



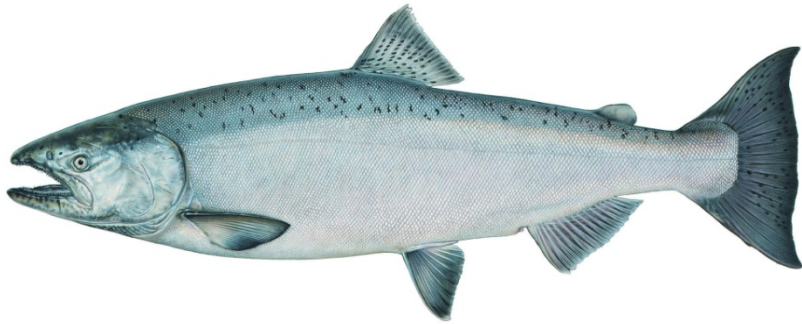
Idaho Water Transactions Program

Morgan Case
August 29, 2013

Upper Salmon River Basin

- **Issue:** Local economies depend on the diversion of tributary water, but diversions can dewater streams and lead to migration barriers and habitat degradation for Endangered Species Act listed fish.
- **Solution:** Implement a voluntary program that compensates water right owners for changes in irrigation practices that protect the local economy while providing the flows required for recovery of ESA-listed species in accordance with Idaho water law.

ESA – Listed Species



Chinook Salmon



Steelhead



Sockeye Salmon



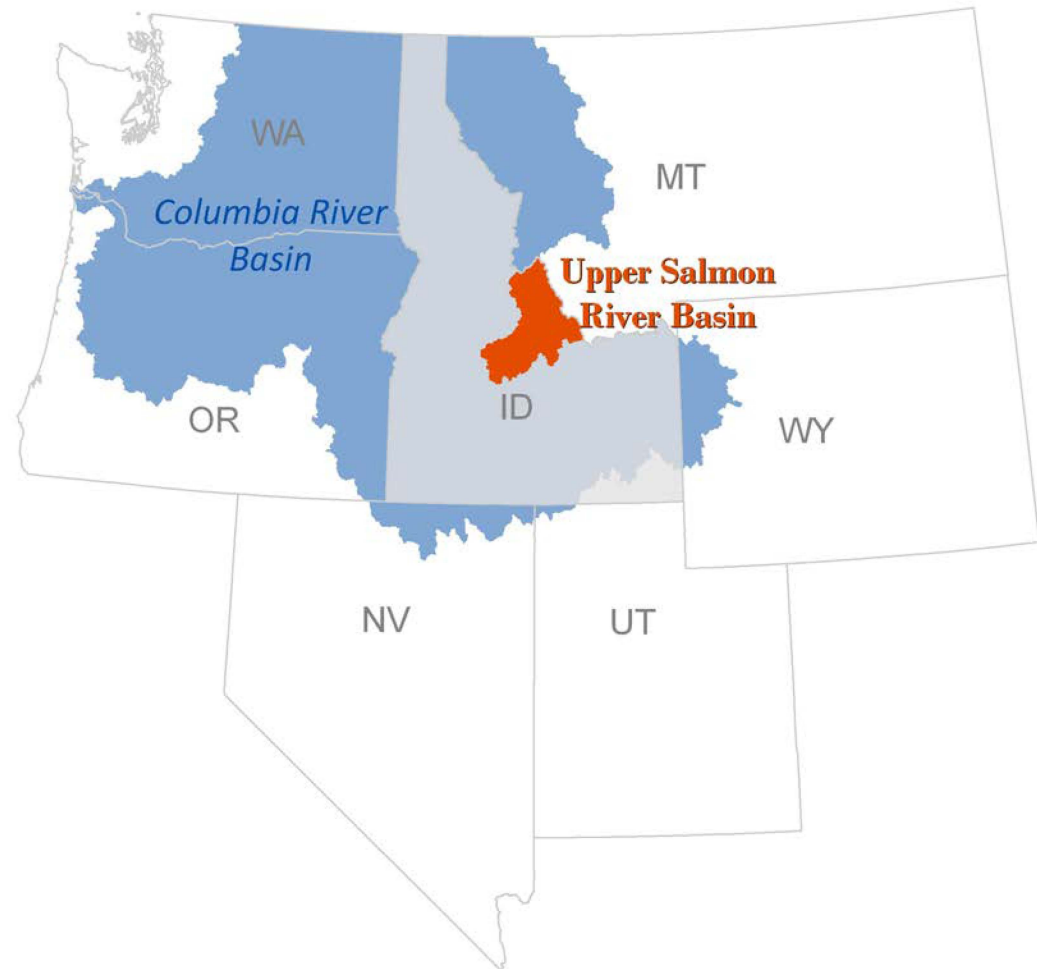
Bull Trout

State of Idaho Obligations

- Idaho Code 42-1506 and 42-1765A - Lemhi MSF and Rental Pool
- Snake River Water Rights Agreement of 2004
 - ▣ Incentives to improve fish habitat (flow included)
 - ▣ 35 cfs permanently protected in the Lower Lemhi River
 - ▣ 4 Lemhi River tributaries reconnected by 2010
 - ▣ 10 Lemhi River tributaries reconnected by 2024
- Idaho Fish Accords – flow restoration in the Lemhi and Pahsimeroi (Biological Opinion)

Program Funding

- CBWTP
 - ▣ Columbia Basin
 - ▣ BPA funded
 - ▣ NFWF administered
 - ▣ NPCC
- Accord Water Transaction Fund
 - ▣ Lemhi and Pahsimeroi
 - ▣ \$7.6 million 2008-2017
- PCSRF – individual grants



Water Transactions Philosophy

- ❑ Improve ESA-listed fish habitat with flow restoration
- ❑ Respect private property rights using a voluntary cooperative approach
- ❑ Respect the values of irrigated agriculture
- ❑ Use market-based strategies
- ❑ Take a balanced approach



