



AGENDA

AQUIFER STABILIZATION COMMITTEE MEETING NO. 1-15

April 28, 2015 at 9:30 am

Best Western Burley Inn
Minidoka II Conference Room
800 N. Overland Ave., Burley, ID 83318

C.L. "Butch" Otter
Governor

Roger W. Chase
Chairman
Pocatello
District 4

Jeff Raybould
Vice-Chairman
St. Anthony
At Large

Vince Alberdi
Secretary
Kimberly
At Large

Peter Van Der Meulen
Hailey
At Large

**Charles "Chuck"
Cuddy**
Orofino
At Large

Albert Barker
Boise
District 2

John "Bert" Stevenson
Rupert
District 3

Dale Van Stone
Hope
District 1

-
1. Welcome and Attendance
 2. ESPA and spring flow monitoring program
 3. Review of 2014-2015 ESPA recharge operations
 4. Consider separate conveyance rate structure for pump systems
 5. Update on on-going capital improvement projects and projects in planning
 6. Review ESPA aquifer stabilization funds
 7. Consider recommendation on funding allocations to IWRB Finance Committee
 - a. 2015-2016 ESPA operations
 - b. Capital improvement expenses for recharge capacity expansion
 8. Other items

Americans with Disabilities

The meeting will be held in facilities that meet the accessibility requirements of the Americans with Disabilities Act. If you require special accommodations to attend, participate in, or understand the meeting, please make advance arrangements by contacting Department staff by email Mandi.Pearson@idwr.idaho.gov or by phone at (208) 287-4800.



Eastern Snake River Plain Monitoring Program

Presented by Sean Vincent

April 28, 2015



Talking Points

- Funding sources
- Expenditures since inception of AP&M Fund
- Hydrologic monitoring networks
- Cooperative agreements
- Data collection & analysis issues

Funding Sources

- Trustee and Benefit Payments
 - Annual operating budget
 - Contracted monitoring
- Aquifer Planning and Management Fund
 - Idaho Code §42-1779 & §42-1780 (2008)
 - Hydrologic monitoring, technical studies, plan development, facilitation services, personnel costs, OE, capital outlays
 - 1-time appropriation = \$8 million
 - Eastern Snake Plain, Wood River Valley, Treasure Valley, Rathdrum Prairie

Trustee and Benefit Expenditures

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	TOTAL
TOTAL	\$854,500	\$560,500	\$559,200	\$560,500	\$554,000	\$554,000	\$570,600	\$4,213,300

Aquifer Planning and Management Fund Expenditures for Monitoring and Model Development (Non-Personnel)

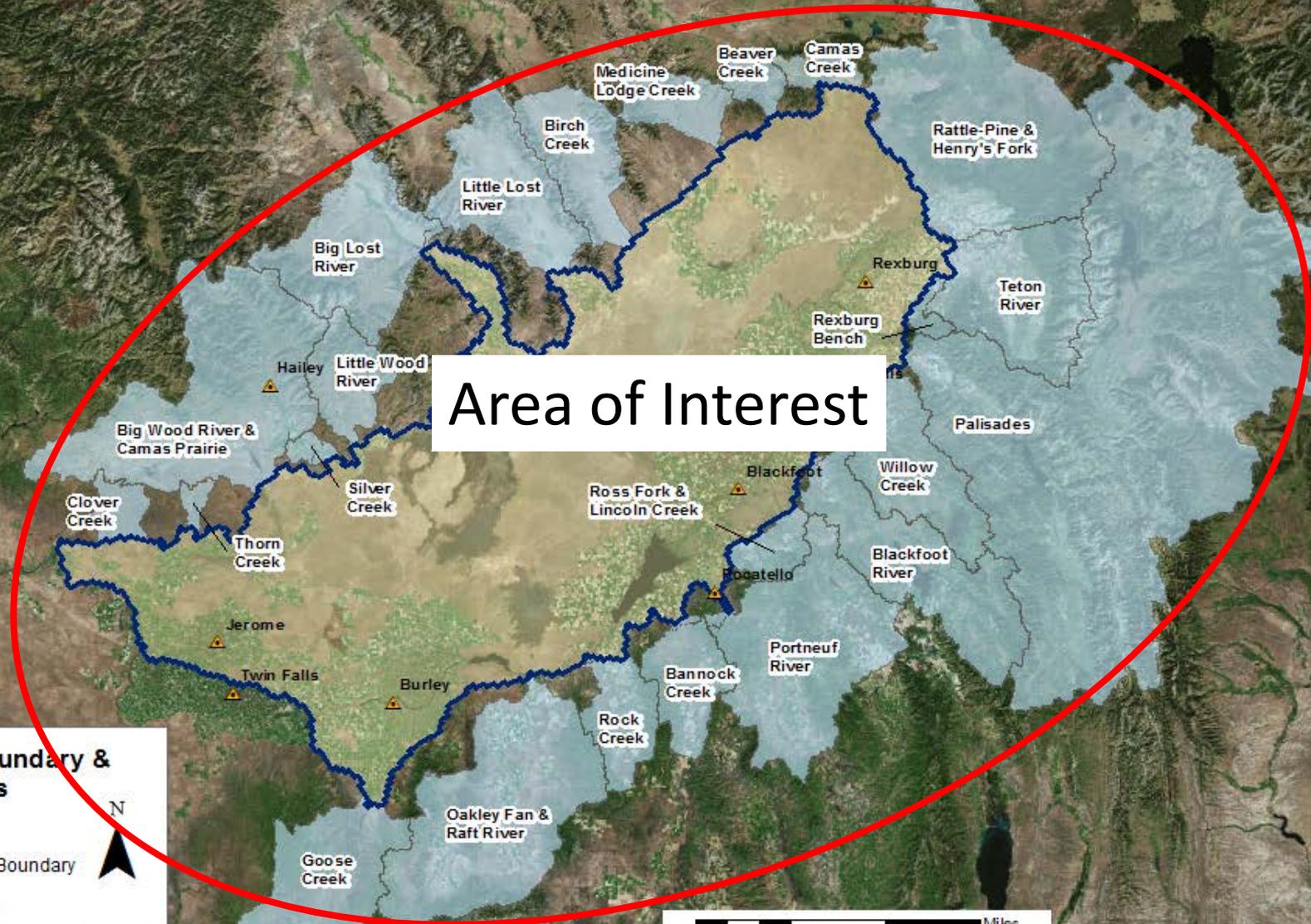
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015*	TOTAL
Eastern Snake Plain	\$334,595	\$453,634	\$455,326	\$388,514	\$316,011	\$367,074	\$98,696	\$2,413,850
Treasure Valley	\$44,125	\$190,765	\$539,985	\$468,837	\$17,850	\$11,011	\$1,636	\$1,274,209
Wood River Valley	\$0	\$0	\$0	\$0	\$166,849	\$10,158	\$126,458	\$303,465
Rathdrum Prairie	\$4,660	\$10,360	\$3,409	\$2,465	\$915	\$8,353	\$5,000	\$35,162
TOTAL	\$383,380	\$654,759	\$998,720	\$859,816	\$501,625	\$396,596	\$231,790	\$4,026,686

Personnel, Planning, and Contracted Facilitation = \$3,393,040
TOTAL = \$7,419,726

*through March 31, 2015

Eastern Snake Plain Hydrologic Monitoring Networks

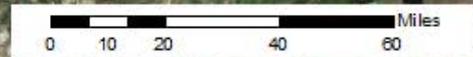


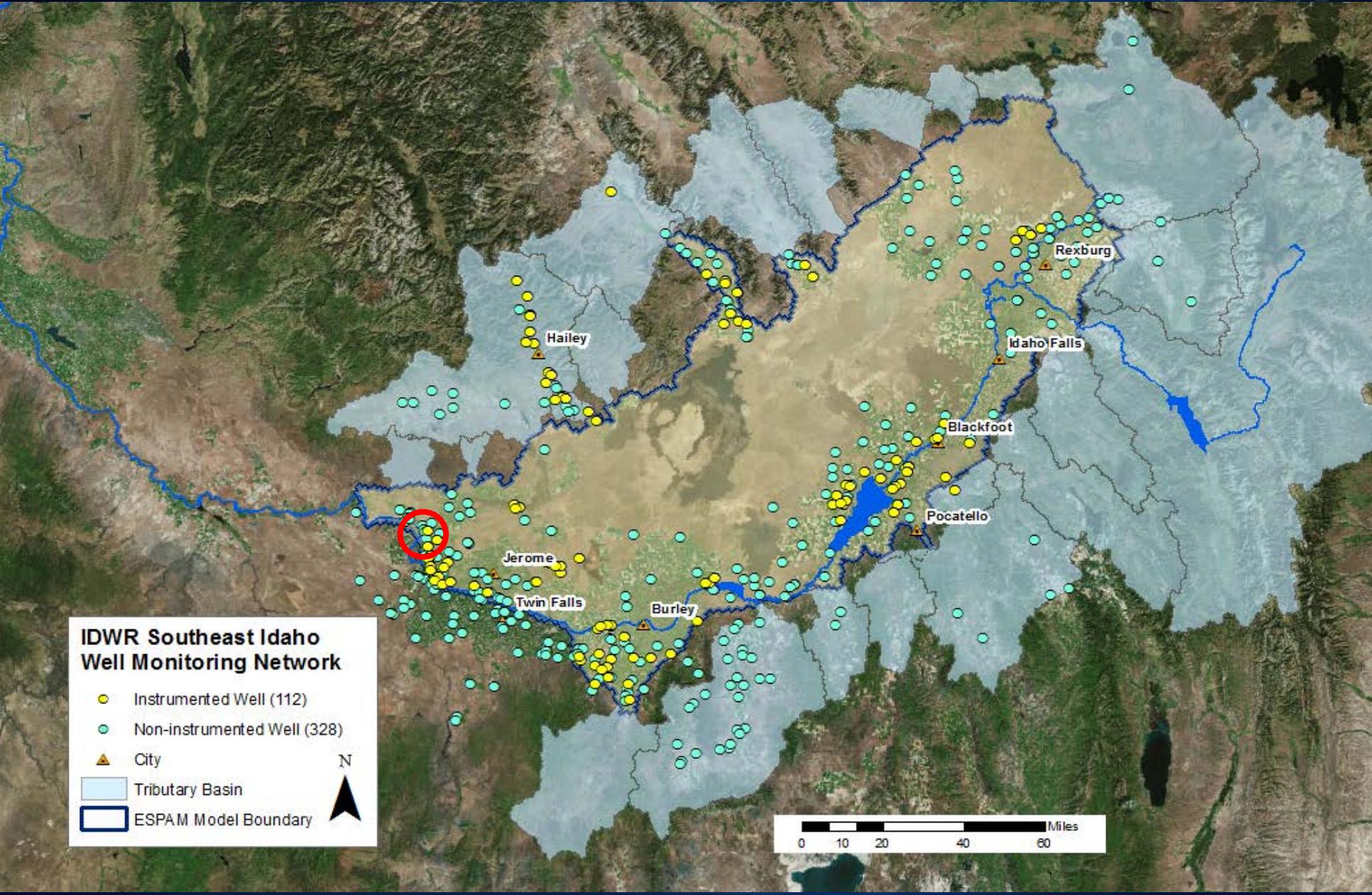


ESPA Model Boundary & Tributary Basins

- City
- ESPA Model Boundary
- Tributary Basin

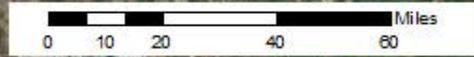
N





IDWR Southeast Idaho Well Monitoring Network

- Instrumented Well (112)
- Non-instrumented Well (328)
- ▲ City
- ▭ Tributary Basin
- ▭ ESPAM Model Boundary



