



# AGENDA

## IDAHO WATER RESOURCE BOARD Streamflow Enhancement & Minimum Streamflow Committee Meeting No. 1-16 March 16, 2016 at 1:00 p.m.

**C.L. "Butch" Otter**  
Governor

Idaho Water Center  
Conference Rooms 602 D  
322 East Front Street, Boise, Idaho 83720

**Roger W. Chase**  
Chairman  
Pocatello  
District 4

**Jeff Raybould**  
Vice-Chairman  
St. Anthony  
At Large

**Vince Alberdi**  
Secretary  
Kimberly  
At Large

**Peter Van Der Meulen**  
Hailey  
At Large

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

**Albert Barker**  
Boise  
District 2

**John "Bert" Stevenson**  
Rupert  
District 3

**Dale Van Stone**  
Hope  
District 1

- .....
1. Roll Call
  2. Upper Salmon Transactions
  3. Teton Basin Transactions
  4. Other Items for Discussion
  5. Adjourn

Committee Members: Peter Van Der Meulen, Chair  
Roger Chase  
Chuck Cuddy  
Dale Van Stone  
Vince Alberdi

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### Americans with Disabilities

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

# Memorandum



To: IWRB – Streamflow Enhancement and Minimum Stream Flow Committee

From: Morgan Case

Date: March 16, 2016

Re: Water Transactions Program – Pole Creek 2016

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Pole Creek is a tributary to the Salmon River near the headwaters in the Sawtooth Valley. Pole Creek has the potential to provide high quality habitat for threatened Chinook salmon and bull trout. There is one active diversion on Pole Creek which can seasonally dewater a 2 mile reach of the creek. Salmon Falls Land and Livestock has irrigation and hydropower rights that can divert up to 22 cfs at that diversion. (See attached map.)

Salmon Falls Land and Livestock has worked with the Sawtooth National Recreation Area (SNRA) to develop a flow and habitat restoration plan that will allow authorization of their ditch on Federal land. Numerous components of that plan have been implemented including the following:

- Installation of 3-phase power to replace 7 cfs of hydropower
- Movement of the point of diversion and fish screen upstream to eliminate a fish passage barrier
- Irrigation system redesign and installation to eliminate pivots crossing the stream
- Fencing of the riparian corridor
- Replacement of several culverts with bridges
- Installation of 2 large irrigation wells to replace late season surface water.

Special use authorization of diversion of irrigation water from USFS property requires the following flow objectives:

- Maximum withdrawal of 15 cfs
- Maximum withdrawal of 5 cfs during May, as long as downstream flow is greater than 18 cfs
- No stream withdrawal when flows are greater than 100 cfs
- A minimum downstream flow of 18 cfs will be maintained from June 1 until the natural upstream flows are less than 23 cfs.
- When natural upstream flows are less than 23 cfs, diversions are limited to a maximum of 5 cfs so long as downstream flows remain greater than 12 cfs. However, if downstream flows drop below 15 cfs during an irrigation season, a minimum downstream flow of 15 cfs must be maintained for the duration of the season the following year.

Implementation of the restoration plan also included plans for a 20-year water transaction to compensate the landowners for the increased cost of irrigation (3-Phase power to turn pivots and pump groundwater). A planning staff engineer used the irrigation system design and Salmon River Electric Coop rate information to develop power estimates for the system of approximately \$20,000 per year. The landowners are concerned that the estimates will not cover the entire costs and are unwilling to enter into a 20-year agreement at the suggested price. In order to allay their concerns, staff proposes entering into a one-year minimum flow agreement to collect actual power use data for use in future power cost estimates. The one-year agreement will be configured with a not to exceed cost of \$60,000 (previous annual contract was \$60,000 for a 6 cfs minimum stream flow agreement). Actual compensation will be based upon review of power bills from meters for rotation of the pivots and groundwater wells. Those costs will also be used to negotiate a 20-year minimum flow agreement. Funding is available from the Bonneville Power Administration through the Columbia Basin Water Transactions Program (CBWTP).

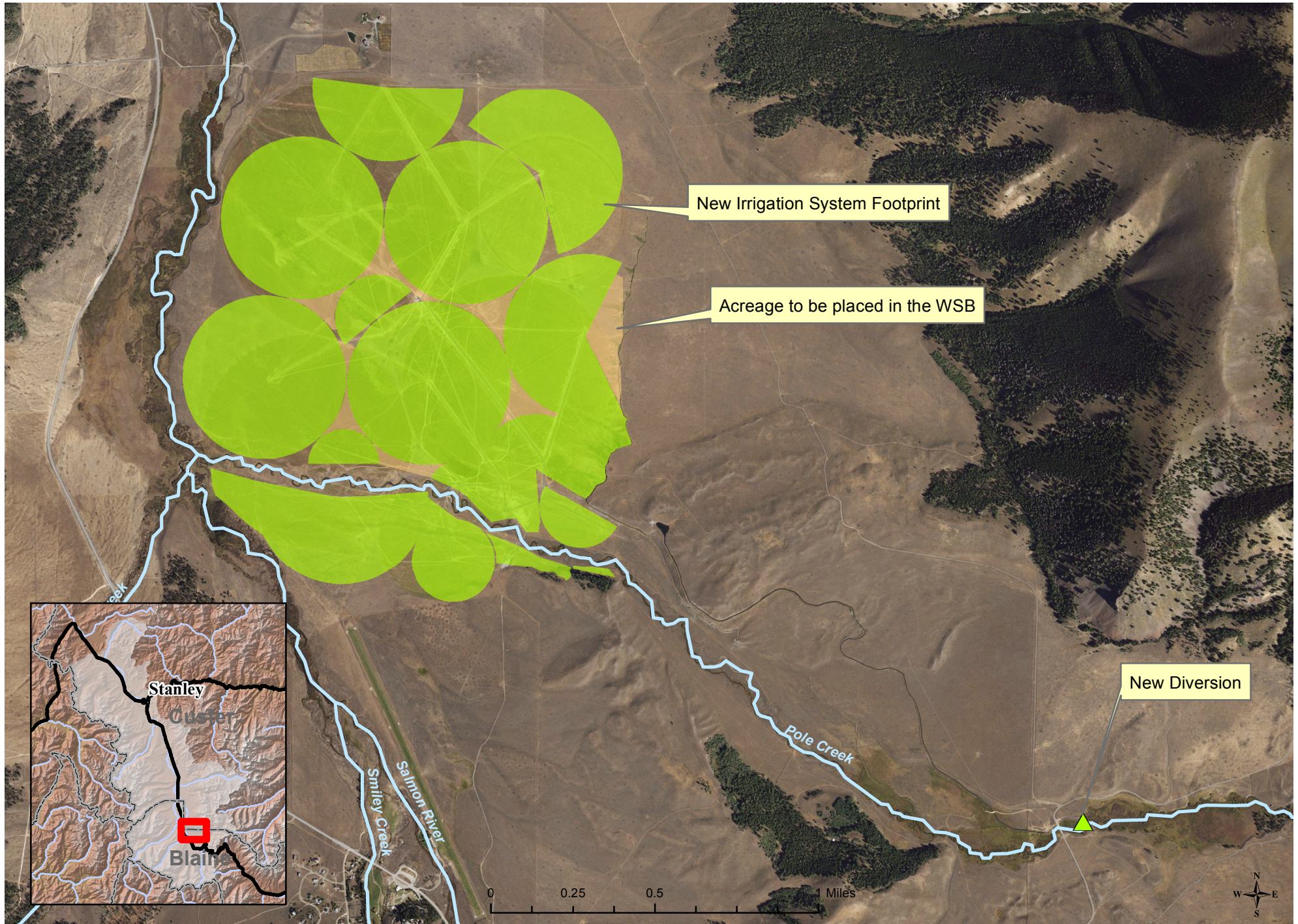
The landowners will also lease a portion of the water right appurtenant to 50 acres not covered by the current system into the water supply bank for protection from forfeiture. Staff proposes submitting the lease application fees (\$250) to the CBWTP as well.

