) findings of fact, upon issues essential to the decision, were not made although requested.

An agency's decision will be reversed if it is based upon an incorrect conclusion of law that prejudices the substantial rights of an appellant. No discretion is involved when a tribunal arrives at a conclusion of law – the tribunal either correctly or incorrectly applies the law. *Citizens Awareness Network v. Mont. Bd. of Envt'l Review*, 2010 MT 10, ¶ 13, 355 Mont. 60, 227 P.3d 583.

DISCUSSION

The statute in question in this case is Montana Code Annotated § 85-2-306(3)(a) (hereinafter exempt well statute), which provides:

(3) (a) Outside the boundaries of a controlled ground water area, a permit is not required before appropriating ground water by means of a well or developed spring:

. . .

(iii) when the appropriation is outside a stream depletion zone, is 35 gallons a minute or less, and does not exceed 10 acre-feet a year, except that a combined appropriation from the same source by two or more wells or developed springs exceeding 10 acre-feet, regardless of the flow rate, requires a permit; or

(iv) when the appropriation is within a stream depletion zone, is 20 gallons a minute or less, and does not exceed 2 acre-feet a year, except that a combined appropriation from the same source by two or more wells or developed springs exceeding this limitation requires a permit.

Under the exempt well statute, a permit is not required for the appropriation of relatively small amounts of water. However, a combined appropriation by two or more wells from the same source that exceed the minimum requirements does require a permit. The legislature did not define the term "combined appropriation."

In 1987, just months after the legislature inserted the concept of combined appropriation into the Water Use Act, DNRC's original rule was enacted as follows:

> [A]n appropriation of water from the same source aquifer by two or more groundwater developments, the purpose of which, in the department's judgment, could have been accomplished by a single appropriation. Groundwater developments need not be physically connected nor have a common distribution system to be considered a "combined appropriation." They can be separate developed springs or wells to separate parts of a project or development. Such wells and springs need not be developed simultaneously. They can be developed gradually or in increments. The amount of water appropriated from the entire project or development from these groundwater developments in the same source aquifer is the "combined appropriation."

(Admin. Rec. 1-7, at 1-2 (emphasis added).) This rule was in effect until 1993, when the current rule was enacted. The rule now provides: "[c]ombined appropriation" means an appropriation of water from the same source aquifer by two or more groundwater developments, that are physically manifold into the same system." Admin. R. Mont. 36.12.101(13) (emphasis added). Petitioners feel the current rule conflicts with the exempt well statute.

This Court rules that the current definition of "combined appropriation" violates not only the spirit and legislative intent behind the Water Use Act, but that it also violates the legislative intent in the enactment of the exempt well statute. The rules of statutory construction which guide this Court's review have been set out by the Montana Supreme Court:

> We are mindful of the rules of statutory construction that guide our review of the 1999 revisions. "Statutory construction is a 'holistic endeavor' and must account for the statute's text, language, structure, and object." *S.L.H. v. State Compensation Mutual Insurance Fund*, 2000 MT 362, ¶ 16, 303 Mont. 364, ¶ 16, 15 P.3d 948, ¶ 16 (citing *United States Nat'l Bank v. Independent Ins. Agents of Am.* (1993), 508 U.S. 439, 455, 113 S. Ct. 2173, 2182, 124 L. Ed. 2d 402, 418). "Our purpose in construing a statute is to ascertain the legislative intent and give effect to the legislative will. Section 1-2-102, MCA." *S.L.H.*, ¶ 16.

State v. Heath, 2004 MT 126, ¶ 24, 321 Mont. 280, 90 P.3d 426.

Purpose of the Water Use Act

Article IX, section 3(4), of the Montana Constitution provides: "[t]he legislature shall provide for the administration, control, and regulation of water rights and shall establish a system of centralized records, in addition to the present system of local records." In enacting the Constitution, the Water Use Act declares its purpose to be:

> [T]o implement [Article IX, section 3(4)] of the Montana Constitution which requires that the legislature provide for the administration, control and regulation of water rights and establish a system of centralized records of all water rights. The legislature declares that this system of centralized records recognizing and establishing all water rights is essential for the documentation, protection, preservation, and future beneficial use and development of Montana's water for the state and its citizens and for the continued development and completion of the comprehensive state water plan.

Mont. Code Ann. § 85-2-101(2). The general rule in Montana, under the Water Use Act, is that, except for certain exceptions, a person cannot appropriate water unless the person applies for and receives a permit or an authorization from the DNRC. Mont. Code Ann. § 85-2-302(1).

In obtaining a permit, an applicant or DNRC is required to provide notice of the application for permit, Montana Code Annotated § 85-2-307, and allow senior appropriators the opportunity to comment and take action to protect their established water rights. In addition, the general scheme requires that an applicant for a

groundwater well permit in a closed basin must show that his proposed well would not adversely affect existing surface users. Mont. Code Ann. § 85-2-360. Under the general system, a permit cannot be issued until the applicant proves by a preponderance of the evidence that the water rights of existing senior appropriators will not be adversely affected. Mont. Code. Ann. § 85-2-311. However, under the exempt well regulation currently in effect, all of these salutatory purposes of the Water Use Act are avoided. For example, an exempt well could even be drilled in a closed basin without any need for a permit. With the current regulation, the burden is placed on a senior water appropriator to protect his rights from encroachment by exempt wells. This becomes especially difficult when there is no metering, reporting, or a verification of the use of all of the exempt wells that might be installed. Under DNRC's current regulation, if one qualifies for an exempt well, all that individual needs to do is drill the well, create a well log report, and put the well to use within 60 days. Notice of completion is then sent to DNRC, and once that is done, DNRC automatically issues a certificate of right to user. There is no requirement under the current administrative regulation that requires any determination of how the exempt well might affect existing water rights, even in a closed basin. After the certificate is issued, there is no further review of the exempt well – "no metering, no reporting, and no verification of use of the well." Michelle Peterson-Cook, *Water's for Fightin', Whiskey's for Drinkin': How Water Law Affects Growth in Montana*, 28 J. Envt'l L. & Litig. 79, 88 (2013).