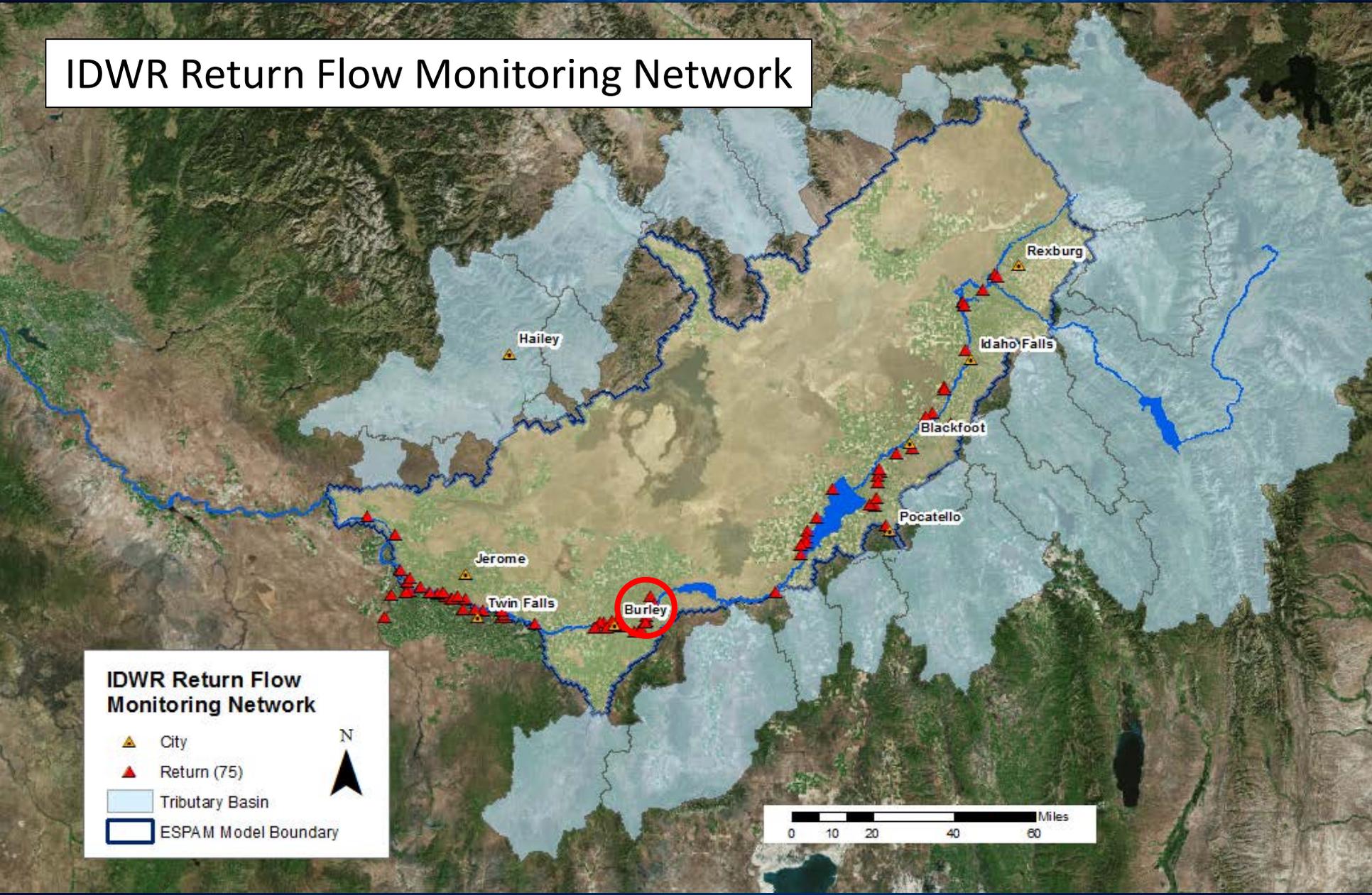
Manual Water Level Measurement



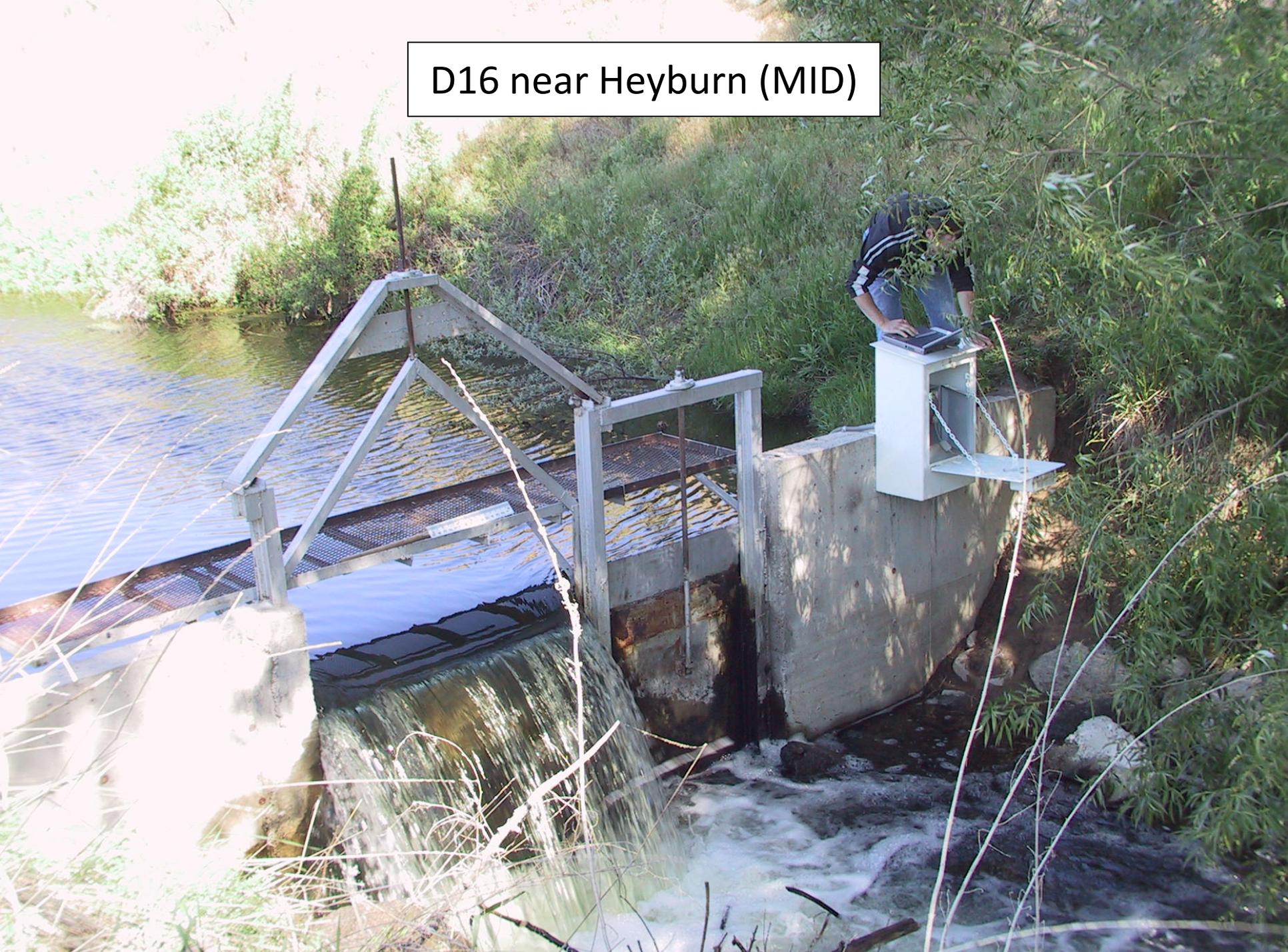
Pressure Transducers



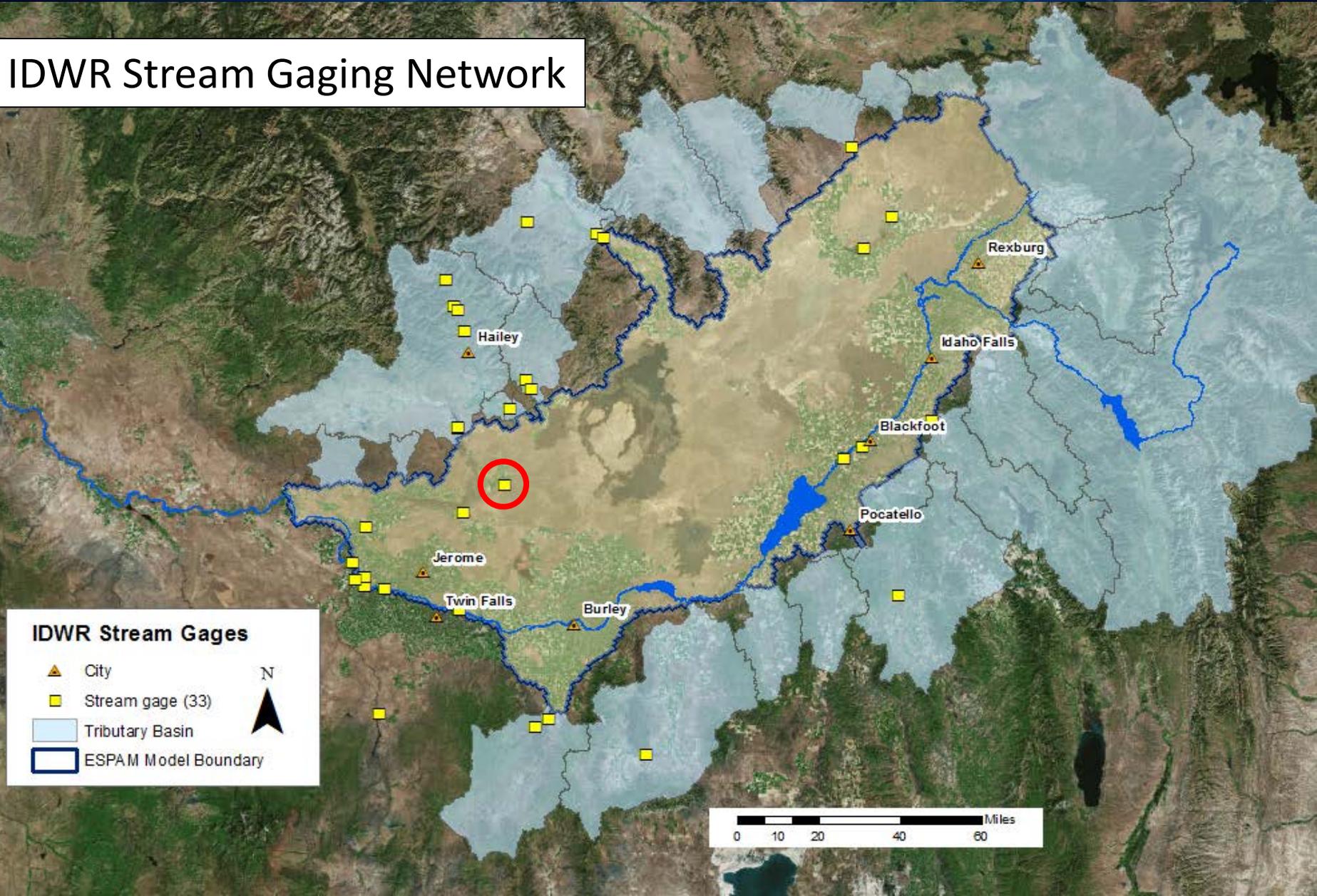
IDWR Return Flow Monitoring Network



D16 near Heyburn (MID)



IDWR Stream Gaging Network



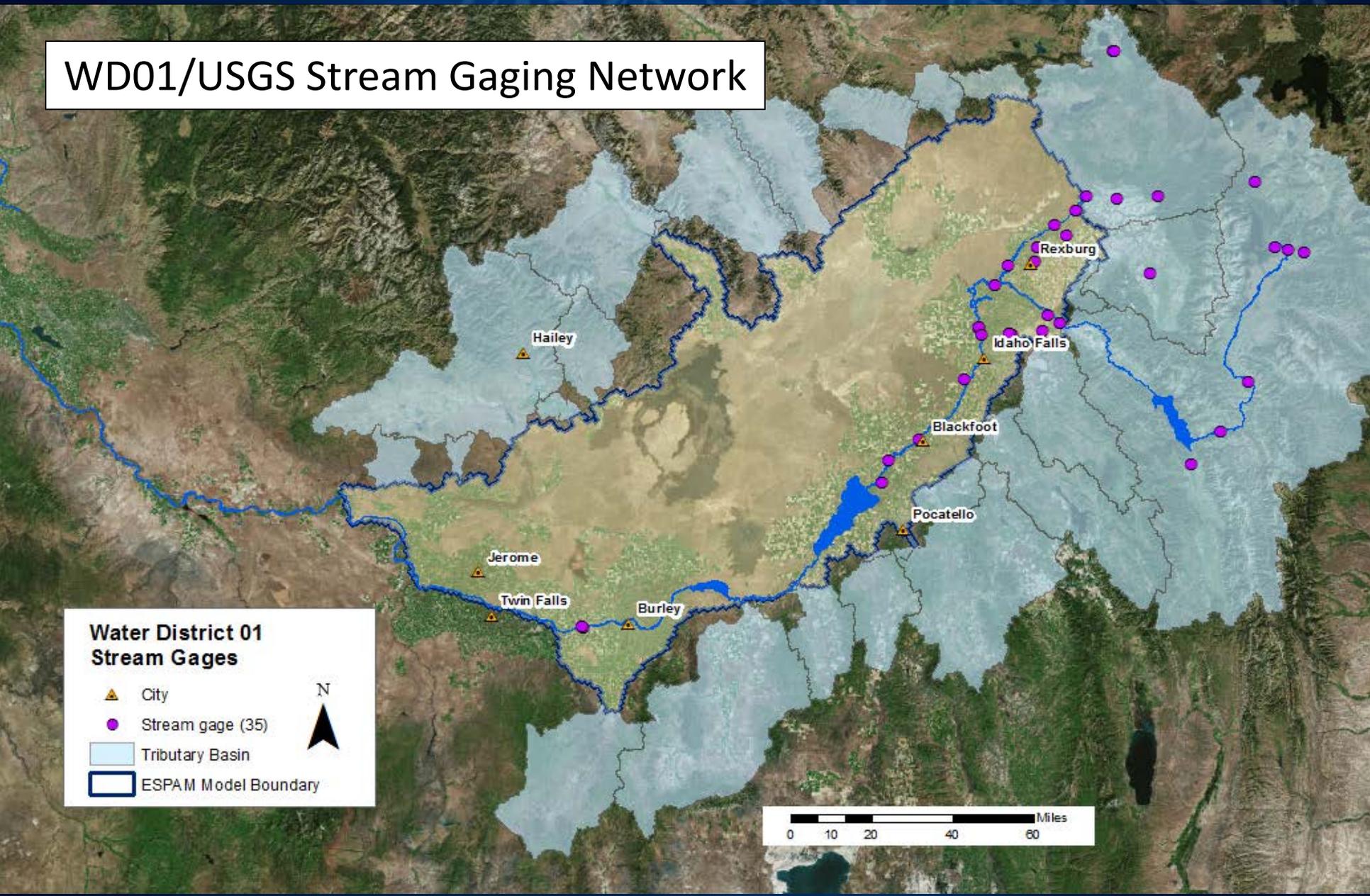
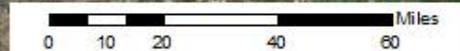
Gage House @ Little Wood Station 10 near Richfield



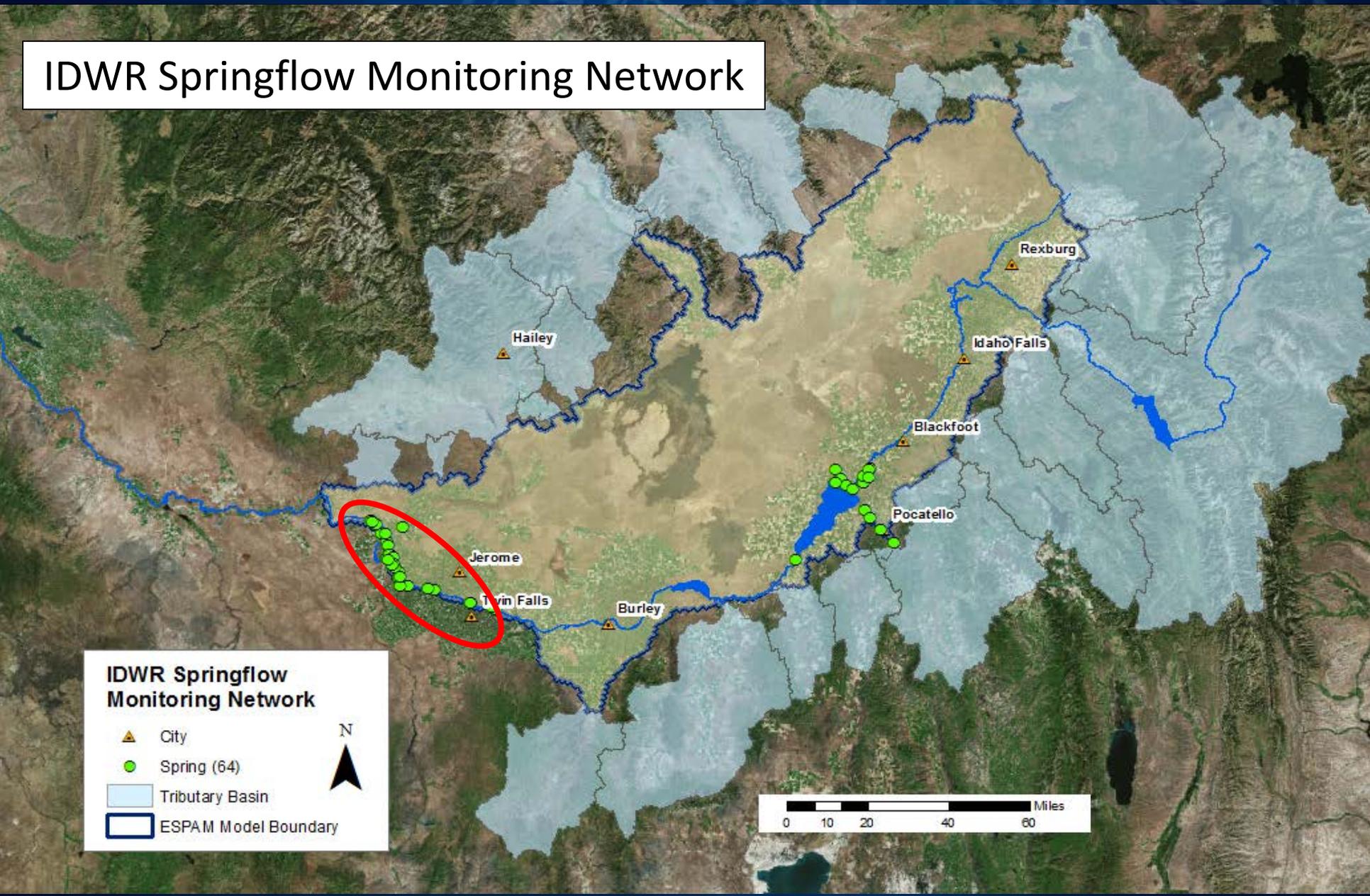
WD01/USGS Stream Gaging Network

**Water District 01
Stream Gages**

- ▲ City
- Stream gage (35)
- ▭ Tributary Basin
- ▭ ESPAM Model Boundary

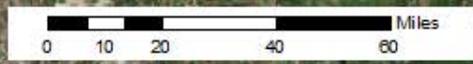


IDWR Springflow Monitoring Network



IDWR Springflow Monitoring Network

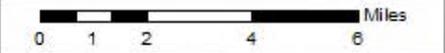
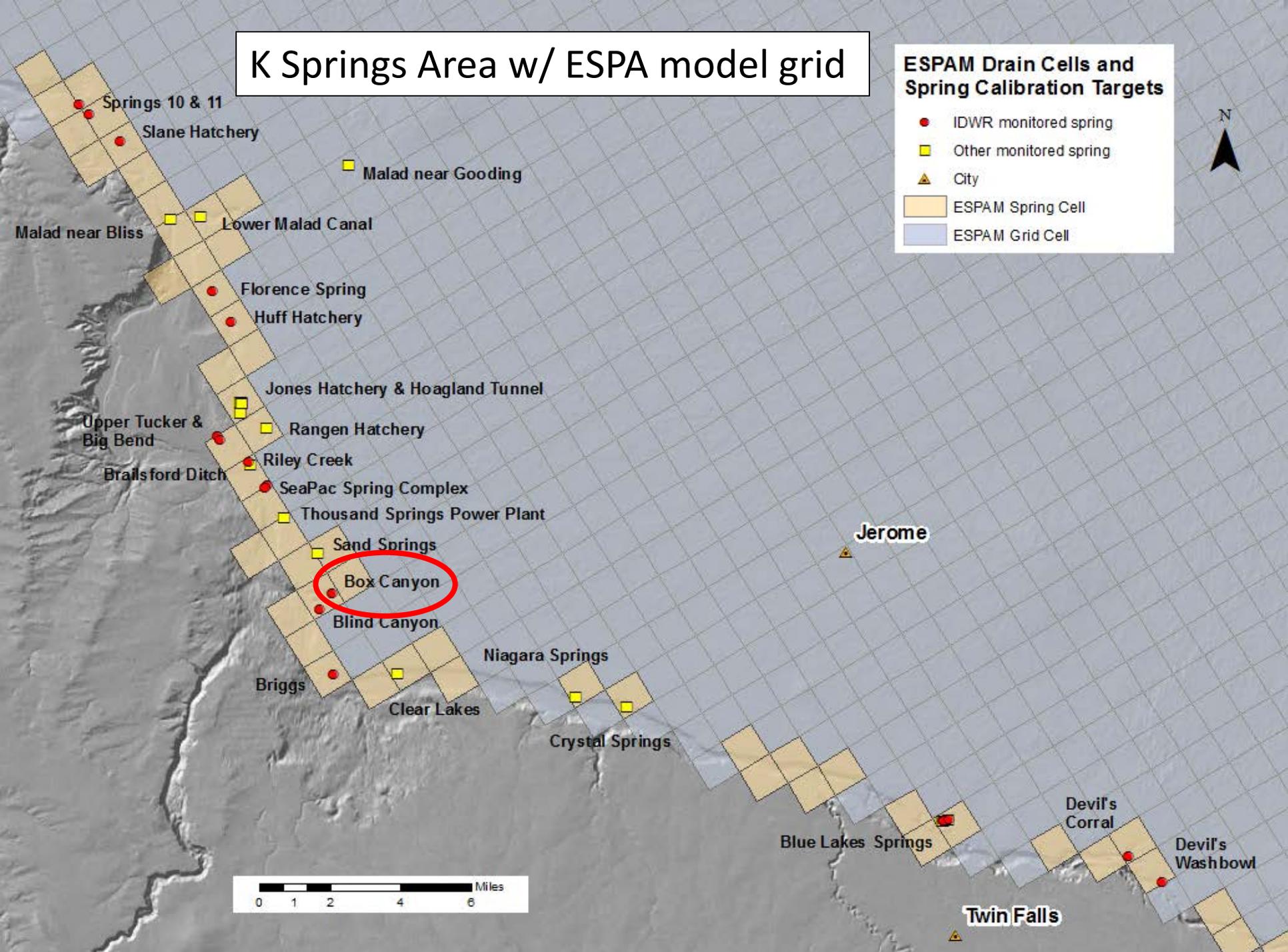
- ▲ City
- Spring (64)
- ▭ Tributary Basin
- ▭ ESPAM Model Boundary