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**Action Item:** With the Committee's recommendation, the attached funding resolution for \$60,250 will be presented to the full Board, and staff will proceed with project approval and contracting through the Columbia Basin Water Transactions Program.



# Pole Creek 2016 Water Transaction





BEFORE THE IDAHO WATER RESOURCE BOARD

IN THE MATTER OF THE POLE CREEK )  
WATER TRANSACTION CONTRACT )  
 )  
\_\_\_\_\_)

A RESOLUTION TO MAKE  
A FUNDING RESOLUTION

WHEREAS, Chinook salmon, steelhead, and bull trout habitat in the Upper Salmon River basin is limited by seasonally disconnected tributaries; and

WHEREAS, Pole Creek has been identified as a high priority stream for flow restoration efforts, to provide high quality habitat for anadromous Chinook salmon and steelhead and resident bull trout, and 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; and

WHEREAS, it is in the interest of the State of Idaho to maintain the reconnection of Pole Creek to encourage recovery of ESA-listed Chinook salmon, steelhead, and bull trout fish; and

WHEREAS, the Idaho Water Resource Board has contracted with Salmon Falls Land and Livestock Company to maintain flows of 5-6 cfs since 2005; and

WHEREAS, there is funding available to secure an annual contract to maintain minimum flows of 12-18 cfs in Pole Creek during the 2016 irrigation season; and

WHEREAS, the water user will maintain minimum flows of 12-18 cfs in Pole Creek, as measured at the Idaho Department of Water Resources Gage, through the 2016 irrigation season; and

WHEREAS, the Board will compensate Salmon Falls Land and Livestock Company an amount not to exceed sixty thousand dollars (\$60,000) for increased power costs incurred through groundwater pumping and the use of 3-phase power to turn a new irrigation system; and

WHEREAS, Salmon Falls Land and Livestock will lease a portion of Water Right No. 71-10882 into the Idaho Water Supply Bank; and

WHEREAS, said lease will require a one-time application fee of two hundred fifty dollars (\$250); and

WHEREAS, funds are available from the Bonneville Power Administration through the Columbia Basin Water Transaction Program for a one-year minimum flow agreement and water supply bank lease; and

WHEREAS, the Pole Creek transaction is in the public interest and is consistent with the State Water Plan.

NOW THEREFORE BE IT RESOLVED that the IWRB authorizes the Chairman, or his assigns, to enter into a one-year contract with Salmon Falls Land and Livestock Company and/or

subsequent owners for a minimum flow agreement in Pole Creek in an amount not to exceed sixty thousand dollars (\$60,000).

NOW THEREFORE BE IT FURTHER RESOLVED that the IWRB authorizes the Chairman, or his assigns, to pay a one-time lease application fee of two hundred fifty dollars (\$250) on behalf of Salmon Falls Land and Livestock Company.

NOW THEREFORE BE IT FURTHER RESOLVED that this resolution is subject to the condition that the IWRB receives the requested funding from the Bonneville Power Administration through the Columbia Basin Water Transaction Program in an amount of up to sixty thousand two hundred fifty dollars and no cents (\$60,250).

DATED this 18th day of March, 2016.

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ROGER CHASE, Chairman  
Idaho Water Resource Board

ATTEST: \_\_\_\_\_  
Vince Alberdi, Secretary  
Idaho Water Resource Board

# Memorandum



To: IWRB – Streamflow Enhancement Minimum Streamflow Committee

From: Morgan Case

Date: March 16, 2016

Re: Water Transactions Program – 2016 Bohannon Creek

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Bohannon Creek is a Lower Lemhi River tributary with ideal habitat for spawning and rearing Chinook salmon and steelhead that is seasonally dewatered due to irrigation withdrawals. The 2004 Snake River Water Rights (“Nez Perce”) Agreement commits the state to provide incentives for improving fish habitat which includes improving or protecting flow conditions to augment stream flows.

During the early portion of the irrigation season, Bohannon Creek typically becomes dewatered below the lowest diversion, Bohannon Creek 3 (BHC3), potentially blocking fish passage and placing fertilized steelhead eggs (redds) at risk of drying up during the critical incubation period. For the last two years, Idaho Department of Fish and Game staff have observed steelhead redds (spawning nests) in Bohannon Creek downstream of BHC3. The BHC3 diversion was not on at the time, but the water users were planning to turn on, potentially dewatering the stream and drying up the incubating eggs.

In order to prevent that from occurring, Idaho Department of Fish and Game (IDFG), IWRB staff, and the Governor’s Office of Species Conservation (OSC) worked with Bohannon Creek irrigators to maintain flows in the lower reaches. IDFG and OSC repaired an underperforming pump that diverts Lemhi River water to the same ground that BHC3 irrigates. IWRB staff also developed two one-year transactions to compensate water users for spilling up to 2 cfs in lower Bohannon. Maintaining a target flow of 2 cubic feet per second below the Bohannon Creek 3 facilitated the incubation of steelhead eggs in the lowest reach of Bohannon Creek.

The long-term plan to address flow limitations on lower Bohannon Creek is to eliminate the BHC3 diversion and have the water users divert from a Lemhi River ditch. IDFG has secured funding to make the infrastructure changes to accomplish the source and is close to resolving issues related to system design and diversion from existing Lemhi ditches. In order to prevent steelhead redd dewatering in the interim, staff proposes another set of agreements to maintain a minimum flow of 2 cfs below the BHC3 diversion from April 1 to June 30, 2016. Compensation would be \$80.65/24-hr cfs, the same rate the IWRB currently pays for subordination to the Lemhi River minimum stream flow water right. The compensation would cover the Lemhi River pumping costs and some loss in production. The total compensation would not exceed \$14,668.

The transaction would also require the Watermaster of Water District 74C to visit the BHC3 diversion daily during that period, which is above and beyond his typical watermaster duties. The Water District has requested \$600 to compensate the watermaster for his additional duties.

