BULK RATE
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THE WATERFRONT

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Sunnyside Division Completes Joint Crop Survey

Funded by a grant through the Washington State Department of Ecology, the Roza-Sunnyside Board of Joint Control (RSBOJC) recently completed a joint crop survey that will provide insights into crop types and irrigation methods in the Yakima Valley.

"This information will enable us to better manage our resources," said Lori Brady, Sunnyside Valley Irrigation District (SVID) Engineer and project lead. Brady provided an example of the data's usefulness. "Where before we were uncertain exactly how many acres in SVID were under rill production, we now have an accurate figure upon which to base management and funding objectives."

The information can be plugged into Geographical Information Systems (GIS) which enables the data to be layered onto a map of the valley, indicating where the different crops are located.

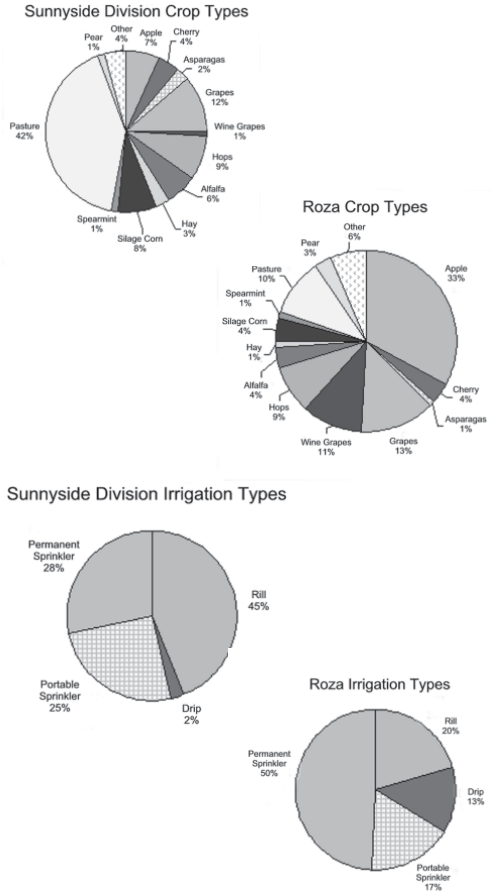
The Ditchriders of both SVID and Roza Irrigation District (RID) collected the information, making the project possible. "The Ditchriders did an outstanding job," said Don Schramm, SVID Assistant Manager of Operations. "We expect the accuracy of our findings to be plus/minus 5 percent, which is reasonable given the complex amount of information gathering the project required."

Marie Zuroski of the South Yakima Conservation District (SYCD) prepared the pie charts pictured to the right, based on the survey data.

"This information is very valuable to the SYCD," she said. "We can now answer questions about agricultural practices in the Yakima Valley we could not answer before." Some of the information gleaned from the survey includes crop types, extent and percentage of various crop types, and extent and percentage of various irrigation methods. "We can also answer questions about water quality in various sub-basins by comparing irrigation methods, soil types, and other factors," said Zuroski.

Dave DeBoer of the SYCD prepared the GIS maps.

The future looks bright for GIS technology, and SVID will continue to pair this technology with projects like the crop survey to improve irrigation management and target water quality efforts. "This is an extremely valuable tool that will likely play a vital role in the management of our water resources," said Brady.



SVID Welcomes Snipes Mountain Irrigation District

On May 9th, Snipes Mountain Irrigation District landowners voted unanimously to merge with SVID. This marks the second district in the past few years to vote for merger. Prosser Irrigation District merged in May, 1995. Also considering a merger, Outlook Irrigation District has scheduled an election for June 20, 2001 and Grandview Irrigation District has an informational landowner meeting planned for June 12, 2001.

SVID Making Progress Installing Enclosed Conduit Systems

By Doug Higbee
SVID Engineer

One of the many projects the Sunnyside Valley Irrigation District (SVID) is implementing to update and enhance the SVID system is the building of Enclosed Conduit Systems. What exactly is an Enclosed Conduit System? It's an irrigation delivery lateral that is entirely piped and pressurized from the canal.

The water flowing through the pipelines becomes pressurized due to the fall in elevation, benefiting both the landowner and SVID. Due to the pressure in the pipes, pumps can be eliminated or downsized, increasing energy savings. Landowners on Enclosed Conduit Systems also enjoy modified demand, meaning they can regulate their delivery simply by regulating their delivery valve. Overflows are not needed, and unmanageable fluctuations in lateral are no longer an issue.

As for pressure at the delivery, 30-40 PSI is fairly normal. Landowners on Benton 59.32B lateral east of Whitstran, however, have been getting close to 90 PSI.

The district enjoys maintenance cost savings because Enclosed Conduit Systems have more longevity and require less maintenance compared to old laterals and concrete weirs. They also allow for more accurate measurement of flows and deliveries, enhancing water conservation efforts.

Replacing an entire lateral with an enclosed system is an involved process, but such systems are overall more reliable, less expensive, and offer greater convenience to landowners in SVID.

