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**DEPARTMENT OF
WATER RESOURCES**

**IN THE DISTRICT COURT OF THE FOURTH JUDICIAL DISTRICT OF THE
STATE OF IDAHO, IN AND FOR THE COUNTY OF ADA**

CITY OF HAILEY, an Idaho municipal
corporation, and CITY OF BELLEVUE, an
Idaho municipal corporation,
Petitioners,

vs.

GARY SPACKMAN in his official capacity as
the Director of the IDAHO DEPARTMENT
OF WATER RESOURCES; and the IDAHO
DEPARTMENT OF WATER RESOURCES,
Respondents,

and

CITY OF KETCHUM, et al.,
Intervenors.

Case No. CV-WA-2015-14419

IN THE MATTER OF DISTRIBUTION OF
WATER TO WATER RIGHTS HELD BY
MEMBERS OF THE BIG WOOD & LITTLE
WOOD WATER USERS ASSOCIATION
DIVERTING FROM THE BIG WOOD AND
LITTLE WOOD RIVERS

PETITIONERS' OPENING BRIEF

Appeal of final agency action by the Idaho Department of Water Resources,

Honorable Eric J. Wildman, Presiding

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STATEMENT OF THE CASE

I. NATURE OF THE CASE

This is an appeal seeking judicial review under Idaho’s Administrative Procedure Act, Idaho Code §§ 67-5270 through 67-5279 (“IDAPA”), of the *Order Denying Joint Motion To Designate ACGWS by Rulemaking and to Dismiss Delivery Calls* (“ACGWS Order”) issued as a final order by the Director of the Idaho Department of Water Resources (“IDWR” or “Department”) in the context of a delivery call proceeding.¹ In the *ACGWS Order*, the Director determined: (a) that he may proceed with a delivery call made by surface water right holders whose water rights are located within the Eastern Snake Plain Aquifer (“ESPA”) area of common ground water supply as against holders of ground water rights whose rights are located outside the boundaries of the ESPA area of common ground water supply; and (b) that he may designate a new area of common ground water supply in a delivery call administrative proceeding pursuant to Rule 40 of the Conjunctive Management Rules, IDAPA 37.03.11 (“CM Rules”), rather than by rule. The Cities contend that the Director erred on both counts.

II. COURSE OF PROCEEDINGS

On February 23, 2015, the Big Wood & Little Wood Water Users Association (“WUA”) sent letters to the Director alleging, among other things, that their “surface water rights . . . are all located in Water District 37, and are hydrologically connected to ground water rights in the

¹ The arguments made in this Petitioners’ Opening Brief apply to the *ACGWS Order* in both its original form as an intermediate order and as later designated as a final order, as set forth in the Course of Proceedings section below. If for any reason the Court determines that the *ACGWS Order* issued as a final order is not properly before the Court, the Petitioners maintain that their appeal of the *ACGWS Order* as first issued on July 22, 2015 is timely and proper as set forth in Petitioner’s *Amended Joint Petition for Judicial Review of Agency Action*.

Wood River Valley aquifer system,” and that “[d]ue to the failure of [IDWR] to administer the subject water rights under the prior appropriation doctrine, the [WUA members] have suffered from premature curtailment of delivery of their surface water rights, along with the accompanying material injury.” R. Vol. I, p. 1-5.² The WUA’s letters demanded that the Director order “the Watermaster for Water District No. 37 to administer [the WUA members’] surface water rights, and hydrologically connected to [sic] ground water rights within the district in accordance with the prior appropriation doctrine.” R. Vol. I, p. 3.

The Department treated WUA’s letters as petitions for delivery calls pursuant to the CM Rules and initiated contested cases (“Delivery Calls”). R. Vol. I, p. 6; R. Vol. 1, p. 22. On March 20, 2015, the Department sent letters to holders of junior-priority ground water rights in Basin 37 who the Department determined “may be affected” by the Delivery Calls. R. Vol. I, p. 12. The Cities received the March 20 letters, and each filed notices of intent to participate in the Delivery Calls. R. Vol. 1, p. 57 (Hailey); R. Vol. 1, p. 43 (Bellevue).

The Director held a prehearing conference in Shoshone, Idaho on June 3, 2015, where he stated that the Delivery Calls are governed by CM Rule 40. *See* <http://www.idwr.idaho.gov/legal-actions/delivery-call-actions/big-wood-river.html>. The Director has subsequently reiterated this conclusion. *See e.g.*, R. Vol. V, p. 860. CM Rule 40 prescribes procedures for responding to delivery calls made by the holders of senior-priority

² Citations designated to the record herein designated “R. Vol.” are to the Agency Record lodged with the Court on August 18, 2015 for the Big Wood Delivery Call, IDWR Docket No. CM-DC-2015-001, and those designated “Supp. R. Vol.” are to the Supplemental Agency Record lodged with the Court on or about November 19, 2015.

surface or ground water rights against holders of junior-priority ground water rights from areas having a common ground water supply in an organized water district. IDAPA 37.03.11.040.

On June 26, 2015, the Cities filed a *Joint Motion to Designate ACGWS by Rulemaking and to Dismiss Delivery Calls*, R. Vol. III, pp. 403-11, and a supporting memorandum, R. Vol. III, pp. 412-34 (together, “*Joint Motion to Dismiss*”), and the *Affidavit of Chris M. Bromley*, R. Vol. II, pp. 452-572 (“*Bromley Affidavit*”). The Cities’ *Joint Motion to Dismiss* contended that the Delivery Calls should be dismissed because:

(1) the CM Rules do not provide for delivery calls by senior water right holders against junior ground water right holders who are not within the same designated area of common ground water supply and, therefore, the Director is precluded by the CM Rules from proceeding with the Delivery Calls because the Cities’ ground water rights are not within the ESPA area of common ground water supply, while all of the calling seniors’ water rights are; and,

(2) the CM Rules require the Director to designate an area of common ground water supply by rule, prior to holding a hearing on the delivery calls. R. Vol. II, pp. 417-18.

On July 22, 2015, the Director issued the *ACGWS Order* in which he denied the Cities’ *Joint Motion to Dismiss*, concluding that he may administer junior ground water rights outside the ESPA area of common ground water supply (specifically, within the Big Wood and Little Wood River subbasins) through a contested case proceeding under CM Rule 40 without first designating an area of common ground water supply through rulemaking that encompasses the junior ground water rights and the calling senior rights. R. Vol. V, pp. 859-869. The *ACGWS Order* stated: “The ACGWS for the [Delivery Calls] is a factual question that can be established

[in the Delivery Call contested case] based upon the information presented at hearing applying the definition [of area of common ground water supply] set forth in CM Rule 10.01.” R. Vol. V, p. 861.

On August 18, 2015, the Cities filed with the Department their *Joint Motion for Review of Interlocutory Order* (“*Interlocutory Motion*”) pursuant to the Department’s Procedural Rules, IDAPA 37.01.01.260 and .711, asking the Director to reconsider the *ACGWS Order*. R. Vol. V, pp. 989-997. On the same day, the Cities also filed with this Court their *Joint Petition for Judicial Review of Agency Action* (“*Joint Petition*”) to initiate the above-captioned case for the purpose of challenging the Director’s *ACGWS Order*. R. Vol. V, pp. 998-1018.

On August 19, 2015, Sun Valley Company (“SVC”) filed its *Petition for Judicial Review*, designated case no. CV-2015-14500,³ R. Vol. II, pp. 382-402, and on September 14, 2015, filed a *Notice of Appearance* in this appeal.

On September 9, 2015, the Department served the parties to this action with its *Notice of Lodging the Agency Record with the Agency*. R. Vol. VII, pp. 1357-59. On September 23, 2015 the Cities, together with SVC and the Cities of Ketchum and Fairfield filed with the Department their *Objection to Agency Record* in which they objected to inclusion of certain documents in the agency record, including memoranda prepared by IDWR staff after the *ACGWS Order* was

³ SVC’s *Petition for Judicial Review* seeks review of the Director’s denial of SVC’s *Motion to Dismiss Contested Case* filed with the Department on June 22, 2015. The gravamen of that *Motion* was that the WUAs had failed to file compliant petitions under the CM Rules so as to properly initiate delivery calls. R. Vol. II, p. 382-402.

issued (“*Staff Memoranda*”),⁴ on the grounds that they were not relevant to the *ACGWS Order*. R. Vol. VII, pp. 1360-1403. Indeed, many of the documents objected to by the Cities (such as the *Staff Memoranda*) post-dated the *ACGWS Order*, and therefore, could not have been considered by the Director when he issued the *ACGWS Order*.

On September 17, 2015, the Cities, SVC, the WUA and the Department entered into and filed a *Stipulation* in the above-captioned matter, and on September 18, 2015, the same parties entered into and filed a *Corrected Stipulation*.

Pursuant to paragraph 14(a) of the *Corrected Stipulation* and IDAPA 37.01.01.750, on September 25, 2015, the Cities and SVC filed with the Department a *Joint Motion to Designate ACGWS Order and Sun Valley Order as Final Orders* (“*Motion to Designate*”). Supp. R. Vol. I, pp. 9-13. The *Motion to Designate* requested that the Director designate the *ACGWS Order* as a final order subject to judicial review pursuant to IDAPA 37.01.01.740. *Id.*

On October 7, 2015, the Department served the parties to this action with its *Notice of Lodging the Settled Agency Record with the District Court*. R. Vol. VII, pp. 1466-1471. The lodged agency record included those documents previously objected to by the Cities.

On October 15, 2015, pursuant to the *Corrected Stipulation*, the Director designated the *ACGWS Order* as a final order. Supp. R. Vol. I, pp. 71-74.

On October 16, 2015, the Department denied the Cities’ *Interlocutory Motion*. Supp. R. Vol. I, p. 80-83.

⁴ Hydrology, Hydrogeology, and Hydrologic Data Staff Memo by Jennifer Sukow, dated August 28, 2015, R. Vol. VI, pp 1080-1104; Surface Water Delivery Systems Staff Memo with Appendices 1 and 2, dated August 31, 2015, R. Vol. VI, pp. 1105-1300 and R. Vol. VII, pp. 1301-1342.

On October 28, 2015, the Cities and the Department filed their *Stipulated Motion to Augment the Record* (“*Stipulated Motion*”). In the *Stipulated Motion*, the Cities expressly reserved their objections to the inclusion of the *Staff Memoranda* in the agency record. *Stipulated Motion* at 4.

On November 6, 2015, the Cities filed their *Amended Joint Petition for Judicial Review of Agency Action* with the Court to incorporate the Department’s order that designated the *ACGWS Order* as a final order.

By order dated November 16, 2015, the Court granted the *Stipulated Motion to Augment the Record*.

By cover letter dated November 19, 2015, the Department lodged the supplemental agency record with the Court. Supp. R. Vol. I.

III. STATEMENT OF FACTS

A. The water rights identified in the Delivery Calls

The WUA’s senior water rights (i.e. the “calling rights”) are located within the ESPA area of common ground water supply. R. Vol. I, p. 126 (map).⁵ Conversely, none of the junior ground water rights identified by the Department as potentially subject to the Delivery Calls are within the ESPA (or any other) defined area of common ground water supply. *Id.*

⁵ For the Court’s convenience, a copy of the cited map is attached hereto as Appendix A. This map was displayed by IDWR during a presentation at the May 4, 2015, status conference in Shoshone, Idaho. Although not stated in the map’s legend, the red dotted line meandering southwest to northeast from Glens Ferry past Carey approximates the ESPA area of common ground water supply as defined by CM Rule 50. *Compare to* R. Vol. III, p. 562 (IDWR map showing the CM Rule 50 area of common ground water supply, ESPAM 2.1 model boundary, and ESPA tributary boundaries).

The WUA's surface water rights and the junior ground water rights identified by the Department are within Water Districts 37 and 37-B. R. Vol. I, p. 126 and). A portion of Water District 37, but none of Water District 37-B, is within the ESPA area of common ground water supply. *Id.*; R. Vol. III, p. 479.⁶ In 2013, the Department's *WD 37 Order* modified Water Districts 37 and 37-B and incorporated certain ground and surface water rights that had been decreed in the Snake River Basin Adjudication. R. Vol. III, p. 464-480. The *WD 37 Order* states that the action was taken pursuant Idaho Code § 42-604. R. Vol. III, p. 472. It did not designate an area of common ground water supply under the CM Rules.

B. The Conjunctive Management Rules.

The Director has determined that the Delivery Calls are governed by CM Rule 40. R. Vol. V, p. 860 ("CM Rule 40 governs the Director's response to the Big and Little Wood Delivery Calls. . . .").⁷

CM Rule 40 requires that the senior priority calling rights and the targeted junior priority ground water rights must be located in (1) "an area having a common ground water supply" and (2) "an organized water district." IDAPA 37.03.11.040.01. CM Rule 40's title makes this clear: "Responses to Calls ... Against the Holders of Junior-Priority Ground Water Rights from Areas

⁶ R. Vol. III, p. 479 is a map attached to the Department's 2013 order creating the current Water Districts 37 and 37-B. *Preliminary Order, In the Matter of The Proposed Combination of Water District Nos. 37, 37A, 37C and 37M and the Inclusion of Both Surface and Ground Water Rights in the Combined Water District; and In the Matter of Abolishing the Upper Wood Rivers Water Management District* (Sep. 17, 2013), R. Vol. III, p. 464-480. ("*WD 37 Order*").

⁷ The CM Rules passed review by the 1994 Legislature and became effective that year. The CM Rules have been held to be facially constitutional. *American Falls Res. Dist. No. 2. v. Idaho Dept. of Water Res.*, 143 Idaho 862, 154 P.3d 433 (2007). The CM Rules have never been amended.

Having a Common Ground Water Supply in an Organized Water District.” IDAPA

37.03.11.040. CM Rule 40.01 states in further detail:

01. Responding to a Delivery Call. When a delivery call is made by the holder of a senior-priority water right (petitioner) alleging that by reason of diversion of water by the holders of one (1) or more junior-priority ground water rights (respondents) from an area having a common ground water supply in an organized water district the petitioner is suffering material injury, and upon a finding by the Director as provided in Rule 42 that material injury is occurring, the Director, through the watermaster, shall:

- a. Regulate the diversion and use of water in accordance with the priorities of rights of the various surface or ground water users whose rights are included within the district, provided, that regulation of junior-priority ground water diversion and use where the material injury is delayed or long range may, by order of the Director, be phased-in over not more than a five-year (5) period to lessen the economic impact of immediate and complete curtailment; or
- b. Allow out-of-priority diversion of water by junior-priority ground water users pursuant to a mitigation plan that has been approved by the Director.

CM Rule 40 (emphasis added).

CM Rule 50 describes only one area determined to have a common ground water supply—the ESPA. CM Rule 50.

In 2014, the Director proposed to amend the CM Rules by repealing CM Rule 50 in its entirety, R. Vol. III, pp. 491-92, and deleting the last sentence of CM Rule 20.07, which states “Rule 50 designates specific known areas having a common ground water supply within the state.” R. Vol. III, pp. 501-03. The Director and his staff testified on February 9, 2015, before

the Idaho House of Representatives Resources & Conservation Committee regarding the proposed repeal of CM Rule 50. R. Vol. III, pp. 508-25; 527-28.⁸ On February 11, 2015, the Director and his staff testified before the Idaho Senate Resources & Environment Committee regarding the same proposal. R. Vol. III, pp. 542-56; 558-62.⁹

Two weeks later, on February 24, 2015, the WUA filed its delivery call with the Director.

On March 17, 2015, after receiving and considering all testimony, the Legislature rejected the Director's proposed repeal of CM Rule 50 because it was "not consistent with legislative intent." R. Vol. III, p. 564.

ISSUES PRESENTED ON JUDICIAL REVIEW

The issues to be addressed on judicial review include:

a. Whether the Director properly denied the Cities' *Joint Motion to Dismiss*, in which the Cities moved that the Director must initiate rulemaking in accordance with the Idaho Administrative Procedure Act, I.C. § 67-5201 *et seq.*, to designate an area of common ground water supply that included junior ground water rights before proceeding with the Delivery Calls;

b. Whether the Director has authority to determine an area of common ground water supply within the context of the Delivery Calls, which are being conducted pursuant to CM Rule 40, or whether he must first conduct a rulemaking to amend the CM Rules to define an area of common ground water supply that encompasses the Cities' ground water rights; and

⁸ The pages first cited refer to a transcription of the Director's and his staff's testimony before the House Committee from an audio recording available on the Idaho Legislature's website at: http://164.165.67.41/IIS/2015/House/Committee/Resources%20%20Conservation/150209_hres_0130PM-Meeting.mp4. The pages cited second refer to the House Committee's minutes for the same hearing.

⁹ The pages first cited refer to a transcription of the Director's and his staff's testimony before the Senate Committee from an audio recording available on the Idaho Legislature's website at: http://164.165.67.41/IIS/2015/Senate/Committee/Resources%20%20Environment/150211_sr&e_0130PM-Meeting.mp4. The pages cited second refer to the Senate Committee's minutes for the same hearing.

c. Whether the Director must dismiss the Delivery Calls until such time as an appropriate area of common ground water supply may be determined by amendment of the CM Rules.

ATTORNEY FEES ON JUDICIAL REVIEW

As a result of the Respondents' actions, the Cities have had to retain counsel. For services rendered, the Cities are entitled to their reasonable attorney fees and costs should they prevail in this action pursuant to Idaho Code Section 12-117 and Rule 54 of Idaho Rules of Civil Procedure. The Cities seek attorney fees on appeal and for the underlying administrative proceeding.

ARGUMENT

This appeal involves a question of law. The question is whether under the current CM Rules, junior ground water right holders may be forced to defend against senior water right holders' allegations of material injury where the senior water rights are within the ESPA area of common ground water supply designated in the CM Rules but the junior water rights are not (indeed, the junior right are not located within any defined area of common ground water supply). Under the CM Rules' clear requirements, the answer is no. As previously concluded by the Director and this Court, CM Rule 40's plain language states that the Director may respond against only those junior ground water right holders who are within a defined area of common ground water supply that also includes the senior calling rights.

I. STANDARD OF REVIEW

Judicial review of a final decision of the Director of IDWR is governed by IDAPA, Chapter 52, Title 67, I.C. § 42-1701A(4). Under IDAPA, the Court reviews an appeal from an

agency decision based upon the record created before the agency. I.C. § 67-5277; *Dovel v. Dobson*, 122 Idaho 59, 61, 831 P.2d 527, 529 (1992). The court shall not substitute its judgment for that of the agency as to the weight of the evidence on questions of fact. I.C. § 67-5279(1); *Castaneda v. Brighton Corp.*, 130 Idaho 923, 926, 950 P.2d 1262, 1265 (1998). The Court shall affirm the agency decision unless the Court finds that the agency's findings, inferences, conclusions or decisions are:

- (a) in violation of constitutional or statutory provisions;
- (b) in excess of the statutory authority of the agency;
- (c) made upon unlawful procedure;
- (d) not supported by substantial evidence on the record as a whole; or
- (e) arbitrary, capricious, or an abuse of discretion.

I.C. § 67-5279(3); *Castaneda*, 130 Idaho at 926, 950 P.2d at 1265.

The petitioner must show that the agency erred in a manner specified in Idaho Code § 67-5279(3), and that a substantial right of the party has been prejudiced. I.C. § 67-5279(4). If the agency action is not affirmed it shall be set aside in whole or in part and remanded for further proceedings as necessary. I.C. § 67-5279(3).

A rule or regulation of a public administrative body or officer ordinarily has the force and effect of law and is an integral part of the statute under which it is made just as though it were prescribed in terms therein. *Howard v. Missman*, 81 Idaho 82, 337 P.2d 592 (1959); *Mallonee v. State*, 139 Idaho 615, 619, 84 P.3d 551, 555 (2004). Since IDWR is an administrative body under I.C. § 42-3803(c) and I.C. § 67-5201 *et seq.*, the same principles of construction that apply to statutes apply to rules and regulations promulgated by an administrative body. *Higginson v. Westergard*, 100 Idaho 687, 690-91, 604 P.2d 51, 54-55 (1979) (internal citations omitted);

Mason v. Donnelly Club, 135 Idaho 581, 21 P.3d 903 (2001) (administrative rules are subject to the same principles of statutory construction as statutes).

Idaho courts recognize the maxim commonly known as *expressio unius est exclusio alterius*, which contemplates that where particular language is included in one section of the statute being examined, but is omitted in another section of the same statute, it is generally to be presumed that the disparate inclusion or exclusion was done intentionally and purposely. 2A Sutherland Statutory Construction § 47:23 (7th ed.); *Dev., LLC v. City of Ketchum*, 149 Idaho 524, 528, 236 P.3d 1284, 1288 (2010) (“It is a universally recognized rule of construction that, where a constitution or statute specifies certain things, the designation of such things excludes all others, a maxim commonly known as *expressio unius est exclusio alterius*.”) Because administrative rules are subject to the same principles of statutory construction as statutes, the determination of the meaning of a rule, as with statutes, is a matter of law over which the court exercises free review. *Brandon Bay, Ltd. P’ship v. Payette Cty.*, 142 Idaho 681, 683, 132 P.3d 438, 440 (2006) quoting *Woodburn v. Manco Prods., Inc.*, 137 Idaho 502, 504, 50 P.3d 997, 999 (2002).

The interpretation of administrative rules begins “with an examination of the literal words of the rule.” *Mason*, 135 Idaho at 586, 21 P.3d at 908. “The language of the rule, like the language of a statute, should be given its plain, obvious and rational meaning.” *Id.* Where language of the rule is plain, then there is no need for resort to legislative history or other extrinsic evidence. *State v. Hart*, 135 Idaho 827, 829, 25 P.3d 850, 852 (2001). *See also Kimbrough v. Idaho Bd. of Tax Appeals*, 150 Idaho 417, 420, 247 P.3d 644, 647 (2011) (“This

Court will follow the plain meaning of an unambiguous statute, but will engage in statutory construction if a provision is ambiguous”).

There is no room for deference to an agency interpretation that is inconsistent with its plain meaning. *Idaho Power Co. v. Idaho Pub. Utilities Comm'n*, 155 Idaho 780, 791, 316 P.3d 1278, 1289 (2013) (“[a]s a general rule, courts defer to an agency's interpretation of its own regulations unless the interpretation is ‘plainly erroneous or inconsistent with the regulation.’”) (quoting *Auer v. Robbins*, 519 U.S. 452, 462-63, 117 S. Ct. 905, 912 (1997)).

When an agency is interpreting an ambiguous rule, a four-pronged test is used to determine the appropriate level of deference to the agency interpretation. The Court must determine whether:

- (1) the agency is responsible for administration of the rule in issue;
- (2) the agency’s construction is reasonable;
- (3) the language of the rule expressly treats the matter at issue; and
- (4) any of the rationales underlying the rule of agency deference are present.

Duncan v. State Bd. of Accountancy, 149 Idaho 1, 3, 232 P.3d 322, 324 (2010) (citation omitted).

Courts generally find that an agency’s interpretation of a rule is reasonable unless that agency relied on facts or law that were erroneous when it made the determination. *Duncan*, 149 Idaho at 4, 232 P.3d at 325.

An agency is entitled to less deference where its interpretation of a statute has changed without a change in the statute. *Farber v. Idaho State Ins. Fund*, 147 Idaho 307, 314, n.7, 208 P.3d 289, 296, n.7 (2009). There may be times when an agency can change course from past decisions, but there must be “sufficient findings to show that its action is not arbitrary and

capricious.” See *Washington Water Power Co. v. Idaho Public Utilities Comm’n*, 101 Idaho 567, 579, 617 P.2d 1242, 1254 (1980).

Pursuant to Idaho Code § 9-101, Idaho Rule of Civil Procedure 44, and Idaho Rule of Evidence 201, the court shall take judicial notice of adjudicative facts, including records, exhibits or transcripts from the court file in the same or a separate case where a party makes oral or written request that the court do so. Such judicial notice may be taken at any stage of the proceeding. I.R.E. 201(d) and (f).

II. CM RULE 40 AUTHORIZES DELIVERY CALLS AGAINST ONLY JUNIOR GROUND WATER RIGHTS IN AN AREA OF COMMON GROUND WATER SUPPLY.

A. CM Rule 40 currently limits potential administration and curtailment to the ESPA as defined by CM Rule 50.

CM Rule 40 authorizes the Director to respond to delivery calls by senior water right holders in the ESPA area of common ground water supply against junior ground water right holders located in the same area having a common ground water supply and organized water district. IDAPA 37.03.11.040.

Here, there is no dispute that the WUA’s water rights are located within Water District 37, or that the Cities’ and many other junior ground water rights also are within Water District 37. The September 2013 *WD 37 Order* incorporated most, if not all, Basin 37 decreed ground water rights, including the Cities’, into the existing water districts for administration by a watermaster.

However, only the WUA’s water rights are within a designated area of common ground water supply—the ESPA, as defined by CM Rule 50. Neither the Cities’ ground water rights,

nor any other junior ground water rights identified by the Department as “potentially affected” by the Delivery Calls, R. Vol. V, p. 859, are within a defined area of common ground water supply. Accordingly, they are not subject to potential curtailment in these Delivery Calls.

B. The Director and this Court have previously determined that CM Rule 40 prohibits reaching outside the ESPA Area of Common Ground Water Supply.

Prior decisions by the Director and this Court acknowledge that the current CM Rules preclude curtailment outside the ESPA area of common ground water supply. In the Surface Water Coalition (“SWC”) delivery call, the Director concluded that “the Director can only curtail junior ground water rights within the area of common ground water supply, CM Rule 50.01.” *Second Amended Final Order Regarding Methodology for Determining Material Injury to Reasonable In-Season Demand and Reasonable Carryover (“Methodology Order”)*, p. 36, Order ¶ 5 (June 23, 2010);¹⁰ *see also Order Regarding April 2010 Forecast Supply (Methodology Steps 3 & 4)*, p. 4 (Apr. 29, 2010)¹¹ (“The curtailment shall affect 73,782 acres within the area of common ground water supply . . .”), *and Amended Order*¹², pp. 28-29, Finding of Fact 127, (May 2, 2005) (“curtailing the subset of ground water diversions . . . within the area of common ground water supply for the ESPA defined in Rule 50 . . .”).

¹⁰ This order was at issue before the Court in Case No. CV-2010-382 (Fifth Jud. Dist.), and a copy is included here as Addendum A.

¹¹ This order was at issue before the Court in Case No. CV-2010-382 (Fifth Jud. Dist.), and a copy is included here as Addendum B.

¹² This order was at issue before the Court in Case No. CV-2008-551 (Fifth Jud. Dist.), and a copy is included here as Addendum C.

On judicial review of the Director's *Methodology Order* and "as-applied" orders in the SWC delivery call, this Court agreed with the Director that the plain language of the CM Rules is clear that seniors within the ESPA are limited to seeking administration only of ground water rights that also are within the ESPA area of common ground water supply. *See Memorandum Decision and Order on Petitions for Judicial Review*, CV-2010-382, p. 24 (Fifth Jud. Dist., Sept. 26, 2014) ("When a senior water user seeks the conjunctive administration of ground water rights under the CM Rules, the senior user is seeking administration within the area of common ground water supply. The plain language of the CM Rules makes this clear.").¹³

Agreeing that curtailment can only occur within the defined area of common ground water supply, the Court held it was an abuse of the Director's discretion to consider pumping outside the area defined by CM Rule 50:

The conflict arises from the fact that the ESPA Model boundary and the boundary of the area of common ground water supply – as it is defined by the CM Rules – are not consistent with one another. The ESPA Model boundary is larger, and contains ground water rights that are not within in area of common ground water supply. This fact is undisputed by the parties. It is the Coalition's position that the *Methodology Order* wrongly uses the ESPA Model boundary, instead of the boundary of the area of common ground water supply, to determine a curtailment priority date. And that the Director's practice in this respect results in unmitigated material injury contrary to law. This Court agrees.

Id. at 24.¹⁴

¹³ A copy of the cited order is included here as Addendum D.

¹⁴ On remand, the Director remedied this error in the *Third Amended Final Order Regarding Methodology for Determining Material Injury to Reasonable In-Season Demand and Reasonable Carryover* (April 17, 2015) ("The ESPA Model will be run to determine the priority date to produce the necessary additional mitigation obligation within the area of common ground water supply, as described by CM Rule 50.01.") (emphasis added). Therefore, the Director is administering ESPA ground water rights only within the area of common ground water supply as established in CM Rule 50.

More recently, in the Rangen delivery call, and consistent with his treatment of CM Rule 50 in other conjunctive management delivery calls, the Director concluded that “IDWR is only authorized to curtail diversions within the area of common ground water supply described in Rule 50 of the CM Rules.” *Final Order Regarding Rangen, Inc.’s Petition for Delivery Call; Curtailing Ground Water Rights Junior to July 13, 1962 (“Rangen Final Order”)*, p. 37, Conclusion of Law 41 (Jan. 29, 2014).¹⁵

Pursuant to Idaho Code § 9-101, Idaho Rule of Civil Procedure 44, and Idaho Rule of Evidence 201(d) and (f), the Cities request that the Court take judicial notice of the above-described orders and decisions contained in the Court’s records in the above-referenced cases, copies of which orders and decisions are attached as Addenda to this Brief.

C. The Legislature rejected the Director’s attempt to repeal CM Rule 50 and, in doing so, rejected his authority to determine an area of common ground water supply in Rule 40 proceedings.

Attempts have been made to change (or obliterate) CM Rule 50’s ESPA’s area of common ground water supply boundary to allow calling seniors to reach junior ground water rights outside the currently-designated ESPA area of common ground water supply. But they have failed. The Director first rejected senior water right holders’ proposed change to the boundary, and later the Legislature rejected the Director’s proposed repeal of Rule 50. Today, CM Rule 50 continues to limit conjunctive administration to areas within the defined ESPA boundary.

¹⁵ This order was at issue before the Court in Case No. CV-2014-1338 (Fifth Jud. Dist.), and a copy is included here as Addendum E (excluding the voluminous attachments which are not relevant here).

In November 2010, Clear Springs Foods (“Clear Springs”) petitioned the Director to amend Rule 50 to expand the ESPA area of common ground water supply to include certain tributary drainages that had been incorporated into the recently updated ESPAM aquifer model. R. Vol. III, p. 530. After initially opening and then suspending a negotiated rulemaking process to address Clear Springs’ petition,¹⁶ the Director ultimately denied Clear Springs’ request to amend CM Rule 50. R. Vol. III, pp. 530, 536. He instead determined that Rule 50 should be repealed because he determined that “the administrative hearings and deliberations associated with individual delivery calls is the proper venue to address which ground water rights should be subject to administration under a delivery call.” R. Vol. III, p. 535. (emphasis added).

The Director based his conclusion, in part, on a finding that amending the ESPA area of common ground water supply to match the ESPAM 2.1 model boundary (which includes some, but not all, tributary subbasins) would leave out some tributary basins where ground water diversions deplete the volume of recharge to the ESPA and reduce tributary stream flow and ultimately the flow in certain reaches of the Snake River. R. Vol. III, p. 531. Therefore, he said:

Adoption of the ACGWS as proposed in the [Clear Springs Petition] would result in treating similarly situated ground water rights disparately. For example, ground water depletions within the upper Big Wood River basin and in the Big Lost River basin below Mackay Dam both reduce tributary underflow and recharge to the ESPA. The area below Mackay Dam is within the ESPAM 2.1 model boundary, and the upper Big Wood River basin is not.

¹⁶ The Director first responded to the Clear Springs petition by instituting a negotiated rulemaking process initially focusing on the technical merits of incorporating various areas deemed to be tributary to the ESPA in the new Eastern Snake Plain aquifer model (“ESPAM”) into the ESPA area of common ground water supply defined by CM Rule 50. R. Vol. III, p. 530. But this rulemaking process was suspended in 2011 while the ESPAM was being updated to version 2.0. R. Vol. III, p. 571. Shortly thereafter, the ESPAM was updated to version 2.1. *Id.* The Director reinitiated action on the Clear Springs petition in 2014. R. Vol. III, pp. 571-572.

