July 30, 2012

IDWR
Gary Spackman
Interim Director
322 East Front Street
P.O. Box 83720
Boise, ID 83720-0098

RE: Compliance with Water District No. 34 Water Distribution Rules

Dear Director Spackman:

Enclosed you will find the beginning of our initial compliance work plan, we have put many hours into this with all parties concerned. There is one attachment missing: (Water Master Statement) I will get this statement to you at the earliest time possible. (per conversation with Nick Miller IDWR).

Sincerely,

Roger Totten
Water Master
Water District #34

WATER DISTRICT No. 34 INITIAL COMPLIANCE WORK PLAN
As of July 30, 2012

Introduction: This Initial Compliance Work Plan, hereinafter referred to as the "work plan", is in response to the May 2, 2012 IDWR letter regarding Compliance with Water District No. 34 Water Distribution Rules, hereinafter referred to as the "compliance letter". While in its draft form this work plan has been reviewed, modified, and amended several times prior to its approval by the Water District No. 34 Advisory Committee and subsequent submittal to the Director of IDWR for his review, follow-up response(s), and acceptance.

The compliance letter requires Water District No. 34 submit a work plan within 90 days from its issuance (work plan due July 31, 2012) which focuses on three areas of compliance:

1.) Installation / Construction of Measuring Devices

2.) Direct Calls to the Watermaster / Deputies for Water Delivery

3.) Develop an Independent Accounting System

This work plan is divided into three corresponding provisions and submitted as a proposed plan for the entire Water District. Following the submission of this work plan it is anticipated the plan will be updated from time to time (at least yearly) as additional issues and information is gathered and integrated into the operations of Water District No. 34. This work plan also includes several attachments and supporting documents.

1.) Installation / Construction of Measuring Devices

The Water District No. 34 recognizes the need for suitable measuring devices or other flow measuring facilities at the Moore Diversion, Arco Diversion, and Chilly Bridge (which includes the river reach containing the Mackay Reservoir). Each site is discussed below including the proposed type of measurement device or facility, how the site development will be funded, and the time line for actual measurement system installation and operation.

Moore Diversion

The Moore Diversion consists of a cement spill-way with adjustable release gates and two diversion structures (with fixed in-channel measurement devices) located on the opposing banks of the Big Lost River which serve as the head of the Eastside Canal and Moore Canal respectively. The canal headings are owned and maintained by the Big Lost River Irrigation District, but all water supplies diverted into these two headings are regulated by the watermaster of Water District No. 34. The diversion structure also allows water supplies to spill downstream into the next river "Moore to Arco River" reach, or to be diverted into the canal headings in part or in total.

During periods of time when the total river supply is diverted into the Moore and Eastside Canals the river flows essentially end at this location and are measurable by summing the two canal measuring devices. However, there are significant periods of time when all river flows are not diverted into the two canals and water supplies continue to flow downstream in the river channel.

To facilitate the measurement of river flows at this site there is a need to either significantly add cement structure to the diversion spill-way or channel the spill into a narrower fixed section of the structure, utilize a flow rating curve, and record that flow using data loggers. In an effort to make these flow readings useful to the watermaster, as he performs his regulatory responsibilities, it is necessary to establish a telemetry station on site that can transmit data to the water district office in real time. For a minimal cost of a few extra hundred dollars, data loggers will also be installed on the two canals headings near their fixed measurement devices. Telemetry data will then transmit real time flow measurements to the watermaster's office for each of the two canal headings and the river reach gain. The independent accounting system discussed below will describe and allocate the total water supply being diverted and/or spilled into the next river reach by water type or class category (hereinafter referred to as "color").

This complete data logger and telemetry system will provide accuracy and transparency in real time for all diversions and spill supplies during all periods of time when accounting for water supplies is important. The cost for this system is firmly established not to exceed $5,500.00 plus set up costs estimated to be less than $1,000.00. The Advisory Committee has approved funding for this project by using a portion of the contingency funds currently available in the water district budget. System components and supplies are currently being purchased and pre-tested, with installation and initial start-up time to begin in July of this year.

Component cost and details for the data logger system are described in memorandum and e-mail between ERO Resources Corp. and advisory committee members as attachments to this work plan.

Arco Diversion

The Arco Diversion consists of a cement spill-way with an antiquated adjustable release gate and two diversion structures (with fixed in-channel measurement devices) located on the opposing ends of the diversion which serve as the head of the Arco Canal and Munsey Canal respectively. The canal headings are owned and maintained by the Big Lost River Irrigation District, but all water supplies diverted into these two headings are regulated by the watermaster of Water District No. 34. The diversion structure allows water supplies to spill downstream into the next "Below Arco River" reach, or to be diverted into the canal headings in part or in total.

During periods of time when the total river supply is diverted into the Arco and Munsey Canals the river flows essentially end at this location and are measurable by summing the two canal measuring devices. However, there are significant periods of time when all the river flows are not diverted into the two canals and some water supplies continue downstream in the river channel.

Adding to the complexity of regulating water supplies at this diversion is the operational effect of Rule 030.01 and 030.02. These rules make the regulation and operation of the Moore Diversion and Arco Diversions very intricate and interactive upon each other. Too accurately account for available natural flows at either diversion site(s) requires the accurate measuring of all river flows at both diversions, especially when Rule 030.01 is in effect.

Watermaster Totten has been asked to provide a statement (see attached Watermaster Statement 1) describing how he accounts for all the "colors" of water in the Eastside/Island Canal when it is used as an alternative to the Moore to Arco River Reach. This statement also needs to include how conveyance shrink losses are proportionately applied to those water so as to protect natural flow rights that are ultimately re-diverted at the Arco Diversion as well as the other natural flow rights in the river system that are curtailed by priority calls.

To date the advisory committee is uncertain how to develop a measuring facility at the Arco Diversion site until the functionality of the proposed facility at the Moore Diversion is tested and evaluated. If the measurement facility at the Moore Diversion is successful, it is possible to use a second data logger system with similar set-up parameters. Special attention will need to be given to the Eastside Canal "out flow" measurements and for the proper accounting for the different "colors" of water supplies leaving and entering the various canals.

This measurement facility will not be funded and constructed until the advisory committee makes recommendations for the 2013 budget. The advisory committee will need to recommend budget items to facilitate anticipated compliance costs and draft compliance resolution(s) during advisory meetings held this fall and winter in preparation of the 2013 annual water district meeting.

Chilly Bridge

This component of the plan requires a brief review of the rules and an explanation of <u>why</u> and <u>where</u> measurements are needed in this river reach. The Chilly Bridge is the terminus point of the adjoining up gradient Howell Gage to Chilly Bridge river reach. In the context of the compliance work plan, the relevant interests in the Chilly Bridge to the 2-B Gage (Rule 025.01.c) river reach is to identify all points where river flows input the reach (Chilly Bridge, Back Channel, Warm Springs, Parson Creek, and rising water in the floor of the Mackay Reservoir) and output points of diversion (diversions above the reservoir, Mackay Reservoir impoundments/releases, and natural flow "reservoir flow through" measured at the B-2 Gage).