K Springs Area w/ ESPA model grid

ESPAM Drain Cells and Spring Calibration Targets

- IDWR monitored spring
- Other monitored spring
- ▲ City
- ESPAM Spring Cell
- ESPAM Grid Cell



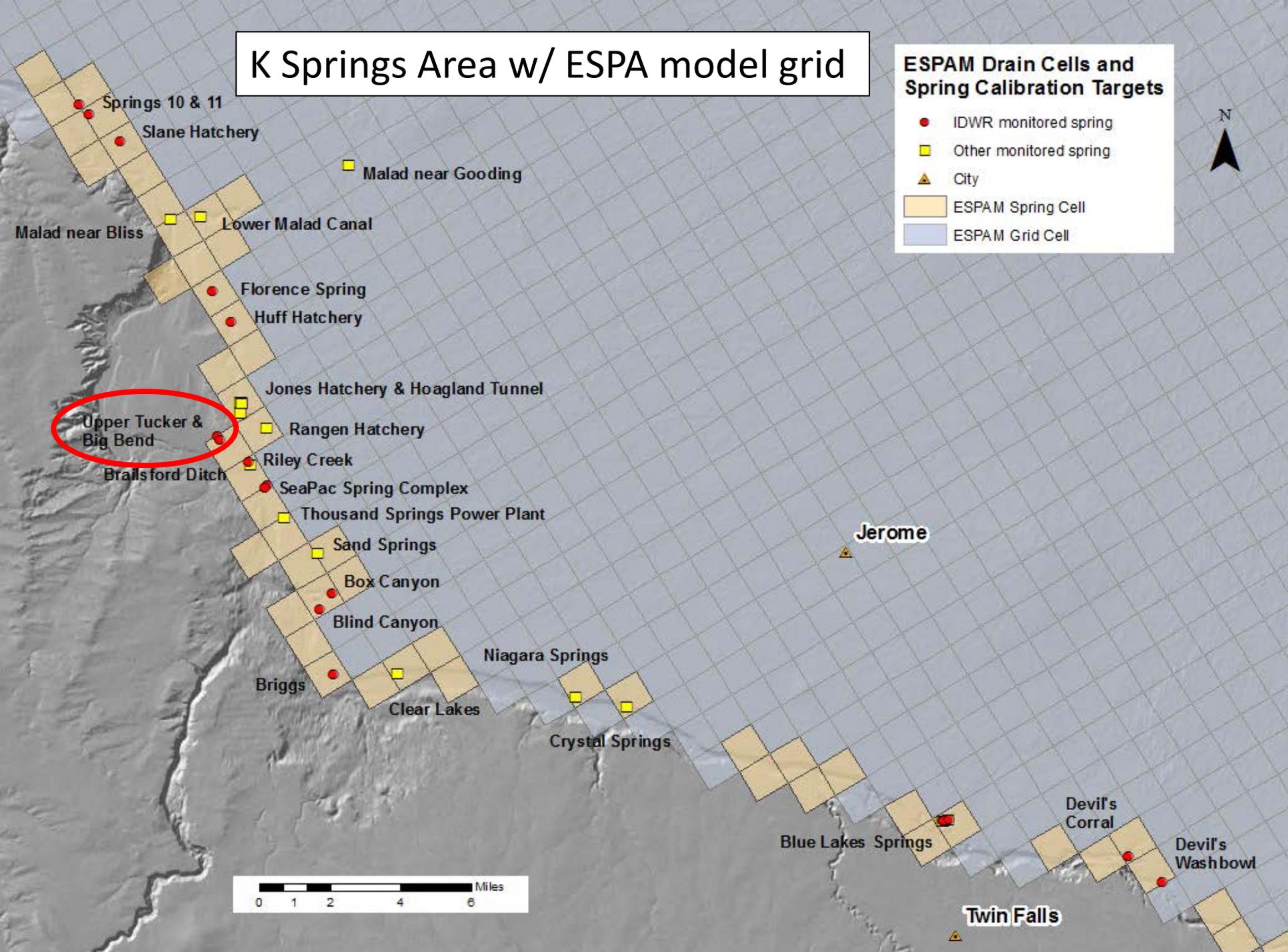
ADCP unit in Box Canyon above diversion



K Springs Area w/ ESPA model grid

ESPAM Drain Cells and Spring Calibration Targets

- IDWR monitored spring
- Other monitored spring
- ▲ City
- ESPAM Spring Cell
- ESPAM Grid Cell



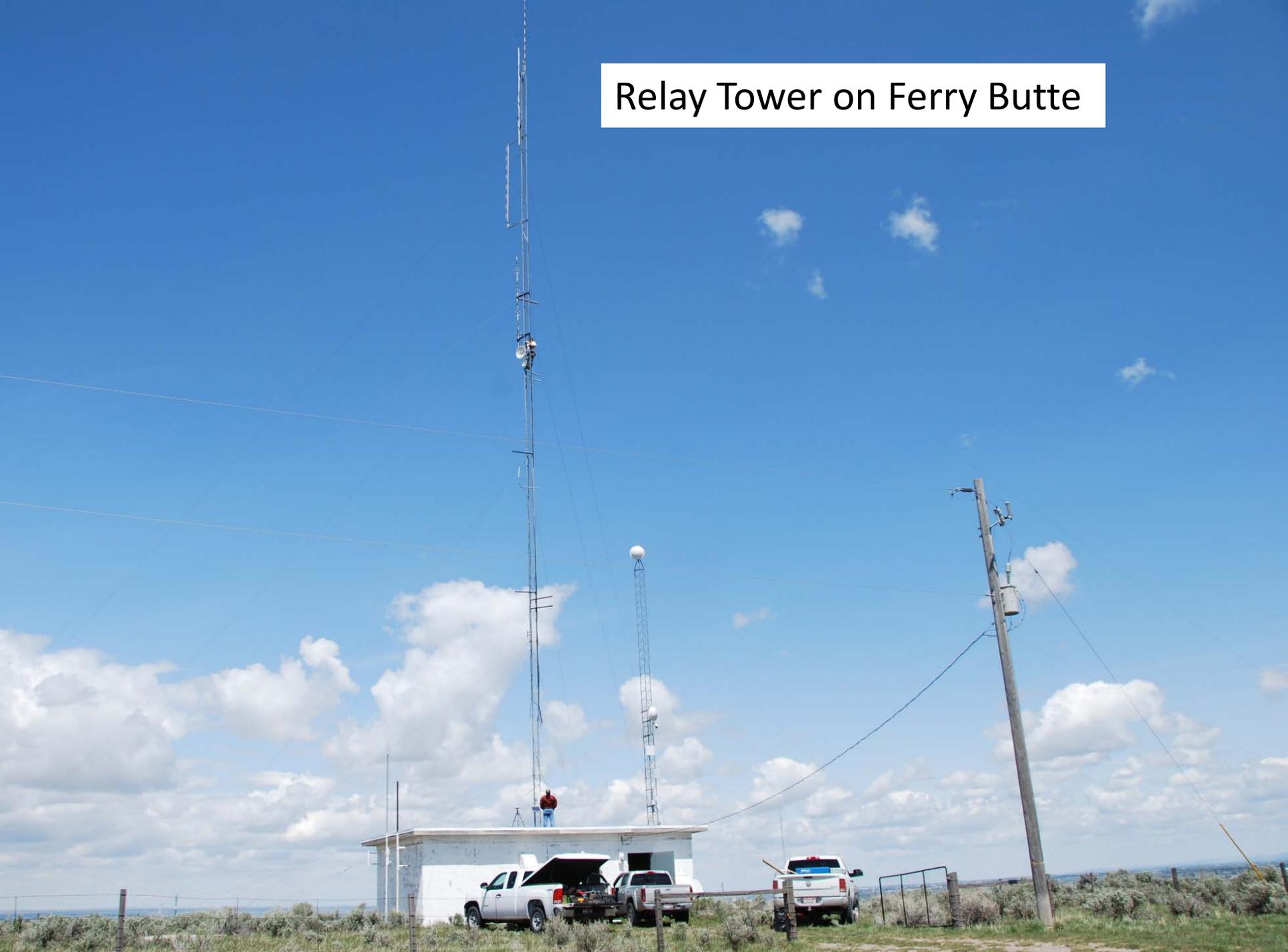
Upper Tucker & Big Bend



Telemetry Station
Upper Tucker Spring



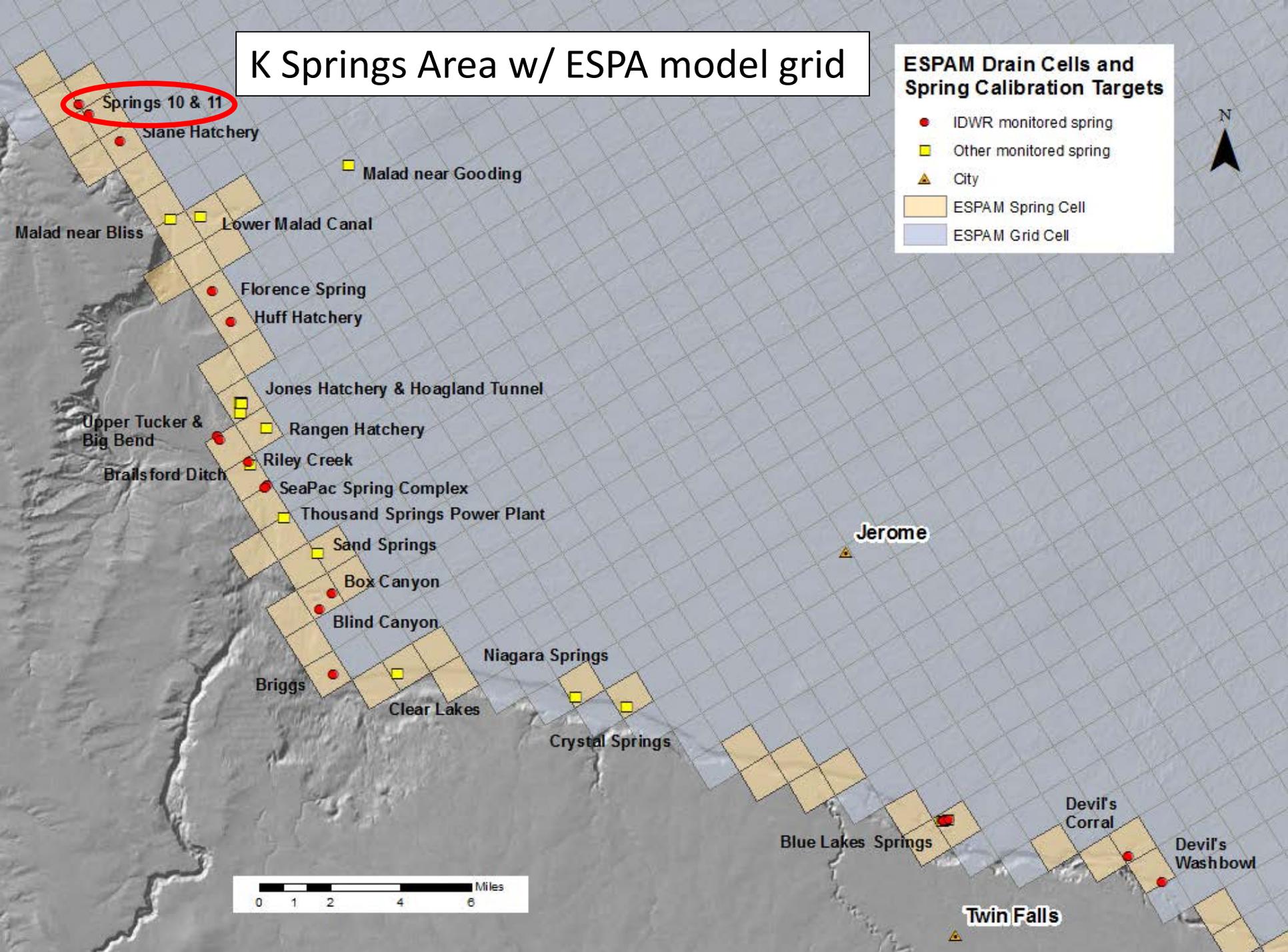
Relay Tower on Ferry Butte



K Springs Area w/ ESPA model grid

ESPAM Drain Cells and Spring Calibration Targets

- IDWR monitored spring
- Other monitored spring
- ▲ City
- ESPAM Spring Cell
- ESPAM Grid Cell



Springs 10 & 11

Slane Hatchery

Malad near Gooding

Malad near Bliss

Lower Malad Canal

Florence Spring

Huff Hatchery

Jones Hatchery & Hoagland Tunnel

Upper Tucker & Big Bend

Rangen Hatchery

Brailsford Ditch

Riley Creek

SeaPac Spring Complex

Thousand Springs Power Plant

Sand Springs

Box Canyon

Blind Canyon

Niagara Springs

Briggs

Clear Lakes

Crystal Springs

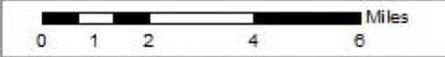
Jerome

Blue Lakes Springs

Devil's Corral

Devil's Washbowl

Twin Falls

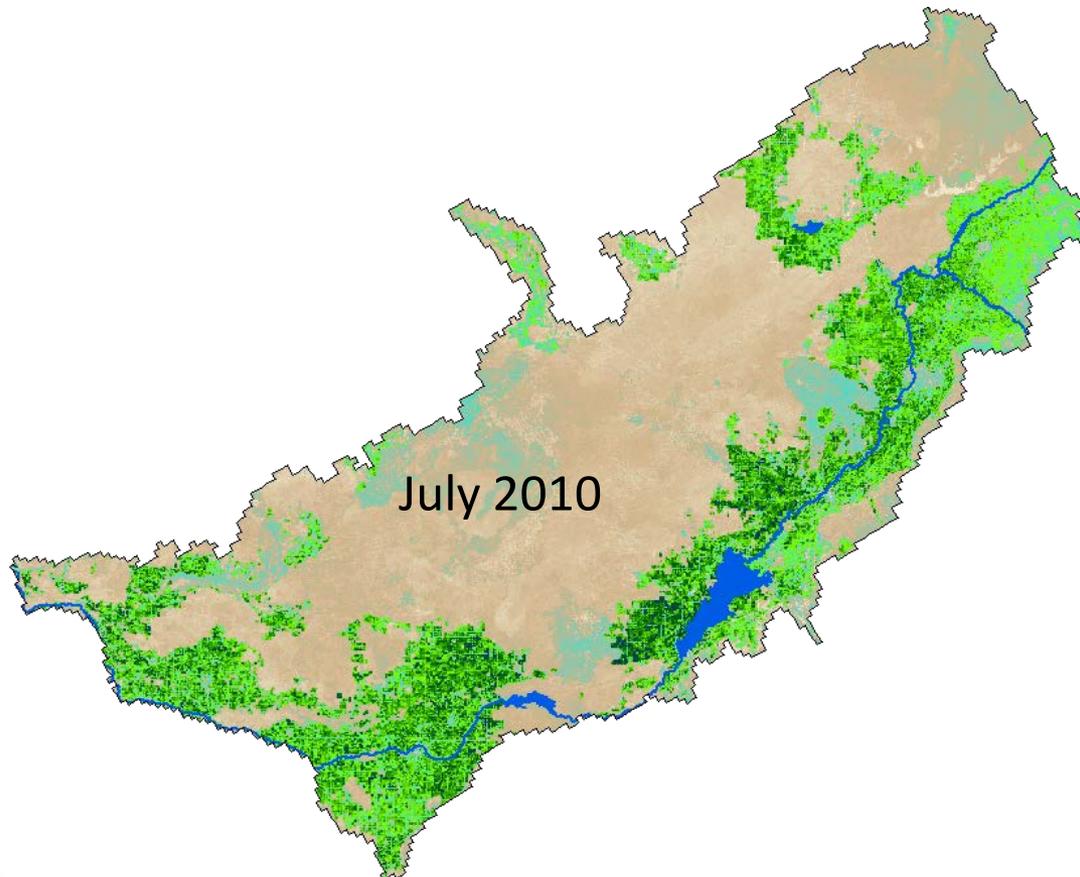


Ultrasonic Meter @ Black
Canyon Bliss/River Road
Hatchery (Springs 10 & 11)