Once a candidate site is selected for an Enclosed Conduit System, the landowners are approached to evaluate interest in the project. At least 75% of the acres served by the delivery must support the new system or it will not proceed. The landowners are asked to pay about 25% of the system cost.

The Board concludes this to be the most fair and equitable way to cover the costs of installing an Enclosed Conduit System, as irrigators benefiting from the upgrade are required to pay a larger portion of the costs.

So far, SVID has installed roughly 10 miles of Enclosed Conduit Systems on three different laterals.

In combination with other piping efforts, SVID has been enclosing roughly 6 miles of open ditch laterals per year over the last 15 years.

Del Church, SVID Watermaster, discusses enclosed conduit systems with SVID Board Members and staff. Pictured is a flow meter installation

SVID Farmers Sell Estimated 12,000 Acre-Feet To Roza Irrigation District

By **Lori Brady**
SVID Engineer

In an effort to augment severly prorationed supplies this irrigation season, Roza Irrigation District (RID) offered to purchase water from SVID landowners in a temporary transfer program managed by the Roza-Sunnyside Board of Joint Control.

To date, roughly 6,000 acres have enrolled in the program. This equates to an estimated 12,000 acre feet of water, which will be transferred to RID during the season.

Currently, RID is still accepting applications, but this may change in the near future.

Approved applicants receive $250 per acre to fallow their land. Payments of $150 per acre are made 10-14 days after an approval letter is received. The balance of the transfer payment will be mailed after September 1st.

Department of Ecology Develops Cleanup Plan for Granger Drain Bacteria

By **Ryan Anderson**
RSBOJC Water Quality Specialist

The Washington State Department of Ecology is developing a cleanup plan, sometimes called a TMDL, for fecal coliform bacteria in Granger Drain.

The plan identifies sources of fecal coliform in the drain and strategies to control the contamination of the drain.

During the past decade, fecal coliform bacteria concentrations have been reduced by over 90% in Granger Drain due to better management at cattle feedlots, dairies, and small farms.

However, fecal coliform bacteria pollution still remains 7 times greater than allowed under state water quality standards (the inset photo shows sample fecal coliform colonies growing in a lab petri dishes. This testing provides one way of ascertaining a count to determine the fecal numbers).

Fecal coliform pollution has been found to be at its greatest levels during the irrigation seasons. Some activities that have helped to reduce fecal coliform pollution include: better application and management of manure, fencing to keep animals out of streams, and improved irrigation methods that reduce runoff from agricultural lands.

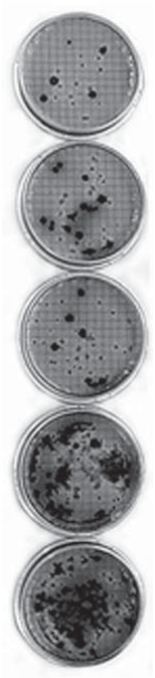
Why is fecal coliform bacteria a concern?

Fecal coliform bacteria live in warm-blooded animals and can serve as an "indicator species" showing that disease causing or pathogenic organisms may be present.

People could be at risk of contracting some diseases associated with fecal coliform bacteria if they come in contact with contaminated water.

Federal law requires the state to protect the "most sensitive" beneficial uses found in waterbodies, including the ability to swim, fish and recreate on the state's lakes, rivers and streams.

Although no one would recommend swimming or fishing Granger Drain, it does empty into the Yakima River above predominant recreational areas and therefore must meet Class A water quality standards.



What are the next steps toward cleaning up Granger Drain? Local work groups are exploring additional activities to reduce bacteria loads as part of the ongoing TMDL process.

Information gathered will be used to develop a strategy on how, when and where activities can be implemented to reduce fecal coliform pollution to meet water quality standards.

The South Yakima Conservation District in partnership with the Washington State Department of Ecology and the Environmental Protection Agency will be studying the DNA of fecal coliform bacteria in the Granger Drain. This study will clarify some questions regarding the source of bacterial contamination.

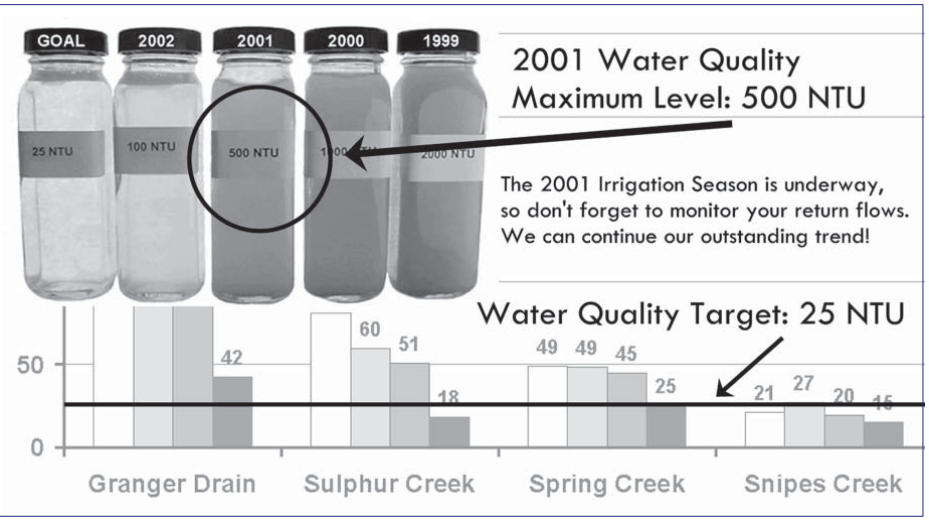
For more information on the Granger Drain Fecal Coliform TMDL, please call Gregory Bohn at (509) 454-4174 or send e-mail to gboh461@ecy.wa.gov.

