SAJB

For Immediate Release

Contact: Ty Wick
Spokane Aquifer Joint Board
(509) 536-0121

Local Water Utilities
United for Safe Drinking Water

Carnhope Irrigation District No. 7
Consolidated Irrigation District No. 19
East Spokane Water District No. 1
Hutchineon Irrigation District No. 16
Irvin Water District No. 6
Liberty Lake Sewer/Water District
City of Millwood
Moab Irrigation District No. 20
Model Irrigation District No. 18
Modern Electric Water Co.
North Spokane Irrigation District No. 8
Orchard Avenue Irrigation District No. 8
Pasadena Park Irrigation District No. 17
Spokane County Water District No. 3
Trentwood Irrigation District No. 3
Vera Irrigation District No. 3
Whitworth Water District No. 2

"SUPERMAN EYES" WILL HELP IDENTIFY CHARACTERISTICS OF THE SPOKANE AQUIFER

SPOKANE, Wash.-- Researchers will use "Superman eyes" in their efforts to probe Spokane's Aquifer as part of a wellhead protection program.

The "Superman eyes," technically known as seismic reflection profiling, is one of several tests being conducted on the aquifer by the Spokane Aquifer Joint Board (SAJB), during the month of September. These data collection activities will aid in establishing a wellhead protection program for Spokane's sole source of drinking water.

The aquifer lies approximately 100 feet below the surface of the Spokane area, so engineers need "Superman eyes" to better define the physical characteristics of the aquifer. This technique allows engineers to look at underground formations without actually digging or drilling a hole.

"Superman eyes" work like a depth finder. Electronic sound waves are directed downward toward the aquifer and can detect gravel and rock formations that rest above and in the aquifer.

(more)

This process will also help engineers determine how far underground the aquifer is from its surface to its bedrock base. This depth could reach five hundred or more feet below ground.

Also during September, four new monitoring wells will be drilled, pumping tests will be conducted at existing wells, and aquifer water levels will also be measured in existing wells in both Idaho and Washington.

The new monitoring wells are one inch diameter holes that will be drilled near existing water wells and will serve as "peepholes" into the aquifer. Three of the new wells will be located in the Valley's Otis Orchards area. A fourth well will be north of Francis Avenue.

"These sites will yield the most accurate account of which direction and how fast water is able to flow though the aquifer," said Brad Phelps, CH2M Hill engineer and consultant to the SAJB.

Measuring water levels at specific wells and performing pumping tests will also give the board a more detailed understanding of which direction the groundwater moves in Spokane's aquifer. Together these tests will show the board which drinking water wells may be most susceptible to contamination.

"This information is valuable not only to the wellhead protection program, but to the general understanding and future management of our aquifer," Phelps said.

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The united efforts of local water utilities to collect and evaluate information about Spokane's aquifer will be combined with existing data. Each new piece of information allows researchers a more detailed understanding of the aquifer, how it operates, the aquifer's sensitive areas and its future as the sole source of Spokane's drinking water.

The board's data collection activities will continue through November.

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Editor's note: The board meets the fourth Thursday of each month into the offices of Vera Water and Power, 601 N. Evergreen in the Spokane Valley.

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WATER UTILITIES UNITE TO PROTECT SPOKANE'S DRINKING WATER

SPOKANE, Wash. -- Seventeen local water utilities from the Spokane area have joined forces to protect Spokane's drinking water.

Operating under the name Spokane Aquifer Joint Board (SAJB), the utility members are responsible for providing safe drinking water for over 110,000 residents within the Spokane area.

Ty Wick, the first president of the SAJB, initiated the unification of the water utilities. "It makes more sense to consolidate our efforts, rather than have each of us deal with the same issues in our own districts," Wick said. "This is an unprecedented move among local water utilities. To my knowledge, no other group like the Spokane Aquifer Joint Board exists," he added.

The first project undertaken by the board is to establish a wellhead protection program for over 170 wells in 90 different locations.

These water utilities are working together to collect and evaluate information that will be used to develop consistent strategies to safeguard the drinking water wells within the EPA designated "sole source aquifer" of the Spokane Aquifer.

(more)

"Although the requirements for this program have been mandated by the Federal Safe Drinking Water Act, the board members understand their responsibility to provide safe drinking water now and into the future, and are willing to work together to obtain this goal for Spokane's citizens," said Wick. "We are united for safe drinking water."

