

BLAINE COUNTY **WATER RIGHTS** SYMPOSIUM

GROUND WATER RECHARGE and MITIGATION UNDER CONJUNCTIVE ADMINISTRATION in the WOOD RIVER VALLEY



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December 4, 2013





Outline

- Who we are
- Water delivery in the Wood River Valley
- What we offer



Idaho Water Engineering

- Founded in 2009
- Water Resource Engineering throughout Idaho
 - Water measurement
 - Water rights
 - Water marketing
 - Mitigation plans
- In September opened an office in Ketchum, 321 S. Leadville, Suite A
- www.idahowaterengineering.com



Now that water rights from ground water are adjudicated

Relative to water delivery for wells that irrigate more than
a half acre in the Wood River Valley...

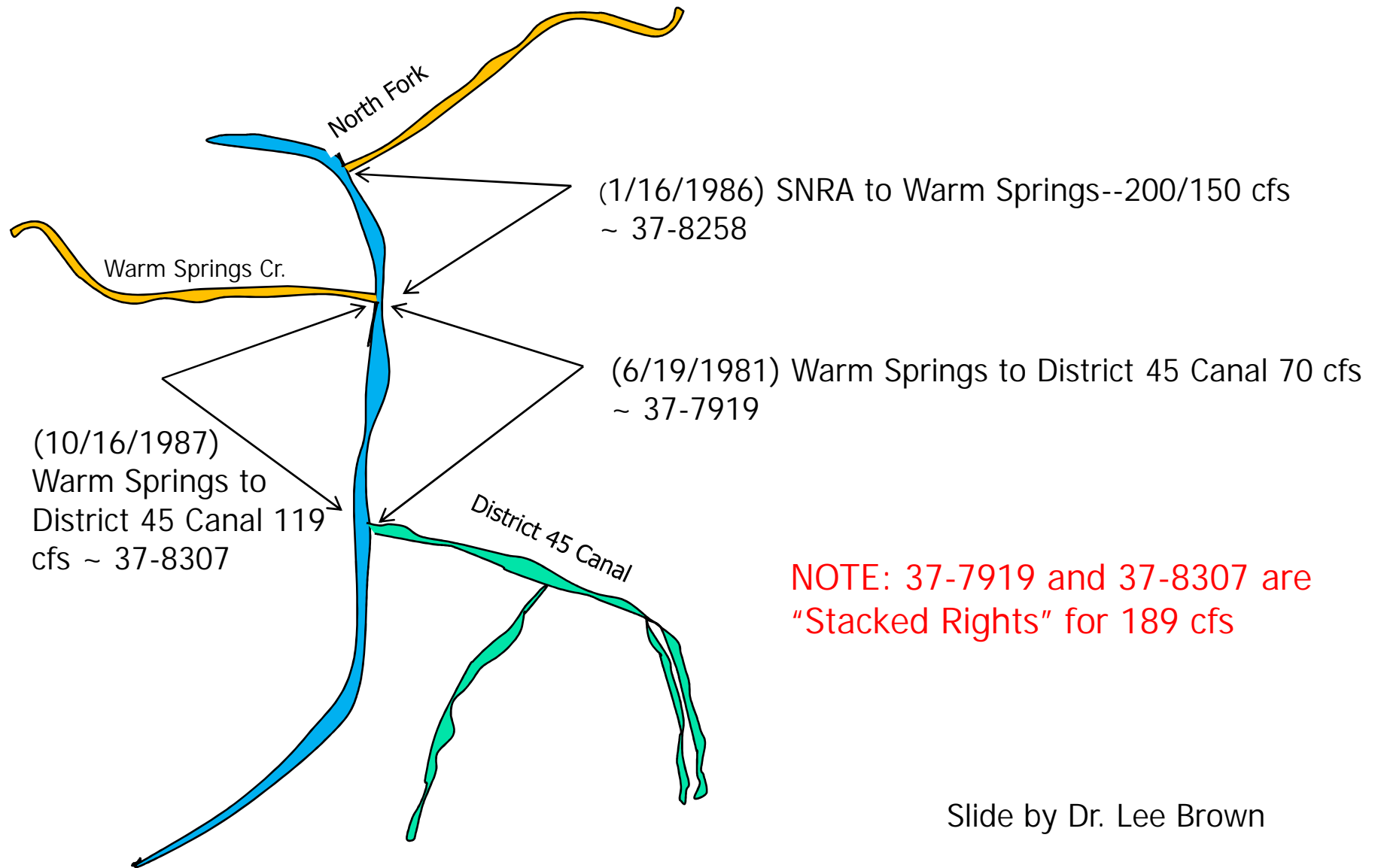
Change

is coming

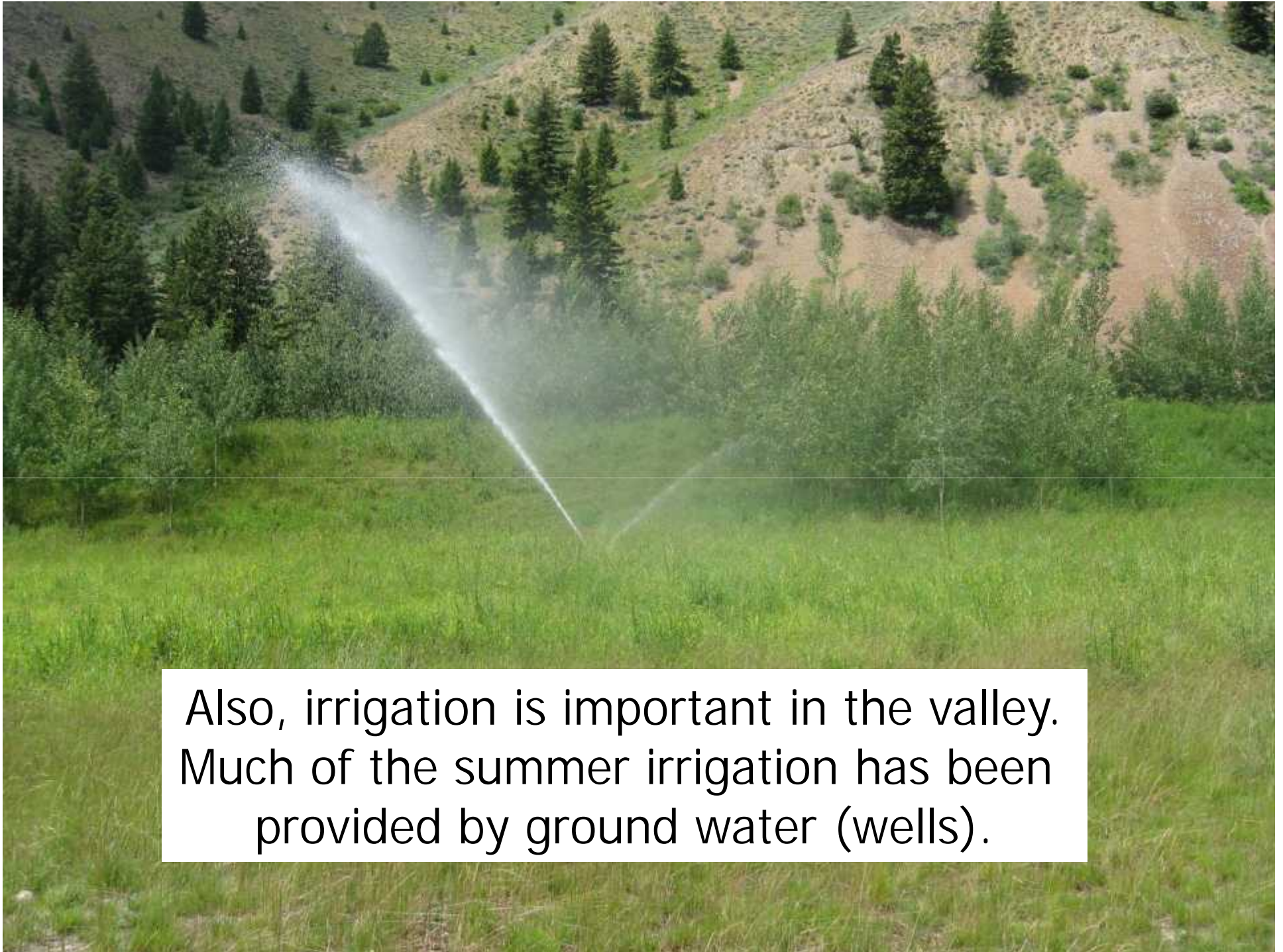


Instream flows in the Big Wood River are important

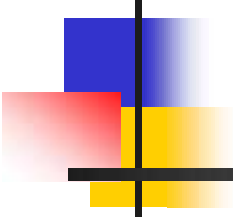
Minimum Stream Flow Rights on the Big Wood River Above Magic Reservoir