It is virtually impossible (or certainly impractical) to fund and construct measurement facilities at all of the various input/output points within this and up gradient river reaches. There currently exits USGS gaging stations at the Howell and B-2 Gages which essentially combine these two river reaches into one operational reach. What is possible and necessary is to account for the regulation of water delivery outputs above the Mackay Reservoir (see attached Watermaster Statement 2) for these combined reaches, and account for the impoundment/releases of storage water supplies into and out of the reservoir. The most significant diversion from the river in these consolidated reaches is the reservoir. The most practical method for measurement of this reservoir diversion is the

accounting of changing levels and all out-flows at the B-2 Gaging station in conjunction with other delivery outputs from up gradient diversions. (Also see statement and explanation by Big Lost River Irrigation District Manager Jim Rindfliesch.)

THE REMAINING PORTION OF THIS PROVISION NEEDS CONSIDERABLE WORK. UNSETTLED ISSUES ARE MEASUREMENT ACCURACY AND INDEPENDENT ACCOUNTING TRANSPARENCY. AS OF THE DATE OF SUBMITTAL, THE REFERENCED STATEMENTS FROM WATERMASTER TOTTEN AND MANAGER RINDFLIESCH HAVE NOT BEEN RECEIVED, REVIEWED, OR ATTACHED.

2.) Direct Calls to the Watermaster for Water Delivery

This portion of the work plan begins with a matrix of duties and responsibilities for the Watermaster and Deputies, Water Users, and conveyance entities (i.e. Big Lost River Irrigation District, Timberdome Canal Company, and lateral associations) as it relates to Water District No. 34 functions. Persons and entities obviously have other duties and responsibilities not described in this Initial Work Plan. This matrix is intended to describe only those duties and responsibilities that are essential to understanding and operating the water district.

THOSE ESSENTIAL FUNCTIONS ARE THE ALLOCATION AND ACCOUNTING OF NATURAL FLOWS AND RESERVIOR RELEASES AS THEY FLOW THROUGH THE RIVER REACHES TO THE CANAL/LATERAL HEADINGS BASED ON INITIAL AND ALTERED DELIVER DEMAND CALLS IN PRIORITY OF WATER RIGHTS.

Duties and Responsibilities

Watermaster	Water Users	Conveyance Entity
-Determine available natural flows	**-Initiate Delivery Call 48 hrs. prior to delivery needs**	**- Convey water supplies from canal/lateral headings to field headgates and account for that distribution of water pursuant to their rules and policies**
-Allocate that natural flow based on the priority of received delivery Calls	**-BLRID ditchriders compile delivery calls for storage water and call for those water supply 48 hrs. prior to delivery**	
-Independently account for all water supplies in the river reaches and canal/ lateral headings		

Deputies

-Receive delivery calls and forward that information to the watermaster

-Divert, Record, and Report water supplies from the natural water course as instructed by the watermaster into the canal/lateral headings

The second part of Direct Delivery Calls provision references the WATER DISTRICT No. 34 Rule 40 WATER DELIVERY CALL standardized forms which is incorporated into this work plan (see attachment). This hybrid form has been reviewed in the discussion meetings but not widely distributed to water users. It would be most helpful if the advisory committee introduced the form at the next annual meeting and adopted its use by resolution. The water district office should keep these documented delivery calls on file for each year and use them as the basis for knowing what actual calls are being made for the available supply of natural flow. Water users must accept their responsibility for properly calling for their water rather than water managers and regulators assuming every water user wants to use water whenever their priority could be satisfied.

3.) Develop an Independent Accounting System

To properly develop an independent accounting system for Water District No. 34 it is essential all interested parties understand what water supplies must be accounted for. A "Color Code and Rule Matrix" is attached (see attachment) which identifies the various types or classes of water entitlements that must be accounted for at every river reach and canal/lateral heading where water is diverted from the river resource.

An accurate and transparent independent accounting system must be driven by documented delivery demand calls to the water district, real time river reach flow measurements independently obtained by the watermaster, and canal heading diversions that properly allocate the total water supply being diverted among the various "color" classes of water. Natural flow volumes need to reflect the actual partial decree rate of diversion being called for and identify the water user who is entitled to that supply. Similarly, storage allocation volumes need to reflect the total amount BLRID is calling for at each canal heading for their patrons. How the irrigation district distributes that storage water in the canals and laterals is subject to their operational policies and not required to be part of the water district accounting system. Other classes of water (i.e. stock water, recharge, rotation credit, additional volumes, mitigation supplies, ground water, etc.) must also be identified in "color" and volume as it is diverted into the diversion facility, not at the end water user's field headgate.

The discretionary latitude the watermaster needs in determining available natural flow and how those flows are to be allocated will be documented by a narrative description and will include the circumstances and contributing factors considered when such discretion is exercised. These narrative documents will be included in the watermaster's weekly reports.

The advisory committee has not developed an independent accounting system to date. However, they are committed to doing so. Because this is a new compliance requirement for the water district, the advisory committee is asking the Director to provide additional guidance and technical assistance in the development of the accounting system. We suggest IDWR provide the watermaster, deputies, assistants, and committee members who have an interest in training and examples of what type and content an independent accounting system would be that is acceptable to the Director.

Conclusion: The Water District 34 Advisory Committee met several times within the last 90 days to review the compliance letter, discuss how current operations needed to be modified to conform to the fundamental duties of the Water District, and initiate steps that would provide the watermaster with the instrumentation and accounting tools necessary to determine available natural flows and allocate those natural flows to water users making demand calls according to the priority of their rights.

Some of these initial steps have begun to be implemented this irrigation season and other steps will further be refined by the advisory committee prior to the 2013 Annual Water District Meeting. Resolutions and Budgets will be discussed, developed, and recommended to be adopted at the annual meeting having special focus on compliance upgrades and implementation strategies.

The Water District Advisory Committee respectfully submits the above Initial Compliance Work Plan and looks forward to building a positive and cooperative relationship with all water users and IDWR.

Our Best Regards.

ERO
ERO Resources Corp.

MEMORANDUM

To: Seth Beal, Chairman Water District 34 Advisory Committee

From: David Shaw March 19, 2012

Re: Telemetry for Flow Measurements at the Moore Heading

Please consider this a cost estimate to provide telemetry for flow measurements at the Moore Heading to the Water District 34 Watermaster's office. Two estimates are provided, one to use the data loggers currently available in the basin made by Solinst and a second to install all new equipment that can provide automated controls for headgates and check structures fitted with appropriate mechanical equipment. Of course using existing equipment will be less costly than installing new equipment but I provide you with the choice in case there are near term plans to begin automating some of the main control structures in the basin.