In explaining the need for a permit system as envisioned by the Water Use Act, Professor Albert Stone of the University of Montana penned his 1973 law review article shortly before passage of the Act. Professor Stone wrote:

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> In addition to providing for a final determination and adjudication of existing and past vested rights, newly acquired rights should be equally definite, certain, and public in record. Montana's present loose law, by which a water right may be acquired simply by making use of the water, inherently results in uncertainly, ignorance of what rights are in a stream, disputes, and litigation. And the statutory method of appropriation, under which a person files with the count clerk a statement of what he hopes to put to beneficial use, has exactly the same deficiencies.
>
> The third paragraph of Art. IX, § 3 of the new constitution provides:
>
> > All surface, underground, flood, and atmospheric waters within the boundaries of the state are the property of the state for the use of its people and are subject to appropriation for beneficial uses as provided by law.
>
> The law should provide for considering all public interests each time a prospective water user seeks to have a part of this property of the state committed to his use. And so the Department of Natural Resources and Conservation, or an agency under that Department, should review the benefit to the public, as well as the effect on other water users, of granting an additional franchise to use this public property. That is one reason why a person should be required to secure a permit, in effect a license, to make a new use of Montana's water.

Albert W. Stone, *Montana Water Rights – A New Opportunity*, 34 Mont. L. Rev. 57, 72 (1973). Most importantly, Professor Stone referenced the law existing prior to the passage of the Water Use Act which allowed a water right to be acquired by merely making use of the water. As noted by Professor Stone, this results in uncertainty and litigation — the new permit system, as envisioned by the Water Use Act, would eliminate that confusion and uncertainty.

In the view of this Court, any exemption provided by DNRC, such as in its current definition of "combined appropriation," should be read narrowly so as not to defeat the overall purpose of the Water Use Act. The potential of the current definition of "combined appropriation" is not theoretical. As noted by DNRC's Water Management Bureau in February 2008:

> This concern is elevated as exempt wells are being used for large, relatively dense subdivision development in closed basins.
>
> Exempt wells are not reviewed by DNRC and are not subject to public notice. In contrast, permitted wells are reviewed by DNRC, and water users and the public are noticed and given an opportunity to object. Impacts caused by permitted wells are required to be identified and, if these impacts cause adverse affect to water users, must be offset through mitigation plans or aquifer recharge plans. Impacts caused by exempt wells are often offset during times of water shortages by curtailment of junior surface water right users. Even if administration or enforcement of exempt wells in priority existed, curtailment of exempt wells could be ineffective because of the delayed effect on stream flows and, therefore a call may not benefit senior water users.
>
> . . . At current rates of development, approximately 30,000 new exempt wells could be added in closed basins during the next 20 years resulting in an additional 20,000 acre-feet per year of water consumed.

(Admin. Rec. 1-14, at 1.)

In addition, FWP, in its April 30, 2010 statement of position, noted that the administrative rule is not consistent with applicable law because an appropriator could comply with the rule and not comply with the statute. (Admin. Rec. 1- 37, at 3.) FWP gave an example illustrating its point:

> Under the current rule, an individual who wishes to irrigate 20 acres of hay may do so with exempt wells that are not manifold into the same irrigation system; i.e., there are no pipes connecting one well to another. However, assuming an irrigation demand of 2 [acre-foot per acre], the total demand will be 40 [acre-foot]. The appropriator is the same, and the beneficial use is the same. Though the appropriator would not be in violation of the definition of combined appropriation, his action would not be consistent with the Water Use Act which states that a combined appropriation from the same source that exceeds 10 acre-feet a year requires a permit. It not only defies logic to conclude otherwise, but is inconsistent with the plain meaning of the statute.

(Id.) FWP went on to note the example of a subdivision near Manhattan, Montana. There, over 127 lots would be served by exempt wells. The total volume of water involved obviously would be over 10 acre feet. Clearly, noted FWP, the wells would draw from the same source. Except for the current administrative rule, the developer could not appropriate this water under the Water Use Act without a permit. However,

because of the current administrative rule's exemption a major subdivision will be built without permitted water rights. No protections are provided for existing water users.

Another example was provided by the Montana Smart Growth Coalition:

> The current definition of "combined appropriation" allows 1,000 new wells as part of a 1,000 lot subdivision to escape review under DNRC permitting, but that same rule requires a developer putting in just five homes on the same well to go through full DNRC permitting. . . . In other words, the current rules would allow up to 10,000 acre feet a year of water to be potentially diverted from senior water rights holders neighboring or near the new 1,000 lot subdivision without any review.

(Admin. Rec. 1-12, at 4.)

