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#### FIRST IN RIGHT:

#### THE KEYSTONE OF WATER RIGHTS LAW

#### PRESENTS AND FACES CHALLENGES

#### IN A POPULATED WEST

By

#### LAURA LEE LUNDQUIST

M.S., Mechanical Engineering, University of Colorado, Boulder, Colorado, 1995 B.S., Aerospace Engineering, Boston University, Boston, Massachusetts, 1985

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Approved by:

Perry Brown, Associate Provost for Graduate Education Graduate School

> Dennis Swibold, Chair School of Journalism

Nadia White School of Journalism

David Shively Department of Geography Troubled waters: Population pressures pose challenges for city water supplies and Montana's water law

Chair: Dennis Swibold

With fewer than a million people, Montana is one of the last states to tackle some problems that accompany population growth. One such problem is access to water.

Water users file with the state for rights to use water, both above and below ground. Users with older rights have a higher priority to receive water during droughts. This is the foundation of Montana water law.

Water rights experts believe all the water has been claimed in many if not all the river basins in the state. The state is evaluating all water rights to see if this is true. In the meantime, the Legislature has identified basins where they believe all the water is claimed. These basins are closed so no more rights may be issued.

People continue to move into closed basins, increasing water demand. Past city leaders usually acquired water rights to large quantities of water, more than the town needed at the time. As neighborhoods were added, towns had the water to serve them. With the recent rapid growth in Montana, some towns have no excess water left. Those in closed basins can claim no additional water from the state. Their only option is to buy existing rights.

Buying rights is not a simple process. Along with having to meet rigid criteria, rights have to be available. Those few that are available can get expensive, sometimes too expensive for towns to afford.

If a town cannot get rights to more water, people can still move into the area. They will live in sprawling subdivisions where each house has its own well. Montana has an exemption where owners of small wells don't need rights to use the water.

Slowly, people are realizing that these exempt wells take the water on which water rights owners depend. Seniority loses its power when well owners don't have to play by the rules. So, many are suggesting that the well exemption be modified or eliminated. It's an uphill battle in the Montana Legislature.

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# SEELEY LAKE NEARS ITS ALLOTTED WATER LIMIT: WATER LAW CHANGES FRUSTRATE COMMUNITY'S EFFORTS TO FIND MORE WATER

Vince Chappell discovered Seeley Lake's biggest problem as he was drawing plans for a new community water system in early 2008. As the water district manager, he had kept the 40-year-old system limping along for years, knowing a major upgrade was needed. But as engineers calculated the size of the system Seeley Lake needed, a bigger problem emerged.

The numbers were dire. Residents already used two-thirds of the water the district owned. The rest was promised to future development on existing lots dotted throughout the community. But Chappell was being pressured to provide water for more growth. One resident was hoping to add a yet-to-be-developed subdivision to the water system.



Vince Chappell is searching for more water for Seeley Lake.

If the water system was to see Seeley Lake into the future, Chappell needed to get more water.

Solving community problems isn't easy in Seeley Lake. Officially, it's not even a town. Located at the mouth of the woodsy valley cut between the Mission and Swan ranges, it is an unincorporated collection of houses, cabins and businesses nestled against the southern shore of the lake that is fed and drained by the Clearwater River.

Deer easily outnumber the area's 2,000 independent-minded residents, many of whom are loggers, outdoor-lovers and snowbirds with a suspicion of the taxes and bureaucracy that come with civic status and improvements. Still, they had the foresight in the 1960s to establish a municipal water and sewer district. And they grudgingly voted to fund an upgrade to the water system in 2007.

So when Chappell started his search for more water to help his community grow, he knew two things: He had little, if any, money to work with, and he was mostly on his own.

After two years of frustration, Chappell is no closer to finding the water Seeley Lake needs. He has learned the hard way how water law works – or doesn't work – in Montana, and his story is a parable for other western Montana cities facing the same problem.

Few towns are boxed in like Seeley Lake, but some are approaching the point where their water challenges are becoming just as evident. No more water is available except from other users. This potentially means that planned communities with city services are forced to become the exception, leaving disconnected subdivisions with multiple small wells as the only option for growth.



The community of Seeley Lake hugs the southern end of the lake.

#### First in time, first in right

It's hard to believe water is scarce around Seeley Lake. Streams dance down through the surrounding mountains en route to the Clearwater River. At a spot where the valley widens, the river slows and settles into the 1,000-acre lake that gives the town its name and feeds its water system.

But the water is a moving, limited resource, especially at certain times of the year – and every drop has been claimed under a long-standing legal arrangement.

In Montana, as in much of the mostly arid West, early settlers cobbled together a system to protect their right to use precious water against the demands of those who would come later. The first landowner in an area filed a claim that gave them a right to the amount of water he needed for his property. Latter-day settlers could make claims too, but theirs had less priority. So as flows diminish in late summer, the senior user could demand his water before others were allowed to take theirs. "First in time, first in right," was the system's slogan.

The idea made sense, so long as the water was plentiful and the users were few. But with increasing demand, all the available water in each basin would eventually be

claimed. Beginning in 1979, the Montana water court began auditing claims in each river basin to find out how much water is used. In 2009, the state had finally begun the process in the last remaining basin and only half of the basins have at least an initial judgment of the validity of each water right. So many water right owners are still waiting to have their rights finalized.

However, in 2007, the Montana Legislature decided several river basins had reached the critical point of being overclaimed. They closed those basins to any new water rights, among them the Blackfoot River basin that contains Seeley Lake and the Clearwater River.

With the closure, Vince Chappell's only hope for getting additional water in the amount his community would need was to buy it – and preferably at the lowest cost to taxpayers.

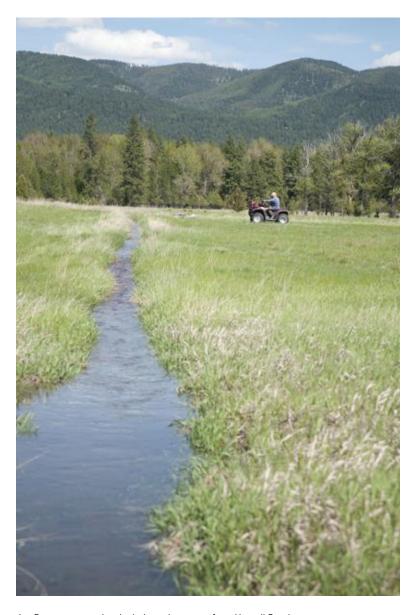
The obvious place to start looking for water was in the lake itself, the historical source of the town's supply. Pumping more water from the lake could be done without changing the town's water system or incurring the cost of piping water from some remote source.