R. Vol. III, p. 532.¹⁷

Consistent with this determination, in 2014 the Director proposed to repeal CM Rule 50. R. Vol. III, p. 491-92; 501-03. But this proposed repeal never became final because the 2015 Legislature rejected it after considering the Director's supporting testimony, including the following:

- “Ultimately, we felt that the fairest approach was to simply repeal the Rule and then in every delivery call I [the Director] would then be responsible for taking evidence in a contested case hearing from all of the parties and then determining what the individual area of common ground water supply was for each delivery call.” R. Vol. III, p. 543.
- “[W]hat we are proposing is to repeal the Rule, which results in no definition of a boundary for the area of common groundwater supply for the Eastern Snake Plain Aquifer. And it will require me in every single delivery call now to determine based on evidence that's presented in a contested case hearing what that boundary should be. . . . It essentially will mean that there is no area that's defined and I will have to make that determination in each contested case hearing.” R. Vol. III, p. 6.
- “The first statement that I'd make out of the chute is that the repeal of Rule 50 creates greater uncertainty. There's no question about it. It creates uncertainty for

¹⁷ The Director cites no evidence supporting the proposition that ground water depletions within the upper Big Wood River basin reduces tributary underflow and recharge to the ESPA.

the groundwater users as to who would be included within the area.” R. Vol. III, pp. 552-53.¹⁸

- “If you reject the proposal, then Rule 50 would stay in place and the area of common groundwater supply would remain as presently defined . . . and I would continue to use that as the area of common groundwater supply based on that legislative determination.” R. Vol. III, p. 555.

After hearing this testimony, the Senate and House Committees voted to reject the Director’s proposed repeal of Rule 50. R. Vol. III, pp. 528, 561. The Legislature subsequently passed House Concurrent Resolution No. 10 (“HCR 10”), finding that the Director’s proposed repeal was “not consistent with legislative intent” and “the same is hereby rejected and declared null, void and of no force or effect.” R. Vol. III, p. 564. On March 20, 2015, only three days after HCR 10 was delivered to the Secretary of State, the Department sent letters to holders of junior-priority ground water rights in Basin 37 who the Department determined “may be affected” by the Delivery Calls. R. Vol. I, p. 12.

The *ACGWS Order* asserts that the attempted repeal of CM Rule 50 and amendment of CM Rule 20.07 together with the Director’s testimony before the legislature were limited to the ESPA area of common ground water supply and are “irrelevant to the Director’s authority to

¹⁸ The quoted statement was made by the Director in response to comments made by Senator Stennett, whose district includes the Big Wood basin. Earlier, Senator Stennett voiced a concern about the impact of a repeal of Rule 50 on Big Wood water users. R. Vol. III, pp. 547. In response, Rich Rigby (who was on the Director’s staff at the time) testified that: “I think we have to answer the question immediately. I think there is no real big impact because we don’t have the data to expand into the Big Wood Basin. But I think we have to recognize that, ultimately, with the Rule change there would be regulation in the Big Wood River. I think that’s something that is a real possibility.” R. Vol. III, pp. 548 (emphasis added).

curtail junior ground water rights in response to a CM Rule 40 delivery call by senior water right holders against junior ground water rights outside the ESPA ACGWS, such as the Big and Little Wood Delivery Calls.” R. Vol. V. p. 862. Of course, this conclusion fails to recognize that the WUA’s senior calling rights are within the ESPA ACGWS, and the junior ground water rights identified for potential curtailment are not.

In denying the Cities’ *Joint Motion to Dismiss*, the Director stated he has “a mandatory duty to distribute water in water districts in accordance with the prior appropriation doctrine.” R. Vol. V, p. 861 (internal quotation marks omitted). While this is true, the Director has a duty to follow Idaho law and must comply with the CM Rules which have the force and effect of law. *See American Falls Res. Dist. No. 2. v. Idaho Dept. of Water Res.* (“AFRD#2”), 143 Idaho 862, 866, 154 P.3d 433, 437 (2007) (CM Rules “provide the procedures” the Director must follow in responding to a delivery call). The plain language of the CM Rules requires that before a delivery call can proceed under CM Rule 40, an area of common ground water supply must be designated. CM Rule 50’s history and interpretation prohibit the Director from curtailing junior ground water rights that are not located in an area of common ground water supply.

The prior interpretations of CM Rule 50 by the Director and this Court, and the Legislature’s rejection of the Director’s proposed repeal, require the Director to look only within a defined area of common ground water supply if and when he administers junior groundwater rights in responding to the Delivery Calls. *Memorandum Decision and Order on Petitions for Judicial Review*, CV-2010-382, pp. 24-25 (Fifth Jud. Dist., Sept. 26, 2014).

It was precisely because of this requirement of the CM Rules that Clear Springs petitioned to have them amended to expand the area of common ground water supply defined in Rule 50. It was precisely because of this requirement that the Director determined to amend the CM Rules to eliminate the need to have an area of common ground water supply designated before a senior water right holder could prosecute a delivery call against ground water users under CM Rule 40. As the Director testified repeatedly to the Legislature, if CM Rule 50 were repealed, he could make the determination of *any* area of common ground water supply in the context of a CM Rule 40 delivery call contested case; a prior designation—or lack of designation—in CM Rule 50 would have no effect on his ability to process a delivery call under Rule 40. *See, e.g.*, R. Vol. III, p. 551.

If the Director believes, as asserted in the *ACGWS Order* under review here, that he has the inherent statutory authority to determine an area of common ground water supply in the course of a CM Rule 40 contested case proceeding, he would not have proceeded as he did in the Rangen and SWC delivery calls discussed above, nor the Blue Lakes Trout Farm, Inc., and Clear Springs delivery calls.¹⁹ Nor would he have seen any reason to attempt the repeal of CM Rule 50. The *ACGWS Order* contains no explanation or rationale for this complete departure here from twenty years of administration involving nearly continuous litigation under the CM Rules.

¹⁹ *See In the Matter of Distribution of Water to Water Rights Nos. 36-02356A, 36-07210, and 36-04727, Order* at 26 (May 19, 2005) (Blue Lakes); *In the Matter of Distribution of Water to Water Rights Nos. 36-0413A, et al., Order* at 35 (Jul. 8, 2005) (Clear Springs) (proposing to curtail junior ground water rights only within “the area of common ground water supply”). A copy of these orders are included here as Addenda F and G respectively. The Blue Lakes and Clear Springs *Orders* were at issue before the Court in Case No. CV-2008-444 (Fifth Jud. Dist.).

III. THE DIRECTOR’S RATIONALE FOR DENYING THE JOINT MOTION TO DISMISS IS UNLAWFUL, IS NOT ENTITLED TO DEFERENCE, AND THE ACGWS ORDER SHOULD BE REVERSED.

In the *ACGWS Order*, the Director ignores the prior agency decisions and plain language of the CM Rules described above. Instead the *ACGWS Order* concludes that the Director has authority to move forward with the Delivery Calls under CM Rule 40 and determine an area of common ground water supply through the hearing process pursuant to his “broad powers to direct and control the distribution of water from all natural water sources within water districts” under Idaho Code § 42-602 and “the power to determine what areas of the state have a common ground water supply” under Idaho Code 42-237a(g). R. Vol. V, p. 861.

The Cities do not dispute that the Director has the cited general statutory powers over the state’s water resources. However, the Director is not entitled to ignore his own rules implementing those powers—i.e. the CM Rules—in favor of a more liberal interpretation of his statutory authority. The public is entitled to assume that the Department’s rules will be implemented consistently, and not arbitrarily. *See The Idaho Rule Writer’s Manual*, State of Idaho, Office of the Administrative Rules Coordinator at 10 (rulemaking process aims to involve all persons affected and make transparent the regulatory process through which our statutory laws are executed and the practice and procedure requirements governmental agencies are established and implemented).

While the Director has authority to adopt rules implementing his general authority over distribution of water, the CM Rules have been specifically promulgated to “prescribe procedures for responding to a delivery call made by the holder of a senior-priority surface or ground water

right against the holder of a junior-priority ground water right in an area having a common ground water supply.” IDAPA 37.03.11.001. They also “provide the basis for the designation of areas of the state that have a common ground water supply and the procedures that will be followed in incorporating the water rights within such areas into existing water districts or creating new districts as provided in Section 42-237a.g., and Section 42-604, Idaho Code.”²⁰ IDAPA 37.03.11.020.06 (emphasis added). In other words, the CM Rules tell the Director, and potentially affected water right holders, what process and criteria will be used to designate areas of common ground water supply. In fact, the CM Rules provide notice to junior ground water right holders whether or not they are included within an area of common ground water supply and thus would be subject to curtailment by holders of senior surface water right holders under a CM Rule 40 delivery call. The *ACGWS Order* pursues a contrary process.

CM Rule 40 provides no mechanism for determining an area of common ground water supply within the contested case proceeding. By contrast, CM Rule 30 expressly provides that at the conclusion of a hearing the Director may include in his order a determination of “an area having a common ground water supply which affects the flow of water in a surface source in an organized water district.” CM Rule 30.07.c. But CM Rule 30 applies only to delivery calls made by senior surface or ground water rights in areas of the state that *are not* in organized water

²⁰ Idaho Code § 42-237a.g provides, among other things, that “[i]n connection with his supervision and control of the exercise of ground water rights the director of the department of water resources shall also have the power to determine what areas of the state have a common ground water supply” IDWR then adopted the CM Rules relying, in part, on this statute established the procedures by which and area of common ground water supply would be designated. Idaho Code § 42-604 provides for the creation of water districts.

districts. CM Rule 30. The Director has concluded that CM Rule 30 is inapplicable to the WUA Delivery Calls for this reason. R. Vol. V. p. 890.²¹

In other words, although the procedure that the Director would use here—determining an area of common ground water supply at the conclusion of the contested cases—is expressly provided for in the CM Rules, it is only provided under CM Rule 30, which the Director has determined is *inapplicable* to these Delivery Calls. The express inclusion of procedures for determining an area of common ground water supply in Rule 30 delivery calls and the exclusion of such procedures in CM Rule 40 delivery calls must be construed to limit the CM Rule 30 area of common ground water supply designation procedures to delivery calls properly pursued under that rule. Consistent with the maxim of *expressio unius est exclusio alterius* the Director may not, for convenience or otherwise, graft an express provision contained in one rule onto another rule where it does not exist. *Dev., LLC v. City of Ketchum*, 149 Idaho 524, 528, 236 P.3d 1284, 1288 (2010).

It is ironic (and arbitrary and capricious) for the Department to deny SVC's *Motion to Dismiss* on the ground that the procedural requisites of a valid petition relied on by SVC are not applicable to a CM Rule 40 delivery call since they are contained only in CM Rule 30, and in the

²¹ Sun Valley Company argued in its *Motion to Dismiss* that the WUA letters did not include all of the information required to be in a petition as set forth in CM Rule 30. The Director responded by concluding that:

. . . CM Rule 30 applies only where a delivery call is filed by the holders of senior-priority surface or ground water rights against “holders of junior priority ground water rights within areas of the state *not within organized water districts*”. . . Therefore the applicable rule is CM Rule 40 that addresses delivery calls against junior-priority ground water users “in an organized water district.” SVC's arguments . . . therefore are irrelevant in these proceedings and not a basis to dismiss the [Delivery Calls].

next breath deny the City's *Joint Motion to Dismiss* by adopting ACGWS designation procedures for use in a CM Rule 40 delivery call that are contained only in CM Rule 30.

The Director asserts that “[a] requirement that the Director must initiate a rulemaking to designate an ACGWS prior to responding to every CM Rule 40 delivery call against junior-priority ground water rights outside the ESPA would result in lengthy delay and run afoul of the Director’s mandatory duty to ‘distribute water in water districts in accordance with the priority appropriation doctrine.’” R. Vol. V, p. 861, *citing Musser v. Higginson*, 125 Idaho 392, 395, 871 P.2d 809, 812 (1994). This ignores the fact that there are thousands of junior-priority ground water rights *inside* the ESPA area of common ground water supply that the Director presumably could timely administer under these Delivery Calls consistent with the CM Rules, the agency’s own prior decisions, and with *Musser*.²² Further, while a timely response to a delivery call is appropriate, our Supreme Court has found “nothing in the [CM] Rules which would prohibit that from occurring. . . .” *AFRD#2* at 874, 154 P.3d at 445.

The Cities are no different from those ground water users in the Big Lost, Little Lost, Portneuf and other tributary drainages who senior surface water users in the Eastern Snake Plain have previously sought to have implicated and potentially curtailed under the CM Rules to address alleged material injury. In each such instance (all under CM Rule 40) the Director has unequivocally stated that he could not administer ground water rights in those tributary drainages

R. Vol. V, p. 890 (internal citations omitted; emphasis in original).

²² The assertion of avoiding lengthy delay rings hollow given that over five years ago, in response to the Clear Springs petition for rulemaking, the Department initiated (and then abandoned) a negotiated rulemaking

because they were outside the boundary of as the ESPA area of common ground water supply designated in Rule 50. The Director never asserted in those matters that he had to proceed with delivery calls contrary to the CM Rules against water users in those other tributary drainages in furtherance of his “mandatory duty to distribute water in water districts.”

The Department’s application of the CM Rules in these Delivery Calls contradicts their plain language, and consequently is inherently unreasonable and an abuse of discretion. Furthermore, this application of the CM Rules is entitled to a significantly reduced deference, if any. *Duncan*, 149 Idaho at 3, 232 P.3d at 324. Also, even if deference were appropriate, which it is not, the traditional rationale identified in *Fuchs v. Idaho State Police, Alcohol Beverage Control*, 153 Idaho 114, 117, 279 P.3d 100, 103 (2012), that underlie the rule of agency deference do not apply.

The Court cannot presume that there has been legislative acquiescence to the Director’s construction or application of the CM Rules here. When the Director attempted to amend the CM Rules to eliminate CM Rule 50 and Rule 20.07 so that he could determine an ACGWS under CM Rule 40 in the same manner as permitted in CM Rule 30, the Legislature rejected the approach understanding that a repeal would result in “greater uncertainty.” R. Vol. III, pp. 552-53.

The CM Rules remain unchanged—only the agency’s position has changed; and without justification. Consequently, any deference that this Court might normally give to that changed

process that could have addressed not only the ESPA area of common ground water supply boundary but also other areas of common ground waters supply that might be appropriate. R. Vol. III, pp. 530-36.

position must be significantly reduced. *Farber*, 147 Idaho at 314, n.7, 208 P.3d at 296, n.7 (as a general proposition, an agency has a more difficult task arguing for deference to its interpretation of a statute when its interpretation has changed without a change in the statute). The *ACGWS Order* contains no findings distinguishing the instant Delivery Calls from other delivery calls made under CM Rule 40 by senior right holders located within the Eastern Snake Plain over the previous twenty-one years. This sudden change in course and unexplained disparate treatment of ground water right holders in the Big Wood basin is arbitrary and capricious and not entitled to deference. *See Washington Water Power Co.* 101 Idaho at 579, 617 P.2d at 1254 (There may be times when an agency can change course from past decisions, but there must be “sufficient findings to show that its action is not arbitrary and capricious.”).

The Director’s decision in the *ACGWS Order*, which inexplicably seeks to achieve an end inconsistent with his own and this Court’s prior application of the plain language of the CM Rules, with the Director’s and his staff’s own testimony before the Idaho Legislature and with the Legislature’s intent as to their application is unreasonable, arbitrary and capricious, and prejudices the Cities’ substantial rights by subjecting their decreed water rights to curtailment in a manner not in accordance with established law. Thus, the *ACGWS Order* should be overturned and the Delivery Calls dismissed until an area of common ground water supply is first designated by rulemaking that encompasses their water rights and the calling seniors or the CM Rules are otherwise amended so as to permit the Delivery Calls to proceed.

CONCLUSION

The CM Rules preclude the Director from curtailing junior ground water rights outside a defined area of common ground water supply in response to a CM Rule 40 delivery call. The *ACGWS Order* contains no lawful rationale explaining why the Department is justified in ignoring the plain language of the CM Rules and prior rulings of the agency and this Court. Therefore, the Department's action is arbitrary and capricious and contrary to Idaho law and must be vacated. The *ACGWS Order* should be set aside, and the Delivery Call proceedings before the Department should be dismissed.

Respectfully submitted on January 6, 2016.

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CERTIFICATE OF SERVICE

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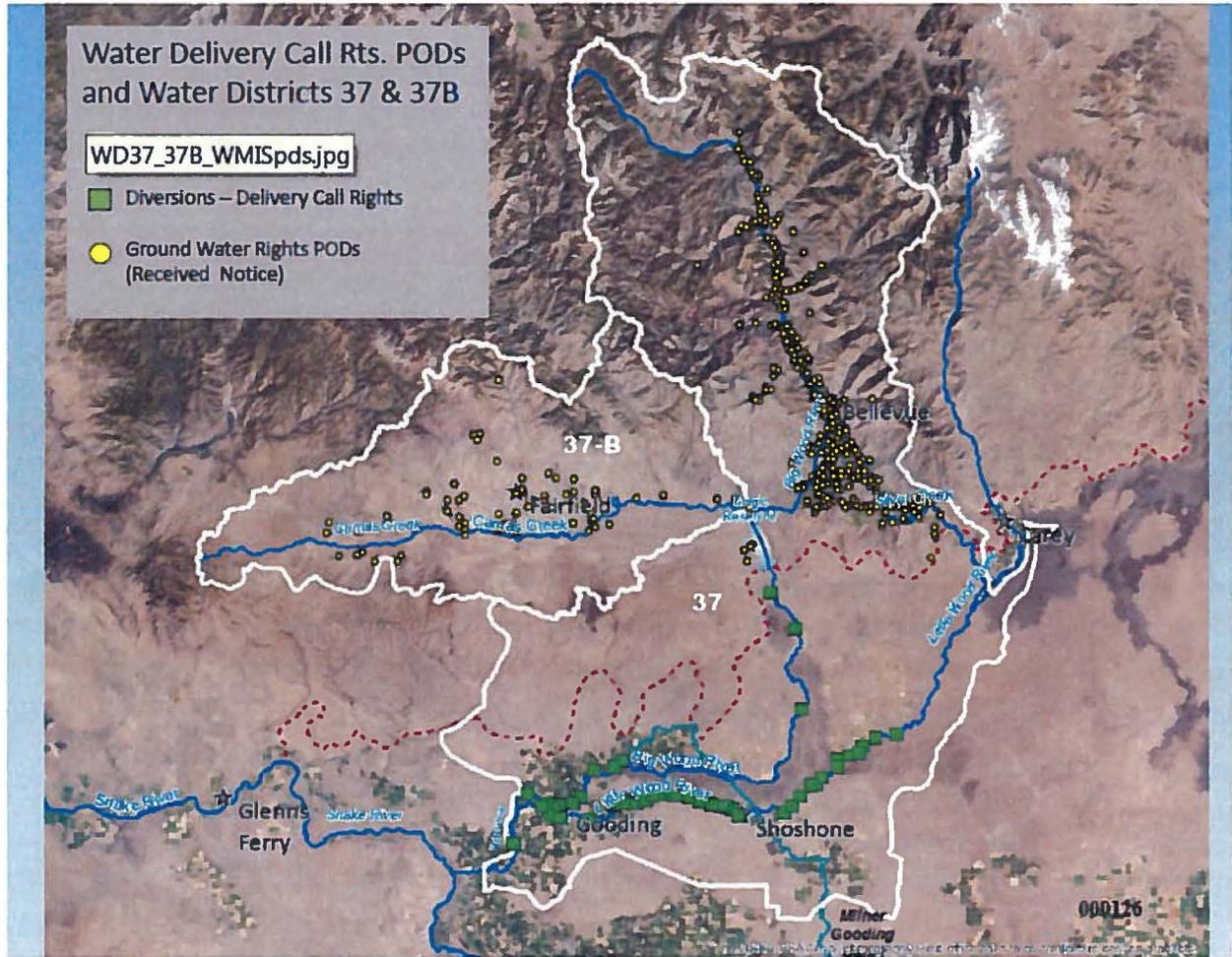
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**APPENDIX A
(OVERVIEW MAP)**



**ADDENDA
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ADDENDUM	DESCRIPTION
A	Second Amended Final Order Regarding Methodology for Determining Material Injury to Reasonable In-Season Demand and Reasonable Carryover, (IDWR June 23, 2010); this order was at issue before the Court in Case No. CV-2010-382 (Fifth Jud. Dist.).
B	Order Regarding April 2010 Forecast Supply (Methodology Steps 3 & 4) (IDWR Apr. 29, 2010); this order was at issue before the Court in Case No. CV-2010-382 (Fifth Jud. Dist.).
C	Amended Order (IDWR May 2, 2005); this order was at issue before the Court in Case No. CV-2008-551 (Fifth Jud. Dist.).
D	Memorandum Decision and Order on Petitions for Judicial Review, CV-2010-382, (Fifth Jud. Dist., Sept. 26, 2014).
E	Final Order Regarding Rangen, Inc.'s Petition for Delivery Call; Curtailing Ground Water Rights Junior to July 13, 1962, (IDWR Jan. 29, 2014); this order was at issue before the Court in Case No. CV-2014-1338 (Fifth Jud. Dist.).
F	Order, In the Matter of Distribution of Water to Water Rights Nos. 36-02356A, 36-07210, and 36-04727 (May 19, 2005) (Blue Lakes Trout Farm, Inc.) (Without Attachments)
G	Order, In the Matter of Distribution of Water to Water Rights Nos. 36-04013A, et al. (Jul. 8, 2005) (Clear Springs). This order was before the Court in Case No. CV-2008-444 (Fifth Jud. Dist.).

ADDENDUM A

Second Amended Final Order Regarding Methodology for Determining Material Injury to Reasonable In-Season Demand and Reasonable Carryover, (IDWR June 23, 2010); this order was at issue before the Court in Case No. CV-2010-382 (Fifth Jud. Dist.).

**BEFORE THE DEPARTMENT OF WATER RESOURCES
OF THE STATE OF IDAHO**

IN THE MATTER OF DISTRIBUTION OF WATER)	
TO VARIOUS WATER RIGHTS HELD BY OR FOR)	
THE BENEFIT OF A&B IRRIGATION DISTRICT,)	SECOND AMENDED FINAL
AMERICAN FALLS RESERVOIR DISTRICT #2,)	ORDER REGARDING
BURLEY IRRIGATION DISTRICT, MILNER)	METHODOLOGY FOR
IRRIGATION DISTRICT, MINIDOKA IRRIGATION)	DETERMINING MATERIAL
DISTRICT, NORTH SIDE CANAL COMPANY,)	INJURY TO REASONABLE
AND TWIN FALLS CANAL COMPANY)	IN-SEASON DEMAND AND
_____)	REASONABLE CARRYOVER

This *Second Amended Final Order Regarding Methodology for Determining Injury to Reasonable In-Season Demand and Reasonable Carryover* corrects an omission in the June 16, 2010 Amended Methodology Order that limits mitigation to storage water. This order recognizes that other activities by junior water right holders may also provide mitigation benefits to senior water right holders. This order supersedes the June 16, 2010 Amended Methodology Order.

FINDINGS OF FACT

I. Procedural Background

1. On September 5, 2008, the Director of the Idaho Department of Water Resources (“Director” or “Department”) issued a final order in this matter (“2008 Final Order”), in which he ruled on all issues raised at hearing, with the exception of stating his methodology for determining material injury to the Surface Water Coalition’s (“SWC”) reasonable in-season demand (“RISD”) and reasonable carryover. R. Vol. 37 at 7386.¹

¹ For purpose of convenience, all citations in this Final Order are to material that was admitted during the hearing and is part of the final agency record on appeal, which was lodged with the Fifth Judicial District Court on February 6, 2009.

2. On July 24, 2009, the Honorable John M. Melanson issued his *Order on Judicial Review*, which found that the Director's decision to bifurcate his orders was unlawful under the IDAPA. *Order on Judicial Review* at 32. The court remanded this issue "for further proceedings consistent with this decision." *Id.* at 33. Petitions for rehearing were filed by the City of Pocatello ("Pocatello") and the Idaho Ground Water Appropriators, Inc., North Snake Ground Water District, and Magic Valley Ground Water District (collectively referred to herein as the "IGWA"). At times, this order will refer to IGWA and Pocatello collectively as "ground water users" or "GWU."

3. On March 4, 2010, the court issued its *Order Staying Decision on Petition for Rehearing Pending Issuance of Revised Final Order*. The order was issued pursuant to Idaho Appellate Rule 13(b)(14) and tasked the Director to issue a final order determining material injury to RISD and reasonable carryover by March 31, 2010. On March 29, 2010, the court extended the deadline to April 7, 2010. *Order Granting Unopposed Motion for Extension of Time to File Order on Remand*.

4. On April 7, 2010, the Director issued his Final Order. Petitions for reconsideration were filed by the parties. Because the hearing record did not contain 2008 data, the Director set a hearing for the parties to contest and rebut the Director's use of 2008 data. Hearing occurred on May 24, 2010.

5. The purpose of this amended Final Order is to set forth the Director's methodology for determining material injury to RISD and reasonable carryover to members of the SWC. The amended Final Order is issued in response to the petitions for reconsideration and hearing on 2008 data. Issued contemporaneously with the Final Order is the Director's order on reconsideration. The purpose of issuing the amended Final Order is to provide the parties with a single, cohesive document by which the Director will quantify material injury in terms of reasonable in-season demand and reasonable carryover. The amended Final Order supersedes the Final Order issued April 7, 2010.

II. Methodology for Determining Material Injury to Reasonable In-Season Demand

A. Background to Reasonable In-Season Demand

6. The May 2, 2005 Amended Order ("May 2005 Order") and its progeny used the concept of a minimum full supply to quantify the amount of water members of the SWC needed during an irrigation season to ensure a reasonable supply. The minimum full supply was established by reviewing diversion records over a fifteen-year period (1990-2004), and selecting a single year with the smallest annual diversion amount that had full headgate deliveries absent the lease of any storage water. R. Vol. 37 at 7065. The year that best fit these criteria was 1995. *Id.* at 7066.

7. The May 2005 Order and its progeny were the subject of a fourteen-day hearing before hearing officer Gerald F. Schroeder ("Hearing Officer"). During the hearing, the Department presented its use of the minimum full supply analysis for determining material injury to in-season diversions. The parties presented competing proposals that were based on a water budget method. R. Vol. 37 at 7096.

8. In the Hearing Officer's April 29, 2008 *Opinion Constituting Findings of Fact, Conclusions of Law and Recommendation* ("Recommended Order"), he stated he could not reconcile the water budget methods advanced by the parties. R. Vol. 37 at 7096-97. The Hearing Officer stated that "the Department must modify the minimum full supply analysis as a method of establishing a baseline of predicted water need for projecting material injury." R. Vol. 37 at 7098. Reasons for modifying the Director's method were as follows:

Predictions of need should be based on an average year of need, subject to adjustment up or down depending upon the particular water conditions for the irrigation season. This is the initial concept behind the minimum full supply. The development of an acceptable baseline subject to adjustment for changing conditions retains the value of having senior rights while providing some level of protection against unnecessary curtailment. The concept is good, but the minimum full supply identified by the Director has no defenders from the parties. A brief summary of objections to the Director's minimum full supply can be stated:

- a. It is based on a wet year. To get to an average moisture year an adjustment would be necessary to determine how much greater the minimum full supply would be if the weather equated to an average year when an adequate amount of water was delivered.
- b. It is based on a decade old year that does not reflect current efficiencies such as the increased use of sprinkler irrigation and computer monitoring or changes in the amount of land irrigated.
- c. It has an emphasis on supply rather than need. That is the amount of water that provided full headgate deliveries. Those may or may not have been needed in that wet year.

R. Vol. 37 at 7096.

9. For purposes of future administration, the Hearing Officer provided the following guidance:

- a. To the extent 1995 is utilized it should be adjusted to determine how much the need for irrigation water was depressed by the well-above average**

precipitation and how much less loss from evaporation there would have been from depressed temperatures compared to a normal temperature year. This would result in an increase in the baseline utilized by the Director. The objection that arriving at a baseline by using the amount delivered in a specific year emphasized supply rather than need is worthy of consideration. However, the evidence does not establish waste in the use of water in 1995. Absent evidence of waste it is appropriate to assume that the water was applied to a beneficial use.

b. If there have been significant cropping changes resulting in either greater or less need for water, those should be factored. This is an area of caution. Cropping decisions are matters for the irrigators acting within their water rights. Those decisions should be driven by the market. The fact that a particular crop may take less water does not dictate that it be planted.

c. Changes in facilities, diversion, conveyance, and irrigation practices from earlier years should be considered, e.g. the extent to which conversions to sprinklers have affected water use over time. This again must be considered with caution to avoid rewriting a water right through the process of determining a baseline water need for predictions of material injury. There may be legitimate reasons to revert to gravity flow in the future or change other practices.

d. Analysis of soil conditions to determine how water is retained or lost is a factor. Soil may hold water to be used by crops in the future. The fact that water may be applied to the ground when there are no plants growing does not mean the water is wasted. That depends on the nature of the soil and the amount of soil. Some soil retains water well, other does not. This affects the timing and extent of water delivery.

e. Non-irrigated acres should not be considered in determining the irrigation supply necessary for SWC members. IGWA has established that at least 6,600 acres claimed by TFCC in its district are not irrigated. Similar information was submitted concerning the Minidoka Irrigation District, indicating that the claimed acreage of 75,152 includes 5,008 acres not irrigated and Burley Irrigation District has some 2,907 acres of the 47,622 acres claimed not irrigated. These amounts may, of course, change as acreage is removed from irrigation or possibly added back.

f. Calculation of a water budget should be based on acres, not shares. The allocation of water within a district is a matter of internal management, but the calculation of a water budget in determining if there will be curtailment should be based on acres not shares.

g. Full headgate delivery for Twin Falls Canal Company should be calculated at 5/8 inch instead of 3/4 inch. The former Director accepted Twin Falls Canal Company's response that 3/4 inch constituted full headgate delivery, and TFCC continued to assert that position at hearing. This is contradicted by the internal memoranda and information given to the shareholders in the irrigation district. It is contrary to a prior judicial determination. It is inconsistent with some of the structural facilities and exceeds similar SWC members with no defined reason. Any conclusions based on full headgate delivery should utilize 5/8 inch.²

R. Vol. 37 at 7099-7100 (emphasis in original).

10. According to the Hearing Officer, "it is time for the Department to move to further analysis to meet the goal of the minimum full supply but with the benefit of the extended information and analysis offered by the parties and available to its own staff." R. Vol. 37 at 7098. In the 2008 Final Order, the Director recognized the Hearing Officer's recommendations and stated the Director's intention of adjusting his future analysis for determining material injury to RISD and reasonable carryover. R. Vol. 39 at 7386.

11. The methodology for determining material injury to RISD and reasonable carryover should be based on updated data, the best available science, analytical methods, and the Director's professional judgment as manager of the state's water resources. In the future, climate may vary and conditions may change; therefore, the methodology may need to be adjusted to take into account a different baseline year or baseline years.

B. Brief Overview of the Methodology for Determining Material Injury to the SWC's Reasonable In-Season Demand and Reasonable Carryover

12. In-season demand shortfalls will be computed by taking the difference between the RISD and forecast supply ("FS"). Initially RISD will be equal to the historic demands associated with a baseline year or years ("BLY") as selected by the Director, but will be corrected during the season to account for variations in climate and water supply between the BLY and actual conditions. By selecting a BLY to establish RISD prior to the irrigation season, the Director declines to adopt the water balance method of estimating pre-irrigation season RISD

² This recommendation was accepted by former Director Tuthill in his Final Order. R. Vol. 39 at 7392. In his July 24, 2009 *Order on Judicial Review*, Judge Melanson found that the Director exceeded his authority in making this determination. *Order on Judicial Review* at 31. The court based its decision on the filing of the *Director's Report* in the Snake River Basin Adjudication, which "recommend[ed] ¾ of an inch per acre." *Id.* at 31. In its *Opening Brief on Rehearing*, IGWA asked the court to "clarify that the Director has the authority to determine that in times of shortage Twin Falls Canal Company may not be entitled to its full decree (or recommended amount)[.]" This issue has been stayed and held in abeyance until after the Director issues his final order regarding his methodology for determining material injury to RISD and reasonable carryover. *Order Staying Decision on Petition for Rehearing Pending Issuance of Revised Final Order* at 3.

proposed by the parties (based on historic crop water need adjusted for estimated project efficiencies and other facts). The reasoning for using a BLY instead of a water balance method is explained later in the findings of fact.