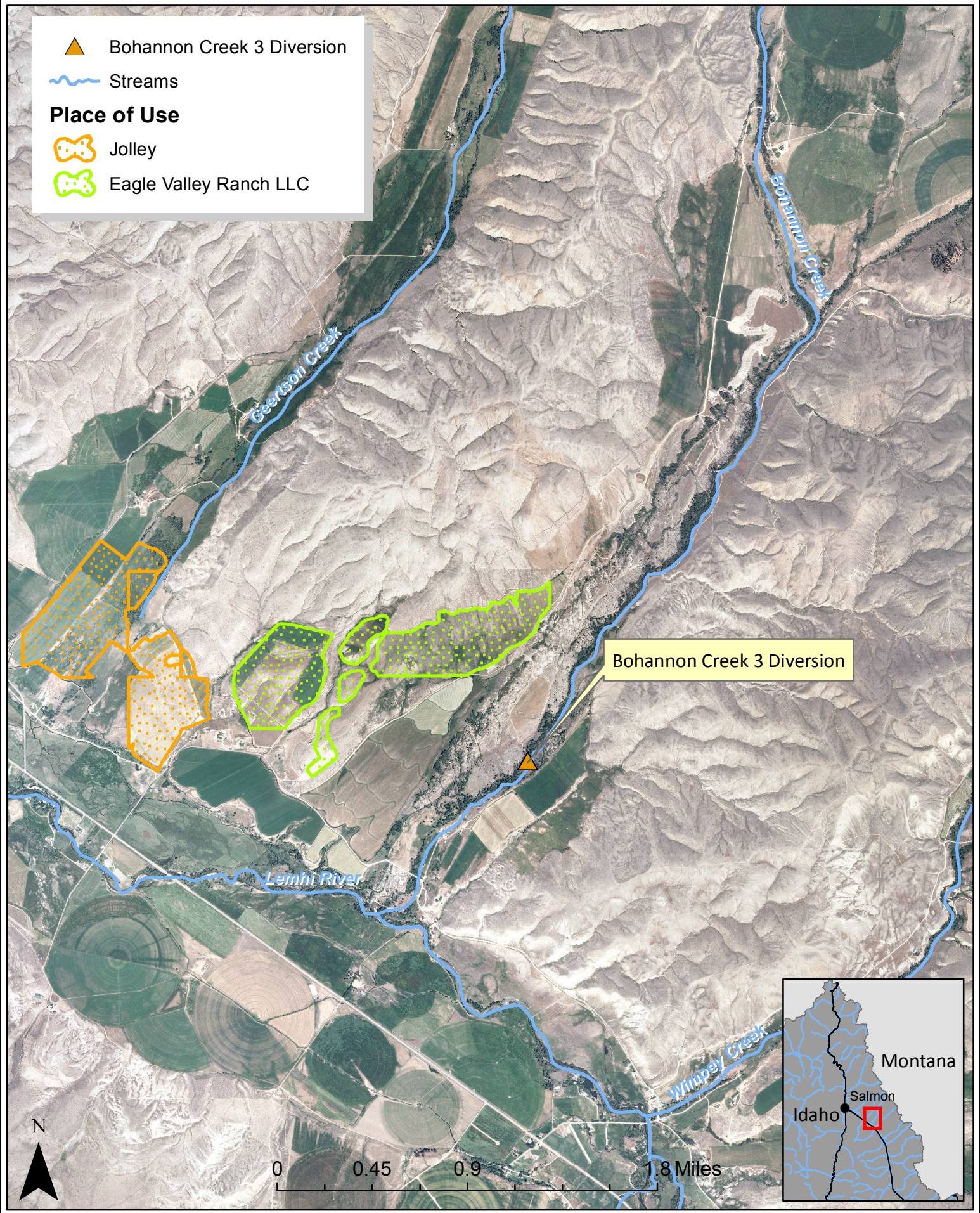
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## **Action Item:**

With the Committee’s recommendation, the attached funding resolution would be presented to the full Board and staff will proceed with project approval and contracting through the Idaho Fish Accord Water Transaction Program process.



# Bohannon Creek 2016 Transaction





BEFORE THE IDAHO WATER RESOURCE BOARD

IN THE MATTER OF THE     )  
2016 BOHANNON CREEK     )  
WATER TRANSACTION     )  
CONTRACT\_\_\_\_\_)

A RESOLUTION TO MAKE  
A FUNDING COMMITMENT

WHEREAS, steelhead and juvenile Chinook salmon habitat in Bohannon Creek is limited by low flow in the lower reaches of Bohannon Creek; and

WHEREAS, Bohannon Creek provides steelhead and juvenile Chinook salmon habitat and 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; and

WHEREAS, it is in the interest of the State of Idaho to protect flows in Bohannon Creek to encourage recovery of ESA-listed steelhead and Chinook Salmon; and

WHEREAS, staff has now negotiated a short-term agreement with the Bohannon Creek water users not to divert water at the BC3 diversion to maintain target flows of 2 cubic feet per second and facilitate the incubation of steelhead eggs; and

WHEREAS, administration of the short-term agreements has increased the burden on the watermaster of WD 74C; and

WHEREAS, a request for \$600 has been submitted to the Idaho Fish Accord Water Transaction Program to be used to compensate Water District 74C for the increased administrative duties; and

WHEREAS, a proposal for \$15,268 has been submitted to the Idaho Fish Accord Water Transactions Program to be used to fund said agreements; and

WHEREAS, the Bohannon Creek transactions are in the public interest and in compliance with the State Water Plan.

NOW THEREFORE BE IT RESOLVED that the IWRB authorizes the Chairman to enter into contracts with E Dale Jolley and Eagle Valley Ranch LLC, or their successors, for agreements not to divert out of Bohannon Creek using an amount not to exceed \$14,668 (\$7,334 per party.)

NOW THEREFORE BE IT RESOLVED that the IWRB authorizes the Chairman to enter into contract with Water District 74C for administration of agreements not to divert out of Bohannon Creek using an amount not to exceed \$600.

NOW THEREFORE BE IT FURTHER RESOLVED that this resolution is subject to the condition that the IWRB receives the requested funding from the Bonneville Power Administration through the Idaho Fish Accord Water Transaction Program in an amount of up to \$15,268.

DATED this 18th day of March 2016.

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ROGER CHASE, Chairman  
Idaho Water Resource Board

ATTEST: \_\_\_\_\_  
Vince Alberdi, Secretary  
Idaho Water Resource Board



# Memorandum



To: IWRB – Streamflow Enhancement and Minimum Streamflow Committee

From: Amy Cassel

Date: March 16, 2016

Re: Water Transactions Program – Bar G Farm Lease 2016-2018

The Pahsimeroi River Basin, in Central Idaho, provides enormous potential as spawning and rearing habitat for anadromous fish, particularly steelhead and Chinook salmon. Little Mud Creek, a tributary of the Pahsimeroi River, was previously intercepted and mostly dewatered by a cross-ditch until the 2008 Pahsimeroi P-9 ditch removal project eliminated the cross ditch and allowed Little Mud Creek to flow freely into the Pahsimeroi River. Flow does remain a limiting factor for Little Mud Creek, which has also been identified as important habitat for juvenile Chinook rearing. The Pahsimeroi River also benefitted from the P-9 removal project, and recent spawning results are encouraging. However, flow does remain limited in most reaches of the Pahsimeroi River.

