Weeg 145

COPY

Irrigation Flow Measurement and Monitoring Project Proposal

Boise, Idaho

Funding Opportunity Announcement No. R13SF80003

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)
322 East Front Street
Boise, Idaho

Neeley Miller, Project Manager
322 East Front Street
PO Box 83720
Boise, Idaho
Neeley.Miller@idwr.idaho.gov
(208) 287-4831

Table of Contents

**Appendix E: Required Federal Forms (Budget Form, Assurances Form, Application/cover page Form) are not considered in the total page count limit of 75 pages per instructions described on page 22 of Funding Opportunity Announcement No R13SF80003.*

Technical Proposal

Executive Summary

Application Date: January 17, 2013
Applicant: Idaho Water Resource Board
322 East Front Street
PO Box 83720
Boise, ID 83720-0098

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 FY2013, Funding Opportunity Announcement No. R13SF80003. Grant proceeds would be used to purchase and install advanced water measurement devices and monitoring/telemetry equipment for twenty-two (22) separate irrigation diversions or developments owned and/or operated by fifteen (15) individual irrigation 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).

The primary objective of this grant is to provide a manageable first year phase-in and demonstration project for installation of measuring devices and telemetry equipment on a number of large irrigation diversions (greater than 1,000 acres) and several smaller or mid-sized irrigation diversions (between 250 and 1,000 acres) in Water District 02. 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 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 the Bureau of Reclamation (Reclamation) given that Reclamation has been an active renter of storage water from both the Upper Snake River Water District 01 Rental Pool and the WSB. Reclamation has been renting up to 200,000 acre-feet per year from the Upper Snake River Rental Pool and up to 60,000 acre-feet per year of water rights from the Water Supply bank originating within Water District 02. These volumes of water are conveyed through the Milner –Swan Falls reach of Water District 02 to meet Reclamation's obligation related to augmentation of Snake River flows for certain endangered species of anadromous fish 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 22 irrigation diversions in the water district by the 2014 irrigation season. Diversions in the newly 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. The IWRB and Water District 2 view this proposed grant project as a water measurement and monitoring demonstration model. In addition to installing accurate measuring devices on the selected 22 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. The project will provide a phased approach towards planning and installation of high quality measuring and monitoring devices. Equipment installed by the 2014 irrigation season will provide a means of demonstration to other water users who will need to acquire and install similar equipment both in Water District 2 and other areas of Idaho. The IWRB or Water District 02 may seek additional grants in subsequent years for other larger irrigation diversions within the district.

Background Data

Water District 02 is a water district created by the Director of the Idaho Department of Water Resources (Director, Department or 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/WaterDdistricts/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 anticipates issuing an order in 2013 requiring the installation of water measuring devices. The order will be drafted with input from the Water District 02 advisory committee. IDWR will likely propose phasing in measuring device installations over several years 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 and stock water uses.

The 22 irrigation developments represented in this grant serve water to over 58,000 irrigated acres and more than 150 water rights. A number of high valued commodity cash crops are harvested from many of these irrigated acres, including potatoes, corn, alfalfa hay and sugar beets. All of the diversions are within the Snake River canyon and many are remotely located or difficult to access. Of these 22 diversions, three are large open channel canals. Each of these canals diverts between 100 cfs and over 200 cfs, and serves between 4,000 and 8,000 acres. The remaining diversions are pressurized river pump stations that convey water through one or more closed conduit pipelines. These pressurized river pump diversion serve between several hundred acres to over 9,000 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 15 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. Locations for the 22 diversions included in this grant proposal are shown in Figure 2. A list of water rights associated with these 22 diversions is provided in Attachment C of this grant proposal.

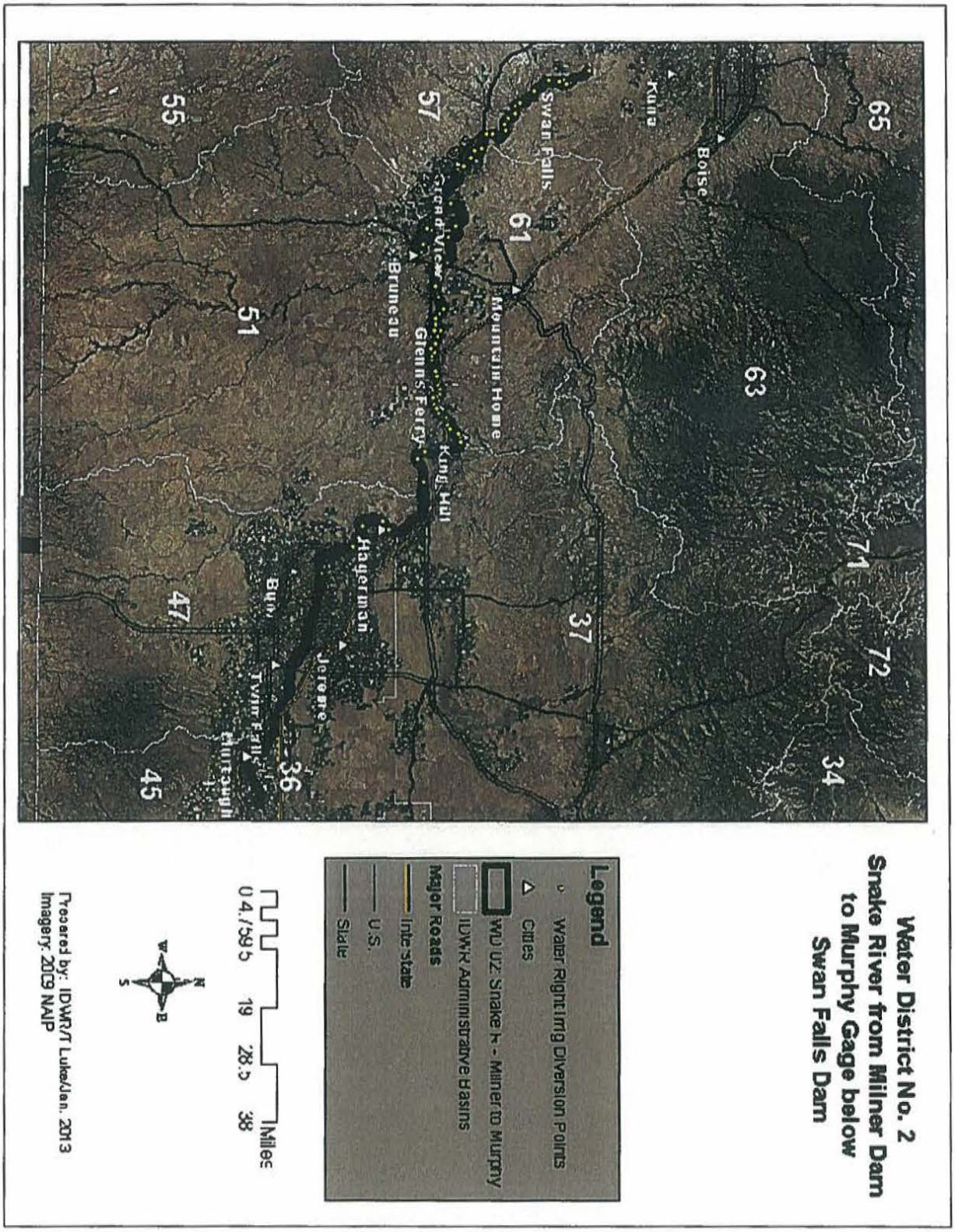


Figure 1: Map of Water District 02, Snake River from Milner Dam to Murphy Gage

Fifteen of the 22 irrigation diversions shown in Figure 2 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 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/or promote either water rights transfers or rentals of water from the Idaho Water Supply Bank to align water use diversions with authorized water rights rates of diversion. 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. 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 meetings Reclamation's Snake River flow augmentation goals. About half of the augmentation flow water rentals 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.

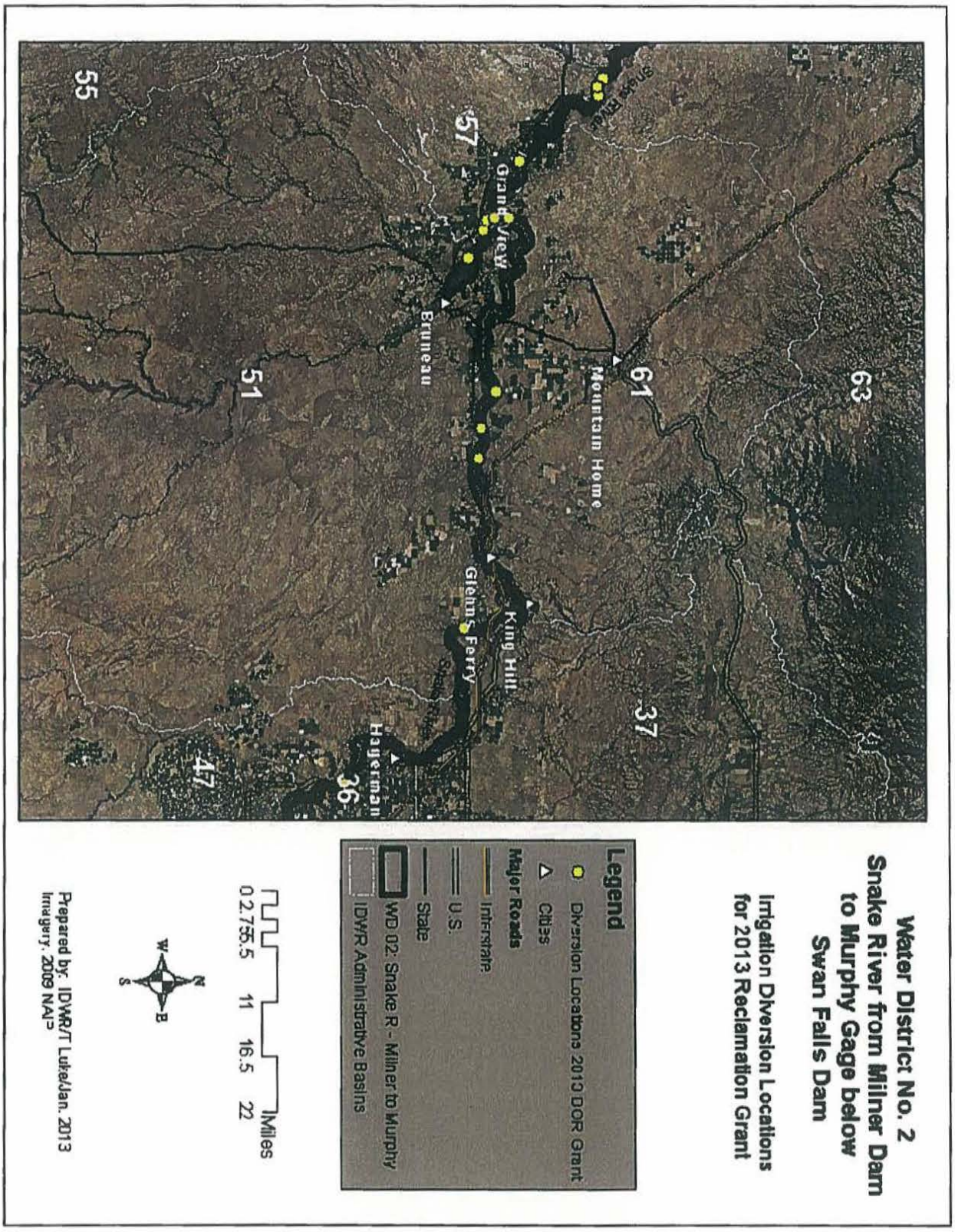


Figure 2: Location of irrigation diversions proposed for measuring device/telemetry installations

Non-Federal Irrigation Entities	Project Acres
1. Grand View Irrigation District	6,426
2. Grand View Mutual Canal Co.	2,900
3. Upper Grand View Canal Co.	1,332
4. Snake River Irrigation District	7,986
5. Indian Cove Irrigation District	1,150
6. South Elmore Irrigation Co. (2stations)	9,400
7. Clover Hollow Co.	4,300
8. Little Valley Mutual Irrigation Co.	4,200
9. Bybee Lateral Water Users Assoc.	9,051
10. J R Simplot Co. (7 stations)	5,388
11. Black Mesa Farms LLC	640
12. Salmon Falls Land & Livestock Co. Inc.	2,663
13. Flying H Farms (2 stations)	1,950
14. Michael James	640
15. Andrew Johnson	300
Total	**58,258**

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

Technical Project Description

Technical Project Description

Flow meters:

The Swan Falls Agreement negotiated by the State 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 over the next year. 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. Most of these rights were decreed by the SRBA District Court prior to 2009 and less than 5% of the rights are not adjudicated due to remaining objections or other legal proceedings.

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/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. IDWR currently contracts with IPC to maintain rated measurement sections and telemetry monitoring on the three large canal diversions out of CJ Strike Reservoir at an annual cost of $4,800 per diversion. Maintaining rated sections at these three canals is labor intensive and subject to some accuracy error due to moss and aquatic growth during the summer months. Accuracy of these data is generally better than ±10% maintained through software and updates of rating curves. Currently these diversions have continuous monitoring equipment that is owned by the IPC and will need to be replaced to match telemetry hardware proposed at other diversions under this project. These data are currently available to the public through a web page application maintained by the IPC.

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 laterals. Measurement of these open channels using traditional rated sections or measuring devices is often difficult 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 -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 22 diversions identified in this grant proposal vary in size from 10" 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 950 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.

Water user accountability will be improved through the process of daily diversion record keeping by a network using data logger 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 feature that IDWR would host.

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.

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 15 irrigation entities and 22 diversions serving the 57,000 plus acres. Total available water supply for these diversions was determined to be over 295,000 acre-feet per year based on the following water measurement data and calculations:

a. Water supply for two of the open channel/gravity flow canals from CJ Strike Reservoir (Grand View Mutual, Grand View Irrigation District) were based on average annual diversions from 2010 through 2012. These canal headings are measured by IPC using rated canal sections. Daily discharge values are available for these two sites.
b. Water supplies for most of the other diversions were based on measured data published by the USGS for the 1989 water year (see Technical Project Description section for additional explanation). Published data were available and used for Snake River ID, Indian Cove ID, South Elmore, Clover Hollow, Little Valley Mutual, Bybee Lateral, Flying H and Simplot 2, 3 and 4.
c. 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 b. above. The estimated water duty used for these diversion stations or projects is identified in Table 2. A lower water duty was used for complete closed conduit systems, and a higher duty was used for open channel conveyance systems or hybrid systems such as high lift pump stations that pipe water from the river to a canal system above the canyon rim or some higher elevation.

The 1989 USGS measurement data were used because the greatest number of diversions in the Milner to Murphy reach was measured at that time, so data were more readily available. Additionally, water right claims, IDWR recommendations of claims and partial decrees issued by the SRBA District Court were based on beneficial use or number of acres irrigated as of 1987.

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.

Estimated water savings shown in Table 2 are based on comparison of authorized water right diversion limits with 1989 USGS measured data described in item b. above or IPC measured data from 2010 – 2012 described in item a. above. 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 seven separate irrigation diversions totaling 5,014 acre-feet. Using this

same approach, no savings (0 acre-feet) were found for six diversions. Potential water savings could not be identified for nine diversions due to the lack of any published measurement data or records.

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 5,000 acre-feet of conserved water outlined in this analysis and proposed grant would not be diverted from the Snake River but remain in the river channel and 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)	Comment
1. Grand View Irrigation District	6,426	72,454	2,653	Total use based on average of 2010-2102 diversions
2. Grand View Mutual Canal Co.	2,900	41,550		Combined with GVID; total use based on average of 2010-2102 diversions
3. Upper Grand View Canal Co.	1,332	7,326	NA	Total use estimated using 5.5 AFA
4. Snake River Irrigation District	7,986	72,020	30	
5. Indian Cove Irrigation District	1,150	5,360	0	
6. South Elmore Irrigation Co. (2 stations)	9,400	14,736	0	
7. Clover Hollow Co.	4,300	10,956	0	
8. Little Valley Mutual Irrigation Co.	4,200	11,624	0	
9. Bybee Lateral Water Users Assoc.	9,051	13,712	0	
10. J R Simplot Co. (7 stations)				
Simplot 2	1,836	9,497	1,023	

Simplot 4	1,216	6,924	390	
Simplot 3	658	3,376	802	
Simplot 9	1,112	4,448	NA	
Bigfoot Farm (3 pumps)	566	1,981	NA	Total use estimated using 3.5 AFA
11. Black Mesa Farms LLC	640	2,560	NA	total use estimated using 4.0 AFA
12. Salmon Falls Land & Livestock Co.	2,663	10,652	NA	total use estimated using 4.0 AFA
13. Flying H Farms (2 stations)	816	3,295	116	
14. Michael James	640	2,240	NA	Total use estimated using 3.5 AFA
15. Andrew Johnson	300	1,050	NA	Total use estimated using 3.5 AFA
Total	**57,192**	**295,761**	**5,014**	

Table 2: Estimated Water 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.

Given that about half of the large water diversions in Water District 02 are represented in this grant, the IWRB estimates that an additional 5,000 acre-feet or more can be saved by continuing measurement and monitoring to the remaining larger diversions in the district. The total amount of water that can potentially be conserved in the district therefore is estimated to be over 10,000 acre feet per year.

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.

$$\frac{\text{Estimated Amount of Water Better Managed}}{\text{Average Annual Water Supply}} = \frac{295{,}761 \text{ AF}}{295{,}761 \text{ AF}} = 100\% \text{ or } 1$$

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 5,014 acre-feet. The estimated percentage of total annual water supply conserved therefore is as follows:

$$\frac{\text{Estimated Amount of Water Conserved}}{\text{Average Annual Water Supply}} = \frac{5{,}014 \text{ AF}}{295{,}761 \text{ AF}} = 0.017 \text{ or } 1.7\%$$

Reasonableness of Costs (4 points)

As shown in the Budget section of this grant proposal, the total cost of the project is about $341,859. 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:

$$\frac{\text{Total Project Cost}}{\text{Acre-feet Conserved x Improvement Life}} = \frac{\$341{,}859}{5{,}014\text{AF x } 15} = \$4.55/\text{AF}$$

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

There will be benefits to certain Snake River Salmon and Steelhead species that have been listed under the Endangered Species Act. While these species do not live within the Water District 02 area, the U.S. Bureau of Reclamation has acquired water supplies from within Water District 02, and from upstream of Water District 02, for the purpose of augmenting flows downstream in the Snake River for the benefit of these 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, the Bureau of 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 the Idaho Water Resource Board to lease 60,000 acre-feet from the "Bell Rapids" water rights owned by the Water Resource 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 2. Per the 2004 Snake River Water Rights Agreement, the rental cost for this storage will be $17/acre-foot in 2013.

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. The purpose of the Idaho Water Supply bank is to encourage the highest beneficial use of water, and to provide a source of adequate water supplies to benefit new and supplemental water uses. The Bank is operated by the Idaho Water Resource Board ("IWRB" or "Board") to facilitate the use of water rights to natural flow water and water stored in Idaho reservoirs.

The Board's water supply bank 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 commercial, industrial, irrigation, or mining. The Idaho Department of Water Resources manages the Board's water supply bank for the Idaho Water Resource Board in accordance with Idaho Code §§ 42-1761 through 42-1766 and the Water Supply Bank Rules (IDAPA 37.02.03).

Water right holders can offer unused water rights to the Bank and that water can be rented to people who do not have adequate waters to meet their needs. The installation of measurement devices on all major diversions throughout Water District 02 will make the market more predictable and generally make the market work better by ensuring water rights transfers or rentals of water from the Idaho Water Supply Bank align water use diversions with authorized water rights rates of diversion

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

Minimum stream flows at Swan Falls (measured at the Murphy gage) and hydropower water rights held by the Idaho Power Company (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 flowing in 2009.

Through the Swan Falls Agreement the State of Idaho and IPC 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. Additionally, the State of Idaho has 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 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.

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, 22 irrigation diversions of various sizes, but mostly large irrigation diversions serving more than 1,000 acres, will be measured using high precision devices including ultrasonic and magnetic flow meters for closed conduit pipe lines, plus one ramped broad crested weir and one acoustic Doppler meter for large open channel canals.

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 may 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 22 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 22 diversions were estimated to be over 295,000 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. Just in the process of using GIS resources to develop this grant proposal, 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 22 diversions were measured by the USGS 15 to 25 years ago and three large canals are currently measured and monitored using SCADA systems by IPC at a cost of $4,800 per year to IDWR, no other diversions in the district are currently measured.

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 since the district was just created and has not yet begun operations. However, it is estimated that a telemetry network will eliminate at least 20 visits per diversion per year, or a total of about 300 site visits for the approximate 15 large diversions included in this project proposal.

Available NAIP aerial imagery from 2011, Landsat imagery from 2012 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 2% of anticipated total project costs (approximately $6,800).

There are 22 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. Of these 22 diversions, three are large open channel canals. The remaining diversions are pressurized river pump stations that convey water through one or more closed conduit pipelines. 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.

Letters of project support

Letters of funding commitment from third party funding sources are in included in Appendix B. These funding commitments will be discussed in the funding plan.

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 25th, 2013. 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 25th 2013 board meeting an official resolution will be submitted to the Bureau of Reclamation.

