COPY

Irrigation Flow Measurement and Monitoring Project Phase-Two Proposal

Boise, Idaho

Funding Opportunity Announcement No. R14AS00001

PHASE-TWO: To provide irrigation flow measurement devices to delivery points within Water District 02 in an effort to account for and better manage the water supply

Idaho Water Resource Board (IWRB)
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**Appendix E: Required Federal Forms (Budget Form, Assurances Form, Application/cover page Form) are not considered in the total page count limit of 75 poges per instructions described on page 22 of Funding Opportunity Announcement* No. R14AS00001.

Technical Proposal

Executive Summary

Application Date: January 23, 2014
Applicant: Idaho Water Resource Board
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The Idaho Water Resource Board (IWRB or Board) respectfully submits this request for funding under ***Task A – Water Conservation*** of the WaterSMART: Water and Energy Efficiency Grants for FY2014, Funding Opportunity Announcement No. R14AS00001. Grant proceeds would be used to purchase and install advanced water measurement devices and monitoring/telemetry equipment for forty-eight (48) separate irrigation diversions or developments owned and/or operated by forty (40) individual entities located within State Water District Number 02 (Water District 02), the Snake River from Milner Dam to Murphy Gage located below Swan Falls Dam (Milner to Swan Falls reach). This grant application is proposed as Phase Two of the Irrigation Flow Measurement and Monitoring Project for Water District 02.

The IWRB submitted a similar WaterSmart FY2013 Grant application to the US Bureau of Reclamation ("Reclamation") in January, 2013 proposing the purchase and installation of water measuring devices and monitoring equipment for 22 diversions in Water District 02. Reclamation approved that application in May, 2013. Improvements and work described under the FY2013 WaterSmart Grant was proposed as Phase One of the Irrigation Flow Measurement and Monitoring Project for Water District 02. The IWRB limited the scope of Phase One to 22 irrigation diversions due to the limited grant application period and short window of time in which to coordinate with water district water users. Water District 02 was not created by the Idaho Department of Water Resources ("IDWR") until July, 2012.

The primary objective of this FY2014 WaterSmart Grant is to provide remaining water users and diversions in Water District 02 that were not included in the FY2013 grant an opportunity to benefit from Reclamation cost share monies while better improving overall water management in the water district. Phase One of this project is under way with installation of measuring devices and monitoring equipment. Phase Two includes both large and small farms ranging in size from 12 acres up to about 10,000 acres. Measurement and monitoring of water diversions from the Snake River in Water District 02 will improve management and regulation of the resource. Measurement and

monitoring of diversions in this reach of the Snake River is necessary for the following reasons:

1. Provide protection to minimum stream flow water rights established on the Snake River pursuant to the Swan Falls Agreement between the State of Idaho ("State") and the Idaho Power Company ("IPC");
2. Ensure that diversions are limited to authorized water rights limits, thereby limiting potential for excess diversions or deliveries and providing potential water savings;
3. Ensure that authorized water uses in areas of the Snake River basin tributary to the Snake River above Swan Falls are not prematurely curtailed in times of water shortage;
4. Provide an overall water budget of all water use within the water district that in turn will maximize the available water within the river reach.
5. Provide for protection and improved delivery of water supplies rented from the Upper Snake River Basin (Water District 01Rental Pool) and/or the Idaho Water Supply Bank ("WSB" or "Bank") that are delivered through Water District 02 for downstream purposes.

The IWRB believes that water measurement and monitoring in Water District 02 is of particular interest and importance to Reclamation given that it has been an active renter of storage water from both the WSB and the Water District 01 Rental Pool. Reclamation has been renting 60,000 acre-feet per year of water rights from the WSB and up to 200,000 acre-feet per year from the Water District 01 Rental Pool. These volumes of water are conveyed through the Milner to Swan Falls reach of Water District 02 to meet Reclamation's obligation related to augmentation of Snake River flows for certain endangered anadromous fish species within the Snake and Columbia River basins.

The work proposed under this grant will provide for installation of measuring devices, primarily closed conduit ultrasonic and magnetic flow meters, on 48irrigation diversions in the water district by the 2016 irrigation season. Diversions in the recently created Water District 02 have not historically been regulated. Prior measurement of diversions in this area has been very limited. Accordingly, water users in this reach of the Snake River are not accustomed to water measurement, monitoring or regulation. In addition to installing accurate measuring devices on the selected 48 diversions, the grant also proposes to provide monitoring and telemetry equipment at most of the diversion sites in order to provide real time measurement data and regulation while minimizing the labor necessary to collect frequent measurement data. Equipment installed will include the use of radio repeater type stations in order to retrieve data on a determined time interval. This type of infrastructure and measurement project will be used as a means of demonstration to other water districts and users in Idaho who will need to acquire and install similar equipment for improved water management purposes.

Background Data

Water District 02 is a water district created by the Director of IDWR pursuant to Idaho Code § 42-604. Figure 1 below is a map depicting the general location of the water district. The Final Order Creating Water District 02 was signed by the Director on July 10, 2012. A copy of this order and other documents related to the creation of the district may be found on IDWR's website as follows:

http://www.idwr.idaho.gov/WaterManagement/WaterDistricts/Snake_Milner-SwanFalls/default.htm .

Water District 02 held its first annual meeting on January 15, 2013. A district watermaster was elected and an advisory committee selected for 2013. Water District 02 will provide for the administration of water rights from the Snake River between Milner and Swan Falls Dams. Water right administration includes delivery and regulation of water rights, and measuring and reporting of water diversions. Measurement of water diversions is a critical and necessary function of the water district. IDWR issued an order on August 26, 2013 requiring the installation of water measuring devices. The order outlines a phased in requirement with a goal of full compliance by 2016. IDWR measurement orders typically allow for a one year planning period with submittal of plans that are reviewed and approved by the water district watermaster with assistance from IDWR.

IDWR estimates that there are about 150 active irrigation diversions in Water District 02 that serve developments ranging in size from several acres to over 10,000 acres. There are approximately 475 irrigation rights in the water district. Nearly all of the consumptive water use diversions are for irrigation purposes, but there are also a few diversions for municipal, commercial, industrial and stock water uses.

The 48 irrigation developments represented in this grant serve water to over 65,000 irrigated acres and more than 140 water rights. A number of high valued commodity cash crops are harvested from many of these irrigated acres, including potatoes, mint, com, alfalfa hay and sugar beets. All of the diversions are within the Snake River canyon and many are remotely located or difficult to access. All 48 diversions are pumped from the Snake River with most delivering water to a pressurized irrigation system. Six pumping stations incorporate open channel canals in the delivery system and generally have higher water duties than river to farm closed conduit systems.

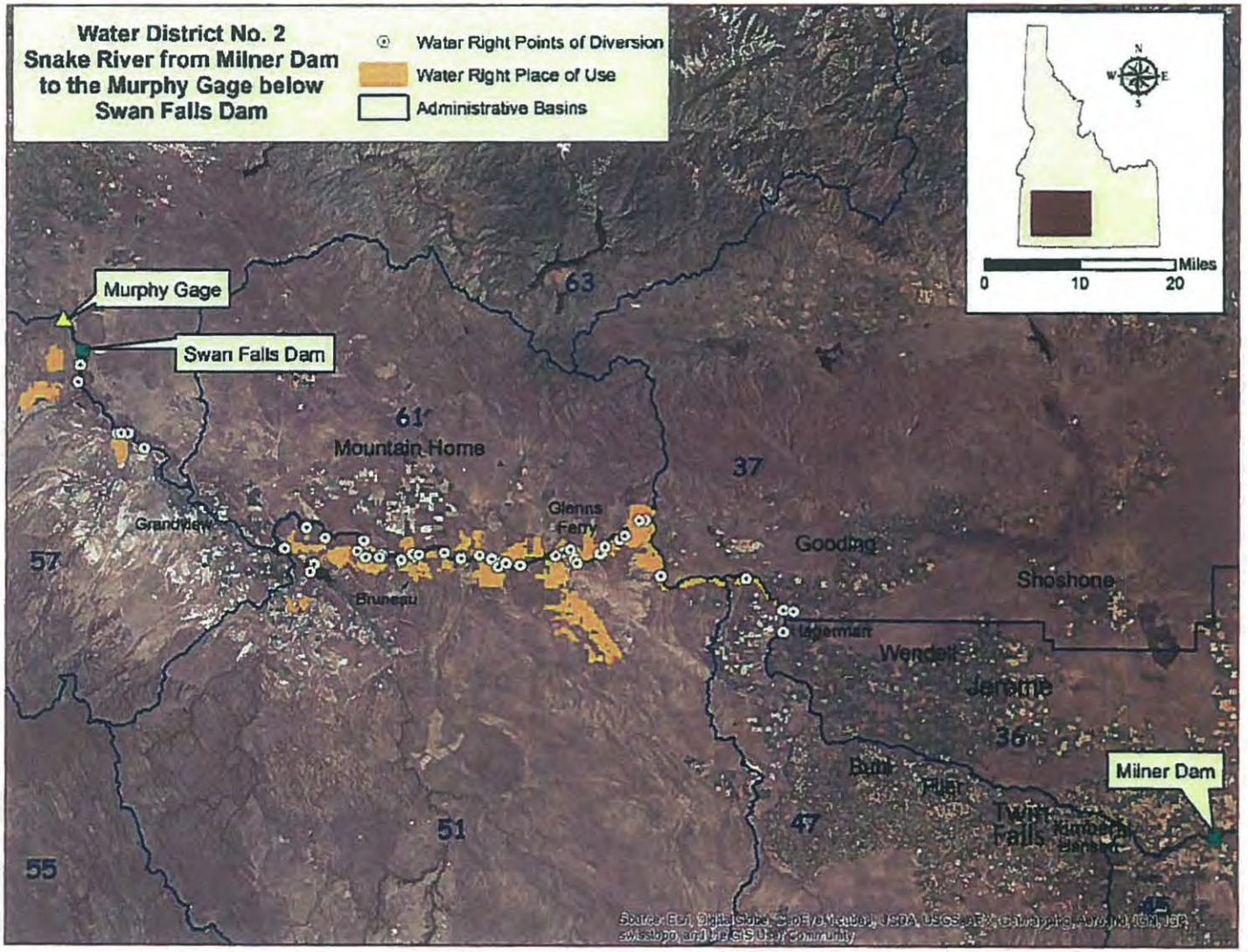


Figure 1: Map of Water District 02, Snake River from Milner Damn to Murphy Gage

The closed conduit pressurized river pump systems serve between several hundred acres to over 10,000 acres, with rates of diversion ranging from several cfs to over 100 cfs per diversion. The number of irrigated acres associated with each of the 40 irrigation entities included in this grant proposal is shown in Table 1. Some of these pump diversions are high lift pump stations which consist of several large river pumping plants that lift water through one or more large diameter pipelines to open ditches and irrigated lands above the canyon rim. High lift pump stations may lift water from over 100 feet up to 900 feet. A list of water rights associated with these 48 diversions is provided in Attachment C of this grant proposal.

Non-Federal Irrigation Entities	Project Acres
1. Grindstone Butte Mutual Canal Co	13,432
2. King Hill Irrigation District	11,573
3. MAN Farms & ATN Holdings	4,389
4. SV Ranch LLC	2,136
5. Dale Van Es	2,495
6. Murphy Flats Water Company	4,882
7. Sherwin Sunberg	243
8. Murphy Land Company LLC (4 POD)	3,634
9. Leland Shetler	359
10. Young, Lampman, Gingerich, Atkins	2,940
11. Verlin Gingerich	36.4
12. Frank Tiegs LLC	1,338
13. Wilson & Wilson Co Inc.	1,110
14. Blanksma Land & Storage (2 POD)	1753
15. West Indian Cove Water Co.	714
16. Dale Hooley (2 POD)	776
17. James Wolfe	242
18. William R Wolfe	260
19. Eagle Creek NW	681
20. Rocking S Ranch	143
21. Walker Plow	400
22. Edgewater Ranch LLC	153
23. Alonzo Leavell	107
24. Garndner Brown	18
25. Louis Jeffery	17
26. Merrill Brown	100
27. David Ayarra Jr. Trust	25

28. Donald Schiermeier	1667
29. Quey Johns	517
30. Gingerich Brothers Farms	1324.5
31. Robert J Meyers	1205.7
32. Midnight Sun VIII LLC	4128
33. Rivendale LLC	334
34. TR Investments	28.4
35. Thomas Conrad	180
36. Deruyter Properties LP	1232
37. Greg Mellum	64.2
38. Peter Sturdivant	20
39. Bob Bledose	560
40. City of Glenns Ferry (Municipal)	0
Total	**65,217**

Table 1: Non-Federal irrigation project entities/owners and associated irrigated acres

Fifteen of the 48 irrigation diversions are diversions used on large irrigation developments, or projects greater than 1,000 acres. There are about 30 irrigation developments total in Water District 02 that are greater than 1,000 acres. The 15 large irrigation diversions included in this water measurement and monitoring grant proposal represent half of the large irrigation developments in the district. The remaining 15 large irrigation diversions in the water district were included in Phase One of the project and the FY2013 WaterSmart Grant.

The water measurement and monitoring proposed in this grant will result in improved management and regulation of water use in the Snake River between Milner and Swan Falls. This improved management and regulation is expected to reduce some excess water diversions and improve tracking or delivery of water rented from the WSB and Water District 01 Rental Pool. Additionally, water measurement and monitoring may result in some opportunity for owners of high lift pump stations to identify potential energy efficiencies or savings. For example, good irrigation management requires knowing the total amount of water delivered to the irrigation system and irrigated crop area. Regular monitoring of total water system diversion rates over time along with electrical pump demand on high lift pump systems provides an opportunity to monitor pump performance which may result in better management of pump and motor maintenance, improved irrigation scheduling, and minimizing water waste, all of which can improve energy system efficiency and provide overall energy and operator cost savings.

The IWRB has chosen to apply for this grant because it aligns with specific policies, goals and strategies adopted by the Board in its 2012 Sate Water Plan. The Board recognizes that measurement, monitoring and regulation of diversions in the Snake River is one component of a management strategy to maintain Snake River minimum stream flows, including the minimum flows established by the Swan Falls Agreement between the State and the IPC. The 2012 State Water Plan includes the policy goals and implementation strategies outlined below.

> Policy Goal: Quantification and Measurement of Water Resources
> *Quantification and measurement of Idaho's water supply and use is essential for sound water resource planning, management, and administration.*
>
> Implementation strategies:
> - *Assess existing measurement network and facilities and develop plan for improving data collection and reporting.*
> - *Prioritize projects for conversion to automated electronic data collection and reporting systems.*
> - *Provide technical assistance and participate in securing funding for improved measurement and reporting systems.*
>
> *(Idaho State Water Plan, November, 2012, p. 14-15)*
>
> Policy Goal: Snake River minimum stream flows (including Milner & Murphy):
> Milner: 0 cfs
> Murphy: 3,900 cfs from 4/1 through 10/31
> 5,600 cfs from 11/1 through 3/31
>
> *These minimum stream flows provide the management framework for the optimum development of the Snake River Basin. The minimum stream flow water rights shall be administered in priority with other water rights.*
>
> Implementation Strategies:
> - *Develop a monitoring program by 2014 to account for fluctuations resulting from the operation of Idaho Power Company's hydropower facilities in the calculation of the Murphy minimum average daily flow.*
> - *Develop tools to predict Snake River flows at the Murphy Gage based on ESPA ground water level trends, precipitation patterns, new appropriations, and changes in conservation practices.*
> - *Develop by 2014 management scenarios to ensure that Snake River flows at the Murphy and Weiser Gages remain above established minimum stream flow levels. (ibid. p. 43-46)*

Measuring diversions within Water District 02 is an important component of the monitoring program to account for fluctuations resulting from the operation of IPC's hydropower facilities in the calculation of the Murphy minimum average daily flow. IDWR estimates that peak irrigation season diversions in the Milner-Murphy reach may

exceed 1,700 cfs (based on prior diversion measurements made by the United States Geological Survey between 1985 and 1995).

The IWRB and IDWR have a long working relationship with Reclamation concerning Snake River water management and administration issues. Specifically, the IWRB has collaborated with Reclamation on the various policies adopted by the Board in the 2012 State Water Plan, as well as past versions of the state plan. The IWRB, which administers the WSB and adopts rules for State water district rental pools, has actively worked with Reclamation on securing water rentals to assist with meeting Reclamation's Snake River flow augmentation goals. About one-half or more of Reclamation's augmentation flow water rentals from Idaho are conveyed through the Snake River between Milner and Murphy. The IWRB and IDWR have in the past either entered into contracts or coordinated with Reclamation on various water management issues and projects such as managed recharge, Easter Snake Plain Aquifer (ESPA) modeling and conjunctive administration, Comprehensive Aquifer Management (CAMP) for the ESPA, Rathdrum and Treasure Valley areas, and projects related to improved water measurement and reporting in Idaho. The State, IWRB and IDWR have worked extensively with Reclamation in the Upper Salmon River basin on various water conservation and management projects to improve water supplies and habitat for listed endangered fish species.

Technical Project Description

Technical Project Description

Flow meters:

The Swan Falls Agreement negotiated by the State and IPC resolved litigation concerning IPC's senior rights at Swan Falls (1916 priority). The settlement subordinated IPC's hydropower rights at Swan Falls and other locations upstream of Swan Falls to junior priority surface and ground water rights tributary to the Snake River between Milner and Swan Falls Dams, thereby affording protection to many junior priority water rights on the Snake River in Water District 02 and other areas of the Snake River basin. The Swan Falls Agreement also produced the Snake River Basin Adjudication (SRBA) which commenced in 1987 and is anticipated to be finished in 2014. The SRBA, with adjudication of over 145,000 water rights, is the largest basin wide general adjudication of water rights successfully completed in the Western United States.

The irrigation metering project proposed for Water District 02 is a continued effort to improve the overall quality of measured flow data in Idaho, and to better manage and regulate water use within the Snake River. A number of diversions from the Snake River in the Milner to Swan Falls reach were measured by the United States Geological Survey (USGS) from about 1985 to 1996 using funds that were made available from the Swan Falls Agreement. Due to gradual funding reductions and inflationary costs, measurement of nearly all diversions in the Milner –Swan Falls reach was discontinued by about 1995.