BAR G Ranch, owned by Billy and Rivers Gydesen, diverts water out of Little Mud Creek and the Pahsimeroi River to irrigate approximately 160 acres using both flood and hand line irrigation methods. The remaining ranch acreage is under three pivots and is leased to an adjacent landowner. Health issues have placed physical limitations on Billy Gydesen's ability to manually irrigate. Furthermore, due to the high costs associated with the flood and hand line acreage – both physical and financial – and relatively low return, the Gydesen family would like to lease the acreage into the Water Supply Bank for three years while developing 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.

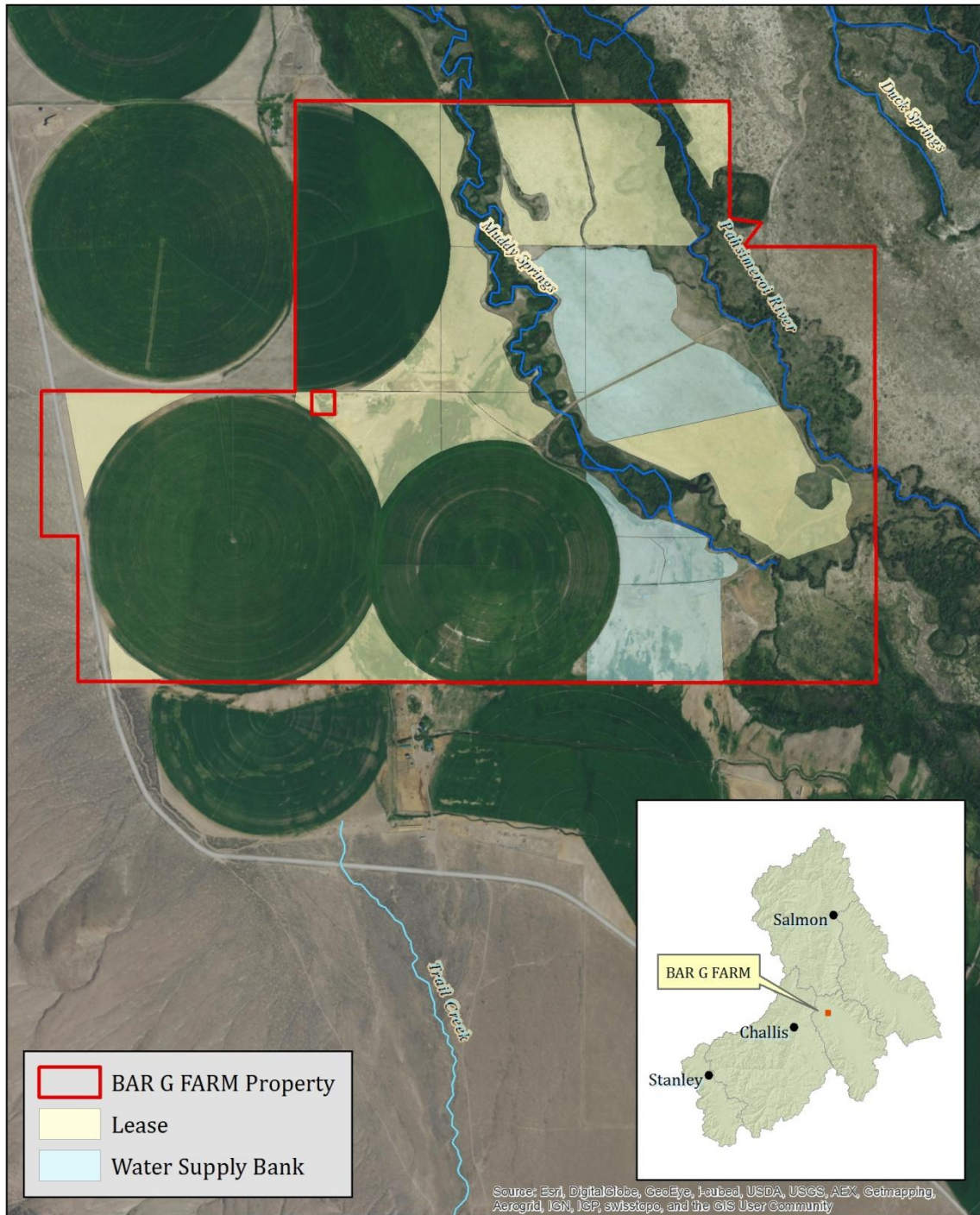
The 3-year transaction will secure up to 4.6 cfs of flow to the Pahsimeroi River by leasing a portion of water rights numbers 73-10005, 73-11982, 73-90, 73-11978 and the full portion of water right numbers 73-11992, 73-11988, and 73-11987. The transaction will add 0.75 cfs to Little Mud Creek with a portion of water right 73-11981. However, the Little Mud Creek diversion will be closed during the lease period and the full right of 2.25 cfs will remain instream.

Staff proposes compensating the water right owners at a price of \$36.97 per acre over a 3-year period (2016-2018). Mark Olson, Natural Resource Conservation Service in Salmon, prepared a report detailing the analysis used to determine the cost per acre. The total transaction costs would be \$22,445.44 (\$17,911 rental payment, \$3033.46 rental fees, and \$1500.00 application fees) to be received at a discounted rate from the Idaho Fish Accord Water Transactions Fund and 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.

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**Action Item:** With the Committee's recommendation, the attached funding resolution will be presented to the full Board and staff will proceed with project approval and contracting through the Idaho Water Transaction Program Process.

## BAR G FARM LEASE





BEFORE THE IDAHO WATER RESOURCE BOARD

IN THE MATTER OF THE LITTLE	)	A RESOLUTION TO MAKE
LITTLE MUD CREEK AND	)	A FUNDING COMMITMENT
PAHSIMEROI RIVER TRANSACTION	)	
_____	)	

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

WHEREAS, Little Mud Creek and the Pahsimeroi River have been identified as high priority streams for flow restoration efforts, to provide high quality habitat for anadromous Chinook salmon and steelhead, and the 2004 Snake River Water Rights Agreement (also known as the Nez Perce Agreement) commits the state to providing incentives for improving fish habitat which includes improving or protecting flow conditions to augment stream flows; and

WHEREAS, it is in the interest of the State of Idaho to maintain the reconnection of Little Mud Creek to encourage recovery of ESA-listed Chinook salmon and steelhead; and

WHEREAS, the Board will compensate BAR G FARM or its successors, \$36.97 per acre per irrigation season for said rental for an annual payment of \$5970.66 for 161.5 acres and a 3-year total of \$17,911.98; and

WHEREAS, the lease and rental fees for said agreement will not exceed \$4533.46; and

WHEREAS, a proposal for \$22,445.44 has been submitted to the Columbia Basin Water Transactions Program for approval; and

WHEREAS, funding is available through the Idaho Fish Accord Water Transactions Fund for said lease/rental agreement; and

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

WHEREAS, the Little Mud Creek and Pahsimeroi transaction is in the public interest and is in compliance with the State Water Plan.

NOW THEREFORE BE IT RESOLVED that the IWRB authorizes the Chairman to enter into a lease/rental agreement for water rights 73-10005, 73-11982, 73-90, 73-11978, 73-11992, 73-11988, 73-11987, and 73-11981 for delivery to minimum stream flow 73-7045, using an amount not to exceed \$22,445.44

NOW THEREFORE BE IT FURTHER RESOLVED that this resolution is subject to the condition that the IWRB receives the requested funding from the Bonneville Power Administration through the Idaho Fish Accord Water Transactions Fund in the amount of \$22,445.44

DATED this 18th day of March, 2016.