To utilize the existing data loggers the single most costly piece of equipment is the telemetry equipment. This proposal is to use CDMA (Verizon) cellular to communicate the data to the watermaster's office at a cost of about $2,300. This unit will handle up to four data loggers which would meet the needs of the East Side, the Moore Canal, the river bypass and the barologger to correct for changes in barometric pressure. Depending upon the cellular signal strength at this location an optional antenna could be necessary for about $100 additional. The unit comes with a 6 volt sealed lead acid battery to run the telemetry. We should not plan for one battery to last all season so the options are to install a solar panel or purchase extra batteries and be sure the watermaster remembers to keep them charged and changed at appropriate times. The connection kit to connect a solar panel is about $200 and the solar panels themselves would be about $200 based on the cost of panels purchased a year or two ago. Cables to connect the data loggers to the telemetry are priced at $84 each. The cost of direct read cable to extend from the data logger to the transmitter (not the same as the cable above) will depend upon where the transmitter is located and where the data loggers will be installed. A 300 foot length of this cable is about $260 and at least 3 runs of this type of cable will be needed, one for each data logger. Software for the telemetry is $11.00. Finally, there will be some labor involved to install the telemetry equipment and the data loggers. A secure mounting bracket will be needed for the telemetry and the solar panel if that route is selected. Installation of the data loggers themselves will need to be done by someone who understands where they need to be located.

Based upon the information I have today, I believe telemetry could be installed at the Moore Heading using the existing Solinst data loggers for a material cost in the range of $3,500 to $4,000. The labor cost would depend in part upon who is available to do the work. If ERO were to do the data logger installation and set up the telemetry we would try to do it while we were in the area to minimize our costs.

The alternative to install all new equipment with future control capabilities starts at about $10,000 for the equipment. Unless you have immediate plans to start installing automation I would not recommend this option. This kind of equipment is

Denver
303.830.1188

Boise
208.373.7983

Durango
970.422.2136

Western Slope
970.240.9060

changing rapidly and if automation is a few years out, I would recommend going with the Solinst solution at this time.

I talked with Bill Harenberg, who has done the current metering for the existing data loggers in the basin, about this project and he believes we have enough measurements to rate the East Side through the concrete lined channel section. That would enable measurements of water depth read by the data logger to immediately be converted to water flow. The structure on the Moore heading will need to be investigated to determine if it can be rated with a standard formula to at least have a good beginning place to convert water depth to flow on that side as well. Similarly, the river check will need to be examined to determine if a standard formula will give a starting place there as well. All in all, the telemetry should be able to produce meaningful water flow data early in the season if not immediately upon installation.

Thank you for the opportunity to provide this estimate to you. Please let me know if you have questions or need any additional information.

Yours truly,

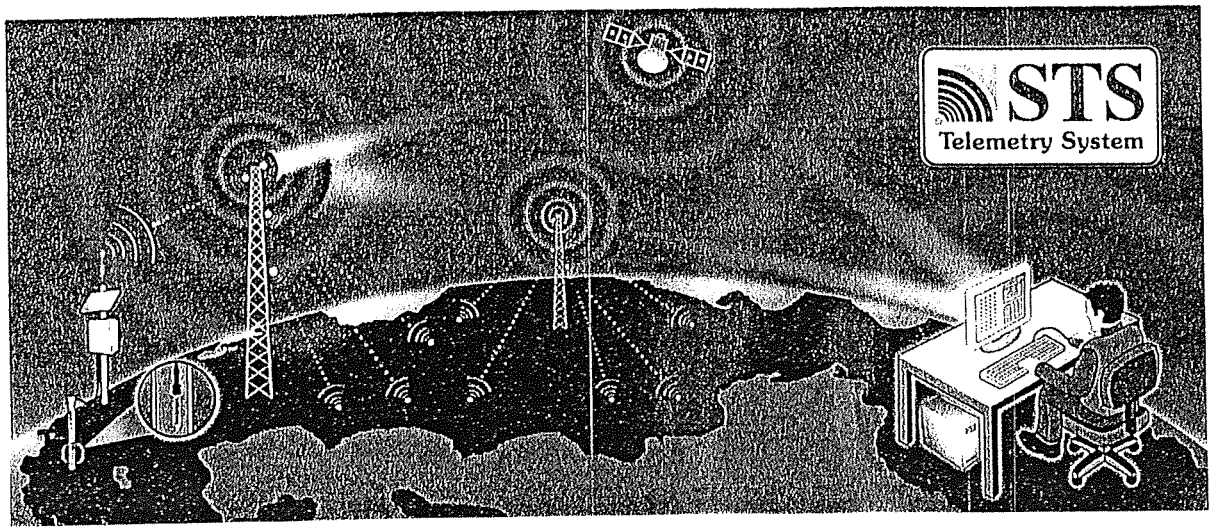
Dave

David B. Shaw

Attachments

Telemetry Overview

Model 9100 and 9200



Why Use Telemetry Systems?

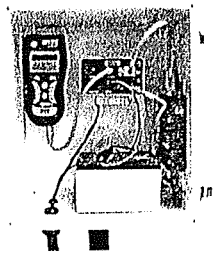
Telemetry systems offer cost savings, flexibility and easy access to remote monitoring locations.

Advantages

- Frequent access to detailed data
- Long term cost savings
- Time saved by eliminating manual data collection
- No need to travel to remote field locations
- Self-management gives additional savings and data security
- Simple software and easy network self-management

Applications

- Remote water level monitoring
- Long-term drought monitoring
- Management of water taking
- Golf course and mine water management
- Flood and storm water management
- Long-term aquifer management



STS

- Digital cellular, long-distance radio, landline or satellite
- Small to large networks
- Control your own telemetry systems over the web
- Set alarm notifications

RRL

- Short-distance radio
- Small closed loop networks
- Cost-effective design
- Interchangeable stations (ideal for re-configuring your network)
- Compact, all-in-one units

Built For Levelogger® Series

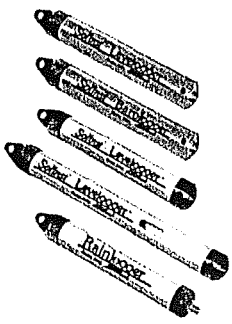
STS and RRL Telemetry Systems are dedicated to the Levelogger Series of dataloggers. This provides the advantage of combining a user-friendly telemetry system with high quality dataloggers.

Up to 4 dataloggers can be attached to each remote station, in any combination of the Levelogger Gold, Barologger, Levelogger Junior, LTC Levelogger Junior, or Rainlogger.