In order to develop the wellhead program, information will be collected about how much water moves through the aquifer, the speed and direction of the water's flow, and the aquifer's size and shape.

Also, as part of the program, researchers will identify potential sources of contamination that exist above ground and could leach contaminants into the aquifer. This information will enable the board to determine the potential impact surface activities have on Spokane's drinking water.

Funding for the board's first project is provided by the SAJB member utilities, a Centennial Clean Water Fund state grant and Spokane County.

Water utilities holding SAJB membership are: Carnhope Irrigation District #7, Consolidated Irrigation District #19, East Spokane Water District #1, Hutchinson Irrigation District #16, Irvin Water District #6, Liberty Lake Sewer District #1, Millwood Municipal Water Supply, Moab Irrigation District #20, Model Irrigation District 18, Modern Electric Water Company, North Spokane Irrigation District 8, Orchard Avenue Irrigation District #6, Pasadena Park Irrigation District #17, Spokane County Water District #3, Trentwood Irrigation District #3, Vera Water and Power, and Whitworth Water District #2.

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Editor's note: The SAJB meets the fourth Thursday of each month at the office of Vera Water and Power, located at 601 N. Evergreen in the Spokane Valley.

BACKGROUND INFORMATION

What is the SAJB?

The Spokane Aquifer Joint Board (SAJB) represents 17 local water utilities that banded together in 1993 to consolidate individual efforts to provide safe drinking water for more than 110,000 area residents. This joint venture stands as a unique proactive approach to protect from contamination the source of this region's water supply and the network of wellheads that deliver it to homes and businesses.

Which districts belongs to the SAJB?

Water utilities that hold membership in the SAJB include:

Carnhope Irrigation District #7,

Consolidated Irrigation District #19

East Spokane Water District #1

Hutchinson Irrigation District #16

Irvin Water District #6

Liberty Lake Sewer (Water) District #1

Millwood Municipal Water Supply

Moab Irrigation District #20

Model Irrigation District #18

Modern Electric Water Company

North Spokane Irrigation District #8

Orchard Avenue Irrigation District #6

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Pasadena Park Irrigation District #17

Spokane County Water District #3

Trentwood Irrigation District #3

Vera Water and Power

Whitworth Water District #2

How does the SAJB fit into the issue of regional clean water protection?

SAJB member utilities are responsible for 90 wells which draw water from the Spokane-Rathdrum aquifer, a 325-square-mile underground river that provides most of this region's drinking water.

What other authorities share responsibility for preserving clean water in this region?

As a "sole source" water provider for this region, the aquifer is protected under the Federal Safe Drinking Water Act. The Environmental Protection Agency conducts a water safety review of any area land development project receiving federal funds. Additionally, since the aquifer flows beneath both Idaho and Washington, it is subject to the environmental protection laws and regulations of both states, plus a variety of city, county and local conservation district clean water rules and initiatives.

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Overlapping jurisdictions and differing state and local priorities have brought little coordination to the issue of aquifer protection and management. That's why the SAJB member's decision to act together in pursing its water protection programs has been viewed as a groundbreaking move.

What steps is the SAJB taking to insure sustainable clean water for this region? Initially the SAJB is focusing its efforts on a Wellhead Protection program with six main elements:

***Data Collection.** Using test wells, the SAJB is gathering information to determine how much water moves through the aquifer and the speed and direction of its flow. Advanced technological tools such as "Superman Eyes" direct sound waves into the ground to give hydrologists an accurate map of the underground river's formation. This information will allow the Board to track the flow of possible pollutants moving through the aquifer and to help develop long-term water management plans for this region.

***Sensitive Areas Definition** An accurate map of the aquifer will help the SAJB define the area around wellheads that could be vulnerable to above-ground contamination. It also will identify actual and potential pollution sources and may govern the use of land over and around these sensitive areas.

*** Contaminate source inventory and ranking.** As vulnerable areas around wellheads are plotted, the SAJB will identify possible sources of groundwater contamination. They could include businesses, industrial and agricultural

operations or residences in which chemicals, industrial oils, fuels, agricultural and septic wastes are allowed to drain into the ground. The Board then will rank sites on the basis of their contamination potential and proximity to sensitive wellhead areas.

* **Contingency Planning.** As the SAJB develops a profile of potential contamination sites and gauges the vulnerability of wellheads to surface and below-ground pollutants, it also will form strategies to prevent contamination events or contain impacts should they occur.