METRIC ET

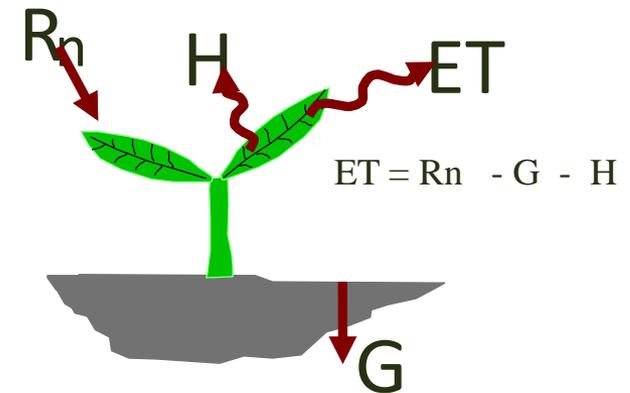
Mapping Evapotranspiration at High Resolution w/ Internalized Calibration



METRIC ET is derived from remote sensing (satellite) data.

ET is calculated as a “residual” of the energy balance

The energy balance includes all major sources (R_n) and consumers (ET, G, H) of energy



Landsat 8



IDWR and U of I receive Harvard award for innovation



Quotes from the Harvard Report

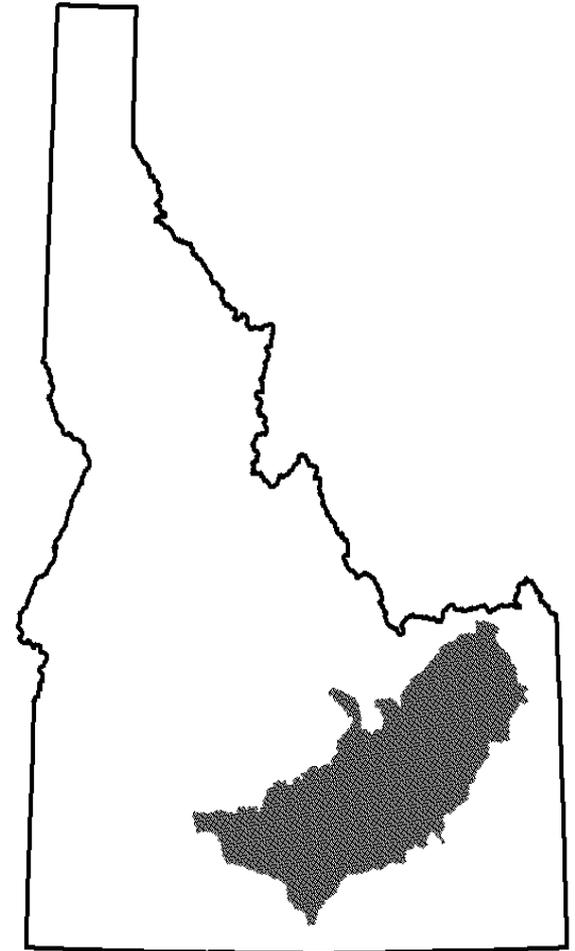
- “Remarkably, METRIC enables Idaho DWR analysts and administrators to measure ET across large expanses of both space and time.”
- “METRIC... is measurably more accurate, fast, and cost-effective than the traditional, cumbersome, slow and expensive methods that were commonly used in the last century.”
- “...it would be practically impossible to adjudicate water rights disputes in the future without [TIRS].”

Memoranda of Agreement (MOA)

- Aberdeen-Springfield Canal Company
- Idaho Irrigation District
- New Sweden Irrigation District
- North Side Canal Company (in progress)
- Shoshone-Bannock Tribes
- Snake River Valley Irrigation District

Informal Agreements

- North Side Canal Company
- Twin Falls Canal Company
- Burley Irrigation District
- Minidoka Irrigation District
- Progressive Irrigation District



MOA Provisions

- Collaboration on planning, site selection, and data gathering
- IDWR purchases and helps to install/maintain equipment
- Water user entity assists in obtaining land owner permissions and shares data w/IDWR

ENHANCED SNAKE PLAIN AQUIFER MODEL

VERSION 2.1

Final Report

November 2012



*Idaho
Legislature*



Idaho Department of Water Resources
with guidance from the
Eastern Snake Hydrologic Modeling Committee

Data Collection & Analysis Issues

- More timely water level data collection and database entry needed for:
 - Assessment of recharge impacts/aquifer health
 - Low-flow period Adjusted Average Daily Flow predictions
- ESP Monitoring System in maintenance mode → additional resources may be necessary for:
 - Designing/implementing monitoring system upgrades
 - Site-specific recharge monitoring
 - Statistical analyses of water level and springflow trends
- Proposed elimination of Rule 50
 - GW and SW resources in tributary basins generally not well characterized

Questions?





ESPA Managed Recharge Update

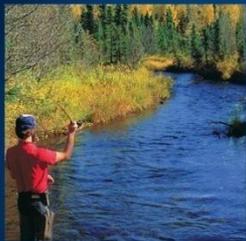
Aquifer Stabilization Committee Meeting

Wesley Hipke
April 28, 2015



Aquifer Stabilization Committee

- **ESPA Managed Recharge 2014-2015 Summary**
- **Capital Improvement Projects**
- **Recharge Site Monitoring**
- **Recommendations**

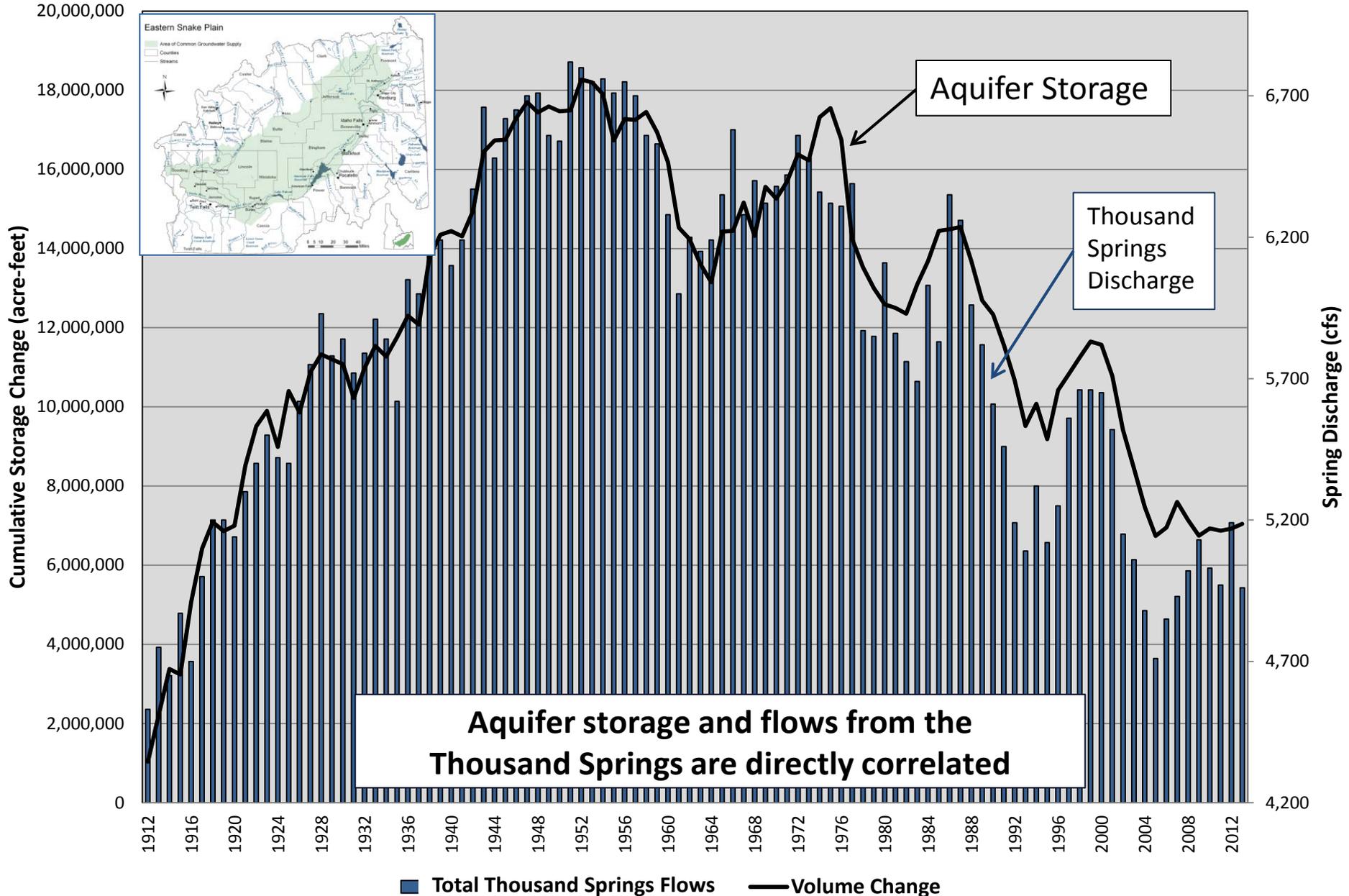


NSCC routing 600 cfs of IWRB's recharge, Feb. 18th, 2015



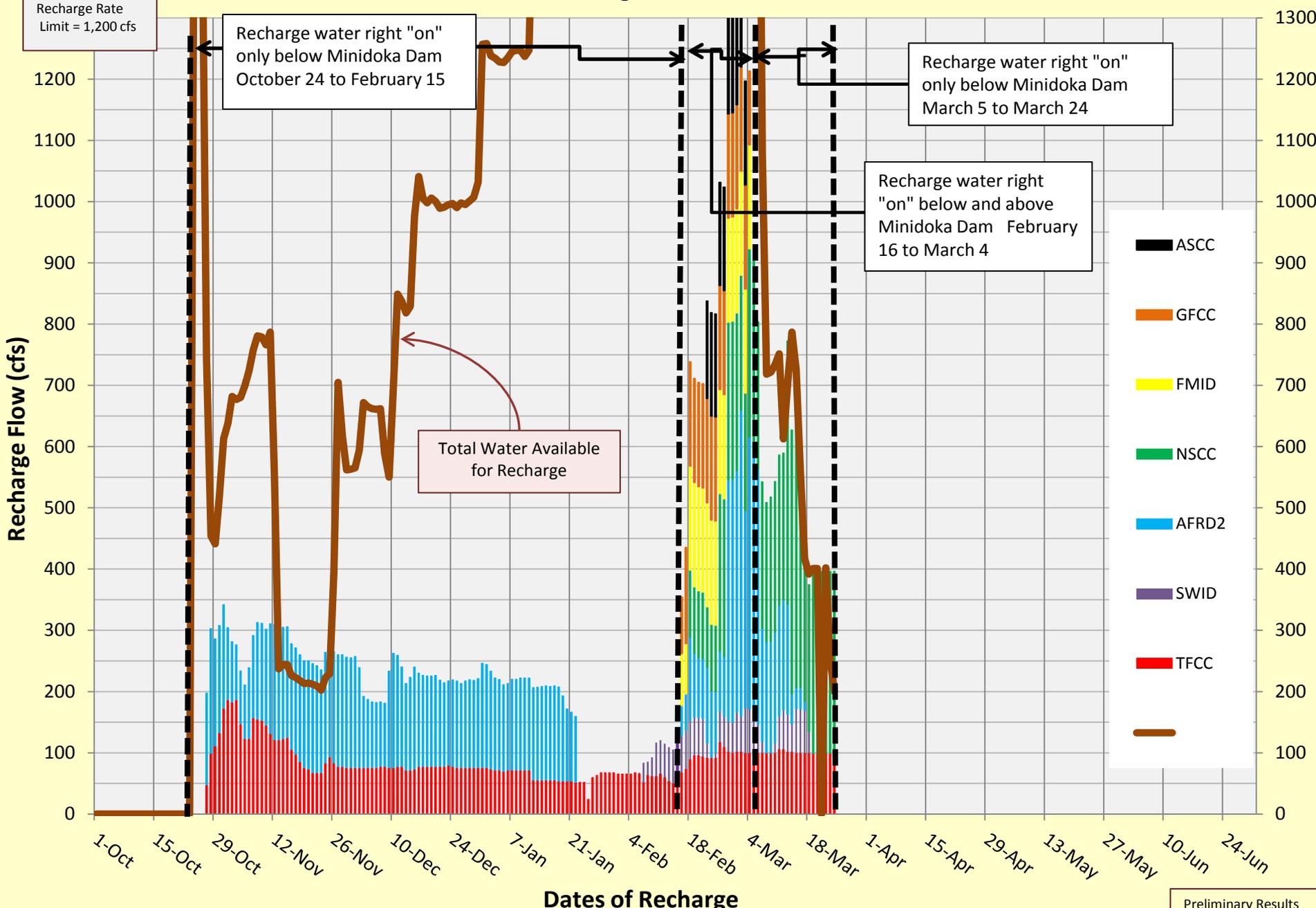
ASCC recharge in canal and Hilton spill on February 26th.

