

# THE WATERFRONT

Summer 2002

Volume 8, Number 1

A PUBLICATION OF SUNNYSIDE VALLEY IRRIGATION DISTRICT  
 120 South 11th Street ♦ P.O. Box 239 ♦ Sunnyside, WA 98944

## Water Quality: Compliance Deadline Has Arrived

The 2002 irrigation season marks the final year for irrigation return flow drains operated by Sunnyside Valley Irrigation District (SVID) and Roza Irrigation District (RID) to comply with the Department of Ecology's Total Maximum Daily Load (TMDL) for suspended solids (measured in turbidity, or water clarity).

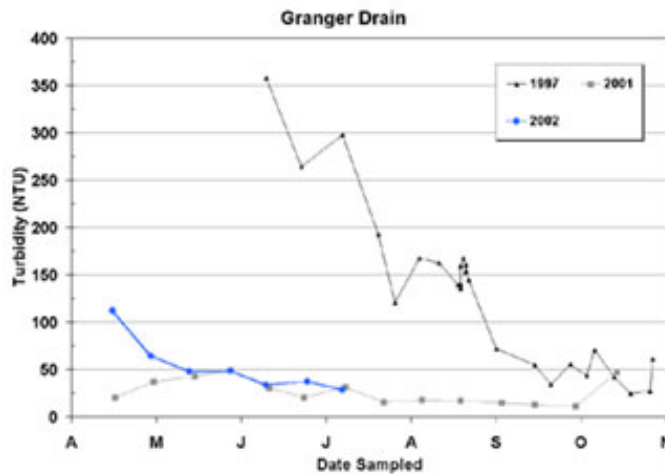
"Everyone is working hard to meet the turbidity target," said Jim Trull, SVID District Manager. "Farmers and growers have spent thousands of dollars on upgrades, labor, and implementing best management practices."

The result? For the past two seasons, all primary return flow drains except for Granger Drain have met the turbidity TMDL goal of 25 Nephelometric Turbidity Units (NTU). Granger Drain has hovered around 40 NTU.

The graph to the right indicates how Granger Drain is measuring up this irrigation season. Although the trend is expected to improve during the course of the season, the 25 NTU target is a "90th percentile number," meaning that the drain must meet this NTU target 90% of the time. It's statistically unlikely that the drain will improve enough over the next few months to offset these early values (see graph).

"Although it's not likely Granger Drain will be in compliance by the deadline, it's important to note the dramatic improvement we've seen in Granger Drain just the same," notes Bill Rice, RSBOJC Water Quality Specialist. He points out that suspended sediment has decreased 95% in Granger Drain since the water quality program began in 1997. This means even though turbidity remains out of compliance sediment loading has been reduced significantly.

Farmers whose lands drain into the Granger Drain hydrologic unit area are encouraged to do their best to improve the quality of the water that is leaving their fields and farms. "It's imperative these



This graphic illustrates the water quality of Granger Drain compared to previous years.

numbers stay low. We must keep Granger Drain as close to compliance as possible," said Rice.


Trull agrees. "A lot of attention is shifting to Granger Drain," said Trull. "We want everyone to see we're doing the very best we can."

Current efforts are aimed at identifying the key elements that make Granger Drain inherently challenging. "Once these issues are known we can take steps to address them," said Rice.

Intense sampling is taking place in the entire Granger Drain hydrologic unit area. "Our job is to answer the many questions we have about Granger Drain," said Rice. "Then we can move forward and bring the Drain into compliance."

A key component that will ensure continued success improving the water quality in Granger Drain is consistent implementation of

Best Management Practices (BMPs).

Bob Stevens, Ph.D., Extension Soil Scientist at W.S.U. Irrigated Agriculture Research and Extension Center in Prosser, notes that there are several key elements that influence water quality in Granger Drain. "There are many small parcels under rill irrigation. Cumulatively, they likely have a large impact on water quality in the entire hydrologic unit area. Combine this with the extremely fine, highly erodible soil type and you've got part of the reason why Granger Drain is difficult to manage," said Stevens. "Many entities are working hard to identify all the contributing issues and determine to what extent each factor influences water quality." 

