

The background of the slide is a photograph of a wide river. In the foreground, there are tall, dry grasses and reeds on the left bank. The river flows towards the horizon, with a line of trees and some distant buildings visible on the opposite bank. The sky is a clear, pale blue.

State of Eastern Idaho Water Rights

Eastern Idaho Legislative Forum

*W Roger Warner, President
Eastern Idaho Water Rights Coalition
Principal Hydrologist
Rocky Mountain Environmental Associates, Inc.*

December 15, 2014

Eastern Idaho Water Rights Coalition-EIWRC

- Who we are
 - Cities
 - Developers
 - Farmers
 - Canal Companies
 - Legislators
 - Water Company
- Advocate for Eastern Idaho on Water Matters
- What have we done?
 - Attending aquifer modeling meetings
 - Professionals in water matters
 - Attend professional meetings (ie. Idaho Water Users Assn)
 - Take positions of advocacy on matters that hurt our members abilities to conduct normal business.
 - Educate members on water matters

What has EIWRC done in 2015

- Organized a group of upper valley cities.
- Presented united proposals to the Idaho Water Resource Board for managed recharge infrastructure for two cities.
 - Recently, City of Blackfoot's proposal was accepted and project will begin.
 - Seat at the table at the IWUA Legislative committee.

How did we get here?

What was the message in 2014.. .?

- Very close to minimum flows at Swan Falls
- Diminishing supplies to the aquifer
 - With current trends in irrigation conversions from flood to sprinkler
 - Persistent Drought or Climate Change?
 - ????
- Annual Curtailment orders will become the norm

THE ESPA

Upper Snake River Basin





DEPARTMENT OF WATER RESOURCES

322 East Front Street • P.O. Box 83720 • Boise, Idaho 83720-0098
Phone: (208) 287-4800 • Fax: (208) 287-6700 • Website: www.idwr.idaho.gov

C.L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Director

March 4, 2014

«OwnerName»
«StreetAddress1»
«StreetAddress2»
«StreetAddress3»
«City» «StateCode» «PostalCode»

RE: Notice of Potential Curtailment of Ground Water Rights in the Eastern Snake Plain Aquifer

Dear Water Right Holder,

The purpose of this letter is to update you on the latest water supply conditions as they relate to the Surface Water Collation (SWC) delivery call. You are the water right holder of record for one or more water rights that received a letter dated January 28, 2014 informing you that your water right could be subject to curtailment during the 2014 irrigation year (November 1, 2013 – October 31, 2014) as a result of the SWC delivery call. The SWC delivery call applies to ground water rights that affect reaches of the Snake River in the American Falls area that are hydraulically connected to the Eastern Snake Plain Aquifer (ESPA) and lie within the Surface Water Coalition trim line and within the area of common ground water supply. The Director of the Idaho Department of Water Resources (Department) is administering water rights by priority as required in the order of June 23, 2010, issued in response to the water delivery call made by members of the SWC, which includes the A&B Irrigation District, the American Falls Reservoir District #2, the Burley Irrigation District, the Milner Irrigation District, the Minidoka Irrigation District, the North Side Canal Company, and the Twin Falls Canal Company. A copy of the order can be found on the Department's website:

[www.idwr.idaho.gov/News/WaterCalls/Surface%20Coalition%20Call/2010/06Jun/20100623_Ame
ndedFinalOrder.pdf](http://www.idwr.idaho.gov/News/WaterCalls/Surface%20Coalition%20Call/2010/06Jun/20100623_Ame%20ndedFinalOrder.pdf)

The SWC called for delivery of their water rights under the Department's Rules for Conjunctive Management of Surface and Ground Water Resources (IDAPA 27.03.11). The call applies to

What is “curtailment”

Big word means

cut-off

Stopped

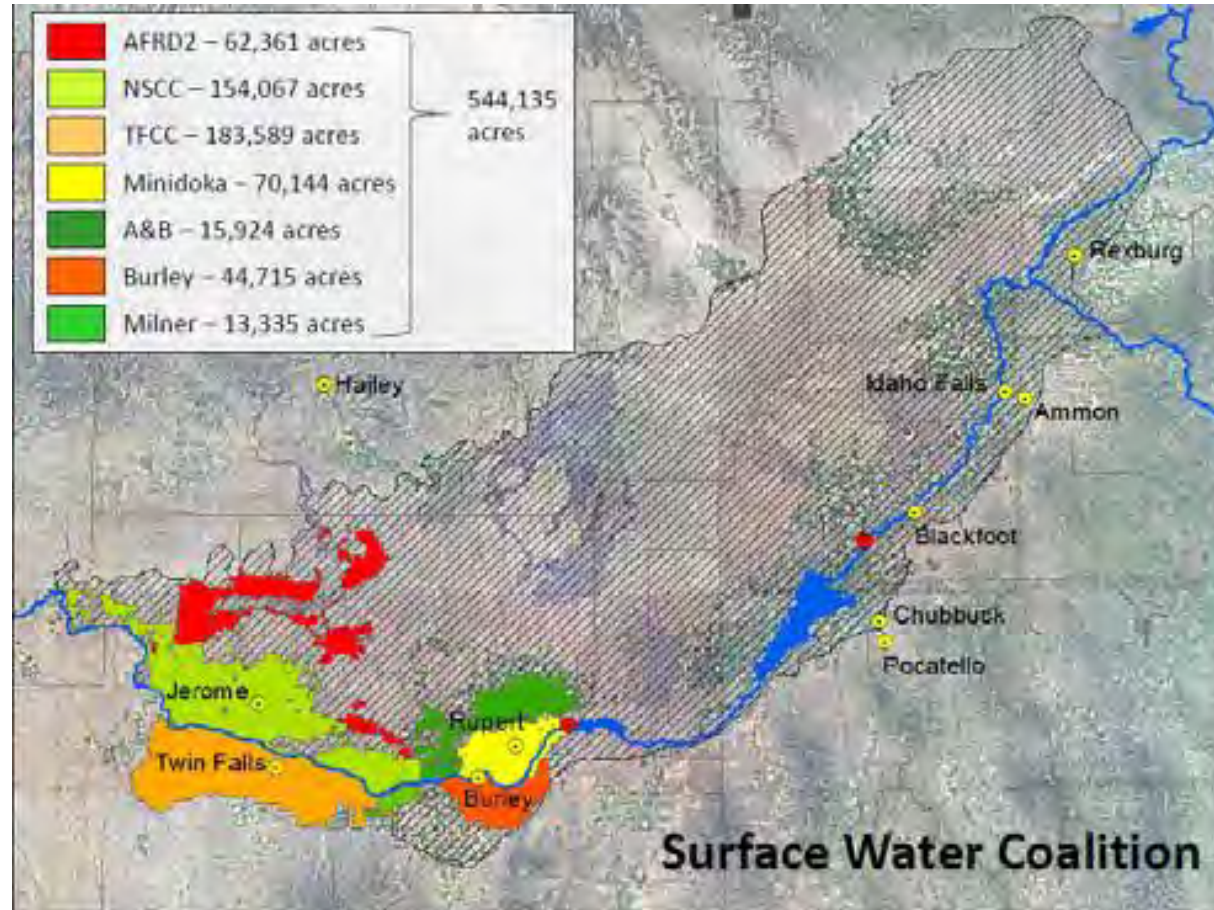
Turned off

In terms of the ESPA, curtailment applies to “consumptive uses” This means uses that don’t generate a sewage waste stream. Irrigation

SWC CALL

- SWC = the “Surface Water Coalition”
- The SWC consists of seven Magic Valley area canal companies and irrigation districts:
 - Twin Falls Canal Company
 - Northside Canal Company
 - Minidoka Irrigation District
 - American Falls Reservoir District #2
 - Burley Irrigation District
 - A&B Irrigation District
 - Milner Irrigation District

SWC CALL



SWC CALL

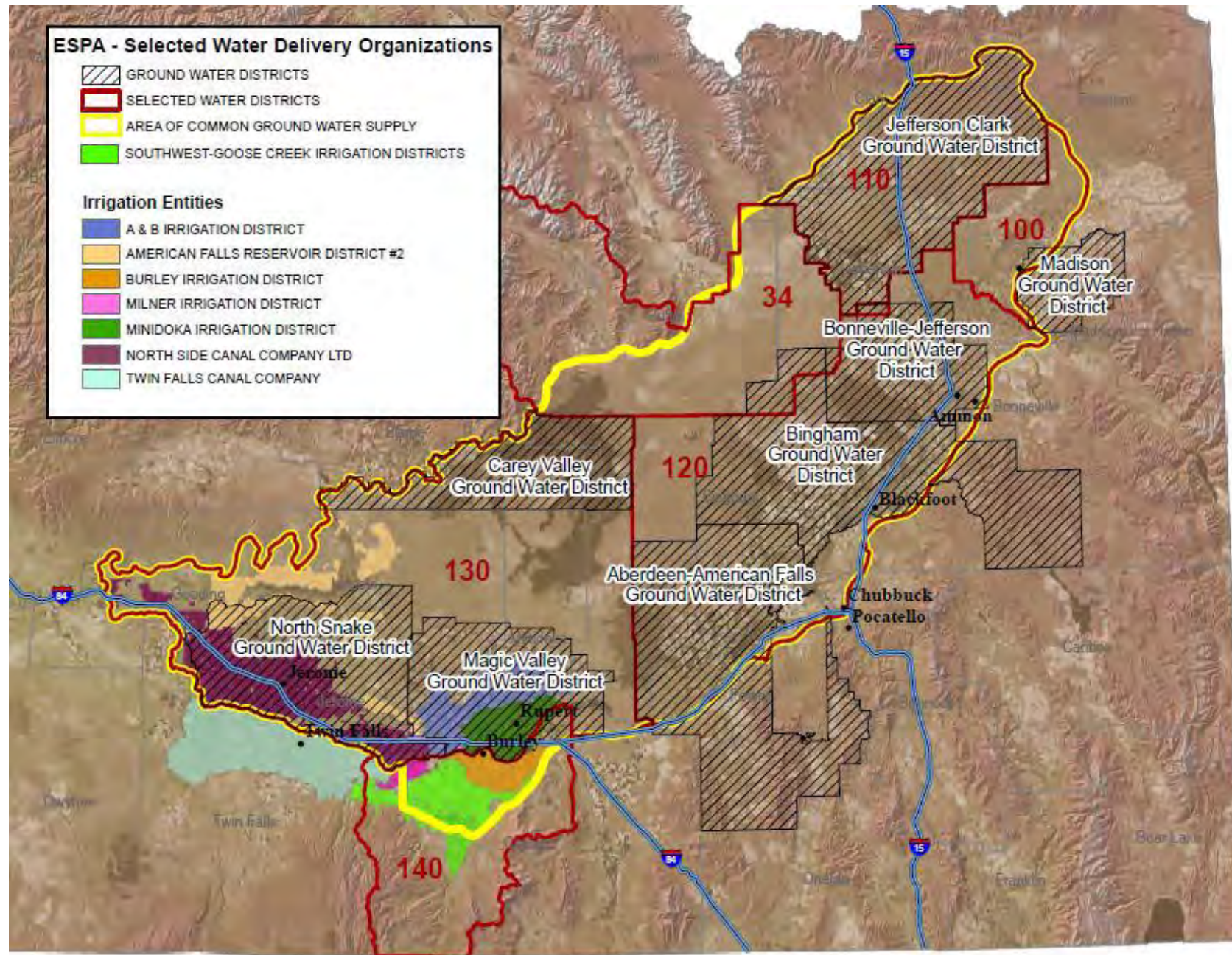
- The SWC developed water rights junior to most surface water rights in the Upper Snake River Valley.
 - Their best rights have priority dates of October 11, 1900.
 - Many rights in eastern Idaho are pre-1900 in priority.
- This means that when natural flow supplies (which are augmented by reach gains to the Snake River) drop, they rely heavily on storage water to make up the difference.