Pressurized pump diversions in the district utilize vertical and centrifugal motors with rated horsepower (HP) as small as 5 Hp to as large as 2000 HP. The larger irrigation diversions have multiple large HP motors/pumps to overcome 400 feet or more of head out of the Snake River Canyon. Large river stations in the water district generally have conveyance systems with large penstock(s) that can be difficult to measure with traditional mechanical flow meters due to high maintenance requirements and locations of pipe on steep canyon walls. Water lifted above the canyon rim via the penstocks or pipes from some river pump stations is discharged to open ditches or booster stations that pressurize irrigation systems above the canyon rim. Measurement of open channels using traditional rated sections or measuring devices is often difficult and typically more expensive over time due to moss and aquatic growth which can cause significant rating curve shift adjustments. Other river pump stations and conveyance systems in the district are completely closed pressurized systems that can accommodate closed conduit flow meters.

Measurement of high lift pump and closed conduit systems will be accomplished by installation of ultrasonic clamp-on meters or electromagnetic flow meters that are flanged into the piping system. For project budgeting purposes, proposed ultrasonic meters include General Electric (GE) Panametric AT868 units with a transducer frequency of either 0.5 or 1 Mega Hertz. The GE flow meter can be used on small diameter pipes (14"-20") and very large pipes (up to 96"diameter) connected to river station pump within Water District 02. These systems will be installed and programmed by a GE representative and guaranteed to comply with ±2% IDWR water measurement accuracy standards for ultrasonic flow meters. This meter met third party accuracy testing by the Utah Water Research Laboratory (UWRL) in Logan Utah in April, 2012 across flows ranging from 5,500 gallons per minute up to 93,000 gallons per minute in a 48" diameter pipe. Stated manufacturer accuracy for the GE ultrasonic meter listed is ±1-2%. The ultrasonic unit can measure up to two pipes at a time with one processing unit and an additional set of transducers. This approach will be used to minimize costs to end users and will also give proper discharge of the diversions to a secondary data

logging device using either pulse output or a 4-20 milliamp signal to be used by the watermaster of the district for regulatory purposes.

For purposes of project budgeting, IDWR proposes using the Badger M-2000 electromagnetic flow meter. The M-2000 is built in sizes ranging in diameter from ¼" to 96" and will cover flows ranging from 0.1 to 39 feet per second. The M-2000 exceeds IDWR's ±2% adopted accuracy standards. This meter was third party tested and verified for accuracy by the (UWRL) in Logan Utah in April of 2011. Stated manufacturer accuracy for the M-2000 meter is ±0.25%. A remote mounted set of electronics will be installed for the M-2000 and housed in a waterproof rated enclosure. This flow meter option will include the submersible option of the flow tube to protect from vandalism and the elements of varying weather and temperature throughout the year. Upon installation of magnetic flow meters, water district staff will verify the installed accuracy of the meters using portable ultrasonic flow meters.

Piping systems for diversions within Water District 02 and the 48 diversions identified in this grant proposal vary in size from 6" to 48" diameter. The larger diameter pipes typically have a poured in place concrete liner less than 5/8" in thickness. These liners help to protect the inside wall of the pipe and help assure that a clean ultrasonic sound wave is present when using ultrasonic flow meter technology. Installation of flow meters for this project will require approximately 1 day for each set up, including on-site excavation and fabrication to properly protect valuable flow measuring equipment and achieve the overall objective of high quality flow data collection.

Telemetry:

This project will include the option of remote telemetry and data retrieval. This will include the use of Campbell Scientific CR1000 data loggers (up to 5 channel input) coupled with Campbell 900 MHz radios (line of site range of up to 65 miles) to send and receive information according to the specific needs of the district. This will require the proper infrastructure and frame work (computer network) to accommodate data used for water management within this river section. This network would dove tail into the already existing IDWR telemetry system used to monitor spring discharges and return flows within Water Districts 01 and 02, and within the ESPA. These data would be retrieved at a designated time interval to assist the watermaster in delivery of water in Water District 02 on a daily basis. Additionally the structure of the system will allow water users feedback about their diversions and provide opportunities for better water management. Each site within the network will be built to be both a primary and slave type station in which other water measurement data may be transmitted or passed through as a means to retrieving data from difficult or remote locations within the system. This option will be a big help to the watermaster in managing diversion data

collection. It provides a daily tool to manage district staff time in acquiring necessary data for proper water distribution, and it will also provide an annual report generating tool with consistent file structure and processing protocol for collected data.
The telemetry budget also includes costs associated with repeater type stations to help in boosting hard to access sites and insuring the remote sensing system is adequate to cover the entire district. These repeater towers will include a 50 foot self standing tower fitted with an 8 decibel radio antenna, 10 watt solar panel, 12 DC volt battery array and a Campbell RF 900 Mega Hertz radio. The location of these sites will be determined or optimized at a future date as more topographic data are collected and analyzed using available computer software.

Water use accounting will be improved by daily diversion record keeping using a network of data loggers and telemetry equipment. This part of the project will provide additional transparency to other water users in this reach of the Snake River and will ultimately lead to records being available to the general public in the future through an online application hosted by IDWR.

The water district watermaster, with some assistance from IDWR staff, will be involved with installation of telemetry equipment and will provide routine and on-going equipment maintenance, including any equipment replacement if necessary. Funds necessary for watermaster time and labor associated with equipment maintenance will come from future water district assessments. Diversion owners or operators will need to cooperate with funding costs for equipment replacement and upgrades.

Upon completion of the project and the measurement of all diversions water managers will be able to:

- Regulate water in this reach based on authorized water right rate of flow;
- Conserve water diversions (approximately 2% of all water diverted), and keep water savings in the Snake River;
- Curtail water being applied to acres not authorized by water rights;
- Help to better identify hydro-power production influence on river reach natural flows due to reservoir operation fluctuations; and
- Provide for improved delivery and accountability of augmented river flows, much of which are facilitated by Reclamation through rental of water from the WSB and Water District 01 Rental Pool.

Evaluation Criteria

Evaluation Criterion A: Water Conservation (28 points)

Quantifiable Water Savings (20 points)

Table 2 shows the total water supply and estimated water savings for the 40 irrigation entities and 48 diversions serving the 65,200 plus acres. Total available water supply for these diversions was determined to be about 222,000 acre-feet per year based on the following water measurement data and calculations:

A. Daily water measurement data for seventeen (17) United States Geologic Survey (USGS) gauging stations was evaluated from a 1989 USGS Water Resource Data report. Published data were available and used for Grindstone Butte Mutual Canal, West Indian Cove Water Company, Man Farms and ATN Holdings (gauge site name of Sailor Creek), King Hill Irrigation District, Dale Van Es (Sinker Butte Canal), Murphy Flats Canal, Blanksma Land & Storage (Chalk Flats and Sand Dunes sites), Wilson & Wilson (Eagle Cove site), Frank Tiegs LLC (Triple C site), Young et el (Roger Young site), Donald Schiermeier (Basin Mutual site), Gingerich Brothers Farms (River Ranch site), Quey Johns (Ken Johns site), and Midnight Sun VIII (Danskin Cattle site).

B. Water supply for the remaining diversions in Table 2 were estimated using water duties derived from 1989 USGS measured data and project acres for similar type projects in item a. above.

The 1989 USGS measurement data were used because the greatest numbers of diversions in the Milner to Murphy reach were measured at that time. Additionally, SRBA water right claims, recommendations and partial decrees were based on beneficial use or number of acres irrigated as of 1987.

Estimated water savings shown in Table 2 for the 17 diversions in item A. above are based on comparison of authorized water right diversion limits with 1989 USGS measured data. Specifically, excess daily diversion rates were identified where reported daily diversions exceeded the authorized water right diversion rates. Any excess diversions found were summed and converted to annual volume water savings. Using this approach, savings were estimated for 2 separate irrigation diversions totaling 1,051 acre-feet. Using this same approach, no savings (0 acre-feet) were found for the remaining 15 diversions having measured data from 1989.

Potential water savings could not be identified for the remaining 30 diversions due to the lack of any published measurement data or records.

No water savings were determined for King Hill Irrigation District ("KHID") using the approach described above but KHID's water duty was found to be 5.8 acre-feet per acre ("afa"). This is a high water duty compared to most other diversions listed in Table 2

although not unexpected given the amount of open channel canals and laterals throughout KHID. However, a majority of the farms in KHID use pressurized irrigation systems including many center pivot systems where individual farm efficiencies should be 70 percent or higher. Given the relative high KHID water duty but fairly efficient on-farm systems, it is assumed that KHID's conveyance system is rather inefficient and could be improved. Installation of measuring devices on the main pumping systems as proposed under this grant, coupled with additional site measurements throughout KHID by the Water District 02 watermaster and KHID staff may confirm conveyance system inefficiencies and identify potential water savings opportunities. Therefore, an alternative approach was taken to estimate KHID water savings as follows:

- The 5.8 afa water duty is determined using the 1989 USGS measurement data from four (4) KHID pumping stations over the full 11,573 acres authorized under KHID's water rights;
- An irrigation requirement (no effective precipitation) of 3.6 afa is estimated using average ET values for alfalfa hay from the Glenns Ferry Agrimet station;
- A conveyance system efficiency of 62 percent is estimated using the irrigation requirement - water duty ratio (3.6 afa / 5.8 afa);
- Assume a five (5) percent gain in irrigation system efficiency from improved water measurement and management practices on all KHID river pump stations and conveyance systems. Apply 5 percent efficiency gain on all 11,573 KHID acres (0.05 afa efficiency x 11,573 acres = 3,356 af).

Support for KHID water savings is also discussed in Section E; Evaluation of Criterion, Other Contributions to Water Supply Sustainability.

General water savings in Water District 02 can be realized through the combination of accurate water measurement, telemetry monitoring and regulation by the water district watermaster. As previously explained in this document, water right administration and water diversion regulation has not previously been implemented in this reach of the Snake River. The creation and future operation of Water District 02 will place the Milner to Swan Falls reach on an administrative and regulatory level that is comparable to Water District 01(Upper Snake River above Milner) where diversions are frequently regulated or curtailed to authorized water right diversion limits.

Currently, excess water diversions are used as follows:

- Irrigation of crops on lands authorized by existing water rights;
- Irrigation of crops on lands not authorized by water rights;
- Return flows to Snake River; and
- Return flows to channels and drains that are not directly tributary to the Snake River or that sink to the ground before reaching other surface water channels.

The estimated 4,386 acre-feet of conserved water or potential water savings shown in Table 2 and outlined in this analysis would not be diverted from the Snake River but

remain in the river channel to provide potential increased flows at Murphy and other downstream Snake River reaches and gage stations.

Non-Federal Irrigation Entities	Project Acres	Total Water Supply (AF)	Estimated Water Savings (AF)	Water Duty	Comment
1. Grindstone Butte Mutual Canal Co	13,432	32,809	162	2.4	Rate overages on daily averages
2. King Hill Irrigation District*	11,573	66,700	3335.0	5.8	Savings estimated by assuming increased delivery efficiency of 5% over current 62% delivery efficiency.
3. MAN Farms & ATN Holdings	4,389	13,825	0	3.1	
4. SV Ranch LLC	2,136	7,476	0	3.5	Water right limit of 4.5 AFA
5. Dale Van Es	2,495	5,364	0	2.15	
6. Murphy Flats Water Company	4882	11583	0	2.4	
7. Sherwin Sunberg	243	850.5	0	3.5	total use estimated using 3.5 AFA
8. Murphy Land Company LLC (4 POD)	3,634	12,719	0	3.5	total use estimated using 3.5 AFA
9. Leland Shetler	359	1615.5	0	4.5	total use estimated using 4.5 AFA due to open canal system
10. Young, Lampman, Gingerich, Atkins	2,940	5,932	0	2.0	
11. Verlin Gingerich	36.4	145.6	0	4.0	total use estimated using 4 AFA
12. Frank Tiegs LLC	1,338	3,416	0	2.6	
13. Wilson & Wilson Co Inc.	1,110	2,859	0	2.6	
14. Blanksma Land & Storage (2 POD)	1753	3,727	0	2.1	
15. West Indian Cove Water Co.	714	3,932	889	5.5	Rate overages on daily averages
16. Dale Hooley (2 POD)	776	3,104	0	4.0	total use estimated using water right limit of 4 AFA

17. James Wolfe	242	968	0	4.0	total use estimated at 4 AFA
18. William R Wolfe	260	1040	0	4.0	total use estimated at 4 AFA
19. Eagle Creek NW	681	2417.55	0	3.6	total use estimated at 3.5 AFA
20. Rocking S Ranch	143	500.5	0	3.5	total use estimated at 3.5 AFA
21. Walker Plow	400	1600	0	4.0	Some open system, estimated using 4 AFA
22. Edgewater Ranch LLC	153	612	0	4.0	total use estimated using water right limit of 4 AFA
23. Alonzo Leavell	107	428	0	4.0	total use estimated using water right limit of 4 AFA
24. Garndner Brown	18	63	0	3.5	total use estimated using 3.5 AFA
25. Louis Jeffery	17	59.5	0	3.5	total use estimated using 3.5 AFA
26. Merrill Brown	100	400	0	4.0	Some open system, estimated using 4 AFA
27. David Ayarra Jr. Trust	25	87.5	0	3.5	total use estimated using 3.5 AFA
28. Donald Schiermeier	1667	6668	0	4.0	Some open system, estimated using 4 AFA
29. Quey Johns	517	1125	0	2.2	measured values
30. Gingerich Brothers Farms	1324.5	2657	0	2.0	measured values
31. Robert J Meyers	1205.7	4822.8	0	4.0	Some open system, estimated using 4 AFA
32. Midnight Sun VIII LLC	4128	14448	0	3.5	total use estimated using 3.5 AFA
33. Rivendale LLC	334	1169	0	3.5	total use estimated using 3.5 AFA
34. TR Investments	28.4	99.4	0	3.5	total use estimated using 3.5 AFA
35. Thomas Conrad	180	630	0	3.5	total use estimated using 3.5 AFA
36. Deruyter Properties LP	1232	4312	0	3.5	total use estimated using 3.5 AFA

37. Greg Mellum	64.2	224.7	0	3.5	total use estimated using 3.5 AFA
38. Peter Sturdivant	20	70	0	3.5	total use estimated using 3.5 AFA
39. Bob Bledsoe	560	1880	0	3.36	
40. City of Glenns Ferry					
Total	65,217	222,340	4,386		

Table 2. Water Savings calculations. *These data are estimates using ET and delivery system efficiencies to determine potential savings.

Upon completion of the proposed project, all water savings will be verified through collection and reporting of measured data, and watermaster regulation of diversions. Data collected via telemetry equipment, which will be installed on most diversions, will populate a computer data base maintained by IDWR. Telemetry data will allow real-time access by the watermaster and ultimately be served to a web-based application for viewing by both water users and the public. Real time telemetry data collection will enable the watermaster to monitor diversions and make immediate diversion adjustments when necessary. Several of the smaller diversions will not have telemetry equipment but will be measured using magnetic flow meters with volume totalizers and rate of flow displays. These meters will be read by the watermaster on a weekly basis during peak irrigation periods and somewhat less frequently in the early and late periods of the irrigation season. Annual watermaster reporting should demonstrate that diversions are kept within the authorized water right limits.

The IWRB's approved FY2013 WaterSmart Grant for Phase One of the Water District 02 flow measurement and monitoring project projected water savings of about 5,000 acre feet. The number of irrigated acres under the FY2014 Phase Two application, about 65,000 acres, is similar to the total irrigated acres under the Phase One grant (approximately 58,000 acres) but includes mostly closed conduit conveyance and application systems. These systems do not typically exceed authorized water right rate of diversion and annual volume limits but analysis included in this grant proposal did show that some systems may exceed authorized flow rates during peak periods of the irrigation season. Water savings under existing rights being held to maximum water right rates will contribute to more water staying in the river and minimizing the impacts to other right holders such as the minimum in stream flow right held at Swan Falls. The two open channel systems (Grindstone Butte and West Indian Cove) make up the quantifiable water savings based on water right limits and potential over diversions during peak periods. Other savings, although more difficult to quantify, may been seen as more systems are measured using high quality measuring devices in the future. Combined potential water savings estimates under Phases One and Two may be as high as 10,000 acre-feet.

Improved Water Management (5 points)

Since there has been no prior management, regulation or administration of water diversions and water rights from this reach of the Snake River, the IWRB expects that Water District 02 will better manage all (or 100%) of the available water supply associated with the diversions outlined in this grant proposal.

$$\frac{\text{Estimated Amount of Water Better Managed}}{\text{Average Annual Water Supply}} = \frac{222{,}340\ \text{AF}}{222{,}340\ \text{AF}} = 100\% \text{ or } 1$$

Percentage of Total Water Supply (4 points)

As explained in the Quantifiable Water Savings section and as shown in Table 2, the estimated water savings for the diversions included in this proposal is 4,386 acre-feet. The estimated percentage of total annual water supply conserved therefore is as follows:

$$\frac{\text{Estimated Amount of Water Conserved}}{\text{Average Annual Water Supply}} = \frac{4{,}386\ \text{AF}}{222{,}340\ \text{AF}} = 0.0197 \text{ or } 1.97\%$$

Reasonableness of Costs (4 points)

As shown in the Budget section of this grant proposal, the total cost of the project is about $661,691. The flow meters identified in this proposal are estimated to have a life of 15 years. Telemetry equipment has a life expectancy of 15 to 20 years. Reasonableness of costs therefore is as follows:

$$\frac{\text{Total Project Cost}}{\text{Acre-feet Conserved x Improvement Life}} = \frac{\$661{,}691}{4{,}386 \times 15} = \$10.06/\text{AF}$$

Evaluation Criterion C: Benefits to Endangered Species (12 points)

The proposed project will provide some benefits to certain Snake River salmon and steelhead species that have been listed under the Endangered Species Act ("ESA").. Although these species do not inhabit Snake River Water District 02 area, Reclamation has acquired water supplies from within Water District 02 and from the upstream Water District 01 Rental Pool to meet Reclamation's downstream flow augmentation requirements established by the Federal Government for the benefit of ESA listed species.

Pursuant to the terms of the 2004 Snake River Water Rights Agreement (commonly called the Nez Perce Agreement) that was approved by the State of Idaho and the United States, Reclamation is authorized to provide up to 427,000 acre-feet of storage water and 60,000 acre-feet of natural flow water for downstream flow augmentation to benefit the downstream salmon and steelhead. Reclamation entered into a $21 million, 30-year agreement with IWRB to lease 60,000 acre-feet from the "Bell Rapids" water rights owned by the Board. The Bell Rapids water rights originate within Water District 02. Reclamation also acquires up to 205,000 acre-feet of storage annually from the Water District 1 Rental Pool, located upstream of Water District 02. Per the 2004 Snake River Water Rights Agreement, the rental cost for this storage will be $17/acre-foot in 2014.