Benefits for State of Idaho

- ❑ Maintain local economies
- ❑ Protect individuals from third party ESA “takings” lawsuits
- ❑ Recovery of ESA-listed species & state management
- ❑ Improved recreation opportunities
- ❑ Improved natural resources for the State
- ❑ Warm fuzzies/cold slimies

Progress to Date

- 75 transactions
- 137 cfs flow
- 23,785 AF instream in 2013
- Over 746,000 AF protected
- \$6.1 million
 - Bonneville Power Administration
 - CBWTP
 - Accords
 - Pacific Coast Salmon Recovery Fund

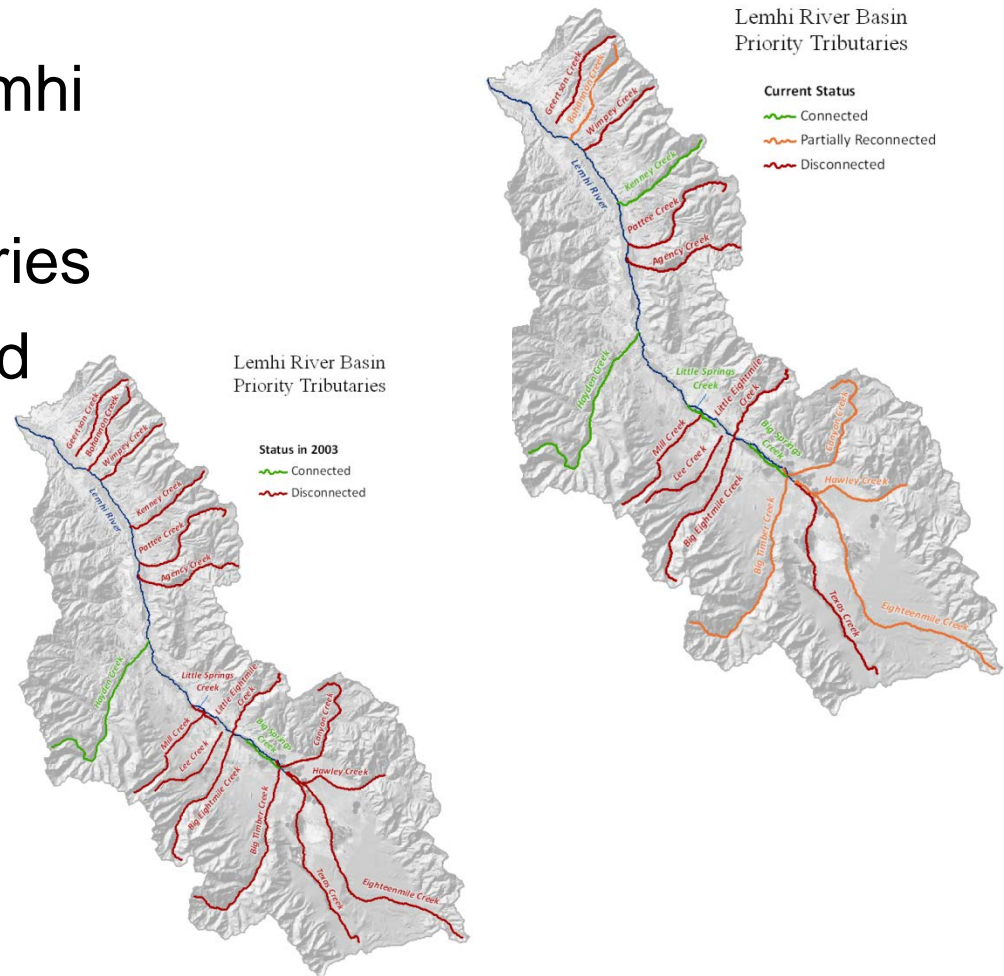
Upper Salmon River Basin
Water Transaction Program



Progress towards obligations

(includes partner efforts)

- 18 cfs permanently protected in lower Lemhi River
- 4 reconnected tributaries
- 5 partially reconnected tributaries



Methods

- Leases
 - ▣ Annual
 - ▣ Partial Season
- Agreements not to Divert
 - ▣ Source Switch
 - ▣ Minimum Flow Agreements

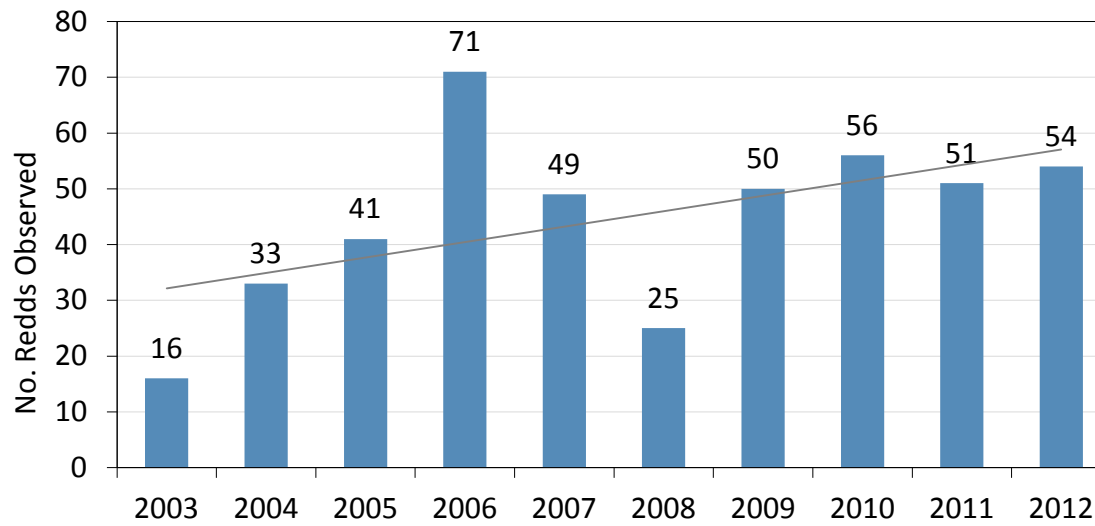


Leases

- ❑ Must dry up land
- ❑ Water leased into the Idaho Water Supply Bank
- ❑ Water rented out of Bank by IWRB for delivery to a Minimum Stream Flow Water Right
- ❑ Only consumptive use portion of water right can be delivered.
- ❑ Water delivered according to priority date of leased water
- ❑ Cannot injure junior users (carriage)
- ❑ Can be for portion of irrigation season