Cumulative Volume Change of Water Stored Within ESPA and Thousand Springs Discharge



Total Water Board Recharge Rates During 2014 - 2015 Season

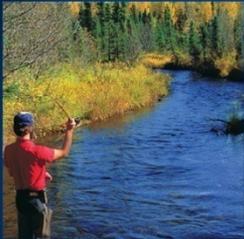
Total Volume of Recharge = 75,505 ac-ft as Oct. 27 to Mar. 23



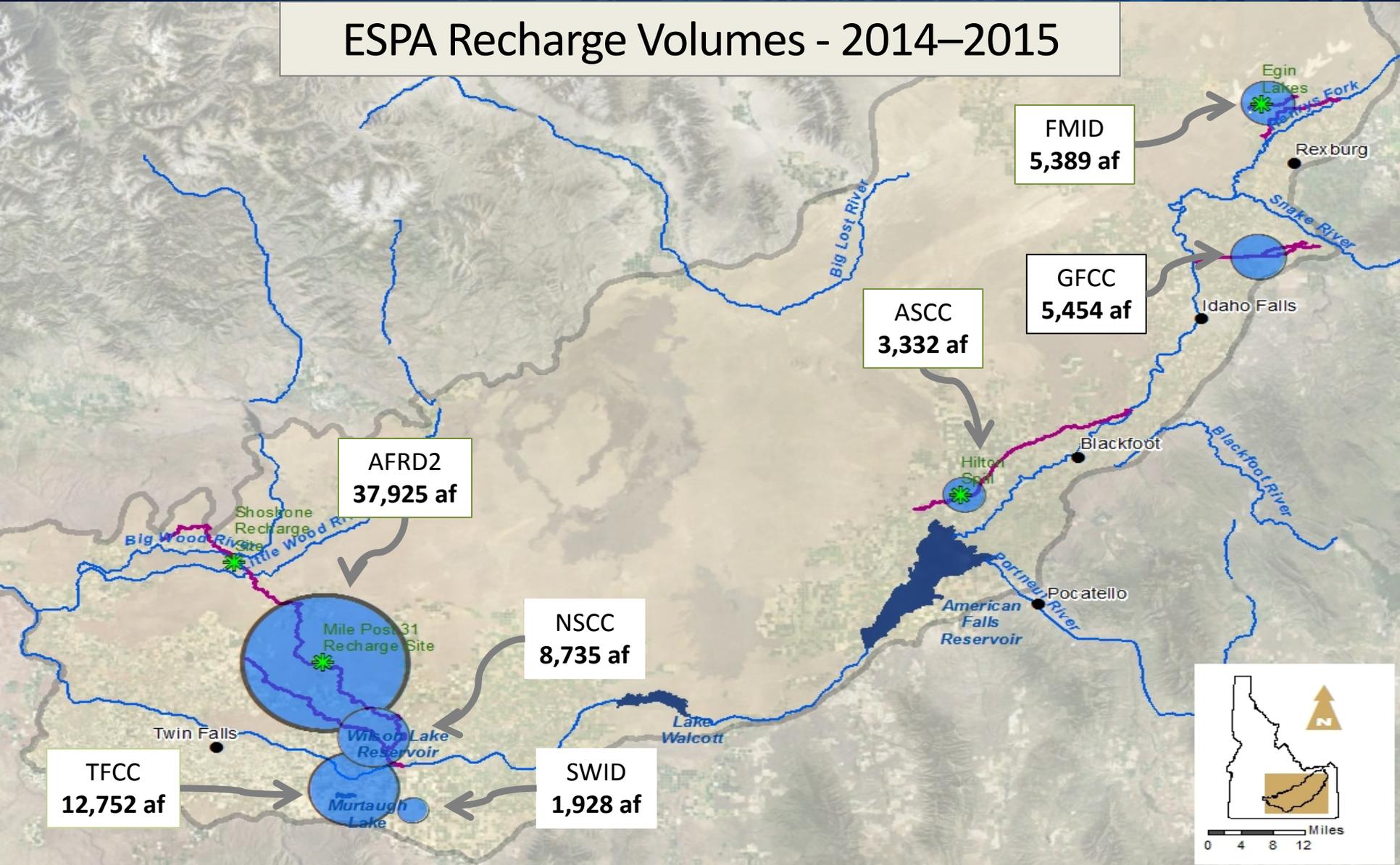
ESPA Managed Recharge Summary

Oct 27th, 2014 to March 23rd, 2015

ESPA Area	Canal System	Days Recharged	Median Recharge Rate (cfs)	Volume Recharged (Acre-feet)
Upper Valley	Aberdeen-Springfield Canal Company	10	169	3,322
	Great Feeder Canal Company	17	170	5,454
	Fremont Madison Irrigation District	17	170	5,389
	Upper Valley Total		509	14,165
Lower Valley	American Falls Reservoir District No. 2 (Milner-Gooding Canal)	118	153	37,925
	North Side Canal Company	34	127	8,735
	Southwest Irrigation District	47	25	1,928
	Twin Falls Canal Company	148	39	12,752
	Lower Valley Total		346	61,340
Preliminary Data			TOTAL	75,505



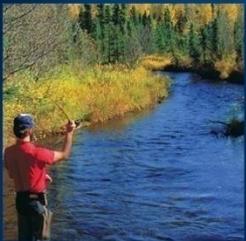
ESPA Recharge Volumes - 2014–2015



ESPA Managed Recharge 2014-2015

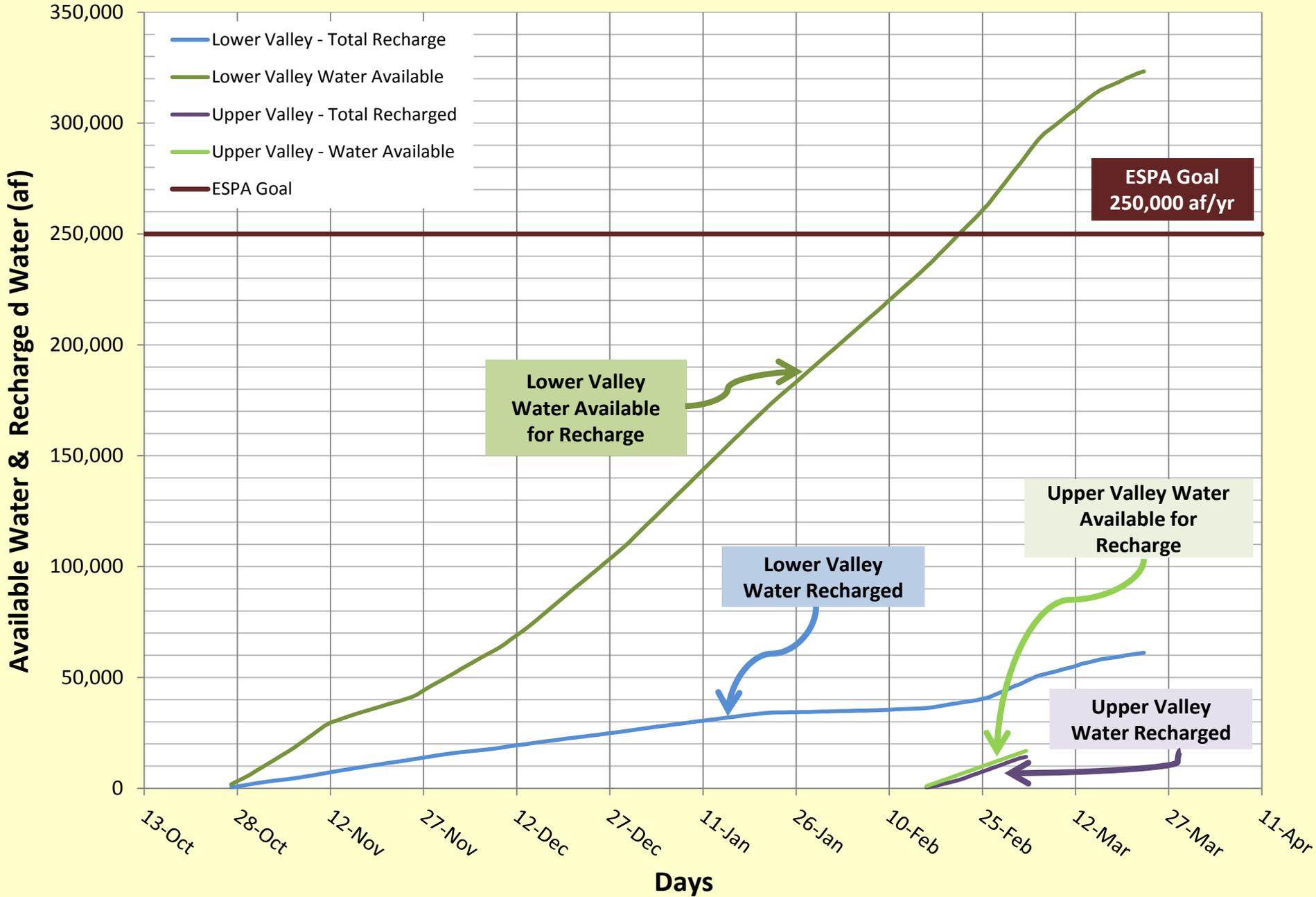
Fall - Spring	Below American Falls	Above American Falls	Total
2009-2010	18,981	60,912	79,893
2010-2011	25,349	36,239	61,587
2011-2012	91,112	74,335	165,446
2012-2013	21,129	0	21,129
2013-2014	10,585	0	10,585
Average	33,431	34,297	67,728
2014 – 2015*	61,340	14,165	75,505

* Preliminary Data



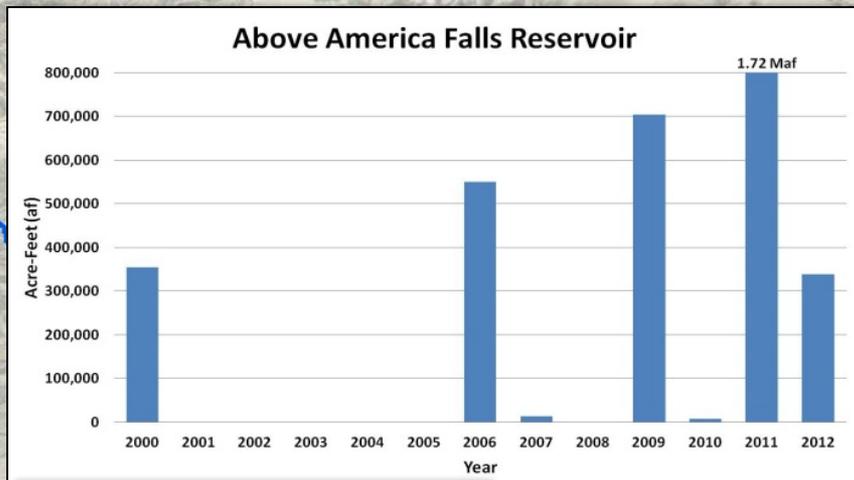
ESPA Managed Recharge - 2014 - 2015 Season

(Volumes from Oct. 27 to March 24)



ESPA Managed Recharge Issues

Upper Valley - Surplus Water Supply



Total Available for Recharge 2000-2012

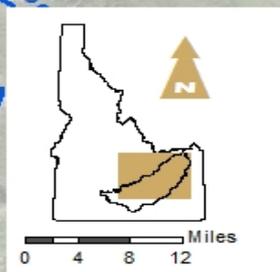
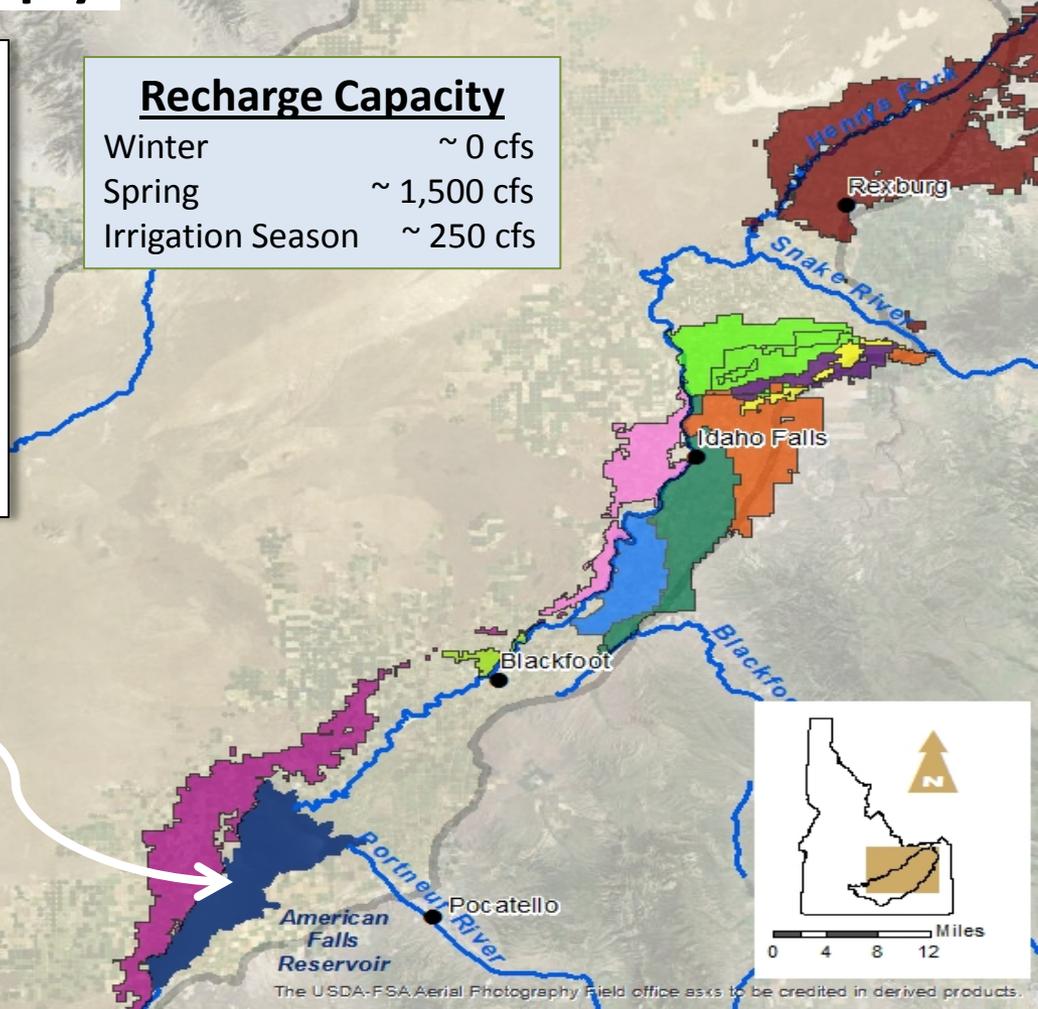
3.69 Maf

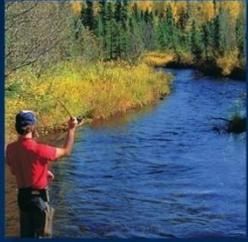
American Falls Reservoir: 1.6 million AF
1921 priority

Unsubordinated hydropower rights at Minidoka Dam: 2,700 cfs
1909/1912 priority

Recharge Capacity

Winter ~ 0 cfs
Spring ~ 1,500 cfs
Irrigation Season ~ 250 cfs





ESPA Managed Recharge Issues

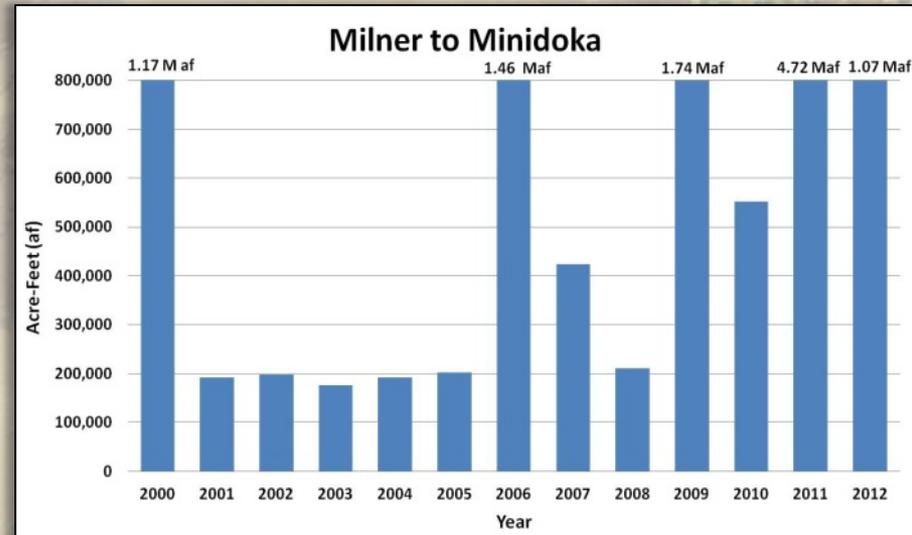
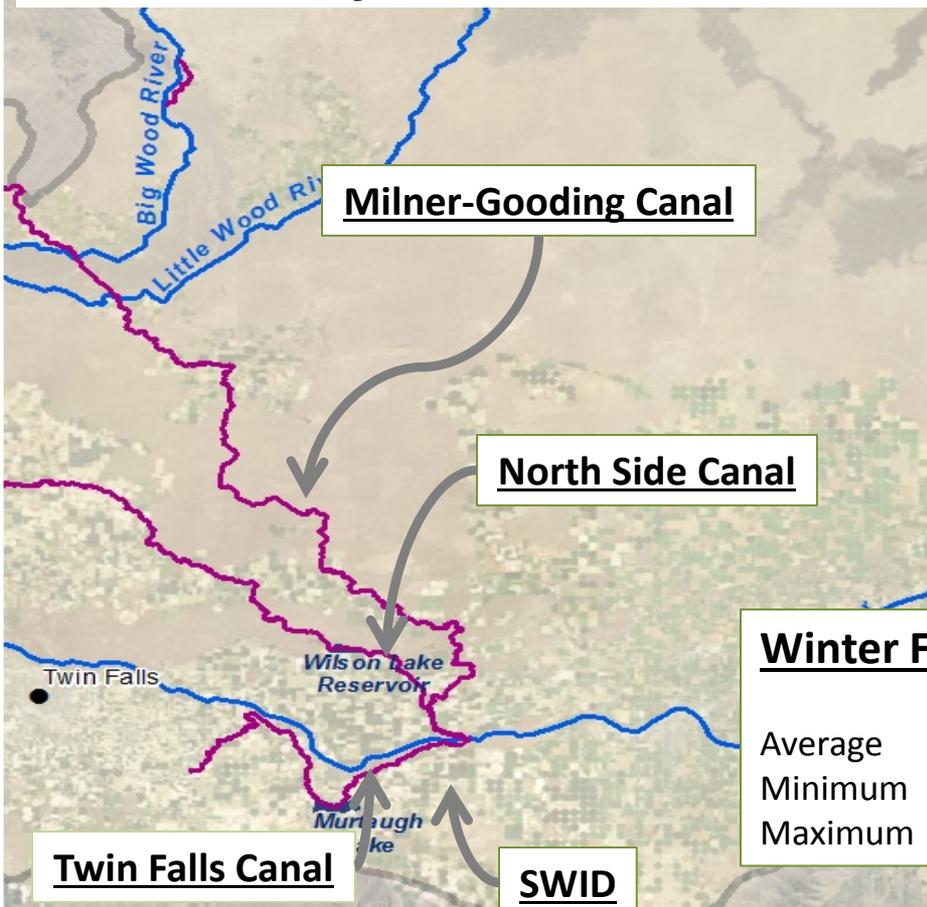
Upper Valley Surplus Water