13. In-season demand shortfall is computed using the following equation:

- In-Season Demand Shortfall = RISD – FS

14. Reasonable carryover shortfall will be computed by taking the difference between reasonable carryover and actual carryover, where reasonable carryover is defined as the difference between a baseline year demand and projected typical dry year supply.

- Reasonable Carryover Shortfall = Actual Carryover – Reasonable Carryover

15. The concepts underlying the selection of the BLY, determination of in-season demand shortfall, and reasonable carryover shortfall will be discussed in detail below.

C. Reasonable In-Season Demand

i. Considerations for the Selection of a Baseline Year

16. A BLY is a year or average of years that represents demands and supplies that can be used as a benchmark to predict need in the current year of irrigation at the start of the irrigation season. The purpose in predicting need is to project an upper limit of material injury at the start of the season.

17. A BLY is selected by analyzing three factors: (1) climate; (2) available water supply; and (3) irrigation practices. R. Vol. 37 at 7098. To capture current irrigation practices, identification of a BLY is limited to years subsequent to 1999. *Id.* at 7096.

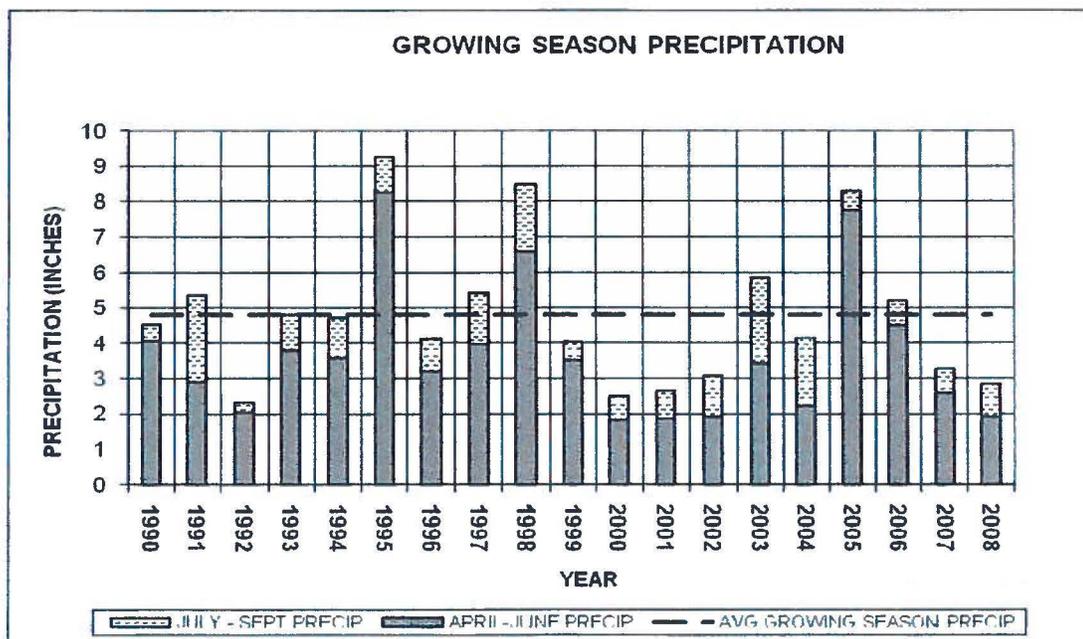
18. The historic diversion volumes from the BLY, along with the predicted supply forecast at the start of the irrigation season, are used to predict the initial in-season demand shortfall, where demand shortfall is the difference between the BLY demand (“BD”) and the FS. Demand shortfall increases in magnitude as the difference between BD and FS increases. Demand shortfall increases with increases in BD, decreases in FS, or both. Assuming constant irrigation practices, crop distributions, and total irrigated acres, demand for irrigation water typically increases in years of higher temperature, higher evapotranspiration (“ET”), and lower precipitation. If water demand data is averaged for several years and these averages are used to predict demand shortfall at the start of the season, in a high water demand year, these averages may often underpredict the demand shortfall. In a high water demand year, underprediction of demand shortfall might be acceptable if the junior priority ground water right holders and the senior priority surface water right holders shared equally in the risk of water shortages. Equality in sharing the risk will not adequately protect the senior priority surface water right holder from injury. The incurrence of actual demand shortfalls by a senior surface water right holder resulting from pre-irrigation season predictions based on average data unreasonably shifts the

risk of shortage to the senior surface water right holder. Therefore, a BLY should represent a year(s) of above average diversions, and should avoid years of below average diversions. An above average diversion year(s) selected as the BLY should also represent a year(s) of above average temperatures and ET, and below average precipitation to ensure that increased diversions were a function of crop water need and not other factors. In addition, actual supply (Heise natural flow and storage) should be analyzed to assure that the BLY is not a year of limited supply.

a. Climate

19. For the methods outlined herein, climate is represented by precipitation, ET, and growing degree days.

20. Precipitation. Water, in all phases, introduced to Idaho from the atmosphere is termed precipitation. During the growing season, precipitation has a substantial influence on crop water need both as a source of water to growing crops and as an influencing factor on ET. Ex. 3024 at 19. The figure below shows the precipitation recorded during the growing season at the National Weather Service’s Twin Falls weather station. *Id.* at 12.

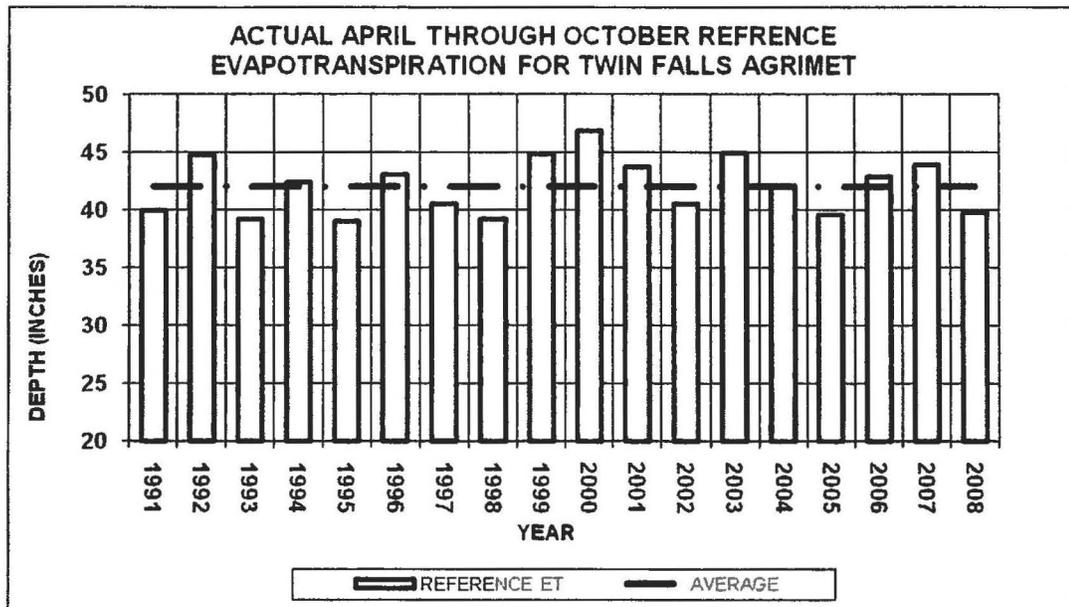


Growing Season Precipitation at National Weather Service’s Twin Falls Weather Station 1990–2008.³

³ Chart created from raw NOAA National Weather Service total precipitation data obtained from the NCDC’s Climatological Data Annual Summary Idaho report series for the Twin Falls 6 E weather station (formerly Twin Falls WBASO and Twin Falls WSO).

21. Evapotranspiration. ET is a combined variable that describes the amount of water that evaporates from the ground from irrigation and transpires from vegetation. ET is an important factor for properly estimating RISD. In its water budget calculations, the SWC proposed the use of ET values from the USBR as part of their Pacific Northwest Cooperative Agricultural Network, i.e. AgriMet. Ex. 8000, Vol. II, Chap. 9; Ex. 8000, Vol. IV, Appdx. AU. The GWU proposed the use of ET values from Richard G. Allen and Clarence W. Robison 2007, *Evapotranspiration and Consumptive Irrigation Water Requirements for Idaho*, i.e. ETIdaho. Ex. 3007A at 21; Ex. 3024 at 1-58.

22. The use of reference ET calculated using ETIdaho for the Twin Falls (Kimberly) AgriMet site as an indicator of overall crop water need for a season is appropriate for purposes of comparison of historical average water need between seasons. Similar use of ETIdaho crop irrigation requirement data for AgriMet stations were employed in some of the expert reports submitted during hearing. See Ex. 3007 at 21. The ETIdaho method includes the contribution of effective precipitation in the reference ET calculation, and is a strong measure of the actual reference ET as opposed to the traditional potential ET, or the amount of ET the reference crop would use if water were not a limiting factor. ETIdaho is used here for the specific task of selecting appropriate BLY candidates. Total April through October reference ET for the period of record from the Twin Falls (Kimberly) AgriMet site is shown below. Since 2000, the years of 2000, 2001, 2003, 2006 and 2007 were years of above average ET.



Actual Reference ET for Twin Falls (Kimberly) AgriMet using ETIdaho Methodology 1991-2008.

23. Growing Degree Days. Growing degree days define the length and type of growing season. Growing degree days are an arithmetic accumulation of daily mean temperature above a certain base temperature. Ex. 3024 at 10; 117-21. These growth units are a simple method of relating plant growth and development to air temperatures. Different plant species have different base temperatures below which they do not grow. At temperatures above this base, the amount of plant growth is approximately proportional to the amount of heat or temperature accumulated. A higher annual growing degree day value correlates to a higher potential rate of plant growth. The table below shows growing degree days accumulated for April through September for the Twin Falls (Kimberly) AgriMet site. Above average years since 2000 include: 2000, 2001, 2002, 2003, 2006, and 2007.

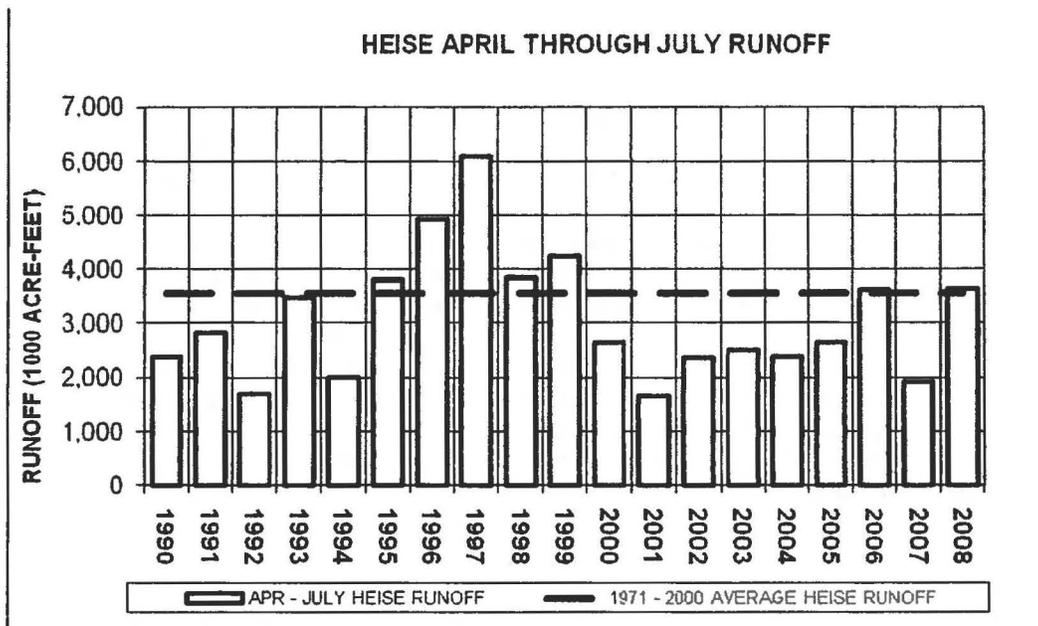
Year	GDD: April-Sept	% of Average	Year	GDD: April-Sept	% of Average
1991	2,095.4	86%	2000	2,591.3	107%
1992	2,610.7	107%	2001	2,600.8	107%
1993	2,004.7	83%	2002	2,465.6	101%
1994	2,516.8	104%	2003	2,585.4	106%
1995	2,257.8	93%	2004	2,428.9	100%
1996	2,418.6	100%	2005	2,320.1	95%
1997	2,478.4	102%	2006	2,601.9	107%
1998	2,422.2	100%	2007	2,657.7	109%
1999	2,294.9	94%	2008	2,382.9	98%
Average GDD:				2,429.7	

Growing Degree Days (“GDD”) for Twin Falls (Kimberly) AgriMet Site 1991-2008, Ex. 3024 at 10.

b. Available Water Supply

24. The joint forecast (“Joint Forecast”) issued by the United States Bureau of Reclamation (“USBR”) and the United States Army Corp of Engineers (“USACE”) for the period April 1 through July 31 “is generally as accurate a forecast as is possible using current data gathering and forecasting techniques.” R. Vol. 8 at 1379, ¶ 98. The predictions made in this forecast are a good indicator of the total available irrigation water supply for a season. R. Vol. 37 at 7071. The April through July Joint Forecast volume represents the volume of water available for diversion into storage reservoirs and also serves as an indicator of natural flow supplies. *Id.* at 7066. The graph below shows actual unregulated flow volumes at Heise for 1990 through 2008. Recognizing that diversions for each individual member of the SWC are

different, since the 2000 irrigation season, 2006 and 2008 are the only years in which water supply was not severely limited.⁴ The current thirty-year average (3,563,000 acre-feet) is indicated by the dashed line.



April through July Unregulated Flow Volume at Heise, 1990-2008. Ex. 8000, Vol. II at 6-37:6-38; R. Vol. 37 at 7018-28 (includes 2008 Joint Forecast projection for Heise).

c. Irrigation Practices

25. A BLY must be recent enough to represent current irrigation practices. R. Vol. 37 at 7099-7100. Conditions that should be consistent are the net area of the irrigated crops, farm application methods (flood/furrow or sprinkler irrigation), and the conveyance system from the river to the farm. The type of sprinkler systems should be similar between the BLY and the current year, whether side roll systems, hand lines, or center pivot.

26. Sprinkler systems are currently the predominant application system. *Id.* at 7101-02. In order to ensure that current irrigation practices are captured, selection of a BLY for the SWC should be limited to years subsequent to 1999. *Id.* at 7096; 7099-7100.

⁴ Former Director Dreher found in the May 2005 Order that “since the year 2000 the Upper Snake River Basin has experienced the worst consecutive period of drought years on record.” R. Vol. 8 at 1375, ¶ 78. The drought during this time period was determined by former Director Dreher to have a “probability of recurrence of something in excess of 500 years” Tr. p. 327, Ins. 20-21.

27. Estimates of irrigated acres from the hearing show a trend of decreasing irrigated acreage. R. Vol. 28, 5205-15; R. Vol. 37 at 7100. According to the Hearing Officer, beneficial use cannot occur on acres that have been hardened or are otherwise not irrigated. R. Vol. 37 at 7100.

ii. Selection of the Initial Baseline Year

28. If BLY selection is limited to a single year, 2006 is the best fit in the recent past. However, from the standpoint of annual diversion for individual entities, 2006 was a year of below average diversions for Milner, Minidoka Irrigation District (“MID”), and TFCC, at 82%, 98%, and 96%, respectively (*see* Finding of Fact 30). The selection of a single BLY for all entities is challenging, with all years representing average or near average diversions for some entities, but not others. By selecting a BLY that is comprised of the average of multiple years, a BLY can be selected that better represents the required conditions for each and all entities.

29. The Director finds that using the values of 2006 and 2008 (06/08) to arrive at an average BLY fits the selection criteria for all members of the SWC.⁵ The 06/08 average has below average precipitation, near average ET, above average growing degree days, and represents years in which diversions were not limited by availability of water supply. When compared to the average of the annual diversions from 1990-2008, the 06/08 diversions were above average. When compared to the average of the annual diversions from 2000-2008, the 06/09 diversion were average.

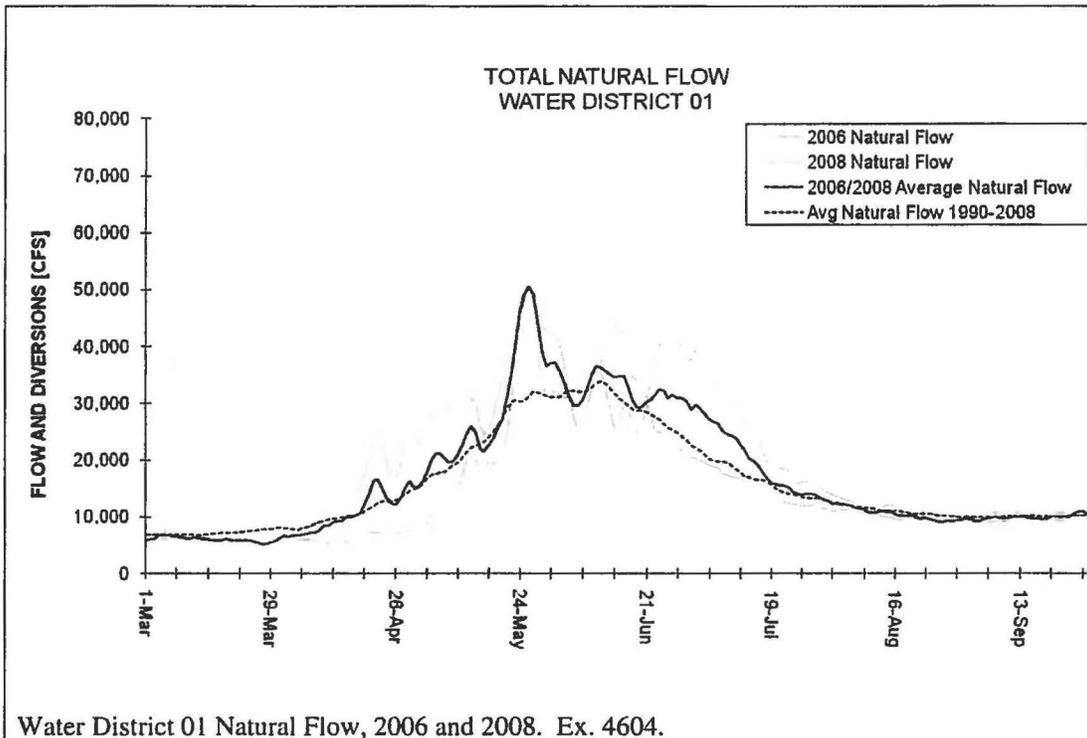
30. When compared to the average season long diversion volume from 2000-2008, the 06/08 average season long diversion volumes are greater for each entity, with the exception of Milner, keeping in mind that the 2000-2008 averages include consecutive drought years from 2000-2005.

	2000-2008 Avg. Diversions	'06/'08 Avg. Total Diversions	'06/'08 % of Avg.
A&B	57,615	58,492	102%
AFRD2	409,865	415,730	101%
BID	245,295	250,977	102%
Milner	50,786	46,332	91%
Minidoka	358,018	362,884	101%
NSCC	955,439	965,536	101%
TFCC	1,031,987	1,045,382	101%
			100%

SWC Diversions for 2006/2008; and 2000 through 2008 Average. Ex. 8000, Vol. IV, Appdx. AS-1-8.

⁵ In 2006, TFCC delivered $\frac{3}{4}$ of a miner's inch. Tr. p. 1601, lns. 1-15.

31. Daily natural flow supply for Water District 01 in 2006 and 2008 are depicted below. When averaged together, the 2006 and 2008 natural flow is near the long term average (1990-2008). The long term average is shown as the blue dashed line.



Water District 01 Natural Flow, 2006 and 2008. Ex. 4604.

D. Calculation of Reasonable In-Season Demand

32. RISD is the projected annual diversion volume for each SWC entity during the year of evaluation that is attributable to the beneficial use of growing crops within the service area of the entity. Given that climate and system operations for the year being evaluated will likely be different from the BLY, the BLY must be adjusted for those differences. As stated by the Hearing Officer, “The concept of a baseline is that it is adjustable as weather conditions or practices change, and that those adjustments will occur in an orderly, understood protocol.” R. Vol. 37 at 7098.

i. Assessment of Water Balance Studies Presented at Hearing

33. The parties proposed a method of computing water need based on ET, referred to as a water balance method, to determine the quantity of water needed by members of the SWC. The parties computed a diversion requirement for crops grown within each SWC entity with the following equation:

$$(1) \quad Q = \left[\left(\frac{ET_c \times F_c}{E_a} \right) - W_e \right] \times A_{ID} + S_{loss}$$

Where:

- Q = irrigation entity diversion requirement,
- ET_c = consumptive use of each crop,
- F_c = fraction of area of each crop in irrigation entity,
- E_a = field application efficiency,
- W_e = estimated effective rainfall during growing season,
- A_{ID} = irrigated area in irrigation entity, and
- S_{loss} = seepage loss from canals.

34. The variables described above were common to both the SWC and GWU water balance analyses, with the following exceptions. The GWU did not account for effective precipitation (W_e). Ex. 3007 at 17-19. Analysis by the GWU included a reduction in the diversion requirement for supplemental ground water used within SWC service areas. *Id.* at 17. Both of these exceptions will be considered for purposes of determining RISD shortfalls.⁶

35. Another component not shown or considered by the parties is the operation loss, or project return flows. SWC experts recognized the lack of data necessary to estimate this factor: "Operational losses and returns within the delivery system were not included in the irrigation diversion estimate since no consistent measured operational waste records are available." Ex. 8000, Vol. II at 9-7.

36. The areal extent of the SWC is large. Obtaining field measurements of canal seepage losses on the vast network of canals and laterals is not presently feasible given the time and resources necessary to complete such a task. The same would be true for determining the true value of farm or field application efficiency. Measuring farm runoff and deep percolation losses out of the crop root zone at a field level scale is also not practical given the time and resources necessary to complete such a task. Lacking measured data for canal seepage losses, farm runoff, and deep percolation, these parameters must be estimated using a water balance method.

37. An example of the range of possible values for seepage loss is shown by comparison of the SWC and GWU expert reports. In the SWC's Exhibit 8201, Pocatello's

⁶ As stated by former Director Dreher, "In making a determination of how much water is needed, I thought it was important to look at all three of those sources [surface water, storage water, and supplemental ground water]." Tr. p. 25, ln. 25; p. 26, lns. 1-2. All acres identified as receiving supplemental ground water within the boundaries of a single SWC entity will initially be evaluated by assigning an entity wide split of the ground water fraction to the surface water fraction as utilized in the development of the ESPA Model. See Ex. 8000, Vol. II, Bibliography at II, referencing *Final ESPA Model, IWRRI Technical Report 06-002 & Design Document DDW-017*. For each entity the ground water fraction to the surface water fraction is as follows: A&B 95:5; AFRD2 30:70; BID 30:70; Milner 50:50; Minidoka 30:70; NSCC 30:70; & TFCC 30:70. If these ratios change with a subsequent version of the ESPA Model, the Department will use the values assigned by the current version of the ESPA Model.

expert analysis of average annual canal seepage loss is presented as 338,984 acre-feet for NSCC. In the same exhibit, the SWC's expert analysis of average annual seepage loss for NSCC is reported as 586,136 acre-feet.

38. In a 1979 study published by the Idaho Water Resource Research Institute, R.G. Allen and C.E. Brockway determined that conveyance losses for the 1977 diversion volume of 794,930 acre-feet for NSCC was 286,012 acre-feet for 755 miles of canals. Ex. 3060 at 193. Brockway and B.A. Claiborne estimated conveyance losses to be 326,418 acre-feet for the same NSCC system, based on the 1974 diversion volume of 1,117,240 acre-feet. Ex. 3059 at 26.

39. The above seepage loss estimates were all calculated using the Worstell procedure, Ex. 3037 at 38, but range in magnitude by a factor of 1.8 for the two estimates with the highest, but similar, average diversion volumes. Clearly, the magnitudes of the conveyance losses are very sensitive to input parameters selected for use in that procedure.

40. The Director must exercise his best professional judgment in quantifying inputs to the water balance study. Differences in judgment affect the numerical results. As stated by the Hearing Officer:

The irony in this case is that surface water and ground water expert testimony used much of the same information and in some respects the same approaches and came up with a difference of 869,000 acre-feet for an average diversion budget analysis of SWC districts for the period from 1990 through 2006. Sullivan Rebuttal Report, November 7, 2007, page 17. The total under the SWC analysis is 3,274,948 acre-feet as compared to the Pocatello analysis of . . . 2,405,861 [acre-feet]. The Director's minimum full supply amount of 3,105,000 falls between the two, though much closer to the SWC analysis.

R. Vol. 37 at 7096.

41. The Hearing Officer also found that the average annual surface irrigation requirements based on 1990 through 2006 for the North Side Canal Company ("NSCC") as calculated by experts for the SWC and GWU differed by 473,217 acre-feet. R. Vol. 37 at 7097. Annual average requirements based on the 1990 through 2006 period for TFCC vary by 310,000 acre-feet. *Id.* These discrepancies do not reflect errors in formulations or calculations, but do demonstrate the range of values in the total irrigation demand that are possible if contributing components to that total demand are calculated using different methods, or with different estimates of unknown parameters.

42. Because of the above reasons, the Director declines to adopt the water balance method of determining the quantity of water needed by SWC members. Instead, the Director selects the BLY method of establishing an adequate supply to compare to the predicted water supply to determine any demand shortfall.

ii. Project Efficiency

43. Given that the water balance method for estimating annual diversion requirements is subject to varying results based on the range of parameters used as input, an alternate approach is to assume that unknown parameters are practically constant from year-to-year across the entire project. Project efficiency (“E_p”) is a term used to describe the ratio of total volumetric crop water need within a project’s boundary and the total volume of water diverted by that project to meet crop needs. It is the same concept as system efficiency, which was presented at hearing. Ex. 3007 at 28-29. Implicit in this relationship are the components of seepage loss (conveyance loss), on-farm application losses (deep percolation, field runoff), and system operational losses (return flows). By utilizing project efficiency and its input parameters of crop water need and total diversions, the influence of the unknown components can be captured and described without quantifying each of the components.

44. Project efficiency is calculated as set forth in Equation 2, below:

$$(2) \quad E_p = \frac{CWN}{Q_D}$$

Where:

E_p = project efficiency,

CWN = crop water need, and

Q_D = irrigation entity diversion of water specifically put to beneficial use for the growing of crops within the irrigation entity.

45. Monthly irrigation entity diversions (“Q_D”) will be obtained from Water District 01’s diversion records. Ex. 8000, Vol. II, at 8-4, 8-5. Raw monthly diversion values will then be adjusted to remove any water diversions that can be identified to not directly support the beneficial use of crop development within the irrigation entity. Examples of adjustments include the removal of diversions associated with in-season recharge and diversion of irrigation water on the behalf of another irrigation entity. Adjustments, as they become known to the Department, will be applied during the mid-season updates and in the reasonable carryover shortfall calculation. Examples of adjustments that can only be accounted for later in the season include SWC deliveries for flow augmentation, SWC water placed in the rental pool, and SWC private leases. Adjustments are unique to each irrigation season and will be evaluated each year. Any natural flow or storage water deliveries to entities other than the SWC for purposes unrelated to the original right will be adjusted so that the water is not included as a part of the SWC water supply or carryover volume. Water that is purchased or leased by a SWC member may become part of IGWA’s shortfall obligation; to the extent that member has been found to have been materially injured. *See e.g.* R. Vol. 38 at 7201, fn. 11 (Eighth Supplemental Order). Conversely, adjustments will be made to assure that water supplied to private leases or to the rental pool will not increase the shortfall obligation.

46. Monthly project efficiencies will be computed for the entire irrigation season. Project efficiency varies from month-to-month during the season, and will typically be lower during the beginning and ending of the season. Monthly project efficiencies will be divided into actual monthly crop water need (“CWN”) values to determine RISD during the year of evaluation. The tables below present average project efficiencies for each SWC member (2001-2008), with project efficiencies during that time span greater or less than two standard deviations excluded from the calculation. By including only those values within two standard deviations, extreme values from the data set are removed.

Month	A&B	AFRD2	BID	Milner	Minidoka	NSCC	TFCC	Monthly Avg.
4	1.08	0.24	0.27	1.36	0.17	0.13	0.22	0.50
5	0.42	0.28	0.31	0.59	0.27	0.28	0.32	0.35
6	0.64	0.40	0.48	0.62	0.50	0.44	0.51	0.51
7	0.79	0.44	0.56	0.66	0.64	0.48	0.55	0.59
8	0.68	0.38	0.42	0.56	0.48	0.39	0.41	0.47
9	0.51	0.26	0.32	0.49	0.35	0.29	0.24	0.35
10	0.16	0.41	0.11	0.34	0.11	0.22	0.11	0.21
Season Avg.	0.61	0.34	0.35	0.66	0.36	0.32	0.34	0.43

SWC Member Average Monthly Project Efficiencies from 2001-2008.

iii. Crop Water Need

47. CWN is the project wide volume of irrigation water required for crop growth, such that crop development is not limited by water availability, for all crops supplied with surface water by the surface water provider. Crop water need is the difference between the fully realizable consumptive use associated with crop development, or ET, and effective precipitation (W_e) and is synonymous with the terms irrigation water requirement and precipitation deficit. Ex. 3024. For the purposes of the methodology, CWN is calculated as set forth in Equation 3, below:

$$(3) \quad CWN = \sum_{i=1}^n (ET_i - W_e) A_i$$

Where,

CWN = crop water need

ET_i = consumptive use of specific crop type,

W_e = estimated effective rainfall,

A_i = total irrigated area of specific crop type,

i = index variable representing the different specific crop types grown within the irrigation entity, and

n = upper bound of summation equal to the total number of different specific crop types grown within the irrigation entity.

iv. Evapotranspiration

48. Evapotranspiration ("ET") has been estimated by experts for the parties using theoretically based equations that calculate ET for an individual crop, thus necessitating crop distribution maps for each year. Ex. 3007A at 21, Figure 3, Tables 6-12; Ex. 3024 at 1-58; Ex. 8000, Vol. II at Chapter 9; Ex. 8000, Vol. IV, Appdx. AU.

49. At hearing, values of ET were estimated by the SWC from AgriMet, Ex. 8000, Vol. IV, Appdx. AU-1, and by the GWU from ETIdaho, Ex. 3007A at 21; Ex. 3024 at 1-58. At this time, the Director finds that the use of AgriMet is more appropriate for determining ET than ETIdaho. At this time, AgriMet, is available to all parties in real-time without the need for advanced programming. Accordingly, the methodology will rely on AgriMet derived ET values in the calculations of project efficiency, crop water need, and RISD. In the future, with the development of additional enhancements, ETIdaho may become a more appropriate analytical tool for determining ET.

50. The utilization of AgriMet derived crop specific ET values necessitates crop distribution profiles similar to those described and presented at hearing. R. Vol. 2 at 420-26; Ex. 3007 at 21 & Table 4; and Ex. 3026. The methodology will utilize crop distributions based on distributions from the United States Department of Agriculture's National Agricultural Statistics Service ("NASS"). Ex. 1005 at 1.⁷ NASS reports annual acres of planted and harvested crops by county. NASS also categorizes harvested crops by irrigation practice, i.e. irrigated, non irrigated, non irrigated following summer fallow, etc. Crop distribution acreage will be obtained from NASS by averaging the "harvested" area for "irrigated" crops from 1990-2008. Years in which harvested values were not reported will not be included in the average. In the future, the NASS data may not be the most accurate source of data. The Department prefers to rely on data from the current season if and when it becomes usable.