Another commentator has noted that nothing in the exempt well rule requires an examination of how the new water allocation will affect existing water rights:

> For example, subdivisions act like one combined draw on an aquifer because the water they draw from the aquifer is from one concentrated area, but each lot is treated as a separate draw because the homes are not physically plumbed together.
>
> The allowance of exempt wells creates many negative implications. First, the amount of water withdrawn by these exempt wells is unknown because they are not metered, personally checked, or reported to anyone. Second, the number of exempt wells is quite high; as of 2008, there were over 100,000 exempt wells in Montana. DNRC estimates that by 2020 there will be between 32,000 and 78,000 additional exempt wells in Montana. How much water does each of these exempt wells draw from the aquifer? DNRC estimates each 2.5 person household consumes on average about 3,400 gallons of water per year in house uses alone (not including any outside irrigation or lawn watering). Multiplying this estimated increase in exempt wells with the estimated amount of water used per household produces a significant amount of unregulated water that will place a growing strain on Montana's water resources. Exempt wells can be found all over the state; and their presence is not only placing an expounding strain on existing water resources but is also changing how Montana's growth is occurring.

Peterson-Cook, 28 J. Envt'l L. & Litig. at 88-89 (footnotes omitted).

DNRC notes that the purpose of the exempt well statute is "to provide for small uses of water with limited potential for impact to the water resource, . . .

without the burden and expense of the permit process." (DNRC & John Tubbs' Ans. Br., at 13 (May 30, 2014).) Also, the "legislature intended that larger water consumptive uses, especially irrigated agriculture, go through the permitting process." (Id.)

However, as noted by the above examples, the exempt well rule as currently administered by DNRC allows large consumptive water uses to be established without going through the permitting process. DNRC, itself, noted:

> There is concern among senior water rights holders that the cumulative effects of many small groundwater developments can have significant impacts in terms of reducing groundwater levels and surface water flows over the long term, and may be creating the same types of adverse effects that the permitting system was intended to protect them against. This concern is justified not just based on the absence of regulatory review of new development, but also because there is no effective or efficient mechanism for enforcing their senior priority dates against these junior ground water uses.

(Admin. Rec. 1-13, at 1; *see also* Admin. Rec. 1-14.)

In summary, the Water Use Act envisions a system whereby new users of water are required to obtain a permit providing notice to senior water users. Senior water users, under this notification process, are able to protect their senior water rights and are provided an efficient method of enforcing their senior water rights, even if the permit should be issued. Certainly the legislature's intent in the Water Use Act exempt well statute was to allow small users of groundwater to proceed without a permit. However, as the current administrative rule is written, large consumptive uses of groundwater will be allowed without any notification to senior water users and without the requirement of a permit. This will also deny the senior water users an effective way to enforce their priority dates.

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Legislative History

The term "combined appropriation" was added to the Water Use Act's exempt well provision in 1987 via House Bill 642 (HB 462) introduced by Representative Speath. (Admin. Rec. 1-27, at 31.) On third reading of HB 642, the following language was added: "[E]xcept that a combined appropriation from two or more wells or developed springs exceeding this limitation requires a permit." (Id., at 28–29.)

At the bill's hearing in front of the Senate Natural Resource Committee, the late Ted Doney, a well-known water law attorney, raised concerns about the word "combined" because of ambiguity surrounding its meaning. (Id., at 32.) Doney indicated that it was his understanding that reference to "combined" meant that "two wells that were irrigating the same tract but not physically connected." (Id.) In order to clear up the ambiguity, Doney recommended inserting the phrase "from the same source" following the word "appropriation." (Id., at 32, 36.) The committee moved to adopt Doney's amendment. (Id., at 36.) The proposed amendment to HB 642 passed with a unanimous vote. (Id., at 45.)

Just month's later, the Department engaged in rule making and defined the term "combined appropriation" in accordance with the above-noted legislative intent. "Combined appropriation means an appropriation of water from the same source aquifer by two or more ground water developments . . . [that] need not be physically connected or have a common distribution system to be considered a 'combined appropriation.'" (Admin. Rec. 1-7, at 1, 2.) This rule was adopted by the Department on August 31, 1987 without any objection. It should here be noted that at the time of the 1987 amendment, 100 gallons-per-minute was the statutory limit on the

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flow rate for exempt wells. This rate was later reduced to 35 gallons-per-minute, not to exceed 10 acre feet, in the 1991 legislative session pursuant to Senate Bill 266.

In 1993, the Department adopted the current administrative rule to require that two or more wells or developed springs be physically connected together in order to be deemed a "combined appropriation."

Clearly, when the legislature inserted the term "combined appropriation" into the exempt well statute, the legislature was under the impression that the reference to "combined" did not require two wells to be physically connected. This legislative intent is clearly shown from the dialog set forth above. Such being the case, the current administrative rule violates the legislative intent of the drafters of the exempt well statute.

Deference Owed to Agency

The Court acknowledges that it owes respectful deference to the interpretation of the DNRC of a statute which it is directed to administer. However, that deference does not overcome the Court's firm conclusion that the exempt well regulation violates not only the legislative history of the statute but also the purpose behind the Water Use Act. Further, this deference is lessened when it is considered that the DNRC itself has recognized the conflict between the rule and the statute. (*See* Admin. Rec. 1-13 and 1-14.) Furthermore, the rule originally adopted by DNRC, which existed until 1993, is also entitled to deference. Thus, although the Court is respectfully deferential and appreciative of DNRC's expertise, such deference cannot withstand the Court's conclusion that the current exempt well regulation is inconsistent with the intent of the legislature in enacting the exempt well statute and the entire Water Use Act.