The key, Chappell knew, would be cost, so he did what any self-respecting servant of cash-strapped taxpayers would do: He went begging. In April 2008, Chappell began asking nearby water owners – and there aren't many because most of the surrounding land is public – to donate water to the town.

When nobody stepped forward, Chappell appealed for ideas from the state Department of Natural Resources, the agency that referees Montana water rights problems. His contact there suggested he consider leasing water rights, which might cheaper than buying them outright.

Chappell squared his shoulders and went back to local water owners to ask if he could lease their water, at least during the summer when the town uses the most. The snowbirds migrate back to the area in the summer and residents use more water for their lawns.

This time, he fared better when he spoke with Jim Cowan, a landowner south of Seeley Lake who, along with two others, owned high-volume rights to water in Morrell Creek, which flows into the Clearwater River about a mile below Seeley Lake.



Jim Cowan inspects his ditch that takes water from Morrell Creek.

All three landowners raise hay so they usually finish irrigating by mid-summer. Their right limits their use of water to March through June every year. Still, if he could get them to agree, Chappell thought he might be able to work out a deal with DNRC to use the water for a few more months. Cowan was supportive and cajoled co-owner Bill Bartlett into it, although Bartlett had reservations.

"When Vince hit me up, I just thought, 'Oh, find someone else.' There's so much paperwork involved with water rights stuff, and I hate paperwork," Bartlett said. The third owner wasn't enthusiastic either but agreed to help.

In June 2008, Chappell asked the DNRC to OK the lease. But the deal was doomed by Chappell's incomplete knowledge of Montana water law. He never intended to pump and pipe water all the way from Morrell Creek to town, which is what his DNRC contact assumed. He planned to simply pump the leased water out of the lake.

But the DNRC contact informed him that it wasn't that simple. Water rights are extremely specific about where water can be siphoned. Because Morrell Creek enters the Clearwater River below the lake, Chappell couldn't take Cowan's water from the lake. Allowing Chappell to pump the water from the lake would infringe on others' legal claims to water below the lake.

With that, Chappell was back at square one, forced to reconsider his options. Among them was the notion that if Seeley Lake's additional water needs were the result of development pressures, perhaps developers should find the water.

#### Make developers pay

Kevin Wetherell grew up in Montana, but he spent 10 years working in California for a geothermal energy company. He was turned off by the pretentious development in the Redwood State, where huge lots ate up precious open land and made houses less affordable.

Now a real estate agent, he hoped to do things differently in Seeley Lake. But he hit a few snags. For starters, there isn't much private land to develop because huge chunks of the surrounding countryside are in state and federal hands or are owned by Plum Creek, a regional timber company. Still, he had managed to bide his time and acquire some of the few remaining undeveloped parcels.

To keep home prices within the reach of potential buyers, Wetherell decided to build four houses on each acre. With that density, individual wells and septic systems were out of the question; the septic systems would probably contaminate the wells. So he needed municipal water and sewer service.

Wetherell had helped Chappell in the successful 2007 struggle to convince voters to support a bond for a water system upgrade. Once over that hurdle, Wetherell expected his favor to be returned. He needed Chappell to vouch that the subdivision would receive water service before the county would approve it. But Chappell had to ask Wetherell for more thing.

Chappell told the developer that the subdivision could be connected to Seeley Lake's system if Wetherell could provide the additional water rights Seeley would need to serve the subdivision. Chappell figured that Wetherell's real estate connections could help him find those who had water rights in the right location.

Wetherell was floored. He didn't think it was fair that he should have to provide water for his own development when the town would be using it, too. It would all be running through the same water system.

"The water district has tried to make me go out and acquire the water rights in exchange for approval of the subdivision, which I understand, but frankly it shouldn't be totally my burden," he said. "They should have some ownership."

With no help from Wetherell, Chappell could do little but wait for a break.

#### Use it or lose it

His hopes rose slightly in December 2008 when another landowner, Bill Russell, offered his two irrigation rights to the water district. On the surface, the deal looked promising.

The water was in the right place: It came from the Clearwater River above the lake, meaning Chappell could take the additional water from the lake.

The amount was right too; it would nearly double the water district's resources. But if Chappell had learned anything about water rights, it was that the devil is in the details. Frustration returned when he discovered that Russell had used only about a tenth of the water he was entitled to each year.

If people don't use all the water they've claimed, up to 10 years after they've claimed it, the DNRC takes back what isn't used, calling it "abandoned." After that time, the DNRC doesn't check on abandoned water unless a question arises. The idea is to prevent people from initially hoarding more water than they need. The only exception applies to communities, which early lawmakers figured would need extra water as they grew.

If Seeley Lake had bought Russell's rights, the change in ownership would surely have triggered a DNRC evaluation of water abandonment. In that case, Chappell might have ended up with a tenth of the water he thought he was buying.

There were other potential problems too. Russell's sole ownership of the water was in question. The last thing Chappell wanted was to wind up in the middle of a lawsuit.

#### The price of water

Even if Russell's offer had been tangle-free, Chappell was dumbfounded by his asking price: between \$1 million and \$2 million. Although no expert could tell him the going rate for water, Chappell knew something about costs.

On the low end, Russell's rights should cost around \$5,000, based upon what Chappell had paid the U.S. Bureau of Reclamation when he worked for the town of Chinook. But he knew it cost the Seeley Lake water district more than that to pump and deliver its own water. Based upon his own costs, Chappell calculated a price of \$343,000, one-third of Russell's demand.

As Montana enters an era of water rights scarcity, the price of water is likely to rise, and Russell won't be the only one demanding big bucks. Chappell has heard stories of Montanans recently selling their water rights for millions. The trend doesn't bode well for Seeley Lake.

"Come on," he said with exasperation. "Seeley can't pay for that."

Yet the town may have little choice. "The longer we wait, unfortunately, the higher the price is going to be, the more people will think it's worth something more," Chappell said.

In most towns, municipal water comes from wells. Seeley Lake is one of the few Montana communities that use surface water only. But at this point, Chappell would consider a groundwater right, even though he'd have to pay dearly for any well big enough to serve the town. But, most wells in the area flow at a fraction of what he needs.

That fraction is enough to serve small private wells, and many houses around Seeley Lake have them. Anyone who owns an acre or more can drill a small well without a water right because of an exemption in Montana's water law. It costs them almost nothing, and for Chappell, it's no small irony.

Resident Walt Hill, a water board member since 2006, has watched Chappell's struggle. Concerned, Hill joined a group that lobbied the Legislature to exempt towns from the limits of closed basins, but they weren't successful.

So he tried working on the problem from a different angle. The water district needs money, so perhaps it could get it from a resort tax. Tourists who use Seeley Lake's water would help pay for it and take some of the burden off the residents. But residents voted it down in November 2008.

