Overappropriation of water rights threatens Iron County

Written by <u>Tracie Sullivan</u> January 13, 2016

CEDAR CITY — Too many appropriated water rights and years of less-than-average snowpacks are among the reasons state officials list for wanting to create a groundwater management plan for restoring the rapidly depleting aquifer that, at current yields, cannot continue to meet water demands in Iron County.

In a recent meeting at Cedar High School, representatives from the Utah Division of Water Rights warned residents the aquifer is feeding more water into the community than is available, resulting in it being overmined.

"So running just a simple math balance equation, if 28,000 (acre-feet) is going out and an additional 7,000 (acre-feet) is being reduced, that means we're getting about 20,000 acre-feet recharge to that aquifer annually every year," James Greer, assistant state engineer for Division of Water Rights, said.

Part of the reason for the deficit in the aquifer, Greer said, lays at the feet of state officials who appropriated more water rights in the 1960s than were available in Iron County.

However, while state officials said they have overappropriated water rights, not all of those rights are being used.

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"We actually have approved groundwater rights for something around 76,000 acre-feet of diversion and 50,000 for depletion," Greer said. "These are very rough estimates. There are a lot of water rights and we are currently going through and looking at those right now. It's hard to come up with some of those estimates because a lot of water rights aren't clearly defined."

Lower-than-normal precipitation for two decades has also taken a toll on the aquifer. This year however, precipitation is 125 percent above normal, Paul Monroe, manager for Central Iron County Water Conservancy District, said.

If that trend were to continue, it could make a difference in the overall groundwater management plan, Jones said.

"It definitely will change it. Hydrology changes, like I say and I referred to in the meeting, if we could just have the mid-'80s over and over again — the (re)charge started to

show," he said. "We started to build the groundwater back up and things were looking not too bad in some areas of the valley. But as soon (as) the really wet years went away, it went back. So there may be something, that as part of this plan, that we'll have to look at the hydrologic cycles and see where we are and maybe we have to do less restriction on those wetter years."

Several concerned residents in the meeting shared their opinions and questions about the issue at hand with many of them worried about the future.

Iron County resident Brenda Bybee spoke about her fears regarding Cedar City's master water plan and the negative effect it may have on the water available for the wells in her neighborhood located west of Quitchupah Lake.

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"I'd like to know how — who's going to be responsible? We can't have certain people just sucking all the water out of the lake," Bybee told Cedar City News. "You need to see this Cedar City master water plan. Not only are they putting in a number of wells ... but the depth they are drilling to — it's like putting a huge straw in a big deep straw while the little straws around aren't going to be able to suck out the

water that we need."

Following the meeting, Cedar City Councilman Paul Cozzens said local leaders are aware of the issues with Quitchupah Lake and worked on finding alternatives.

"Quitchupah has a lot of evaporation and that water just goes to waste. The Quitchupah area has such a layer of clay and silt that's been built over centuries that it can't allow that water to naturally percolate and recharge the aquifer so we've looked at different efforts to do that," he said.

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Cozzens pointed to other efforts the city and the Central Iron County Water Conservancy District are pursuing to try to resolve water problems. This includes using the water in Coal Creek to help recharge the aquifer.

"We take some of the Coal Creek water that is cleaner during the early runoff and ... it's got a lot of silt and different things in it so we can't really recharge with that because the silt plugs up the recharge basins," Cozzens said. "So in wintertime when that water is clean, we can take that water and put it right into the aquifer and there's actually a section by the airport that we do that."

There have also been efforts by the water district to import

new water from the west desert in Wah Wah Valley.

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"It (water) is a serious problem and that's one reason we're working as a district — as a water district — on the west desert efforts and we've been pursuing that for a long time and spent a lot of resources on importing water from those other basins," Cozzens, who is also a member of the Central Iron County water district board, said. "That's something we've been working on aggressively because we know we need other sources of water in addition to conservation-recharge."

The state water engineer, Kent Jones, however, said the importation of the water from Wah Wah valley will not make a big difference in the regulation of the current groundwater.

"The plan we will have of existing water and existing annual recharge – I don't think it's (new water) going to make much of a difference, but this new water will help solve some of the problems," he said.

In 2007, the state began working with local residents in the

Beryl-Enterprise area to develop a similar groundwater management plan allowed for under <u>Utah Code 73-5-15</u>.

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The plan was proposed in that area after state officials determined the groundwater had been pumped faster than it could be recharged, also called groundwater overmining. The state water engineer adopted the 118-year plan in 2012.

According to the plan, the goal was for the total water depletion to be reduced over time until it matched the safe yield including the elimination of water rights, with the newest water rights eliminated first.

The process to develop a groundwater management plan in Iron County would take a similar amount of time as in the Beryl-Enterprise area, Greer said. By then however, local leaders said they are hopeful they will be well underway to developing the water in the west desert currently tied up in the courts.

Ed. notes: Water is typically measured in acre-feet, referring to the volume of water that would cover 1 acre to a depth of 1 foot. Put another way, the Water Education Foundation describes 1 acre-foot as equaling about

326,000 gallons, or enough water to cover an acre of land, about the size of a football field, 1 foot deep.

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