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CONCLUSION

This Court concludes that DNRC's administrative rule 36.12.101(13) conflicts with the general purpose of Montana's Water Use Act and specifically with Montana Code Annotated § 85-2-306, which allows for certain exemptions. Such being the case, the Court hereby INVALIDATES that rule. So as not to impose chaos upon DNRC, the Court will order, pending further action of DNRC, the reinstatement of DNRC's prior rule defining "combined appropriation" as set forth at page 4 of this Order and in the Administrative Record 1-7 and 1-2.

The Court also acknowledges that the matter before it is complex and uncertain – especially when dealing with groundwater. The Court also acknowledges that DNRC has valuable expertise in this area. Therefore, the Court will require that further rule making take place as requested by Petitioners so that these various intricacies and complexities of Montana's groundwater system can be addressed. However, any such rule making must be consistent with this Order.

DATED this 17 day of October 2014.

JEFFREY M. SHERLOCK
District Court Judge

pcs: Matthew K. Bishop/Laura King
Kevin Peterson/Anne W. Yates
Ryan K. Mattick
Stephen R. Brown
Abigail J. St. Lawrence

T/JMS/clark fork coalition v tubbs or pet j review.wpd

APPENDIX D

DNRC Guidance on Combined Appropriation

{12-09-2014}

Overview:

The following document is intended to provide general guidance in applying the Montana First Judicial Court's recent Order on Petition for Judicial Review in *Clark Fork Coalition, et al. v. Tubbs et al.*, Cause No. BDV-2010-874 (issued October 17, 2014) (CFC decision). The CFC decision concluded that the Department's rule defining "combined appropriation" of "exempt" wells[1] as "an appropriation of water from the same source aquifer by two or more groundwater developments, that are physically manifold into the same system," was inconsistent with applicable law and therefore invalid. Admin. Rule Mont. (ARM) 36.12.101(13).

Neither the Department's underlying Declaratory Ruling nor the Court action challenged the validity of the permit exception provided for in § 85-2-306(3), MCA, for wells not to exceed 35 gallons per minute (GPM) and 10 acre-feet per year.

Important Point:

One can still seek a water right for one or more "exempt" wells pursuant to § 85-2-306(3), MCA, and other statutory provisions including a beneficial water use permit under § 85-2-311, MCA.

Moving Forward:

The CFC decision ordered that the DNRC's 1987 Rule defining a "combined appropriation" of two or more "exempt" wells be reinstated. This order took effect on 11-21-2014. This 1987 rule states:

> An appropriation of water from the same source aquifer by means of two or more groundwater developments, the purpose of which, in the department's judgment, could have been accomplished by a single appropriation. Groundwater developments need not be physically connected nor have a common distribution system to be considered a "combined appropriation." They can be separate developed springs or wells to separate parts of a project or development. Such wells and springs need not be developed simultaneously. They can be developed gradually or in increments. The amount of water appropriated from the entire project or development from these groundwater developments in the same source aquifer is the "combined appropriation."

Application of the 1987 Rule will be broken down into four elements:

1. **Are two or more exempt wells part of a project or development?**
2. **Do the exempt well or wells withdraw water from the same source aquifer as another exempt well in the project or development?**
3. **In the department's judgment, could the purpose served by the exempt wells have been accomplished by a single appropriation?**
4. **If a combined appropriation, does it exceed 10 acre-feet per year?**

Elements 1 through 3 must be answered affirmatively for exempt wells to be considered a "combined appropriation."

[1] For the purposes of this Guidance, the term "well" will be used to refer generally to groundwater developments such as wells, developed springs, and pits or ponds that appropriate groundwater.

APPENDIX D

1. Project or Development

In examining what constitutes a "project or development" the Department will begin with an evaluation of the ownership interest of the groundwater development works and place of use. Pursuant to § 85-2-306(1), MCA, a groundwater appropriation may only be made by a person who has possessory interest in the property where the water is to be put to beneficial use and the exclusive property rights (or the consent of the person with those rights) in the groundwater development works. In order for two or more wells to be considered part of a "project or development" the "appropriator" must have the requisite possessory/ownership interest in the place of use and wells. Absent this unitary possessory/ownership interest in the place of use and wells, the prerequisites for a valid groundwater "appropriation" do not exist. This is consistent with the language of § 85-2-306(3)(b), MCA, that defines the permit exception in terms of an "appropriation" and an "appropriator."

Subdivisions were a primary focus of the CFC decision. The question becomes at what point in the subdivision process would the § 85-2-306, MCA "combined appropriation" restriction apply – at what point in time did the requisite unitary possessory/ownership interest in the place of use and wells exist?

Typically, a single person/entity has possessory interest in all of the lots of a subdivision at the time the land goes through the subdivision review process. Just because lots are later sold to individuals each individual's lot does not become a separate "project or development" at the time of subdivision review for the purposes of the 1987 Rule.

Subdivision approval varies across the State and according to the type of subdivision. Not all divisions of land require approval by a county or the Department of Environmental Quality (DEQ). The Department is not part of subdivision approval across the State nor can it require counties to report to it regarding potential subdivision approval.

> However, DEQ Rule 17.36.103, ARM, provides in relevant part as follows:
>
> 17.36.103 APPLICATION--CONTENTS (1) In addition to the completed application form required by ARM 17.36.102, the following information must be submitted to the reviewing authority as part of a subdivision application: ...
> (s) except for connections to existing public systems addressed under ARM 17.36.328(2)(b)(iv), if the proposed water supply is from wells or springs, either:
> (i) a letter from the Department of Natural Resources and Conservation stating that the water supply is exempt from water rights permitting requirements; or
> (ii) proof of a water right, as defined in 85-2-422, MCA.