To learn more about preventing fecal coliform bacteria contamination at your home or farm, contact Ryan Anderson at (509) 837-6980 or (509) 575-2642.

It's easy to overlook water quality efforts during a drought year, but SVID is encouraging irrigators to not lose site of water quality goals.

Return flows from the farm this season must be under 500 NTU, thus three or fewer on-farm samples cannot exceed this amount.

If you have any questions about the Water Quality Program, call Ryan Anderson at 837-6980.



What Prorationing Means

What exactly does pro-rationing mean?

The term prorationing was first used with the entering of a federal court decree in 1945 to convey the prospect of rationing water rights "in proportion" to supplies during a water short season.

The actual definition of proration is "to divide, distribute, or assess proportionately; to settle matters on the basis of proportional distribution."

This concept is the basis for the distinction between "non-proratable" senior water districts and a "proratable" junior water districts.

Why do we proration our supply?

More rights were issued than there is water supply in all years. When the Yakima Basin experiences a water short year there's simply not enough water to go around. Instead of getting full allotments, prorated water rights receive a partial or "proportionate" share of the water.

This amount depends on the Total Water Supply Available (TWSA) estimate of the United States Bureau of Reclamation (USBR).

Once the TWSA is established for the Yakima Basin, the amount of water allotted to junior water rights (subject to proration) will reflect a percentage of the normal entitlement.

Who determines the TWSA?

Although Mother Nature has the final say, the USBR is responsible for estimating TWSA. This figure is based on runoff generated from the basin, return flow, and storage at the beginning of period.

Although the outlook for the 2001 irrigation season is less than desirable, conditions and precipitation trends can always improve.

How much water can we expect to get this year?

The Sunnyside Division is comprised of 67% senior, non-proratable water rights and 33% junior, proratable water rights.

Based on the TWSA and current projections, the proration rate for 2001 is expected to be 30% (meaning proratable supplies will receive 30% of entitlement).

At this level the Sunnyside Division will receive approximately 74% of total entitlement.

Another way to view this figure is cfs per acre. At current levels, SVID will deliver an estimated 0.45 cfs per 40 acres.

Why am I getting so little water?

Most water users are accustomed to receiving much more—often double—allotment. This is because the district delivers beneficial use.

In a normal water year, available water in the system would be utilized by those who put it to beneficial use. When one person wasn't using it, other water users had access to it.

The Sunnyside Valley Irrigation District publishes **THE WATERFRONT** biannually for landowners. All articles, letters and other items submitted to Sunnyside Valley Irrigation District (SVID) for use in SVID's landowner newsletter become the property of SVID which is authorized to use any item submitted, without payment or compensation to the person submitting the item, in any newsletter or other publication of SVID. SVID reserves the right to edit all items submitted. Douglas Simpson, Chairman. Robert Golob, Dave Michels, John Newhouse, Douglas Vining, Directors. Officers: James W. Trull, Secretary-Manager-Treasurer; Donald Schramm, Assistant Manager; Patricia Bailey, Assistant Secretary-Treasurer. Address comments to: Joe Schmitt, Editor, P.O. Box 239, Sunnyside, WA 98944.

How You Can Help Stretch Our Water Supply This Summer

By Don Scramm
SVID Assistant Manager-Operations

We are all in this together, and it's in everyone's best interest to use water wisely. This is true every year but especially true in a water short year.

The Sunnyside Division will receive about 74% of entitlement and the Wapato Irrigation Project will receive about half of their entitlement. "Junior districts" like Roza and Kittitas can expect about 30% of their entitlement.

We are at the point in the irrigation season known as storage control. In essence, any water conserved can be left in storage.

If you have the right to water and need it, by all means use it. The important message here is use just what you need.

Water that leaves your land as return flow is much harder to manage than water left in storage.

City folks using irrigation can help out by irrigating every other day rather than daily.

Farmers can help by making sure they order their water on and off as needed. This helps improve efficiencies when moving water. It's also easier for irrigation district personnel to keep operational spills to a minimum--and keep valuable water in storage.

Use your water as carefully as you can. Working together, we may be able to stretch our water supply little further.