State of Idaho
DEPARTMENT OF WATER RESOURCES
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C.L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Director

February 7, 2013

Re: Order Requiring Measuring Devices and Head gates in Water District 75E

Dear Water User,

The Idaho Department of Water Resources (IDWR or Department) has issued the enclosed preliminary order requiring installation of measuring devices and control works for diversions in Water District No. 75E, Wallace Creek and tributaries, prior to the 2013 irrigation season. Pursuant to Section 67-5243, Idaho Code, the preliminary order will become a final order without further action of the Department unless a party petitions for reconsideration or files an exception and/or brief as explained in the enclosed information sheet.

This order requires users to submit plans for measuring devices and control works to the Department on or before March 15, 2013. An IDWR representative will be attending the Water District No. 75E Annual Meeting (notice enclosed) on March 5, 2013 and will be available to address questions concerning the measurement and control plans.

Note that the order only applies to the control and measurement of water at the head of the main canals, ditches, or points of diversions from the source listed in the order, not the points of re-diversion or laterals from those main ditches. Please refer to the enclosed document *"Minimum Acceptable Standards for Open Channel and Closed Conduit Measuring Devices"* for information on types of measuring devices acceptable to IDWR. This document and other information on the topic are available on IDWR's Internet site at the following address:

http://www.idwr.idaho.gov/WaterManagement/WaterMeasurement/water_measurement.htm

If you have questions concerning this order, please contact Nick Miller, IDWR Water Distribution, Boise (208-287-4956).

Respectfully,

Nick Miller
Water Distribution

Enclosures:

Preliminary Order Requiring Controlling Works and Measuring Devices in Water District 75E, Dated February 7, 2013 (2 pages)
Explanatory Information to Accompany a Preliminary Order (1 page)
IDWR Minimum Acceptable Standards for Open Channel and Closed Conduit Measuring Devices (1 page)

Cc: IDWR Eastern Region

N: \WD75E Wallace Creek \Measuring and control order\Ord_Cover_75e.docx

BEFORE THE DEPARTMENT OF WATER RESOURCES
OF THE
STATE OF IDAHO

IN THE MATTER OF REQUIRING MEASURING DEVICES AND CONTROLLING WORKS ON DIVERSIONS FROM WALLACE CREEK AND TRIBUTARIES IN WATER DISTRICT NO. 75E	))))	PRELIMINARY ORDER

On September 7, 2012 the Idaho Department of Water Resources (IDWR) sent a letter to water right holders in Water District No 75E, Wallace Creek and Tributaries (WD75E) in response to ongoing water delivery complaints. In that letter, IDWR stated that an active and duly elected watermaster is needed to distribute water in accordance with priority water rights on Wallace Creek and its tributaries, and that the diversions within the district must be equipped with adequate measurement and control devices so the watermaster will have tools necessary to distribute the water in times of scarcity and can respond to changing water supply and demand to more effectively use the waters of Wallace Creek. This order requires the installation of such devices prior to the 2013 irrigation season.

Section 42-701, Idaho Code, provides in pertinent part:

42-701. INSTALLATION AND MAINTENANCE OF CONTROLLING WORKS AND MEASURING DEVICES BY WATER APPROPRIATORS – PROCEDURE UPON FAILURE TO INSTALL AND MAINTAIN – MEASURING AND REPORTING OF DIVERSIONS – PENALTY FOR FAILURE TO COMPLY – REPORT FILING FEE.

1. The appropriators or users of any public waters of the state of Idaho shall maintain to the satisfaction of the director of the department of water resources suitable headgates and controlling works at the point where the water is diverted. Each device shall be of such construction that it can be locked and kept closed by the watermaster or other officer in charge, and shall also be of such construction as to regulate the flow of water at the diversion point. Each such appropriator shall construct and maintain, when required by the director of the department of water resources, a rating flume or other measuring device at such point as is most practical in such canal, ditch, wellhead or pipeline for the purpose of assisting the watermaster or department in determining the amount of water that may be diverted into said canal, ditch, wellhead or pipeline from the stream, well or other source of public water. Plans for such headgates, rating flumes or other measuring devices shall be approved by the department of water resources.