Fourth of July Creek

- ❑ Dewatered lower end blocked migration of fluvial bull trout and juvenile Chinook salmon
- ❑ 20-year lease
- ❑ 2.9 cfs kept in stream at the point of diversion
- ❑ 129.3 AF consumptive use delivered to minimum stream flow on Salmon River.



Bull Trout Redd Counts (IDFG)

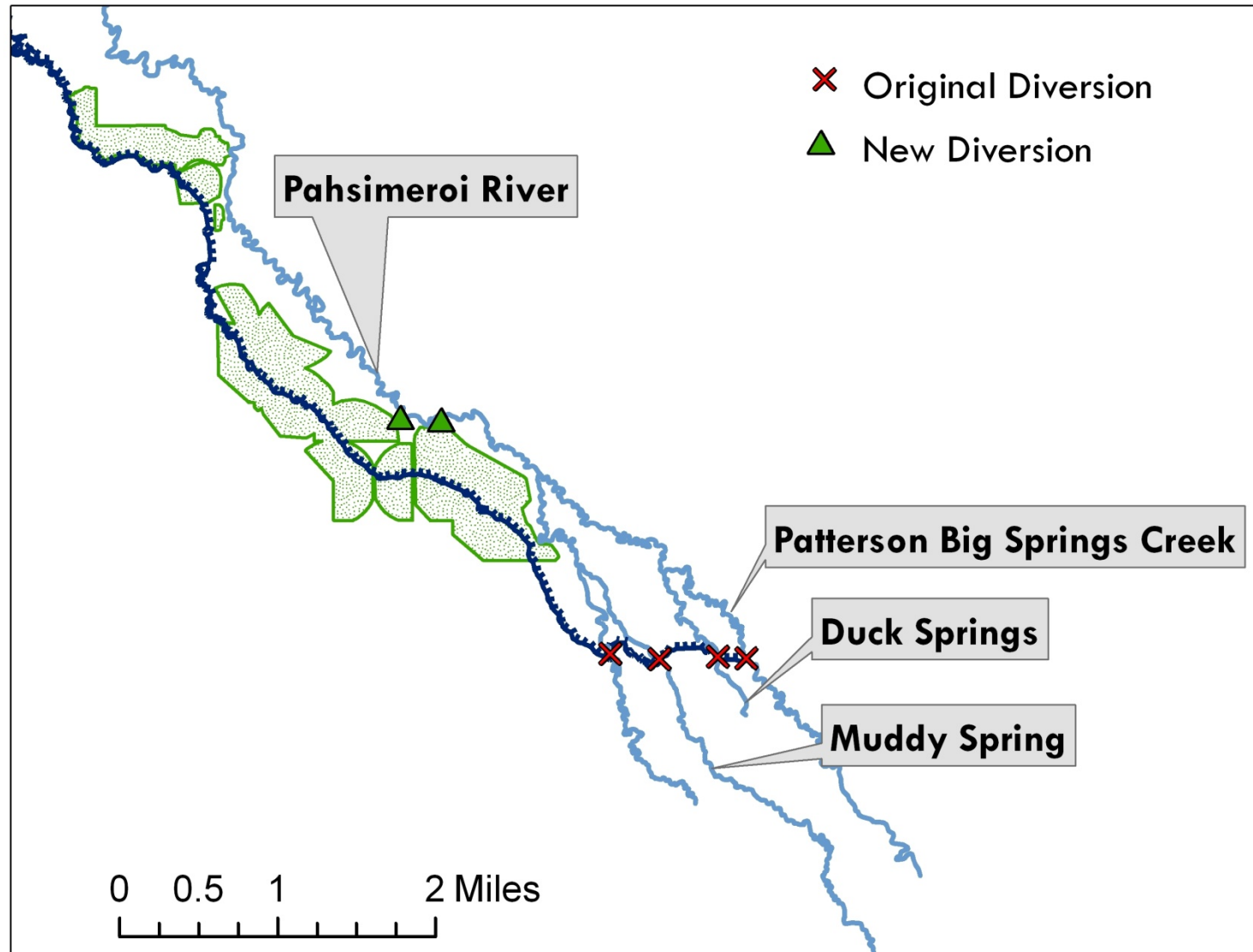
Agreements not to Divert

- Not necessary to dry up land.
- Best for short flow limited reaches
- Minimum Flow Agreements cannot shepherd water past other water users
- Can be more economical

