



Amended **AGENDA** **IDAHO WATER RESOURCE BOARD**

Board Meeting No. 7-23

WORK SESSION

Thursday, September 14, 2023
9:00 a.m. (MT) / 8:00 a.m. (PT)

Brad Little
Governor

Jeff Raybould
Chairman
St. Anthony
At Large

Jo Ann Cole-Hansen
Vice Chair
Lewiston
At Large

Dean Stevenson
Secretary
Paul
District 3

Dale Van Stone
Hope
District 1

Albert Barker
Boise
District 2

Brian Olmstead
Twin Falls
At Large

Marcus Gibbs
Grace
District 4

Patrick McMahon
Sun Valley
At Large

Sacajawea Interpretive, Cultural, & Educational Center
Main Floor
2700 Main Street
SALMON

Livestream available at <https://www.youtube.com/@iwrp>

1. Roll Call
2. Lemhi Basin Settlement Status Report
3. L-6 Rehabilitation Project
4. Upper Salmon Water Transactions
 - a. Knapp Creek Contract Renewal
 - b. Little Mud Springs Renewal
 - c. Hat Creek Acquisition
 - d. Big Timber Transaction Proposal
5. Non-Action Items for Discussion
6. Adjourn

The board will break for lunch at approximately noon.

Following lunch, the board will depart for a field trip of points of interest related to the Lemhi River Basin.

Transportation will be provided for board members, IDWR staff, and invited guests.

* Action Item: A vote regarding this item may be made at this meeting. Identifying an item as an action item on the agenda does not require a vote to be taken on the item. **Americans with Disabilities:** If you require special accommodations to attend, participate in, or understand the meeting, please make advance arrangements by contacting Department staff by email: jennifer.strange@idwr.idaho.gov or by phone at (208) 287-4800.

Memorandum

To: Idaho Water Resource Board
From: Amy Cassel
Date: September 6, 2023
Re: Lemhi Basin Comprehensive Settlement Agreement – Update



REQUIRED ACTION: No action required.

Summary

The Lemhi River Basin Comprehensive Settlement Agreement (Agreement), executed on February 24, 2022, set forth a legal process for irrigators in the Lemhi River Basin who divert high flow ancillary to their decreed water rights under a General Provision in the Snake River Basin to perfect a water right for their 'high flow' use. Parties to the Agreement include various Lemhi Basin water users, the Idaho Water Resource Board (IWRB), Idaho Department of Fish and Game (IDFG), and the Idaho Office of Species Conservation. Participation in the Agreement is voluntary and allows water users to continue to divert water under the General Provision if they do not choose to obtain a protectable a water right for high flow use.

Agreement Update

Resolution of state and private protests to pending water right applications

The Agreement resolved protests filed by the IWRB, IDFG, and private parties on a total of 14 applications for permit for new irrigation water rights. Applications 74-16185, 74-16186, 74-16187, 74-16189, 74-16190, 74-16191, 74-16192, 74-16193, 74-16195, 74-16196, 74-16204, 74-16205 have been resolved and permits have been issued. Applications 74-16188 and 74-16194 are awaiting resolution of right of way issue for delivery of water across federal lands.

Lemhi Basin stream flow maintenance applications

Lemhi irrigators who hold irrigation water rights decreed in the SRBA, and claim authority to divert and use Lemhi Basin high flows for stream flow maintenance pursuant to the Basin 74 High Flow General Provision, may file an application for permit with IDWR to convert such use into a protectable water right on or before July 1, 2024. The Lemhi Irrigation District (LID) has been working with IDWR allocation staff to complete their application for streamflow maintenance water rights under a single filing. One challenge for the LID is securing the application fee, which will total over \$100,000, to officially file the application. Approximately 13 applications have been filed on streams that do not fall within the LID. Those applications have been advertised and are pending approval.

McFarland Campground minimum stream flow application and condition

The Lemhi River at McFarland Campground MSF permit was approved on April 6, 2023, following procedures under 42-1503 (ii). Conditions on the McFarland MSF include "this water right may be exercised only two (2) years out of every five (5) years. The five (5) year period shall be a rolling period. The exercise of the right shall be limited to a duration of three (3) days, during the March 15 to July 6 period of use. The three (3) day period shall be timed to occur as near as possible to the peak of the Lemhi runoff." The McFarland MSF protocol, which was developed by Carter Borden of Centered Consulting, defines the criteria and indicators for exercising the McFarland MSF. The IWRB approved the Lemhi River at McFarland Campground Minimum Stream Flow Protocol resolution (Resolution No. 09-2023) at the March 31, 2023, IWRB meeting.

Snowpack and precipitation conditions in May 2023, as defined and quantified in the McFarland MSF protocol, indicated a favorable year to exercise the McFarland MSF. An exercise was planned for June 9 – 12,

2023. A complaint from a landowner located downstream of the Lemhi at McFarland MSF was received on June 8, 2023. The landowner was concerned about potential flooding, and inquired whether the IWRB would pay for any damage they deemed was a result of the 72-hour MSF exercise. Due to this complaint and uncertainty regarding IWRB's liability, the exercise was cancelled. More legal research and discussion are warranted to determine a path forward.

Minimum Stream Flow Legislation

In addition to the Lemhi at McFarland MSF, four additional minimum stream flow water right permits were approved on April 6, 2023. Hayden, Bohannon, Canyon, and Big Timber Creeks, all tributaries to the Lemhi River, are defined as high priority streams for ESA-listed fish recovery. Bohannon, Canyon, and Big Timber Creeks have active, long-term water transactions. Flows on these creeks were monitored throughout the 2023 irrigation season.

Lemhi Basin Water Supply Program

The Agreement obligated the IWRB to commission feasibility studies for managed recharge, cloudseeding, and surface water storage. The IWRB commissioned the National Center for Atmospheric Research to conduct a feasibility study for cloudseeding the Lemhi River Basin in September 2022, and the results of that study are expected in fall 2023. Studies for managed recharge and surface water storage are being evaluated by IWRB staff.

Fish Screens and Fish Propagation Water Right Applications

The parties to the Agreement that hold irrigation rights on Big Timber Creek agree to grant access to IDFG to install and maintain fish screen on their irrigation diversions at no cost to landowners. IDFG may install fish screens on other diversions in the Lemhi Basin as determined by mutual agreement of the landowners and the Department. Parties to the Agreement agree to cooperate with IDFG to consolidate their diversions where possible. Discussions between water users and IDFG began in summer 2023 and planning efforts are underway.

Notice of Water Transactions

The IWRB will establish and maintain a list of persons and entities interested in receiving notifications of IWRB meetings or its committees in which water transaction projects will be proposed. This list has been generated and parties that have requested notification receive emails that provide the date, time, location, and agenda for IWRB committee and meetings that discuss water transaction proposals.

Steering and Technical Committees

During the March 31, 2023, the IWRB adopted resolutions to approve the Lemhi River Basin Comprehensive Settlement Agreement Implementation Committee Charter and Committee Members list (Resolution No. 08-2023). The first Implementation Committee meeting was held on May 17, 2023 at the Community Center in Leadore, ID.

Administration – Distribution of Water Rights, Funding for Water Districts, Computerized Accounting System, and Watermaster Instructions

The Agreement explicitly states that local water district watermasters are expected to distribute water rights and applications for permit identified in the Agreement, which includes new streamflow maintenance water rights. Water districts are responsible for adopting sufficient budgets to allow watermasters to distribute water rights during all periods when water rights are entitled to divert. IDWR is expected to work with local water districts to develop and maintain a computerized accounting system for the Lemhi Basin and will provide the technical and programming resources required. Additionally, parties to the Agreement will request the Director of IDWR to issue watermaster instructions as necessary for the implementation of the Agreement.

These topics will be discussed in more detail during the September 14, 2023, IWRB Work Session Meeting. Presenters include the following: Carl Ellsworth, Kurt Bird, and Merrill Beyeler, Lemhi River Basin water users; John Loffredo, Program Manager, IDWR; Windy Schoby, IDFG; David Graybill, Watermaster, Water District 170, IDWR; and Sarah Tessendorf, National Center for Atmospheric Research.

Agreement Progress Report

The attached Lemhi Basin Comprehensive Settlement Progress Report summarizes the status of the various actions required under the Agreement.

Attachment

1. Lemhi River Basin Comprehensive Settlement Agreement Progress Report

Idaho Water Resource Board

Lemhi Basin Comprehensive Settlement

Implementation Progress Report

September 8, 2023



Settlement Actions	Major Milestones Completed	Recent Progress & Upcoming Work	Action Schedule
Resolve State and Private Protests to Pending Applications 74-16185, 74-16186, 74-16187, 74-16188, 74-16189, 74-16190, 74-16191, 74-16192, 74-16193, 74-16194, 74-16195, 74-16196, 74-16204, 74-16205 <i>(Settlement Agreement Sections II and XI.2)</i>	<ul style="list-style-type: none"> ● Application 74-16195 withdrawn. ● IDWR mailed draft permits to applicants and protestants on July 20, 2022. ● Settlement Conference held on August 11, 2022, in Leadore, Idaho. IDFG, LID, LSWD, and private protests to 74-16186, 74-16188, 74-16189, 74-16190, 74-16191, 74-16192, 74-16193, 74-16194, 74-16196, 74-16204, 74-16205 were resolved at Settlement Conference. ● Permits 74-16190, 74-16185, 74-16192, 74-16193, 74-16196, 74-16204, and 74-16205 approved on December 9, 2022. ● Permit 74-16187 issued on December 21, 2022. ● Permits 74-16191 and 74-16186 approved on April 4, 2023. ● Amended application for permit 74-16189 moved point of diversion off federal land. Permit 74-16189 approved April 26, 2023. 	<ul style="list-style-type: none"> ● Applications 74-16188 and 74-16194 are awaiting resolution of right of way issue for delivery of water across federal lands. 	
Lemhi Basin Stream Flow Maintenance Water Right Applications <i>(Settlement Agreement Sections II. and III.)</i>	<ul style="list-style-type: none"> ● IDWR held Application Filing Workshops in Salmon on Sept 14 & 15, 2022, and in Leadore on Sept 15, 2022, to assist 	<ul style="list-style-type: none"> ● Address right of way issue for delivery of water across federal lands. ● IDWR to provide notice of the opportunity to file 	<ul style="list-style-type: none"> ● Application filing deadline is July 1, 2024. ● Work with water users to provide information needed to create templates for combined

Lemhi River Basin Settlement Agreement



Amy Cassel, Project Manager, IDWR
September 14, 2023

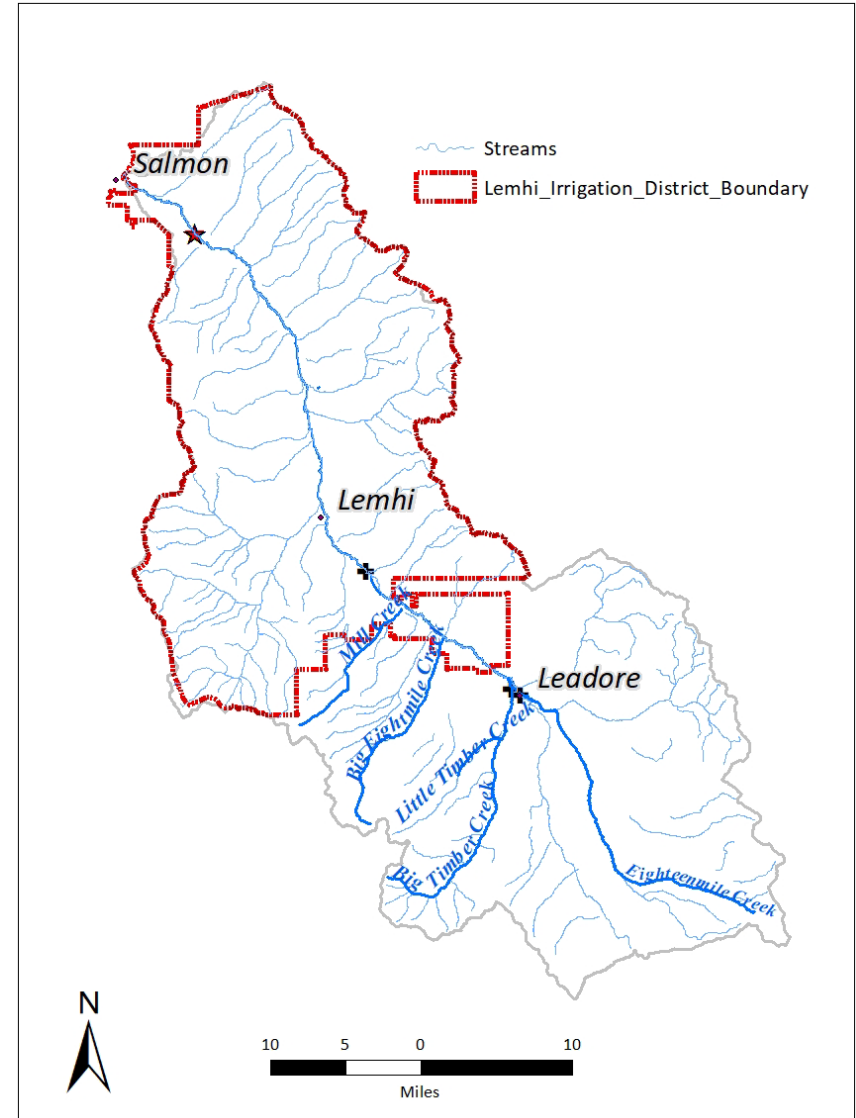
Lemhi River Basin Comprehensive Settlement Agreement

Summary:

- Executed on February 24, 2022, the Agreement set forth a legal process for irrigators in the Lemhi River Basin who divert high flow ancillary to their decreed water rights under a General Provision in the Snake River Basin to perfect a water right for their 'high flow' use.
- Parties to the Agreement include Lemhi Basin water users, the IWRB, Idaho Department of Fish and Game, and the Idaho Office of Species Conservation.
- Participation in the Agreement is voluntary and allows water users to continue to divert water under the General Provision if they choose not to obtain a protectable a water right for high flow use.

Resolution of state and private protests

- 14 applications for new irrigation water rights on Big Timber Creek, Little Timber Creek, Mill Creek, Eighteenmile Creek, and Big Eightmile Creek were resolved
- 12 of the applications have been issued permits by IDWR, and two remain pending due to right of way issue for delivery across federal land

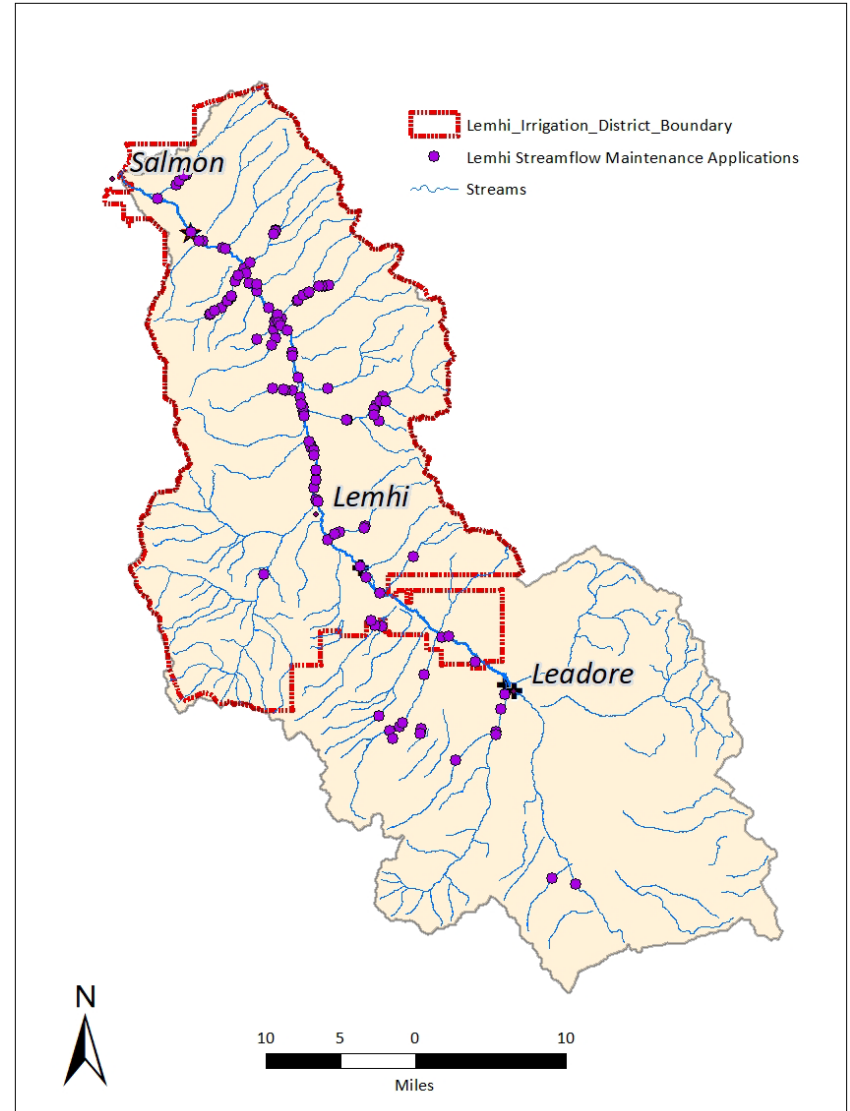


Streamflow Maintenance Applications

- 125 applications were submitted and filed on behalf of individual water users
- Most of those 125 applications will be re-submitted under the collective Lemhi Irrigation District filing
- To date, 210 applications for the Lemhi Irrigation District have been prepared by IDWR
- 7 applications that fall outside of the Lemhi Irrigation District have been submitted and advertised

Frequently Asked Questions

- <https://idwr.idaho.gov/legal-actions/settlements/lemhi-settlement/>



Steering and Technical Committees

Resolution No. 08-2023, adopted on March 31, 2023, approved the Lemhi River Basin Settlement Agreement Charter and Committee Members List

- Purpose of the Charter is to establish the Steering Committee to facilitate cooperation between the IWRB and the water users in the implementation of the Agreement.
- Members consist of two (2) members of the Lemhi Irrigation District, two (2) representatives of the Upper Lemhi Basin Water Users, one (1) representative of the Idaho Department of Fish and Game, one (1) representative of the Office of Species Conservation, and one (1) representative of the Idaho Water Resource Board (“IWRB Representative”). The watermaster for Water District 74 or an IDWR employee shall serve as an ex officio member of the LBSC.

<https://idwr.idaho.gov/iwrb/water-planning/lemhi-settlement/>

Lemhi River at McFarland MSF

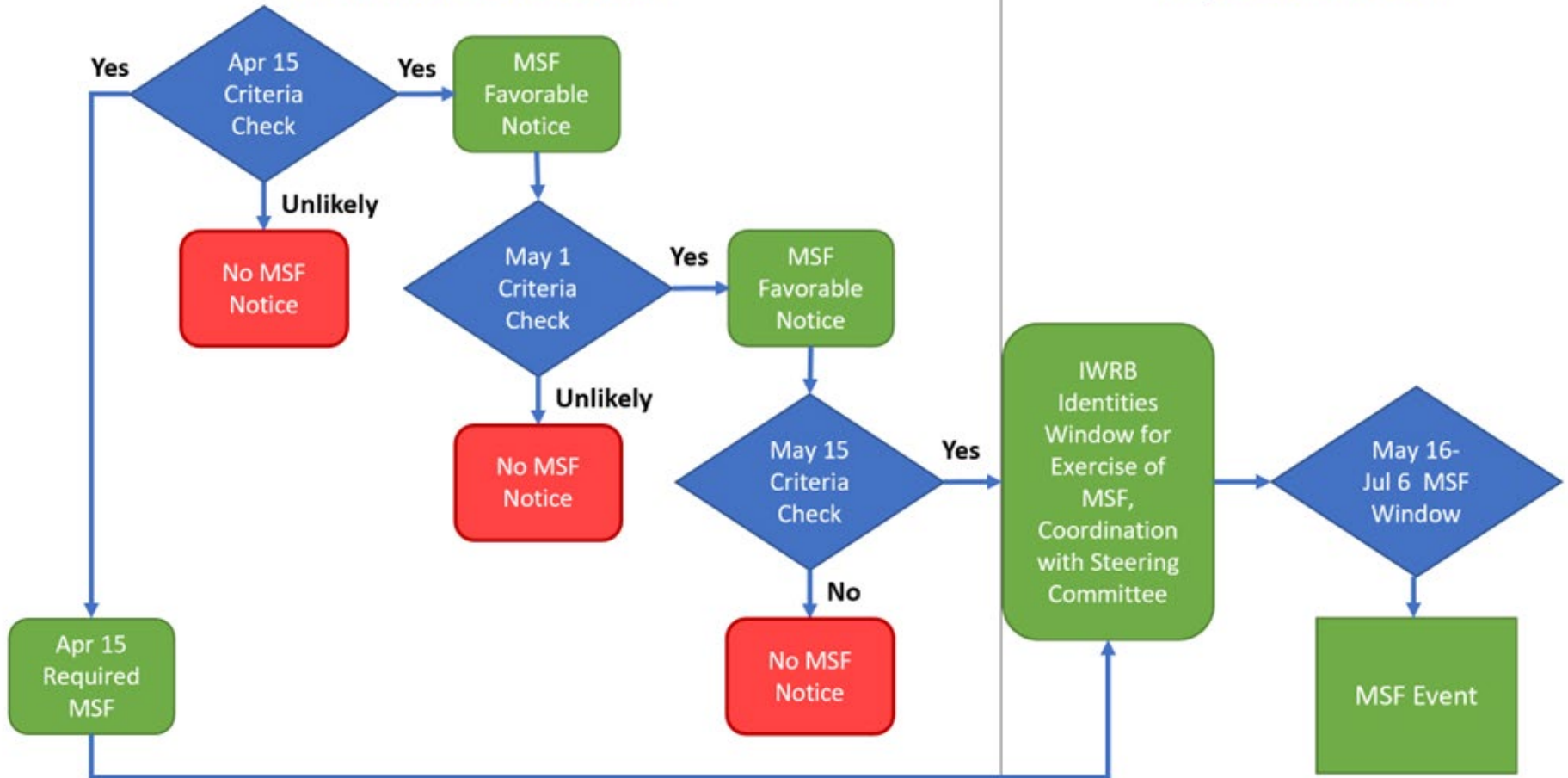
Resolution No. 09-2023, adopted on March 31, 2023, approved the Lemhi River at McFarland Campground Minimum Stream Flow Protocol

- The McFarland MSF has a total diversion rate of 420 cfs and the period of use is 3/15 to 7/6. The quantification point for the McFarland MSF is USGS 13304700 Lemhi River near McFarland, ID stream gage.
- The McFarland MSF aims to 1) flush the overlying fine sediment of the armored Lemhi River streambed and 2) mobilize streambed materials to restore and enhance fish habitat. The McFarland MSF may be exercised only two out of every five years, and the exercise of the right shall be limited to a duration of three days (72 hours) between March 15th to July 6th. The three-day period shall be timed to occur as near as possible to the peak of the Lemhi River Basin snowmelt runoff.

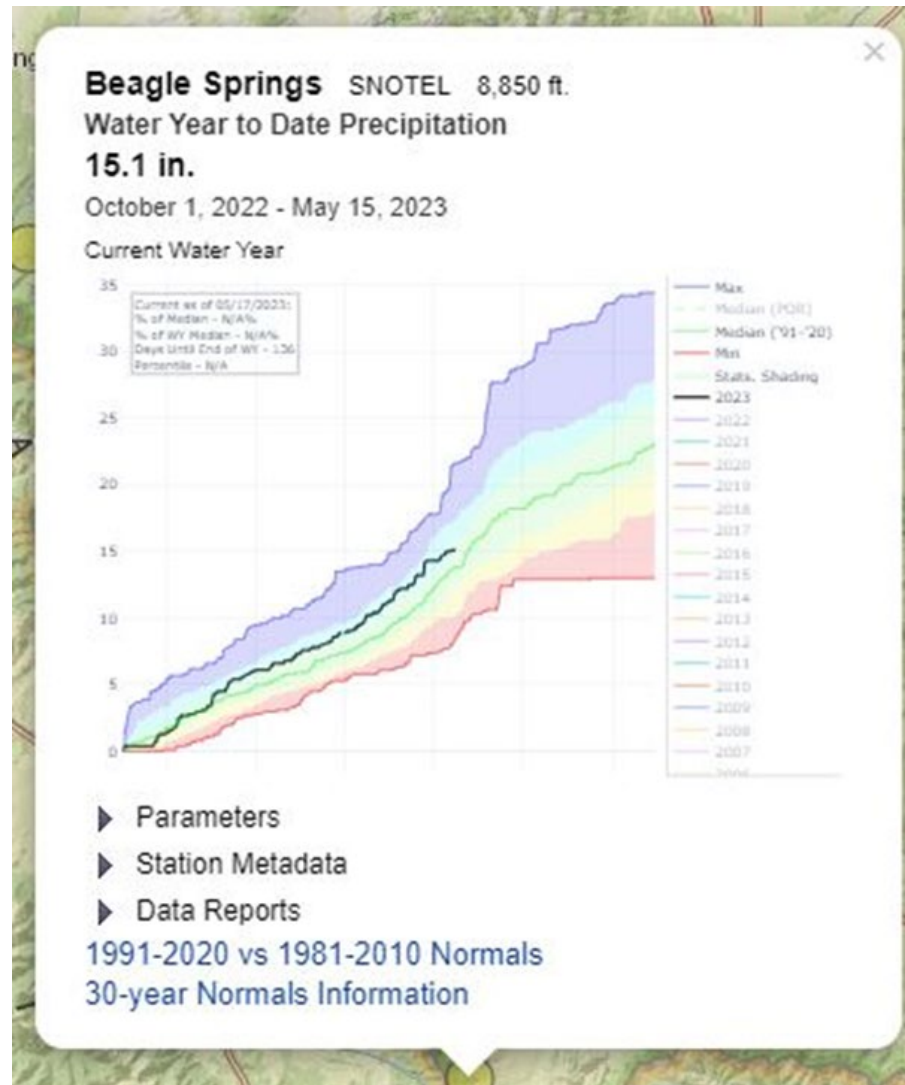
<https://idwr.idaho.gov/iwrb/water-planning/lemhi-settlement/>

Lemhi River at McFarland MSF

Preseason Evaluation

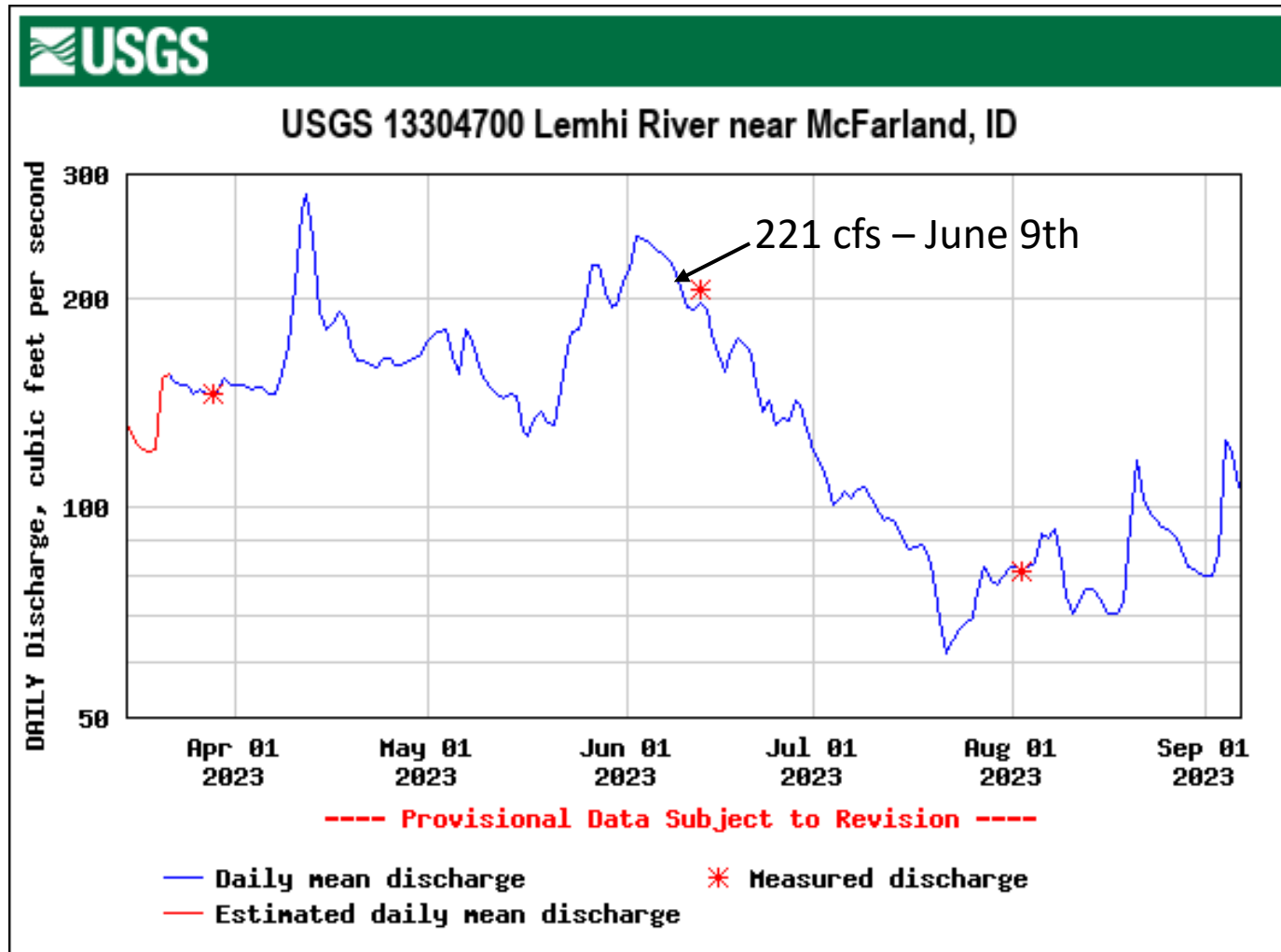


Lemhi River at McFarland MSF

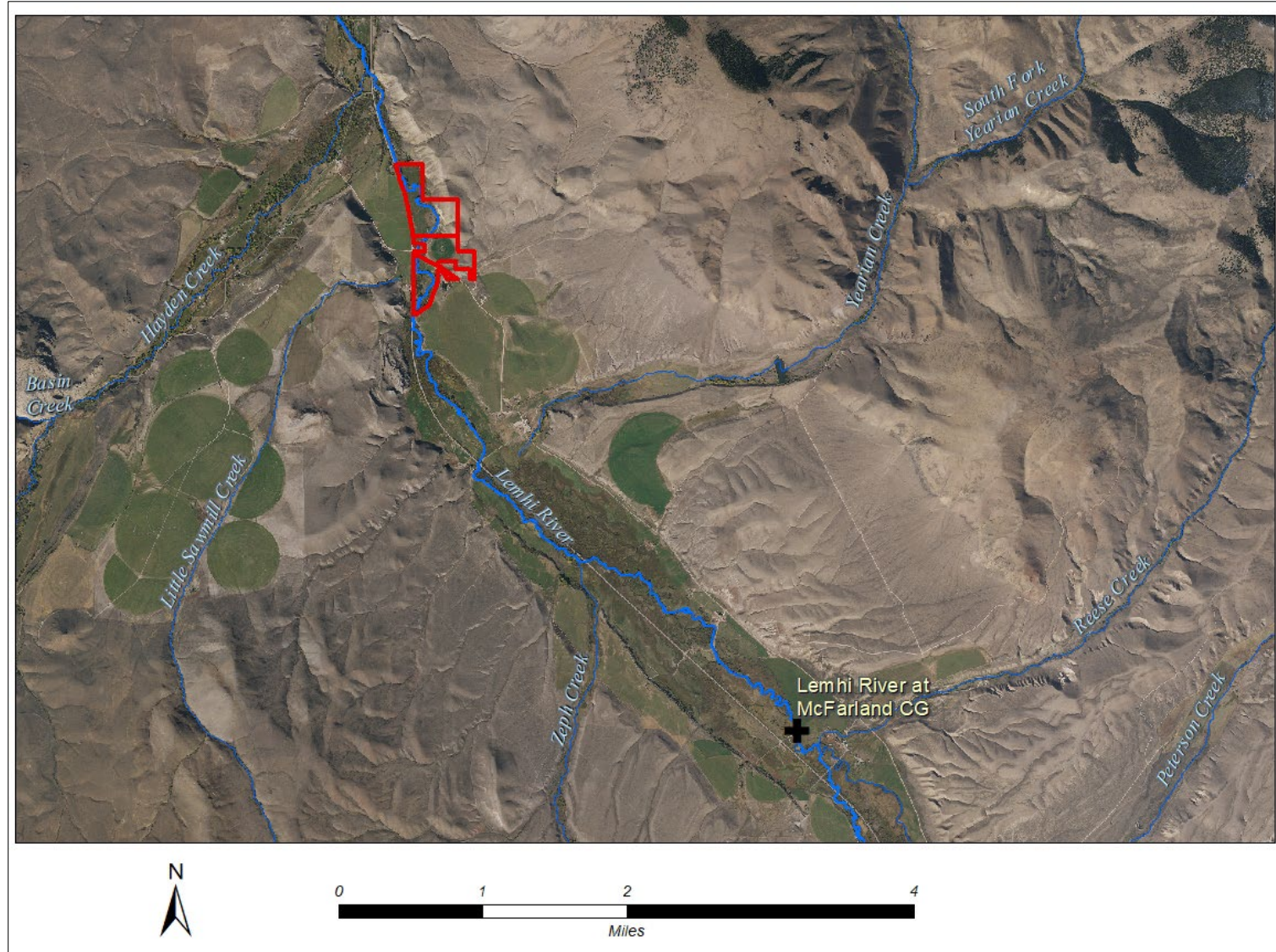


Lemhi River at McFarland MSF

Lemhi River at McFarland Campground Minimum Stream Flow – 420 cfs



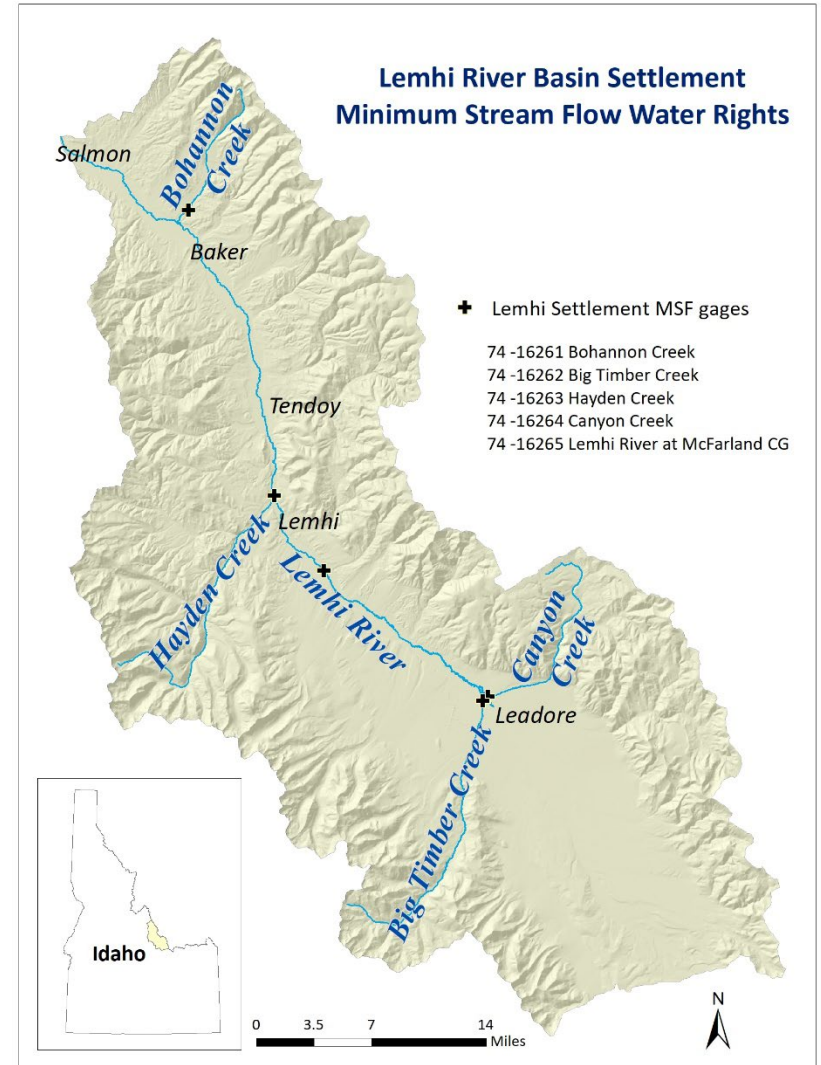
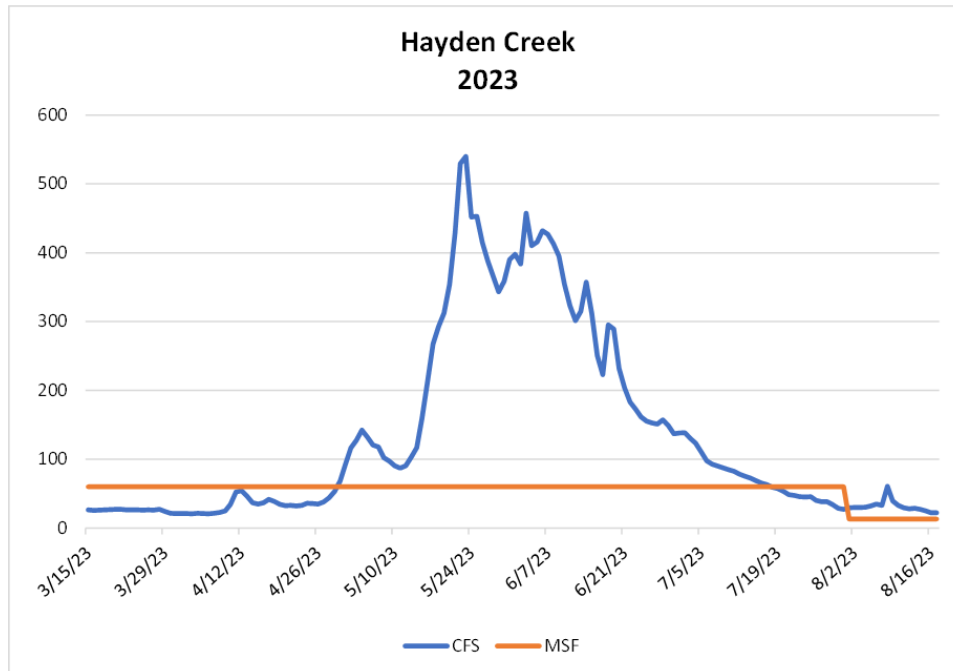
Lemhi River at McFarland MSF



Minimum Stream Flow legislation

Hayden Creek

- March 15 – July 31 is 60 cfs
- August 1 – March 14 is 13 cfs



Lemhi Basin Water Supply Program



Cloudseeding



Managed Recharge



Surface Water Storage

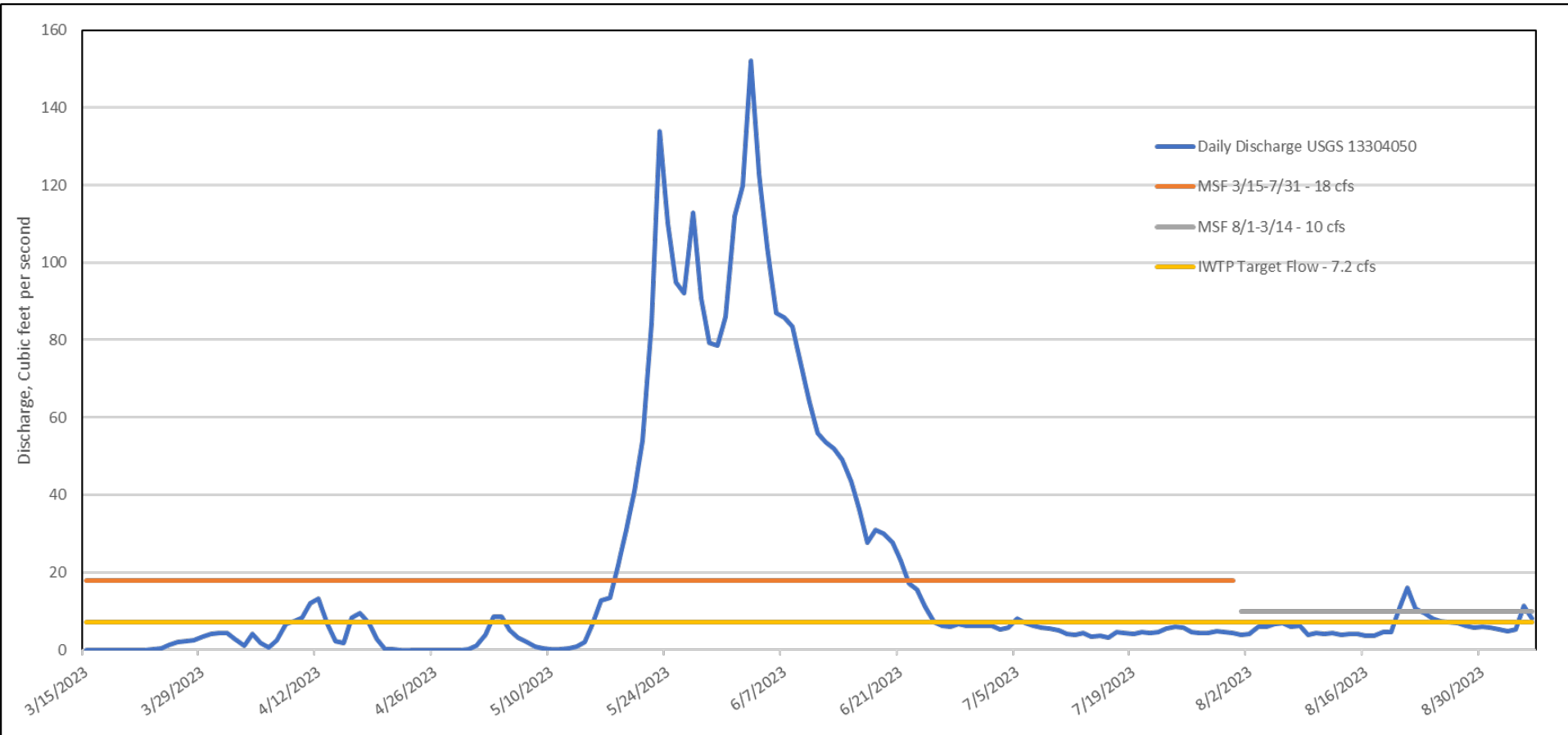


- Carl Ellsworth, Merrill Beyeler, and Kurt Bird, Lemhi River Basin water users and parties to the Agreement
- John Loffredo, IDWR – Notice of Water Transactions, MSFs on Bohannon, Canyon, and Big Timber Creek
- Windy Schoby, Idaho Department of Fish and Game – Status of fish screens on Big Timber Creek
- David Graybill, IDWR – Administration and Distribution
- Sarah Tessendorf, National Center for Atmospheric Research, Cloudseeding Feasibility Study in Lemhi River Basin

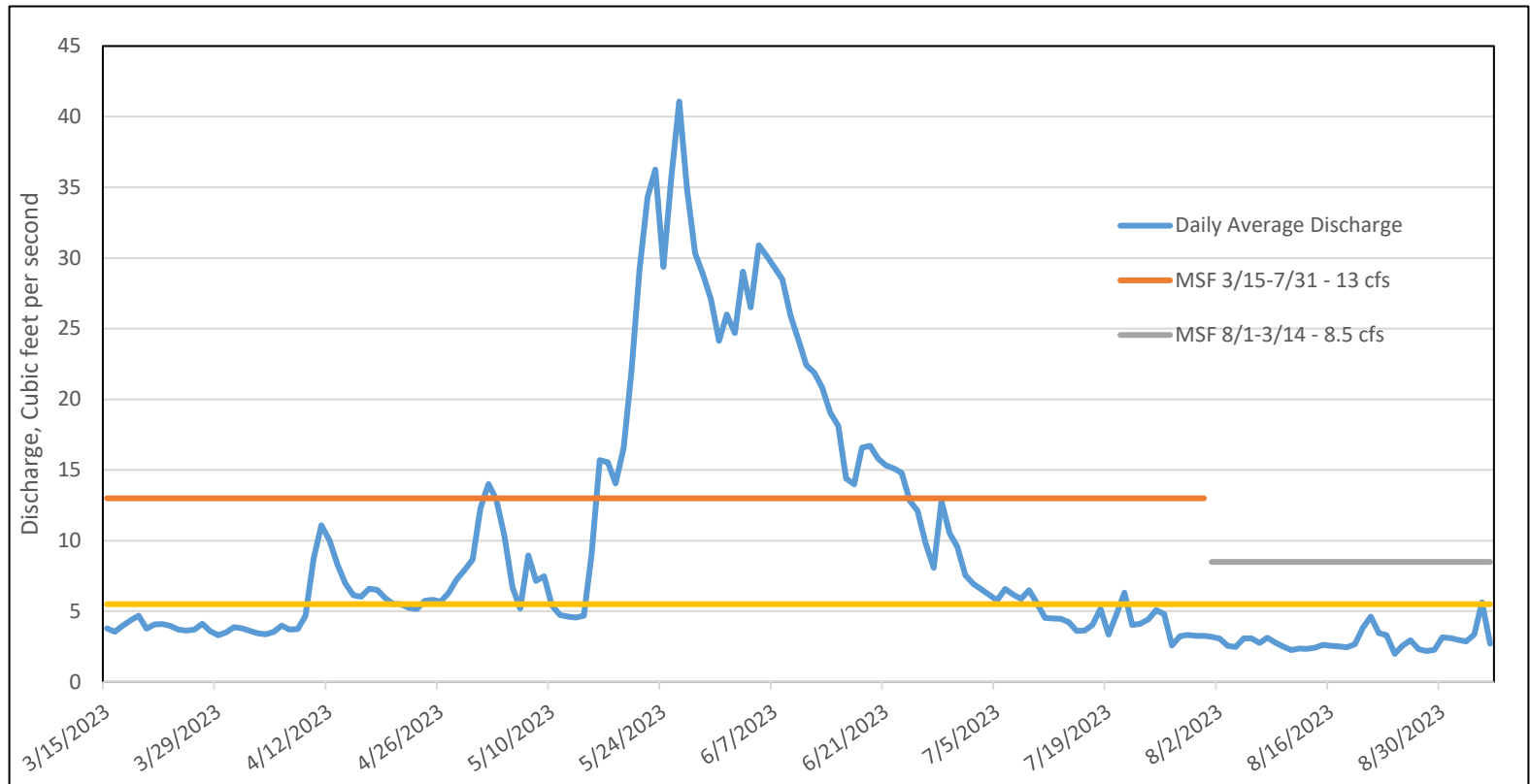
Minimum Stream Flows

Lemhi River Basin

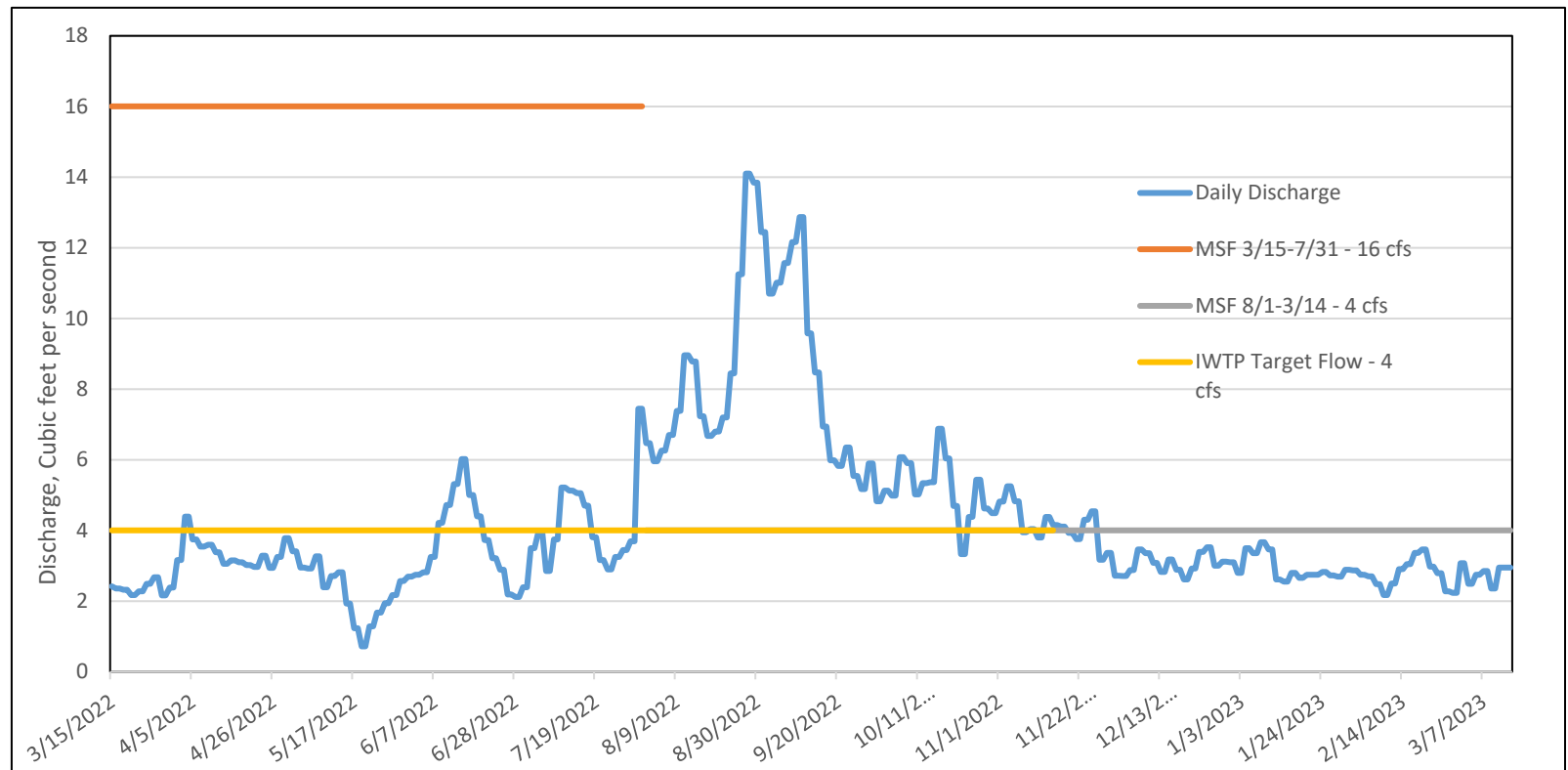
Big Timber Creek



Minimum Stream Flows Lemhi River Basin Bohannon Creek



Minimum Stream Flows Lemhi River Basin Canyon Creek



Fish Screening 101



Idaho Water Resource Board Meeting

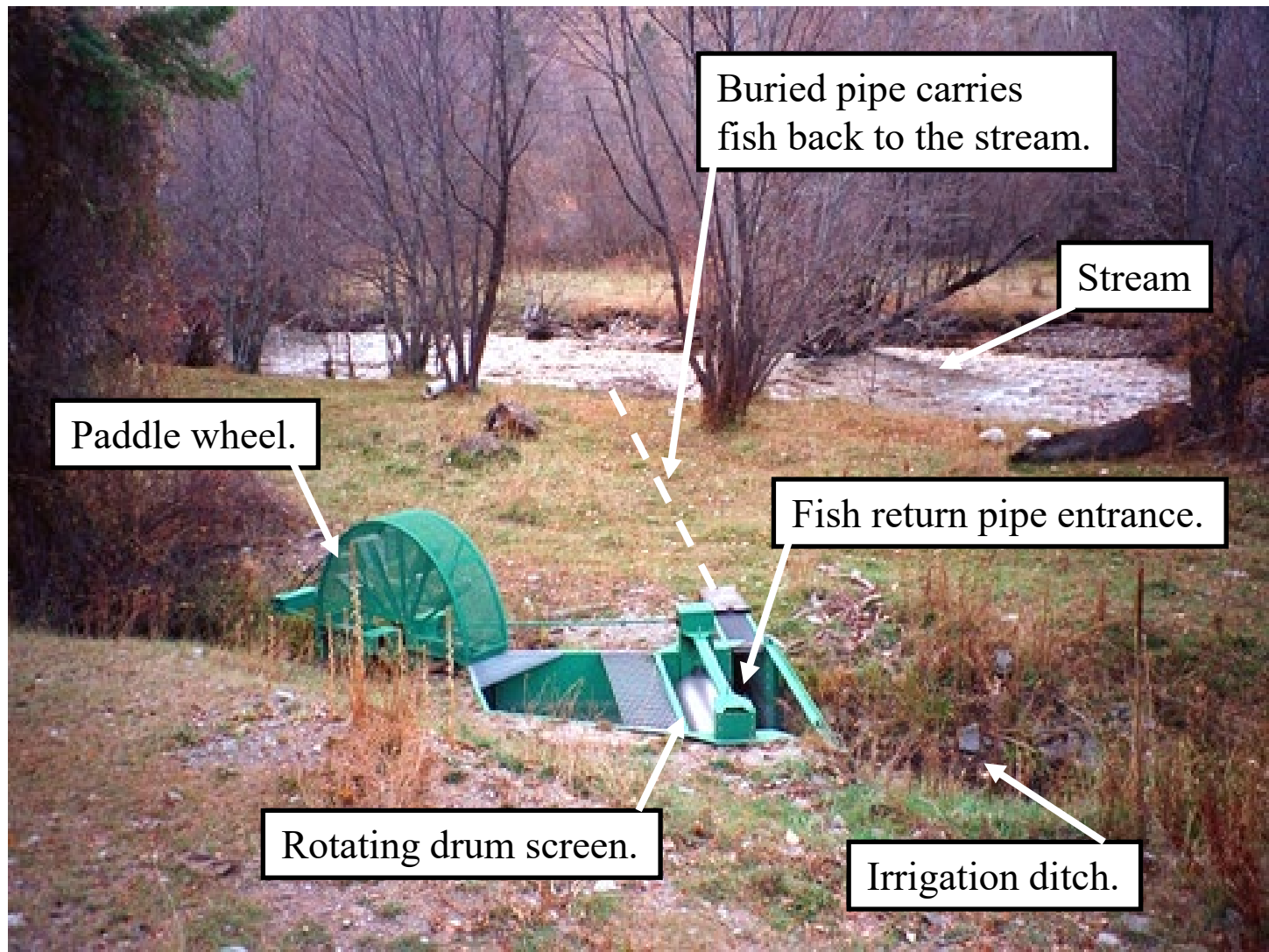
September 14, 2023

Salmon, Idaho

Windy Schoby

Staff Biologist

Idaho Department of Fish And Game



Buried pipe carries
fish back to the stream.

Stream

Paddle wheel.

Fish return pipe entrance.

Rotating drum screen.

Irrigation ditch.