"Certainly this is something you can argue strongly for," Hill said in May 2009 while trying to rally support for a second attempt. "But there's a lot of people in Seeley Lake that don't want additional tax. Even if it helps them. It's crazy but it's true. It's just a Montana reaction."

Voters reacted predictably, rejecting the tax again in November 2009. Hill won't try again. So today it looks as though Chappell won't have any additional money for water rights, but that won't make any difference if there are none to buy.

"We're just kind of in no-man's land," Chappell said in April. "No one has come forward with any rights, and I don't see any coming unless someone pops out of the woods."



Seeley Lake's water right allows the water district to serve little more than the existing population.

#### THE WATER DOWN BELOW:

# SMALL WELLS EXEMPT FROM MONTANA WATER LAW CAUSE BIG PROBLEMS

Bruce Anderson clung to the rock, his cheek pressed against one of the high granite spires above Blodgett Canyon. He reached for his next hold and pulled himself up a few more inches. It was slow going, but as a free climber — he doesn't use ropes —Anderson was more interested in precision than speed.

A free climbing expert, Anderson has found unknown routes up a number of challenging rock faces. Falcon Guides, which publishes books on outdoor activities, asked him to diagram his routes for a climbing book. He drew a couple then refused to do any more after he saw other climbers begin to use his routes to blemish the cliffs, using drills to place bolts and anchors to hold their ropes. With each hole drilled, the cliffs became a little less challenging and a little more degraded.

Resting on a ledge, Anderson stared east, across the Bitterroot Valley in the area around Hamilton. The Bitterroot River threaded its way north, and he knew its riverbed moved more than most as spring floods and geological shifts slid the river west. Below the river was an aquifer that had endured for eons, but it too was beginning to change as people put more demands on it in the form of unregulated wells.

It was May 2005, and he'd been climbing in the Bitterroot Mountains for 23 years. He'd seen more than just the river change. Each year, he'd look out on the valley from his precarious vantage point and see more homes and roads and less farmland. Over the previous five years, it had really gotten populated.



Subdivisions have sprung up outside Hamilton where orchards once stood.

Ravalli County is one of Montana's fastest growing counties. In 1970, the population was 14,409 or approximately 12 people per square mile, concentrated in the valley. At that point, the county didn't have much need for zoning or growth regulation because the population was fairly stable.

Then, the land boom began. Housing development became rampant, and without a growth plan, it was random. Subdivisions sprouted wherever developers could buy land.

By 2005, the population had almost tripled, and most didn't settle in towns.

Anderson knew the problem went deeper than just the loss of open space. He had come to the Missoula area to do graduate work in hydrology, and now works as a consultant on hydrology issues, from stream restoration to groundwater studies.

So he knew each house that strayed away from Hamilton represented a small well. In the part of the valley he could see, there were probably a couple thousand wells dipping into the Bitterroot aquifer. Because of few limits on development and small wells, even more would be evident when he returned the following year.

"We're really finally pushing the belief that growth can keep happening," Anderson said. "There's a finite cap on water resources. But if we stopped allowing small domestic wells, everybody would come unglued."

Up until the last part of the 20th century, most Montana farms and ranches had vast landholdings. Houses were often closer to a county road than a stream, so ranchers dug small wells for their water needs. Each modest well was usually isolated from the next by hundreds of acres.

Traditionally, Montanans who use stream or well water must have a legal claim, or water right, on file with the state. But in 1987, state lawmakers exempted well owners from needing a water right if their well pumped less than 100 gallons per minute. Back then people believed groundwater supplies wouldn't be affected by small wells. And they weren't, when people lived far apart.

But then, as more Americans migrated to a tamer West, some took advantage of the well exemption. Designed to help scattered agricultural families, exemptions encouraged some to subdivide agricultural and forested land into residential lots, each with its own exempt well. In some parts of the state, the rapid influx of people to hurriedly-built, poorly-designed subdivisions resulted in increased traffic, pressure on resources, loss of local agriculture and, most importantly, more conflicts over water. The farmers remaining

in the Bitterroot Valley, and others around the state, are starting to see wells as the new water thieves.



Windmills used to be the way to pump water on ranches in the Bitterroot Valley.

### A popular place to live

Ravalli County provides a stark example of the rapid elimination of thousands of acres of farmland in favor of back-to-back subdivisions with wells. John Lavey has been in the Ravalli County planning department for just five years, but he saw the height of the most recent subdivision surge.

"I was hired initially to review subdivisions, and when I got here, we had a backlog," Lavey said. "We had 50 to 60 subdivisions in the hopper at that point, and we were getting 30 to 40 more every year."

Still, county leaders have been slow to regulate growth, influenced by some landowners and developers who don't want rules and regulations.

Without planning guidelines, Lavey couldn't do much to limit subdivisions. But the necessity of county planning is emerging as development continues, enabled by the small well exemption.



The selling of the Bitterroot Valley continues as land is bought and subdivided.

Planning can protect resources, such as water and land, and make transportation more efficient. Knowing this, some Ravalli County residents finally devised a growth policy in 2004 and it passed by a margin of 65 percent. But in 2008, property rights groups rallied to put the policy on the ballot, and 53 percent of voters then chose to repeal it.

If a plan required that more new homes end up close to established communities, municipal water and sewer systems could provide clean water and reduce stress on water resources. One reason is that people on metered water systems use 20 to 40 percent less water, according to the Environmental Protection Agency. But as it is, if planning ever does happen, it may come too late.

"People are so spread out across the valley that it's now almost impossible to go back and retrofit things to hook everyone up," Anderson said. "If anything happens to the groundwater, it'll be a mess."

For now, subdivided lots, each with a separate well, continue to proliferate, and they will for as long as Montana remains attractive to outsiders and as long as Montana water law allows people to drill well upon well without permits. That ultimately means water problems for everyone.



A sign near Stevensville protests one of the problems with septic systems: What to do with the waste?

Ravalli County leads the state in the number of private wells. Due mainly to the many subdivisions built between 1975 and 2005, the number of wells more than quadrupled to 15,900. The area around Victor, a town midway down the valley, has the highest density of wells in the state, according to the Montana Bureau of Mines and Geology.

Higher water use is less of a problem in Ravalli County than in other areas of Montana because a lot of groundwater flows through the lowlands near the Bitterroot River. The groundwater is able to burble throughout the valley relatively unhindered because of the area's sieve-like sandy soils. But there's always a limit to the abuse a system can sustain.

"There are a lot of known unknowns and likely a lot of unknown unknowns as well,"
Lavey said. "We believe that the placement of new septics and punching more holes in
the aquifer are creating impacts and cumulatively those impacts could be quite significant
but we don't know what those impacts are."