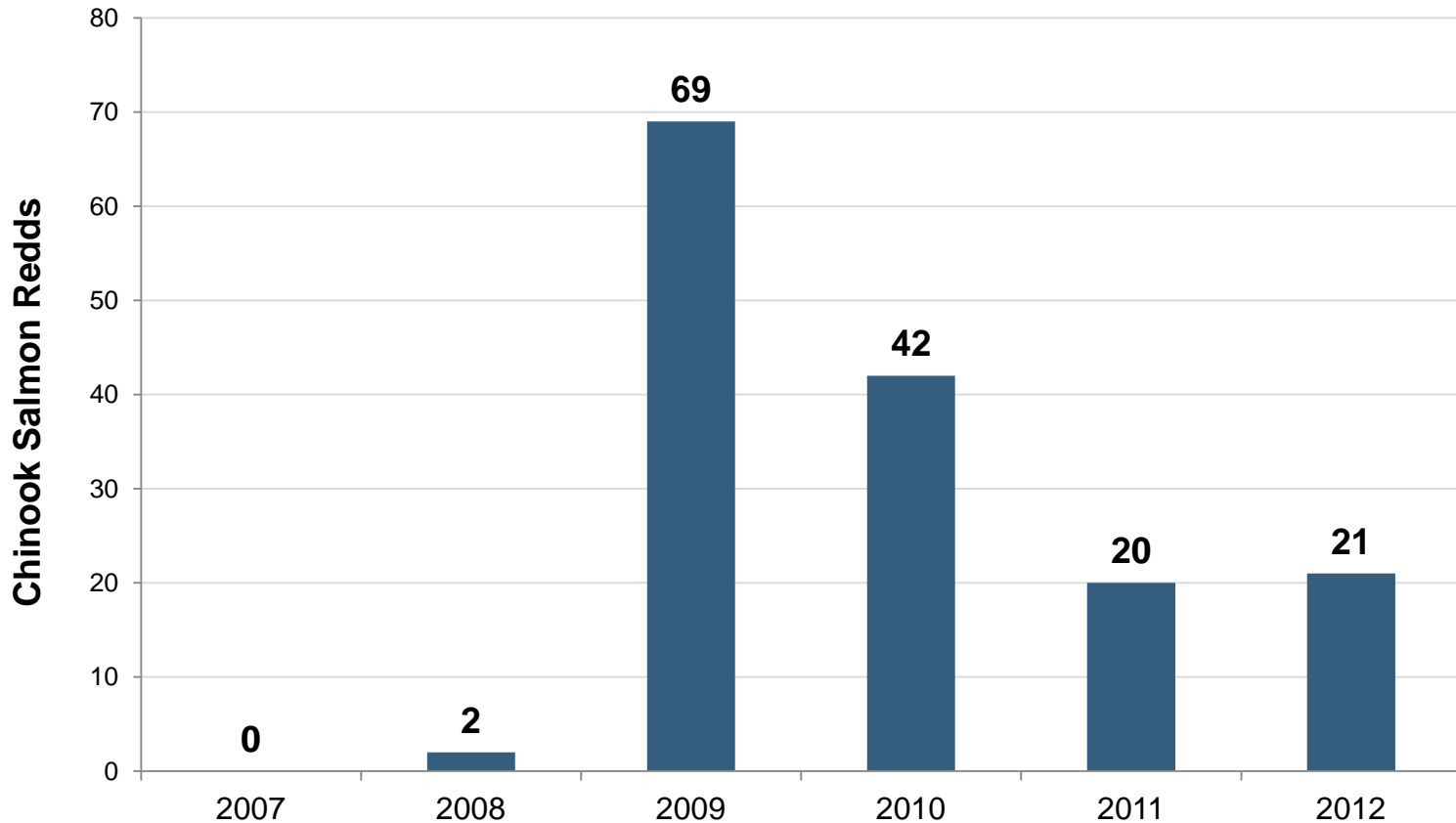
P-9 Ditch Removal - Pahsimeroi

- Four irrigators diverted all or almost all of the flow from Patterson Big Springs Creek and Pahsimeroi River.
- Ditches intercepted several springs
- Chinook salmon could not access the high quality spawning and rearing habitat.
- 20-year agreement not to divert 27.7 cfs
- Point of diversion changed to Pahsimeroi River
- WTP covers increased diversion costs

P-9 Ditch Removal



Patterson Big Springs Creek Chinook Salmon Redds



Patterson Big Springs Creek redds now comprise 40-50% of total Pahsimeroi Basin redds.

Lower Lemhi River

- Late-season leases – Reclamation
- Early-season minimum flow agreements & Late season leases
- Full-season minimum flow agreements
- Permanent Easements
- 25-35 cfs target met
- Integrated monitoring





Initial Efforts

- ❑ Opportunistic
- ❑ Short-term
- ❑ Driven by external factors
- ❑ Low-level of monitoring
- ❑ One-dimensional



Current Efforts

- Targeted
- Complex
 - ▣ Partners
 - ▣ Funding
- Adaptive



Big Timber
Creek 2007



Big Timber
Creek 2010

Upper Salmon Basin Watershed Project Technical Team

- ❑ Local natural resource professionals
- ❑ Biologists, hydrologists, engineers, project managers
- ❑ Non-profit
- ❑ State, Federal, Tribal
- ❑ Monthly meetings
- ❑ Planning documents
- ❑ Ranking process