51. AgriMet crop water use (i.e. ET) and weather data are available from the Rupert and Twin Falls (Kimberly) stations for use with the closest SWC entity. Using AgriMet data from Rupert for A&B, Burley Irrigation District ("BID"), and MID provides a reasonable representation of the climate conditions for those entities and are consistent with common standards of practice. Using AgriMet data from Twin Falls (Kimberly) for American Falls Reservoir District No. 2 ("AFRD2"), Milner, NSCC, and TFCC provides a reasonable representation of the climate conditions for those entities and is consistent with common standards of practice. Ex. 8000, Vol. IV at AU-2, AU-8.

⁷ The ESPA Modeling Committee uses NASS data in the ESPA Model to distribute crop types within the model. See Ex. 8000, Vol. 2, Bibliography at II, referencing *Final ESPA Model, IWRRRI Technical Report 06-002*.

v. Effective Precipitation

52. Effective precipitation (“ W_e ”) is the amount of total precipitation held in the soil horizon available for crop root uptake. Effective precipitation will be estimated from total precipitation (W) utilizing the methodology presented in the USDA Technical Bulletin 1275. Ex. 8000, Vol. IV, Appdx. AU3, AU8. Total precipitation (W) is provided by the USBR as part of its Pacific Northwest Cooperative Agricultural Network, i.e. AgriMet. Ex. 8000, Vol. IV, Appdx. AU3. W_e values derived from AgriMet based precipitation values are independent of crop type.

53. AgriMet precipitation (W) values are easy to understand and regularly used by the farming, water supply, and water management communities. Accordingly, the methodology will rely on AgriMet derived W values in the calculations of crop water need and RISD.

54. As with ET data, AgriMet precipitation data are available from the Rupert and Twin Falls (Kimberly) stations for use with the closest SWC entity. Using AgriMet data from Rupert for A&B, BID, and MID provides a reasonable representation of the climate conditions for those entities and are consistent with common standards of practice. Using AgriMet data from Twin Falls (Kimberly) for AFRD2, Milner, NSCC, and TFCC provides a reasonable representation of the climate conditions for those entities and is consistent with common standards of practice. Ex. 8000, Vol. IV at AU-2, AU-8.

vi. Summary of Reasonable In-Season Demand Calculation

55. At the start of the irrigation season, RISD is equal to the baseline demand, or total season adjusted diversions for the baseline year(s). When calculated in-season, RISD is calculated by Equation 4, below.

$$(4) \quad RISD_{\text{milestone}_x} = \sum_{j=1}^m \left(\frac{CWN_j}{E_{p,j}} \right) + \sum_{j=m+1}^7 BD_j$$

Where:

$RISD_{\text{milestone}_x}$ = reasonable in season demand at specified evaluation milestones during the irrigation season,

CWN = crop water need for month j ,

E_p = baseline project efficiency for month j ,

BD = baseline demand for month j ,

j = index variable, and

m = upper bound of summation, equal to the month calculation occurs, where April = 1, May =2, ... October = 7.

56. Water is sometimes diverted into canals and onto crops fields in support of crop development for reasons other than strictly meeting the consumptive requirement of the crop; such as canal wetting, salt leaching, soil wetting, and soil temperature control. April and October represent months during the irrigation season when the method of calculating RISD

strictly as a function of CWN and E_p is less reliable, because CWN is often not the driving factor in diversions during these bookend months. To account for uncertainty of RISD calculations during those time periods, April and October RISD adjustments have been developed.

57. **April RISD Adjustment:** In April, calculated RISD, as a function of CWN and E_p , can grossly under estimate actual diversion needs. Therefore, for each individual surface water provider, if the calculation of CWN/E_p for the month of April is less than the April average diversion volume over a record of representative years in the recent past, then RISD will be equal to the April average diversion volume. If the calculation of CWN/E_p is greater than the April average, then RISD will equal the calculated CWN/E_p volume.

58. **October RISD Adjustment:** In October, calculated RISD, as a function of CWN and E_p , can either grossly under or over estimate actual diversion needs. For each individual surface water provider, if the calculation of CWN/E_p for the month of October is greater than the October maximum diversion volume, or less than the October minimum diversion volume,⁸ over a record of representative years in the recent past, then RISD will be equal to the October average diversion volume, over the same period of representative years. If the calculation of CWN/E_p is less than the October maximum diversion volume, or greater than the October minimum diversion volume, then RISD will equal the calculated CWN/E_p volume.

E. Adjustment of Forecast Supply

59. As stated by the Hearing Officer, "There must be adjustments as conditions develop if any baseline supply concept is to be used." R. Vol. 37 at 7093.

i. April 1

60. Typically within the first week of April, the USBR and the USACE issue their Joint Forecast that predicts an unregulated inflow volume at the Heise Gage from April 1 to July 31 for the forthcoming year. Given current forecasting techniques, the earliest the Director can predict material injury to RISD "with reasonable certainty" is soon after the Joint Forecast is issued. R. Vol. 2 at 226. With data from 1990 through the water year previous to the current year, a regression equation will be developed for each SWC member by comparing the actual Heise natural flow to the natural flow diverted. *See e.g.* R. Vol. 8 at 1416-22. The regression equation will be used to predict the natural flow diverted for the upcoming irrigation season. *Id.* at 1380. The actual natural flow volume that will be used in the Director's Forecast Supply will be one standard error below the regression line, which underestimates the available supply. *Id.*; Tr. p. 65, Ins. 6-25; p. 66, Ins. 1-2.

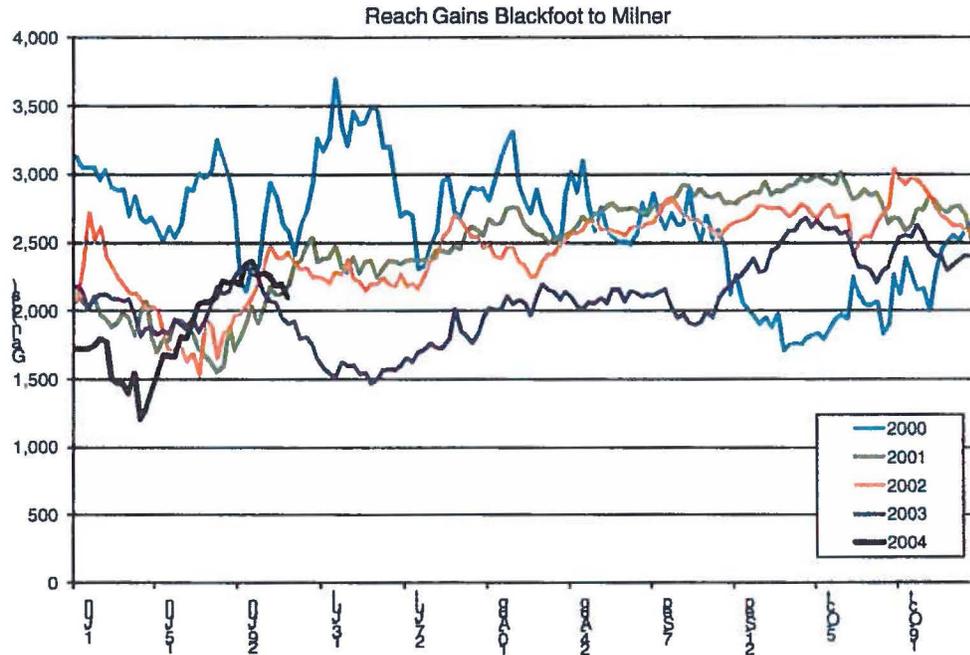
⁸ Minimum October diversion values will not be considered for years in which a SWC entity had zero carryover storage, as the Department will consider this an indication that October diversions were potentially limited by available water supply.

61. The storage allocation for each member of the SWC will be estimated by the Department following the Joint Forecast. The Department will forecast reservoir fill and storage allocation consistent with the methods established in the *Fifth Supplemental Order Amending Replacement Water Requirements Final 2006 & Estimated 2007*. R. Vol. 23 at 4294-97 as explained below. The Department will evaluate the current reservoir conditions and the current water supply outlook to determine historical analogous year or years to predict reservoir fill. The Department may identify and use a combination of different analogous years to simulate for individual reservoir fill. The analogous year's or years' reservoir fill volume, an estimated evaporation volume, and the previous year's carryover volume will be input into the Department's accounting program as storage. The accounting program will be used to determine the individual storage water allocation for each SWC member. The Forecast Supply (the combination of the forecast of natural flow supply and the storage allocation) for each of SWC member will be determined by the Director shortly after the date of the Joint Forecast.

62. If, at any time prior to the Director's final determination of the April Forecast Supply, the Director can determine with certainty that any member of the SWC has diverted more natural flow than predicted, or has accrued more storage than predicted, the Director will revise his initial, projected shortfall determination.

ii. Early to Mid-July

63. If necessary, in early to mid-July, the Forecast Supply will be adjusted. The reservoirs will typically have filled to their peak capacity for the season and the storage water will have been allocated. The Department's water rights accounting model will be used to compute the natural flow diverted by each member of the SWC as of the new forecast date. The natural flow diversion for the remainder of the irrigation season will be estimated based on a historical year with similar gains in the Blackfoot to Milner reach. Reach gains for the years 2000 – 2003 and a portion of year 2004 are graphed below. Using 2004 as an example of a current year, and comparing 2004 to the hydrographs for 2000 – 2003, year 2003 has similar reach gains and is appropriately conservative. Therefore, the natural flow diverted in 2003 would be used to predict the natural flow diversions for the remainder of the 2004 season. The adjusted Forecast Supply is the sum of the actual natural flow diversions, the predicted natural flow diversions, and the storage allocation.



Example Reach Gain Analysis for 2004.

iii. Time of Need

64. The July procedure will be repeated shortly before the Time of Need⁹ with the updated water rights accounting data.

F. Calculation of Demand Shortfall

65. Equation 5, below, is used to determine the amount of predicted demand shortfall during the irrigation season.

$$(5) \quad DS = RISD - FS$$

Where:

- DS = demand shortfall for specified evaluation points throughout the season,
- RISD = Reasonable in-season demand from Equation 4, and
- FS = forecasted supply for remainder of season after specified evaluation point during the season.

⁹ The calendar day determined to be the Time of Need is established by predicting the day in which the remaining storage allocation will be equal to reasonable carryover, or the difference between the 06/08 average demand and the 02/04 supply. The Time of Need will not be earlier than the Day of Allocation.

66. The amount calculated represents the volume that junior ground water users will be required to have available for delivery to members of the SWC found to be materially injured by the Director. The amounts will be calculated in April, and, if necessary, at the middle of the season and at the time of need.

III. Methodology for Determining Material Injury To Reasonable Carryover

67. CM Rule 42.01.g provides the following guidance for determining reasonable carryover: "In determining a reasonable amount of carry-over storage water, the Director shall consider average annual rate of fill of storage reservoirs and the average annual carry-over for prior comparable water conditions and the projected water supply for the system."

A. Projected Water Supply

68. CM Rule 42.01.g provides that the Director "shall consider . . . the projected water supply for the system." Carryover shortfall will be determined following the completion of the irrigation season. Because it is not possible to adequately forecast the irrigation demand for the following irrigation season at the end of the current irrigation season, the Director must make a projection of need. R. Vol. 37 at 7109 ("Anticipating the next season of need is closer to faith than science."). The average of 2006/2008 BLY will be the projected demand.

69. Similar to projecting demand, the Director must also project supply. The Heise natural flow, for the years 2002 and 2004, were well below the long term average (1971-2000) but were not the lowest years on record. Ex 8000, Vol. II at 6-37:6-28; R. Vol. 8 at 1379-80. The average of the 2002 and 2004 supply will be the projected supply, representing a typical dry year. The 2002 and 2004 supply is computed as follows:

- 2002 supply = natural flow diverted + new fill
- 2004 supply = natural flow diverted + new fill
- Projected supply = average of 2002 supply and 2004 supply

Carryover from the previous years is not included in the 2002 and 2004 supply calculation because it was not new water supplied during the 2002 or 2004 irrigation year.

70. Reasonable carryover is defined as the difference between a baseline year demand and projected typical dry year supply. Reasonable carryover is computed using the following equation:

$$\text{Reasonable carryover} = 2006/2008 \text{ average} - 2002/2004 \text{ average}$$

Reasonable carryover values for the SWC members are as follows:

	Reasonable Carryover 2006/2008 BLY (Acre-Feet)
A&B	17,000
AFRD2	56,000
BID	0
Milner	4,800
Minidoka	0
NSCC	57,200
TFCC	29,700

Reasonable Carryover by Entity (2002/2004 Supply; 2006/2008 BLY).

B. Average Annual Rate of Fill

71. CM Rule 42.01.g states that the Director “shall consider the average annual rate of fill of storage reservoirs” The average annual reservoir fill serves as a means to evaluate reasonable carryover, calculated as the difference between the projected demand and the projected supply. For purposes of the table below, any water contributed to the rental pool from the previous year was added to the next year’s fill volume so that it does not artificially lower the percent fill. R. Vol. 37 at 7108. Water that is supplied to the rental pool lowers carryover and

could impact the following year's fill. The percent fill does not include water deducted for reservoir evaporation. The annual percent fill of storage volume by SWC entity is shown below:

	A&B	AFRD2	BID	Milner	Minidoka	NSCC	TFCC
1995	100%	100%	100%	100%	100%	100%	100%
1996	100%	100%	100%	100%	100%	100%	100%
1997	100%	100%	100%	100%	100%	100%	100%
1998	100%	100%	100%	100%	100%	100%	100%
1999	100%	100%	100%	96%	100%	98%	99%
2000	100%	99%	99%	98%	100%	97%	97%
2001	100%	100%	100%	100%	100%	91%	87%
2002	41%	100%	100%	90%	92%	84%	88%
2003	43%	100%	99%	66%	92%	94%	99%
2004	34%	82%	98%	48%	95%	82%	63%
2005	58%	100%	100%	77%	98%	100%	100%
2006	98%	100%	99%	98%	100%	99%	99%
2007	89%	100%	83%	92%	77%	95%	97%
2008	100%	100%	85%	100%	80%	99%	100%
Average	83%	99%	97%	90%	95%	96%	95%
Std Dev	26%	5%	6%	16%	8%	6%	10%

Annual Percent Fill of Storage Volume by Entity (1995-2008).¹⁰

C. Average Annual Carryover

72. CM Rule 42.01.g states that the Director "shall consider the . . . average annual carry-over for prior comparable water conditions . . ." This factor will be taken into consideration when determining reasonable carryover. Actual carryover volumes were adjusted from values reported in the storage reports so that they did not include water received for mitigation purposes or water rental by the canal company for use within the irrigation district.

¹⁰ See e.g. Ex. 4125. Exhibit 4125 accounts for water deducted for evaporation, but does not take into account water supplied to the rental pool.

R. Vol. 37 at 7108. Actual carryover from 1995 through 2008 was sorted into categories ranging from very dry to wet. The categories are based on the Heise natural flow volumes from April through September.

Heise April – Sept Natural Flow		Year	A&B	AFRD2	BID	Milner	MID	NSCC	TFCC
Very Dry <3000 KAF	2001	9,902	4,217	37,430	26,854	55,132	42,421	26,917	
	2007	62,739	7,962	34,639	36,520	61,744	68,947	(21,811)	
	2002	30,192	8,570	72,835	14,531	99,488	133,702	32,635	
	2004	(3,771)	18,537	47,845	8,735	97,905	19,145	21,551	
	2003	9,401	3,649	51,686	6,906	81,673	166,217	(18,169)	
Average		21,693	8,587	48,887	18,709	79,188	86,086	8,225	
Dry 3000 – 4000 KAF	2000	66,915	20,787	107,425	43,173	160,183	205,510	52,536	
	2005	36,665	99,097	90,190	37,593	150,623	365,001	64,452	
	Average		51,790	59,942	98,808	40,383	155,403	285,256	58,494
Average 4000 – 4500 KAF	2006	89,311	107,682	102,873	58,755	182,612	365,672	51,187	
	2008	92,193	102,753	130,762	63,342	182,531	413,408	65,648	
	1995	82,567	167,451	134,340	75,451	237,300	441,729	58,675	
	Average		88,024	125,962	122,659	65,849	200,814	406,936	58,504
Wet >4500 KAF	1998	87,250	144,057	109,014	67,777	193,810	494,664	156,433	
	1999	78,312	121,793	168,545	67,147	205,716	454,338	191,501	
	1996	85,209	145,019	127,123	70,250	228,786	472,790	111,459	
	1997	89,811	114,324	87,073	65,307	202,475	464,715	136,926	
	Average		85,145	131,299	122,939	67,620	207,697	471,627	149,080

Actual Carryover Volumes by Entity, Sorted by Heise Natural Flow (1995-2008).

73. In considering the principles articulated in CM Rule 42.01.g, the Director will project reasonable carryover shortfalls for members of the SWC. The following table represents the 2006/2008 BLY diversion volumes and total reservoir storage space by entity. By dividing the total reservoir space by the 2006/2008 diversion volume, a metric is established that describes the total number of seasons the entity's reservoir space can supply water.

	A&B	AFRD2	BID	Milner	Minidoka	NSCC	TFCC
06/08 BLY	58,492	415,730	250,977	46,332	362,884	965,536	1,045,382
Total Reservoir Space	137,626	393,550	226,487	90,591	366,554	859,898	245,930

Total Reservoir Space¹¹ in Comparison to Demand.

¹¹ See R. Vol. 8 at 1373-74.

D. Reasonable Carryover

i. A&B

74. A&B's reservoir space has the lowest average annual rate of fill with the highest variability in fill. *See* Finding of Fact 71. In very dry years, the potential exists that A&B's actual carryover will be less than the reasonable carryover. *See* Finding of Fact 72. A&B has an approximate two-year water supply provided by its total available storage space. *See* Finding of Fact 73. Because of its lower rate of fill, it is likely A&B will experience carryover shortfalls in consecutive dry years. Because of these factors, the estimated reasonable carryover for A&B (17,000 AF) is appropriate. *See* Finding of Fact 70.

ii. AFRD2

75. AFRD2 has the highest and most consistent reservoir rate of fill of any member of the SWC. *See* Finding of Fact 71. Therefore, any unfilled space in the fall will most likely fill. AFRD2 has, however, an approximate one-year supply available in storage. *See* Finding of Fact 73. In a very dry year, AFRD2's historical carryover volume is often less than the amount needed for reasonable carryover. Because of these factors, the estimated reasonable carryover for AFRD2 (56,000 AF) is appropriate. *See* Finding of Fact 70.

iii. BID & Minidoka

76. In an average demand year, BID and Minidoka will have enough water to meet demands given a low water supply. *See* Finding of Fact 70. *See also* R. Vol. 37 at 7105. Historically, even in very dry years, BID's and Minidoka's carryover have been well above the calculated reasonable carryover and it is unlikely that they will have reasonable carryover shortfalls in the future. *See* Finding of Fact 72. *See also* R. Vol. 37 at 7105. Because of these factors, the estimated reasonable carryover for BID and Minidoka is 0 AF. *See* Finding of Fact 70. *See also* R. Vol. 37 at 7105.

iv. Milner

77. Similar to A&B, Milner's reservoir space had the second lowest average annual rate of fill of all entities with a high degree of variability in fill. *See* Finding of Fact 71. In very dry years, the potential exists that Milner's actual carryover will be less than the reasonable carryover. *See* Finding of Fact 72. Milner has an approximate two-year water supply available in storage. *See* Finding of Fact 73. Because of its rate of fill, it is likely Milner will experience carryover shortfalls in consecutive dry years. Because of these factors, the estimated reasonable carryover for Milner (4,800 AF) is appropriate. *See* Finding of Fact 70.

v. NSCC

78. NSCC has a near average annual rate of fill in comparison to all entities and an approximate one-year water supply available in storage. *See* Findings of Fact 71 and 73. In dry

years, the potential exists that its reasonable carryover will be less than its actual carryover. *See* Finding of Fact 72. Because of these factors, the estimated reasonable carryover for NSCC (57,200 AF) is appropriate. *See* Finding of Fact 70.

vi. **TFCC**

79. TFCC has a near average annual rate of fill in comparison to all entities, but only a one-quarter of a year's water supply available in storage. *See* Findings of Fact 71 and 73. In dry years, the potential exists that its reasonable carryover will be less than its actual carryover. *See* Finding of Fact 72. In the 2006 irrigation season, supplies were average, but TFCC's demands were below average. Because of these factors, the estimated reasonable carryover for TFCC (29,700 AF) is appropriate. *See* Finding of Fact 70.

E. Reasonable Carryover Shortfall

80. Reasonable carryover shortfall is the numerical difference between reasonable carryover and actual carryover, calculated at the conclusion of the irrigation season. Actual carryover is defined as the storage allocation minus the total storage use plus or minus any adjustments. Examples of adjustments include SWC deliveries for flow augmentation, SWC water placed in the rental pool, and SWC private leases. Adjustments are unique to each irrigation season and will be evaluated each year. Any storage water deliveries to entities other than the SWC for purposes unrelated to the original right will be adjusted so that the water is not included as a part of the SWC carryover volume. Water that is purchased or leased by an SWC member may become part of IGWA's carryover shortfall obligation. *See e.g.* R. Vol. 38 at 7201, fn. 11 (Eighth Supplemental Order). Conversely, adjustments will be made to assure that water supplied by a SWC member to private leases or to the rental pool will not increase the reasonable carryover shortfall obligation to the same SWC member.

81. Reasonable carryover shortfall is calculated as follows:

Reasonable Carryover Shortfall = Actual Carryover – Reasonable Carryover

CONCLUSIONS OF LAW

1. In his September 5, 2008 Final Order, the Director stated his intention to issue a separate, final order "detailing his approach for predicting material injury to reasonable in-season demand and reasonable carryover . . ." R. Vol. 39 at 7386. On July 24, 2009, the Honorable John M. Melanson issued his *Order on Petition for Judicial Review*, in which he found that the Director's decision to bifurcate the proceedings conflicted with the Idaho Administrative Procedures Act; the court therefore remanded the issue to the Department.

2. Parties to the judicial review proceedings filed petitions for reconsideration with the court for a myriad of issues. Responding to the petition for reconsideration filed by IGWA regarding the issue of bifurcation, the Department stated that "sufficient information exists to

issue an order determining material injury to reasonable carryover and reasonable in-season demand.” *IDWR Response Brief on Rehearing* at 3 (November 6, 2009). At oral argument on rehearing, the Department requested that the court “hold in abeyance its decision on rehearing until the Director issues the new order and the time for filing a motion for reconsideration and a petition for judicial review of the order has expired.” *Order Staying Decision on Petition for Rehearing Pending Issuance of Revised Final Order* at 2 (March 4, 2010). The court therefore ordered the Department to issue a final order determining material injury to reasonable in-season demand and reasonable carryover by March 31, 2010. “Pursuant to I.A.R. 13(b)(14), the Court shall hold in abeyance any final decision on rehearing until such an order is issued” *Id.* at 3. On March 29, 2010, the court extended the deadline for the Director’s order to April 7, 2010. *Order Granting Unopposed Motion for Extension of Time to File Order on Remand.*

3. The purpose of this order is to provide the methodology by which the Director will determine material injury to RISD and reasonable carryover to members of the SWC.

4. “The agency’s experience, technical competence, and specialized knowledge may be utilized in the evaluation of the evidence.” Idaho Code § 67-5251(5); IDAPA 37.01.01.600.

5. Idaho Code § 42-602 states that, “The director of the department of water resources shall have discretion and control of the distribution of water from all natural sources The director of the department of water resources shall distribute water . . . in accordance with the prior appropriation doctrine.” According to the Hearing Officer, “It is clear that the Legislature did not intend to grant the Director broad powers to do whatever the Director might think right. However, it is clear also that the Legislature [in Idaho Code § 42-602] did not intend to sum up water law in a single sentence of the Director’s authority.” R. Vol. 37 at 7085. The Idaho Supreme Court has recently stated, “Given the nature of the decisions which must be made in determining how to respond to a delivery call, there must be some exercise of discretion by the Director.” *American Falls Res. Dist. No. 2 v. Idaho Dept. Water Resources*, 143 Idaho 862, 875, 154 P.3d 433, 446 (2007). The CM Rules incorporate all principles of the prior appropriation doctrine as established by Idaho law. CM Rule 20.03.

6. “Priority of appropriation shall give the better right as between those using the water” of the State. Idaho Const. Art. XV, § 3. “As between appropriators, the first in time is first in right.” Idaho Code § 42-106. “A prior appropriator is only entitled to the water to the extent that he has use for it when economically and reasonably used. It is the policy of the law of this state to require the highest and greatest possible duty from the waters of the state in the interest of agriculture and for useful and beneficial purposes.” *Washington State Sugar v. Goodrich*, 27 Idaho 26, 44, 147 P. 1073, 1079 (1915).

7. It is the policy of this State to integrate the appropriation, use, and administration of ground water with the use of surface water in such a way as to optimize the beneficial use of water: “while the doctrine of ‘first in time is first in right’ is recognized, a reasonable exercise of this right shall not block the full economic development of underground water resources.” Idaho Code § 42-226. *See also* Idaho Const. Art. XV, § 7; *Baker v. Ore-Ida Foods, Inc.*, 95 Idaho 575, 584, 513 P.2d 627, 636 (1973).

8. In *American Falls*, the Court stated as follows:

The presumption under Idaho law is that the senior is entitled to his decreed water right, but there certainly may be some post-adjudication factors which are relevant to the determination of how much water is actually needed. The Rules may not be applied in such a way as to force the senior to demonstrate an entitlement to the water in the first place; that is presumed by the filing of a petition containing information about the decreed right. The Rules do give the Director the tools by which to determine “how the various ground and surface water sources are interconnected, and how, when, where and to what extent the diversion and use of water from one source impacts [others].” *A & B Irrigation Dist.*, 131 Idaho at 422, 958 P.2d at 579. Once the initial determination is made that material injury is occurring or will occur, the junior then bears the burden of proving that the call would be futile or to challenge, in some other constitutionally permissible way, the senior’s call.

American Falls at 877-878, 154 P.3d at 448-449.

9. In the context of conjunctive administration, the Director’s methodology for projecting material injury does not impose an obligation upon members of the SWC to reprove their water rights. To the extent water is available, members of the SWC are authorized to divert and store water in accordance with the terms of their licenses or decrees. Nothing established herein reduces that authorization. The question that the CM Rules require the Director to answer in this proceeding is, when water is not available to fill the water rights of the SWC, how much water is reasonably necessary for the SWC to accomplish the beneficial purpose of raising crops; because what is needed to irrigate crops may be less than the decreed or licensed quantities. *American Falls* at 880, 154 P.3d at 451; *Order on Petition for Judicial Review* at 24-25; R. Vol. 37 at 7098 (“Properly applied the minimum full supply approach is an attempt to measure, for purposes of determining if there should be curtailment, the amount of water senior surface water users need to raise crops of their choosing to maturity with the number of cuttings weather conditions will allow.”).

10. Holders of senior-priority water rights may receive less than their licensed or decreed quantities and not suffer material injury within the meaning of the CM Rules. As a result, in-season demand should be viewed in light of reasonableness, optimum development of water resources in the public interest, and full economic development. Idaho Const. Art XV, § 7; Idaho Code § 42-226; CM Rules 20 and 42; *Schodde v. Twin Falls Land and Water Co.*, 224 U.S. 107 (1912); *American Falls* at 876-77, 154 P.3d at 447-48.

11. Here, the Director has established a methodology for determining material injury to members of the SWC. The methodology predicts material injury to RISD by taking the difference between RISD and the forecasted supply. At this time, with the recognition that the methodology is subject to adjustment and refinement, RISD will be equal to the historic demands associated with the BLY (2006/2008), and will be corrected during the season to account for variations in climate and water supply between the BLY and actual conditions.

12. The years 2000 through 2008 were used to select the initial BLY because it captured current irrigation practices in a dry climate. Based upon evaluation of the record, members of the SWC were exercising more reasonable efficiencies during this time period than during the 1990s when supplies were more plentiful and the climate more forgiving. During periods of drought when junior ground water users are subject to curtailment, members of the SWC should exercise reasonable efficiencies in order to promote the optimum utilization of the State's water resources. Idaho Const. Art. XV, § 7; Idaho Code § 42-226; CM Rules 20 and 42.

13. Recognizing that climate and surface water supplies (natural flow and storage) are inherently variable, the Director's predictions of material injury to RISD and reasonable carryover are based upon the best available information and the best available science, in conjunction with the Director's professional judgment as the manager of the State's water resources. Recognizing his ongoing duty to administer the State's water resources, the Director should use available data, and consider new analytical methods or modeling concepts, to evaluate the methodology. As the process of predicting and evaluating material injury moves forward, and more data is developed, the methodology will be subject to adjustment and refinement.

14. If the Director predicts that the SWC will be materially injured, the consequence of that prediction is an obligation that must be borne by junior ground water users. If mitigation water in the amount of the projected RISD shortfall cannot be provided or optioned by junior ground water users to the satisfaction of the Director (*see Order on Petition for Judicial Review* at 19), the Director will curtail junior ground water users to make up any deficit. By requiring that junior ground water users provide or have options to acquire water in place during the season of need, the Director ensures that the SWC does not carry the risk of shortage to their supply. By not requiring junior ground water users to provide mitigation water until the time of need, the Director ensures that junior ground water users provide only the amount of water necessary to satisfy the reasonable in-season demand. All approved methods of mitigation shall be considered in the Director's review of projected RISD shortfall.

15. Unless there is reasonable certainty that junior ground water users can secure the predicted volume of water and provide that water at the time of need, the purpose of allowing junior ground water users to continue to divert by providing water for mitigation is defeated. The risk of shortage is then impermissibly shouldered by the SWC. Members of the SWC should have certainty entering the irrigation season that mitigation water will be provided at the time of need, or curtailment of junior ground water rights will be ordered at the start of the irrigation season.

16. Because climate and the supply that the SWC appropriated (natural flow and storage) are inherently variable, the Director cannot and should not insulate the SWC against all shortages. The Director can, however, protect the SWC against reasonably predicted shortages to RISD.

17. Currently, the USBR and USACE's Joint Forecast is the best predictive tool at the Director's disposal for predicting material injury to RISD. Given current forecasting techniques, the earliest the Director can predict material injury to RISD with reasonable certainty is soon after the Joint Forecast is issued in early April. By using one standard error of estimate, the Director purposefully underestimates the water supply that is predicted in the Joint Forecast. The Director further guards against RISD shortage by using the 2006/2008 BLY, which has above average ET, below average in-season precipitation, and above average growing degree days. The 2006/2008 average represents years in which water supply did not limit diversions. The Director's prediction of material injury to RISD is purposefully conservative. While it may ultimately be determined after final accounting that less water was owed than was provided, this is an appropriate burden for junior appropriators to carry. Idaho Const. Art. XV, § 3; Idaho Code § 42-106.

18. Just as members of the SWC should have certainty at the start of the irrigation season that junior ground water users will be curtailed, in whole or in part, unless they provide the required volume of mitigation water, in whole or in part, junior ground water users should also have certainty entering the irrigation season that the predicted injury determination will not be greater than it is ultimately determined at the Time of Need (defined in footnote 8, *supra*). If it is determined at the time of need that the Director under-predicted the demand shortfall, the Director will not require that junior ground water users make up the difference, either through mitigation or curtailment. This determination is based upon the Director's discretion and his balancing of the principle of priority of right with the principles of optimum utilization and full economic development of the State's water resources. Idaho Const. Art. XV, § 3; Idaho Const. Art. XV, § 7; Idaho Code § 42-106; Idaho Code § 42-226. Because the methodology is based upon conservative assumptions and is subject to refinement, the possibility of under-predicting material injury is minimized and should lessen as time progresses. The methodology should provide both the SWC and junior ground water users certainty at the start of the irrigation season.