- Variable Volume of Water
- Variable Duration of Availability
- Procedures and Processes to Deal with Variability
- Method to Distribute Variable Volumes of Water
- Develop Off-Canal Sites for Irrigation Season Capacity
- Review Pay Scale



ESPA Managed Recharge Issues

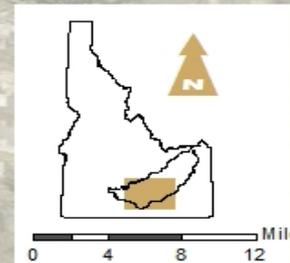
Lower Valley – Winter Base Flow



Total Available for Recharge 2000-2012
12.31 Maf

Winter Flow Available (Nov-Mar):

	Days	Rate (cfs)	Volume (af)
Average	151	5,000	533,000
Minimum	151	1,600	169,000
Maximum	152	15,800	1,880,000



ESPA Managed Recharge Issues

Lower Valley – Base Flow Recharge Capacity

Milner-Gooding Canal

Irrigation Season Capacity

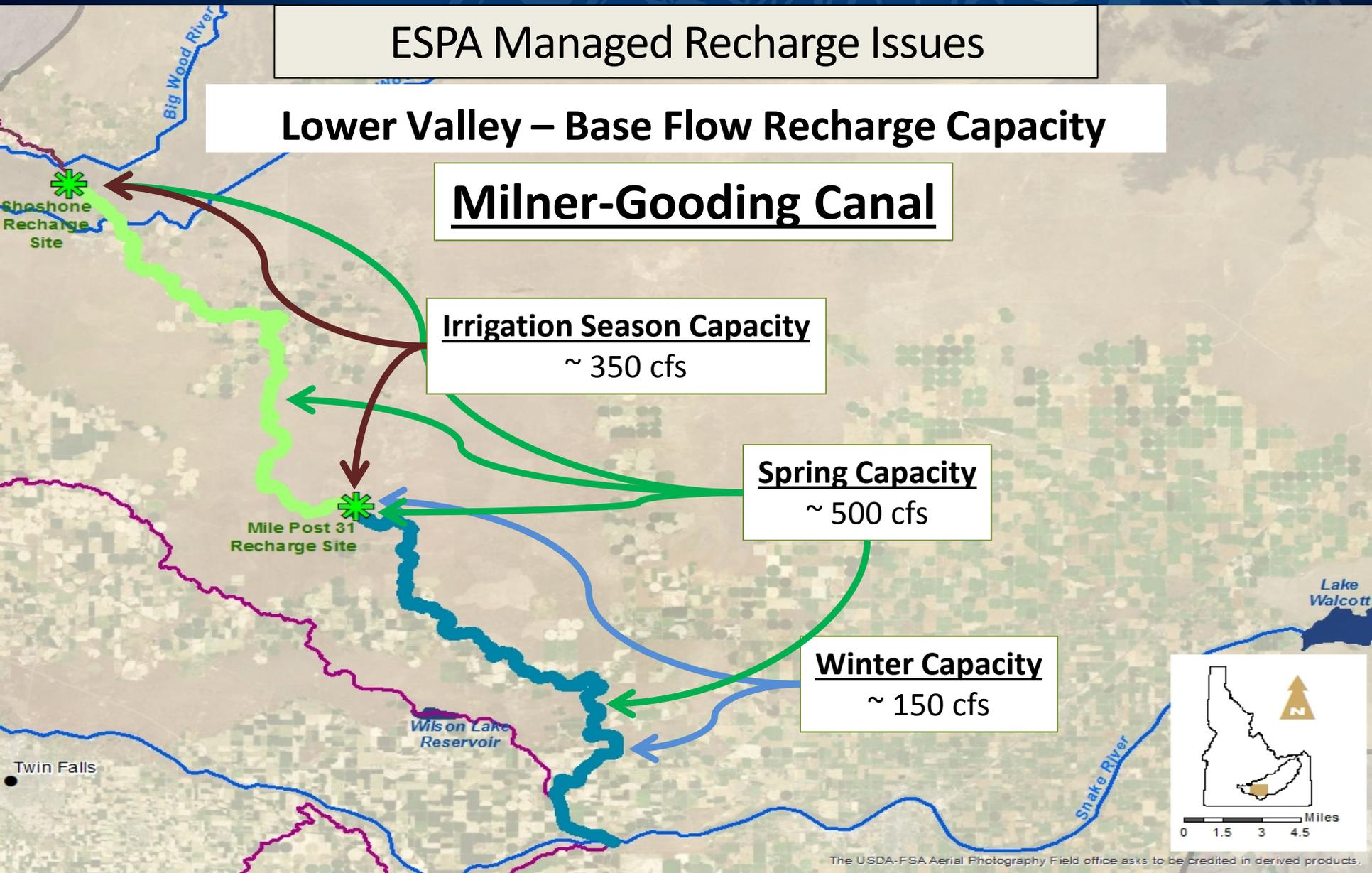
~ 350 cfs

Spring Capacity

~ 500 cfs

Winter Capacity

~ 150 cfs



ESPA Managed Recharge Issues

Lower Valley – Base Flow Recharge Capacity

Northside Canal

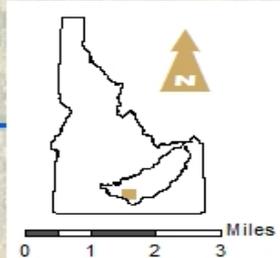
Winter Capacity
0 cfs

Irrigation Season Capacity
0 cfs

Spring Capacity
~ 150 cfs

Wilson Lake Reservoir

Snake River



ESPA Managed Recharge Issues

Lower Valley – Base Flow Recharge Capacity

Twin Falls Canal

Wilson Lake Reservoir

Snake River

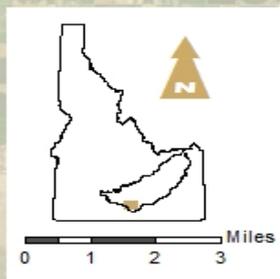
Irrigation Season Capacity

0 cfs

Winter & Spring Capacity

~ 40 cfs

Murtaugh Lake



ESPA Managed Recharge Issues

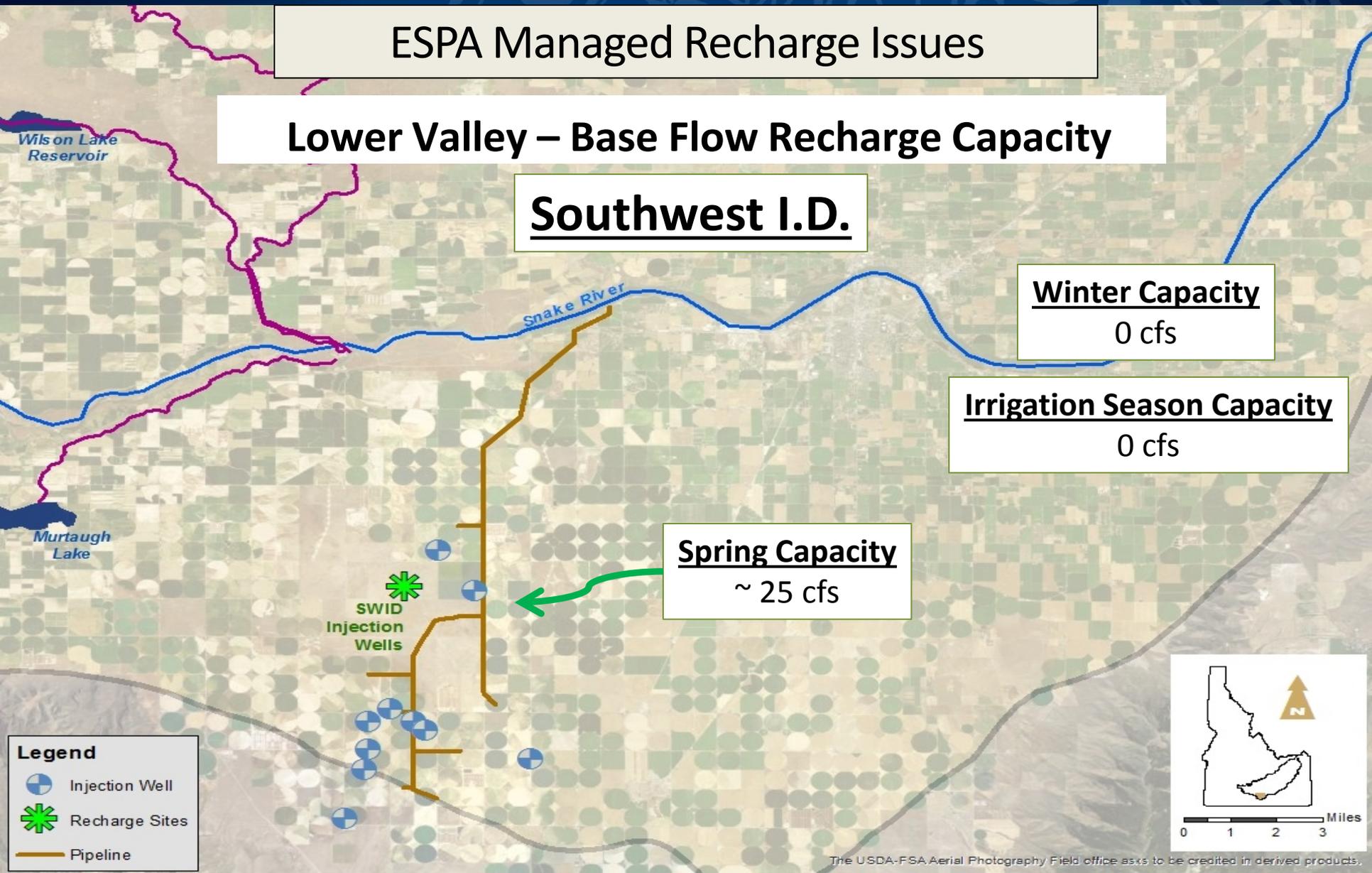
Lower Valley – Base Flow Recharge Capacity

Southwest I.D.

Winter Capacity
0 cfs

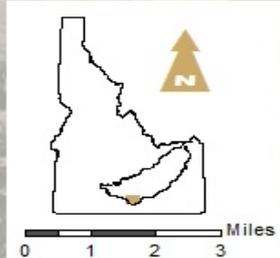
Irrigation Season Capacity
0 cfs

Spring Capacity
~ 25 cfs



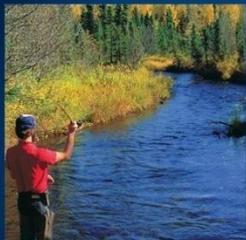
Legend

-  Injection Well
-  Recharge Sites
-  Pipeline



Aquifer Stabilization Committee

- **ESPA Managed Recharge 2014-2015 Summary**
- **Capital Improvement Projects**
- **Recharge Site Monitoring**
- **Recommendations**



TFCC's – Ice Removal at Gates, 2015

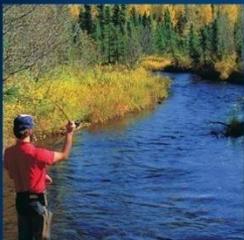


AFRD2 – MP31 road work, 2015

ESPA Managed Recharge Projects - Funded

Canal/Project	Project Type	Funds	Completed	In-Progress	Proposed
Milner-Gooding Canal					
Road Improvement	CNST	\$177,000	✓		
Mile Post 28 Hydro Plant	CNST	\$35,000		✓	
Flume Repair @ Shoshone	STUDY	\$18,571	✓		
North Side Canal					
Wilson Lake Winter Recharge	STUDY	\$122,000		✓	
Twin Falls Canal					
Infrastructure Modifications	STUDY	\$20,000	✓		
Southwest I.D.					
Injection Well & Test	CNST	\$30,000		✓	
Pipeline Modification	STUDY	\$50,000			✓
Injection Well & Test					
Milner Dam Area	CNST	\$70,000		✓	

CNST = Construction Project

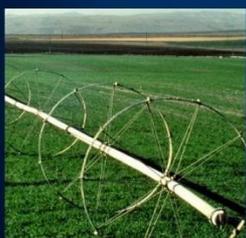
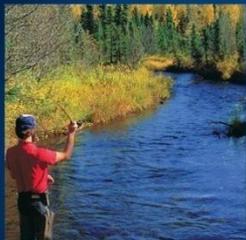


ESPA Managed Recharge Projects - Proposed

Canal/Project	Type	Future Cost Est.	Study Contractor	Est. Completion
Milner-Gooding Canal				
Flume Repair @ Shoshone	CNST	\$700,000	MWH	Spring - 2016
Dietrich Drop Hydro Plant	STUDY / CNST	TBD	TBD	Winter - 2015
Mile Post 31 Recharge Site - Expansion	STUDY / CNST	TBD	TBD	Winter - 2016
Northside Canal				
4 Hydro Plants	CNST	TBD	CH2M Hill	TBD
Twin Falls Canal				
Canal Improvements	CNST	\$11,700	JUB	Fall - 2015
Point Spill Check Dam	CNST	\$700,000	JUB	Spring - 2017
Southwest I.D.				
Pipeline Modification	STUDY / CNST	TBD	TBD	Fall - 2016
Great Feeder Canal				
Recharge Conveyance Improvements	STUDY / CNST	\$500,000*	TBD	Spring - 2016