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## New Policy Aimed At Helping Harrison Hill Lot Owners

Many upgrades and improvements have been recently completed on the former Snipes Mountain Irrigation District (SMID) facilities in an attempt to improve or restore service to landowners within the newly merged area. The SMID merged with Sunnyside Valley Irrigation District (SVID) a year ago this spring.

"The district is committed to improving irrigation availability and delivery in the Harrison Hill area, as well as the rest of the former [Snipes Mountain Irrigation] district" said Jim Trull, District Manager. "There are quite a few challenges, but we're working through them and making progress."

The SVID Board of Directors is expected to adopt a new policy in August that will make it easier and less costly for landowners to access irrigation water.

The new policy will authorize SVID to lay pipe to provide taps for individual lots less than one acre in size. Landowners interested in accessing irrigation water will have to pay a one-time \$250 tap fee. Landowners not interested in using irrigation water won't incur any costs aside from their normal assessment. SVID will cover the infrastructure costs.

"This presents a significant savings for property owners," said Don Schramm, SVID Assistant Manager/Operations. When compared to the cost of using city water to irrigate lawns and gardens the one-time \$250 fee can often be recovered the first year. "This is a new policy so it will be some time before all interested landowners will have service restored," he said. "Our first priority is to identify and evaluate interest and design a construction schedule around it." 

### New Surcharge Raises Filing Fees


During this year's session, the Washington State Legislature approved a surcharge for recording deeds, liens, and other legal documents.

This means that Sunnyside Valley Irrigation District must also add this surcharge to current filing fees. Now, every time SVID processes a deed or other legal document such as a developers agreement or short plat the district must tack on the new surcharge.

The fees effectively almost double SVID's filing fees. Filing a water right has risen from \$11 to \$21, developer agreements from \$30 to \$50, and easements rose to \$23, up from \$13.

"We're not at all pleased with the increase, but we truly have no choice in the matter," said Pat Bailey, Assistant Manager-Administration for SVID.

The funds, according to both the Yakima Herald-Republic and Tri-City Herald, are being collected to maintain low-income housing and subsidize rent payments for low-income people.

When county director of community services Steve Hill was asked how the funds would be used he explained that officials intend to conduct a study to determine how to spend it. The surcharge will generate an estimated \$300,000 annually. 


### Conservation Grant Money Awarded

The Roza-Sunnyside Board of Joint Control has been awarded a \$350,000 grant from the Washington State Conservation Commission. The Sunnyside Valley Irrigation District (SVID) will receive \$203,000. The money will be used to pipe open laterals with enclosed conduit systems.

"The goal is to improve the efficiency of irrigation systems within the Yakima River Basin," said Lori Brady, SVID District Engineer. "We will leverage the funds to pipe three open lateral systems." According to Brady the work will improve efficiency and conservation. "We've been enclosing several miles of open laterals every construction season. This funding will really help SVID continue this beneficial work," she said.

The project has many environmental benefits as well. "We will be able to address identified limiting factors, save water, and improve water quality," said Brady. "We selected lateral systems based on these criteria."

The three lateral systems being considered are Lateral 34.10, Lateral 34.99, and RY 5.51, although there still may be some changes pending final selection.

An estimated 2.5 miles of open lateral will be piped, affecting 422 acres of irrigated land. 

### Water Supply Adequate


Yakima Basin reservoirs are full and the snow stuck around longer than usual this year. This means the water supply for this irrigation season will be sufficient, and there should be enough carry-over water in storage after the season to add some security to next year's supply.

"We're estimating we'll be able to keep 300,000-400,000 acre-feet in storage to build on next year," said Don Schramm, Sunnyside Valley Irrigation District (SVID) Assistant Manager-Operations. Schramm credits this surplus mostly to the higher than average snowpack.

Schramm explained that snowpack can be looked at as an additional reservoir. "The only difference is we cannot control the gates and time the release of water," he said. "But this year the timing of the runoff worked in the farmer's best interests."

Irrigators were able to utilize the longer runoff period without having to draw on stored water.

Storage control began the first week of July.


"The National Weather Service predicts higher temperatures and lower precipitation than usual over the next 90-days," said Schramm. "But even considering these conditions, all irrigation districts dependant on the Yakima River will have ample supply this summer." 