The Department's review under the above rules is referred to as the "DEQ water rights review" for the purposes of this guidance.

Moving forward, the Department will apply the 1987 Rule definition of "combined appropriation" in two distinct manners when considering what constitutes a "project or development":

1. During a DEQ water rights review the Department will determine what a "project or development" is by looking at ownership on the ground at the time of the subdivision review. The Department will not determine what a "project or development" is for these reviews by looking at what the ownership on the ground will be at the time when the groundwater appropriations are completed.
2. In contrast outside of DEQ water rights review the Department will determine what a "project or development" is by looking at ownership on the ground at the time when the exempt groundwater appropriations are completed.

Please note that this Guidance will apply to subdivision applications submitted to DEQ after or pending before DEQ at the time the CFC decision is enforceable (11-21-2014); this may include subdivision applicants that have already received a letter from the Department but DEQ approval is still pending at the time the CFC decision is enforceable (11-21-2014). DEQ approval includes both Certificate of Subdivision Approval (COSA) and Public Water Supply Approval. An exception to the application of the Guidance at the DEQ stage is that the Guidance will not apply to applications for subdivisions that have received preliminary plat approval prior to the date that the CFC decision is enforceable.

With regard to the DEQ water rights review process the Department will evaluate ownership on the ground at the time of the review to determine what is a "project or development" in context of the 1987 Rule definition of "combined appropriation". Consistent with the CFC decision and the 1987 rule, the Department must consider the amount of water needed for the "entire" subdivision during the DEQ water rights review.

For exempt groundwater development works that take place outside of the aforementioned DEQ water rights review the Department will evaluate ownership on the ground at the time and place of an application for a certificate of water right under § 85-2-306(3), MCA. That said the Department will be verifying whether or not such applications are subject to any limitations imposed by a past DEQ water rights reviews.

Consistent with the Montana Water Use Act, it is also important to point out that the Department considers multiple contiguous or non-contiguous parcels owned by one individual or entity to compose just one "project or development". Each individual parcel does not constitute a unique project or development.

If common ownership/permission in the groundwater development works and place of use exists with certificates of water right § 85-2-306(3), MCA, the appropriation moves forward in the "combined appropriation" analysis to Element .

2. Same Source Aquifer

The Department will apply the same analysis that is currently used to determine whether a groundwater development is in the same source aquifer as an existing or proposed appropriation. For the purposes of this Guidance, a "same source aquifer" means:

(a) Unconsolidated sediments throughout the state and underlying basin-fill sediments and/or sedimentary rocks in intermontane valleys, unless the applicant demonstrates that the aquifers are separate and not connected; or

(b) Bedrock consisting of all consolidated geologic units not identified in (a) unless the applicant demonstrates that the individual geologic units are separate and not connected; and,

(c) Aquifers under (a) and (b) are not presumed to be a same source aquifer.

Applicants for a § 85-2-306(3), MCA appropriation claiming separate source aquifers will need to submit well logs to support that a well is not in the same source aquifer as another § 85-2-306(3), MCA, appropriation. If the new groundwater development is part of the "project or development" and is in the same source aquifer as an existing certificate of water right issued pursuant to § 85-2-306(3), MCA, the appropriation moves forward in the "combined appropriation" analysis to Element 3.

3. Project/Development Could in the Department's Judgment be Accomplished by a Single Appropriation?

The Department will not consider wells separated by a distance of 1,320 feet (1/4 mile) or greater to be capable of being accomplished by a single appropriation unless they are physically manifold together. Two or more wells that are manifold together will be considered able to have been accomplished by a single appropriation regardless of the distance separating the wells.

Wells within a distance of 1,320 feet of one another will be considered able to have been accomplished by a single appropriation and therefore is a "combined appropriation". If applicants believe that a project or development could not be or have been accomplished in a single appropriation then they will need to explain why not.. In these cases the Department will exercise its professional judgment when determining if the project of development could be accomplished in a single appropriation. The criterion does not have a financial or purpose limitation.

A single appropriation (water right) can have multiple points of diversions (wells).

If the new groundwater development is part of the "project or development", is in the same source aquifer as an existing certificate of water right issued pursuant to § 85-2-306(3), MCA, and could be (or have been) accomplished by a

single appropriation, then the appropriation is considered a "combined appropriation" and moves forward in the analysis to Element 4.

4. Does the Combined Appropriation Exceed 10 acre-feet/year?

Applicants would need to designate the amount of water for which they seek a certificate of water right and why this amount combined with any other certificate of water right § 85-2-306(3), MCA appropriation does not exceed 10 acre-feet per year. Appropriators may voluntarily reduce amounts/flow rates on prior certificates of water right so as to meet this limitation for the purposes of a new groundwater development and combined appropriation. The appropriator must explain why the existing certificate of water right should and can be reduced.