Project Budget

Funding plan and letters of commitment

Total cost of this proposal is $341,859. Reclamation's share would be $153,837 and the non-Federal entities' share is $188,022. 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 several of the non-Federal water user entities listed in Table 3. Copies of these commitment letters are attached in Appendix B. We anticipate receiving letters of funding commitment from all non-Federal water user entities by the end of January 2013. 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.

Table 3: Funding Sources	Funding Amount	Project Acres
Non-Federal Entities		
1. Grand View Irrigation District	$3,366	6,426
2. Grand View Mutual Canal Co.	$8,078	2,900
3. Upper Grand View Canal Co.	$6,850	1,332
4. Snake River Irrigation District	$10,322	7,986
5. Indian Cove Irrigation District	$9,624	1,150
6. South Elmore Irrigation Co. (2 stations)	$13,584	9,400
7. Clover Hollow Co.	$8,867	4,300
8. Little Valley Mutual Irrigation Co.	$6,850	4,200
9. Bybee Lateral Water Users Assoc.	$9,624	9,051
10. J R Simplot Co. (7 stations)	$65,625	5,320
11. Black Mesa Farms LLC	$6,850	640
12. Salmon Falls Land & Livestock Co. Inc.	$6,850	2,663
13. Flying H Farms (2 stations) (aka Jeff & Jackie Harper)	$11,961	1,950
14. Michael James	$8,554	640
15. Andrew Johnson	$11,018	300
Non-Federal Subtotal	**$188,022**	**58,258**
Other Federal Entities	**NA**	
Requested Reclamation Funding		
1. Grand View Irrigation District	$2,754	
2. Grand View Mutual Canal Co.	$6,610	
3. Upper Grand View Canal Co.	$5,604	
4. Snake River Irrigation District	$8,446	
5. Indian Cove Irrigation District	$7,874	
6. South Elmore Irrigation Co. (2 stations)	$11,115	
7. Clover Hollow Co.	$7,254	
8. Little Valley Mutual Irrigation Co.	$5,604	
9. Bybee Lateral Water Users Assoc.	$7,874	
10. J R Simplot Co. (7 stations)	$53,694	
11. Black Mesa Farms LLC	$5,604	
12. Salmon Falls Land & Livestock Co. Inc.	$5,604	
13. Flying H Farms (2 stations) (aka Jeff & Jackie Harper)	$9,786	
14. Michael James	$6,999	
15. Andrew Johnson	$9,014	
Total Reclamation Funding	**$153,837**	
Total Project Funding	**$341,859**	

Table 3 List of third party non-Federal Entities

Table 4: Funding Sources	Percent of Total Project Cost	Total Cost by Source
Recipient Funding	55%	$188,022
Reclamation Funding	45%	$153,837
Other Federal Funding	NA	NA
Totals	**100%**	**$341,859**

Budget Proposal

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

Table 5: Budget Item Description	Computation		Quantity Type	Total Cost
	$/Unit	Quantity		
1. Grand View Irrigation District				
Equipment:				
Metal weir crest blade for structure	$1,000	1		$1,000
Telemetry Package (DC option)	$4,200	1		$4,200
				$5,200
Contractual/Construction:				
Electrical	$800	1	day	$800
Installation/Welding (weir blade install by district/owner)	NA			
				$800
Env. Compliance				$120
Total				**$6,120**
2. Grand View Mutual Canal Co.				
Equipment:				
Install Acoustic Doppler Meter (plus rail system for removal & maint).	$8,000	1		$8,000
Telemetry Package (DC option)	$4,200	1		$4,200
Enclosures (includes labor)	$1,400	1		$1,400
				$13,600
Contractual/Construction:				

Electrical	$800		day	$800
Installation/Welding (weir install & labor by district/owner)	NA			
				$800
Env. Compliance				$288
Total				**$14,688**
3. Upper Grand View Canal Co.				
Equipment:				
GE AT868 Ultrasonic clamp on flow meter Smaller penstock 24" OD	$3,810	1	meter	$3,810
Telemetry Package	$3,750	1		$3,750
Enclosures (includes labor)	$1,400	1		$1,400
				$8,960
Contractual/Construction:				
Excavation	$190	5	hrs	$950
Electrical	$800	1	day	$800
Installation/Welding	$1,500	1	day	$1,500
				$3,250
Env. Compliance				$244
Total				**$12,454**
4. Snake River Irrigation District				
Equipment:				
Install Ramped Broad Crested Weir	$12,000	1		$12,000
Telemetry Package (DC option)	$4,200	1		$4,200
Enclosures (includes labor)	$1,400	1		$1,400
				$17,600
Contractual/Construction:				
Electrical	$800	1	day	$800
Installation/Welding (weir install & labor by district/owner)	NA			
				$800
Env. Compliance				$368
Total				**$18,768**
5. Indian Cove Irrigation District				
Equipment:				
GE AT868 Ultrasonic clamp on flow meter Smaller penstock 30" OD (2 pipes)	$3,115	2	meter	$6,230
Telemetry Package	$3,750	1		$3,750
Enclosures (includes labor)	$1,400	2		$2,800
				$12,780

Contractual/Construction:				
Excavation	$190	10	hrs	$1,900
Electrical	$975	1	day	$975
Installation/Welding	$1,500	1	day	$1,500
				$4,375
Env. Compliance				$343
Total				**$17,498**
6. South Elmore Irrigation Co. (2 stations)				
Equipment:				
GE AT868 Ultrasonic clamp on flow meter Large penstock 42" OD	$3,810	1	meter	$3,810
GE AT868 Ultrasonic clamp on flow meter Smaller penstock 36" OD (2 pipes)	$3,115	2	meter	$6,230
Telemetry Package	$3,750	1		$3,750
Enclosures (includes labor)	$1,400	2		$2,800
				$16,590
Contractual/Construction:				
Excavation	$190	15	hrs	$2,850
Electrical	$1,775	1	day	$1,775
Installation/Welding	$1,500	1	day	$3,000
				$7,625
Env. Compliance				$484
Total				**$24,699**
7. Clover Hollow Co.				
Equipment:				
GE AT868 Ultrasonic clamp on flow meter Smaller penstock 30" OD (2 pipes)	$3,115	2	meter	$6,230
Telemetry Package	$2,400	1		$2,400
Enclosures (includes labor)	$1,400	2		$2,800
				$11,430
Contractual/Construction:				
Excavation	$190	10	hrs	$1,900
Electrical	$975	1	day	$975
Installation/Welding	$1,500	1	day	$1,500
				$4,375
Env. Compliance				$316
Total				**$16,121**
8. Little Valley Mutual Irrigation Co.				
Equipment:				
GE AT868 Ultrasonic clamp on flow meter	$3,810	1	meter	$3,810

Telemetry Package	$3,750	1		$3,750
Enclosures (includes labor)	$1,400	1		$1,400
				$8,960
Contractual/Construction:				
Excavation	$190	5	hrs	$950
Electrical	$800	1	day	$800
Installation/Welding	$1,500	1	day	$1,500
				$3,250
Env. Compliance				$244
Total				**$12,454**
9. Bybee Lateral Water Users Assoc.				
Equipment:				
GE AT868 Ultrasonic clamp on flow meter Smaller penstock 48" & 30"OD (2 pipes)	$3,115	2	meter	$6,230
Telemetry Package	$3,750	1		$3,750
Enclosures (includes labor)	$1,400	2		$2,800
				$12,780
Contractual/Construction:				
Excavation	$190	10	hrs	$1,900
Electrical	$975	1	day	$975
Installation/Welding	$1,500	1	day	$1,500
				$4,375
Env. Compliance				$343
Total				**$17,498**
10. J R Simplot Co. (7 stations)				
Equipment: Farms 2, 3, 4 & 9				
30" mag meter (Badger)	$9,900	2	meter	$19,800
36" mag meter (Badger)	$13,700	2	meter	$27,400
Shipping	$900	2	30"	$1,800
Shipping	$1,000	2	36"	$2,000
Telemetry Package	$3,750	4		$15,000
Enclosures (includes labor)	$1,400	4		$5,600
				$71,600
Contractual/Construction:				
Excavation	$190	10	hrs	$1,900
Electrical	$800	4	day	$3,200
Installation/Welding	$2,250	2	30"	$4,500
Installation/Welding	$3,600	2	36"	$7,200
				$16,800
Total				$88,400

Equipment: Bigfoot Farm Pumps 1, 2, 3				-
8" mag meter (Badger) (1)	$2,758	1	meter	$2,758
10" mag meter (Badger) (3)	$2,936	3		$8,808
12" mag meter (Badger)	$4,313	1	meter	$4,313
Shipping	$100	1	8"	$100
Shipping	$200	4	10 & 12"	$800
Telemetry Package	NA			
Enclosures (includes labor)	$1,400	3		$4,200
				$20,979
Contractual/Construction: Bigfoot 1,2,3				
Excavation	$190	15	hrs	$2,850
Electrical	$800	5	day	$4,000
Installation/Welding	$150	5	day	$750
				$7,600
Total				$28,579
Env. Compliance				$2,340
Total Simplot - All Farms				**$119,319**
11. Black Mesa Farms LLC				
Equipment:				
GE AT868 Ultrasonic clamp on flow meter	$3,810	1	meter	$3,810
Telemetry Package	$3,750	1		$3,750
Enclosures (includes labor)	$1,400	1		$1,400
				$8,960
Contractual/Construction:				
Excavation	$190	5	hrs	$950
Electrical	$800	1	day	$800
Installation/Welding	$1,500	1	day	$1,500
				$3,250
Env. Compliance				$244
Total				**$12,454**
12. Salmon Falls Land & Livestock Co. Inc.				
Equipment:				
GE AT868 Ultrasonic clamp on flow meter	$3,810	1	meter	$3,810
Telemetry Package	$3,750	1		$3,750
Enclosures (includes labor)	$1,400	1		$1,400
				$8,960
Contractual/Construction:				
Excavation	$190	5	hrs	$950
Electrical	$800	1	day	$800
Installation/Welding	$1,500	1	day	$1,500
				$3,250

Env. Compliance				$244
Total				**$12,454**
13. Flying H Farms (2 stations) **(aka Jeff & Jackie Harper)**				
Equipment:				
GE AT868 Ultrasonic clamp on flow meter Smaller penstock 36" OD (2 pipes)	$3,115	2	meter	$6,230
Hoodco pump 10" mag meter (Badger)	$2,936	1	meter	$2,936
Telemetry Package	$3,750	1		$3,750
Enclosures (includes labor)	$1,400	2		$2,800
				$15,716
Contractual/Construction:				
Excavation	$190	10	hrs	$1,900
Electrical (ultrasonic & mag meters)	$1,775	1	day	$1,775
Installation/Welding	$1,930	1	day	$1,930
				$5,605
Env. Compliance				$426
Total				**$21,747**
14. Michael James				
Equipment:				
10" mag meter (Badger)	$2,936	3	meter	$8,808
Telemetry Package	$3,750	1		$3,750
Shipping	$200	3	12"	$600
Enclosures (includes labor)	NA			
				$13,158
Contractual/Construction:				
Excavation	NA			
Electrical (ultrasonic & mag meters)	$800	1	day	$800
Installation/Welding	$430	3	day	$1,290
				$2,090
Env. Compliance				$305
Total				**$15,553**
15. Andrew Johnson				
Equipment: 3 pump stations				
12" mag meter (Badger)	$4,313	3	meter	$12,939
Shipping	$200	3	12"	$600
Telemetry Package	NA			
Enclosures (includes labor)	NA			
				$13,539
Contractual/Construction:				

Excavation	$190	10	hrs	$1,900
Electrical (ultrasonic & mag meters)	$800	3	day	$2,400
Installation/Welding	$600	3	day	$1,800
				$6,100
Env. Compliance				$393
Total				**$20,032**

Budget Narrative

The grant budget proposes to address costs for acquisition and installation of measuring devices for twenty-two (22) separate irrigation diversions or developments located within Water District 02. The 22 diversions are owned or operated by fifteen separate irrigation entities. The budget also includes costs for acquisition and installation of monitoring and telemetry equipment for these same diversion locations. The irrigation diversions and developments vary in size and types of diversion. The 15 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 Staff 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. In order to maximize grant dollars for measuring device and telemetry installations, no program manger or other staff costs will be charged to the grant.

Except for two diversion projects, all measuring device and telemetry equipment installation will be contracted with private vendors. 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.

Labor associated with the installation of a measuring device at one canal diversion (Snake River Irrigation District) and installation of a weir upgrade at another canal (Grand View Irrigation District) will be provided by the respective irrigation districts. No labor costs were included for measuring device installations at these two sites. Contractual labor costs were included for installation of telemetry equipment only at these two sites.

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 two smaller diversions each serving less than 500 acres.

Equipment

1. Flow meters
   A. Ultrasonic – clamp on meters for larger diameter closed conduit pipelines
      - Single Channel GE AT868 $2,460.00
      - Dual Channel GE AT868 (measure two pipes with one unit) $3,440.00
      - 1 Mhz set of clamp on transducers $1528.00 (comes with 100 feet of cable and clamping fixture)
      - 50 foot cable length extension- $100.00

   B. Magnetic Flow meters – flanged meters, typically for smaller diameter pipelines

- Diameter dependent
- 8, 10 12 inch meters identified for smaller pipe configurations but could include larger diameter pipes for some pumping stations
- Costs range from $2,758 (8 inch diameter) to $4,313 (12 inch diameter), includes price for grounding rings and mounting kit
- 30 and 36 inch meters identified for larger pipe configurations
- Costs range from $9,900 (30 inch diameter) to $13,800 (36 inch diameter)
- Will require welder to install flanges to properly fit meter in the pipe
- May require 300 pound flanges (standard 150 pound flanges are rated to 285 psi) to install large diameter meters where pressures are higher than 285 psi due to high lift requirements at the pumping station
- Electrical is the same as the ultrasonic

C. Acoustic Doppler Flow meters (DFM) – typically installed in some fixed or permanent open channel structure to measure larger flow rates (proposed for one canal diversion)
   - Ideal to replace rated sections or rated structures
   - Requires mounting brackets, preferably on a designed rail system to remove sensor for cleaning/maintenance and non-irrigation season storage
   - Includes DFM sensor and data logger

D. Ramped Broad Crested weir (standard – proposed for one larger canal diversion)
   - Concrete weir; site specific design using WinFlume

2. Telemetry Package (includes monitoring equipment)
   - Campbell CR1000 datalogger $1440.00
   - Campbell 950 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

3. 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 $64.00/ft spec at 6 foot length $384.00
   - 10 gauge plate for lid $120.00
   - Piano Hinge for lid $11.50
   - Labor to fabricate on site and fit over pipe 6 hours at 70.00/hr $420.00
   - 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 $975 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

3. Installation/Welding
   - GE Ultrasonic meter installation, set-up and programming completed by GE personnel - $1,500 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 $330 per meter for 8 inch pipe, $430 per meter for 10 inch pipe and $600 per meter for 12 inch pipe

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, two percent (2%) 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 $341,859. Reclamation's share would be $153,837 and the non-Federal entities' share is $188,022. 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 several of the non-Federal water user entities listed in Table 3. Copies of these commitment letters are attached in Appendix B. We anticipate receiving letters of funding commitment from all non-Federal water user entities by the end of January 2013. At that time, we will submit these letters of commitment to the Bureau of Reclamation.

Appendix A: IWRB Draft Resolution

BEFORE THE IDAHO WATER RESOURCE BOARD

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

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 staff or resources to function; and

WHEREAS, IDWR anticipates issuing 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

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 25th day of January, 2013.

_____

_____, Chairman
Idaho Water Resource Board

ATTEST_____
_____, Secretary

J.R. SIMPLOT COMPANY ONE CAPITAL CENTER 999 MAIN STREET SUITE 1300
P.O. BOX 27 BOISE, IDAHO 83707 (208) 336-2110 FAX (208) 389-7515

CORPORATE HEADQUARTERS

January 10, 2013

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

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

Dear Board Members:

The J. R. Simplot Company ("Simplot") holds waters rights authorizing the diversion of water from the Snake River within Water District 02, Milner Dam to Murphy Gage. A portion of the rights held by Simplot allow for the irrigation of approximately 5320 acres that are diverted from pump stations that are owned by Simplot along the Snake River. Simplot 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 interested water delivery entities and water right holders located within Water District 02. The grant application seeks assistance with acquisition and installation of Magmeter water diversion measuring devices and telemetry equipment.

Simplot understands that the BOR WaterSMART grant requires at least a 50 percent cost share commitment from third party funding sources. Simplot is an interested third party funding source and water user that will benefit from this grant. Simplot is committed to providing 55% of all costs associated with the acquisition and installation of measuring devices and telemetry equipment for those certain Snake River diversions that are used to irrigate the 5,320 acres described above. Simplot will fund its cost share requirement with in-kind contributions and cash as needed to complete the project.

Simplot and the IWRB estimate that the total cost for acquisition and installation of measuring and telemetry equipment for the 7 diversions involved is approximately One Hundred Seventeen Thousand Dollars ($117,000). With this letter, Simplot is committing to providing approximately $64,350 of the total cost (55 percent) and will provide the necessary funds prior to or during the installation of each individual flow meter system within the approved grant period, which is anticipated to extend to approximately December 31, 2014. Simplot will pay all of the costs up front for each individual metering system installed on Simplot's diversions (both BOR's cost share and Simplot's cost share) provided that (i) the USBOR approves the WaterSMART grant to the IWRB and (ii) Simplot is reimbursed for the remaining 45 percent of the total cost of installing the metering systems (approximately $52,650).

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

Sincerely,

Terry T. Uhling, Senior Vice President,
Secretary and General Counsel

January 11, 2013

Idaho Water Resource Board
222 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 Little Valley Mutual Irrigation Company (LVMIC) 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 4200 acres. The LVMIC 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 LVMIC further understands that the BOR WaterSMART grant requires at least a 50 percent cost share commitment from third party funding sources. The LVMIC is an interested third party funding source and water delivery/water user entity that may benefit from this grant. The LVMIC 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 LVMIC will fund its cost share requirement as follows:

_X_ Annual Assessments
___ Reserve Account
___ Other (describe) _____

The LVMIC and the IWRB estimate that the total cost for acquisition and installation of measuring and telemetry equipment for the 1 diversion(s) is approximately 12,500 dollars ($12,500). The LVMIC commits to providing approximately $6,875 of the total cost (55 percent) and will provide the necessary funds by April 1, 2013 or at any time necessary within the approved grant period, which is anticipated to extend to approximately December 31, 2014. The LVMIC will pay all of the costs up front (both BOR's cost share and LVMIC's cost share) provided that the $5625.00 is reimbursed for the remaining 45 percent BOR cost-share.

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

Sincerely, Bart L Towers

President
(Title)

January 11, 2013

Idaho Water Resource Board
222 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,

I, Michael James, 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 640 acres. I understand 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.

I further understands that the BOR WaterSMART grant requires at least a 50 percent cost share commitment from third party funding sources. I am an interested third party funding source and water user that may benefit from this grant. I am 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). I will fund my 55% cost share requirement through my own personal finances and/or financial accounts.

The IWRB estimates that the total cost for acquisition and installation of measuring and telemetry equipment for my Snake River pumping station (three pumps to one penstock mainline) is approximately 14,648 dollars ($ 14,648). I commit to providing approximately $ 8,060 of the total cost (55 percent) and will provide the necessary funds by Dec., 2013 or at any time necessary within the approved grant period, which is anticipated to extend to approximately December 31, 2014. I will also commit to pay all of the costs up front (both BOR's cost share and my cost share) provided that the approximate $6,588 is reimbursed for the remaining 45 percent BOR cost-share.

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

Sincerely,

Michael James

Michael James, Diversion /Water Right Owner

January 11, 2013

Idaho Water Resource Board
222 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 Clover Hollow CO LLC (CHC) 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 4300 acres. The CHC 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 CHC further understands that the BOR WaterSMART grant requires at least a 50 percent cost share commitment from third party funding sources. The CHC is an interested third party funding source and water delivery/water user entity that may benefit from this grant. The CHC 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 CHC will fund its cost share requirement as follows:

__X__ Annual Assessments
_____ Reserve Account
_____ Other (describe) _____

The CHC and the IWRB estimate that the total cost for acquisition and installation of measuring and telemetry equipment for the 1 diversion(s) is approximately 16,000 dollars ($16,000). The CHC commits to providing approximately $8,800 of the total cost (55 percent) and will provide the necessary funds by _____, 2013 or at any time necessary within the approved grant period, which is anticipated to extend to approximately December 31, 2014. The CHC will pay all of the costs up front (both BOR's cost share and CHC's cost share) provided that the $7,200 is reimbursed for the remaining 45 percent BOR cost-share.

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

Sincerely,

(Title)

January 11, 2013

Idaho Water Resource Board
222 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 South Elmore Irrigation Company (SEIC) 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 9400 acres. The SEIC 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 SEIC further understands that the BOR WaterSMART grant requires at least a 50 percent cost share commitment from third party funding sources. The SEIC is an interested third party funding source and water delivery/water user entity that may benefit from this grant. The SEIC 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 SEIC will fund its cost share requirement as follows:

_X_ Annual Assessments
_____ Reserve Account
_____ Other (describe) _____

The SEIC and the IWRB estimate that the total cost for acquisition and installation of measuring and telemetry equipment for the 1 diversion(s) is approximately 29,400 dollars ($29,400). The SEIC commits to providing approximately $16,170 of the total cost (55 percent) and will provide the necessary funds by _____, 2013 or at any time necessary within the approved grant period, which is anticipated to extend to approximately December 31, 2014. The SEIC will pay all of the costs up front (both BOR's cost share and SEIC's cost share) provided that the $13,230 is reimbursed for the remaining 45 percent BOR cost-share.

