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By Hillary Hamm, Daily News staff writer  
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University of Idaho geology professor John Oldow is convinced the contentious regional water issue is being spurred by a lack of information.

"I think they need to better understand what we do and don't know" about the Palouse Basin, he said. "There's a lot of discord and disagreement based on what people think they know."

Oldow wants residents of the Palouse region to have access to the same information relating to the area's aquifers, which are the only current source of potable water in the region. He's part of a team that has created a computer-generated model that could help researchers, city leaders and the public better understand the volume of the basin and the complexities of the Grand Ronde and Wanapum aquifers.

The project is called the "Palouse Basin Community Model" and was created with hydrological and geological data known about the two aquifers. The Grand Ronde has been documented to drop up to a foot and a half a year, while the Wanapum - once the primary aquifer for the Palouse area - is in stable condition.

The basin is only a small part of the larger, more complex 63,000-square-mile Columbia River Plateau. The intricate aquifer system encompasses a substantial portion of southeast Washington, northern Oregon and a portion of western Idaho and lies between the Cascade and Rocky Mountains, split by the Columbia River. Moscow is the farthest eastern city included in the plateau and joins the city of Pullman in the Palouse Basin.

Oldow's model was created by pairing accurate Palouse topography with a loosely defined bottom of the region's aquifer basin. With the click of a computer mouse, the model takes the viewer below the Earth's surface. Oldow also is working to present the model in a larger scale through 3-D technology.

The essence of the model is based on the recorded depths of 14 public wells in Pullman, Moscow and on the Washington State University and University of Idaho campuses. It also includes a well managed by the Washington State Department of Ecology along the Pullman-Moscow Highway.

Oldow hopes private domestic well owners will allow their wells to be measured through gravity and rock density tests as the project becomes more public. Once entered into the computer, the data could help researchers understand the depth of the Palouse Basin, which also could more accurately estimate the capacity of the aquifers.

"We'll never know exactly how much (water) there is ... but maybe we'll know the volume" of the basin, he said.

The depth of the aquifers is unknown. The deepest well in the area was drilled at about 2,000 feet, but without any concrete data on the basin's depth, researchers often are left scratching their heads about how serious the aquifer decline is, and how long residents can draw from the resource before a plan B has to be enacted.

The development of the model is still in an early phase, but Oldow has pitched it to the Palouse Basin Aquifer Committee for potential funding. He also plans to show the model to the Washington State Department of Ecology and the Idaho Department of Water Resources. They need money to continue the project, since gathering the measurements takes time and equipment.

Steve Robischon, PBAC executive director and assistant director for the Idaho Water Resources Research Institute, said the model could be a beneficial education tool when it is more finely crafted.

"I think it would be useful, both for the general public ... and for researchers to dig into and find out what's going on beneath the surface," he said.

Oldow presented PBAC with a sample of the model in May. PBAC members requested a formal proposal.

"Having that information being quality and as accurate as possible is important," Oldow said. "People listen to different communication channels, and it can get confusing. Accessibility to all is important. A lot of the

information we have is in hard copy or on someone's computer."

Pullman Public Works Director Mark Workman has viewed the computer model and is excited to see the project as more well depths are added.

"It's a good visual representation of what we think the aquifer looks like - not just the surface or the ground ... but what the basalt flows look like," he said. "I think people sometimes have difficulty understanding what the aquifer is like, and sometimes a picture is worth a thousand words."

Workman, who also is the vice chairman of PBAC, said the model could help communities as they develop water conservation plans.

"Over time, it will more and more accurately reflect the reality of what is underneath us. Oftentimes, we're a little confused. Like, we know Moscow has a well 1,000 feet deep and Pullman has one at 700 feet. But what does that mean?" Workman said. "The more we know about the aquifer, the better we will understand the interrelations between sub-basins. Ultimately, I think it's all good information to help us define what the problem is with our aquifer and find the solution, or solutions."

Oldow said it will take cooperation from area residents who have wells on their property to continue the project.

"We need to know where all the wells are. It's got to be vetted. It's got to be validated," he said. "Until then, it's just a model.

"I think we'd know more if we pull together everything we have," he added. "We want everyone on the same level ... so we can't play the game of 'my data trumps your data.' The most efficient way to make this information known is to put it out there so we can all access it and discuss it."

Hillary Hamm can be reached at (208) 882-5561, ext. 307 or by e-mail at [hhamm@dnews.com](mailto:hhamm@dnews.com).