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Roger Chase, Chairman  
Idaho Water Resource Board

ATTEST: \_\_\_\_\_  
VINCE ALBERDI, Secretary  
Idaho Water Resource Board



# Memorandum



To: IWRB – Streamflow Enhancement and Minimum Streamflow Committee

From: Amy Cassel

Date: March 16, 2016

Re: Water Transactions Program – Pratt Creek Agreement Not to Divert 2017

Endangered fish recovery efforts in the Lemhi River basin hinge upon reconnection of currently dewatered tributaries. The draft Lemhi Conservation Plan includes State commitment to reconnect 10 tributaries in the next 20-years. Pratt Creek, a tributary to Sandy Creek, a tributary to the Lemhi River, is seasonally dewatered due to irrigation withdrawals at the lowermost diversion. This dewatering creates a season-long barrier to the upstream and downstream migration of fish with Sandy Creek and the Lemhi River. Currently, riparian habitat is impaired due to the long history of dewatering on the lowest reach of Pratt Creek, but upstream habitat is intact and rated as good to excellent habitat for juvenile Chinook salmon and steelhead rearing as well as cold water influence on Sandy Creek and the Lemhi River. Pratt Creek has been identified as a priority on the list of possible reconnections and plans include stream restoration on the lowest reach and 72-hour flushing flows to decrease sediment loads in Sandy Creek.

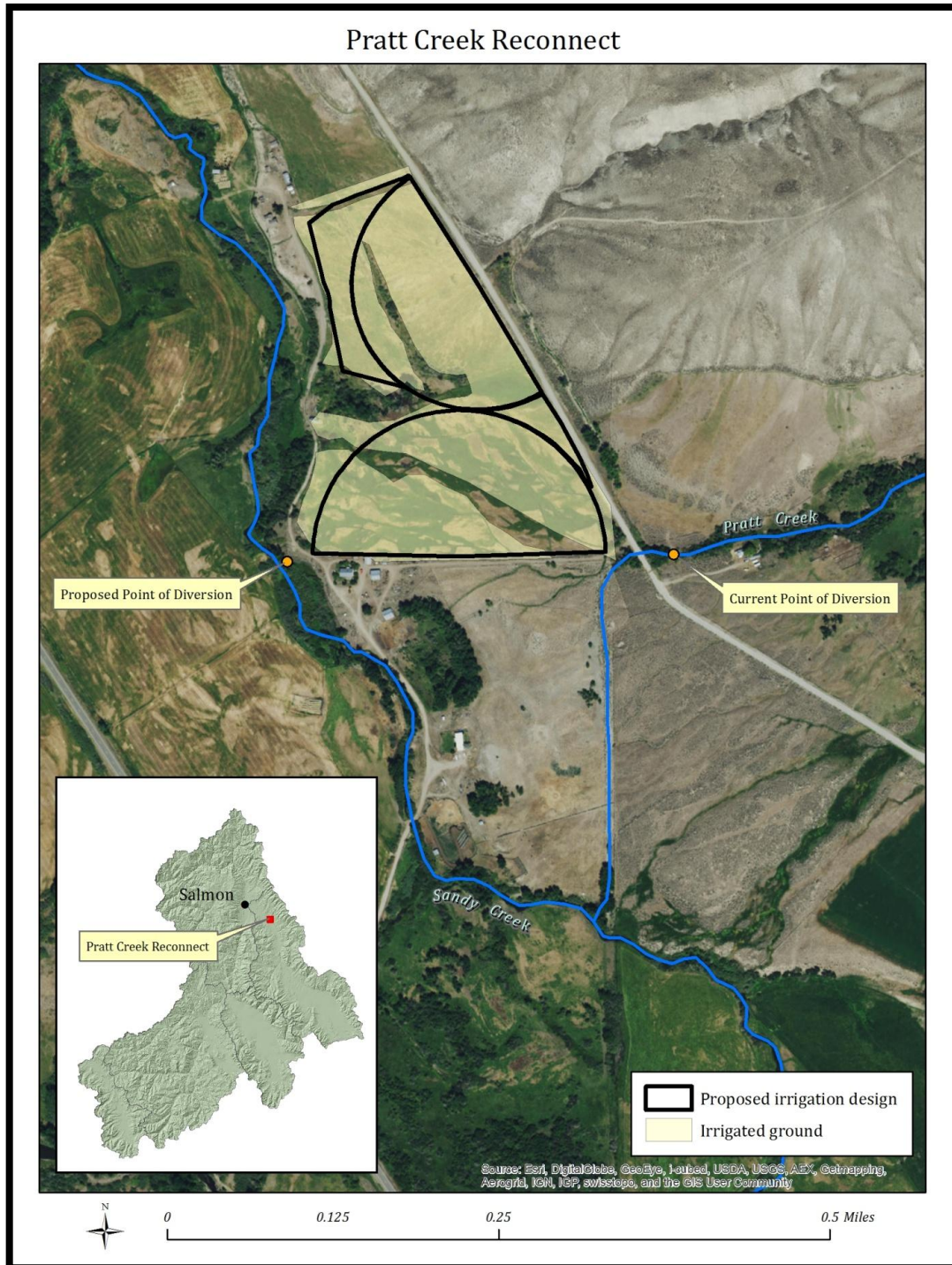
Board staff and partner agencies have been working with the Mulkey family to reconnect Pratt Creek. The Pratt Creek reconnect involves transferring the senior-most water right (0.41 cfs) from Pratt Creek to a downstream pumping station on Sandy Creek. The new point of diversion will require a pumping station that will increase on-farm cost to the operators. Staff would like to develop a 20-year agreement not to divert with the Mulkey family to leave 0.41 cfs in Pratt Creek and reconnect it to Sandy Creek and the Lemhi River.

In order to make the project economically feasible for the Mulkey family, staff proposes entering into a 20-year agreement not to divert out of Pratt Creek starting in 2017. Project costs are based upon pumping cost estimates, with an annual 5% increase to account for potential power rate increases. Funding is available through the Idaho Fish Accord Water Transaction Fund.

In November 2015, the Committee advised staff to pursue the development of a transaction with Brent Mulkey to protect up to 0.41 cfs instream in the lowest reach of Pratt Creek. Since that time, staff and project partners have completed irrigation system design, assisted the water users with a water right transfer, applied for EQIP funding, received an invoice from Idaho Power to install the power line for the new pump station, and developed power estimates. With those power estimates the transaction can now be submitted to the Columbia Basin Water Transaction Program for approval and Bonneville Power Administration funding through the Idaho Water Transactions Fund. The total transaction costs will be \$83,479.04 to be received at a discounted rate from CBWTP and held in the Water Transaction Subaccount of the Board's Revolving Development Account for annual payment to the water right owner.

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**Action Item:** With the Committee's recommendation, the attached funding resolution will be presented to the full Board and staff will proceed with project approval and contracting through the Idaho Water Transactions Program Process.