City of Bozeman
Future Water Supply Planning

Bozeman Municipal Water Supply Challenges

- Bozeman is the fastest growing community in MT
- Closed basin to appropriation of new water rights
- Does not have any water rights on a major river
- Limited availability of surface water storage
- Municipal Water Reservation is inadequate to meet future water supply needs
- New water rights are limited to permitted groundwater sources requiring acquisition of mitigation water, a successful mitigation plan, and mitigation water infrastructure
- Municipal water uses occur year-round whereas a vast majority of reliable senior water rights in the Gallatin have seasonal period of use
- Aquifer storage or surface water impoundment are required to extend the period of use of seasonal water rights
- Cumulative impact of exempt wells on the reliability of senior water rights

Current Water Supplies and Demands

- Current water supply sources
    - Direct surface flow rights: Hyalite Creek, Sourdough Creek, Lyman Creek
    - Stored water rights: Hyalite Reservoir
    - Reliable yield = 11,500 ac-ft; Water rights = 17,100 ac-ft
        - Annual water yield is highly dependent upon seasonal weather patterns
- Municipal watersheds areas are largely contained within USFS lands
    - Hyalite and Sourdough watersheds are amongst most heavily trafficked municipal watersheds in USFS Region 1
    - Pristine quality water sources at high susceptibility to wildfire impacts
- Current water demands
    - 2015 population = 42,000
    - 2015 total annual water demand = 6,000 ac-ft
- Current reliable supply can support a population of 66,000
- Demand predicted to eclipse reliable supply around 2030 - 2035

Integrated Water Resources Plan (IWRP)

- Proactive effort to prepare for future supply needs now
    - Developed with assistance of a Technical Advisory Committee (TAC) comprised of local agricultural, governmental, conservation, and academic water experts
- 50-year future water supply planning document
    - 2062 population estimated at 140,000
    - 2062 additional water supply needs = 17,750 ac-ft
    - 2062 total supply needed 28,700 ac-ft
- Climate impacts considered
    - Predicted prolonged and warmer growing season, reduced total annual precipitation, earlier spring runoff.

        - Climate induced water demand response: more water use per person to meet increase in predicted outdoor lawn/garden irrigation requirements
        - 50-year reliable supply of current supplies decreases to 10,950 ac-ft
- 25 water supply alternatives evaluated by TAC
    - Recommended future water supply source additions
        - Water conservation
        - Sourdough Creek storage
        - Municipal groundwater
        - Additional Hyalite Reservoir water
        - Expand Lyman Creek system
        - Non-potable irrigation supply

<u>Implementation of IWRP To-Date</u>

- Development of Montana's first and only municipal water conservation program
    - 2 staff - Water Conservation Program Coordinator, Program Technician
- Drought Contingency Plan (ongoing)
- Groundwater Investigation (ongoing)
    - Includes a collaborative effort to advance a 'GW Mitigation Bank' for the Gallatin Valley
        - Involvement from: City of Bozeman, MBMG, AGAI, TU, DNRC, TNC, and MARS
- Lyman Creek Expansion Preliminary Engineering (ongoing)
- Water Facility Plan Update (ongoing)
    - Develop non-potable irrigation supply engineering standards
    - Evaluate existing water distribution system
    - Future water distribution system master planning
    - Pressure and leakage reduction study
- Installation of stream flow gages on Sourdough Creek and Lyman Creek
- Completion of a Water Loss Audit
- Hyalite Reservoir share acquisitions

Attachments: IWRP Executive Summary
IWRP TAC Recommendations
Water Conservation Program Annual Report

EXECUTIVE SUMMARY

The City of Bozeman (City) has experienced varied population growth and anticipates that growth will continue in the future. The future growth trend of Bozeman is uncertain; however, the City recognizes that it possesses a finite supply of water that could potentially be surpassed as the demand for water increases with community growth. The City is located in a closed basin with respect to water rights, and existing water supplies relied upon by the City are susceptible to the impacts of drought and climate change, which could limit the availability of water on a seasonal or annual basis. Based on these concerns, the City retained Advanced Engineering and Environmental Services, Inc. (AE2S) and CH2M Hill to complete an Integrated Water Resources Plan (IWRP) that could conceivably address the water supply requirements over the next 30 to 50 years corresponding to planning horizons of 2042 and 2062.

The work completed for the IWRP consisted of identifying the existing water rights of the City and comparing them to future water demands that could be experienced in relation to community growth, climate change, and other factors. The comparison resulted in the ability to estimate the water balance gap that may occur in the future, which could also be defined as the amount of water needed to meet increasing demands. Based on a range of possible population growth trends, which are presented in Table EX-1, the estimated water balance gap for the planning horizons varies from approximately 2,000 to 18,000 acre-feet, and is presented in Table EX-2. Depending on population growth and the corresponding use of water, estimates indicate that the City could experience a water balance gap under a timeline of 2025 to 2030, as the population approaches approximately 57,000, if new water supply capacity development and/or water demand reductions are not implemented. The range of possibilities prompted the development of the IWRP under an approach that is relatively flexible and capable of being adapted as the City monitors the validity of assumptions and planning values used in the IWRP and updates the information to address actual future conditions.

Table EX-1: Moderate and High Growth Population Projections

Item Description	2012	2042	2062
Moderate Population Projection (2%/yr for 30-years, 1%/yr for next 20-yrs)	38,786	70,256	85,725
High Population Projection (3%/yr for 30-years, 2%/yr for next 20-yrs)	38,786	94,144	139,900

Table EX-2: Estimated Climate Adjusted Annual Water Balance Gap

Item Description	2042	2062	2042	2062
	Moderate Growth		High Growth	
Annual Water Demand (acre-feet/year)	13,500	17,790	17,900	28,700
Annual Firm Yield Supply (acre-feet/year)	11,237	10,948	11,237	10,948
Water Balance Gap (acre-feet/year)	**2,263**	**6,842**	**6,663**	**17,752**

Alternatives involving water conservation measures and concepts to increase the available water supply capacity were identified to meet the estimated water balance gap. Water conservation was given substantial consideration and credibility in the development of the IWRP as a strategic near-term initiative to be implemented by the City to reduce the rate of demand for water by its user classes. Monthly water demands, which serve as the basis for estimating the effectiveness of various water conservation measures, are presented in Table EX-3. The monthly water demand information also indicates the potential viability of other alternatives, such as non-potable irrigation, to meet seasonal (outdoor) demands.