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

Sincerely,

(Title)

January 11, 2013

Idaho Water Resource Board
222 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 Bybee Lateral Water Users Association (BLWUA) 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 9051 acres. The BLWUA 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 BLWUA further understands that the BOR WaterSMART grant requires at least a 50 percent cost share commitment from third party funding sources. The BLWUA is an interested third party funding source and water delivery/water user entity that may benefit from this grant. The BLWUA 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 BLWUA will fund its cost share requirement as follows:

__X__ Annual Assessments
_____ Reserve Account
_____ Other (describe) _____

The BLWUA and the IWRB estimate that the total cost for acquisition and installation of measuring and telemetry equipment for the 1 diversion(s) is approximately 17,500 dollars ($17,500). The BLWUA commits to providing approximately $9,625 of the total cost (55 percent) and will provide the necessary funds by _____, 2013 or at any time necessary within the approved grant period, which is anticipated to extend to approximately December 31, 2014. The BLWUA will pay all of the costs up front (both BOR's cost share and BLWUA's cost share) provided that the $7,875 is reimbursed for the remaining 45 percent BOR cost-share.

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

Sincerely, [signature]

President
(Title)

January 11, 2013

Idaho Water Resource Board
222 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,

I, Andrew Johnson, 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 700 acres. I understand 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.

I further understand that the BOR WaterSMART grant requires at least a 50 percent cost share commitment from third party funding sources. I am an interested third party funding source and water user that may benefit from this grant. I am 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). I will fund my 55% cost share requirement through my own personal finances and/or financial accounts.

The IWRB estimates that the total cost for acquisition and installation of measuring and telemetry equipment for my Snake River pumping station (three pumps to one penstock mainline) is approximately 19,792 dollars ($ 19,792). I commit to providing approximately $ 10,885 of the total cost (55 percent) and will provide the necessary funds by _____, 2013 or at any time necessary within the approved grant period, which is anticipated to extend to approximately December 31, 2014. I will also commit to pay all of the costs up front (both BOR's cost share and my cost share) provided that the approximate $8906.00 is reimbursed for the remaining 45 percent BOR cost-share.

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

Sincerely,

Ryan A Johnson

Ryan Johnson operator/farm manager for
Andrew Johnson, Diversion /Water Right Owner

January 11, 2013

Idaho Water Resource Board
222 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,

Flying H Farms (FHF) 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 1950 acres. The FHF 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 FHF further understands that the BOR WaterSMART grant requires at least a 50 percent cost share commitment from third party funding sources. The FHF is an interested third party funding source and water delivery/water user entity that may benefit from this grant. The FHF 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 FHF will fund its cost share requirement with in-kind contributions and cash as needed to complete the project.

The FHF and the IWRB estimate that the total cost for acquisition and installation of measuring and telemetry equipment for the 1 diversion(s) is approximately 20,800 dollars ($20,800). The FHF commits to providing approximately $11,440 of the total cost (55 percent) and will provide the necessary funds by 12-1, 2013 or at any time necessary within the approved grant period, which is anticipated to extend to approximately December 31, 2014. The FHF will pay all of the costs up front (both BOR's cost share and FHF's cost share) provided that the $9,360.00 is reimbursed for the remaining 45 percent BOR cost-share.

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

Sincerely,

Jeff Harper

Jeff Harper
President

January 15, 2013

Idaho Water Resource Board
222 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 Snake River Irrigation District (SRID) 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 7,400 acres. The SRID also provides for conveyance of several private water rights for an additional 584 acres. The SRID 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 SRID further understands that the BOR WaterSMART grant requires at least a 50 percent cost share commitment from third party funding sources. The SRID is an interested third party funding source and water delivery/water user entity that may benefit from this grant. The SRID 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 SRID will fund its cost share requirement as follows:

_____ Annual Assessments
_____ Reserve Account
_____ Other (describe) _____

The SRID and the IWRB estimate that the total cost for acquisition and installation of measuring and telemetry equipment for the 1 diversion(s) is approximately _____ dollars ($_____). The SRID commits to providing approximately $_____ of the total cost (55 percent) and will provide the necessary funds by _____, 2013 or at any time necessary within the approved grant period, which is anticipated to extend to approximately December 31, 2014. The SRID will pay all of the costs up front (both BOR's cost share and SEIC's cost share) provided that the $_____ is reimbursed for the remaining 45 percent BOR cost-share.

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

Sincerely,

Wayne Ridley
(Title)

January 11, 2013

Idaho Water Resource Board
222 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 Salmon Falls Land and Livestock (SFLL) 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 ~~9400~~ 2600 acres. The SFLL 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 SFLL further understands that the BOR WaterSMART grant requires at least a 50 percent cost share commitment from third party funding sources. The SFLL is an interested third party funding source and water delivery/water user entity that may benefit from this grant. The SFLL 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 SFLL will fund its cost share requirement will fund its cost share requirement with in-kind contributions and cash as needed to complete the project.

The SFLL and the IWRB estimate that the total cost for acquisition and installation of measuring and telemetry equipment for the 1 diversion(s) is approximately 12,500 dollars ($12,500). The SFLL commits to providing approximately $6875 of the total cost (55 percent) and will provide the necessary funds by @Dec 1, 2013 or at any time necessary within the approved grant period, which is anticipated to extend to approximately December 31, 2014. The SFLL will pay all of the costs up front (both BOR's cost share and SFLL's cost share) provided that the $5,625 is reimbursed for the remaining 45 percent BOR cost-share.

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

Sincerely,

By Mark Bunter V.P.
(Title)

January 9, 2013

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 Black Mesa Farms (BMF) 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 640 acres. The BMF 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 BMF further understands that the BOR WaterSMART grant requires at least a 50 percent cost share commitment from third party funding sources. The BMF is an interested third party funding source and water user that will benefit from this grant. The BMF 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 BMF will fund its cost share requirement with in-kind contributions and cash as needed to complete the project.

The BMF and the IWRB estimate that the total cost for acquisition and installation of measuring and telemetry equipment for the 1 diversion(s) is approximately 12,500 dollars ($12,500). The BMF commits to providing approximately $6875.00 of the total cost (55 percent) and will provide the necessary funds by Dec 31, 2013 or at any time necessary within the approved grant period, which is anticipated to extend to approximately December 31, 2014. The BMF will pay all of the costs up front (both BOR's cost share and BMF's cost share) provided that the BMF is reimbursed for the remaining 45 percent (approximately 5,625 dollars) BOR cost-share.

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

Sincerely,

Chris A. Bryant

(Title) for Black Mesa Farms, LLC.
manager/partner

ultrasonic
may

January 11, 2013

Idaho Water Resource Board
222 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 Indian Cove Irrigation District (ICID) 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 1200 acres. The ICID 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 ICID further understands that the BOR WaterSMART grant requires at least a 50 percent cost share commitment from third party funding sources. The ICID is an interested third party funding source and water delivery/water user entity that may benefit from this grant. The ICID 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 ICID will fund its cost share requirement as follows:

✓ Annual Assessments
_____ Reserve Account
_____ Other (describe) _____

The ICID and the IWRB estimate that the total cost for acquisition and installation of measuring and telemetry equipment for the 1 diversion(s) is approximately 17,200 dollars ($17,200). The ICID commits to providing approximately $9,460 of the total cost (55 percent) and will provide the necessary funds by Dec 1, 2013 or at any time necessary within the approved grant period, which is anticipated to extend to approximately December 31, 2014. The ICID will pay all of the costs up front (both BOR's cost share and ICID's cost share) provided that the $7,740.00 is reimbursed for the remaining 45 percent BOR cost-share.

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

Sincerely, Andrew S Johnson

Chairman Idian Cove Irrigation District
(Title)

January 15 2013

Idaho Water Resource Board
222 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 Upper Grand View Canal Co. (UGCC) 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 1,330 acres. The UGVCC 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 UGVCC further understands that the BOR WaterSMART grant requires at least a 50 percent cost share commitment from third party funding sources. The UGVCC is an interested third party funding source and water delivery/water user entity that may benefit from this grant. The UGVCC 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 UGVCC will fund its cost share requirement as follows:

_____ Annual Assessments
_____ Reserve Account
_____ Other (describe) _____

The UGVCC and the IWRB estimate that the total cost for acquisition and installation of measuring and telemetry equipment for its canal is approximately 12,210 dollars ($ 12,200). The UGVCC commits to providing approximately $6,715 of the total cost (55 percent) and will provide the necessary funds at any time necessary within the approved grant period, which is anticipated to extend to approximately December 31, 2014. The UGVCC will pay all of the costs up front (both BOR's cost share and UGVCC's cost share) provided that UGVCC is reimbursed for the remaining 45 percent BOR cost-share.

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

Sincerely,

Chairman of the Board
(Title)

January 15, 2013

Idaho Water Resource Board
222 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 Grand View Irrigation District (GVID) 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 6,426 acres. The GVID 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 GVID further understands that the BOR WaterSMART grant requires at least a 50 percent cost share commitment from third party funding sources. The GVID is an interested third party funding source and water delivery/water user entity that may benefit from this grant. The GVID 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 GVID will fund its cost share requirement as follows:

_____ Annual Assessments
_____ Reserve Account
_____ Other (describe) _____

The GVID and the IWRB estimate that the total cost for acquisition and installation of measuring and telemetry equipment for the 1 diversion(s) is approximately 6,000 dollars ($ 6,000). The GVID commits to providing approximately $3,300 of the total cost (55 percent) and will provide the necessary funds by _____, 2013 or at any time necessary within the approved grant period, which is anticipated to extend to approximately December 31, 2014. The GVID will pay all of the costs up front (both BOR's cost share and GVID's cost share) provided that the $2,700 is reimbursed for the remaining 45 percent BOR cost-share.

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

Sincerely, Mark G. Grant

Chairman G.V. Irrig. Dist.
(Title)

Appendix C
Water District 02 - 2013 BOR Grant Proposal
Water Rights List (sorted by Diversion Name Water Right Owner)

DiversionName	Current Owner	Water Right No.	Water Use List	Div Rate (cfs)	Total Acres
Black Mesa Pumping Station	BLACK MESA FARMS LLC; BRYANT, BRENDA; BRYANT, DON J; WOOTAN, CHRISTINE W; WOOTAN, WESLEY R	2-10300	IRRIGATION	8	428
Black Mesa Pumping Station	BLACK MESA FARMS LLC; BRYANT, BRENDA; BRYANT, DON J; WOOTAN, CHRISTINE W; WOOTAN, WESLEY R	2-2209B	IRRIGATION	12.8	3948
Black Mesa Pumping Station	BLACK MESA FARMS LLC; BRYANT, BRENDA; BRYANT, DON J; WOOTAN, CHRISTINE W; WOOTAN, WESLEY R	2-103	IRRIGATION	0.54	3948
Black Mesa Pumping Station	SMITH, CONNIE; SMITH, ROBERT	2-10189	IRRIGATION	2.83	141.5
Black Mesa Pumping Station	TRAIL, TERRIE E; TRAIL, WALTER L	2-4021	IRRIGATION	10.54	600
Browns Ck pump station	FLYING H FARMS PARTNERSHIP	2-7065C	IRRIGATION	8.62	431
Browns Ck pump station	HARPER, JACKIE; HARPER, JEFF C	2-7369	IRRIGATION	7.7	1885
Bybee Lateral Canal	AGENBROAD GRAND VIEW FAMILY LIMITED PARTNERSHIP	2-7168C	IRRIGATION	2.7	158
Bybee Lateral Canal	AGENBROAD, DARREL L	2-7168B	IRRIGATION	3.82	191
Bybee Lateral Canal	AGENBROAD, DARREL L	2-10435	IRRIGATION	0.9	45
Bybee Lateral Canal	AGENBROAD, DARREL L	2-10436	IRRIGATION	2.92	184
Bybee Lateral Canal	AGENBROAD, DARREL L	2-7168A	IRRIGATION	3.08	154
Bybee Lateral Canal	ASTLE, CARLEEN M; ASTLE, LAYNE H	2-7275	IRRIGATION	2.26	113
Bybee Lateral Canal	ASTLE, CARLEEN M; ASTLE, LAYNE H	2-7279B	IRRIGATION	3.08	154
Bybee Lateral Canal	ASTLE, CARLEEN M; ASTLE, LAYNE H	2-7059	IRRIGATION	6.4	320
Bybee Lateral Canal	BOECKNER, JEREMY D; BOECKNER, KARLITA	2-7389	IRRIGATION	1.6	80
Bybee Lateral Canal	BOECKNER, JEREMY D; BOECKNER, KARLITA	2-7126	IRRIGATION	3.68	184
Bybee Lateral Canal	BOECKNER, JEREMY D; BOECKNER, KARLITA	2-10315	IRRIGATION	0.8	40
Bybee Lateral Canal	BRUNEAU-GRAND VIEW JOINT SCHOOL DISTRICT #365	2-7242B	IRRIGATION	0.32	16
Bybee Lateral Canal	CORP OF THE PRESIDING BISHOP	2-2380	IRRIGATION	0.1	11
Bybee Lateral Canal	DIRKS, MECHELLE; DIRKS, ROBERT G	2-10316	IRRIGATION	1.6	80
Bybee Lateral Canal	DIRKS, MECHELLE; DIRKS, ROBERT G	2-2418	IRRIGATION	5.78	289
Bybee Lateral Canal	DIRKS, MECHELLE; DIRKS, ROBERT G	2-7012	IRRIGATION	1	50
Bybee Lateral Canal	DIRKS, MECHELLE; DIRKS, ROBERT G	2-4026	IRRIGATION	0.8	40
Bybee Lateral Canal	DIRKS, MECHELLE; DIRKS, ROBERT G	2-2279	IRRIGATION	6.18	309
Bybee Lateral Canal	FIELD, J TERRY	2-7062	IRRIGATION	4.1	205
Bybee Lateral Canal	FIELD, JOHN TERRY	2-7061	IRRIGATION	6.32	316
Bybee Lateral Canal	FIELD, JOHN TERRY; FIELD, LESLIE A	2-7157C	IRRIGATION	7.37	368.6
Bybee Lateral Canal	J R SIMPLOT SELF DECLARATION REVOCABLE TRUST	2-2424	IRRIGATION	4.16	208
Bybee Lateral Canal	J R SIMPLOT SELF DECLARATION REVOCABLE TRUST	2-10187	IRRIGATION	12.16	608
Bybee Lateral Canal	J R SIMPLOT SELF DECLARATION REVOCABLE TRUST	2-7103	IRRIGATION	6.2	310
Bybee Lateral Canal	J R SIMPLOT SELF DECLARATION REVOCABLE TRUST	2-7104	IRRIGATION	5.92	296
Bybee Lateral Canal	J R SIMPLOT SELF DECLARATION REVOCABLE TRUST	2-7206	IRRIGATION	0.76	38
Bybee Lateral Canal	J R SIMPLOT SELF DECLARATION REVOCABLE TRUST	2-2308	IRRIGATION	23	1352

Appendix C
Water District 02 - 2013 BOR Grant Proposal
Water Rights List (sorted by Diversion Name Water Right Owner)

DiversionName	Current Owner	Water Right No.	Water Use List	Div Rate (cfs)	Total Acres
Bybee Lateral Canal	J R SIMPLOT SELF DECLARATION REVOCABLE TRUST	2-7060B	IRRIGATION	0.8	40
Bybee Lateral Canal	J R SIMPLOT SELF DECLARATION REVOCABLE TRUST	2-2153	IRRIGATION	1.55	77
Bybee Lateral Canal	J R SIMPLOT SELF DECLARATION REVOCABLE TRUST	2-10202	IRRIGATION	1.18	60
Bybee Lateral Canal	J R SIMPLOT SELF DECLARATION REVOCABLE TRUST	2-2154	IRRIGATION	2.76	139
Bybee Lateral Canal	J R SIMPLOT SELF DECLARATION REVOCABLE TRUST	2-2423	IRRIGATION	1.86	93
Bybee Lateral Canal	LAYTON, D SCOTT; LAYTON, J LYNN	2-2243	IRRIGATION	5.84	292
Bybee Lateral Canal	LEE, MAURICE D; LEE, SONYA E	2-7242D	IRRIGATION	2.42	121
Bybee Lateral Canal	MEAKER, HOLLY; MEAKER, REG	2-7344	IRRIGATION	2.86	418
Bybee Lateral Canal	MEAKER, HOLLY; MEAKER, REG	2-71	IRRIGATION	0.5	418
Bybee Lateral Canal	POST, JACK	2-2242	IRRIGATION	6.38	319
Bybee Lateral Canal	POST, LESLIE J	2-2288	IRRIGATION	5.8	292
Bybee Lateral Canal	SMITH, CONNIE; SMITH, ROBERT	2-7064	IRRIGATION	6.36	318
Bybee Lateral Canal	SMITH, CONNIE; SMITH, ROBERT	2-7237A	IRRIGATION	5.9	295
Bybee Lateral Canal	SMITH, CONNIE; SMITH, ROBERT	2-10181	IRRIGATION	3.2	160
Bybee Lateral Canal	TRIANGLE DAIRY INC	2-10201	IRRIGATION	0.83	42
Bybee Lateral Canal	UNRUH, CATHERINE W; UNRUH, DAVID C	2-10198	IRRIGATION	7.59	620
Bybee Lateral Canal	WALKER PLOW LLP	2-2275	IRRIGATION	4.38	219
Clover Hollow Pumps	CLOVER HOLLOW CO LLC	2-2386	IRRIGATION	18.9	945
Clover Hollow Pumps	CLOVER HOLLOW CO LLC	2-2388	IRRIGATION	18.92	946
Clover Hollow Pumps	CLOVER HOLLOW CO LLC	2-7148	IRRIGATION	17.92	896
Clover Hollow Pumps	CLOVER HOLLOW CO LLC	2-7291	IRRIGATION	7.86	393
Clover Hollow Pumps	CLOVER HOLLOW CO LLC	2-2387	IRRIGATION	19.12	956
Grand View Irrigation District Canal	GRAND VIEW IRRIGATION DISTRICT	2-29	IRRIGATION	190	
Grand View Irrigation District Canal	GRAND VIEW IRRIGATION DISTRICT	2-2034	IRRIGATION	60	
Grand View Irrigation District Canal	GRAND VIEW IRRIGATION DISTRICT	2-203	IRRIGATION	150	
Grand View Mutual Canal	ANCHUSTEGUI, JOHN	2-52	IRRIGATION, STOC	1.1	55
Grand View Mutual Canal	ANCHUSTEGUI, JOHN	2-51	IRRIGATION	0.7	37
Grand View Mutual Canal	BOATRIGHT, ROLAND G	2-202B	IRRIGATION	0.4	20
Grand View Mutual Canal	CANTRELL, SANDY; CANTRELL, TED	2-202A	IRRIGATION	1.1	132.5
Grand View Mutual Canal	CAROTHERS, JACKIE L; CAROTHERS, TERRY C	2-10172	IRRIGATION	0.66	33
Grand View Mutual Canal	CORP OF THE PRESIDING BISHOP	2-2176C	IRRIGATION	0.07	11
Grand View Mutual Canal	DARLINGTON, W KELLY	2-10031	IRRIGATION	0.5	29
Grand View Mutual Canal	DRAPER, CELIA C; DRAPER, CHARLES RAYMOND	2-63	IRRIGATION	0.08	4
Grand View Mutual Canal	DRAPER, CELIA C; DRAPER, CHARLES RAYMOND	2-10313	IRRIGATION	0.16	8
Grand View Mutual Canal	DRAPER, CELIA C; DRAPER, CHARLES RAYMOND	2-7032	IRRIGATION	4.4	278
Grand View Mutual Canal	FIELD, HOWARD J	2-10298	IRRIGATION	1.7	402
Grand View Mutual Canal	FIELD, HOWARD J	2-10169	IRRIGATION	2.4	402
Grand View Mutual Canal	FIELD, HOWARD J	2-10167	IRRIGATION	5	402

Appendix C
Water District 02 - 2013 BOR Grant Proposal
Water Rights List (sorted by Diversion Name Water Right Owner)