#### Groundwater changes

River basins vary in the amount of groundwater they hold. So, in 1991, as Montana legislators grappled with the effects of population growth in the western part of the state, they reduced the well exemption to 35 gallons per minute. Over a year, that could flood a football field with a foot of water 50 times. That's far more than most people need, so legislators added a further limit of 10 acre-feet per year, which is still a substantial amount. A family of four requires only 3 percent of that for indoor use, according to an EPA estimate. In most cases, the rest of the water from subdivision wells is used to maintain large lawns of non-native, drought-intolerant grass. While some of this water returns to the ground, part is lost through evaporation.

While some Western states exempt similar size wells, some limit exempt wells to much less. Washington State policy makers knew in 1945 that reducing groundwater could reduce surface water so they exempted only enough water to irrigate a half-acre of lawn.

It wasn't until 2006 that Montana figured out the connection between surface and groundwater. That's when the state Supreme Court ruled, in Montana Trout Unlimited v. DNRC, that the state Department of Natural Resources and Conservation was wrong to allow drilling of large wells in a river basin where surface water was limited by the number of existing water rights.

The ruling acknowledged for the first time in Montana that taking water from below the ground is the same as taking it from above.



The Bitterroot River provides water for many uses, including irrigation and recreation.

This affects closed basins: areas where the state Legislature has decided to allow no new claims until the state confirms exactly how much water is claimed. That means no new surface rights and getting a groundwater right is a lot more difficult. Such is the case in the Bitterroot River basin.

Because people with small wells don't need water rights, small wells aren't limited even where claims are. Developers take advantage of that.

#### Signs that change is needed

Even with Ravalli County's large aquifer there are indications that the thousands of wells could be reducing the groundwater reservoir. Water levels in wells in the valley bottom have yet to be noticeably affected. But in wells on the higher edges of the valley, Bureau scientists found the average water level dropped 70 feet between 1999 and 2005. These bedrock wells are more susceptible to annual precipitation changes and contamination so they would be the first to show signs of depletion.

As Montanans now know, drawing down the aquifer affects surface water. Rainwater and snow melt that sinks underground pops out here and there as springs or seeps that eventually make their way to streams on the surface. Hydrologists know that groundwater can also feed streams from below, especially during late summer and fall.

So if groundwater flow was reduced, say, because of 16,000 wells sucking the water out, it could lead to less water in the river. Just like drilling more anchor holes for ropes slowly chips away at cliffs, more wells holes can slowly degrade the valley aquifer.

Bureau scientist John LaFave found that the winter flow near the mouth of the Bitterroot River, which reflects valley-wide changes, has dropped by 10 percent since

1970. He cannot say how much of that reduction, if any, is caused by human use as opposed to climate change but he thinks dense collections of wells are detrimental. This is especially so where farmland has morphed into subdivisions; the local water table may drop because it is no longer fed by irrigation water. Irrigation has played a dominant role in the Bitterroot Valley for most of the past century.



One of the many irrigation canals in the Bitterroot Valley, which flow through areas that are less and less irrigated.

Regardless of the cause, less water in the river indicates less water underground, and even if wells aren't the main cause, they will be affected. More important, people with rights to use stream water will be affected. And if they're affected in Ravalli County, with its bountiful aquifer, water users in more water-limited regions of Montana can be threatened by the impacts of exempt wells.

Montana only recently began worrying that concentrated clusters of many small wells may deplete water resources. To provide justification for any water law changes, the 2007 Legislature resurrected a temporary committee to research water issues, which was made permanent in 2009.

That first year, committee members found little information about groundwater on which they could base decisions. So in 2009, the committee sponsored successful legislation that directed the Bureau of Mines and Geology to study groundwater in highly populated areas. Bureau scientists are considering three locations in Ravalli County out of 30 statewide because of the area's high number of wells.

In the meantime, exempt wells are still being punched into the valley bottom like hair implants on a baldpate. Developers continue to sink new wells because they don't need a water right. They don't even need a permit, and wells are not inspected to see if people are pumping more water than they should.

After drilling a well, people are supposed to file a notice of completion. According to Bill Schultz of the DNRC, many do not. Consequently, state officials concede that the number of exempt wells in Montana probably exceeds the 109,000 they know about.

By contrast, well diggers in Washington are required to get a permit for each well. But it's not a water right, and state officials can shut nearby wells if someone with a water right can't get enough water. In 2007, one area went even further. People in the Walla Walla basin are required to install meters on their wells and report their water use.



A new well awaits another house south of Hamilton.

## Caught in the middle: Cites and towns

The unfairness of the well exemption is uncomfortably clear to many cities and towns because towns must own rights to the water they provide. As well-filled subdivisions continue to pop up around them, the towns of Hamilton and Stevensville have been

stymied in their efforts to expand their water systems to serve a growing number of residents.

Both towns recently tried to change their water rights so they could expand their water systems. Less than a decade ago, such changes would merely have required some additional DNRC paperwork and fees.

But beginning in 2005, a surge of DNRC rule changes, resulting from legislation and court decisions, caught many community water managers unaware.

Towns often have rights to more water than they use, a privilege other kinds of water users don't have. The state allows towns to keep rights to extra water, knowing they'll need more water as they grow.

But that changed a few years ago when lawmakers tweaked a rule governing the modification of a water right. The new rule was meant to limit the amount of water associated with an irrigation right that could be changed into an instream right, which is water meant to stay in drought-stressed streams. But the unintentional effect was that city water amounts could be limited: towns would lose their extra water if they tried to modify their water rights. This is especially problematic for towns that now find themselves in closed basins: they lose their extra water but can't apply to the state for more water. The rule is putting many Montana cities and towns in a bind, and the consequences for managing growth are enormous.

Hamilton ran into the rule in 2007 when it had to modify its water right because it was serving users it hadn't declared to the DNRC a few years before. They found the error two years too late. Planner Dennis Stranger refused to say whether Hamilton has lost its extra water because there's still a chance it won't. Missoula's water provider, represented

by attorney Ross Miller, is challenging the rule in court. Miller has also been trying to iron things out for Stevensville and Hamilton.

If towns like Hamilton can't keep their extra water, the only way to continue growing in a closed basin is to buy water rights from others. But as other water right owners recognize the rarity of water, they know they can ask higher prices. Towns might not be able to afford the water they need.



The remnant of a test well gathers knapweed on subdivided land near Hamilton.

Therefore, planners like Stranger are insisting that developers provide the city with additional water if they want to annex their subdivisions. In 2008, a 600-unit subdivision near Hamilton was denied annexation; the developer had no water rights. But that won't stop him from putting in private wells if he wants to go forward.

Stranger is left frustrated. He knows the inability to annex leads to more sprawling subdivisions that are allowed to drill for water that he can't have. And new residents don't have the benefit of dependable treated water.