The State of Idaho has committed to ensuring that water supplies acquired by Reclamation for downstream flow augmentation are delivered through this reach. This is, in fact, one of the reasons for creating Water District 02. The installation of measurement devices on the major diversions in this reach will make it easier and more certain to ensure these water supplies are delivered downstream for the benefit of ESA listed species.

Evaluation Criterion D: Water Marketing (12 points)

Establishing a water market is not part of this request because a market already exists - the Idaho Water Supply Bank ("WSB" or "Bank"). The project proposed under this WaterSmart grant will assist with improved management and regulation of Bank transactions within Water District 02. The WSB is a water exchange market operated by the IWRB to encourage the highest beneficial use of water and to provide a source of adequate water supplies to benefit new and supplemental water uses, particularly in areas of the state where there are moratoriums on new appropriations of water, including Water District 02.

The WSB includes water rights from surface water and ground water sources throughout Idaho. Water rights may be leased to the Bank, if not currently in use, and rights may be rented from the Bank for beneficial uses such as irrigation, municipal, commercial or industrial. IDWR manages the Bank for the IWRB in accordance with Idaho Code §§ 42-1761 through 42-1766 and the WSB Rules (IDAPA 37.02.03). Under these rules, the IWRB has also established local rental pools in water districts that include storage reservoirs and authorized water district advisory committees to operate the pools. Water right holders can put storage water in rental pools or lease unused natural flow surface water rights or ground water rights (or portions thereof) to the Bank and those water rights or storage supplies can be rented to others who do not have adequate water or water rights to meet their needs.

Water District 02 is an active area for WSB transactions. Currently in Water District 02 there is about 570 cfs of water leased to the WSB and about 320 cfs rented from the Bank. Reclamation rents about 60 percent of this 320 cfs in Water District 02 each year to augment Snake River flows for the benefit of ESA listed salmonid fish species in the Snake and Columbia River basins. The Reclamation rental comes from several water rights associated with the former Bell Rapids irrigation project near Hagerman, Idaho. The Bell Rapids project and lands were purchased by the State of Idaho. The appurtenant project water rights, consisting of 415 cfs and over 98,000 acre-feet, were leased to the Bank in part to assist with Reclamation's Snake River flow augmentation requirements. The lease and rental of the Bell Rapids water rights in Water District 02 lessens Reclamation's demand of water from the Water District 01 Upper Snake River rental pool and keeps that water in the rental pool for users in Water District 01 or as a source of water to mitigate for the impacts of depletions to the Snake River by junior priority ground water pumpers in the Eastern Snake Plain Aquifer.

In addition to the Bell Rapids WSB rental, Reclamation also rents up to 205,000 acre-feet per year of water from the Water District 01 rental pool to meet its Snake River flow augmentation requirements. Additionally, IPC may also lease water from the Water District 01 rental pool to meet peak hydropower loads at IPC dams in Water District 02 and downstream.

Significant portions of other water rights in Water District 02 are leased and rented to the Bank. In addition to the Bell Rapids water rights, there is about 115 cfs of water leased to the Bank and about 66 cfs of water, or more than 14,000 acre-feet, rented from the Bank for irrigation of over 3,300 acres within the water district. Under the WSB rules, right holders who lease all or portions of their water rights to the Bank agree not to use those rights or portions thereof while they are in the Bank. Similarly, users who rent water from the Bank are limited to the authorized rates of diversions under the rented rights at new or existing points of diversion. As a result, the authorized water rights rates for all diversions associated with WSB leases and rentals must adjust according to the amounts leased and rented.

Accurate measurement of diversions in Water District 02 is important to verify that diversions benefitting from WSB leases and rentals align with the adjusted authorized rates of diversion, thereby assuring that diversions are not exceeding their authorized water right rates, volumes and acreage limits. Moreover, high quality measurement of all diversions in Water District 02 will enable the watermaster to account for water rentals by Reclamation and IPC that must be delivered through the district.

Evaluation Criterion E: Other Contributions to Water Supply Sustainability (14 points) – Other Benefits

On-Farm Irrigation Improvements

As discussed in the Water Savings section of this grant proposal, IWRB believes that on-farm irrigation improvements can be identified within the KHID project. The analysis for KHID provided in the Water Savings section shows an estimated system wide water duty of 5.8 afa and efficiency of 62 percent over the 11,573 irrigated acres in the district. This efficiency seems low despite the fact that a majority of the on-farm irrigation application systems consist of pressurized irrigation sprinkler systems, including center pivots. The KHID manager confirmed that this estimated water duty is reasonable and that nearly all of the 11,573 water right acres in the project are irrigated[1].

The KHID system includes six separate river pumping stations that lift water in closed conduits from the river to open canals above the Snake River canyon rim. The water is then delivered down the main canals and laterals to individual farm head gates where water is typically pressurized to irrigation sprinkler systems. Four of the KHID pumping stations are large stations, with the largest station having 8 pumps totaling about 2,500 HP that lift water in a closed 48 inch penstock some 270 feet to an open canal system. Two of the pumping stations are small, with each limited to just several pumps totaling about 800 HP with lifts under 100 feet. KHID has already installed measuring devices on two of the four large pump stations. This grant application seeks funding assistance to install measuring devices on the remaining four pump stations (two large, two small), plus monitoring and telemetry equipment on the four large pump stations.

As previously explained, high quality daily measurement and monitoring of the four large or main KHID river pump stations and additional measurements of the KHID open channel and conveyance systems by Water District 02 and KHID staff will likely identify significant seepage losses or conveyance system inefficiencies. A mere five percent increase in the KHID system efficiency may conserve over 3,300 acre-feet per year. The efficiency gain may be realized through lining or piping of canals or laterals, and better management of deliveries through additional measurement and controls of delivery through the system.

The Water Savings section of this grant proposal showed some saving for the West Indian Cove Water Company ("WIC") based on regulating the WIC diversion to authorized water right rates of flow as determined by the measuring device and monitoring equipment installed on the pump station as proposed herein. Table 2 also showed that the overall WIC system water duty is about 5.5 afa, which is considerably higher than most other irrigation diversion systems in Water District 02 but again not

[1] Personal communication with Cliff Lisle, KHID Manager, January 18, 2014.

entirely unexpected given that the conveyance system includes about two miles of open ditch. WIC uses two regulating ponds in the system and applies water via pressurized wheel and hand line sprinkler systems. WIC has communicated to the Water District 02 watermaster an interest to replace its open channel ditch system with a pipe line and make improvements to its' pumping plant. A pipe line installation and/or pump station improvement project could potentially be cost shared with the NRCS through an Environmental Quality Incentive Program (EQIP) grant. A ten to twenty percent efficiency gain would result in water savings of about 400 to 800 acre-feet year and likely eliminate need to regulate excessive rate of flow diversions during the peak irrigation season.

The KHID and West Indian Cove pumping stations and irrigated places of use are shown in the place of use maps included in Appendix D of this proposal.

Other Benefits to Water Supply Sustainability

A. Will the project market water to other users?

The proposed project will not directly market water to other users, but as discussed in Criterion D – Water Marketing, the project will facilitate better regulation, delivery and management of water that is leased to and rented from the Idaho WSB and Water District 01 Rental Pool. See Criterion D – Water Marketing for more detailed discussion.

B. Will the project generally make more water available in the basin where the proposed work is located?

This project, or Phase Two of the Irrigation Flow Measurement and Monitoring Project for Water District 02, may result in potential water savings of about 3,300 to 5,200 acre-feet per year. Phases One and Two combined may result in savings of up to 10,000 acre-feet per year. All of the water saved would stay in the Snake River between Milner and Swan Falls, or Water District 02. This benefit is further discussed in the Background Information summary and Evaluation Criterion A – Water Conservation section of this grant proposal.

C. Does the project promote and encourage collaboration among parties?

This project and Phase One of the project enjoys widespread support from the water right holders and water users in Water District 02 as evidenced by the numerous project

commitment letters. The State of Idaho, IWRB, IDWR, IPC and the USGS support accurate measurement and monitoring of diversions in the Milner to Swan Falls reach of the Snake River. These parties are currently working together to develop a protocol for measuring, monitoring, and reporting average daily flows at the Snake River stream flow gage near Murphy for the purpose of distribution of water to IPC's hydropower water rights and the State of Idaho's minimum stream flow rights.

Minimum stream flows at Swan Falls (measured at the Murphy gage) and hydropower water rights held by IPC have been the subject of litigation and negotiated settlements between the State of Idaho and IPC dating back to 1976. The Swan Falls Settlement resolved an ongoing controversy over how to balance water users for agriculture and water needs for hydropower generation in the Snake River Basin. The State and IPC reaffirmed the settlement and minimum flows in 2009. Through the Swan Falls Agreement the State of Idaho and IPC are committed to meeting the minimum stream flow at the Murphy gage which established minimum average daily flows of 3,900 cfs during the irrigation season and 5,600 cfs during the non-irrigation season. The minimum stream flow at the Murphy gage serves as a management constraint to insure that minimum flow levels of Snake River water will be available for hydropower, fish, wildlife and recreational purposes.

The SRBA decrees issued for the State's minimum flow rights require that the calculation of the average daily flow at the Murphy gage be based on actual flow conditions as adjusted to account for fluctuations resulting from the operation of eight IPC facilities located within Water District 02. The State and IPC have also committed to developing tools to predict Snake River flows at the Murphy Gage, and to ensure that flows remain above established minimum stream flows. One of the methods being considered to meet this objective is a Flow Measurement Method that includes a number of river reach measurement components, including the measurement of diversions[2].

One of the reasons for creating Water District 02 is the requirement that measurement devices be installed on all the major diversions throughout the district. Water District 02 is directly upstream of the Murphy gage. The installation of these measurement devices in the reach of the Snake River above the Murphy gage will make it easier to meet the minimum stream flows at Murphy gage by ensuring no over-diversions are occurring that may cause flows to fall below those obligations. Measurement of diversions may also assist with determination of actual average daily flow calculations at Murphy.

[2] Swan Falls Technical Working Group, "Streamflow Measurement and Monitoring Plan", Draft June 22, 2013.

If minimum flow rights at Murphy cannot be maintained, then the State must proceed to curtail water right holders in the Snake River Basin tributary to the Snake River between Milner and Murphy whose rights are junior to the State's minimum flow priority rights at Murphy (July 1, 1985 is the most junior minimum flow right). It is likely that other junior right holders in the basin will resist potential curtailment or future mitigation efforts unless the Snake River irrigation diversions in Water District 02 and immediately upstream of the Murphy gage are properly measured and accounted.

Performance Measures

Projects with Quantifiable Water Savings
Performance Measure No. A.2. Measuring Devices – b. Irrigation Metering

As previously described in this proposal, and as shown in the Budget section, 48 irrigation diversions of various sizes will be measured using high precision devices including ultrasonic and magnetic flow meters for closed conduit pipe lines.

The installed measuring devices, coupled with reporting of measured data with the aid of data loggers, meter totalizers and telemetry equipment, will provide the following benefits:

- Water diversion accountability and transparency;
- Accurate measurement and real time data collection via telemetry, coupled with water district watermaster regulation, will assure that diversions are limited to authorized water right diversion rates and provide equitable distribution of water within Water District 02;
- Remote monitoring of diversions will reduce watermaster travel time and watermaster/water district expenses;
- Accurate measurement and recording will also provide a basis for fair and accurate water district assessments since such assessments are based on annual water deliveries; and
- The types of high accurate measuring devices and accompanying telemetry data provides an opportunity in which other technologies can be leveraged for water management and diversion system enhancements such as canal gate automation, pump system alarms and flow controls.

Pre-project estimation of baseline data:

Pre-project flows for the 48 diversions in this proposal are estimated and depicted in Table 2 of this proposal. Pre-project flow measurements and estimates were identified in the Water Conservation Evaluation Criterion A section of this proposal. Pre-project flows for the 48 diversions were estimated to be over 222,340 acre-feet per year.

Post-project methods for quantifying the benefits of projects to install measuring devices:

Post-project benefits will be measured based on the following methods:

- Compare pre-project baseline flow measurements and estimates with actual post-project measured data; and
- Demonstrate, through annual water district reporting, that diversions are limited to authorized water right rates of diversion.

Performance Measure No. A.3. – SCADA and Geographic Information Systems (GIS)

The SCADA or telemetry equipment proposed for this project is described in further detail in both the Technical Project Description and Budget sections. Additionally, IDWR and a number of state water districts rely heavily on GIS which enables comparison of water rights place of use locations with actual water use locations and crop patterns from annually updated aerial and remote sensing imagery. Using GIS to construct maps, IDWR found a number of irrigated acres served by Water District 02 Snake River diversions that are not covered by valid water rights. Further investigation of these irrigated lands may result in some water diversion regulation or curtailment if the irrigated lands in question are unauthorized enlargements of existing water rights. Such investigations could also result in moving water rights to the locations in question from other areas of Water District 02 through water right transfers or WSB rental transactions.

Pre-project estimation of baseline data:

Pre-project baseline water use or water supply data have been measured or estimated (see prior sections for explanation). Although some of the 48 diversions were measured by the USGS 15 to 25 years ago further measured data helps to support water use within the district over that time. Measurement data collected via telemetry will reduce overall mileage travel to diversions by the water district watermaster. No baseline watermaster travel/mileage data are available through the first year of the districts operation but indications of high mileage requirements are noted due to the distance and difficulty of accessing diversion sites within this district. However, it is estimated that a telemetry network will eliminate at least 20 visits per diversion per year, or a total of about 540 site visits for the diversions with acreages 500 acres and larger.

Available NAIP aerial imagery from 2013, Landsat imagery from 2013 and current water right place of use GIS layers on record with IDWR form the pre-project baseline GIS data.

Post-project methods for quantifying benefits of SCADA or SCADA/GIS system projects:

Post project methodology includes:

- Daily water measurement collected via SCADA or telemetry equipment will provide high resolution data that have either been limited in the past or discontinued, or not previously available for many diversions in this reach of the Snake River.
- Upon installation of measuring devices and operating telemetry equipment, the water district watermaster will track time, mileage and diversion site visits related to data collection and equipment maintenance. These records can be compared to estimated number of visits that would be required to collect similar resolution data without telemetry equipment.
- Water District 02 and IDWR can track water right place of use problems and potential violations using GIS. Place of use locations and associated diversions can be reviewed with measurement data to determine if any necessary place of use regulation results in water diversion reductions. The water district can use GIS to verify that additional water rights are moved to the places of use and associated points of diversion in question via water right transfers or WSB rentals. The district and IDWR will generally use GIS on some annual or periodic basis to assure that irrigated places of use are in compliance with existing water rights.

Environmental and Cultural Resources Compliance

The Idaho Water Resource Board (IWRB or Board) does not anticipate any probable environmental or cultural impacts associated with this project. Water measurement devices are frequently installed throughout Water District 02 and there have been no known impacts associated with those tasks. Nevertheless, we have included a line item for potential environmental compliance item in our budget proposal that is equal to approximately 1.5% of anticipated total project costs ($9,778.69).

There are 48 irrigation diversions represented in this grant proposal. All of the diversions are within the Snake River canyon and many are remotely located or difficult to access. All of these 48 diversions all are pumped from the Snake River with most delivering water to a pressurized irrigation system. Six pumping stations do incorporate open channel canals in the delivery system. Some of these pump diversions are high lift pump stations which consist of several large river pumping plants that lift water through one or more large diameter pipelines to open ditches and irrigated lands above the canyon rim.

The Board does not expect construction associated with this project to affect the air, water, or animal habitat in the project area. The Board is not aware of any species listed or proposed to be listed as a Federal threatened or endangered species, or designated critical habitat in the project area. There are no known wetlands or other surface waters inside the project boundaries that potentially fall under CWA jurisdiction. The project will not result in any modification of or effects to individual features of an irrigations system (e.g. headgates, canals, or flumes). Installations of measurement devices will involve installing flow sensors on canal diversions, or alternatively the clamping-on of a measurement device to an existing canal structure. For those diversions that are pressurized pipelines, installation would involve cutting pipe and inserting devices into the pipe structure.

The delivery systems for the project area were originally constructed between 1904 and 1986 according to a review of the associated water right priority dates. A small portion of the lands were developed prior to 1950 while the bulk of these lands were developed for irrigation in the period between 1960 and 1980. The Board is not aware of any structures or buildings that are listed or eligible for listing on the National Register of Historic Places.

The Board is not aware of any archeological sites in the proposed project area. It is not anticipated that this project will have any impact on low income or minority populations. This project will not limit access to any known Indian sacred sites, or result in any impacts to tribal lands.

This project will not contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species in the project area.

Required permits or approvals

No permits or approvals are expected to be needed to complete this work.

Official resolution

The members of the Idaho Water Resource Board (IWRB) will be asked to adopt by official resolution support for this grant at their board meeting on January 24th, 2014. The Board supports and encourages the goal of installing irrigation measurement devices on diversions from the Snake River in Water District 02. A copy of the draft resolution expected to be passed at the January Board meeting is included in Appendix

A. Following the January 24th 2014 board meeting an official resolution will be submitted to the Bureau of Reclamation.

Letters of project support

The letters of funding commitment from third party funding sources that we received by the application due date are included in Appendix B. The remainder of the letters of funding commitment will be submitted to the Bureau of Reclamation within 30 days of the application deadline. The funding commitment letters will be included in the package with the adopted resolution from the IWRB. The proposed funding commitments will be discussed in the funding plan.

Project Budget

Funding plan and letters of commitment

Total cost of this proposal is $661,691. Reclamation's share would be $297,761 and the non-Federal entities' share is $363,930. The non-Federal water user entities listed in Table 3 are willing to commit these funds given the importance of the project and the understanding of these entities that there is a need to be accountable for their water use. Letters of commitment for 41 entities have been secured with a sample of those signed letters submitted under this application. The sample of letters is under Appendix B. We anticipate receiving letters of funding commitment from all non-Federal water user entities by February 7, 2014. At that time, we will submit these letters of commitment to the Bureau of Reclamation. Table 4 summarizes the overall budget costs with total percentage and amounts attributed to recipient funding (irrigation entities/owners) and BOR funding. Federal Budget form included in Appendix E.