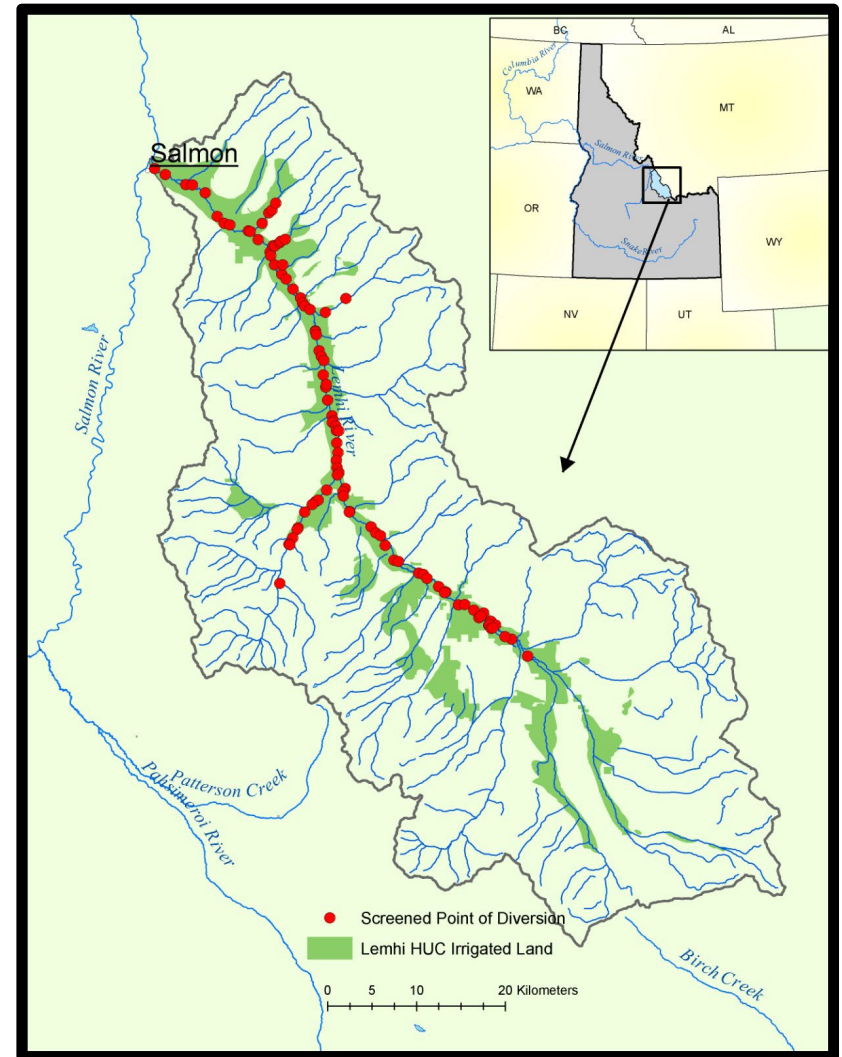
Idaho Department of Fish and Game Anadromous Fish Screen Program

- Located in Salmon, Idaho.
- 12 full-time/ 17 temporary employees
- Installed, operate, and maintain 280 fish screens in the Upper Salmon
- NOAA Mitchell Act / BPA
- Major Limiting Factor:
Fish passage and entrainment



Upper Salmon River Basin Fish Screening

- High percentage (> 90%) of Chinook salmon spawn on private property.
- All mainstem diversions are screened
- Rotary drum screens built to NMFS Juvenile Fish Screen Criteria
- High Priority – Subbasin Plans, Recovery Plans



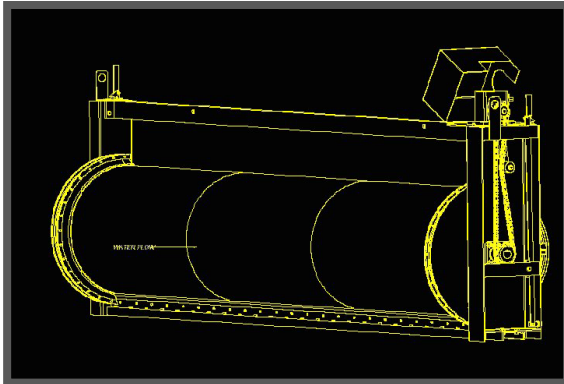
Tributary Screening

- Critical to recovery efforts
- Holistic tributary approach
- Fish passage is paramount
- Water conveyance
- Water Transfers/Transactions
- Thermal refugia
- Private/Federal property

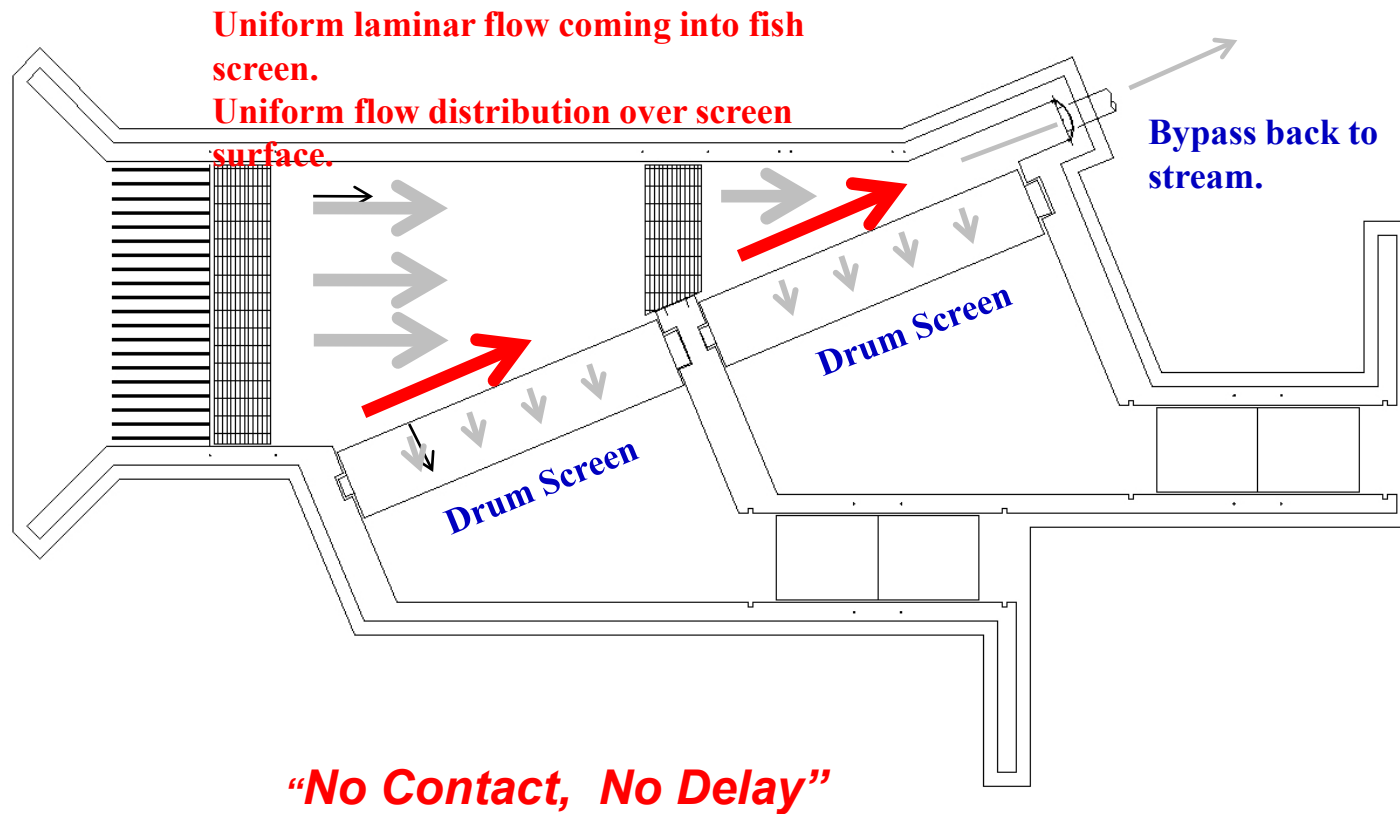


Fish Screens are Complex

- Needs a true Bio-Engineering approach
- Every site has its own unique characteristics
- Engineering is critical to meet criteria
- Biological interactions need consideration
- Maintenance cannot be underestimated



Juvenile Fish Screen Criteria



Steps to Installing a Fish Screen

- 1) Conversation with irrigator and understanding of water right
- 2) Topographic survey for design
- 3) Cultural resource survey / clearance
- 4) Commitment from water user and landowner (if state or fed NEPA)
- 5) Dedication of funds from next FY contract
- 6) Design of screen, review with water users
- 7) Signed flow agreements, screen easements, construction agreements
- 8) Additional permitting
- 9) Shop fabrication of metal components of screen
- 10) Field construction (Public Works contract)
- 11) Seeding, clean up, field testing
- 12) Training irrigator/ water master
- 13) Maintenance- become part of screen tender daily route

Dedicated Maintenance



Administration of the Lemhi Settlement



David Graybill, Upper Salmon Basin Watermaster

Distribution of Water Rights and Watermaster Instructions

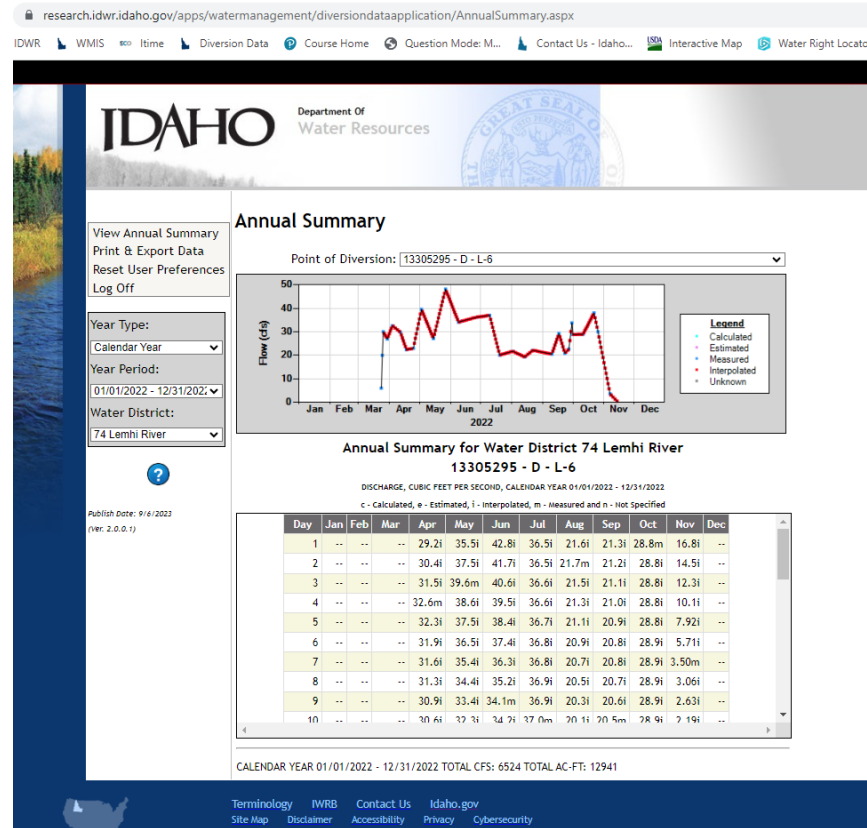
- Function and challenges of water districts
- Water District 170 provides oversight

Lemhi Basin Measurement Order

- Measurement required for administration
- Measurement order issued in 2018

Online Diversion Database

- Watermaster survey
- Manual data entry



Memorandum



To: Idaho Water Resource Board
From: Kala Golden, Cloud Seeding Program Manager
Date: September 8, 2023
Re: Lemhi River Basin, Cloud Seeding Feasibility and Design Study

ACTION: NONE

Background

In July of 2022, the Idaho Water Resource Board (IWRB) directed staff to conduct a cloud seeding feasibility and design (F/D) study of the Lemhi River Basin (LRB) to support settlement efforts in the basin. The study objective is to conduct a detailed analysis of the LRB to understand the cloud and precipitation characteristics in the Lemhi Mountains in both the current climate and a future climate scenario, to serve as the basis for designing a program that would optimally target this region.

The project, conducted by the National Center for Atmospheric Research (NCAR), commenced in August of 2022 for a total contracted amount of \$370,000 and includes a cost benefit analysis. This project has been delayed by approximately 6 months due to the availability of computing resources to support all IWRB projects. The IWRB authorized an additional \$100,000 in funding in July of 2023 to support computing needs for all projects. The final report for the LRB F/D will be completed in September of 2024.

Dr. Sarah Tessendorf with NCAR will provide a presentation and project update on the LRB F/D study during the IWRB's Work Session Meeting on September 14, 2023.

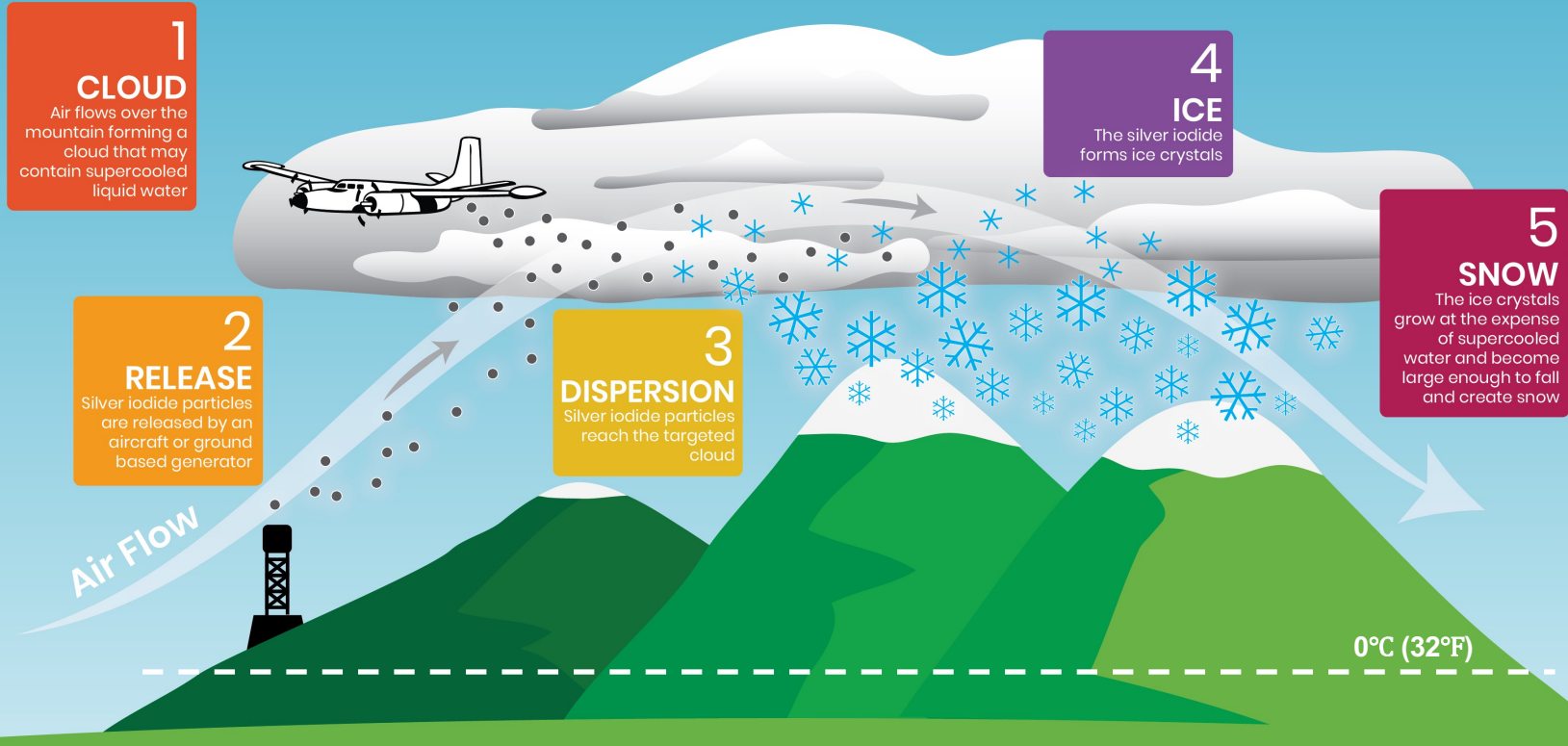
Attachments: NONE

Lemhi Basin Cloud Seeding Feasibility and Design Study

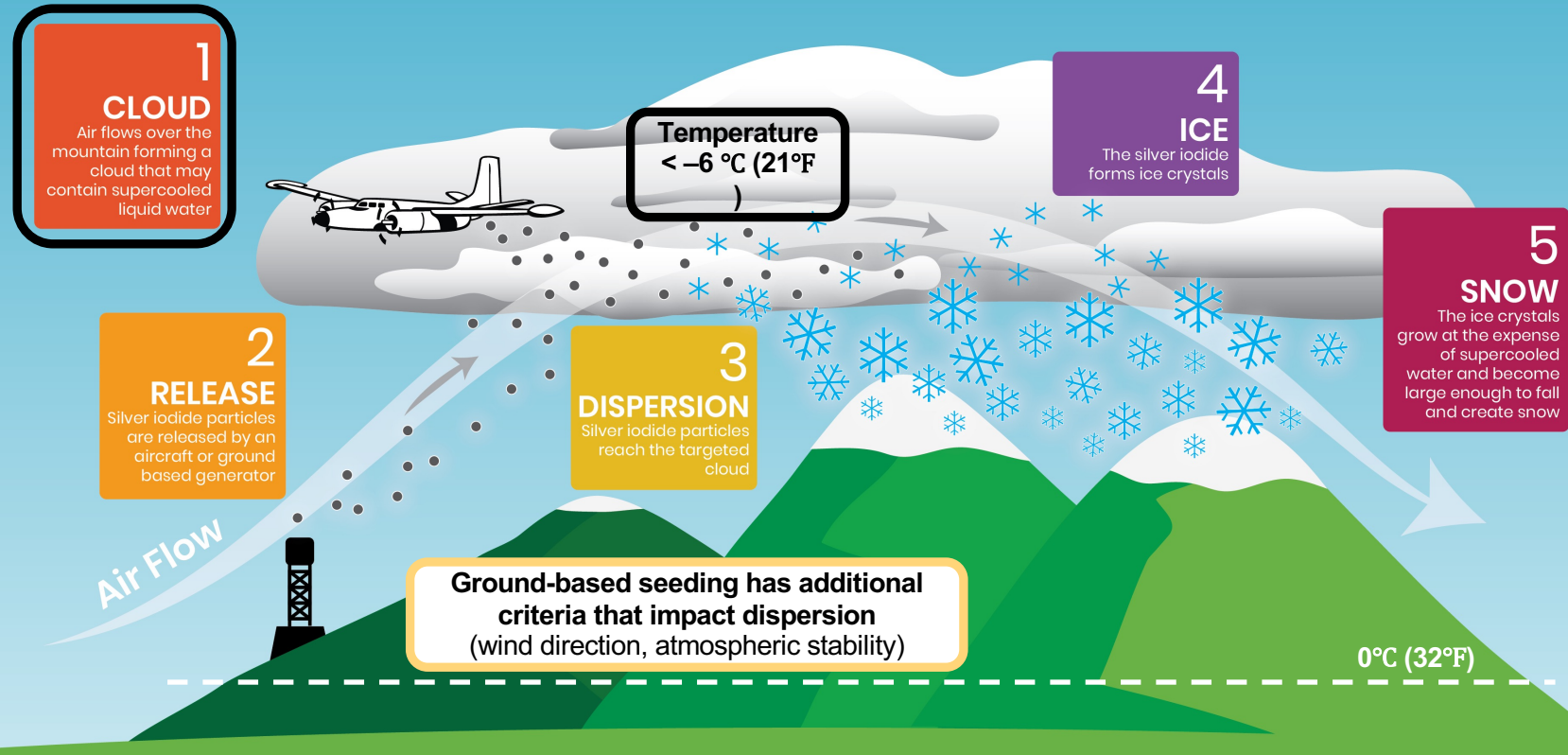
Climatology Analysis Update

**Sarah Tessendorf, Courtney Weeks, Meghan Stell,
Amy DeCastro, Maria Frediani, Jamie Wolff, Lulin Xue**

The goal of winter orographic cloud seeding is to increase snowpack (and subsequent streamflow)



Two key criteria : 1) Supercooled liquid water (SLW) 2) Temperature for silver iodide to nucleate ice



Feasibility and Design Components

Climatology Analysis

How often are there opportunities for seeding clouds in this region?

What are the characteristics of clouds in this region?

Analyze historical data:

- Temperature
- Supercooled liquid water (SLW)
- Precipitation
- Winds
- Atmospheric stability

Preliminary Design

What methods of cloud seeding might target the clouds in this region most effectively?

Test and Refine Design

How effective are each design option at targeting and enhancing precipitation in this region?

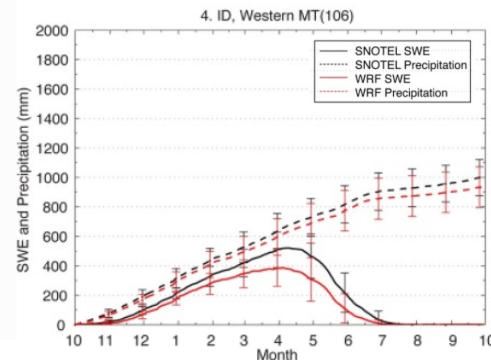
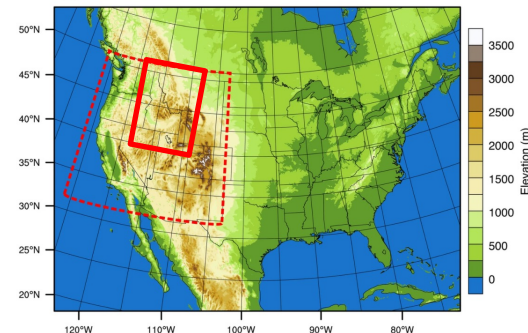
Which combination of design options is recommended?

Approach for Climatology Analysis

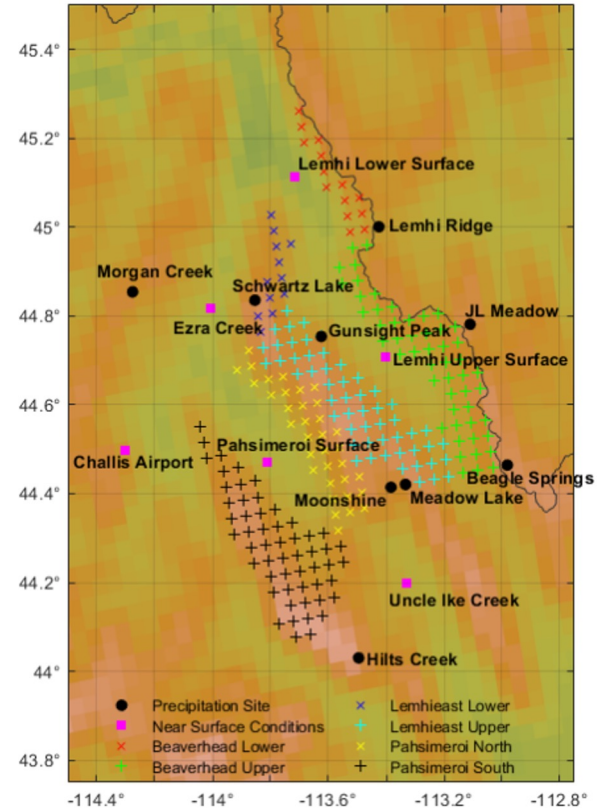
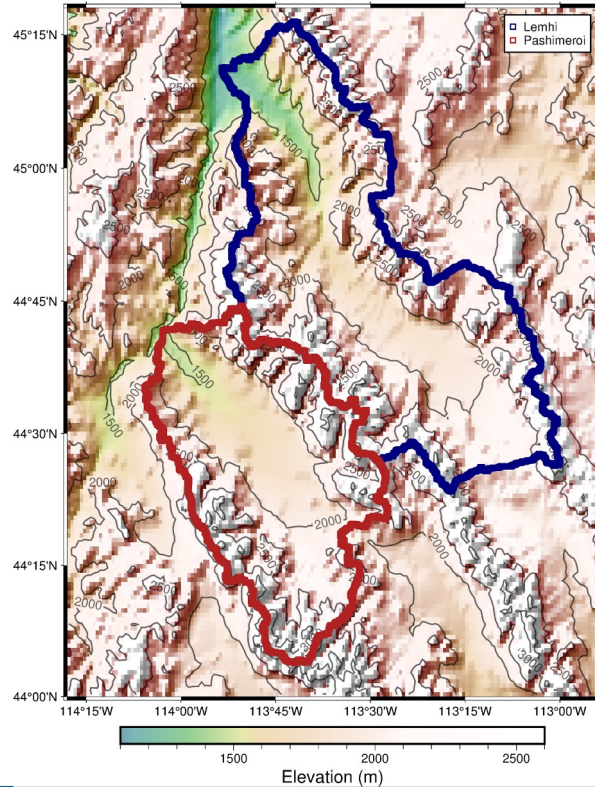
Analysis of Historical Data

- Observations required for assessing the potential for cloud seeding are not routinely collected
 - Weather balloons provide vertical profiles of temperature (limited)
 - No routine measurements of SLW
- High-resolution, long-term model simulations provide a new opportunity
 - 13-year (2000-2013) 4-km grid spacing WRF model simulation over the CONUS
 - Shown to realistically reproduce precipitation observations
 - Includes 3D information on temperature, SLW, winds, etc.

Weather Research and Forecasting (WRF) model CONUS Simulation Domain



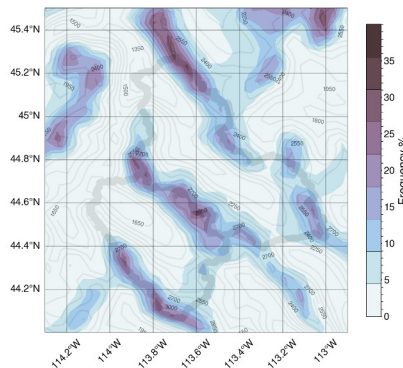
Region of Study



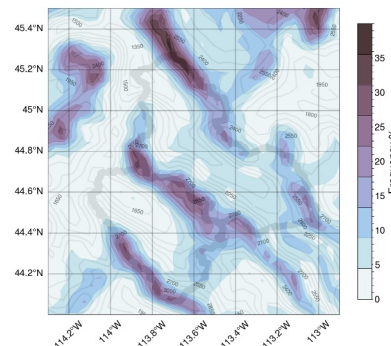
Ground-Based Analysis

- Conditions most frequent over mountain barriers
- Peak months of Dec-Feb

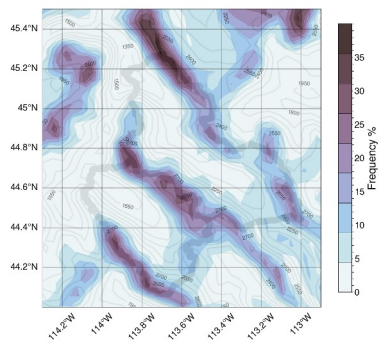
CONUS 404 Current Climate
Frequency Seedable Ground LWC and Temp Conditions (November)



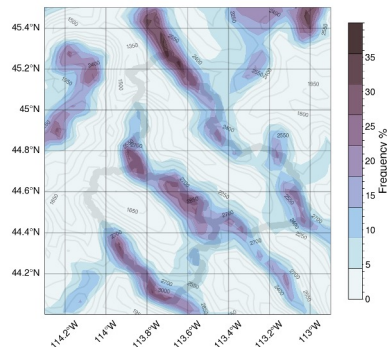
CONUS 404 Current Climate
Frequency Seedable Ground LWC and Temp Conditions (December)



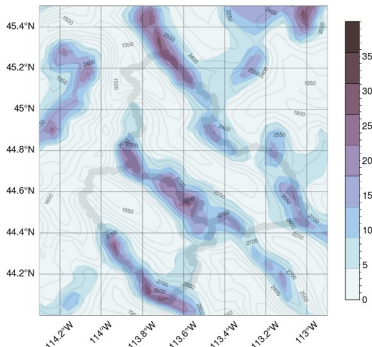
CONUS 404 Current Climate
Frequency Seedable Ground LWC and Temp Conditions (January)



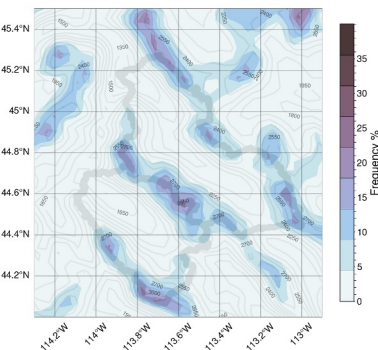
CONUS 404 Current Climate
Frequency Seedable Ground LWC and Temp Conditions (February)



CONUS 404 Current Climate
Frequency Seedable Ground LWC and Temp Conditions (March)



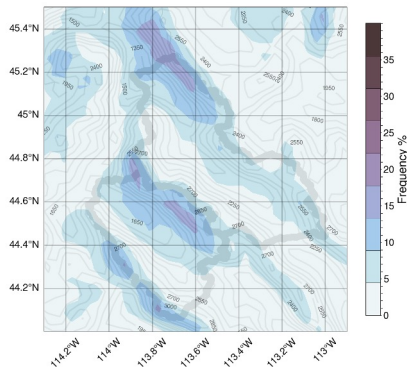
CONUS 404 Current Climate
Frequency Seedable Ground LWC and Temp Conditions (April)



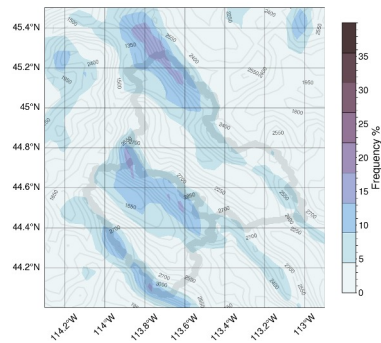
Airborne Layer Analysis

- Conditions extend upwind (west) of mountain barriers
- Lower frequency than ground given less supercooled liquid at flight altitude

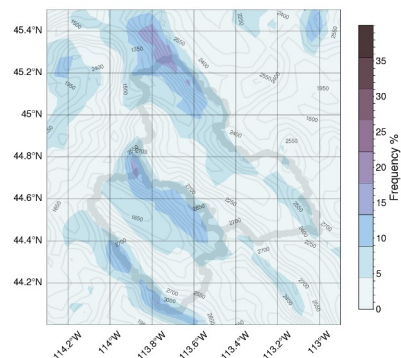
CONUS 404 Current Climate
Frequency Seedable Air LWC and Temp Conditions (November)



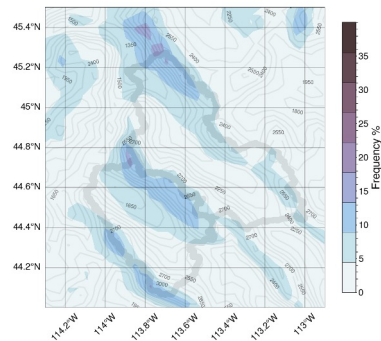
CONUS 404 Current Climate
Frequency Seedable Air LWC and Temp Conditions (December)



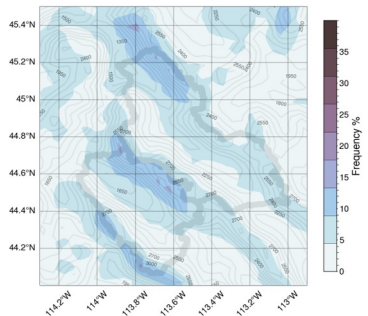
CONUS 404 Current Climate
Frequency Seedable Air LWC and Temp Conditions (January)



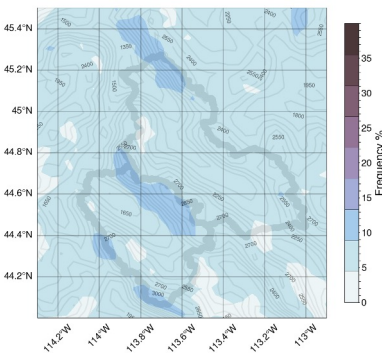
CONUS 404 Current Climate
Frequency Seedable Air LWC and Temp Conditions (February)



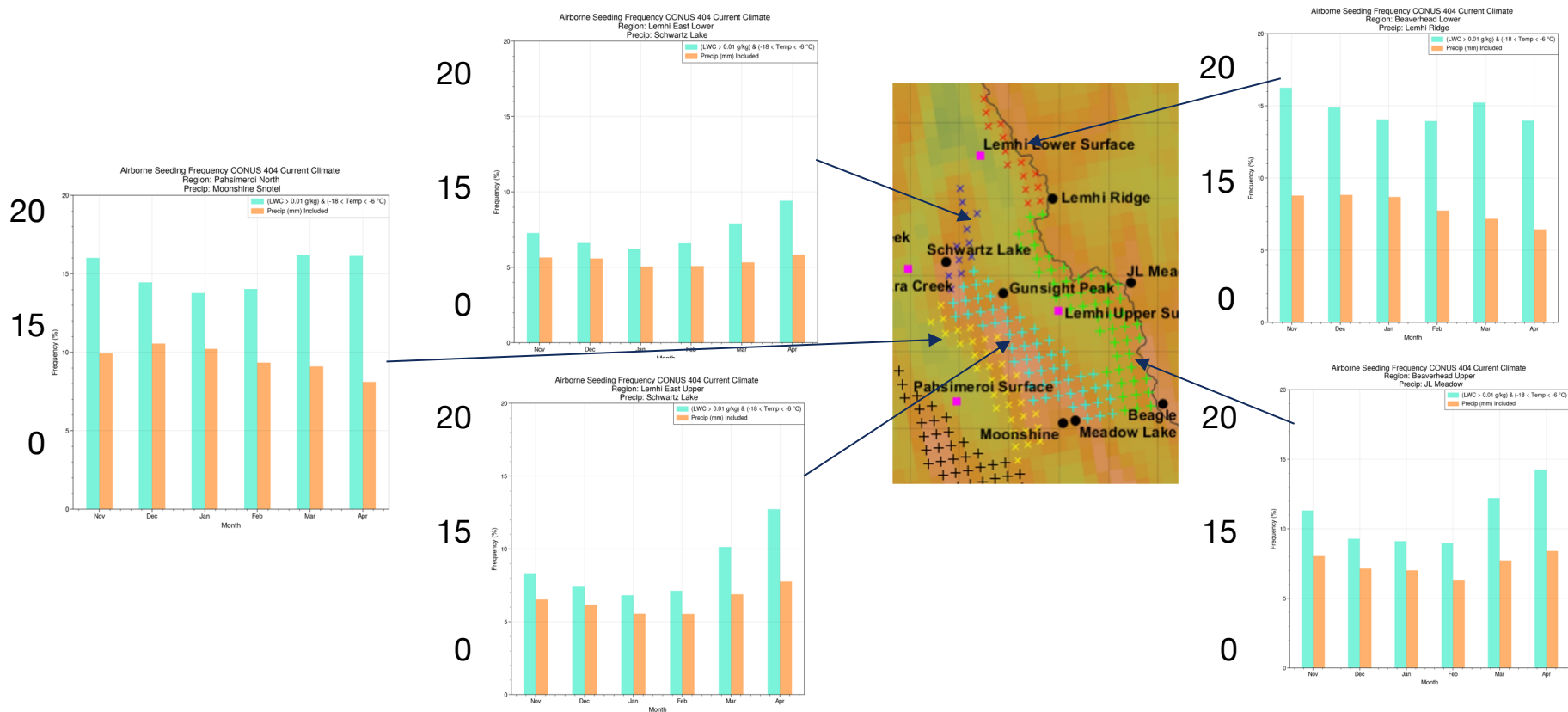
CONUS 404 Current Climate
Frequency Seedable Air LWC and Temp Conditions (March)



CONUS 404 Current Climate
Frequency Seedable Air LWC and Temp Conditions (April)

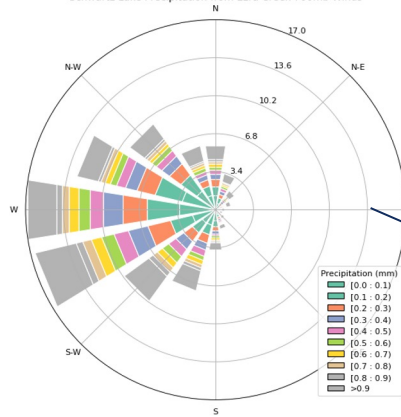


Frequency by Month - Airborne

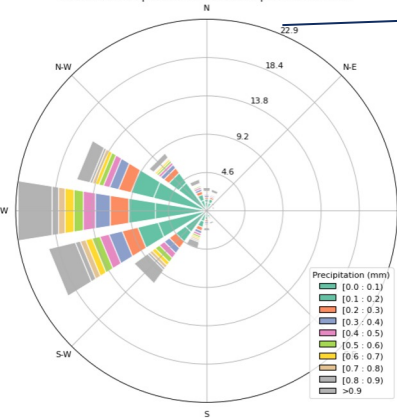


700-mb Winds

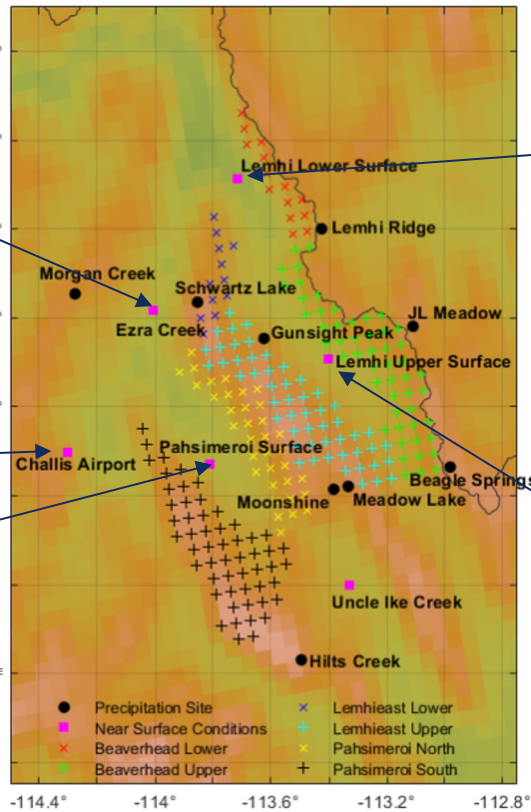
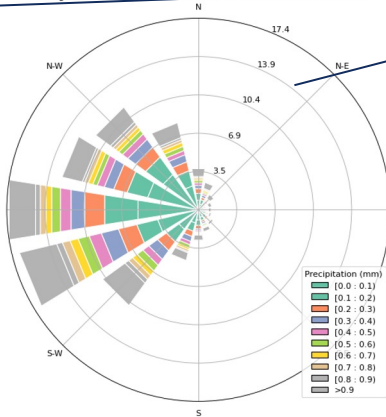
Schwartz Lake Precipitation from Ezra Creek 700mb Winds



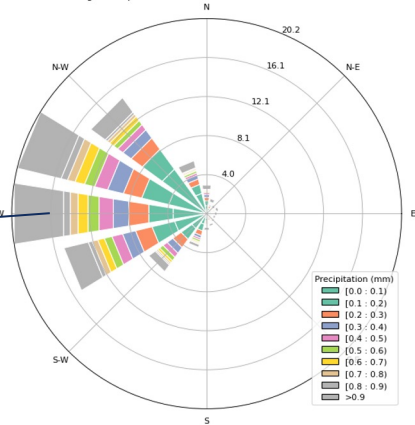
Moonshine Precipitation from Challis Airport 700mb Winds



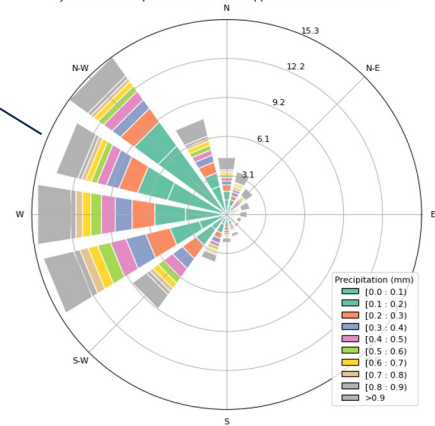
Gunsight Peak Precipitation from Pahsimeroi Surface 700mb Winds



Lemhi Ridge Precipitation from Lemhi Lower Surface 700mb Winds



JL Meadow Precipitation from Lemhi Upper Surface 700mb Winds



Feasibility and Design Components

Climatology Analysis

How often are there opportunities for seeding clouds in this region?

What are the characteristics of clouds in this region?

Analyze historical data:

- Temperature
- Supercooled liquid water (SLW)
- Precipitation
- Winds
- Atmospheric stability



Preliminary Design

What methods of cloud seeding might target the clouds in this region most effectively?

Review climatology results

- Place hypothetical ground-based generator locations
- Identify possible aircraft tracks



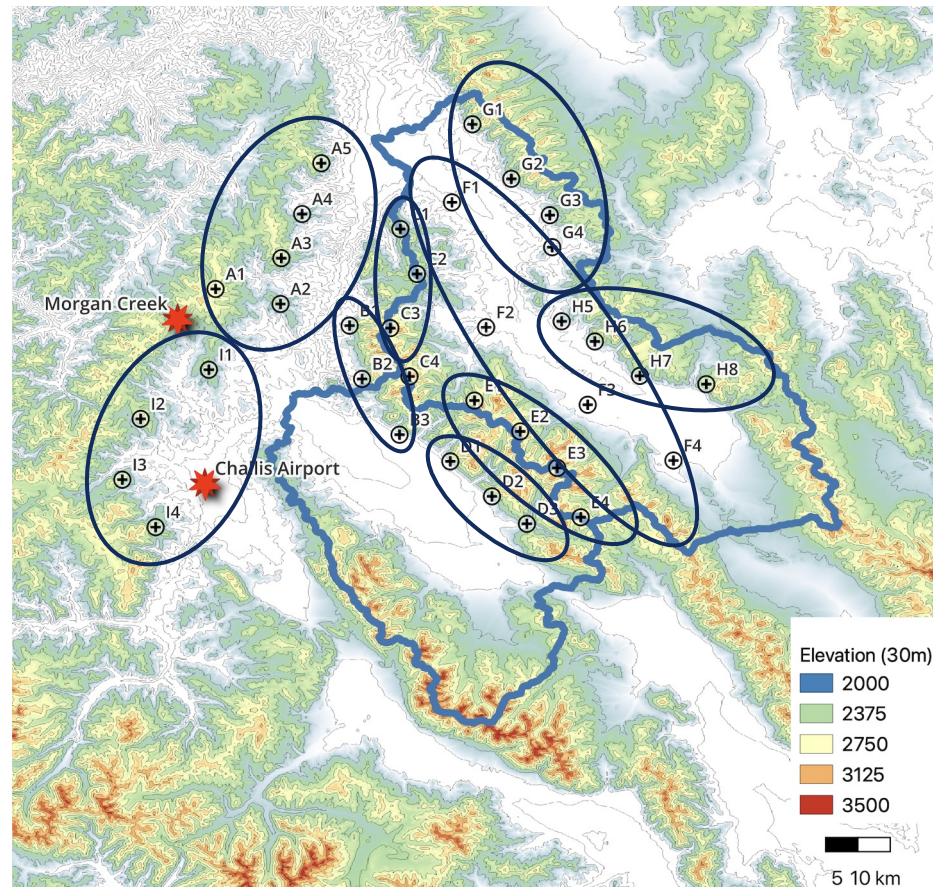
Test and Refine Design

How effective are each design option at targeting and enhancing precipitation in this region?

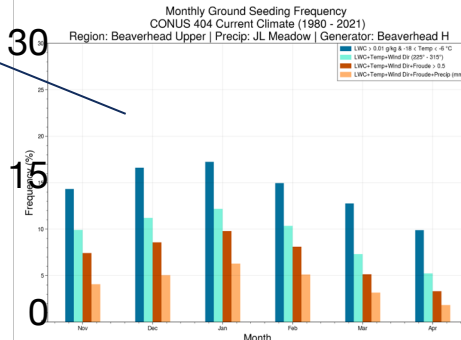
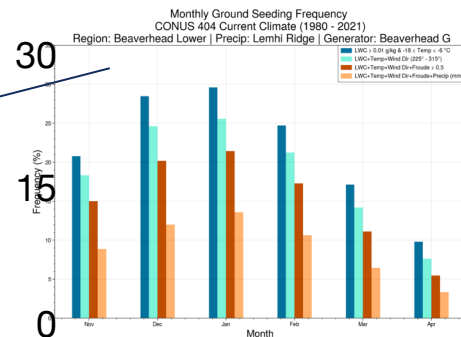
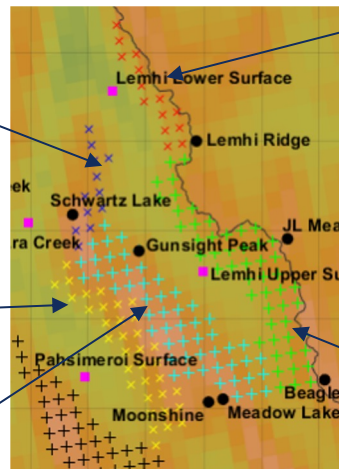
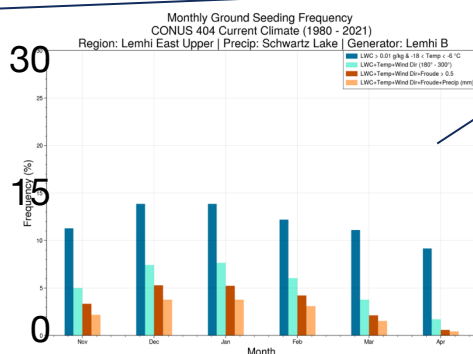
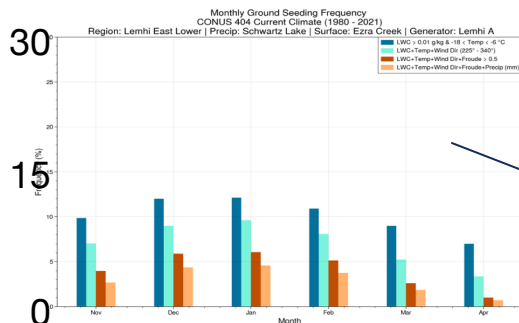
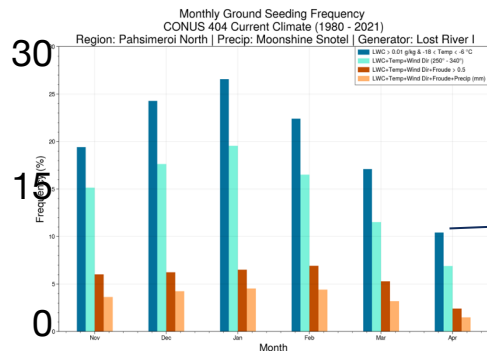
Which combination of design options is recommended?

Potential Ground-based Generator Groups

These hypothetical generator groups are currently being used to assess stability and winds in the context of ground seeding frequencies.



Frequency by Month - Ground-Based



Temp + LWC

Temp + LWC + WDIR

Temp + LWC + WDIR + Fr

Temp + LWC + WDIR + Fr + PCP

Feasibility and Design Components

Climatology Analysis

How often are there opportunities for seeding clouds in this region?

What are the characteristics of clouds in this region?

Analyze historical data:

- Temperature
- Supercooled liquid water (SLW)
- Precipitation
- Winds
- Atmospheric stability



Preliminary Design

What methods of cloud seeding might target the clouds in this region most effectively?

Review climatology results

- Place hypothetical ground-based generator locations
- Identify possible aircraft tracks



Test and Refine Design

How effective are each design option at targeting and enhancing precipitation in this region?

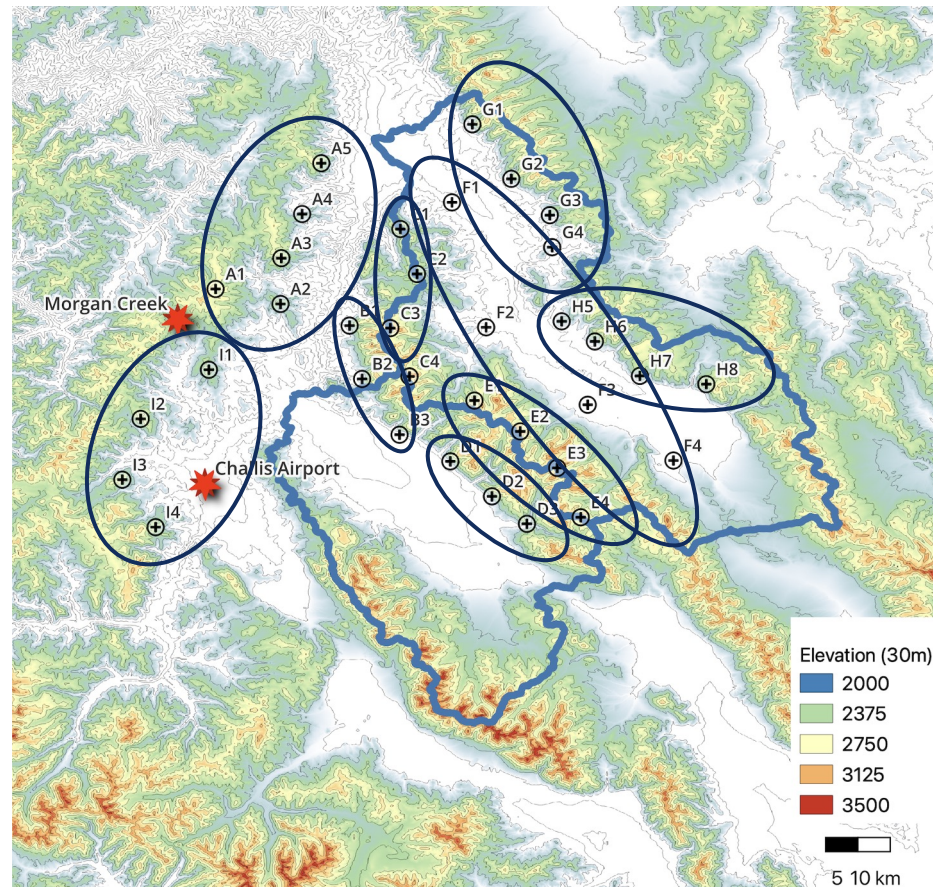
Which combination of design options is recommended?

Simulations of cloud seeding

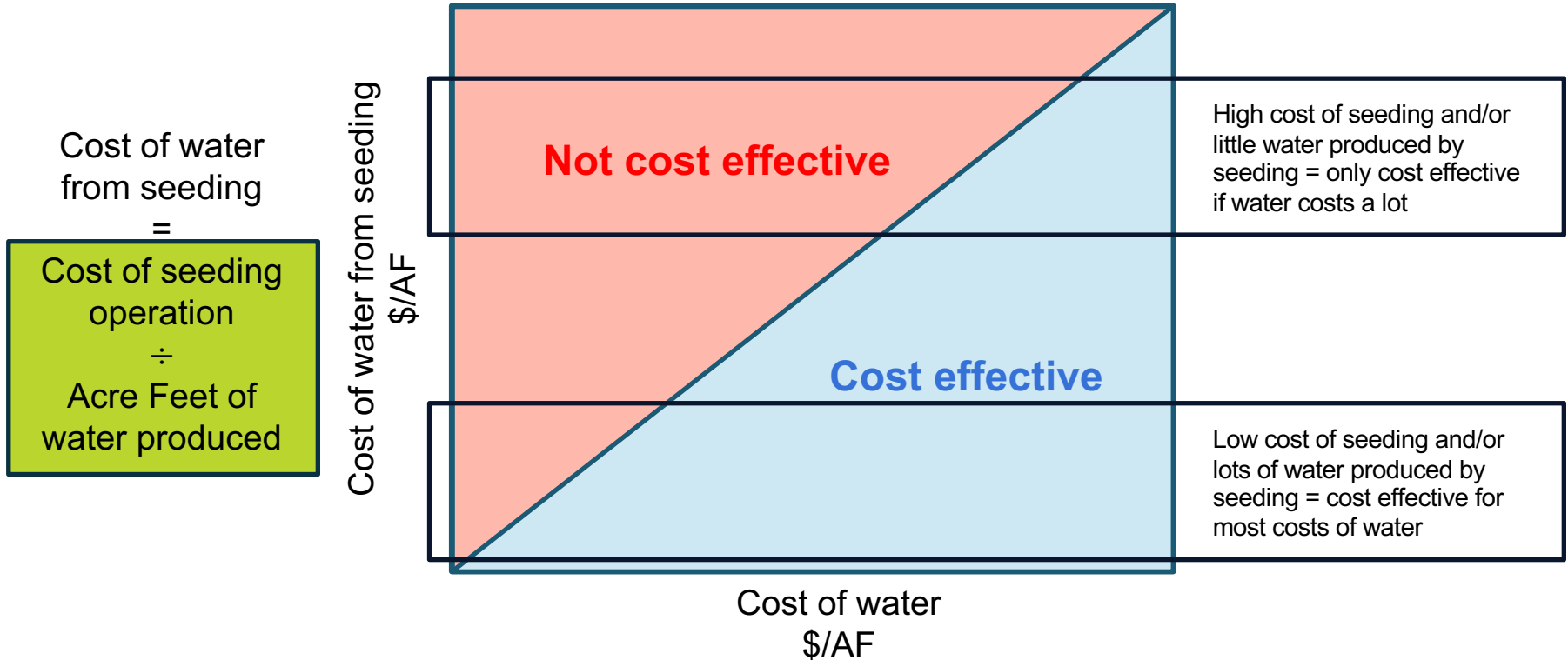
- Test each group of generators or flight tracks individually and combined
- Identify the options with optimal simulated results

Potential Ground-based Generator Groups

WRF-WxMod simulations of seeding with each of these groups of hypothetical ground-based generators will be conducted to determine optimal design



Cost Benefits of Cloud Seeding



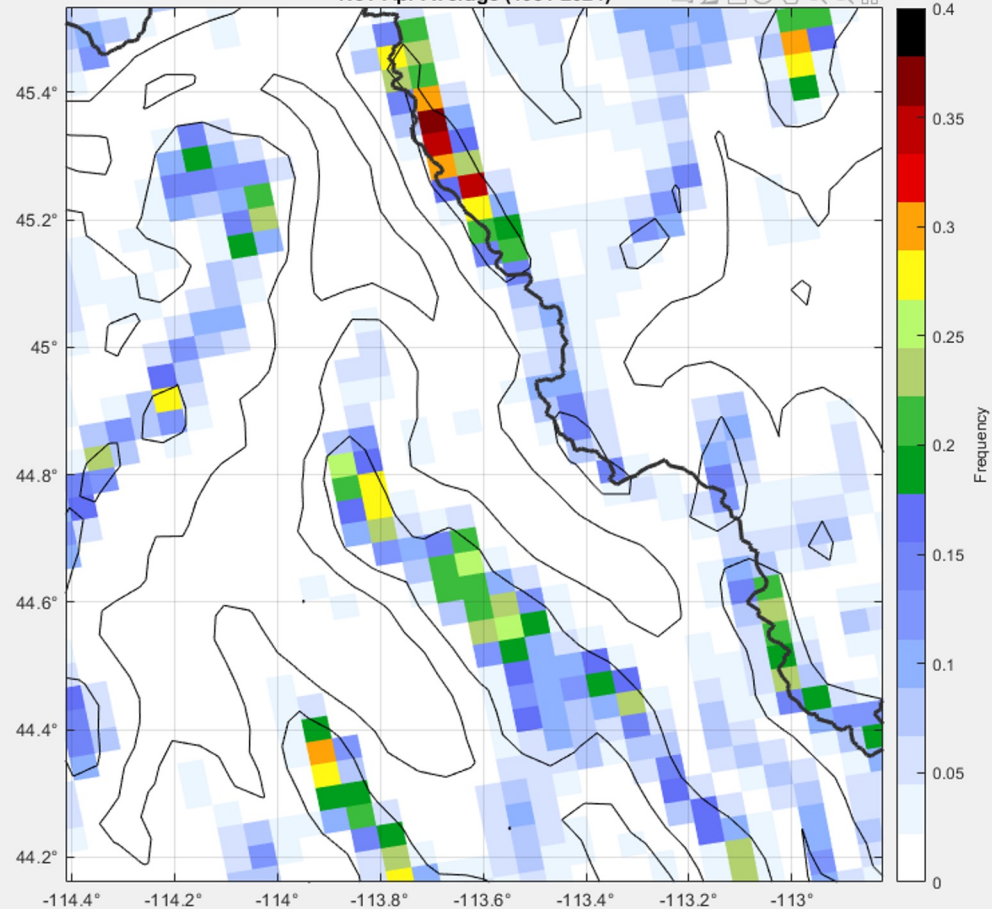
Summary

- Feasibility and design study is being conducted to study the potential for cloud seeding to enhance precipitation in the Lemhi basin
 - 10-20% of winter season have opportunities for seeding, varies by location
 - Potential program designs are currently being simulated with WRF-WxMod model to provide recommendations on optimal design
- The results of this study can be utilized by program managers interested in implementing an operational program in the region
- Opportunities to partner with State of Montana and other nearby basins



CONUS404 Frequency of Lowest Layer QCLLOUD > 0.01 g kg⁻¹ & T < 0°C

Nov-Apr Average (1981-2021)



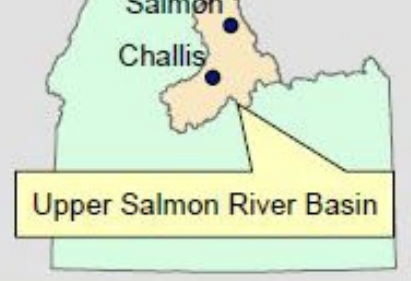
Frequency of conditions that may be amenable to liquid propane seeding

Salmon

Upper Salmon Basin Watershed Program

Chronology and Importance of L-6

John Loffredo
IWRB Water Transaction Program
09.2023



Geeterson Creek

Bohannon Creek

- L6 Irrigation POUs
- Lower Lemhi Annual and Permanent Subordination POUs
- Stream Gages
- Lower Lemhi River Water Transaction Reach
- Lemhi Diversions L-6 - L-9
- Lemhi - Water District 74
- BLM Grazing Allotments

L-6

L-7

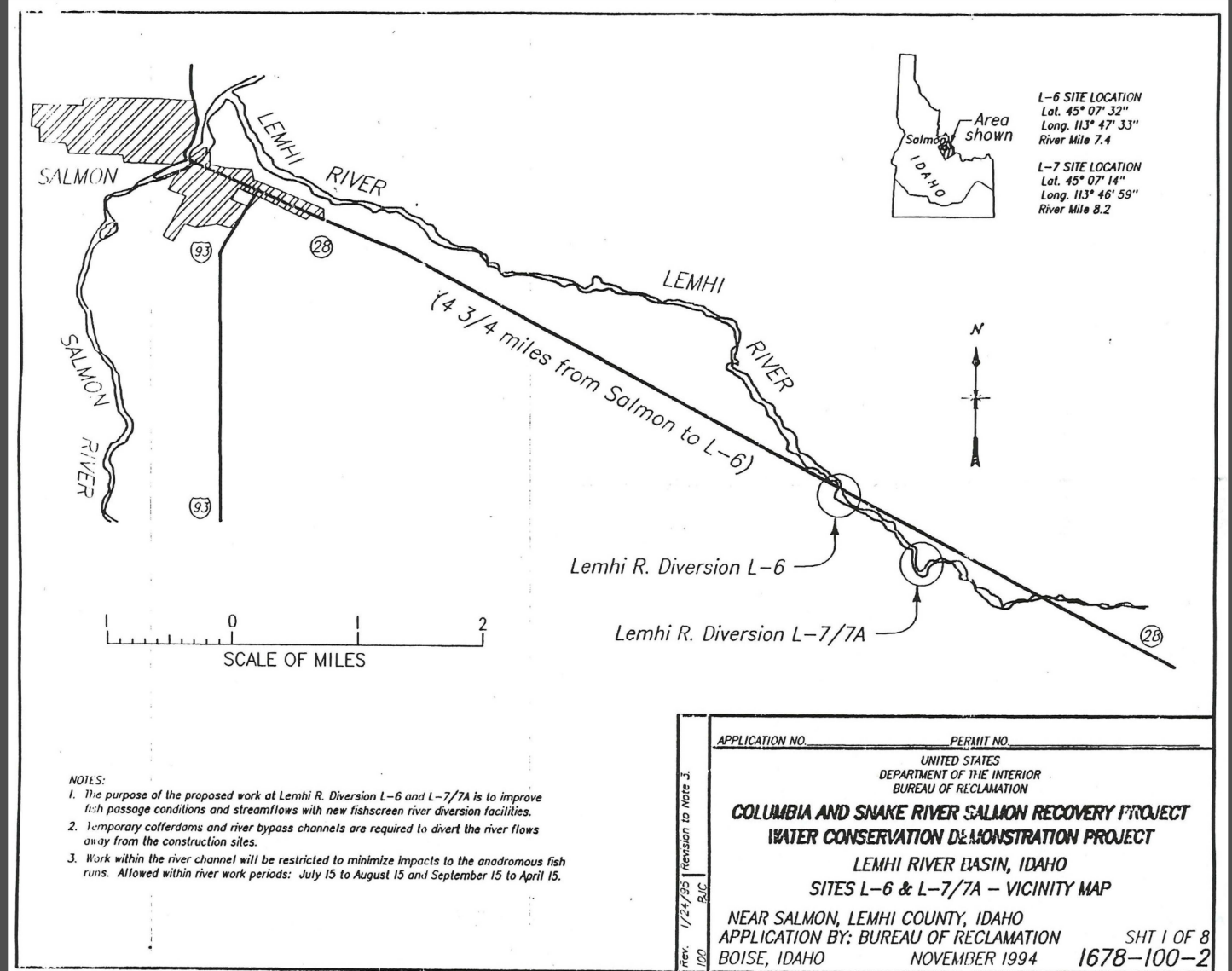
L-8

L-8A

WATER CONSERVATION DEMONSTRATION PROJECT

LEMHI RIVER BASIN, IDAHO

Pacific Northwest Region
Bureau of Reclamation
Boise, Idaho
January 1994



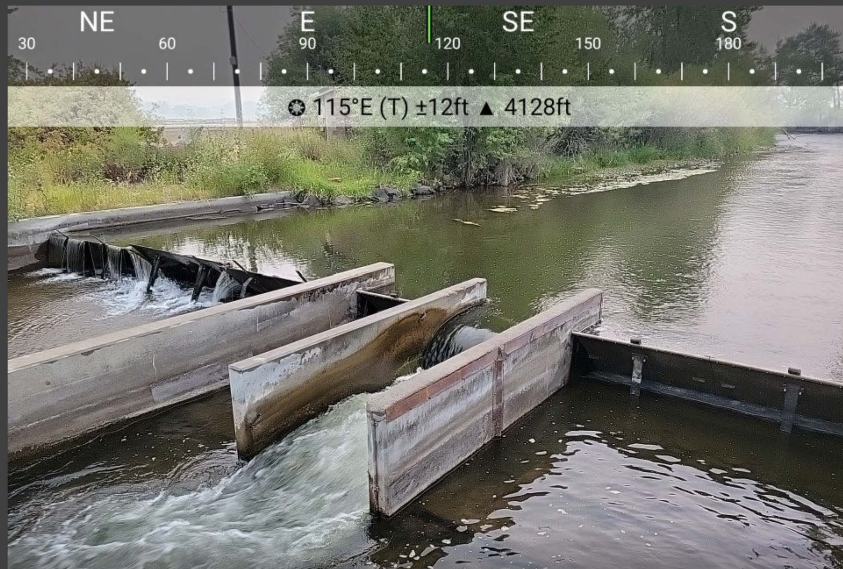
Facilities

Facilities design was reviewed and approved by the Technical Committee. All diversion facilities are designed under current Reclamation criteria for small dams. A moveable crest weir option was selected on the basis of cost and the capability of operating over a wide range of flows. Fish screens and bypass facilities are designed under current NMFS criteria for facilities involved in salmon restoration. Fish ladders of the pool and weir type were selected because of the capability for operation over the wide range of flows present in the Lemhi River. A typical layout of diversion and fish passage facilities is shown on the L-5 Diversion Facilities map (see Addendum C for detailed drawings of typical facilities).