Leveloggers are ideal for remote monitoring, with independent user-defined logging schedules as a back-up. They have long battery life, power surge protection and a non-volatile memory. If programmed separately, Leveloggers record regardless of the status of the STS or RRL System.

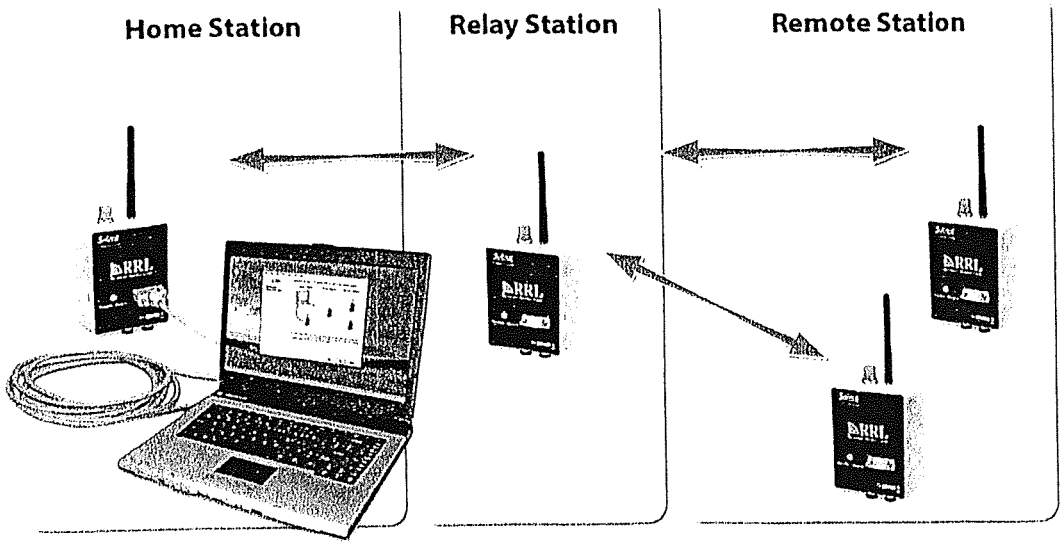
Leveloggers are low maintenance, absolute dataloggers. There is no need to deal with vent tubes or cumbersome equipment. One Barologger can typically provide accurate barometric data for a 20 mile (30 km) radius.

These reliable, durable dataloggers have intuitive software with many useful features, such as self-tests and firmware upgrade and diagnostic utilities.



Telemetry Overview

RRL Remote Radio Link



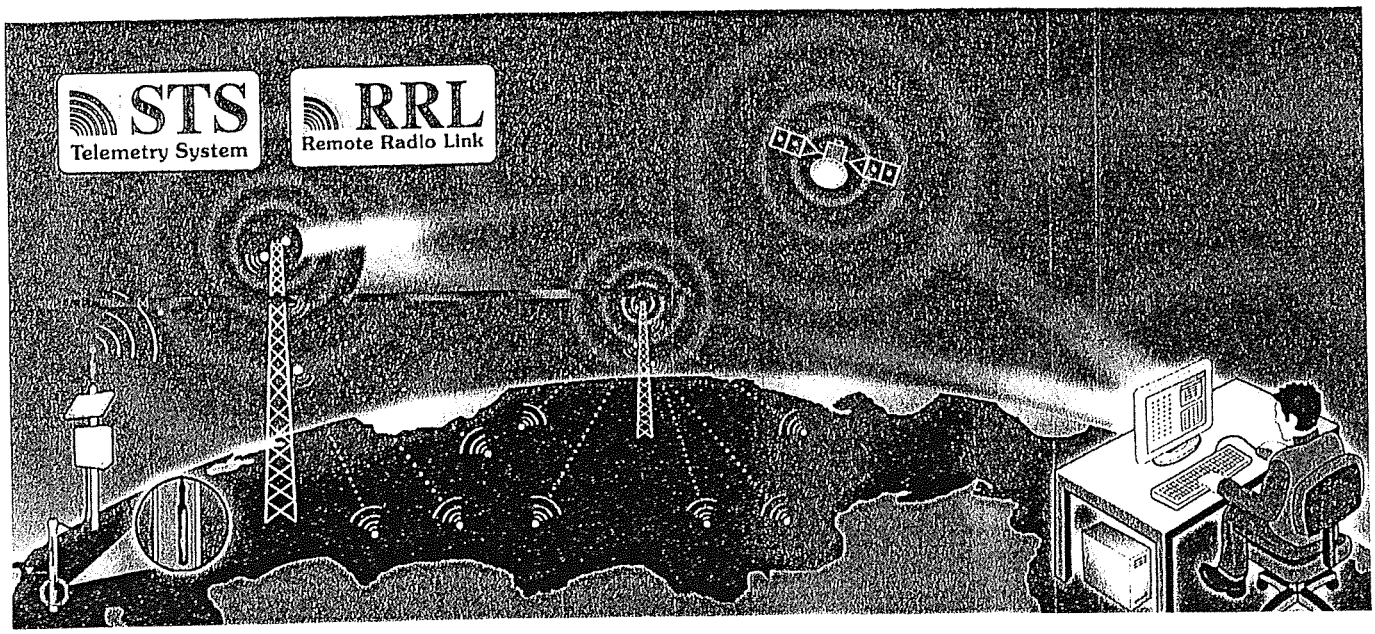
TELEMETRY SELECTION CHART	RRL Remote Radio Link	STS Telemetry System			
Specifications	RRL Radio	STS Radio	Digital Cellular (CDMA & GSM)	Landline (Ethernet)	Satellite
Why Use?	• smaller applications • closed loop network at any location • compact, all-in-one units fit in 4.5" (115 mm) wells	• smaller applications • closed loop network at any location	• cellular coverage available • topography not suitable for radio • send data over the Internet	• on-site facility monitoring	• too remote for cellular • send data over the Internet
System Differences	• free airtime, no long distance fees • you control the network • scheduled data transmission times • low power needs • relay station option	• free airtime, no long distance fees • you control the network • scheduled data transmission times • medium power needs	• monthly carrier fees • no scheduling conflicts for data transmission • low power needs	• uses LAN • no scheduling conflicts • direct power/AC	• satellite service available anywhere • no scheduling conflicts for data transmission • larger power needs
Suggested Applications	• monitoring mine sites • agricultural studies • landfill supervision • golf course management	• monitoring mine sites • agricultural studies • landfill supervision • golf course management	• flood and stormwater management • watershed management • drought monitoring	• on-site water level monitoring • run-off monitoring	• glacial melt monitoring • hard-to-reach, isolated areas
Remote Station Support	• 2.4 GHz or 900 MHz radio • 20 mile (30 km) line of site • 9600 bits/sec	• 900 MHz radio • 20 mile (30 km) line of site • 9600 or 115200 bits/sec	• CDMA or GSM IP enabled modem • dynamic IP Address • 115200 bits/sec	• Ethernet modem • dynamic IP Address • 115200 bits/sec	• IP enabled modem • dynamic IP Address • 115200 bits/sec
Home Station Support	• RRL Home Station with power source • STS/RRL Software	• 2nd Radio required with RS232 connection • STS/RRL Software	• static IP Address • no extra hardware • STS/RRL Software	• static IP Address • no extra hardware • STS/RRL Software	• static IP Address • no extra hardware • STS/RRL Software
Antenna	6" (15 cm) half wave, (2.1dBi) non-articulating	6" (15 cm) half wave, (2.1dBi) non-articulating	Dual Band Dipole	N/A	Included
Optional Antenna	5 dBi Omni Directional	5 dBi Omni Directional	3 dBi, Dual Band, Omni Directional	N/A	N/A
No Data Hosting Fees					
Service Provider Fees					
Remote Firmware Upgrades					
Remote Diagnostic Reporting	(limited)				
Alarms by Email					
Power	6 AA lithium batteries	12V sealed lead-acid battery			
External Power and Charge Accessories	• Solar power connection package (for user supplied solar panel) • AC power/battery charger assembly				