19. The Director will review, at the end of the season, the volume and efficiencies of application of surface water, the amount of mitigation water provided by junior ground water users, and may, in the exercise of his professional judgment, readjust the reasonable carryover shortfalls to reflect these considerations.

20. According to CM Rule 42.01.g, members of the SWC are entitled to maintain a reasonable amount of carryover storage water to minimize shortages in "future dry years." Guidance for determining reasonable carryover is also found in CM Rule 42.01.g: "In determining a reasonable amount of carry-over storage water, the Director shall consider the average annual rate of fill of storage reservoirs and the average annual carry-over for prior comparable water conditions and the projected water supply for the system."

21. While the right to reasonable carryover is provided by CM Rule 42.01.g, the Court in *American Falls* established that there are limitations upon that right:

At oral argument, one of the irrigation district attorneys candidly admitted that their position was that they should be permitted to fill their entire storage water right, regardless of whether there was any indication that it was necessary to fulfill current or future needs and even though the irrigation districts routinely sell or lease the water for uses unrelated to the original rights. This is simply not the law of Idaho. While the prior appropriation doctrine certainly gives pre-eminent rights to those who put water to beneficial use first in time, this is not an absolute rule without exception. As previously discussed, the Idaho Constitution and statutes do not permit waste and require water to be put to beneficial use or be lost. Somewhere between the absolute right to use a decreed water right and an obligation not to waste it and to protect the public's interest in this valuable commodity, lies an area for the exercise of discretion by the Director. This is certainly not unfettered discretion, nor is it discretion to be exercised without any oversight. That oversight is provided by the courts, and upon a properly developed record, this Court can determine whether that exercise of discretion is being properly carried out.

American Falls at 880, 154 P.3d at 451.

22. While CM Rule 42.01.g contemplates reasonable carryover for future dry years, the Hearing Officer determined that "requiring curtailment to reach beyond the next irrigation season involves too many variables and too great a likelihood of irrigation water being lost to irrigation use to be acceptable within the standards implied in *AFRD#2*." R. Vol. 37 at 7109-10. Therefore, a senior may only seek curtailment of juniors to provide reasonable carryover for a period of one year. *Id.* In his 2008 Final Order, former Director Tuthill accepted the recommendation of the Hearing Officer.

23. In its *Order on Petition for Judicial Review*, the court held that it was incorrect for the Director to categorically limit the right to carryover storage "for more than just the next season . . ." *Order on Petition for Judicial Review* at 22. The court went on to say, however, that the Director, "in the exercise of his discretion, can significantly limit or even reject carryover for multiple years based on the specific facts and circumstances of a particular delivery call. Ultimately, the end result may well be the same." *Id.*

24. As discussed in the Findings of Fact, reasonable carryover is determined by projecting the water supply for the system. This is accomplished by projecting the 2002/2004 supply and the 2006/2008 demand. Next, the Director examines the average annual rate of fill of the storage rights held by members of the SWC to determine each entities' relative probability of fill. Finally, the Director examines the average annual carryover for prior comparable water conditions by reviewing Heise natural flow.

25. If, in the fall, the Director finds that a reasonable carryover shortfall exists, the Director will use the ESPA Model to determine the transient impacts of curtailment (year-to-year). The ESPA Model will be used to determine the yearly impacts of curtailment of junior ground water users, if curtailed from April 1 through March 31.¹² It is this volume of water that junior ground water users must provide or have optioned in the fall in order to start the subsequent irrigation season without an order of curtailment. All approved methods of mitigation shall be considered in the Director's review of reasonable carryover shortfall.

26. Recognizing that reservoirs space held by members of the SWC may fill, and in order to prevent the waste of water, junior ground water users are not required to provide the volume of reasonable carryover until after the Day of Allocation (defined in footnote 16, *infra*). Junior ground water users are obligated to provide reasonable carryover to the SWC until reservoir space held by the entities fills. If the reservoir space does not fill, the results of the simulated transient benefits of curtailment must be provided or optioned by junior ground water users in the fall. In addition, the Director will determine shortfalls to the SWC's reasonable carryover for the next irrigation season and use the ESPA Model to determine the transient volume of water that must be provided or optioned. This transient obligation is in addition to the subsequent year's transient obligation.

27. By modeling the impacts of curtailments until the reservoir space held by members of the SWC fills, junior ground water users have an accruing mitigation obligation. In this way, the Director is able to account for reasonable carryover for "future dry years." CM Rule 42.01.g.

28. The Director recognizes that his analysis of the obligation for reasonable carryover differs from his analysis for RISD obligations. In predicting RISD shortages, the Director is able to premise his determination on the Joint Forecast. The Director requires junior ground water users to provide the entire RISD shortage because the Joint Forecast allows determination of material injury with reasonable certainty.

29. In the fall of the subsequent irrigation season, the Director cannot, with reasonable certainty, predict material injury to reasonable carryover. As found by the Hearing Officer, "Anticipating the next season of need is closer to faith than science." R. Vol. 37 at 7109. Because of the uncertainty associated with this prediction, and in the interest of balancing priority of right with optimum utilization and full economic development of the State's water resources, Idaho Const. Art. XV, § 3; Idaho Const. Art. XV, § 7; Idaho Code § 42-106; Idaho Code § 42-226, the Director will use the ESPA Model to simulate transient curtailment of the

¹² Version 1.1 of the ESPA Model runs on six-month stress periods. Because an irrigation season is nine months long, simulating curtailment for a period of six months would under estimate the impacts of curtailment and unreasonably shift the risk of shortage to the SWC. Because version 1.1 of the ESPA Model cannot simulate curtailment for nine months, it is appropriate to simulate curtailment for one year, as opposed to six months. Because the methodology is subject to refinement, this determination may be revisited if the stress periods are changed in subsequent versions of the model.

projected reasonable carryover shortage. By requiring that junior ground water users provide water or have options in place in the fall of the subsequent irrigation season in the amount of the first year of curtailment (accruing from season-to-season until reservoir space fills), the Director ensures that a certain volume of water will be carried over from one season to the next. This allows the SWC to plan for the coming irrigation season, and places the risk of reasonable shortage on junior ground water users. In light of the unpredictable nature of the determination of material injury to reasonable carryover, the use of the ESPA Model imposes a reasonable burden on junior ground water users.

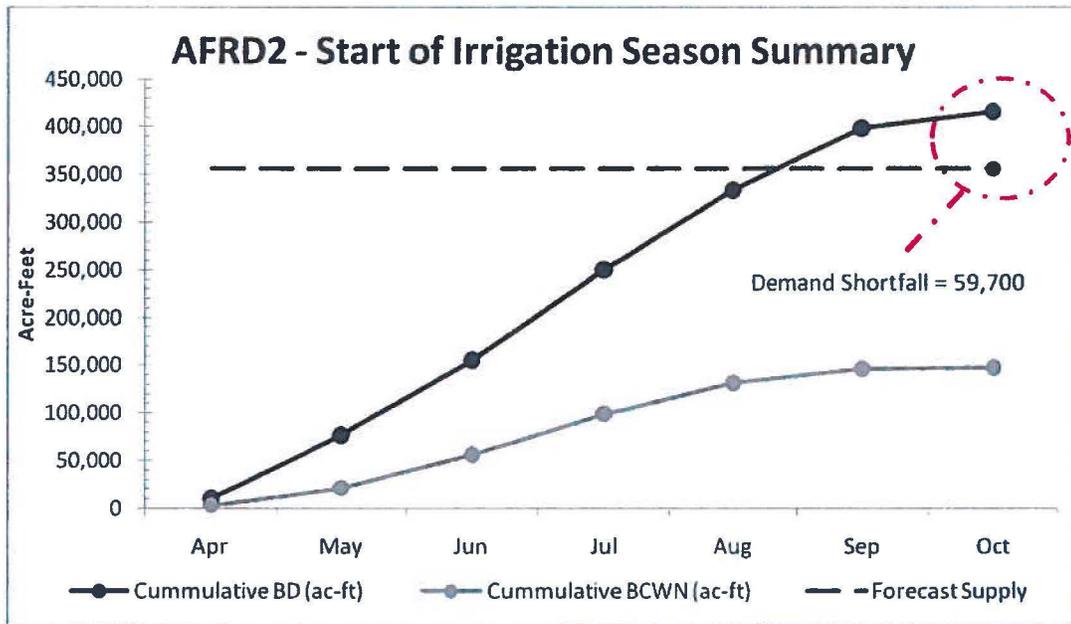
ORDER

Based upon and consistent with the Findings of Fact and Conclusions of Law, the Director hereby orders that, for purposes of determining material injury to reasonable in-season demand and reasonable carryover, the following steps will be taken:

1. Step 1: By April 1, members of the SWC will provide electronic shape files to the Department delineating the total irrigated acres within their water delivery boundary or confirm in writing that the existing electronic shape file from the previous year has not varied by more than 5%; provided that the total acreage count does not exceed the number of acres to be irrigated within the decreed place of use. Because the SWC members can best determine the irrigated acres within their service area, the SWC should be responsible for submitting the information to the Department. If this information is not timely provided, the Department will determine the total irrigated acres based upon past year cropping patterns and current satellite and/or aerial imagery. If an SWC member fails or refuses to identify the number of irrigated acres within its service area by April 1, the Department will be cautious about recognizing acres as being irrigated if there is uncertainty about whether the acres are or will be irrigated during the upcoming irrigation season. The Department will publish electronic shape files for each member of the SWC for the current water year for review by the parties. In determining the total irrigated acreage, the Department will account for supplemental ground water use.
2. Beneficial use cannot occur on lands that are not described in the SWC's water rights. If, however, the acreage count is under reported by more than five percent of the irrigated acreage limit of the water right, then an assessment must be made of the impact of this reduction in use of the water right on any mitigation requirement.
3. Step 2: Starting at the beginning of April, the Department will calculate the cumulative CWN volume for all land irrigated with surface water within the boundaries of each member of the SWC.
 - Volumetric values of CWN will be calculated using ET and precipitation values from the USBR's AgriMet program, irrigated areas provided by each entity, and crop distributions based on NASS data.

- Cumulative in-season CWN values will be calculated for each member of the SWC, approximately once a month.

4. **Step 3:** Typically within the first two weeks of April, the USBR and USACE issue their Joint Forecast that predicts an unregulated inflow volume at the Heise Gage for the period April 1 through July 31. Within fourteen (14) days after issuance of the Joint Forecast, the Director will predict and issue an April Forecast Supply for the water year and will compare the April Forecast Supply to the baseline demand (“BD”) to determine if a demand shortfall (“DS”) is anticipated for the upcoming irrigation season. A separate April Forecast Supply and DS will be determined for each member of the SWC. See below for an example.¹³



AFRD2 Start of Irrigation Season Summary, Initial Demand Shortfall Prediction.

5. **Step 4:** If the April DS is greater than the reasonable carryover shortfall from the previous year, junior ground water users will be required to establish, to the satisfaction of the Director, their ability to secure and provide a volume of storage water or to conduct other approved mitigation activities that will provide water to the injured members of the SWC equal to the difference of the April projected demand shortfall and reasonable carryover shortfall, for all injured members of the SWC. If junior ground water users fail or refuse to provide this

¹³ For the purposes of the illustrative example, AFRD2 was selected as the water user, a dry year was selected as the irrigation season, and 2006/2008 was selected as the BLY. Forecast supply was calculated utilizing historic natural flow and historic reservoir storage data.

information by May 1, or within fourteen (14) days from issuance of the values set forth in Step 3, whichever is later in time, the Director will issue an order curtailing junior ground water users.¹⁴ Modeled curtailment shall be consistent with previous Department efforts. The ESPA Model will be run to determine the priority date necessary to produce the necessary volume within the model boundary of the ESPA. However, because the Director can only curtail junior ground water rights within the area of common ground water supply, CM Rule 50.01, junior ground water users will be required to meet the volumetric obligation within the area of common ground water supply, not the full model boundary.

6. If, at any time prior to the Director's final determination of the April Forecast Supply, the Director can determine with certainty that any member of the SWC has diverted more natural flow than predicted, or has accrued more storage than predicted, the Director will revise his initial, projected demand shortfall determination.

7. If there is no projected demand shortfall in the April Forecast Supply, steps 5, 6, 7, and 8 will not be implemented for in-season purposes.

8. Step 5: If the storage allocations held by members of the SWC fill, there is no reasonable carryover shortfall. If the storage allocations held by members of the SWC do not fill, within fourteen (14) days following the publication of Water District 01's initial storage report, which typically occurs soon after the Day of Allocation,¹⁵ the volume of water secured by junior ground water users to fulfill the reasonable carryover shortfall shall be made available to injured members of the SWC. The amount of reasonable carryover to be provided shall not exceed the empty storage space on the Day of Allocation for that entity. If water is owed in addition to the reasonable carryover shortfall volume, this water shall be provided to members of the SWC at the Time of Need, described below. The Time of Need will be no earlier than the Day of Allocation.

9. Step 6: Approximately halfway through the irrigation season, but following the events described in Step 5, the Director will, for each member of the SWC: (1) evaluate the actual crop water needs up to that point in the irrigation season; (2) estimate the Time of Need date;¹⁶ and (3) issue a revised Forecast Supply.

10. This information will be used to recalculate RISD and adjust the projected DS for each member of the SWC. RISD will be calculated utilizing the project efficiency, baseline

¹⁴ This presumes that any reasonable carryover obligation has been met, and that junior ground water users are not already under prior curtailment from deficiencies in meeting the previous year's obligation.

¹⁵ The Day of Allocation is the time in the irrigation season when the Water District 01 watermaster is able to issue allocations to storage space holders after the reservoir system has achieved its maximum physical fill, maximum water right accrual, and any excess spill past Milner Dam has ceased. Tr. p. 902, Ins. 7-25; p. 903, Ins. 1-10.

¹⁶ At the earliest established Time of Need for any member of the SWC, junior ground water users are required to provide remaining mitigation to all materially injured members of the SWC.

demand, and the cumulative actual crop water need determined up to that point in the irrigation season. The Director will then issue revised RISD and DS values.

11. If the Director determines that the estimated Time of Need is reasonably certain, Step 7 will not be implemented for in-season purposes.

12. Step 7: Shortly before the estimated Time of Need, but following the events described in Steps 5 and 6, the Director will, for each member of the SWC: (1) evaluate the actual crop water needs up to that point in the irrigation season; (2) issue a revised Forecast Supply; and (3) establish the Time of Need.

13. This information will be used to recalculate RISD and adjust the projected DS for each member of the SWC. RISD will be calculated utilizing the project efficiency, baseline demand, and the cumulative actual crop water need determined up to that point in the irrigation season. The Director will then issue revised RISD and DS values.

14. Step 8: At the Time of Need, junior ground water users are required to provide the lesser of the two volumes¹⁷ from Step 4 (May 1 secured water) and the RISD volume calculated at the Time of Need. If the calculations from steps 6 or 7 indicate that a volume of water necessary to meet in-season projected demand shortfalls is greater than the volume from Step 4, no additional water is required.

15. The Director will review, at the end of the season, the volume and efficiencies of application of surface water, the amount of mitigation water provided by junior ground water users, and may, in the exercise of his professional judgment, readjust the reasonable carryover shortfalls to reflect these considerations.

16. Step 9: Following the end of the irrigation season (on or before November 30), the Department will determine the total actual volumetric demand and total actual crop water need for the entire irrigation season. This information will be used for the analysis of reasonable carryover shortfall, selection of future baseline years, and for the refinement and continuing improvement of the method for future use.

17. On or before November 30, the Department will publish estimates of actual carryover and reasonable carryover shortfall volumes for all members of SWC. These estimates will be based on but not limited to the consideration of the best available water diversion and storage data from Water District 01, return flow monitoring, comparative years, and RISD. These estimates will establish the obligation of junior ground water users in providing water to the SWC for reasonable carryover shortfall. Fourteen (14) days following the publication by the Department of reasonable carryover short fall obligations, junior ground water users will be

¹⁷ This refers to the overall volume for the entire estimate. While the overall volume predicted at the start of the season represents with certainty the upper bounds of water that junior ground water users will need to provide to members of the SWC, values predicted at the start of the season may adjust up or down at the time of mid-season re-evaluation.

required to establish, to the satisfaction of the Director, their ability to provide a volume of storage water or to conduct other approved mitigation activities that will provide water to the injured members of the SWC equal to the reasonable carryover shortfall for all injured members of the SWC. If junior ground water users cannot provide this information, the Director will issue an order curtailing junior ground water rights.

18. Step 10: As an alternative to providing the full volume of reasonable carryover shortfall established in Step 9, junior ground water users can request that the Department model the transient impacts of the proposed curtailment based on the Department's water rights data base and the ESPA Model. The modeling effort will determine total annual reach gain accruals due to curtailment over the period of the model exercise. *See R. Vol. 8 at 1386-87.* In the year of injury, junior ground water users would then be obligated to provide the accrued volume of water associated with the first year of the model run. *See id. at 1404, ¶ 5.* In each subsequent year, junior ground water users would be required to provide the respective volume of water associated with reach gain accruals for that respective year, until such time as the reservoir storage space held by members of the SWC fills, or the entire volume of water from Step 9 less any previous accrual payments is provided. *See id. at 1404, ¶ 6.* Modeled curtailment shall be consistent with previous Department efforts. The ESPA Model will be run to determine the priority date necessary to produce the required volume within the model boundary of the ESPA. However, because the Director can only curtail junior ground water rights within the area of common ground water supply, CM Rule 50.01, junior ground water users will be required to meet the volumetric obligation within the area of common ground water supply, not the full model boundary.

IT IS FURTHER ORDERED that the amended Final Order supersedes the Final Order issued April 7, 2010 and the Amended Final Order issued June 16, 2010.

IT IS FURTHER ORDERED that pursuant to sections 67-5270 and 67-5272, Idaho Code, any party aggrieved by the final order or orders previously issued by the Director in this matter may appeal the final order and all previously issued orders in the matter to district court by filing a petition in the district court of the county in which a hearing was held, the final agency action was taken, the party seeking review of the order resides, or 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: (a) of the service date of the final order; (b) of an order denying petition for reconsideration; or (c) the failure within twenty-one (21) days to grant or deny a petition for reconsideration, whichever is later. *See Idaho Code § 67-5273.* The filing of an appeal to district court does not in itself stay the effectiveness or enforcement of the order under appeal.

Dated this 23rd day of June, 2010.


GARY SPACKMAN
Interim Director

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on this 23rd day of June, 2010, the above and foregoing, was served by the method indicated below, and addressed to the following:

Honorable John M. Melanson Idaho Court of Appeals P.O. Box 83720 Boise, ID 83720-0101	<input checked="" type="checkbox"/> U.S. Mail, postage prepaid <input type="checkbox"/> Hand Delivery <input type="checkbox"/> Overnight Mail <input type="checkbox"/> Facsimile <input type="checkbox"/> Email
John K. Simpson BARKER ROSHOLT & SIMPSON, LLP P.O. Box 2139 Boise, ID 83701 jks@idahowaters.com	<input type="checkbox"/> U.S. Mail, postage prepaid <input type="checkbox"/> Hand Delivery <input type="checkbox"/> Overnight Mail <input type="checkbox"/> Facsimile <input checked="" type="checkbox"/> Email
Travis L. Thompson Paul L. Arrington BARKER ROSHOLT & SIMPSON, LLP P.O. Box 485 Twin Falls, ID 83303 tlt@idahowaters.com pla@idahowaters.com	<input checked="" type="checkbox"/> U.S. Mail, postage prepaid <input type="checkbox"/> Hand Delivery <input type="checkbox"/> Overnight Mail <input type="checkbox"/> Facsimile <input checked="" type="checkbox"/> Email
C. Thomas Arkoosh CAPITOL LAW GROUP, PLLC P.O. Box 32 Gooding, ID 83339 tarkoosh@capitolawgroup.net	<input checked="" type="checkbox"/> U.S. Mail, postage prepaid <input type="checkbox"/> Hand Delivery <input type="checkbox"/> Overnight Mail <input type="checkbox"/> Facsimile <input checked="" type="checkbox"/> Email
W. Kent Fletcher FLETCHER LAW OFFICE P.O. Box 248 Burley, ID 83318 wkf@pmt.org	<input checked="" type="checkbox"/> U.S. Mail, postage prepaid <input type="checkbox"/> Hand Delivery <input type="checkbox"/> Overnight Mail <input type="checkbox"/> Facsimile <input checked="" type="checkbox"/> Email
Candice M. McHugh RACINE OLSON 101 Capitol Blvd., Ste. 208 Boise, ID 83702 cmm@racinelaw.net	<input type="checkbox"/> U.S. Mail, postage prepaid <input type="checkbox"/> Hand Delivery <input type="checkbox"/> Overnight Mail <input type="checkbox"/> Facsimile <input checked="" type="checkbox"/> Email

<p>Randall C. Budge Thomas J. Budge RACINE OLSON P.O. Box 1391 Pocatello, ID 83204-1391 rcb@racinelaw.net tjb@racinelaw.net</p>	<input checked="" type="checkbox"/> U.S. Mail, postage prepaid <input type="checkbox"/> Hand Delivery <input type="checkbox"/> Overnight Mail <input type="checkbox"/> Facsimile <input checked="" type="checkbox"/> Email
<p>Kathleen Carr US Dept. Interior 960 Broadway Ste 400 Boise, ID 83706 kathleenmarion.carr@sol.doi.gov</p>	<input checked="" type="checkbox"/> U.S. Mail, postage prepaid <input type="checkbox"/> Hand Delivery <input type="checkbox"/> Overnight Mail <input type="checkbox"/> Facsimile <input checked="" type="checkbox"/> Email
<p>David W. Gehlert Natural Resources Section Environment and Natural Resources Division U.S. Department of Justice 1961 Stout Street, 8th Floor Denver, CO 80294 david.gehlert@usdoj.gov</p>	<input checked="" type="checkbox"/> U.S. Mail, postage prepaid <input type="checkbox"/> Hand Delivery <input type="checkbox"/> Overnight Mail <input type="checkbox"/> Facsimile <input checked="" type="checkbox"/> Email
<p>Matt Howard US Bureau of Reclamation 1150 N Curtis Road Boise, ID 83706-1234 mhoward@pn.usbr.gov</p>	<input checked="" type="checkbox"/> U.S. Mail, postage prepaid <input type="checkbox"/> Hand Delivery <input type="checkbox"/> Overnight Mail <input type="checkbox"/> Facsimile <input checked="" type="checkbox"/> Email
<p>Sarah A. Klahn WHITE JANKOWSKI 511 16th St., Ste. 500 Denver, CO 80202 sarahk@white-jankowski.com</p>	<input checked="" type="checkbox"/> U.S. Mail, postage prepaid <input type="checkbox"/> Hand Delivery <input type="checkbox"/> Overnight Mail <input type="checkbox"/> Facsimile <input checked="" type="checkbox"/> Email
<p>Dean A. Tranmer City of Pocatello P.O. Box 4169 Pocatello, ID 83205 dtranmer@pocatello.us</p>	<input checked="" type="checkbox"/> U.S. Mail, postage prepaid <input type="checkbox"/> Hand Delivery <input type="checkbox"/> Overnight Mail <input type="checkbox"/> Facsimile <input checked="" type="checkbox"/> Email
<p>Michael C. Creamer Jeffrey C. Fereday GIVENS PURSLEY LLP P.O. Box 2720 Boise, ID 83701-2720 mcc@givenspursley.com jcf@givenspursley.com</p>	<input checked="" type="checkbox"/> U.S. Mail, postage prepaid <input type="checkbox"/> Hand Delivery <input type="checkbox"/> Overnight Mail <input type="checkbox"/> Facsimile <input checked="" type="checkbox"/> Email

<p>William A. Parsons Parsons, Smith & Stone, LLP P.O. Box 910 Burley, ID 83318 wparsons@pmt.org</p>	<p><input checked="" type="checkbox"/> U.S. Mail, postage prepaid <input type="checkbox"/> Hand Delivery <input type="checkbox"/> Overnight Mail <input type="checkbox"/> Facsimile <input checked="" type="checkbox"/> Email</p>
<p>Lyle Swank IDWR—Eastern Region 900 N. Skyline Drive Idaho Falls, ID 83402-6105 lyle.swank@idwr.idaho.gov</p>	<p><input type="checkbox"/> U.S. Mail, postage prepaid <input type="checkbox"/> Hand Delivery <input type="checkbox"/> Overnight Mail <input type="checkbox"/> Facsimile <input checked="" type="checkbox"/> Email</p>
<p>Allen Merritt Cindy Yenter IDWR—Southern Region 1341 Fillmore St., Ste. 200 Twin Falls, ID 83301-3033 allen.merritt@idwr.idaho.gov cindy.yenter@idwr.idaho.gov</p>	<p><input type="checkbox"/> U.S. Mail, postage prepaid <input type="checkbox"/> Hand Delivery <input type="checkbox"/> Overnight Mail <input type="checkbox"/> Facsimile <input checked="" type="checkbox"/> Email</p>



Deborah Gibson
Administrative Assistant to the Director

ADDENDUM B

Order Regarding April 2010 Forecast Supply (Methodology Steps 3 & 4) (IDWR Apr. 29, 2010);
this order was at issue before the Court in Case No. CV-2010-382 (Fifth Jud. Dist.).

**BEFORE THE DEPARTMENT OF WATER RESOURCES
OF THE STATE OF IDAHO**

IN THE MATTER OF DISTRIBUTION OF WATER)
TO VARIOUS WATER RIGHTS HELD BY OR FOR) Docket No. CM-DC-2010-001
THE BENEFIT OF A&B IRRIGATION DISTRICT,)
AMERICAN FALLS RESERVOIR DISTRICT #2,)
BURLEY IRRIGATION DISTRICT, MILNER) **ORDER REGARDING APRIL**
IRRIGATION DISTRICT, MINIDOKA IRRIGATION) **2010 FORECAST SUPPLY**
DISTRICT, NORTH SIDE CANAL COMPANY,) **(Methodology Steps 3 & 4)**
AND TWIN FALLS CANAL COMPANY)
_____)

FINDINGS OF FACT

1. On April 7, 2010, the Director of the Idaho Department of Water Resources (“Director” or “Department”) issued his *Final Order Regarding Methodology for Determining Material Injury to Reasonable In-Season Demand and Reasonable Carryover* (“Methodology Order”). The Methodology Order established 10 steps for determining material injury to members of the Surface Water Coalition (“SWC”). This order will apply steps 3 and 4.

A. Step 3

2. Step 3 states that, within fourteen days of the issuance of the joint forecast (“Joint Forecast”) prepared by the United States Bureau of Reclamation and the United States Army Corps of Engineers, the Director shall “issue a Forecast Supply for the water year and will compare the forecast supply to the baseline demand (“BD”) to determine if a demand shortfall (“DS”) is anticipated for the upcoming irrigation season. A separate Forecast Supply and DS will be determined for each member of the SWC.” *Id.* at 34.

3. On April 8, 2010, the Joint Forecast was announced,¹ predicting an unregulated inflow of 1,940,000 acre-feet.²

¹ The Methodology Order was issued on April 7, 2010. Petitions for reconsideration were filed with the Department on April 21, 2010. Issuance of this order was delayed to allow the Director time to review the petitions for reconsideration.

² Attached hereto are the regression analyses for each SWC entity used to predict natural flow supply.

4. Based upon the Joint Forecast, the Director predicts the following:

	Predicted Natural Flow Supply	Predicted Storage Allocation	Total Supply	BLY 2006/2008	Shortfall
A&B	0	135,371	135,371	58,492	0
AFRD2	1,256	387,102	388,358	415,730	27,400 ³
BID	65,123	222,507	287,630	250,977	0
Milner	0	89,107	89,107	46,332	0
Minidoka	94,486	358,438	452,924	362,884	0
NSCC	233,145	843,169	1,076,314	965,536	0
TFCC	747,391	241,078	988,469	1,045,382	56,900
				Total	84,300

B. Step 4

5. Step 4 states as follows:

If the April DS is greater than the reasonable carryover shortfall from the previous year, junior ground water users will be required to establish, to the satisfaction of the Director, their ability to secure and provide a volume of storage water equal to the difference of the April projected demand shortfall and reasonable carryover shortfall, for all injured members of the SWC. If junior ground water users cannot provide this information, by May 1, or within fourteen (14) days from issuance of the values set forth in Step 3, whichever is later in time, the Director will issue an order curtailing junior ground water users.

Id. at 34.⁴

6. As shown in the table above, it is predicted, at this time, that AFRD2 and TFCC will suffer a combined DS in the amount of 84,300 acre-feet (27,400 + 56,900). No later than May 13, 2010 (fourteen days from issuance of this order), junior ground water users must establish, to the satisfaction of the Director, their ability to secure 84,300 acre-feet.

³ In its *Corrected Petition for Reconsideration of Final Order Regarding Methodology Dated April 7, 2010*, the Idaho Ground Water Appropriators, Inc. ("IGWA") raised concerns regarding natural flow diversions by AFRD2 and the interim director's initial determination of material injury. IGWA did not explain why the interim director's determination of shortfall for AFRD2 was incorrect. The interim director reviewed the method of determining the shortfall, AFRD2's water rights, and the accounting of water deliveries to AFRD2. The interim director did not find compelling information to change the initial prediction of shortfall for AFRD2.

⁴ Steps 9 and 10 of the Methodology Order require the Director to predict reasonable carryover shortfalls to reservoir space held by member of the SWC in the fall before the subsequent irrigation season. *Methodology Order* at 36. Given when the Methodology Order was issued, junior ground water users were not under an obligation in the fall of 2009 to provide reasonable carryover shortfalls. At this time, it is forecasted that reservoir space held by members of the SWC will fill in 2010. In the fall of 2010, the Director will determine reasonable carryover shortfalls, if any, for members of the SWC. At that time, junior ground water users will be expected to comply with Steps 9 and 10, in whole or in part, or face curtailment, in whole or in part. *See id.* at 36.

7. If junior ground water users provide no water for purposes of mitigation, the Director will issue an order curtailing ground water rights junior to April 5, 1982, as simulated by the ESPA Model. Curtailment of ground water rights junior to April 5, 1982 will increase reach gains between the Near Blackfoot and Minidoka gages by a total amount of 84,361 acre-feet. Curtailing only those ground water rights located within the area of common ground water supply, IDAPA 37.03.11.050.01, will increase reach gains between the Near Blackfoot and Minidoka gages by 77,985 acre-feet. Curtailment of rights only within the area of common ground water supply will affect 73,782 acres. If junior ground water users secure a volume of water less than 84,300 acre-feet, the Director will redetermine the extent of curtailment, as simulated by the ESPA Model.

8. The 84,300 acre-feet of water required to mitigate material injury, shall be owed at the Time of Need, as established in Step 8 of the Methodology Order. At the Time of Need, the volume of water necessary to mitigate material injury to members of the SWC may be less but not greater than 84,300 acre-feet. *Id.* at 35.

CONCLUSIONS OF LAW

1. Based upon the Joint Forecast, the Director predicts, at this time, a demand shortfall will occur to AFRD2 and TFCC's Reasonable In-Season Demand ("RISD"); thereby resulting in material injury. IDAPA, 37.03.11.042. At this time, the predicted material injury to AFRD2 is 27,400 acre-feet. At this time, the predicted material injury is to TFCC 59,900 acre-feet. At this time, no other members of the SWC are predicted to suffer material injury during the 2010 irrigation season. The total predicted material injury to RISD for members of the SWC in the 2010 irrigation season shall be no greater than 84,300 acre-feet.

2. No later than May 13, 2010 (fourteen days from issuance of this order), junior ground water users must establish, to the satisfaction of the Director, that they have secured 84,300 acre-feet.

3. The predicted volume of water required to mitigate material injury shall be owed at the Time of Need, as established in Step 8 of the Methodology Order. The volume of water necessary to mitigate material injury at the Time of Need may be less, but not greater than 84,300 acre-feet.

