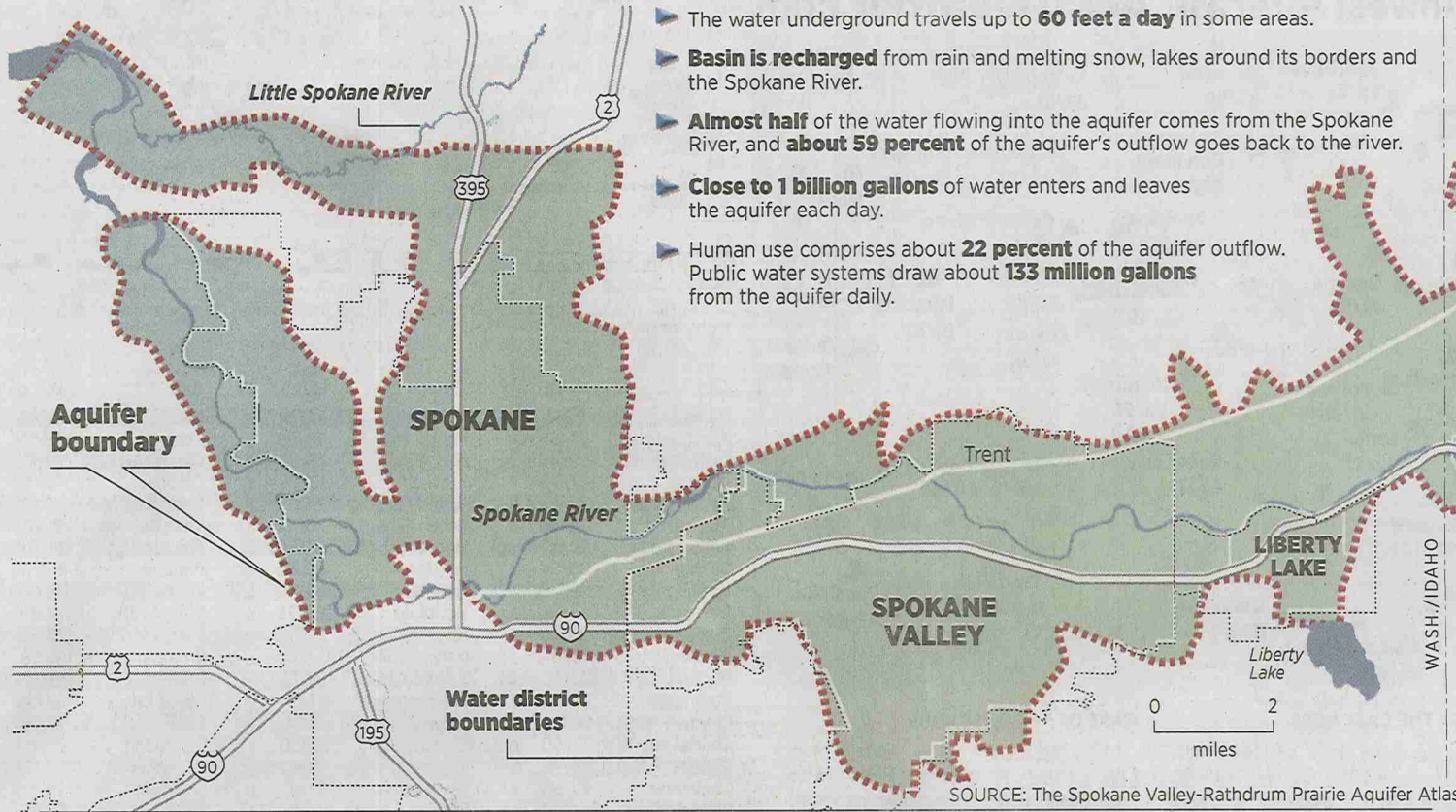


## What lies below

The Spokane Valley/Rathdrum Prairie Aquifer



- ▶ **The groundwater flows** southwest from Lake Pend Oreille to downtown Spokane, ultimately discharging into the Little Spokane and Spokane rivers.
- ▶ **10 trillion gallons** of water flows below the Rathdrum Prairie and Spokane Valley.
- ▶ The water underground travels up to **60 feet a day** in some areas.
- ▶ **Basin is recharged** from rain and melting snow, lakes around its borders and the Spokane River.
- ▶ **Almost half** of the water flowing into the aquifer comes from the Spokane River, and **about 59 percent** of the aquifer's outflow goes back to the river.
- ▶ **Close to 1 billion gallons** of water enters and leaves the aquifer each day.
- ▶ Human use comprises about **22 percent** of the aquifer outflow. Public water systems draw about **133 million gallons** from the aquifer daily.