DiversionName	Current Owner	Water Right No.	Water Use List	Div Rate (cfs)	Total Acres
Grand View Mutual Canal	FIELD, HOWARD J	2-10171	IRRIGATION	1.74	402
Grand View Mutual Canal	FIELD, J TERRY	2-2272	IRRIGATION	1.29	79
Grand View Mutual Canal	FIELD, J TERRY; FIELD, LESLIE A	2-2084	IRRIGATION	1	50
Grand View Mutual Canal	FIELD, J TERRY; FIELD, LESLIE A	2-2083	DOMESTIC, IRRIGA	2.4	118
Grand View Mutual Canal	FIELD, J TERRY; FIELD, LESLIE A	2-2176A	IRRIGATION	2.89	248
Grand View Mutual Canal	FIELD, J TERRY; FIELD, LESLIE A	2-2405A	IRRIGATION	1.76	248
Grand View Mutual Canal	GRAND VIEW MUTUAL CANAL CO	2-81	IRRIGATION	49.5	
Grand View Mutual Canal	GRAND VIEW MUTUAL CANAL CO	2-7336	IRRIGATION	1	
Grand View Mutual Canal	GRAND VIEW MUTUAL CANAL CO	2-80	IRRIGATION	25	
Grand View Mutual Canal	MEAKER, HOLLY; MEAKER, REG	2-4027	IRRIGATION	5	418
Grand View Mutual Canal	PULLEN, DONNA L; PULLEN, MICHAEL V	2-10039	IRRIGATION	0.24	12
Grand View Mutual Canal	RICKS, THOMAS M	2-56	IRRIGATION	8.24	412
Grand View Mutual Canal	THE ORDER OF TRANQUILITY	2-2271	IRRIGATION	0.74	37
Grand View Mutual Canal	UNRUH, CATHERINE W; UNRUH, DAVID C	2-2176B	IRRIGATION	2.04	175
Grand View Mutual Canal	UNRUH, CATHERINE W; UNRUH, DAVID C	2-2405B	IRRIGATION	1.24	175
Indian Cove ID Pumps	INDIAN COVE IRRIGATION DISTRICT	2-2033	IRRIGATION, STOC	25.5	
Indian Cove ID Pumps	INDIAN COVE IRRIGATION DISTRICT	2-83	IRRIGATION, STOC	8.97	
James Pumps	JAMES, MICHAEL L	2-10399	IRRIGATION	1.4	123
James Pumps	JAMES, MICHAEL L	2-10423	IRRIGATION	0.8	123
James Pumps	JAMES, MICHAEL L	2-10421	IRRIGATION	0.26	123
James Pumps	JAMES, MICHAEL L; JAMES, RHONDA J	2-2259	IRRIGATION	5.14	257
James Pumps	JAMES, MICHAEL L; JAMES, RHONDA J	2-2261A	IRRIGATION	4.4	220
James Pumps	JAMES, MICHAEL L; JAMES, RHONDA J	2-2261C	IRRIGATION	0.8	40
James Pumps	SCHAAL, GISELA	2-2261D	IRRIGATION	0.8	40
Johnson-Howarth Pump	HOWARTH, CHARLES H	2-10428	IRRIGATION	0.8	40
Johnson-Howarth Pump	HOWARTH, CHARLES H	2-2149	IRRIGATION	1.4	70
Johnson-Marker Pump	CAVEN PROPERTIES LLC	2-7371	IRRIGATION	1.52	77
Johnson-Marker Pump	CAVEN PROPERTIES LLC	2-7359B	IRRIGATION	1.29	101
Johnson-Marker Pump	JOHNSON, ANDREW	2-10429	IRRIGATION	0.29	200
Johnson-Marker Pump	JOHNSON, ANDREW; JOHNSON, LORNA	2-2133	IRRIGATION	1.8	98
Johnson-Marker Pump	JOHNSON, ANDREW; JOHNSON, LORNA	2-7359A	IRRIGATION	2.01	158
Little Valley Mutual Pumps	LITTLE VALLEY MUTUAL IRRIGATION CO	2-2442	IRRIGATION	6.14	
Little Valley Mutual Pumps	LITTLE VALLEY MUTUAL IRRIGATION CO	2-7221	IRRIGATION	14.08	
Little Valley Mutual Pumps	LITTLE VALLEY MUTUAL IRRIGATION CO	2-2443	IRRIGATION	6.14	
Little Valley Mutual Pumps	LITTLE VALLEY MUTUAL IRRIGATION CO	2-7068	IRRIGATION	51.4	
Little Valley Mutual Pumps	LITTLE VALLEY MUTUAL IRRIGATION CO	2-7030	IRRIGATION	10.8	
Little Valley Mutual Pumps	LITTLE VALLEY MUTUAL IRRIGATION CO	2-10294	IRRIGATION	0.14	
Salmon Falls Pump Station	SALMON FALLS LAND & LIVESTOCK CO INC	2-7249	IRRIGATION	29.89	2662.8

Appendix C
Water District 02 - 2013 BOR Grant Proposal
Water Rights List (sorted by Diversion Name Water Right Owner)

DiversionName	Current Owner	Water Right No.	Water Use List	Div Rate (cfs)	Total Acres
Salmon Falls Pump Station	SALMON FALLS LAND & LIVESTOCK CO INC	2-7462	IRRIGATION	20	2662.8
Simplot Bigfoot Bar	J R SIMPLOT SELF DECLARATION REVOCABLE TRUST	2-2070	IRRIGATION	1.46	73
Simplot Bigfoot Bar	J R SIMPLOT SELF DECLARATION REVOCABLE TRUST	2-2353	IRRIGATION	6.42	321
Simplot Bigfoot Bar	J R SIMPLOT SELF DECLARATION REVOCABLE TRUST	2-2437	IRRIGATION	4.84	284
Simplot Farm 2 - CJ Strike Southside	J R SIMPLOT CO	2-2137	IRRIGATION	0.66	33
Simplot Farm 2 - CJ Strike Southside	J R SIMPLOT CO	2-2085	IRRIGATION	12.3	632
Simplot Farm 2 - CJ Strike Southside	J R SIMPLOT CO	2-2096	IRRIGATION	1.66	712
Simplot Farm 2 - CJ Strike Southside	J R SIMPLOT CO	2-10016	IRRIGATION	1.6	712
Simplot Farm 2 - CJ Strike Southside	J R SIMPLOT CO	2-2098	IRRIGATION	3.2	160
Simplot Farm 2 - CJ Strike Southside	J R SIMPLOT CO	2-2102	IRRIGATION	1	50
Simplot Farm 2 - CJ Strike Southside	J R SIMPLOT CO	2-2138	IRRIGATION	2.2	146
Simplot Farm 2 - CJ Strike Southside	J R SIMPLOT CO	2-5	IRRIGATION	0.72	146
Simplot Farm 2 - CJ Strike Southside	J R SIMPLOT CO	2-4003A	IRRIGATION	0.1	119
Simplot Farm 2 - CJ Strike Southside	J R SIMPLOT CO	2-4003B	IRRIGATION	2.28	119
Simplot Farm 2 - CJ Strike Southside	J R SIMPLOT CO	2-7090B	IRRIGATION	3.04	152
Simplot Farm 3 - CJ Strike Bruneau Arm	J R SIMPLOT CO	2-10440	IRRIGATION	0.16	8
Simplot Farm 3 - CJ Strike Bruneau Arm	J R SIMPLOT CO	2-15	IRRIGATION	1.31	300
Simplot Farm 3 - CJ Strike Bruneau Arm	J R SIMPLOT CO	2-2166	IRRIGATION	5.7	294
Simplot Farm 3 - CJ Strike Bruneau Arm	J R SIMPLOT CO	2-6	IRRIGATION	5.78	356
Simplot Farm 4 - CJ Strike Northside	COTTONWOOD MUTUAL CANAL CO	2-10471	IRRIGATION	23.76	1428
Simplot Farm 4 - CJ Strike Northside	J R SIMPLOT CO	2-7040	IRRIGATION	3.14	157
Simplot Farm 4 - CJ Strike Northside	J R SIMPLOT CO	2-2222	IRRIGATION	6.03	858
Simplot Farm 4 - CJ Strike Northside	J R SIMPLOT CO	2-2220	IRRIGATION	5.3	858
Simplot Farm 4 - CJ Strike Northside	J R SIMPLOT CO	2-2221	IRRIGATION	5.64	858
Simplot Farm 4 - CJ Strike Northside	J R SIMPLOT CO	2-7396	IRRIGATION FROM	0.58	112
Simplot Farm 4 - CJ Strike Northside	J R SIMPLOT CO	2-2409	IRRIGATION	4.16	208
Simplot Farm 4 - CJ Strike Northside	RINGERT, LYNNE K; RINGERT, WILLIAM F	2-10472	IRRIGATION	4.8	1428
Simplot Farm 9 (Sand Farm)	J R SIMPLOT CO	2-2241	IRRIGATION	16.12	1081
Simplot Farm 9 (Sand Farm)	J R SIMPLOT CO	2-7399	IRRIGATION	0.2	10
Simplot Farm 9 (Sand Farm)	J R SIMPLOT CO	2-7027	IRRIGATION	3.12	155.8
Snake River ID Low Line Canal	J R SIMPLOT CO	2-10441	IRRIGATION	0.15	7.6
Snake River ID Low Line Canal	J R SIMPLOT CO	2-10048	IRRIGATION	5.05	584
Snake River ID Low Line Canal	J R SIMPLOT CO	2-10047	IRRIGATION	6.24	584
Snake River ID Low Line Canal	SNAKE RIVER IRRIGATION DIST	2-79	IRRIGATION	61	
Snake River ID Low Line Canal	SNAKE RIVER IRRIGATION DIST	2-78	IRRIGATION	127	
South Elmore Pumps	SOUTH ELMORE IRRIGATION CO	2-7317	IRRIGATION	9.3	465
South Elmore Pumps	SOUTH ELMORE IRRIGATION CO	2-7263	IRRIGATION	12	691
South Elmore Pumps	SOUTH ELMORE IRRIGATION CO	2-2345	IRRIGATION	5.44	272

Appendix C
Water District 02 - 2013 BOR Grant Proposal
Water Rights List (sorted by Diversion Name Water Right Owner)

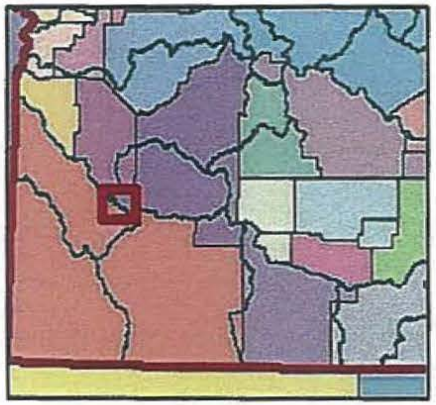
DiversionName	Current Owner	Water Right No.	Water Use List	Div Rate (cfs)	Total Acres
South Elmore Pumps	SOUTH ELMORE IRRIGATION CO	2-2367	IRRIGATION	9.72	486
South Elmore Pumps	SOUTH ELMORE IRRIGATION CO	2-2269	IRRIGATION	87.11	5645
South Elmore Pumps	SOUTH ELMORE IRRIGATION CO	2-2210	IRRIGATION	17.9	847
South Elmore Pumps	SOUTH ELMORE IRRIGATION CO	2-7255	IRRIGATION	19.2	960
Upper Grand View Pump	UPPER GRAND VIEW CANAL CO	2-7212	IRRIGATION	20.7	
Upper Grand View Pump	UPPER GRAND VIEW CANAL CO	2-7090A	IRRIGATION	2.34	

Grand View Irrigation District

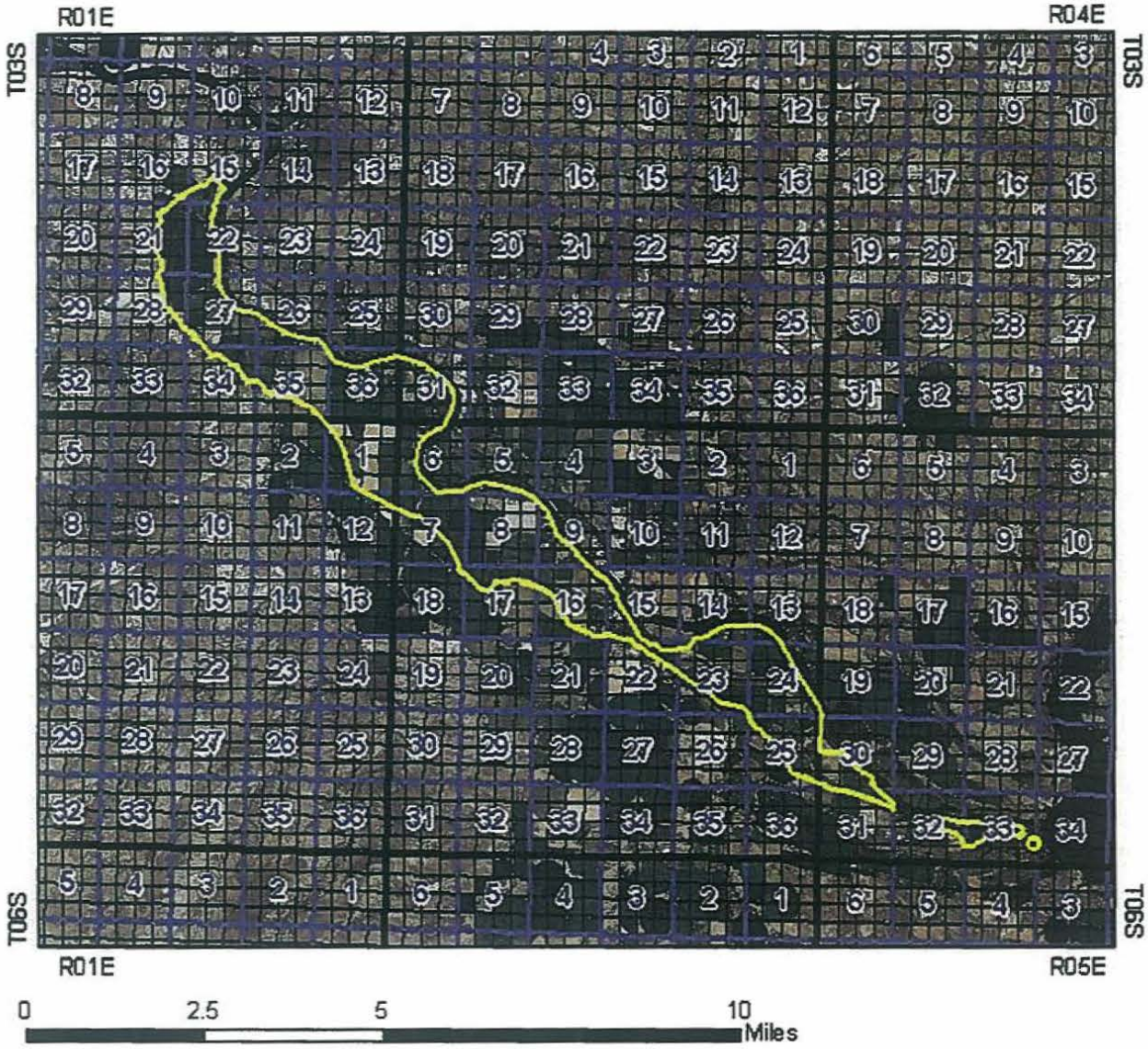
Water Rights: 2-29, 2-203, 2-2034

Irrigation Service Area Boundary
GIS Place of Use Illustration

- Point of Diversion
- Service Area
- State Outline
- Townships
- PLS Sections
- Quarter Quarters



Owyhee County
IDWR Basin 2



Prepared by Luke, Tim

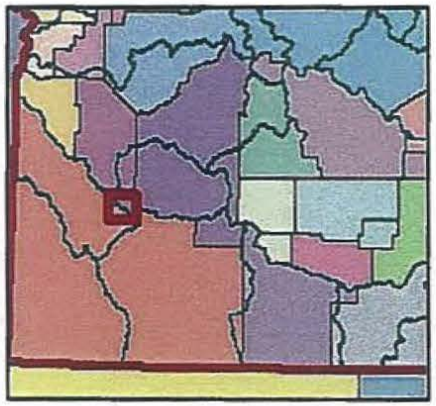
2009 Aerial Photography

Grand View Mutual Canal Co

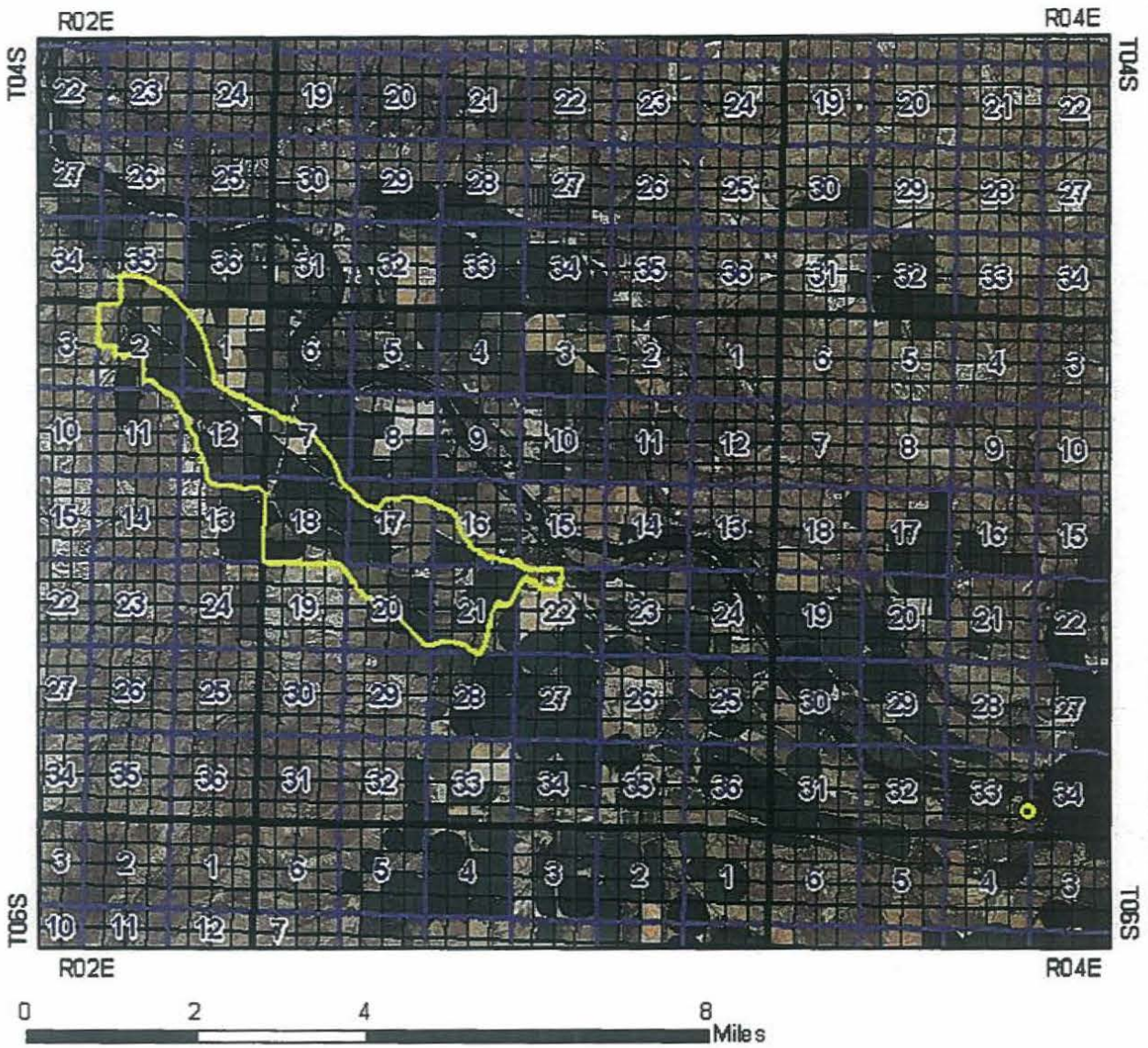
Water Rights: 2-80, 2-81, 2-7336

Irrigation Service Area Boundary
GIS Place of Use Illustration

- Point of Diversion
- Service Area
- State Outline
- Townships
- PLS Sections
- Quarter Quarters