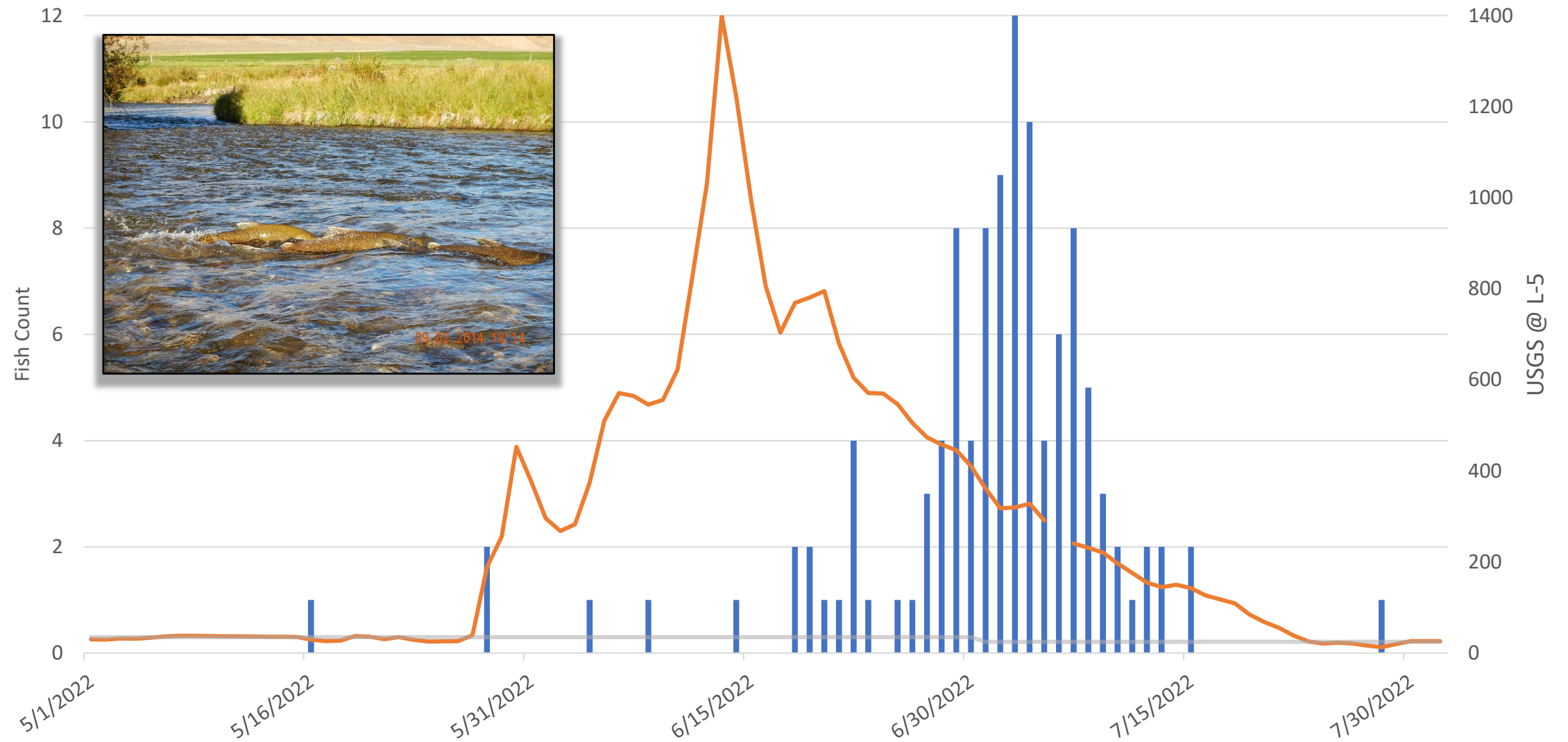
Diversion Structures

All diversion structures would be variable crest weirs. A pneumatic crest gate system would be used consisting of a row of steel gate panels supported on the downstream side by an inflatable air bladder. By controlling the pressure in the bladder, the river surface elevation (for diversion) can be adjusted within the system control range (full inflation to full deflation) and can be maintained automatically and accurately at user-selected set-points.

The pneumatic crest gate system would be attached to a foundation structure by stainless steel anchor bolts. Steel clamp bars placed on the anchor bolts over the hinge/bladder assemblies would distribute the tension across the full length of the crest gate system and provide a seal for the bladders. Hinge/bladder assemblies are normally supplied in units



Lower Lemhi River (LLR) PIT-Tag Array Adult Chinook Detections by Date 2022





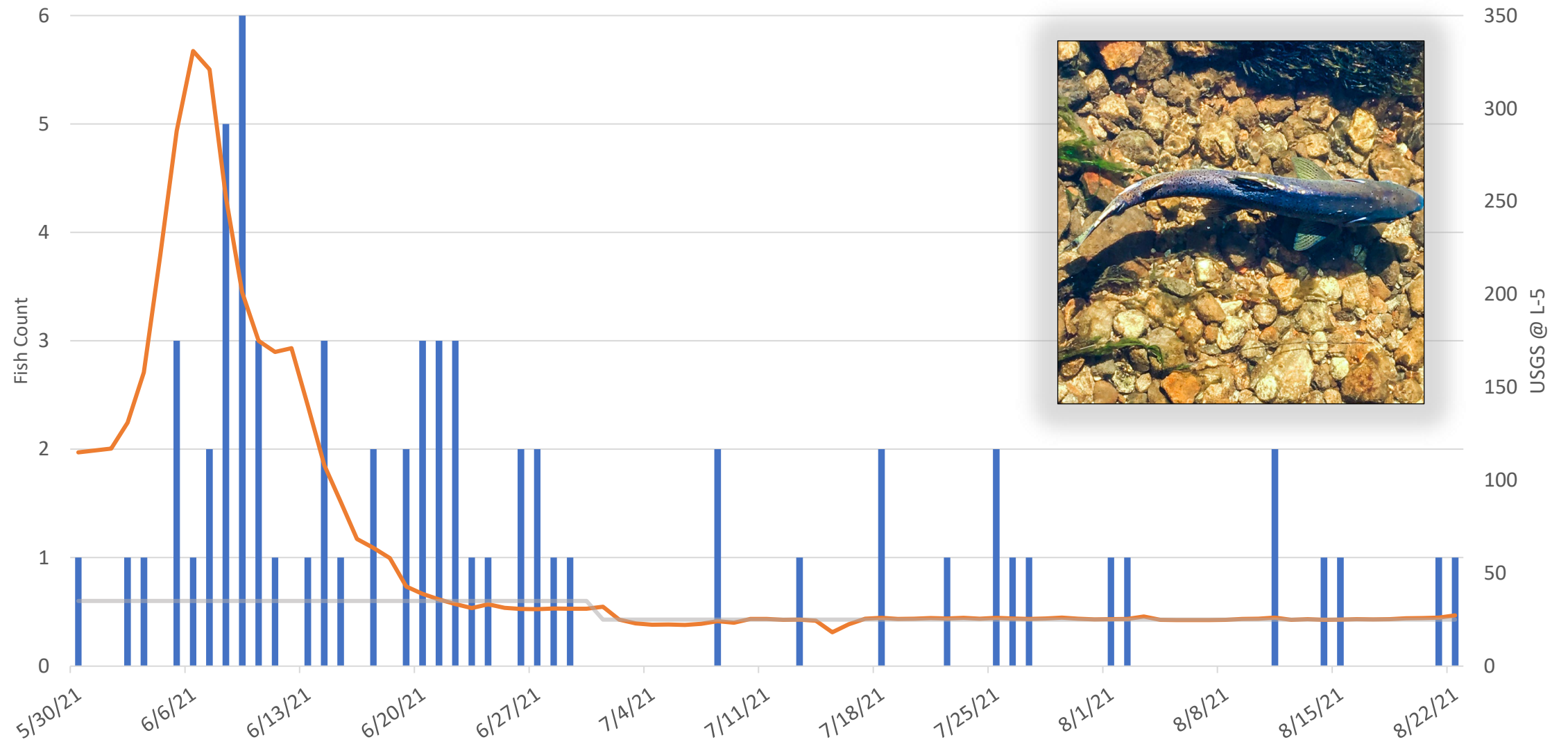
Original Project Plan

- Water user voluntary agreements to bypass 20% of their diversions for 12-hour periods, three times per year.
- Pre-project fish flush agreements amounted to 62 cfs.

Fish Ladders

Pool and weir fishways designed for a range of flows from 30 to 200 cfs would be constructed at each site. They would have one to three pools with an approximately 1-foot drop between pools. Velocity over the weirs would be no greater than 6 feet per second under maximum flow conditions. The design flow is based on the assumption that at river flows of less than 30 cfs, there would be little if any movement of adult fish and at river flows greater than 200 cfs, fish will find the ladder and pass the diversion site with minimum delay.

Lower Lemhi River (LLR) PIT-Tag Array Adult Chinook Detections by Date 2021



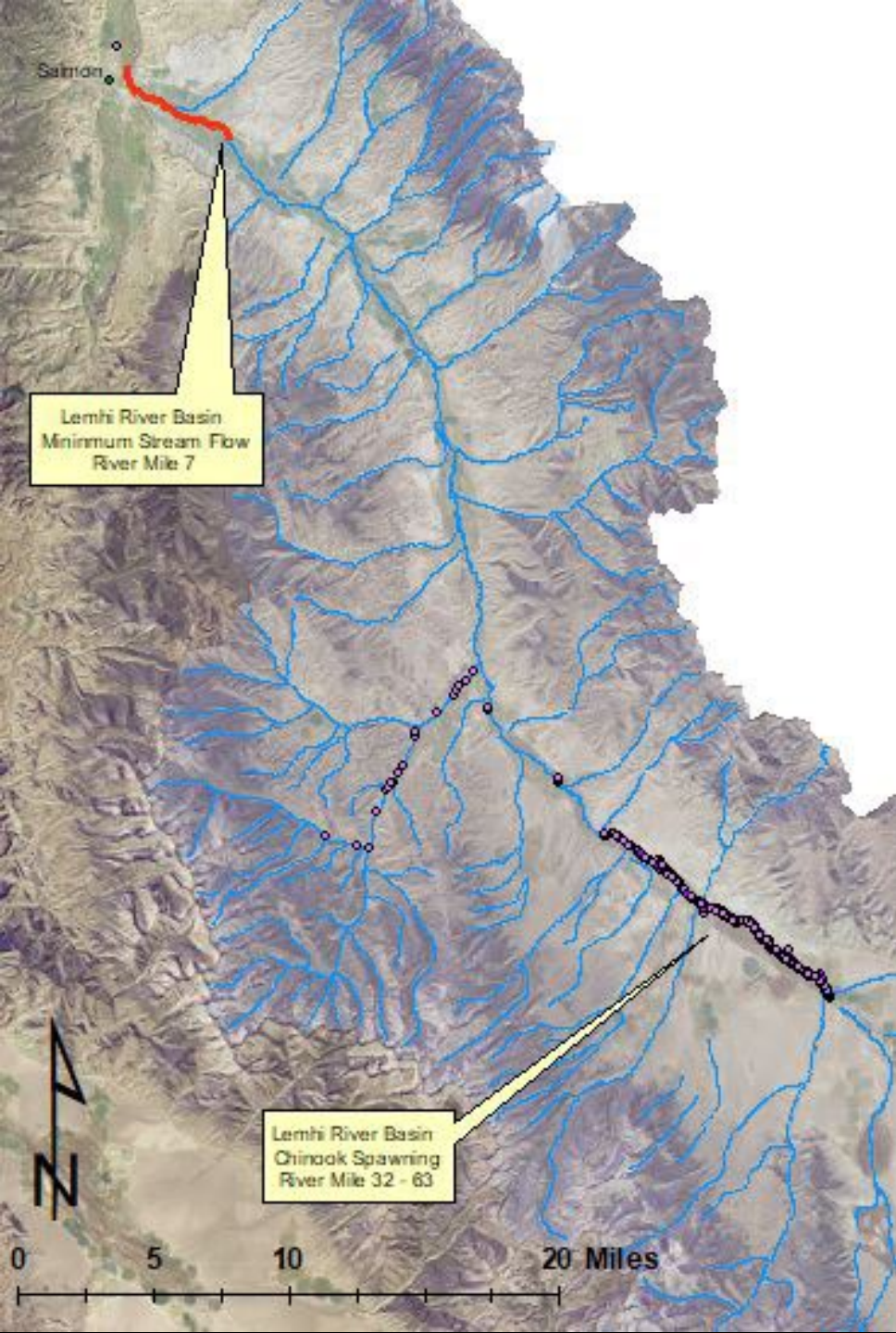
2000 – Lemhi
River dewatered
at L-6 prompting
ESA enforcement



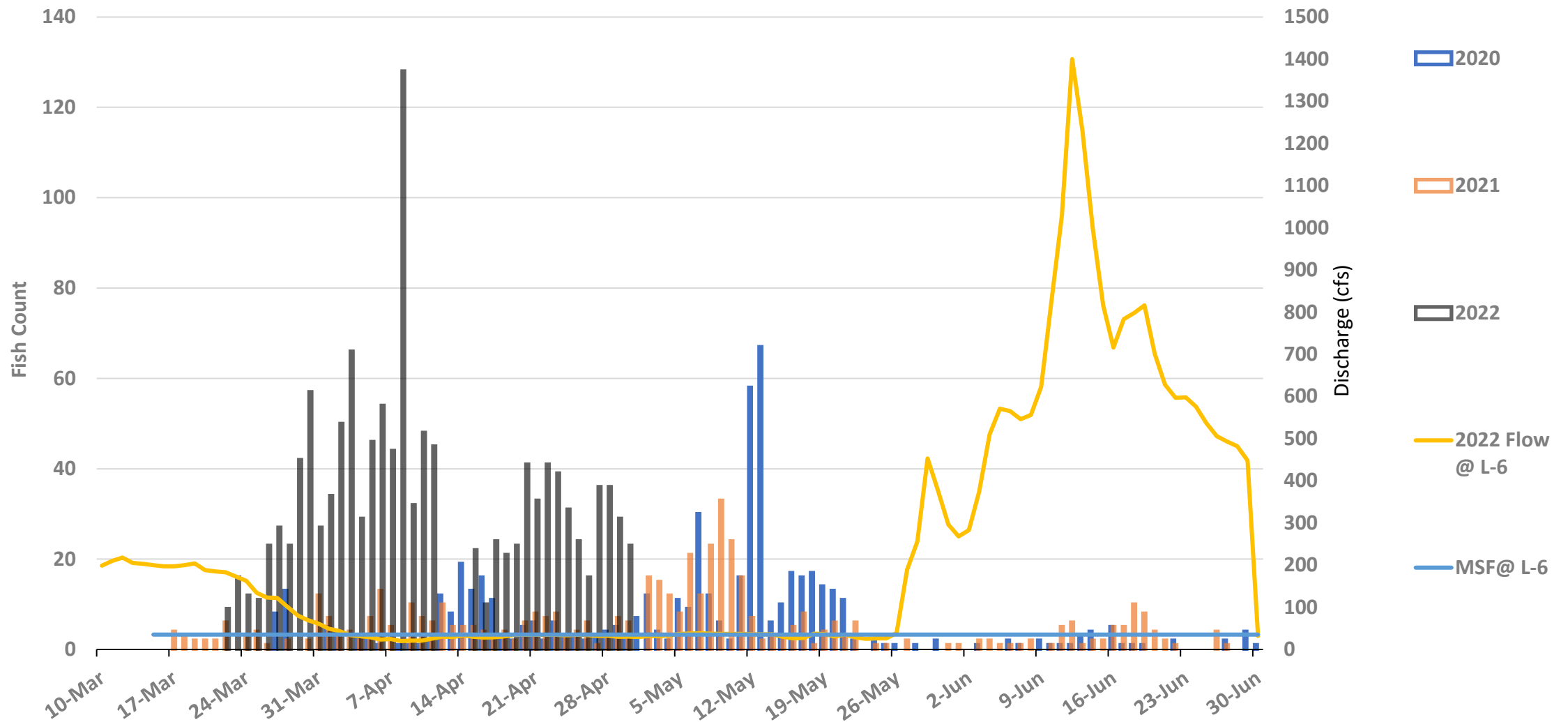


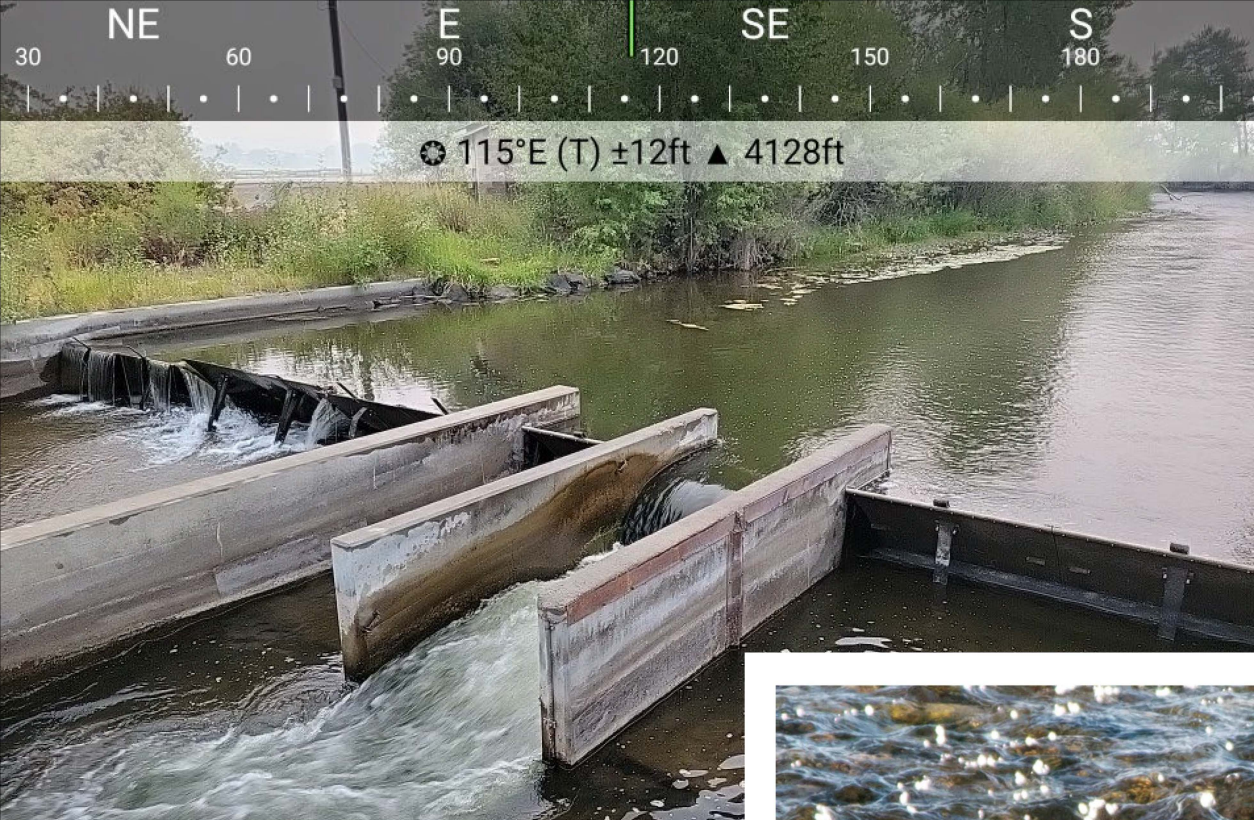
Annual and Permanent Subordination Agreements

- L-6 MSF Water Right: Held by Idaho Water Resource Board
- 25-35 CFS, March – November
- Senior water rights who voluntarily subordinate to the MSF are compensated at a fair-market rate.
- MSF provides a migration corridor for the duration of the irrigation season.
- Adult and juvenile salmonids spawn and rear up to 60 miles upstream of L6.



IDFG Lower Lemhi Rotary Screw Trap Chinook Smolt & Fry Outmigrants and Flow at L-5







— BUREAU OF —
RECLAMATION



IDAHO DEPARTMENT OF
WATER RESOURCES



NOAA
FISHERIES



Memorandum



To: Idaho Water Resource Board

From: John Loffredo

Date: September 14, 2023

Re: Water Transactions Program – Knapp Creek 5-year Landowner Payment Contract Renewal

REQUIRED ACTION: Consideration of the attached funding resolution for a 5-year rental contract renewal to compensate water user for a 6-yr water supply bank lease contract approved by the Board per Funding Resolution 41-2022.

Background:

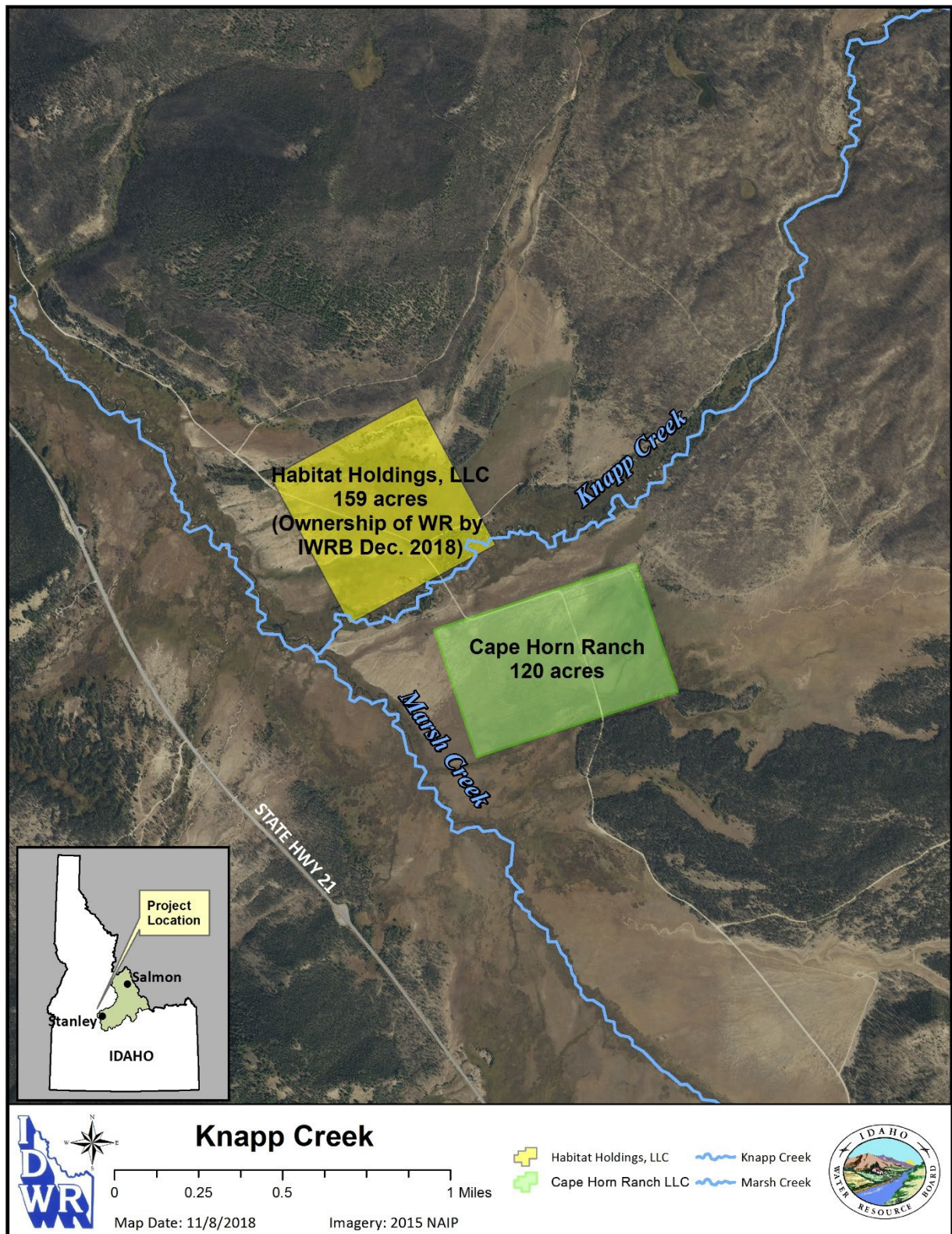
Knapp Creek, located in the Upper Middle Fork Salmon Basin, is tributary to Marsh Creek. Marsh Creek and Bear Valley Creek form the Middle Fork Salmon River. ESA-listed Chinook salmon, steelhead, and bull trout currently utilize Knapp Creek for spawning and rearing. The Middle Fork Salmon basin has not been supplemented with hatchery fish and therefore, other than occasional strays, the population is of natural origin. Furthermore, the Middle Fork Salmon River contains the highest elevation spawning grounds in the world for spring/summer Chinook salmon at over 7500' above sea level.

Located in Custer County approximately 20 miles from Stanley, Idaho, Cape Horn Ranch, LLC (CHR, LLC) holds Water Right (WR) no. 77-4208 in the amount of 6.5 cfs for irrigation of 159 acres from Knapp Creek. The Board's purchase of Knapp Creek WR no. 77-4207 was completed in September 2019. As a result, CHR, LLC is the only remaining irrigation diversion on Knapp Creek and there are no irrigation diversions on Marsh Creek or Bear Valley Creek. Hence, WR No. 77-4208 is the last remaining irrigation diversion in the headwater tributaries of the Middle Fork Salmon Basin.

The owner of CHR, LLC has leased a portion (129 acres) of WR no. 77-4208 into the water supply bank since 2018. The water supply bank lease contract for WR no. 77-4208 is dated December 31, 2018, and expired December 31, 2022. The landowner payment contract between the Idaho Water Resource Board (IWRB) and the owner of CHR, LLC has a contract term that spans May 1, 2019, to October 31, 2023. In 2022, to sync the renewals of the WSB lease contract and the IWRB's landowner contract, staff secured a 6-year water supply bank lease renewal that will terminate in December 2028. In 2023, staff are requesting a renewal for the IWRB's landowner payment contract with a term of 2024 to 2028.

In preparation for the landowner payment contract renewal, staff consulted with the NRCS District Conservationist in Salmon to reassess the production valuation used to establish the compensation rate for the original landowner payment contract. Since 2019, the animal unit month (AUM) value has increased by \$1 to \$22/AUM. For the 2024–2028 landowner payment contract, the price per acre will be \$60.50, with a total annual payment of \$7,804.50 and a 5-yr rental contract not to exceed \$39,022.50.

At this time, staff is requesting authorization to renew the landowner payment contract between IWRB and CHR, LLC for an additional 5 years (2024–2028), totaling \$39,022.50. Funding for the landowner payment contract will come from the Columbia Basin Water Transaction Program Fund.



BEFORE THE IDAHO WATER RESOURCE BOARD

IN THE MATTER OF THE
THE WATER SUPPLY BANK LEASE OF WATER
RIGHT NO. 77-4208 ON KNAPP CREEK

RESOLUTION TO MAKE A FUNDING
COMMITMENT

1 WHEREAS, natural-origin Chinook salmon, steelhead, and bull trout habitat in the Middle
2 Fork Salmon River Basin is impacted by flow-limited tributaries; and

3
4 WHEREAS, Knapp Creek, tributary to Marsh Creek, has been identified as a high priority
5 stream for flow restoration efforts, to provide high quality spawning and rearing habitat for
6 natural-origin anadromous Chinook salmon, steelhead, and resident bull trout, and

7
8 WHEREAS, it is in the interest of the State of Idaho to increase flow in Knapp Creek to
9 promote recovery of ESA-listed Chinook salmon, steelhead, and bull trout fish; and

10
11 WHEREAS, Water Right No. 77-4208 has been historically diverted from Knapp Creek for
12 irrigation purposes; and

13
14 WHEREAS, the Idaho Water Resource Board (IWRB), pursuant to Section 42-1734, Idaho
15 Code, has the authority to acquire, purchase, lease, or exchange land, rights, water rights,
16 easements, franchises, and other property deemed necessary or proper for the construction,
17 operation, and maintenance of water projects; and

18
19 WHEREAS, the Water Right owner has leased a portion of the water right to the Water
20 Supply Bank (WSB) since 2018 and is compensated through a Columbia Basin Water Transactions
21 Program (CBWTP) payment contract with the IWRB; and

22
23 WHEREAS, the Water Right owner desires to continue to lease to the IWRB a portion (129
24 acres) of Water Right No. 77-4208 so that the water may remain in Knapp Creek to enhance fish
25 habitat; and

26
27 WHEREAS, the 2018 WSB lease contract expired December 31, 2022, and the CBWTP
28 payment contract expires October 31, 2023; and

29
30 WHEREAS, WSB lease contract No. 1624, with a term of 2023 to 2028, was developed and
31 approved by the IWRB in 2022 via Resolution No. 41-2022 to leave water in Knapp Creek and
32 improve stream flow for anadromous and resident fish; and

33 WHEREAS, a new CBWTP payment contract with a term of 2024 to 2028 will compensate
34 the Water Right owner for this WSB lease at a rate of \$60.50/acre for an annual payment of
35 \$7,804.50, and a total cost not to exceed \$39,022.50 over the 5-year payment contract; and
36

37 NOW THEREFORE BE IT RESOLVED that the IWRB authorizes the Chairman or designee to
38 compensate the Water Right holder for leasing Water Right No. 77-4208 to the WSB per Lease
39 Contract No. 1624 for a period of 5 years, from 2024 to 2028; and
40

41 NOW THEREFORE BE IT RESOLVED that the IWRB made a funding commitment in 2022
42 per Resolution No. 41-2022 to pay up to \$250 in lease application fees to facilitate this
43 transaction; and
44

45 NOW THEREFORE BE IT FURTHER RESOLVED that this resolution is subject to the condition
46 that the IWRB receives the requested funding from the Bonneville Power Administration
47 Columbia Basin Water Transaction Fund in the amount of \$39,272.50.

DATED this 15th day of September, 2023.

JEFF RAYBOULD, Chairman
Idaho Water Resource Board

ATTEST _____
DEAN STEVENSON, Secretary

Memorandum



To: Idaho Water Resource Board

From: John Loffredo

Date: September 14, 2023

Re: Water Transactions Program – Little Mud Creek and Pahsimeroi River/Bar G Farm Transaction
Renewal 2024–2028

REQUIRED ACTION: Consideration of the attached funding resolution for 5-year water supply bank lease and rental applications and landowner payment contract.

Background:

The Board's recovery of instream flow in the Salmon River and its tributaries is a one-part of the overall ESA-recovery strategy for the State of Idaho. Recovery and de-listing of Chinook salmon, steelhead, and bull trout would put management of the resource back under State control. Implementation of approved restoration plans also adds some measure of a defense against a third-party "taking" lawsuit under the ESA. It is in the local public interest to recover the species for natural resource, recreational, and economic interests to maintain the viability of agricultural communities.

The Pahsimeroi River Basin, in Central Idaho, provides enormous potential for spawning and rearing habitat for Endangered Species Act-listed steelhead and Chinook salmon. Little Mud Springs, tributary of the Pahsimeroi River, was previously intercepted and dewatered by a large cross-ditch until the 2008 Pahsimeroi P-9 ditch removal project eliminated the cross-ditch and allowed Little Mud Springs to flow freely into the Pahsimeroi River. However, due to legal surface water withdrawals, instream flow remains a limiting factor for salmonid recovery goals in Little Mud Springs and the greater Pahsimeroi River Basin.

Bar G Farm, owned by Billy and Rivers Gydesen, diverts water out of Little Mud Springs and the Pahsimeroi River to irrigate approximately 147 acres using both flood and hand line irrigation methods. The remaining ranch acreage is under three pivots and is leased to an adjacent landowner (Attachment 1). Since 2018, the high labor costs and the relatively low return on production associated with the flood and hand line acreage has convinced the Gydesen family that a lease of that acreage is a good short-term solution as they continue to develop a long-term strategy for their farm and ranch. A long-term lease has been discussed with the Gydesen family and may become part of the overall strategy.

Proposed Transaction:

The Idaho Water Resource Board (Board) has approved transactions with Bar G Farms in the past and, most recently, authorized a 5-year transaction from 2019-2023 to secure up to a total of 4.72 cfs:

- 3.46 cfs of flow to the Pahsimeroi River by renting a portion of water rights numbers 73-10005, 73-11982, 73-90, 73-11978, 73-11993, 73-11983 and the full portion of water right numbers 73-11992, 73-11988, and 73-11987.
- 0.66 cfs of flow to Little Mud Creek by renting a portion of water right 73-11981.

Critically, the Little Mud Creek diversion remained closed during the current 2019–2023 lease/rental period and the full right of 2.25 cfs remained instream thereby eliminating water withdrawals from this spring-fed tributary, providing critical juvenile salmonid rearing habitat capacity in the mid-Pahsimeroi

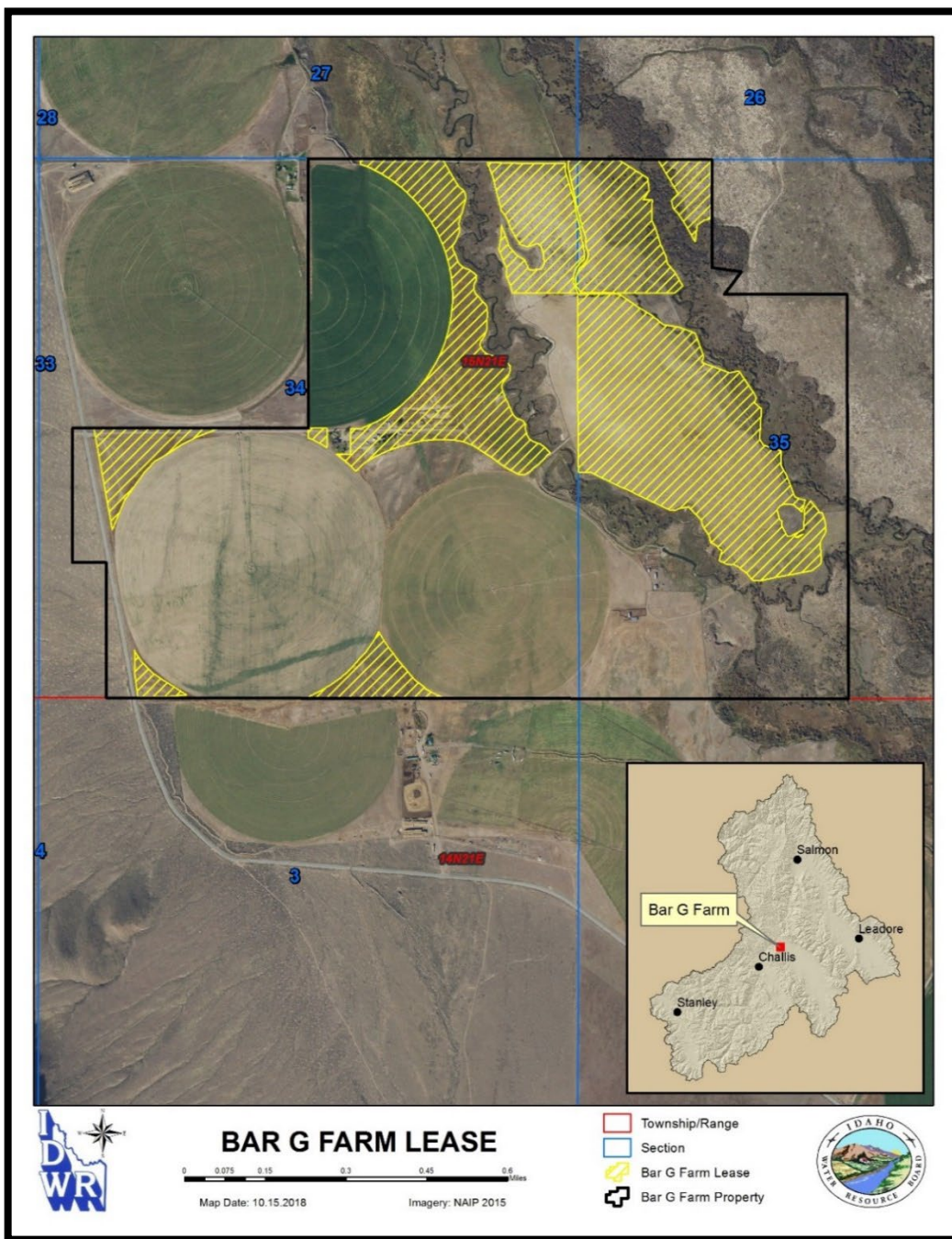
basin. Likewise, Bar G Farm has maintained its agriculture production goals during the current lease/rental period and is willing to renew the transaction from 2024–2028.

Staff proposes compensating the water right owners at a price of \$38.50 per-acre over a 5-year period (2024–2028), an increase from \$36.97 per acre for the previous transaction. Resource Conservationists with the NRCS in Salmon, performed the original estimate and prepared an updated report detailing the analysis used to determine the cost per-acre based on soil productivity and the current cost per animal unit month. The total transaction costs would be \$35,918.00 (\$28,432.25 landowner payment, \$5,985.74 WSB rental fees, and \$1,500.00 WSB application fees). Funds are available through the Columbia Basin Water Transaction Program and will be held in the Water Transaction Subaccount of the Board's Revolving Development Account for annual payment to the water right owner through the Water Supply Bank.

Attachments:

1. Attachment 1 – Bar G Farm, Lease/Rental Location Map
2. Draft Resolution

Attachment 1: Bar G Farm, Lease/Rental Location Map



Bar G Farm – 147 acres leased to water supply bank since 2019 for instream flow restoration to benefit ESA-listed salmonids in Little Mud Springs and Pahsimeroi River.

BEFORE THE IDAHO WATER RESOURCE BOARD

IN THE MATTER OF THE 2024-2028 LITTLE
MUD CREEK AND PAHSIMEROI RIVER
WATER TRANSACTION

RESOLUTION TO MAKE A FUNDING
COMMITMENT

1 WHEREAS, the 2004 Snake River Water Rights Agreement (also known as the “Nez Perce
2 Agreement”) commits the state to providing incentives for improving fish habitat and improving
3 or protecting flow conditions to augment streams flows; and
4

5 WHEREAS, Chinook salmon and steelhead habitat in the Pahsimeroi River Basin is limited
6 by low flow in the main-stem and disconnected tributaries; and
7

8 WHEREAS, Little Mud Creek and the Pahsimeroi River have been identified as high priority
9 streams for flow restoration efforts to provide high quality habitat for anadromous Chinook
10 salmon and steelhead; and
11

12 WHEREAS, in accordance with the Nez Perce Agreement, it is in the interest of the State
13 of Idaho to maintain the reconnection of Little Mud Creek to the Pahsimeroi River to encourage
14 recovery of ESA-listed Chinook salmon and steelhead; and
15

16 WHEREAS, the Board previously authorized transactions to lease and rent water rights
17 owned by BAR G FARM through the Board’s Water Supply Bank to enhance flows in the Little
18 Mud Creek and the Pahsimeroi River; and
19

20 WHEREAS, the Board will compensate BAR G FARM or its successors, \$38.50 per acre per
21 irrigation season for said rental for annual payment of \$5,686.45 for 147 acres and a 5-year total
22 of \$28,432.24; and
23

24 WHEREAS, the lease application fees (\$1,500) and rental fees (\$5,985.75) for said
25 agreement will not exceed \$7,485.75; and
26

27 WHEREAS, a proposal for \$35,918.00 has been submitted to the Columbia basin Water
28 Transactions Program for approval; and
29

30 WHEREAS, funding is available through the Columbia Basin Water Transaction Program
31 for said lease and rental agreements; and
32

33 WHEREAS, staff anticipates the funds being placed in the Idaho Water Resource Board
34 (IWRB) Revolving Development Account for annual payment to the water rights owners; and

35
36 WHEREAS, the Little Mud Creek and Pahsimeroi River transaction is in the public interest
37 and is in compliance with the State Water Plan; and
38

39 NOW, THEREFORE BE IT RESOLVED that the IWRB authorizes the Chairman to enter into
40 5- year lease and rental agreements from 2024-2028 for water rights 73-10005, 73-11982, 73-
41 11983, 73-90, 73-11978, 73-11992, 73-11993, 73-11988, 73-11987, and 73-11981 for delivery to
42 minimum stream flow 73-7045, for an amount not to exceed \$35,918.00.
43

44 NOW THEREFORE BE IT FURTHER RESOLVED that this resolution is subject to the condition
45 that the Board receives the requested funding from the Bonneville Power Administration through
46 the Idaho MOA/Fish Accord Water Transaction Program or the Columbia Basin Water Transaction
47 Fund in an amount up to \$35,918.00.
48

DATED this 15th day of September 2023.

JEFF RAYBOULD, Chairman
Idaho Water Resource Board

ATTEST _____
DEAN STEVENSON, Secretary

Memorandum



To: Idaho Water Resource Board

From: John Loffredo

Date: September 14, 2023

Re: Water Transaction Program – Hat Creek – Storlie-Kaiser Acquisition

REQUIRED ACTION: Consideration of the attached funding resolution to authorize the acquisition of Hat Creek water right nos. 75-2137, 75-4199, and 75-4200, and a permanent Water Supply Bank lease and rental to minimum streamflow water right no. 75-14189.

Background:

The 2004 Snake River Water Rights (“Nez Perce”) Agreement commits the state to providing incentives for improving fish habitat which includes improving or protecting flow conditions to augment stream flows. The Hat Creek basin is a high-ranking priority tributary of the mainstem Upper Salmon River that supports the migration, spawning, and rearing of adult and juvenile Snake River steelhead, juvenile rearing and adult holding of Snake River spring/summer run Chinook salmon, and all life stages of a robust resident bull trout population. The only diversion on Big Hat Creek can dewater the stream, thereby blocking the movement of adult resident bull trout and decreasing juvenile bull trout and steelhead rearing habitat. Additionally, flows left instream from the higher, colder stream reaches of the Hat Creek basin provide thermal refugia for juvenile Chinook salmon and steelhead rearing habitat in lower Hat Creek, and for migrating adult Chinook salmon that are observed holding downstream of the Hat Creek plume in the mainstem Salmon River.

Erik Storlie and Tamara Kaiser have the only water rights from Big Hat Creek (75-2137 and 75-4199 - 1.23 cfs irrigating 43.6 acres). From 2004 to 2008, the Idaho Water Resource Board (Board) rented 0.52 cfs from the Storlie-Kaisers for delivery to the minimum stream flow water right on Hat Creek. In 2009, the irrigators leased their water rights into the Idaho Water Supply Bank (WSB) for an indefinite period of time. In 2010, the Board passed a resolution to make a funding commitment to cover the fees associated with a five-year rental (2010-2015) of Water Rights nos. 75-2137 and 75-4199 for delivery to the minimum stream flow water right on Hat Creek but declined to approve funding for water right owner compensation. In 2015, the Storlie-Kaisers leased an additional water right (Hat Creek 75-4200 – 1.28 cfs irrigating 24.7 acres) to the Idaho Water Supply through 2018 and agreed to forgo payment for the rental for all three Hat Creek water rights. The water was delivered to the Board’s minimum stream flow water right no. 75-14189. The Board approved renewal of the lease and rental of water rights 75-4199, 75-4199, and 75-2137 to the Board’s 75-14189 in 2019 and again in 2022. The current lease/rental agreement expires on December 31, 2027. Additionally, in April 2022, five Snake River steelhead redds were observed in the lowest 1.5 miles of Hat Creek, confirming the long-term effectiveness of this transaction over the last 20 years.

Proposed Transaction:

The Storlie-Kaisers are considering selling the property and wish to avoid resumption of use in the future by offering to sell water right nos. 75-4199, 75-4200, and 75-2137 to the Board. This transaction

involves purchase and long-term rental of the referenced water rights to the Board's water right 75-14189. The Storlie-Kaisers will maintain a small senior water right from Hat Creek (75-14494) to irrigate a wet meadow, approximately 4.6 acres in size, with 0.1 cfs near a 1,000 sq ft recreational cabin. Acquisition of water right nos. 75-4199, 75-4200, and 75-2137 would permanently protect 2.51 cfs in Big Hat Creek and Hat Creek, permanently eliminate diversion passage barriers to resident bull trout and anadromous/resident rainbow trout and protect hydrologic connectivity throughout the 7.27-mile primary beneficial reach. It would also provide critical thermal refugia and climate change resiliency for juvenile and adult Chinook salmon in the lowest 1.5 miles of Hat Creek and the Hat Creek plume in the Salmon River, but it would likely affect the value of the Storlie-Kaiser property.

Funding for an appraisal of the water right nos. 75-4200, 75-4199, and 75-2137 was completed in June 2023 with CBWTP funds. A before/after market analysis of the 240-acre ranch was completed to determine the value of the property with and without 2.51 cfs from senior water rights from Hat Creek and Big Hat Creek appurtenant to 68.3 acres of irrigable land. The Storlie-Kaiser property, situated at the confluence of Big Hat and Hat Creek at river mile 7, represents a unique public land's private inholding that is surrounded by BLM and adjacent USFS land that has both seasonal public road access and the potential for air strip development. In all, the Storlie-Kaiser property was valued just over \$1.5 million with the three senior irrigation rights accounting for nearly 33% of the market value, at \$530,000, \$211,155 per cfs, or \$7,759 per irrigable acre. For comparison, a property at the mouth of Hat Creek with no legal road access and junior Hat Creek water rights was listed for \$2 million and sold for \$3 million in August 2022.

Upon acquisition of the referenced water rights, ownership will be transferred to the Board, and all three water rights will be permanently leased into the WSB and permanently rented to the Board's minimum streamflow water right no. 75-14189 at the mouth of Hat Creek. Cost of the WSB application fees and rental fee is \$53,278.

The total cost of this permanent transaction is estimated to be \$583,278. Funding for the acquisition and permanent rental will be split between the Columbia Basin Water Transaction Program (\$455,223) and unspent FY22 programmatic funds (\$128,055) available in FY24 through the 2008 Idaho MOA/Idaho Water Transaction Fund.

Attachments:

1. Attachment 1 – Minimum Stream Flow Water Right No. 75-14189
2. Attachment 2 – Hat Creek Acquisition, Lease/Rental Location Map – As approved 2004–2027
3. Draft Resolution

Attachment 1: Minimum Stream Flow Water Right No. 75-14189

IDAHO DEPARTMENT OF WATER RESOURCES

Water Right Report

WATER RIGHT NO. 75-14189

Owner Type | Name and Address

Current Owner STATE OF IDAHO
IDAHO WATER RESOURCE BOARD CYNTHIA BRIDGE CLARK
PO BOX 83720
BOISE, ID 83720-0098
2082874800

Priority Date: 04/01/2005

Basis: Decreed

Status: Active

Source | Tributary

HAT CREEK | SALMON RIVER

<u>Beneficial Use</u>	<u>From</u>	<u>To</u>	<u>Diversion Rate</u>	<u>Volume</u>
MINIMUM STREAM FLOW	11/01	11/30	12 CFS	
MINIMUM STREAM FLOW	12/01	12/31	10 CFS	
MINIMUM STREAM FLOW	02/01	02/28	9 CFS	
MINIMUM STREAM FLOW	03/01	03/31	9 CFS	
MINIMUM STREAM FLOW	04/01	04/30	12 CFS	
MINIMUM STREAM FLOW	05/01	05/31	53 CFS	
MINIMUM STREAM FLOW	06/01	06/30	108 CFS	
MINIMUM STREAM FLOW	07/01	07/31	45 CFS	
MINIMUM STREAM FLOW	08/01	08/31	22 CFS	
MINIMUM STREAM FLOW	09/01	09/30	16 CFS	
MINIMUM STREAM FLOW	10/01	10/31	12 CFS	
MINIMUM STREAM FLOW	01/01	01/31	10 CFS	
Total Diversion			108 CFS	

Location of Point(s) of Diversion:

HAT CREEK End of Stream Flow | SENENW Lt 2 | Sec. 20 | Township 17N | Range 21E | Lemhi County

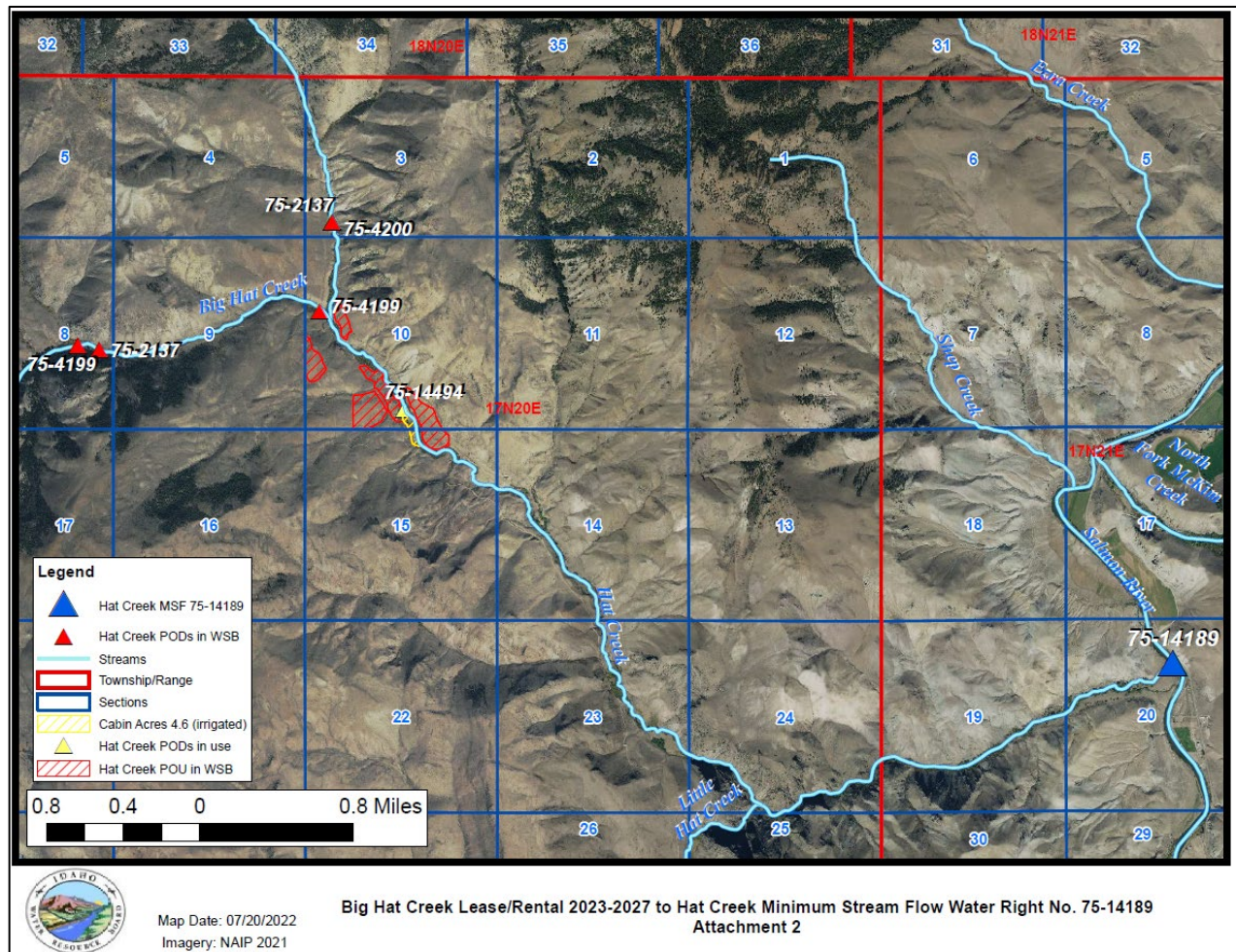
Place(s) of use: No POUs found for this right

Conditions of Approval:

1. Future non-DCMI = 0.8
2. 091 Use of water under this right shall recognize and allow the continued beneficial diversion of water under any prior existing water right established by diversion and application to beneficial use or by an application, permit, or license on file or issued by the director under the provisions of Chapter 2, Title 42, Idaho Code, with a priority of water right date earlier than the date of priority of this right.
3. 150 While the instream flow and the future allocation for non-DCMI uses and base flows are to be decreed in cubic feet per second (cfs), such quantities are intended to reflect the percentages of the unimpaired exceedence flows at the quantification point described in this water right. The unimpaired exceedence flows were estimated using regional regression equations developed by the United States Geological Service. Upon further finding and order of the director that gaging stations are required to maintain the approved minimum flows under this right, such measuring devices shall be permanently installed and maintained as specified by the director. If actual flow data become available, the quantities in this water right will be adjusted as necessary to give effect to the exceedence assumption stated above. Such adjustments do not result in a material change to the water right and are not subject to the notice and hearing requirements set forth in this partial decree, but shall comply with the notice and consultation requirements of Section 42-1507(4), Idaho Code.
4. 027 Use of water under this right shall be non-consumptive.
5. 154 When this water right is not capable of being maintained using existing flows, Idaho Code Section 42-1507 authorizes the Idaho Water Resource Board to maintain the flow through operation of the water supply bank authorized by Section

		42-1761 through 42-1765, Idaho Code, and by other available methods consistent with Idaho Law.
6.	144	This water right shall be subordinated to all future DCMI uses.
7.	152	The Idaho Water Resource Board, upon receiving a request, or upon its own initiative, may petition the Director for an amendment to this water right after complying with the notice and consultation procedures of Section 42-1507(4), Idaho Code. The petition must set forth any significant change in circumstances and evidence of the public interest supporting the proposed amendment. The Director will notify the general public and specific persons or notify interested parties of the proposed change, and conduct a hearing for the purpose of determining whether the water right should be amended in the public interest.
8.	151	There are no diversions associated with this minimum stream flow water right. The quantification point for this instream flow water right is at the above location.
9.	146	The place of use for this water right is the reach above the quantification point.
10.	148	The purpose of this instream flow is to preserve fish and wildlife, scenic, and recreational values and to protect and enhance water quality, and is equivalent to the unimpaired monthly 40 percent exceedence flows.
11.	149	This water right is subordinated to future non-Domestic-Commercial-Municipal-Industrial ("non-DCMI") development in an amount up to 0.8 cfs based on 10 percent of the lowest unimpaired median monthly flow or the amount available above a base flow which is equivalent to the unimpaired monthly 80% exceedence flow whichever is less. The 80% monthly exceedence flows are as follows: Jan - 8 cfs, Feb - 7 cfs, Mar - 6 cfs, Apr - 7 cfs, May - 31 cfs, Jun - 53 cfs, Jul - 23 cfs, Aug - 14 cfs, Sep - 11 cfs, Oct - 10 cfs, Nov - 10 cfs, and Dec - 8 cfs.
12.	153	This water right was established by Chapter 150, 2005 Idaho Session Laws (codified as Section 42-1507, Idaho Code). In accordance with such law, this water right will not become effective until the governor issues a proclamation certifying that all conditions for the effectiveness of the Snake River Water Rights Agreement of 2004 have been satisfied.
Dates:		
Licensed Date:		
Decreed Date: 01/30/2007		
Enlargement Use Priority Date:		
Enlargement Statute Priority Date:		
Water Supply Bank Enrollment Date Accepted:		
Water Supply Bank Enrollment Date Removed:		
Application Received Date:		
Protest Deadline Date:		
Number of Protests: 0		

Attachment 2: Hat Creek Acquisition, Lease/Rental Location Map – As approved 2004–2027



BEFORE THE IDAHO WATER RESOURCE BOARD

IN THE MATTER OF THE HAT CREEK
ACQUISITION AND PERMANENT
LEASE/RENTAL WATER TRANSACTION

RESOLUTION TO MAKE A FUNDING
COMMITMENT

1 WHEREAS, resident bull trout, juvenile Chinook salmon, and adult steelhead in Hat Creek
2 are limited by low flow in the lower reaches of Hat Creek; and

3 WHEREAS, Hat Creek provides habitat for resident bull trout, juvenile Chinook salmon,
4 and adult steelhead habitat, and the 2004 Snake River Water Rights ("Nez Perce") Agreement
5 commits the state to providing incentives for improving fish habitat which includes improving or
6 protecting flow conditions to augment stream flows; and

7 WHEREAS, it is in the interest of the State of Idaho to increase flow in Hat Creek to
8 encourage recovery of ESA-listed bull trout, Chinook Salmon, and steelhead; and

9 WHEREAS, the Idaho Water Resource Board (IWRB) owns minimum streamflow Water
10 Right No. 75-14189 on Hat Creek; and

11 WHEREAS, the IWRB, pursuant to Section 42-1734, Idaho Code, has the authority to
12 acquire, purchase, lease, or exchange land, rights, water rights, easements, franchises, and other
13 property deemed necessary or proper for the construction, operation, and maintenance of water
14 projects; and

15
16 WHEREAS, since 2004 the water right owners for Water Right Nos. 75-2137, 75-41991
17 and 75-4200 have leased all or a portion of their irrigation rights to the Water Supply Bank for
18 rental and delivery to the Hat Creek minimum stream flow Water Right No. 75-14189, resulting
19 in up to 2.51 cfs in addition flow in Big Hat Creek and Hat Creek to improve stream flow for
20 anadromous and resident fish; and

21 WHERAS, in July 2023 the water right owners agreed to sell Water Right Nos. 75-2137,
22 75-4199, and 75-4200 to the IWRB for the permanent rental and delivery of up to 2.51 cfs to the
23 Hat Creek minimum stream flow Water Right No. 75-14189; and

24 WHEREAS, in January 2023 staff used programmatic grant funds to commission an
25 appraisal by a licensed realtor to determine the value of the 240-acre property associated with
26 Water Right Nos. 75-2137, 75-4199, and 75-4200 with and without senior Hat Creek water rights;
27 and

28 WHERAS, the 240-acre property associated with Water Right Nos. 75-2137, 75-4199, and
29 75-4200 is situated at the confluence of Big Hat and Hat Creek at river mile 7 and represents a
30 unique public land's private inholding that is surrounded by BLM and adjacent USFS land that has

31 both seasonal public road access and the potential for air strip development; and

32 WHEREAS, the 240-acre property associated with Water Right Nos. 75-2137, 75-4200, and
33 75-4199 is valued just over \$1.5 million with the three senior irrigation rights accounting for
34 nearly 33% of the market value, at \$530,000, or \$211,155 per cfs; and

35 WHEREAS, permanent Water Supply Bank rental fees for Water Right Nos. 75-2137, 75-
36 4200, and 75-4199 to Water Right No. 75-14189 will be \$53,278; and

37 WHEREAS, a Hat Creek permanent water transaction involving Water Right Nos. 75-2137,
38 75-4199, and 75-4200 is in the public interest and in compliance with the State Water Plan; and

39 NOW THEREFORE BE IT RESOLVED that the IWRB authorizes the Chairman or designee to
40 acquire and permanently lease and rent Water Right Nos. 75-2137, 75-4199, and 75-4200
41 through the Water Supply Bank for delivery to the Water Right no. 75-14189; and

42 NOW THEREFORE BE IT FURTHER RESOLVED that this resolution is subject to the condition
43 that the IWRB receives the requested funding from the Bonneville Power Administration through
44 the Columbia Basin Water Transaction Program (\$455,223) and the 2008 Idaho Accord/MOA
45 Idaho Water Transaction Fund (\$128,055) for a total amount not to exceed \$583,278.