3. Any appropriator or user of the public waters of the state of Idaho that neglects or refuses to construct or maintain such headgates, controlling works, or measuring devices..., upon receiving ten (10) days' notice from the director of the department of water resources within which to begin and diligently pursue to completion the construction or installation of the required

device or devices or to begin and diligently pursue to completion a remedy to such defects as exist in accordance with said notice, then the director of the department of water resources may order the duly qualified and acting watermaster of the water district to shut off and refuse to deliver at the point of diversion, the water owned by such appropriator or user until the user does construct and maintain such headgates, controlling works or measuring devices or remedy the defects which exist or the director may take action pursuant to section 42-1701B, Idaho Code, to enforce the requirement to construct, install or maintain such devices.

4. The appropriators or users of the public waters of the state of Idaho shall be given a reasonable time within which to complete construction of such headgates, controlling works or measuring devices, depending upon the size and extent thereof, when due diligence has been used in the prosecution of such work.

ORDER

IT IS HEREBY ORDERED AS FOLLOWS:

1. Prior to diverting water during the 2013 irrigation season, the water right owners or water users identified in Attachment A of this order shall install a measuring device and lockable controlling works at each diversion listed in Attachment A. The controlling works and measuring device for each point of diversion shall be of a type acceptable to IDWR and installed in a manner consistent with the attached IDWR standards.

2. All water users diverting water from the diversions listed on Attachment A must submit plans for measuring devices and controlling works to IDWR no later than March 15, 2013. Plans shall be reviewed by IDWR to determine whether proposed measuring devices and controlling works are of a type acceptable to IDWR. If a measuring device or controlling works are already installed, a written description of such devices shall be submitted to IDWR by March 15, 2013.

3. The watermaster shall shut off and refuse to deliver water to any diversion listed on Attachment A that does not have an adequate measuring device and/or lockable controlling works at any and all times following the start of the 2013 irrigation season.

Dated this 7th day of February, 2013.