## Obama to delay planned reform

**Won't act on immigration before elections**

By Kathleen Hennessey  
McClatchy-Tribune

WASHINGTON — Under pressure from Democrats worried about political backlash, President Barack Obama will delay his promised executive actions to change the immigration system until later this year, the White House said Saturday.

The decision is a reversal from late June, when Obama, frustrated by congressional deadlock on the issue, said he would use the power of his office to make changes at the end of the summer. White House officials had signaled that Obama was considering drastic changes that would allow millions of undocumented immigrants to temporarily avoid deportation.

But Democrats running in tough races in conservative-leaning states began to lobby the White House to delay the changes until after the November midterm elections. The pressure grew stronger after thousands of unaccompanied minor immigrants from Central America began arriving at the border, crowding detention centers and making immigration a major news story.

A White House official said Saturday that Obama still plans to use

See IMMIGRATION, A10

Massive aquifer fuels more than 20 vastly different pricing structures

# LIQUID ASSET

Story by Scott Maben  
Graphics by Molly Quinn  
The Spokesman-Review

On a corner lot in the center of Spokane Valley, Rupert Butler tends to his large lawn below one of Modern Electric Water Co.'s conspicuous water towers. His grass is green and healthy, and Butler takes care to find the right mix of water and fertilizer to keep it that way all summer long.

He sees plenty of wasteful watering, though, around his neighborhood:

sprinklers left on for hours or running in the heat of the day, water splashing onto sidewalks and streets. For someone who has lived and worked in parched areas of

Texas and California, he shakes his head at it all.

"What kind of irritates me is somebody turning on a lawn sprinkler and just letting it run while they go to work all day," said Butler, who is retired from the USDA Farm Service Agency.

But what's to stop them? Water here is abundant and cheap, drawn from a massive aquifer under the valley floor and piped with little or no treatment to half a million people.

Water rates in Spokane County are lower than in any other county in Washington, and just a fourth of what people pay in the Seattle area. All of a household's daily consumption — for cooking, bathing, washing clothes and dishes, even watering a lawn and garden —

See AQUIFER, A9

**@ Web extra:** Find an interactive map showing what Spokane County water customers use and pay at <http://data.spokesman.com>.

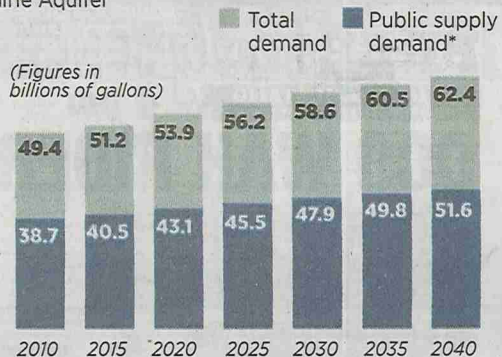


COLIN MULVANY colinm@spokesman.com

Rupert Butler, who is retired and moved to the Inland Northwest last year from Texas, has a lush, green lawn. Butler lives in the Modern Water District. One of Modern's water towers looms nearby.

### Projected annual water demand

in Spokane County from the Spokane Valley-Rathdrum Prairie Aquifer

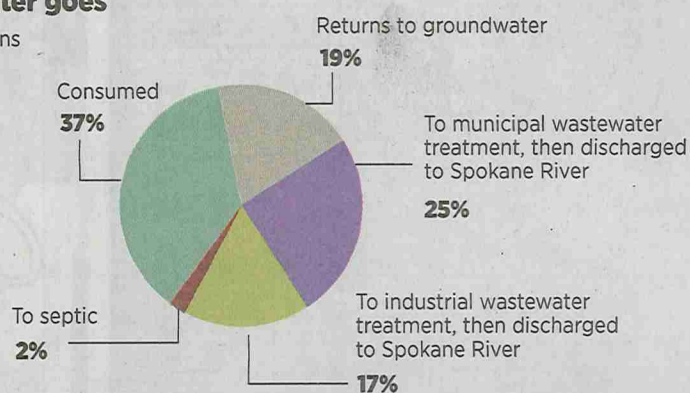


\* The portion of the total demand supplied by public water systems, as opposed to private wells

### Where our water goes

Here's what happens to the water we pump out of the aquifer.