## Working Together: SVID & Benton County Improve Crossing

A road improvement project on Apricot Road in Benton County required the installation of a new culvert on the Mabton Lateral. Due to safety concerns, the road was being widened and straightened where it crossed the Mabton Lateral. As a result, a new culvert had to be designed to accommodate the crossing.

According to Max Benitz, Benton County Commissioner, the job is "a perfect example of how entities can work together to improve facilities in Benton County."

The road work and culvert installation was completed by Benton County. The design was approved by Sunnyside Valley Irrigation District (SVID). "We ran some hydraulic calculations to assist with sizing the culvert," said Doug Higbee, SVID engineer.

The new culvert, a pre-cast box culvert over 250 feet in length, better accommodates the needs of SVID at the crossing. "The original culvert was somewhat undersized, so this presented a great opportunity to work with Benton County and improve our facilities as well," said Higbee. 



This picture shows the new box culvert installed on the Mabton Lateral. The new culvert allows for a wider crossing, improving safety for motorists. The project is being hailed as a successful example of how different entities can work together to improve mutually beneficial facilities.

## Automated Ordering System Popular

During the first six weeks of the irrigation season, the automated answering system logged 8,315 calls. The system is shared between Sunnyside Valley Irrigation District and Roza Irrigation District. The calls represent water orders, account inquiries, and emergencies.

"The automated system allows SVID to keep costs low," said Pat Bailey, SVID Assistant Manager-Administration. "Landowners can have account questions answered and place water orders without having to speak directly with SVID staff. This saves time, money, and expedites service."

Landowners are encouraged to place water orders using the system.

### Some common questions about the automated water ordering system

#### Q. What number do I call?

Choose a phone number within your local calling area. The numbers are: 877-2122, 837-3115, 854-1540, 882-4343, 837-2223, 588-5521, 837-8611 and 837-5040.

#### Q. Are there any instructions?

Simply follow the voice instructions. Written instruction guides are available at the SVID office.

#### Q. What is required to order water on the automated system?

All you need to order water on the automated system is your phone number.

#### Q. What kind of orders can be placed on the automated system?

You can change delivery amount, order water on or off, and even select specific delivery dates.

#### Q. When does my order get processed?


Currently SVID delivers five days per week (Monday through Friday). All orders placed before 11:00 p.m. will be delivered the next business day.

#### Q. I placed a water order and failed to get it delivered. Why?

Be sure and follow the automated procedure and confirm your order. If your order is not confirmed it will not be processed.

There may be other reasons your water was not delivered, however, and the best course of action is to contact SVID.

#### Q. What if I need assistance?

If you have any questions or difficulties when ordering, please call the office at 837-6980 during regular business hours. 

## Progress On Keechelus


Reconstruction and repair work on the Keechelus Dam got underway May 28th when Keiwi Pacific, the contractor awarded the project, arrived on site and began clearing operations.

The goal this year is to construct a downstream drain and work on the south end of the dam. A foundation wall about 1,000 feet in length, 3 feet wide, and 50 feet deep will be poured as well.

A primary objective during the reconstruction work is to minimize impact to farmers and irrigators dependant on Yakima Basin storage.

According to Jim Mumford, Safety of Dams Program Manager with the United States Bureau of Reclamation (USBR) in Boise, Idaho, efforts to rebuild Keechelus have been planned around the needs of Yakima Valley irrigators.

The project will be completed over two years. During the second year the water elevation in Keechelus will be reduced an additional 50 feet when crews begin working on the center portion of the structure. The target water level for August, 2002 is 2,510 feet (140,000 acre-feet). In contrast, the 2003 target level is 2,490 feet (94,000 acre-feet).

"The important message," said Mumford, "is that we're doing our very best to complete this project efficiently, safely, and with as little impact to farmers as possible." 