DATED this 15th day of September, 2023.

JEFF RAYBOULD, Chairman
Idaho Water Resource Board

ATTEST: _____
DEAN STEVENSON, Secretary

Hat Creek Acquisition

Idaho Water Resource Board
September 2023 Work Session

Salmon, Idaho

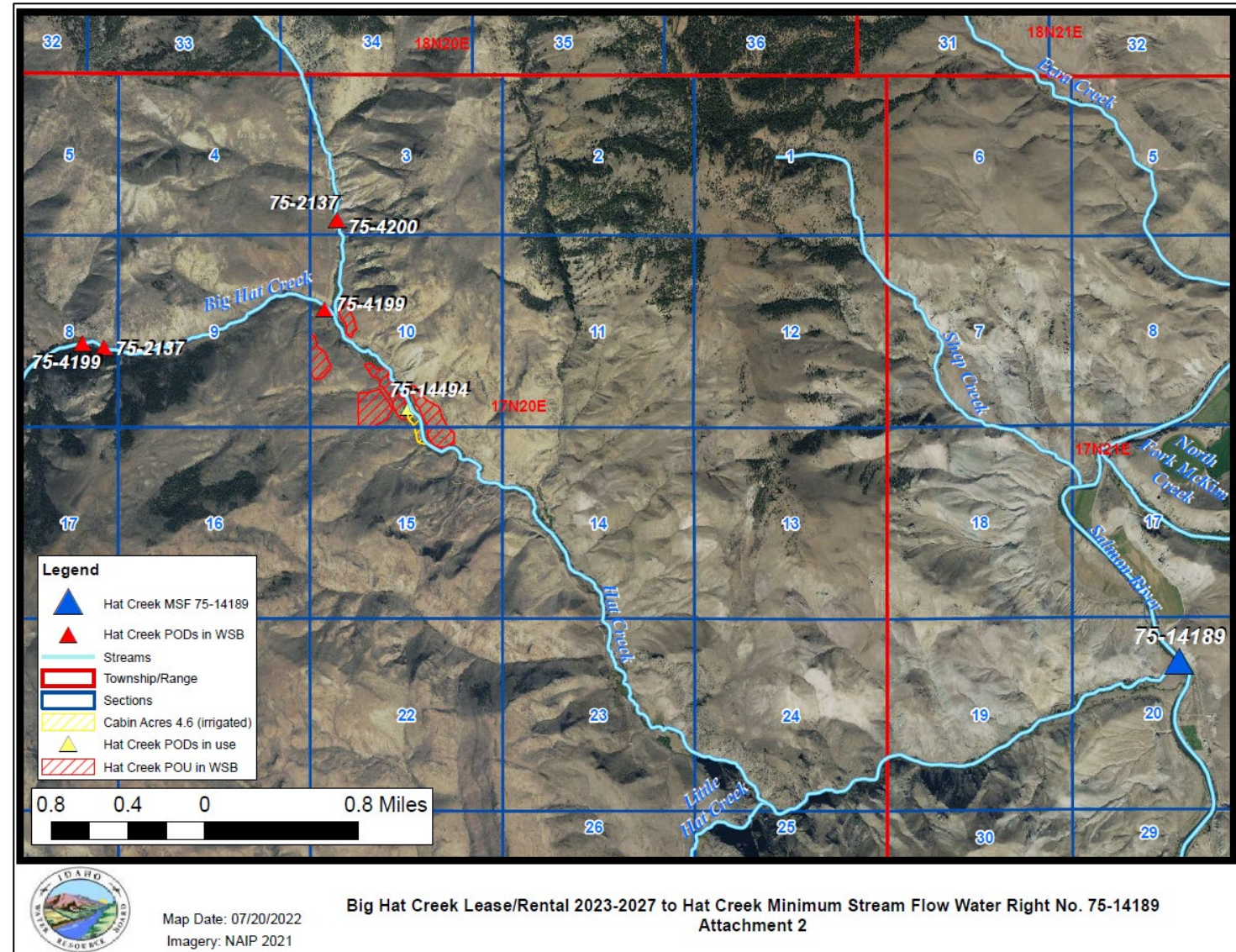
09.14.2023

John Loffredo, IWRB

October 2021
Blw Big Hat Creek Confluence

20 years of water right rentals

- Since 2004, all or a portion of water rights 75-4200, 75-4199, and 74-2137 have been leased into the water supply bank and rented for instream flow to the mouth of Hat Creek.
- 68 irrigated acres idled, 2.51 cfs instream for up to 6 river miles.
- Since 2007, rental has been donated by Storlie-Kaisers.
- Help meet IWRB MSF 75-14189, e.g., 12 cfs Apr. and 16 cfs Sept.





20 years of water right rentals

- First transaction funded through the Columbia Basin Water Transaction Program, following approval by NPCC, in 2004.
- Since 2004, this transaction has been reviewed by NPCC TAC and funded by CBWTP a total of ten times, most recently in December 2022.
- 2005 valuation for 75-2137 for 0.74 cfs was \$20,000



June 2023
Hat Creek Canyon



April 2022
Hat Creek Steelhead



August 2023
Hat Creek @ MSF – 10 cfs

20 years of water rentals

- Fish Benefits Documented To-Date:
 - 2003 IDFG Anadromous Screen Program Tributary Report
 - Resident bull trout “strong hold”, average density = 5 per 100 m²
 - No brook trout observed in 17, 100 m electrofishing transects
 - Snake River steelhead spawning and rearing observed
 - Snake River spring/summer run Chinook rearing observed
 - 2021 & 2022 IDFG Anadromous Screen Program Tributary Report sampling
 - Resident bull trout abundance/distribution reaffirmed
 - Snake River steelhead spawning and rearing reaffirmed
 - Snake River spring/summer run Chinook rearing in lower Hat Creek and Hat Creek plume
 - Natural rock-slide confirmed & natural geomorphic processes related to beaver recolonization



Hat Creek Acquisition

- Storlie-Kaisers are in their late 70's and early 80's.
- Family not interested in inheriting the 240-acre property.
- Listing of property is inevitable.
- Resumption of use is very high.
- IWRB will acquire three water rights currently leased into WSB.

Hat Creek Acquisition



240-acre property valued in June 2023 at \$1.5 million

Three senior irrigation water rights valued at \$530,000 or 33% of total value

\$211,155 per cfs, \$7,749 per irrigable acre



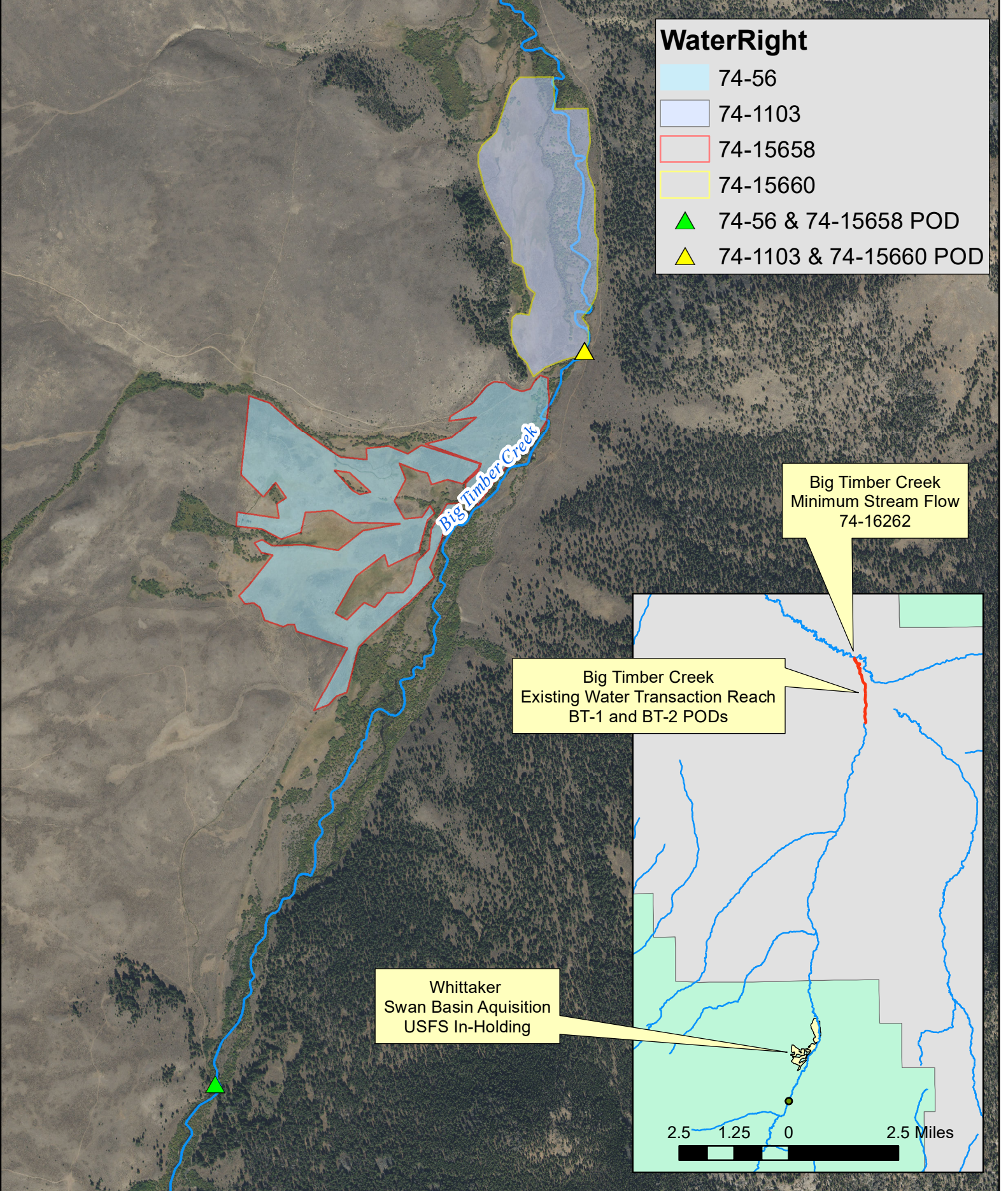
Proposed to CBWTP for NPCC review in August 2023. \$124k match from Accord Water Transaction Fund and \$53k match from IWRB for permanent rental fees.



PCSRF R26 ask TBD. May be all, part, or nothing pending TAC review.

Questions?





WaterRight

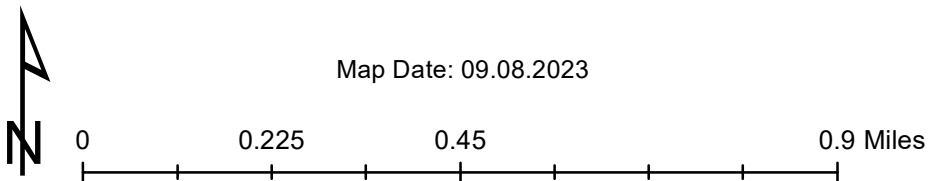
- 74-56
- 74-1103
- 74-15658
- 74-15660
- 74-56 & 74-15658 POD
- 74-1103 & 74-15660 POD

Big Timber Creek
Minimum Stream Flow
74-16262

Big Timber Creek
Existing Water Transaction Reach
BT-1 and BT-2 PODs

Whittaker
Swan Basin Aquisition
USFS In-Holding

2.5 1.25 0 2.5 Miles



Map Date: 09.08.2023

Big Timber Creek
Water Transaction Proposal
James Whittaker Aquisition
74-56 (1910) 2 cfs, 89 acres
74-1103 (1922) 0.48 cfs, 24 acres



Amended **AGENDA** **IDAHO WATER RESOURCE BOARD**

Brad Little
Governor

Jeff Raybould
Chairman
St. Anthony
At Large

Jo Ann Cole-Hansen
Vice Chair
Lewiston
At Large

Dean Stevenson
Secretary
Paul
District 3

Dale Van Stone
Hope
District 1

Albert Barker
Boise
District 2

Brian Olmstead
Twin Falls
At Large

Marcus Gibbs
Grace
District 4

Patrick McMahon
Sun Valley
At Large

Board Meeting No. 7-23
Friday, September 15, 2023
8:30 a.m. (MT) / 7:30 a.m. (PT)

Sacajawea Interpretive, Cultural, & Educational Center
Main Floor
2700 Main Street
SALMON

Livestream available at <https://www.youtube.com/@iwrbb>

1. Roll Call
2. Agenda & Approval of Minutes 5-23 and 6-23*
3. Public Comment
4. Cloud Seeding Bear River Study
5. Financial Report
6. Upper Salmon Water Transactions
 - a. Knapp Creek Contract Renewal*
 - b. Little Mud Springs Renewal*
 - c. Hat Creek Acquisition*
7. Aging Infrastructure Grants Update
8. Regional Water Sustainability Projects Update
9. Loan Program Requests
 - a. Blaine County Canal Company*
 - b. Weiser Irrigation District*
 - c. Barber Hydro/Dam Extension*
10. 2024 Proposed Board Meeting Dates
11. Administrative Rules Update*
12. Director's Report
13. Non-Action Items for Discussion
14. Next Meeting & Adjourn

* Action Item: A vote regarding this item may be made at this meeting. Identifying an item as an action item on the agenda does not require a vote to be taken on the item. **Americans with Disabilities:** If you require special accommodations to attend, participate in, or understand the meeting, please make advance arrangements by contacting Department staff by email jennifer.strange@idwr.idaho.gov or by phone at (208) 287-4800.



IDAHO WATER RESOURCE BOARD

Brad Little
Governor

Jeff Raybould
Chairman
St. Anthony
At Large

Jo Ann Cole-Hansen
Vice Chair
Lewiston
At Large

Dean Stevenson
Secretary
Paul
District 3

Dale Van Stone
Hope
District 1

Albert Barker
Boise
District 2

Brian Olmstead
Twin Falls
At Large

Marcus Gibbs
Grace
District 4

Patrick McMahon
Sun Valley
At Large

MINUTES MEETING NO. 5-23

Best Western Plus University Inn
Palouse Room / Zoom Online
1516 Pullman Rd.
Moscow

July 20, 2023
Work Session

Agenda Item No. 1: Roll Call

Chairman Raybould called the work session meeting to order at 9:03 AM (PT) in Moscow, Idaho and online. Board members present were Al Barker, Jo Ann Cole-Hansen, Marcus Gibbs, Patrick McMahon, Brian Olmstead, Dean Stevenson, Dale Van Stone, and Chairman Jeff Raybould.

IDWR staff members present were: Brian Patton, Cynthia Bridge Clark, Neeley Miller, Wesley Hipke, Mathew Weaver, Gary Spackman, Michelle Richman, Daniel Sturgis, and Jennifer Strange. Online were: Mary Condon, Josh Morell, Kala Golden, Meghan Carter, Justin Ferguson, Mike Morrison, Heidi Smith, and Ethan Geisler.

Guests present were: Jeff Allen, Douglas Jones, John Williams, John Simpson, Robin Nimmer, David Hall, Tyler Palmer, Sean Wells, Jake Garringer, Paul Kimmell, Kresta Davis, Scott Pugrud, and Ann Yribar. Guests online were: Cassidey Plum, Rachel Cohen, Bob Pierce, Jon Leman, Art Troutner, Bryan Horsburgh, Norm Semanko, Kira Finkler, Robin Lee-Beusan, Chris Keith, Kyle Radek, and Dylan Lawrence.

Agenda Item No. 2: Executive Session

Board met pursuant to Idaho Code § 74-206(1) subsection (f) to communicate with legal counsel regarding legal ramifications of and legal options for pending litigation, or controversies not yet being litigated but imminently likely to be litigated. The executive session was closed to the public.

Mr. Dean Stevenson moved to resolve into executive session at 9:04 AM (PT). Mr. Barker seconded. Roll call vote: Mr. Barker, aye; Ms. Cole-Hansen, aye;

Mr. Gibbs, aye; Mr. McMahon, aye; Mr. Olmstead, aye; Mr. Stevenson, aye; Mr. Van Stone, aye; and Chairman Raybould, aye. 8 ayes. The motion passed.

Meghan Carter discussed Priest Lake. Ann Yribar discussed City of Pocatello vs. IWRB.

At 9:24 AM, Mr. Stevenson moved to resolve out of executive session. Mr. Van Stone seconded. Voice vote. All in favor. The motion carried. No action was taken during the executive session.

Agenda Item No. 3: Anderson Ranch Dam Raise Update

Cynthia Bridge Clark introduced Lanie Paquin of the Bureau of Reclamation. Ms. Paquin spoke on design activities for rim projects. She stated that water operations during construction would include a 28,000 acre feet restriction. There was some discussion. Mr. Barker suggested the BOR provide a presentation of hydrologic conditions to the board and space holders related to the restriction. A supplemental draft EIS was a key next step for BOR. Ms. Bridge Clark ended the topic with a discussion about a possible Water Storage Committee meeting.

Agenda Item No. 4: Cloud Seeding Program

Kala Golden shared several areas of the cloud seeding program where funding could be considered--including the following: develop a statewide calibration of the WRF-Hydro model, expand WRF-WxMod domain to include the Bear River and Lemhi River Basins; authorize expenditure of funds for necessary computing to support modeling projects; authorize expenditure of funds for the collection and post processing of weather radar data; and authorize expenditure of funds for LES modeling. There was discussion about cost shares and about ongoing or one-time costs. She discussed a draft resolution to fund instrumentation and computing.

Agenda Item No. 5: Aging Water Infrastructure Grants Update

Neeley Miller provided a brief history of the Aging Water Infrastructure Grant Program. He added that during the 2023 session the Idaho legislature appropriated up to \$50,000,000 to the IWRB to be used to improve aging water infrastructure. On May 19, 2023, the IWRB Board set new timelines for soliciting applications for the next two rounds of Aging Water Infrastructure Grant proposals in fiscal year 2024. The first-round applications had a due date of Aug. 4 and the second round is due Dec. 1, 2023. Both rounds are for \$12.5 million in projects statewide. The IWRB anticipates holding an additional two rounds (\$12.5 million each round) of grant funding in FY 2025. He also stated the program webpage had been updated with these dates, and project profiles for each funded project have been added.

Agenda Item No. 6: Proposed Dworshak/Clearwater Pipeline Presentation

Brian Patton introduced Jeff Allen. Mr. Allen discussed a recommendation for the Clearwater Fish Hatchery. Mr. Patton talked about the conceptual cost estimate for the pipeline. A map displayed both proposed pipelines for the Clearwater Fish Hatchery and the Dworshak National Fish Hatchery. The total construction costs came to \$69.6 million. There was discussion on the project and on financing.

Agenda Item No. 7: Regional Manager's Update

Michelle Richman provided a report on the Northern Region of IDWR.

Agenda Item No. 8: Status of Northern Idaho Aquifers

Daniel Sturgis a hydrogeologist from the Coeur d'Alene office discussed Northern Idaho aquifers, ground water monitoring, and areas of interest for the region.

Agenda Item No. 9: Non-Action Items for Discussion

There were no other items for discussion from the board members.

Agenda Item No. 10: Adjourn

Jo Ann Cole-Hansen moved to adjourn. Al Barker seconded. Voice vote. All in favor. The motion carried. The meeting adjourned at 12:15 PM.

The board broke for lunch. Following lunch, the board departed for a field trip of points of interest related to the Palouse Basin Aquifer.

July 21, 2023

Board Meeting No. 5-23

At 8:30 AM (PT) Chairman Raybould called the meeting to order in Moscow, Idaho and online.

Agenda Item No. 1: Roll Call

Board Members Present

Albert Barker
Jo Ann Cole-Hansen, Vice Chairman
Marcus Gibbs
Patrick McMahon
Brian Olmstead
Dean Stevenson, Secretary
Dale Van Stone
Jeff Raybould, Chairman

Staff Members Present

Gary Spackman, Director	Brian Patton, Executive Officer
Cynthia Bridge Clark	Wesley Hipke
Neeley Miller	Mathew Weaver, Deputy Director
Steve Stuebner	Jennifer Strange

Staff Members Present Online

Remington Buyer	Justin Ferguson
Kala Golden	Kara Ferguson
Mary Condon	

Guests Present

John Williams	Scott Pugrud
Kresta Davis	Paul Kimmell
Ann Yribar	Doug Jones
John Simpson	Jeff Frank
Mike Faupel	

Guests Present Online

Bert Stevenson	Roger Batt	Larry Bybee
Cassidy Plum	Jake Garringer	Dylan Lawrence

Daniel Steenson
Norm Semanko
Hattie Zobott

Michael Fuss
Neil Jenkins

Celine Acord
Keith Esplin

Agenda Item No. 2: Agenda and Approval of Minutes 4-23

Chairman Raybould asked if any changes to the agenda were needed. There were no changes.

The minutes for meetings 4-23 were available for approval. Mr. Stevenson moved to approve the minutes. Mr. Van Stone seconded. Voice vote. All in favor. The motion carried.

Agenda Item No. 3: Public Comment

There was no public comment.

Agenda Item No. 4: Financial Report

Mr. Neeley Miller provided the Board's financial report. The accounts as of May 31, 2023 were: Secondary Aquifer Fund: committed/earmarked but not disbursed \$18,775,351 and uncommitted balance \$14,191,317; Revolving Development Account: committed/earmarked but not disbursed \$34,858,660, loan principal outstanding \$17,377,005, uncommitted balance \$2,811,739, and anticipated loanable funds available next one year \$6,311,739; and Water Management Account: obligated \$112,062,716, and unobligated balance \$182,509,906. Total committed/earmarked but not disbursed \$165,696,727; total loan principal outstanding \$17,377,005; and total uncommitted balance \$199,512,962. ARPA: committed per HB 769 is \$100,000,000; obligated \$17,301,327; unobligated \$8,367,953; and expended is \$74,330,719.

The obligated balance in the Water Management Account includes the \$20M legislative appropriation per HB 285 (FY 2019) for the Anderson Reservoir Enlargement and/or Mountain Home Air Force Base Water Supply Project. The obligated balance also includes \$50M for large infrastructure projects per Senate Bill 1121 (FY 2021) for the Anderson Ranch enlargement, Mountain Air Force Base Water Supply Project, ESPA Managed Aquifer Recharge Program, other projects identified by the IWRB.

The Water Management Account unobligated balance includes \$75M per HB 769 (FY 2022) to be used for expenditures, loans, or grants for water projects, including studies, to address water sustainability, rehabilitate or improve aging water infrastructure or support flood management. The legislature provided that no more than one-third of these moneys shall be used for grants. At the September 2022 IWRB meeting the IWRB authorized \$12,500,000 in funds for Aging Infrastructure grants(round one). At the January 2023 IWRB meeting the IWRB authorized \$12,500,000 in funds for Aging Infrastructure grants (round two). The Water Management Account unobligated balance also includes \$150M per HB 1181 to be used for expenditures, loans, or grants for water projects, including studies to address water sustainability, rehabilitate or improve aging water infrastructure, or support flood management. The legislature provided that the IWRB may provide up to one-third of these moneys for grants. In FY 2023 \$72,871,406 expended from the ARPA funds for the Anderson Ranch Reservoir Enlargement.

Agenda Item No. 5: Priest Lake Outlet Dam Modification

Mike Morrison presented two resolutions. The first resolution would provide funding for the construction manager with Mott MacDonald in an amount not to exceed \$500,000.

Mr. Van Stone moved to adopt the resolution to fund engineering services and construction management for the Priest Lake Outlet Dam Improvements Project. Ms. Cole-Hansen seconded. Roll call vote: Mr. Barker, aye; Ms. Cole-Hansen, aye; Mr. Gibbs, aye; Mr. McMahon, aye; Mr. Olmstead, aye; Mr. Stevenson, aye; Mr. Van Stone, aye; and Chairman Raybould, aye. 8 ayes. The motion passed.

The second resolution would authorize expenditure of up to \$815,000 to defray costs of litigation in the Strider matter.

Mr. Barker moved to adopt the resolution to approve funds for outside counsel in the Priest Lake construction litigation. Mr. McMahon seconded. Roll call vote: Mr. Barker, aye; Ms. Cole-Hansen, aye; Mr. Gibbs, aye; Mr. McMahon, aye; Mr. Olmstead, aye; Mr. Stevenson, aye; Mr. Van Stone, aye; and Chairman Raybould, aye. 8 ayes. The motion passed.

Agenda Item No. 6: Mountain Home Air Force Base Water Resilience Project Update

Mike Morrison provided an update on the Mountain Home Air Force Base Water Resilience Project. The Board used a two-step process to select a qualified Design-Build (DB) firm to design and build the inlet, pumping station, and 14.4 mile pipeline from CJ Strike Reservoir to Mountain Home Air Force Base. A five-member evaluation committee completed its review of Statements of Qualification received from three DB firms. All three DB firms were found to be qualified by the evaluation committee and have been invited to submit proposals and bids for designing and building the project. In November, a DB contractor is expected to be awarded.

Agenda Item No. 7: Lost Valley Galloway Subordination

Cynthia Bridge Clark shared that Lost Valley Reservoir Company had requested that the board modify terms of a resolution passed in 2020. She provided some background information on the request. Ms. Cole-Hansen asked Doug Jones with the Lost Valley Reservoir if he was aware of the conditions of the new resolution. Mr. Jones stated that his consulting group had no objections.

Mr. Barker moved to adopt the resolution to subordinate a portion of the IWRB's Water Right Application No. 67-7590 to Lost Valley Reservoir Company's Water Right Application No. 67-7938. Mr. Van Stone seconded. Voice vote. All in favor. The motion carried.

Agenda Item No. 8: Flood Management Grant Awards

Neeley Miller shared the spreadsheet of Flood Management Grant Awards. The same had been recommended at the July 12th Finance Committee meeting.

Ms. Cole-Hansen moved to adopt the resolution to award 2024 funds in the matter of Flood Management Grants. Mr. Olmstead seconded. Roll call vote: Mr. Barker, abstain on voting for Twin Falls Canal Co.; Ms. Cole-Hansen, aye; Mr. Gibbs, aye; Mr. McMahon, aye; Mr. Olmstead, aye; Mr. Stevenson, aye; Mr. Van Stone, aye; and Chairman Raybould, aye. 7 ayes. The motion passed.

Agenda Item No. 9: Cloud Seeding Program

Kala Golden discussed the line items of a resolution to authorize funding for instrumentation and computing in the matter of cloud seeding in the State of Idaho. Funding requested was as follows: not to exceed \$750,000 for a project to complete a Statewide Calibration of the WRF-Hydro model; not to exceed \$210,000 for work to expand the WRF-WxMod model to cover the Lemhi and Bear River Basins; not to exceed \$100,000 for the purchase of computing resources to support existing and on-going IWRB

projects; not to exceed \$450,000 for the deployment of a weather radar, and the collection and post processing of data; and not to exceed \$465,000 for costs related to LES modeling. The resolution also stated that all remaining funds allocated to the Cloud Seeding Program in FY24 are authorized for expenditure from the Secondary Aquifer Planning, Management, and Implementation Fund, and are subject to approval by the IWRB's Cloud Seeding Committee.

Mr. Gibbs moved to adopt the resolution. Mr. Olmstead seconded. Roll call vote: Mr. Barker, aye; Ms. Cole-Hansen, aye; Mr. Gibbs, aye with a recognition that he is a member of the Bear River water users group; Mr. McMahon, aye; Mr. Olmstead, aye; Mr. Stevenson, aye; Mr. Van Stone, aye; and Chairman Raybould, aye. 8 ayes. The motion passed.

Agenda Item No. 10: Lemhi River Settlement

Brian Patton gave a brief update on the McFarland minimum stream flow water right. Some concerns had surfaced about exercising that right, and it was decided to not exercise those rights.

Agenda Item No. 11: Pinehurst Water District Loan Request

Justin Ferguson shared a loan request for Pinehurst Water District in the amount not to exceed \$87,000 at 8.0% interest with a 10-year repayment term. Mr. Jeff Frank from Pinehurst had no comments for the board but was in attendance.

Mr. Barker moved to adopt the resolution. Ms. Cole-Hansen seconded. Roll call vote: Mr. Barker, aye; Ms. Cole-Hansen, aye; Mr. Gibbs, aye; Mr. McMahon, aye; Mr. Olmstead, aye; Mr. Stevenson, aye; Mr. Van Stone, aye; and Chairman Raybould, aye. 8 ayes. The motion passed.

Agenda Item No. 12: Regional Water Sustainability Projects

Neeley Miller provided some background on the Regional Water Sustainability Projects. He walked through a ranking spreadsheet attached to a resolution. Mr. Patton discussed another resolution that would modify the Board's ARPA spending plan that had been recommended by the Finance Committee.

Mr. Olmstead moved to adopt the resolution to approve ARPA spending modification. Mr. McMahon seconded. Roll call vote: Mr. Barker, aye; Ms. Cole-Hansen, aye; Mr. Gibbs, aye; Mr. McMahon, aye; Mr. Olmstead, aye; Mr. Stevenson, aye; Mr. Van Stone, aye; and Chairman Raybould, aye. 8 ayes. The motion passed.

Mr. Miller discussed a resolution to award funds in the matter of the Regional Water Sustainability Priority List according to the attachment A spreadsheet. Chairman Raybould mentioned there were a couple of typos that needed to be corrected in the final version.

Ms. Cole-Hansen moved to adopt the resolution to award funds. Mr. Stevenson seconded. Roll call vote: Mr. Barker, aye, but abstain due to conflict with NY Canal and American Falls Projects; Ms. Cole-Hansen, aye; Mr. Gibbs, aye; Mr. McMahon, aye; Mr. Olmstead, aye; Mr. Stevenson, aye; Mr. Van Stone, aye; and Chairman Raybould, aye. 8 ayes. The motion passed.

Agenda Item No. 13: Administrative Rules Update

Mathew Weaver stated there was no action needed on administrative rules. He briefed the board that action could be likely in late August.

Agenda Item No. 14: Director's Report

Director Gary Spackman's report mentioned the following: SWC/IGWA delivery calls, three orders issued, Governor's Water Summit planned, ESPA steering/advisory committee, and staffing updates at the department.

Agenda Item No. 15: Non-Action Items for Discussion

Mr. Barker suggested that revising the State Water Plan should likely be postponed due to the Governor's Water Summit.

Agenda Item No. 16: Next Meeting and Adjourn

Mr. Patton provided the next scheduled meetings: July 25th Aquifer Stabilization Committee Meeting; August 7th Governor's Water Summit at the Capitol; August 28-29 IWUA Legislative Water College in Burley; and the next regular board meetings on September 14-15, 2023 in Salmon. Mr. Stevenson moved to adjourn. Mr. Olmstead seconded. Voice vote. All ayes. Motion carried. Meeting adjourned at 10:17 AM (PT).

Respectfully submitted this 15th day of September 2023.

Dean Stevenson, *Secretary*

Jennifer Strange, *Administrative Assistant II*



IDAHO WATER RESOURCE BOARD

Brad Little
Governor

Jeff Raybould
Chairman
St. Anthony
At Large

Jo Ann Cole-Hansen
Vice Chair
Lewiston
At Large

Dean Stevenson
Secretary
Paul
District 3

Dale Van Stone
Hope
District 1

Albert Barker
Boise
District 2

Brian Olmstead
Twin Falls
At Large

Marcus Gibbs
Grace
District 4

Patrick McMahon
Sun Valley
At Large

MINUTES MEETING NO. 6-23

Conference Rooms 602 C & D / Zoom Online
322 E. Front St.
BOISE

August 16, 2023
Special Board Meeting

Agenda Item No. 1: Roll Call

Chairman Raybould called the special board meeting to order at 1:02 PM (MT) in Boise, Idaho and online. Board members present online were Al Barker, Jo Ann Cole-Hansen, Marcus Gibbs, Patrick McMahon, Brian Olmstead, Dean Stevenson, Dale Van Stone, and Chairman Jeff Raybould.

IDWR staff members present were: Brian Patton, Cynthia Bridge Clark, Erik Boe, Mike Morrison, Mathew Weaver, and Jennifer Strange. Online were: Meghan Carter, Kayleen Richter, Tim Luke, Sascha Marston, Nate Fischer, Heather Neace, and Steve Stuebner.

Guests present online were: Jennifer Tessmer, Robert Heinse, and Ann Yribar.

Agenda Item No. 2: Executive Session

Board met pursuant to Idaho Code § 74-206(1) subsection (f) to communicate with legal counsel regarding legal ramifications of and legal options for pending litigation, or controversies not yet being litigated but imminently likely to be litigated. The executive session was closed to the public.

Mr. Dean Stevenson moved to resolve into executive session at 1:04 PM. Mr. Gibbs seconded. Roll call vote: Mr. Barker, aye; Ms. Cole-Hansen, aye; Mr. Gibbs, aye; Mr. McMahon, aye; Mr. Olmstead, aye; Mr. Stevenson, aye; Mr. Van Stone, aye; and Chairman Raybould, aye. 8 ayes. The motion passed.

Meghan Carter discussed Priest Lake Dam Modification Project Litigation.

At 1:23 PM, Mr. Stevenson moved to resolve out of executive session. Mr. Van Stone seconded. Voice vote. All in favor. The motion carried. No action was taken during the executive session.

Agenda Item No. 3: Priest Lake Dam Modification Project

Mr. Patton stated that a vote would be needed regarding the litigation discussed in the executive session.

Mr. Barker made a motion that the board authorize legal counsel to pursue a lawsuit against the bond issuer for Strider, which is Travelers, for recovery of the amounts due to the board because of Strider's breach of contract. Mr. McMahon seconded. Voice vote. All in favor. The motion carried.

Mike Morrison provided background on the money spent on the Priest Lake Dam Modification Project. There was discussion about additional costs and about pending contractors and bids received to complete the outlet dam. He stated that two companies had been selected by the evaluation committee to bid. The lower bid by Northbank Civil and Marine Inc. was accepted. The bid was for \$4,355,000 with a completion date of April 1, 2024.

Ms. Cole-Hansen made a motion to adopt the resolution to authorize the expenditure of funds not to exceed \$4,500,000.00 from the Water Management Account to cover the costs of construction and to establish a small contingency fund. Mr. Van Stone seconded. Roll call vote: Mr. Barker, aye; Ms. Cole-Hansen, aye; Mr. Gibbs, aye; Mr. McMahon, aye; Mr. Olmstead, aye; Mr. Stevenson, aye; Mr. Van Stone, aye; and Chairman Raybould, aye. 8 ayes. The motion passed.

Agenda Item No. 4 UIC Rule-Making

Erik Boe discussed issues that the UIC (underground injection control) Program has faced during the rule-making process. Background information and current regulations were discussed. He provided proposed drafts of the rules and next steps. There was a discussion about PFAS chemicals. There will be subsequent meetings with DEQ and internal meetings to refine the rules. Chairman Raybould asked about the timeline for completion of the proposed rules. There was no action from the board.

Agenda Item No. 5: Non-Action Items for Discussion

There were no other items for discussion from the board members.

Agenda Item No. 10: Adjourn

Al Barker moved to adjourn. Dean Stevenson seconded. Voice vote. All in favor. The motion carried. The meeting adjourned at 2:24 PM.

Respectfully submitted this 15th day of September 2023.

Dean Stevenson, *Secretary*

Jennifer Strange, *Administrative Assistant II*

Memorandum



To: Idaho Water Resource Board
From: Kala Golden, Cloud Seeding Program Manager
Date: September 5, 2023
Re: Cloud Seeding in the Bear River Basin

ACTION: Determine next steps

Background

In July of 2021, the Idaho Water Resource Board (IWRB) directed staff to conduct a cloud seeding feasibility and design (F/D) study of the Bear River Basin (BRB). Staff contracted the National Center for Atmospheric Research (NCAR) to conduct this investigation. NCAR was directed to evaluate the potential for seeding in the BRB, focusing on regions that contribute towards the fill of Bear Lake and stream reaches within the Bear that supply water to users in Idaho. The F/D study looks at seeding potential for both ground and airborne seeding opportunities, based on where seedable conditions tend to exist in the atmosphere. Included in this evaluation is an investigation of the potential for shared infrastructure with the Upper Snake River Basin (USRB). Sharing cloud seeding infrastructure between adjoining river basins has been demonstrated to be cost-effective and provides for increased operational efficiency. Sharing infrastructure with the USRB provides an opportunity to enhance the USRB cloud seeding project, while simultaneously supporting the development of cloud seeding operations in the BRB.

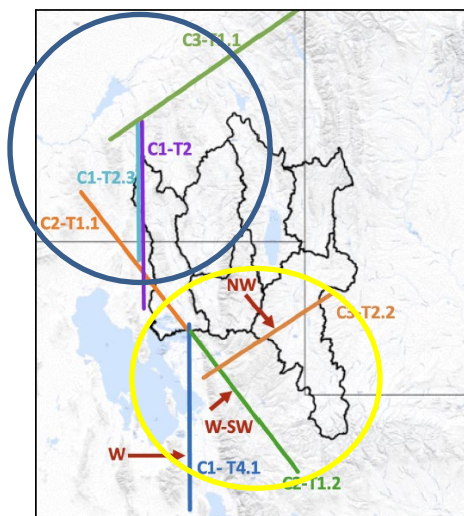
NCAR will provide a presentation on the results of the BRB F/D study at the IWRB's next Regular meeting on September 15, 2023.

Recommendations

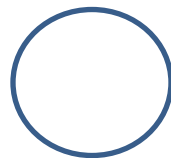
- Focus on airborne seeding operations, as it has a higher frequency of seeding opportunities and is less limited by flow blocking and inversions.
 - Aircraft can reach higher elevations, which will be crucial during climatically warm periods.
- For ground-based operations, NCAR recommends pursuing higher elevations sites to avoid limitations from inversions and mountain-blocked flow conditions.
 - Generator sites used to conduct this assessment were primarily done above 6500 feet elevation, though there were a couple generators in group C around 5500 feet.

Continued Next Page

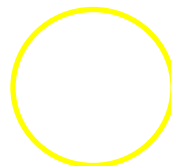
Aircraft



Flight tracks recommended for airborne seeding indicating the associated case study (C) and track number (T).

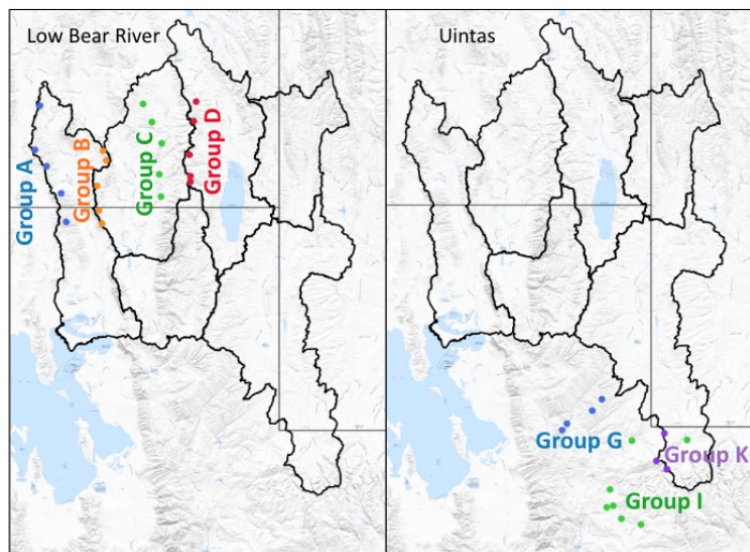


A shared aircraft could be used to target the NW region of the BRB and the USRB, prioritizing either basin at the IWRB's discretion.

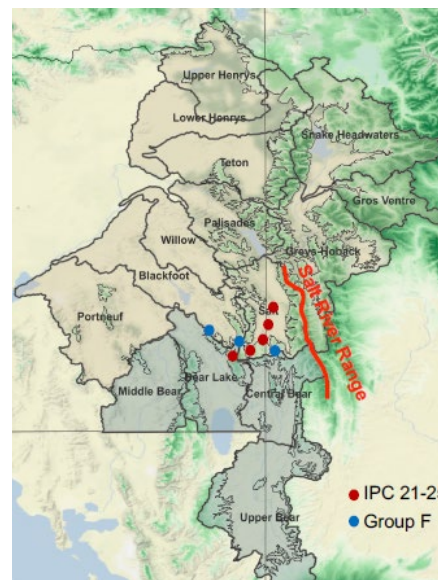


The addition of a third aircraft could be used to target this region of the BRB. The State of Utah is currently working to implement aircraft seeding operations in this region.

Ground



Simulated generator groups for ground seeding cases 1 to 5.



- For the Lower Bear River Basin, designed to target stream reaches within the BRB that supports fill of the lake and water use in Idaho, NCAR recommends the following design configuration, listed in order of maximum seeding potential. These recommendations are made to reflect optimum seeding potential, based on how many generators the IWRB would like to invest in.
 - For a total of 15 new generators, use either Groups B,D,A or Groups B,D,C
 - For a total of 10 new generators, use Groups B and D
 - For a total of 5 new generators, use Group B

- For the Bear River headwaters out of the Uintas, designed to target the main stem of the Bear River and fill of Bear Lake:
 - Given the limited spatial extent of the BRB headwaters that come out of the Uintas Mountains, targeting this region of the basin will be very challenging, and will additionally show enhanced impact to other river basins fed by the Uinta's mountains.
 - For this reason, partnering with the State of Utah to utilize the existing Group I generators when winds are favorable, is likely more cost effective than attempting to establish new infrastructure in this region.
- For shared infrastructure to optimize seeding potential in both the USRB and BRB:
 - A total of 3 new remote ground generators, use Group F (combined with IPC existing, denoted as gens # 21-25)

ESTIMATED COSTS

It should be noted that estimated costs are based on what staff have determined to be logistically feasible under a continued partnership with Idaho Power Company. Estimated costs were provided by IPC as a courtesy to the IWRB and should not be construed as a formal commitment by IPC to support operations in this basin.

- There would exist significant challenges trying to coordinate a new shared aircraft with existing aircraft operations in the USRB, should another operator be considered for this program.
 - Utilizing another operator would result in duplicate costs for regional forecasting, as it is already being done for the Collaborative Program in this region.
 - No other operator currently has the modeling capabilities or licensures to operate the existing WRF models the IWRB and IPC have invested in and designed for use in Idaho.
 - Existing generator sites 21-25 are already part of the Collaborative Program, owned by IPC.
 - There are no current, off the shelf manufacturers of cloud seeding generators. IPC has designed and manufactured all existing remote ground generators that currently support the Collaborative Program. Costs for devices are based on IPC's cost to develop. Staff are working to identify potential alternative sources for securing generators and develop estimated costs.
- Costs provided reflect:
 - 1 aircraft and a contract meteorologist (required) to support a shared aircraft targeting the NW region of the BRB and USRB as needed.
 - 5 Remotely operated Ground generators (first year, full build out TBD)
 - Weather Instruments needed to support operations and forecasting.
 - WRF model updates to support BRB forecasting and operations were authorized by the IWRB in July of 2023 (approximately \$250,000 for both the Lemhi River and Bear River Basins).

Aircraft

WY 2025		
	Initial Year	Ongoing
Aircraft	\$ 669,339.30	\$ 669,339.30
Fixed	\$ 456,756.30	\$ 456,756.30
Variable	\$ 212,583.00	\$ 212,583.00
Contract Met	\$ 116,865.00	\$ 116,865.00
IPC Contract Admin	\$ 3,792.01	\$ 3,792.01
Total for Aircraft/Met	\$ 789,996.31	\$ 789,996.31

Generators (5 GGENs)

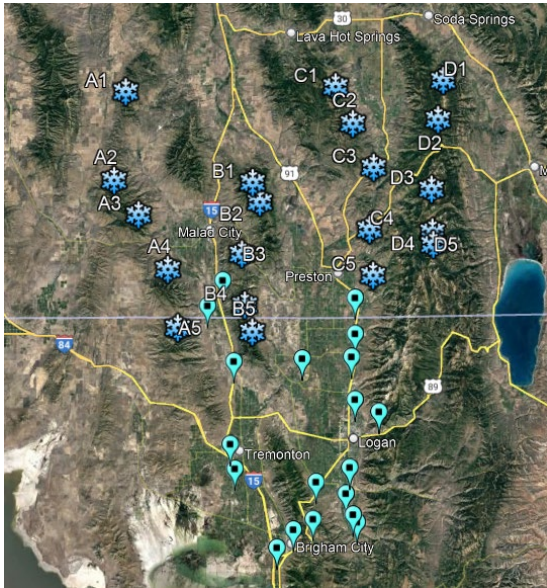
WY 2025		
	Initial Year	Ongoing
Ground Seeding		
RCNG units, purchase	\$ 250,000.00	
Leases	\$ 12,500.00	\$ 12,500.00
Site selection	\$ 11,552.02	
Installation	\$ 10,266.42	
Train State Field Crew	\$ 7,113.18	
IPC support and maintenance support	\$ 3,754.97	\$ 1,877.48
Solution	\$ 18,750.00	\$ 18,750.00
Total Generators	\$ 313,936.59	\$ 33,127.48

Instrumentation

WY 2025		
	Initial Year	Ongoing
Instrumentation		
Wx Balloon	\$ 12,650.00	\$ 10,650.00
Radiometer	\$ 207,329.72	\$ 10,975.00
Precip gage		\$ 2,400.00
Mini-Rad	\$ 1,500.00	
Ice Rate Sensor	\$ 150.00	
SWEDAR	N/A	N/A
Radar	N/A	N/A
IPC support and maintenance support	\$ 3,754.97	\$ 1,877.48
Total Instrumentation	\$ 225,384.69	\$ 25,902.48

	Initial Year	Ongoing
Total	\$ 1,329,317.59	\$ 849,026.28

Additional References



- For ground-based operations, NCAR's evaluation recommended pursuing higher elevations sites to avoid limitations from inversions and mountain-blocked flow conditions.
- Generator sites used to conduct NCAR's assessment were primarily done above 6500 feet elevation, though there were a couple generators in group C around 5500 feet.



State of Utah Existing Manual Generators sites.

ID	Site Name	Elevation (ft)
BE-1	Trout Creek	5070
BE-2	Oakley	4570
BE-3	Grouse Creek	5334
BE-4	Grouse Creek N	5484
BE-5	Lynn	5930
BE-6	Almo	5340
BE-7	Yost	5986
BE-8	Rosette	5640
BE-9	Standrod	5811
CV-1	Malad South	4450
CV-2	Portage	4500
CV-3	Plymouth	4417
CV-5	Newton	4662
CV-6	Cove	4577
CV-7	Richmond	4600
CV-8	Smithfield	4694
CV-9	Logan	4580
CV-10	Logan Canyon	4971
CV-11	Tremonton	4295
CV-12	Bear River City	4265
CV-13	Perry	4404
CV-14	Brigham City	4690
CV-15	Mantua	5200
CV-16	Wellsville	4884
CV-17	Hyrum	4816
CV-18	Paradise	4875
CV-19	Avon	5059
CV-20	Avon South	5079
CV-21	Liberty	5107
CV-22	Huntsville	5066
CV-23	Red Rock Ranch	5473



NCAR *Proposed Remote* Ground Generator

Generator	Elevation Modeled
A1	6627
A2	6480
A3	6890
A4	7513
A5	6824
B1	7726
B2	6627
B3	6463
B4	6316
B5	6988
C1	7218
C2	6660
C3	5807
C4	5906
C5	5479
D1	9137
D2	8333
D3	9121
D4	8990
D5	8530

Attachments: NONE

Bear River Basin Feasibility and Design Study

Results, Recommendations, and Shared Infrastructure Opportunities

***Sarah Tessendorf, Courtney Weeks, Maria Frediani, Amy DeCastro,
Jamie Wolff, Lulin Xue, Kyoko Ikeda, Amanda Siems-Anderson***

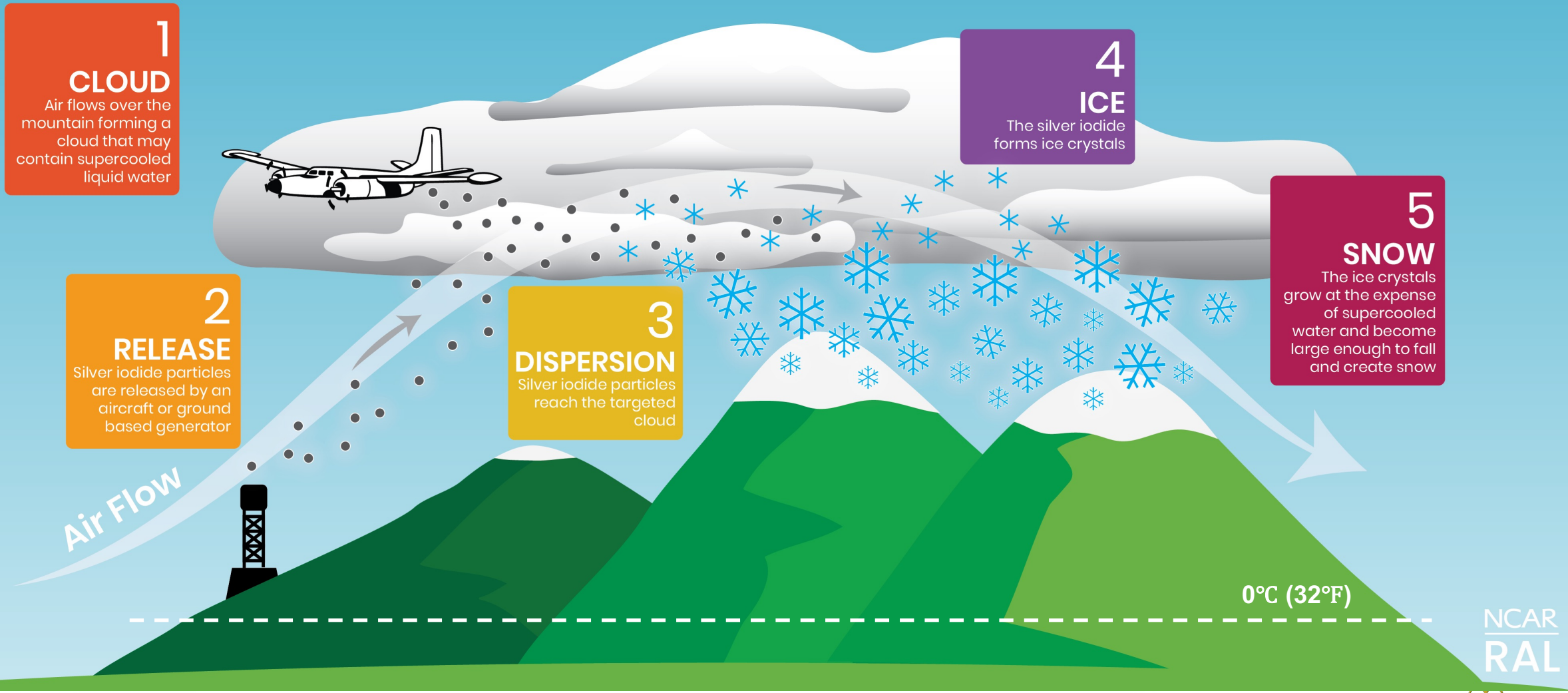
*Research Applications Laboratory
National Center for Atmospheric Research, Boulder, CO*



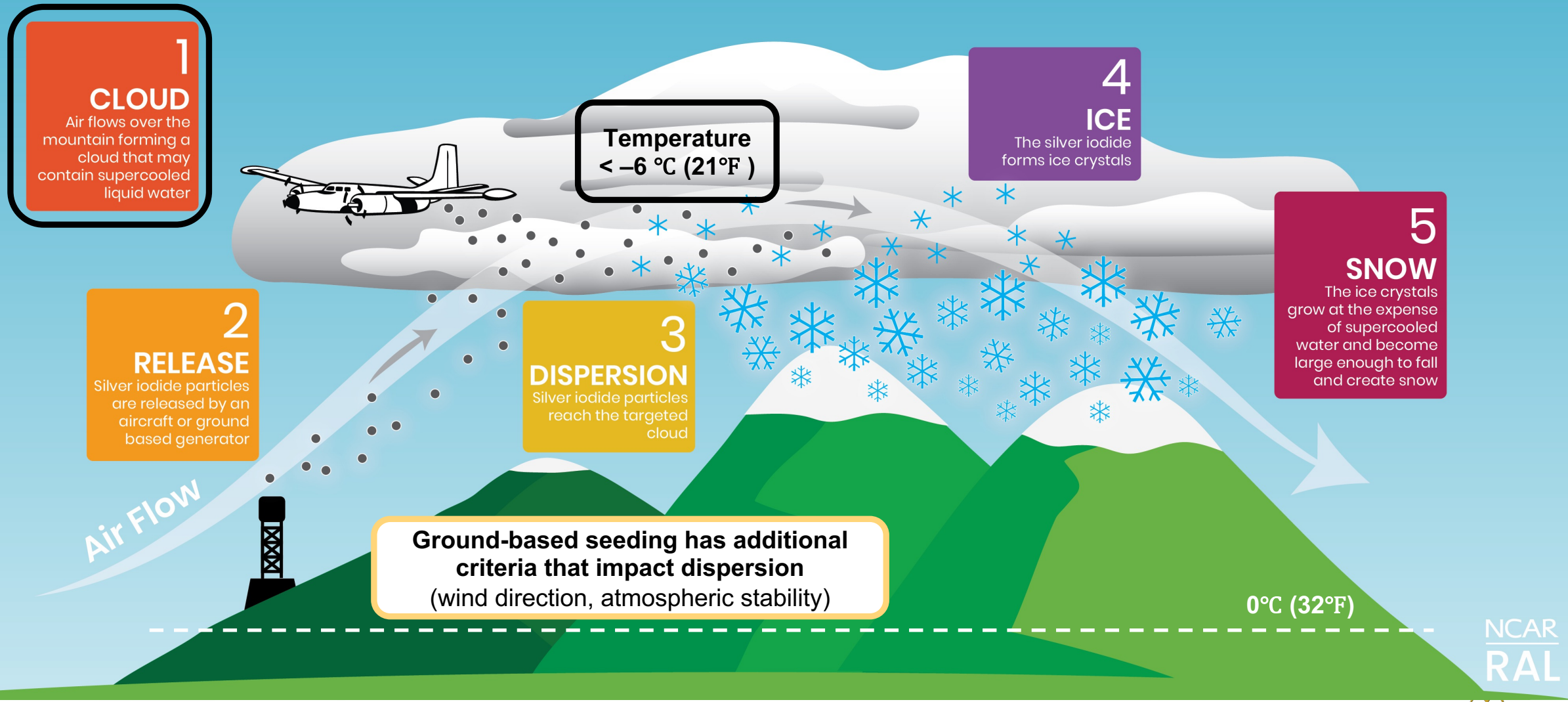
September 15, 2023



The goal of winter orographic cloud seeding is to increase snowpack (and subsequent streamflow)

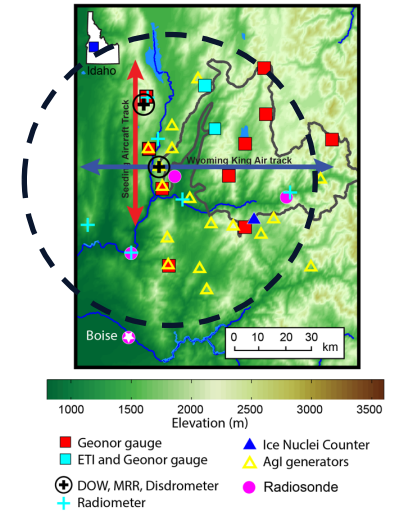
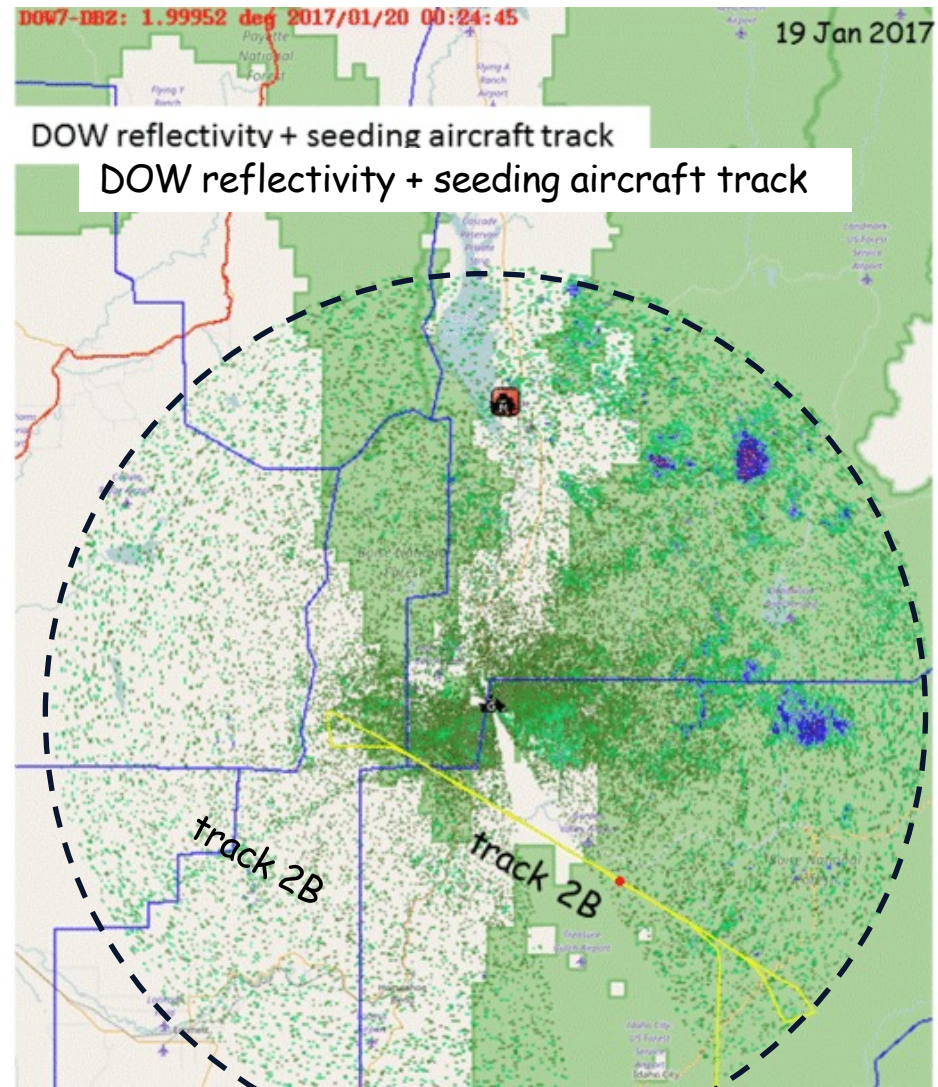
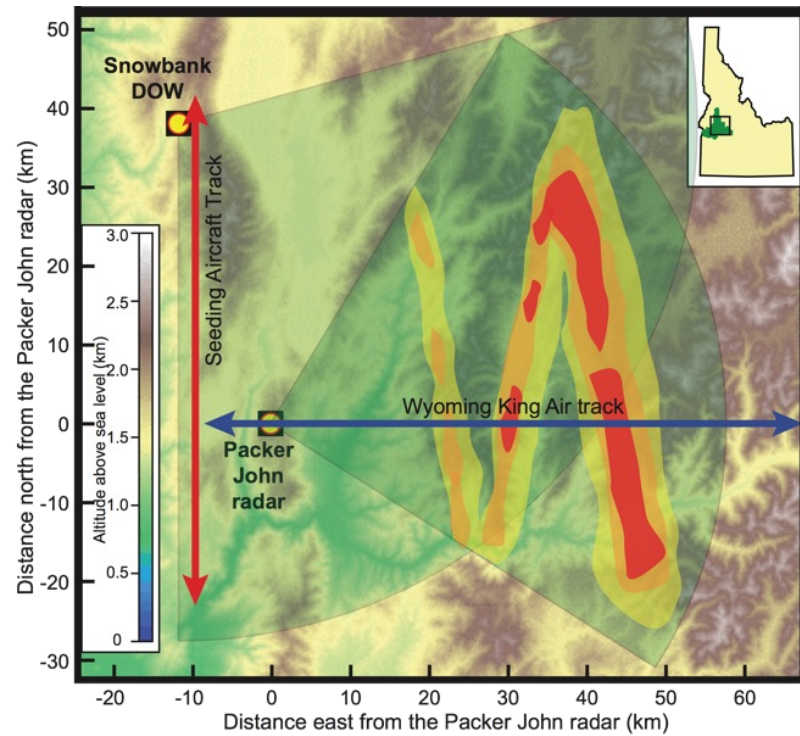


Two key criteria : 1) Supercooled liquid water (SLW) 2) Temperature for silver iodide to nucleate ice



Recent study proves seeding produces snow

Hypothesized seeding plume dispersion



Feasibility and Design Components

Climatology Analysis

How often are there opportunities for seeding clouds in this region?