NOTE: Water that is consumed includes plants and trees that absorb water, evaporation and food processing



SOURCE: Spokane County Water Resources

## States pay price by limiting Medicaid

**Expansion refusal limits benefits, not associated costs**

By Tony Pugh  
McClatchy-Tribune

WASHINGTON — If the 23 states that have rejected expanding Medicaid under the 2010 health care law continue to do so for the next eight years, they'll pay \$152 billion to extend the program in other states — while receiving nothing in return.

This exodus of federal tax dollars from 2013 through 2022 would pay 37 percent of the cost to expand Medicaid in the 27 remaining states and Washington, D.C., over that time.

Most of the money, nearly \$88 billion, would come from taxpayers in just five non-expansion states: Texas, Florida, North Carolina, Georgia and Virginia.

The findings are part

See MEDICAID, A11



LIQUID ASSET

**AQUIFER**

Continued from A1

costs less here than the retail price of a single bottle of water.

"Water is one of our biggest assets in this area. It's huge," said Bryan St. Clair, superintendent of Modern's water department. "Take it from a guy who came from New Mexico."

With enough water to fill Lake Coeur d'Alene 13 times over, the Spokane Valley-Rathdrum Prairie Aquifer nurses a greenbelt extending from southern Bonner County down through Coeur d'Alene and Post Falls and west into Spokane Valley and Spokane.

"It can be said that there is no city in the world that has a better water supply than Spokane," a city official boasted in 1909, and the claim rings true today.

"It is without question one of the best sources of drinking water in the country," said Dan Kegley, the current director of the city of Spokane Water Department.

Cheap water and cheap land transformed the Spokane Valley into a landscape of orchards and vegetable farms a century ago, and even today the wealth of readily available, clean water ensures that no one pays very much for all they need.

"I love what we pay for water here," Butler said. "Down in Texas, you know, it wasn't uncommon to spend \$100 a month just on water. So I'm pretty happy with my bill here."

**'Little fiefdoms'**

What he didn't expect was the bewildering array of water purveyors operating in the Valley.

Butler is in Modern's service area, but his daughter's house directly across the street is served by Vera Water & Power. And just a few streets south of them, homes fall inside Spokane County Water District 3.

Spokane Valley is a jigsaw puzzle of water systems - 13 in all - that evolved from supplying agriculture to serving homes and businesses as farmland was developed. Those purveyors and another eight in and around Spokane collectively operate 122 wells to supply drinking water to half a million people.

Each purveyor operates independently under an assortment of legal authorities with starkly different rate structures that even they find almost impossible to put side by side.

"You truly are comparing apples to oranges," Kegley said. "It's very difficult to do."

A 2013 survey by Raftelis Financial Consultants Inc. showed Spokane County has the lowest average water rates in the state, with a combined base rate and water use charge of about \$17 a month. But the survey included just three systems in the county: the city of Spokane (\$23.74 a month on average), Modern (\$15.80) and Vera (\$14).

That left out tens of thousands of residents who get their water from other purveyors in the area. In addition to municipal



FILE The Spokesman-Review

**Outdoor water-saving tips**

- ▶ Water early in the morning
- ▶ Use timers to limit watering
- ▶ Adjust sprinklers to avoid pavement
- ▶ Apply no more than 1 inch of water every 4-7 days
- ▶ Turn off your system in rainy weather
- ▶ Install soil moisture sensors or other efficient-irrigation technology
- ▶ Replace your lawn with native plants, which need little water
- ▶ Fix leaks in hoses and faucets