SWC CALL

- During peak irrigation demand, the natural flow supply in the Snake River is almost entirely diverted above American Falls Reservoir.
- In fact, the Snake River just south of Blackfoot can go dry.
- Because of this reality, the SWC relies upon two major sources of water for its needs:
 1. Reach gains from springs and tributary underflow to the Snake River into American Falls Reservoir and other springs.
 2. Release of storage water.

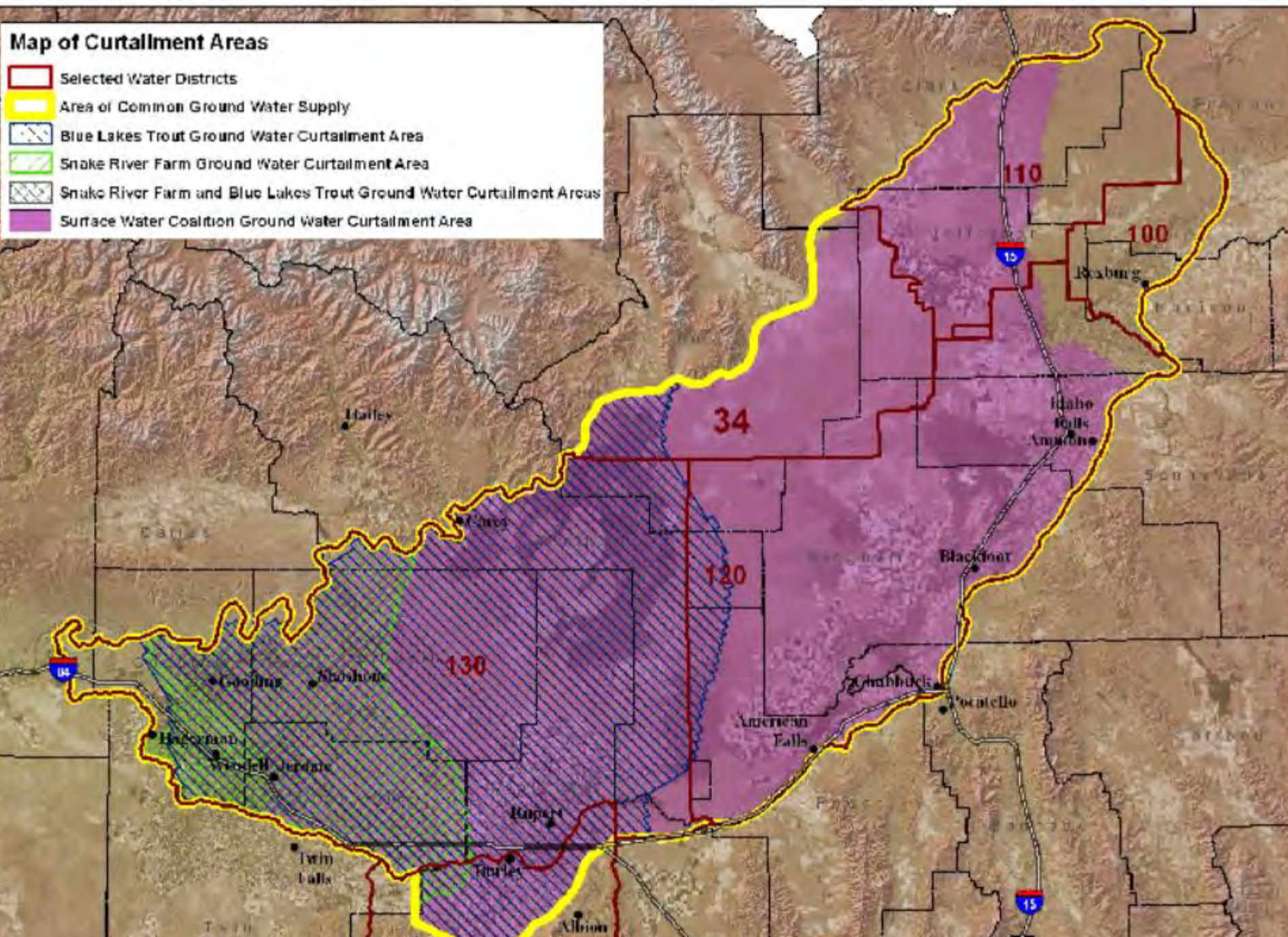
SWC CALL

- The surface water entities were well organized, but what about the ground water users?
 - Statutes were added in 1995 to allow for the formation of “Ground Water Districts.”
 - The main intent of ground water districts was to band ground water users together in order to levy assessments to raise funds to respond to delivery calls and implement mitigation measures.
 - A number of ground water districts have been formed.



SWC CALL

- The ground water districts function together under an umbrella organization known as the Idaho Ground Water Appropriators, Inc., or “IGWA.”
- Since 2003, IGWA has defended fifteen different delivery calls made by senior surface, spring, and ground water right holders.
 - IGWA has spent millions of dollars on mitigation measures, water right buyouts, and fish farm buyouts.
- Most of the calls were from spring users.
 - There is a lingering issue over the “trim line” used in the Rangen Call that was just argued before the Idaho Supreme Court on December 7, 2015.



SWC CALL

- The SWC Call was filed in January of 2005 and is ongoing.
- Why did they file?
 - Drought between 2001-2004 which caused reduced water supply resulting in impacts to farmers' operations, decreasing reach gains, and lack of aquifer management.
- As a result of the SWC Call, IDWR developed a "methodology order" used to essentially require the SWC to provide information to IDWR support its irrigation demand plus what it should be able to reasonably carry over in reservoir storage water ("reasonable carryover")(collectively, the "demand"), and IDWR developed a forecast methodology to determine the runoff, or the "supply."
 - If supply exceeded demand, then the ground water users could irrigate that year with no mitigation obligation.
 - However, if demand exceeded supply, the difference between demand and supply was the amount of "material injury."
- Proof of the ability to mitigate must be provided within fourteen (14) days of IDWR's order.

SWC CALL

- Between 2005 and 2015, this water call has been extensively litigated.
 - Any defense you can think of has been raised by IGWA, and the court has ruled on it.
- While the litigation has been ongoing, IDWR has used its methodology to determine material injury.
 - In some years, there was no injury and therefore no mitigation obligation.
 - In other years there has been injury and therefore a mitigation obligation.

SWC CALL

- What options were there for responding to an injury determination?
 - Rent storage water and provide it to the SWC.
 - This has been the major source of mitigation water.
 - Renting storage water is not always easy to do because of the “last to fill” rule.
 - Undertake other measures to reduce pumping from the ESPA.
 - CREP and other programs.
 - Ground water recharge.
 - Shut off wells.
 - The benefits that would accrue to the Snake River are calculated using ESPAM.

SWC CALL

- IGWA's goal was for ground water users to never be curtailed, and they have done a very good job—no well has ever been curtailed as a result of the SWC Call.
 - But wells were almost curtailed in the Rangen Call.
 - IDWR is serious about curtailment and will do it.
 - Director Spackman has said that the courts have given him no choice.

SWC CALL-THE PERFECT STORM IN LATE 2014-2015

- In the Fall of 2014, Judge Wildman held that IDWR's methodology order did not respect prior appropriation enough. Over the winter, IDWR developed a third methodology order based on this decision.
 - This was bad for ground water users.
 - The third methodology order was issued on April 16, 2015.
 - It effectively determined that IDWR had been underestimating impacts from ground water pumping by 50,000 acre-feet.
 - It also allowed IDWR to “revisit” water supplies on July 1st and readjust IGWA's mitigation obligation.
 - Director Spackman: “Under this new methodology, the mitigation obligation for ground water users will occur more frequently and be of greater magnitude by about 50,000 acre-feet.”
 - Thus, there is more assurance and larger determination of injury for the benefit of the senior.

SWC – THE PERFECT STORM

- Warm weather in 2015 and changing water conditions.
 - The rains in 2014 left reservoir levels high, but a warm early spring resulting in the highest demand for water in late March and early April that WD01 had ever seen.

SWC CALL

- The result was a material injury determination of 89,000 acre-feet.
- If mitigation was not provided, in order to generate 89,000 acre-feet of benefit to the Snake River, all water rights junior to approximately 1982 would be curtailed.
- The water rights which were subject to curtailment equaled approximately 86,000 acres.
- The material injury determination could now be revisited—and could be much worse (next slide):

SWC CALL

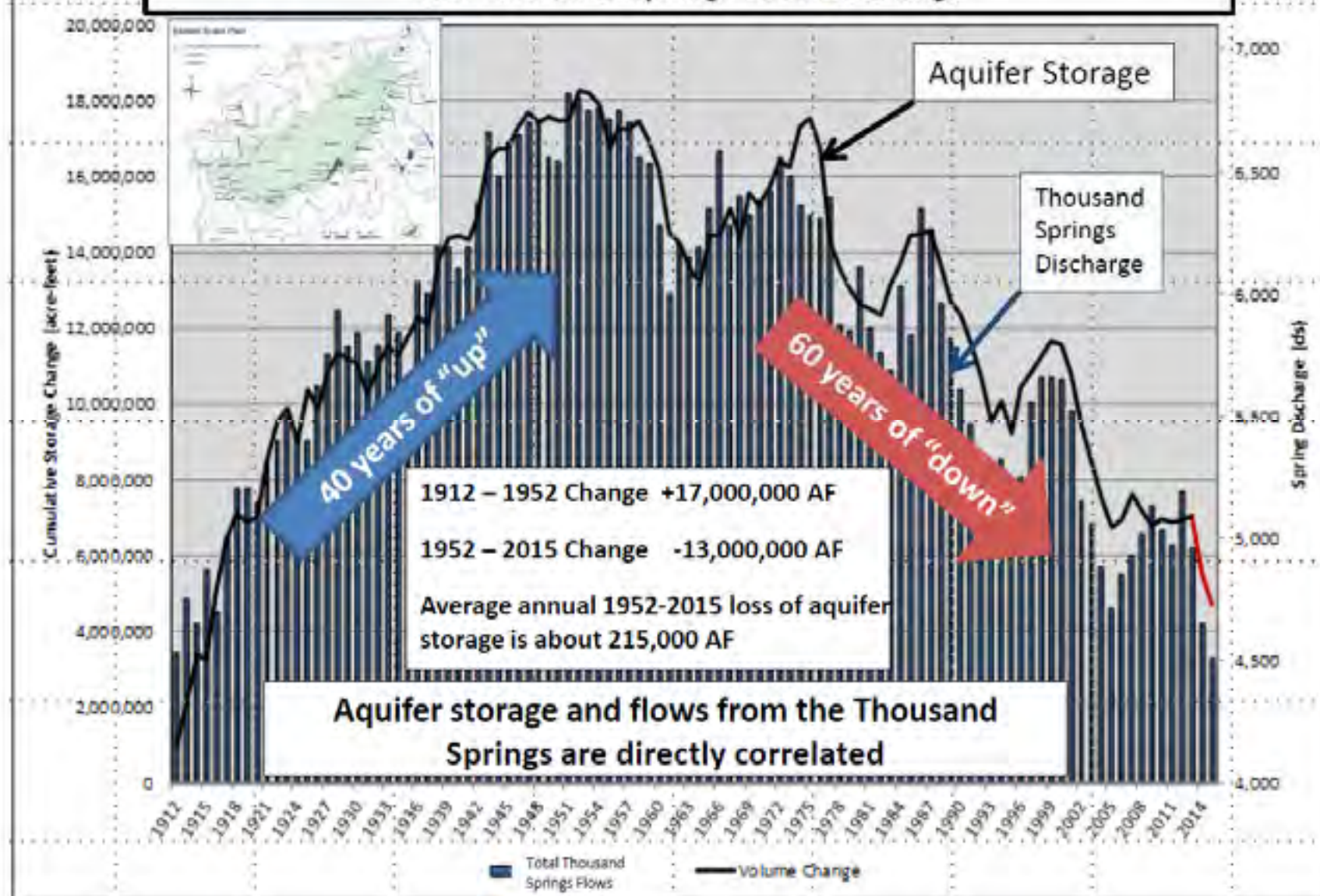
Summary of Demand Shortfall Projections as of May 3, 2015				
	April As-Applied Order (4/16/15)	April As-Applied w/ May 1 Forecast	July As-Applied w/ April Div. & BLY	July As-Applied w/ April Div. & 2012 Analog Yr.
A&B	0	0	0	0
AFRD2	-15,300	-35,464	-54,728	-67,938
BID	0	0	0	0
Milner	0	0	0	0
Minidoka	0	0	0	0
NSCC	0	0	-26,327	-184,543
TFCC	-73,700	-90,250	-170,259	-318,387
Total	-89,000	-125,714	-251,314	-570,868
Approx. Curtailment Priority Date	1982	1980	1974	1957
Approx. Curtailed Acres	86,000	121,000	259,000	594,000