* **Public Involvement and Program Acceptance.** Public support is crucial to the success of the Wellhead Protection program. Local elected and appointed officials must deal with a wide range of public policy issues which affect this community's economy and quality of life. They look to their constituents' interests in prioritizing issues to determine levels of funding and other support. The SAJB recognizes that high citizen interest in clean water initiatives, such as the Wellhead Protection program, can move it to the "A" list of priority issues and win official support.

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What is the SAJB doing to get the word out about its Wellhead Protection program and highlight the importance of citizen involvement in preserving our clean water?

The SAJB publishes a bi-monthly newsletter for customers of its member utilities, demonstrating its efforts to protect wellheads and support other clean water initiatives.

Additionally, SAJB representatives have given presentations outlining the issue to a number of area civic and business audiences. Currently citizen advisory groups to promote the Wellhead Protection program are being formed.

How can citizens find out more about the SAJB's efforts?

For further information write:

Citizens Involvement Group

P.O. Box 142055

Spokane WA 98214-2055

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Utilities unite to protect area drinking water

A test well has been completed along the state line on Idaho Road on the east end of the Spokane Valley as part of an ongoing wellhead protection program being conducted by the Spokane Aquifer Joint Board.

The board, whose members represent 17 local water utilities, is responsible for providing safe drinking water for over 110,000 residents within the Spokane area. Ty Wick, the first president of the SAJB, said the scope of the project is even wider than that.

"We have 90 well fields we are responsible for, but actually a wider area can be affected," Wick said. "The entire county gets its water from the same aquifer. A problem at one wellhead can affect all the others."

The Spokane Aquifer Joint Board was formed by the county commissioners under a mandate by the Federal Safe Drinking Water Act. While that act mandates each water utility individually, Wick said it made more sense to consolidate efforts, "rather than have each of us deal with the same issues in our own districts."

The utilities are working together to collect and evaluate information that will be used to develop consistent strategies to safeguard the drinking water wells within the EPA designated "sole source aquifer" of the Spokane Aquifer.

"Although the requirements of this program have been mandated by the Federal Safe Drinking Water Act, the board members understand their responsibility to provide safe drinking water now and into the future, and are willing to work together to obtain this goal for Spokane's citizens," said Wick. "We are united for safe drinking water."

The first project undertaken by the board is to establish a wellhead protection program for over 170 wells in the county. Wick said information is being collected about how much water moves through the aquifer, the speed and direction of the water's flow and the aquifer's size and shape. That's one of the purposes of the test well on Idaho Road.

Also as part of the program, researchers will identify potential sources of contamination that exist above ground that could leach contaminants into the aquifer. This information will enable the board to determine the potential impact surface activities have on Spokane's drinking water.

"We are looking at the storage of hazardous materials and plan to delineate an area that impacts all wells in an area," Wick said. "We will determine what businesses are there, notify them and help them to find solutions to potential problems."

Funding for the board's first project is provided by the SAJB member utilities, Spokane County and a Centennial Clean Water Fund state grant.

Water utilities in the group are Carnhope Irrigation District 7, Consolidated Irrigation District 19, East Spokane Water District 1, Hutchinson Irrigation District 16, Irvin Water District 6, Liberty Lake Sewer District 1, Millwood Municipal Water Supply, Moab Irrigation District 20, Model Irrigation District 18, Modern Electric Water Company, North Spokane Irrigation District 8, Orchard Avenue Irrigation District 6, Pasadena Park Irrigation District #17, Spokane County Water District 3, Trentwood Irrigation District 3, Vera Water and Power, and Whitworth Water District 2.

The board meets the fourth Thursday of each month at the Vera Water and Power office, 601 N. Evergreen in the Valley.

'Superman eyes' help 'see' Spokane Aquifer

Those living and working along Sullivan Road may have been had their dishes rattled recently as a pair of engineers used "Superman eyes" in their efforts to probe the Spokane Aquifer.

The program is a part of the wellhead protection program currently underway in the county. The test, technically known as seismic reflection profiling, is one of several tests being conducted on the aquifer by the Spokane Aquifer Joint Board.