Owyhee County
IDWR Basin 2



Prepared by Luke, Tim

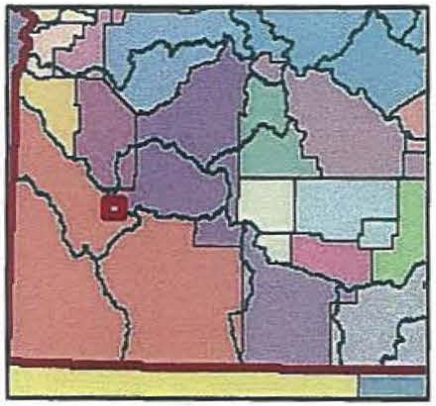
2009 Aerial Photography

Upper Grand View Canal Co

Water Rights: 2-7090A, 2-7212

Irrigation Service Area Boundary
GIS Place of Use Illustration

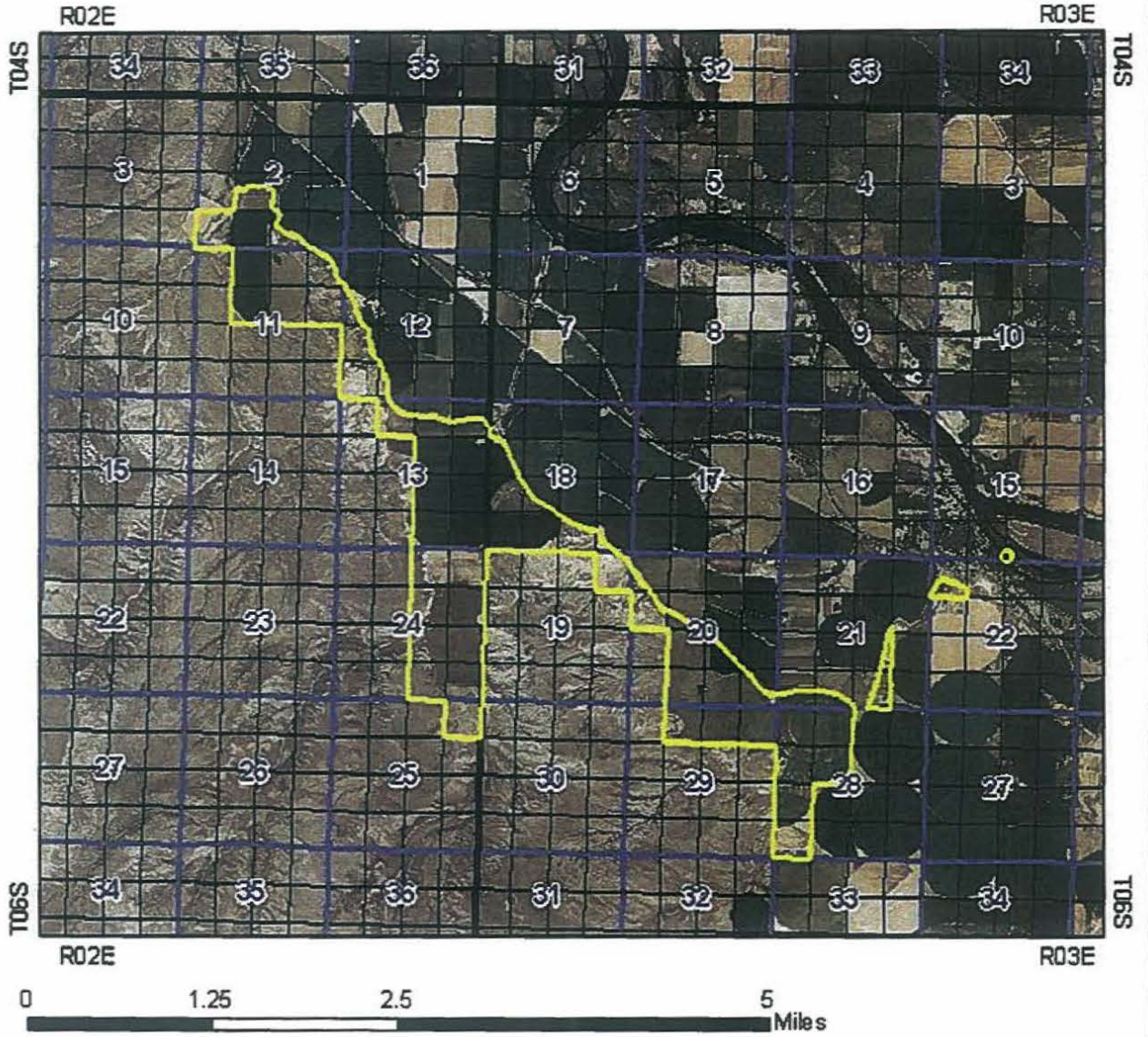
- Point of Diversion
- Service Area
- State Outline
- Townships
- PLS Sections
- Quarter Quarters



Owyhee County
IDWR Basin 2

Prepared by Luke, Tim

2009 Aerial Photography

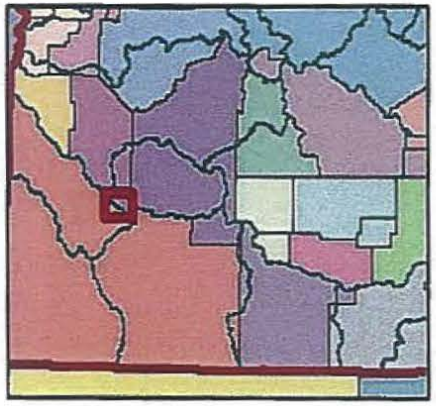


Snake River Irrigation District

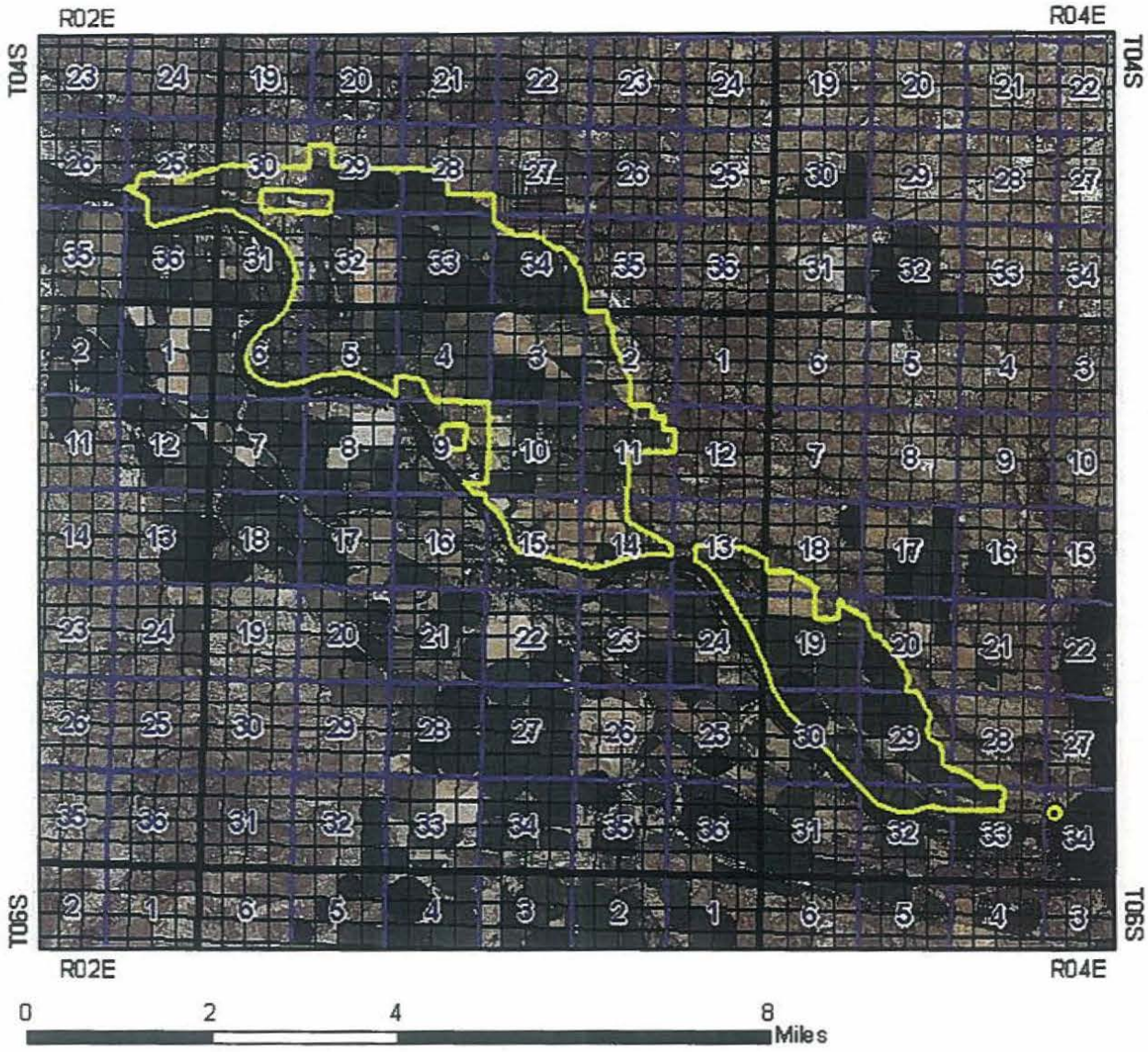
Water Rights: 2-78, 2-79, 2-10047, 2-10048, 2-10441

Irrigation Service Area Boundary
GIS Place of Use Illustration

- Point of Diversion
- Service Area
- State Outline
- Townships
- PLS Sections
- Quarter Quarters



Elmore County
IDWR Basin 2



Prepared by Luke, Tim

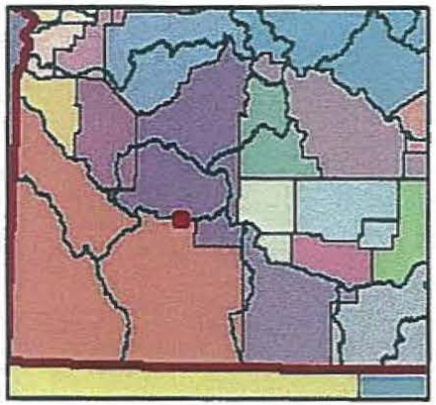
2009 Aerial Photography

Indian Cove Irrigation District

Water Rights: 2-83, 2-2033

Irrigation Service Area Boundary
GIS Place of Use Illustration

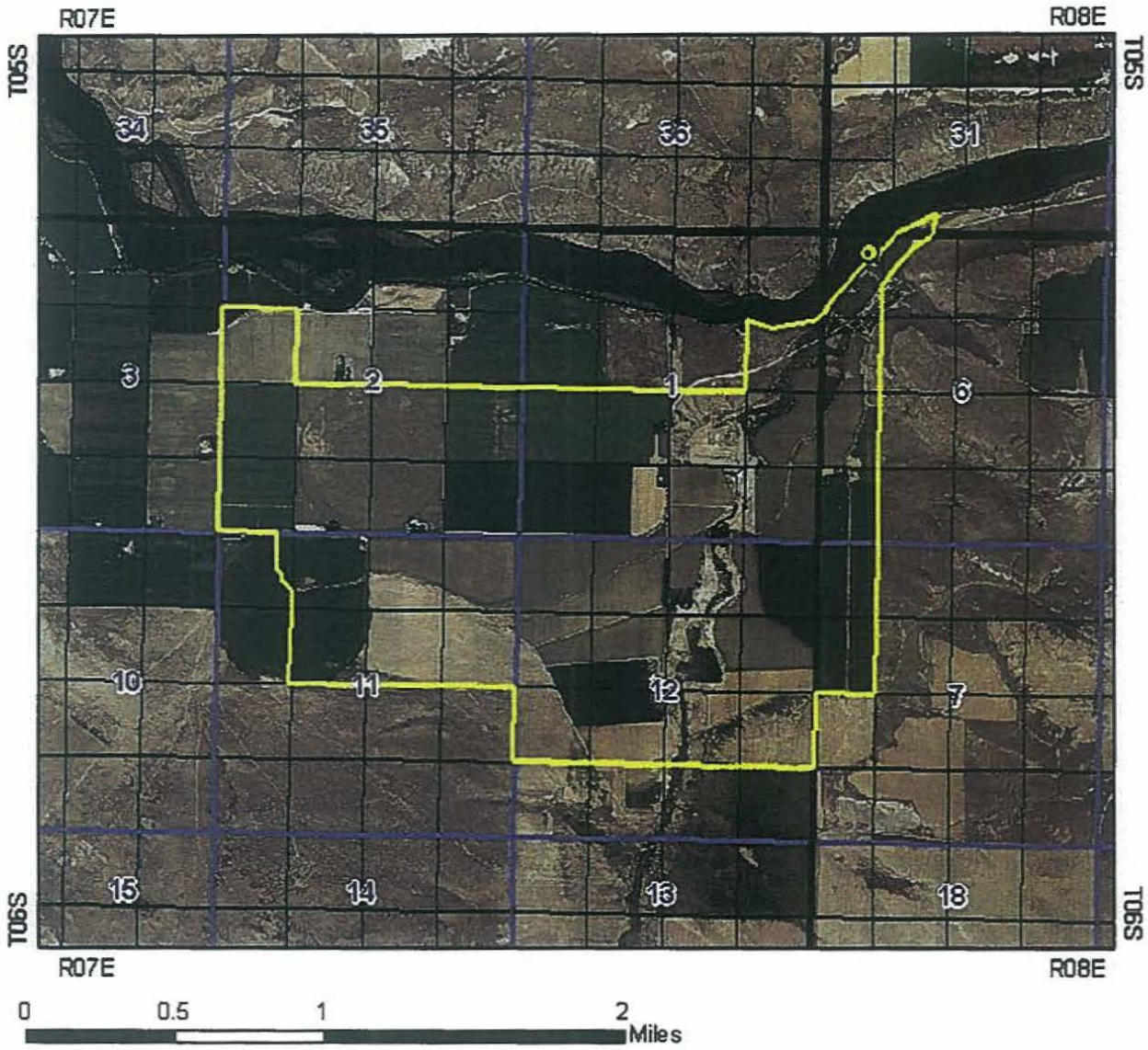
- Point of Diversion
- Service Area
- State Outline
- Townships
- PLS Sections
- Quarter Quarters



Owyhee County
IDWR Basin 2

Prepared by Luke, Tim

2009 Aerial Photography

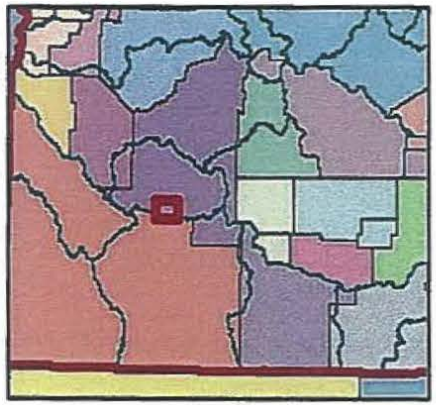


South Elmore Irrigation Co

Water Rights: 2-2210, 2-2269, 2-2345, 2-2367, 2-7255, 2-7263, 2-7317

Irrigation Service Area Boundary
GIS Place of Use Illustration

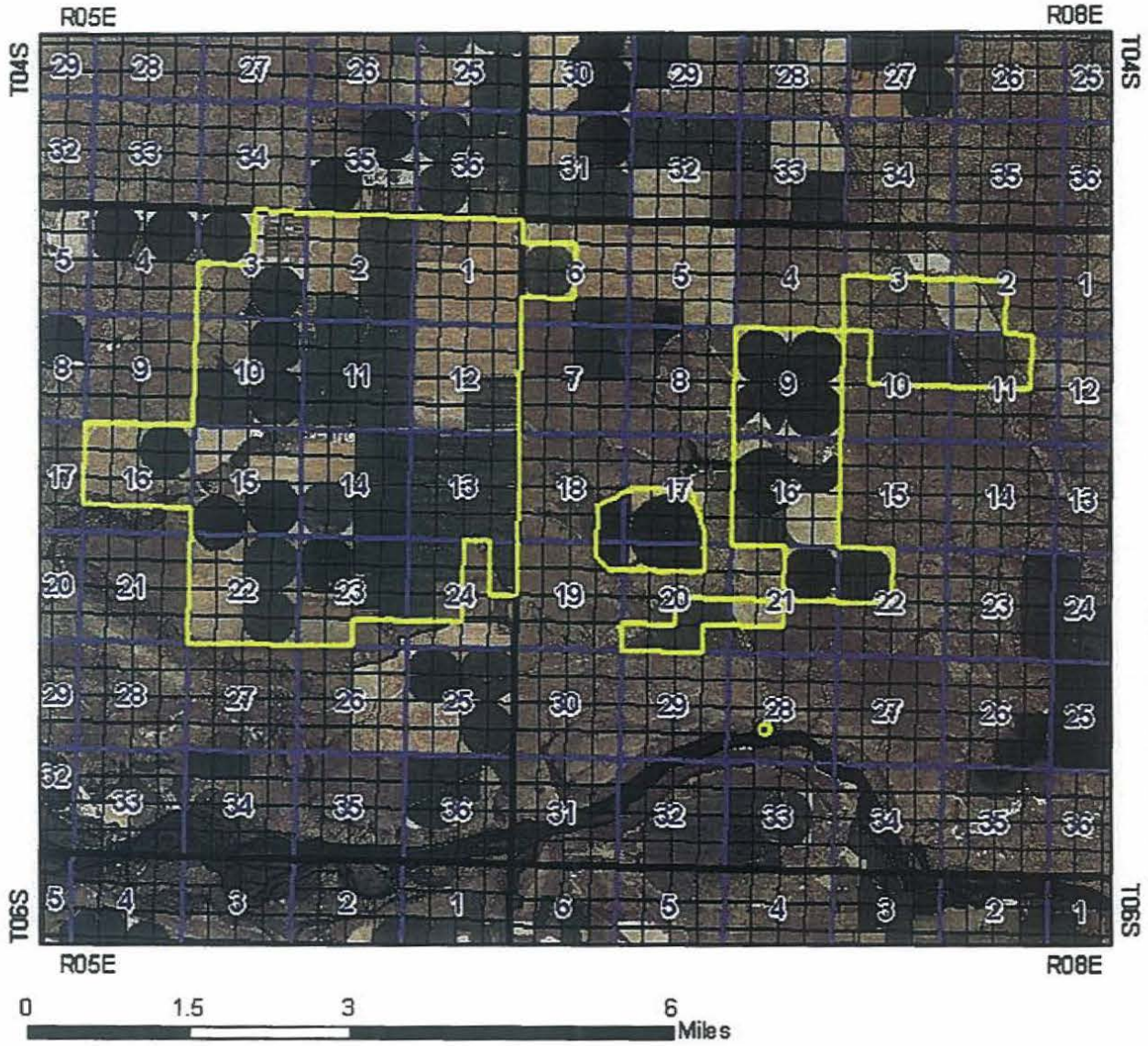
- Point of Diversion
- Service Area
- State Outline
- Townships
- PLS Sections
- Quarter Quarters



Elmore County
IDWR Basin 2

Prepared by Luke, Tim

2009 Aerial Photography



Idaho Department of Water Resources

Water Rights Place of Use/Point of Diversion

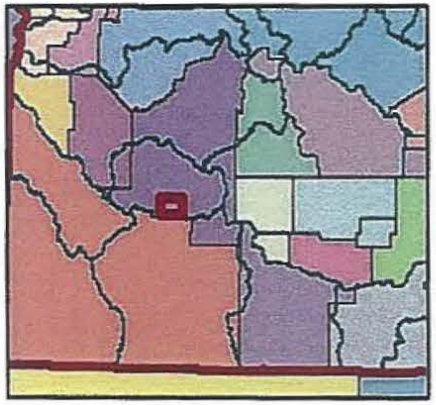
Clover Hollow Co. LLC

Water Right

2-2386, 2-2387, 2-2388,
2-7148, 2-7291

(IRRIGATION)

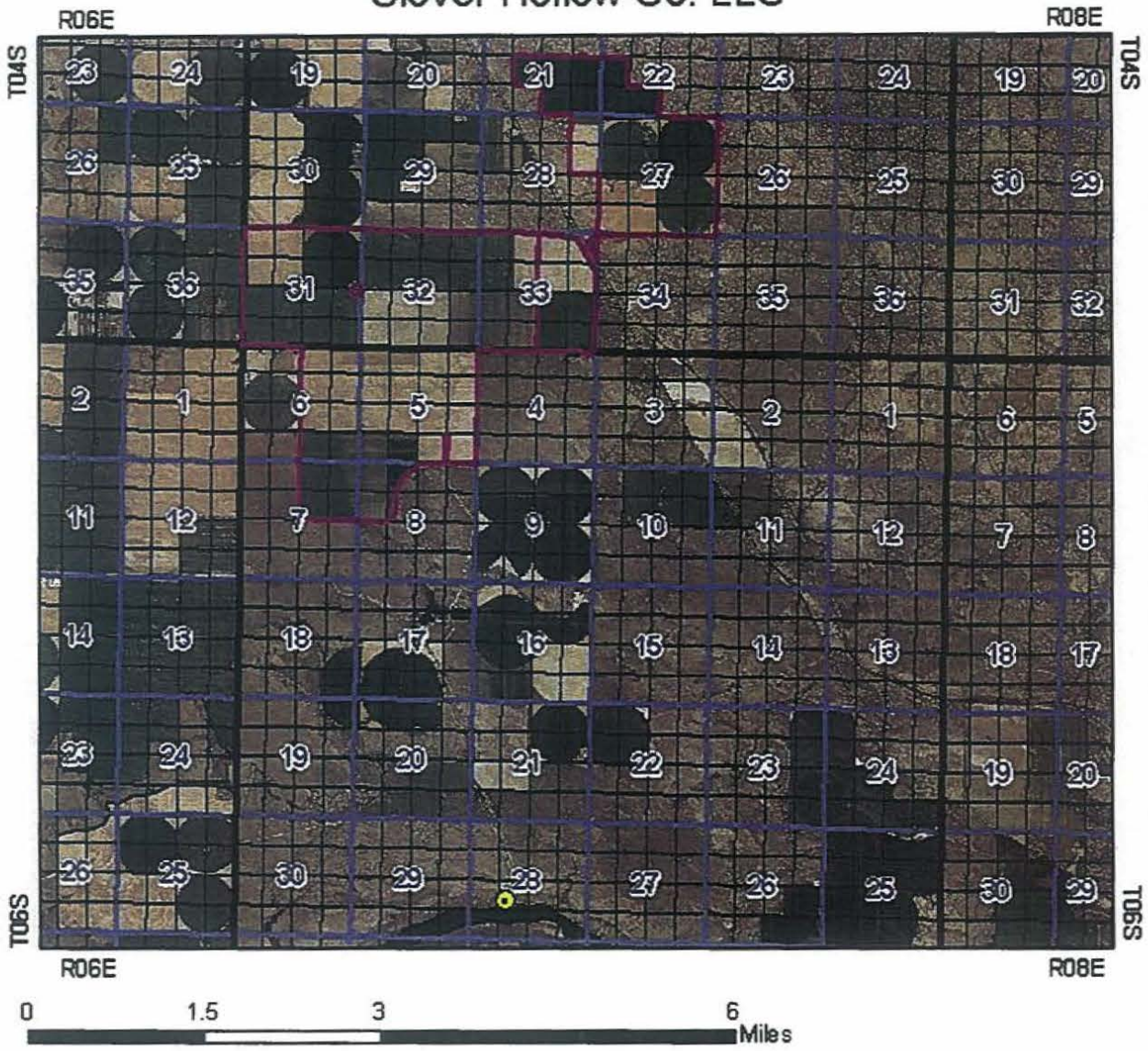
- Point of Diversion
- State Outline
- Townships
- PLS Sections
- Quarter Quarters
- Water Rts. Place of Use



Elmore County
IDWR Basin 2

Prepared by Luke, Tim

2009 Aerial Photography



Owner: Clover Hollow Co Llc

NOTE: Only one owner is listed. There may or may not be more than this in the IDWR database.