"[Lack of annexation means] they stay out in the county, put in an exempt well and a septic system, then proceed to pollute the waters of the state – the aquifers in other words – as well as the city's water supply with their septic systems, and the state has no jurisdiction over those exempt wells," Stranger said. "So they use the same amount of water, maybe more, and create environmental issues."

#### First attempts to control exemption

As more towns face water rights dilemmas, individuals have begun challenging the well exemption. But nothing comes easy in the fight for water, even though many groups, from the DNRC to irrigators and dam operators, have their own issues with the exemption.

"But there still is no political will to change anything," attorney Ross Miller said.

"There was a big attempt in 2007; it went down in flames, and I think people got burned.

What happens is that the real estate groups come out lobbying like mad."

One 2007 bill proposed reducing dramatically a well's annual water limit to one-tenth of what it is now. DNRC Director Mary Sexton supported that, saying that the combined

impacts of thousands of wells threatened the protected water rights of farmers and ranchers.

Another bill proposed requiring permits for small wells. The DNRC opposed this, complaining it would be too difficult to permit all the wells that already exist, let alone new ones.

The only bill to come out of eastern Montana would have required developers in a closed basin to buy water rights if a study showed local groundwater was limited. But real estate groups and representatives from the sparsely populated eastern part of the state strongly opposed the bills, and all three died in committee.

Still, Sexton was encouraged that bills dealing with exempt wells had at least been proposed. She hoped the bills would start a conversation about updating Montana's water laws to deal with residential growth.

Since then, the conversation has stagnated. One 2009 bill would have required larger subdivisions to link to public water and sewer. Real estate lobbyists helped to kill it, too.

Meanwhile, the pressure on state officials tasked with refereeing Montana's water war is mounting.

Gallatin County petitioned the DNRC in 2006 to allow only one exemption for all the wells in a subdivision. That way, a developer would have to get a water right if the entire subdivision used more than 35 gallons per minute or 10 acre-feet per year. The DNRC denied the Gallatin County petition, saying it would cost too much to police the rule.

#### Ranchers lead the next exemption assault

On Dec. 1, 2009, ranchers from the Yellowstone, Gallatin and Clark Fork river basins, all closed basins, petitioned the DNRC for a rule similar to one rejected by the 2007 Legislature: Anyone wanting a well would first have to complete a study of the well's potential to affect nearby streams and groundwater. Wells could be drilled only if they didn't affect other water users, and even then, they would require a permit.

Rancher Katrin Chandler said in a press release that she joined the petition because exempt wells are no longer used solely on an individual basis, as the law requires.

"I've been worried about the impact that 60 new individual wells in a nearby subdivision are going to have on my springs and irrigation water," Chandler said.

Ranchers were now challenging the exemption made to help ranchers and farmers. Miller is not surprised that agricultural water users are finally fighting against exempt wells. They've figured out that developers don't have to play by the same rules. When priority for water depends on seniority, allowing people to use water without a water right, and thus no seniority, throws a wrench into the system. In a drought, a senior water user is still entitled to receive all his water and can insist that upstream junior users not take theirs. But people with exempt wells don't have to stop using water.

"Would you rather deal with a municipality that had a couple of big water rights that you can call on or would you rather deal with thousands of exempt wells that you can't monitor and which you have no frickin' control over?" Miller said.

In response to the petition, the DNRC will hold a public hearing in June on whether the agency is following the law by allowing subdivisions an unlimited number of exemptions. Depending on the hearing outcome, the petitioners may take it to district court.

Polly Rex, one of the petitioning ranchers concerned about her water right, is encouraged that the DNRC process is finally underway.

"This is a really hot issue, and I think a lot of people are afraid of it," Rex said.

"They're afraid of the pendulum swinging too far the other way. But if senior water rights are to mean anything, they have to do something."

Rex is right. Exemptions have become a hot issue. The Legislative Water Policy Interim Committee has recognized that. During its 2010 hearings, the committee heard arguments for changing the well exemption. The options ran the gamut from requiring well meters to eliminating the exemption all together.

The committee could reveal draft legislation on well exemptions in May. Committee co-chair David Wanzenried hinted at his opinion when he discussed the process of issuing water rights.

"I think that the process is so burdensome that we need to examine the process,"
Wanzenried said. "But everybody should be expected to follow that process. Including by
the way, people who want an exempt well"

Sexton is reluctant to change the DNRC rule regarding subdivision wells because the powerful real estate lobby, which opposed related legislation, would likely challenge the change in court.

"We're being challenged either way," Sexton said. "But if the WPIC strongly endorses a course of action, we'll work with it. But it needs to come from the WPIC where there's some chance of bipartisan support."

Even though calls for change are becoming louder, it is still questionable whether such bills can pass the Legislature. But a few more years may change that.

"This issue of water is just now starting to get people's attention," Wanzenried said.

"As we continue to have dry winters and hot summers, it will get more attention."



Low flow on the Bitterroot River exposes an expanse of rock near Stevensville. The river is not only a source of irrigation water but also a playground for fishermen, boaters and campers.

#### **HAUNTED BY WATER:**

# SCARCITY, NEW REGULATIONS FRUSTRATE GARDEN CITY'S IMMINENT NEED FOR MORE WATER

Missoula sprawls across a valley formed by an ancient lake, the remnant of which exists as a teeming aquifer beneath the confluence of two rivers. One of Montana's larger cities, it has always attracted free spirits and fishermen, drawn to the attractions of the area's wild surroundings.

Writers count among Missoula's free spirits so the Garden City has been the setting for a number of stories. Norman MacLean wrote a semi-autobiographical story in 1976 about an early Missoula family for whom fly fishing was as important as faith. The river flows through their land and their lives, leaving them "haunted by waters."

Locals cherished the story but people didn't latch onto "A River Runs Through it" nationwide until it became a blockbuster movie in 1992. Then people flooded into the Missoula Valley with the dream of living the ideal they had seen on screen. They wanted to live in the town a river runs through.

Another hometown boy, John Kappes wouldn't live anywhere else but he knows the reality behind the river's romance. Like MacLean's characters, Kappes is a man haunted by waters, but for a much different reason.

As a vice president of Missoula's water provider, Kappes has to slake Missoula's thirst for water. During the '80s and '90s, the Mountain Water Company, the state's only private water provider, did just that. But over the last decade, Kappes' job has become more difficult because it's now harder to get water in Montana.

A tangle of court decisions, new laws and official rulings are frustrating the company's efforts to supply clean, affordable water and are raising concerns about best use of the valley's remaining open lands.



John Kappes of Missoula's private water provider, Mountain Water Company.

#### The first sign of difficulty

Kappes started as an accountant but does not fit the image. A fit man, he seems more at home in cargo pants than dress slacks. His quiet confidence has helped him deal with challenging issues that are new to Montana.