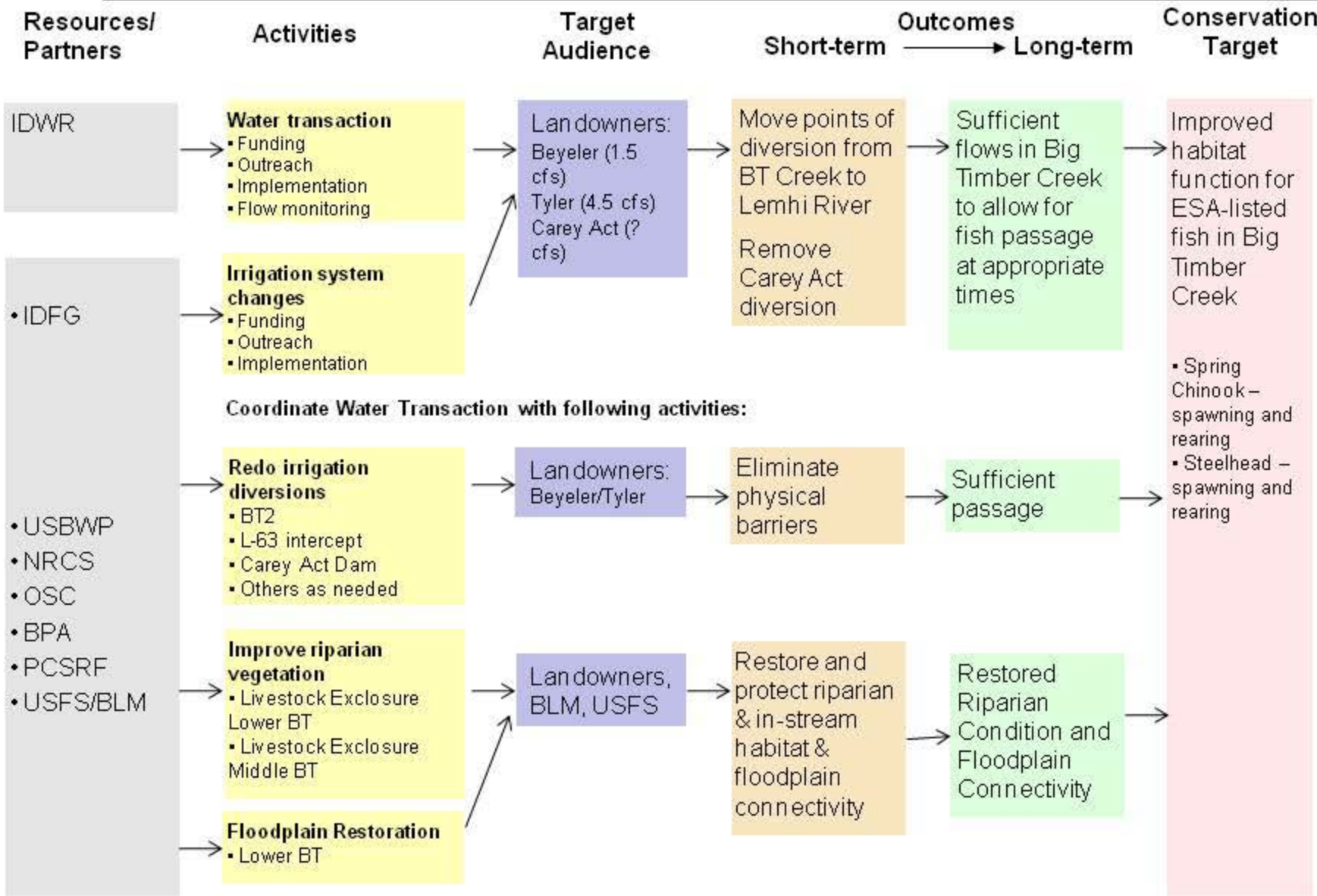


Logic Models

- Tributary Scale
- Resources
 - ▣ Partners
 - ▣ Funds
- Activities
- Target Audience
- Outcomes
 - ▣ Short-Term
 - ▣ Long-Term
- Conservation Target



Big Timber Creek, Upper Lemhi Logic Model

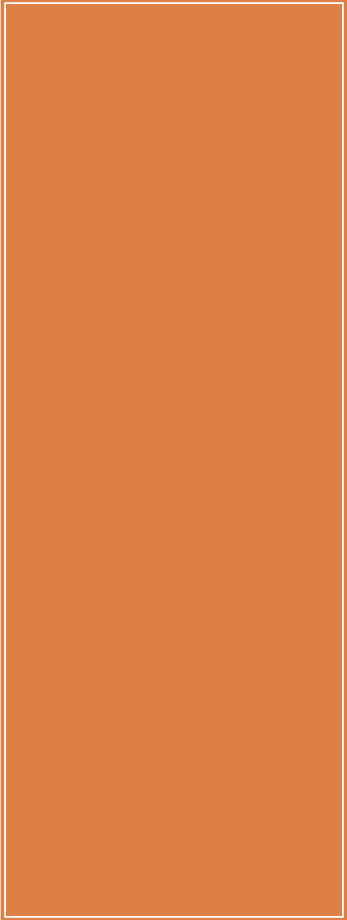


Monitoring

- Gages
- Temperature
- Habitat
- Biological (partners)



Keys to Success

- 
- ❑ Coordination with technical team
 - ❑ Planning documents
 - ❑ Improved dialogue with irrigators
 - ❑ Transition to long-term and permanent transactions
 - ❑ Logic Models
 - ❑ Scaled Monitoring

Thanks to Partners

- 
- ❑ Water Users
 - ❑ Bonneville Power Administration
 - ❑ National Fish and Wildlife Foundation
 - ❑ Northwest Power and Conservation Council
 - ❑ Idaho Office of Species Conservation
 - ❑ Idaho Department of Fish and Game
 - ❑ Custer County SWCD
 - ❑ Lemhi County SWCD
 - ❑ US Forest Service
 - ❑ Bureau of Land Management
 - ❑ The Nature Conservancy
 - ❑ Trout Unlimited

Photo by Paddy Murphy



Chinook salmon spawning in Iron Creek
2009

Questions?



GOVERNOR'S OFFICE OF SPECIES CONSERVATION

AUGUST 29, 2013

C.L. "BUTCH" OTTER, GOVERNOR
EDMONDSON,
PROGRAM MANAGER

DUSTIN MILLER, MIKE
ADMINISTRATOR

OSC History/ Mandate

- Legislature created in 2000: Idaho Code 68-818.
- Housed within the Executive Office of the Governor
- Coordinate federal ESA policy and programs for recovery and/or conservation of species.
- Solicit, provide and delegate funding for ESA programs.
- Serve as the State's "one voice" on ESA policy.
- Work to provide balance between conservation and land-use activities.
- Facilitate collaboration between State, federal and private stakeholders.