The alternatives were initially screened with respect to a water rights legal assessment and qualitative criteria that were developed with assistance from the Technical Advisory Committee (TAC), which was created by the City to review documentation and provide stakeholder perspective at critical milestones. The alternatives selected through the water rights and

Table EX-3: Historical Indoor and Outdoor Water Use by Month

Month	Indoor Water Use	Outdoor Water Use	Total Water Use
January	106	0	106
February	112	0	112
March	109	0	109
April	109	0	109
May	116	50	166
June	117	87	204
July	118	190	308
August	122	176	298
September	115	107	222
October	129	0	129
November	110	0	110
December	106	0	106
Average Annual Water Demand			**165**

Note: Values presented in units of gallons per capita per day (gpcd)

qualitative screening processes were then combined in strategic ways to create 13 different portfolios. A life-cycle cost analysis was completed using the VOYAGE™ model and specific information developed for each of the portfolios. Cost estimates generally included capital and operating cost elements over the 50-year planning horizon. Resulting life-cycle costs reported are comparative and provided at a conceptual level, and estimates may not include all necessary costs for implementation.

The individual portfolios, which included varying levels of demand reduction via water conservation program implementation, were developed to meet the estimated water demands related to the moderate growth projections or the high growth projections. The alternatives comprising the portfolios were prioritized for implementation to achieve a balance between the demand and the available supply of water, such that the timing of alternatives could be completed to meet short-term and long-term demand requirements.

Upon review of draft life-cycle cost analysis results, the TAC expressed interest in the development of an additional portfolio comprised of a more comprehensive list of alternatives to meet the high population growth scenario. Given the conceptual level of effort to generate the portfolios, City representatives also introduced the possibility of initiating parallel efforts that would build on the results of the IWRP and provide more precise information to better define the implementation requirements for the alternatives. Consequently, an additional portfolio (Portfolio 14) was created and evaluated using the VOYAGE™ model.

The estimated comparative net present value of Portfolio 14 is approximately $148 million, compared to a range of $113 million to $296 million for high growth scenarios, and is constructed to meet high growth demands on a monthly basis. Despite a modestly higher cost per unit of annual water volume provided, Portfolio 14 offers increased value as compared to the other portfolios developed to meet the high population growth scenario, based on several criteria developed by the TAC, staff, and the consultant team collaboratively. Portfolio 14 also represents a more diverse range of scalable options and provides increased flexibility and resiliency to the City with respect to changing conditions and uncertainty in the future. Based on this refined input, Portfolio 14 was tested as the basis for an IWRP strategy to be implemented by the City to meet a range of future growth scenarios through the 2042 and 2062 planning horizons:

- Initiating a water conservation program that considers the success of various conservation measures, public acceptance, and a comparison of cost with respect to water supply capacity development with the goal of meeting low to medium water demand reduction targets.
- Adding storage in Sourdough Canyon or Hyalite Reservoir via an infrastructure project to improve current withdrawals and treatment plant operations.
- Developing groundwater system capacity in the Gallatin Gateway area or other appropriate location to meet demand on an as-needed basis.
- Strategically purchasing shares from Hyalite Reservoir and senior surface water rights from Hyalite Creek and Sourdough Creek to obtain water in the near-term.

- Developing non-potable irrigation for new developments on an incremental basis.
- Optimizing the capacity of the Lyman Creek water source.
-

The future water needs of the City of Bozeman will depend on future conditions, such as the rate of population growth, impacts of climate change, success of the City's water conservation program, availability of useful water rights, and other conditions that are not completely predictable. The IWRP was developed in recognition that future decisions by the City will be made in the context of these conditions as they evolve, and the IWRP is intended to be flexible enough to account for the conditions and contingencies created by these evolving conditions. The following recommendations were developed to represent a logistical strategy for the City to proceed in fulfilling the objectives of the IWRP:

Near-Term

- Implementation of Portfolio 14 should proceed with a robust economic and engineering feasibility analysis for each of the portfolio components, followed by a comparative analysis of the components based on the screening assessment framework established by the IWRP. These steps provide a sound basis for prioritized decision-making by the City of Bozeman regarding its water resource management.
- Incorporate the implementation of Portfolio 14 into the City of Bozeman Capital Improvement Planning budget such that anticipated costs are budgeted well into the future.
- A water conservation plan should be prioritized for implementation to reduce the rate of demand for water as a substantial contribution toward addressing the water balance gap identified for the 2042 and 2062 planning horizons.
- The installation of stream flow monitoring equipment in the watersheds should be implemented to provide useful information to the City for the purpose of assessing climate change impacts and better manage its water resources moving forward.
- Implementation of strategies to improve the capture efficiency of water requested and released from Hyalite Reservoir, such as reducing or potentially eliminating the conveyance efficiency factor and providing increased raw water and/or finished water storage.
- The formal application process with the DNRC should be initiated to secure water rights that are currently available to the City totaling approximately 6,750 acre-feet of water an annual basis. This value does not reflect a historical use analysis that will be conducted for any change applications, and should be noted to avoid any mistaken expectations about the amount of water that is potentially available.
-
- Shares from Hyalite Reservoir and senior surface water rights from Hyalite Creek and Sourdough Creek should be purchased to the extent possible.