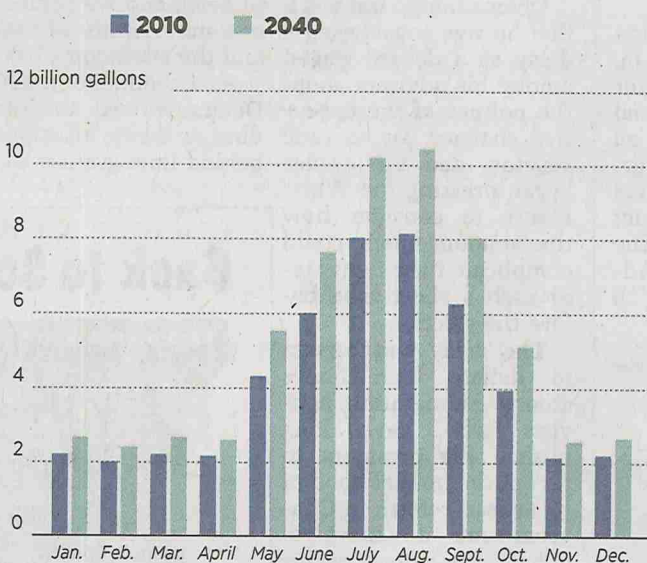
**On the Web**

To learn more, visit <https://beta.spokaneacity.org/publicworks/water/slowtheflow/>.

**Water use**

Our water use spikes May-October due to outdoor watering. Here is the estimated increase in our monthly water demand from the aquifer between 2010 and 2040.

**Aquifer monthly water demand**



SOURCE: Spokane County Water Resources

MOLLY QUINN mollyq@spokesman.com

areas.

"That's been a complaint that I've had in these small systems don't have to charge what they should be charging because they get access to this easy money, and the ones that are responsible, they don't get it," Wick said.

Susan McGeorge, manager of Whitworth Water District 2 since 1988, said at first she thought every purveyor operated like Whitworth. "I learned fairly quickly that it wasn't just one or two differences, there were a whole host of differences," she said.

As for what they charge, rate structures are as diverse as the purveyors themselves.

"One board may decide they want to keep the water as low as they can, but will make that up by charging a higher connection fee," McGeorge said. "They might charge a meter fee along with the water, or a difference between residential and commercial."

"The main thing is they have to cover their costs," she said.

Running pumps is one of the bigger operating expenses, so electricity costs are a key influence on water rates. Fortunately for customers of Spokane's

"The quality of water in (the aquifer) is excellent," said St. Clair with Modern. "So we don't have to spend a lot of money on treatment."

**Money or mindset**

Also in contrast to the West Side, water conservation has been slow to catch on in the Inland Northwest.

Spokane County households are some of the thirstiest in the state. Residents here on average use more than 200 gallons a day - nearly twice the state average, according to the U.S. Geologic Survey.

"Unfortunately, we don't have a conservation mindset, partly because we've been told for so very many years that there's a lot of water in the aquifer, we don't have to worry about shortage," said Rachael Paschal Osborn, a Spokane environmental attorney and senior policy adviser for the Center for Environmental Law and Policy.

Only recently have people here begun to understand how interlaced the aquifer and Spokane River are, and how pumping from the aquifer contributes to low summer flows that imperil fish in the river, Osborn said.

keep up.

"It's a really odd dynamic," said Modern's St. Clair, mulling the brown lawns on the wet side of the state and the green lawns here on the dry side. "That's the thing to do over there."

Watering on the wrong day or at the wrong time will invite a warning or citation in many places outside the Inland Northwest. Above the local aquifer, however, nothing much stands in the way of excessive or careless watering practices.

Some purveyors believe the pocketbook is one way to change those bad habits.

"To me it makes sense: If you're using more water, you need to pay more," said McGeorge at Whitworth Water, which switched to conservation pricing 15 years ago, well ahead of the curve.

"We have customers who tend to be more wealthy, and they were using ever and ever more water per home - quite a bit of it frivolous, that we could see," McGeorge said. "We wanted them to just start curtailing it and be wise about it."

The heaviest users backed off, and the district has kept its average residential use below the peak of 1998, she said.

Whitworth today charges \$20 a month for 7,480 gallons of water for domestic use. After that, customers pay increasingly higher rates the more they use.

Many believe Spokane's move to an aggressive tiered-rate structure in 2010 doomed Mayor Mary Verner's re-election bid in 2012, and customer complaints about the higher rates prompted city leaders to pull back to a more modest, conservation-based approach.

Not all purveyors in the region have bought into the strategy, and a few still offer discounts for their heaviest consumers.

An ascending rate structure may not be all that effective in reducing overall water use, said St. Clair at Modern, which has a basic monthly charge and a simple rate of 40 cents per 748 gallons.

"Education in my mind is No. 1," he said. "Conservation is a mindset, not necessarily about money."