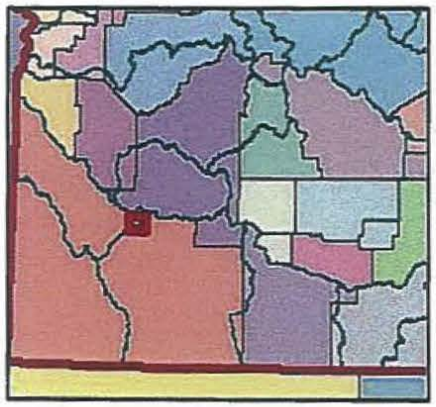
Little Valley Mutual Irrigation Co

Water Rights: 2-2442, 2-2443, 2-7221, 2-10294, 2-7068, 2-7030

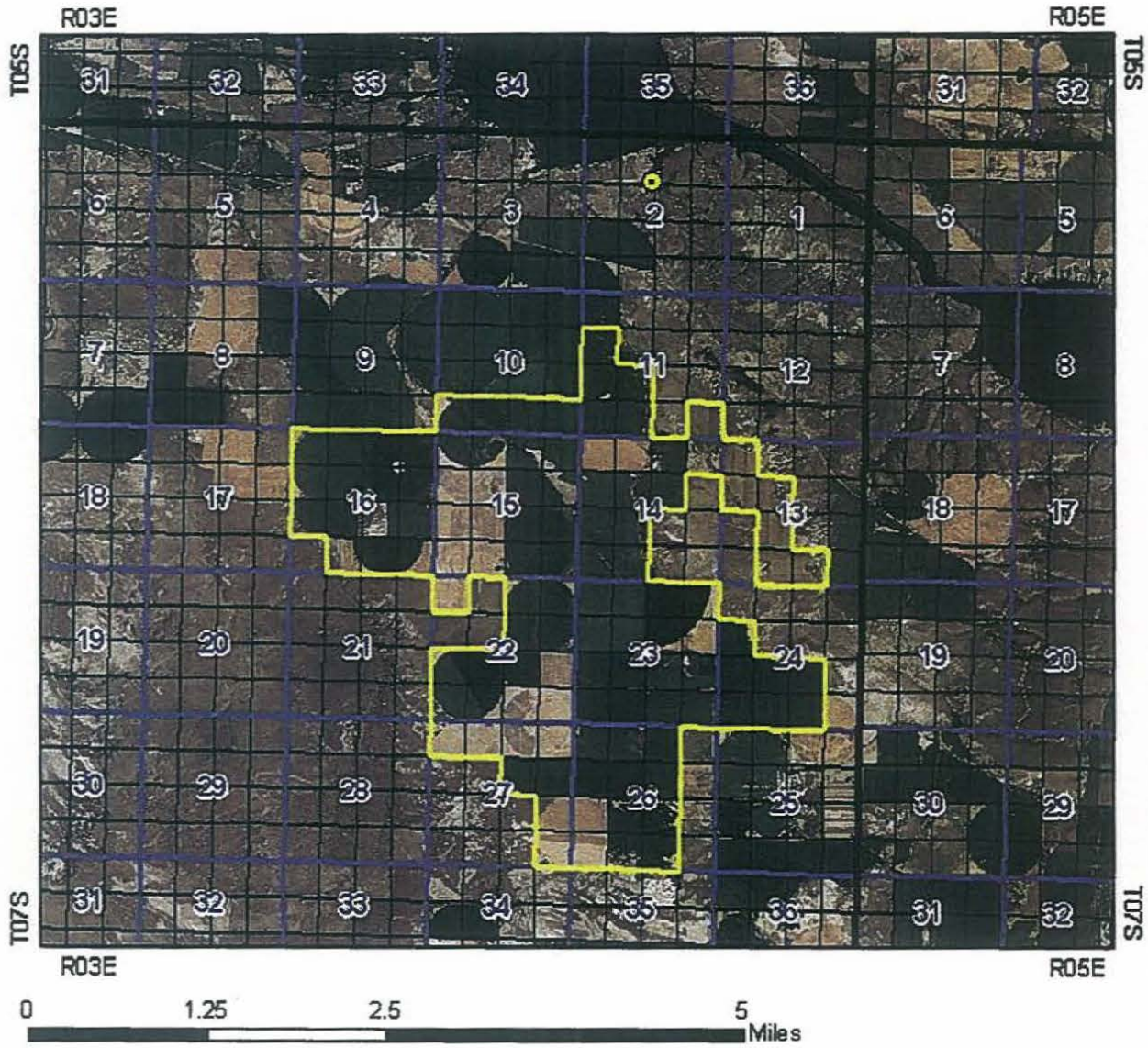
63

Irrigation Service Area Boundary
GIS Place of Use Illustration

- Point of Diversion
- Service Area
- State Outline
- Townships
- PLS Sections
- Quarter Quarters



Owyhee County
IDWR Basin 2

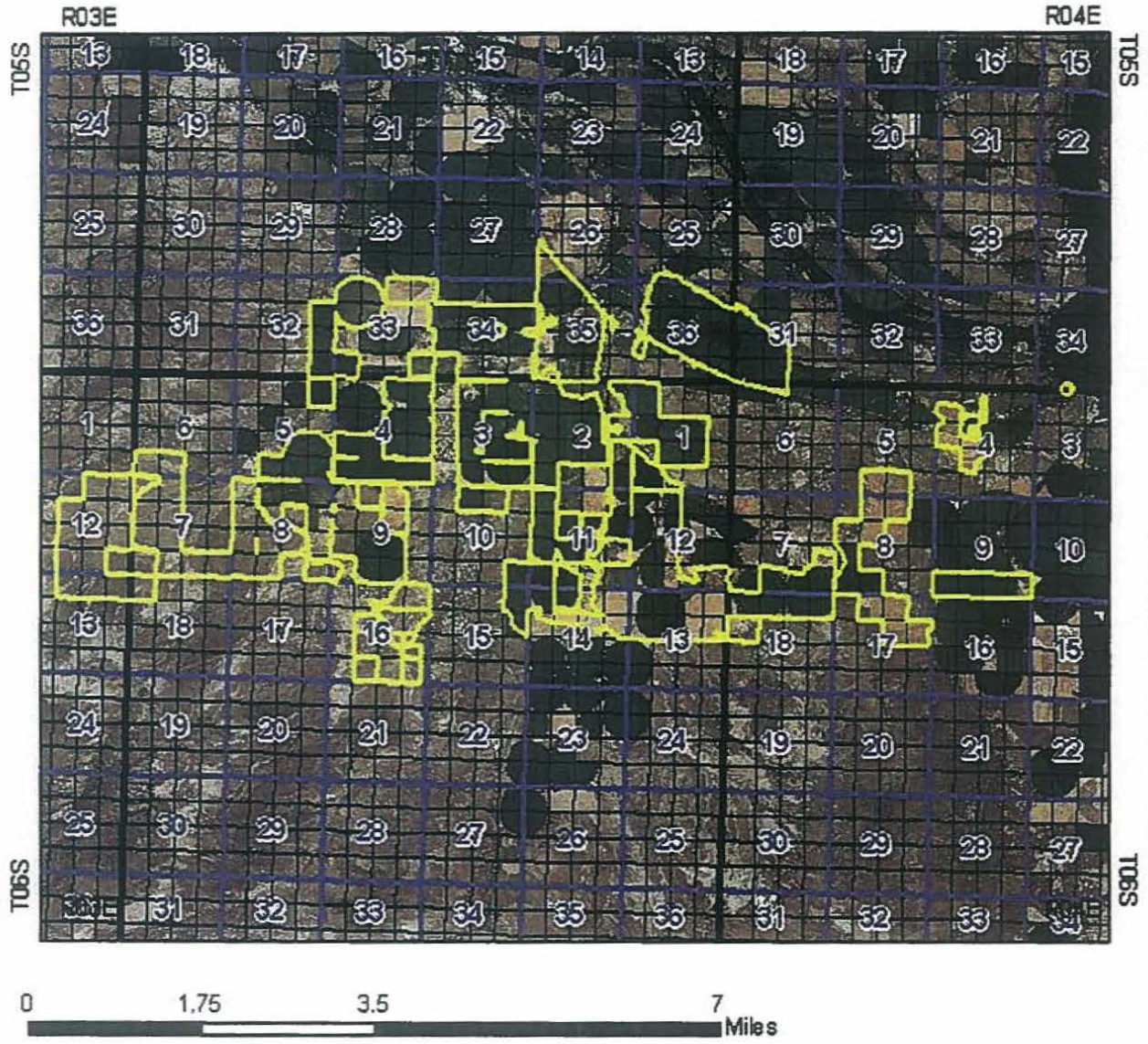


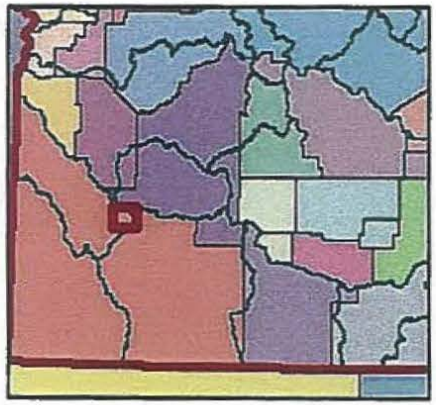
Prepared by Luke, Tim

2009 Aerial Photography

Bybee Lateral Water Users Association

Water Rights: Numerous privately owned water rights delivered via canal managed and maintained by the Bybee Lateral Water Users Association (see water rights list attachment)





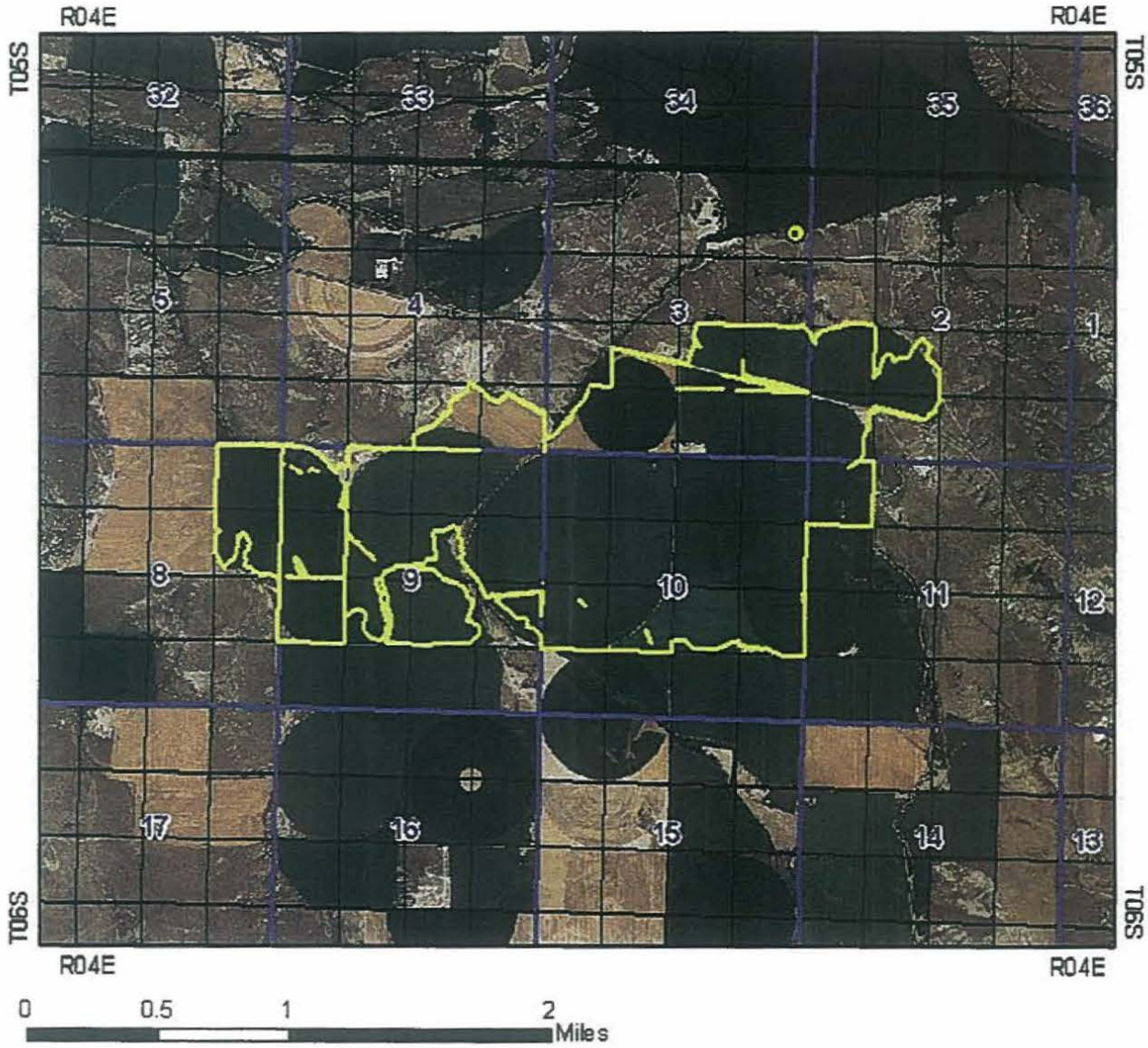
Owyhee County
IDWR Basin 2

Prepared by Luke, Tim

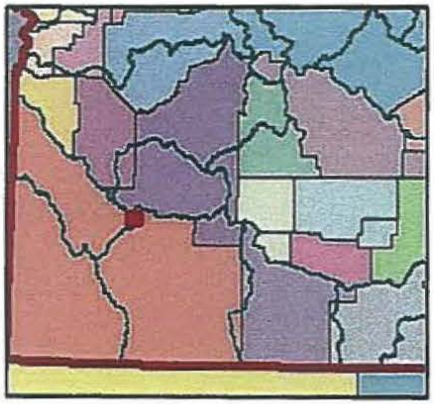
2009 Aerial Photography

J R Simplot Co. (Farm 2 - CJ Strike Southside)

Water Rights: 2-5, 2-2096, 2-2098, 2-2102. 2-2137, 2-2138, 2-4003A, 2-4003B, 2, 7090B, 2-10016



- Point of Diversion
- Place of Use
- State Outline
- Townships
- PLS Sections
- Quarter Quarters



Owyhee County
IDWR Basin 2

Prepared by Luke, Tim

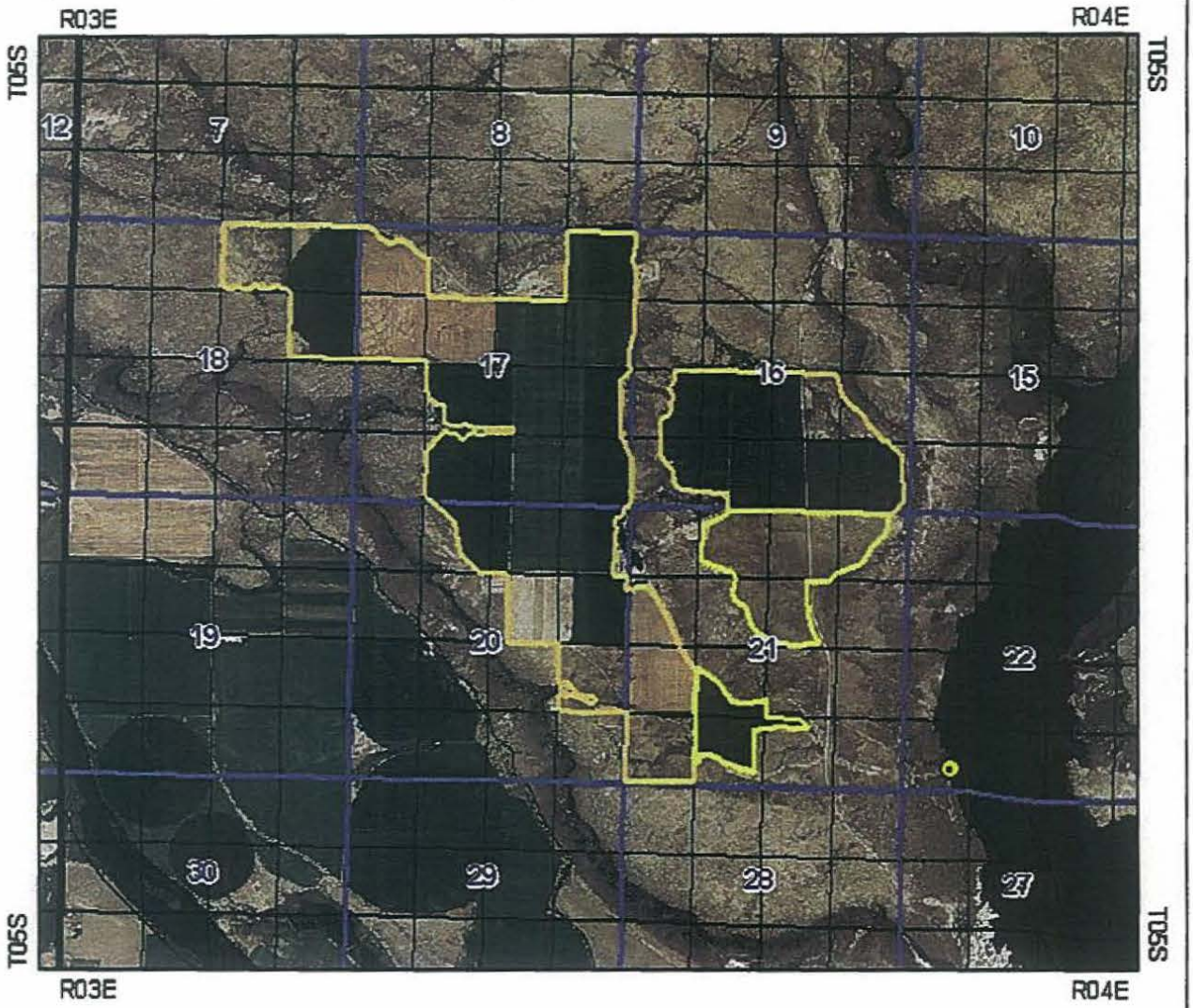
2009 Aerial Photography

Owner: J R Simplot Co

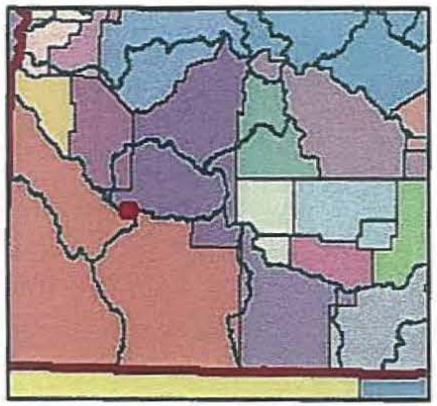
NOTE: Only one owner is listed. There may or may not be more than this in the IDWR database.