These numbers are calculated using the 3rd Amended Methodology Order for the Surface Water Coalition Delivery Call. Natural flow supplies are predicted using the NRCS's May 1 50% Exceedance Forecast of April-July Runoff Volume at the Heise Gage (i.e. 2,239,000 AF).

SWC CALL

- IGWA could not meet the mitigation obligation.
- This forced a settlement discussion, primarily because of the involvement of Speaker of the House Scott Bedke.
- Why wasn't this settled long ago?
 - It depends on who you talk to.
- Speaker Bedke mediated a settlement agreement.
- The settlement agreement acknowledged, from the ground water users' perspective, the problem on the following two slides:

Volume Change of Water Stored Within the Eastern Snake Plain Aquifer and Thousand Springs Total Discharge



SWC CALL

- We have a declining aquifer, but it is not all the ground water users' fault.
 - Conversion of most farm ground from flood irrigation to sprinkler.
 - Winter water savings program with the BOR (this stopped diversion of storage water during the winter, which recharged the aquifer).
 - Ground water development was encouraged by Idaho Power Company and others.

SWC CALL

Idaho irrigators ink long-term water deal

All 10 irrigation entities represented by Idaho Ground Water Appropriators, Inc., drawing from Eastern Snake Plain Aquifer wells have signed on to a monumental water agreement to resolve the decade-old Surface Water Coalition water call.



SWC CALL AGREEMENT

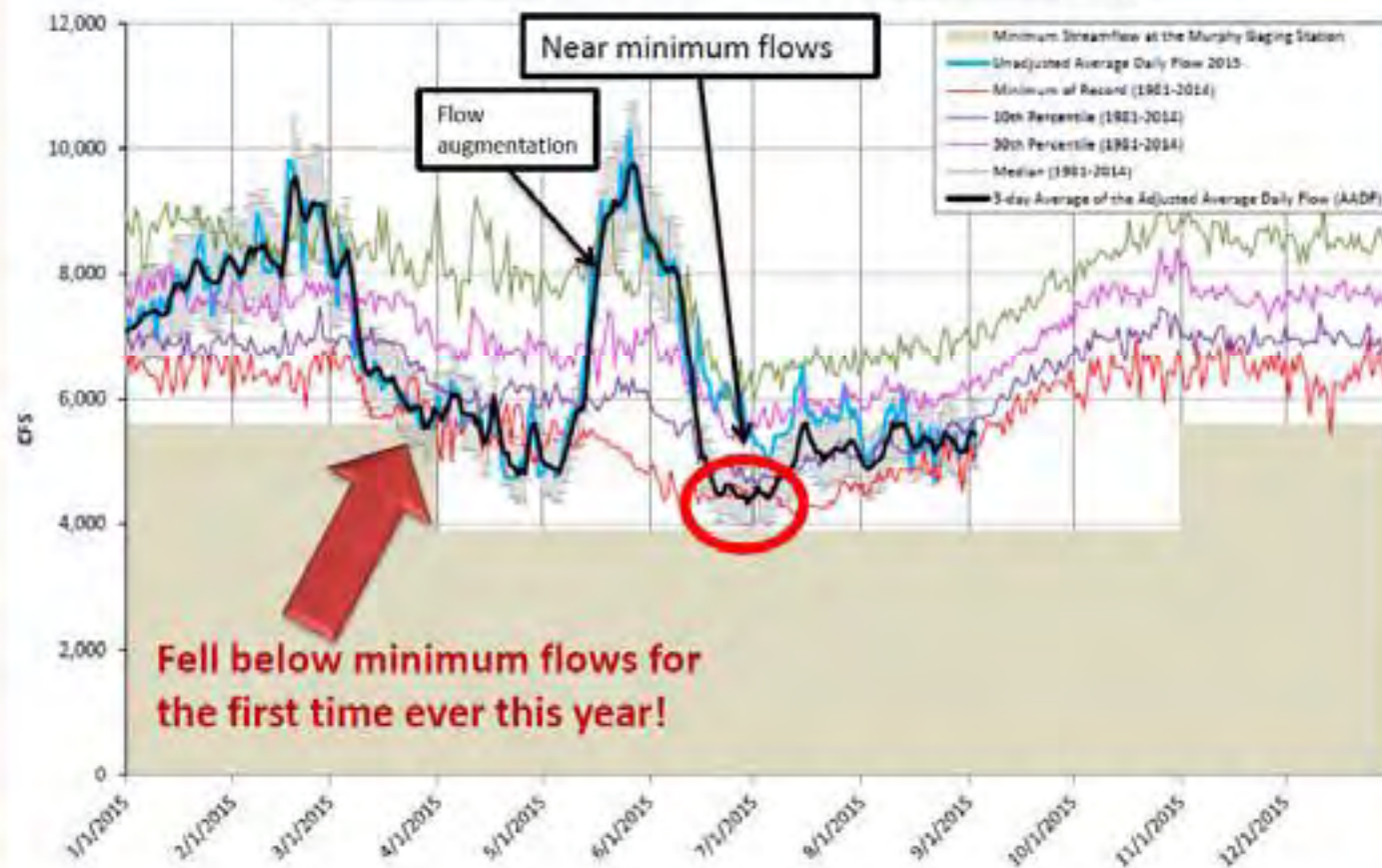
- Disaster was averted.
- Settlement Agreement addressed issues in 2015 (near-term) and beyond (2016 and forward).
- Settlement has now been approved by all of the ground water districts, subject to more detail being developed on one major item— the reduction of 240KAF of consumptive use each year on the ESPA.

SWC Settlement Terms

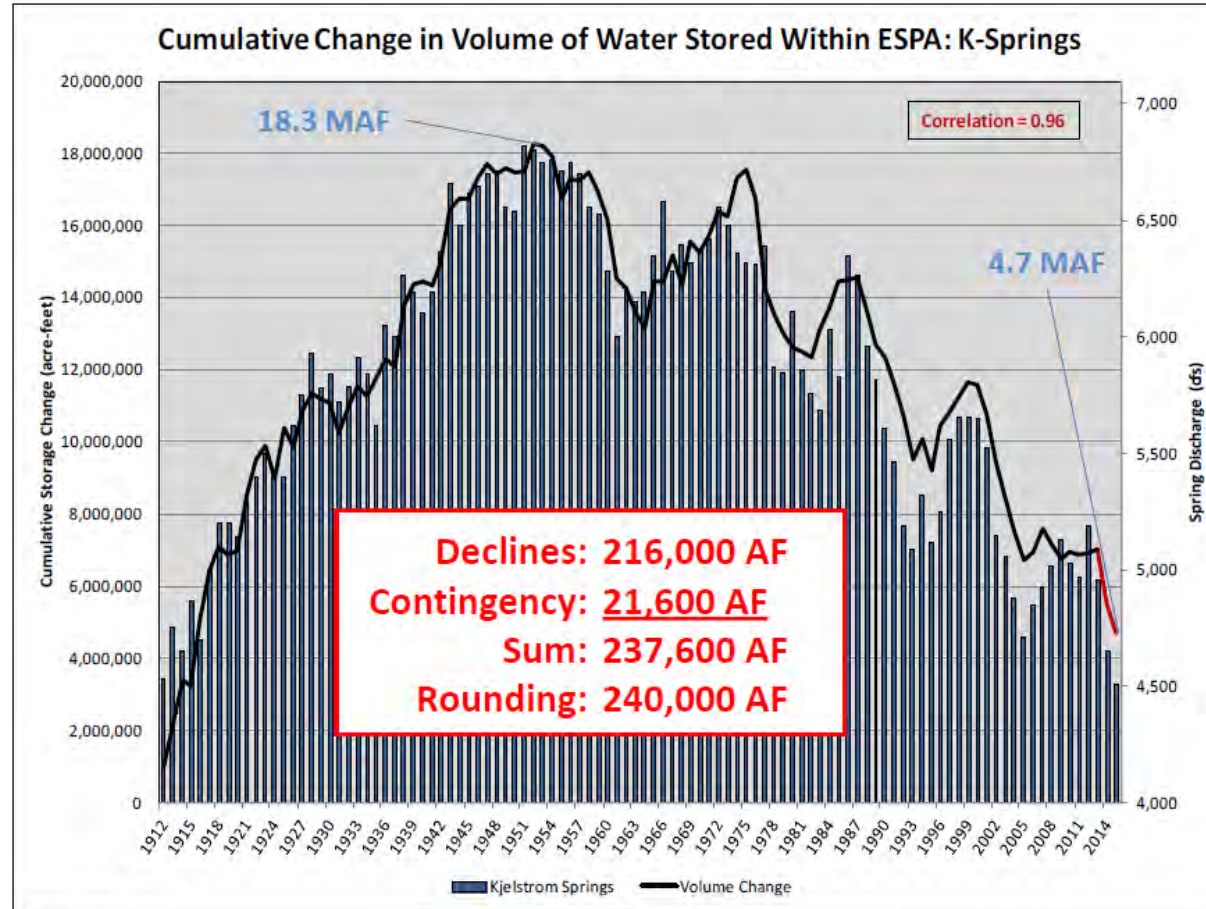
- Objectives
 - Mitigation
 - Safe Harbor
 - Stabilize aquifer levels and increase water supplies
 - Minimize economic impact
 - Increase reliability of measurement/compliance/enforcement
- Near Term Practices
 - 110,000 acre-feet of storage water
 - \$1.1 Million towards existing conversions
- Long Term Practices
 - Ground water diversions reduced by 240,000 acre-feet/year
 - 50,000 acre-feet/year of storage water
 - Continue existing conversions
 - Shorten irrigation season (April 1 – October 31)
 - Measuring devices by 2018
 - State sponsored recharge equal to 250,000 acre-feet/year



