Who is the Teton Water Users Association?

Chairman: Lynn Bagley
- Board President, Teton Soil Conservation District
- Director, Idaho Association of Soil Conservation Districts
- Board Member, Trail Creek Sprinkler Irrigation District
- Victor City Councilman

Members include representatives from:
- Teton County Farm Bureau
- Teton Soil Conservation District
- Water District 01 Water Master
- Individual water right holders
- Major canal companies
- Friends of the Teton River
- Teton Regional Land Trust
- Henrys Fork Foundation
- NRCS District Conservationist
- Cities: City of Victor, City of Driggs, and City of Tetonia
- Teton County Idaho
- Local groundwater users
Why are we all here?

- **We have a problem** - Snow melt is leaving the valley earlier and quicker than in the past. This results in:
  - Less water for irrigation
  - Less water for well and city drinking supplies
  - Less water and higher temperatures in the river

- **We have a solution** - The Teton Water Users Association formed to develop a plan to stabilize and recharge the aquifer.

- **We need your help.**
We have a lot of snow now, but will we have water this summer?
Irrigation Canals Play an important role in recharging Teton Valley’s Aquifer

Mean Annual Groundwater Recharge on East Side of Teton Valley

- Direct Precipitation: 23,182 a-f
- Stream Channel Seepage: 63,442 a-f
- Canal Seepage: 43,051 a-f
- Irrigation Application Seepage: 11,514 a-f

Total Recharge: 141,189 a-f/year

Van Kirk et al, “Conservation of surface and ground water in a Western watershed experiencing rapid loss of irrigated agricultural land to development” www.humboldt.edu/henrysfork
Why is there less water for irrigation?
Prior Appropriation:
First in time, first in right

Assumptions:
• Each water right is 10 CFS
• Consumptive use is 50%
Assumptions:
• Each water right is 50 CFS
• Consumptive use is 50%

Losing Stream: -25 cfs
Assumptions:
- Each water right is 50 CFS
- Consumptive use is 50%

“Futile Call”
Losing Stream: -25 cfs

Transbasin Diversion Canal

Reservoir

Owns storage rights in reservoir

1895

1882
Effects of Land Conversion on Irrigation

- 14% of irrigable land has been subdivided in Teton Valley
- 86% of development has occurred on canal-irrigated land
- Development has fragmented canal systems
How does this affect all of us?
How does this affect all of us?

- Well and City Water Supplies
  - 9 wells re-drilled in 2016
  - Water bill increases due to additional groundwater pumping costs
- Teton River Levels and Temperatures
- Economic Impacts
Ratio of late-summer (August 1 – September 30) mean flow in the Teton River to mean flow during runoff (May 15 – July 15)
Who is the Teton Water Users Association?

Chairman: Lynn Bagley
• Board President, Teton Soil Conservation District
• Board Member, Trail Creek Sprinkler Irrigation District
• Victor City Planning and Zoning Commission

Members include representatives from:
• Teton County Farm Bureau
• Teton Soil Conservation District
• Water District 01 Water Master
• Individual water right holders
• Major canal companies
• Friends of the Teton River
• Teton Regional Land Trust
• Henrys Fork Foundation
• NRCS District Conservationist
• Cities: City of Victor, City of Driggs, and City of Tetonia
• Teton County Idaho
• Local groundwater users
**Teton Water Users Association Vision:**

- Keep working lands working by securing and maintaining a reliable and affordable supply of water to sustain agriculture
- Protect and restore stream flows and water quality in the Teton River and its tributaries, for the benefit of people, wildlife, and fish
- Secure and maintain a safe, affordable, and high quality water supply for municipalities and residential water users
Why did the group form?

- Declines in Idaho’s aquifer and river levels
- Prolonged drought
- Mitigation and water-supply concerns for growing cities and rural areas
- Declines in native Yellowstone cutthroat trout populations
- Water-quality concerns
- Potential changes in Rule 50
- Formation of a Groundwater Management Area that would encompass the Eastern Snake Plain Aquifer and its tributary basins
- Issues resulting from the incremental conversion of land from agriculture to suburban use

We hope to be proactive about these issues, and work together to plan/mitigate for potential impacts.
What is the plan?

- Recharge the aquifer in the spring by:
  - Working on canals and irrigation infrastructure
  - Actively putting water in canals early (April – June)
  - Using flood irrigation techniques and identifying locations suitable for operational spills

- Continuing to conserve water by:
  - Utilizing sprinklers and wheel lines when stream flows decline
  - Utilizing municipal water metering and residential water conservation techniques
Recharge Timeline

http://prezi.com/9eitorehesdu/?utm_campaign=share&utm_medium=copy
Summary of Goals:

1. Stabilize the Teton Valley aquifer, thereby protecting municipal and residential water supply;

2. Insulate farmers against changes in water availability and increase water-supply reliability, particularly during times of drought;

3. Maintain valuable wetland habitat and stream flow conditions beneficial for trout; and

4. Quantifiably increase base flows in the Teton River, thereby decreasing water supply and demand pressure on the Henrys Fork River and Island Park Reservoir.
We need your help!

- **Agricultural water users**
  - Get involved in the TWUA
  - Fill out a Canal Inventory Questionnaire
  - Spread the word

- **Residential water user users**
  - Clean your canal, don’t impede water delivery efforts
  - Spread the word

- **Recreational water users**
  - Get involved in the TWUA
  - Spread the word