J R Simplot Co (Farm 4 - CJ Strike Northside)

Water Rights: 2-2220, 2-2221, 2-2222, 2-2409, 2-7040



- Point of Diversion
- Place of Use
- State Outline
- Townships
- PLS Sections
- Quarter Quarters



Elmore County
IDWR Basin 2

Prepared by Luke, Tim

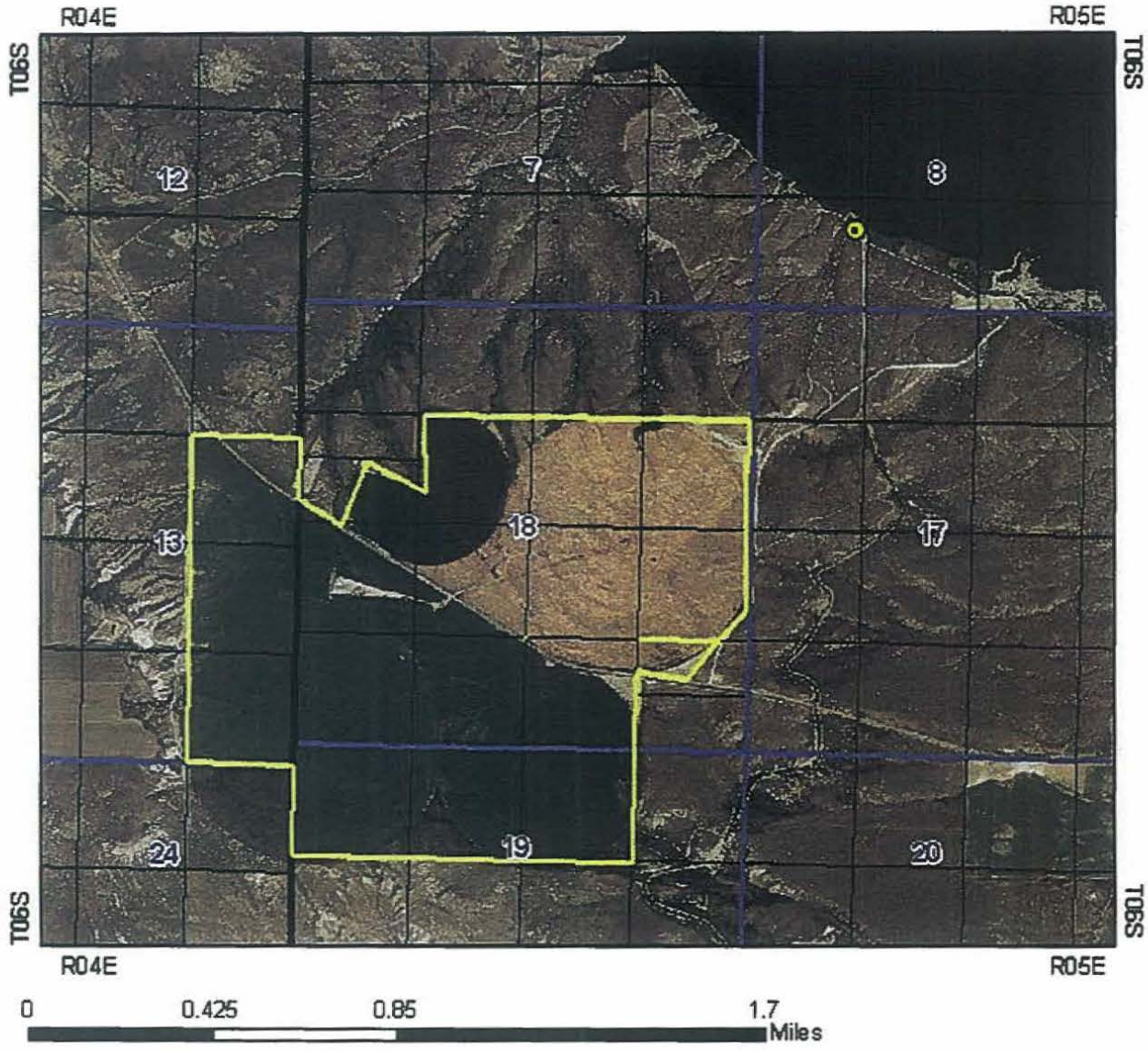
2009 Aerial Photography

Owner: J R Simplot Co

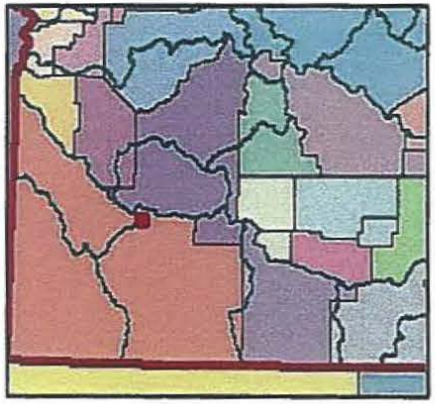
NOTE: Only one owner is listed. There may or may not be more than this in the IDWR database.

J R Simplot Co Farm 3 (Bruneau Arm)

Water Rights: 2-6, 2-15, 2-2166, 2-10440



- Point of Diversion
- Place of Use
- State Outline
- Townships
- PLS Sections
- Quarter Quarters



Owyhee County
IDWR Basin 2

Prepared by Luke, Tim

2009 Aerial Photography

Owner: J R Simplot Co

NOTE: Only one owner is listed. There may or may not be more than this in the IDWR database.

Idaho Department of Water Resources

Water Rights Place of Use/Point of Diversion

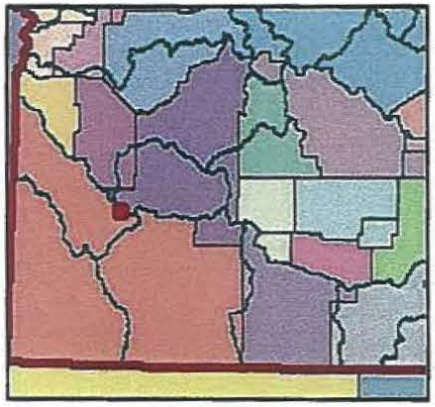
J R Simplot Co Farm 9

Water Right

2-2241, 2-7027, 2-7399

(IRRIGATION)

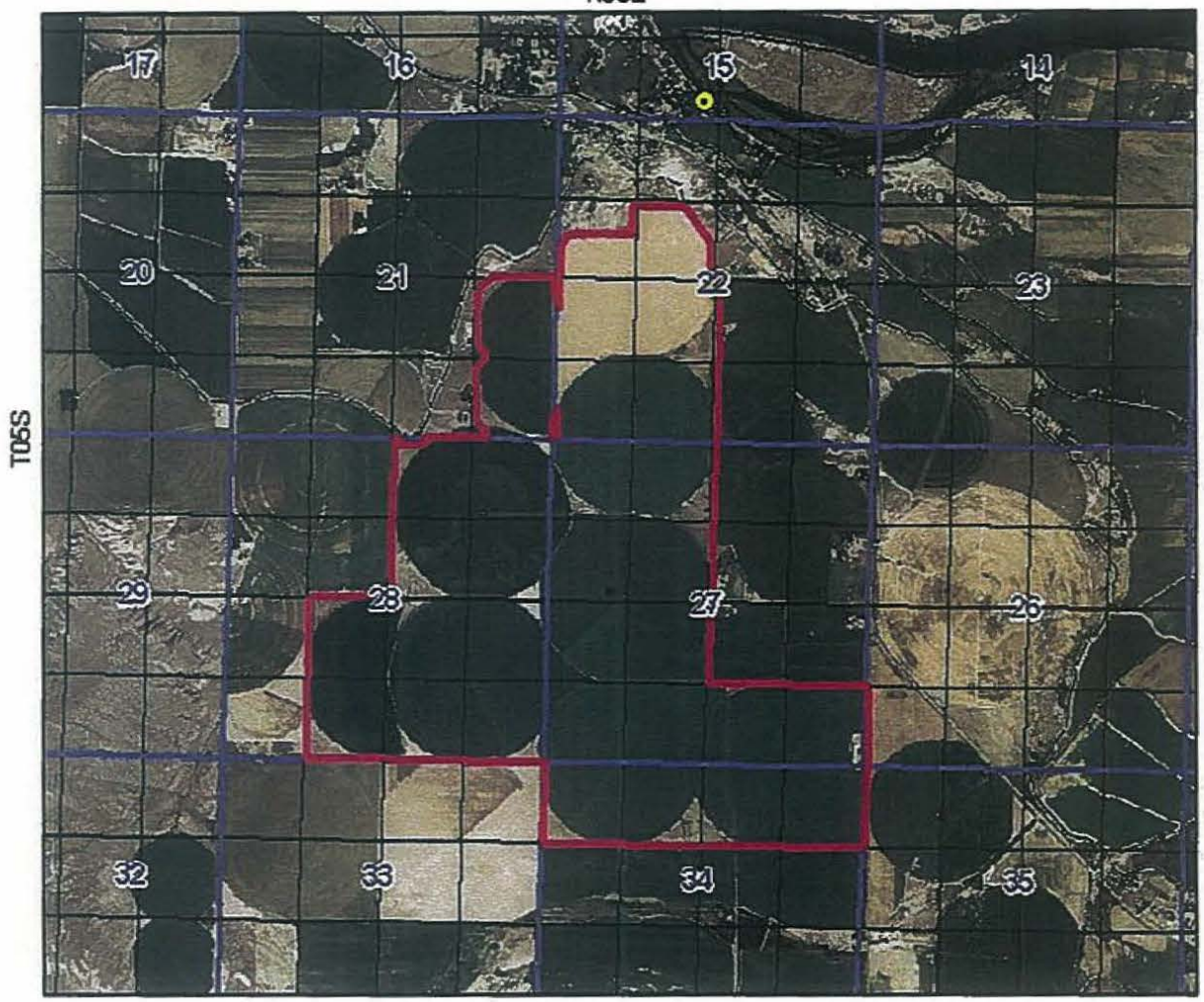
- Point of Diversion
- State Outline
- Townships
- PLS Sections
- Quarter Quarters
- Water Right Place of Use



Owyhee County
IDWR Basin 2

Prepared by Luke, Tim

2009 Aerial Photography

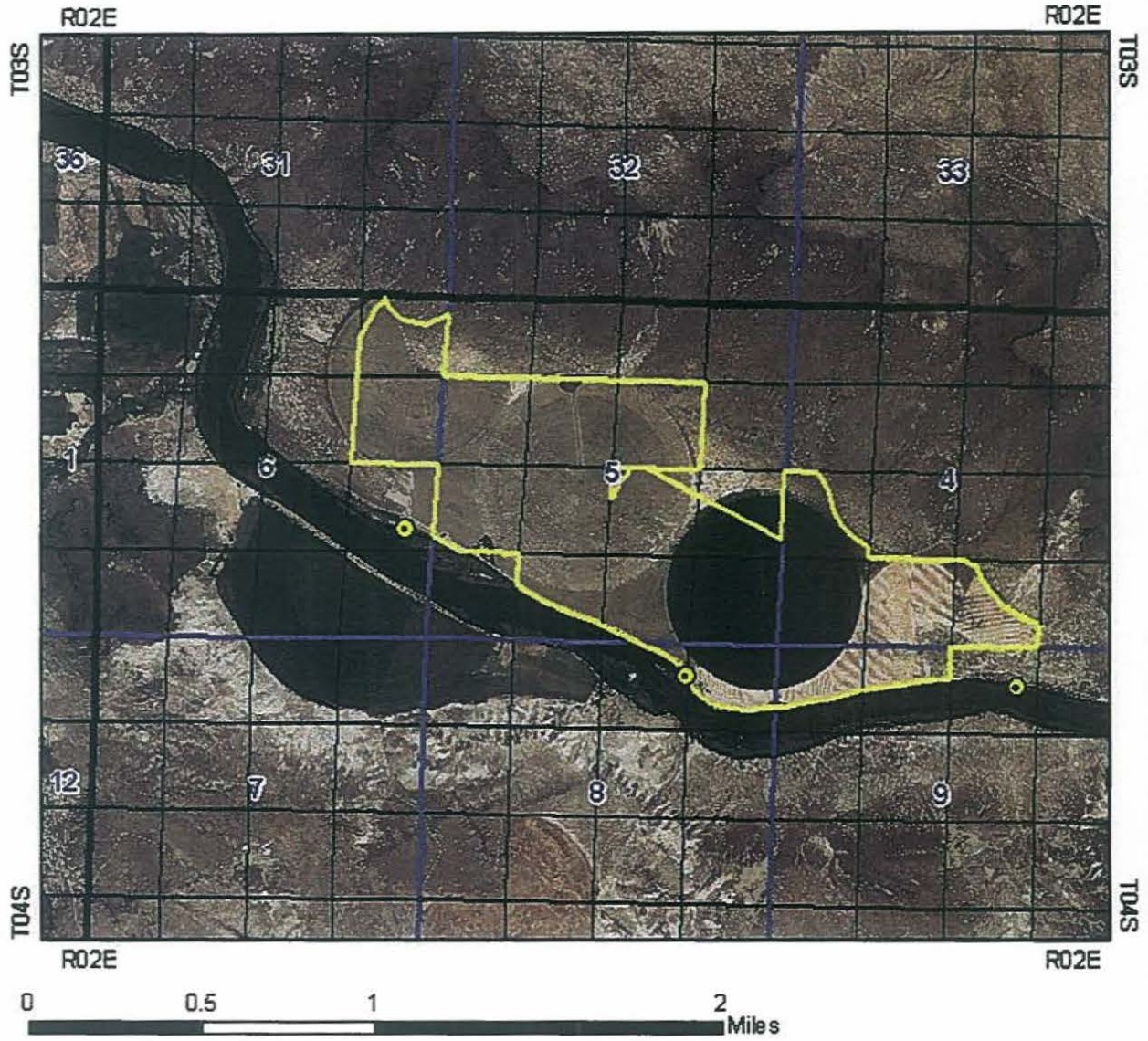


Owner: J R Simplot Co

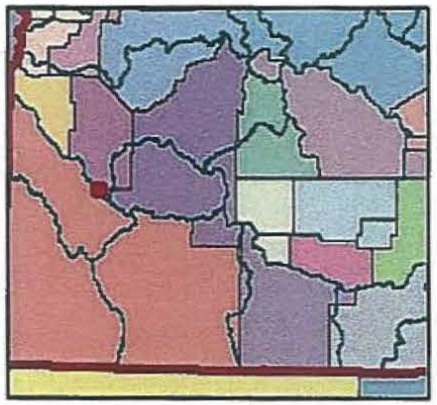
NOTE: Only one owner is listed. There may or may not be more than this in the IDWR database.

J R Simplot Company

Water Rights: 2-2437, 2-2070, 2-2353



- Point of Diversion
- Place Of Use
- State Outline
- Townships
- PLS Sections
- Quarter Quarters



Ada, Elmore Counties
IDWR Basin 2

Prepared by Luke, Tim

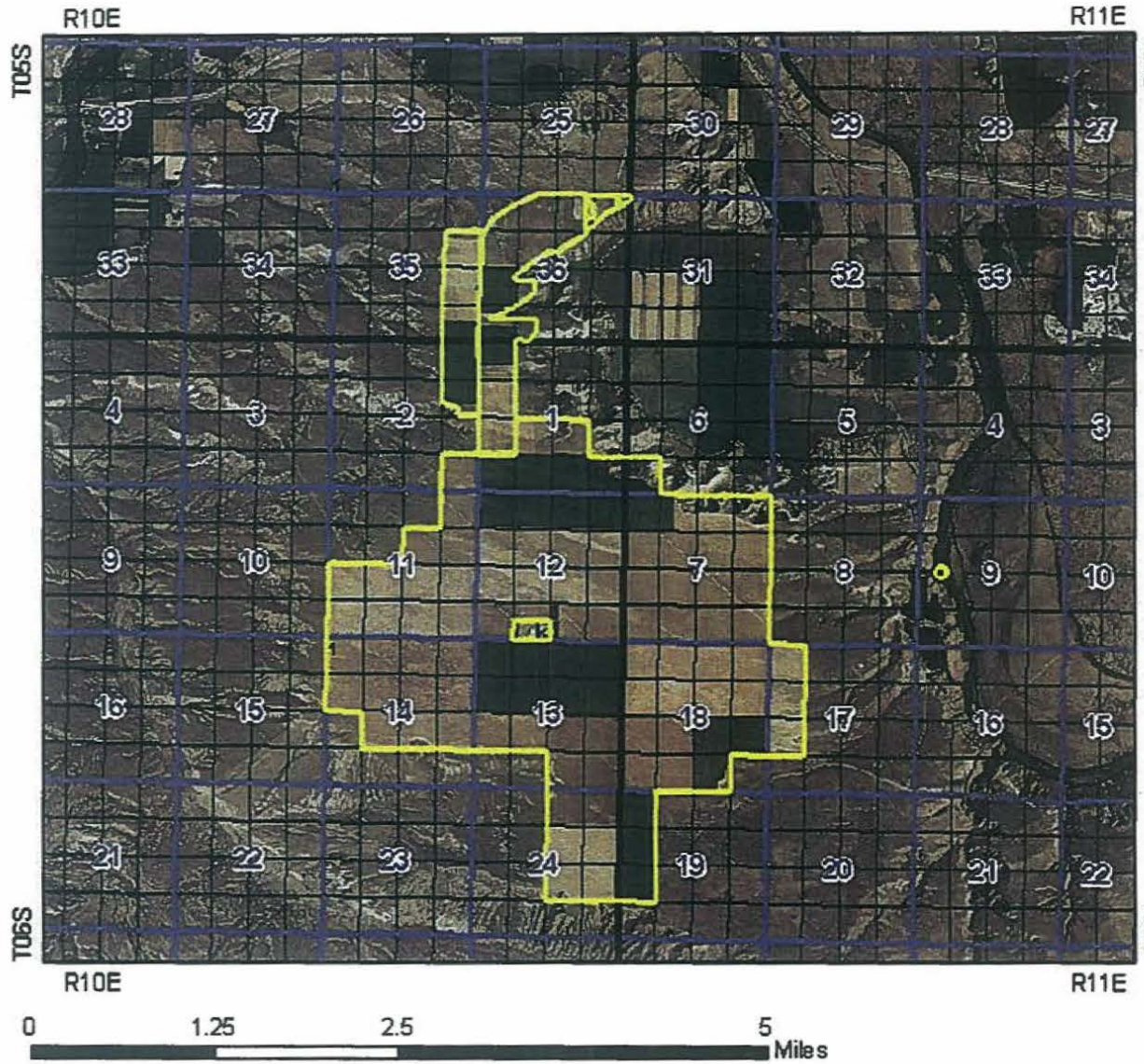
2009 Aerial Photography

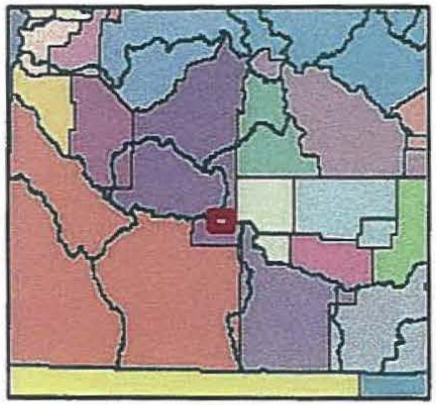
Owner: J R Simplot Self Declaration Revocable Trust

NOTE: Only one owner is listed. There may or may not be more than this in the IDWR database.

Black Mesa Farms LLC

Water Rights: 2-103, 2-2209B, 2-10300, 2-10189, 2-4021





Elmore County
IDWR Basin 2

Prepared by Luke, Tim

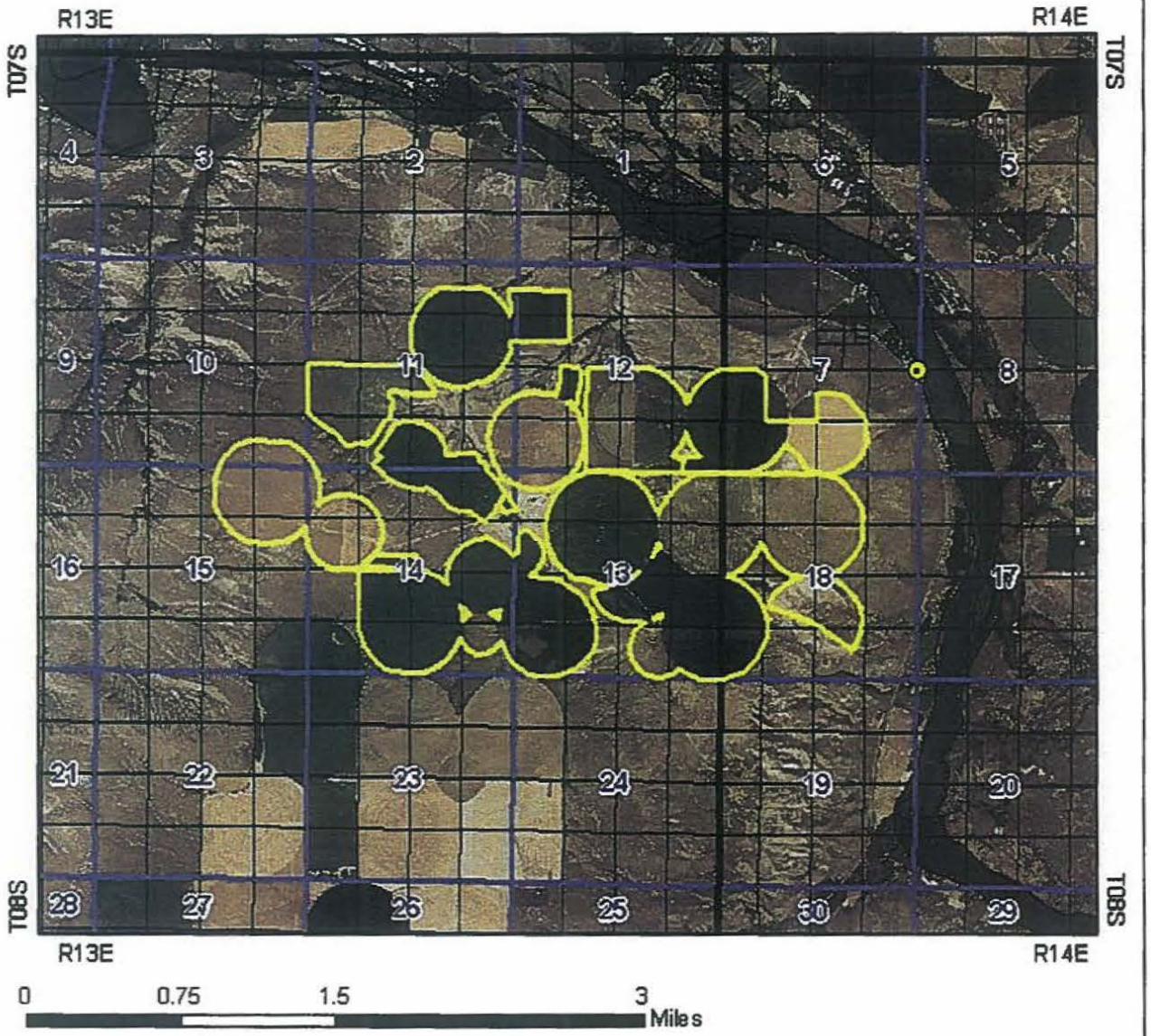
2009 Aerial Photography

Owner: Black Mesa Farms LLC

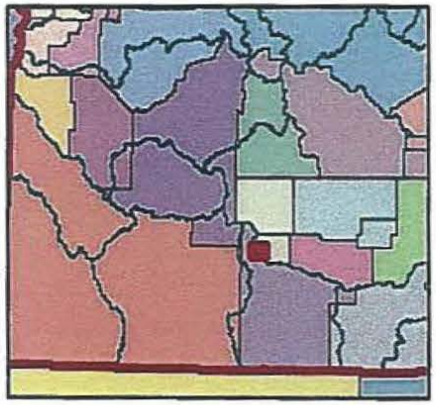
NOTE: Only one owner is listed. There may or may not be more than this in the IDWR database.