Tim Luke

TIM LUKE
CHIEF, WATER COMPLIANCE BUREAU

WATER SOURCE NAME	DIVERSION NAME	TWNSHP	RNG.	SECT.	QQQ	GOV. LOT NUMBER	DIVERSION RATE (CFS)	IRRIGATED ACRES	WATER USES	WATER RIGHT NUMBER	OWNER(s)
SOUTH FORK WALLACE CREEK	Mining Loc#1	22N	21E	10	NENENE		1		MINING	75-10257	RACHEL L AND RALSTON W ADAMS
	Mining Loc#2	22N	21E	3	NENWSW		1		MINING	75-10257	RACHEL L AND RALSTON W ADAMS
	Thomas/ Stokes Ditch	22N	21E	10	SENW		0.27	9	IRRIGATION	75-14739	JENELLE THOMAS
							0.39	13	IRRIGATION	75-14752	ANN THOMAS HILLIS
							0.33	10.8	IRRIGATION	75-14753	CHARLES LYNN THOMAS
							0.33	10.8	IRRIGATION	75-14754	WILL THOMAS
							0.34	11.4	IRRIGATION	75-14755	EDNA STAUBER
							0.9	45	IRRIGATION	75-87C	JEAN AND ROBERT HEBER STOKES
WALLACE CREEK	Lower Ditch	22N	22E	6	NWSW	7	0.04	4	IRRIGATION	75-13948	ILENE AND L. ARDEN ARRINGTON
							0.05	4	IRRIGATION	75-13950	ILENE AND L. ARDEN ARRINGTON
							0.04	4.2	IRRIGATION	75-13986	JANET AND LAWRENCE R GOSACK
							0.05	4.2	IRRIGATION	75-13988	JANET AND LAWRENCE R GOSACK
							0.07	8.2	IRRIGATION	75-14095	DAN F FARLEY
							0.1	8.2	IRRIGATION	75-14097	DAN F FARLEY
							0.1	4.6	IRRIGATION	75-14269	DALLAS A AND VANCE E LEWIS
							0.02	2.5	IRRIGATION	75-14381	FREDDE HOWARTH-NOTT SEPARATE PROPERTY TRUST
							0.01	1	IRRIGATION	75-14382	LESLIE J AND ROBERT ANDERSON
							0.03	2.5	IRRIGATION	75-14383	FREDDE HOWARTH-NOTT AND FREDDE HOWARTH-NOTT SEPARATE PROPERTY TRUST
							0.01	1	IRRIGATION	75-14384	LESLIE J AND ROBERT ANDERSON
							0.03	3.2	IRRIGATION	75-14433	LINDA K HEFFNER
							0.04	3.2	IRRIGATION	75-14435	LINDA K HEFFNER
							0.07	8	IRRIGATION	75-14437	BRENDA WILMORE AND KEITH STOUT
							0.1	8	IRRIGATION	75-14438	BRENDA WILMORE AND KEITH STOUT
							0.03	3.2	IRRIGATION	75-14444	ILENE AND L. ARDEN ARRINGTON
							0.03	3.2	IRRIGATION	75-14445	PENSCO TRUST COMPANY
							0.04	3.2	IRRIGATION	75-14446	ILENE AND L. ARDEN ARRINGTON
							0.04	3.2	IRRIGATION	75-14447	PENSCO TRUST COMPANY
							0.1	5	IRRIGATION	75-14461	BRENDA AND DAVID RHOADES
							0.03	3.4	IRRIGATION	75-14551	WONG-MCCLAIN FAMILY TRUST
							0.04	3.4	IRRIGATION	75-14552	WONG-MCCLAIN FAMILY TRUST
							0.04	4.4	IRRIGATION	75-14554	CAROL ANNE AND GREGORY MARTIN SHEFTS
							0.05	4.4	IRRIGATION	75-14555	CAROL ANNE AND GREGORY MARTIN SHEFTS
							0.05	3.9	IRRIGATION	75-14586	LAWRENCE L SHILEY AND SHIRLEY E CLAY
							0.03	4	IRRIGATION	75-14715	LINDA K HEFFNER
							0.04	4.3	IRRIGATION	75-14716	BRENDA AND DAVID RHOADES
							0.05	4	IRRIGATION	75-14717	LINDA K HEFFNER
							0.05	4.3	IRRIGATION	75-14718	BRENDA AND DAVID RHOADES
							0.04	3.9	IRRIGATION	75-83B	LAWRENCE L SHILEY AND SHIRLEY E CLAY
	Maxwell Pipeline	22N	21E	1	NESE	6	0.09	3	IRRIGATION	75-10330	WILLIAM ROBERT MAXWELL
							0.03	5.3	IRRIGATION	75-14577	WILLIAM ROBERT MAXWELL
							0.04	4.3	IRRIGATION	75-14716	BRENDA AND DAVID RHOADES
							0.05	4.3	IRRIGATION	75-14718	BRENDA AND DAVID RHOADES
							0.6		POWER	75-7352	WILLIAM ROBERT MAXWELL
							0.02	5.3	DOMESTIC, IRRIGATION	75-83C	WILLIAM ROBERT MAXWELL
							0.04		DOMESTIC	75-88	WILLIAM ROBERT MAXWELL
	Moodie Ditch	22N	21E	10	NENE		0.01		DOMESTIC	75-87A	JAMES H AND MARTHA J MOODIE
							0.01		DOMESTIC	75-87B	DENNIS C AND JAMES H MOODIE
	Savage Ranch Ditch	22N	21E	1	NESW		0.04	2	IRRIGATION	75-14090	MICHELLE AND RUSSELL SNEED
							0.12	6.1	IRRIGATION	75-14092	DALE F GOOBY
							0.1	5	IRRIGATION	75-14099	CHARLES W MUALEM
							0.41	20.3	IRRIGATION	75-14100	JEFFREY V WAITE
							0.23	11.6	IRRIGATION	75-14302	GREG AND SANDY BOURDON AND VERA M HARTLEY
							0.1	5	IRRIGATION	75-14303	JAMES R. AND JULIA GEIDEL
							0.03	1.4	IRRIGATION	75-14512	DAVID JEFFREY ODELL
							0.09	4.4	IRRIGATION	75-14513	DICK WILLIAMS AND LINDA BARINAGA
							0.18	9	IRRIGATION	75-4385D	DOROTHY A AND NORMAN C OLSEN
WALLACE LAKE	Wallace Lake diversion	22N	21E	8	SWSWSE			57.6	IRRIGATION FROM STORAGE, IRRIGATION STORAGE	75-2099	JEAN AND ROBERT HEBER STOKES

EXPLANATORY INFORMATION TO ACCOMPANY A PRELIMINARY ORDER

(To be used in connection with actions when a hearing was **not** held)

(Required by Rule of Procedure 730.02)

The accompanying order or approved document is a "**Preliminary Order**" issued by the department pursuant to section 67-5243, Idaho Code. **It can and will become a final order without further action of the Department of Water Resources ("department") unless a party petitions for reconsideration, files an exception and brief, or requests a hearing as further described below:**

PETITION FOR RECONSIDERATION

Any party may file a petition for reconsideration of a preliminary order with the department within fourteen (14) days of the service date of this order. **Note: the petition must be received by the department within this fourteen (14) day period.** The department will act on a petition for reconsideration within twenty-one (21) days of its receipt, or the petition will be considered denied by operation of law. See Section 67-5243(3) Idaho Code.