Long-Term

- Water supply and demand trends should be monitored to assess the need for additional water supply capacity development.
- Revisit population growth trends every 5 years, or on a more frequent interval if necessary.
- Additional water supply capacity should be developed by the City in accordance with the outcome of subsequent efforts to evaluate alternatives in more detail and planning objectives that will evolve with actual population growth and water demand trends.

Local Government Water and Waste Water Projects
With TSEP and RRGL Grants Authorized in the 2015 Session

		Anticipated State Grant Funding				Anticipated Federal Grant Funding			Anticipated Govt. Loans					
Applicant/County	Project Cost	TSEP	RRGL	Coal Board	SRF (loan forgiveness)	CDBG	RD Grant	ICDBG	SRF Loan	RD Loan	RRGL Loan	Intercap Loan	Local Funds	Unknown
Waste Water Projects														
Butte-Silver Bow City/County	$813,052	$406,523											$406,529	$0
Fallon County WSD	1,805,000	680,000	125,000										1,000,000	0
Polson, City of	18,989,081	750,000	125,000			450,000			17,664,081					0
Crow Tribe of Indians	3,949,000	750,000		200,000		450,000		900,000		1,524,000				125,000
East Clark Street W & S District	1,073,700	536,850							411,850					125,000
Whitefish, Town of	1,141,000	500,000							402,300				113,700	125,000
Terry, Town of	1,900,000	750,000		125,000					1,025,000					0
Fromberg, Town of	3,319,000	750,000	125,000			450,000	995,000			995,000			4,000	0
Westby, Town of	1,929,000	625,000	125,000				589,500			589,500				0
Hot Springs, Town of	895,000	103,000				450,000				217,000				125,000
White Sulphur Springs, City of	2,431,550	750,000	125,000						1,556,550					0
Lewistown, City of	1,013,300	500,000										368,800	19,500	125,000
Greater Woods Bay SD	25,600,000	750,000					18,375,000			6,350,000				125,000
Ten Mile Crk/Pleasant Valley SD	3,544,655	500,000	125,000						2,919,655					0
Flaxville, Town of[1]	1,445,000	625,000	125,000				345,000			345,000			5,000	0
Livingston, City of	13,240,000		100,000						12,515,000					625,000
Sidney, City of	7,425,000		125,000						4,800,000					2,500,000
Chester, Town of	1,337,501		125,000				212,850			496,651			3,000	500,000
Simms Co. Sewer Dist.	1,005,000		125,000				190,000			190,000				500,000
Rocker MT CO Water & Sewer Dist.	604,000		125,000										479,000	0
Tri-County Water Dist.	1,322,000		125,000										536,000	661,000
Cut Bank, City of	11,829,700		125,000				3,563,500			7,516,200				625,000
Total Waste Water Projects	$106,611,539	$8,976,373	$1,725,000	$325,000	$0	$1,800,000	$24,270,850	$900,000	$41,294,436	$18,223,351	$0	$368,800	$2,566,729	$6,161,000
% of Total Funding		8.4%	1.6%	0.3%	0.0%	1.7%	22.8%	0.8%	38.7%	17.1%	0.0%	0.3%	2.4%	5.8%
Average Waste Water Project Cost	$4,845,979			% State Share	10.3%		% Federal Share	25.3%			% Local Share		58.6%	

Applicant/County	Project Cost	TSEP	RRGL	Coal Board	SRF (loan forgiveness)	CDBG	RD Grant	ICDBG	SRF Loan	RD Loan	RRGL Loan	Intercap Loan	Local Funds	Unknown
Water Projects														
Bainville, Town of	2,022,747	625,000	125,000		100,000	450,000			672,747				50,000	0
Hysham, Town of	2,598,825	625,000	125,000	200,000			325,000			1,300,825			23,000	0
Big Sandy, Town of	1,531,823	750,000					196,750			459,073			1,000	125,000
Roundup, City of	1,239,500	500,000				450,000							164,500	125,000
Laurel, City of	5,487,747	500,000	125,000						3,362,747				1,500,000	0
Glasgow, City of	7,566,129	500,000					2,595,335			4,145,794			200,000	125,000
Thompson Falls, City of	998,000	499,000											374,000	125,000
Conrad, City of[1]	2,284,358	500,000							1,657,858				1,500	125,000
Dillon, City of[1]	2,559,547	625,000					757,754			757,754	5,000		289,039	125,000
Neihart, Town of	1,186,000		125,000			385,280			175,720					500,000
Total Water Projects	$27,474,676	$5,124,000	$500,000	$200,000	$100,000	$1,285,280	$3,874,839	$0	$5,869,072	$6,663,446	$5,000	$0	$2,603,039	$1,250,000
% of Total Funding		18.6%	1.8%	0.7%	0.4%	4.7%	14.1%	0.0%	21.4%	24.3%	0.0%	0.0%	9.5%	4.5%
Average Water Project Cost	$2,747,468			% State Share	21.6%		% Federal Share	18.8%			% Local Share		55.1%	

[1]TSEP grants are only available if higher ranked grants withdraw their request.

This chart provides wastewater and water grants authorized by the 2015 Legislature taking into consideration of the revenues for the TSEP and RRGL programs.
Total projects cost and funding types other than TSEP and RRGL are estimates provided in the initial grant request. The total costs and types other types of funding frequently change.
HB 6, the RRGL program, includes language that would allow any grants not funded with the appropriation to be funded should higher ranking grants withdraw their request.
There was one combined wastewater/water grant that is not included in this data because the individual projects were not included in the information provided to the Legislature.