BEFORE THE IDAHO WATER RESOURCE BOARD

IN THE MATTER OF THE PRATT )  
CREEK TRANSACTION )  
\_\_\_\_\_)

A RESOLUTION TO  
MAKE A FUNDING  
COMMITMENT

WHEREAS, Chinook salmon and steelhead habitat in the Lemhi River basin is limited by low flow and seasonally disconnected tributaries; and

WHEREAS, it is in the interest of the State of Idaho to restore flow in the Lemhi River and tributaries to encourage recovery of ESA-listed Chinook salmon and steelhead fish; and

WHEREAS, the diversions on Pratt Creek, tributary to Sandy Creek and the Lemhi River reduce stream flow in rearing reaches of the Lemhi River Basin; and

WHEREAS, staff has developed a twenty-year agreement not to divert water from Pratt Creek to improve stream flow for anadromous and resident fish; and

WHEREAS, the water user has changed the point of diversion to pump from a Sandy Creek source that is not flow-limited and the funds paid under the agreement will approximate the power expenses incurred, over a 20-year period, by changing the point of diversion; and

WHEREAS, funds are available from the Bonneville Power Administration through the Idaho Fish Accord Idaho Water Transaction Fund; and

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

WHEREAS, the Pratt Creek transaction is in the public interest and consistent with the State Water Plan.

NOW THEREFORE BE IT RESOLVED that the IWRB authorizes the Chairman to enter into contract with Brent Mulkey and/or subsequent owners for an agreement not to divert out of Pratt Creek in the amount of eighty-seven thousand six-hundred forty-three dollars and sixty-three cents (\$87,643.63).

NOW THEREFORE BE IT FURTHER RESOLVED that this resolution is subject to the condition that the IWRB receives the requested funding from the Bonneville Power Administration through the Idaho Water Transaction Program in the amount of eighty-seven thousand six-hundred forty-three dollars and sixty-three cents (\$87,643.63).

DATED this 18th day of March, 2016.

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ROGER CHASE, Chairman  
Idaho Water Resource Board

ATTEST: \_\_\_\_\_  
VINCE ALBERDI, Secretary



# **MEMORANDUM**

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**To:** Streamflow Enhancement and Minimum Stream Flow Committee

**From:** Sarah Lien, Friends of the Teton River

**Date:** March 3, 2016

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## **Background and Ecological Significance of Badger Creek**

Badger Creek is a tributary to the Teton River located in the upper Teton Valley, north of Teton, Idaho. The tributary runs from east to west, originating in the Teton Mountain Range and flowing west towards the Teton River.

Yellowstone cutthroat trout (YCT) are currently listed as a "species of greatest concern" for the Teton River Basin in the Idaho Comprehensive Wildlife Conservation Strategy (February 2006), and by consequence garner management priority throughout their historic range, including the Teton Basin. Badger Creek offers excellent fish and wildlife habitat and supports a *genetically pure* YCT population.

The natural stream hydrology and geology of the Badger Creek drainage results in the annual dewatering of the stream, a problem that is exacerbated by irrigation withdrawals. Specifically the middle section of Badger Creek dries up each year, whereas both the upper and lower reaches flow perennially. (See attached map titled "Badger Creek Hydrology.") YCT in the Badger Creek system have adapted to the annual dewatering of the stream by either: (1) migrating to the lower reaches of Badger Creek and into the Teton River canyon; or (2) migrating upstream onto US Forest Service land. Fish, particularly those attempting to migrate upstream onto US Forest Service land, are stranded in isolated pools as flows in the stream recede. One particular location where YCT are commonly stranded in isolated pools is between two irrigation structures, the Badger Splitter and the Ricks Diversion. (See attached map titled "Badger Creek Transaction Overview.")

In recent years each of these diversions was retrofitted to be more fish friendly. In 2010 the Badger Splitter was rebuilt and new headgates and rotating belt fish screens were installed. Then in 2012 the Ricks Diversion (located downstream of the Badger Splitter) was retrofitted. The check dam wing wall was rebuilt and a fish ladder was installed. With the barrier and entrainment issues resolved, water availability is the single factor preventing the successful movement of YCT into perennially flowing reaches of the stream when water becomes short and the middle reach of Badger Creek begins to dry.

The purpose of the water transactions discussed below is to increase the quantity of water in the stream between the Badger Splitter and the Ricks Diversion, approximately a 0.55 mile stretch of stream, and to spill a sufficient amount of water down the fish ladder located at the Ricks Diversion to allow for fish passage. This strategy will allow for movement up the fish ladder at the Ricks Diversion, preventing fish from being stranded in the pool below the Ricks Diversion, and provide migratory passage into the perennial reach of Badger Creek located on US Forest Service land.



## **Water Transaction History on Badger Creek**

In 2014 the Idaho Water Resource Board (IWRB) authorized two funding resolutions to support water transaction activities on Badger Creek.

The first resolution authorized the Board to expend \$7,000 to fund a water rights appraisal of three Badger Creek water rights owned by Kolene Later, and effectively begin exploring the permanent acquisition of water on Badger Creek to support YCT. The appraisal was commissioned and was completed in August of 2015. The results of the appraisal and next steps are discussed below.

The second resolution authorized the Board to expend \$46,338.00 to fund a five year water lease/rental of a Badger Creek water right owned by Old West Business Park, LLC (OWBP). That transaction went into effect in 2015 and was successful in promoting the movement of migratory YCT. OWBP contacted Friends of the Teton River to discuss selling the water right to the IWRB, thereby permanently committing it to an instream flow purpose. Information about the opportunity is discussed below.

### **Description of Proposed Transactions**

#### **a. Kolene Later Acquisition**

Kolene Later has three stacked water rights that she proposes permanently committing to the Idaho Water Transactions Program – two surface water rights and a groundwater right. The water rights are appurtenant to 10.8 acres of land.

One of the surface water rights, water right no. 22-13376, has a June 1, 1891 priority date. This water right allows for the diversion of 0.24 cfs. There are twelve water rights on the stream with this priority date and, together, they comprise the most senior water rights on Badger Creek. Due to its relative seniority on the stream, this water right is deliverable throughout the entire irrigation season.

The other surface water right, water right no. 22-13379, has a January 18, 1905 priority date. This water right allows for the diversion of 0.24 cfs. This is effectively a high water right which is only deliverable through approximately the end of June each year. Nonetheless, permanent acquisition of this water right will help restore a more natural hydrograph to Badger Creek, something which favors native YCT.

The groundwater right, water right no. 22-13382, allows for the diversion of 0.16 cfs or 37.7 acre-feet annually. It has an October 31, 1960 priority date. While acquisition of this water right will not directly result in increased stream flow in Badger Creek, acquisition of the right will likely support flow restoration goals in Badger Creek due to the adverse impact that groundwater withdrawals can have on surface water flows.

An appraisal of these water rights was performed by Idaho Water Engineering in partnership with Idaho Land & Appraisal in August of 2015. The cumulative value of the three water rights was determined to be \$26,500. The appraisal is attached to this briefing memorandum for review. The water right holder has reviewed the appraisal and has agreed to sell the rights at the appraised price.

