

# Tumalo Irrigation District Public Scoping Meeting

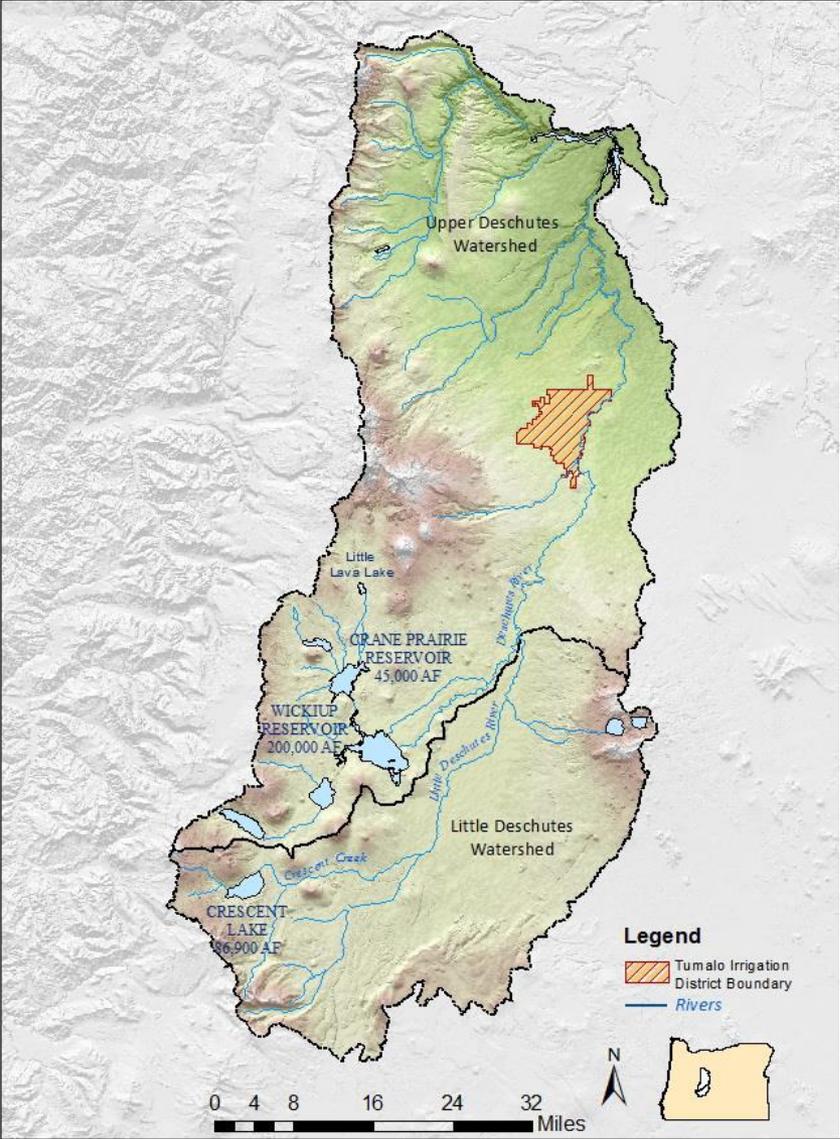
June 2017

Watershed Planning  
&  
Irrigation  
Modernization

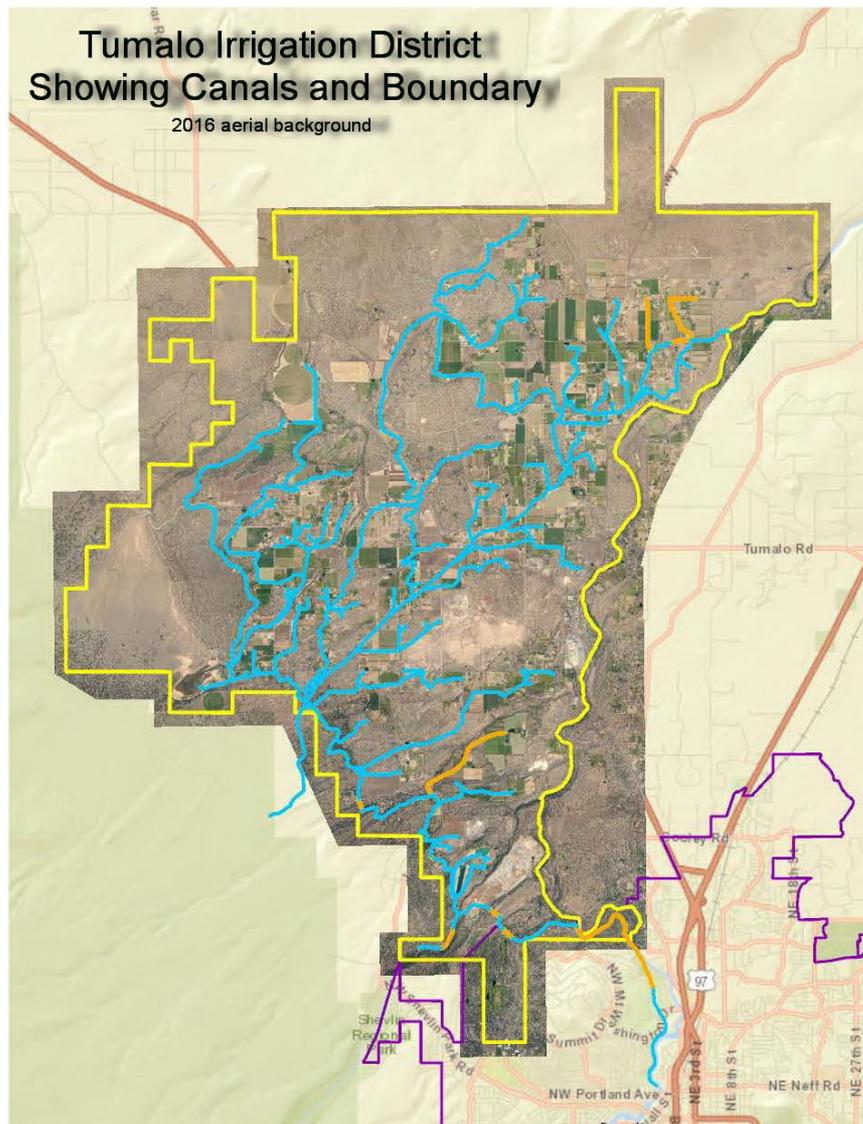


TUMALO IRRIGATION DISTRICT

# District Location



# District Map



## Quick Stats

670 Patrons/ Accounts

7,417 water right acres  
spread over 45 sq miles

1900 to 1913 priority dates from  
Tumalo Creek and the  
Deschutes River; Crescent Lake  
and Tumalo Reservoirs

- 11.6 miles of main canal
- 8 miles in pipe
- 3.6 miles of open canal
- 65 miles of laterals
- Mostly all open canals

Loses ~50 cfs to seepage and  
evaporation throughout the  
season

Gravity system; patrons use ~4  
million kw hours on pumping



# Why We're Here

**Tumalo Irrigation District's mission** is to manage water resources to meet present and future needs of its patrons in ways that are economically and environmentally responsible. The District's priorities are water conservation, improving water delivery efficiencies, preserving and restoring native habitat in the Deschutes River Basin, and protecting native species.

In addition, it is part of the [Deschutes Basin Board of Control](#), a larger consortium of irrigation districts and municipalities that collaborate on issues facing Central Oregon and water users.



# Modernizing Infrastructure



# Modernizing Infrastructure



# Water Conservation/Piping – Why bother?

- **Consistent Delivery of Water**
  - Canal seepage and evaporation
  - Without conservation efforts, TID is often unable to deliver full deliveries to users.
- **Urbanization**
  - Public Safety (drowning hazard) Water quality issues
- **Aging infrastructure**
  - Safety and efficiency concerns associated with old flumes, siphons, open canals and threat of canal breaches
- **Environmental Reasons**
  - DEQ water quality issues (temperature, TMDL)
  - Endangered Species Act (Habitat Conservation Plan)
  - Fishery issues



# Decades of Data Gathering & Planning

## System Improvement Plan (SIP) v2.0

- \*Canal Seepage Assessment / Conserved Water
- \*Hydraulic Modelling / Pipe Sizing & Pressurized Water Study
- \*Long-Term Modernization & Water Rights Protection Strategy
- \*We've even evaluated the effectiveness and costs of lining canals vs. piping