* Estimated cost \$ 1 million to \$2 million, IWRB share = \$500,000

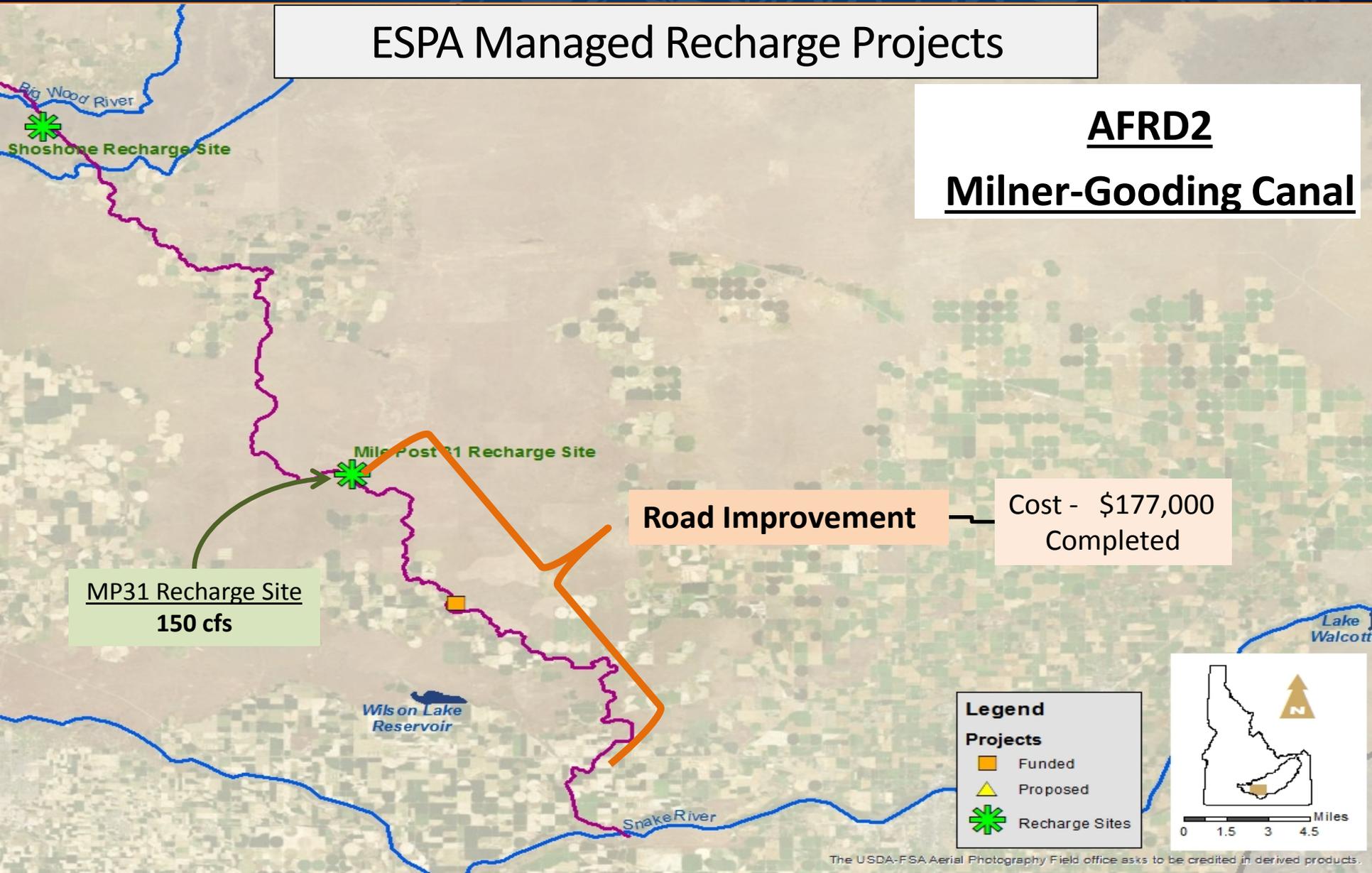
CNST = Construction Project



ESPA Managed Recharge Projects

AFRD2

Milner-Gooding Canal



MP31 Recharge Site
150 cfs

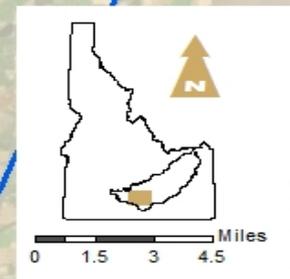
Road Improvement

Cost - \$177,000
Completed

Legend

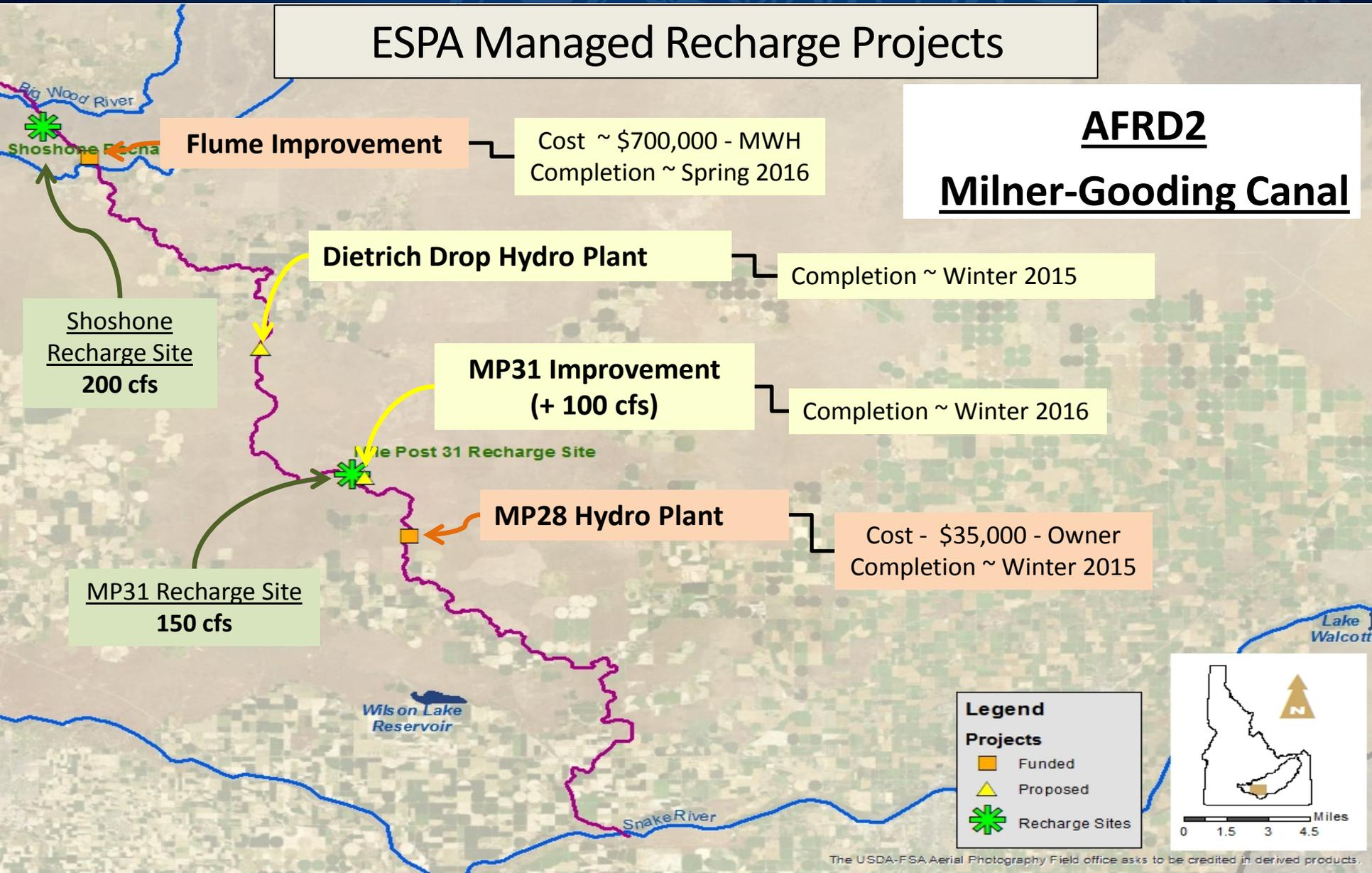
Projects

- Funded
- ▲ Proposed
- ✱ Recharge Sites



ESPA Managed Recharge Projects

AFRD2 Milner-Gooding Canal



ESPA Managed Recharge Projects

North Side Canal

Winter Recharge Study

Cost - \$122,000
Completion - Fall 2015

Other Structures:

- Milner-Gooding Headworks
- Bypass Structure & Headgates
- I84 Bridge

Wilson Lake Hydro Plant

Wilson Lake
~150 cfs

Hazelton A Hydro Plant

Hazelton B Hydro Plant

Bypass Hydro Plant

Wilson Lake Reservoir

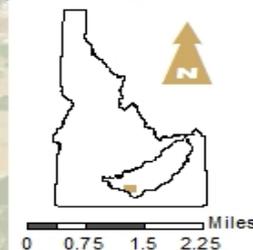
Snake River

Murtaugh Lake

Legend

Projects

- Funded
- ▲ Proposed



0 0.75 1.5 2.25 Miles

ESPA Managed Recharge Projects

Winter Recharge Study

Cost - \$20,000
Completed

Twin Falls Canal

Cost ~ 700,000 - JUB
Completion ~ Spring 2017

Point Spill
Structure

Wilson Lake
Reservoir

Broad Crested Weir
& Stilling Well

TFCC
~40 cfs

Milner Pool
Canal Radial Gates

Cost ~ \$11,700 - JUB
Completion ~ Fall 2015

Murtaugh Lake Outlet
Radial Gates

Murtaugh
Lake

Snake River

Legend

Projects

- Funded
- ▲ Proposed

0 0.75 1.5 2.25 Miles

ESPA Managed Recharge Projects

Southwest I.D.

Cost ~ \$50,000
Completion: TBD

West Cassia Pipeline Study

Snake River

Lake Walcott

Murtaugh Lake

SWID Injection Wells

SWID - Injection Well & Test

Cost ~ \$30,000
Completion ~ Fall 2015

SWID Injection Wells
25 cfs

Legend

Projects

-  Funded
-  Recharge Sites
-  Pipeline



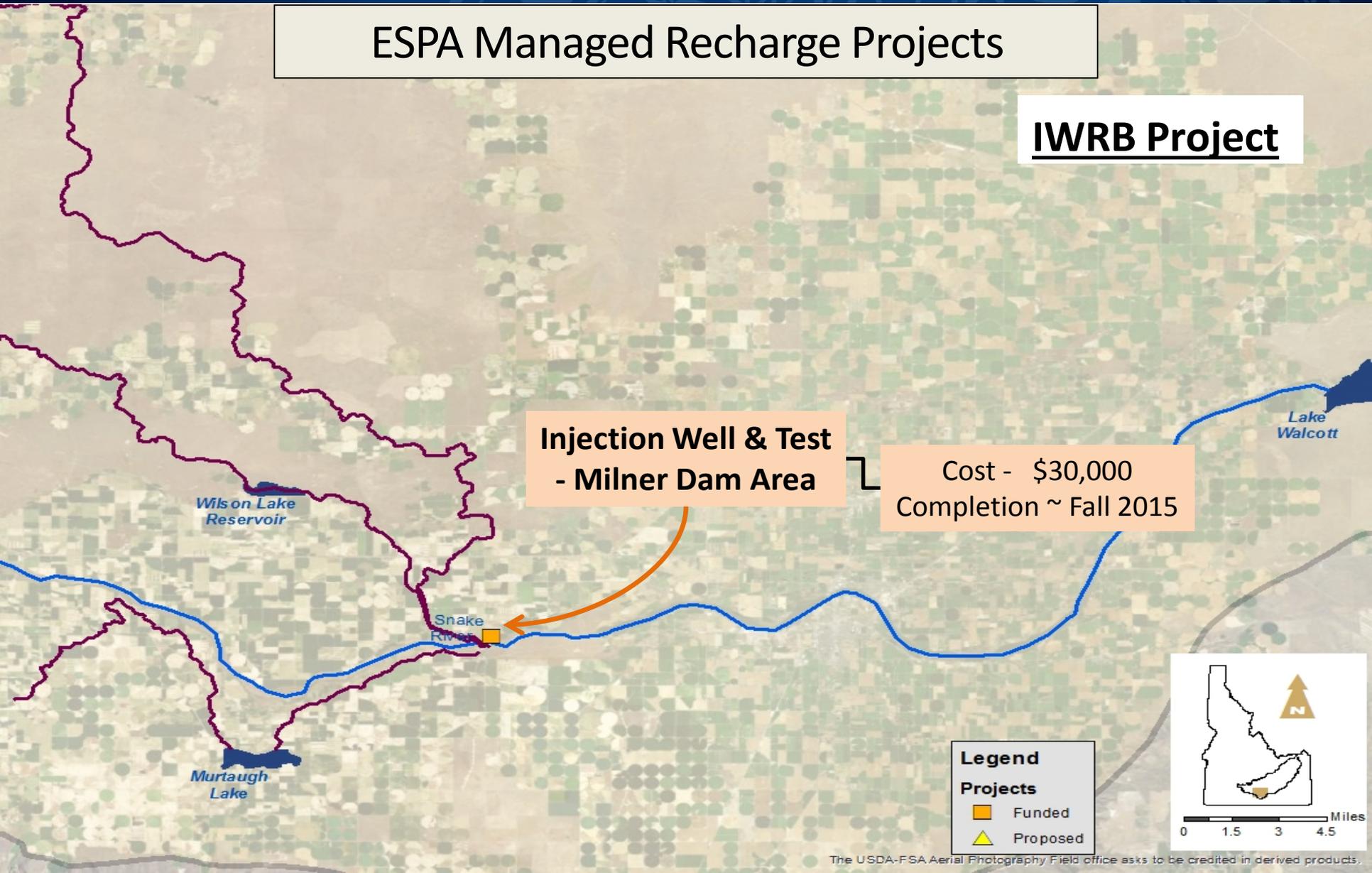
0 2 4 6 Miles

ESPA Managed Recharge Projects

IWRB Project

**Injection Well & Test
- Milner Dam Area**

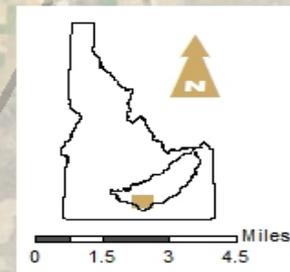
Cost - \$30,000
Completion ~ Fall 2015



Legend

Projects

- Orange square: Funded
- Yellow triangle: Proposed



Miles
0 1.5 3 4.5

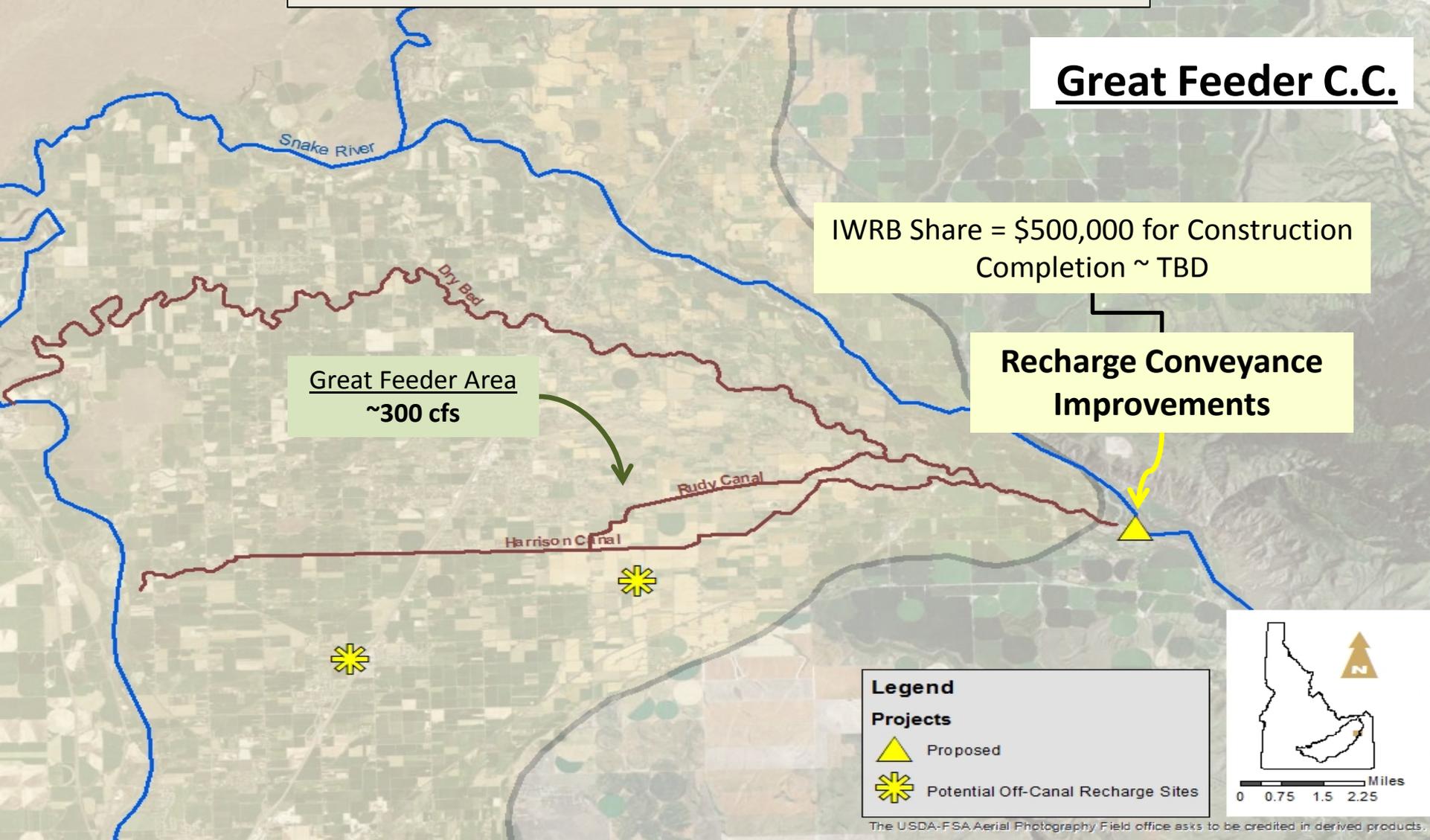
ESPA Managed Recharge Projects

Great Feeder C.C.