The water rights will be permanently protected instream by legally changing the point of diversion and nature of use through the water right transfer process. The point of diversion will be changed to the fish ladder located near the Ricks Diversion, located approximately 0.55 miles downstream of the historic point of diver. The nature of use will be changed to fish propagation, a non-consumptive use. There is

precedent for making such changes to achieve similar goals in the State of Idaho. Distribution of final payment for the water rights will be conditioned on the successful completion of the water right transfer application.

A funding request in the amount of \$32,845 has been submitted to the Columbia Basin Water Transaction Program to support the acquisition. When received, the requested funds will be placed into the Board's revolving development water transaction subaccount and dispersed to compensate the water right owner (\$26,500.00), pay the recording fee (\$25.00), pay the water right transfer fees (\$800); and pay Water District 01 assessments (\$5,520). The \$5,520 requested for Water District 01 assessments is a component that has not previously been funded by the CBWTP. If that portion is not approved, the Board would be responsible for paying the \$60/year assessment. That assessment could increase up to \$250 if there are changes to the assessment fee structure.

**Committee Action Requested:** At this time it is requested that the Committee determine if it supports acquisition of the water rights, recommending that the IWRB consider a funding resolution in the amount of \$32,845 to facilitate the purchase.

#### **b. Old West Business Park Acquisition**

OWBP has one water right that it proposes permanently committing to the Idaho Water Transactions Program. The water right is appurtenant to 108.3 acres of land.

The water right owned by OWBP allows for the diversion of 1.91 cfs. It is one of twelve water rights with a June 1, 1891 priority date. These twelve water rights are the most senior water rights on Badger Creek. Due to its relative seniority on the stream, the water right is deliverable throughout the entire irrigation season.

As you may recall, the value of this water right has raised some discussion. Morgan Case and Sarah Lien estimated the value of the water right to be \$265,735.71. The water right owner has signed a letter of intent, agreeing to sell the water right at this price. However, since the last Committee meeting in November of 2015, the water right holder paid for the water right to be appraised by Idaho Water Engineering (who also assisted in the appraisal of the Later water rights, discussed above). The appraisal evidenced a value ranging from \$341,145 - \$584,820. The appraisal commissioned by OWBP is attached to this briefing memorandum for review. Recent conversations with the water right holder indicate that OWBP remains willing to sell the water right at the price set forth in the letter of intent (\$265,735.71).

In order to advance the transaction, the next logical step is to have the water right appraised. Not only will an independent appraisal resolve the questions about what the water right is actually worth, but it is necessary per State law for the Board to commission its own appraisal before it can acquire the right. Henri LaMoyne was asked to perform the appraisal, but he declined. Ecosystem Economics and a to be determined Idaho licensed appraiser, will work jointly to appraise the water right. Estimated appraisal costs will be provided at the meeting. The Columbia Basin Water Transaction Program has committed to paying \$4,000 toward the cost of the appraisal.

**Committee Action Requested:** At this time it is requested that the Committee determine if it would like to continue to move forward with the transaction by having the water right appraised.

## **Letters of Support and Public Outreach**

**Idaho Fish and Game:** The water transactions have been reviewed by Dan Garren, Regional Fisheries Manager for Idaho Fish and Game. Mr. Garren has submitted a letter of support which has been attached to this briefing memorandum.

**Informational Open House:** FTR hosted an informational open house on Wednesday, March 2, 2016 in Driggs, Idaho to provide members of the public with an opportunity to learn about the proposals discussed in this memorandum. The event was publicized online and in print through the Teton Valley News. This paper is published weekly, and distributed online and in print at venues throughout Driggs, Victor, and Teton. FTR did not receive any inquiries at the meeting.



# Badger Creek Transaction Overview

**Ricks Diversion: FTR installed a fish ladder and new wing wall on the check dam structure in 2012**



**Ricks Diversion Before**



**Ricks Diversion After**



**Direction of Flow**

**Purchased and leased water will increase flow in this seasonally dewatered reach of stream between the Badger Splitter and Ricks Diversion (~ 0.55 miles). Transaction will prevent stranding of YCT attempting to move upstream onto the forest where Badger flows year round.**

**Badger Creek**

**~3 miles from Badger Splitter to Forest Boundary**

**Teton River**

**Badger Splitter: FTR installed a new headgate & fish screens at this location in 2010**



**Badger Splitter Before**



**Badger Splitter After**

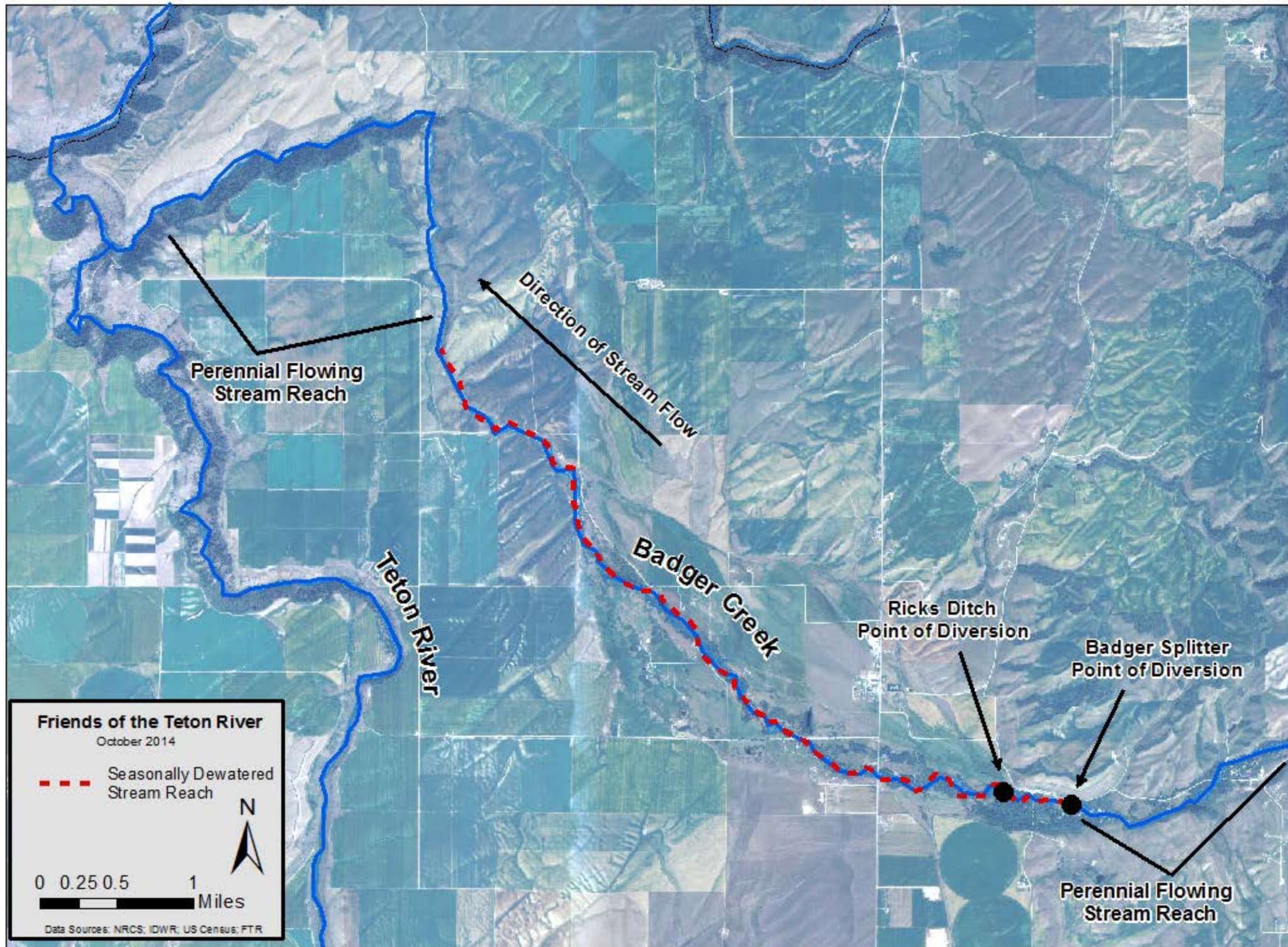
**Friends of the Teton River**  
January 2014