4. If junior ground water users provide no water for purposes of mitigation, the Director shall issue an order curtailing ground water rights junior to April 5, 1982, which will increase reach gains between the Near Blackfoot and Minidoka gages by 84,361 acre-feet. Curtailing only those ground water rights located within the area of common ground water supply, IDAPA 37.03.11.050.01, will increase reach gains between the Near Blackfoot and Minidoka gages by 77,985 acre-feet. Curtailment of rights only within the area of common ground water supply will affect 73,782 acres. If junior ground water users secure a volume of water less than 84,300 acre-feet, the Director will redetermine the extent of curtailment, as simulated by the ESPA Model.

ORDER

Based upon and consistent with the foregoing, IT IS HEREBY ORDERED as follows:

The Director predicts, at this time, a demand shortfall of 27,400 acre-feet to AFRD2's reasonable in-season demand. The Director also predicts a demand shortfall, at this time, of 56,900 acre-feet to TFCC's reasonable in-season demand. At this time, no other members of the SWC are predicted to experience material injury during the 2010 irrigation season. The maximum, combined demand shortfall for members of the SWC during the 2010 irrigation season is 84,300 acre-feet.

No later than May 13, 2010 (fourteen days from issuance of this order), junior ground water users must establish, to the satisfaction of the Director, that they have secured 84,300 acre-feet of storage water to mitigate for the predicted material injury. If junior ground water users cannot establish, to the satisfaction of the Director, that they have secured the required volume of water, in whole or in part, the Director shall issue an order curtailing junior ground water users, in whole or in part, for the material injury caused to the injured members of the SWC.

IT IS FURTHER ORDERED that junior ground water users are not required to provide the secured volume of mitigation water until after the Director determines the SWC's Time of Need, as established in Step 8 of the Methodology Order. The volume of water required for mitigation at the Time of Need may be more or less for individual SWC members, but the combined volume will not be greater than 84,300 acre-feet.

IT IS FURTHER ORDERED that if junior ground water users provide no water for purposes of mitigation, the Director shall issue an order curtailing ground water rights junior to April 5, 1982. The curtailment shall affect 73,782 acres within the area of common ground water supply in Water District Nos. 34, 110, 120, 130, and 140, and will increase reach gains by 77,985 acre-feet. If junior ground water users secure a volume of water less than 84,300 acre-feet, the Director will redetermine the extent of curtailment, as simulated by the ESPA Model. Curtailment shall apply to consumptive ground water rights for agricultural, commercial, industrial, and municipal uses, excluding ground water rights used for *de minimis* domestic purposes where such domestic use is within the limits of the definition set forth in Idaho Code § 42-111 and ground water rights used for *de minimis* stock watering where such stock watering use is within the limits of the definitions set forth in Idaho Code § 42-1401A(12), pursuant to IDAPA 37.03.11.020.11.

IT IS FURTHER ORDERED that this is a final order of the agency. Any party may file a petition for reconsideration of this final order within fourteen (14) days of issuance of this order. The agency will dispose of the petition for reconsideration within twenty-one (21) days of its receipt, or the petition will be considered denied by operation of law pursuant to Idaho Code § 67-5246.

IT IS FURTHER ORDERED that any person aggrieved by this decision shall be entitled to a hearing before the Director to contest the action taken provided the person files with the Director, within fifteen (15) days after receipt of written notice of the order, or receipt of actual notice, a

written petition stating the grounds for contesting the action and requesting a hearing. Any hearing conducted shall be in accordance with the provisions of chapter 52, title 67, Idaho Code, and the Rules of Procedure of the Department, IDAPA 37.01.01. Judicial review of any final order of the Director issued following the hearing may be had pursuant to Idaho Code § 42-1701A(4).

Dated this 29th day of April, 2010.

A handwritten signature in black ink, reading "Gary Spackman", written over a horizontal line.

GARY SPACKMAN
Interim Director

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on this 29th day of April, 2010, the above and foregoing, was served by the method indicated below, and addressed to the following:

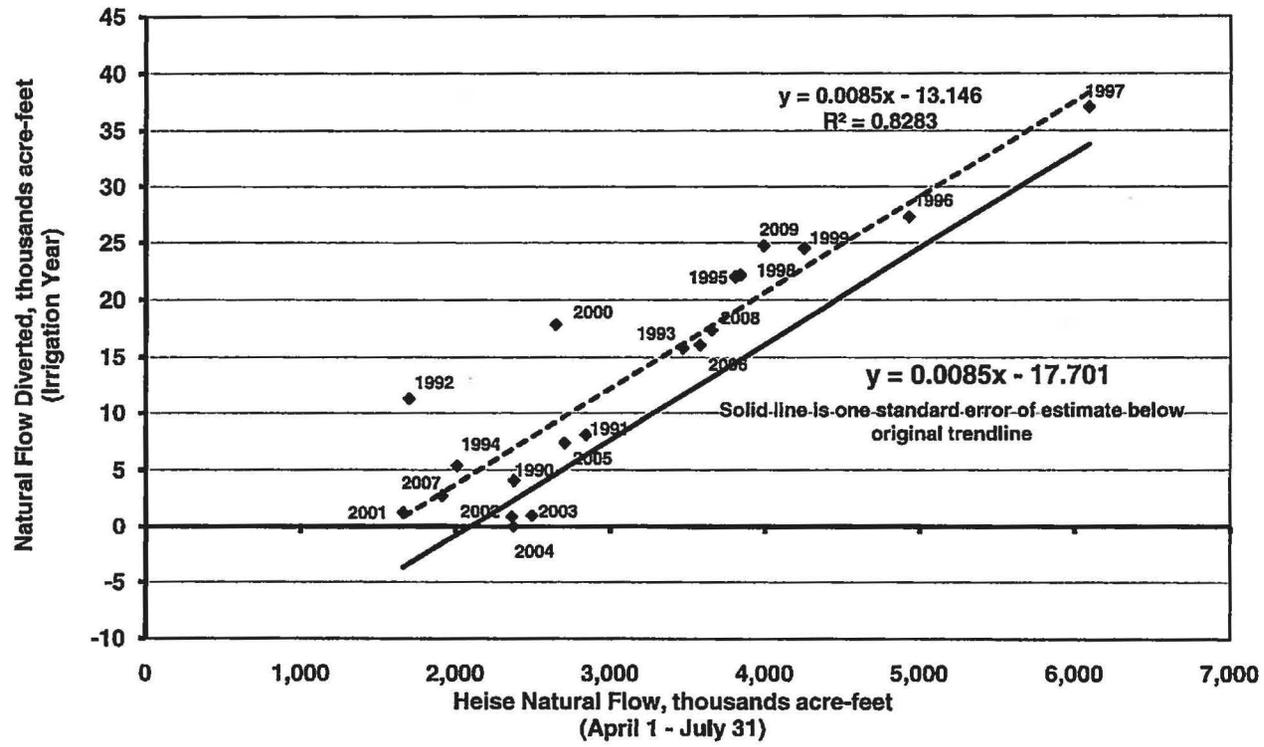
<p>John K. Simpson BARKER ROSHOLT & SIMPSON, LLP P.O. Box 2139 Boise, ID 83701 jks@idahowaters.com</p>	<p><input checked="" type="checkbox"/> U.S. Mail, postage prepaid <input type="checkbox"/> Hand Delivery <input type="checkbox"/> Overnight Mail <input type="checkbox"/> Facsimile <input checked="" type="checkbox"/> Email</p>
<p>Travis L. Thompson Paul L. Arrington BARKER ROSHOLT & SIMPSON, LLP P.O. Box 485 Twin Falls, ID 83303 ilt@idahowaters.com pla@idahowaters.com</p>	<p><input checked="" type="checkbox"/> U.S. Mail, postage prepaid <input type="checkbox"/> Hand Delivery <input type="checkbox"/> Overnight Mail <input type="checkbox"/> Facsimile <input checked="" type="checkbox"/> Email</p>
<p>C. Thomas Arkoosh CAPITOL LAW GROUP, PLLC P.O. Box 32 Gooding, ID 83339 tarkoosh@capitollawgroup.net</p>	<p><input checked="" type="checkbox"/> U.S. Mail, postage prepaid <input type="checkbox"/> Hand Delivery <input type="checkbox"/> Overnight Mail <input type="checkbox"/> Facsimile <input checked="" type="checkbox"/> Email</p>
<p>W. Kent Fletcher FLETCHER LAW OFFICE P.O. Box 248 Burley, ID 83318 wkf@pmt.org</p>	<p><input checked="" type="checkbox"/> U.S. Mail, postage prepaid <input type="checkbox"/> Hand Delivery <input type="checkbox"/> Overnight Mail <input type="checkbox"/> Facsimile <input checked="" type="checkbox"/> Email</p>
<p>Candice M. McHugh RACINE OLSON 101 Capitol Blvd., Ste. 208 Boise, ID 83702 cmm@racinelaw.net</p>	<p><input checked="" type="checkbox"/> U.S. Mail, postage prepaid <input type="checkbox"/> Hand Delivery <input type="checkbox"/> Overnight Mail <input type="checkbox"/> Facsimile <input checked="" type="checkbox"/> Email</p>
<p>Randall C. Budge Thomas J. Budge RACINE OLSON P.O. Box 1391 Pocatello, ID 83204-1391 rcb@racinelaw.net tjb@racinelaw.net</p>	<p><input checked="" type="checkbox"/> U.S. Mail, postage prepaid <input type="checkbox"/> Hand Delivery <input type="checkbox"/> Overnight Mail <input type="checkbox"/> Facsimile <input checked="" type="checkbox"/> Email</p>
<p>Kathleen M. Carr US Dept. Interior 960 Broadway Ste 400 Boise, ID 83706 kathleenmarion.carr@sol.doi.gov</p>	<p><input checked="" type="checkbox"/> U.S. Mail, postage prepaid <input type="checkbox"/> Hand Delivery <input type="checkbox"/> Overnight Mail <input type="checkbox"/> Facsimile <input type="checkbox"/> Email</p>

<p>David W. Gehlert Natural Resources Section Environment and Natural Resources Division U.S. Department of Justice 1961 Stout Street, 8th Floor Denver, CO 80294 david.gehlert@usdoj.gov</p>	<input checked="" type="checkbox"/> U.S. Mail, postage prepaid <input type="checkbox"/> Hand Delivery <input type="checkbox"/> Overnight Mail <input type="checkbox"/> Facsimile <input checked="" type="checkbox"/> Email
<p>Matt Howard US Bureau of Reclamation 1150 N Curtis Road Boise, ID 83706-1234 mhoward@pn.usbr.gov</p>	<input checked="" type="checkbox"/> U.S. Mail, postage prepaid <input type="checkbox"/> Hand Delivery <input type="checkbox"/> Overnight Mail <input type="checkbox"/> Facsimile <input checked="" type="checkbox"/> Email
<p>Sarah A. Klahn WHITE JANKOWSKI 511 16th St., Ste. 500 Denver, CO 80202 sarahk@white-jankowski.com</p>	<input checked="" type="checkbox"/> U.S. Mail, postage prepaid <input type="checkbox"/> Hand Delivery <input type="checkbox"/> Overnight Mail <input type="checkbox"/> Facsimile <input checked="" type="checkbox"/> Email
<p>Dean A. Tranmer City of Pocatello P.O. Box 4169 Pocatello, ID 83205 dtranmer@pocatello.us</p>	<input checked="" type="checkbox"/> U.S. Mail, postage prepaid <input type="checkbox"/> Hand Delivery <input type="checkbox"/> Overnight Mail <input type="checkbox"/> Facsimile <input checked="" type="checkbox"/> Email
<p>Michael C. Creamer Jeffrey C. Fereday GIVENS PURSLEY LLP P.O. Box 2720 Boise, ID 83701-2720 mcc@givenspursley.com jcf@givenspursley.com</p>	<input checked="" type="checkbox"/> U.S. Mail, postage prepaid <input type="checkbox"/> Hand Delivery <input type="checkbox"/> Overnight Mail <input type="checkbox"/> Facsimile <input checked="" type="checkbox"/> Email
<p>Lyle Swank IDWR—Eastern Region 900 N. Skyline Drive Idaho Falls, ID 83402-6105 lyle.swank@idwr.idaho.gov</p>	<input type="checkbox"/> U.S. Mail, postage prepaid <input type="checkbox"/> Hand Delivery <input type="checkbox"/> Overnight Mail <input type="checkbox"/> Facsimile <input checked="" type="checkbox"/> Email
<p>Allen Merritt Cindy Yenter IDWR—Southern Region 1341 Fillmore St., Ste. 200 Twin Falls, ID 83301-3033 allen.merritt@idwr.idaho.gov cindy.yenter@idwr.idaho.gov</p>	<input type="checkbox"/> U.S. Mail, postage prepaid <input type="checkbox"/> Hand Delivery <input type="checkbox"/> Overnight Mail <input type="checkbox"/> Facsimile <input checked="" type="checkbox"/> Email

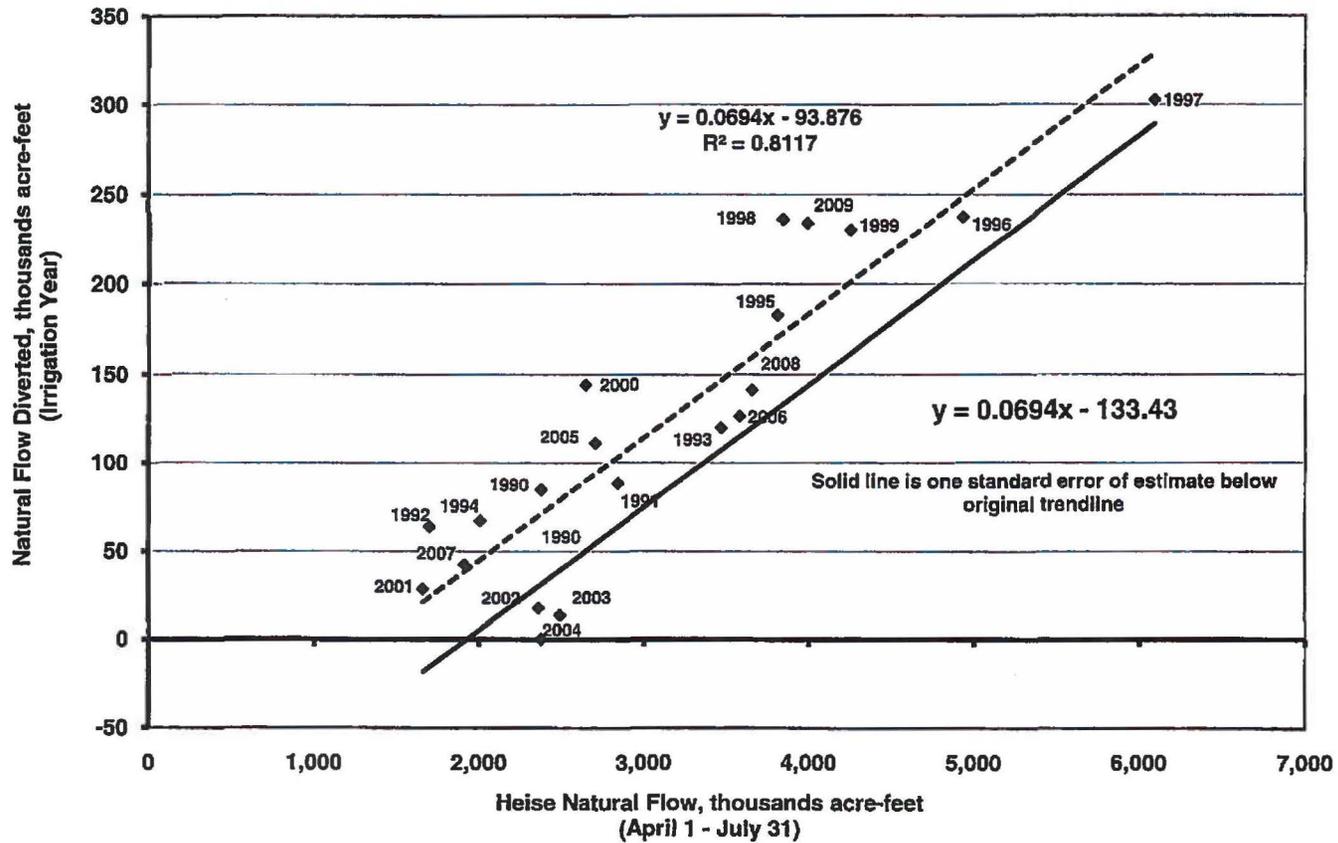


Victoria Wigle
Administrative Assistant to the Director

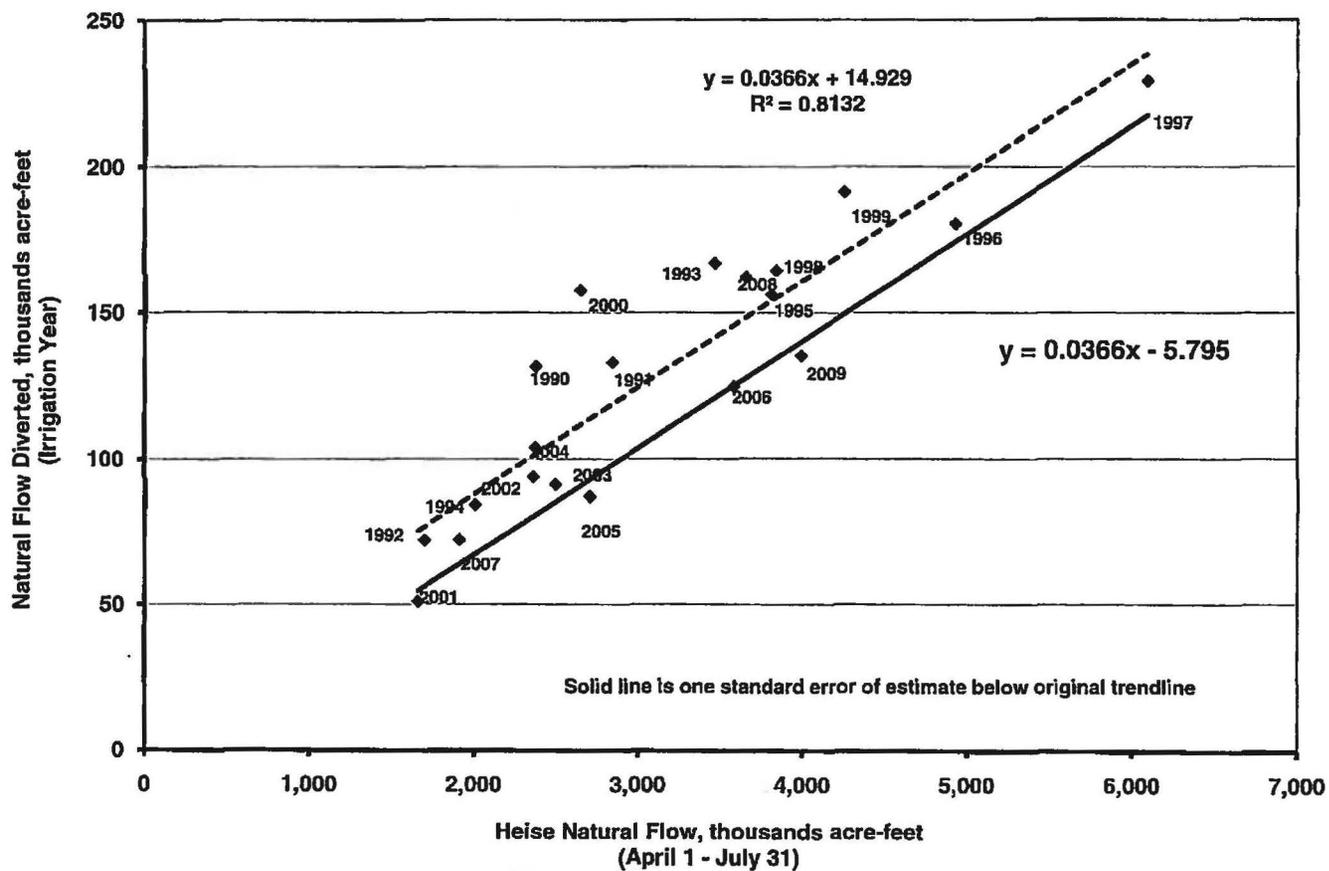
A & B IRRIGATION DISTRICT
Natural Flow Diversions with Heise Inflow



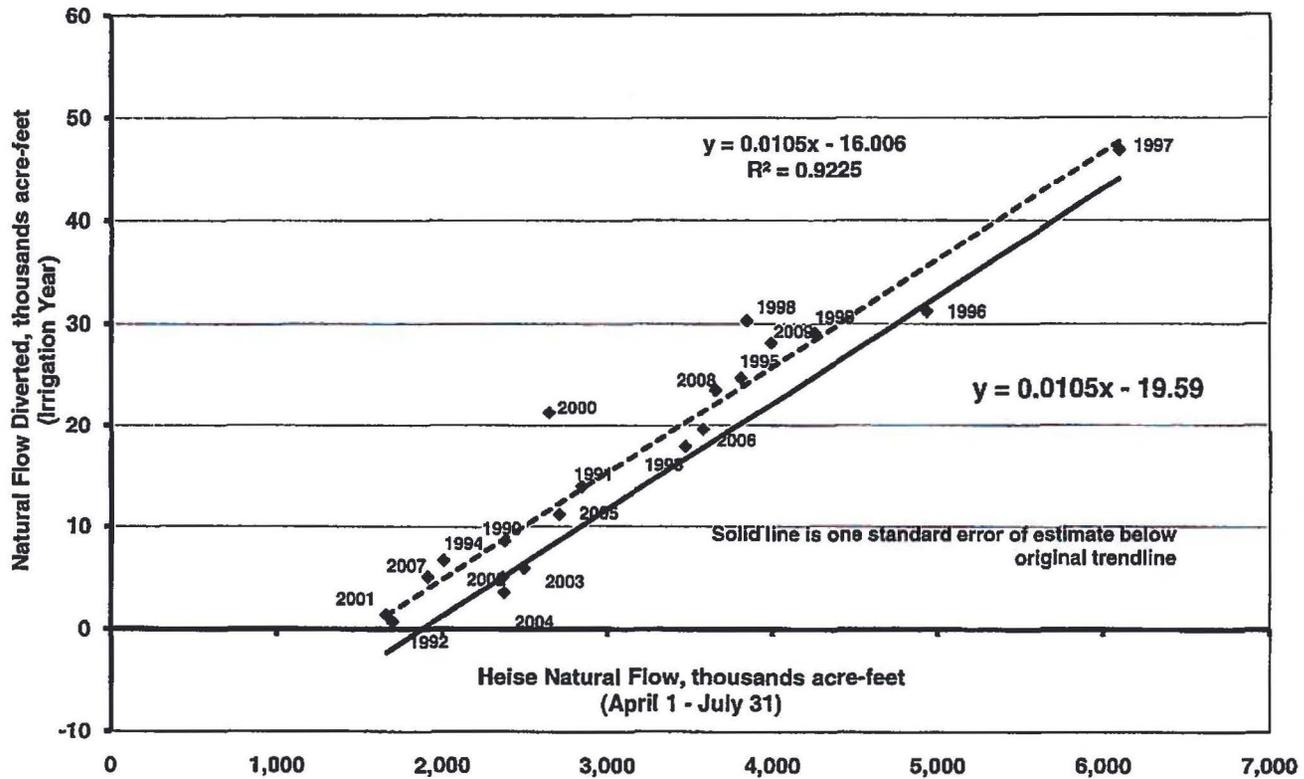
**AMERICAN FALLS RESERVOIR DISTRICT #2
Natural Flow Diversions with Heise Inflow**



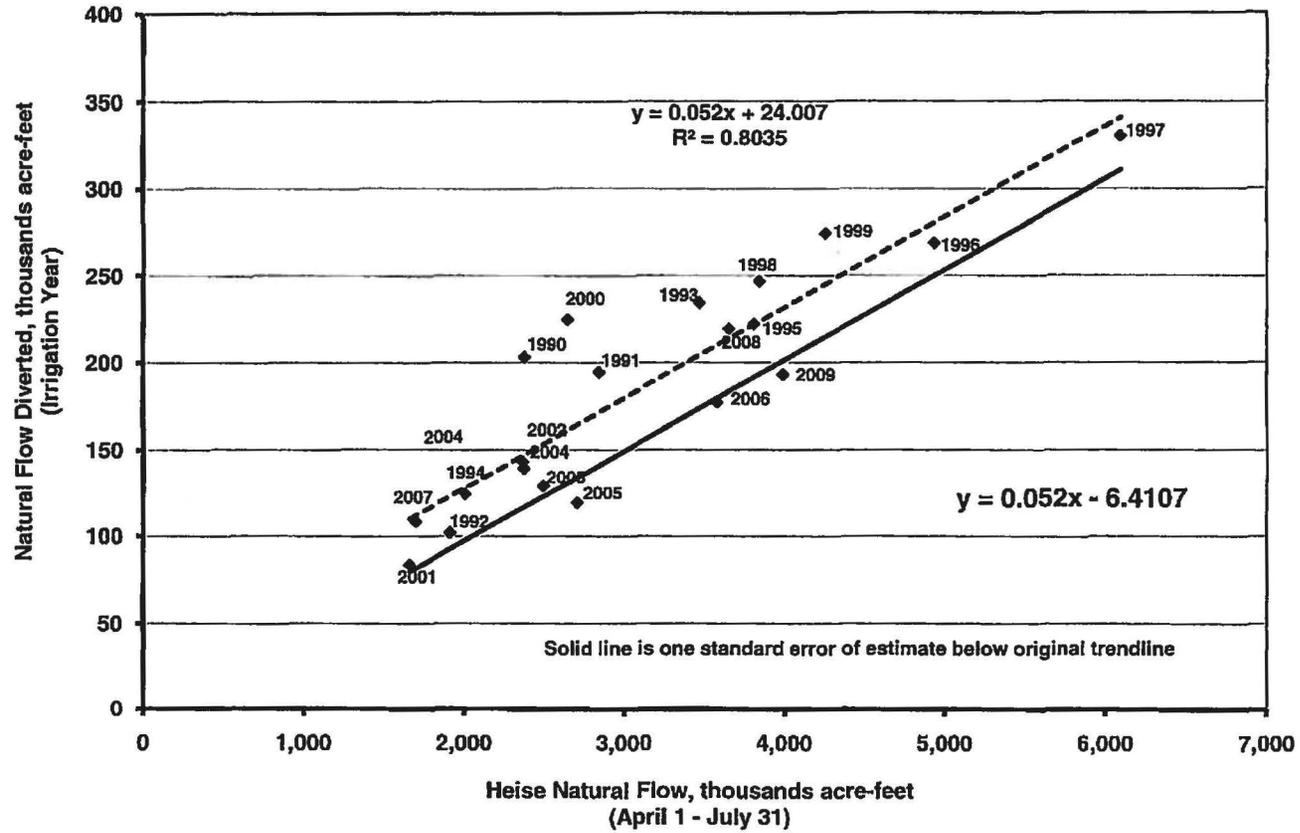
**BURLEY IRRIGATION DISTRICT
Natural Flow Diversions with Heise Inflow**



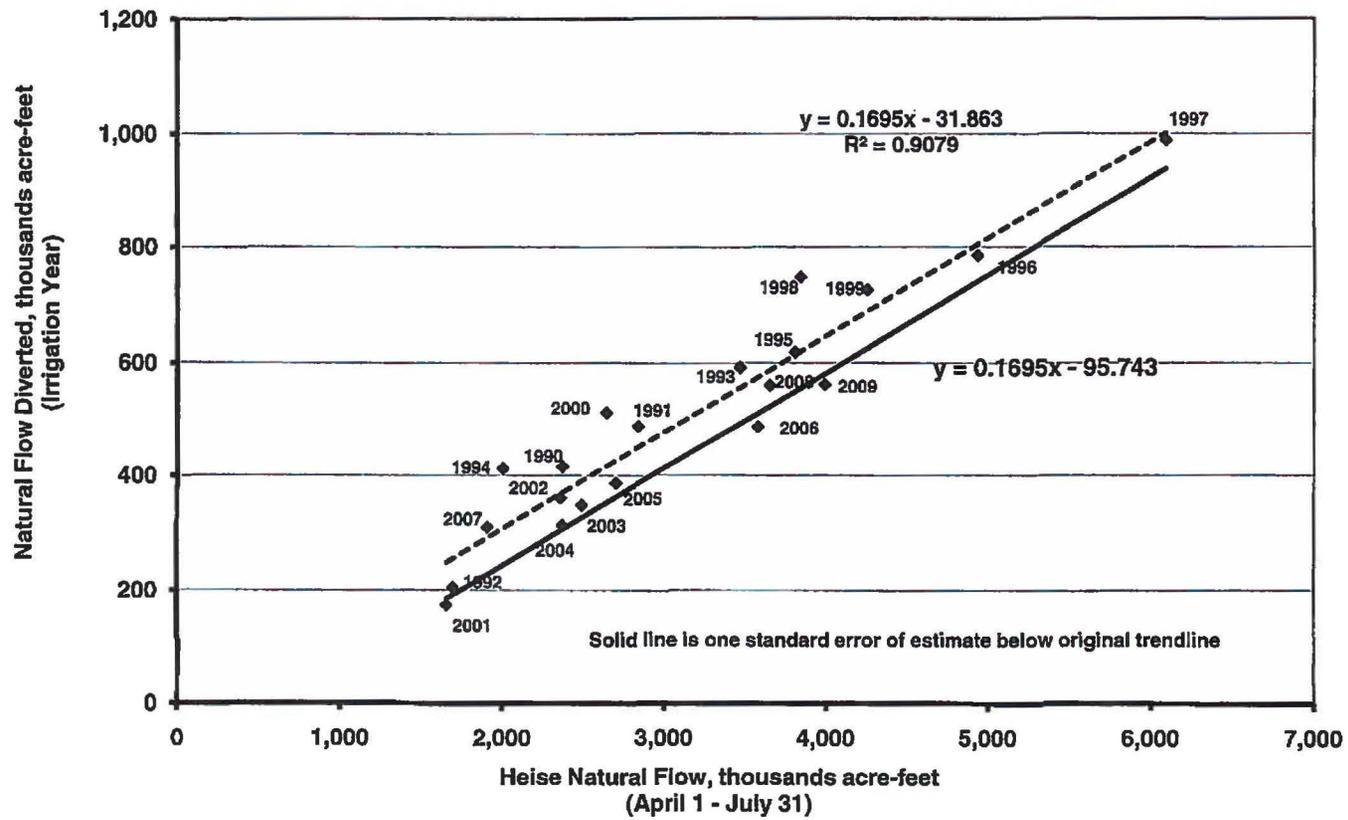
**MILNER IRRIGATION DISTRICT
Natural Flow Diversions with Heise Inflow**



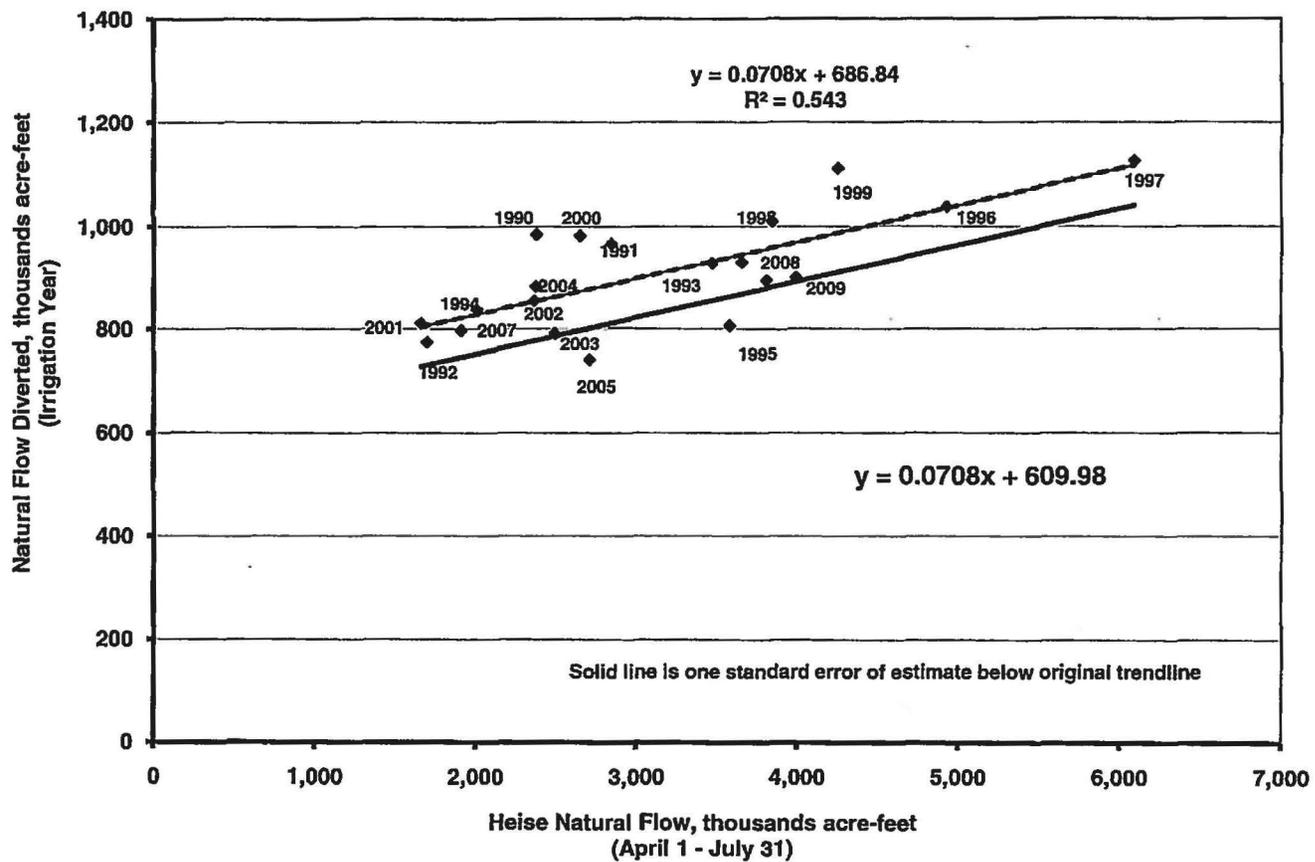
**MINIDOKA IRRIGATION DISTRICT
Natural Flow Diversions with Heise Inflow**



**NORTH SIDE CANAL COMPANY
Natural Flow Diversions with Heise Inflow**



TWIN FALLS CANAL COMPANY
Natural Flow Diversions with Heise Inflow



ADDENDUM C

Amended Order (IDWR May 2, 2005); this order was at issue before the Court in Case No. CV-2008-551 (Fifth Jud. Dist.).