Funding Sources	Funding Amount	Project Acres
Non-Federal Irrigation Entities		
1. Grindstone Butte Mutual Canal Co	$11,970.00	13,432
2. King Hill Irrigation District	$20,686.00	11,573
3. MAN Farms & ATN Holdings	$5,830.00	4,389
4. SV Ranch LLC	$26,922.00	2,136
5. Dale Van Es	$7,634.00	2,495
6. Murphy Flats Water Company	$8,040.00	4,882
7. Sherwin Sunberg	$5,907.00	243
8. Murphy Land Company LLC (4 POD)	$36,398.00	3,634
9. Leland Shetler	$5,927.00	359

10. Young, Lampman, Gingerich, Atkins	$7,710.00	2,940
11. Verlin Gingerich	$3,678.00	36.4
12. Frank Tiegs LLC	$7,437.00	1,338
13. Wilson & Wilson Co. Inc.	$7,398.00	1,110
14. Blanksma Land & Storage (2 POD)	$14,717.00	1753
15. West Indian Cove Water Co.	$7,330.00	714
16. Dale Hooley (2 POD)	$13,207.00	776
17. James Wolfe	$15,091.00	242
18. William R Wolfe	$9,852.00	260
19. Eagle Creek NW	$7,325.00	681
20. Rocking 5 Ranch	$5,016.00	143
21. Walker Plow	$9,781.00	400
22. Edgewater Ranch LLC	$5,461.00	153
23. Alonzo Leavell	$4,391.00	107
24. Garndner Brown	$3,674.00	18
25. Louis Jeffery	$3,389.00	17
26. Merrill Brown	$5,009.00	100
27. David Ayarra Jr. Trust	$3,676.00	25
28. Donald Schiermeier	$7,493.00	1667
29. Quey Johns	$7,297.00	517
30. Gingerich Brothers Farms	$7,435.00	1324.5
31. Robert J Meyers	$17,985.00	1205.7
32. Midnight Sun VIII LLC	$7,912.00	4128
33. Rivendale LLC	$5,049.00	334
34. TR Investments	$3,391.00	28.4
35. Thomas Conrad	$5,896.00	180
36. Deruyter Properties LP	$7,419.00	1232
37. Greg Mellum	$4,827.00	64.2
38. Peter Sturdivant	$3,946.00	20
39. Bob Bledsoe	$7,304.00	S60
40. City of Glenns Ferry	$2,629.00	NA
Other Non Federal Entities		
1. Idaho Department of Water Resources	$4,504.00	
Non-Federal Subtotal	**363,930**	**65,217**
Requested Reclamation Funding		
1. Grindstone Butte Mutual Canal Co	$9,794.00	

2. King Hill Irrigation District	$16,924.91	
3. MAN Farms & ATN Holdings	$4,770.00	
4. SV Ranch LLC	$22,027.09	
5. Dale Van Es	$6,246.00	
6. Murphy Flats Water Company	$6,578.18	
7. Sherwin Sunberg	$4,833.00	
8. Murphy Land Company LLC (4 POD)	$29,780.18	
9. Leland Shetler	$4,849.36	
10. Young, Lampman, Gingerich, Atkins	$6,308.18	
11. Verlin Gingerich	$3,009.27	
12. Frank Tiegs LLC	$6,084.82	
13. Wilson & Wilson Co. Inc.	$6,052.91	
14. Blanksma Land & Storage (2 POD)	$12,041.18	
15. West Indian Cove Water Co.	$5,997.27	
16. Dale Hooley (2 POD)	$10,805.73	
17. James Wolfe	$12,347.18	
18. William R Wolfe	$8,060.73	
19. Eagle Creek NW	$5,993.18	
20. Rocking S Ranch	$4,104.00	
21. Walker Plow	$8,002.64	
22. Edgewater Ranch LLC	$4,468.09	
23. Alonzo Leavell	$3,592.64	
24. Garndner Brown	$3,006.00	
25. Louis Jeffery	$2,772.82	
26. Merrill Brown	$4,098.27	
27. David Ayarra Jr. Trust	$3,007.64	
28. Donald Schiermeier	$6,130.64	
29. Quey Johns	$5,970.27	
30. Gingerich Brothers Farms	$6,083.18	
31. Robert J Meyers	$14,715.00	
32. Midnight Sun VIII LLC	$6,473.45	
33. Rivendale LLC	$4,131.00	
34. TR Investments	$2,774.45	
35. Thomas Conrad	$4,824.00	
36. Deruyter Properties LP	$6,070.09	
37. Greg Mellum	$3,949.36	
38. Peter Sturdivant	$3,228.55	
39. Bob Bledsoe	$5,976.00	

40. City of Glenns Ferry	$2,151.00	
Other Non Federal Entities		
1. Idaho Department of Water Resources	$3,685.09	
Total Reclamation Funding	$297,761.00	
Total Project Funding	$661,691.00	

Table 3: List of third party non-Federal Entities

Funding Sources	% of Total Project Cost	Total Cost by Source
Recipient Funding	55%	$363,930.13
Reclamation Funding	45%	$297,761.02
Other Federal Funding		$ -
TOTALS	100%	$661,691.15

Table 4: Funding Sources

Budget Proposal

The Idaho Water Resource Board anticipates the following costs for this project (see below in Table 5):

Budget Proposal - Aggregated

Budget Item Description	COMPUTATION			TOTAL COST
	$/Unit	Quantity	Quantity Type (hours/days)	
Salaries And Wages				
Employees	$26.00	315	8	$ 8,190.00
Fringe Benefits				
Full-Time Employees	NA	NA	NA	
Part-Time Employees	NA	NA	NA	
Travel				
No travel costs proposed. Travel costs for contractual labor are built in to contract costs. IWRB and WD02 will cover eny travel costs as in-kind contribution.	NA	NA	NA	
Equipment				

A. Ultrasonic Flow Meters				
1. Dual Channel	$3,115.00	1		$ 3,115.00
2. Single channel meter	$2,220.00	23		$ 51,060.00
3. Transducers for Single and Dual Channel meters	$1,120.00	25		$ 28,000.00
B. Magnetic Flow Meters (includes grounding rings, remote mount kit & 30 feet of cable)				
1. 6" OD	$2,604.50	3		$ 7,813.50
2. 8" OD	$3,037.50	5		$ 15,187.50
3. 10" OD	$3,447.50	10		$ 34,475.00
4. 12" OD	$4,917.50	13		$ 63,927.50
5. 14" OD	$5,497.50	4		$ 21,990.00
C. Enclosure				
1. Equipment/Materials (includes 6% sales tax)	$1,018.00	58		$ 59,044.00
2. Labor (2 men at 6/hr/site each)	$384.00	58	12 hrs/site $32/hr	$ 22,272.00
Enclosure Sub-total (from Quote R & M Welding)	$1,402.00			
D. Full Telemetry				
1. Campbell CR1000 dataloggers	$1,440.00	27		$ 38,880.00
2. Campbell 900 Mhz radio	$1,100.00	27		$ 29,700.00
3. Antenna & cable	$250.00	27		$ 6,750.00
4. Antenna surge protector kit	$120.00	27		$ 3,240.00
5. Signal conditioner	$190.00	27		$ 5,130.00
6. Steel enclosure	$395.00	27		$ 10,665.00
7. Grounding rod kit	$54.00	27		$ 1,458.00
8. 12 volt AC to DC power supply	$190.00	27		$ 5,130.00
9. Support pole/hardware/concrete	$70.88	27		$ 1,913.76
Full Telemetry Sub-total	$3,809.88			
E. Partial Telemetry				
1. Campbell CR800 dataloggers	$1,100.00	15		$ 16,500.00
2. 10 watt solar panel	$200.00	15		$ 3,000.00
3. Solar converter	$55.00	15		$ 825.00
4. 12 volt DC battery source	$95.00	15		$ 1,425.00
5. Fiberglass enclosure	$170.00	15		$ 2,550.00
6. Signal conditioner	$190.00	15		$ 2,850.00

7. Support pole/hardware/concrete	$70.88	15		$	1,063.20
Partial Telemetry Sub-total	$1,880.88				
F. Telemetry Repeater Sites					
1. Campbell RF900 MHz radio	$1,100.00	3		$	3,300.00
2. 10 watt solar panel	$200.00	3		$	600.00
3. Solar converter	$55.00	3		$	165.00
4. 12 volt DC battery source	$95.00	3		$	285.00
5. 8 decibel antenna	$270.00	3		$	810.00
6. Antenna cable (50 feet)	$160.00	3		$	480.00
7. Grounding rod kit	$54.00	3		$	162.00
8. 50 foot tower	$3,850.00	3		$	11,550.00
9. Steel Enclosure	$395.00	3		$	1,185.00
10. Concrete	$400.00	3		$	1,200.00
11. Padlock and Hardware for install	$30.00	3		$	90.00
Telemetry Repeater Sub-total	$6,609.00				
G. Electrical					
1. Equipment & Materials/Supplies	$233.50	59		$	13,776.50
2. Labor 1 - electrical	$234.00	59	4.5 hrs/site $52/hr	$	13,806.00
3. Labor 2 - electrical	$157.50	59	4.5 hrs/site $35/hr	$	9,292.50
4. Labor - trenching	$70.00	59	2 hrs/site $35/hr	$	4,130.00
5. 3/4" PVC conduit	$102.00	59		$	6,018.00
Electrical Sub-total (from Quote Freedom Irrigation)	$797.00				
G-1. 110 Volt tie in for Grindstone Butte Mutual Canal Company					
1. 500 feet 3/4" PVC and 20 amp circuit and receptacle box with weather covr	$422.00	1		$	422.00
2. Labor 1 - electrical	$520.00	1	10 hrs- $52/hr	$	520.00
3. Labor 2 - Trenching	$350.00	1	10 hrs- $35/hr	$	350.00
4. Labor 2 - Trenching	$175.00	1	Trencher rental	$	175.00
Electrical Sub-total (from Quote Freedom Irrigation)	$1,467.00				

Supplies/Materials				
GE ultrasonic cables ($2.90*200 feet) & transducer brackets	$1,015.00	25		**$ 25,375.00**
Contractual/Construction				
Excavation (for CMP enclosure (Quote from Fisher Excavation)	$950.00	59	$190/hr 5 hrs per enclosure	**$ 56,050.00**
Installation (for ultrasonic meters, 23 single channel and 1 dual channel)	$1,600.00	24	$1,500/day per site	**$ 38,400.00**
Installation/Welding (for 6" mag flow meters)	$312.00	3	$312/meter	**$ 936.00**
Installation/Welding (for 8" mag flow meters)	$390.00	5	$390/meter	**$ 1,950.00**
Installation/Welding (for 10" mag flow meters)	$465.00	10	$465/meter	**$ 4,650.00**
Installation/Welding (for 12" mag flow meters)	$560.00	13	$560/meter	**$ 7,280.00**
Installation/Welding (for 14" mag flow meters)	$700.00	4	$700/meter	**$ 2,800.00**
Other				
Reporting (provided by IWRB as in-kind service)	NA	NA		
Total Direct Costs				**$ 651,912.46**
Indirect Costs - __%	NA	NA		
Environmental Study 1.5% of Project				**$ 9,778.69**
Total Project Costs				**$ 661,691.15**

Table 5. Budget Proposal- Aggregated

Budget Narrative

The grant budget proposes to address costs for acquisition and installation of measuring devices for forty-eight (48) separate irrigation diversions or developments located within Water District 02. The 48 diversions are owned or operated by forty (40) separate entities. The budget also includes costs for acquisition and installation of monitoring and telemetry equipment for diversion with 100 acres or greater on the water rights. The irrigation diversions and developments vary in size and types of diversion. The 40 irrigation entities are listed in Table 3 of this section. The table lists irrigation projects by irrigation entity owner. These owners constitute the non-Federal funding sources or entities under the proposed WaterSmart Grant budget. Each entity proposes to fund 55 percent (55%) of the total cost for measuring device/telemetry equipment acquisition and installation for each respective diversion project, with the BOR providing

a 45% cost share for each diversion project. Table 3 shows the 55% funding amount provided by each entity as well as the 45% BOR funding amount by diversion project/entity. Table 4 summarizes the overall budget costs with total percentage and amounts attributed to recipient funding (irrigation entities/owners) and BOR funding.

Table 5 is the Budget Proposal Form showing itemized costs for each irrigation entity/owner project. Costs are provided for equipment acquisition and construction/installation and shown below in the Equipment and Contractual Labor/Construction sections of this budget narrative.

Salaries and Wages

The designated program manager for this grant will be Neeley Miller, Senior Water Planner for the IWRB. In addition, Corbin Knowles, the elected and appointed watermaster for Water District 02 and Technical Hydrologist for IDWR, will be designated a field project coordinator who will work directly with the non-Federal water user entities on equipment acquisition and field installation scheduling for the individual irrigation diversion sites. Salaries under the application reflect a portion of time designated for field project coordinator with the matching funds provided by the Idaho Department of Water Resources. The amount budgeted is hourly rate for one staff person with no fringe or additional costs being incurred under the project.

All measuring device and telemetry equipment installation will be contracted with private vendors and all will be closed conduit measurements. Contractual labor costs are estimated based on quotes from contractors for this proposed project. These labor costs are built into the Budget Proposal Form in Table 5. Labor costs are also detailed below under the Equipment and Contractual Labor/Construction sections of this budget narrative. The explanations of costs provided in these following sections are used in the Budget Proposal Form in Table 5.

Fringe Benefits

No fringe benefits are included in the budget proposal for this project.

Travel

No travel is required for this project.

Equipment, and Materials and Supplies

Equipment items and Materials and Supplies items are combined under one category for purposes of this grant proposal. Flow meters, measuring devices, telemetry equipment and related materials are all included under the Equipment category in Table 5. Equipment enclosures, including contractual labor associated with enclosure installations are included as a separate Equipment budget item in Table 5. Telemetry equipment is not included for diversions less than 100 acres in size. Diversions

between 100-499 acres will be equipped with data-loggers, but no radio equipment. This equipment will provide the necessary resolution in data collection needed for diversions of this size.

Equipment

1. Flow meters
   A. Ultrasonic – clamp on meters for larger diameter closed conduit pipelines
      - Single Channel GE AT868 $2,220.00
      - Dual Channel GE AT868 (measure two pipes with one unit) $3,115.00
      - 1 Mhz set of clamp on transducers $2,135.00 (comes with 200 feet of cable and clamping fixture)

   B. Magnetic Flow meters – flanged meters, typically for smaller diameter pipelines
      - Badger M-2000 includes remote mount and cable kit
      - 6 inch diameter $2,604
      - 8 inch diameter $3,307.50
      - 10 inch diameter $3,447.50
      - 12 inch diameter $4,917.50
      - 14 inch diameter $5,497.50
      - Will require welder to install flanges to properly fit meter in the pipe
      - Electrical is the same as the ultrasonic

2. Full Telemetry Package (Greater than 500 acre diversion)
   - Campbell CR1000 datalogger $1440.00
   - Campbell 900 Mhz radio - $1100.00
   - Antenna and cable- $250.00
   - Solar panels for DC option telemetry- $200.00
   - Antenna surge protector kit - $120.00
   - Steel enclosure- $395.00
   - Grounding rod kit- $54.00
   - 12 volt DC power supply-$190.00
   - Support pole/hardware/concrete- $70.88

3. Partial Telemetry Package (100-499 acre diversions)
   - Campbell CR800 datalogger- $1,100.00
   - 10 watt solar panel- $200.00
   - Solar converter- $55.00
   - 12 volt DC battery source- $95.00
   - Fiberglass enclosure- $170.00
   - Signal conditioner- $190.00
   - Support pole/hardware/concrete- $70.88

4. Telemetry Repeater (up to 3)
    - Campbell RF 900 MHz radio- $1,100.00
    - 10 watt solar panel- $200.00
    - Solar converter- $55.00
    - 12 volt DC battery source- $95.00
    - 8 dB antenna- $270.00
    - Antenna cable- $160.00
    - Grounding rod kit- $54.00
    - 50 foot self standing tower- $3,850.00
    - Steel enclosure- $395.00
    - Concrete- $400.00
    - Padlock and Hardware to install- $30.00

5. Enclosure: Unit cost is $1,400 per enclosure. Typically one enclosure per site but some diversion sites may require multiple enclosures if multiple pump stations or pipes/penstock exist
    - 60" diameter corrugated metal pipe $65.00/ft spec at 6 foot length $390.00
    - 10 gauge plate for lid $125.24
    - Piano Hinge for lid $12.08
    - Labor to fabricate on site and fit over pipe 6 hours at 72.50/hr $435.00
    - Labor to help cut and set enclosure 12 hours (2 helpers at 6 hours each) $32.00/hr $384.00
    - 1" X 1" X 0.083" square tubing for ladder 20 feet $1.20/ft $24.00

Contractual Labor/Construction

1. Excavation
    - 5 hours by excavator to expose waterline and use equipment to set 60" CMP enclosure $950.00

2. Electrical: Unit cost is $800 to $2,275 per site or pumping station. The cost includes the following items:
    - Weather proof box for housing electronics – $110.00
    - AC/DC 110 volt transformer- $45.58
    - Misc Fittings, wire, fuses elbows $56.35
    - Labor 4.5 hrs per site at $52.00/hr $234.00
    - Labor (helper) 4.5 hrs at $32.00/hr $144.00
    - Trenching conduit between enclosure and meter up to 200 feet-2 hours at $35.00/hr- $70.00
    - 200 feet of ¾ inch schedule 80 conduit $0.48/ft -$96.00
    - Additional $175 for conduit for second or additional pipeline
    - 120 volt breaker panel, 120 volt receptacle and weather cover and box, 20 amp $422.00
    - circuit ran up to 500 feet- $1,045.00

3. Installation/Welding
   - GE Ultrasonic meter installation, set-up and programming completed by GE personnel - $1,600 per day.
   - Magnetic flow meters: cut pipe, install flanges and flanged meter spool, and initial meter set-up. Cost is pipe diameter dependent, ranges from $312 per meter for 6 inch pipe, $390 per meter for 8 inch pipe, $465 per meter for 10 inch pipe, $560 per meter for 12 inch pipe and $700 per meter for 14 inch pipe

4. IDWR project management
   - 315 hours at $26.00/hr- $8,190.00

Budgeted items are based on quotes from local vendors who have provided estimates of cost associated with this project. Cost quotes for this project are not included in the original WaterSmart grant application submitted by the IWRB, but are available upon request.

Indirect Costs

No indirect costs are budgeted.

Environmental and Regulatory Compliance Costs

No costs are anticipated with respect to environmental and regulatory compliance issues, and no regulatory permits should be required for this project. However, one and one half percent (1.5%) of the total project costs for equipment and construction/installation has been estimated and added to the total proposed grant budget in the event that there are some unforeseen environmental or regulatory requirements. Any questions or issues concerning environmental or regulatory matters will be directed to the program manager, Neeley Miller of the IWRB, or to the project field manager and Water District 02 watermaster, Corbin Knowles of IDWR.