0 0.025 0.05 0.1 Miles

Data Sources: NRCS; IDWR; US Census; FTR



# Badger Creek Hydrology







**IDAHO DEPARTMENT OF FISH AND GAME**

UPPER SNAKE REGION

4279 Commerce Circle  
Idaho Falls, Idaho 83401

C.L. "Butch" Otter / Governor  
Virgil Moore / Director

September 12, 2014

Dear Sarah:

Idaho Department of Fish and Game is charged with the Preservation, Protection, Perpetuation and Management of all of Idaho's fish and wildlife. As such, we are continually trying to increase the abundance of our fish and wildlife resources across the state. We do this through a variety of means, but one key mechanism we implement is the creation and improvement of habitat.

The water transaction project you have proposed on Badger Creek should result in more wetted channel within Badger, downstream of the Splitter to the Ricks Diversion. This habitat can then be used by the allopatric population of native Yellowstone cutthroat trout often trapped between the Ricks Diversion and the Badger Creek splitter upstream. Because Badger Creek does not connect to the Teton River consistently, the fish population in upper Badger consists only of native cutthroat trout, and they would be the species that would benefit from this increased habitat/connectivity. The single species nature of upper Badger Creek also makes this stream a high priority for management actions and protective measures that ensure this population remains allopatric.

As your water transaction program grows in the future, it is important to keep in mind that connecting the few allopatric populations of cutthroat in the Teton drainage to the Teton River is not in the best interest of our native fish. More consistent connectivity with the mixed species found in the Teton River could jeopardize the pure, single species populations isolated above these dry reaches, and would not be supported by the Department. However, your project appears to only increase flows between the Badger Creek splitter and the Ricks Diversion (assuming the additional water is diverted at the Ricks Diversion), and as such, should improve survival of cutthroat that would otherwise be stranded in this reach as it is dewatered during the summer.

The Department recognizes the benefits to our cutthroat populations by doing this work, and supports your efforts. In-stream programs that improve cutthroat habitat without increasing risks to allopatric cutthroat populations are very worthwhile, and the Department supports additional, strategically thought-out work like you have outlined in this project.

Please feel free to contact me at the number below if you have any additional thoughts or comments on this. Thank you for your contribution to Idaho's fishery and wildlife resources.

Sincerely,

A handwritten signature in black ink, appearing to read "D. Garren".

Dan Garren  
Regional Fisheries Manager  
208-525-7290

*Keeping Idaho's Wildlife Heritage*



BEFORE THE IDAHO WATER RESOURCE BOARD

IN THE MATTER OF THE	)	A RESOLUTION TO MAKE
BADGER CREEK	)	A FUNDING COMMITMENT
WATER TRANSACTION	)	
_____	)	

WHEREAS, Badger Creek is a tributary to the Teton River that provides quality spawning and rearing habitat for Yellowstone cutthroat trout and other fish, but is flow and passage limited at certain times of the year; and

WHEREAS, it is in the interest of the State of Idaho to increase stream flow in the Teton River and its tributaries to encourage recovery of Yellowstone cutthroat trout, which are currently designated as an Idaho Species of Greatest Conservation Need; and

WHEREAS, staff has identified an opportunity to permanently acquire a water right from Old West Business Park, LLC to improve stream flow for native fish in Badger Creek; and

WHEREAS, it is necessary for the water right to be appraised by an Idaho licensed appraiser; and

WHEREAS, National Fish and Wildlife Foundation has agreed to provide four thousand dollars (\$4,000.00) in funding to assist with the cost of the appraisal; and

WHEREAS, appraisal of the water rights is in the public interest and in compliance with the State Water Plan.

NOW THEREFORE BE IT RESOLVED that the IWRB authorizes the Chairman to fund an appraisal of water right no. 22-12775, in an amount not to exceed \$\_\_\_\_\_.

NOW THEREFORE BE IT FURTHER RESOLVED that this resolution is subject to the condition that the IWRB receives funding from the National Fish and Wildlife Foundation in the amount of four thousand dollars (\$4,000.00).

DATED this 18th day of March, 2016.

\_\_\_\_\_  
ROGER CHASE, Chairman  
Idaho Water Resource Board

ATTEST: \_\_\_\_\_

Vince Alberdi, Secretary  
Idaho Water Resource Board

BEFORE THE IDAHO WATER RESOURCE BOARD

IN THE MATTER OF THE	)	A RESOLUTION TO MAKE A
BADGER CREEK	)	FUNDING COMMITMENT
WATER RIGHTS PURCHASE	)	
_____	)	

WHEREAS, Badger Creek is a tributary to the Teton River that provides quality spawning and rearing habitat for Yellowstone cutthroat trout and other fish, but is flow and passage limited at certain times of the year; and

WHEREAS, it is in the interest of the State of Idaho to increase stream flow in the Teton River and its tributaries to encourage recovery of Yellowstone cutthroat trout, which are currently designated as an Idaho Species of Greatest Conservation Need; and

WHEREAS, staff has identified an opportunity to permanently acquire water right nos. 22-13376, 22-13379, and 22-13382 to improve stream flow for native fish in Badger Creek; and

WHEREAS, acquisition of the water rights is in the public interest and in compliance with the State Water Plan; and

WHEREAS, a proposal to fund the purchase in the amount of thirty-two thousand eight hundred forty-five dollars (\$32,845) has been submitted to the Columbia Basin Water Transactions Program, to be used to pay the Water Right Holder (\$26,500.00), Recording Fee (\$25.00), and WD01 Monitoring Fee (\$5520), and Water Right Transfer Fees (\$800); and

NOW THEREFORE BE IT RESOLVED that the IWRB authorizes the Chairman to expend an amount not to exceed thirty-two thousand eight hundred forty-five dollars \$32,845 to purchase water right nos. 22-13376, 22-13379, and 22-13382 from Kolene Later.

NOW THEREFORE BE IT FURTHER RESOLVED that this resolution is subject to the condition that the IWRB receives funding from the National Fish and Wildlife Foundation in the amount of thirty-two thousand eight hundred forty-five dollars (\$32,845).

DATED this 18th day of March, 2016.

\_\_\_\_\_  
ROGER CHASE, Chairman  
Idaho Water Resource Board

ATTEST: \_\_\_\_\_  
Vince Alberdi, Secretary  
Idaho Water Resource Board