BEFORE THE DEPARTMENT OF WATER RESOURCES
OF THE STATE OF IDAHO

IN THE MATTER OF DISTRIBUTION OF WATER)
TO VARIOUS WATER RIGHTS HELD BY OR FOR)
THE BENEFIT OF A&B IRRIGATION DISTRICT,)
AMERICAN FALLS RESERVOIR DISTRICT #2,)
BURLEY IRRIGATION DISTRICT, MILNER)
IRRIGATION DISTRICT, MINIDOKA IRRIGATION)
DISTRICT, NORTH SIDE CANAL COMPANY,)
AND TWIN FALLS CANAL COMPANY)
_____)

**AMENDED
ORDER**

This matter is before the Director of the Department of Water Resources (“Director” or “Department”) as a result of a letter (“Letter”) and petition (“Petition”), both filed with the Director on January 14, 2005, from A&B Irrigation District, American Falls Reservoir District #2, Burley Irrigation District, Milner Irrigation District, Minidoka Irrigation District, North Side Canal Company, and Twin Falls Canal Company (collectively referred to as the “Surface Water Coalition” or “Coalition”). The Letter and Petition seek the administration and curtailment of ground water rights within Water District No. 120, the American Falls Ground Water Management Area, and areas of the Eastern Snake Plain Aquifer not within an organized water district or ground water management area, that are junior in priority to water rights held by or for the benefit of members of the Surface Water Coalition. The Petition also seeks designation of the Eastern Snake Plain Aquifer as a Ground Water Management Area.

On February 14, 2005, the Director issued an Order in this matter, which provided an initial response to the Letter and Petition filed by the Coalition. Based upon the Director’s initial and further consideration of the Letter and Petition, the Director issued an Order on April 19, 2005, superceding the interlocutory portions of the Order of February 14, 2005. Following a status conference conducted by the Director on April 27, 2005, the Director determined that Finding No. 127 should be clarified. The Director now enters the following Findings of Fact, Conclusions of Law, and Amended Order with revisions to Findings No. 124 through No. 127 and No. 129, three additional findings (Findings No. 128, No. 129, and No. 131), corrected numbering of Conclusions of Law No. 47 through No. 53, and revisions to paragraph no. 9 in the Amended Order.

FINDINGS OF FACT

Procedural History

1. On January 14, 2005, the Surface Water Coalition hand delivered to the Director its Letter regarding *Request for Water Right Administration in Water District 120 (portion of the Eastern Snake Plain Aquifer) / Request for Delivery of Water to Senior Surface Water Rights*.

2. On January 14, 2005, the Surface Water Coalition also filed its Petition captioned *Petition for Water Right Administration and Designation of the Eastern Snake Plain Aquifer as a Ground Water Management Area*. The Petition was filed "pursuant to Rules 30 and 41 of the conjunctive management rules (IDAPA 37.03.11) and Rule 230 of the Department's rules of procedure (IDAPA 37.01.01) . . ." *Petition* at p. 1.

3. Footnote 5 on page 4 of the Letter filed by the Surface Water Coalition on January 14, 2005, seeking the administration of ground water rights in Water District No. 120, contained the following statement: "In the event any entity administering water rights perceives the need for further information concerning 'material injury' other than is supplied either on the face of the Surface Water User's water rights or herein, the undersigned request notification of the same, and a timely and meaningful opportunity to provide such information."

4. On February 3, 2004, the Idaho Ground Water Appropriators, Inc. ("IGWA") filed two petitions to intervene. The first was filed to intervene in the request for administration and curtailment of ground water rights within Water District No. 120, and the second was filed to intervene in the request for administration and curtailment of ground water rights in the American Falls Ground Water Management Area and designation of the Eastern Snake Plain Aquifer as a Ground Water Management Area.

5. On February 11, 2005, Idaho Power Company filed a letter in which Idaho Power requests that the letter be treated as a motion to intervene should a contested case be initiated in response to the Letter and Petition filed by the Coalition.

6. On February 14, 2005, the Director issued his initial Order in this matter responding to the Letter and Petition filed by the Coalition, designating the requested water right administration in Water District No. 120 and the American Falls Ground Water Management Area as contested cases, and granting the two petitions to intervene filed by IGWA. Pursuant to Department Rule of Procedure 710, IDAPA 37.01.01.710, the Order of February 14, 2005, was an interlocutory order and was not subject to review by reconsideration or appeal, with the exception of the portions of the Order (1) determining certain water rights to be junior in priority for the purposes of distributing water to any decreed, licensed, or permitted water rights and (2) denying the portion of the Petition seeking designation of the Eastern Snake Plain Aquifer as a ground water management area. Those two portions of the February 14 Order were final on March 7, 2005, and the Coalition filed a petition seeking a hearing on the denial of designation of the Eastern Snake Plain Aquifer as a ground water management area.

7. To provide for the Director making a determination of the likely extent of injury to the water rights held by or for the benefit of the members of the Surface Water Coalition, the Order of February 14, 2005, included a provision (Conclusion of Law 38) for each member of the Coalition to submit the following information for the past fifteen (15) irrigation seasons, 1990 through 2004:

- a. Total diversions of natural flow in acre feet by month;
- b. Total diversions of water released from reservoir storage in acre feet by month;
- c. Total diversions of ground water by the member entity in acre feet by month;
- d. Number of the entity's members or shareholders holding individual ground water rights;
- e. Average monthly headgate deliveries to the entity's members or shareholders (e.g., 5/8 inch);
- f. Total amount of reservoir storage in acre feet carried over to the subsequent year;
- g. Quantity of water in acre feet the member entity leased to other users through the water supply bank and the Water District 01 Rental Pool;
- h. Quantity of water in acre feet the member entity made available to other users through means other than the water supply bank or the Water District 01 Rental Pool;
- i. Total number of acres irrigated by flood irrigation and total number of acres irrigated by sprinkler irrigation; and
- j. Specific types of crops planted on irrigated acres served by the member entity.

8. On March 15, 2005, members of the Surface Water Coalition jointly filed information in response to the Order of February 14, 2005, but objected to the "scope of the information request." An amendment to Exhibit A of the submittal (total monthly diversions of natural flow and total monthly diversions of water released from reservoir storage) was filed on March 18, 2004.

9. The response filed by the Surface Water Coalition relied heavily on data obtained from the Department (total monthly diversions of natural flow and total monthly diversions of water released from reservoir storage), failed to identify members or shareholders holding individual ground water rights (alleging that such information is "irrelevant for purposes of the request for water right administration of Petitioners' surface water rights"), referred the Director to his own staff or the watermaster for Water District 01 (total amount of reservoir storage carried over to the subsequent year, quantity of water leased to other users through the water supply bank and the Water District 01 Rental Pool, and quantity of water made available to other

users through means other than the water supply bank or the Water District 01 Rental Pool), provided data or estimates for the total number of acres irrigated by flood irrigation and the total number of acres irrigated by sprinkler irrigation for one year only (Minidoka Irrigation District, North Side Canal Company, and Twin Falls Canal Company), and a single list of crops for each member of the coalition (no acreage numbers and no history of crop rotation). The joint response submitted by the Coalition was subsequently supplemented as described in Finding 18.

10. On February 17 and March 7, 2005, respectively, the Idaho Dairymen's Association, and the U. S. Bureau of Reclamation each filed petitions to intervene in the request for administration and curtailment of ground water rights within Water District No. 120.

11. On February 18, 2005, IGWA filed *Idaho Ground Water Appropriators, Inc.'s Motion for Order Authorizing Discovery*.

12. On March 7, 2005, the Surface Water Coalition filed a letter requesting the Department's assistance in completing the identification of ground water rights from the Eastern Snake Plain Aquifer that are junior in priority to surface water rights held by members of the Coalition and that are not in an organized water district or ground water management area, together with the names and addresses for the holders of such rights. The letter of March 7, 2005, also requested a two-week extension from the date set in the Order of February 14, 2005, or until March 31, 2005, to serve the holders of such junior priority water rights with the *Petition for Water Right Administration* originally filed by the Coalition on January 14, 2005.

13. On March 9, 2005, the Director issued an Order denying IGWA's *Motion For Order Authorizing Discovery* without prejudice and granting the request of the Surface Water Coalition for a two-week extension, or until March 31, 2005, to serve the holders of junior priority water rights with the Coalition's *Petition for Water Right Administration*.

14. On March 15, 2004, the Surface Water Coalition filed *Petitioners' Joint Response to Director's February 14, 2005 Request for Information*.

15. On March 23, 2005, IGWA filed *Idaho Ground Water Appropriators' Motion for Summary Judgment and Memorandum in Support*.

16. On April 6, 2005, the Director issued an Order denying the February 11, 2005, motion of Idaho Power Company to intervene, granting the petitions to intervene filed by the Idaho Dairymen's Association and the U. S. Bureau of Reclamation and renewing the Director's request of the members of the Surface Water Coalition for submission of all information (see Finding 7) called for in the Order of February 14, 2005, and requesting simultaneous briefing on whether Idaho law permits the Coalition members to pursue a delivery call to supply water rights that were decreed in a proceeding(s) to which the holders of ground water rights were not parties.

17. On April 15, 2005, members of the Surface Water Coalition filed *Memorandum in Support of Surface Water Coalition's Request for Water Right Administration (Water District 120)*. The Director treated this filing the same as *Idaho Ground Water Appropriators' Motion for Summary Judgment and Memorandum in Support* and accompanying *Affidavit of Dr. Charles M. Brendecke* filed on March 23, 2005, and did not rely on either filing in preparing the present Order.

18. On April 18, 2005, the Director received a joint supplemental response to the renewed request for submission of information. The Director has not had sufficient time to evaluate the supplemental submittal.

Eastern Snake River Plain Aquifer and the Department's Ground Water Model

19. The Eastern Snake River Plain Aquifer ("ESPA") is defined as the aquifer underlying an area of the Eastern Snake River Plain that is about 170 miles long and 60 miles wide as delineated in the report "Hydrology and Digital Simulation of the Regional Aquifer System, Eastern Snake River Plain, Idaho," U. S. Geological Survey ("USGS") Professional Paper 1408-F, 1992, excluding areas lying both south of the Snake River and west of the line separating Sections 34 and 35, Township 10 South, Range 20 East, Boise Meridian. The ESPA is also defined as an area having a common ground water supply. See IDAPA 37.03.11.050.

20. The ESPA is predominately in fractured Quaternary basalt having an aggregate thickness that may, at some locations, exceed several thousand feet, decreasing to shallow depths in the Thousand Springs area. The ESPA fractured basalt is characterized by high hydraulic conductivities, typically 1,000 feet/day but ranging from 0.1 feet/day to 100,000 feet/day.

21. Based on averages for the time period from May of 1980 through April of 2002, the ESPA receives approximately 7.5 million acre-feet of recharge on an average annual basis from the following: incidental recharge associated with surface water irrigation on the plain (3.4 million acre-feet); precipitation (2.2 million acre-feet); underflow from tributary drainage basins (1.0 million acre-feet); and losses from the Snake River and tributaries (0.9 million acre-feet).

22. Based on averages for the time period from May of 1980 through April of 2002, the ESPA also discharges approximately 7.5 million acre-feet on an average annual basis through sources including the complex of springs in the Thousand Springs area, springs in and near American Falls Reservoir, and the discharge of nearly 2.0 million acre-feet annually in the form of depletions from ground water withdrawals.

23. The ground water in the ESPA is hydraulically connected to the Snake River and tributary surface water sources at various places and to varying degrees. One of the locations at which a direct hydraulic connection exists between the ESPA and the Snake River and its tributaries is in the American Falls area.

24. Hydraulically-connected ground water sources and surface water sources are sources that within which, ground water can become surface water, or surface water can become ground water, and the amount that becomes one or the other is largely dependent on ground water elevations.

25. When water is pumped from a well in the ESPA, a conically-shaped zone that is drained of ground water, termed a cone of depression, is formed around the well. This causes surrounding ground water in the ESPA to flow to the cone of depression from all sides. These depletionary effects propagate away from the well, eventually reaching one or more hydraulically-connected reaches of the Snake River and its tributaries. When the depletionary effects reach a hydraulically-connected reach of the Snake River, reductions in river flow begin to occur in the form of losses from the river or reductions in reach gains to the river. The depletions to the Snake River and its tributaries increase over time, with seasonal variations corresponding to seasonal variations in ground water pumping, and then either recede over time, if ground water pumping from the well ceases, or reach a maximum over time beyond which no further significant depletions occur, if ground water pumping from the well continues from year to year. This latter condition is termed a steady-state condition.

26. Various factors determine the specific hydraulically-connected reach of the Snake River affected by the pumping of ground water from a well in the ESPA; the magnitude of the depletionary effects to a hydraulically-connected reach; the time required for those depletionary effects to first be expressed as reductions in river flow; the time required for those depletionary effects to reach maximum amounts; and the time required for those depletionary effects to either recede, if ground water pumping from the well ceases, or reach steady-state conditions, if ground water pumping continues. Those factors include the proximity of the well to the various hydraulically-connected reaches, the transmissivity of the aquifer (hydraulic conductivity multiplied by saturated thickness) between the well and the hydraulically-connected reach of the Snake River, the riverbed hydraulic conductivity, the specific yield of the aquifer (ratio of the volume of water yielded from a portion of the aquifer to the volume of that portion of the aquifer), the period of time over which ground water is pumped from the well, and the amount of ground water pumped that is consumptively used.

27. The time required for depletionary effects in a hydraulically-connected reach of the Snake River to first be expressed, the time required for those depletionary effects to reach maximum amounts, and the time required for those depletionary effects to either recede, if ground water pumping from the well ceases, or reach steady-state conditions, if ground water pumping continues, can range from days to years or even decades, depending on the factors described in Finding No. 26. Generally, the closer a well in the ESPA is located to a hydraulically-connected reach of the Snake River, the larger will be the portion of ground water depletions to the hydraulically-connected reach and the shorter will be the time periods for depletionary effects to first be expressed, for those depletionary effects to reach maximum amounts, and for those depletionary effects to either recede or reach steady-state conditions. However, essentially all depletions of ground water from the ESPA cause reductions in flows in the Snake River equal in quantity to the depletions over time.

28. The Department uses a calibrated ground water model to determine the effects on the ESPA and hydraulically-connected reaches of the Snake River and its tributaries from pumping a single well in the ESPA, from pumping selected groups of wells, and from surface water uses on lands above the ESPA.

29. In 2004, in collaboration with the Idaho Water Resources Research Institute, University of Idaho, U. S. Bureau of Reclamation ("USBR"), USGS, Idaho Power Company, and consultants representing various entities, including certain members of the Surface Water Coalition and IGWA, the Department completed reformulation of the ground water model used by the Department to simulate effects of ground water diversions and surface water uses on the ESPA and hydraulically-connected reaches of the Snake River and its tributaries. This effort was funded in part by the Idaho Legislature and included significant data collection and model calibration intended to reduce uncertainty in the results from model simulations.

30. The reformulated ground water model for the ESPA was calibrated to recorded ground water levels in the ESPA and reach gains or losses to Snake River flows, determined from stream gages together with other stream flow measurements, for the period May 1, 1980 to April 30, 2002. The calibration targets, consisting of measured ground water levels and reach gains/losses, including discharges from springs, have inherent uncertainty resulting from limitations on the accuracy of the measurements. The uncertainty in results predicted by the ESPA ground water model equals the maximum uncertainty of the calibration targets. The calibration targets having the maximum uncertainty are the reach gains or losses determined from stream gages, which although rated "good" by the USGS, have uncertainties of up to 10 percent.

31. Simulations using the Department's calibrated computer model of the ESPA show that ground water withdrawals from certain portions of the ESPA for irrigation and other consumptive purposes cause depletions to the flow of the Snake River in the form of reduced reach gains or increased reach losses in various reaches of the Snake River including the reach extending from Shelley, Idaho to Minidoka Dam, which includes the American Falls Reservoir.

32. The Department is implementing full conjunctive administration of rights to the use of hydraulically-connected surface and ground waters within the Eastern Snake River Plain consistent with Idaho law and available information. The results of simulations from the Department's ground water model are suitable for making factual determinations on which to base conjunctive administration of surface water rights diverted from the Snake River and ground water rights diverted from the ESPA.

33. The Department's ground water model represents the best available science for determining the effects of ground water diversions and surface water uses on the ESPA and hydraulically-connected reaches of the Snake River and its tributaries. There currently is no other technical basis as reliable as the simulations from the Department's ground water model for the ESPA that can be used to determine the effects of ground water diversions and surface water uses on the ESPA and hydraulically connected reaches of the Snake River and its tributaries.

**Creation and Operation of Water Districts No. 120 and No. 130,
and Status of the American Falls Ground Water Management Area**

34. On November 19, 2001, the State of Idaho sought authorization from the Snake River Basin Adjudication ("SRBA") District Court for the interim administration of water rights by the Director in all or parts of the Department's Administrative Basins 35 and 41 overlying the ESPA in the American Falls area and all or parts of Basins 36 and 43 overlying the ESPA in the Thousand Springs area. On January 8, 2002, the SRBA District Court issued an order authorizing the interim administration by the Director. After notice and hearing, the Director issued two orders on February 19, 2002, creating Water District No. 120 and Water District No. 130, pursuant to the provisions of Idaho Code § 42-604.

35. On August 30, 2002, the State of Idaho filed a second motion with the SRBA District Court seeking authorization for the interim administration of water rights by the Director in the portion of the Department's Administrative Basin 37 overlying the ESPA in the Thousand Springs area. On November 19, 2002, the SRBA District Court issued an order authorizing the interim administration by the Director. After notice and hearing, the Director issued an order on January 8, 2003, revising the boundaries of Water District No. 130 to include the portion of Administrative Basin 37 overlying the ESPA, pursuant to the provisions of Idaho Code § 42-604.

36. On July 10, 2003, the State of Idaho filed a third motion with the SRBA District Court seeking authorization for the interim administration of water rights by the Director in the portion of the Department's Administrative Basin 29 overlying the ESPA in the American Falls area. On October 29, 2003, the SRBA District Court issued an order authorizing the interim administration by the Director. After notice and hearing, the Director issued an order on January 22, 2004, revising the boundaries of Water District No. 120 to include the portion of Administrative Basin 29 overlying the ESPA, pursuant to the provisions of Idaho Code § 42-604.

37. Water Districts No. 120 and No. 130 were created, and the respective boundaries revised, to provide for the administration of water rights, pursuant to chapter 6, title 42, Idaho Code, for the protection of prior surface and ground water rights. As a result, the watermasters for Water Districts No. 120 and No. 130 were given the following duties to be performed in accordance with guidelines, direction, and supervision provided by the Director:

- a. Curtail illegal diversions (i.e., any diversion without a water right or in excess of the elements or conditions of a water right);
- b. Measure and report the diversions under water rights;
- c. Enforce the provisions of any stipulated agreement; and
- d. Curtail out-of-priority diversions determined by the Director to be causing injury to senior priority water rights that are not covered by a stipulated agreement or a mitigation plan approved by the Director.

38. On August 29, 2003, the Director issued a final order reducing the area of the American Falls Ground Water Management Area. Even though reach gains to the Snake River between the USGS stream gage located about 10 miles southwest of Blackfoot, Idaho ("Near Blackfoot Gage") and the USGS stream gage located about 1 mile downstream of American Falls Dam ("Neeley Gage") have generally continued to decline since 2001 when the American Falls Ground Water Management Area was designated, the Director determined that preserving the original area of the American Falls Ground Water Management Area was no longer necessary to administer water rights for the protection of senior surface and ground water rights because administration of such rights is now accomplished through the operation of Water Districts No. 120 and No. 130.

39. On April 15, 2005, the State of Idaho filed three motions with the SRBA District Court seeking authorization for the interim administration of water rights by the Director in the Department's Administrative Basin 25; Basins 31, 32, and 33; and Basin 45. If the SRBA District Court authorizes interim administration in these administrative basins, nearly all ground water rights authorizing diversion of ground water from the ESPA will be subject to administration through water districts, when combined with the ground water rights already in Water Districts No. 120 and No. 130. At the time of filing Director's Reports in the SRBA later this year for the relatively few remaining ground water rights authorizing diversions from the ESPA, additional motions will be filed by the State of Idaho seeking authorization for interim administration of those remaining rights. While authorization for interim administration of the remaining ground water rights is subject to determinations to be made by the SRBA District Court, the Director anticipates that water districts covering all of the ESPA will be in place for the irrigation season of 2006, and all ground water rights authorizing diversions from the ESPA will be subject to administration through water districts established pursuant Idaho Code, Chapter 6, Title 42.

40. The general location and existing boundaries for Water Districts No. 120 and No. 130 as well as the location and existing boundaries for the remaining American Falls Ground Water Management Area are shown on Attachment A. Boundaries for a proposed addition to Water District No. 120 as well as areas for potential future water districts (Water Districts No. 110 and No. 140) are also shown on Attachment A.

Conjunctive Management Rules

41. Idaho Code § 42-603 authorizes the Director "to adopt rules and regulations for the distribution of water from the streams, rivers, lakes, ground water and other natural water sources as shall be necessary to carry out the laws in accordance with the priorities of the rights of the users thereof." Promulgation of such rules and regulations must be in accordance with the procedures of chapter 52, title 67, Idaho Code.

42. On October 7, 1994, the Director issued *Order Adopting Final Rules; the Rules for Conjunctive Management of Surface and Ground Water Resources* (IDAPA 37.03.11) ("Conjunctive Management Rules"), promulgated pursuant to chapter 52, title 67, Idaho Code, and Idaho Code § 42-603.

43. Pursuant to Idaho Code § 67-5291, the Conjunctive Management Rules were submitted to the 1st Regular Session of the 53rd Idaho Legislature (1995 session). During no legislative session, beginning with the 1st Regular Session of the 53rd Idaho Legislature, have the Conjunctive Management Rules been rejected, amended, or modified by the Idaho Legislature. Therefore, the Conjunctive Management Rules are final and effective.

44. The Conjunctive Management Rules “apply to all situations in the state where the diversion and use of water under junior-priority ground water rights either individually or collectively causes material injury to uses of water under senior-priority water rights. The rules govern the distribution of water from ground water sources and areas having a common ground water supply.” IDAPA 37.03.11.020.01.

45. The Conjunctive Management Rules “acknowledge all elements of the prior appropriation doctrine as established by Idaho law.” IDAPA 37.03.11.020.02.

Letter Filed by the Surface Water Coalition

46. On January 14, 2005, the Surface Water Coalition hand delivered to the Director its Letter regarding *Request for Water Right Administration in Water District 120 (portion of the Eastern Snake Plain Aquifer) / Request for Delivery of Water to Senior Surface Water Rights*.

47. The Letter states that: “Data collected by the United States Bureau of Reclamation (USBR) over the past six years indicates about a 30% reduction in reach gains to the Snake River between Blackfoot and Neeley, a loss of about 600,000 acre feet. The recently recalibrated ESPA ground water model identifies ground water pumping as a major contributor to declines in the source of water fulfilling senior surface water rights. The ground water model demonstrates that pumping under junior groundwater rights results in an approximate steady state annual depletion of 1.1 million acre-feet to the Snake River in the American Falls reach.” *Letter* at p. 2.

48. The Letter claims that water diverted by junior ground water users can be put to beneficial use by the Surface Water Coalition: “The water that will accrue to these reaches (Neeley to Minidoka, near Blackfoot to Neeley, and Shelley to Blackfoot) is needed and can be put to beneficial use under the Coalition’s senior surface water rights. Whenever natural flow rights are on, the Coalition can use that water under their natural flow rights, and whenever that water would accrue to fill storage rights, the water is likewise needed to satisfy those storage rights.” *Id.* at p. 3.

49. The Letter states that reduced availability of water as a result of ground water diversions under junior priority rights has materially injured the Surface Water Coalition’s senior rights. “The extent of injury equals the amount of water diminished and the cumulative shortages in natural flow and storage water which is the result of groundwater depletions.” *Id.* Moreover, the letter asserts that: “Any and all water that is pumped under junior groundwater rights that would otherwise accrue to the Snake River to satisfy a senior surface water right, as

demonstrated by the model, results in a 'material injury' to the Surface Water Coalition's senior surface water rights." *Id.*

50. The Letter requests "administration of water rights in Water District No. 120 and delivery of water to their respective Snake River natural flow water rights and to the storage water rights held by the USBR in trust for these entities, pursuant to Idaho Code Chapter 6 Title 42 and the Rules for Conjunctive Management of Surface and Ground Water Resources (Idaho Administrative Code Section 37.01.01)." *Id.* at p. 2.

Petition Filed by the Surface Water Coalition

51. On January 14, 2005, the Surface Water Coalition also filed its Petition captioned *Petition for Water Right Administration and Designation of the Eastern Snake Plain Aquifer as a Ground Water Management Area*. The Petition was filed "pursuant to Rules 30 and 41 of the conjunctive management rules (IDAPA 37.03.11) and Rule 230 of the Department's rules of procedure (IDAPA 37.01.01)" *Petition* at p. 1.

52. In addition to the information presented in the Letter regarding reduction in reach gains, annual depletions to the Snake River, and material injury claimed to the natural flow and storage water rights of the members of the Surface Water Coalition based upon the diversions of ground water under junior rights, the Petition seeks designation of the Eastern Snake Plain as a Ground Water Management Area.

53. The Surface Water Coalition states in paragraph 24 of its Petition that: "Petitioners reserve the right to supplement this petition with additional information as necessary."

Water Rights Held by or for the Benefit of Members of the Surface Water Coalition

54. The disposition of all of the water rights listed in the Letter and Petition filed by the Surface Water Coalition is pending in the SRBA. Many of the water rights listed in the Letter and Petition are overlapping or redundant. The Department has completed its preliminary examination of the rights claimed by members of the Coalition, other than rights also claimed by the USBR, pursuant to Idaho Code § 42-1410 and has prepared preliminary recommendations for reporting these rights in the SRBA. The preliminary recommendations were mailed to the members of the Coalition on April 15, 2004. Over the coming weeks, the Department will consider any additional information provided by the members of the Coalition concerning the members' water rights and will prepare its final reporting of these rights for filing with the SRBA District Court. Upon filing of the Director's Report for water rights in Basin 01, including the rights held by members of the Coalition, the State of Idaho will file a motion with the SRBA District Court seeking authorization for the interim administration of rights in Basin 01 by the Director based on the Director's Report.

55. The A&B Irrigation District holds the following surface water right as claimed in the SRBA for the diversion of water from the Snake River:

Water Right No.: 01-00014
Basis for Right: Decree
Priority Date: April 1, 1939
Diversion Rate: 267 cfs
Beneficial Use: Irrigation
Place of Use: See Attachment B

56. The Letter and Petition filed by the Surface Water Coalition referred to water rights nos. 01-02060A, 01-02064F, and 01-02068F claimed by the A&B Irrigation District in the SRBA. The current holder of record for these rights is the United States through the USBR. Determination of the interest held by the A&B Irrigation District in each of these rights is pending in the SRBA.

57. The American Falls Reservoir District #2 holds the following surface water right as claimed in the SRBA for the diversion of water from the Snake River:

Water Right No.: 01-00006
Basis for Right: Decree
Priority Date: March 20, 1921
Diversion Rate: 1,700 cfs
Beneficial Use: Irrigation
Place of Use: See Attachment C

58. The Burley Irrigation District holds the following surface water rights as claimed in the SRBA for the diversion of water from the Snake River:

Water Right No.:	01-00007	01-00211B	01-00214B
Basis for Right:	Decree	Decree	Decree
Priority Date:	April 1, 1939	March 26, 1903	August 6, 1908
Diversion Rate:	163.4 cfs	655.88 cfs	380 cfs
Beneficial Use:	Irrigation	Irrigation	Irrigation
Place of Use:	See Attachment D		

59. The Milner Irrigation District holds the following surface water rights as claimed in the SRBA for the diversion of water from the Snake River:

Water Right No.:	01-00009	01-00017	01-02050
Basis for Right:	Decree	Decree	License
Priority Date:	April 1, 1939	April 30, 1931	October 25, 1939
Diversion Rate:	121 cfs	135 cfs	37 cfs
Beneficial Use:	Irrigation	Irrigation	Irrigation
Place of Use:	See Attachment E		

60. The Letter and Petition filed by the Surface Water Coalition referred to water right no. 01-02064B claimed by the Milner Irrigation District in the SRBA. The current holder of record for this right is the United States through the USBR. Determination of the interest held by the Milner Irrigation District in this right is pending in the SRBA.

61. The Minidoka Irrigation District holds the following surface water right as claimed in the SRBA for the diversion of water from the Snake River:

Water Right No.: 01-00008
 Basis for Right: Decree
 Priority Date: April 1, 1939
 Diversion Rate: 266.6 cfs
 Beneficial Use: Irrigation
 Place of Use: See Attachment F

62. The Letter and Petition filed by the Surface Water Coalition referred to water rights nos. 01-04045, 01-10187, 01-10188, 01-10189, 01-10190, 01-10191, 01-10192, 1-10193, 01-10194, 01-10195, and 01-10196 claimed by the Minidoka Irrigation District in the SRBA. The basis for water right no. 01-04045 is a beneficial use claim filed pursuant to Idaho Code § 42-243 for which the current holder of record is the Amalgamated Sugar Company. The remaining water rights are based on claims filed in the SRBA under Idaho Code § 42-1409 for which the current holder of record, except for 01-10192 and 01-10193, is the United States through the USBR. Determination of the interest held by the Minidoka Irrigation District in each of these rights is pending in the SRBA.