Snake River Near Murphy Gage - Swan Falls Dam - 2015



SWC CALL



SWC CALL AGREEMENT

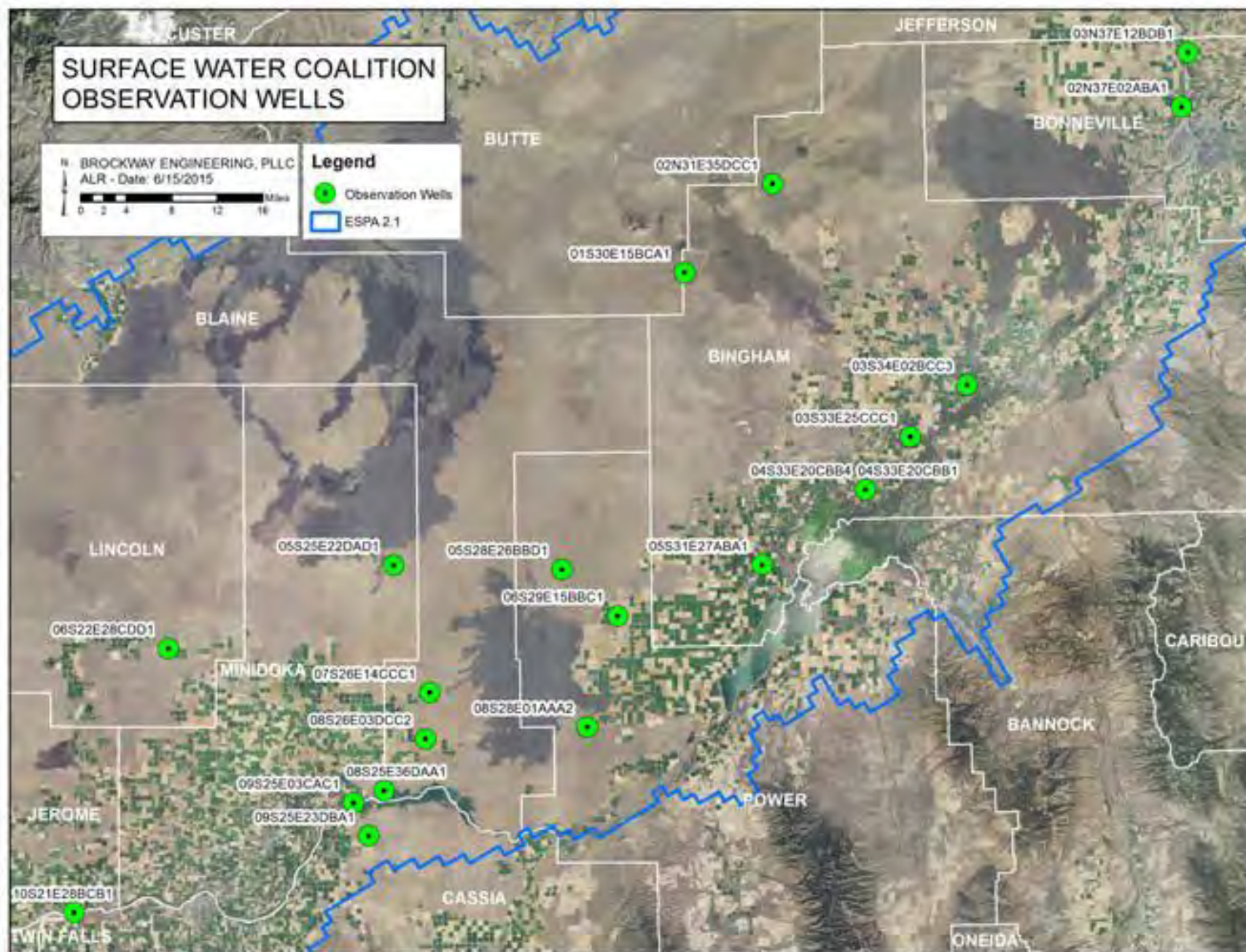
- SWC-IGWA Agreement should be celebrated, but there are no specific provisions for municipalities.
- The condition requiring ground water district members to reduce pumping by 240KAF could effectively mean that a municipality can no longer grow.

SWC CALL AGREEMENT

District	Current AF Diverted	% Share of 240k AF	% Reduction	AF Reduction	Future AF Diverted
A&B	173,384	7.75	10.7%	18,588.09	154,796
Aberdeen –American Falls GWD	303,532	13.6%	10.7	32,540.96	270,991
Bingham GWD	469,143	21.0%	10.7%	50,295.72	418,847
Bonneville-Jefferson GWD	117,800	5.3%	10.7%	12,629.06	105,171
Carey Valley GWD	7,995	0.4%	10.7%	857.13	7,138
Fremont-Madison GWD	13,600	0.6%	10.7%	1,458.02	12,142
Jefferson-Clark GWD	333,467	14.9%	10.7%	35,750.22	297,717
Madison GWD	86,448	3.9%	10.7%	9,267.89	77,180
Magic Valley GWD	332,327	14.8%	10.7%	35,628.00	296,699
North Snake GWD	208,758	9.4%	10.7%	22,487.66	187,270
Raft River GWD	20	0.0%	10.7%	2.14	18
Southwest ID	191,172	8.5%	10.7%	20,495.10	170,677
TOTALS	2,238,646	100%		240,000.00	1,998,646

SWC CALL AGREEMENT

- Ultimate goal is to return ESPA levels to the 1991-2000 aquifer levels by 2026.
- If goals are not met, adaptive management will be undertaken.
- Still plenty of questions about implementation.



SWC CALL

- No “Safe Harbor”:
 - If you do not sign on to the SWC-IGWA Agreement or are a member of one of its member ground water districts, your water rights will effectively be managed as though you were not part of the Agreement.
 - In other words, you face the possibility of curtailment each year.

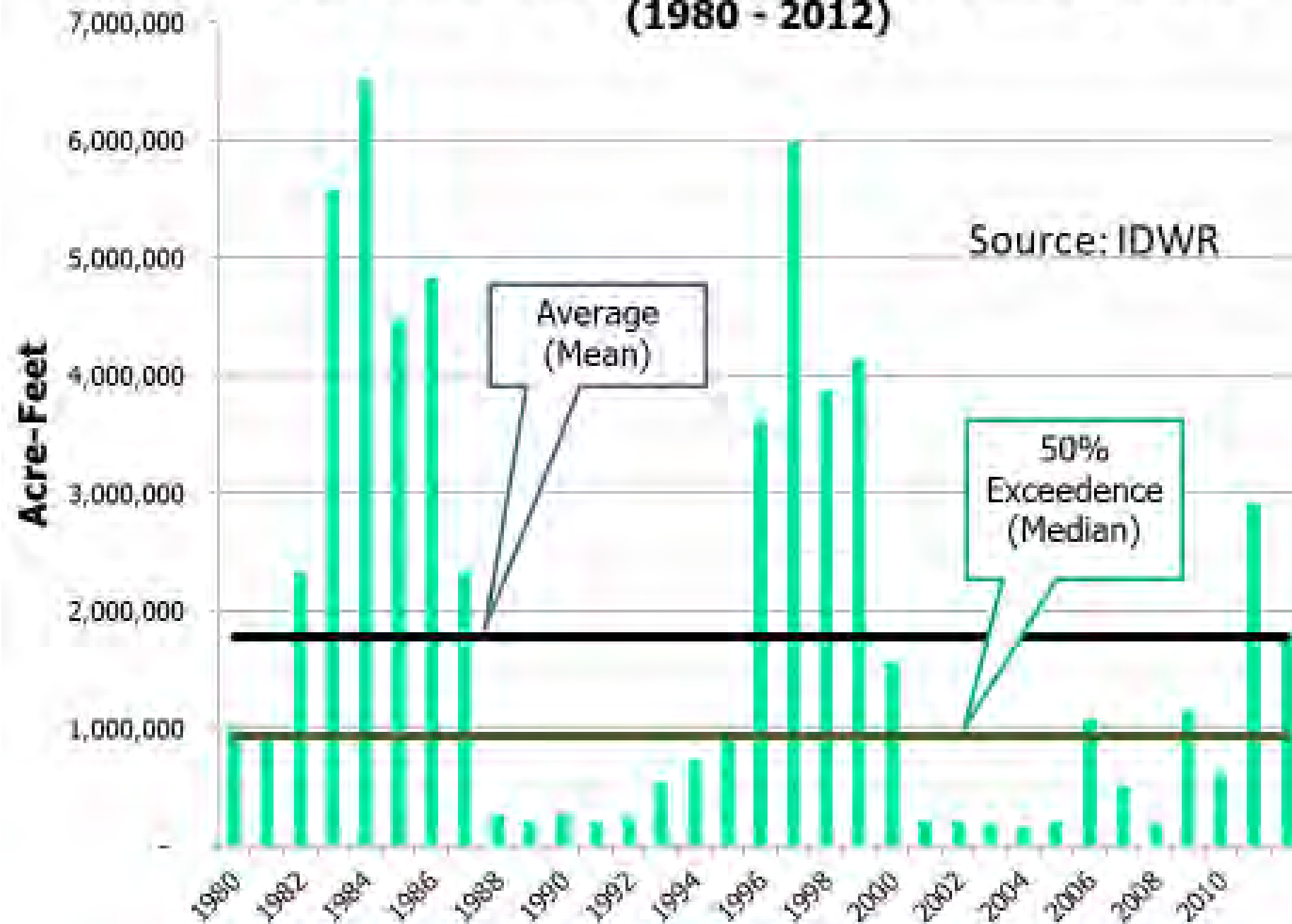
RECHARGE

- Great idea to help with aquifer levels.
- However, ability to recharge is limited by the priority doctrine.