What are the characteristics of clouds in this region?

Analyze historical data:

- Temperature
- Supercooled liquid water (SLW)
- Precipitation
- Winds
- Atmospheric stability

Preliminary Design

What methods of cloud seeding might target the clouds in this region most effectively?

Test and Refine Design

How effective are each design option at targeting and enhancing precipitation in this region?

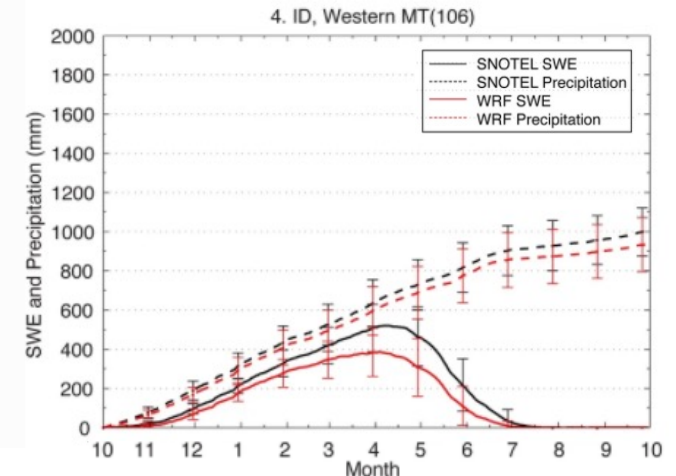
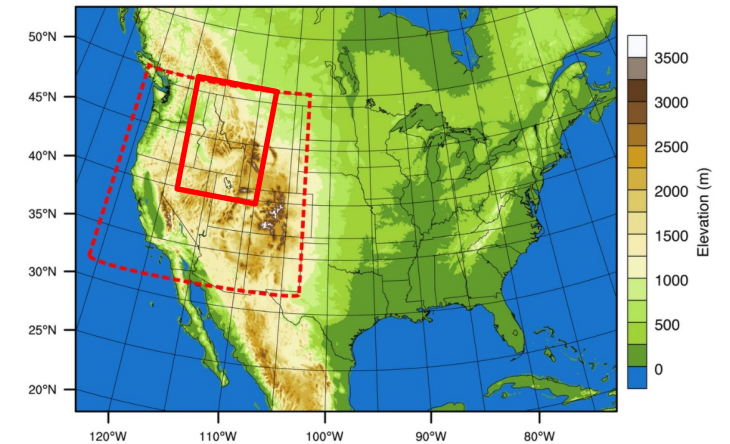
Which combination of design options is recommended?

Approach for Climatology Analysis

Analysis of Historical Data

- Observations required for assessing the potential for cloud seeding are not routinely collected
 - Weather balloons provide vertical profiles of temperature (limited)
 - No routine measurements of SLW
- High-resolution, long-term model simulations provide a new opportunity
 - 13-year (2000-2013) 4-km grid spacing WRF model simulation over the CONUS
 - Shown to realistically reproduce precipitation observations
 - Includes 3D information on temperature, SLW, winds, etc.

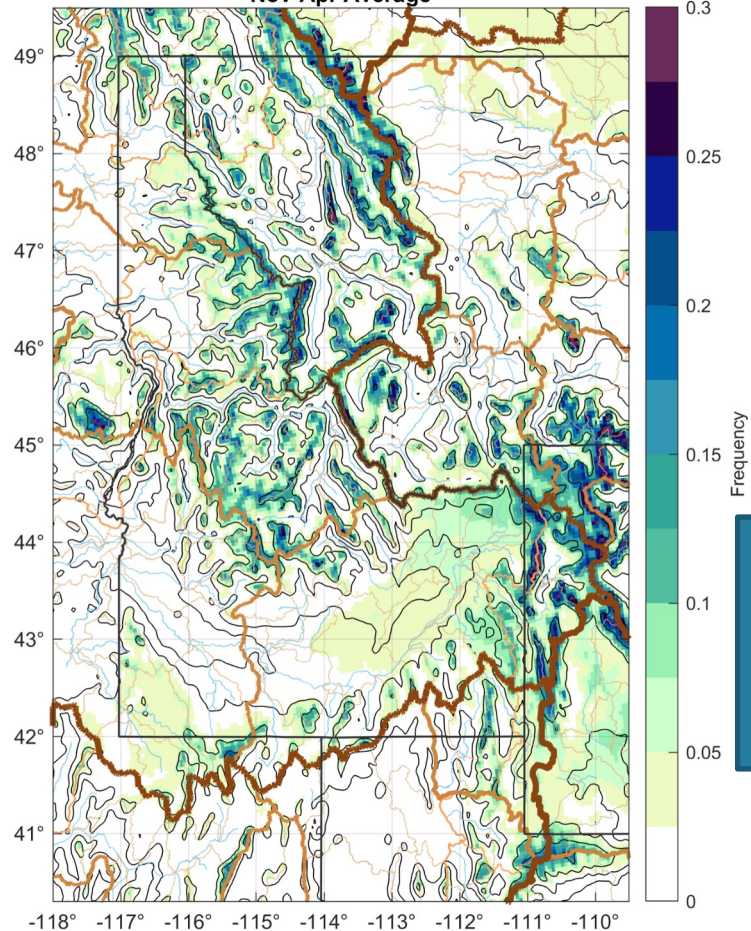
Weather Research and Forecasting (WRF) model
CONUS Simulation Domain



Goal: Identify areas in the state of Idaho with potential for cloud seeding to conduct more detailed feasibility and design

Ground seeding layer (0-1 km AGL)

Frequency of GS LWC > 0.01 g kg^{-1} & $-18^\circ\text{C} < \text{GS T} < -6^\circ\text{C}$
Nov-Apr Average

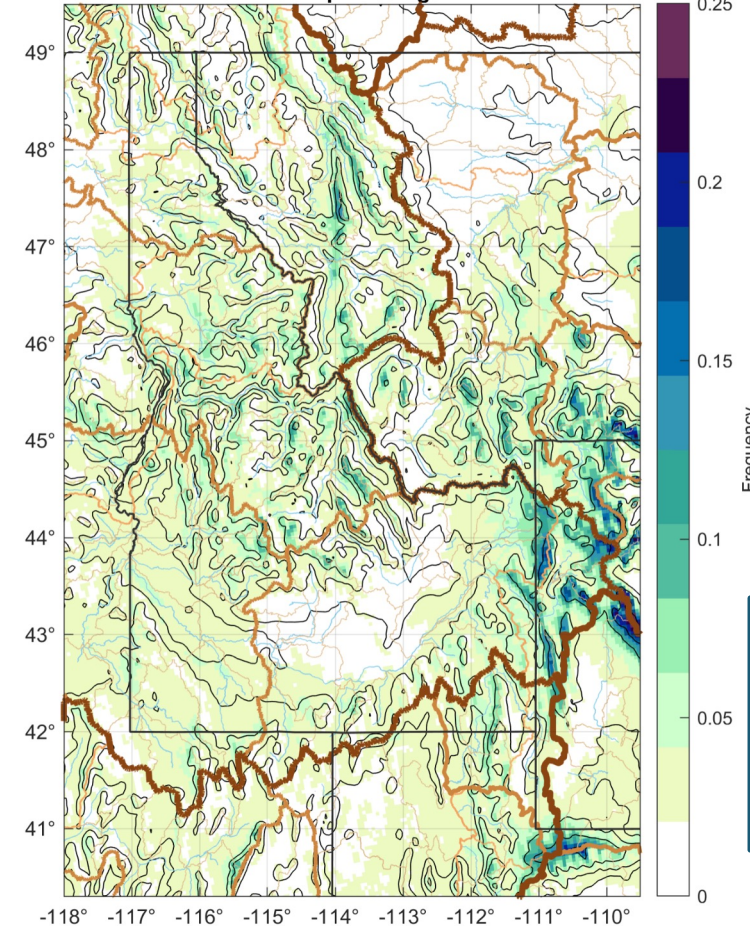


This map shows the frequency that temperature and SLW conditions are met, but not the additional dispersion criteria that are specific to each mountain barrier.

More detailed analysis by basin or mountain barrier is needed

Airborne seeding layer (3.5-4.5 km MSL)

Frequency of AS LWC > 0.01 g kg^{-1} & $-18^\circ\text{C} < \text{AS T} < -6^\circ\text{C}$
Nov-Apr Average

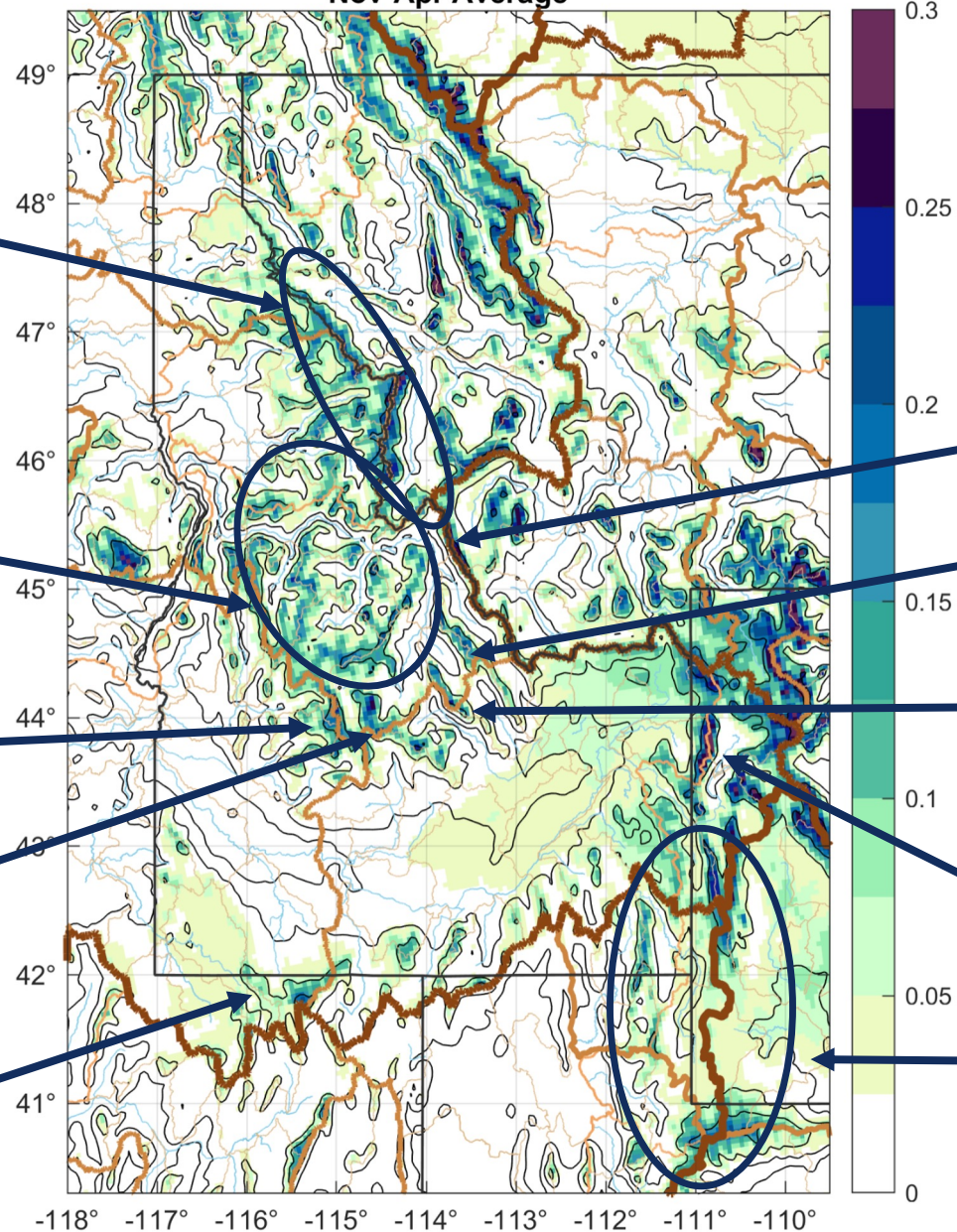


This layer was determined based upon minimum safe flight altitudes over most of the state. Regions with lower altitude mountains may have more potential than shown here since SLW decreases with altitude.

More detailed analysis by basin or mountain barrier is needed

We recommend focusing on basins with some ground-seeding potential to investigate both ground and airborne seeding potential with a more detailed analysis approach

Frequency of GS LWC > 0.01 g kg⁻¹ & -18°C < GS T < -6°C
Nov-Apr Average



Bitterroot
Mountains/Some
parts of Clearwater

Salmon River
Mountains

Boise/Sawtooth
Mtns

Boulder/White
Cloud Mtns

Independence
Mountains (flows into ID)

Beaverhead Mtns (on divide)

Lemhi Mtns

Lost River
Range

Teton Range

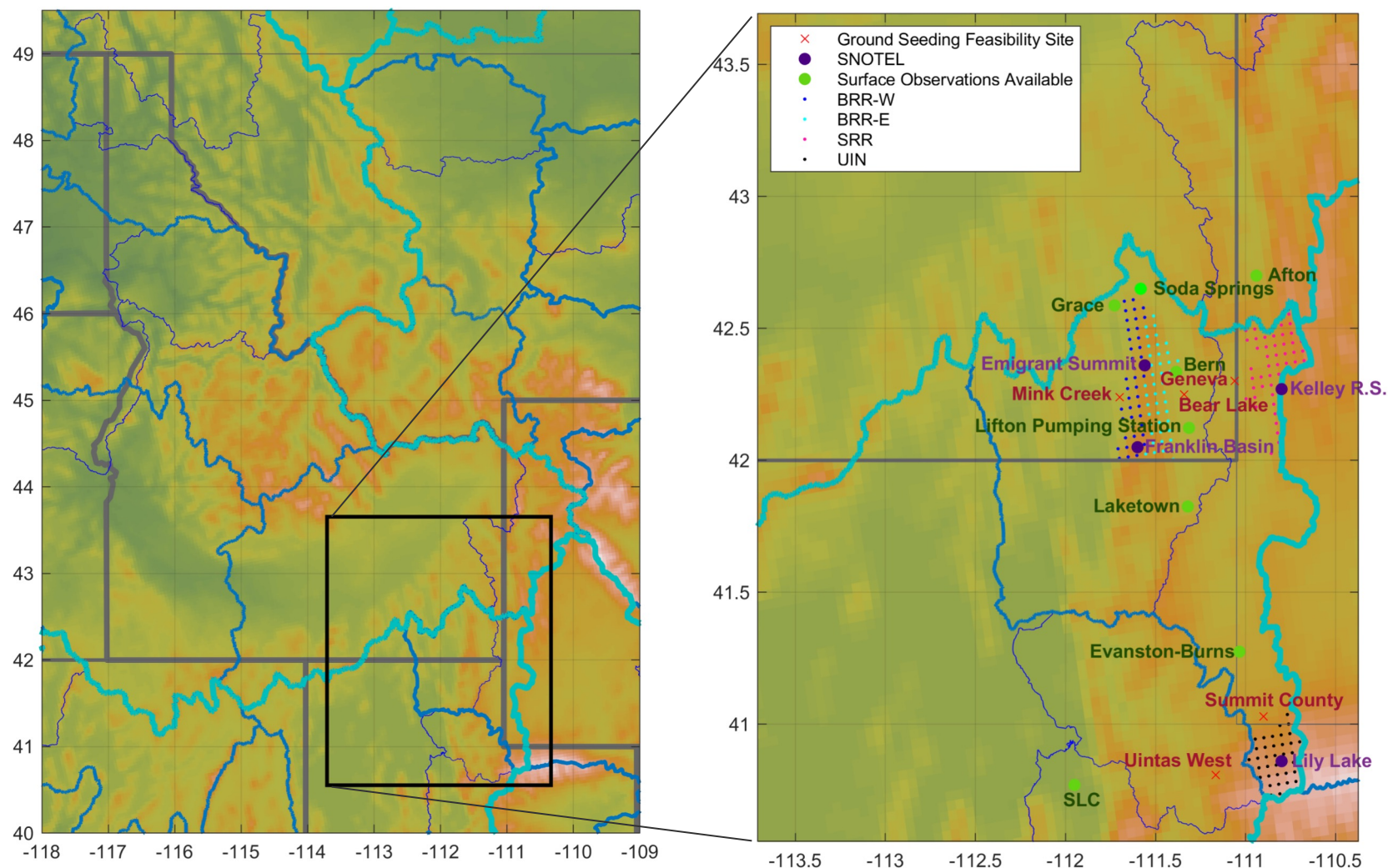
Current Study Area (incl.
Bear River Range, Salt
River Range, Uintas)

Bear River Basin: Region of Study

- State- and basin-wide maps of seedable conditions (based upon SLW and T)

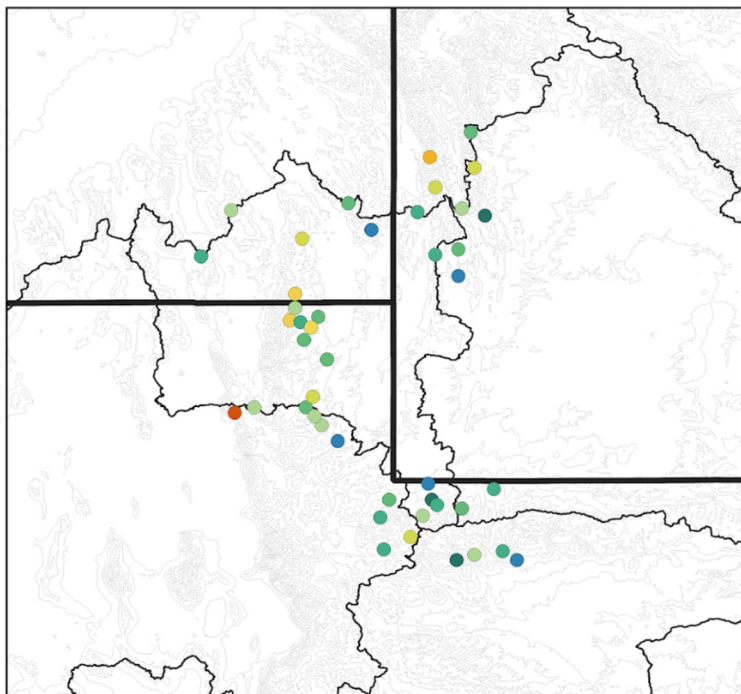
Focus on Bear River Basin:

- 700-hPa conditions at representative sites along each range for wind and stability
- Frequencies of seedable conditions area averaged over identified target regions

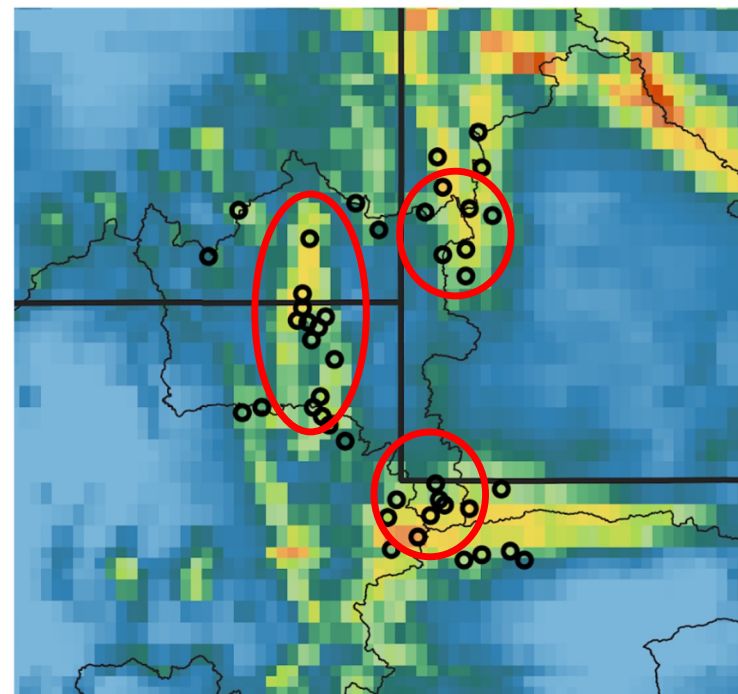


Average Annual Precipitation in the Bear River Basin

SNOTEL Observations



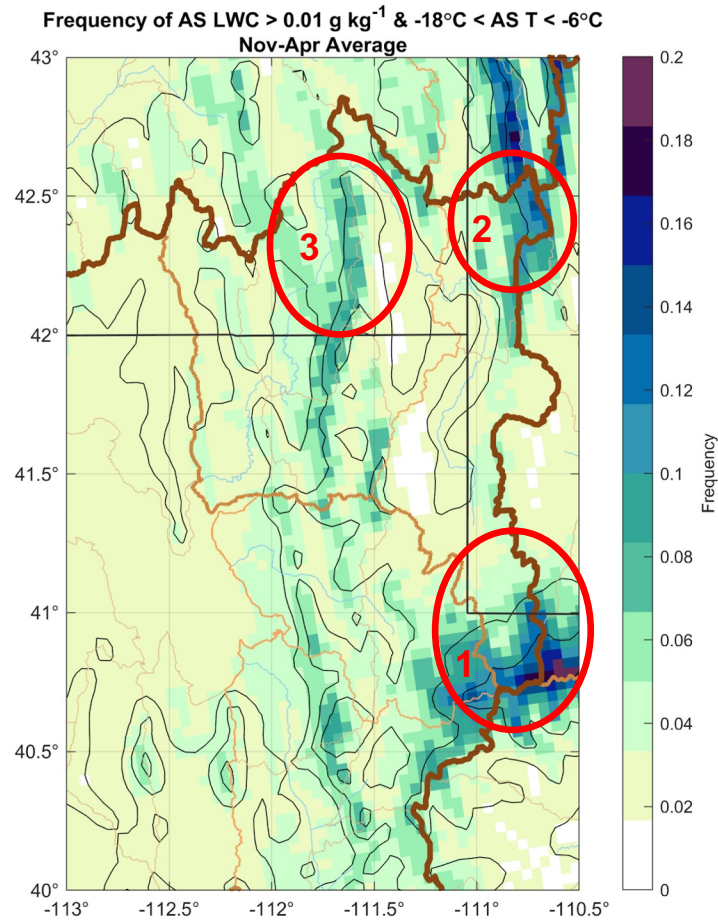
CONUS Model Simulation



precipitation (mm)

- 0 - 100
- 100 - 200
- 200 - 300
- 300 - 400
- 400 - 500
- 500 - 600
- 600 - 700
- 700 - 800
- 800 - 900
- 900 - 1000
- 1000 - 1100
- 1100 - 1200
- 1200 - 1300
- 1300 - 1400
- 1400 - 1500
- 1500 - 1600
- 1600 - 1700
- 1700 - 1800
- 1800 - 1900

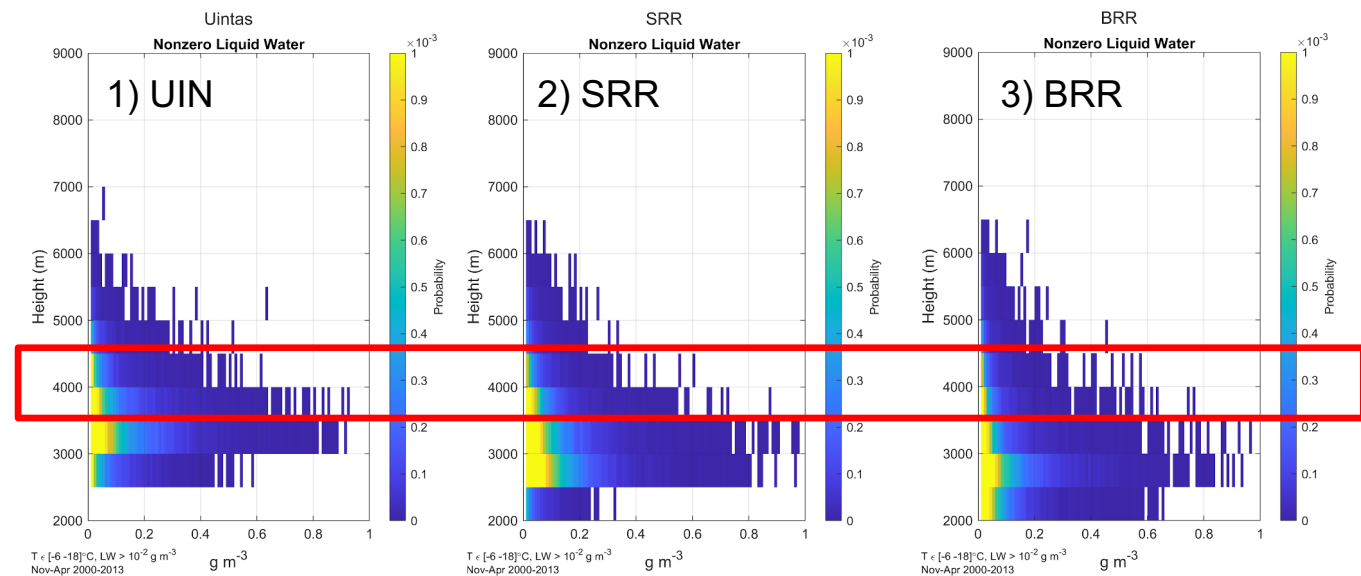
Frequency of Airborne Seeding Opportunities



Three regions feed the Bear River Basin:

1. Uintas (UIN)--Bear River headwaters
2. Salt River Range (SRR)
3. Bear River Range (BRR)

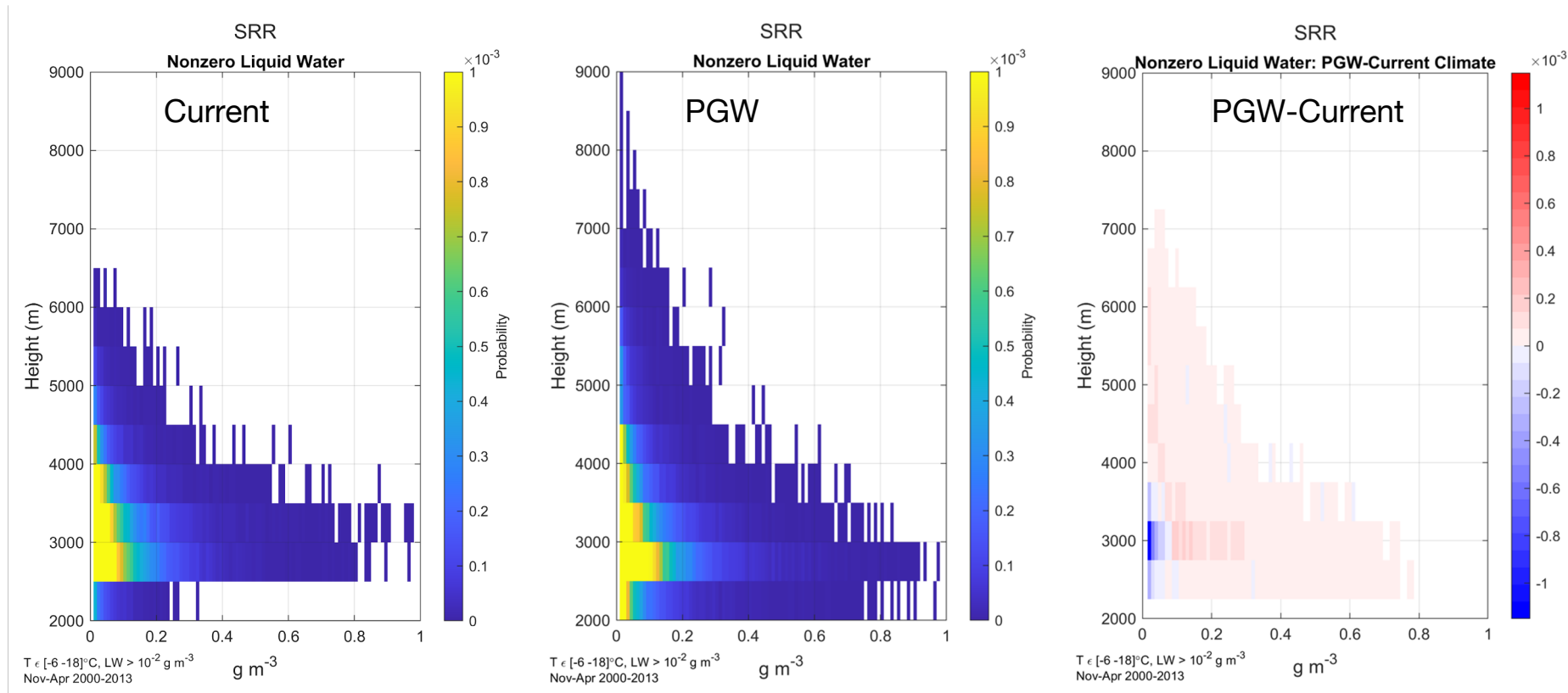
Airborne seeding opportunities between Nov-Apr, peak in late winter



Flight level
3.5-4.5 km MSL

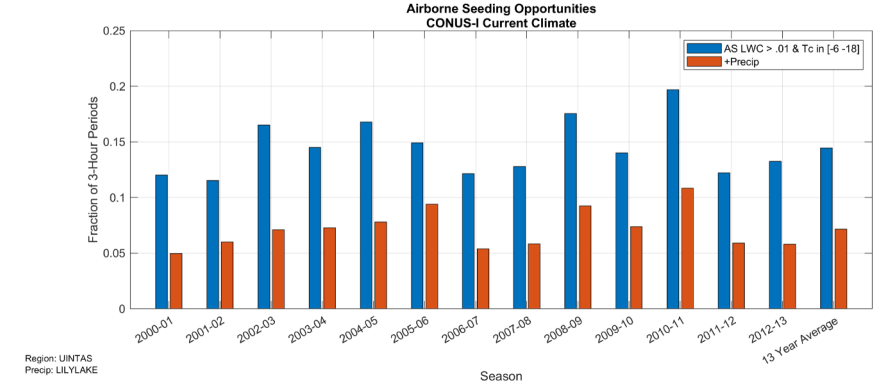
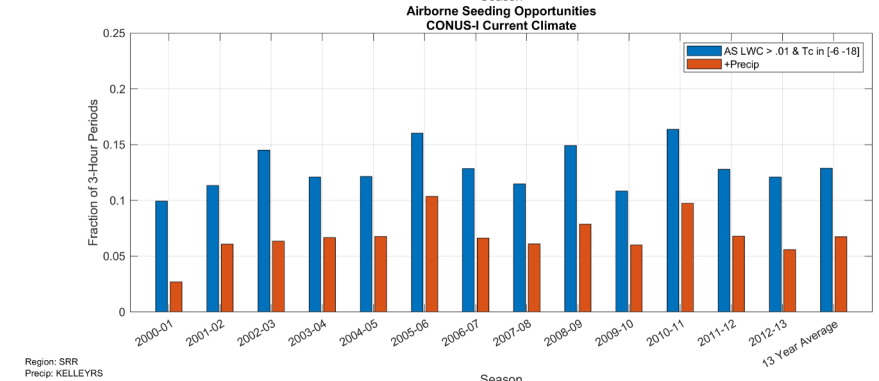
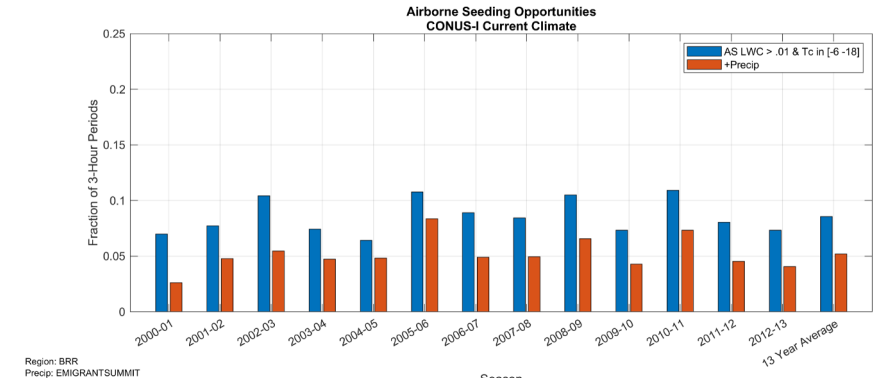
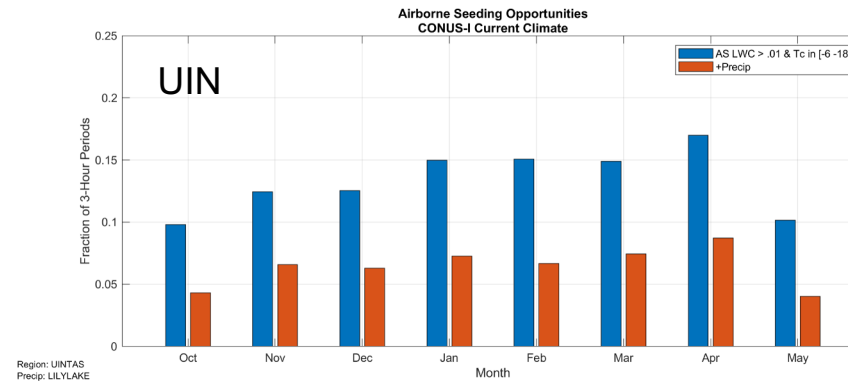
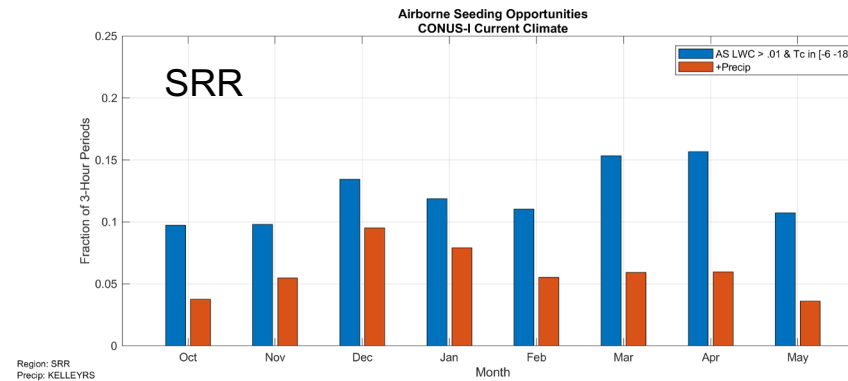
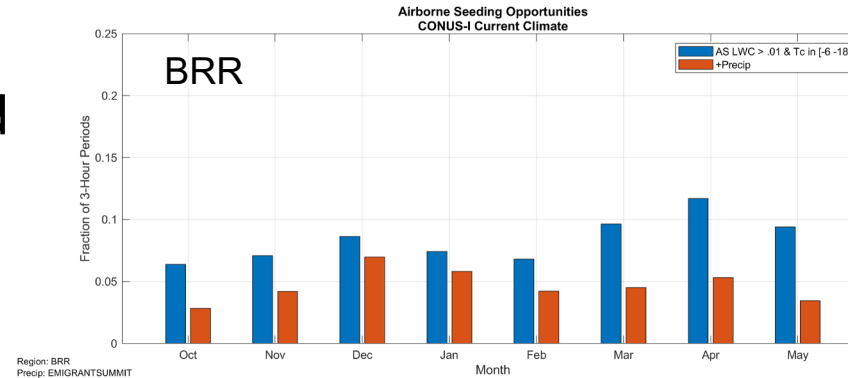
Future Climate Analysis for the Bear River Basin

- Increased SLW and warmer temperatures reduces ground seeding opportunities and offsets airborne at the 3.5-4.5 km MSL layer, however SLW extends to higher altitudes in PGW so aircraft could fly at higher altitudes to be in ideal temperatures with SLW



Airborne Seeding: CONUS-I Current Climate

- Salt River Range and Unitas have most frequent opportunities for airborne seeding
- Season between Oct or Nov through April



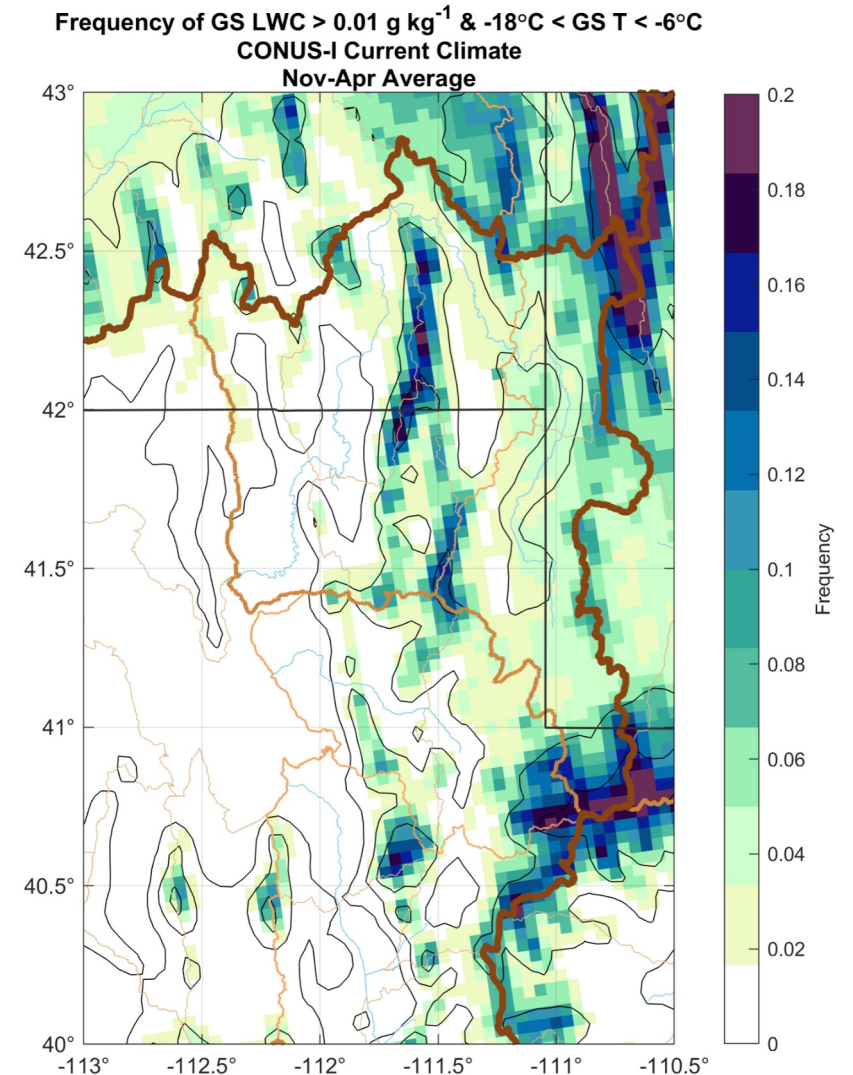
Frequency of Ground-based Seeding Opportunities

- Most of the SLW is in the ground-based seeding layer, which explains the higher frequencies here
- These are based upon SLW and temperature only

Additional criteria need to be analyzed for ground-based seeding to ensure the seeding material released from the ground reaches the targeted cloud over the mountains

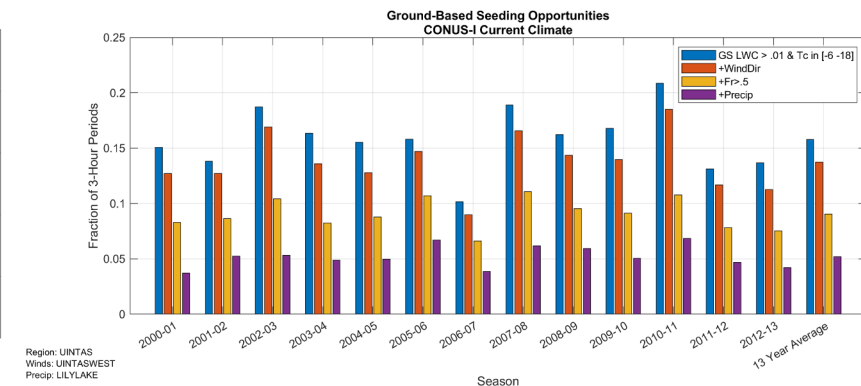
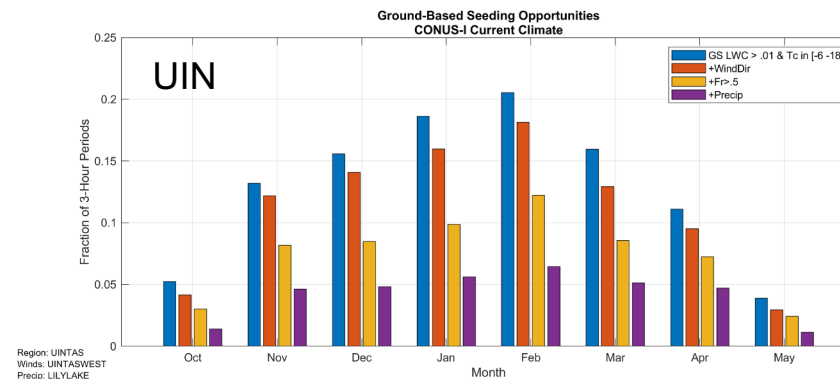
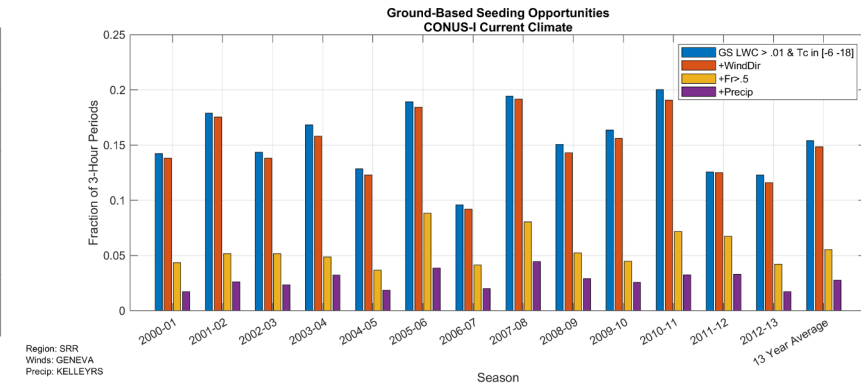
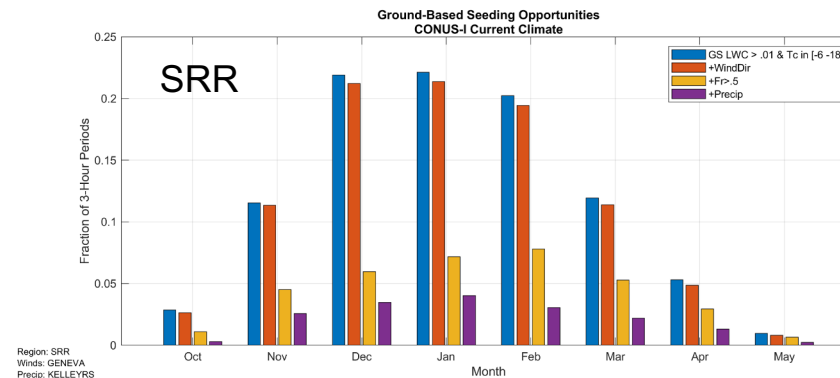
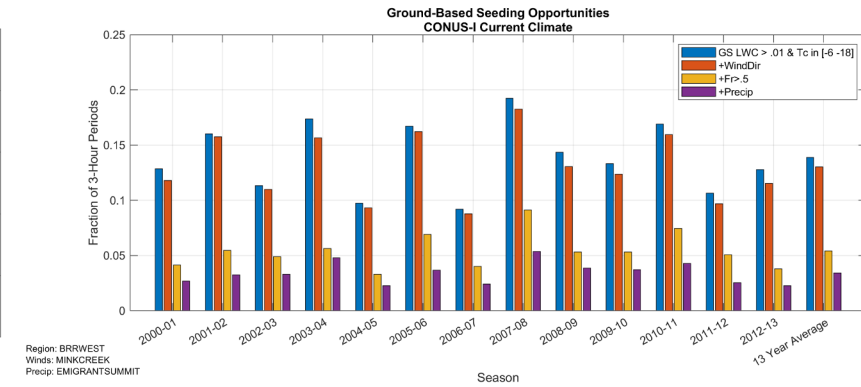
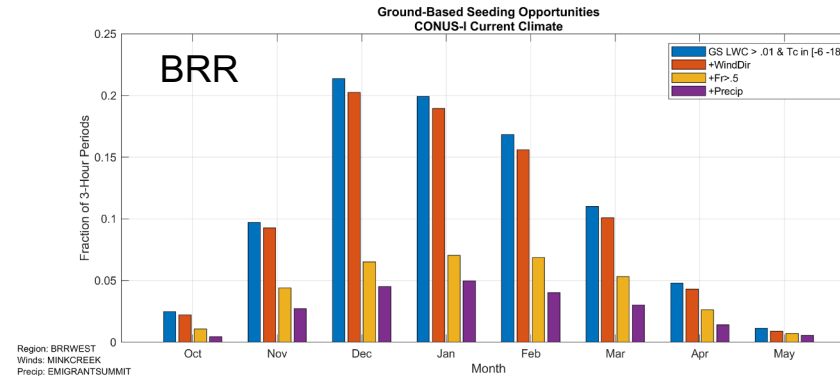
Additional criteria include:

- Wind direction
- Wind Speed
- Atmospheric Stability



Frequency of Ground-based Seeding Opportunities

- Flow blocking limits ground seeding opportunities the most, especially in BRR and SRR
 - Suggests that low level generator placement would not be effective*
- Season peaks Dec-Feb or Nov-Mar in Uintas



Bear River Basin Climatology Analysis

Summary and Recommendations

- 10-15% of winter season may be targetable for ground-based seeding or airborne seeding (varies by target region)
 - Nov-Apr season with Dec-Feb most frequent for ground-based
 - Future climate shows airborne seeding as more promising
- 30-50% of precipitation falls under seedable conditions
- Ground-based seeding opportunities may be limited by flow blocking, therefore best to look for higher altitude sites

Recommendations:

- Focus on airborne seeding since it has more frequent opportunities and is less limited by flow blocking
 - Aircraft can also fly higher for future climate scenario indication of higher SLW altitudes
- If ground-based seeding is pursued, higher elevation sites would be recommended to overcome flow blocking issues
 - Future climate opportunities for ground-based seeding may be reduced, unless another seeding agent is used

Feasibility and Design Components

Climatology Analysis

How often are there opportunities for seeding clouds in this region?

What are the characteristics of clouds in this region?

Analyze historical data:

- Temperature
- Supercooled liquid water (SLW)
- Precipitation
- Winds
- Atmospheric stability



Preliminary Design

What methods of cloud seeding might target the clouds in this region most effectively?

Review climatology results

- Place hypothetical ground-based generator locations
- Identify possible aircraft tracks



Test and Refine Design

How effective are each design option at targeting and enhancing precipitation in this region?

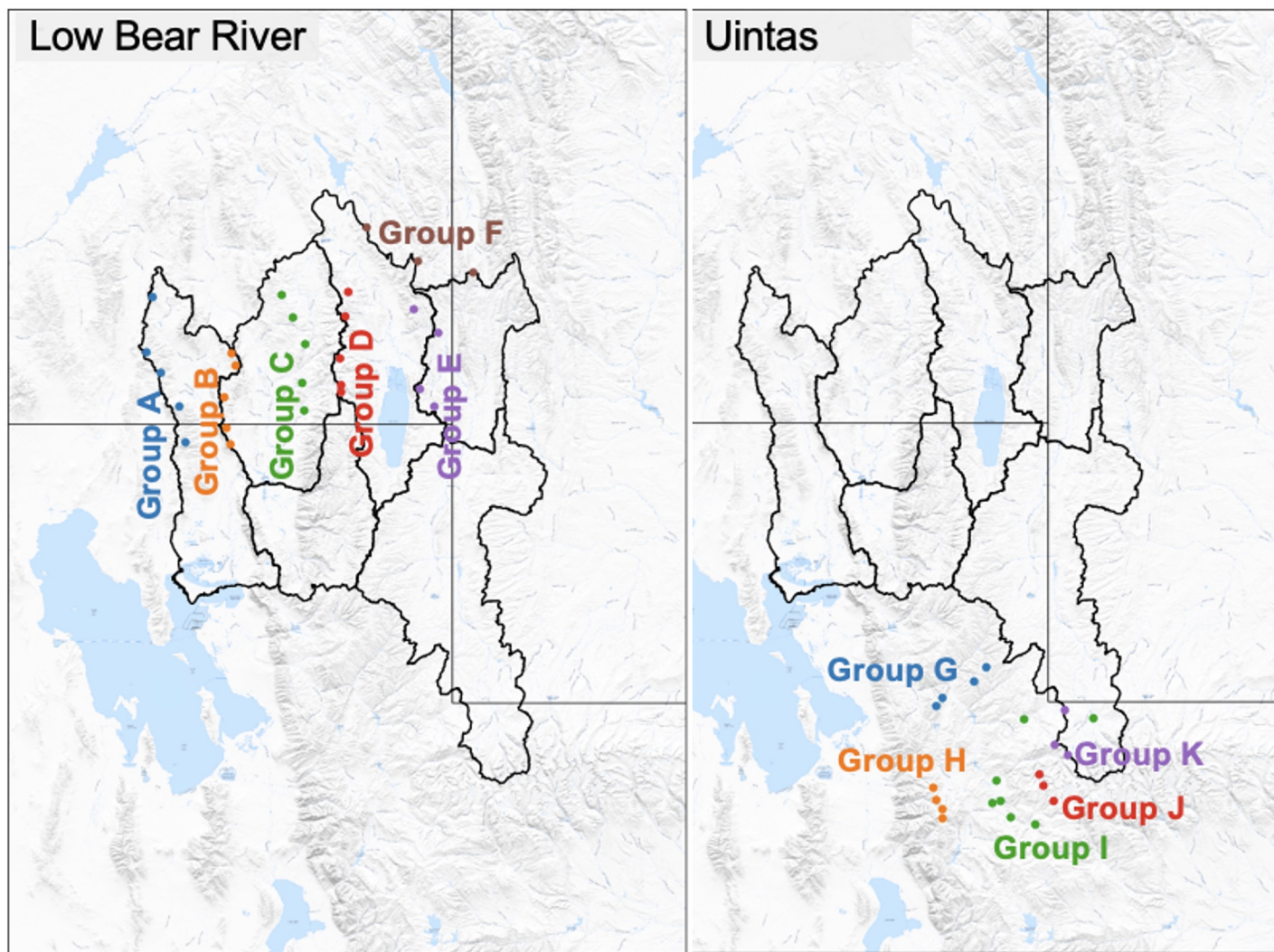
Which combination of design options is recommended?