Slide by Dr. Lee Brown



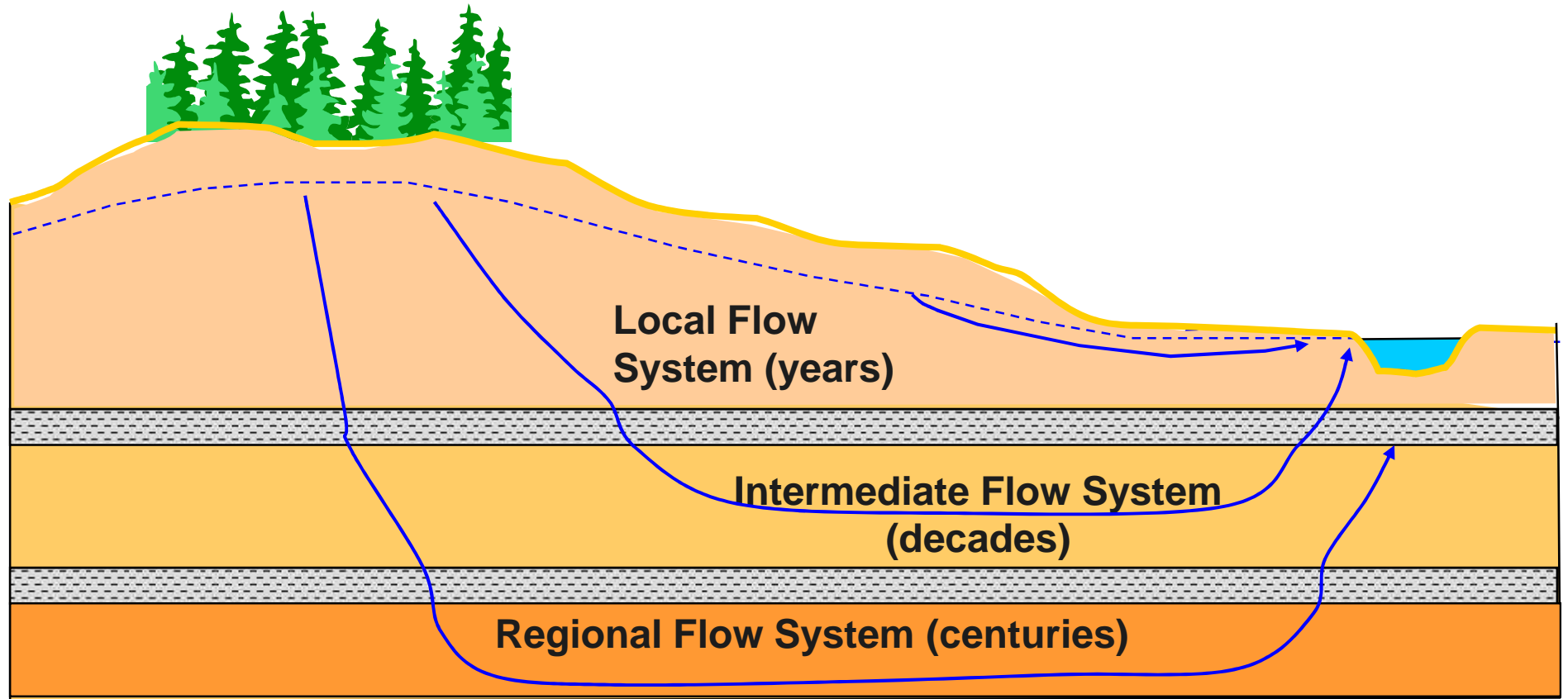
Also, irrigation is important in the valley. Much of the summer irrigation has been provided by ground water (wells).



In Idaho the appropriation doctrine
is used for the delivery both
surface water rights and ground
water rights—

“first in time is first in right”