The state requires water systems to craft conservation plans and provide annual water efficiency reports, and purveyors are making good progress in reducing how much water they lose in their pipes, St. Clair said. Modern has brought its water loss down to 8.7 percent, below the state threshold of 10 percent.

"We had a leak survey done by a contractor, and we went out and fixed every hole they found and a couple they didn't," he said.

In April, the Spokane City Council passed a resolution supporting new water-efficiency goals. It calls for reducing indoor residential use by 0.5 percent a year and outdoor use by 2 percent a year for all customer classes.

That continues a downward trend since 2000, a year Spokane pumped 26 billion gallons

**Officials look ahead as demand rises**

By Scott Maben

scottm@spokesman.com, (509) 459-5528

Clean drinking water has never been in short supply in the Spokane area. As the region grows in the coming decades, however, that may change.

Water demand in the metro area is expected to increase 37 percent between 2010 and 2040, according to a Spokane County forecast from last year.

The source of all that water - the immense Spokane Valley-Rathdrum Prairie Aquifer - is looking ever smaller. Smaller to public water providers confronting limits on how much more they'll be able to draw from underground, and smaller to Spokane River advocates sounding the alarm over low summer flows.

Unlike so many sources of groundwater across the West, the aquifer beneath the valley floor holds up well to pumping for public and private supplies. It's a resilient system underground.

But near the surface, where the aquifer and the Spokane River mingle, pumping from the aquifer draws down the river in summer to the detriment of fish and wildlife, a 2007 Washington-Idaho aquifer study confirmed.

Declining river flows led Washington in the early 1990s to stop issuing new water rights for public water systems on the aquifer, leaving cities and water districts to operate under existing water rights. Water managers wonder how they'll meet the demands of growth without expanding their claims on the aquifer.

"That's the question we ask every day. We don't know," said Ty Wick, general manager of Spokane County Water District 3.

District 3 has had water right applications submitted to the state since the early 1990s, and the Department of Ecology won't process them, said Wick, who also is president of the Spokane Aquifer Joint Board.

"I call it the paper drought," he said.

Ecology officials are working now to establish a water right for the Spokane River to ensure the summer flow is adequate for fish habitat, water quality and other values. The goal, the state says, is to protect the river from future withdrawals, not cut into existing water rights.

"It's not like we can go out and enforce it by busting a bunch of guys or canceling water rights," said Guy Gregory, senior hydrologist at the Department of Ecology. "But it will provide the public with an idea of what a healthy river flow looks like, and we think that's probably the best way we have available to encourage sensible water development in the region."

Once a minimum stream flow is set for the Spokane River, any new water rights granted from the aquifer would be junior to it, meaning those new withdrawals could be curtailed if the river drops too low, Gregory said.

The moratorium on new water rights and potential for future restrictions on withdrawals could have unintended consequences, said Susan McGeorge, manager of Whitworth Water District 2. If new developments can't connect to public water supplies, they will drill private wells to tap the aquifer, which undermines the state's effort to curb draws on the aquifer, McGeorge said.

Some providers already are running out of water. The East Spokane Water District, for one, has exceeded its water right and now buys aquifer water from Modern Electric Water Co. That water is sent across the Valley through another water district's pipes to East Spokane customers.

"It's kind of a world of haves and have-nots out there in the Spokane public water supply community," said Rachael Paschal Osborn, senior policy adviser for the Center for Environmental Law and Policy.

The city of Spokane is one that has a lot of water to spare under its existing



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That left out tens of thousands of residents who get their water from other purveyors in the area. In addition to municipal systems like Spokane's and cooperatives like Modern, there are special purpose districts – commonly known as water or irrigation districts – as well as private water companies.

"Each little fiefdom does it differently," said Ty Wick, general manager of Water District 3 and president of the Spokane Aquifer Joint Board, made up of the 21 water purveyors in the Spokane area.

Some operators, Wick said, have little overhead and defer maintenance to keep their rates low.

Irrigation districts, which typically charge a low flat rate for a year's worth of water use, "have an advantage because they have taxing authority, so the county does most of their billing and keeps track of the assessments," he said.

Smaller, struggling systems also have qualified for state or federal grants and low-interest loans, deepening the disparity in water rates between service

access to this easy money, and the ones that are responsible, they don't get it," Wick said.

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"The main thing is they have to cover their costs," she said.

Running pumps is one of the bigger operating expenses, so electricity costs are a key influence on water rates. Fortunately for customers of Spokane's water system, the city owns and operates a hydroelectric facility on the river.