Reporting

All required reporting will be provided by the program manager, Neeley Miller, and/or the project field manager and Water District 02 watermaster, Corbin Knowles. In an effort to maximize grant dollars for measuring device and telemetry installations, no program manger or other staff costs will be charged to the grant for any reporting requirements.

Other Expenses

No other expenses or price contingencies are included or provided in this budget. The participating non-Federal entities will pay for any unforeseen equipment or material price increases to the extent such increases result in costs that exceed the overall amounts proposed in this budget.

Total Costs

Total cost of this proposal is $661,691. Reclamation's share would be $297,761 and the non-Federal entities' share is $363,930. The non-Federal water user entities listed in Table 3 are willing to commit these funds given the importance of the project and the understanding of these entities that there is a need to be accountable for their water use. Letters of commitment have been secured from each non-Federal water user although only a sample of commitment letters are included in the application all signed commitment letters will be made available within 30 days of the application deadline.

Appendix A: IWRB Draft Resolution

BEFORE THE IDAHO WATER RESOURCE BOARD

IN THE MATTER OF THE PROPOSED WATERSMART APPLICATION TO USBOR FOR MEASUREMENT DEVICES IN WATER DISTRICT 02	))))	RESOLUTION

WHEREAS, the Idaho Department of Water Resources (IDWR) created Water District 02 on July 10, 2012 pursuant to Idaho Code § 42-604; and

WHEREAS, Water District 02 has been created and held its first annual meeting on January 15, 2013, and it does not have a budget and is temporarily limited to an IDWR employee appointed watermaster; and

WHEREAS, IDWR issued an order in 2013 requiring the installation of water measuring devices; and

WHEREAS, the IWRB supports the installation of measurement devices in Water District 02 as evidenced by Policy 1H of the Idaho State Water Plan adopted by the Board in 2012 which states, "Quantification and measurement of Idaho's water supply and use is essential for sound water resource planning, management, and administration"; and

Whereas, the IWRB has an opportunity to assist Water District 02 and to apply for federal WaterSMART grants to offset costs to users and assist in the implementation of the Board's policy IH; and

WHEREAS, the IWRB authorized an application to the United States Bureau of Reclamation for a WaterSMART grant for Phase-One of the Irrigation Flow Measurement and Monitoring project in Water District 02 on January 25th 2013; and

WHEREAS, the Board expects the affected water users to provide the remainder of the costs.

NOW, THEREFORE, BE IT RESOLVED the Board authorizes application to the United States Bureau of Reclamation for a WaterSMART grant for measurement devices in Water District 02 and authorizes the Chairman to enter into an agreement with the Bureau of Reclamation for the WaterSMART grant.

NOW, THEREFORE BE IT FURTHER RESOLVED that the affected water users shall provide the remainder of the project costs, and there shall be no financial obligation from the Board other than the cost of staff time.

NOW, THEREFORE BE IT FURTHER RESOLVED that the WaterSMART grant funds will be deposited in the Board's Revolving Development Account until expended for the measurement devices in Water District 02.

DATED this 24th day of January, 2014.

_____

Roger Chase, Chairman
Idaho Water Resource Board

ATTEST_____
Bob Graham, Secretary

Appendix B: Letters of Commitment

January 10, 2014

RECEIVED
JAN 15 2014

Idaho Water Resource Board
322 E Front St.
PO Box 83720
Boise, ID 83720-0098

Re: Letter of Commitment – Bureau of Reclamation WaterSMART Water and Energy Efficiency Grant, Idaho Water Resource Board Application for Water District 02 Water Diversion Measurement and Telemetry

Dear Board Members,

Dale Hooley holds waters rights authorizing the diversion of water from the Snake River within Water District 02, Milner Dam to Murphy Gage, for the irrigation of approximately 776 acres. Dale Hooley understands that the Idaho Water Resource Board (IWRB) is making application to the U.S. Bureau of Reclamation (BOR) for a WaterSMART Grant on behalf of Water District 02 and a number of interested water delivery entities and water right holders in the water district. The grant application seeks assistance with acquisition and installation of water diversion measuring devices and telemetry equipment.

Dale Hooley further understands that the BOR WaterSMART grant requires at least a 50 percent cost share commitment from third party funding sources. Dale Hooley is an interested third party funding source and water user that will benefit from this grant. Dale Hooley is committed to providing 55% of all costs associated with the acquisition and installation of measuring devices and telemetry equipment for its Water District 02 Snake River diversion(s). Dale Hooley will fund his cost share requirement with in-kind contributions and cash as needed to complete the project.

Dale Hooley and the IWRB estimate that the total cost for acquisition and installation of measuring and telemetry equipment for the 2 diversion(s) is approximately $24,013 dollars ($24,013). Dale Hooley commits to providing approximately $13,207 of the total cost (55 percent) and will provide the necessary funds by_____, 2014 or at any time necessary within the approved grant period, which is anticipated to extend to approximately December 31, 2015. Dale Hooley will pay all of the costs up front (both BOR's cost share and Dale Hooley's cost share) provided that Dale Hooley is reimbursed for the remaining 45 percent (approximately $10,806 dollars) BOR cost-share.

Dale Hooley appreciates the opportunity to work with the IWRB as a third party funding source for the Water District 02 WaterSMART grant.

Sincerely,

(Title)
Owner

January 10, 2014

Idaho Water Resource Board
322 E Front St.
PO Box 83720
Boise, ID 83720-0098

Re: Letter of Commitment – Bureau of Reclamation WaterSMART Water and Energy Efficiency Grant, Idaho Water Resource Board Application for Water District 02 Water Diversion Measurement and Telemetry

Dear Board Members,

Roger Young, Jacob & Clay Atkins, Gingegrich Brothers Farms and Bruce Lampman (Young et al) hold waters rights authorizing the diversion of water from the Snake River within Water District 02, Milner Dam to Murphy Gage, for the irrigation of approximately 2,940 acres. Young et al understands that the Idaho Water Resource Board (IWRB) is making application to the U.S. Bureau of Reclamation (BOR) for a WaterSMART Grant on behalf of Water District 02 and a number of interested water delivery entities and water right holders in the water district. The grant application seeks assistance with acquisition and installation of water diversion measuring devices and telemetry equipment.

Young et al further understands that the BOR WaterSMART grant requires at least a 50 percent cost share commitment from third party funding sources. Young et al is an interested third party funding source and water user that will benefit from this grant. Young et al is committed to providing 55% of all costs associated with the acquisition and installation of measuring devices and telemetry equipment for its Water District 02 Snake River diversion(s). Young et al will fund their cost share requirement with in-kind contributions and cash as needed to complete the project.

Young et al and the IWRB estimate that the total cost for acquisition and installation of measuring and telemetry equipment for the 1 diversion(s) is approximately $14,018 dollars ($14,018). Young et al commits to providing approximately $7,710 of the total cost (55 percent) and will provide the necessary funds by JULY 15, 2014 or at any time necessary within the approved grant period, which is anticipated to extend to approximately December 31, 2015. Young et al will pay all of the costs up front (both BOR's cost share and Young et al's cost share) provided that Young et al is reimbursed for the remaining 45 percent (approximately $6,308 dollars) BOR cost-share.

Young et al appreciates the opportunity to work with the IWRB as a third party funding source for the Water District 02 WaterSMART grant.

Sincerely,

Roger G Young 01-15-14
(Title) PART OWNER

January 10, 2014

Idaho Water Resource Board
322 E Front St.
PO Box 83720
Boise, ID 83720-0098

Re: Letter of Commitment – Bureau of Reclamation WaterSMART Water and Energy Efficiency Grant, Idaho Water Resource Board Application for Water District 02 Water Diversion Measurement and Telemetry

Dear Board Members,

Donna and Emma Bledsoe holds waters rights authorizing the diversion of water from the Snake River within Water District 02, Milner Dam to Murphy Gage, for the irrigation of approximately 560 acres. Donna and Emma Bledsoe understands that the Idaho Water Resource Board (IWRB) is making application to the U.S. Bureau of Reclamation (BOR) for a WaterSMART Grant on behalf of Water District 02 and a number of interested water delivery entities and water right holders in the water district. The grant application seeks assistance with acquisition and installation of water diversion measuring devices and telemetry equipment.

Donna and Emma Bledsoe further understands that the BOR WaterSMART grant requires at least a 50 percent cost share commitment from third party funding sources. Donna and Emma Bledsoe is an interested third party funding source and water user that will benefit from this grant. Donna and Emma Bledsoe is committed to providing 55% of all costs associated with the acquisition and installation of measuring devices and telemetry equipment for its Water District 02 Snake River diversion(s). Donna and Emma Bledsoe will fund their cost share requirement with in-kind contributions and cash as needed to complete the project.

Donna and Emma Bledsoe and the IWRB estimate that the total cost for acquisition and installation of measuring and telemetry equipment for the 1 diversion(s) is approximately $13,281 dollars ($13,281). Donna and Emma Bledsoe commits to providing approximately $7,305 of the total cost (55 percent) and will provide the necessary funds by_____, 2014 or at any time necessary within the approved grant period, which is anticipated to extend to approximately December 31, 2015. Donna and Emma Bledsoe will pay all of the costs up front (both BOR's cost share and Donna and Emma Bledsoe's cost share) provided that Donna and Emma Bledsoe reimbursed for the remaining 45 percent (approximately $5,976 dollars) BOR cost-share.

Donna and Emma Bledsoe appreciate the opportunity to work with the IWRB as a third party funding source for the Water District 02 WaterSMART grant.

Sincerely,

Title Owner

(Title)

RECEIVED

JAN 16 2014

DEPARTMENT OF
WATER RESOURCES

January 10, 2014

Idaho Water Resource Board
322 E Front St.
PO Box 83720
Boise, ID 83720-0098

Re: Letter of Commitment – Bureau of Reclamation WaterSMART Water and Energy Efficiency Grant, Idaho Water Resource Board Application for Water District 02 Water Diversion Measurement and Telemetry

Dear Board Members,

The Rocking S Ranch (RSR) holds waters rights authorizing the diversion of water from the Snake River within Water District 02, Milner Dam to Murphy Gage, for the irrigation of approximately 260 acres. The RSR understands that the Idaho Water Resource Board (IWRB) is making application to the U.S. Bureau of Reclamation (BOR) for a WaterSMART Grant on behalf of Water District 02 and a number of interested water delivery entities and water right holders in the water district. The grant application seeks assistance with acquisition and installation of water diversion measuring devices and telemetry equipment.

The RSR further understands that the BOR WaterSMART grant requires at least a 50 percent cost share commitment from third party funding sources. The RSR is an interested third party funding source and water user that will benefit from this grant. The RSR is committed to providing 55% of all costs associated with the acquisition and installation of measuring devices and telemetry equipment for its Water District 02 Snake River diversion(s). The RSR will fund its cost share requirement with in-kind contributions and cash as needed to complete the project.

The RSR and the IWRB estimate that the total cost for acquisition and installation of measuring and telemetry equipment for the 1 diversion(s) is approximately $9120 dollars ($9,120). The RSR commits to providing approximately $5,016 of the total cost (55 percent) and will provide the necessary funds by Dec., 2014 or at any time necessary within the approved grant period, which is anticipated to extend to approximately December 31, 2015. The RSR will pay all of the costs up front (both BOR's cost share and the RSR's cost share) provided that the RSR is reimbursed for the remaining 45 percent (approximately $4,104 dollars) BOR cost-share.

The RSR appreciates the opportunity to work with the IWRB as a third party funding source for the Water District 02 WaterSMART grant.

Sincerely, John Solomell

Pres.
(Title)

January 10, 2014

Idaho Water Resource Board
322 E Front St.
PO Box 83720
Boise, ID 83720-0098

Re: Letter of Commitment – Bureau of Reclamation WaterSMART Water and Energy Efficiency Grant, Idaho Water Resource Board Application for Water District 02 Water Diversion Measurement and Telemetry

Dear Board Members,

Gardner Brown holds waters rights authorizing the diversion of water from the Snake River within Water District 02, Milner Dam to Murphy Gage, for the irrigation of approximately 18 acres. Gardner Brown understands that the Idaho Water Resource Board (IWRB) is making application to the U.S. Bureau of Reclamation (BOR) for a WaterSMART Grant on behalf of Water District 02 and a number of interested water delivery entities and water right holders in the water district. The grant application seeks assistance with acquisition and installation of water diversion measuring devices and telemetry equipment.

Gardner Brown further understands that the BOR WaterSMART grant requires at least a 50 percent cost share commitment from third party funding sources. Gardner Brown is an interested third party funding source and water user that will benefit from this grant. Gardner Brown is committed to providing 55% of all costs associated with the acquisition and installation of measuring devices and telemetry equipment for its Water District 02 Snake River diversion(s). Gardner Brown will fund his cost share requirement with in-kind contributions and cash as needed to complete the project.

Gardner Brown and the IWRB estimate that the total cost for acquisition and installation of measuring and telemetry equipment for the 1 diversion(s) is approximately $6,680 dollars ($6,680). Gardner Brown commits to providing approximately $3674 of the total cost (55 percent) and will provide the necessary funds by December, 2014 or at any time necessary within the approved grant period, which is anticipated to extend to approximately December 31, 2015. Gardner Brown will pay all of the costs up front (both BOR's cost share and Gardner Brown's cost share) provided that Gardner Brown is reimbursed for the remaining 45 percent (approximately $3,006 dollars) BOR cost-share.

Gardner Brown appreciates the opportunity to work with the IWRB as a third party funding source for the Water District 02 WaterSMART grant.

Sincerely,

(Title)

January 10, 2014

Idaho Water Resource Board
322 E Front St.
PO Box 83720
Boise, ID 83720-0098

Re: Letter of Commitment – Bureau of Reclamation WaterSMART Water and Energy Efficiency Grant, Idaho Water Resource Board Application for Water District 02 Water Diversion Measurement and Telemetry

Dear Board Members,

The Blanksma Land & Storage (BLS) holds waters rights authorizing the diversion of water from the Snake River within Water District 02, Milner Dam to Murphy Gage, for the irrigation of approximately 1,753 acres. BLS understands that the Idaho Water Resource Board (IWRB) is making application to the U.S. Bureau of Reclamation (BOR) for a WaterSMART Grant on behalf of Water District 02 and a number of interested water delivery entities and water right holders in the water district. The grant application seeks assistance with acquisition and installation of water diversion measuring devices and telemetry equipment.

The BLS further understands that the BOR WaterSMART grant requires at least a 50 percent cost share commitment from third party funding sources. The BLS is an interested third party funding source and water user that will benefit from this grant. The BLS is committed to providing 55% of all costs associated with the acquisition and installation of measuring devices and telemetry equipment for its Water District 02 Snake River diversion(s). The BLS will fund its cost share requirement with in-kind contributions and cash as needed to complete the project.

The BLS and the IWRB estimate that the total cost for acquisition and installation of measuring and telemetry equipment for the 2 diversion(s) is approximately $26,758 dollars ($26,758). The BLS commits to providing approximately $14,717 of the total cost (55 percent) and will provide the necessary funds by Jan. 31, 2014 or at any time necessary within the approved grant period, which is anticipated to extend to approximately December 31, 2015. The BLS will pay all of the costs up front (both BOR's cost share and the BLS's cost share) provided that the BLS is reimbursed for the remaining 45 percent (approximately $12,041 dollars) BOR cost-share.

The BLS appreciates the opportunity to work with the IWRB as a third party funding source for the Water District 02 WaterSMART grant.

Sincerely,

(Title) V.P.

January 10, 2014

Idaho Water Resource Board
322 E Front St.
PO Box 83720
Boise, ID 83720-0098

Re: Letter of Commitment – Bureau of Reclamation WaterSMART Water and Energy Efficiency Grant, Idaho Water Resource Board Application for Water District 02 Water Diversion Measurement and Telemetry

Dear Board Members,

Robert Meyer holds waters rights authorizing the diversion of water from the Snake River within Water District 02, Milner Dam to Murphy Gage, for the irrigation of approximately 1206 acres. Robert Meyer understands that the Idaho Water Resource Board (IWRB) is making application to the U.S. Bureau of Reclamation (BOR) for a WaterSMART Grant on behalf of Water District 02 and a number of interested water delivery entities and water right holders in the water district. The grant application seeks assistance with acquisition and installation of water diversion measuring devices and telemetry equipment.

Robert Meyer further understands that the BOR WaterSMART grant requires at least a 50 percent cost share commitment from third party funding sources. Robert Meyer is an interested third party funding source and water user that will benefit from this grant. Robert Meyer is committed to providing 55% of all costs associated with the acquisition and installation of measuring devices and telemetry equipment for its Water District 02 Snake River diversion(s). Robert Meyer will fund his cost share requirement with in-kind contributions and cash as needed to complete the project.

Robert Meyer and the IWRB estimate that the total cost for acquisition and installation of measuring and telemetry equipment for the 1 diversion(s) is approximately $32,700 dollars ($32,700). Robert Meyer commits to providing approximately $17,985 of the total cost (55 percent) and will provide the necessary funds by 15 February, 2014 or at any time necessary within the approved grant period, which is anticipated to extend to approximately December 31, 2015. Robert Meyer will pay all of the costs up front (both BOR's cost share and Robert Meyer's cost share) provided that Robert Meyer is reimbursed for the remaining 45 percent (approximately $14,715 dollars) BOR cost-share.

Robert Meyer appreciates the opportunity to work with the IWRB as a third party funding source for the Water District 02 WaterSMART grant.

Sincerely,

Robert Meyer
(Title)

January 10, 2014

Idaho Water Resource Board
322 E Front St.
PO Box 83720
Boise, ID 83720-0098

Re: Letter of Commitment – Bureau of Reclamation WaterSMART Water and Energy Efficiency Grant, Idaho Water Resource Board Application for Water District 02 Water Diversion Measurement and Telemetry

Dear Board Members,

The West Indian Cove Water Company (WICW) holds waters rights authorizing the diversion of water from the Snake River within Water District 02, Milner Dam to Murphy Gage, for the irrigation of approximately 714 acres. WICW understands that the Idaho Water Resource Board (IWRB) is making application to the U.S. Bureau of Reclamation (BOR) for a WaterSMART Grant on behalf of Water District 02 and a number of interested water delivery entities and water right holders in the water district. The grant application seeks assistance with acquisition and installation of water diversion measuring devices and telemetry equipment.

WICW further understands that the BOR WaterSMART grant requires at least a 50 percent cost share commitment from third party funding sources. WICW is an interested third party funding source and water user that will benefit from this grant. WICW is committed to providing 55% of all costs associated with the acquisition and installation of measuring devices and telemetry equipment for its Water District 02 Snake River diversion(s). WICW will fund its cost share requirement with in-kind contributions and cash as needed to complete the project.