Milner Dam...its role in recharge



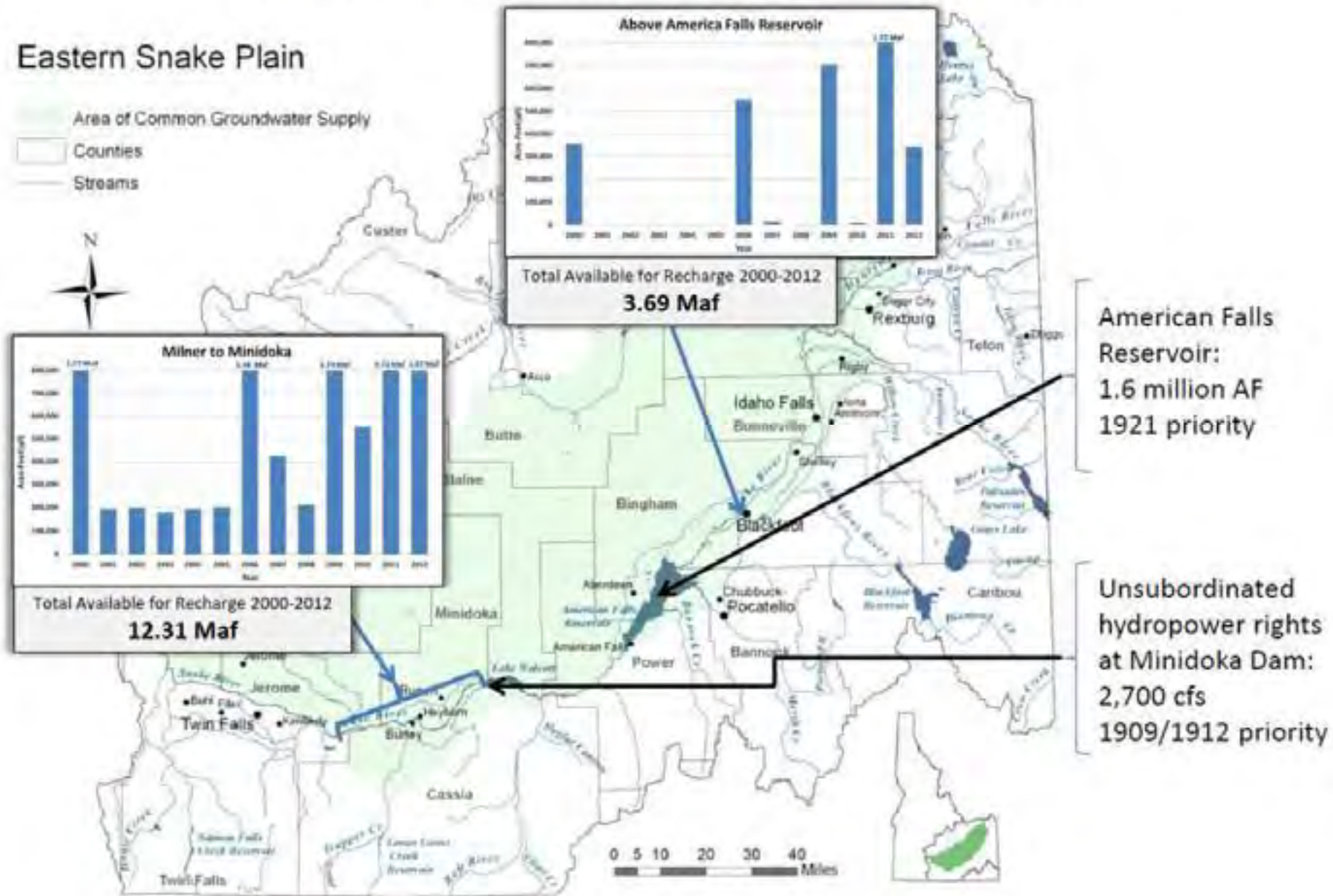
Total Annual Volume of Natural Flow Passing Milner (1980 - 2012)



Water Available for Recharge 2000 - 2012

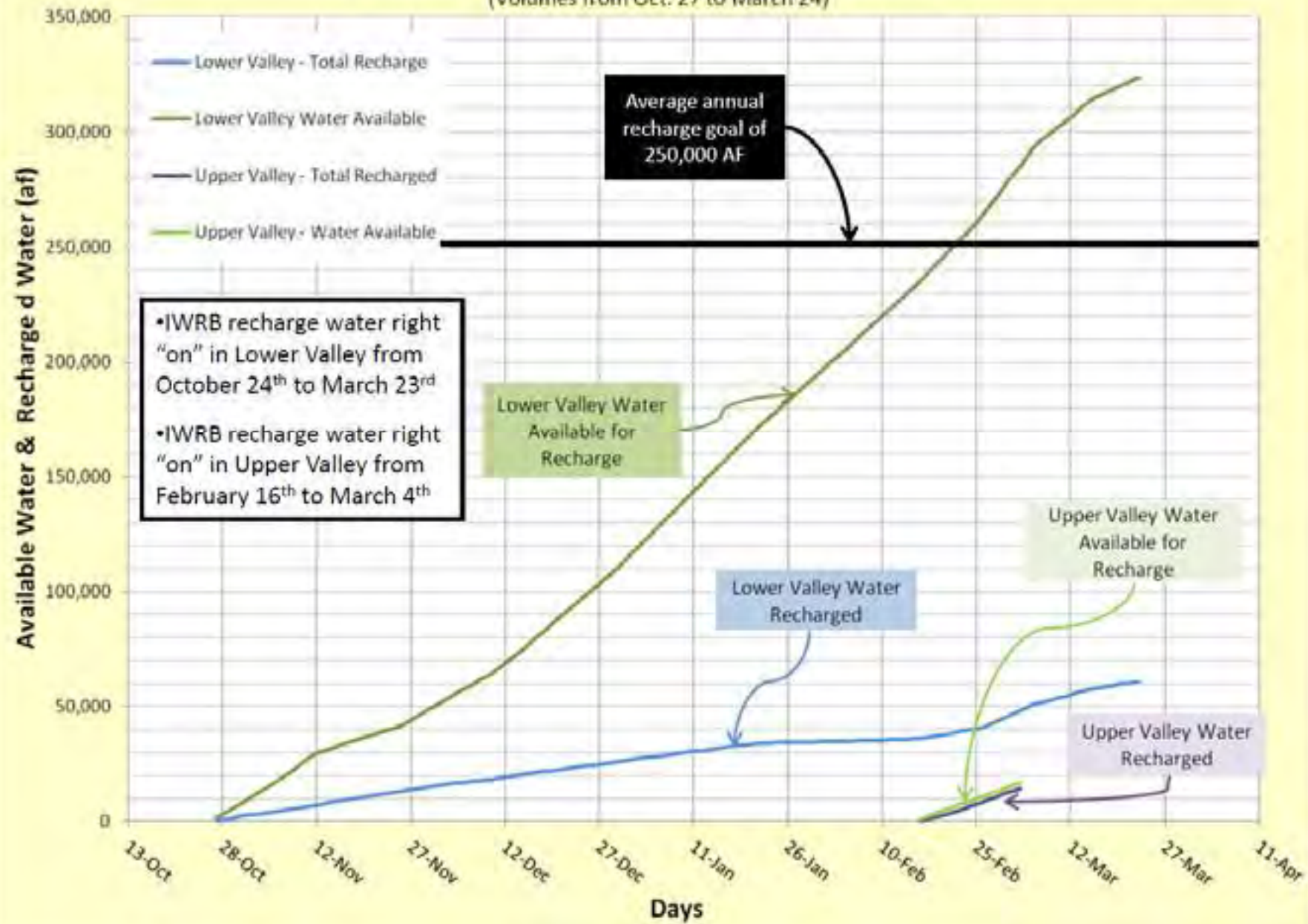
Eastern Snake Plain

- Area of Common Groundwater Supply
- Counties
- Streams



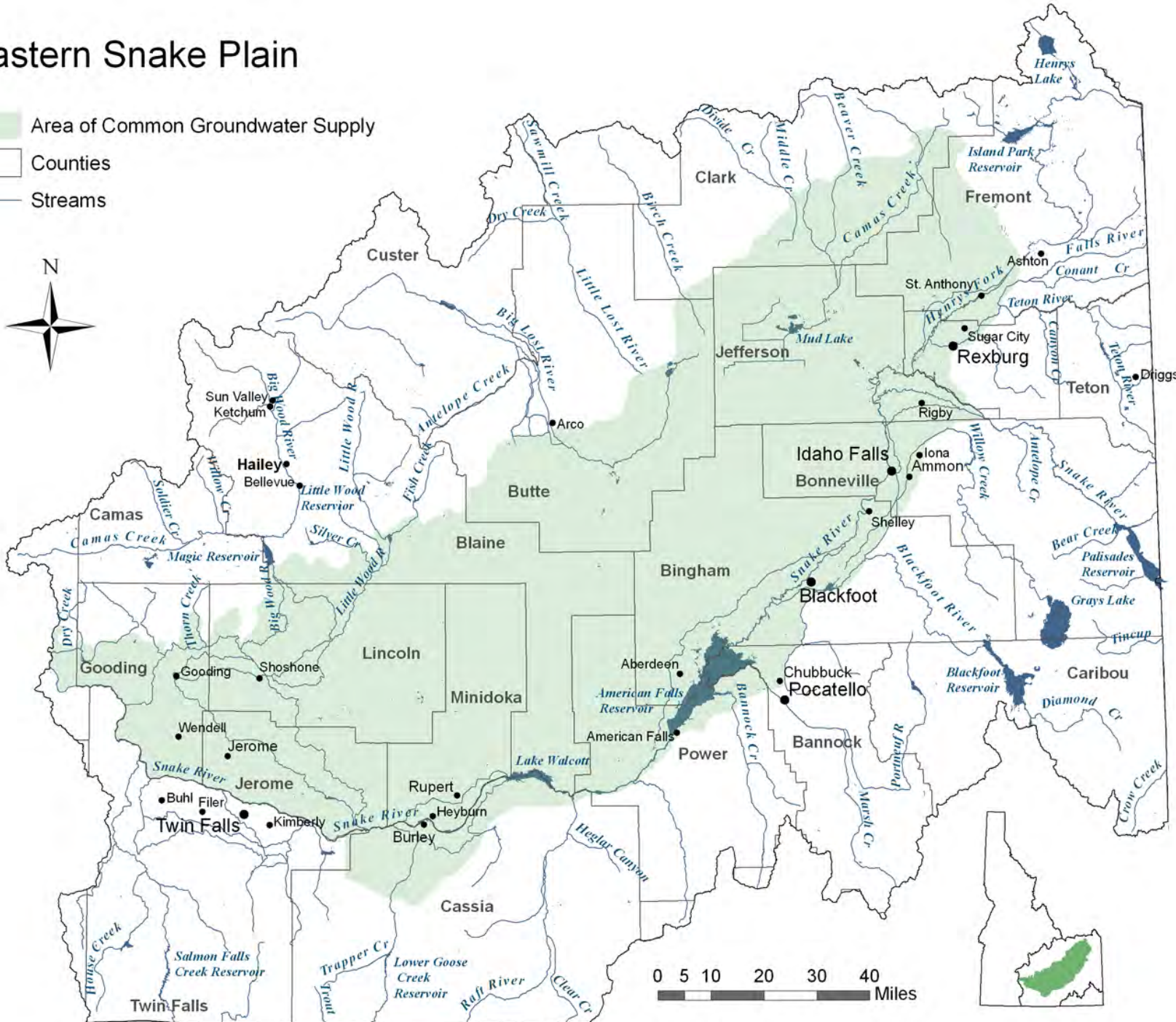
ESPA Managed Recharge - 2014 - 2015 Season

(Volumes from Oct. 27 to March 24)