Salmon Falls Land & Livestock Co. Inc.

Water Right
2-7249, 2-7462
(IRRIGATION)



- Point of Diversion
- Place of Use
- State Outline
- Townships
- PLS Sections
- Quarter Quarters



Twin Falls County
IDWR Basin 2

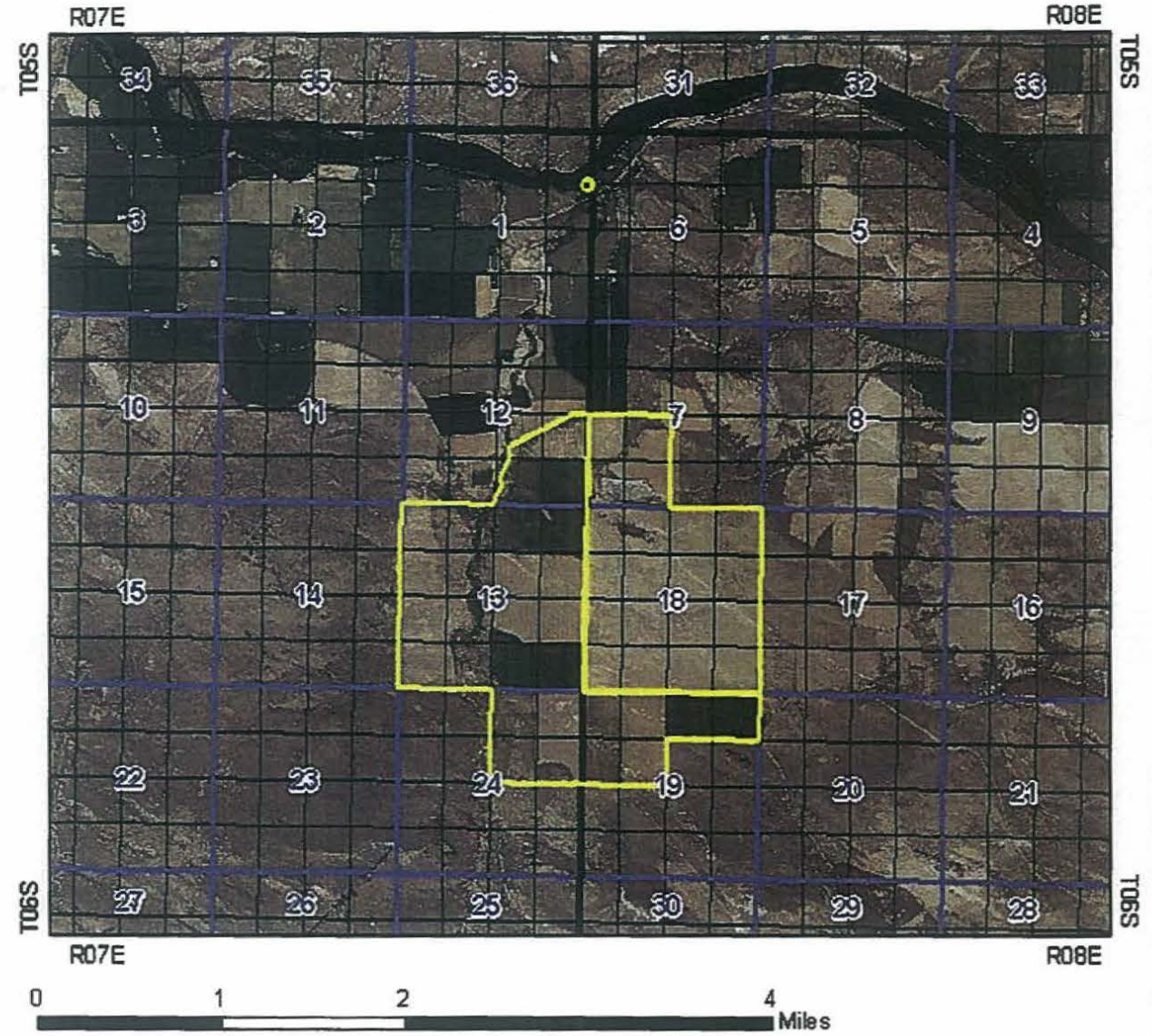
Prepared by Luke, Tim

2009 Aerial Photography

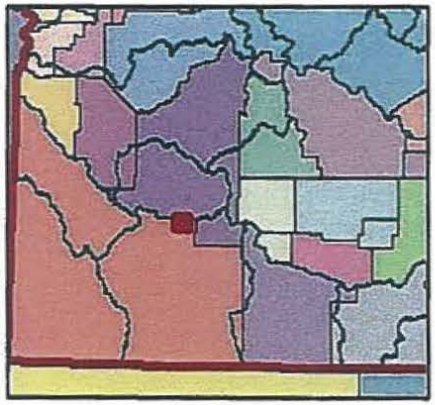
Owner: Salmon Falls Land & Livestock Co Inc
NOTE: Only one owner is listed. There may or may not be more than this in the IDWR database.

Flying H Farms Partnership

Water Rights: 2-7065C, 2-7369



- Point of Diversion
- Place of Use
- State Outline
- Townships
- PLS Sections
- Quarter Quarters



Owyhee County
IDWR Basin 2

Prepared by Luke, Tim

2009 Aerial Photography

Owner: Flying H Farms Partnership (and Jeff & Jackie Harper)

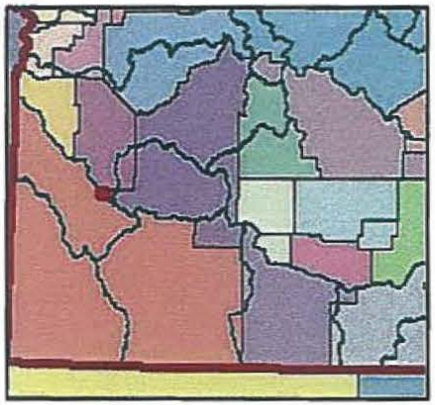
NOTE: Only one owner is listed. There may or may not be more than this in the IDWR database.

Michael L James

Water Right Place of Use/Point of Diversion

Water Rights: 2-2259, 2-2261A, 2-2261C, 2-10399, 2-10421, 2-10423

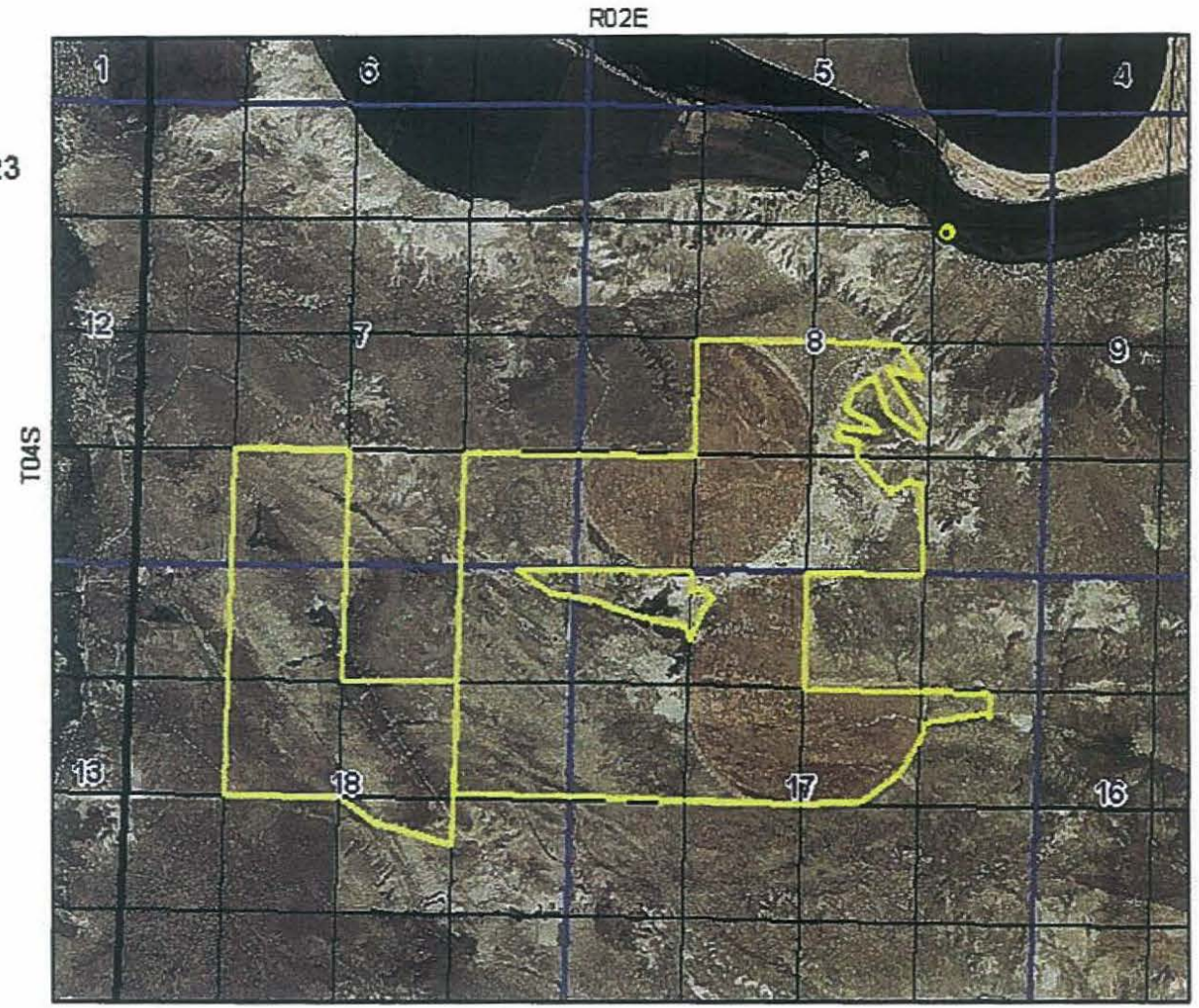
- Point of Diversion
- Place Of Use
- State Outline
- Townships
- PLS Sections
- Quarter Quarters



Owyhee County
IDWR Basin 2

Prepared by Luke, Tim

2009 Aerial Photography

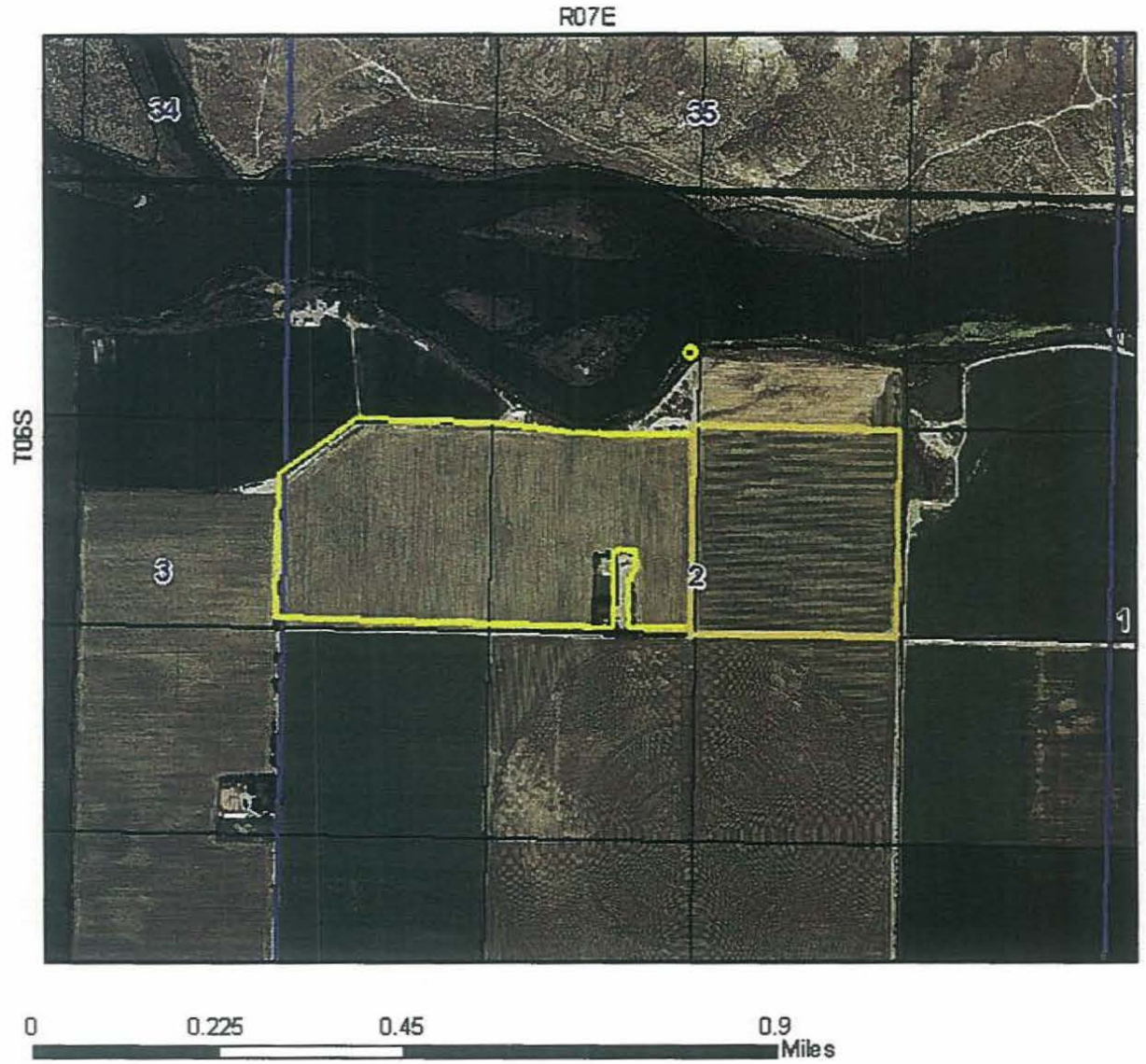


Owner: Michael L James

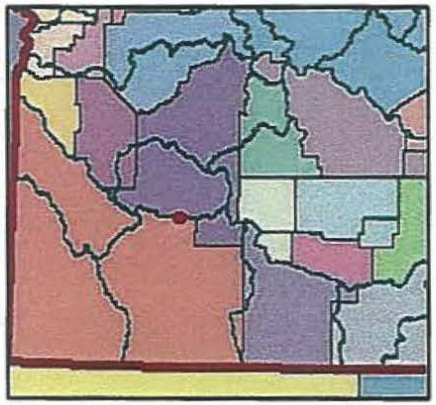
NOTE: Only one owner is listed. There may or may not be more than this in the IDWR database.

Andrew Johnson: Howarth Farm/Pump

Water Rights: 2-2149, 2-10428



- Point of Diversion
- Place of Use
- State Outline
- Townships
- PLS Sections
- Quarter Quarters



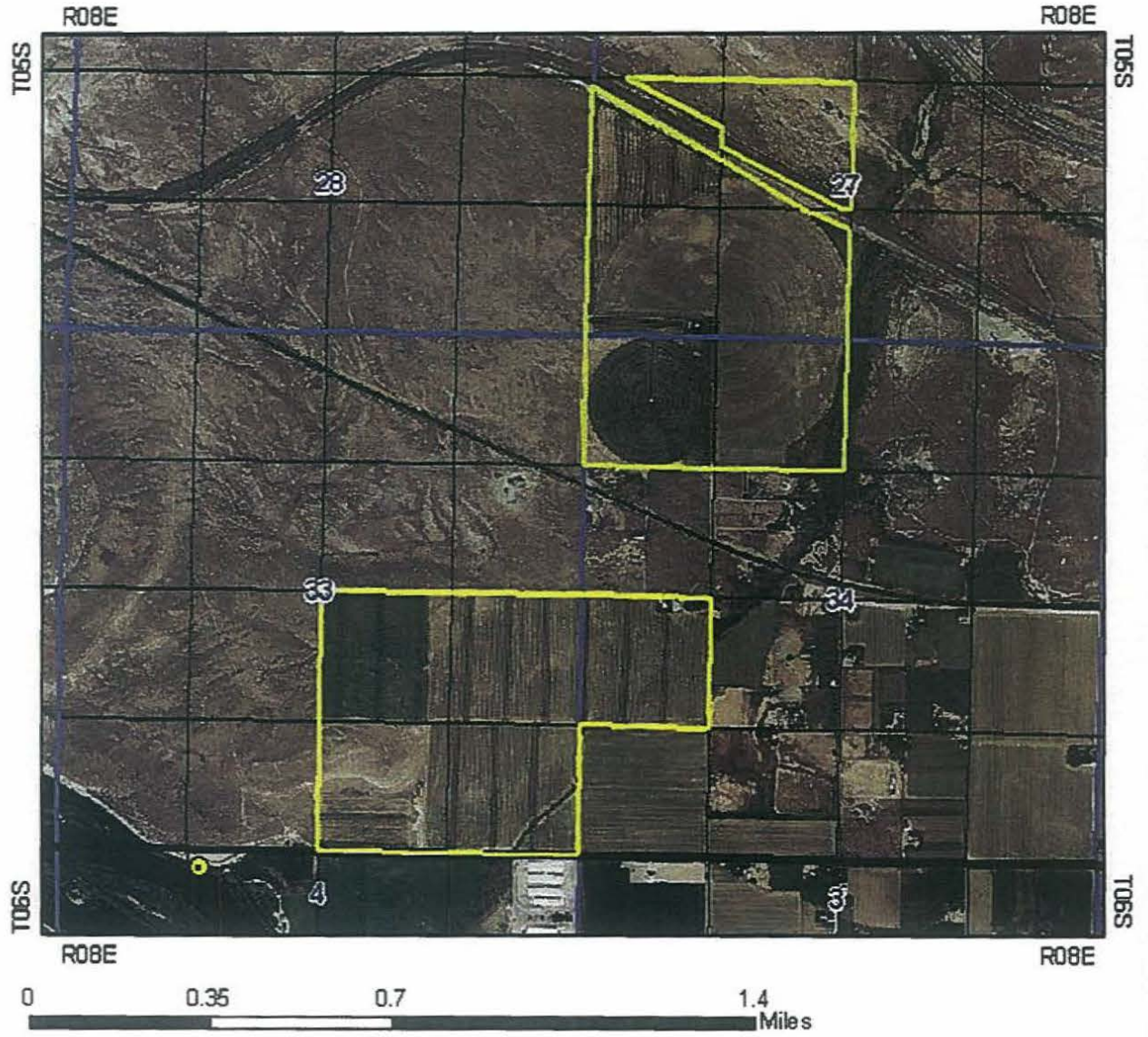
Owyhee County
IDWR Basin 2

Prepared by Luke, Tim

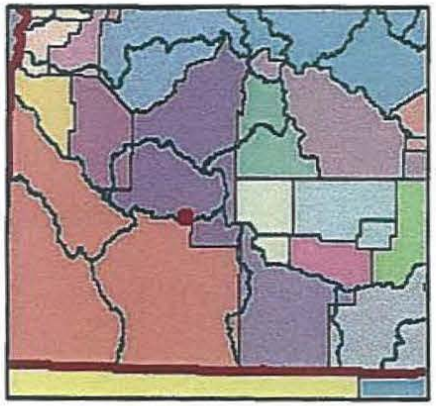
2009 Aerial Photography

Andrew Johnson: Johnson-Marker Farm

Water Rights: 2-2133, 2-10429, 2-7359A, 2-7359B, 2-7371



- Point of Diversion
- Place of Use
- State Outline
- Townships
- PLS Sections
- Quarter Quarters



Elmore County
IDWR Basin 2

Prepared by Luke, Tim

2009 Aerial Photography

Owner: Andrew Johnson

NOTE: Only one owner is listed. There may or may not be more than this in the IDWR database.