

# Water Wisdom

## *The Situation*

Since the mid-1950s ground water levels and spring flows on the Eastern Snake Plain Aquifer have been declining. Hydrologists estimate the aquifer is being depleted by over 400,000 acre-feet annually. Spring flows that were once nearly as high as 7,000 cubic feet per second have fallen to 5,500 cfs. Between 1980 and 1996, water levels have dropped an average of 10 feet across the 10,000 square mile aquifer. Increased ground water pumping, conversion from gravity to sprinkler irrigation, changes in water management, and drought have all contributed to the annual aquifer deficit.

The Eastern Snake Plain Aquifer is the most important reservoir in Idaho. An estimated 200 to 300 million acre-feet of water is stored in the top 500 feet of the aquifer. By comparison, the total surface reservoir storage in the Upper Snake River Basin is about 4 million acre-feet. This aquifer is also one of the largest tributaries of the Snake River, discharging approximately 8 million acre-feet annually.

Water is a finite resource and if current trends are not reversed, spring flows will continue to decrease and ground water levels will continue to decline. Water impacts everyone. More than 95 percent of Idaho's drinking water comes from ground water. Agriculture, the state's largest industry, consumes 95 percent of the ground water used. Managed aquifer recharge has the potential to reverse the decline of ground water levels and decreased spring flows. Recharge cannot be

considered a panacea for all of the aquifer's problems. It is, however, one of the most important components necessary to restore this complex water system. One of the constraints inhibiting managed recharge is a lack of understanding of the aquifer and recharge-water related issues. For us to wisely manage this precious resource, our aquifer, we must be informed and educated.

## *Our Response*

The University of Idaho Cooperative Extension System in collaboration with the Idaho Farm Bureau Federation and the Idaho Water Alliance produced a 30-minute video on managed aquifer recharge. Called "The Invisible Drought", the goal of this educational tool is to increase public understanding of water quantity issues and facilitate development of partnerships for more effective and sustained solutions toward solving our invisible drought.

The video discusses the possibilities and challenges associated with recharging Idaho's aquifers. Using the Eastern Snake Plain Aquifer as an example, "The Invisible Drought" shows the process of aquifer recharge and discusses the anticipated benefits and current concerns associated with replenishing ground water supplies. The water cycle, history of irrigation and its impact upon the Snake River Plain, the relationship between surface and ground water, and the balance that needs to be struck between agriculture, recreation, fish and wildlife, hydropower, municipal and industrial needs are some of the topics presented.

## ***Achievements***

“The Invisible Drought” was shown 3 times on Idaho Public Television during 1999. Five hundred copies of the video were produced. Copies were distributed to University of Idaho Cooperative Extension offices, County Commissions, several water user groups and their members, key public policy makers and members of Idaho’s legislature.

Extension educators put on dozens of educational presentations that accompanied the showings of the video to a wide variety of audiences. Additionally, the groups that received copies of the video did numerous showings. The broad exposure of “The Invisible Drought” has established the use of a common language when diverse interests come together to discuss aquifer recharge.

The video has generated broad based support. This includes both financial contributions for production costs and positive feedback from those who have seen the video. Thirty-three sponsors contributed financially towards the video. This indicates recognition of the importance of addressing water quantity issues and of managed aquifer recharge as a tool to manage Idaho’s aquifers. It also signifies a spirit of cooperation and goodwill among competing users of a limited resource for the benefit of all.

## ***Cooperators***

Idaho Farm Bureau Federation  
Idaho Water Alliance

## ***For More Information***

William F. Hazen  
Extension Educator  
University of Idaho  
Gooding County Cooperative Extension System  
202 14<sup>th</sup> Avenue East  
Gooding, ID 83330  
Phone: 208-934-4417  
Fax: 208-934-4418  
Email: [bhazen@uidaho.edu](mailto:bhazen@uidaho.edu)

Gary Fornshell  
Extension Educator  
University of Idaho  
Twin Falls County Cooperative Extension System  
246 3<sup>rd</sup> Avenue East  
Twin Falls, ID 83301  
Phone: 208-734-9590  
Fax: 208-733-9645  
Email: [gafomsh@uidaho.edu](mailto:gafomsh@uidaho.edu)