## Basin Study Work Group

- \*Water experts, biologists, farmers, fly-fishers, environmentalists...all sitting around the table
  - \*Projecting risks to future water supply from climate
  - \*Assessing future water supply and demand for people and aquatic species
- This group has been identifying basin-wide opportunities to solve supply/demand/environmental issues and create strategies to meet future water needs for all... **Nearly all solutions point to piping our canals as a necessary keystone.**

USFWS is currently working with all our Districts to complete a Habitat Conservation Plan (HCP) regarding potential effects that we as water users have on threatened aquatic species based on how much water we pull out of the river for irrigated land. The HCP will mandate that we take certain actions that benefit species.

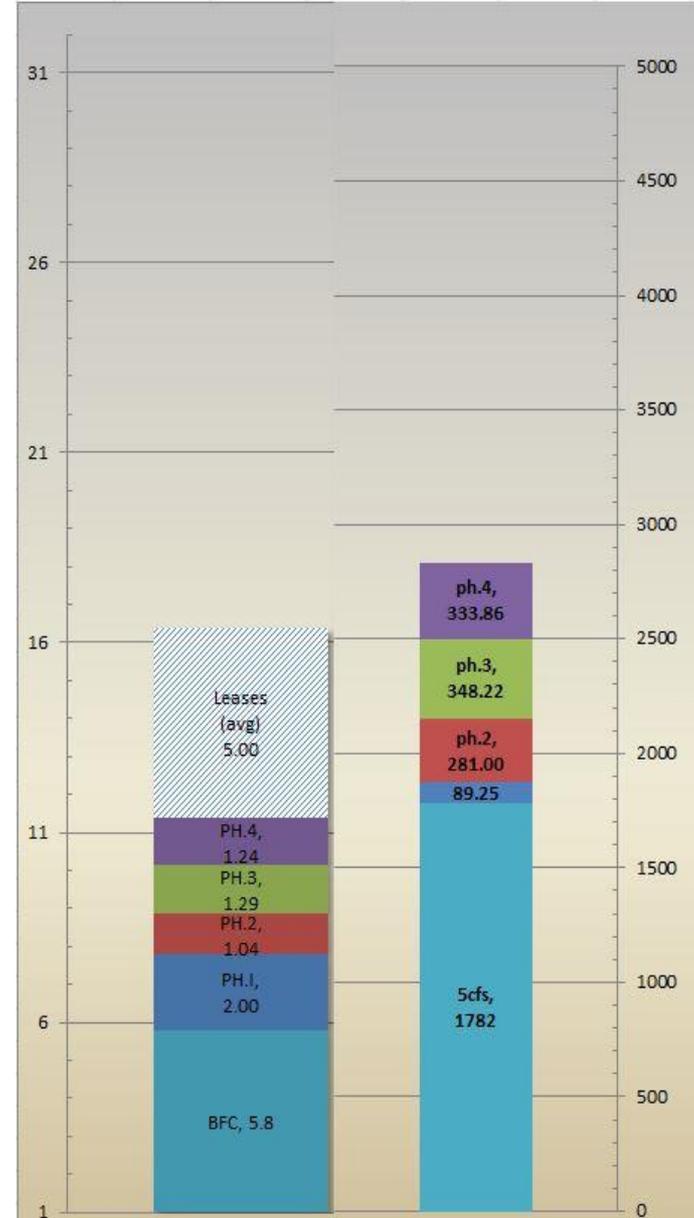


# What we have done

- The first phase of the implementation of the TID Water Conservation Plan was piping both feed canals (Bend and Tumalo)
- Bend Feed Canal Projects - 2002 – 2005 **Complete**
- Tumalo Feed Canal Projects Phase 1 through 4 - 2008 to Present – **In-Progress**
- Tumalo Creek Passage – **Complete**
- Tumalo Creek Fish Screens – **Complete**
- Bend Feed Fish Screens - **Complete**
- Tumalo Creek Gaging station - **Complete**

## Leasing:

- Since 2001, TID has been leasing water in-stream with an average of ~4 cfs per year over the last 10 years.