Printed in Canada
January 5, 2011

For further information contact: Solinst Canada Ltd.
Fax: 1 (905) 873-1992; (800) 516-9081 Tel: 1 (905) 873-2255; (800) 661-2023
35 Todd Road, Georgetown, Ontario Canada L7G 4R8
Web Site: www.solinst.com E-mail: instruments@solinst.com

Telemetry Systems

Model 9100 and 9200 Gold Data Sheet



Get Quote | More Info

Solinst Telemetry Systems

Solinst Telemetry Systems are designed for use with the Solinst Levelogger Series of dataloggers. They offer two-way communication and control from your own desktop. You choose the Levelogger, the best communication method to suit your site, access the intuitive software to create sampling and reporting schedules, then view and manage data on your Home Station computer in any way you choose.

STS Gold Systems can be set up using landline, radio, digital cellular, or satellite wireless communications. They are powered by a sealed lead-acid 12V battery, with optional solar trickle charging or direct AC power. RRL Gold Radio Stations use six replaceable lithium batteries, and also have the option of a back-up power source.

STS Gold Telemetry Systems are ideal for large networks. Hundreds of remote stations can report to a single Home Station computer. RRL Gold Radio Telemetry is ideal for small closed loop networks.

Advantages

- Time and cost savings
- Reliable data transfer direct to your desktop
- Manage the data yourself
- Flexible options to suit site/application conditions
- Low maintenance
- Enhanced power management
- Faster, easier access to data

Applications

Water level, conductivity and/or rainfall monitoring for:

- Remote or difficult-to-access locations
- Hazardous or critically important sites
- Long-term groundwater monitoring applications
- Longer term pump tests
- Drought and water taking management
- Watershed management
- Landfill and mine water supervision
- Flood and stormwater management

Benefits of Using Solinst Telemetry

Solinst has created simplified systems with standardized hardware, flexible communication options, and intuitive software that make the system easy to set-up, operate and manage the data.

Solinst Telemetry provides an economical and efficient method to access remote data instantly, saving time and costs by eliminating manual data collection, time spent traveling and costly data hosting.

STS Gold Systems have added features such as alarm notification, remote diagnostic reporting and firmware updating, which makes it easy to maintain your system, while simplifying data collection.

Communication Options

With the choice of radio, cellular, landline (Ethernet) or satellite, STS Gold Systems provide communication options to suit your site and application. To determine the best method to meet your requirements you need to evaluate the options available in your area i.e. cellular carriers, and the physical conditions of your site, including topography, nearby buildings, trees, etc.

Radio

If you have no cellular service available, or you are setting up a local network, then radio may be your option. It has the advantage of free airtime and no long distance fees.

Cellular

If your telemetry network is within an area of good cellular coverage, then GSM or CDMA wireless communication may be your method of choice. Because data is 'pushed' through the system, power requirements to send data are low.

Landline (Ethernet)

This option is ideal for monitoring water levels on large properties, where Ethernet connections are available at each monitoring well and the Home Station Computer.

Satellite

Satellite is an option in very remote areas where there is no cellular service available and radio transmission is not possible.

Internet Connectivity

Choosing to communicate using digital cellular or satellite gives the advantage of IP addressability. IP (Internet Protocol) allows a reliable method of data transfer using an internet connection, which saves you time and money. An IP Network allows all Remote Stations to send data to the Home Station at the same time, without disruptions or time scheduling issues.

Data Self-Management

STS/RRL Gold Software allows you to always be in control of your own data. Data retrieved from each Levelogger is placed in a Microsoft® Access® database on the Home Station computer. New data is added to the existing database. The Software can be used for a convenient quick check of the latest readings. You can export your data as .lev or .csv files for use in your preferred database or modeling package. You can display formatted data on web pages by accessing the database directly with your own software. Data self-management provides flexible options, and ongoing cost savings, without being tied to a proprietary data hosting service.

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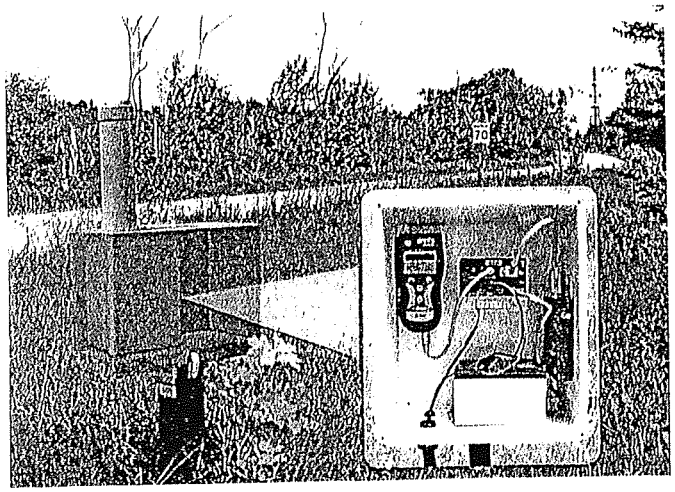
Remote Firmware Upgrades					
Remote Diagnostic Reporting	(limited)				
Power	6 AA lithium batteries	12V sealed lead-acid battery			
External Power and Charge Accessories	• Solar power connection package (for user supplied solar panel) • AC power/battery charger assembly				

*Microsoft and Access are registered trademarks of Microsoft Corp.