"I never thought I'd end up working in water rights," said Kappes, who's been with the company for 20 years. Anyone who works with water should know something about water rights. A right to water is like a title to land. It spells out who can use the water, how much they can use and where they can take it from.

The original date of a water right establishes seniority, no matter how many times it changes hands. If water is limited, senior water users get their water before those with junior rights. This is the basis of the almost-sacred water rights principle of "First in time, first in right."

Most water users, such as farmers, don't have to change the details of their water rights. Every year, they irrigate the same fields with similar amounts of water channeled from the same stream. But municipal water rights sometimes do change, especially in growing cities.

In the 1990s, Kappes and his managers could see that Missoula was rapidly spreading throughout the valley and wanted to get ahead of the demand. So they applied to the Montana Department of Natural Resources and Conservation, which oversees most water rights issues, to expand the company's water right to serve to the entire valley, including East Missoula. The change was granted without delay in 1998.

It's too bad Kappes didn't also apply for rights to dig a few more wells around the valley. They probably would have been granted also, but there was no urgency then.

Kappes' current problems surfaced in 2006 when a developer wanted his planned East Missoula subdivision to receive municipal water. Drilling a well near the development would be less costly than extending water mains from Missoula, so Kappes applied for a new well water right, something that had been basically a matter of procedure a few years before.

He was stunned when his application was denied. In explanation, the DNRC said it was going to take a lot more work to get groundwater rights in the lower Clark Fork River basin, which includes any lands that drain into the Clark Fork River between Bonner and the Idaho border.

With that, Kappes had his first inkling that the water game had radically changed.

Water will be harder to get, not just for the Mountain Water Company but for many

Montana towns.

# The biggest owner of the river

A struggle between two power companies sparked the events that led to the rejection of Kappes' permit.

The Clark Fork River flows northwest out of Missoula and 60 miles later is joined by the Flathead River to form the largest river to leave Montana. Regional power giant Avista Corp. has taken advantage of that fact.

Based in Spokane, Wash., Avista uses Montana's water to generate power mainly for Washington residents. Two of Avista's dams span the Clark Fork River. The Noxon Rapids Dam, opened in 1959, straddles the river 15 miles east of the Montana-Idaho border, and the Cabinet Gorge Dam, opened in 1953, sits just a mile west of the border.

In 1951 and 1976, Avista bought enough Montana water rights to send a pounding 50,000 cubic feet per second running through its turbines, making it the biggest user on the river.

But, the river rarely runs full enough to fill Avista's right, except during a few days each year. The average flow at Noxon Rapids runs at about one-third of Avista's right.

The river peaks at 50,000 cubic feet per second for an average of 22 days in May and June, but only during wet years. But Avista wanted the right to use the full amount on the days when they could get it.

So, the Noxon Rapids Dam rarely operates at peak capacity. Some argue that Avista shouldn't have rights to all that water, because most of the time, they do without it. But that's not how water law works.



The Noxon Rapids Dam sends Clark Fork River water through three of its eight turbines.

When the Clark Fork River is running low Avista could legally demand that junior owners – owners of water rights issued after Avista's – stop using their water. It could hold sway over the waters of the lower Clark Fork River. But, Avista never considered playing that card.

Until 2005.

### The case that shut the basin down

The town of Thompson Falls lies 30 miles upstream from the Noxon Rapids Dam. It is home to the Thompson River Lumber Company, which, in 2004, was looking to generate its own power. It applied for a right to divert water from the Clark Fork River at 0.5 cubic feet per second — a drop in the bucket of Avista's water right.

Avista managers objected to the Thompson River Lumber Company's application, the first time they'd ever done so, claiming it would siphon too much of Avista's water.

Ross Miller had just received his degree in water law in 2006 when the Avista case played out. Now a water law expert, he's helping an increasing number of community water managers, including Kappes, navigate the slew of water law changes that have occurred since then.

"One of the reasons, from what I understand, that Avista objected to it is that
Thompson River was going to take wood waste and generate electricity," Miller said.

"They were going to compete on the grid with Avista."

But Nate Hail, Clark Fork program leader for Avista, said Avista managers objected to protect their water. They thought the lumber company misrepresented the situation.

The lumber company said its claim shouldn't bother Avista; the power company hadn't protested any previous applications. Hail said that was because Avista tried to be a good neighbor, knowing it could easily be seen as a tyrant. Since the lumber company tried to take advantage of that, Avista had to object or more people might try the same thing.

The lumber company also argued that Avista allowed water to pass through the dam without using it when power demand was low. Therefore Avista should let others use it. But Hail said no drop of water passes through the dam without turning a turbine. When the company doesn't need as much water to generate power, it holds the water in the reservoir for the future.

There was no question that the lumber company's water right would cut into Avista's; the lumber company's proposed diversion was right above Avista's Noxon Rapids reservoir. Avista also argued the lumber company had other water rights they could use instead.

In 2006, the DNRC denied the Thompson River Lumber Company's application.

DNRC decision-makers figured it wouldn't end there, now that the sleeping giant that was Avista appeared to have awakened. The law required them to reject applications that would adversely affect any existing user but they hadn't really applied it on the lower Clark Fork River before 2006. Close to 1,000 applicants had scored what were basically illegal water rights since 1992.

Since 2006, the DNRC has turned enforcer, declaring that new applications would be compared to the lumber company case. That meant few, if any, new water rights would be granted in the Clark Fork River basin. It makes sense since Avista has claimed more water than what normally flows in the Clark Fork River. But their solution limited city water options. And some challenged the agency's authority to do that.

Technically, only the Legislature can close a basin, denying any new water rights if it is believed that all the water has been claimed. Near Missoula, the Legislature has closed

the Bitterroot and Blackfoot river basins. But now the DNRC had effectively closed the Clark Fork River basin too.

"The DNRC is stepping in and assuming that Avista is objecting to any new water taken from this valley," Kappes said. "Whether Avista intends that to extend up to Missoula affecting municipal water rights – there's differences of opinion."

Actually, Avista didn't intend to put a chokehold on city water supplies. And Avista managers are not pleased that they are being used as a justification to close the basin. But they do want the DNRC to safeguard their water rights.

Eventually, in an effort to heal their good neighbor image, Avista wrote to the DNRC in 2008 protesting the strict ruling and administrator John Tubbs reconsidered. Changes were made but they still don't help towns, which need larger water quantities. Aware of that, Hail said Avista would be willing to work with Kappes and the DNRC to craft a way for the Mountain Water Company to get a new water right.

"Our intent is not to have our water right impede growth elsewhere, especially with communities," Hail said. "But it is helping to bring to the forefront that water is a limited resource."