Ground Generator Design Options

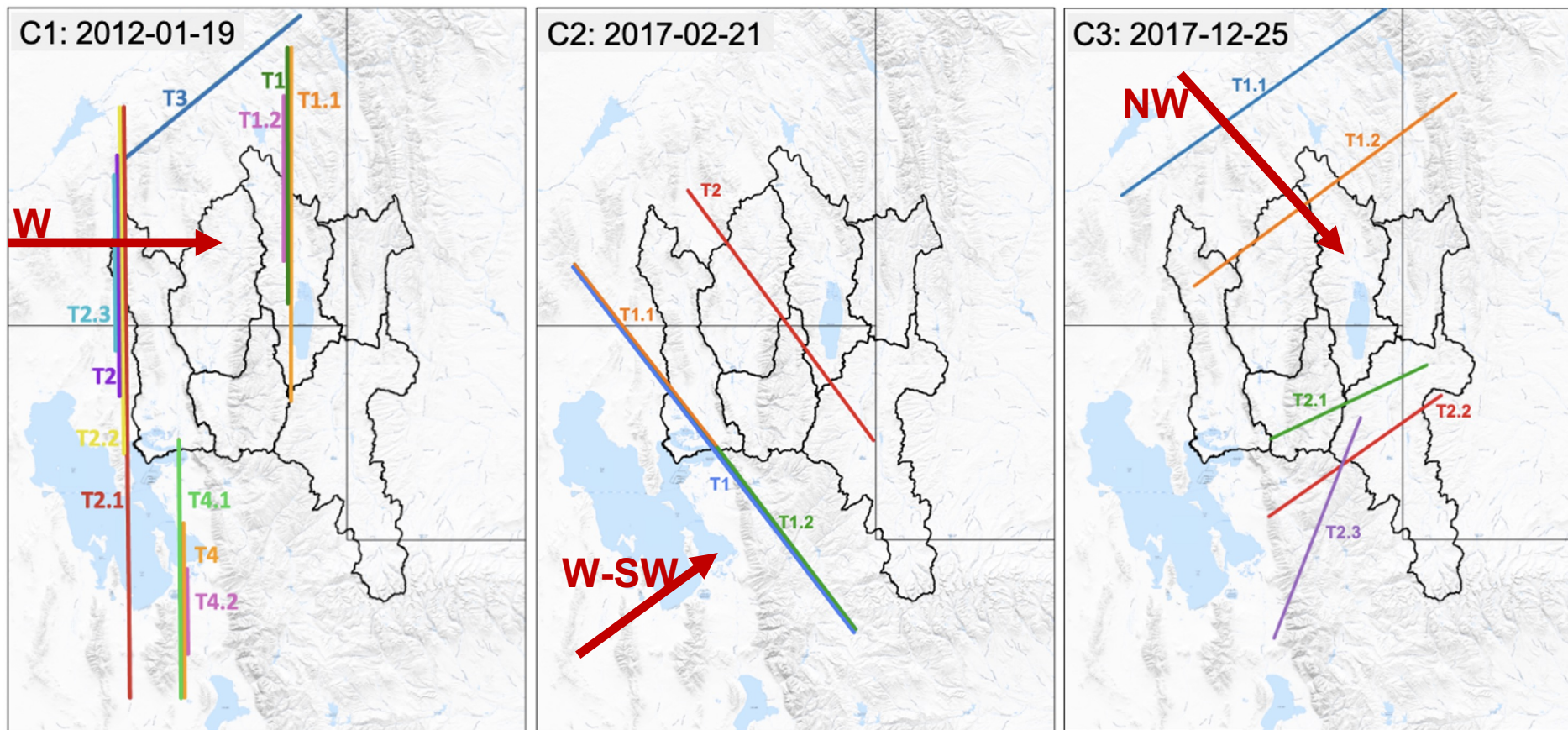
5 cases tested:

W, NW, and N winds

- 1 impacted Lower Bear
- 3 impacted Uintas (varying wind direction)
- 1 impact both regions



Airborne Seeding Flight Track Options



Tested with 3 different cases, representing W, W-SW, and NW winds

Feasibility and Design Components

Climatology Analysis

How often are there opportunities for seeding clouds in this region?

What are the characteristics of clouds in this region?

Analyze historical data:

- Temperature
- Supercooled liquid water (SLW)
- Precipitation
- Winds
- Atmospheric stability



Preliminary Design

What methods of cloud seeding might target the clouds in this region most effectively?

Review climatology results

- Place hypothetical ground-based generator locations
- Identify possible aircraft tracks



Test and Refine Design

How effective are each design option at targeting and enhancing precipitation in this region?

Which combination of design options is recommended?

Simulations of cloud seeding

- Test each group of generators or flight tracks individually and combined
- Identify the options with optimal simulated results

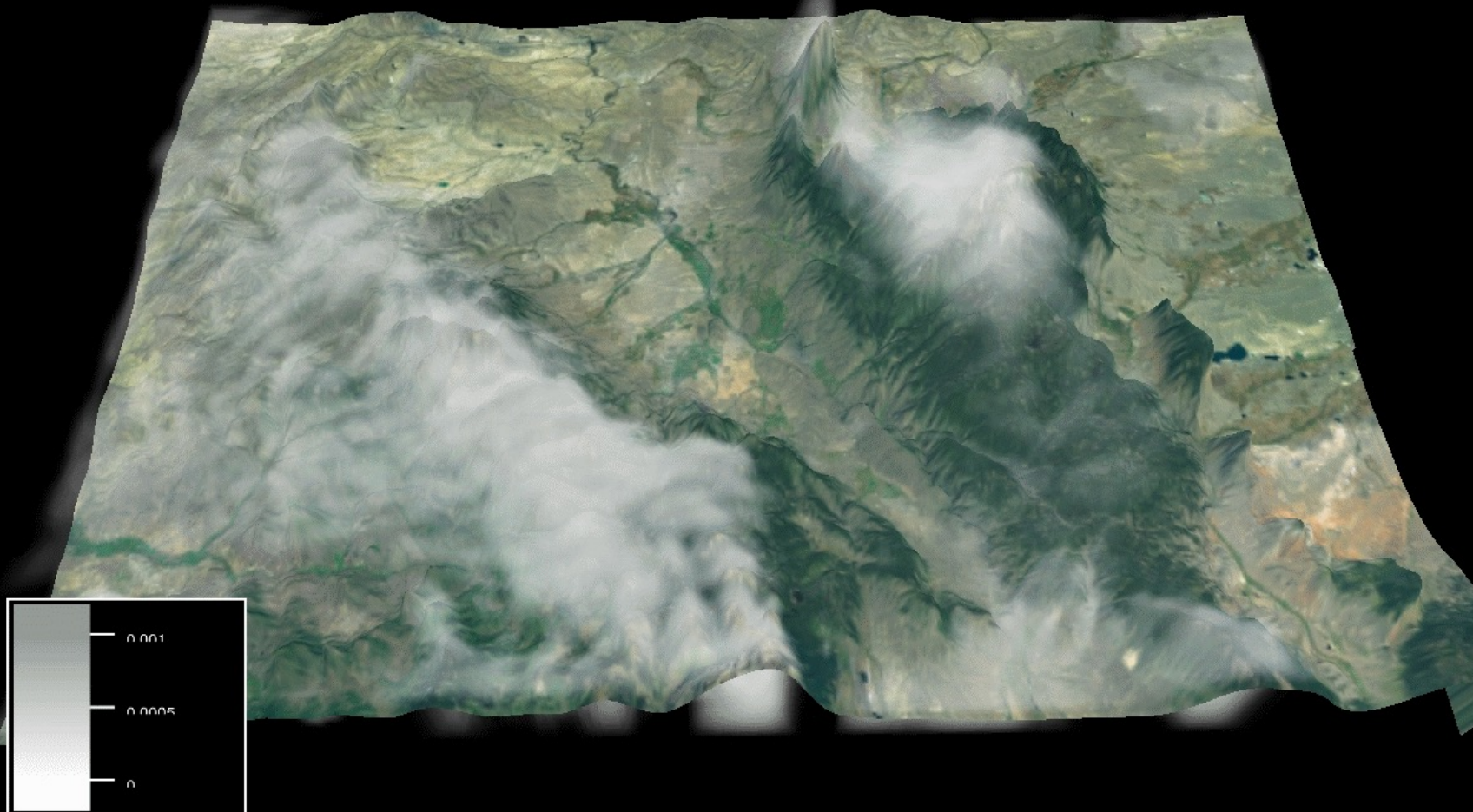
Simulations of Cloud Seeding

Clouds
With supercooled liquid water

+

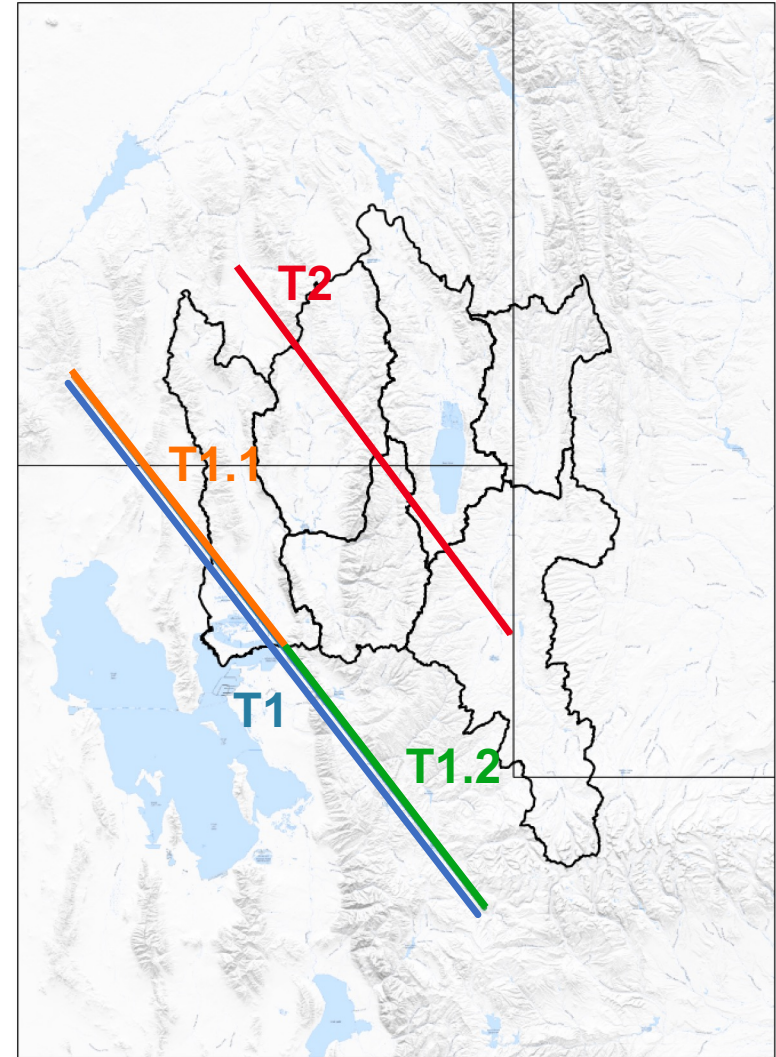
Silver Iodide Seeding Particles → Ice Crystals → Snow

WRF-WxMod®

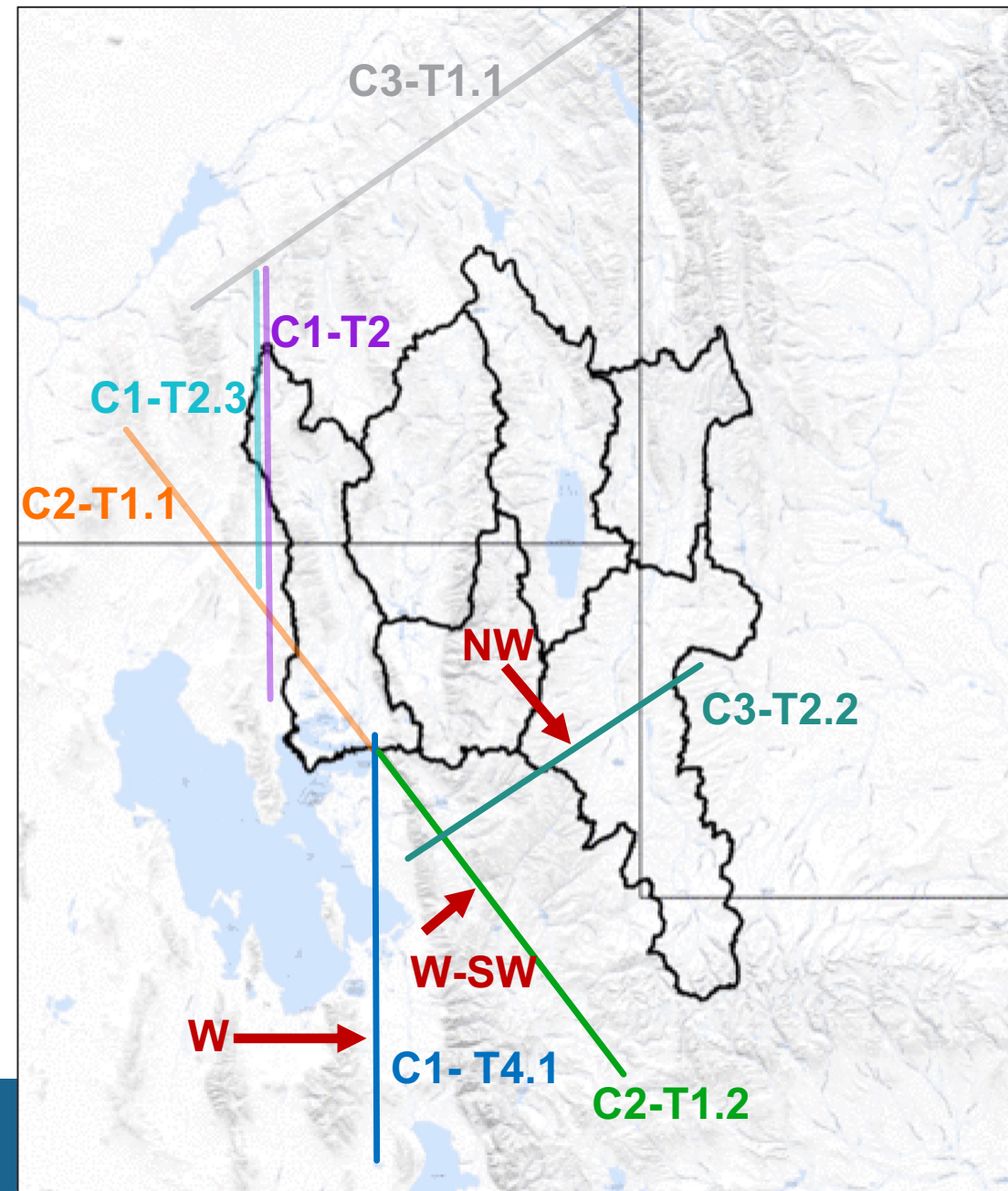
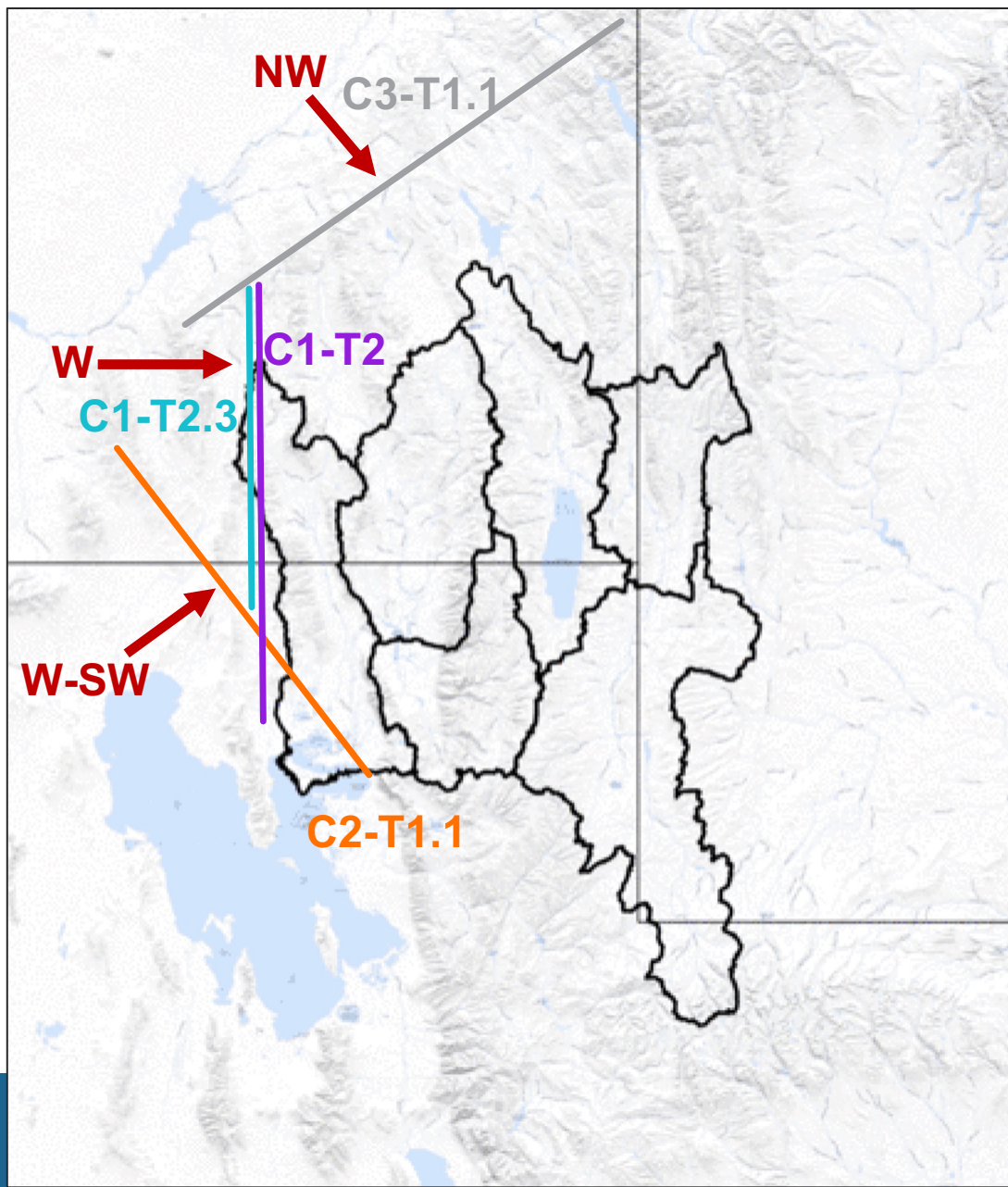


Simulated Seeding Effect Overview

- Shorter tracks were more effective when compared to an equivalent longer track attempting to target both Lower Bear and Uintas (**T1** x **T1.1**)
- Targeting Lower Bear River basin as a whole was consistently more effective than targeting the BRR or SRR (**T1.1** x **T2**)
- Targeting solely Uintas was less effective than seeding Lower Bear (up to 38% of the amount obtained in Lower Bear) due to area of Headwaters
- In the cases studied, tracks at higher altitude (4250m) indicated a slightly higher effect, likely at more optimal temperature



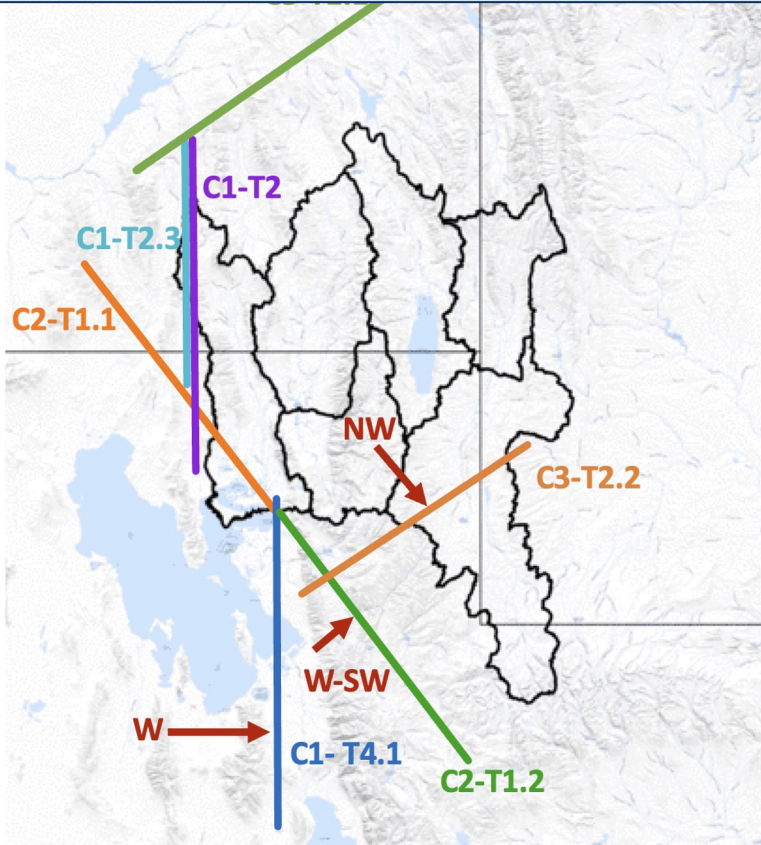
Recommended Flight Tracks



Summary of Recommendations

Airborne Seeding

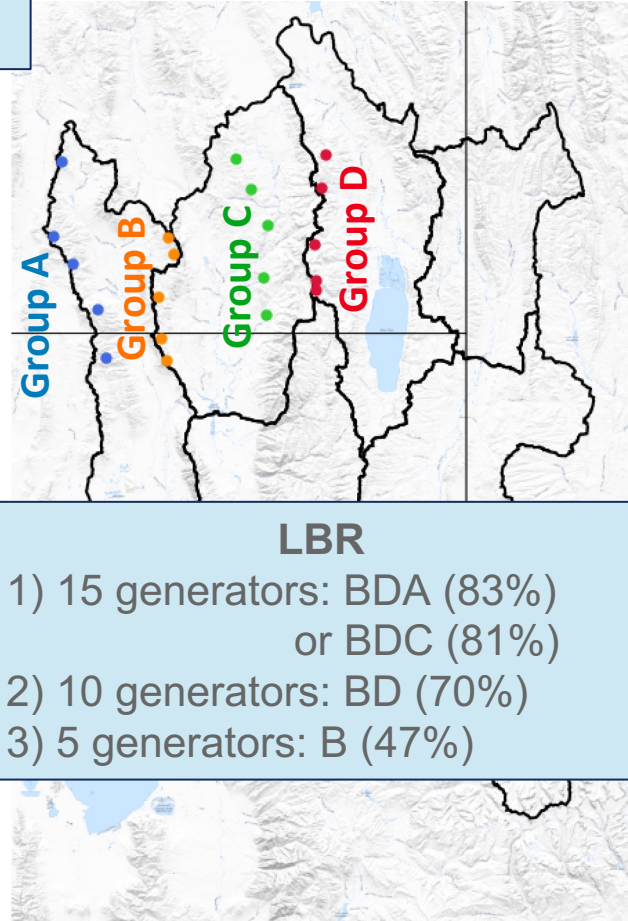
Seed along the west boundary of the LBR basin
A single aircraft can't effectively seed LBR & UIN



UIN

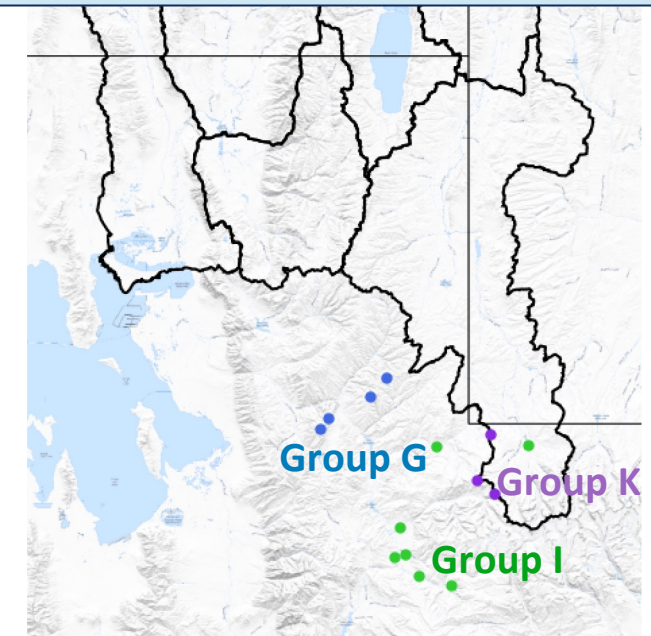
C1-T4.1: Limited by airspace availability
• Shift track east/west according to wind speed

Ground-based Seeding



UIN

LBR has ~6 times the potential of UIN due to small area of Bear Headwaters
• Shared infrastructure to target all Uintas instead of just headwaters



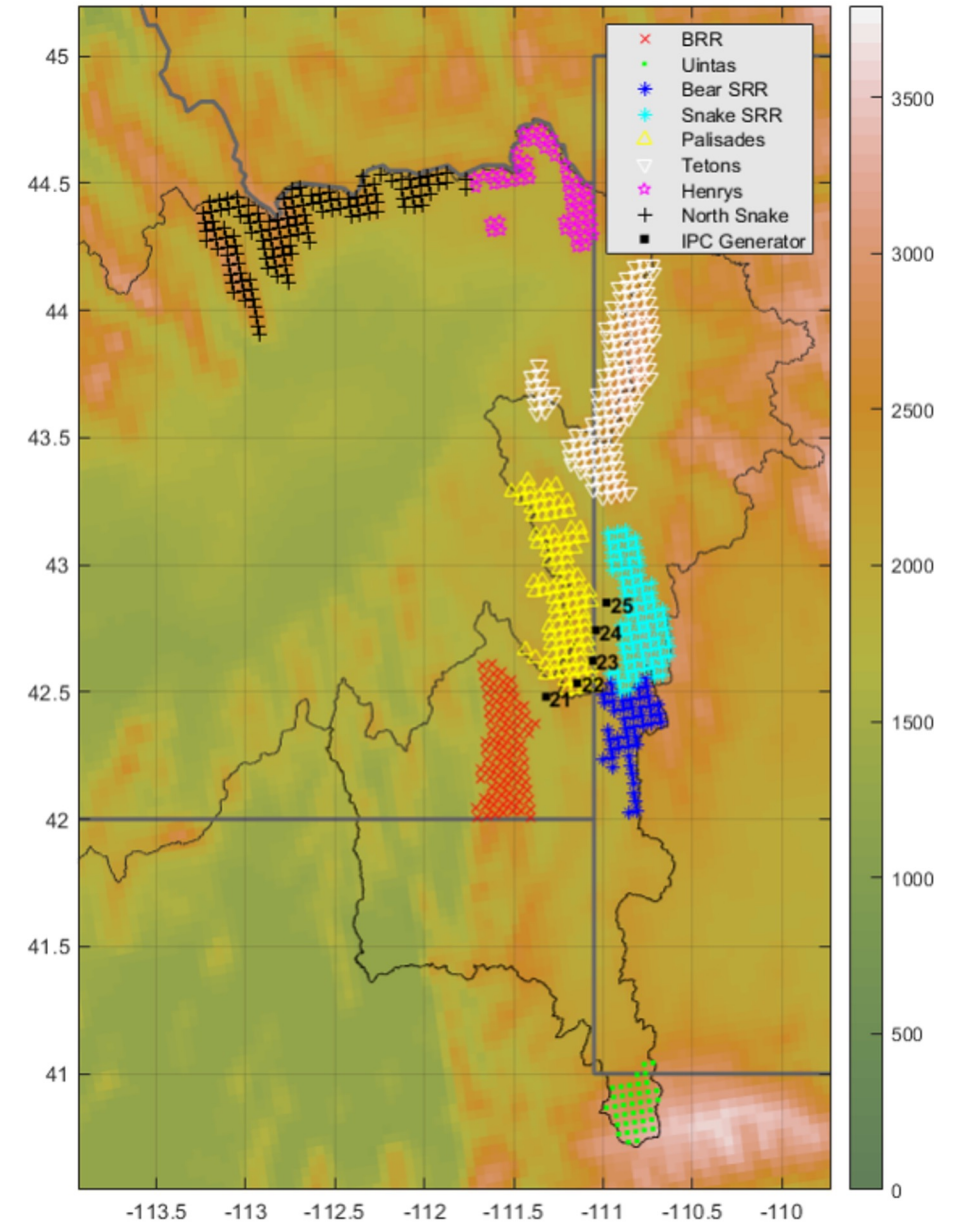
Are there opportunities to partner with Idaho Power's Upper Snake Basin seeding program?

TASK: Identify opportunities for shared infrastructure to be used for ground-based or airborne seeding to benefit both the Upper Snake and Bear River Basins simultaneously

- Shared infrastructure investigation included:
 - Climatology analysis of frequency of opportunities for sharing ground generators or aircraft
 - WRF-WxMod simulations to test the opportunities for sharing infrastructure

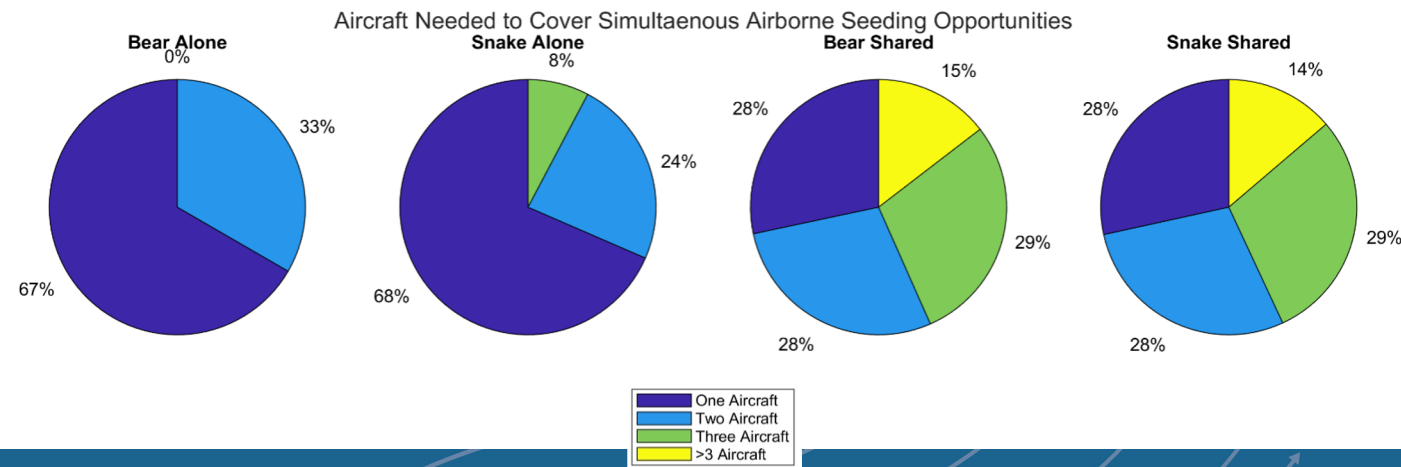
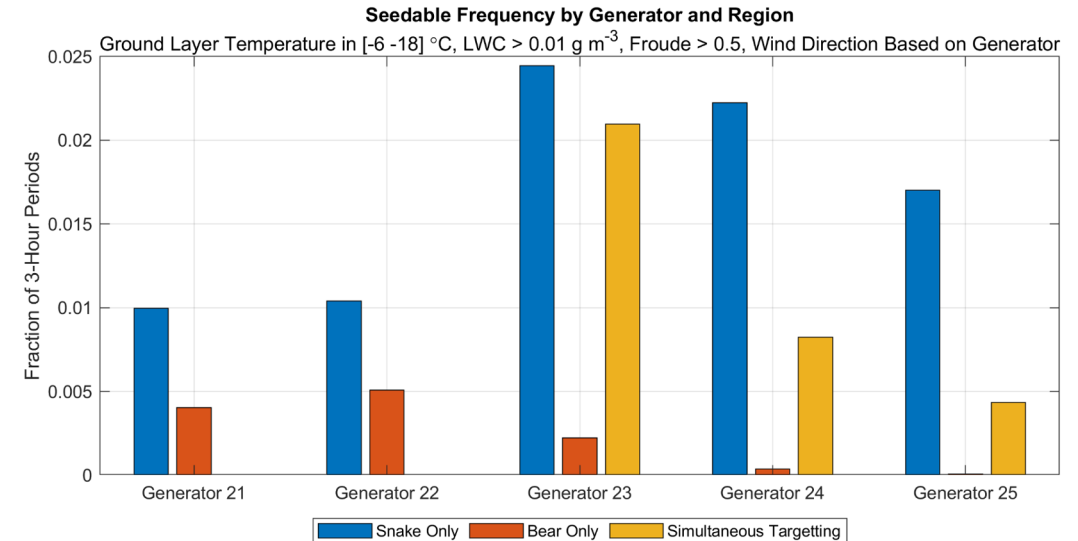
Methods for shared infrastructure analysis

- Climatology analysis uses CONUS model simulation to assess:
 - Frequency of time that a shared aircraft could be used to target one basin or the other, as well as the possibility to target both simultaneously
 - Frequency of time and conditions under which existing generators targeting the Upper Snake could be used to simultaneously or individually target the Bear River Basin



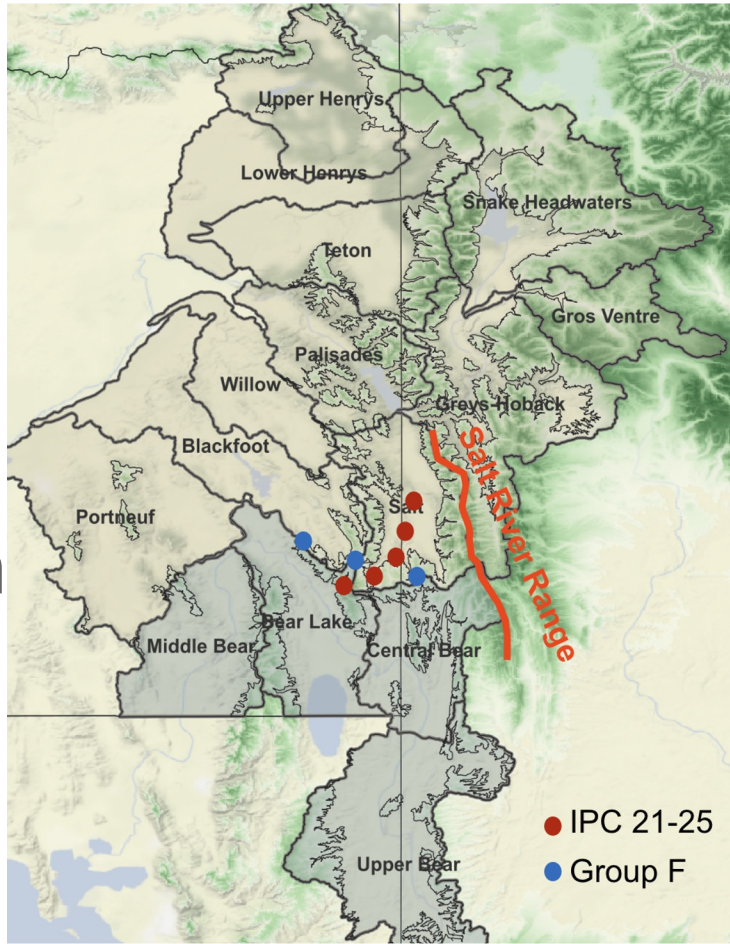
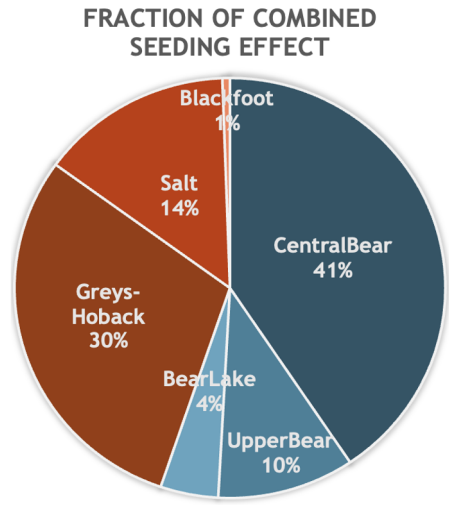
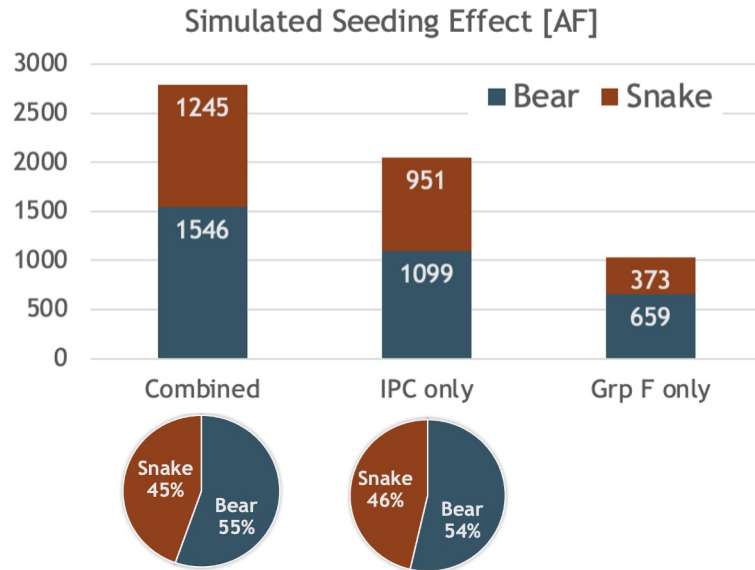
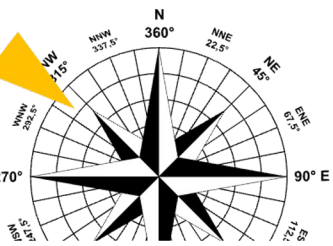
Shared Infrastructure Climatology Results

- Generators 21 and 22 can target the Bear portion of the SRR when winds are not favorable to target the Snake, **increasing the generator usage by nearly 150%**
- Generators 23–25 can simultaneously target both regions **25–45% of the time they'd be operating anyway**
- A shared 2nd or even 3rd aircraft **reduces missed opportunities** compared to both programs operating one aircraft each
 - Extra aircraft could also be used when seedable conditions persist for longer than a single crew could operate one flight



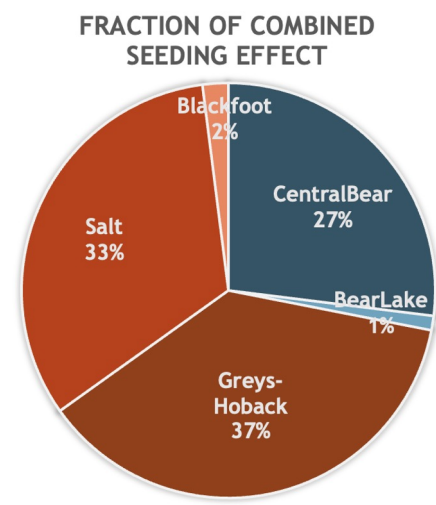
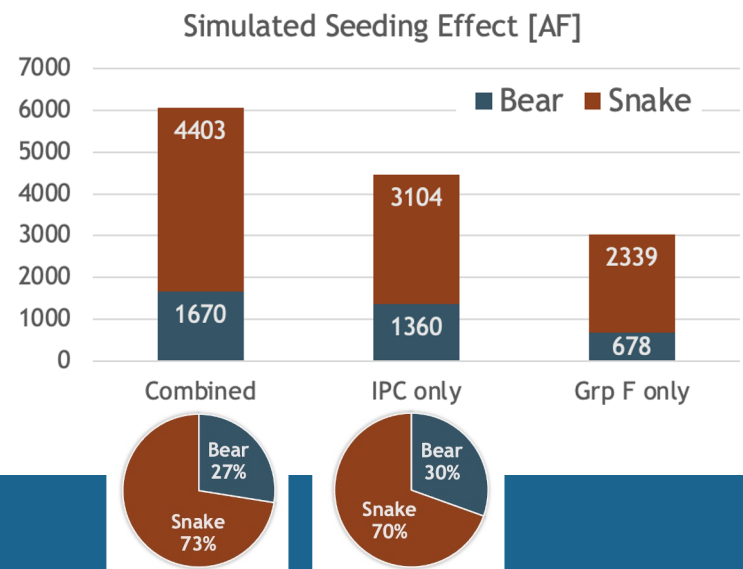
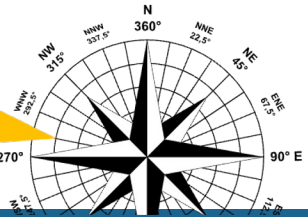
Impact from Cases Selected for Shared Infrastructure

Shared cases:
C1: 2016-01-17
C2: 2020-12-17
C3: 2021-01-17



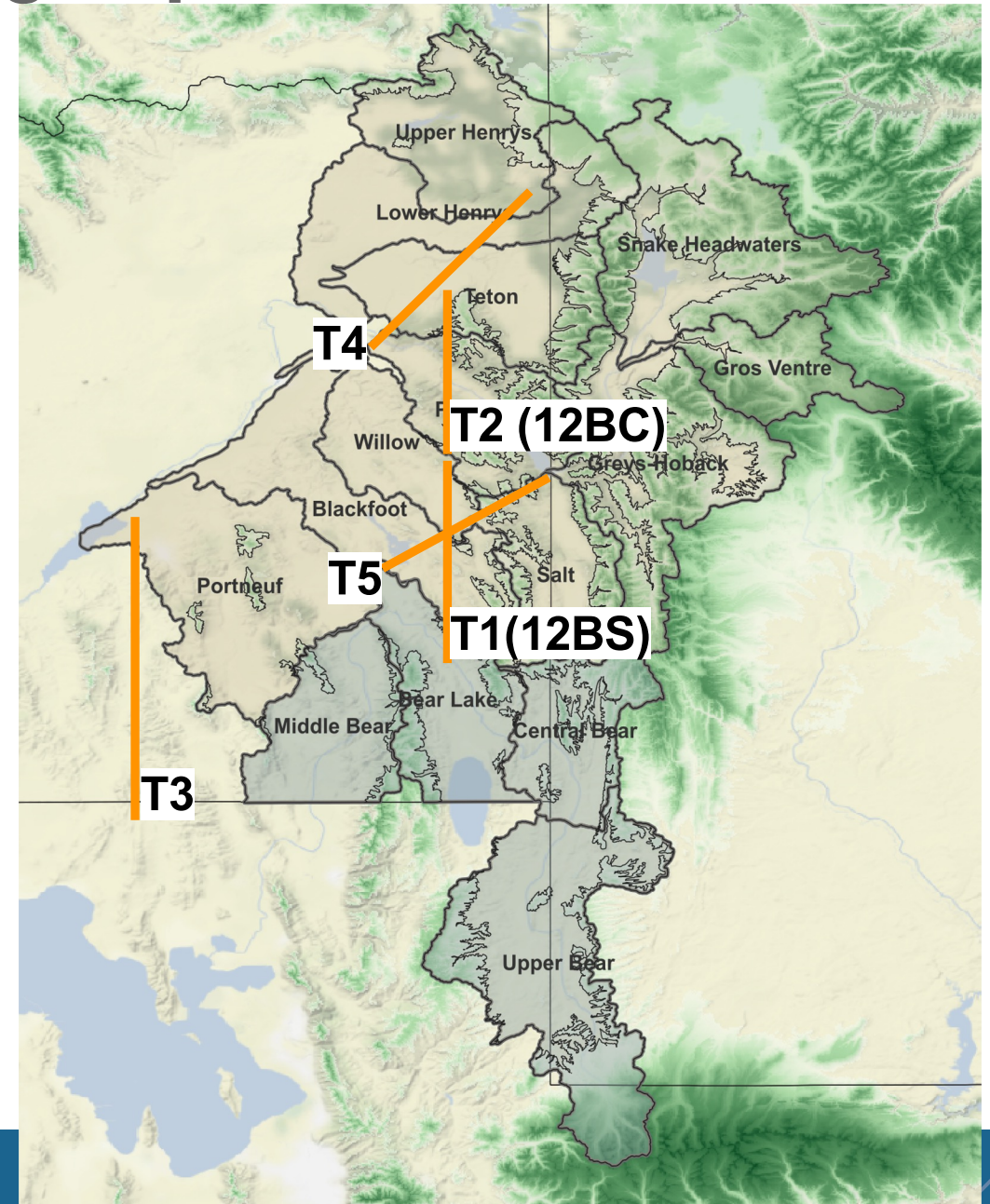
Impact from Cases Selected for Bear River Basin

Bear River cases:
C1: 2016-12-03
C2: 2017-01-20
C3: 2018-02-25



Airborne Seeding Experiment

- One test case was simulated to quantify how existing or new flight tracks could impact each basin
- Under W-NW winds, the existing IPC track 12BS (T1) can yield precipitation that benefit the Snake and the Bear



Key Points

A study was conducted to assess the feasibility for cloud seeding with silver iodide and develop designs to target the Bear River Basin with cloud seeding to enhance precipitation

- Cloud seeding with silver iodide has been shown to produce snowfall
- There are opportunities to use silver iodide cloud seeding to enhance precipitation in the Bear River Basin
- Airborne seeding is recommended over ground-based seeding given flow blocking issues and warming temperatures due to climate change
 - If ground seeding is pursued, higher elevation sites are needed to overcome flow blocking
 - Liquid propane seeding may be an alternative for ground-based seeding in a warming climate, but more research is needed to better understand how effective it can be
- There are opportunities to partner with Idaho Power's Upper Snake seeding program to share ground generators and/or aircraft to also target the Bear
 - Partnerships with Utah may also be useful for targeting the Upper Bear

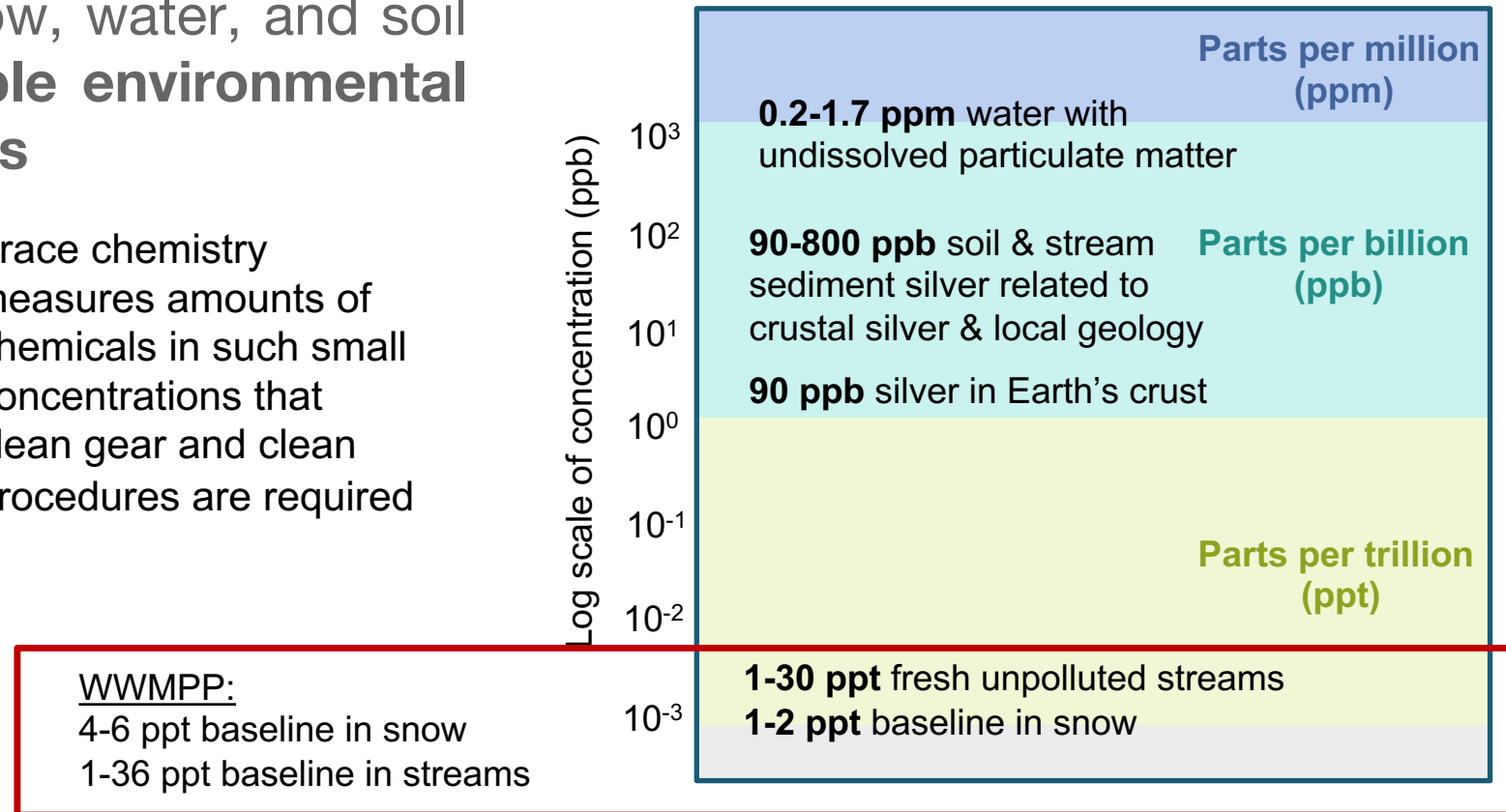
Environmental Impacts of Cloud Seeding

Trace chemistry analyses of snow, water, and soil samples have shown a **negligible environmental impact from seeding operations**



Trace chemistry measures amounts of chemicals in such small concentrations that clean gear and clean procedures are required

Values of Silver Concentration

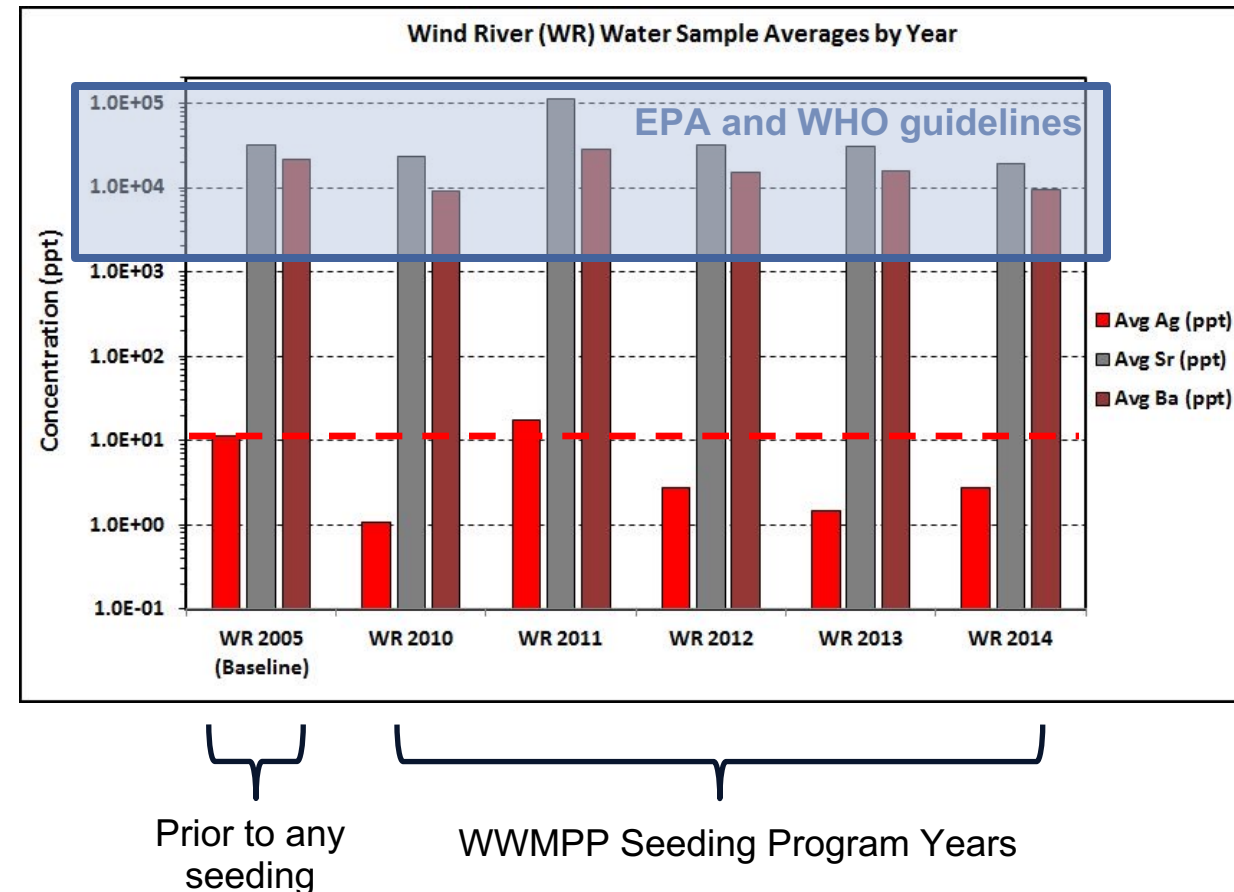


Far less than would be expected from other (background) sources of silver

Environmental Impacts of Cloud Seeding

- Silver in water measured during seeding was the same order of magnitude as the baseline from years before seeding experiment started
- Several orders of magnitude less than values considered hazardous to environmental system or human health

Silver in Water Samples from WWMPP



Memorandum



To: Idaho Water Resource Board
From: Neeley Miller, Planning & Projects Bureau
Date: September 11, 2023
Re: Financial Status Report

As of **June 30, 2023** the IWRB's available and committed balances are as follows:

Secondary Aquifer Fund:

Committed/earmarked but not disbursed	\$17,662,665
Uncommitted Balance	\$14,291,796

Revolving Development Account:

Committed/earmarked but not disbursed	\$35,654,689
Loan principal outstanding	\$17,157,747
Uncommitted Balance	\$2,395,066
Anticipated loanable funds available next 1 year	\$5,895,066

Water Management Account

Obligated	\$111,974,851
Unobligated Balance	\$183,147,592

Total committed/earmarked/obligated but not disbursed	\$165,292,206
Total loan principal outstanding	\$17,157,747
Total uncommitted/unobligated balance	\$199,834,454

ARPA

Committed per HB 769	\$100,000,000
Obligated	\$18,457,623
Unobligated	\$7,037,953
Expended	\$74,504,424

- Any financial actions taken during the month of July 2023 are not reflected in these balances, including AIG and RWSPL awards, and ARPA appropriation to the IWRB. Those actions will be reflected in the next Financial Status Report.
- The obligated balance in the Water Management Account includes the \$20M legislative appropriation per HB 285 (FY 2019) for the Anderson Reservoir Enlargement and/or Mountain Home Air Force Base Water Supply Project. The obligated balance also includes \$50M for large infrastructure projects per Senate Bill 1121 (FY 2021) for the Anderson Ranch enlargement, Mountain Air Force Base Water Supply Project, ESPA Managed Aquifer Recharge Program, other projects identified by the IWRB.

- The Water Management Account unobligated balance includes \$75M per HB 769 (FY 2022) to be used for expenditures, loans, or grants for water projects, including studies, to address water sustainability, rehabilitate or improve aging water infrastructure or support flood management. The legislature provided that no more than one-third of these moneys shall be used for grants. At the September 2022 IWRB meeting the IWRB authorized \$12,500,000 in funds for Aging Infrastructure grants (round one). At the January 2023 IWRB meeting the IWRB authorized \$12,500,000 in funds for Aging Infrastructure grants (round two).
- The Water Management Account unobligated balance also includes \$150M per HB 1181 to be used for expenditures, loans, or grants for water projects, including studies to address water sustainability, rehabilitate or improve aging water infrastructure , or support flood management. The legislature indicated that the IWRB may provide up to one-third of these moneys for grants.
- In FY 2023 \$72,871,406 expended from the ARPA funds for the Anderson Ranch Reservoir Enlargement.