Ground Water Flow Systems



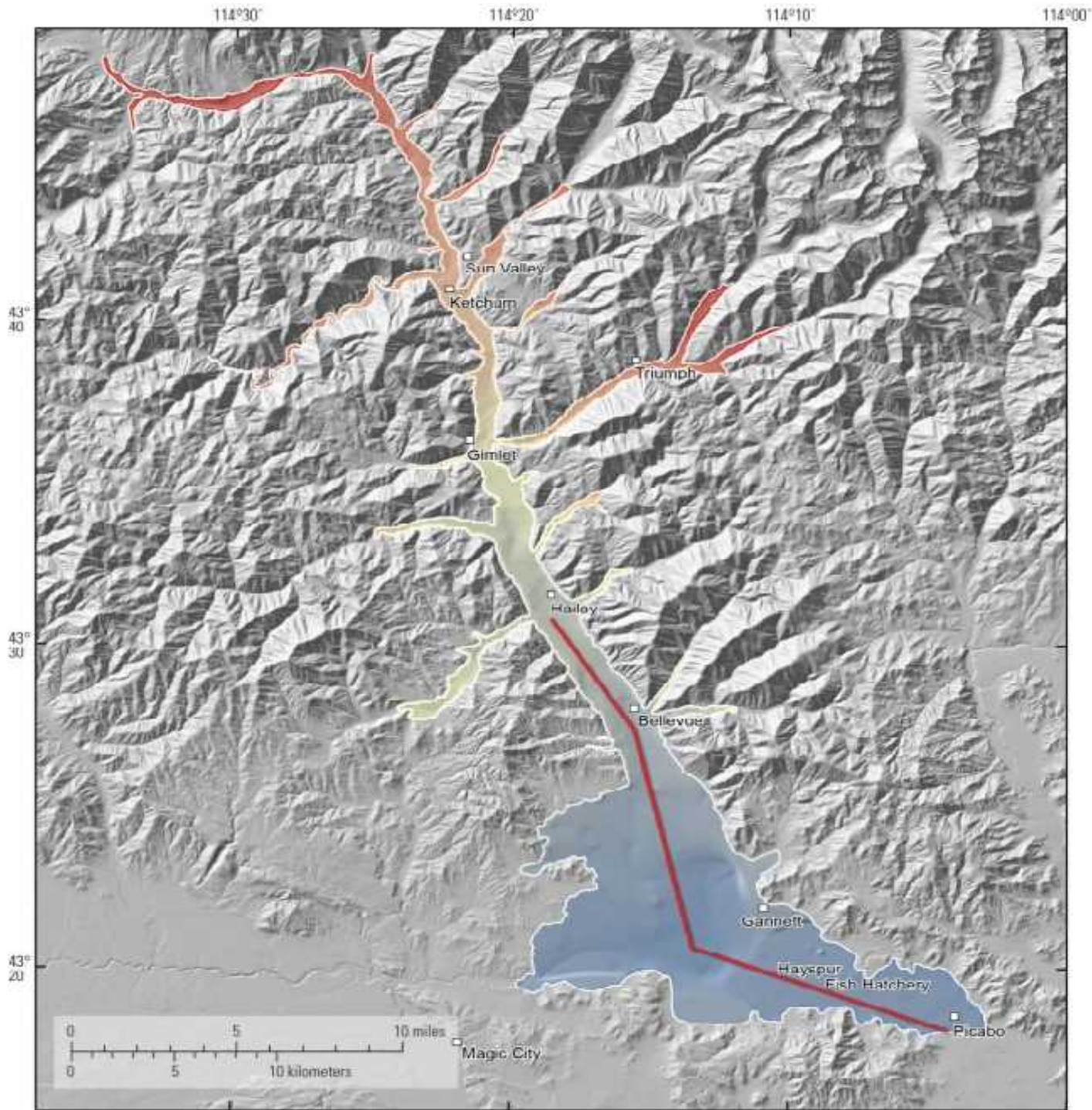
Why consider conjunctive relationships between ground water and surface water?

Problem

Water deliveries must consider connections
between ground water and surface water
(conjunctive administration)

if fair delivery is to be achieved





Coordinate system:

NAD 1983 Idaho TM (meters)

NAVD 1988 (meters)

Land surface elevation raster:

National Elevation Dataset (NED)

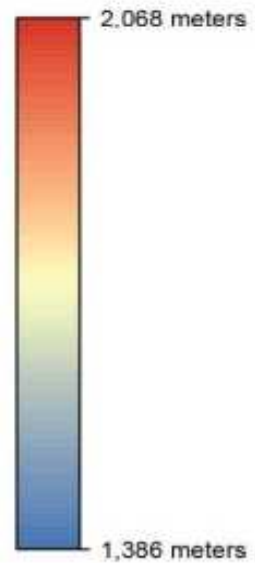
Resolution: about 10 meters

Line and polygon shapefiles:

 Aquifer extent (SIR 2012-5053)

Bedrock raster:

Resolution: about 26 meters





When wells are administered conjunctively with surface water rights, what happens?