STS Gold Remote Telemetry Unit Setup

STS Gold Telemetry Systems come with standardized equipment configurations, including your choice of communication device to meet the needs of your application. The STS Gold Remote Station consists of an STS Controller, Distribution Box, Battery, and Modem with a connected Antenna, protected within a weatherproof Nema 4X case.



STS Gold NEMA 4X Enclosure

The STS Distribution Box allows the connection of up to 4 data loggers. It controls the modem and manages the power supply.

The STS Gold Controller powers-up the Remote Station for initial set-up and testing. It collects, stores, and sends data from the remote dataloggers to the Home Station.

As the data is 'pushed' from the Remote Station to the Home Station, there are no dial-up or timing issues. Data cannot be lost due to cellular or satellite signal issues, as the STS Gold Controller stores the data in its memory until it has been successfully uploaded by the Home Station. With each communication, system information on battery level, Levelogger status, modem signal strength and status are sent to the Home Station, providing remote diagnostics.

STS/RRL Gold Software

STS/RRL Gold Software controls both systems, allowing users to manage a project with multiple STS and RRL sites with one program. It is easy to set up the Software with site information, sampling and reporting schedules, and alarm notifications.

A linear 'Sample Rate' is set at which the STS Gold Controller records a real-time reading from each attached datalogger. A 'Report Rate' is set to establish the frequency that the data is sent from the STS Gold Controller to the Home Station.

Each RRL Gold Station is programmed and scheduled using a convenient software wizard.

Leveloggers can be set to record independently of the Telemetry Systems and store the data in their own internal memory, providing a reliable backup, if circumstances require it.

RRL Gold Systems

The Solinst RRL Gold Remote Radio Link System offers a very simple and inexpensive method of local telemetry. Data is sent from the field via short-distance radio to your PC. The RRL Gold is excellent for small, closed loop networks such as mine sites, golf courses, and landfill monitoring networks. By using free unlicensed radio bands (ISM), the RRL Gold has the advantage of being a lower cost option than cellular or satellite telemetry systems.

RRL Gold Stations

RRL Gold Stations work with omni-directional antenna line-of-sight transmission, therefore, can communicate over distances of 20 miles (30 km), or more, using some stations as repeaters.

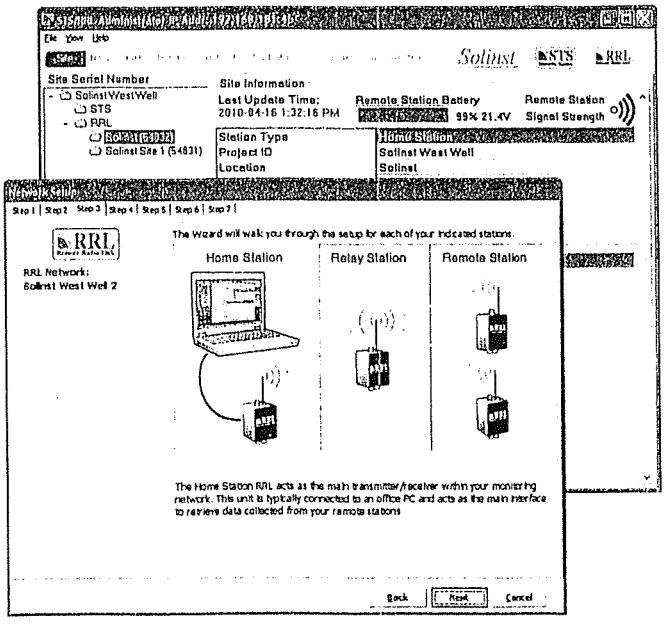
RRL Gold Station

RRL Gold Stations use the same hardware, and are programmed using a wizard in the STS/RRL Gold Software as a Home Station, Remote Station or Relay Station. As such, RRL Gold Stations are interchangeable as required.

There is the option of a 900 MHz (North American) or 2.4 GHz (Worldwide) radio module for RRL Gold Stations. Stations come standard with six AA replaceable lithium batteries and antenna.

Up to 4 Solinst Leveloggers (using two 'splitters') can be attached to one RRL Gold Station. Stations are designed to fit into 4.5" (115 mm) diameter wells for discrete placement. The case is rugged and waterproof with an IP66 rating.

RRL Gold Stations have a non-volatile internal memory; a Remote Station stores collected data in its memory until the Home Station has been successfully contacted.

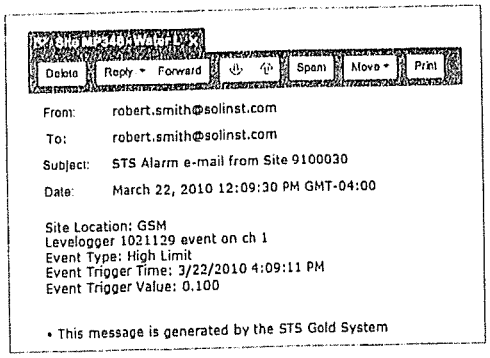


STS/RRL Gold Software Set-up Screens

Alarm Settings

An e-mail alarm notification will be sent automatically to the Home Station, if a non-communication or low battery condition is detected at an STS Gold Remote Station, when a reading is taken. The Home Station then sends out email alerts, as set up in the software.

High, low and percent change alarms can also be set for any monitored parameter (e.g. water level, temperature, rainfall, or conductivity).



System Diagnostics

The STS and RRL Gold are very reliable systems, which require minimal maintenance.

To help simplify system diagnostics, each data report to the Home Station includes System information. This information can help prevent data disruptions by providing the battery level, modem operation, signal strength and Levelogger status. A communication test can also be performed between the Home Station and a Remote Station, and Leveloggers.

Automatically receive remote system diagnostics at your Home Station PC.

Power Supply

Solinst Telemetry Systems are designed to avoid power issues. Each STS comes with a 12V battery that can last up to 12 months before replacing or recharging, depending on reporting frequency. The low power electronics of an STS Gold are designed to only use power when there is a scheduled transmission of data, and very little power when it is in standby mode. Power requirements at RRL Gold Remote Stations are also kept to a minimum. Each RRL Gold Station is powered by 6 replaceable lithium batteries. Solinst provides optional cables that enable solar power or direct AC mains connection as a power source.

STS Gold Remote Firmware Updates

If new firmware becomes available, a firmware update can be performed from the Home Station using the update utilities supplied with the STS/RRL Gold Software. New firmware is made available free via the Solinst website (http://www.solinst.com/Downloads/).

STS Gold Systems also allow modem parameters to be reset remotely from the Home Station and changes made to the report and sampling rates.

Levelogger Series

Solinst Telemetry Systems are dedicated to the Levelogger Series of data loggers. This provides the advantage of combining a user-friendly telemetry system with high quality data loggers.

Up to 4 Solinst data loggers can be attached to each remote station, in any combination of the Levelogger Edge, Barologger Edge, Levelogger Junior Edge, LTC Levelogger Junior, or Rainlogger (see Model 3001 Edge, Junior Edge, LTC Junior and 3002 Data Sheets).