Upper Tumalo Reservoir

TFC – 1.25 Miles @ 54" DIA

TFC – 2.54 Miles @ 84" DIA

Tumalo Feed Canal Phase IV

Tumalo Feed Canal Phase III

Tumalo Feed Canal Phase II

Tumalo Feed Canal Phase I

Tumalo Feed Canal Double Barrel

Tumalo Feed Canal Diversion

# Opportunities & Benefits

The **Opportunity** is to pursue state and federal funding to pipe our remaining canals and provide pressurized water to many of our patrons.

## The Benefits

Reduce canal losses by up to 50 CFS or 5.8 billion gallons per season to: 1) enhance stream flow in the Deschutes River and Tumalo Creek, 2) enhance water supply reliability and delivery efficiencies to patrons, 3) protect water rights, 4) reduce liabilities, 5) save energy.

Additionally, pressurized water offers the ability for patrons to save on their energy and maintenance bills by eliminating or downsizing their irrigation pumps.

## The Cost

\$50,000,000



\$37,000,000 from USDA-NRCS PL-566 (assuming **75%** of \$50m--pending)  
\$13,000,000 from DEQ Clean Water State Revolving Loan Fund (pending),  
OWRD, Oregon Legislators, In-kind services and Grants, Deschutes Basin  
Ground Water Mitigation Credits and Land Sales



# Watershed Planning for Deschutes Basin Irrigation Districts

Margi Hoffmann, Farmers Conservation Alliance (FCA)



TUMALO IRRIGATION DISTRICT



U.S. Department of Agriculture  
Natural Resources Conservation Service

# Watershed Protection and Flood Prevention Program (PL 83-566)

- Authorized by Congress in 1954
- Managed by the US Department of Agriculture - Natural Resources Conservation Service (NRCS)
- Provides technical and financial assistance to projects that will address water conservation, aquatic species habitat, and public safety while supporting existing agricultural land use



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# Watershed Program Eligibility

Eligible projects for the program include:

- Protecting watersheds
- Mitigating floods
- Improving water quality
- Reducing soil erosion
- Enhancing fish and wildlife habitat
- Creating opportunities for hydroelectric power production



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# New Funding Available

- Congress appropriated \$150 million to the program in FY2017-18
- Deschutes Basin irrigation districts are eligible
- To qualify districts must have Final Watershed Plan
  - a) Includes public input
  - b) Satisfies requirements of the National Environmental Policy Act (NEPA)



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# Watershed Plan Process

- NRCS initiated the process for these projects June 16, 2017
- Public meeting July 6th, 2017
- Public scoping comment period July 7th, 2017 - July 21, 2017
- All public comments are incorporated into a Draft Watershed Plan
- Public review of Draft Watershed Plan
  - 30-day public comment period
  - Additional public meeting
- NRCS issues Final Watershed Plan at which point districts would be eligible to receive funding



# Get Involved

- Your input helps local irrigation districts and agencies make informed decisions and consider alternatives
- Ask questions about the proposed projects
- Sign up for email notices
- Attend public meetings
  - Thursday July 6, 2017 Tumalo & Swalley ID
  - Monday July 10, 2017 Central Oregon ID
- Submit comments during official periods via email or mail
- Learn more at [oregonwatershedplans.org](http://oregonwatershedplans.org)
- Submit comments to: **WSP@Tumalo.org**



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# Bridget Moran

U.S. Fish and Wildlife Service Field  
Supervisor

- Biological Issues
- Habitat Conservation Plan (HCP)
- Project and Solution Timing



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U.S. Department of Agriculture  
Natural Resources Conservation Service

# Proposed First Project

**Name:** The Tumalo Feed Canal

**Description:** The remaining un-piped portions of the Tumalo Feed Canal (about 19,500 feet)

**Timeline:** Starting September 2017

**Est. Water Conserved/Saved:** 6.2 CFS in Tumalo Creek and 1679 AF in Crescent Creek

**Funding:** \$1m Watersmart (secured), \$1.3m OWRD (secured), \$5.0m PL566 (pending), \$750,000 OWEB (pending), \$2m CWSRF (pending), \$300,000 TID (secured)

**Benefits:** Public safety, water conservation and security, water quality enhancements, energy conservation, on-farm efficiency opportunities, recreational river enhancement, fire-suppression, reliable and improved water delivery to patrons, increased agricultural resilience, etc.