- Surface water rights for irrigation in this valley are generally senior to 1901
- Ground water rights for irrigation in this valley are junior to 1912
- If a “Delivery Call” is made by a senior user, the call is evaluated pursuant to the Conjunctive Management Rules
- Wells causing material injury to the senior rights must curtail or provide mitigation. Material injury is defined as hindrance to or impact upon the exercise of a water right caused by the use of water by another person as determined in accordance with Idaho Law, as set forth in Rule 42.



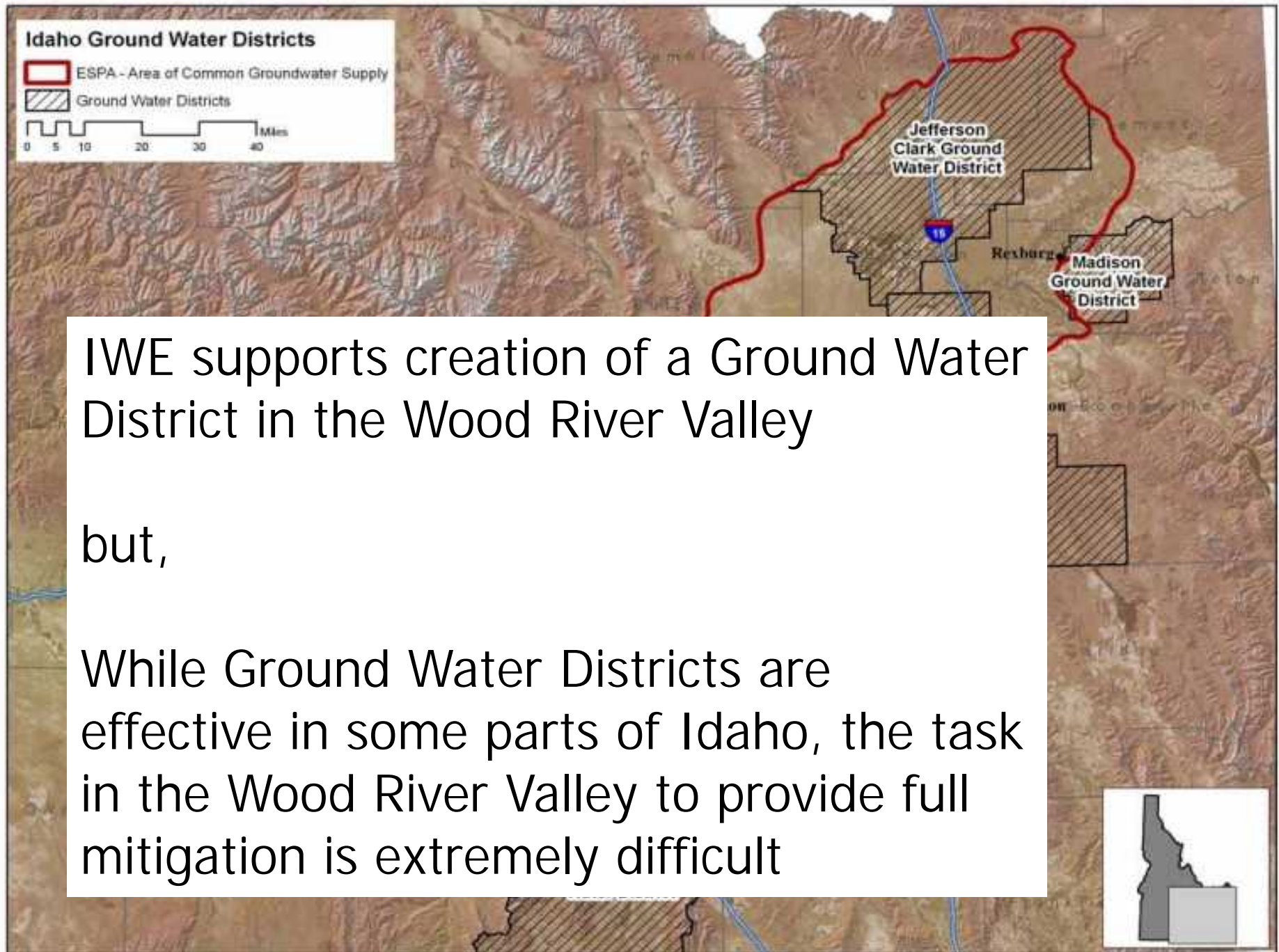
What is Considered in a Mitigation Plan?