GOVERNOR'S OFFICE OF SPECIES CONSERVATION

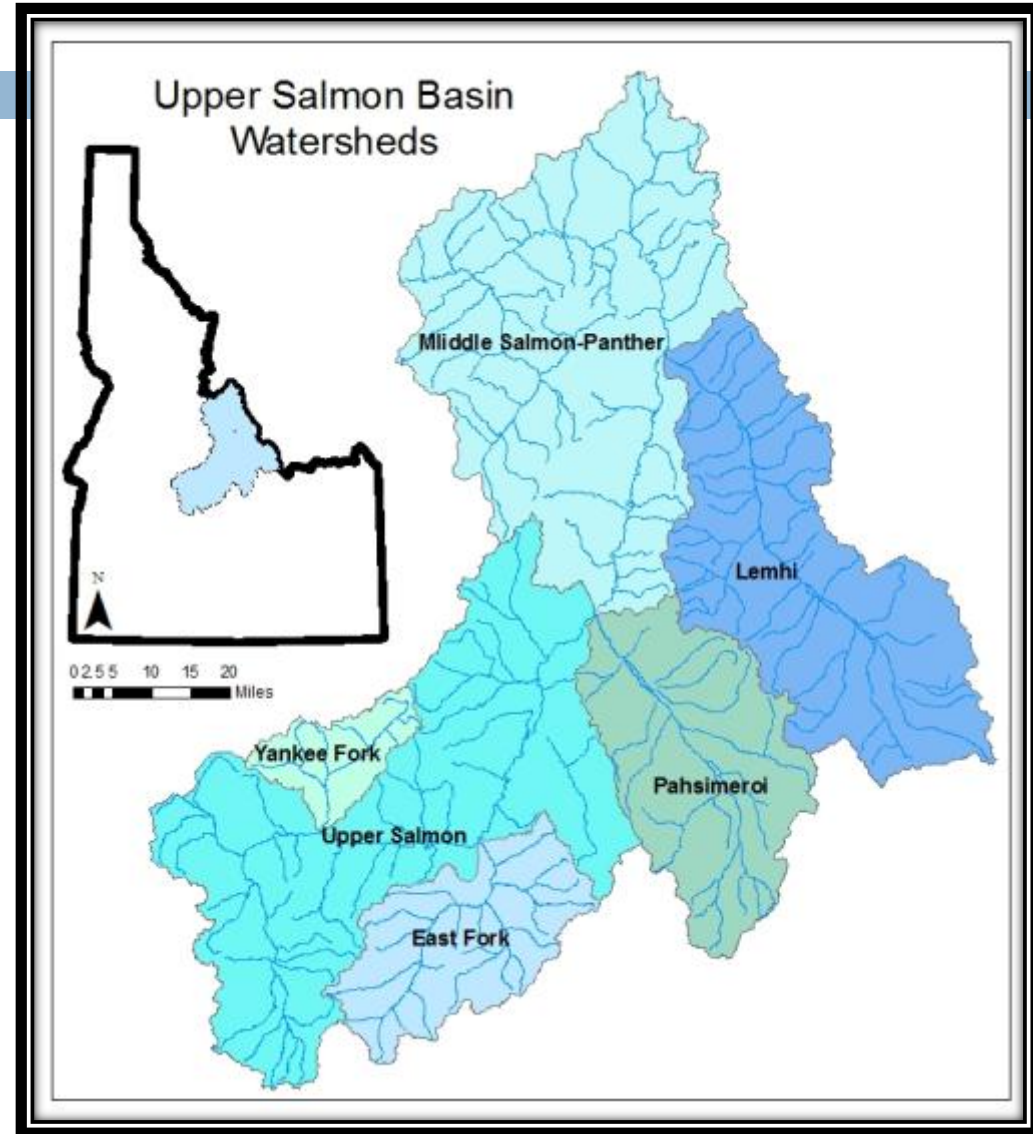
SALMON

- OSC works cooperatively with all partners to facilitate salmon and steelhead restoration programs in the Salmon and Clearwater Basins
- NOAA and OSC co-released federal Recovery Plans for including the biological status, recovery criteria and the habitat component for Snake River Spring/Summer Chinook and Snake River Steelhead
- We currently monitor the downstream effects portions of recovery plans: hydro, harvest, & hatchery
- We still await active dialogue on Sockeye and Fall Chinook

Upper Salmon Basin Watersheds

Subbasins:

- **Upper Salmon** (1,547,982 acres)
 - East Fork (353,340 acres)
 - Yankee Fork (121,600 acres)
- **Middle Salmon-Panther** (1,163,102 acres)
- **Lemhi** (803,204 acres)
- **Pahsimeroi** (528,973 acres)
- **4 ½ Million Acres**





MISSION

Protect and restore the region's significant fish habitats through a partnership approach that respects agriculture and improves our way of life.

Homegrown, Common-Sense Conservation



Upper Salmon Basin
WATERSHED PROGRAM

Upper Salmon Basin Watershed Program

- ❑ Founded in 1992 under the Northwest Power and Conservation Council's Columbia River Basin Fish and Wildlife Program
- ❑ Landowners + local, state, federal partners
- ❑ Administered by the Idaho Governor's Office of Species Conservation



USBWP Advisory Committee

*Provide oversight, guidance and direction to the Watershed Program.
A forum for multiple interests to communicate and collaborate.*

John Jakovack, Lemhi County Commissioner

V. Don Olson, Lemhi Rancher

Bruce Mulkey, Lemhi Rancher

Tom Curet, Idaho Department of Fish and Game

Kristin Troy, Idaho Adventures (Recreation)