"That does help us keep our rates down," Kegley said. "We use the power generated from the dam to operate two of our largest well fields for the city of Spokane."

Another expense that affects rates is water treatment. Most systems in Spokane County add chlorine to the water, but a few purveyors have held out. Whitworth, which serves more than 26,000 people north of Spokane, is the largest nonchlorinated system in the county, and that certainly keeps costs down, McGeorge said.

"We draw it from the ground and it goes straight to the reservoirs and into our homes," she said.

Even local systems that do chlorinate don't spend nearly as much as systems like those in Western Washington that must filter and treat water taken from rivers and lakes.

### Money or mindset

Also in contrast to the West Side, water conservation has been slow to catch on in the Inland Northwest.

Spokane County households are some of the thirstiest in the state. Residents here on average use more than 200 gallons a day – nearly twice the state average, according to the U.S. Geologic Survey.

"Unfortunately, we don't have a conservation mindset, partly because we've been told for so very many years that there's a lot of water in the aquifer, we don't have to worry about shortage," said Rachael Paschal Osborn, a Spokane environmental attorney and senior policy adviser for the Center for Environmental Law and Policy.

Only recently have people here begun to understand how interlaced the aquifer and Spokane River are, and how pumping from the aquifer contributes to low summer flows that imperil fish in the river, Osborn said.

"There is an increasing appreciation of the river and of the importance of flows in the river," she said. "I think we're ripe for a better understanding of the need to conserve."

Water shortages have led to rationing and driven rates higher in communities across the West, and not just in arid regions. In and around Seattle, property owners are in the habit of letting their lawns turn brown in the summer.

"That's what people are used to there," Wick said. "They don't waste water on the lawn."

But neighborhoods in Spokane, across the Valley and into North Idaho are largely green and lush straight through the heat of July and August. In those two months, demand on the aquifer soars as outdoor watering peaks around homes, parks, office complexes, churches and golf courses. Wells pump about 3,000 gallons per second, or more than 10 million gallons an hour, to

748 gallons.

"Education in my mind is No. 1," he said.

"Conservation is a mindset, not necessarily about money."

The state requires water systems to craft conservation plans and provide annual water efficiency reports, and purveyors are making good progress in reducing how much water they lose in their pipes, St. Clair said. Modern has brought its water loss down to 8.7 percent, below the state threshold of 10 percent.

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In April, the Spokane City Council passed a resolution supporting new water-efficiency goals. It calls for reducing indoor residential use by 0.5 percent a year and outdoor use by 2 percent a year for all customer classes.

That continues a downward trend since 2000, a year Spokane pumped 26 billion gallons from the aquifer, Kegley said. Now, the city is down to about 20 billion to 22 billion gallons a year.

"I think primarily that is due to some of the tightening of the building codes, the low-flow toilets, the low-flow showerheads," he said. "All in all I think people are being much smarter with their use of water, and I think it shows very dramatically in our production numbers."

Despite campaigns touting water-saving tips and offers to help people lower their water bills, many customers remain indifferent about conservation, Wick said. Several utilities offer their customers free rain gauges and soil moisture sensors to reduce unnecessary watering, but few people take advantage of it, he said.

"There just doesn't seem to be the mindset or the incentive at all to save water," Wick said.

"People are spoiled here."

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The city of Spokane is one that has a lot of water to spare under its existing water rights. The city already delivers water to neighborhoods outside city limits and pumps water out to Airway Heights on the West Plains, where water is scarce.

Likewise, most of the larger public water systems in the county have yet to tap all the water they're guaranteed. According to Ecology, the purveyors collectively can take another 210 cubic feet per second of water – about 136 million gallons a day – out of the aquifer under current allocations. And less than a quarter of that volume will be needed to meet projected demands over the next 30 to 40 years, Gregory said.

"They have ample water to serve any customer that comes to them," he said.

The downside is the low summer flow in the river will drop further as existing water rights are fulfilled, and the state can't stop that.

"Substantial quantities of water already are allocated and being used," Osborn said. "The problem with low flows in the Spokane River, that's a present-day situation."

One obvious way purveyors can prolong their water rights is by promoting smarter water use, Gregory said.

"The cheapest, most available source of new systems is conservation. Just is," he said. "It saves money, it saves energy, it saves water."