EXCEPTIONS AND BRIEFS

Within fourteen (14) days after: (a) the service date of a preliminary order, (b) the service date of a denial of a petition for reconsideration from this preliminary order, or (c) the failure within twenty-one (21) days to grant or deny a petition for reconsideration from this preliminary order, any party may in writing support or take exceptions to any part of a preliminary order and may file briefs in support of the party's position on any issue in the proceeding with the Director. Otherwise, this preliminary order will become a final order of the agency.

REQUEST FOR HEARING

Unless a right to a hearing before the Department or the Water Resource Board is otherwise provided by statute, any person aggrieved by any final decision, determination, order or action of the Director of the Department and who has not previously been afforded an opportunity for a hearing on the matter may request a hearing pursuant to section 42-1701A(3), Idaho Code. A written petition contesting the action of the Director and requesting a hearing shall be filed within fifteen (15) days after receipt of the denial or conditional approval.

ORAL ARGUMENT

If the Director grants a petition to review the preliminary order, the Director shall allow all parties an opportunity to file briefs in support of or taking exceptions to the preliminary order and may schedule oral argument in the matter before issuing a final order. If oral arguments are to be heard, the Director will within a reasonable time period notify each party of the place, date and hour for the argument of the case. Unless the Director orders otherwise, all oral arguments will be heard in Boise, Idaho.

CERTIFICATE OF SERVICE

All exceptions, briefs, requests for oral argument and any other matters filed with the Director in connection with the preliminary order shall be served on all other parties to the proceedings in accordance with IDAPA Rules 37.01.01302 and 37.01.01303 (Rules of Procedure 302 and 303).

FINAL ORDER

The Director will issue a final order within fifty-six (56) days of receipt of the written briefs, oral argument or response to briefs, whichever is later, unless waived by the parties or for good cause shown. The Director may remand the matter for further evidentiary hearings if further factual development of the record is necessary before issuing a final order. The department will serve a copy of the final order on all parties of record.

Section 67-5246(5), Idaho Code, provides as follows:

> Unless a different date is stated in a final order, the order is effective fourteen (14) days after its service date if a party has not filed a petition for reconsideration. If a party has filed a petition for reconsideration with the agency head, the final order becomes effective when:
>
> (a) The petition for reconsideration is disposed of; or
> (b) The petition is deemed denied because the agency head did not dispose of the petition within twenty-one (21) days.

APPEAL OF FINAL ORDER TO DISTRICT COURT

Pursuant to sections 67-5270 and 67-5272, Idaho Code, if this preliminary order becomes final, any party aggrieved by the final order or orders previously issued in this case may appeal the final order and all previously issued orders in this case to district court by filing a petition in the district court of the county in which:

i. A hearing was held,
ii. The final agency action was taken,
iii. The party seeking review of the order resides, or
iv. The real property or personal property that was the subject of the agency action is located.

The appeal must be filed within twenty-eight (28) days of this preliminary order becoming final. See section 67-5273, Idaho Code. The filing of an appeal to district court does not itself stay the effectiveness or enforcement of the order under appeal.

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES (IDWR)

MINIMUM ACCEPTABLE STANDARDS FOR OPEN CHANNEL AND CLOSED CONDUIT MEASURING DEVICES

The source and means of diversion of water, whether surface or ground water, generally affects the selection of a measuring device. Surface water sources such as streams, springs and waste channels are normally diverted into open channels (ditches or canals), but closed conduits (pipes or culverts) are also used. Ground water is usually diverted into pipes (which may also discharge into open channels).

Measuring devices when required by IDWR are to be installed at or near the point of diversion from the public water source.

I. MEASUREMENTS IN OPEN CHANNELS

The following discussion is applicable only to diversions from surface water sources. Measurement of a ground water diversion with an open channel measuring device must be pre-approved by the IDWR.

A. Standard Open Channel Measuring Devices

All open channel surface water diversions should be measured using one of the following standard open channel flow measuring devices commonly used in Idaho:

- **Weirs:** contracted or suppressed rectangular weirs, Cipolletti weir, 90 degree V-notch weir
- **Submerged Orfices:** submerged rectangular orifice, constant head orifice
- **Flumes:** Parshall flume, trapezoidal flume, ramped flume (ramped, broad-crested weir)
- **Acoustic:** acoustic Doppler flow meter (ADFM), acoustic Doppler current profiler

The installed flow rate accuracy of open channel measurement devices must be +/- 10.0% as compared to an acceptable open channel current meter or other standard portable measuring devices such as an acoustic Doppler flow meter or acoustic Doppler current profiler.