## South Yakima Conservation District Identifies Fecal Coliform Sources

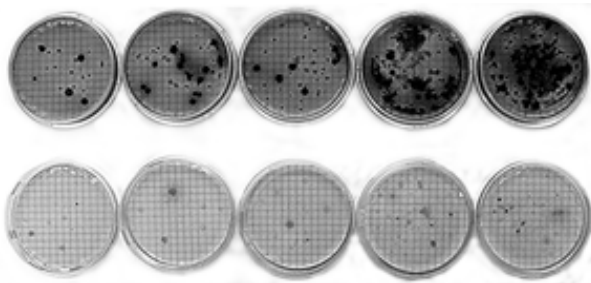
By Marie Zuroske, South Yakima Conservation District

High concentrations of fecal coliform bacteria in Granger Drain have been a concern for many years. Within the last few years, concentrations have decreased substantially but still remain at elevated levels. While some researchers assumed the only significant source was cows, there was no way to know the actual sources of fecals - until now.

Researchers have found that the *E. coli* bacteria living within animals are generally species-specific. The DNA of *E. coli* found in surface waters is compared against a library of known isolates. The source species can be identified by matching DNA results.

During the 2001 irrigation season, the South Yakima Conservation District contracted Dr. Samadpour, University of Washington, to analyze samples from one site near the base of the Granger Drain watershed. This was a cooperative effort with funding from the Environmental Protection Agency through the South-

Central Resource, Conservation and Development Council of the Natural Resources Conservation Service, the Department of Ecology, and the South Yakima Conservation District, and with the assistance of the Roza-Sunnyside Board of Joint Control.



The results were published in May 2002.


Of 146 DNA analyses conducted, the number of isolates identified were: 45 bovine, 21 avian, 16 human, 11 rodent, 11 deer/elk, 6 canine, 9 raccoon, 4 horse, 4 porcine, 2 sheep, 1 poultry, 1 feline, 1 muskrat, and 1 squirrel. Thirteen isolates were unidentified.

Despite the limitations due to the preliminary nature of the project, several valuable lessons were learned: (1) There are many sources of fecal coliforms to the Granger Drain - not just one source. (2) The chances of

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finding bovine isolates in any given sample are higher than any other source, despite years of implementing best management practices in the watershed. (3) Of the *E. coli* organisms identified, roughly 50% were from "manageable" sources such as livestock and failing septic systems and half were from "unmanageable" sources such as wildlife.

By better understanding the actual sources of contamination it is hoped that local residents, landowners, and involved agencies will be able to make informed decisions about the steps needed to continue improving the water quality in the drain.

For more information, contact Marie Zuroske, South Yakima Conservation District, 837-7911. 

## Funds, Technical Support Available To Help Improve Your Pasture

South Yakima Conservation District (SYCD) recently received a 2-year water quality grant from the Department of Ecology. Thanks to the grant funding, SYCD is able to offer the following to local residents and landowners:

### Pasture help

In cooperation with WSU, Solar \$, and NRCS:

#### Pasture Tours.

What does it take to make a pasture more productive? What works, what doesn't work, how to learn more. July 13<sup>th</sup>, 9 a.m. - 11 a.m. and August 7<sup>th</sup>, 6:30 p.m. - 8:30 p.m. In Spanish and English. Meet at the Outlook Grange, then drive to the pastures.

#### Pasture Workshops.

Basic elements of good pasture management. How to determine your stocking rate, seeding mixes, cross-fencing, size of sacrifice area, irrigation timing, and typical cost/benefits.

Dates: July 17, July 24, Aug 28, Sept 11. All sessions are 6:30 p.m. - 8:30 p.m. at the SYCD/NRCS office at 200 Cheyne Road, Zillah. July 17 in Spanish.

#### Inter-seed drill

SYCD purchased an inter-seed (no till) drill to assist landowners with pasture restoration. Tractor size needed is 40-50 hp for level ground. No fee for use but a damage deposit of \$100 is required. Call Dave De Boer at 837-7911 for more information or to sign up for its use.

#### Free soil testing.

For hobby farmers, homeowners, and other non-commercial landowners who have not previously tested their land. Find out the nutrient content of your soil and other valuable information.

#### 75% cost-share

Thanks to grant funding from the Washington Conservation Commission, cost-share funding will be available to help with small projects such as pasture improvements (seeding, cross-fencing, aerating, soil moisture sensors) and irrigation conversion on small acreages.

Up to 75% of the cost of the project may be paid by the grant, not to exceed \$800 per acre or \$5000 per landowner.

For more information, contact Dave DeBoer or Marie Zuroske at 837-7911. 