Solinst Leveloggers are ideal for remote monitoring, with independent user-defined logging schedules as a back-up. They have long battery life, power surge protection and a non-volatile memory. If programmed separately, Leveloggers record regardless of the status of the Telemetry System.

Leveloggers are low maintenance, absolute data loggers. There is no need to deal with vent tubes or cumbersome equipment. One Barologger can typically provide accurate barometric data for a 20 mile (30 km) radius and/or with every 1000 ft (300 m) of change in elevation.

These reliable, durable data loggers have intuitive software with many useful features, such as self-tests and firmware upgrade and diagnostic utilities.

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March 26, 2012

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RE: Flow Measurement Facilities at the Moore Diversion

Dear Gentlemen;

The purpose of this letter is to affirm the advisory committee's query and interest in establishing a gaging station or other suitable measurement facilities at the Moore Diversion on the Big Lost River pursuant to Water Distribution – Water District 34 Rule 025.03. As part of the discussion in the committee meeting held on March 20, 2012, Chairman Seth Beal asked us to make a follow-up contact with both of you to discuss how IDWR and ERO technical resources might be used in a collaborative effort.

We understand Nick has recently been at the Moore Diversion site and taken pictures of the existing structures and the adjacent river channel. David has prepared a memorandum (a copy is now forwarded to Nick as an attachment to this e-mail) outlining a proposal relating to the use of data loggers and telemetry equipment with estimated costs. The committee is hoping this collaborative effort will help us accomplish the objectives of developing a water management tool for Water District 34 that is economically practical, regulatory accurate, and administratively transparent.

Please feel free to contact each other to discuss how best to proceed. Again, we are hoping any work that could be done by IDWR will save us money if we ultimately decide to use ERO services. Thank you for your respective help and we look forward to hearing from you.

Sincerely,

Keith Hill

Mitchell Sorensen

Copy to: Seth Beal, Advisory Committee Chairman
Roger Totten, Watermaster

Water District 34 Telemetry Proposal

soremd@ida.net

Dave Shaw dshaw@eroresources.com

Mitchell,

After we spoke this morning I contacted Solinst again to be sure I have all the parts required to make the proposed telemetry system work at the Moore Diversion. The additional equipment will use the data loggers already owned by the Water District and others that had a purchase price of about $1,642.

The additional required equipment includes:

1 – Telemetry Station for Verizon	$2297.00
1 – Direct Read Gold Cable	$83.00
3 – Direct Read 3100 Cables	$252.00
1000 feet DR Cable - estimated	$600.00
3 – DR Cable Connectors	$225.00
1 – Software	$11.00
Subtotal	$3468.00
Recommended additions:	
1 – Booster Antenna	$102.00
1 – Solar Panel Cable	$193.00
1 – Solar Panel available from other sources – estimated	$200.00
Subtotal	$495.00
Total for equipment	**$3963.00**

If ERO purchases this equipment we will be required to pay sales tax plus we charge 3% for the process of paying the vendor and being reimbursed. There may be a way to have the Water District buy this equipment directly and save a few hundred dollars. I would be happy to work with you if that is your desire.

The telemetry comes in a case that will need to have a mounting to secure it at the site, either on a short post or, with BLRID permission perhaps, on part of the structure at the site. The mounting location and post if used can be completed by the Watermaster or anyone the Water District is comfortable with. The 3 data loggers and stilling wells to be installed in the canals and in the river need to be installed by someone who understands stilling well installation. I would recommend you have ERO do that but I am sure there are others who could make proper installations. I believe there should be stilling wells and iron posts available from when the data loggers were previously installed. Finally, the data loggers will need to be wired to the telemetry station and that will involve one river crossing. As we discussed, I believe the best location for the river crossing is immediately upstream of the check structure in the river. The crossing could be anchored with the communications wire banded or zip tied to a piece of steel cable to act as an anchor. This wire may need to be removed annually so BLRID can do maintenance. Our experience in the past has been that the equipment from this company sets up easily so putting the equipment into use should not be a big effort. I do think it is important the data loggers be checked before they are installed. Doing so requires several days to allow the equipment to run but does not involve very much personnel time to do the set up and verify the results.

Having said all that, I believe the setup could be done in a day, perhaps a long day, on site if the telemetry mounting location was in place or ready to be put in place and the other materials were all available. When I contacted Solinst this morning they suggested a 3 to 4 week lead time for the additional equipment. Over the course of the summer I would recommend Bill, or someone everyone has confidence in their measuring ability, do current meter measurements to check the ratings of the structures but if there is a budget specified we could be selective in how we expend that budget with first priority checking the existing equipment and making sure the installation is working properly.

Please let me know if you have questions or need any additional information.

Thank you,

David Shaw

ERO Resources Corporation

208.373.7983 dshaw@eroresources.com | www.eroresources.com

WATER DISTRICT No. 34 Rule 40 WATER DELIVERY CALL

Rule 040.05 Notice to Initiate Delivery. Water users must initiate delivery of their water rights(s) by notifying the watermaster that they are ready to put water to beneficial use.

Notice given by: Hand delivered ___ Mail ___ E-mail ___ Phone ___ Verbal ___

Required Information:

Water User _____ Heading_____

Deputy _____ Account No. _____

Turn On Amount _____ Change Amount to _____ Total Turn Off _____
Date _____ Date _____ Date _____

Optional Information: (Check all appropriate boxes and fill in pertinent blanks if needed)

___ Call for all Natural Flow Rights whenever available (Rule 040.01).

___ Call for only those Natural Flow Rights listed below (Rule 040.01).

___ Call for Rotation Credit (Rule 040.02) Impoundment _____ Release Rate _____

___ Call for Additional Flows (Rule 040.06)

___ Call for Mitigation Supplies (Rule 050.04)

Right No.	Priority	Div. Rate	Canal Heading
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

___ Calls for Storage Allocations (Big Lost River Irrigation District patrons only). Turn On Amounts in excess of available Natural Flows will be satisfied by using Storage Allocations.

Every Delivery Call must be forwarded to and recorded by the watermaster the same day of receipt.
Water deliveries and cessations must be called for forty-eight hours in advance.
Water delivered prior to the forty-eight hours may be used by the water user.
Please use a separate card for each turnout.