- Conjunctive Management Rules:
 - 043.03: Factors to Be Considered. Factors that may be considered by the Director in determining whether a proposed mitigation plan will prevent injury to senior rights include, but are not limited to, the following:
 - d. Whether the mitigation plan proposes artificial recharge of an area of common ground water supply as a means of protecting ground water pumping levels, compensating senior-priority water rights, or providing aquifer storage for exchange or other purposes related to the mitigation plan.



Potential Solutions

- Form a Ground Water District
- Initiate government-sponsored recharge
- Conduct private ground water recharge



IWE supports creation of a Ground Water District in the Wood River Valley

but,

While Ground Water Districts are effective in some parts of Idaho, the task in the Wood River Valley to provide full mitigation is extremely difficult



Government-Sponsored Recharge

- Could be Federal, State, County or Municipal
- Must be done with a water right
- Funding?
- Challenge: finding sufficient mitigation for all will be difficult



Private Recharge

- Widely used throughout Western States
- Recharged water is tracked by models
- Funded by recipients of benefits
- Some recharged water goes to the benefit of the aquifer
- Must be done with a water right



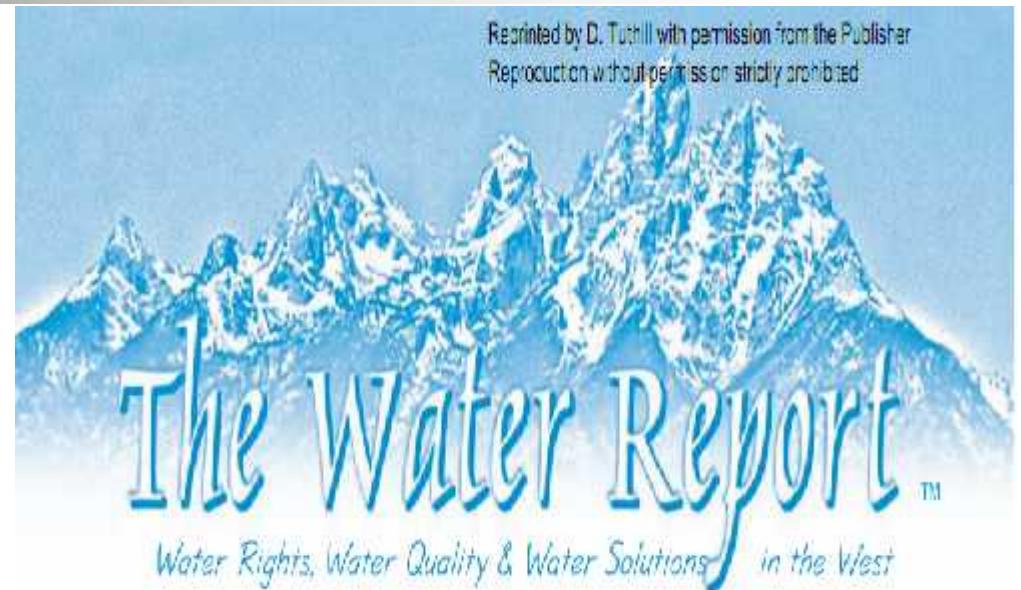
Are Ground Water Recharge Rights Non-Consumptive?

No, if credit for the recharge is requested

The April 30, 1993 Moratorium Order provides for approval of consumptive water rights meeting criteria including where mitigation is provided by the applicant to offset injury to other rights.

Additional Resources offered by Idaho Water Engineering

- Wood River Mitigation Project 2013-2 (Mitigation Plan)
- Free one-hour consultation
- 4 hour training for Realtors (next class Feb 26)(certified by Idaho Real Estate Commission)
- Literature on web site



In This Issue:

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Regulation
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CONJUNCTIVE MANAGEMENT IN IDAHO

PUBLIC-PRIVATE PARTNERSHIPS & CONJUNCTIVE MANAGEMENT OF SURFACE AND GROUND WATER

by David R. Tutill, Jr., Philip J. Rassen, and Hal N. Anderson
Idaho Water Engineering, LLC (Eclise, Idaho)

Public-Private Partnerships can reduce development risks, provide more cost-effective and timely infrastructure delivery, offer the potential for better ongoing maintenance, and leverage limited public sector resources, all while maintaining the appropriate level of public control over the project. The National Council for Public-Private Partnerships, *Testing Tradition: Assessing the Added Value of Public-Private Partnerships, 2012* (available at www.nccpp.org/resources/papers/WhitePaper2012-FinalWeb.pdf).

Thank you.



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