Shannon Williams, Lemhi County Extension Agent

Mark Olson, Natural Resources Conservation Service

Sarah Baker, Custer County Extension Agent

Mark Davidson, Trout Unlimited

Mike Kossler, Chairman, Lemhi Soil and Water Conservation District

Harley, Pahsimeroi Rancher

Kevin Hoffman, Main Salmon Landowner

Linda Price, Bureau of Land Management

Stefani Melvin, United States Forest Service



USBWP Technical Team



Objectives:

- Propose, evaluate and rank projects for biological merit
- Provide guidance regarding planning, funding and implementation
- Coordinate with USBWP Advisory Committee

Cooperation and Partnership Based on Trust

- ❑ Develop restoration projects w/ landowners
- ❑ Seek + manage major funding
- ❑ Assist with environmental compliance
- ❑ Construction oversight
- ❑ Report outcomes



Tech Team Tour Big Timber Creek



"I think what we've done was good for the river, good for the fish and good for us." -Dick Baker, Sr.

A Healthier, More Resilient Watershed

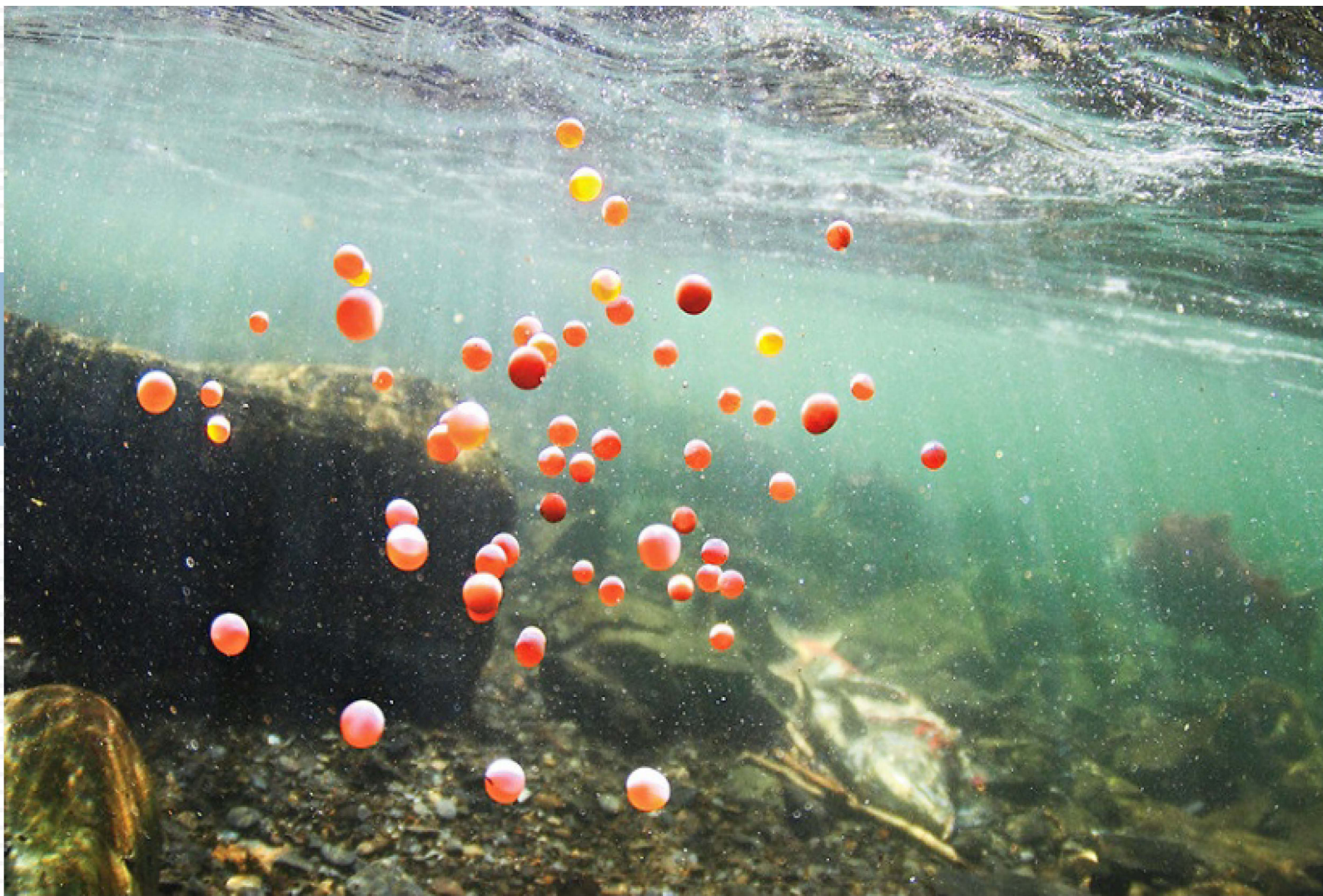
- Riparian habitat restoration
- Instream habitat improvement
- Fish-migration barrier removal
- **Instream flow enhancement**
- Irrigation diversion fish-screening



East Fork Salmon River



Work with Federal Partners to Implement FCRPS BiOp
Meet recovery goals set fourth in recovery plans
De-list Fall/Spring/Summer Chinook stocks , Snake River
Steelhead, Stanley Basin Sockeye
To create predictable levels of land use while recovering
Endangered Species



1% Increase in “**Habitat**” is equal to a 1% in Egg to Smolt Survival

Assumption

2008-2018 FCRPS BiOP

RPA 35:

“Agencies will identify additional habitat projects for implementation based on the population specific overall habitat quality improvement still remaining in Table 5 below. Projects will identify location, treatment of *limiting factor*, targeted population or populations, appropriate reporting metrics, and estimated biological benefits based on achieving those metrics”

Limiting Factors For Lemhi River

2012 NOAA Limiting Factors	Chinook	Steelhead
	Weight	Weight
1.1 Habitat Quantity – barriers	20.0%	20.0%
2.3 Injury & Mortality - Mechanical Injury	15.0%	15.0%
4.1 Riparian Condition	5.0%	5.0%
5.2 Peripheral and Transitional Habitats: Floodplain Condition	5.0%	5.0%
6.1 Channel Structure and Form: Bed and Channel Form	5.0%	5.0%
6.2 Channel Structure and Form: Instream Structural Complexity	5.0%	5.0%
7.2 Sediment Conditions: Increased Sediment Quantity	5.0%	5.0%
8.1 Water Quality – Temperature	5.0%	5.0%
9.2 Water Quantity – decreased water quantity	35.0%	35.0%



"Landowners get tunnel vision sometimes, like biologists do. We can't see anything but cows, and biologists can't see anything but fish. In this relationship, we've had to teach one another."