WICW and the IWRB estimate that the total cost for acquisition and installation of measuring and telemetry equipment for the 1 diversion(s) is approximately $13,328 dollars ($13,328). WICW commits to providing approximately $7,330 of the total cost (55 percent) and will provide the necessary funds by Dec, 2014 or at any time necessary within the approved grant period, which is anticipated to extend to approximately December 31, 2015. WICW will pay all of the costs up front (both BOR's cost share and WICW's cost share) provided that WICW is reimbursed for the remaining 45 percent (approximately $5,998 dollars) BOR cost-share.

WICW appreciates the opportunity to work with the IWRB as a third party funding source for the Water District 02 WaterSMART grant.

Sincerely,

Milton Landis Sec.
(Title)

January 10, 2014

Idaho Water Resource Board
322 E Front St.
PO Box 83720
Boise, ID 83720-0098

Re: Letter of Commitment – Bureau of Reclamation WaterSMART Water and Energy Efficiency Grant, Idaho Water Resource Board Application for Water District 02 Water Diversion Measurement and Telemetry

Dear Board Members,

Dale Hooley holds waters rights authorizing the diversion of water from the Snake River within Water District 02, Milner Dam to Murphy Gage, for the irrigation of approximately 776 acres. Dale Hooley understands that the Idaho Water Resource Board (IWRB) is making application to the U.S. Bureau of Reclamation (BOR) for a WaterSMART Grant on behalf of Water District 02 and a number of interested water delivery entities and water right holders in the water district. The grant application seeks assistance with acquisition and installation of water diversion measuring devices and telemetry equipment.

Dale Hooley further understands that the BOR WaterSMART grant requires at least a 50 percent cost share commitment from third party funding sources. Dale Hooley is an interested third party funding source and water user that will benefit from this grant. Dale Hooley is committed to providing 55% of all costs associated with the acquisition and installation of measuring devices and telemetry equipment for its Water District 02 Snake River diversion(s). Dale Hooley will fund his cost share requirement with in-kind contributions and cash as needed to complete the project.

Dale Hooley and the IWRB estimate that the total cost for acquisition and installation of measuring and telemetry equipment for the 2 diversion(s) is approximately $24,013 dollars ($24,013). Dale Hooley commits to providing approximately $13,207 of the total cost (55 percent) and will provide the necessary funds by_____, 2014 or at any time necessary within the approved grant period, which is anticipated to extend to approximately December 31, 2015. Dale Hooley will pay all of the costs up front (both BOR's cost share and Dale Hooley's cost share) provided that Dale Hooley is reimbursed for the remaining 45 percent (approximately $10,806 dollars) BOR cost-share.

Dale Hooley appreciates the opportunity to work with the IWRB as a third party funding source for the Water District 02 WaterSMART grant.

Sincerely,

(Title)

January 10, 2014

Idaho Water Resource Board
322 E Front St.
PO Box 83720
Boise, ID 83720-0098

Re: Letter of Commitment – Bureau of Reclamation WaterSMART Water and Energy Efficiency Grant, Idaho Water Resource Board Application for Water District 02 Water Diversion Measurement and Telemetry

Dear Board Members,

The Eagle Creek North West LLC (ECNW) holds waters rights authorizing the diversion of water from the Snake River within Water District 02, Milner Dam to Murphy Gage, for the irrigation of approximately 260 acres. The ECNW understands that the Idaho Water Resource Board (IWRB) is making application to the U.S. Bureau of Reclamation (BOR) for a WaterSMART Grant on behalf of Water District 02 and a number of interested water delivery entities and water right holders in the water district. The grant application seeks assistance with acquisition and installation of water diversion measuring devices and telemetry equipment.

The ECNW further understands that the BOR WaterSMART grant requires at least a 50 percent cost share commitment from third party funding sources. The ECNW is an interested third party funding source and water user that will benefit from this grant. The ECNW is committed to providing 55% of all costs associated with the acquisition and installation of measuring devices and telemetry equipment for its Water District 02 Snake River diversion(s). The ECNW will fund its cost share requirement with in-kind contributions and cash as needed to complete the project.

The ECNW and the IWRB estimate that the total cost for acquisition and installation of measuring and telemetry equipment for the 1 diversion(s) is approximately $13,318 dollars ($13,318). The ECNW commits to providing approximately $7,325 of the total cost (55 percent) and will provide the necessary funds by Jan 31, 2014 or at any time necessary within the approved grant period, which is anticipated to extend to approximately December 31, 2015. The ECNW will pay all of the costs up front (both BOR's cost share and the ECNW's cost share) provided that the ECNW is reimbursed for the remaining 45 percent (approximately $5,993 dollars) BOR cost-share.

The ECNW appreciates the opportunity to work with the IWRB as a third party funding source for the Water District 02 WaterSMART grant.

Sincerely,

Charles W. Bryan, Jr.

(Title) Vice President

January 10, 2014

Idaho Water Resource Board
322 E Front St.
PO Box 83720
Boise, ID 83720-0098

Re: Letter of Commitment – Bureau of Reclamation WaterSMART Water and Energy Efficiency Grant, Idaho Water Resource Board Application for Water District 02 Water Diversion Measurement and Telemetry

Dear Board Members,

The Midnight Sun VIII LLC (MSVIII) holds waters rights authorizing the diversion of water from the Snake River within Water District 02, Milner Dam to Murphy Gage, for the irrigation of approximately 4128 acres. The MSVIII understands that the Idaho Water Resource Board (IWRB) is making application to the U.S. Bureau of Reclamation (BOR) for a WaterSMART Grant on behalf of Water District 02 and a number of interested water delivery entities and water right holders in the water district. The grant application seeks assistance with acquisition and installation of water diversion measuring devices and telemetry equipment.

The MSVIII further understands that the BOR WaterSMART grant requires at least a 50 percent cost share commitment from third party funding sources. The MSVIII is an interested third party funding source and water user that will benefit from this grant. The MSVIII is committed to providing 55% of all costs associated with the acquisition and installation of measuring devices and telemetry equipment for its Water District 02 Snake River diversion(s). The MSVIII will fund its cost share requirement with in-kind contributions and cash as needed to complete the project.

The MSVIII and the IWRB estimate that the total cost for acquisition and installation of measuring and telemetry equipment for the 1 diversion(s) is approximately $14,385 dollars ($14,385). The MSVIII commits to providing approximately $7,912 of the total cost (55 percent) and will provide the necessary funds by Jan 31, 2014 or at any time necessary within the approved grant period, which is anticipated to extend to approximately December 31, 2015. The MSVIII will pay all of the costs up front (both BOR's cost share and the MSVIII's cost share) provided that the MSVIII is reimbursed for the remaining 45 percent (approximately $6,473 dollars) BOR cost-share.

The MSVIII appreciates the opportunity to work with the IWRB as a third party funding source for the Water District 02 WaterSMART grant.

Sincerely,

Charles W. Bryan Jr

(Title) Vice President

January 10, 2014

Idaho Water Resource Board
322 E Front St.
PO Box 83720
Boise, ID 83720-0098

Re: Letter of Commitment – Bureau of Reclamation WaterSMART Water and Energy Efficiency Grant, Idaho Water Resource Board Application for Water District 02 Water Diversion Measurement and Telemetry

Dear Board Members,

The King Hill Irrigation District (KHID) holds waters rights authorizing the diversion of water from the Snake River within Water District 02, Milner Dam to Murphy Gage, for the irrigation of approximately 11,573 acres. The KHID understands that the Idaho Water Resource Board (IWRB) is making application to the U.S. Bureau of Reclamation (BOR) for a WaterSMART Grant on behalf of Water District 02 and a number of interested water delivery entities and water right holders in the water district. The grant application seeks assistance with acquisition and installation of water diversion measuring devices and telemetry equipment.

The KHID further understands that the BOR WaterSMART grant requires at least a 50 percent cost share commitment from third party funding sources. The KHID is an interested third party funding source and water user that will benefit from this grant. The KHID is committed to providing 55% of all costs associated with the acquisition and installation of measuring devices and telemetry equipment for its Water District 02 Snake River diversion(s). The KHID will fund its cost share requirement with in-kind contributions and cash as needed to complete the project.

The KHID and the IWRB estimate that the total cost for acquisition and installation of measuring and telemetry equipment for the 3 diversion(s) is approximately $37,600 dollars ($37,600). The KHID commits to providing approximately $20,680 of the total cost (55 percent) and will provide the necessary funds by Oct. 1, 2014 or at any time necessary within the approved grant period, which is anticipated to extend to approximately December 31, 2015. The KHID will pay all of the costs up front (both BOR's cost share and the KHID's cost share) provided that the KHID is reimbursed for the remaining 45 percent (approximately 16,920 dollars) BOR cost-share.

The KHID appreciates the opportunity to work with the IWRB as a third party funding source for the Water District 02 WaterSMART grant.

Sincerely,

Cliff Lisle

Manager
(Title)

January 10, 2014

Idaho Water Resource Board
322 E Front St.
PO Box 83720
Boise, ID 83720-0098

Re: Letter of Commitment – Bureau of Reclamation WaterSMART Water and Energy Efficiency Grant, Idaho Water Resource Board Application for Water District 02 Water Diversion Measurement and Telemetry

Dear Board Members,

Merrill Brown holds waters rights authorizing the diversion of water from the Snake River within Water District 02, Milner Dam to Murphy Gage, for the irrigation of approximately 100 acres. Merrill Brown understands that the Idaho Water Resource Board (IWRB) is making application to the U.S. Bureau of Reclamation (BOR) for a WaterSMART Grant on behalf of Water District 02 and a number of interested water delivery entities and water right holders in the water district. The grant application seeks assistance with acquisition and installation of water diversion measuring devices and telemetry equipment.

Merrill Brown further understands that the BOR WaterSMART grant requires at least a 50 percent cost share commitment from third party funding sources. Merrill Brown is an interested third party funding source and water user that will benefit from this grant. Merrill Brown is committed to providing 55% of all costs associated with the acquisition and installation of measuring devices and telemetry equipment for its Water District 02 Snake River diversion(s). Merrill Brown will fund his cost share requirement with in-kind contributions and cash as needed to complete the project.

Merrill Brown and the IWRB estimate that the total cost for acquisition and installation of measuring and telemetry equipment for the 1 diversion(s) is approximately $9,107 dollars ($9,107). Merrill Brown commits to providing approximately $5,009 of the total cost (55 percent) and will provide the necessary funds by Dec. 31, 2014 or at any time necessary within the approved grant period, which is anticipated to extend to approximately December 31, 2015. Merrill Brown will pay all of the costs up front (both BOR's cost share and Merrill Brown's cost share) provided that Merrill Brown is reimbursed for the remaining 45 percent (approximately $4,098 dollars) BOR cost-share.

Merrill Brown appreciates the opportunity to work with the IWRB as a third party funding source for the Water District 02 WaterSMART grant.

Sincerely,

Merrill J. Brown

(Title) 1/15/14

January 10, 2014

Idaho Water Resource Board
322 E Front St.
PO Box 83720
Boise, ID 83720-0098

Re: Letter of Commitment – Bureau of Reclamation WaterSMART Water and Energy Efficiency Grant, Idaho Water Resource Board Application for Water District 02 Water Diversion Measurement and Telemetry

Dear Board Members,

Peter Sturdivant holds waters rights authorizing the diversion of water from the Snake River within Water District 02, Milner Dam to Murphy Gage, for the irrigation of approximately 20 acres. Peter Sturdivant understands that the Idaho Water Resource Board (IWRB) is making application to the U.S. Bureau of Reclamation (BOR) for a WaterSMART Grant on behalf of Water District 02 and a number of interested water delivery entities and water right holders in the water district. The grant application seeks assistance with acquisition and installation of water diversion measuring devices and telemetry equipment.

Peter Sturdivant further understands that the BOR WaterSMART grant requires at least a 50 percent cost share commitment from third party funding sources. Peter Sturdivant is an interested third party funding source and water user that will benefit from this grant. Peter Sturdivant is committed to providing 55% of all costs associated with the acquisition and installation of measuring devices and telemetry equipment for its Water District 02 Snake River diversion(s). Peter Sturdivant will fund his cost share requirement with in-kind contributions and cash as needed to complete the project.

Peter Sturdivant and the IWRB estimate that the total cost for acquisition and installation of measuring and telemetry equipment for the 1 diversion(s) is approximately $7,174 dollars ($7,174). Peter Sturdivant commits to providing approximately $3,946 of the total cost (55 percent) and will provide the necessary funds by AS REQUIRED, 2014 or at any time necessary within the approved grant period, which is anticipated to extend to approximately December 31, 2015. Peter Sturdivant will pay all of the costs up front (both BOR's cost share and Peter Sturdivant's cost share) provided that Peter Sturdivant reimbursed for the remaining 45 percent (approximately $3,228 dollars) BOR cost-share.

Peter Sturdivant appreciates the opportunity to work with the IWRB as a third party funding source for the Water District 02 WaterSMART grant.

Sincerely,

OWNER / MEMBER
(Title)

Appendix C: Water Right List within project area

Water Right Number	SourceTable	new WaterUses	Current Owner	Rate_cfs	IrrAcres	Diversion Name
02-2159	Water Right	IRRIGATION	FRANK TIEGS LLC	12	630	Tiegs
02-2354	Water Right	IRRIGATION	FRANK TIEGS LLC	0.6	630	Tiegs
02-2398	Water Right	IRRIGATION	FRANK TIEGS LLC	3.74	187	Tiegs
02-7184	Water Right	IRRIGATION	FRANK TIEGS LLC	7	350	Tiegs
02-7229	Water Right	IRRIGATION	FRANK TIEGS LLC	1	50	Tiegs
02-7284	Water Right	IRRIGATION, STO	FRANK TIEGS LLC	2.46	121	Tiegs
02-16B	Water Right	IRRIGATION	JEFFREY, LOUIS D	0.34	17	Jeffery Pump
02-10296	Water Right	IRRIGATION	JOHNS, KENNETH H; JOHNS, C	2.1	477	Johns Pump
02-2136	Water Right	IRRIGATION	JOHNS, BARBARA M; JOHNS, I	3.2	477	Johns Pump
02-2174	Water Right	IRRIGATION	JOHNS, BARBARA M; JOHNS, I	4.24	477	Johns Pump
02-2163	Water Right	IRRIGATION	BROWN, MERRILL J; BROWN,	2	100	MBrown Pump
02-2040	Water Right	DOMESTIC, IRRIG	ROCKIN S RANCH INC	1.8	141	RockingS Pump
02-2041	Water Right	IRRIGATION	ROCKIN S RANCH INC	0.9	141	RockingS Pump
02-10359	Water Right	IRRIGATION	T R INVESTMENTS	0.043	2.3	TR Pump
02-10360	Water Right	IRRIGATION	T R INVESTMENTS	0.109	5.9	TR Pump
02-2379	Water Right	IRRIGATION	DERUYTER PROPERTIES LP	23.67	1232	Deruyter river station
02-7063A	Water Right	IRRIGATION	BLANKSMA LAND & STORAGE	14.48	835	Chalk Flats
02-10444	Water Right	IRRIGATION	WOLFE, JAMES D	0.62	31	Wolfe Pump 1
02-10446	Water Right	IRRIGATION	WOLFE, JAMES D	2.226	111.3	Wolfe Pump 1
02-7021	Water Right	IRRIGATION	MURPHY LAND COMPANY LLC	5.42	271	Bruneau Arm
02-10277	Water Right	IRRIGATION, STO	CANYON BEND RANCH LTD; LI	0.42	107	Leavell Pump
02-10279	Water Right	IRRIGATION, STO	CANYON BEND RANCH LTD; LI	0.32	107	Leavell Pump
02-10280	Water Right	IRRIGATION, STO	EDGEWATER RANCH LLC	0.48	153	Leavell Pump
02-2018	Water Right	IRRIGATION	WALKER PLOW LLP	2	100	Walker Pump
02-7057	Water Right	IRRIGATION, STO	WALKER PLOW LLP	3.88	191	Walker Pump
02-7280	Water Right	IRRIGATION	WALKER PLOW LLP	2.16	109	Walker Pump
02-10290	Water Right	IRRIGATION	MEYERS, ROBERT J	1.79	1205.7	Meyers
02-2281	Water Right	IRRIGATION	MEYERS, ROBERT J	3.54	1205.7	Meyers
02-2282	Water Right	IRRIGATION	MEYERS, ROBERT J	3.38	1205.7	Meyers
02-2284A	Water Right	IRRIGATION	MEYERS, ROBERT J	3.84	1205.7	Meyers
02-2285	Water Right	IRRIGATION	MEYERS, ROBERT J	5.68	1205.7	Meyers
02-10289	Water Right	IRRIGATION	GINGERICH, COLLEEN MARTIN	0.19	9.5	Gingrich
02-10291	Water Right	IRRIGATION	GINGERICH BROTHERS FARMS	1	1315	Gingrich