But unless the law changes, the DNRC will refuse Kappes' applications because they will reduce water going to Noxon Rapids dam, regardless of Avista's generosity. So the Mountain Water Company is one of many water users along the Clark Fork River that will pay part of the price for the lumber company's brashness. Kappes can apply for a new water right to drill but now he first has to pay thousands of dollars to prove the well won't affect surface water. If it does, he's out of luck. In East Missoula, which sits beside the river, it will.

The days of paying a small fee and receiving almost immediate approval of requests for more water are over. In a closed basin, people who need water can do only one thing: buy it from others.

### An era of scarcity

Buying rights can be a time-consuming process. The rights have to be close to where they'll be used. And they have to be available. The process is expensive and may not be successful.

So, Kappes was rankled at having to buy a well in East Missoula just because of the DNRC's reaction to the Thompson River Lumber case. There weren't many wells near the proposed subdivision and none were for sale.

If he was limited to using existing rights, it occurred to Kappes to use some of his own. A company well in Missoula hadn't used for a while because it had become contaminated with a toxic chemical, perchlorate, from a nearby laundromat. He could use the water right from that closed well for the subdivision well. DNRC hydrologists would have to make sure the change in position didn't affect the water table differently. As long as it didn't, the water right could be rewritten with a different location. It almost seemed too simple. Prior to 2005, it would have been.

But when Kappes applied in 2007 to change the location of the well, he was again thwarted. The snag had to do with a new rule written in 2005 that made changing water rights more complicated.

The new rule was prompted partly by concern about low stream flows after a number of drought years. At low flows, stream water warms more quickly and fish begin to die after a string of hot summer days. More water in a stream means the water stays cooler.

When the state began to acquire irrigation water rights to keep water in streams, water rights experts knew part of irrigation water always made it back to streams. So that water already counted as "instream." The part the state wanted was the water that was lost, mostly because of evaporation. So the state credited the water rights change with only the amount of water that didn't end up back in streams, the part that was "consumed."

Otherwise, it would look like streams were gaining more water than they did. So the Legislature decided any change to a water right would cut the right back to the water that was consumed, not realizing the implications for municipal rights.

Water rights owners must use all the water they claimed; hoarding is not allowed.

Only with municipal water rights can people own more water than they use because cities need excess water to grow. Many towns have rights to water they don't yet use.

But with the new rule, the catch is that the excess water is not consumed. Although it's much more complicated, basically if Kappes changes even the smallest detail of the company's water right, which includes all the wells he owns, he'll lose the company's reserve of water. Some rights would be cut back to what the town uses now, while others could be cut back to what Missoula used in 1973, stopping growth in its tracks.

In January 2008, the DNRC informed Kappes that if he wanted to move the water right from the contaminated well to a new one, he could. But because the well was part of the company's water right, making the change would leave the company with none of its reserve water for growth.

What was the point of moving a well to help one new subdivision if it meant having no water left to add anyone else? The cost was too high.

"Mountain Water Company was the first one to bump into this rule," said Ross Miller, the company's water rights attorney. "But they're also one of the largest public water supply systems in the state, and Missoula is a fairly high growth area."

Kappes clearly recalls the moment Miller told him there was no way around the DNRC rule. He hung up the phone and stared out his office window at the snow and busy traffic on Broadway Street. He thought about the drivers, the residents of Missoula, and wondered what they'd think about his plight, if they knew. When it comes to water availability, people usually don't pay attention until problems show up as a jump in their water bill. Kappes knows what they would think then.

# The price of water

Two years after the East Missoula subdivision was proposed, the Mountain Water Company still could not provide service without installing miles of water mains. Kappes was back in the position of trying to buy a well in East Missoula and as frustrated as ever with the DNRC.

DNRC experts like Bill Schultz, Missoula regional office manager, defend their position. Schultz said the Mountain Water Company isn't limited by the Avista ruling; they just have to buy rights from others, like everyone else. The rules are there to protect senior water users.

"There's a finite supply of water and there's legal availability issues," Schultz said.

"It's not impossible to do, it's been done."

He gave the example of a water manager who bought water rights from a nearby ranch that was being sold and changed them into his system's municipal rights at the Wye, west of Missoula. Schultz makes it sound like buying milk at the grocery store. But milk is readily available; water isn't.

Even so, Miller agrees with Schultz; the DNRC's Clark Fork basin policy is not really limiting the Mountain Water Company. What's more limiting is not being able to change its own rights without losing its extra water. So that's why Kappes hired Miller in May 2009 to sue the DNRC over the water rights change rule and the East Missoula well situation.

"What Avista's done is made it more expensive for Mountain Water Company to get a new water right," Miller said. "It just so happened that all these changes happened around the same time so it gets confusing."

Until the court reaches a decision, or the Legislature steps in, Kappes has to either wait or spend a lot more money. In East Missoula, no one is selling rights. They might if the price gets high enough.

"The cost of buying water rights is going to be extremely high," said Miller. "That all has to be passed onto the consumers."

Chris Corbin, a Missoula water marketer, agrees with Miller's prediction of escalating water prices, although it's still too early to know how high it could go. He puts the average cost at around \$1,000 per acre-foot — basically the amount of water it takes to flood a football field to a depth of 1 foot.

But the price could go higher. Bozeman, a town in the closed Gallatin River basin, recently bought water for a record \$7,000 per acre-foot. Towns usually need to add hundreds of acre-feet at a time.

"Their consultant was looking at prices and pulled some from Colorado, which has a lot higher prices than Montana," Corbin said. Bozeman residents now have to pay more to make up for the city's expensive purchase.

If Mountain Water has to buy water at similar price, Missoulians will also pay for it.

Every newcomer to the valley potentially pushes the water system to the point where it becomes more expensive for all. Kappes is doing his best to avoid that as long as he can.

He does have one other alternative, but it isn't cheap either.

The company has a reserve of water in the mountains of the Rattlesnake Wilderness, north of Missoula. The company owned eight lakes there before it became wilderness. The lakes feed a reservoir that was used for municipal water until a bacterial outbreak in 1981 forced the company to decide between building a multi-million dollar water-treatment plant or focusing on water from its wells.

For the company, and its customers, wells were the cheaper way to go because groundwater doesn't have to be treated for bacteria. They still are as long as the company can keep the extra capacity it supposedly has with its wells. If not, the choice to use the reservoir may depend on the soaring cost of water rights more than on the cost of a filtration system.

Either way, it's going to cost more money, eventually.

#### Missoula isn't alone

Kappes must wait on the outcome of his lawsuit if he wants to change his company's water rights without such a stiff penalty. He's not the only one paying close attention to the case.

Smaller Montana communities that can't afford to sue the DNRC, such as Stevensville and Hamilton, are following the issue. They are in the same situation: they own municipal rights with excess water but are in danger of losing that water if they change their rights. In legislatively closed basins, the only way they can get more water is to buy it from someone else. So a win for the Mountain Water Company means a win for them, too.