Idaho Water Resource Board
Sources and Applications of Funds
as of June 30, 2023

SECONDARY AQUIFER PLANNING, MANAGEMENT, & IMPLEMENTATION FUND

Legislative Appropriation (HB 291, Sec 2) Transfer from Rev Dev FY2011.....	2,465,300.00
Legislative Appropriation (SB 1389, Sec 5) Transfer from Rev Dev FY 2012.....	1,232,000.00
Legislative Appropriation (HB 270, Sec 3) Transfer from Rev Dev FY2013.....	716,000.00
Water User Contributions.....	109,493.16
Interest Earned State Treasury.....	2,640,852.11
Loan Interest.....	15,861.10
Magic Valley/North Snake GWD Principal Payment (Magic Springs Pipeline Project loan).....	4,000,000.00
Magic Valley/North Snake GWD (Magic Springs Pipeline Project loan).....	(4,000,000.00)
Water User Contribution Expenditures.....	(106,537.50)
Conversion Project (AWEP) measurement devices.....	(16,455.21)
Cloud Seeding Project.....	(20,000.00)
Public Information Services.....	(13,641.25)
Five-Year Managed Recharge Pilot Program.....	(1,424,113.56)
Cooperative Weather Modification Program (CON01109).....	(483,997.64)
Mountain Home Air Force Base (MHAFB) Water Sustainability Project.....	(1,238,945.67)
Carryforward to SRAS Sub-Account.....	(1,222,548.45)
Total Expenditures for HB291, Sec 2; SB1389, Sec 5; HB270, Sec 3; Other Contributions.....	(8,526,239.28)
Balance of HB291, Sec 2; SB1389, Sec 5; HB270, Sec 3; Other Contributions.....	2,653,267.09

Committed Funds	Committed	Expended	Carryforward	Balance
HB291 Sec 2, SB1389 Sec 5 & HB270 Sec 3				
Cooperative Weather Modification Program (CON01109).....	492,000.00	(483,997.64)	(8,002.36)	0.00
MHAFB Water Sustainability Project.....	1,900,000.00	(1,238,945.67)	0.00	661,054.33
Balance of Committed Funds for HB291, SB1389, HB270.....	2,392,000.00	(1,722,943.31)	(8,002.36)	661,054.33

State Recharge & Aquifer Stabilization (SRAS) Sub-Account

Legislative Appropriation (HB547) State Recharge & Aquifer Stabilization.....	44,999,968.00
Recharge Payments - City of Pocatello.....	91,364.00
Carryforward from Recharge Infrastructure Projects Sub-Account.....	2,151,238.59
SRAS Operations - 29822.....	(432,293.97)
SRAS Recharge Conveyance - 29823.....	(16,700,777.29)
SRAS Studies - 29824.....	(807,171.65)
SRAS Projects - 29825.....	(11,545,853.13)
SRAS Monitoring - 29826.....	(2,120,038.22)
SRAS Hydrology Monitoring - 29827.....	(1,344,299.53)
SRAS Grants - 29828.....	0.00
Total Expenditures for HB547 - SRAS.....	(32,950,433.79)
Balance for State Recharge & Aquifer Stabilization Sub-Account.....	14,292,136.80

Committed Funds	Committed	Expended	Carryforward	Balance
HB547				
SRAS Operations - 29822.....	1,233,880.00	(432,293.97)	(625,439.35)	176,146.68
SRAS Recharge Conveyance - 29823.....	24,250,000.00	(16,700,777.29)	(816,351.70)	6,732,871.01
SRAS Studies - 29824.....	6,923,568.00	(807,171.65)	(4,630,809.87)	1,485,586.48
SRAS Projects - 29825.....	37,817,958.50	(11,545,853.13)	(25,938,466.36)	333,639.01
SRAS Monitoring - 29826.....	3,184,500.00	(2,120,038.22)	(777,571.43)	286,890.35
SRAS Hydrology Monitoring - 29827.....	1,675,000.00	(1,344,299.53)	(260,990.17)	69,710.30
SRAS Grants - 29828.....	0.00	0.00	0.00	0.00
Total HB547 Commitments.....	75,084,906.50	(32,950,433.79)	(33,049,628.88)	9,084,843.83

Water Sustainability (WS) Sub-Account

Legislative Appropriation (SB1190, Sec 3) Water Sustainability.....	500,000.00
Legislative Appropriation (SB1402, Sec 4) Water Sustainability.....	2,500,000.00
Legislative Appropriation (SB1402, Sec 5) Water Sustainability.....	5,000,000.00
Legislative Appropriation (SB1176, Sec 4) Water Sustainability.....	5,000,000.00
Legislative Appropriation (HB677, Sec 4) Water Sustainability.....	5,000,000.00
Legislative Appropriation (HB256, Sec 4) Water Sustainability.....	5,000,000.00
Legislative Appropriation (HB646, Sec 4) Water Sustainability.....	4,750,000.00
Legislative Appropriation (SB1190, Sec 4) Water Sustainability.....	5,000,000.00
Legislative Appropriation (HB769, Sec 4) Water Sustainability.....	5,000,000.00
Carryforward from North Idaho Studies Sub-Account.....	109,351.82
WS Administration - 29840.....	(1,069,249.70)
WS Operations - 29842.....	0.00

WS Recharge Conveyance - 29843.....	0.00	
WS Studies - 29844.....	(4,680,137.13)	
WS Projects - 29845.....	(712,489.31)	
WS Monitoring - 29846.....	0.00	
WS Hydrology Monitoring - 29847.....	(1,949,962.20)	
WS Hydrology Modeling - 29848.....	(2,551,363.12)	
WS Grants - 29849.....	(119,196.03)	
WS Programs - 29850.....	(109,583.72)	
WS Clouds - 29860.....	(11,650,341.02)	
Total Expenditures for Water Sustainability.....	(22,842,322.23)	
Balance for Water Sustainability (WS) Sub-Account.....	15,017,029.59	

Committed Funds	Committed	Expended	Carryforward	Balance
SB1190 & SB1402				
WS Admin & Operations - 29840 & 29842.....	1,285,000.00	(1,069,249.70)	(70,976.70)	144,773.60
WS Recharge Conveyance - 29843.....	0.00	0.00	0.00	0.00
WS Studies - 29844.....	8,124,403.00	(4,680,137.13)	(1,021,827.63)	2,422,438.24
WS Projects - 29845.....	3,474,659.00	(712,489.31)	(1,838,652.31)	923,517.38
WS Monitoring - 29846.....	0.00	0.00	0.00	0.00
WS Hydrology Monitoring - 29847.....	3,463,352.82	(1,949,962.20)	(972,832.50)	540,558.12
WS Hydrology Modeling - 29848.....	2,700,000.00	(2,551,363.12)	0.00	148,636.88
WS Grants - 29849.....	600,000.00	(119,196.03)	(480,803.97)	0.00
WS Programs - 29850.....	200,000.00	(109,583.72)	0.00	90,416.28
WS Clouds - 29860.....	16,287,000.00	(11,650,341.02)	(1,164,400.00)	3,472,258.98
Balance for SB1190 & SB1402.....	36,134,414.82	(22,842,322.23)	(5,549,493.11)	7,742,599.48

Department of Energy SEP Grants Sub-Account - 29870 & 29871

Department of Energy Grant Reimbursement (\$251K).....	251,000.00
Department of Energy Grant Reimbursement (ESPA).....	928,000.00
Department of Energy Grant Reimbursement (Big Lost).....	1,140,000.00
Department of Energy Grant Reimbursement (Raft River).....	649,859.74
Department of Energy Grant Expenditures (\$251K).....	(251,000.00)
Department of Energy Grant Expenditures (29871 - ESPA).....	(928,000.00)
Department of Energy Grant Expenditures (29872 - Big Lost).....	(1,140,000.00)
Department of Energy Grant Expenditures (29874 - Raft River).....	(657,832.24)
Balance of DOE SEP Grants Sub-Account.....	(7,972.50)

Funds Awarded	Total Award	Expended	Carryforward	Balance
Dept of Energy SEP Award				
DOESEP (2017-2018).....	251,000.00	(251,000.00)	0.00	0.00
ESPA Hydrologic Monitoring (DOE - Years 1-3 = \$928,000).....	928,000.00	(928,000.00)	0.00	0.00
Hydrologic Monitoring (DOE - Years 1-3 = \$1.14M).....	1,140,000.00	(1,140,000.00)	0.00	0.00
Raft River Hydrologic Monitoring (DOE - Years 1-3 = \$832K).....	832,000.00	(657,832.24)	0.00	174,167.76
Balance of DOE Funds Awarded.....	3,151,000.00	(2,976,832.24)	0.00	174,167.76

Secondary Aquifer Planning, Management, and Implementation Committed Funds..... 17,662,665.40

Secondary Aquifer Planning, Management, and Implementation Available Funds..... 14,291,795.58

Sources and Applications of Funds
as of June 30, 2023
REVOLVING DEVELOPMENT ACCOUNT

Original Appropriation (1969).....	\$500,000.00
Legislative Appropriation FY90-91.....	\$250,000.00
Legislative Appropriation FY91-92.....	\$280,700.00
Legislative Appropriation FY93-94.....	\$500,000.00
Legislative Appropriation 2001, SB1239.....	\$200,000.00
Legislative Appropriation 2004, HB843, Sec 12.....	\$500,000.00
Loan Interest.....	\$14,193,688.55
Interest Earned State Treasury (Transferred).....	\$2,854,253.67
Water Supply Bank Receipts.....	\$9,766,618.51
Transferred to/from Water Management Account.....	\$317,253.80
Filing Fee Balance.....	\$47,640.20
Bond Fees.....	\$1,467,101.45
Series 2000 (Caldwell/New York) Pooled Bond Issuers fees.....	\$43,657.93
2012 Ground Water District Bond Issuer fees.....	\$366,000.00
Bond Issuer fees.....	\$17,407.59
Pierce Well Easement.....	\$2,000.00
Transfer from Aqualife Hatchery Sub-Account.....	\$1,117,800.85
Transfer from Pristine Springs Sub-Account.....	\$554,882.10
Legislative Audits.....	(\$49,404.45)
IWRB Bond Program.....	(\$22,300.00)
IWRB Studies and Projects.....	(\$249,067.18)
Arbitrage Calculation Fees.....	(\$14,000.00)
Protest Fees.....	(\$995.00)
Attorney fees for Jughandle LID (Skinner Fawcett).....	(\$3,600.00)
Attorney fees for A&B Irrigation (Skinner Fawcett).....	(\$4,637.50)
Lemhi Basin Protest Costs - (Attorney General's Office).....	(\$32,279.54)
Weiser Galloway Study - US Army Corps of Engineers.....	(\$1,555,450.71)
Boise River Storage Feasibility Study.....	(\$333,000.00)
Geotech Environmental (Transducers).....	(\$6,402.61)
Priest Lake Improvement Study (16-Mar-16).....	(\$917,725.21)
Priest Lake Construction Project Contribution.....	(\$830,864.50)
Treasureton Irrigation Ditch Co.....	(\$5,000.00)
Mountain Home AFB Water Sustainability Project (29514)	
Legislative Appropriation 2014, HB 479 Sec 1 and 2.....	\$4,000,000.00
JR Simplot - WR Purchase.....	(\$2,500,000.00)
LeMoyne Appraisal LLC.....	(\$10,500.00)
IWRB WSB Lease Application.....	(\$750.00)
Integrated Delivery Solutions - Mark Alpert.....	(\$34,459.18)
Brown & Caldwell - Owner's Advisor.....	(\$1,218,298.11)
SPF Engineering - WR Transfer.....	(\$118,715.75)
Skinner-Fawcett - Bond Counsel.....	(\$31,602.41)
Pillsbury, Winthrop, & Shaw - DBO Counsel.....	(\$79,839.30)
Project Costs (mailings, travel, teleconference calls).....	(\$1,769.91)
Publishing Costs.....	(\$1,648.16)
Water District 02 Assessments.....	(\$2,417.18)
Balance for Mountain Home AFB Water Sustainability Project.....	\$0.00
Galloway Dam & Reservoir Project (29517)	
Legislative Appropriation 2014, HB 479 Sec 1 and 2.....	\$2,000,000.00
Galloway Dam & Reservoir Project Costs (HB 479).....	(\$124,649.52)
Transfer to Ririe Reservoir Flood Control (SB1190, Sec 7).....	(\$1,875,350.48)
Balance Galloway Dam & Reservoir Project.....	\$0.00
Boise River (Arrowrock Enlargement) Feasibility Study (29518)	
Legislative Appropriation 2014, HB 479 Sec 1 and 2.....	\$1,500,000.00
Boise River (Arrowrock Enlargement) Feasibility Study Costs (HB479).....	(\$1,500,000.00)
Balance Boise River (Arrowrock Enlargement) Feasibility Study (HB479).....	\$0.00
Island Park Enlargement (29520)	
Legislative Appropriation 2014, HB 479 Sec 1 and 2.....	\$2,500,000.00
Island Park Enlargement Costs (HB 479).....	(\$174,170.00)
Transfer to Ririe Reservoir Flood Control (SB1190, Sec 7).....	(\$2,325,649.52)
Balance Island Park Enlargement (HB 479).....	\$180.48
Water Supply Bank Computer Infrastructure (29519)	
Legislative Appropriation 2014, HB 479 Sec 1 and 2.....	\$500,000.00
Water Supply Bank Computer Infrastructure Costs (HB 479).....	(\$497,350.75)
Balance Water Supply Bank Computer Infrastructure (HB 479).....	\$2,649.25
Cash Balance of Legislative Appropriation 2014, HB 479 Sec 1 and 2.....	\$2,829.73
Ririe Reservoir Flood Control	
Transfer to Ririe Reservoir Flood Control (SB1190, Sec 7).....	\$4,201,000.00
Rule Curve Modification Expenditures (Mitigation Inc CON01561).....	(\$838,924.00)
Cash Balance Ririe Reservoir Flood Control Project.....	\$3,362,076.00
Committed Funds	
Mitigation Inc (CON01561).....	\$631,076.00
TOTAL COMMITTED FUNDS.....	\$631,076.00
Uncommitted Ririe Reservoir Flood Control.....	\$2,731,000.00
Minidoka Dam Enlargement/Teton Dam Replacement Studies (29510)	
Legislative Appropriation 2008, SB1511 Sec 2, Minidoka/Teton Studies.....	\$1,800,000.00

Legislative Appropriation 2008, SB1511 Sec 2, Minidoka Studies Expenditures.....		(\$1,229,460.18)
Balance for Minidoka Dam Enlargement/Teton Dam Replacement Studies.....		\$570,539.82
Priest Lake Water Management Project (29521)		
Legislative Appropriation (2018, HB 677 Sec 5).....	\$2,400,000.00	
Legislative Approval (2018, HB 677 Sec 6).....	\$2,419,580.50	
Transfer to Priest Lake Construction Project.....	(\$4,169,135.50)	
Bonner County Contribution.....	\$160,000.00	
Sandpiper Shores Contribution.....	\$10,000.00	
Legislative Approval (2020, HB 645 Sec 7).....	\$410,000.00	
Interest Earned State Treasury.....	\$210,469.30	
Total Priest Lake Water Management Project Revenue.....		\$1,440,914.30
Contract Expenditures - Mott MacDonald (CON01426).....	(\$638,162.35)	
Dam Operator Contracts.....	(\$40,358.52)	
Misc Expenditures.....	(\$28,479.32)	
Total Priest Lake Water Management Project Expenditures.....		(\$707,000.19)
Cash Balance Priest Lake Water Management Project.....		\$733,914.11
Committed Funds		
Dam Operator Contracts (CON01445, CON01453, CON01454).....	\$0.00	
Dam Operator Contracts (CON01541, CON01542).....	\$14,723.54	
Mott MacDonald Contract (CON01426).....	\$0.00	
TOTAL COMMITTED FUNDS.....	\$14,723.54	
Uncommitted Priest Lake Water Management Project Balance.....		\$719,190.57
Priest Lake Construction Project (29522)		
Transfer to Priest Lake Construction Project.....	\$4,169,135.50	
Contribution from Uncommitted Funds.....	\$830,864.50	
Local Contribution.....	\$0.00	
Total Priest Lake Construction Project Revenue.....		\$5,000,000.00
Mott MacDonald Expenditures (CON01484).....	(\$1,239,294.89)	
Strider Construction - Outlet Dam Expenditures (CON01480).....	(\$1,184,270.75)	
Strider Construction - Thorofare Expenditures (CON01481).....	(\$2,052,265.86)	
Builder's Risk Insurance.....	(\$8,015.00)	
Butler Spink LLP (CON01597).....	(\$2,175.00)	
IDL Mineral Lease.....	(\$2,160.00)	
Legal Advertisement.....	(\$670.30)	
Travel and Misc Costs.....	(\$1,582.15)	
Kirton McConkie (CON01615).....	(\$46,588.76)	
Total Priest Lake Construction Project Expenditures.....		(\$4,537,022.71)
Cash Balance Priest Lake Construction Project.....		\$462,977.29
Committed Funds		
Mott MacDonald Contract (CON01484).....	\$38,973.51	
Strider Construction - Outlet Dam (CON01480).....	\$416,838.25	
Strider Construction - Thorofare (CON01481).....	\$0.00	
Construction Contingency (Kirton McConkie - CON01615).....	\$9,417.98	
TOTAL COMMITTED FUNDS.....	\$465,229.74	
Uncommitted Priest Lake Construction Project Balance.....		(\$2,252.45)

Bell Rapids Water Rights Sub-Account		
Legislative Appropriation 2005, HB392.....	\$21,300,000.00	
Bureau of Reclamation Payments Received.....	\$29,446,335.46	
Remaining balance in ESPA Sub-Account.....	\$341,759.55	
Water Supply Bank Payments - Owner's Share.....	\$70,740.00	
Interest Earned State Treasury.....	\$698,613.04	
Total Bell Rapids Water Rights Sub-Account Revenue.....		\$51,857,448.05
Bell Rapids Purchase.....	(\$22,041,697.55)	
Transfer to General Fund - P&I.....	(\$22,072,052.06)	
Payment to US Bank for Alternative Financing Note	(\$7,118,125.86)	
Payment for Water District 02 Assessments.....	(\$135,206.79)	
Payment for Ongoing Bell Rapids Finance Costs (trustee fees, water bank	(\$6,740.10)	
Total Bell Rapids Water Rights Sub-Account Expenditures.....		(\$51,373,822.36)
Cash Balance Bell Rapids Water Rights Sub-Account.....		\$483,625.69
Committed Funds		
Ongoing Bell Rapids Finance Costs (trustee fees, WD02).....	\$412,885.69	
TOTAL COMMITTED FUNDS.....	\$412,885.69	
Uncommitted Bell Rapids Water Rights Sub-Account Balance.....		\$70,740.00
Pristine Springs Project Sub-Account		
Rental Payments to be Transferred to Secondary Aquifer Fund.....	\$961,675.10	
Loan Interest.....	\$3,099,559.01	
Loan Principal from Magic Valley & North Snake GWD.....	\$7,512,101.09	
Total Pristine Springs Project Revenue to be Transferred.....		\$11,573,335.20
Total Pristine Springs Project Revenue Transferred to 0129-01.....	(\$5,129,300.00)	
Total Pristine Springs Project Revenue Transferred to 0129.....	(\$5,728,000.00)	
Total Pristine Springs Project Sub-Account Transfers.....		(\$10,857,300.00)
Cash Balance Pristine Springs Sub-Account.....		\$716,035.20
Pristine Springs Committed Funds		
Loan Payments to be transferred to 0129.....	\$716,000.00	
TOTAL COMMITTED FUNDS.....	\$716,000.00	
Loans Outstanding for Purchase of PS Water Rights		
Loan to North Snake & Magic Valley GWD.....	\$10,000,000.00	
Payments from North Snake & Magic Valley GWD.....	(\$7,512,101.09)	
Total Loans Outstanding.....	\$2,487,898.91	
Uncommitted Pristine Springs Sub-Account.....		\$35.20
Rathdrum Prairie CAMP & Treasure Valley CAMP Sub-Account		
Pristine Springs Hydropower and Rental Revenues.....	\$271,672.34	
Interest Earned State Treasury.....	\$573.11	
Rathdrum Prairie CAMP & Treasure Valley CAMP Sub-Account Revenue.....		\$272,245.45
Spokane River Forum.....	(\$23,000.00)	
Treasure Valley Water Quality Summit.....	(\$500.00)	
Kootenai-Shoshone Soil & Water Cons. Dist. - Agrimet Station.....	(\$20,000.00)	
Rathdrum Prairie-Spokane Valley Aquifer Pumping Study (CON00989).....	(\$70,000.00)	
Idaho Washington Aquifer Collaborative.....	(\$10,000.00)	
Rathdrum Prairie CAMP & Treasure Valley CAMP Sub-Account Expenditures.....		(\$123,500.00)
Cash Balance Rathdrum Prairie CAMP & Treasure Valley CAMP Sub-Account.....		\$148,745.45
Committed Funds		
Spokane River Forum.....	\$0.00	
TOTAL COMMITTED FUNDS.....	\$0.00	
Uncommitted Rathdrum Prairie CAMP & TV CAMP Sub-Account.....		\$148,745.45
Upper Salmon/CBWTP Sub-Account		
Water Transaction Projects Payment Advances from CBWTP/Accord	\$6,745,469.03	
PCSRF Funds for Admin of Non-Diversion Easements on Lemhi River.....	\$216,584.46	
Interest Earned State Treasury.....	\$450,236.42	
Upper Salmon/CBWTP Sub-Account Revenue.....		\$7,412,289.91
Transfer to Water Supply Bank.....	(\$115,330.86)	
Change of Ownership.....	(\$600.00)	
Appraisals/Closing Costs.....	(\$14,155.98)	
Payments for Water Acquisition	(\$3,944,083.84)	
Upper Salmon/CBWTP Sub-Account Expenditures.....		(\$4,074,170.68)
Cash Balance CBWTP Sub-Account.....		\$3,338,119.23
Committed Funds		
Administration of Non-Diversion Easements on Lemhi River.....	\$125,815.61	
Bar G Farms (Pahsimeroi- Little Mud).....	\$5,418.11	
Bayhorse Creek (Peterson Ranch).....	\$21,907.26	
Badger Creek (OWBP) WSB.....	\$2,389.10	
Beaver Creek (DOT LLP).....	\$92,738.78	
Big Timber Tyler Phase I(Leadore Land Partners).....	\$290,972.55	
Big Timber Tyler Phase II (Leadore Land Partners).....	\$80,594.95	
Bohannon Creek DJ (Barbara Stokes).....	\$742,923.25	
Bohannon Creek BS (Betty Stokes).....	\$365,336.90	
Canyon Creek/Big Timber Creek (Beyeler).....	\$285,303.51	
Carmen Creek (Bill Slavin).....	\$171,388.64	
Carmen Creek (Bruce Slavin).....	\$107,547.72	
Fourth of July Creek (Defiance Investments).....	\$10,930.59	
Iron Creek (Koncz).....	\$103,728.30	
Knapp Creek (Cape Horn Ranch LLC).....	\$7,445.88	
Kenney Creek Source Switch (Gail Andrews).....	\$17,414.85	
Lemhi - Big Springs (Merrill Beyeler).....	\$43,024.93	
Lemhi River & Little Springs Creek Kauer (McFarland Livestock Co).....	\$13,719.07	
Little Springs Creek (Snyder).....	\$183,492.47	
Lower Eighteenmile Creek (Ellsworth Angus Ranch).....	\$1,777.78	
Lower Lemhi Thomas (Robert Thomas).....	\$900.00	

P-9 Bowles (River Valley Ranch).....	\$151,916.86	
P-9 Charlton (Sydney Downton).....	\$10,108.91	
P-9 Downton (Western Sky LLC).....	\$121,136.84	
P-9 Elzinga (Elzinga).....	\$149,836.35	
Patterson-Big Springs PBSC9 (Silver Bit Angus/S Whitworth).....	\$126,829.26	
Pole Creek (Salmon Falls Land).....	\$524,148.94	
Pratt Creek (Mulkey).....	\$69,614.63	
Spring Creek (Richard Beard).....	\$1,562.61	
Spring Creek (Ella Beard).....	\$2,285.76	
Whitefish (Leadore Land Partners).....	\$80,912.76	
Total Committed Funds.....	\$3,913,123.17	
Uncommitted CBWTP Sub-Account Balance.....		(\$575,003.94)
Water Supply Bank Sub-Account		
Interest Earned State Treasury.....	\$52,134.50	
Payments received from renters.....	\$6,678,952.45	
Payments made to owners.....	(\$5,899,718.06)	
Cash Balance Water Supply Bank Sub-Account.....		\$831,368.89
Committed Funds:		
Owners Share.....	\$779,271.19	
Total Committed Funds.....	\$779,271.19	
Uncommitted Water Supply Bank Sub-Account Balance.....		\$52,097.70
Eastern Snake Plain Sub-Account		
Legislative Appropriation 2005, HB392.....	\$7,200,000.00	
Legislative Appropriation 2005, HB392, CREP Program.....	\$3,000,000.00	
Interest Earned State Treasury.....	\$2,125,334.57	
Loan Interest.....	\$297,798.67	
Reimbursement from Commerce & Labor W-Canal.....	\$74,709.77	
Reimbursement from MGVWD & NSGWD-Pristine Springs.....	\$1,000,000.00	
Reimbursement from Water District 1 for Recharge.....	\$159,764.73	
Reimbursement from BOR for Palisades Reservoir.....	\$2,381.12	
Black Canyon Exchange Project Revenues.....	\$23,800.00	
Eastern Snake Plain Sub-Account Revenue.....		\$13,883,788.86
Installment payments to Bell Rapids Irr Co.....	(\$3,375,180.00)	
Interest Credit due to Bureau of Reclamation (Part of Fourth Installment) ..	(\$19,860.45)	
Pristine Springs Project Costs.....	(\$6,863.91)	
Palisades (FMC) Storage Costs.....	(\$3,533,532.05)	
W-Canal Project Costs.....	(\$326,834.11)	
Additional recharge projects preliminary development.....	(\$7,919.75)	
Transfer to Bell Rapids Sub Account.....	(\$341,759.55)	
Transfer to Pristine Springs Sub Account.....	(\$1,000,000.00)	
Transfer to Priest Lake Sub-Account (2018 HB 677, Sec 6).....	(\$2,419,580.50)	
Eastern Snake Plain Sub-Account Expenditures.....		(\$12,146,946.94)
Cash Balance Eastern Snake Plain Sub-Account.....		\$1,736,841.92
Loans and Other Commitments		
Commitment - Additional recharge projects preliminary development.....	\$337,594.00	
Commitment - Palasades Storage O&M.....	\$3,221.64	
Commitment - Black Canyon Exchange Project (fund with ongoing revenue)	\$442,252.95	
Total Loans and Other Commitments.....	\$783,068.59	
Eastern Snake Plain Sub-Account Balance after Commitments.....		\$953,773.33
CREP Loans Outstanding:		
American Falls-Aberdeen GWD (CREP).....	\$316.52	
Bonneville Jefferson GWD (CREP).....	\$6,556.58	
Magic Valley GWD (CREP).....	\$0.00	
North Snake GWD (CREP).....	\$0.00	
TOTAL ESP CREP LOANS OUTSTANDING.....	\$6,873.10	
Uncommitted Eastern Snake Plain Sub-Account Balance.....		\$946,900.23
Dworshak Hydropower Project		
Power Sales & Other.....	\$15,669,191.73	
Interest Earned State Treasury.....	\$1,209,308.25	
Total Dworshak Project Revenue.....		\$16,878,499.98
Operations & Maintenance.....	\$3,772,438.20	
Powerplant Repairs.....	\$180,409.72	
Capital Improvements.....	\$318,366.79	
FERC Payments.....	\$148,076.88	
Transferred to 1st Security Trustee Account FINAL.....	\$148,542.63	
Construction not paid through bond issuance FINAL.....	\$226,106.83	
First Security Fees FINAL.....	\$314,443.35	
Bond payoff FINAL.....	\$391,863.11	
Total Dworshak Project Expenditures.....		(\$5,500,247.51)
Cash Balance Dworshak Hydropower Project.....		\$11,378,252.47
Dworshak Project Committed Funds		
Emergency Repair/Future Replacement Fund.....	\$6,295,212.63	
FERC Fee Payment Fund.....	\$0.00	
Total Dworshak Project Committed Funds.....	\$6,295,212.63	
Uncommitted Dworshak Hydropower Project Sub-Account Balance.....		\$5,083,039.84
TOTAL.....		\$34,037,317.79
Loans Outstanding:	Amount Loaned	Principal Balance
A&B Irrigation District (Pipeline & Pumping Plant, Dec).....	\$3,500,000.00	\$2,370,993.25
A&B Irrigation District (Pipeline & Pumping Plant, Sept).....	\$3,500,000.00	\$2,527,630.02
Bannock Feeder Canal.....	\$335,110.00	\$179,220.13
Bee Line Water Association (Sep 23, 2014; System Improvements).....	\$600,000.00	\$487,807.72

Bennington Irrigation Company (Infrastructure replacement).....	\$200,000.00	\$56,709.94	
Blaine County Canal Co.....	\$933,356.00	\$981.52	
Boise Warm Springs Water District.....	\$2,810,000.00	\$45,644.62	
Canyon County Drainage District No. 2 (28-Nov-12; Drain tile pipeline repla	\$35,000.00	\$0.00	
Clearview Water Company.....	\$50,000.00	\$11,113.51	
Cloverdale Ridge Water Corporation (Irrigation infrastructure).....	\$56,615.00	\$53,580.99	
Consolidated Irrigation Company (July 20, 2012; pipeline project).....	\$500,000.00	\$331,914.26	
Dalton Water Association.....	\$1,036,900.00	\$872.76	
Evans Water Corporation & HOA.....	\$20,000.00	\$11,905.75	
Foothill Ranch Homeowners Association (7-oct-11; well rehab).....	\$150,000.00	\$55,606.80	
Goose Lake Reservoir Corp.....	\$320,000.00	\$191,398.79	
King Hill Water Corporation (Irrigation infrastructure replacement).....	\$1,500,000.00	\$1,500,000.00	
Lakeview Estate Subdivision HOA.....	\$65,000.00	\$22,383.28	
Last Chance Canal Company (14-July-2015, diversion dam rebuild).....	\$2,500,000.00	\$1,613,179.75	
Marysville Irrigation Company (9-May-08, Pipeline Project Phase 2).....	\$1,100,000.00	\$93,312.68	
Milner Irrigation District (pipeline replacement).....	\$2,000,000.00	\$1,844,421.56	
North Side Canal Company (Phase 1 - canal rehab project).....	\$1,846,092.61	\$1,386,175.65	
Outlet Water Association (22-Jan-16; new well & improvements).....	\$100,000.00	\$48,966.35	
Picabo Livestock Co Inc.....	\$95,000.00	\$91,610.69	
Pinehurst Water District (23-Jan-15).....	\$100,000.00	\$6,294.41	
Point Springs Grazing Association (July 20, 2012; stock water pipeline).....	\$48,280.00	\$6,276.90	
Point Springs Grazing Association.....	\$47,335.53	\$30,000.00	
Producers Irrigation Company.....	\$102,127.50	\$20,861.08	
Reynolds Irrigation District.....	\$250,000.00	\$202,722.69	
South Valley Ground Water District.....	\$150,000.00	\$122,425.86	
St. Johns Irrigating Company (14-July-2015; pipeline project).....	\$1,417,905.22	\$1,049,698.70	
Twin Lakes Canal Company (Winder Lateral Pipeline Project).....	\$500,000.00	\$9,551.25	
Valley County Local Improvement District No. 1/Jughandle HOA (well projec	\$907,552.00	\$289,713.79	
TOTAL LOANS OUTSTANDING.....			\$14,662,974.70
Loans and Other Funding Obligations:			
Reserved for Future Loans.....		\$0.00	
Bannock Feeder Canal.....		\$155,889.87	
Barber Pool Hydro.....		\$850,670.00	
Bennington Irrigation Company.....		\$82,815.18	
Blaine County Canal Co.....		\$364,857.80	
Boise City Canal Company.....		\$200,000.00	
Boise Warm Springs Water District.....		\$2,764,355.38	
Chester Canal & Irrigation Company.....		\$34,895.00	
Cloverdale Ridge Water Corporation.....		\$36,000.00	
Conant Creeek Canal Company.....		\$90,000.00	
Enterprize Canal Company.....		\$3,588,856.00	
Falls Irrigation District.....		\$8,894,500.00	
King Hill Water Corporation (Irrigation infrastructure replacement).....		\$0.00	
Lakeview Estates Subdivision HOA.....		\$42,616.72	
North Fremont Canal Company.....		\$500,000.00	
Point Springs Grazing Association.....		\$17,335.53	
Southeast Idaho Canal Company.....		\$0.00	
TOTAL LOANS AND OTHER FUNDING OBLIGATIONS.....			\$17,622,791.48
Uncommitted Funds.....			\$1,751,551.61
TOTAL.....			\$34,037,317.79

(1) Actual amount needed may vary depending on final determination of water actually purchased and interest income received.

Idaho Water Resource Board
Sources and Applications of Funds
as of June 30, 2023
WATER MANAGEMENT ACCOUNT

Original Appropriation (1978).....	\$1,000,000.00	
Transfer funds to General Account 1101(HB 130, 1983).....	(\$500,000.00)	
Legislative Appropriation (6/29/1984).....	\$115,800.00	
Legislative Appropriation (SB1239, 2001).....	\$200,000.00	
Interest Earned.....	\$127,352.32	
Filing Fee Balance.....	\$2,633.31	
Water Supply Bank Receipts.....	\$841,803.07	
Bond Fees.....	\$277,254.94	
Funds from DEQ and IDOC for Glenns Ferry Water Study.....	\$10,000.00	
Legislative Appropriation (HB988, 1994).....	\$75,000.00	
Reverted to General Account 6/30/95, (HB988, 1994).....	(\$35,014.25)	
Legislative Appropriation (SB1260, 1995, Aquifer Recharge, Caribou Dam).....	\$1,000,000.00	
Legislative Appropriation (SB1239, 2001, Sugarloaf Aquifer Recharge Project).....	\$60,000.00	
Reverted to General Fund 1/22/19, (SB1239, 2001, Sugarloaf Aquifer Recharge Project).....	(\$4,046.31)	
Legislative Appropriation (HB 843 Sec 6, 2004, ESPA Settlement Water Rentals).....	\$520,000.00	
Legislative Appropriation (SB1496, 2006, ESP Aquifer Management Plan).....	\$300,000.00	
Legislative Appropriation (HB 320, 2007, ESP Aquifer Management Plan).....	\$849,936.99	
Lemhi River Water Right Appraisals.....	(\$31,000.00)	
Legislative Audits.....	(\$10,645.45)	
WRB Appraisal Study (Charles Thompson).....	(\$5,000.00)	
Western States Water Council Annual Dues.....	(\$7,500.00)	
Transfer to/from Revolving Development Account.....	(\$317,253.80)	
Recharge Projects.....	(\$11,426.88)	
Grants Disbursed.....	(\$1,632,755.21)	
Obligated 1994 (HB988).....	(\$39,985.75)	
SB1260, Aquifer Recharge.....	(\$947,000.00)	
SB1260, Soda (Caribou) Dam Study.....	(\$53,000.00)	
Sugarloaf Aquifer Recharge Project (SB1239, 2001).....	(\$55,953.69)	
ESPA Settlement Water Rentals (HB 843, 2004).....	(\$504,000.00)	
ESP Aquifer Management Plan (SB1496, 2006).....	(\$300,000.00)	
ESP Aquifer Management Plan (HB320, 2007).....	(\$801,077.75)	
CASH BALANCE.....		\$124,121.54
Other Funding Obligations		
ESPA Settlement Water Rentals (HB 843, 2004).....	\$16,000.00	
Other Funding Obligations.....	\$16,000.00	
Original Water Mgmt Account Unobligated Funds.....		\$108,121.54

Large Water Projects Program Sub-Account		
Legislative Appropriation (HB 285, Sec 1, 2019).....	\$20,000,000.00	
Legislative Appropriation (SB 1121, Sec 1, 2021).....	\$50,000,000.00	
Legislative Appropriation (HB 769, Sec 6, 2022).....	\$50,000,000.00	
Legislative Appropriation (HB 769, Sec 6, 2022-1/3 portion to be used for Aging Infrastructure Grants).....	\$25,000,000.00	
Legislative Appropriation (HB 361, Sec 1, 2023).....	\$150,000,000.00	
Interest Earned State Treasury.....	\$4,334,820.33	
Total Revenue for Large Water Projects Program Sub-Account.....		\$299,334,820.33
Municipal Capital Markets Group Inc (CON01518).....	(\$8,102.50)	
DOI-BOR Agreement.....	(\$1,223,944.00)	
Priest Lake Outlet Dam - Litigation contract (CON1615).....	(\$194,398.89)	
Grants Disbursed for HB 769, Sec 6 - Aging Infrastructure Grants.....	(\$4,788,061.84)	
Total Expenditures for Large Water Projects Program Sub-Account.....		(\$6,214,507.23)
Cash Balance for Large Projects Program Sub-Account.....		\$293,120,313.10

Large Water Projects Program Obligated Funds		
Anderson Ranch Dam Raise Interim Funding.....	\$16,367,953.50	
Mountain Home Air Force Base Sustainable Water Project.....	\$28,000,000.00	
Eastern Snake Plain Aquifer Recharge Infrastructure.....	\$22,400,000.00	
Bear Lake Additional Water Storage.....	\$2,000,000.00	
Priest Lake Outlet Dam - Litigation contract (CON1615).....	\$258,410.16	
Total Large Water Projects Program Obligated Funds.....		\$69,026,363.66

Aging Infrastructure Program Grants (Round 1)		
	Grant Amount	Expenditures
Bannock Feeder Canal Co(CON01627 - Diversion Replacement).....	250,000.00	(250,000.00)
Big Lost River Irrigation Dist (CON01630 - Dam Repair).....	2,000,000.00	
Boise Project Board of Control (CON01625 - New York Canal Lining).....	2,418,900.00	
Chester Canal & Irrigation Company (CON01623 - Diversion Headgate).....	29,725.00	
Dalton Gardens Irrigation District (CON01624 - Delivery Improvements).....	23,460.00	
Enterprise Canal Company (CON01628 - Rehabilitation of Conveyance System).....	2,736,227.00	(2,584,350.00)
Falls Irrigation District (CON01629 - Pump Station Rehab).....	200,588.00	(95,202.25)
Fremont Madison Irrigation District (CON01621 - Headgate Modernization & Automation).....	58,200.00	
King Hill Irrigation District (CON01620 - Pump Station & Closed Conduit).....	1,980,259.00	(1,748,751.59)
Nampa-Meridian Irrigation District (CON01637 - Ridenbaugh Canal Modernization).....	1,820,048.00	
North Side Pumping Company (CON01626 - Pump Station/Canal Abandonment).....	951,800.00	
Water District 63 (CON01622 - Monitoring System Upgrades).....	30,793.00	(30,793.00)
Balance for Aging Infrastructure Grants - Round 1.....	12,500,000.00	(4,709,096.84)
		7,790,903.16

Aging Infrastructure Program Grants (Round 2)		
WRV Board of Control.....	309,000.00	309,000.00
Falls Irrigation District.....	2,000,000.00	2,000,000.00
Cub River Irrigation Company.....	1,000,000.00	1,000,000.00
Nampa Meridian Irrigation District.....	1,866,116.00	1,866,116.00
Curran Ditch Users Association.....	16,100.00	16,100.00
HFF Conant Creek.....	499,145.00	499,145.00
Island Ward Canal Co.....	11,945.00	11,945.00
North Side Canal Company.....	2,000,000.00	2,000,000.00
King Hill Irrigation District.....	828,501.00	828,501.00
Twin Falls Canal Company.....	245,547.00	245,547.00
Big Lost Irrigation District.....	900,000.00	900,000.00
Boise City Canal Company.....	122,000.00	122,000.00

Hat Butte Mutual Canal Company.....	78,965.00	(78,965.00)	0.00
Solenberger Ditch Company.....	3,000.00		3,000.00
Sunnydell Irrigation District.....	30,233.00		30,233.00
Twin Falls Canal Company.....	44,037.00		44,037.00
Burley Irrigation District.....	891,000.00		891,000.00
Hayden Lake Irrigation District.....	1,654,411.00		1,654,411.00
Balance for Aging Infrastructure Grants - Round 1.....	12,500,000.00	(78,965.00)	12,421,035.00
Total Aging Infrastructure Program Obligated Funds.....	25,000,000.00	(4,788,061.84)	\$20,211,938.16
Water Project Loan Program			
North Side Pumping Company.....	\$1,200,000.00		
North Side Canal Company.....	\$5,000,000.00		
King Hill Irrigation District.....	\$500,000.00		
Raft River Recharge Group.....	\$14,111,000.00		
Total Water Project Loan Program Obligated Funds.....			\$20,811,000.00
Large Water Projects Program Unobligated Funds.....			\$183,071,011.28

Water Quality Collection Program Sub-Account			
Legislative Appropriation (HB 285, Sec 3, 2019).....	\$200,000.00		
Legislative Appropriation (HB 646, Sec 5, 2020).....	\$200,000.00		
Legislative Appropriation (HB 646, Sec 5, 2021).....	\$200,000.00		
Interest Earned State Treasury.....	\$9,591.80		
Total Revenue for Water Quality Collection Program Sub-Account.....			\$609,591.80
DOI-USGS Agreement FY 2020 - Mid-Snake River.....	(\$200,000.00)		
DOI-USGS Agreement FY 2021 - Mid-Snake River.....	(\$200,000.00)		
DOI-USGS Agreement FY 2022 - Mid-Snake River.....	(\$92,208.52)		
Total Expenditures for Water Quality Collection Program Sub-Account.....			(\$492,208.52)
Cash Balance for Water Quality Collection Program Sub-Account.....			\$117,383.28
Water Quality Collection Program Obligated Funds			
DOI-USGS Agreement FY 2022 - Mid-Snake River.....	\$107,791.48		
Total Water Quality Collection Program Obligated Funds.....			\$107,791.48
Water Quality Collection Program Unobligated Funds.....			\$9,591.80

Flood Management Program Sub-Account			
Legislative Appropriation (HB 712, Sec 1, 2018, Flood Management Program-Year 1).....	\$1,000,000.00		
Legislative Appropriation (HB 285, Sec 3, 2019, Flood Management Program-Year 2).....	\$800,000.00		
Legislative Appropriation (HB 646, Sec 5, 2020, Flood Management Program-Year 3).....	\$800,000.00		
Legislative Appropriation (SB1190, Sec 5, 2021, Flood Management Program-Year 4).....	\$800,000.00		
Legislative Appropriation (HB 769, Sec 5, 2022, Flood Management Program-Year 5).....	\$1,000,000.00		
Interest Earned State Treasury.....	\$79,930.46		
Total Revenue for Flood Management Program Sub-Account.....			\$4,479,930.46
Grants Disbursed for Leg Approp (HB 712, Sec 1, 2018, Flood Mgmt Pgm-Year 1).....	(\$901,677.56)		
Grants Disbursed for Leg Approp (HB 285, Sec 3, 2019, Flood Mgmt Pgm-Year 2).....	(\$624,251.34)		
Grants Disbursed for Leg Approp (HB 646, Sec 5, 2020, Flood Mgmt Pgm-Year 3).....	(\$540,243.24)		
Grants Disbursed for Leg Approp (SB1190, Sec 5, 2021, Flood Mgmt Pgm-Year 4).....	(\$541,219.53)		
Grants Disbursed for Leg Approp (HB 769, Sec 5, 2022, Flood Mgmt Pgm-Year 5).....	(\$111,913.63)		
Total Expenditures for Flood Management Program Sub-Account.....			(\$2,719,305.30)
Cash Balance for Flood Management Program Sub-Account.....			\$1,760,625.16

Flood Management Grant Program Obligated Funds			
Flood Management Program grants - Year 1 (HB712, Sec 1, 2018)	Grant Amount	Expenditures	Remaining Balance
Flood Control District 9 (CON01303).....	90,000.00	(84,851.70)	5,148.30
Blaine County (CON01304).....	121,331.00	(121,331.00)	0.00
Cassia County (CON01305).....	42,336.38	(19,618.16)	22,718.22
Flood Control District 10 (CON01306 - New Dry Creek River Bank).....	78,400.00	(62,156.50)	16,243.50
Flood Control District 10 (CON01307 - Duck Alley Pit Capture).....	153,550.00	(105,470.43)	48,079.57
Flood Control District 10 (CON01308 - Porter & Mulchay Gravel Removal).....	38,808.00	(35,250.77)	3,557.23
Clearwater Soil & Water Conservation Dist (CON01309).....	155,220.00	(155,219.00)	1.00
Flood Control District 10 (CON01310 - Leighton & Wells Gravel Removal).....	22,000.00	(22,000.00)	0.00
Flood Control District 11 (CON01311).....	57,675.00	(55,100.00)	2,575.00
Twin Lakes/Flood Control Dist 17 (CON01312).....	7,750.00	(7,750.00)	0.00
Twin Falls Canal Company (CON01327).....	85,340.00	(85,340.00)	0.00
Nez Perce Soil & Water Conservation Dist (CON01328).....	115,460.00	(115,460.00)	0.00
Riverside Village HOA (CON01329).....	6,025.00	(6,025.00)	0.00
City of Pocatello (CON01330).....	26,105.00	(26,105.00)	0.00
Uncommitted from HB712 Year 1.....	(98,322.82)	0.00	(98,322.82)
Balance for Year 1 Flood Mgmt Grants.....	901,677.56	(901,677.56)	0.00
Flood Management Program grants - Year 2 (HB285, Sec 3, 2019)			
City of Boise (CON01396).....	6,371.00	(6,371.00)	0.00
Blaine County (CON01397).....	100,000.00	(96,555.00)	3,445.00
Board of Controls Irrigation (CON01398).....	59,050.00	(57,827.50)	1,222.50
Clearwater Soil & Water Conservation District (CON01399).....	190,492.37	(190,490.18)	2.19
Clearwater Soil & Water Conservation District (CON01400).....	72,727.39	(72,629.03)	98.36
City of Hailey (CON01401).....	50,000.00	(19,841.33)	30,158.67
Flood Control District No. 10 (CON01402).....	160,000.00	(160,000.00)	0.00
Idaho Soil and Water Conservation District (CON01403) - CANCELLED.....	159,436.00		159,436.00
Idaho Soil and Water Conservation District (CON01404).....	21,619.50	(20,537.30)	1,082.20
Blaine County (CON01405) - NOT EXECUTED.....	50,000.00		50,000.00
Uncommitted from HB285 Year 2.....	(245,444.92)	0.00	(245,444.92)
Balance for Year 2 Flood Mgmt Grants.....	624,251.34	(624,251.34)	0.00
Flood Management Program grants - Year 3 (HB646, Sec 5, 2020)			
Flood Control District 10 - Boise River North Channel (CON01510).....	47,500.00	(47,500.00)	0.00
Flood Control District 10 - Boise River Canyon Reach 1 (CON01509).....	175,000.00	(91,735.00)	83,265.00
Idaho Soil & Water Conservation District - Sill Creek (CON01488).....	10,960.28	(10,960.28)	0.00
Idaho Soil & Water Conservation District - Lower Cottonwood Creek (CON01489).....	27,935.20		27,935.20
Idaho Soil & Water Conservation District - Clear Creek (CON01490).....	18,570.60	(11,838.06)	6,732.54
City of Bellevue - Lower Howard Preserve (CON01491).....	57,880.00	(57,880.00)	0.00
Clearwater Soil & Water Conservation District - Louse Creek (CON01492).....	24,687.00	(24,687.00)	0.00

Pioneer Irrigation District - Mason Creek (CON01493).....	148,500.00		148,500.00
Raft River Flood Control District 15 - (CON01494).....	80,525.00	(26,255.60)	54,269.40
Lewis Soil Conservation District - Alpine Road (CON01495).....	18,425.30	(18,425.30)	0.00
City of Orofino - Orofino Creek (CON01496).....	200,000.00	(200,000.00)	0.00
Twin Falls Canal Company & City of Twin Falls (CON01497).....	50,962.00	(50,962.00)	0.00
Uncommitted from HB646 Year 3.....	0.00		0.00
Balance for Year 3 Flood Mgmt Grants.....	860,945.38	(540,243.24)	320,702.14
Flood Management Program grants - Year 4 (SB1190, Sec 5, 2021)			
North Side Canal Company - Red Bridge Flood Mgmt Storage Pond (CON01564).....	200,000.00		200,000.00
Flood District 9 - Bellevue Side Channel Project (CON01565).....	111,508.00		111,508.00
Nez Perce County & NPSWCD - Streambank Project.....	100,000.00	(100,000.00)	0.00
Flood District 17 - Rathdrum Creek Debris Project (CON01567).....	6,375.00	(6,375.00)	0.00
Adams Soil & Water Conservation District - Grays Creek Project (CON01568).....	17,606.00	(17,227.40)	378.60
Clearwater Soil & Water Conservation Dist - Heywood Bridge Project (CON01569).....	37,475.00	(37,475.00)	0.00
Clearwater Soil & Water Conservation Dist - Swanson's Loop Project (CON01563).....	200,000.00	(200,000.00)	0.00
Reid Canal Company - Bannock Feeder Project (CON01570).....	200,000.00	(119,788.68)	80,211.32
Lewis Soil & Water Conservation District - Tiede Road Flood Project (CON01571).....	71,910.00	(56,936.57)	14,973.43
Idaho Soil & Water Conservation District - Clear Creek Project (CON01572).....	36,062.00	(3,416.88)	32,645.12
Uncommitted from SB1190 Year 4.....	0.00		0.00
Balance for Year 4 Flood Mgmt Grants.....	980,936.00	(541,219.53)	439,716.47
Flood Management Program grants - Year 5 (HB769, Sec 5, 2022)			
Boise River Flood Control District 10 (CON01605).....	83,265.00	(83,265.00)	0.00
Goose Creek Flood Project (CON01602).....	200,000.00		200,000.00
City of Lewiston Flood Project (CON01603).....	106,352.00		106,352.00
Madison County Flood Control Diversion Project (CON01604).....	126,392.00		126,392.00
Boise River Flood Control District 10 (CON01605).....	125,000.00		125,000.00
Madison County Teton River Splitter Gate Project (CON01606).....	47,859.00		47,859.00
Twin Lakes Flood Control District (CON01607).....	8,000.00	(8,000.00)	0.00
Squaw Creek Ditch Company (CON01608).....	125,000.00		125,000.00
Riverside Water & Sewer District (CON01609).....	200,000.00	(20,648.63)	179,351.37
ESPAR & Madison County Flood Diversion Project (CON01610).....	47,300.00		47,300.00
Clearwater SWCD Garden Creek Project (CON01611).....	84,085.00		84,085.00
Uncommitted from HB769 Year 5.....	0.00		0.00
Balance for Year 5 Flood Mgmt Grants.....	1,153,253.00	(111,913.63)	1,041,339.37
Obligated for Flood Management Grants.....	\$4,521,063.28	(\$2,719,305.30)	\$1,801,757.98
Flood Management Grants Unobligated Funds.....			(541,132.82)

TOTAL OBLIGATED FUNDS BALANCE.....	\$111,974,851.28
---	-------------------------

Unobligated Funds.....	\$183,147,591.80
-------------------------------	-------------------------

Bold and italicized indicates that project is completed and entity has received final payment

Idaho Water Resource Board
Sources and Applications of Funds
as of June 30, 2023
AMERICAN RESCUE PLAN ACT ACCOUNT

Legislative Appropriation (HB 769, Sec 8).....		100,000,000.00
USDOI/BLM - Anderson Ranch CON 21WN102130.....	(72,871,406.00)	
Mountain Home Air Force Base pipeline.....	(225,017.52)	
Recharge Project Expenditures.....	(1,408,000.50)	
Total ARPA Fund Expenditures.....		(74,504,424.02)
Total Cash Balance ARPA.....		<u>25,495,575.98</u>
Obligated ARPA Funds		
USDOI/BLM - Anderson Ranch CON 21WN102130.....	28,594.00	
Mountain Home Air Force Base pipeline.....	4,774,982.48	
Recharge Projects		
Minidoka Irrigation Dist - Goyne Sump Recharge Project.....	3,387,047.00	
Hamer Road Recharge Project.....	5,000,000.00	
Southwest Irrigation Dist - Big Sky & Murtaugh Injection Well.....	245,000.00	
Enterprize Canal Company - 55th Road.....	1,700,000.00	
Enterprize Canal Company - Swan Highway Project.....	1,991,999.50	
New Sweden Irrigation Dist - Head of the Basalt Recharge Site.....	1,330,000.00	
Total Obligated ARPA Funds.....		18,457,622.98
TOTAL UNOBLIGATED ARPA FUNDS.....		<u>7,037,953.00</u>

BEFORE THE IDAHO WATER RESOURCE BOARD

IN THE MATTER OF THE
THE WATER SUPPLY BANK LEASE OF WATER
RIGHT NO. 77-4208 ON KNAPP CREEK

RESOLUTION TO MAKE A FUNDING
COMMITMENT

1 WHEREAS, natural-origin Chinook salmon, steelhead, and bull trout habitat in the Middle
2 Fork Salmon River Basin is impacted by flow-limited tributaries; and

3
4 WHEREAS, Knapp Creek, tributary to Marsh Creek, has been identified as a high priority
5 stream for flow restoration efforts, to provide high quality spawning and rearing habitat for
6 natural-origin anadromous Chinook salmon, steelhead, and resident bull trout, and

7
8 WHEREAS, it is in the interest of the State of Idaho to increase flow in Knapp Creek to
9 promote recovery of ESA-listed Chinook salmon, steelhead, and bull trout fish; and

10
11 WHEREAS, Water Right No. 77-4208 has been historically diverted from Knapp Creek for
12 irrigation purposes; and

13
14 WHEREAS, the Idaho Water Resource Board (IWRB), pursuant to Section 42-1734, Idaho
15 Code, has the authority to acquire, purchase, lease, or exchange land, rights, water rights,
16 easements, franchises, and other property deemed necessary or proper for the construction,
17 operation, and maintenance of water projects; and

18
19 WHEREAS, the Water Right owner has leased a portion of the water right to the Water
20 Supply Bank (WSB) since 2018 and is compensated through a Columbia Basin Water Transactions
21 Program (CBWTP) payment contract with the IWRB; and

22
23 WHEREAS, the Water Right owner desires to continue to lease to the IWRB a portion (129
24 acres) of Water Right No. 77-4208 so that the water may remain in Knapp Creek to enhance fish
25 habitat; and

26
27 WHEREAS, the 2018 WSB lease contract expired December 31, 2022, and the CBWTP
28 payment contract expires October 31, 2023; and

29
30 WHEREAS, WSB lease contract No. 1624, with a term of 2023 to 2028, was developed and
31 approved by the IWRB in 2022 via Resolution No. 41-2022 to leave water in Knapp Creek and
32 improve stream flow for anadromous and resident fish; and

33 WHEREAS, a new CBWTP payment contract with a term of 2024 to 2028 will compensate
34 the Water Right owner for this WSB lease at a rate of \$60.50/acre for an annual payment of
35 \$7,804.50, and a total cost not to exceed \$39,022.50 over the 5-year payment contract; and
36

37 NOW THEREFORE BE IT RESOLVED that the IWRB authorizes the Chairman or designee to
38 compensate the Water Right holder for leasing Water Right No. 77-4208 to the WSB per Lease
39 Contract No. 1624 for a period of 5 years, from 2024 to 2028; and
40

41 NOW THEREFORE BE IT RESOLVED that the IWRB made a funding commitment in 2022
42 per Resolution No. 41-2022 to pay up to \$250 in lease application fees to facilitate this
43 transaction; and
44

45 NOW THEREFORE BE IT FURTHER RESOLVED that this resolution is subject to the condition
46 that the IWRB receives the requested funding from the Bonneville Power Administration
47 Columbia Basin Water Transaction Fund in the amount of \$39,272.50.

DATED this 15th day of September, 2023.

JEFF RAYBOULD, Chairman
Idaho Water Resource Board

ATTEST _____
DEAN STEVENSON, Secretary

BEFORE THE IDAHO WATER RESOURCE BOARD

IN THE MATTER OF THE 2024-2028 LITTLE
MUD CREEK AND PAHSIMEROI RIVER
WATER TRANSACTION

RESOLUTION TO MAKE A FUNDING
COMMITMENT

1 WHEREAS, the 2004 Snake River Water Rights Agreement (also known as the “Nez Perce
2 Agreement”) commits the state to providing incentives for improving fish habitat and improving
3 or protecting flow conditions to augment streams flows; and
4

5 WHEREAS, Chinook salmon and steelhead habitat in the Pahsimeroi River Basin is limited
6 by low flow in the main-stem and disconnected tributaries; and
7

8 WHEREAS, Little Mud Creek and the Pahsimeroi River have been identified as high priority
9 streams for flow restoration efforts to provide high quality habitat for anadromous Chinook
10 salmon and steelhead; and
11

12 WHEREAS, in accordance with the Nez Perce Agreement, it is in the interest of the State
13 of Idaho to maintain the reconnection of Little Mud Creek to the Pahsimeroi River to encourage
14 recovery of ESA-listed Chinook salmon and steelhead; and
15

16 WHEREAS, the Board previously authorized transactions to lease and rent water rights
17 owned by BAR G FARM through the Board’s Water Supply Bank to enhance flows in the Little
18 Mud Creek and the Pahsimeroi River; and
19

20 WHEREAS, the Board will compensate BAR G FARM or its successors, \$38.50 per acre per
21 irrigation season for said rental for annual payment of \$5,686.45 for 147 acres and a 5-year total
22 of \$28,432.24; and
23

24 WHEREAS, the lease application fees (\$1,500) and rental fees (\$5,985.75) for said
25 agreement will not exceed \$7,485.75; and
26

27 WHEREAS, a proposal for \$35,918.00 has been submitted to the Columbia basin Water
28 Transactions Program for approval; and
29

30 WHEREAS, funding is available through the Columbia Basin Water Transaction Program
31 for said lease and rental agreements; and
32

33 WHEREAS, staff anticipates the funds being placed in the Idaho Water Resource Board
34 (IWRB) Revolving Development Account for annual payment to the water rights owners; and

35
36 WHEREAS, the Little Mud Creek and Pahsimeroi River transaction is in the public interest
37 and is in compliance with the State Water Plan; and
38

39 NOW, THEREFORE BE IT RESOLVED that the IWRB authorizes the Chairman to enter into
40 5- year lease and rental agreements from 2024-2028 for water rights 73-10005, 73-11982, 73-
41 11983, 73-90, 73-11978, 73-11992, 73-11993, 73-11988, 73-11987, and 73-11981 for delivery to
42 minimum stream flow 73-7045, for an amount not to exceed \$35,918.00.
43

44 NOW THEREFORE BE IT FURTHER RESOLVED that this resolution is subject to the condition
45 that the Board receives the requested funding from the Bonneville Power Administration through
46 the Idaho MOA/Fish Accord Water Transaction Program or the Columbia Basin Water Transaction
47 Fund in an amount up to \$35,918.00.
48

DATED this 15th day of September 2023.

JEFF RAYBOULD, Chairman
Idaho Water Resource Board

ATTEST _____
DEAN STEVENSON, Secretary

BEFORE THE IDAHO WATER RESOURCE BOARD

IN THE MATTER OF THE HAT CREEK
ACQUISITION AND PERMANENT
LEASE/RENTAL WATER TRANSACTION

RESOLUTION TO MAKE A FUNDING
COMMITMENT

1 WHEREAS, resident bull trout, juvenile Chinook salmon, and adult steelhead in Hat Creek
2 are limited by low flow in the lower reaches of Hat Creek; and

3 WHEREAS, Hat Creek provides habitat for resident bull trout, juvenile Chinook salmon,
4 and adult steelhead habitat, and the 2004 Snake River Water Rights ("Nez Perce") Agreement
5 commits the state to providing incentives for improving fish habitat which includes improving or
6 protecting flow conditions to augment stream flows; and

7 WHEREAS, it is in the interest of the State of Idaho to increase flow in Hat Creek to
8 encourage recovery of ESA-listed bull trout, Chinook Salmon, and steelhead; and

9 WHEREAS, the Idaho Water Resource Board (IWRB) owns minimum streamflow Water
10 Right No. 75-14189 on Hat Creek; and

11 WHEREAS, the IWRB, pursuant to Section 42-1734, Idaho Code, has the authority to
12 acquire, purchase, lease, or exchange land, rights, water rights, easements, franchises, and other
13 property deemed necessary or proper for the construction, operation, and maintenance of water
14 projects; and

15
16 WHEREAS, since 2004 the water right owners for Water Right Nos. 75-2137, 75-41991
17 and 75-4200 have leased all or a portion of their irrigation rights to the Water Supply Bank for
18 rental and delivery to the Hat Creek minimum stream flow Water Right No. 75-14189, resulting
19 in up to 2.51 cfs in addition flow in Big Hat Creek and Hat Creek to improve stream flow for
20 anadromous and resident fish; and

21 WHEREAS, in July 2023 the water right owners agreed to sell Water Right Nos. 75-2137,
22 75-4199, and 75-4200 to the IWRB for the permanent rental and delivery of up to 2.51 cfs to the
23 Hat Creek minimum stream flow Water Right No. 75-14189; and

24 WHEREAS, in January 2023 staff used programmatic grant funds to commission an
25 appraisal by a licensed realtor to determine the value of the 240-acre property associated with
26 Water Right Nos. 75-2137, 75-4199, and 75-4200 with and without senior Hat Creek water rights;
27 and

28 WHEREAS, the 240-acre property associated with Water Right Nos. 75-2137, 75-4199, and
29 75-4200 is situated at the confluence of Big Hat and Hat Creek at river mile 7 and represents a
30 unique public land's private inholding that is surrounded by BLM and adjacent USFS land that has

31 both seasonal public road access and the potential for air strip development; and

32 WHEREAS, the 240-acre property associated with Water Right Nos. 75-2137, 75-4200, and
33 75-4199 is valued just over \$1.5 million with the three senior irrigation rights accounting for
34 nearly 33% of the market value, at \$530,000, or \$211,155 per cfs; and

35 WHEREAS, permanent Water Supply Bank rental fees for Water Right Nos. 75-2137, 75-
36 4200, and 75-4199 to Water Right No. 75-14189 will be \$53,278; and

37 WHEREAS, a Hat Creek permanent water transaction involving Water Right Nos. 75-2137,
38 75-4199, and 75-4200 is in the public interest and in compliance with the State Water Plan; and

39 NOW THEREFORE BE IT RESOLVED that the IWRB authorizes the Chairman or designee to
40 acquire and permanently lease and rent Water Right Nos. 75-2137, 75-4199, and 75-4200
41 through the Water Supply Bank for delivery to the Water Right no. 75-14189; and

42 NOW THEREFORE BE IT FURTHER RESOLVED that this resolution is subject to the condition
43 that the IWRB receives the requested funding from the Bonneville Power Administration through
44 the Columbia Basin Water Transaction Program (\$455,223) and the 2008 Idaho Accord/MOA
45 Idaho Water Transaction Fund (\$128,055) for a total amount not to exceed \$583,278.