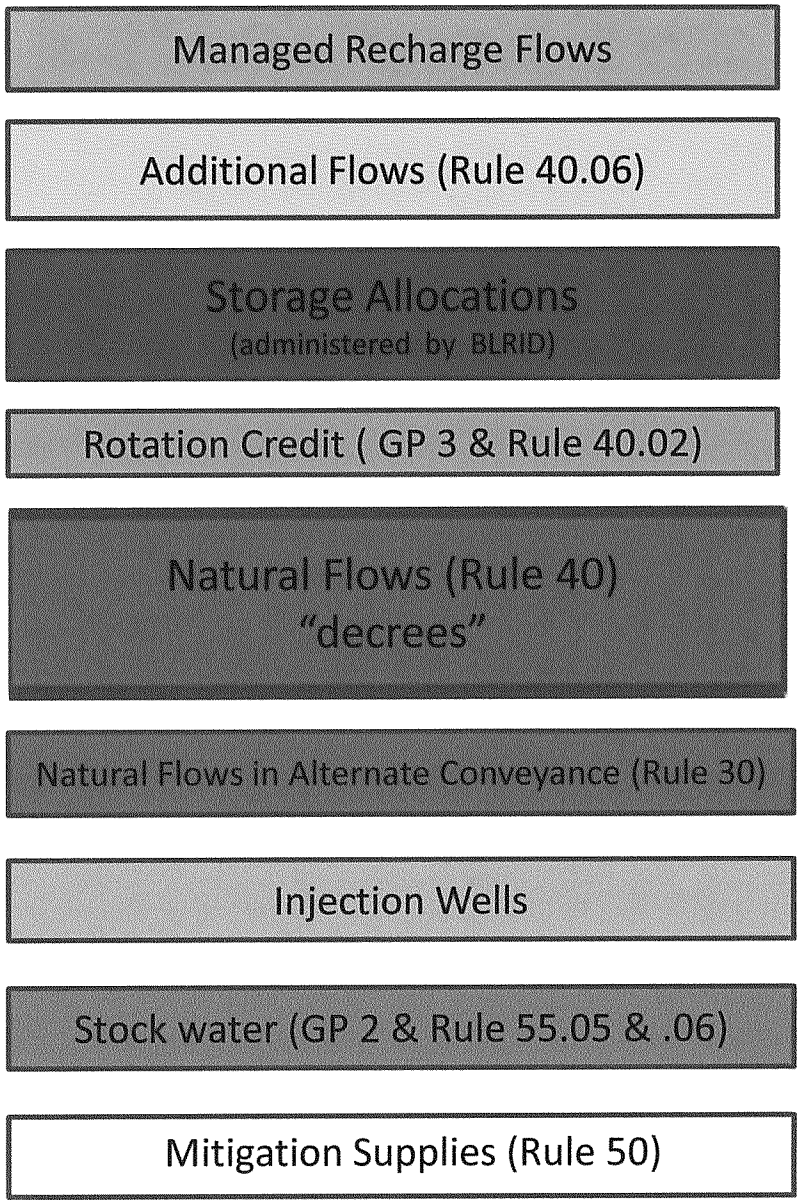
(Rule 25, 40, and 60)
Independent Accounting System
for Water District No. 34

Color Code and Rule Matrix

Independent Accounting requires all water supplies to be accounted for in every reach of the river and at every canal/lateral heading in the Water District. All water supplies must be identified as to its "color" at every diversion point from the river and who is entitled to those "colored" water supplies.

The adjacent color code chart is intended to identify all types or classes of water that water users might be entitled to within the basin. The accounting system needs to quantify the total volume for each "color" of water being diverted at the canal heading and who is entitled to that water supply.

Those diverted water supplies are then conveyed and distributed beyond the canal headings to the field headgates and are not included in this independent accounting system. That distribution and accounting is done separately by the irrigation district, canal company, or lateral association pursuant to their operational rules and policies.



Measuring of the Reservoir (7-26-2012)

This document explains how the reservoir is measured, monitored and the mode of operation. The current control system for the reservoir is a data monitoring system that records data every 15 minutes. The data can be retrieved for several past weeks. This has to be a physical reading conducted presently by the Big Lost River Irrigation manager.

At the present time ther*e is an evaluation by IDWR to put some type of transmitting device on the measuring instrument to make it available through the internet as in the 2B and Howell measurements.

The measurement system is base on pressure differential of water pressures between two points below the water based on level of water at given heights from sea level. The instrument provides a reading that is converted to acre feet (AF) by a conversion chart based on a certain acre feet at a given instrument reading.

The readings are recorded from the instrument reading at 0730am each day to provide a consistent 24 hour bases for the measurement each day. This instrument reading provides thp basis for determining how much water is being lost or gained in the reservoir.^Water coming into the reservoir is determined by the volume gain reading of the dam subtracted or added to the amount of water measured at the 2B gauge. The water loss in the reservoir should correspond to the amount of water being used for storage.

The natural flow of water starts on May 1 which is the start of the irrigation season. Any water coming in after May 1 is considered natural flow and must be released into the river below the reservoir. If there is no storage being released, then there should be no loss or gain in the reservoir. If there is gain, then that means the natural flow water is being either being rotated or being stored as storage. Therefore the gain or loss is monitored each day when the dam readings are made and recorded. If storage or rotation credit is being delivered, the

reservoir should show a loss corresponding to the amount that is being used as recorded on the ditch rider logs adjusted for the river shrink.

The dam is adjusted once per day after consultation with the ditch riders to maintain the proper flows for delivery. When a decree is changed and the water user who may lose his natural flow water right, determines if he wants to stop irrigating or change the color of water to storage and maintain the same amount of water he is using. If he decides not to use storage water or rotation credit then that water is removed from the river and kept in the dam.

Each day this reservoir clata is recorded on a spread sheet and is given to the wate master to provide data to help determine river shrink and to set decrees as shown in the attached reservoir data sheet. Decrees are generally set Mondays and Thursdays.

The reservoir data sheet provides the following: the day of the reading, the gauge reading from the instrument, and the conversion number to acre feet from the calibration chart. It also provides reservoir gain or loss values, the reading at the 2B gauge, the amount of water in the Sharp canal which is above the 2B gauge, the amount of water being released, the calculated inflow, the Howell gauge instrument reading, and the instrument reading at the Leslie gauge. There is also shown the amount of water either released or removed to the river on a given day.

The spread sheet also shows the recorded amount of seepage that is below the dam to monitor safety and integrity of the reservoir. If the leakage is normal to those flows in the past, then the dam is assumed to be in good condition.

The amount of storage that is being delivered, according to ditch rider logs, is also listed on the data sheet. This is compiled normally every Monday and Thursday when the logs are submitted to the office.

The data sheet also shows which gate was opened or closed and how much water was released or captured for that day as well as a listing of what decrees were called for a given day.

There is also a listing of where all the gates are set and the estimated water that is going through the gates. When there is water at the Arco gauge that is also recorded on the spread sheet.

The reservoir is held at 6 inches above the spillway to maximize the amount of captured water available. This value is the maximum amount of water that can be in the dam because of a court order stating that that is the maximum amount that can be encroached on the 6X ranch.