IWRB Share = \$500,000 for Construction
Completion ~ TBD

**Recharge Conveyance
Improvements**

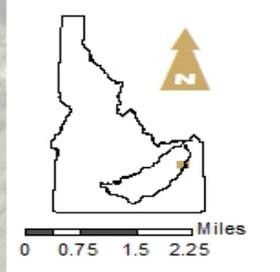
Great Feeder Area
~300 cfs



Legend

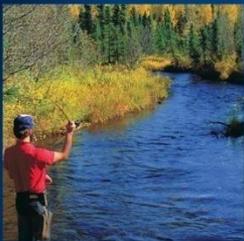
Projects

-  Proposed
-  Potential Off-Canal Recharge Sites



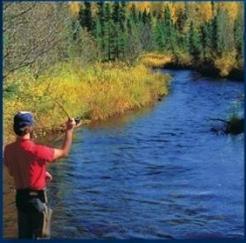
Off-Canal Recharge Ideas – Upper Valley

- Aberdeen-Springfield C.C.
 - Hilton Spill Basin Expansion
- Fremont-Madison I.D.
 - Egin Bench Recharge Site Expansion
- New Sweden I.D.
 - Expand Recharge Sites



Off-Canal Recharge Ideas – Upper Valley

- Enterprize C.C.
 - Develop Recharge Sites
- Farmers Friend I.C.
 - Develop Recharge Sites
- Snake River Valley I.D.
 - Expand Recharge Sites
- Others



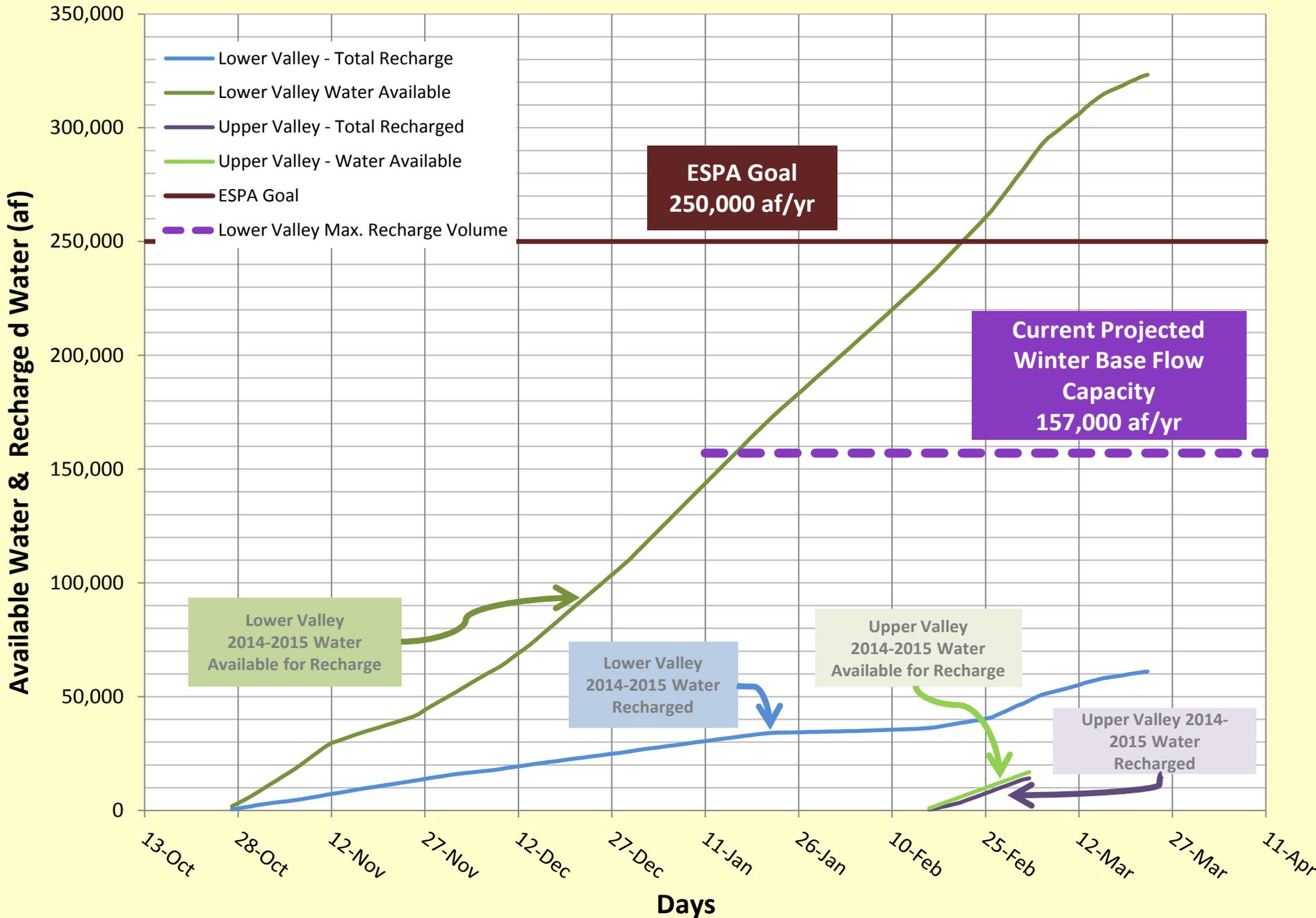
**ESPA Managed Recharge Projections
Winter Base Flow**

**Winter Base Flow Recharge
Lower Valley Only***

	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019
Winter Base Flow Rate (cfs)	340	350	460	35	650
Winter Base Flow Volume (af)	61,000	85,000	114,000	85,000	157,000
Conveyance Cost	\$369,000	\$569,000	\$811,000	\$569,000	\$1,060,000

* 121 days of Recharge.

ESPA Managed Recharge - Winter Base Flow Volume



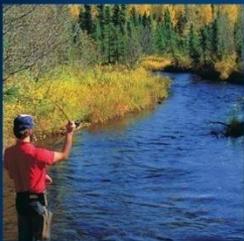
ESPA Managed Recharge Projections Spring Surplus Flow

Spring Surplus Flow Recharge – When Available* Upper Valley - Off-Canal Facilities**

	Current	Potential
Spring Surplus Rate (cfs)	420	1,050
Spring Surplus Volume (af)	37,000	85,000
Conveyance Cost	\$254,000	\$607,000

* Spring surplus flows only available approximately 50% of the years.

** 45 days of recharge



ESPA Managed Recharge Projections Summary

Projected ESPA Managed Recharge

	Winter Base Flow Only	Winter Base Flow & Spring Run-off*	10 Year Average**
Recharge Rate (cfs)	650	1,500	920
Recharge Volume (af)	157,000	242,000	204,000
Conveyance Cost	\$1,060,000	\$1,667,000	\$1,554,000

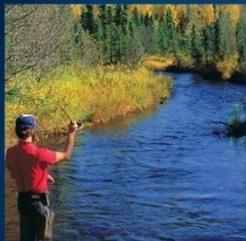
* Spring run-off recharged in the Upper and Lower Valley at off-canal sites.

** Spring run-off available for half the years.



Aquifer Stabilization Committee

- **ESPA Managed Recharge 2014-2015 Summary**
- **Capital Improvement Projects**
- **Recharge Site Monitoring**
- **Recommendations**



IBL staff collecting water quality samples at MP31 gate, 2015.



Idaho Power staff & IDWR staff measuring flow rates at MP31, 2015

ESPA Recharge – Monitoring Program

• Flow Measurements

- Cooperative Effort with:
 - TFCC
 - Water District 01
 - NSCC
 - Idaho Power
 - AFRD2
 - IDWR Staff

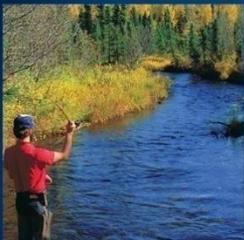
• Water Level Monitoring

- Site Specific
- Regional

• Water Quality Program

- Water Quality Sampling
- Monitor Wells Off-canal sites

• Dye Testing



IDWR and NSCC staff measuring flows at the inlet to Wilson, 2015



IBL staff collecting water quality samples – Shoshone.

Aquifer Stabilization Committee

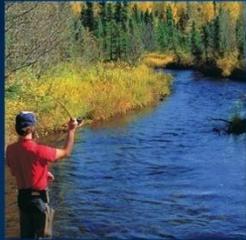
- **ESPA Managed Recharge 2014-2015 Summary**
- **Capital Improvement Projects**
- **Recharge Site Monitoring**
- **Recommendations**



Murtaugh Lake gates – Ice Conditions, 2015



Milner-Gooding Canal, 2015



Recommendations

ESPA Managed Recharge Operations:

- Operations

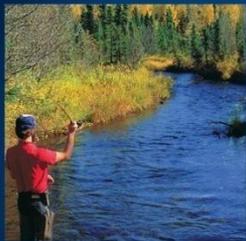
- **Monitoring** \$170,000
 - Water Quality Labs
 - Water Level & Flow Monitoring
- **Equipment** \$80,000
- **Monitor Wells** \$50,000
 - Lower Valley – 4
 - Upper Valley – 2

Sub-Total = \$300,000

- Conveyance

\$700,000

TOTAL = \$1,000,000



Recommendations

ESPA Managed Recharge Operations: **\$1,000,000**

ESPA Managed Infrastructure:

- Milner-Gooding concrete flume **\$700,000**
- Milner-Gooding Dietrich hydro plant bypass **\$50,000**
- Twin Falls Canal recharge improvements **\$700,000**
- North Side Canal improvements **\$2,000,000**
- Egin Bench improvements **\$500,000**
- Great Feeder Canal recharge improvements **\$500,000**

Sub-Total = \$4,450,000

ESPA Managed Recharge Investigations: **\$300,000**

TOTAL = \$4,750,000

Questions



Mile Post 31 recharge basin on April 8th, 2013.

SOUTHWEST IRRIGATION DISTRICT

*Box 668
Burley, ID 83318
(208) 878-8382*

*Directors: Randy Brown 308-7711
Craig Searle 312-1595
David Pickett 300-3401*

March 19, 2015

Representative Bert Stevenson
Idaho Water Resource Board
1099 North 400 West
Rupert, ID 83350

Dear Representative Stevenson:

The Board of Directors of the Southwest Irrigation District (SWID) is very appreciative of the efforts of the Idaho Water Resource Board to facilitate and further the ESPA recharge program. The purpose of this letter is to bring attention to the current pay schedule for recharge provided by the Idaho Water Resource Board.

SWID has been recharging since the early 1990s and has seen the positive results in local water levels. The SWID recharge program began with a cooperative effort between the United States Geological Survey and SWID. Injection wells were drilled and permitted along with existing non-used irrigation wells for recharge. Tributary streams and the Snake River have been utilized by SWID for recharge.

The SWID recharge program more than doubled with the construction of the West Cassia Pipeline (WCP). The WCP utilizes 2,300 horsepower at a headgate near the Snake River and boosts the water with an additional 1,800 horsepower to deliver water more than 13 miles south of the Snake River headgate and approximately 280 feet above the Milner Pool. SWID averages more than 2,500 acre feet of recharge through the WCP annually.

SWID also utilizes Murtaugh Lake for recharge. SWID has 2 pumping stations in Murtaugh Lake that pumps water south to additional permitted injection wells. The distance to recharge wells is four miles from each pumping station and approximately 80 foot rise in elevation.

Page - 2
March 19, 2015

Cost to pump an acre foot of water from the Snake River to the injection wells through the WCP is \$45.00. SWID spends in excess of \$100,000.00 per year on electrical bills.

To reduce the pumping expenses SWID, United Electric and the Bonneville Power Administration entered into an agreement to recharge in off-peak hours (11:00 p.m. to 7:00 a.m.) at a reduced power rate. The pressurizing and draining of the pipeline caused separation of the pipe joint; even collapsing the 24 inch pipe during draining. The program was tested for two years and abandoned due to the heavy wear and tear on the pipeline.

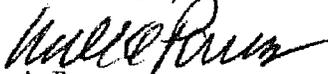
SWID is approaching the IWRB to request consideration of changing the pay schedule for recharge to take into account the per acre foot cost to accomplish the recharge. Some systems are designed to easily facilitate recharge with minimal cost, however if the Board's goal is to be met, recharge must occur in locations where costs per acre foot are much higher. SWID desires to complete their responsibility in helping to accomplish the IWRB recharge goals, however, the price is extremely limiting.

Any additional funding to offset the high electric bills would be greatly appreciated.

At the request of the Directors.

Very truly yours,

PARSONS, SMITH, STONE, LOVELAND
& SHIRLEY, LLP


William A. Parsons

WAP/sw
cc: Randy Brown, Craig Searle & David Pickett



ESPA Managed Recharge Finances

IWRB Aquifer Stabilization Committee & Finance Committee

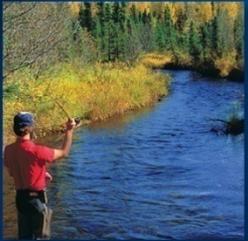
Brian Patton

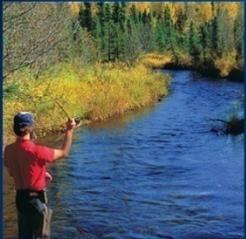
April 28, 2015



IWRB ESPA Recharge Finances

- Existing Funds
- HB 479 (2014) Funds – One time
- HB 547 (2014) Funds – Ongoing Cigarette Tax
- SB 1190 (2015) Funds – One time





IWRB ESPA Recharge Finances

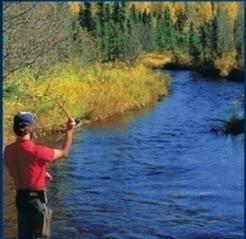
- Existing Funds in Secondary Aquifer Fund

- ✓ Available Uncommitted: \$702,429 (April 1, 2015)
- ✓ Estimated remainder of funds committed for delivery costs after 2014-2015 recharge: \$806,160

- Existing Funds in Revolving Development Account from before Secondary Fund was created

- ✓ Remainder of funds committed for “recharge site preliminary development”: \$237,594 (April 1, 2015)

- Total: \$1,508,589 in Secondary Aquifer Fund
\$237,594 in Revolving Development Account



IWRB ESPA Recharge Finances

HB 479 (2014) Funds

- ✓ One time legislative appropriation for “*ESPA recharge capacity*”
- ✓ \$4,000,000 appropriation (Secondary Aquifer Fund)
 - (\$300,000) committed for engineering
 - (\$177,000)for Milner-Gooding Canal access road
 - (\$60,000) for Milner-Gooding Canal MP28 hydro plant bypass
- \$3,463,000 remaining
- ✓ Anticipate using remaining funds for capital improvements to increase recharge conveyance and infiltration capacity mostly in lower valley



IWRB ESPA Recharge Finances

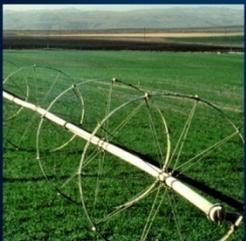
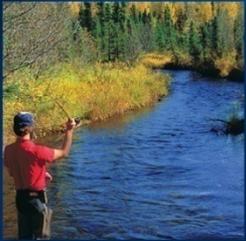
HB 547 (2014) – Ongoing Cigarette Tax Funds

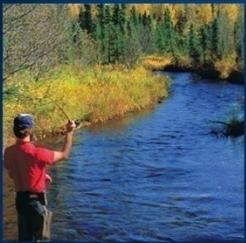
- Ongoing disbursement from Cigarette Tax for “*statewide aquifer stabilization*” to Secondary Aquifer Fund
- ESPA is 1st priority but expectation for spend funds to address declining aquifers in other areas also
- Expect to receive 1st disbursement this July
- Expect to use for:
 - ✓ ESPA recharge operations (conveyance, measurement, water quality monitoring)
 - ✓ ESPA recharge conveyance and infiltration capacity
 - ✓ Other measures to stabilize ESPA
 - ✓ Stabilization measures in other aquifers
- Sunset in 2019

IWRB ESPA Recharge Finances

SB 1190 (2015) Funds – One time

- ✓ One time legislative appropriation for “*Aquifer Recharge*”
- ✓ \$500,000 appropriation (Secondary Aquifer Fund) for FY16
- ✓ Expect to use for:
 - ✓ ESPA recharge operations (conveyance, measurement, water quality monitoring)
 - ✓ ESPA recharge conveyance and infiltration capacity





IWRB ESPA Recharge Finances

Total Funds Available for FY2016:

- Existing Funds: \$1,508,589 in Secondary Fund
 \$237,594 in Rev Dev Account
 - HB 479 Funds: \$3,463,000 in Secondary Fund
 - HB 547 Funds: \$5,000,000 anticipated in Sec. Fund
 - SB 1190 Funds \$500,000 in Secondary Fund in July
- TOTAL: \$10,709,183**