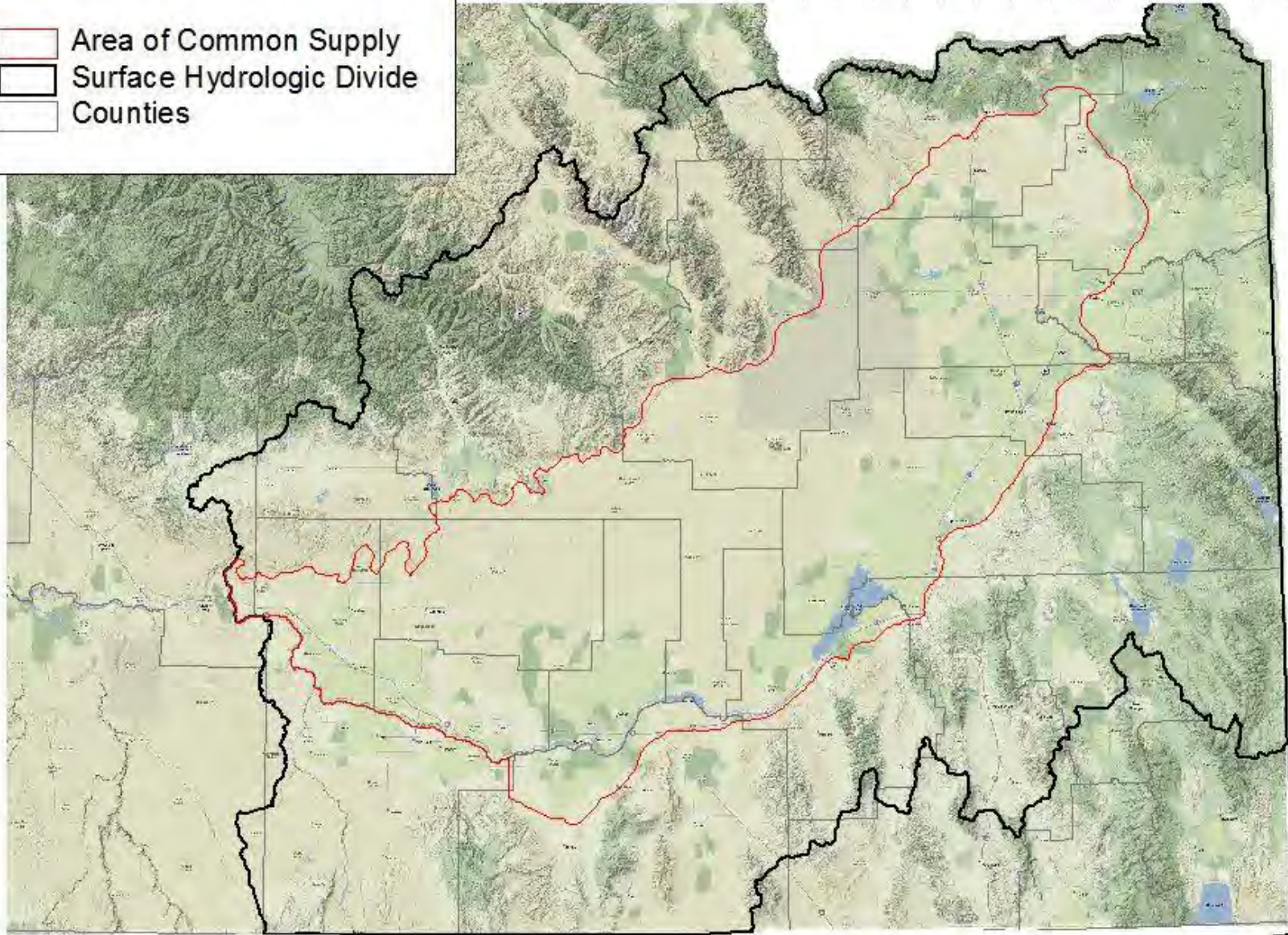


Eastern Snake Plain

- Area of Common Groundwater Supply
- Counties
- Streams



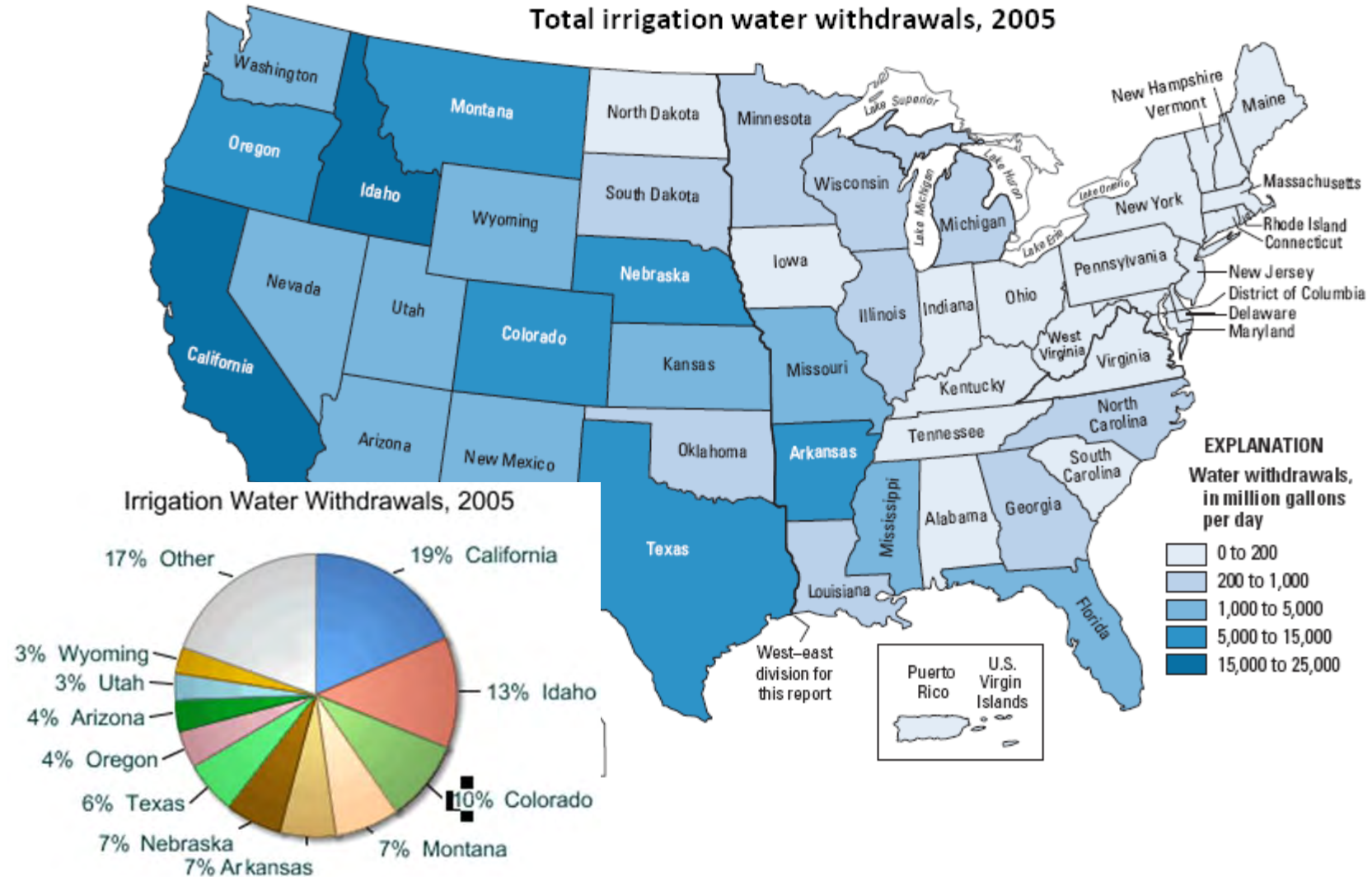
- Area of Common Supply
- Surface Hydrologic Divide
- Counties



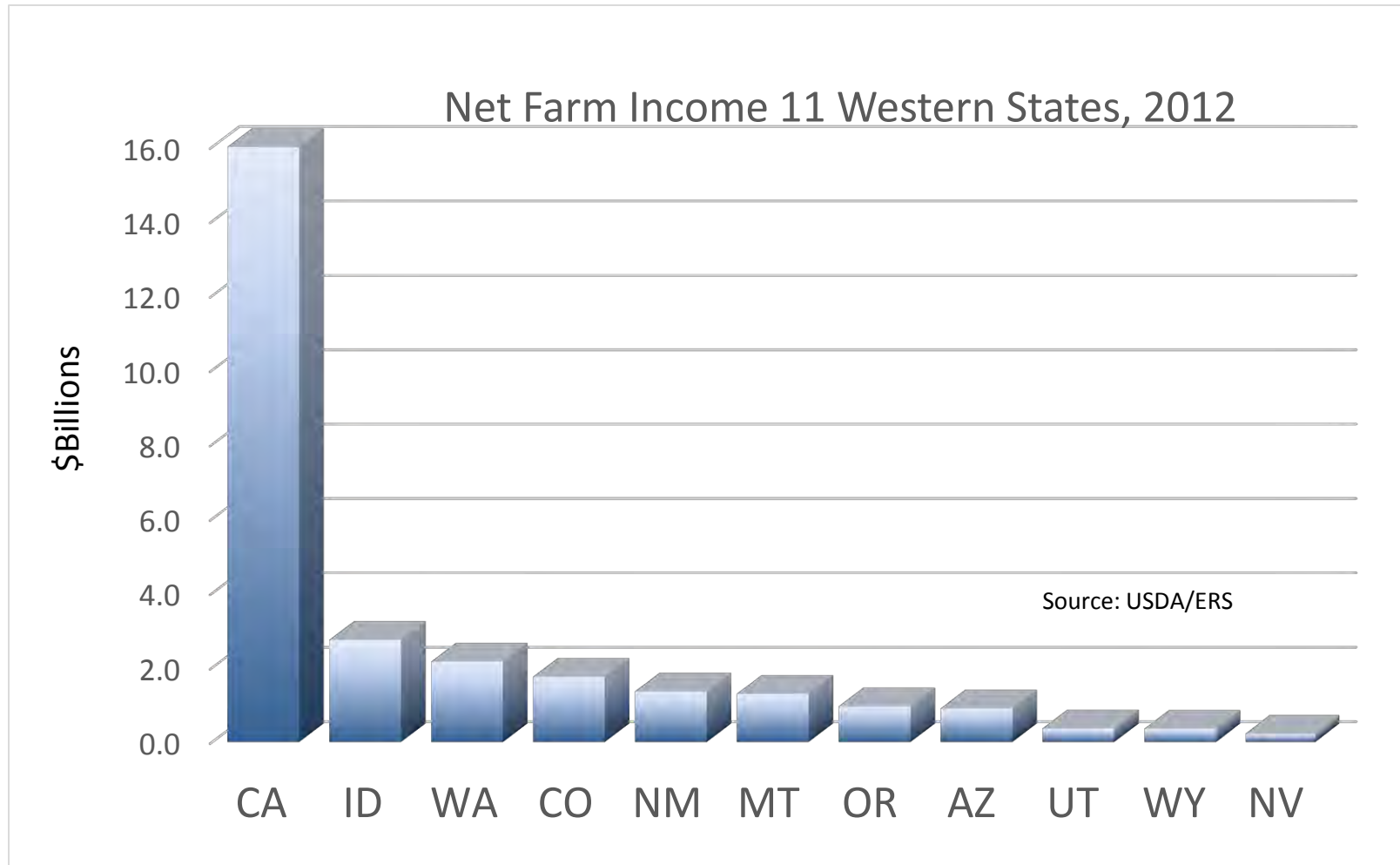
Conjunctive Management Rule 50

Idaho, 2nd irrigation withdrawals

Source: Estimated Use of Water In the United States in 2005, U.S. Geological Survey, Circular 1344