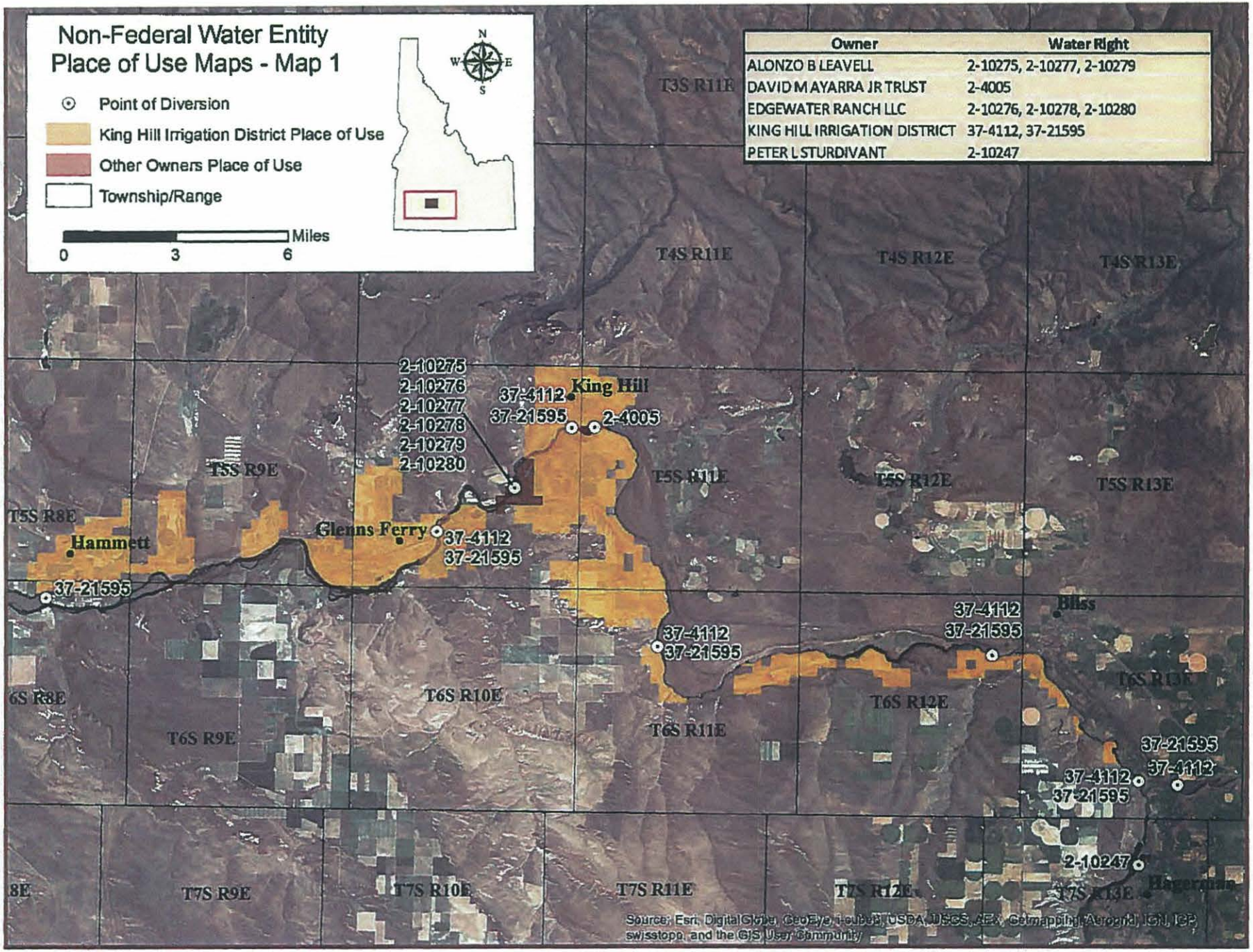
Water Right Number	SourceTable	new WaterUses	Current Owner	Rate_cfs	IrrAcres	Diversion Name
02-2094B	Water Right	IRRIGATION	GINGERICH BROTHERS FARMS	3.51	1315	Gingrich
02-2181	Water Right	IRRIGATION	GINGERICH BROTHERS FARMS	5.8	1315	Gingrich
02-2182B	Water Right	IRRIGATION	GINGERICH BROTHERS FARMS	3.76	1315	Gingrich
02-2183	Water Right	IRRIGATION	GINGERICH BROTHERS FARMS	6.06	1315	Gingrich
02-2284B	Water Right	IRRIGATION	GINGERICH BROTHERS FARMS	1.24	1315	Gingrich
02-2375B	Water Right	IRRIGATION	GINGERICH BROTHERS FARMS	4.26	1315	Gingrich
02-4005	Water Right	IRRIGATION	DAVID M AYARRA JR TRUST	0.3	15	Ayarra Pump
02-10444	Water Right	IRRIGATION	WOLFE, JAMES D	0.62	31	Wolfe Pump 2
02-10446	Water Right	IRRIGATION	WOLFE, JAMES D	2.226	111.3	Wolfe Pump 2
02-10444	Water Right	IRRIGATION	WOLFE, JAMES D	0.62	31	Wolfe Pump 3
02-10446	Water Right	IRRIGATION	WOLFE, JAMES D	2.226	111.3	Wolfe Pump 3
02-1044S	Water Right	IRRIGATION	EAGLE CREEK NORTHWEST LL	13.64	681	Slick Ranch 1
02-10445	Water Right	IRRIGATION	EAGLE CREEK NORTHWEST LL	13.64	681	Slick Ranch 2
02-10445	Water Right	IRRIGATION	EAGLE CREEK NORTHWEST LL	13.64	681	Slick Ranch 3
02-10445	Water Right	IRRIGATION	EAGLE CREEK NORTHWEST LL	13.64	681	Slick Ranch 4
X2-2209E	Water Right	MUNICIPAL	CITY OF GLENNS FERRY	2.4		COGF Springs
X2-2209E	Water Right	MUNICIPAL	CITY OF GLENNS FERRY	2.4		COGF River
02-10247	Water Right	IRRIGATION	STURDIVANT, PETER L	0.26		Sturdivant Pump
02-10017	Water Right	IRRIGATION	VAN ES, DALE ; VAN ES, JACKI	29	2720	Sinker Butte Canal
02-22S1	Water Right	IRRIGATION	VAN ES, DALE ; VAN ES, JACKI	6.08	2720	Sinker Butte Canal
02-10020	Water Right	DIVERSION TO ST	MURPHY FLATS WATER COMP	66.04	4540	Murphy Flats Canal
02-2361	Water Right	IRRIGATION	MURPHY FLATS WATER COMP	66.04	4429	Murphy Flats Canal
02-2370	Water Right	IRRIGATION	MURPHY FLATS WATER COMP	1.6	80	Murphy Flats Canal
02-7001	Water Right	DIVERSION TO ST	MURPHY FLATS WATER COMP	66.04	4603	Murphy Flats Canal
02-10032	Water Right	IRRIGATION	MAN FARMS LLC	4.8	240	Sailor Creek Diversion
02-10034	Water Right	IRRIGATION	ATN HOLDINGS LLC	17.38	869	Sailor Creek Diversion
02-10035	Water Right	IRRIGATION	ATN HOLDINGS LLC	28.48	1424	Sailor Creek Diversion
02-2186	Water Right	IRRIGATION	ATN HOLDINGS LLC	6.16	308	Sailor Creek Diversion
02-2371	Water Right	IRRIGATION	MAN FARMS LLC	8	400	Sailor Creek Diversion
X2-10477	Water Right	IRRIGATION	ATN HOLDINGS LLC	18.08	904	Sailor Creek Diversion
02-2129	Water Right	IRRIGATION	MURPHY LAND COMPANY LLC	3.54	200	Cove Arm Pumps
02-2130	Water Right	IRRIGATION	MURPHY LAND COMPANY LLC	3.42	200	Cove Arm Pumps
02-2406	Water Right	IRRIGATION	MURPHY LAND COMPANY LLC	4.12	304	Cove Arm Pumps

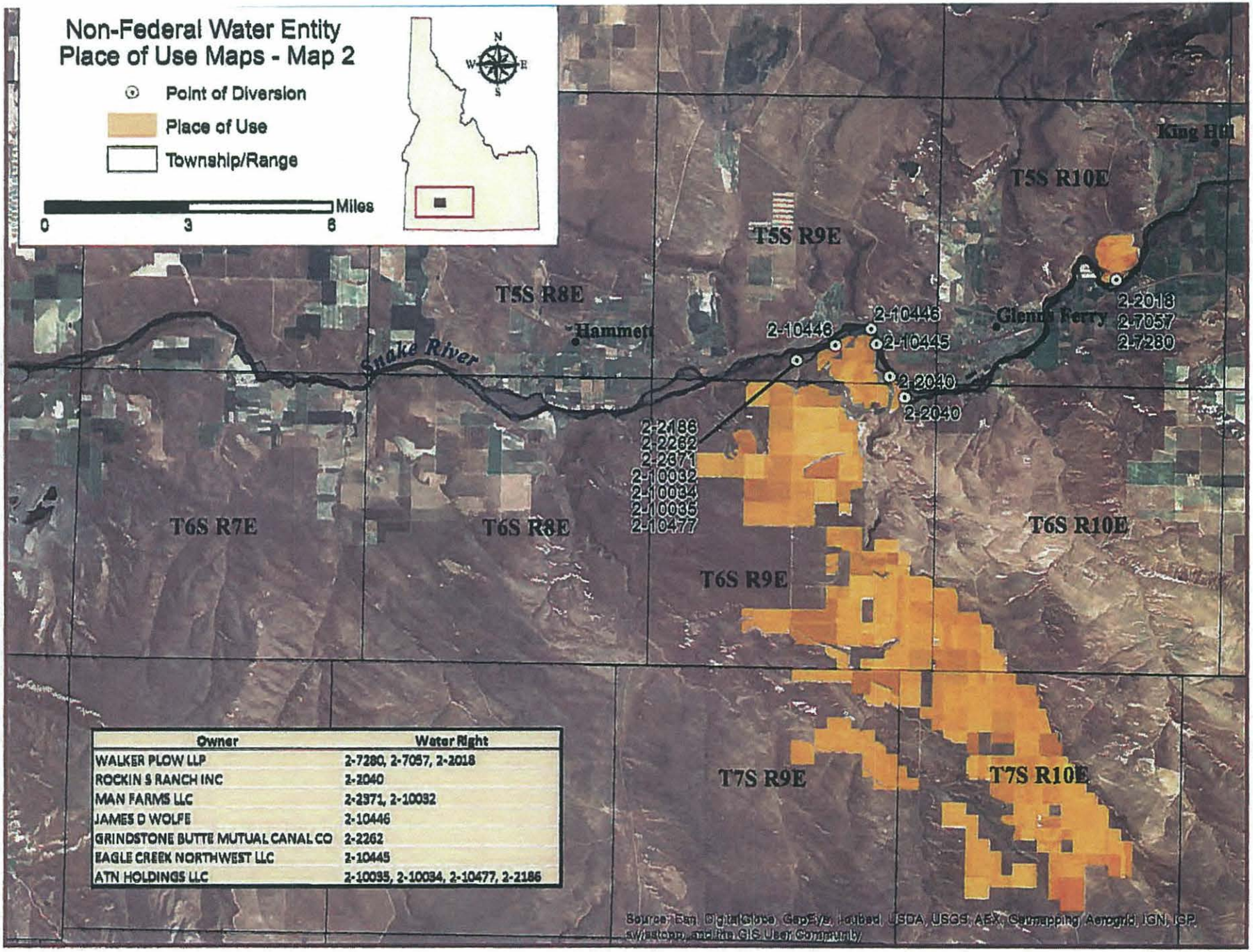
Water Right Number	SourceTable	new WaterUses	Current Owner	Rate_cfs	IrrAcres	Diversion Name
02-7025	Water Right	IRRIGATION	MURPHY LAND COMPANY LLC	4	528	Cove Arm Pumps
02-7350	Water Right	IRRIGATION	MURPHY LAND COMPANY LLC	1	91	Cove Arm Pumps
02-7036	Water Right	IRRIGATION	MURPHY LAND COMPANY LLC	6.44	322	Strike Diversion
02-7037	Water Right	IRRIGATION	MURPHY LAND COMPANY LLC	6.4	320	Strike Diversion
02-7038	Water Right	IRRIGATION	MURPHY LAND COMPANY LLC	4	200	Strike Diversion
02-7127	Water Right	IRRIGATION	MURPHY LAND COMPANY LLC	10.94	547	Strike Diversion
02-7028	Water Right	IRRIGATION	MURPHY LAND COMPANY LLC	6.2	290	, Crystal Springs Small
02-10236	Water Right	IRRIGATION	SCHIERMEIR, DONALD L; SCHI	10	500	Cottonwood Pump
02-10237	Water Right	IRRIGATION	SCHIERMEIER, DONALD L; SCH	17.2	860	Cottonwood Pump
02-7132	Water Right	IRRIGATION	SCHIERMEIR, DONALD L; SCHI	6.14	307	Cottonwood Pump
02-2134	Water Right	DIVERSION TO ST	MELLUM, GREG; MELLUM, NA	1.4	32.1	Mellum Pump
02-7172A	Water Right	IRRIGATION	SEYEDBAGHERI, KATHLEEN AN	0.06	3	Hammett Pumps
02-7172B	Water Right	IRRIGATION	CROSBY, JULIANNE	0.06	3	Hammett Pumps
02-7172C	Water Right	IRRIGATION	NEWTON, GARY A; NEWTON,	0.06	3	Hammett Pumps
02-7172D	Water Right	IRRIGATION	BURNS, WARREN	0.06	3	Hammett Pumps
02-7172H	Water Right	IRRIGATION	MALONEY III, JAMES E; MALO	0.06	3	Hammett Pumps
02-10275	Water Right	IRRIGATION	CANYON BEND RANCH LTD; LE	1.4	107	Leavell Pump
02-10276	Water Right	IRRIGATION	EDGEWATER RANCH LLC	2	153	Leavell Pump
02-10278	Water Right	IRRIGATION, STO	EDGEWATER RANCH LLC	0.58	153	Leavell Pump
02-10008	Water Right	IRRIGATION	WEST INDIAN COVE WATER C	2.37	714	West Indian Cove
02-10010	Water Right	IRRIGATION	WEST INDIAN COVE WATER C	1.24	714	West Indian Cove
02-2044	Water Right	IRRIGATION	WEST INDIAN COVE WATER C	3.74	714	West Indian Cove
02-2055	Water Right	IRRIGATION	WEST INDIAN COVE WATER C	10	714	West Indian Cove
02-2097B	Water Right	IRRIGATION	WEST INDIAN COVE WATER C	0.12	714	West Indian Cove
02-2128	Water Right	IRRIGATION	WEST INDIAN COVE WATER C	0.96	714	West Indian Cove
02-4015	Water Right	IRRIGATION	WEST INDIAN COVE WATER C	1.71	714	West Indian Cove
02-7133	Water Right	IRRIGATION	WEST INDIAN COVE WATER C	1.3	714	West Indian Cove
02-2126	Water Right	IRRIGATION	SUNDBERG, ANITA G; SUNDBE	4.86	243	Sundberg
02-10301	Water Right	IRRIGATION	BLEDSOE, EMMA L; BLEDSOE,	0.16	568.8	Bledsoe
02-7075	Recommendation	IRRIGATION	BLEDSOE, EMMA L; BLEDSOE,	10.03	568.8	Bledsoe
02-2260	Water Right	IRRIGATION	MIDNIGHT SUN INC VIII	6	4128	Danskin Cattle Pump
02-7019B	Water Right	IRRIGATION	MIDNIGHT SUN INC VIII	5.14	4128	Danskin Cattle Pump
02-7019D	Water Right	IRRIGATION	MIDNIGHT SUN INC VIII	0.39	4128	Danskin Cattle Pump

Water Right Number	SourceTable	new WaterUses	Current Owner	Rate_cfs	IrrAcres	Diversion Name
02-7022B	Water Right	IRRIGATION	MIDNIGHT SUN INC VIII	1.51	4128	Danskin Cattle Pump
02-7023B	Water Right	IRRIGATION	MIDNIGHT SUN INC VIII	1.77	4128	Danskin Cattle Pump
02-7102B	Water Right	IRRIGATION	MIDNIGHT SUN INC VIII	0.5	4128	Danskin Cattle Pump
02-4006B	Water Right	IRRIGATION, STO	BROWN, GARDNER I; BROWN	0.75	18	GBrown Pump
02-2262	Water Right	IRRIGATION	GRINDSTONE BUTTE MUTUAL	181	13432	Grindstone Butte
X2-7113	Water Right	IRRIGATION	WOLFE, VICTORIA R; WOLFE,	4.54	227	Billy Wolfe
X2-10329	Water Right	IRRIGATION	WOLFE, VICTORIA R; WOLFE,	0.56	33	Billy Wolfe
02-10470	Water Right	IRRIGATION	SV RANCH LLC	0.68	508.4	SV Ranch 3
02-2100A	Water Right	IRRIGATION	SV RANCH LLC	2.8	508.4	SV Ranch 3
02-7086	Water Right	IRRIGATION	SV RANCH LLC	4.64	508.4	SV Ranch 3
02-10317	Water Right	IRRIGATION	LAMPMAN, BRUCE; LAMPMAI	0.3	16	Young
02-10318	Water Right	IRRIGATION	ATKINS, A CLAY; ATKINS, JACC	5.55	291	Young
02-10426	Water Right	IRRIGATION	STATE OF IDAHO; YOUNG, RO	0.4	20	Young
02-10427	Water Right	IRRIGATION	YOUNG, ROGER G	2.1	138	Young
02-10432	Water Right	IRRIGATION	YOUNG, ROGER G	0.5	138	Young
02-2156	Water Right	IRRIGATION	ATKINS, A CLAY; ATKINS, JACC	5.79	315	Young
02-2245A	Water Right	IRRIGATION	ATKINS, A CLAY; ATKINS, JACC	4.273	233	Young
02-2245B	Water Right	IRRIGATION	GINGERICH BROTHERS FARMS	0.8	40	Young
02-2298	Water Right	IRRIGATION	YOUNG, ROGER G	5.83	317	Young
02-2356	Water Right	IRRIGATION	GINGERICH BROTHERS FARMS	5.06	256	Young
02-2376	Water Right	IRRIGATION	YOUNG, ROGER G	5.66	308	Young
02-7055	Water Right	IRRIGATION	ATKINS, A CLAY; ATKINS, JACC	5.83	296	Young
02-7071	Water Right	IRRIGATION	GINGERICH BROTHERS FARMS	6.4	320	Young
02-7112A	Water Right	IRRIGATION	ATKINS, A CLAY; ATKINS, JACC	3.017	152	Young
02-7112B	Water Right	IRRIGATION	GINGERICH BROTHERS FARMS	1.6	80	Young
02-7222	Water Right	IRRIGATION	YOUNG, ROGER G	0.8	40	Young
02-10235	Water Right	IRRIGATION	SV RANCH LLC	0.8	2178	SV New Diversion
02-10244	Water Right	IRRIGATION	SV RANCH LLC	5.19	2178	SV New Diversion
02-10396	Water Right	IRRIGATION	SV RANCH LLC	0.95	2178	SV New Diversion
02-10469	Water Right	IRRIGATION	SV RANCH LLC	20.51	2178	SV New Diversion
02-10470	Water Right	IRRIGATION	SV RANCH LLC	0.68	508.4	SV New Diversion
02-2100A	Water Right	IRRIGATION	SV RANCH LLC	2.8	508.4	SV New Diversion
02-2173	Water Right	IRRIGATION	SV RANCH LLC	6	2178	SV New Diversion