Construction, installation and operation of these devices should follow published guidelines, such as those published by the United States Bureau of Reclamation[1]

B. Non-standard open channel devices: Rated Structures or Rated Sections

Any weir, flume, or other measuring device that has not been constructed, installed, or maintained correctly and therefore does not measure flow in the standard manner consistent with standard rating tables or curves is considered to be a non-standard device. IDWR may authorize the use of non-standard devices and rated sections provided the device or section is rated or calibrated against a set of flow measurements using an acceptable open channel current meter or standard portable open channel measuring device. Examples of standard portable open channel measuring devices include the acoustic Doppler flow meter, the acoustic Doppler current profiler, or a portable flume. These devices are acceptable provided they are installed and operated according to all relevant manufacturer recommendations.

Further information and requirements are available from IDWR upon request.

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[1] The Bureau of Reclamation measurement guidelines can be found at;
http://www.idwr.idaho.gov/WaterManagement/WaterMeasurement/PDFs/BoR_WMM_%202001revision.pdf

II. CLOSED CONDUIT MEASURING DEVICES

The following discussion is applicable to measurement of diversions from any water source that diverts via a full-flowing, closed conduit.

A. Standard Closed Conduit Measuring Devices

A certified meter is required on new installations of measuring devices for closed conduit or pipe line diversions. A certified meter is a model of flow meter that has participated in independent third party testing and has been approved by IDWR for use. IDWR has published a list of meters that have participated in independent third party testing[2] and have been certified for use where the installation configuration and application meet manufacturer's requirements. Tests were conducted for both accuracy and repeatability on all submitted models, and a pass/fail rating awarded. A list of these meters may be found at:

http://www.idwr.idaho.gov/WaterManagement/WaterMeasurement/PDFs/Approved_flow_meter_list.pdf.

Owners or operators who install a certified meter without the minimum manufacturer spacing requirements, or otherwise inconsistent with manufacturer's specifications, may need to provide an adequate testing section of straight pipe located somewhere on the diversion system either upstream or downstream of the installed flow meter. This testing section can be excavated pipeline as long as the section of pipe carries all water being measured through the installed flow meter. Water users choosing to expose pipe will be required to excavate the pipe at their expense at the request of the district hydrographer, watermaster and/or IDWR staff.

B. Non-standard Closed Conduit Measuring Devices: Requests for Variance

In some cases, site conditions preclude use of a certified meter, and another meter or method of measurement will produce similarly accurate results. In cases where the user can show that a proposed alternative meter or method would be as accurate as, or otherwise is better suited to an application than any of the meters on the approved list, a user can propose using an alternative meter or method by submitting a Request for Variance Form, available from IDWR. If a request is submitted and granted, the water user bears the risk that the alternative meter or method will perform as expected.

The following alternate measurement methods may be considered:

- Development of a Power Consumption Coefficient (PCC), which is a ratio of power usage to water withdrawal. Acceptance of the PCC method may be provided *for qualifying irrigation diversions only*;
- Use of an hour meter (time clock) *for qualifying diversions only*;
- Use of an acceptable flow meter that was installed *prior to the date of the measurement order*;
- *For irrigation diversions only*, use of an acceptable non-certified flow meter where it can be shown that installation of a certified flow meter would be burdensome or ineffective.

If a meter is already installed, that meter may be used if the meter is field-tested by IDWR staff, the water district watermaster, or a district hydrographer using a portable standard flow meter and upon a determination that the meter is installed properly and accurate to within ±10% of actual rate of flow and volume. If a non-certified meter is approved and installed but does not pass a field check, IDWR may require the water user to replace the meter with a certified meter at the water user's expense.

If an alternative method is approved and that method is later found to be insufficient, the variance will be withdrawn and a certified meter will be required to be installed. The suitability of any pumping station for an hour meter or the PCC method of measurement will be based on criteria found in this document and in the document entitled *IDWR ESPA Water Measurement and Reporting Guidelines*[3].

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[2] Testing was conducted at the Utah Water Research Laboratory (UWRL), a National Institute of Standards and Technology (NIST) traceable lab in Logan, Utah.

[3] This document can be found at:
http://www.idwr.idaho.gov/WaterManagement/WaterMeasurement/PDFs/IDWRESPA_WaterMeasurement_ReportingGuidlines.pdf