The Spokane Aquifer Joint Board was formed recently by the county commissioners under a mandate by the Federal Safe Drinking Water Act. It consists of Carnhope Irrigation District 7, Consolidated Irrigation District 19, East Spokane Water District 1, Hutchinson Irrigation District 16, Irvin Water District 6, Liberty Lake Sewer District 1, Millwood Municipal Water Supply, Moab Irrigation District 20, Model Irrigation District 18, Modern Electric Water Company, North Spokane Irrigation District 8, Orchard Avenue Irrigation District 6, Pasadena Park Irrigation District 17, Spokane County Water District 3, Trentwood Irrigation District 3, Vera Water and Power, and Whitworth Water District 2.

The test included a truck carrying data collection equipment and a small propane explosive device. It traveled the full length of Sullivan Road, stopping every 100 feet to fire the device sending sound waves into the ground where they are bounced back and collected by a computer system inside the truck.

According to Charles Gruenenfelder, hydrogeologist with CH2M Hill, the company conducting the tests, several shots are fired at each location to build up a record and to zero out the background noise caused by boulders in the ground. The electronic sound waves are directed downward toward the aquifer and can detect gravel and rock formations that rest above and in the aquifer.

Engineers also have drilled four new monitoring wells near existing wells in the Valley and in Idaho to be used for testing the water flow in the aquifer.

"These sites will yield the most accurate account of which direction and how fast water is able to flow through the aquifer," said Brad Phelps, CH2M Hill engineer and consultant to the Aquifer Joint Board.

Measuring water levels at specific wells and performing pumping tests will also give the board a more detailed understanding of which direction the groundwater moves in Spokane's aquifer. Together, these tests will show the board which drinking water wells may be most susceptible to contamination.

"This information is valuable not only to the wellhead protection program, but to the general understanding and future management of the aquifer," Phelps said.

The collection of data will continue through November.

They call them "Superman Eyes" but actually, it is just a mechanism that uses a propane burst to create vibrations down toward the Valley aquifer. The reflected vibrations are printed out to give engineers a "picture" of what the earth is like 100 feet below the surface. Shown here are CH2M Hill engineers Charles Gruenenfelder, hydrogeologist, right, and Kent McMillan, geophysicist.

Wednesday, November 20, 1996
The Spokesman-Review
Spokane, Wash./Coeur d'Alene, Idaho

Our view

"Property rights" do not include the right to pollute this area's drinking water. Crackdowns are warranted.

Aquifer protection a top priority

John Hern Jr. has 495,000 reasons to remember that most of us in Spokane and Kootenai counties live above a giant aquifer that provides our drinking water.

Last week, a judge fined the Coeur d'Alene man nearly a half million dollars for ignoring health hazards at his iron foundry. For years, Hern permitted bathroom sewage to drain directly into the ground, refused to store dangerous chemicals properly and stonewalled county and health officials.

Hern, owner of Hern Ironworks, was the second Kootenai County man this month to push his misguided notion of private property rights too far. Earlier, Alden Arveson was jailed for stockpiling old cars, trailers, machinery, scrap metal and other junk on his property, creating a health hazard and an eyesore.

Both men believed they weren't hurting anybody.

Both men were dead wrong.

By ignoring county and health rules for at least a decade, Hern and Arveson spawned hazards that threatened the region's precious lifeline, the Rathdrum Aquifer. No one has a right to do that. If anything, the law moved too slowly in bringing these two to justice.

Unfortunately, Hern and Arveson aren't the only ones to pose a threat to the aquifer — just the most notorious. Daily, the region's underground river is threatened in hundreds of small ways in dozens of different places.

In Kootenai County, health officials believe there are as many as 100 seemingly innocuous places where antifreeze, oil, grease and heavy metals are piped directly toward the aquifer via dry wells. The culprits include floor drains in automotive shops, printing establishments and bus garages.

Last spring, the city of Coeur d'Alene found high levels of a cancer-causing chemical in a city well. No one knows how it got there. More recently, Kootenai County had four incidents of coliform contamination involving local water systems.

Groundwater contamination in Washington state is a growing concern, too.

Yet, in 1995, Kootenai County commissioners allowed machine shops to be built over the aquifer without requiring sewer hookup — and were sued by a planning commissioner. Then, a Twin Lakes developer almost was permitted to build a mammoth drainage field near the aquifer.

Aquifer protection should be a top priority in Spokane and Kootenai counties. Those who threaten the aquifer threaten all of us.

D.F. Oliveria/For the editorial board