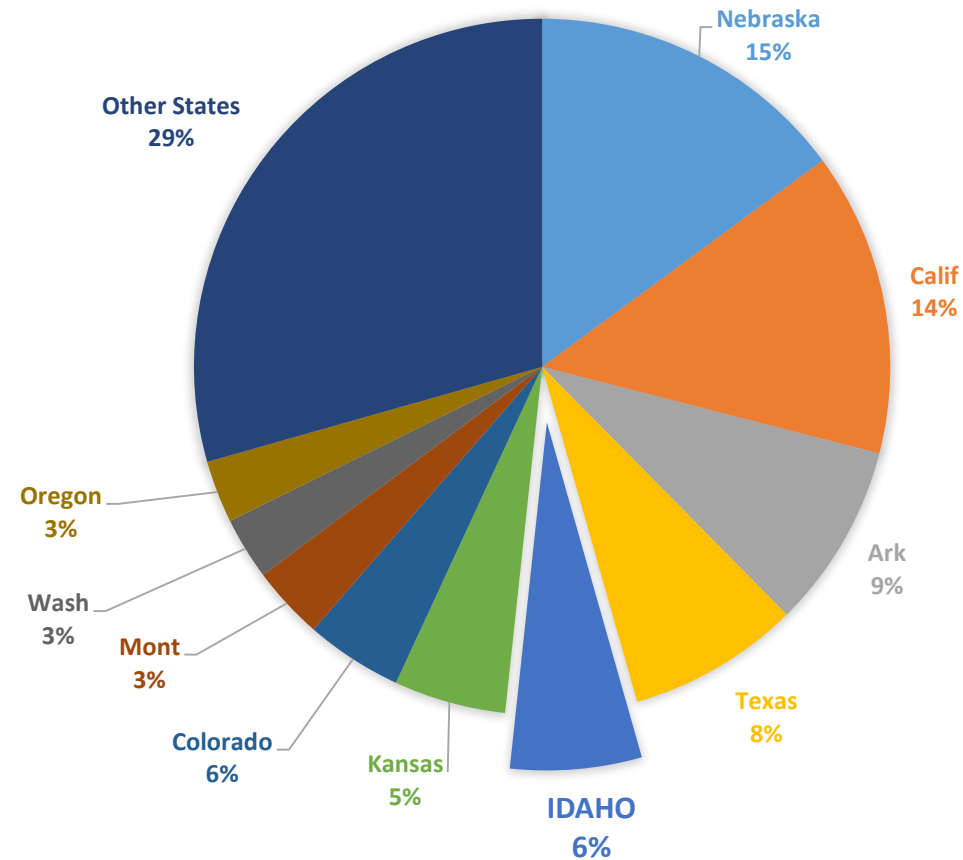


Idaho, 2nd largest Ag state in the West



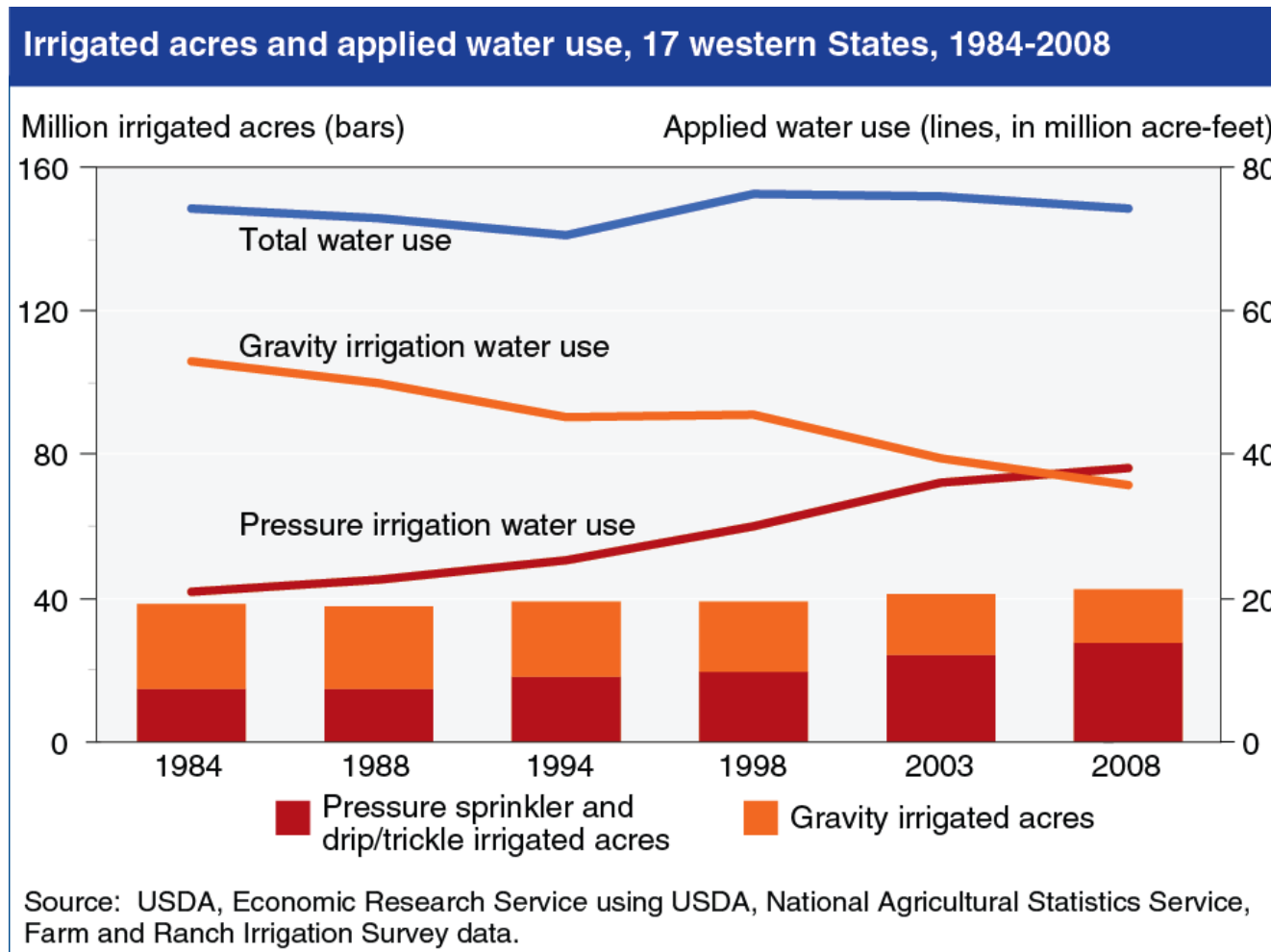
Idaho, 6th in irrigated acres

State Shares of Total U.S. Irrigated Acres for 2012

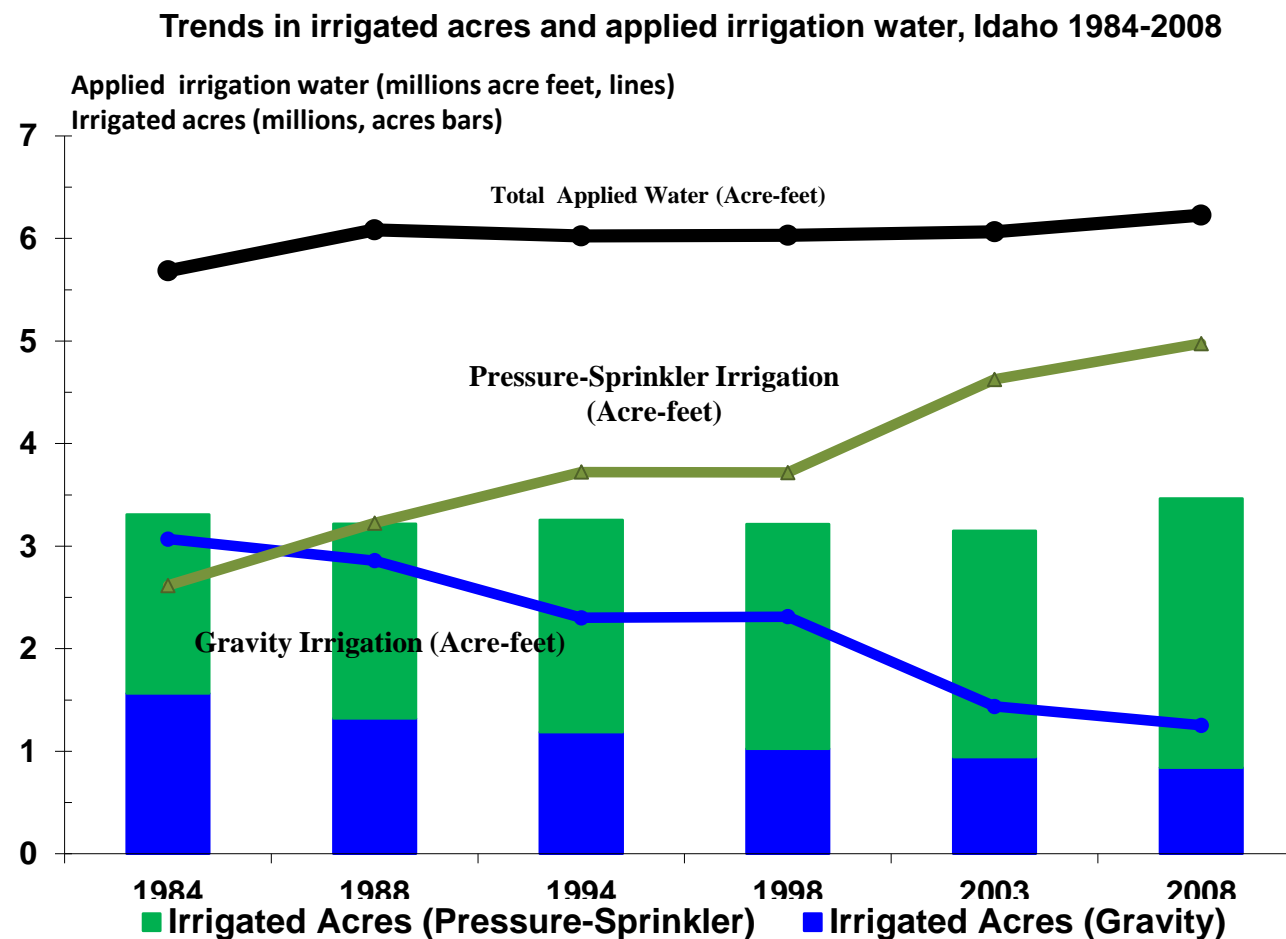


Source: 2012 Census of Agriculture, National Agricultural Statistics Service (USDA, 2014)

17 western states irrigation trends



Idaho switches from gravity to sprinklers



Source: USDA, Economic Research Service calculations based on USDA, National Agricultural Statistics Service, 1984, 1988, 1994, 1998, 2003, and 2008 Farm and Ranch Irrigation Survey data.

Legislators

- Likely, new legislation For SWC/IGWA settlement agreement.
- May see legislation extending area of common ground water supply.
- Big issue in western Idaho concerning “second fill” on reservoir supply.
 - We have already negotiated and settled the issue in Eastern Idaho.