With its excess water in question, Hamilton now requires subdivision developers to bring their own water rights because Hamilton may not have any more.

"The issue that's focused this for a lot of the municipalities is the Mountain Water decision," said Hamilton planner Dennis Stranger. "So we're watching that carefully."

The sore spot for people like Kappes and Stranger is that, while they're looking at shelling out thousands for additional wells, anyone can drill a small well without applying for a water right and the only cost is that of drilling the well. Montana's water law exempts small wells from needing a water right. The exemption means growth can still occur but it tends to happen in an uncontrolled way: lots with wells spring up in random, disconnected subdivisions.

When city water systems can't grow, growth occurs through the multiplication of small wells and suburban sprawl follows. Those wells can also impact senior water users.

# A legislative solution is unlikely

Even as more cities approach the limit of the water they own, lawmakers oppose legislation that would favor municipal rights.

In 2009, Kappes, Miller and others testified in favor of an unsuccessful bill that would have allowed municipalities to change their water rights without losing their reserve water. For cities, the rule would be the same as it was prior to 2005.

This is in essence the same guarantee that cities in other states have under a concept known as a "growing communities' doctrine." In fact, Montana is the one of the few Western states that does not officially have a growing communities' doctrine in its water law. Washington is the only other holdout after a similar bill was defeated in 2009.

"We looked to other cities to join up with the house bill," Kappes said. "But a lot of cities haven't been facing the realities yet of the water rights issue."

Without that support, the bill was defeated by agricultural and hydropower interests that argued municipal rights shouldn't get special privileges. Many legislators feel the same.

"I've worked all over the West," Stranger said. "Montana is one of the last to grapple with this as far as I can tell."

Miller agrees. "Other Western states have accepted that municipalities grow in a somewhat uncontrolled fashion. You can't really put up gates and say, 'Nobody can come into our community anymore because we don't have the water rights for you to come in."

But Schultz is skeptical that a policy favoring communities would pass. Water rights are all about seniority in Montana and allowing exceptions for cities undermines that.

Some argue that Montana basically already had a growing communities' doctrine when the state allowed municipal water rights to keep water they didn't use. The DNRC has also offered towns the chance to reserve additional water but only in the Yellowstone and Missouri river basins and not since 1994.

"Several bills that would give special preference to municipalities in Montana got shot down in a hurry," Schultz said. "Some other states have passed some laws regarding preference for municipalities, and it's resulted in a lot of litigation."

Miller and Schultz regularly oppose each other in Montana's litigious water battles.

Yet Miller defends Schultz and other DNRC employees, saying they are just doing their jobs to protect senior water rights holders until lawmakers or the courts say otherwise.

"The Colorado courts were faced with this a long time ago because Denver was growing into an urban population of 5 million people," Miller said. "Their courts dealt with it."

Kappes agrees, which is why he went to court.

"The DNRC is stuck in the middle," he said. "They are trying to protect senior water right holders and we can appreciate that since we're senior water right holders ourselves."

For now, all eyes are on the court case. If the decision goes against Mountain Water Company or if things haven't settled out by the end of the year, it may go back to the Legislature.

In March 2010, Miller presented the plight of growing towns to the Water Policy Interim Committee, a committee re-established by the 2009 Legislature to investigate state water issues and propose legislation. He was part of a panel that included opposing voices from the DNRC and senior water rights holders.

Miller couldn't sway the committee. One of Missoula's own senators, committee cochair David Wanzenried, said the system of seniority must be upheld, especially when the weather trend has been toward drought. Less water makes seniority that much more important.

With support of the Interim Committee, a bill might have been more successful. But Kappes said his company and its municipal allies will still try to convince the 2011 Legislature that growing cities need some help in meeting their residents' needs. Wanzenried may even consider personally putting it before the Legislature just to get the issue out there. But he doubts a bill would pass even though he thinks things can't go on business as usual.

"There's not enough time for the Legislature to process all the information, all the nuances, all the variables to tackle issues like water if we meet once every two years," Wanzenried said. "If the issue doesn't advance much further than just having a hearing, it's usually because there's no consensus on what the fix is.

"Because in this diminishing resource of water, there have to be winners and losers."

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Seeley Lake Water District website:

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#### The water down below

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Bill Schultz, DNRC District Manager, Missoula. Sept. 4, 2009.

Cheryl Tenold, Stevensville resident, Sept. 16, 2009.

John Lavey, planner, Ravalli County, Nov. 5, 2009.

John Crowley, manager, Bitterroot Irrigation, Nov. 9, 2009.

Nancy Joy Erickson, councilwoman, Hamilton, Nov. 10, 2009.

Lee Jordan, Ravalli County Health and Human Services, Nov. 13, 2009.

Paul Bertini, manager, Daly Ditches, Nov. 17, 2009.

Ross Miller, water rights attorney, Dec. 1, 2009 and March 9, 2010.

Dennis Stranger, planner, Hamilton, Dec. 10, 2009.

Rod Daniel, manager, Ravalli County Environmental Health, Mar. 11, 2010.

Daniel Hooten, sanitarian, Ravalli County, Mar. 11, 2010.

Celia Grohman, Stevensville resident, Mar. 11 and April 15, 2010.

Eric Regenberger, Montana Department of Environmental Quality, Mar 12, 2010.

Joe Kolman, staff member, Montana Interim Water Policy Committee, Mar. 29, 2010.

Polly Rex, rancher and water rights owner, April 5, 2010.

Mary Sexton, DNRC chief, April 8, 2010.

Bruce Anderson, hydrology consultant, April 29, 2010.

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# Haunted by water

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John Westenberg, water rights consultant, April 16 and May 2, 2009.

John Kappes, Vice President, Mountain Water Company. Missoula. May 27, 2009.

Walt Hill, Seeley Lake Water and Sewer District board member, Aug. 26, 2009.

Bill Schultz, DNRC District Manager, Missoula. Sept. 4, 2009.

Gerald Mueller, board member, Clark Fork Task Force, 23, Nov. 2009.

Ross Miller, water rights attorney, Dec. 1, 2009, and March 9, 2010.

Dennis Stranger, planner, Hamilton, Dec. 10, 2009.

Terri McLaughlin, DNRC Water Rights division manager, Feb. 26, 2010.

Chris Corbin, water market expert, Lotic LLC, Missoula, March 4, 2010.

Nate Hill, biologist, Avista Corp., March 4, 2010.

Joe Kolman, staff member, Montana Interim Water Policy Committee, March 29, 2010.

Mary Sexton, DNRC chief, April 8, 2010.

David Wanzenried, state senator and co-chair, Montana Interim Water Policy Committee. April 15, 2010.

#### Meetings attended:

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