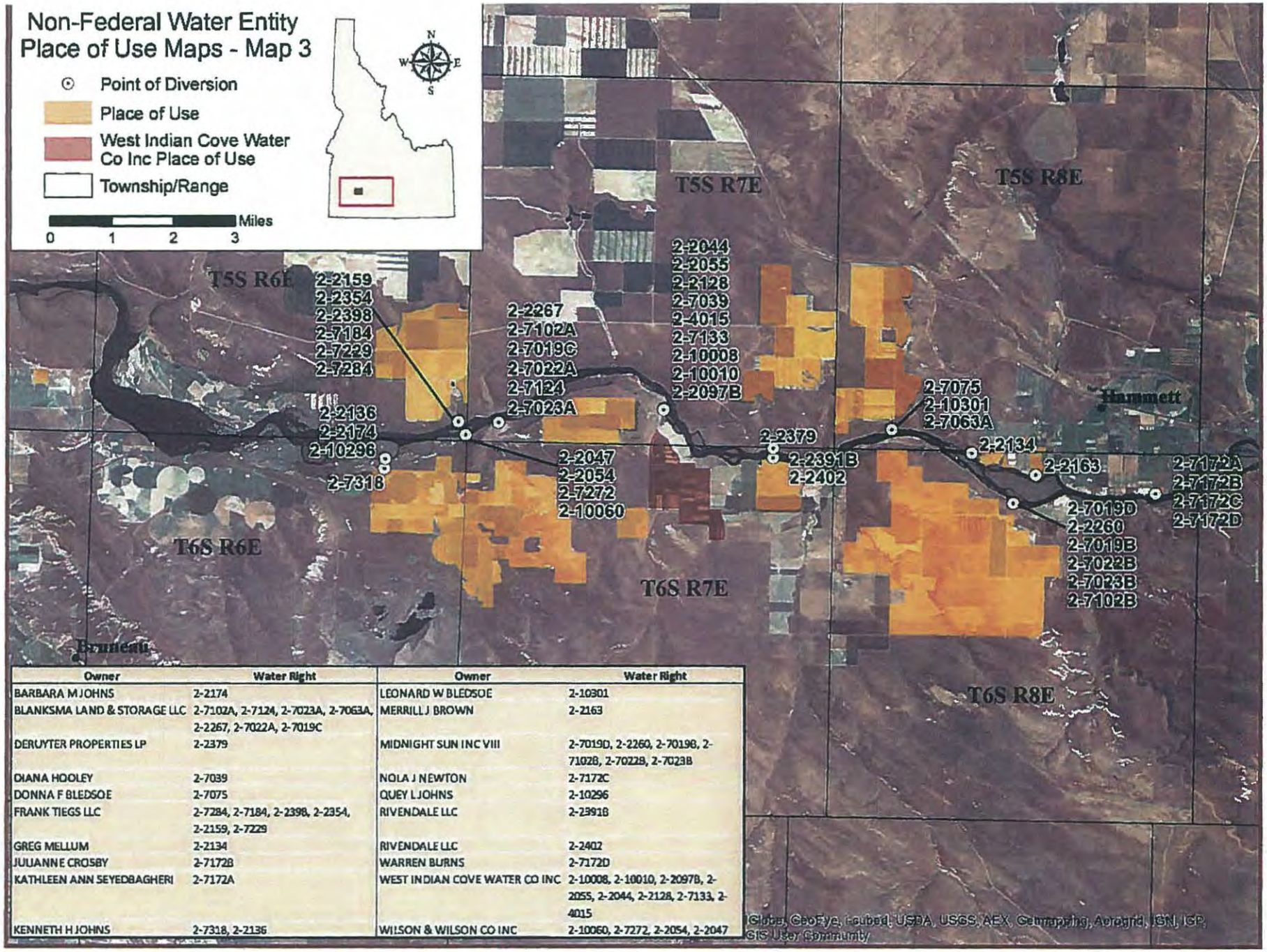
Water Right Number	SourceTable	new WaterUses	Current Owner	Rate_cfs	IrrAcres	Diversion Name
02-2357A	Water Right	DIVERSION TO ST	SV RANCH LLC	2	2178	SV New Diversion
02-2357B	Water Right	IRRIGATION	SV RANCH LLC	1.8	2178	SV New Diversion
02-7046E	Water Right	IRRIGATION	SV RANCH LLC	2.82	2178	SV New Diversion
02-7086	Water Right	IRRIGATION	SV RANCH LLC	4.64	508.4	SV New Diversion
02-2091	Water Right	IRRIGATION	GINGERICH, ELLA; GINGERICH	7.18	355	Rattlesnake Diversion
02-2092A	Water Right	IRRIGATION	GINGERICH, ELLA; GINGERICH	0.72	36.4	Gingrich Substation
02-2267	Water Right	IRRIGATION	BLANKSMA LAND & STORAGE	5.2	918	Sand Dunes
02-7019C	Water Right	IRRIGATION	BLANKSMA LAND & STORAGE	3.64	918	Sand Dunes
02-7022A	Water Right	IRRIGATION	BLANKSMA LAND & STORAGE	1.27	918	Sand Dunes
02-7023A	Water Right	IRRIGATION	BLANKSMA LAND & STORAGE	3.8	918	Sand Dunes
02-7102A	Water Right	IRRIGATION	BLANKSMA LAND & STORAGE	0.86	918	Sand Dunes
02-7124	Water Right	IRRIGATION	BLANKSMA LAND & STORAGE	3	918	Sand Dunes
02-10060	Water Right	IRRIGATION	WILSON & WILSON CO INC	0.69	1110.1	Wilson
02-2047	Water Right	IRRIGATION	WILSON & WILSON CO INC	10.26	1110.1	Wilson
02-2054	Water Right	IRRIGATION	WILSON & WILSON CO INC	3.66	1110.1	Wilson
02-7272	Water Right	IRRIGATION	WILSON & WILSON CO INC	17.82	1110.1	Wilson
02-7039	Water Right	IRRIGATION	HOOLEY, DALE; HOOLEY, DIAN	11.7	628	Hooley
02-10470	Water Right	IRRIGATION	SV RANCH LLC	0.68	508.4	SV Upper
02-2100A	Water Right	IRRIGATION	SV RANCH LLC	2.8	508.4	SV Upper
02-7086	Water Right	IRRIGATION	SV RANCH LLC	4.64	508.4	SV Upper
02-2391B	Water Right	IRRIGATION	RIVENDALE LLC	2.01	334	Rivendale LLC
02-2402	Water Right	IRRIGATION	RIVENDALE LLC	1.66	334	Rivendale LLC
02-7470	Water Permit	MUNICIPAL	CITY OF GLENNS FERRY	1	0	COGF River
02-7471	Water Permit	MUNICIPAL	CITY OF GLENNS FERRY	3	0	COGF Springs
37-21595	Water Right	IRRIGATION	KING HILL IRRIGATION DIST	300	11573	King Hill ID Pumps
37-4112	Water Right	IRRIGATION	KING HILL IRRIGATION DIST	70	11573	King Hill ID Pumps

Appendix D: Non-Federal Water Entity Place of use Maps


Non-Federal Water Entity
Place of Use Maps - Map 1
Point of Diversion
King Hill Irrigation District Place of Use
Other Owners Place of Use
Township/Range
Miles
0
3
6
N
W
E
S
Owner
Water Right
ALONZO B LEAVELL
2-10275, 2-10277, 2-10279
DAVID M AYARRA JR TRUST
2-4005
EDGEWATER RANCH LLC
2-10276, 2-10278, 2-10280
KING HILL IRRIGATION DISTRICT
37-4112, 37-21595
PETER L STURDIVANT
2-10247
T3S R11E
T4S R11E
T4S R12E
T4S R13E
2-10275
2-10276
2-10277
2-10278
2-10279
2-10280
37-4112
King Hill
37-21595
2-4005
T5S R9E
T5S R11E
T5S R12E
T5S R13E
T5S R8E
Hammett
Glenns Ferry
37-4112
37-21595
37-21595
37-4112
37-21595
37-4112
37-21595
Bliss
T6S R8E
T6S R10E
T6S R12E
T6S R13E
T6S R9E
T6S R11E
37-21595
37-4112
37-4112
37-21595
2-10247
Hagerman
8E
T7S R9E
T7S R10E
T7S R11E
T7S R12E
T7S R13E
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

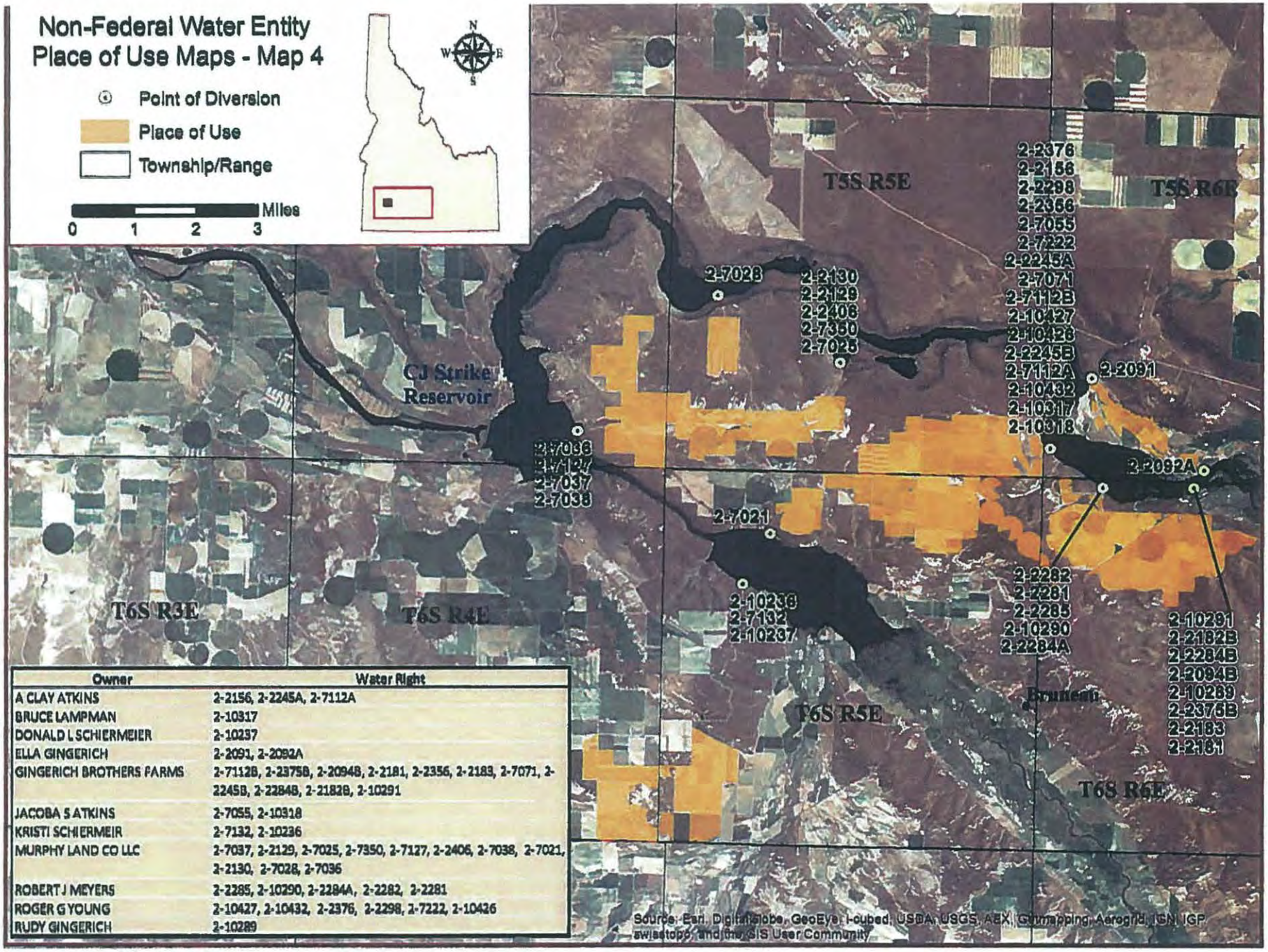


Owner	Water Right
WALKER PLOW LLP	2-7280, 2-7057, 2-2018
ROCKIN S RANCH INC	2-2040
MAN FARMS LLC	2-2371, 2-10032
JAMES D WOLFE	2-10446
GRINDSTONE BUTTE MUTUAL CANAL CO	2-2262
EAGLE CREEK NORTHWEST LLC	2-10445
ATN HOLDINGS LLC	2-10035, 2-10034, 2-10477, 2-2186

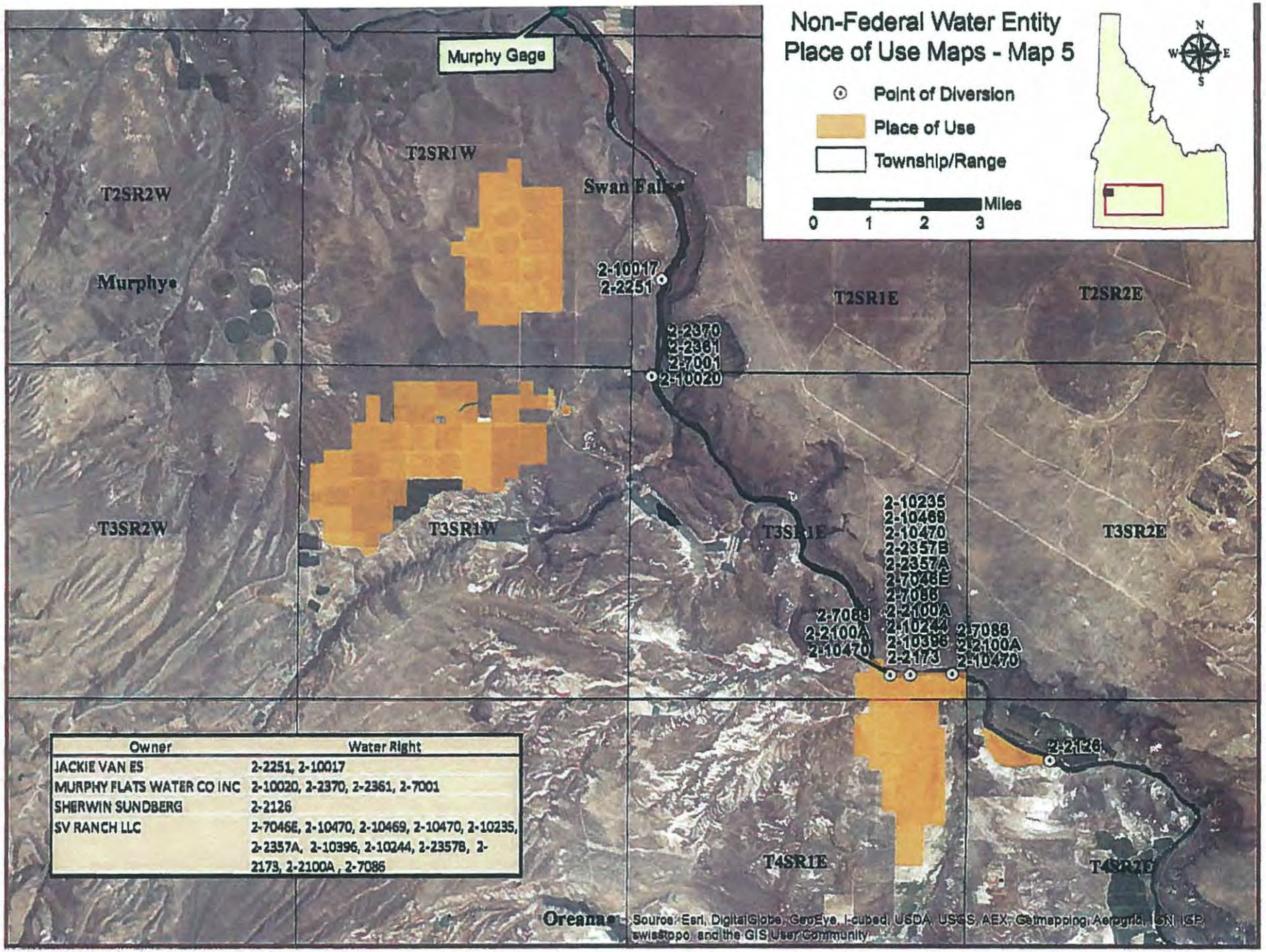


Owner	Water Right
BARBARA M JOHNS	2-2174
BLANKSMA LAND & STORAGE LLC	2-7102A, 2-7124, 2-7023A, 2-7063A, 2-2267, 2-7022A, 2-7019C
DERUYTER PROPERTIES LP	2-2379
DIANA HOOLEY	2-7039
DONNA F BLEDSOE	2-7075
FRANK TIEGS LLC	2-7284, 2-7184, 2-2398, 2-2354, 2-2159, 2-7229
GREG MELLUM	2-2134
JULIANNE CROSBY	2-7172B
KATHLEEN ANN SEYEDBAGHERI	2-7172A
KENNETH H JOHNS	2-7318, 2-2136

Owner	Water Right
LEONARD W BLEDSOE	2-10301
MERRILL J BROWN	2-2163
MIDNIGHT SUN INC VIII	2-7019D, 2-2260, 2-7019B, 2-7102B, 2-7022B, 2-7023B
NOLA J NEWTON	2-7172C
QUEY L JOHNS	2-10296
RIVENDALE LLC	2-23918
RIVENDALE LLC	2-2402
WARREN BURNS	2-7172D
WEST INDIAN COVE WATER CO INC	2-10008, 2-10010, 2-2097B, 2-2055, 2-2044, 2-2128, 2-7133, 2-4015
WILSON & WILSON CO INC	2-10060, 2-7272, 2-2054, 2-2047



Owner	Water Right
A CLAY ATKINS	2-2156, 2-2245A, 2-7112A
BRUCE LAMPMAN	2-10317
DONALD L SCHIERMEIER	2-10237
ELLA GINGERICH	2-2091, 2-2092A
GINGERICH BROTHERS FARMS	2-7112B, 2-2375B, 2-2094B, 2-2181, 2-2356, 2-2183, 2-7071, 2-2245B, 2-2284B, 2-2182B, 2-10291
JACOBA S ATKINS	2-7055, 2-10318
KRISTI SCHIERMEIR	2-7132, 2-10236
MURPHY LAND CO LLC	2-7037, 2-2129, 2-7025, 2-7350, 2-7127, 2-2406, 2-7038, 2-7021, 2-2130, 2-7028, 2-7036
ROBERT J MEYERS	2-2285, 2-10290, 2-2284A, 2-2282, 2-2281
ROGER G YOUNG	2-10427, 2-10432, 2-2376, 2-2298, 2-7222, 2-10426
RUDY GINGERICH	2-10289



Owner	Water Right
JACKIE VAN ES	2-2251, 2-10017
MURPHY FLATS WATER CO INC	2-10020, 2-2370, 2-2361, 2-7001
SHERWIN SUNDBERG	2-2126
SV RANCH LLC	2-7046E, 2-10470, 2-10469, 2-10470, 2-10235, 2-2357A, 2-10396, 2-10244, 2-2357B, 2-2173, 2-2100A , 2-7086