END

rog.rmea@gmail.com

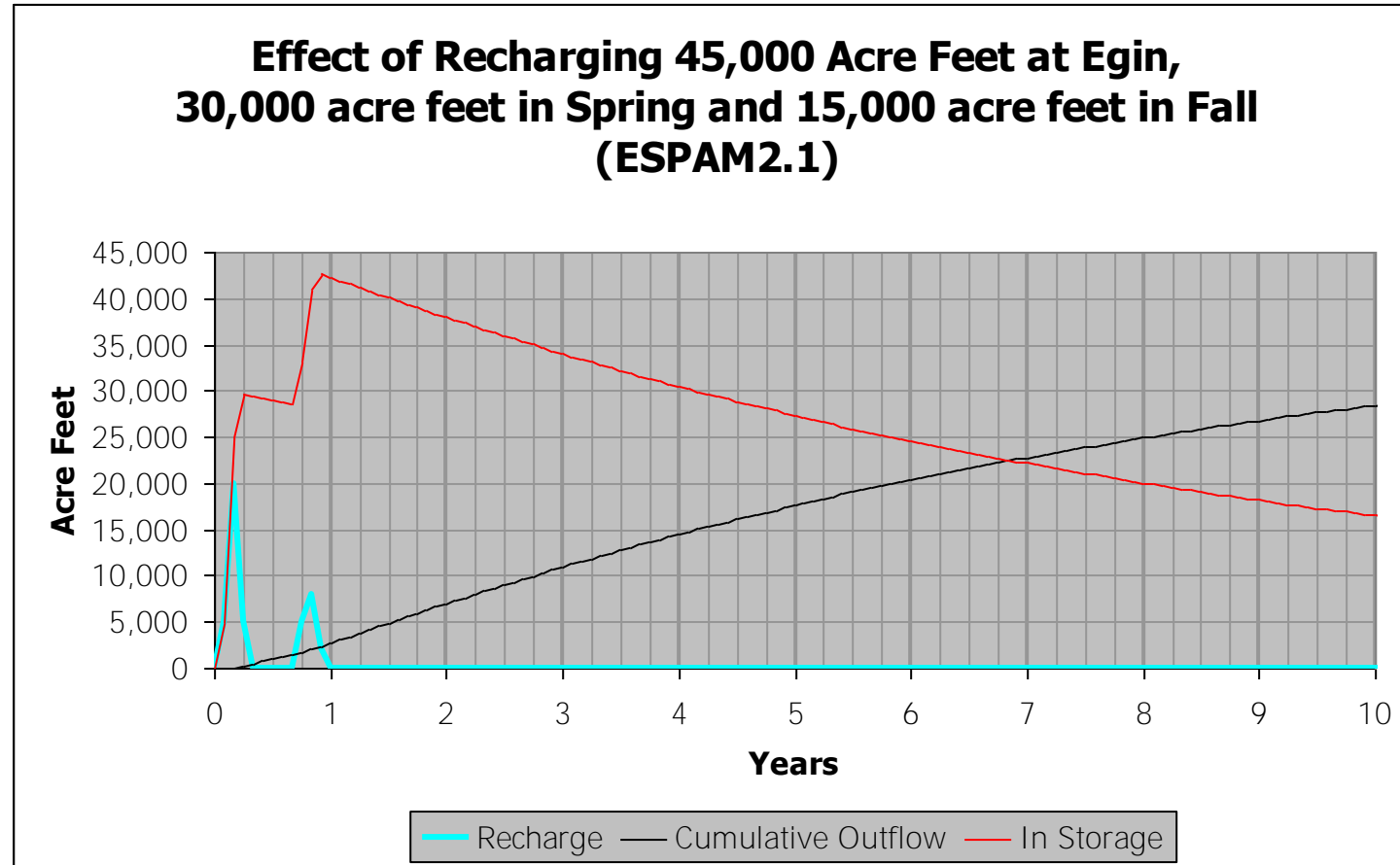
Easternidahowater.org

Can we mimic incidental inputs into the aquifer?

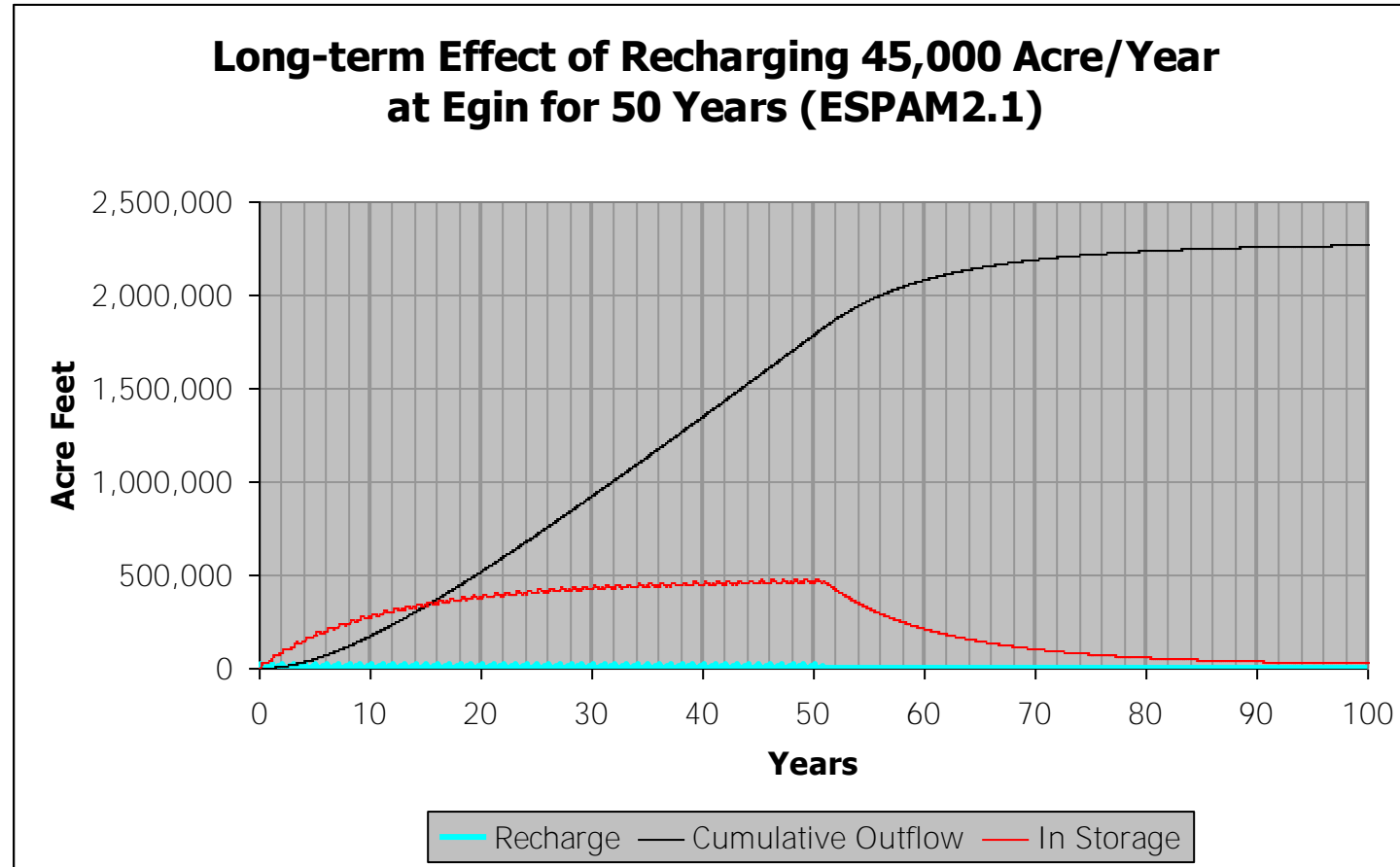
- YES

- Managed recharge of available water has been done for many years.
- Statutes recognize recharge as a beneficial use.
- Managed Recharge can:
 - *ENSURE* continued supply for municipal consumptive uses.
 - *ACCRUE* additional supply for assured growth and development.

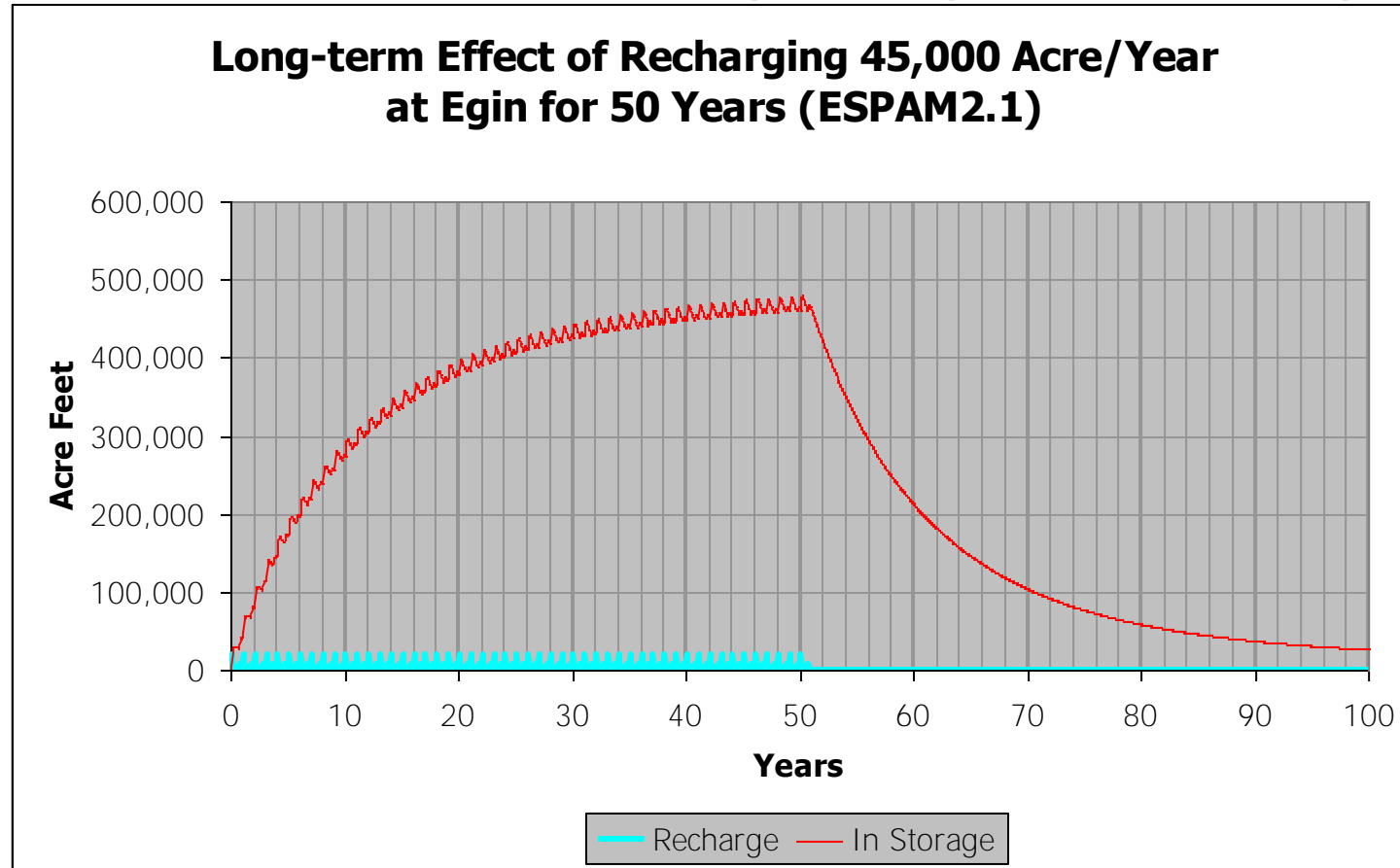
Retention of One Year of Recharge



Retention of Ongoing Recharge



Retention of Ongoing Recharge



THE
END