DATED this 15th day of September, 2023.

JEFF RAYBOULD, Chairman
Idaho Water Resource Board

ATTEST: _____
DEAN STEVENSON, Secretary

Memorandum

To: Idaho Water Resource Board
From: Neeley Miller, Planning & Projects Bureau
Date: September 11, 2023
Re: Aging Infrastructure Grant Program Update



Action: No action needed at this time

During its 2022 session, the Idaho legislature appropriated \$25,000,000 to the IWRB to be used to improve aging water infrastructure. The IWRB held two rounds of funding awards in FY 2023 using criteria that was developed by staff and adopted by the IWRB.

On September 16, 2022 the IWRB authorized a resolution awarding \$12.5 million for 12 aging infrastructure projects throughout Idaho.

Aging Infrastructure Funded Applications - Round One		
Entity	Total Project Costs	Awarded Funding
Bannock Feeder; Diversion Replacement	885,110	250,000
Big Lost; Dam Repair	9,082,856	2,000,000
Boise Project Board of Control - New York Canal Lining	7,330,000	2,418,900
Chester Canal & Irrigation Company; Diversion Headgate	129,238	29,725
Dalton Gardens Irrigation District; Delivery Improvements	69,000	23,460
Enterprize Canal Company; Converting Canal to Pipeline	8,291,597	2,736,227
Falls Irrigation District; Pump Station Rehab	9,095,000	200,588
Fremont Madison Irrigation District; Upgrades to Diversion	232,874	58,200
King Hill Irrigation District; Pump Station & Closed Conduit	6,154,187	1,980,259
Nampa-Meridian Irrigation District; Ridenbaugh Modernization	9,637,000	1,820,048
North Side Pumping Company; pump station/canal	4,138,388	951,800
Water District 63; Monitoring System Upgrades	133,883	30,793
	\$55,179,133	\$12,500,000

On January 20, 2023 the IWRB authorized a resolution awarding \$12.5 million for 18 aging infrastructure projects throughout Idaho.

Aging Infrastructure Funded Applications - Round Two		
Entity	Total Project Costs	Awarded Funding
WRV Board of Control - diversion 45 rehab	1,030,024	309,000
Falls Irrigation District - pump station rehab	9,095,000	2,000,000
Cub River Irrigation Company - pump station project	5,951,000	1,000,000
Nampa Meridian Irrigation District - modernize canal diversion	13,388,370	1,866,116
Curran Ditch Users Association - pipeline project	70,000	16,100
HFF Conant Creek - canal lining & automation	2,172,444	499,145
Island Ward Canal Co - replace main diversion headgate & automation	47,781	11,945
Northside Canal Co - canal lining	7,342,600	2,000,000
King Hill Irrigation District - cold springs pipe project	2,773,364	828,501
Twin Falls Canal Co - canal lining (Highline)	818,490	245,547
Big Lost Irrigation District - canal lining	3,100,000	900,000
Boise City Canal Co - Headgate modernization	366,000	122,000
Hat Butte Mutual Canal Co - pipeline project	282,025	78,965
Solenberger Ditch Co - headgate replace and relocation	9,000	3,000
Sunnydell Irrigation District - diversion structure modernization	107,940	30,233
Twin Falls Canal Co - measure box improvements (Rubicon)	146,791	44,037
Burley Irrigation District - replace structure	2,700,000	891,000
Hayden Lake Irrigation District - replace and relocate main pipeline	6,180,000	1,654,411
	\$55,580,829	\$12,500,000

During their 2023 session the Idaho legislature appropriated an additional \$50,000,000 to the IWRB to be used to improve aging water infrastructure. On May 19, 2023 the IWRB Board set new timelines for soliciting applications in fiscal year 2024.

The deadline for submitting an application was on Aug 4. The IWRB received 23 applications. Staff is currently reviewing and scoring these applications. Staff plans to discuss these scores with the Finance Committee in October.

Applications for another round in fiscal 2024 are due Dec. 1, 2023. The IWRB anticipates holding an additional two rounds of grant funding in FY 2025.

The [Aging Infrastructure Grant Program](#) webpage has been updated with these dates. We have started to add project profiles for each funded project to the webpage.

Modernizing Idaho's Water Infrastructure Project Profiles

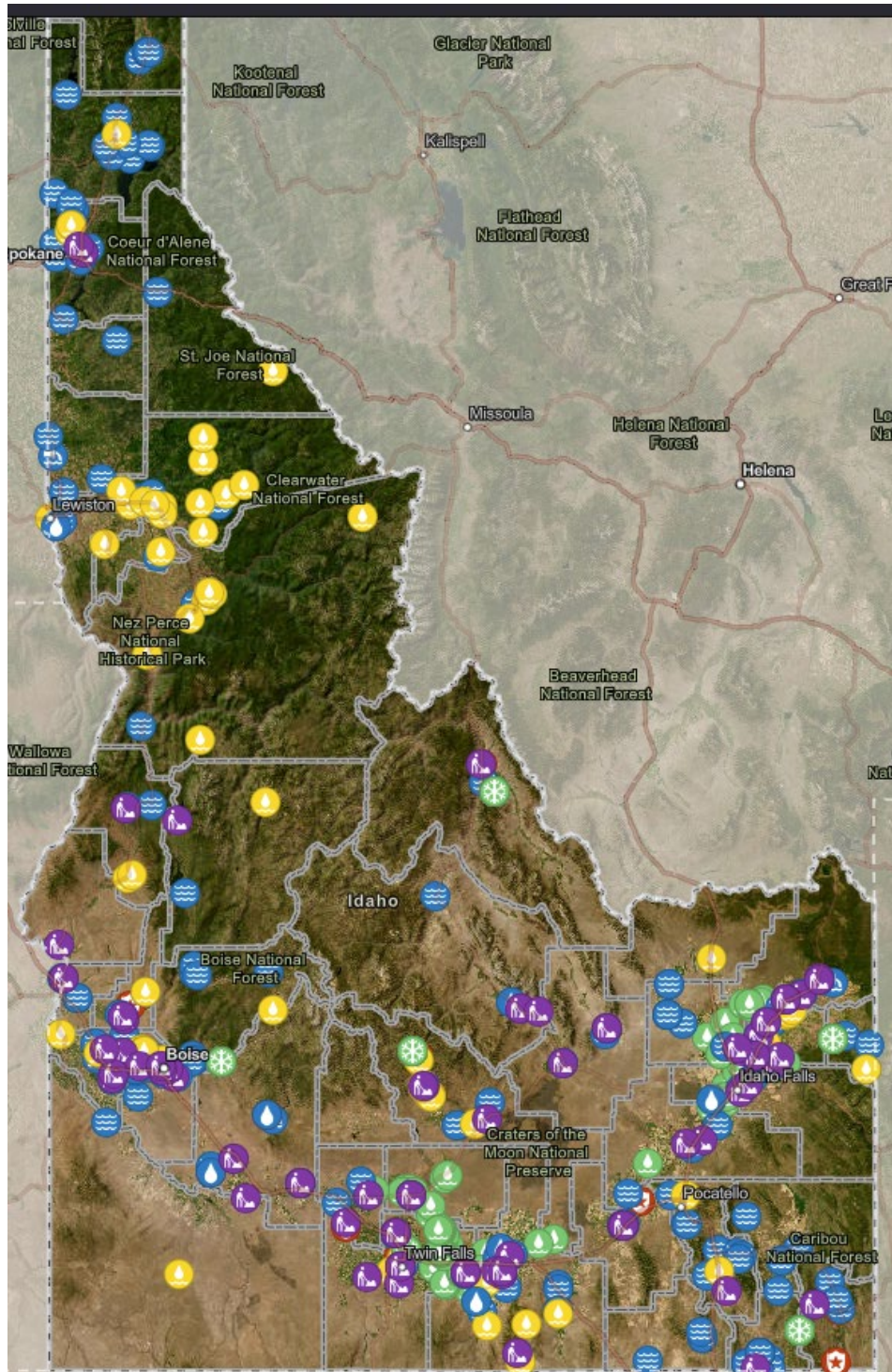
[King Hill Irrigation District](#)

[Water District #63](#)

[Chester Canal & Irrigation Co.](#)

[Bannock Feeder Canal Company](#)
[Solenberger Ditch Company](#)
[Hat Butte Canal Project](#)

We have developed a [Financial Programs Statistics](#) page that includes statistical information on AIG projects. Additionally, we have developed an [interactive map](#) with AIG information and locations.



Memorandum



To: Idaho Water Resource Board
From: Neeley Miller, Planning & Projects Bureau
Date: September 11, 2023
Re: Regional Water Sustainability Priority List

Action: no action at this time

Background

In July 2021 the IWRB adopted an initial Regional Water Sustainability Priority List to help guide the Idaho Water Resource Board's (IWRB's) spending for large, regional water sustainability projects from ARPA funds, state general funds, or other applicable sources. The IWRB also, in January 2022, adopted a threshold criteria indicating that for a project to be included on the Regional Water Sustainability Priority List it must "help achieve water supply sustainability on a regional, basin-wide, or state wide basis."

On October 26th 2022 the IWRB adopted criteria for the inclusion of projects on the Regional Water Sustainability Priority List. The criteria include a process for how projects can be added, types of information required to be submitted in requests, considerations for inclusion, and a process for removing projects from the list. At the October 26th meeting the IWRB also set a deadline of December 1 for requests to be submitted.

The IWRB received 15 requests to remain on or be added to the list. In January 2023 the IWRB updated the List.

Process for Addressing the Regional Water Sustainability Priority List

In March 2023 the IWRB authorized staff to solicit information beyond the information that was included in the request to be added to the list. This additional information focused on readiness to proceed and status of the project in the planning and permitting processes. In May 2023 the IWRB authorized staff to solicit presentations from project sponsors. Project presentations took place at Finance Committee meetings scheduled on June 2, 8, 14, and 26.

Funding of Projects

Staff developed the attached project funding recommendations in consultation with the IWRB Finance Chair. The Finance Committee met on July 12 to discuss these recommendations and recommended the attached funding recommendation for consideration by the IWRB. The IWRB approved the funding recommendation on July 21, 2023. The IWRB directed staff to work with project sponsors on draft contracts for each of these projects, including appropriate Terms & Conditions which shall be brought back to the IWRB for approval before execution of each contract.

Staff has been reaching out to these entities and are working to get draft contracts created. Staff wants to make sure they have the most recent SOW and schedule for these projects. Staff hopes to have developed appropriate Terms & Conditions for some of these projects for review by the IWRB in November.

New Requests to be added to the Priority List

Requests to have a project added to the IWRB's Regional Water Sustainability List are due annually by December 1, 2023. Requests shall be submitted to: IWRB-Info@idwr.idaho.gov. More information on how to submit a request can be found [here](#) and [here](#).

Attachment(s):

Funding for Regional Water Sustainability Priority List Projects July 2023

Attachment A: Funding for Regional Water Sustainability Projects July 2023

Construction-ready projects:	ARPA	IWRB District	Amount Requested	Funds Authorized	Notes
American Falls Spillway Rehab	yes	4	\$12,500	12,500,000	
Gooding Flood Control Project	-	3	\$4,000,000	4,000,000	
Lewiston Orchards Exchange Project	yes	1	\$20,000,000	hold for now	waiting on federal funding
Mackay Dam Repair	-	3	\$5,280,384	hold for now	waiting on federal funding
Nampa Reuse Pipeline, Copper River Storage, System Improvements to Pioneer	-	2	\$6,000,000	\$3,000,000	requested \$6M total for 3 projects
New York Canal Lining	yes	2	\$51,593,344	\$25,000,000	
North Fremont Canal Systems Phase 5 Pipeline Project	-	4	\$7,811,056	\$7,811,056	
Raft River Pipeline	-	3	\$14,111,000	\$7,000,000	
Treasure Valley Water Supply Assessment Project	-	2	\$155,500	\$155,500	
			\$108,963,784	\$59,466,556	

Planning-level projects:	ARPA	IWRB District	Amount Requested	Funds Authorized	Notes
Palouse Basin Aquifer Water Supply	-	1	\$365,000	\$182,500	Next Steps for Alternative 5
Elmore County/Mountain Home Aquifer Water Supply	-	2	NA	wait on AIG	13 mile seepage study; no cost provided, plans to submit AIG application
Lost Valley Reservoir Enlargement	-	2	\$560,000	\$560,000	Pre-Construction work including EIS
			\$925,000	\$742,500	

Elevated Public Relations Strategy for Major Water Infrastructure Projects

Steve Stuebner, IWRB and IDWR
Communications

Sept. 14, 2023



History and Context:

- Gov. Brad Little and the Idaho Legislature have approved \$1B in water infrastructure spending since he took office in 2019.
- Through Gov. Little's "Leading Idaho" and "Idaho First" plan, the Idaho Water Resource Board (IWRB) has received \$450 million to modernize the state's water infrastructure statewide through grants, loans, and strategic investments in water sustainability projects.
- The IWRB has approved two rounds of Aging Infrastructure Grants and one round of Regional Sustainability Projects so far.



History and Context:

- Governor Little's Communication Team recommended that we check with the Idaho Transportation Department about the elevated Public Relations strategy and tactics ITD is using for major Leading Idaho road projects.

To elevate the profile of the projects, ITD has used:

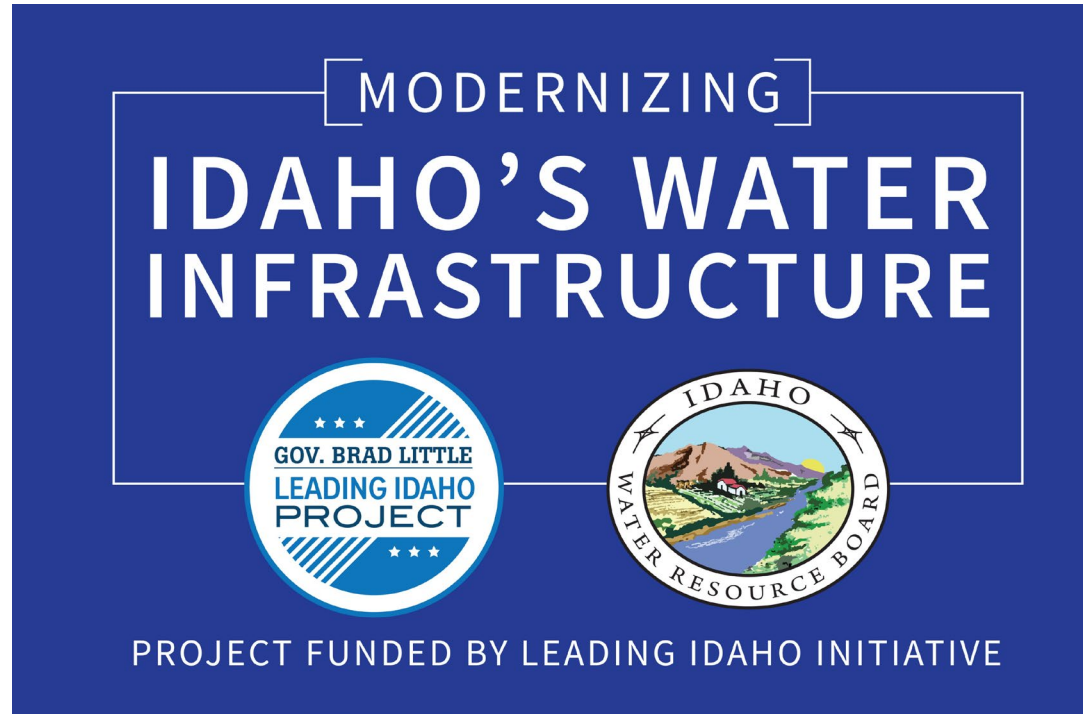
- Road Signage
- Press Release and Media events
- Ground-breaking events/visuals
- Video highlights



In a meeting with the Governor's staff, we recommended using a similar strategy and tactics:



Overall goal: Elevate the profile of Leading Idaho Water Infrastructure projects with public benefits detailed and credit to Gov. Little and the Idaho Legislature.

- Road Signage
- Press Release and Media events/tours
- Ground-breaking events/visuals
- Project Profiles (2-page pdf)
- Video project profiles

A blue rectangular graphic with white text and logos. At the top, the word "MODERNIZING" is in a white box. Below it, "IDAHO'S WATER INFRASTRUCTURE" is written in large white letters. At the bottom, two circular logos are shown: "GOV. BRAD LITTLE LEADING IDAHO PROJECT" on the left and the "IDAHO WATER RESOURCE BOARD" logo on the right. Below the logos, the text "PROJECT FUNDED BY LEADING IDAHO INITIATIVE" is written in white.

[MODERNIZING]

IDAHO'S WATER INFRASTRUCTURE



PROJECT FUNDED BY LEADING IDAHO INITIATIVE

What's next?

- Coordinate with the Governor's communications team on planning media events and Ground-breaking events statewide
- Timing for first-round of elevated PR projects is Fall 2023
- We have developed a short list of projects to be considered for elevated public relations treatment
- Staff will work with the governor's office to develop VIP invite list for media events or ground-breaking events, including Water Board members, legislators, etc.

Major water infrastructure projects coming up in Fall 2023

Regional Water Sustainability Projects (just approved in July)

1. **New York Canal lining** - \$25M; total cost \$50M; timing fall 2023
2. **Nampa Reuse pipeline** - \$3M; total cost \$180M; fall 2023
3. **American Falls Spillway Rehab** - \$12.5 million; \$23.1M; construction is under way
(Partnership with Idaho Power/Bureau of Reclamation, etc.)

Aging Infrastructure Grant Projects (Rounds One and Two)

1. **Ridenbaugh Canal (lining) Modernization** – Nampa-Meridian Irrigation District - \$3.1M grant
\$9.6M total cost; second AIG grant for \$1.8M, \$13.3M total cost; timing fall 2023
2. **Enterprise Canal near Idaho Falls** – open canal to pipeline water efficiency project - \$2.7M
grant, \$8.2M total; timing fall 2023
3. **Big Lost Irrigation District canal lining** - \$900,000; \$3.1M total; timing fall 2023
4. **Hayden Lake Irrigation District** – replace main pipeline - \$1.7M, \$6.18M total; Timing TBD
(this is our biggest water infrastructure project planned in N. Idaho so far)

Questions? Feedback?

Thank you!

MEMO



To: Idaho Water Resource Board
From: Justin Ferguson
Date: September 15, 2023
Subject: Blaine County Canal Company – Existing Loan Amendment

REQUESTED ACTION: Approve amendment request extend contract up to \$6,000,000

1.0 INTRODUCTION

Blaine County Canal Company is requesting a final amendment to their existing loan to add an additional \$5,635,142.20 for a total of \$6,000,000 to finish the replacement of diversion structures and canal to pipe conversions.

2.0 BACKGROUND

On November 19, 2021, the Idaho Water Resource Board (Board) approved a loan to the Blaine County Canal Company (BCCC) in the amount of \$250,000 to replace the first phase of diversion structure repairs and canal to pipe conversions.

Due to market conditions BCCC purchased pipe in advance to secure project costs however, the grant funding awarded to BCCC at the time was not able to release funds until the materials were installed.

Using funds made available under amendments in November 2021 (\$1,500,000) and May 2022 (\$1,800,000), BCCC was able to purchase materials at more favorable prices while repaying the balance via grant funds once the materials were installed.

3.0 PRIOR LOANS

This is the first loan BCCC has held with the Idaho Water Resource Board

4.0 FINANCIAL ANALYSIS

BCCC is requesting an amendment to add \$5,635,142.20 to the available loan balance. The total is based on an estimate provided by NRCS at \$5,716,460.50 with a contingency of \$283,539.50 for an overall total of \$6,000,000.

The loan will be supplemented with funding from the USDA – NRCS (\$1,887,000), a DEQ grant funding via the Butte Soil and Water Conservation District (\$250,000) and are working towards an Aging Infrastructure grant through the Idaho Water Resource Board (\$1,314,786) and a Regional Conservation Partnership Program (RCPP) grant as well.

BCCC has also made significant payments toward the outstanding balance as grant funds are released. After materials were installed under the first amendment BCCC made a payment of \$686,250 toward the balance. After materials were purchased and installation was complete using funds from the second amendment, two payments were made toward the outstanding balance. The first in May 2023 in the amount of \$605,781 and a second in June 2023 in the amount of \$158,000.

This leaves BCCC with an available balance of approximately \$365,000 and a total outstanding balance of approximately \$2,000.

BCCC also generates revenue via shareholder assessments, currently set at \$100 per shareholder for the first 13 shares and \$1.00 per share for each share, after the initial 13.

The interest rate and term will not be adjusted as part of the resolution as follows; the applicant has agreed to repay the loan in its entirety prior to December 2036.

Loan Term	Interest Rate	Assessment Income
15	2.6%	\$26,827.36

5.0 WATER RIGHTS

Water Right	Stage	Priority Date	Source	Amount
33-3	Decreed	7/1/1912	Dry Creek	61.00 cfs
33-4	Decreed	1/23/1905	Little Lost River	12.00 cfs
33-5	Decreed	1/14/1908	Little Lost River	145.00 cfs
33-68	Decreed	16/1/1891	Little Lost River	4.28 cfs
33-75	Decreed	7/15/1884	Little Lost River	3.43 cfs
33-77	Decreed	5/25/1891	Sawmill Creek	1.43 cfs
33-98	Decreed	4/15/1891	Dry Creek	5.15 cfs
33-10086	Decreed	3/5/1908	Sawmill Creek	5.30 cfs

6.0 SECURITY

As collateral for the loan, the Board is authorized to hold a lien against BCCC's water rights, existing infrastructure, and project infrastructure in both Butte & Custer Counties.

7.0 CONCLUSION AND RECOMMENDATION

As has been the case with prior amendments, the loan will be used to cover materials until grant funds can be released and the disbursements repaid allowing the BCCC to finish their conversion project, moving open canals to a closed pipeline, along with the necessary repairs to their diversion works. The system improvements would reduce seepage and provide an increase in both reliability and efficiency, meeting goals outlined in the Idaho State Water Plan. Staff recommend the approval of the resolution extending the contract amount to \$6,000,000.

Attachments: BCCC Map, BCCC Draft Resolution

BEFORE THE IDAHO WATER RESOURCE BOARD

IN THE MATTER OF THE BLAINE COUNTY CANAL
COMPANY LOAN REQUEST

RESOLUTION TO AUTHORIZE INCREASED
FUNDING FOR COSTS RELATED TO
INFRASTRUCTURE IMPROVEMENTS

1 WHEREAS, in November of 2021, the Blaine County Canal Company (Company) submitted a loan
2 application to the Idaho Water Resource Board (IWRB) in the amount of \$250,000.00 to cover costs
3 associated with a project to move its point of diversion, install a new diversion structure, and pipe open
4 canals (Project); and

5
6 WHEREAS, the Company delivers water for approximately 4,880 acres of irrigated lands in Butte
7 County near Howe, Idaho; and

8
9 WHEREAS, the Company's delivery system was originally constructed in the early 1900s, with
10 few improvements made since the system was developed; and

11
12 WHEREAS, considerable systemwide improvements are required to ensure long-term reliable
13 water delivery and reduce water loss due to seepage; and

14
15 WHEREAS, the total estimated cost for the first Phase of the Project was approximately
16 \$1,500,000 and was supported by grant funding and an energy savings; and

17
18 WHEREAS, in May of 2022, the IWRB approved an increase to the Company's existing IWRB loan
19 in the amount of \$900,000, for a total of \$1,500,000, to cover the cost of materials until the installation
20 of pipe was complete and grant funds could be disbursed; and

21
22 WHEREAS, the Company promptly applied grant funds in the amount of \$686,250 towards its
23 loan upon receipt of the disbursement and received additional grant funding to continue into the
24 second Phase of infrastructure improvements; and,

25
26 WHEREAS, in November of 2022, the IWRB approved an increase of \$650,000 to the existing
27 approved loan, for a total amount not to exceed \$1,800,000 to cover the cost of materials until
28 installation was completed at which time the Company applied \$763,800 toward the outstanding
29 balance; and,

30
31 WHEREAS, the Company has since received additional grant funding to finish the project in the
32 amount of \$3,452,000; and,

33
34 WHEREAS, the Company is requesting an increase of \$5,635,142.20 to the existing approved
35 loan, for a total not to exceed \$6,000,000 to cover the cost of materials until installation is completed
36 and grant funds can be disbursed; and,

38 NOW THEREFORE BE IT RESOLVED that the IWRB provides authority to the Chairman of the
39 Idaho Water Resource Board, or his designee, to enter into contracts, to effectuate the loan, with the
40 Company on behalf of the IWRB.
41

42 NOW THEREFORE BE IT FURTHER RESOLVED that the IWRB approves the loan amendment, not
43 to exceed \$6,000,000 from the Water Management Account at 2.6 % interest with a 15-year repayment
44 term.
45

46 NOW THEREFORE BE IT FURTHER RESOLVED that this resolution and the approval of the loan
47 amendment are subject to the following conditions:
48

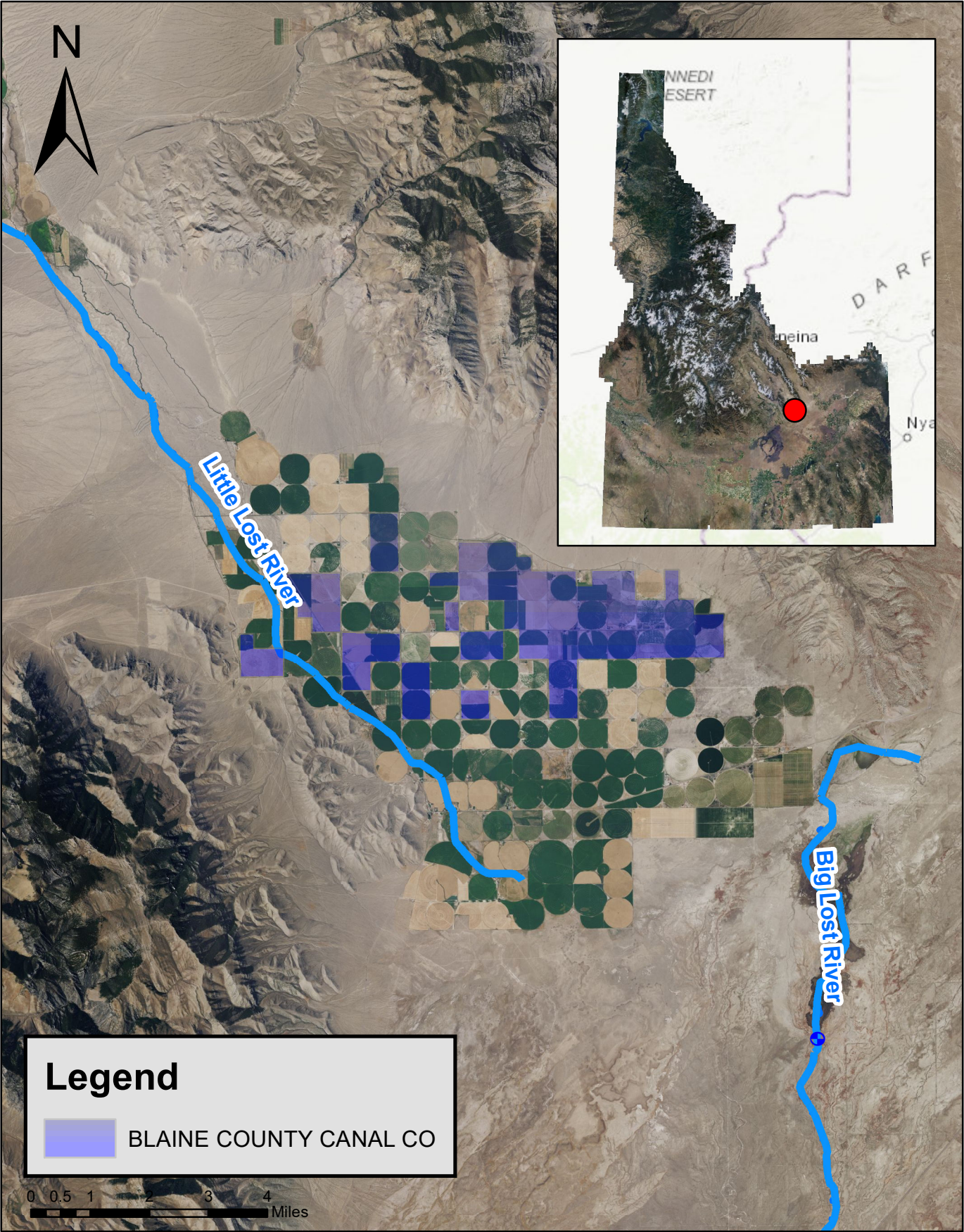
- 49 1) The Company shall comply with all applicable rules and regulations that apply to the
50 proposed Project.
- 51 2) Prior to the disbursement of any funds, the Company shall comply with all statutory
52 requirements for incurring debt.
- 53 3) Prior to the disbursement of any funds, the Company will provide acceptable security for the
54 loan to the IWRB.
55
56

DATED this 15th day of September 2023.

Jeff Raybould, Chairman
Idaho Water Resource Board

ATTEST _____
Dean Stevenson, Secretary

Blaine County Canal Company
IWRB Loan Request- May 2022



BEFORE THE IDAHO WATER RESOURCE BOARD

IN THE MATTER OF THE BLAINE COUNTY CANAL
LOAN REQUEST

RESOLUTION TO AUTHORIZE LOAN FUNDING
FOR COSTS RELATED TO INSTALLTION OF A
DIVERSION STRUCTURE AND PIPING OF
CANALS

1 WHEREAS, Blaine County Canal Company (Company) submitted a loan application to the Idaho
2 Water Resource Board (IWRB) in the amount of \$250,000.00 to cover costs associated with a project to
3 move its point of diversion, install a new diversion structure, and pipe open canals (Project); and
4

5 WHEREAS, the Company delivers water for approximately 4,880 acres of irrigated lands in Butte
6 County near Howe, Idaho; and
7

8 WHEREAS, the Company's delivery system was originally constructed in the early 1900s, with
9 few improvements made since the system it was developed; and
10

11 WHEREAS, considerable systemwide improvements are required to ensure long-term reliable
12 water delivery and reduce water loss due to seepage; and
13

14 WHEREAS, the total estimated cost for the Project is approximately \$1,500,000; and
15

16 WHEREAS the Company has secured grant funding in the amount of \$900,000 from the Natural
17 Resource Conservation Service, \$100,000 from Trout Unlimited, and an energy savings incentive of
18 \$240,000 from Rocky Mountain Power Company; and
19

20 WHEREAS, the Company is a qualified applicant, and the proposed Project is eligible for a loan
21 from the IWRB's Revolving Development Account; and
22

23 WHEREAS, the proposed Project is in the public interest and is in compliance with the State
24 Water Plan.
25

26 NOW THEREFORE BE IT RESOLVED that the IWRB approves a loan not to exceed \$250,000 from
27 the Revolving Development Account at 2.6 % interest with a 15-year repayment term.
28

29 NOW THEREFORE BE IT FURTHER RESOLVED that the IWRB provides authority to the Chairman
30 of the Idaho Water Resource Board, or his designee, to enter into contracts, to effectuate the loan, on
31 behalf of the IWRB.
32

33 NOW THEREFORE BE IT FURTHER RESOLVED that this resolution and the approval of the loan are
34 subject to the following conditions:
35

- 36 1) The Company shall comply with all applicable rules and regulations that apply to the
37 proposed Project.

- 38 2) Prior to the disbursement of any funds, the Company will provide acceptable security for the
39 loan to the IWRB, including but not limited to its water rights, membership assessment
40 income, and the Project infrastructure.
41 3) The Company shall maintain a reserve fund equal to one annual loan payment until the loan
42 has been satisfied.

DATED this 19th day of November 2021.



JEFF RAYBOULD, Chairman
Idaho Water Resource Board

ATTEST 
JO ANN COLE-HANSEN, Secretary

BEFORE THE IDAHO WATER RESOURCE BOARD

IN THE MATTER OF THE BLAINE COUNTY CANAL
LOAN REQUEST

RESOLUTION TO AUTHORIZE INCREASED
FUNDING FOR COSTS RELATED TO
INSTALLTION OF A DIVERSION STRUCTURE
AND PIPING OF CANALS

1 WHEREAS, Blaine County Canal Company (Company) submitted a loan application to the Idaho
2 Water Resource Board (IWRB) in the amount of \$250,000.00 to cover costs associated with a project to
3 move its point of diversion, install a new diversion structure, and pipe open canals (Project); and
4

5 WHEREAS, the Company delivers water for approximately 4,880 acres of irrigated lands in Butte
6 County near Howe, Idaho; and
7

8 WHEREAS, the Company's delivery system was originally constructed in the early 1900s, with
9 few improvements made since the system was developed; and
10

11 WHEREAS, considerable systemwide improvements are required to ensure long-term reliable
12 water delivery and reduce water loss due to seepage; and
13

14 WHEREAS, the total estimated cost for the Project is approximately \$1,500,000; and
15

16 WHEREAS, the Company has secured grant funding in the amount of \$900,000 from the Natural
17 Resource Conservation Service, \$100,000 from Trout Unlimited, and an energy savings incentive of
18 \$240,000 from Rocky Mountain Power Company; and
19

20 WHEREAS, to protect against cost increases and ensure timely delivery of materials it was
21 necessary for the Company to purchase materials well in advance of construction; and
22

23 WHEREAS, awarded grant funds cannot be disbursed until the associated materials have been
24 installed; therefore, the Company is obligated to cover costs of the materials until that time; and
25

26 WHEREAS, the Company has requested an increase to its existing IWRB loan in the amount of
27 \$900,000 to cover the cost of materials until construction is complete and grant funds can be disbursed,
28 at which time the Company intends to apply equivalent funds back towards the loan; and
29

30 WHEREAS, the Company is a qualified applicant and the proposed project qualifies for a loan
31 from the IWRB's Revolving Development Account; and
32

33 WHEREAS, the proposed project is in the public interest and is in compliance with the State
34 Water Plan.
35


36 NOW THEREFORE BE IT RESOLVED that the IWRB approves an increase in the existing loan of
37 \$250,000 to an amount not to exceed \$1,150,000 from the Revolving Development Account at 2.6 %
38 interest with a 15-year repayment term.

39
40 NOW THEREFORE BE IT FURTHER RESOLVED that the IWRB authorizes its chairman or designee
41 to modify existing contracts with the Company.
42

43 NOW THEREFORE BE IT FURTHER RESOLVED that this resolution and the approval of the loan
44 remain subject to the following conditions:
45

- 46 1) The Company shall comply with all applicable rules and regulations that apply to the
47 proposed Project.
48 2) Prior to the disbursement of any funds, the Company will provide acceptable security for the
49 loan to the IWRB, including but not limited to its water rights, membership assessment
50 income, and the Project infrastructure.
51 3) The Company shall maintain a reserve fund equal to one annual loan payment, based on the
52 original principal loan amount of \$250,000, until the loan has been satisfied.
53 4) If an amount equal to or greater than \$900,000 is not repaid within 1 calendar year from
54 the date of this approval, the Company shall henceforth maintain a reserve fund equal to
55 one annual loan payment, based on the total amount of funds disbursed.

DATED this 20th day of May 2022.


JEFF RAYBOULD, Chairman
Idaho Water Resource Board

ATTEST 
JO ANN COLE-HANSEN, Secretary

MEMO



To: Idaho Water Resource Board
From: Justin Ferguson
Date: September 15, 2023
Subject: Weiser Irrigation District – New Water Project Loan Application

REQUESTED ACTION: Consider loan request of \$126,500

1.0 INTRODUCTION

The Weiser Irrigation District (WID) is requesting a new loan in the amount of \$126,500 from the Idaho Water Resource Board (IWRB) to raise & resurface the existing Galloway Diversion Dam.

2.0 BACKGROUND

Established in 1902, Weiser Irrigation District provides water across 15,000 acres for approximately 2,400 shareholders. The existing concrete dam, built as a replacement for the original gravel dam in 1936, needs repairs to both the face and foundation due to deterioration and weathering.

3.0 PRIOR LOANS

The Weiser Irrigation District has not held a loan with the Idaho Water Resource Board prior to this application.

4.0 PROPOSED PROJECT

The proposed project would resurface the existing Galloway Dam while also adding an additional 2' in elevation. Per the proposal provided in the application materials, approximately 900 rebar posts will be placed into the existing face of the Dam to act as anchors for concrete forms across the length of the Dam. Along with the new Dam face, the work will also update the cap of the Dam and check board channels, adding an extra 24" in width along the top with a 6" concrete lead upslope on the upstream face to help pass winter ice flows.

5.0 BENEFITS

Repairing the Galloway Dam would provide the Weiser Irrigation District and their patrons a more reliable and safer structure for years to come. Per a resolution passed by the District

"[t]he reconstruction will preserve, restore, protect and maintain water rights in accordance with the purpose for which the District was first organized..."

6.0 FINANCIAL ANALYSIS

Total project costs are estimated at \$399,500. The District's approximately 2,400 patrons are assessed at \$36 per acre across the 15,000 total acres served. Additionally, the District has secured a WQPA grant from the Soil & Water Conservation Commission in the amount

of \$150,000 and are working toward an Aging Infrastructure grant with the Idaho Water Resource Board in the amount of \$123,000. The total funding is outlined below:

<u>Grant Funding Sources</u>	<u>Amount</u>
Idaho Soil & Water Conservation Commission	\$150,000
Idaho Water Resource Board Aging Infrastructure	\$123,000
Total Estimated Grant Funding	\$273,000

<u>Estimated Costs</u>	<u>Amount</u>
Estimated Project Costs	\$374,500
Contingency Funds	\$25,000
Total Project Costs	\$399,500
Less Total Grant Funding	(\$273,000)
Total Remaining	\$126,500
Total Loan Request	\$126,500

The total loan request is \$126,500, the total remaining balance based on estimated project costs.

The term requested in the application is 5 years and will have an 8.25% interest rate based on the date the application was received & completed.

The estimated loan payment based on an average of three disbursements, was approximately \$33,000. To repay the loan, the District will offer the revenue from portions of their 32 delivery contracts along with shareholder assessments.

7.0 SECURITY

As collateral for the loan, the Board is authorized to hold lien against property held by the District, including 5 vehicles, 2 mobile equipment, and both the control and shop buildings.

8.0 CONCLUSION AND RECOMMENDATION

The funds requested will be used to resurface the existing Galloway Dam and provide an additional 2' in elevation. The improvements will provide a safer, more reliable structure for the District and their patrons for years to come.

The applicant meets the qualification criteria, and the proposed project is consistent with the goals established by the Board in the Idaho State Water Plan. Staff recommend approval of the loan request, for the total amount of \$126,500.

Attachments: WID Map, Draft Resolution

BEFORE THE IDAHO WATER RESOURCE BOARD

IN THE MATTER OF THE WEISER IRRIGATION
DISTRICT LOAN REQUEST

RESOLUTION TO AUTHORIZE LOAN FUNDING
FOR COSTS RELATED TO GALLOWAY DAM
REPAIRS AND IMPROVEMENTS

1 WHEREAS, in August 2023, the Weiser Irrigation District (District) submitted a loan application to
2 the Idaho Water Resource Board (IWRB) in the amount of \$126,500 to cover costs associated with the
3 raise & repair of the Galloway Dam and underlying foundation; and,
4

5 WHEREAS, the District was established in 1902 and provides water across nearly 15,000 acres
6 for approximately 2,400 shareholders; and,
7

8 WHEREAS, the Galloway Dam was initially constructed as a gravel Dam and replaced with a
9 concrete structure in 1936; and,
10

11 WHEREAS, the estimated annual loan payment, based on a three-disbursement model, is
12 approximately \$33,000; and,
13

14 WHEREAS, the District assesses approximately 2,400 shareholders by acre at \$36.00 per acre
15 and holds additional delivery contracts estimated
16 at \$60,000 annually; and,
17

18 WHEREAS, the District will use portions of their assessments and revenue generated from said
19 delivery contracts to make the required annual payment; and,
20

21 WHEREAS, the District is a qualified applicant, and the proposed Project is eligible for a loan
22 from the Board's Revolving Development Account; and,
23

24 WHEREAS, the District has provided a statement prepared by White Peterson and a Resolution
25 from the District's Board of Directors authorizing the incurrence of debit; and,
26

27 WHEREAS, the proposed Project is in the public interest and is in compliance with the State
28 Water Plan.
29

30 NOW THEREFORE BE IT RESOLVED that the IWRB provides authority to the Chairman of the
31 Idaho Water Resource Board, or his designee, to enter into contracts, to effectuate the loan, with the
32 District on behalf of the IWRB.
33

34 NOW THEREFORE BE IT FURTHER RESOLVED that the IWRB approves a loan not to exceed
35 \$126,500 from the Revolving Development Account at 8.25 % interest with a 5-year repayment term.
36

37 NOW THEREFORE BE IT FURTHER RESOLVED that this resolution and the approval of the loan are
38 subject to the following conditions:

- 39
- 40 1) The District shall comply with all applicable rules and regulations that apply to the proposed
41 Project.
 - 42 2) Prior to the disbursement of any funds, the District shall comply with all statutory
43 requirements for incurring debt.
 - 44 3) Prior to the disbursement of any funds, the District will provide acceptable security for the
45 loan to the IWRB.
- 46

DATED this 15th day of September, 2023.

JEFF RAYBOULD, Chairman
Idaho Water Resource Board

ATTEST _____
DEAN STEVENSON, Secretary



Weiser Irrigation Dist

SRBA Recommendations: 3-2006, 3-7005, 67-8, 67-9, 67-10, 67-11, 67-12, 67-13B, 67-14, 67-15, 67-16, 67-17, 67-18, 67-19, 67-20, 67-21, 67-22, 67-2168B, 67-2169G, 67-14621

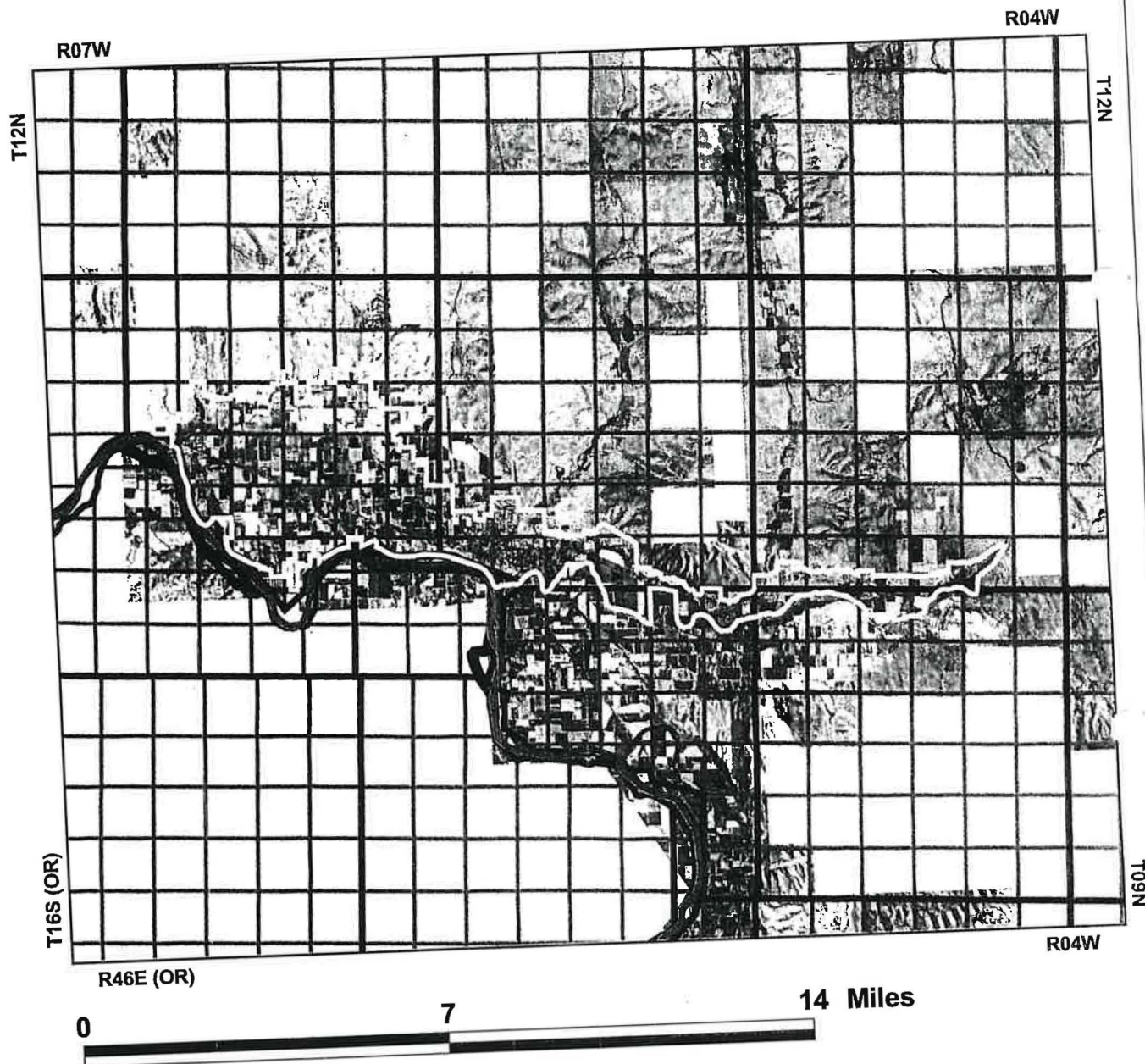
Service Area Boundary
GIS Place of Use Illustration

Legend

-  Service Area
-  Townships
-  PLS Sections

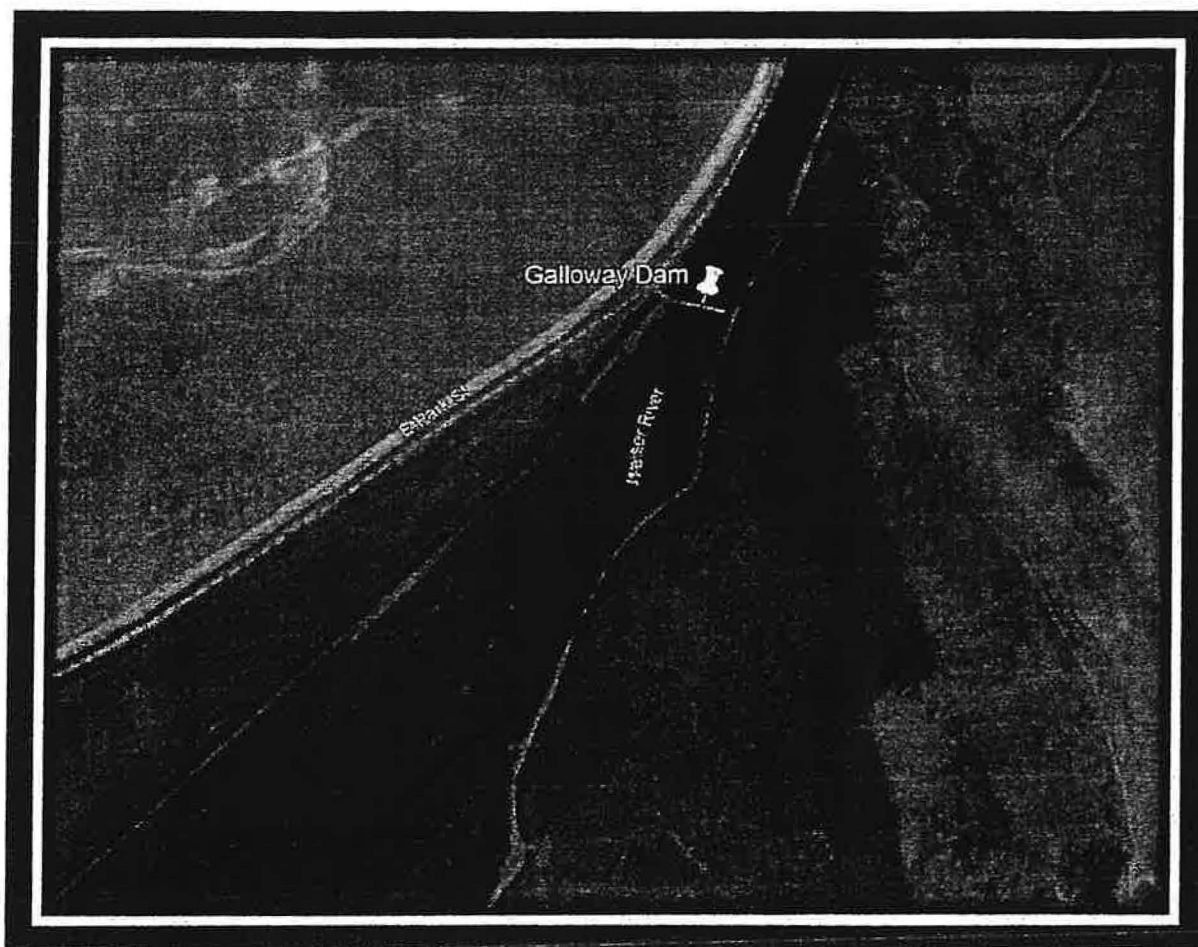


Washington County
IDWR Basin 67



Prepared by D. Favreau
On Tuesday, December 19, 2006
1987/88 Aerial Photography

Appendix D



STATE OF IDAHO
NATURAL RESOURCES
CONSERVATION COMMISSION

Project Location Map

Galloway Dam Improvements

Washington County HUC 17050124

44.150093, -116.463369





MEMO



To: Idaho Water Resource Board
From: Justin Ferguson
Date: September 15, 2023
Subject: Barber Pool Hydro – Contract Extension of Time

REQUIRED ACTION: The Board will consider approval of a resolution to extend the 1-year period for execution on IWRB1033 for Barber Pool Hydro

A loan application was received from Barber Pool Hydro proposing to make necessary improvements due to the age of the Barber Dam Hydroelectric Project. Total estimated costs of the Project were approximately \$1,651,000 with grant funding from the USDA Renewable Energy Program to offset a portion of Project costs.

Per IWRB resolution number 04-2023, an applicant has 1 year to act on the loan and, as FERC licensing concerning the Project is taking longer than expected, Barber Pool Hydro has not been able to begin construction. At this time an extension through March 2025 has been requested by the applicant due to extenuating circumstances beyond their control.

Attachments:

- Idaho Water Resource Board Resolution 34-2022
- Draft Resolution to Extend Timeframe to Act on IWRB1033

BEFORE THE IDAHO WATER RESOURCE BOARD

IN THE MATTER OF THE BARBER POOL HYDRO
LOAN REQUEST

RESOLUTION TO AUTHORIZE LOAN FUNDING
FOR COSTS RELATED TO BYPASS
REHABILITATION

1 WHEREAS, in September 2022, Barber Pool Hydro (BPH) submitted a loan application to the
2 Idaho Water Resource Board (IWRB) in the amount of \$850,670 to cover costs for a project to
3 rehabilitate the Barber Dam bypass structure (Project); and
4

5 WHEREAS, the Barber Dam Hydroelectric Project (BDHP), originally constructed in 1905, is
6 located on the Boise River in Ada County, Idaho; and
7

8 WHEREAS, Ada County was statutorily required to take ownership of the BDHP in 1970, and has
9 jointly operated the project in partnership with Fulcrum, a co-licensee on the dams FERC license; and
10

11 WHEREAS, the BDHP bypass is in need of eminent repairs due to the age of the system; and
12

13 WHEREAS, BPH is a qualified applicant, and the proposed Project is eligible for a loan from the
14 IWRB's Revolving Development Account; and
15

16 WHEREAS, the proposed project is in the public interest and is in compliance with the State
17 Water Plan; and,
18

19 WHEREAS, in September 2022, the IWRB approved a loan to BPH (34-2022, September 2022) in
20 the amount of \$850,670 with a 3.33% interest rate and 20-year repayment term; and,
21

22 WHEREAS, BPH is requesting an extension, through March of 2025, to act on the contract due to
23 circumstances beyond their control regarding FERC licensing.
24

25 NOW THEREFORE BE IT RESOLVED that the IWRB provides authority to the Chairman of the
26 Idaho Water Resource Board, or his designee, to enter into contracts, to effectuate the loan, with the
27 Company on behalf of the IWRB.
28

29 NOW THEREFORE BE IT FURTHER RESOLVED that the IWRB approves the extension of time to
30 act on contract IWRB1033, for an additional 2 years, through March 2025
31

32 NOW THEREFORE BE IT FURTHER RESOLVED that this resolution and the approval of the
33 extension of time are subject to the following conditions:
34

- 35 1) Barber Pool Hydro shall comply with all applicable rules and regulations that apply to the
36 proposed Project.

- 37 2) Prior to the disbursement of any funds, Barber Pool Hydro shall comply with all statutory
38 requirements for incurring debt.
39 3) Prior to the disbursement of any funds, Barber Pool Hydro will provide acceptable security
40 for the loan to the IWRB.
41
42

DATED this 15th day of September 2023.

Jeff Raybould, Chairman
Idaho Water Resource Board

ATTEST _____
Dean Stevenson, Secretary

BARBER POOL Hydro LLC

711 E Turtle Point Dr.
Ivins, Utah 84738
Tel 208-522-8069
fax 208-522-8223
email:ted@tsorenson.net

August 23, 2023

Attention: Neeley Miller
Idaho Department of Water Resources
PO BOX 83720
Boise Idaho, 83720

Subject: IWRB AGING INFRASTRUCTURE GRANT

On February 7, 2023 the Idaho Water Resource Board awarded Barber Pool Hydro LLC a loan contract for the Barber Dam bypass rehabilitation project. Due to project delays beyond the control of Barber Pool Hydro we request that an extension be granted in order to extend the loan contract offer and move the Project Completion Date from March 31, 2024 to March 31, 2025.

The reason the project has been delayed is that the Federal Energy Regulatory Commission (FERC) has not reviewed the project submittal and authorized this work to proceed. On February 3, 2022 FERC issued a letter stating that the FERC license transfer from the current licensees (Ada County & Fulcrum) to Barber Pool Hydro LLC and the license amendment required for the Barber Dam Bypass Rehabilitation Project would not be reviewed until the current licensees completes the dam hazard potential classification, dam stability analysis, and independent consultant safety inspection report. On August 24, 2022 FERC classified the dam as a "Significant Hazard Potential." This classification was disputed by Ada County Spring 2023.

In June 2023 Ada County withdrew their appeal and is working on updating the FERC studies. FERC review of the Barber Pool Hydro LLC designs submitted on December 2021 will begin after the updated studies are approved.

Regards,

Very truly yours,



Ted S. Sorenson, P.E.

BEFORE THE IDAHO WATER RESOURCE BOARD

**IN THE MATTER OF THE BARBER POOL HYDRO
LOAN REQUEST**

**RESOLUTION TO AUTHORIZE LOAN FUNDING
FOR COSTS RELATED TO BYPASS
REHABILITATION**

1 WHEREAS, Barber Pool Hydro (BPH) submitted a loan application to the Idaho Water Resource
2 Board (IWRB) in the amount of \$850,670 to cover costs for a project to rehabilitate the Barber Dam
3 bypass structure (Project); and
4

5 WHEREAS, the Barber Dam Hydroelectric Project (BDHP), originally constructed in 1905, is
6 located on the Boise River in Ada County, Idaho; and
7

8 WHEREAS, Ada County was statutorily required to take ownership of the BDHP in 1970, and has
9 jointly operated the project in partnership with Fulcrum, a co-licensee on the dams FERC license; and
10

11 WHEREAS, the BDHP bypass is in need of eminent repairs due to the age of the system; and
12

13 WHEREAS, the total estimated cost for the Project is approximately \$1,651,000; and
14

15 WHEREAS, BPH is a qualified applicant, and the proposed Project is eligible for a loan from the
16 IWRB's Revolving Development Account; and
17

18 WHEREAS, the proposed Project is in the public interest and is in compliance with the State
19 Water Plan.
20

21 NOW THEREFORE BE IT RESOLVED that the IWRB approves a loan not to exceed \$850,670 from
22 the Revolving Development Account at 3.33% interest with a 20-year repayment term.
23

24 NOW THEREFORE BE IT FURTHER RESOLVED that the IWRB provides authority to the Chairman
25 of the IWRB, or his designee, to enter into contracts, to effectuate the loan, on behalf of the IWRB.
26

27 NOW THEREFORE BE IT FURTHER RESOLVED that this resolution and the approval of the loan are
28 subject to the following conditions:
29

- 30 1) BPH shall comply with all applicable rules and regulations that apply to the proposed
31 Project.
32 2) Prior to the disbursement of any funds, BPH will provide acceptable security for the loan to
33 the IWRB, including but not limited to any water rights, power generation income, and the
34 Project's infrastructure.
35 3) BPH shall maintain a reserve fund equal to one annual loan payment until the loan has been
36 satisfied.
37

DATED this 16th day of September 2022.



JEFF RAYBOULD, Chairman
Idaho Water Resource Board

ATTEST



JO ANN COLE-HANSEN, Secretary

Memorandum

To: Idaho Water Resource Board
From: Brian Patton
Date: September 7, 2023
Re: Meeting Dates for 2024



ACTION: No action. Dates are for consideration by board members.

The following options for 2024 Regular Meetings are proposed for consideration by the Board.

- January 19, 2024 in Boise
- March 14-15, 2024 or March 28-29, 2024
- May 16-17, 2024 or May 23-24, 2024
- July 18-19, 2024 or July 25-26, 2024—Held in the Bear River area.
- September 12-13, 2024 or September 19-20, 2024
- November 14-15, 2024 or November 21-22, 2024