Bruce Mulkey, Lemhi Rancher & Founding Member USBWP Advisory Committee

Protect the Best, Restore the Rest



Homegrown, Common-Sense Conservation



Upper Salmon Basin
WATERSHED PROGRAM

Upper Lemhi River: 8 mile corridor fence, installed 1998

[illegible]

The image shows three men in a field, likely a farm or agricultural area, engaged in a discussion. One man, wearing a cowboy hat and a plaid shirt, is pointing towards a large whiteboard. The other two men, one in a red shirt and the other in a blue shirt and a baseball cap, are listening. The whiteboard displays a detailed schematic diagram of an irrigation system, including a main line, lateral lines, and various valves and structures. The background features a large, arched irrigation structure (likely a center pivot system) and rolling hills under a clear blue sky.

Planning

From The Office To The Field

Construction Oversight



GOVERNOR'S OFFICE OF SPECIES CONSERVATION

SALMON/CHALLIS ESA CONSULTATIONS

Forest has been working to update their grazing allotment consultations on 39 allotments that were out of compliance relative to salmon, steelhead, bull trout and critical habitat

These grazing authorizations had been susceptible to legal challenges

NOAA issued a Final Jeopardy/Adverse Mod Opinion on Lemhi Irrigation Diversions on USFS Lands on February 27, 2012

*NOAA issued a Final Jeopardy / Adverse Mod Opinion on Morgan and Challis Creek Irrigation Diversions on USFS Lands Summer of 2012, known as "Upper Salmon BiOp"**

Our Partners



- Bonneville Power Administration
- Columbia Basin Water Transactions Program
- Custer Soil and Water Conservation District
- Idaho Department of Environmental Quality
- Idaho Department of Fish and Game
- Idaho Department of Water Resources
- Idaho Governor's Office of Species Conservation
- Idaho Soil and Water Conservation Commission
- Idaho Water Resource Board
- Lemhi Regional Land Trust
- Lemhi Soil and Water Conservation
- National Marine Fisheries Service
- Natural Resources Conservation Service
- Northwest Power and Conservation Council
- Shoshone-Bannock Tribes
- The Nature Conservancy
- Trout Unlimited
- U.S. Army Corps of Engineers
- U.S. Bureau of Land Management
- U.S. Bureau of Reclamation
- U.S. Fish and Wildlife Service





USBWP Staff

Daniel Bertram, Project Manager

Allen Bradbury, Project Planner

Abbie Gongloff, Project Planner

Breann Westfall, Project Planner

Questions?



Memorandum



To: IWRB – Streamflow Enhancement and Minimum Streamflow Committee

From: Morgan Case

Date: August 29, 2013

Re: Water Transactions Program – Little Springs McFarland Livestock (Kauer) Transaction

In 2011, the Idaho Water Resource Board implemented a water transaction on Little Springs Creek, a tributary to the upper Lemhi River. The Kauer family (McFarland Livestock Co) holds water right 74-1562 for 4.06 cfs formerly diverted from the L-52 diversion in the Upper Lemhi River. The L-52 diversion was injected into Little Springs Creek and carried over a mile to a redirection point (without headgate or measuring device). The water was then transported over 7 miles along a very inefficient ditch that resulted in high conveyance loss. L-52 was also a catchment for water runoff causing regular breaching of ditch banks leading to excessive erosion problems and sedimentation in the Lemhi River. The ditch also intercepted flows in Mill Creek causing a permanent disconnect from the Lemhi River.

The project eliminated the L-52 ditch and moved the diversion to the L-46A ditch on the Lemhi River. Flows increased in Little Springs Creek, Mill Creek, and the Lemhi River between L-52 and L-46A. Stream habitat in Little Springs Creek has improved because the warm turbid water from the L-52 ditch is no longer being carried in the spring channel. Sedimentation from the L-52 ditch has also been eliminated.

The compensation for participating in the project was based on power estimates prepared by both NRCS and IDWR engineers. The power costs were estimated to be \$3800 annually. The water users agreed to pay the first \$3000 of the power bills because of the reduced need for ditch maintenance. After 3 years of operating the new irrigation system, it is evident that the power estimates underestimated the actual operating costs. In 2011, the total power bills were \$3789, which lines up with the estimated \$3800; however the system was not operational the first 2 months of the irrigation season. In 2012, the total power costs were \$4525, compared to the estimated \$3840. The power costs from just May and June for 2013 were \$3391, compared to the season long estimate of \$3882. Of the 11 transactions based on power estimates, this is the only one that appears to be under-compensating the water user.

In order to ensure that the water user is not burdened by the higher than expected power costs, staff proposes requesting an adjustment to the compensation through the Idaho Fish Accords. Actual power bills from 2012 and 2013 (a wet and dry year), could be used as a basis for the increase. If the Stream Flow Enhancement and Minimum Stream Flow Committee concurs, staff will move forward with recalculating costs, pursuing the possibility of an adjustment through the Accords, and preparing funding approval to be considered by the full Board.