63. The North Side Canal Company holds the following surface water rights as claimed in the SRBA for the diversion of water from the Snake River:

Water Right No.:	01-00005	01-00016	01-00210A
Basis for Right:	Decree	Decree	Decree
Priority Date:	December 23, 1915	August 6, 1920	October 11, 1900
Diversion Rate:	300 cfs	1,260 cfs	54 cfs
Beneficial Use:	Irrigation	Irrigation	Irrigation

Water Right No.:	01-00210B	01-00212	01-00213
Basis for Right:	Decree	Decree	Decree
Priority Date:	October 11, 1900	October 7, 1905	June 16, 1908
Diversion Rate:	346 cfs	2,250 cfs	890 cfs
Beneficial Use:	Irrigation	Irrig., Irrig. from Storage, Irrig. storage	Irrigation

Water Right No.:	01-00215	01-00220
Basis for Right:	Decree	Decree

Priority Date:	June 2, 1909	June 29, 1910
Diversion Rate:	500 cfs	3,000 cfs
Beneficial Use:	Irrigation	Irrigation

Place of Use: See Attachment G

64. The Letter and Petition filed by the Surface Water Coalition referred to water rights nos. 01-02064C, 01-10042B, 01-10043A, 01-10045B, and 01-10053A claimed by the North Side Canal Company in the SRBA. The current holder of record for water right no. 01-02064C is the United States through the USBR. The remaining water rights are based on claims filed in the SRBA under Idaho Code § 42-1409 for which the current holder of record is also the United States through the USBR. Determination of the interest held by the North Side Canal Company in each of these rights is pending in the SRBA.

65. The Twin Falls Canal Company holds the following surface water rights as claimed in the SRBA for the diversion of water from the Snake River:

Water Right No.:	01-00004	01-00010	01-00209
Basis for Right:	Decree	Decree	Decree
Priority Date:	December 22, 1915	April 1, 1939	October 11, 1900
Diversion Rate:	600 cfs	180 cfs	3,000 cfs
Beneficial Use:	Irrigation	Irrigation	Irrigation
Place of Use:	See Attachment H		

66. The Letter and Petition filed by the Surface Water Coalition referred to water rights nos. 01-02064A, 01-10042A, 01-10043, and 01-10045A claimed by the Twin Falls Canal Company in the SRBA. The current holder of record for water right no. 01-02064A is the United States through the USBR. The remaining water rights are based on claims filed in the SRBA under Idaho Code § 42-1409 for which the current holder of record is also the United States through the USBR. Determination of the interest held by the Twin Falls Canal Company in each of these rights is pending in the SRBA.

67. Because sufficient water could not be obtained from the natural and unregulated flow of the Snake River for the full irrigation of lands authorized under the surface water rights held by the members of the Surface Water Coalition as well as surface water rights held by other entities in the Upper Snake River Basin of Idaho with points of diversion at and upstream of Milner Dam, the USBR constructed dams to provide reservoirs to capture and store water from the Snake River when water surplus to irrigation demands was available, generally during the non-irrigation season, for subsequent release to supplement existing water rights for natural flow to help meet irrigation shortages. Additionally, these reservoirs are used to generate power incidental to reservoir releases for irrigation and flood control. Storage reservoirs developed by the USBR include Jackson Lake, Ririe Reservoir, Lake Walcott, American Falls Reservoir, and Palisades Reservoir.

68. The USBR holds the following surface water rights as claimed in the SRBA for diversion of water from the Snake River for irrigation, reservoir storage for irrigation, and reservoir releases for irrigation and incidental power generation under some rights:

Water Right No.:	01-00284	01-02064	01-02068
Basis for Right:	Decree	License	License
Priority Date:	March 30, 1921	March 30, 1921	June 28, 1939
Reservoir:	American Falls	American Falls	Palisades
Storage Volume:	1.7 million acre-feet	1.8 million acre-feet	1.4 million acre-feet

69. The Letter and Petition filed by the Surface Water Coalition referred to water rights nos. 01-04052, 01-04055, 01-04056, 01-04057, 01-10042, 01-10043, 01-10044, 01-10045, and 01-10053 claimed by the USBR in the SRBA. The basis for water rights nos. 01-04052, 01-04055, 01-04056, 01-04057, 01-10042, 01-10043, 01-10044, 01-10045, and 01-10053 are beneficial use claims filed pursuant to Idaho Code § 42-243 or claims filed pursuant to Idaho Code § 42-1409. Determination of each of these rights is pending in the SRBA.

70. The members of the Surface Water Coalition entered into contracts with the USBR for the use of water yielded from storage space in the reservoirs described in Finding No. 67 under the water rights described in Findings Nos. 68 and 69 as follows:

- a. A&B Irrigation District –
 - 46,826 acre-feet of storage space in American Falls Reservoir
 - 90,800 acre-feet of storage space in Palisades Reservoir
 - Total: 137,626 acre-feet of storage space
- b. American Falls Reservoir District #2 –
 - 393,550 acre-feet of storage space in American Falls Reservoir
- c. Burley Irrigation District –
 - 31,892 acre-feet of storage space in Lake Walcott
 - 155,395 acre-feet of storage space in American Falls Reservoir
 - 39,200 acre-feet of storage space in Palisades Reservoir
 - Total: 226,487 acre-feet of storage space
- d. Milner Irrigation District –
 - 44,951 acre-feet of storage space in American Falls Reservoir
 - 45,640 acre-feet of storage space in Palisades Reservoir
 - Total: 90,591 acre-feet of storage space
- e. Minidoka Irrigation District –
 - 186,030 acre-feet of storage space in Jackson Lake
 - 63,308 acre-feet of storage space in Lake Walcott
 - 82,216 acre-feet of storage space in American Falls Reservoir
 - 35,000 acre-feet of storage space in Palisades Reservoir
 - Total: 366,554 acre-feet of storage space

- f. North Side Canal Company –
 - 312,007 acre-feet of storage space in Jackson Lake
 - 431,291 acre-feet of storage space in American Falls Reservoir
 - 116,600 acre-feet of storage space in Palisades Reservoir
 - Total: 859,898 acre-feet of storage space

- g. Twin Falls Canal Company –
 - 97,183 acre-feet of storage space in Jackson Lake
 - 148,747 acre-feet of storage space in American Falls Reservoir
 - Total: 245,930 acre-feet of storage space

71. Legal title to the water rights described in Findings Nos. 68 and 69 is held by the USBR. The beneficial use of the water provided under the storage water contracts described in Finding No. 70 is made by the landowners within the respective service areas of the members of the Surface Water Coalition.

72. Water that is supplied through the storage contracts described in Finding No. 70 is supplemental to the water rights held by the members of the Surface Water Coalition authorizing the diversion and beneficial use of the natural flow of the Snake River. Members of the Surface Water Coalition rely on their natural flow water rights together with the supplemental water supply resulting from their rights under storage contracts with the USBR, and in some instances supplemental ground water rights, to provide a full water supply for their respective irrigation needs. The actual amount of storage used for irrigation during any given irrigation season varies based upon climatic conditions.

General Findings in Response to Letter and Petition Filed by the Surface Water Coalition

73. The Petition filed by the Surface Water Coalition did not include the names, addresses, and description of the water rights outside of water districts held by ground water users who are alleged by the Coalition to be causing material injury to the surface water rights held by or for the benefit of members of the Coalition, in so far as such information is known by the members of the Coalition or can be reasonably determined by a search of public records, as required by Rule 30.01.b. of the Conjunctive Management Rules.

74. The Surface Water Coalition has since preliminarily identified the names and addresses of approximately 3,000 persons and other entities holding ground water rights that the Coalition allege to be causing material injury to the surface water rights held by or for the benefit of members of the Coalition. On or about April 1, 2005, the Coalition began serving the holders of such ground water rights with its *Petition for Water Right Administration and Designation of the Eastern Snake Plain Aquifer as a Ground Water Management Area* as required by Rule 30.02 of the Conjunctive Management Rules (IDAPA 37.03.11.030.02) and Rule 230 of the Department's rules of procedure (IDAPA 37.01.01.230).

75. Resolution of the Petition and the associated contested case pursuant to Rule 30 of the Conjunctive Management Rules (IDAPA 37.03.11.030) are pending. Resolution of the Petition as it regards the administration of water rights in the American Falls Ground Water Management Area pursuant to Rule 41 of the Conjunctive Management Rules (IDAPA 37.03.11.041) is also pending.

76. The Letter filed by the Surface Water Coalition limited the administration and curtailment of junior priority ground water rights sought by the Coalition to Water District No. 120. The Letter did not seek the administration and curtailment of junior priority ground water rights in Water District No. 130, which includes ground water rights held by members of the North Snake Ground Water District (including some also holding shares in the North Side Canal Company), members of the Magic Valley Ground Water District, and the United States for the benefit of members of the A&B Irrigation District.

77. Using the Department's ground water model for the ESPA, Department staff simulated the curtailment of all ground water rights in Water District No. 120 separately and in Water District No. 130 separately using the average annual consumptive use for irrigation beginning in 1980 through 2001. The results of these simulations showed that at steady-state conditions, the reach gain to the Snake River between the Near Blackfoot Gage and the USGS stream gage located 1 mile downstream from Minidoka Dam ("Minidoka Gage") would be greater by 429,300 acre-feet annually, an amount equal to 66 percent of the total average annual ground water depletions in Water District No. 120, from curtailment of all ground water rights in Water District No. 120. For curtailment of all ground water rights in Water District No. 130, the reach gain between the Near Blackfoot Gage and the Minidoka Gage would be greater by 195,500 acre-feet annually, an amount equal to 35 percent of the total average annual ground water depletions in Water District No. 130.

78. Based on the 2-year, 3-year, 4-year, and 5-year moving averages of unregulated (corrected for reservoir storage) natural flow in the Snake River at the USGS stream gage located 2.4 miles upstream of Heise, Idaho ("Heise Gage"), since the year 2000 the Upper Snake River Basin has experienced the worst consecutive period of drought years on record.

79. The Department has records of reach gains to the Snake River between the Near Blackfoot Gage and the Neeley Gage for every year since and including 1928. The total reach gains for each of these years are shown on Attachment I. Based on these records, there is no significant trend, up or down, for the 72 years of record from 1928 through 1999. Since 1999, there has been a significant decrease in the reach gains, reaching record lows in 2003, which correspond to the consecutive years of drought in the Upper Snake River Basin since 2000.

80. Using the Department's ground water model and under contract with the Department, the Idaho Water Resources Research Institute ("IWRRRI") simulated the effects of continuing ground water diversions, with no other changes, (the "Base Case Scenario") by repeatedly using the input for the time period used to calibrate the ground water model (May 1, 1980 through April 30, 2002). The results from this simulation, as well as from a companion water budget analysis, indicate that "... as of May 2002, the Snake River Plain aquifer [sic] is close to dynamic equilibrium." IWRRRI Technical Report 04-001. Based on these results,

reductions of flows in hydraulically-connected reaches of the Snake River and its tributaries resulting from ground water depletions were essentially the same in 2004 as in 1999. Therefore, ground water depletions are not the cause of the declines in measured reach gains between the Near Blackfoot Gage and the Neeley Gage since 1999.

81. Using the Department's ground water model, IWRRRI also simulated the effects of curtailing ground water diversion and use across the ESPA under ground water rights junior to January 1, 1870; January 1, 1949; January 1, 1961; January 1, 1973; and January 1, 1985; with no other changes using separate model simulations (the "Curtailment Scenario"). IWRRRI Technical Report 04-023. The simulated reach gain accruals from the Near Blackfoot Gage and the Neeley Gage and from the Neeley Gage to the Minidoka Gage represent the additional flows that would be present in the Snake River in those river reaches if ground water diversion and use junior to one of the selected priority dates were curtailed and no other changes occurred.

82. The effect of ground water depletions described in Findings 25, 26, 27, and 81 reduces the amount of natural flow, over time. As a result, members of the Coalition may use more storage in some years than would otherwise be used but for ground water depletions, which in those years reduces the amount of carry-over storage at the end of the irrigation season for a particular year that would otherwise be available for the following year. At steady-state conditions, this has essentially the same effect as if the holders of ground water rights replaced the diversion and use of ground water instead with diversion and use of storage releases.

83. If American Falls Reservoir does not fill in a particular year, the effect of ground water depletions described in Findings 25, 26, 27, and 81 can also reduce the amount of water in the Snake River that would otherwise be available for diversion to storage in American Falls Reservoir under the rights held by the United States through the USBR, described in Finding 68, for the benefit of the members of the Coalition.

84. Another significant action affecting the amount of storage available for release and diversion by some members of the Surface Water Coalition, most notably the A&B Irrigation District, the North Side Canal Company, and the Twin Falls Canal Company, is the use of the Water District 01 Rental Pool, which is operated pursuant to Idaho Code § 42-1765 and the "Water Supply Bank Rules" of the Idaho Water Resource Board (IDAPA 37.02.03).

85. The A&B Irrigation District supplied some of its storage water to the rental pool, 20,000 acre-feet in 2000 and 3,000 acre-feet in 2002, for rental and use by others at the beginning of and prior to the current sequence of drought years, thereby reducing the subsequent carryover storage available to the A&B Irrigation District. The A&B Irrigation District has also entered into exchange agreements that have reduced the storage supplies available to the District.

86. The Minidoka Irrigation District has also supplied some of its storage water to the rental pool, 10,000 acre-feet in 2000 and 23,800 acre-feet in 2003, for rental and use by others. Under the ongoing drought conditions persisting since 2000, water from the relatively senior priority bottom storage space in Jackson Lake under the contract held by the Minidoka Irrigation District has been heavily drafted. Although the bottom storage space in Jackson Lake has refilled every year during the ongoing drought conditions persisting since 2000, the relatively junior

priority top storage space in Jackson Lake under the contracts held by the North Side Canal Company and the Twin Falls Canal Company has not filled. Under these conditions, because the bottom space in Jackson Lake refills, the effects of the water supplied to the rental pool by the Minidoka Irrigation District, and subsequently used by others, reduced the fill of the top storage space in Jackson Lake in an amount equal to the water supplied to the rental pool by the Minidoka Irrigation District, thereby reducing the subsequent carryover storage available to the North Side and Twin Falls Canal Companies. The current Rental Pool Procedures for the Water District 01 Rental Pool have been revised to address these effects in 2005 and future years.

87. To the extent entities holding contracts to use water from relatively senior priority storage space in USBR reservoirs use more storage, as described in Finding 82, and that storage space refills, under the drought conditions persisting since 2000 the increased use of storage further reduces the fill of junior priority storage space, thereby further reducing the subsequent carryover storage available to the North Side and Twin Falls Canal Companies.

Water Supply Historically Available and Predicted to be Available in 2005

88. Whether effects of ground water depletions result in material injury to the senior priority surface water rights held by the members of the Surface Water Coalition in a particular year depends in large part on the total water supply, under natural flow water rights and from reservoir storage, and in some instances supplemental ground water rights, otherwise available to each member of the Coalition in that year. For example, for the irrigation year beginning November 1, 1996, and ending October 31, 1997, the total unregulated natural flow in the Snake River at the Heise Gage was 8.4 million acre-feet, which was the maximum total unregulated flow of record. In 1997, the water supply available to each member of the Surface Water Coalition under each member's natural flow water rights (described in Findings Nos. 55, 57, 58, 59, 61, 63, and 65) supplemented by stored water (described in Findings No. 67 and 68) constituted a full supply of water for the beneficial uses authorized under each member's water rights. On October 31, 1997, the amount of carry-over storage in the Upper Snake River Basin reservoirs was nearly 3 million acre-feet, or about 140 percent of the 30-year average (1970 through 2000) for carry-over storage. In 1997, ground water depletions caused reductions of flows from what would otherwise be available in the Snake River between the Near Blackfoot Gage and the Neeley Gage. Because each member of the Surface Water Coalition had a full supply of water for the beneficial uses authorized under each member's rights, ground water depletions did not cause material injury to the members of the Surface Water Coalition in 1997.

89. Based on the information submitted by the Surface Water Coalition in response to the Order of February 14, 2004, the American Falls Reservoir District #2, the North Side Canal Company, and the Twin Falls Canal Company, were each able to divert sufficient supplies of water, under each entity's natural flow water rights and storage releases combined, to make "full" deliveries of water to the headgates of their shareholders in the irrigation years 1990-1991 and 1995-2000. Based on the information submitted for the American Falls Reservoir District #2, the North Side Canal Company, and the Twin Falls Canal Company, full headgate deliveries are defined by these members of the Coalition as average rates of diversion at the shareholder-

headgates during each month of the irrigation season of 5/8-inch, 5/8-inch, and 3/4-inch, respectively. The Twin Falls Canal Company was able to divert a sufficient supply of natural flow and storage releases to make full headgate deliveries in 1993 as well.

90. Beginning in about the 1960 to 1970 time period through the most recent years, the total combined diversions of natural flow and storage releases above Milner Dam for irrigation using surface water supplies have declined from an average of nearly 9 million acre-feet annually to less than 8 million acre-feet annually, notwithstanding years of drought, because of conversions from gravity flood/furrow irrigation to sprinkler irrigation in surface water irrigation systems and other efficiencies implemented by surface water delivery entities such as the members of the Surface Water Coalition. The measured decrease in cumulative surface water diversions above Milner for irrigation reflects the fact that less water is generally needed in the present time to fully irrigate lands authorized for irrigation with a certain crop mix under certain climatic growing conditions than was needed in the 1960 to 1970 time frame for the same lands, crop mix, and climatic growing conditions.

91. A full supply of water for the American Falls Reservoir District #2, the North Side Canal Company, and the Twin Falls Canal Company is not the maximum amount of combined natural flow and storage releases diverted that yielded full headgate deliveries, based on those entities' definition of full supply, but the minimum amount of combined natural flow and storage releases diverted recently that provided for full headgate deliveries, recognizing that climatic growing conditions do affect the minimum amount of water needed and such effects can be significant.

92. For the American Falls Reservoir District #2 and the North Side Canal Company, the total diversions of natural flow and storage releases were the lowest while maintaining full headgate deliveries most recently in 1995. The total quantity of water diverted during the irrigation year ending October 31, 1995, by the American Falls Reservoir District #2 was 405,600 acre-feet and by the North Side Canal Company was 988,200 acre-feet.

93. For the Twin Falls Canal Company, the total diversions of natural flow and storage releases were the lowest while maintaining full headgate deliveries in 1993, although the 1993 diversions were only 19,300 acre-feet less than the total diversions of 1,075,900 acre-feet diverted by the Twin Falls Canal Company during the irrigation year ending October 31, 1995.

94. What might constitute a full supply of water for the A&B, Burley, and Milner irrigation districts, can not be determined from the headgate delivery information submitted by these entities in response to the Order of February 14, 2005. That response also states that the "Minidoka Irrigation District does not deliver by measurement to the headgate."

95. For the irrigation year ending on October 31, 1995, the A&B, Burley, Milner, and Minidoka irrigation districts diverted the following amounts of water under their respective natural flow water rights and entitlements to storage water releases and had the following amounts of storage carried over for 1996:

	1995 Diversions (acre-feet)	1995 Carryover (acre-feet)	Average Carryover 1990-2004 (acre-feet)
A&B Irrigation District:	50,000	103,300	64,900
Burley Irrigation District:	254,300	159,200	95,900
Milner Irrigation District:	50,800	75,500	44,000
Minidoka Irrigation District:	280,200	258,000	150,300

96. For the irrigation year ending on October 31, 1995, the amount of carryover storage for the A&B, Burley, Milner, and Minidoka irrigation districts was substantially above the 1990-2004 average by 59 percent, 66 percent, 72 percent, and 72 percent, respectively. The A&B, Burley, Milner, and Minidoka irrigation districts each had ample storage remaining after the 1995 irrigation season, which could have been released and diverted during the 1995 irrigation season had it been needed. Therefore, it is reasonable to conclude that as for the American Falls Reservoir District #2, the North Side Canal Company, and the Twin Falls Canal Company, the A&B, Burley, Milner, and Minidoka irrigation districts each had a full supply of water in 1995 considering both natural flow and storage releases.

97. The USBR and the U. S. Army Corps of Engineers ("USACE") jointly prepare operating forecasts for unregulated inflow from the Upper Snake River Basin projected for the Heise Gage beginning soon after January 1 of each year. The Heise Gage location is the most representative location for overall surface water supply conditions in the Upper Snake River Basin.

98. The USBR and USACE jointly issue forecasts each year for unregulated inflow at the Heise Gage after February 1, for the period February 1 through July 31; after March 1, for the period March 1 through July 31; after April 1, for the period April 1 through July 31; and after May 1, for the period May 1 through July 31. Because the snowpack in the Upper Snake River Basin generally peaks in April, with most of the melting of the snowpack and resulting inflow occurring thereafter, the later forecasts are generally more accurate than the earlier forecasts, based on comparisons of predicted inflow versus observed inflow, although at times the later forecasts are less accurate. The forecast issued soon after April 1 is generally as accurate a forecast as is possible using current data gathering and forecasting techniques.

99. The U. S. Natural Resources and Conservation Service ("NRCS") operates and maintains Snotel sites that measure and record snowpack conditions throughout the western United States that are used to develop forecasts for inflow to various river systems and for other purposes. The USBR and USACE use the NRCS Snotel sites in the Upper Snake River Basin to develop the inflow forecasts described in Findings Nos. 97 and 98.

100. The joint operating forecast prepared by the USBR and the USACE for unregulated inflow from the Upper Snake River Basin predicted for the Heise Gage for the period April 1 through July 31 became available on April 7, 2005, and predicts an unregulated inflow of 2,340,000 acre-feet. While the actual, measured inflow from April 1, 2005, through July 31, 2005, will undoubtedly be different than the predicted inflow of 2,340,000 acre-feet, the predicted inflow is similar to the measured, unregulated inflows at the Heise Gage for two recent

years in the present sequence of drought years, 2002 and 2004. In 2002, the unregulated inflow for the period April 1 through July 31 was 2,362,600 acre-feet, and in 2004 the unregulated inflow for the same period was 2,386,800 acre-feet.

101. The amount of unregulated inflow that may be divertible under the water rights held by members of the Surface Water Coalition and the amount of water that may be divertible to storage in the reservoirs operated by the USBR for the benefit of the members of the Coalition can be highly variable and depends on climatic conditions and when water rights authorizing diversions from the Snake River are in priority. For example, even though the unregulated inflow at the Heise Gage from April 1 through July 31 was 24,200 acre-feet greater in 2004, than for the comparable period in 2002, the amount of water diverted into storage in the reservoirs operated by the USBR was greater in 2002 than in 2004 by 381,300 acre-feet. And in 2004, the amount of natural flow diverted under the rights held by the Twin Falls Canal Company was 28,400 acre-feet greater than the amount it diverted in 2002, while the amount of natural flow diverted under the rights held by the American Falls Reservoir District #2 in 2004 was 17,700 acre-feet less than in 2002.

102. Attachments J through P show correlations between measured, unregulated inflows at the Heise Gage for the period April 1 through July 31 and the amounts of natural flow historically diverted by each of the members of the Surface Water Coalition for the years 1990 through 2004.

103. Predicting the amount of unregulated inflow that may be divertible in 2005 under the water rights held by individual members of the Surface Water Coalition based on what was historically divertible in a specific year is uncertain because it is unlikely that the climatic conditions and the resulting portion of the inflow divertible by individual members of the Coalition will be exactly the same in 2005 as in any prior particular year. While acknowledging the uncertainty in predicting the amount of unregulated inflow that may be divertible in 2005 under the water rights held by individual members of the Coalition, the average of the inflow diverted in 2002 and 2004 for each member of the Coalition provides a reasonable lower-bound estimate of the natural flow that may be divertible in 2005 by each member of the Coalition.

104. For each member of the Surface Water Coalition, the average of the inflow diverted in 2002 and 2004 is near or less than, in varying amounts, the divertible natural flow derived from the correlations in Attachments J through P for an inflow at Heise of 2,340,000 acre-feet, less one standard error of estimate. The average of the inflow diverted in 2002 and 2004 for each member of the Coalition is considered to be a reasonably likely projection of the total amount of water that may be available to each member of the Coalition in 2005 under their respective rights, subject to variations caused by climatic conditions. The average of the inflow diverted in 2002 and 2004 for each member of the Coalition is as follows:

	2002 Diversion (acre-feet)	2004 Diversion (acre-feet)	Average Diversion (acre-feet)
A&B Irrigation District:	900	0	500
American Falls Res. Dist. #2:	17,800	100	9,000
Burley Irrigation District:	129,900	139,000	134,500
Milner Irrigation District:	5,100	3,600	4,400
Minidoka Irrigation District:	107,600	104,700	106,200
North Side Canal Company:	357,000	309,500	333,300
Twin Falls Canal Company:	855,100	883,500	869,300

105. Similar to predicting the amount of natural flow that may be divertible in 2005, predicting the volume of water that may be storable in the reservoirs operated by the USBR for the benefit of the members of the Surface Water Coalition based on what was historically storable in a specific year is uncertain because as for divertible natural flow, it is unlikely that the climatic conditions and the resulting portion of the inflow divertible to storage will be the same in 2005 as in any prior particular year. While acknowledging the uncertainty in predicting the amount of unregulated inflow that may be storable in 2005 under the water rights held by the USBR, averaging (1) the actual storage as of April 1, 2005, added to the inflow stored after April 1 in 2002 and (2) the actual storage as of April 1, 2005, added to the inflow stored after April 1 in 2004, and reducing the average by the estimated evaporation in 2005, provides a reasonable estimate of the storage that may be available in 2005 for the benefit of each member of the Coalition. This results in the following maximum storage predicted for 2005, adjusted for estimated evaporation:

	2005 Max. Storage (acre-feet)	2005 Evap. (acre-feet)	2005 Net Storage (acre-feet)
Jackson Lake:	718,800	20,800	698,000
Palisades Winter Water Savings:	259,600	7,500	252,100
Other Palisades Reservoir:	76,700	2,200	74,500
Henrys Lake:	24,900	700	24,200
Island Park Reservoir:	63,500	1,800	61,700
Grassy Lake:	0	0	0
Ririe Reservoir:	0	0	0
Amer. Falls Winter Water Sav.:	156,800	4,500	152,300
Other American Falls:	1,472,500	42,600	1,429,900
Lake Walcott:	95,200	2,800	92,400
Totals:	2,868,000	82,900	2,785,100

106. Using the Department's accounting program for storage, the maximum predicted storage less evaporation for 2005 was allocated among all reservoir storage spaceholders in the Upper Snake River Basin, which resulted in the following predicted storage allocations for the Surface Water Coalition. When added to the amount of natural flow predicted to be available in 2005, as set forth in Finding 104, the predicted total supply for each member of the Coalition is

considered to be a reasonably likely projection of the total amount of water that may be available to each member of the Coalition in 2005, subject to variations caused by climatic conditions, for the limited purpose of assessing reasonably likely material injury caused by the diversion and use of ground water under junior priority rights. The reasonably likely predicted total supply for the purpose of predicting material injury for each member of the Coalition is as follows:

	2005 Natural Flow (acre-feet)	2005 Storage (acre-feet)	Total 2005 Supply (acre-feet)
A&B Irrigation District:	500	44,600	45,100
American Falls Res. Dist. #2:	9,000	379,100	388,100
Burley Irrigation District:	134,500	217,300	351,800
Milner Irrigation District:	4,400	50,500	54,900
Minidoka Irrigation District:	106,200	323,300	429,500
North Side Canal Company:	333,300	733,700	1,067,000
Twin Falls Canal Company:	869,300	201,300	1,070,600

107. In addition to the water rights authorizing the diversion and use of water from the Snake River held by the Surface Water Coalition and the contract entitlements to divert storage releases as supplemental supplies to the Coalition member's rights, an unknown number of landowners in the member irrigation districts and shareholders in the member canal companies hold supplemental ground water rights. Because the members of the Coalition did not identify landowners and shareholders, or the places of use within their boundaries, that receive water from the Coalition members and that also can be supplied ground water under supplemental rights in a timely manner, prior to the submittal of April 18, 2005, the use of supplemental ground water rights can not be presently assessed. The Director will review and consider all of the additional information submitted on April 18, 2005, and if warranted, issue an amended order in this matter.

Material Injury Predicted in 2005

108. In its Letter, the Surface Water Coalition states that: "Impacts have been occurring as a result of ground water depletions and reduced reach accruals for several years, resulting in material injury to the water rights of the Surface Water Coalition. ... Any and all water that is pumped under junior groundwater rights that would otherwise accrue to the Snake River to satisfy a senior surface water right, as demonstrated by the Model, results in a 'material injury' to the Surface Water Coalition's senior surface water rights."

109. None of the members of the Surface Water Coalition have identified lands that are entitled to receive surface water but have not been irrigated or where crops could not be harvested because of shortages in the surface water supplies available to members of the Coalition under the members' various rights. The Coalition simply alleges that material injury is occurring because in recent years members of the Coalition have been unable to divert natural flow at the diversion rates authorized under the members' rights for as long a period of time as the members otherwise could, and that members have been unable to accrue as much storage in

USBR reservoirs as the members otherwise could, but for depletions caused by diversions of ground water under junior priority water rights.

110. The members of the Surface Water Coalition supply water to lands located in the counties of Lincoln, Gooding, Jerome, Twin Falls, and several other counties. Department staff contacted individuals employed by the University of Idaho as Agricultural Extension Agents and by the U. S. Department of Agriculture Farm Service Agency as County Directors (each referred to as "FSA Director") in these four counties to glean information about shortages in the amounts of water available for irrigation in recent years.

111. Among the counties of Lincoln, Gooding, Jerome, and Twin Falls, shortages in the surface water supplies for irrigation in Lincoln County have been the most problematic where the FSA Director estimates losses in crop production to be 35 percent because of shortages in surface water supplies, although the losses were not primarily the result of shortages in supplies from the Snake River.

112. In Gooding County, the FSA Director reported that the North Side Canal Company has carefully managed water diverted to minimize waste, shareholders have reduced nozzle sizes on sprinkler systems, and that estimated losses in crop production because of shortages in surface water supplies were about 5 percent in 2004. For lands served by the American Falls Reservoir District #2, the FSA Director reported that the 10-day shut off at the end of May in 2004 significantly impacted some growers, corn crops were stressed but overall yields were near normal, the fourth cutting of hay was foregone in 2004 so that available water could be used to finish corn crops, and overall losses in crop production were estimated to be 15 percent in 2004.

113. In Jerome County, the FSA Director reported that shortages in surface water supplies have caused only slight declines in crop production.

114. In Twin Falls County, the FSA Director and University of Idaho Extension Agent reported that shortages in surface water supplies in 2004 caused significant impacts on lands served by the Salmon Falls Canal Company, but impacts were not as significant on lands served by the Twin Falls Canal Company. In 2004, lands served by the Twin Falls Canal Company experienced some loss in crop production, the last cutting of hay was reduced, and yields from corn crops were reduced largely because of delayed harvest, not shortages of water.

115. To predict the shortages in surface water supplies that are reasonably likely for members of the Surface Water Coalition in 2005, the amounts of water diverted in 1995 are deemed to be the minimum amounts needed for full deliveries to land owners and shareholders. If crop evapotranspiration is greater in 2005 than in 1995, the amounts of water diverted in 1995 may be less than what is needed for a full supply in 2005. If crop evapotranspiration is less in 2005 than in 1995, the amounts of water diverted in 1995 may be more than what is needed for a full supply in 2005.

116. The shortages in surface water supplies that are reasonably likely for members of the Surface Water Coalition in 2005 are estimated by subtracting the reasonably likely total

supplies of natural flow and storage set forth in Finding 106 from the minimum amounts needed for full deliveries based on 1995 diversions as follows:

	Minimum Full Supply Needed (acre-feet)	Predicted 2005 Supply (acre-feet)	Predicted Shortages in 2005 (- is surplus) (acre-feet)
A&B Irrigation District:	50,000	45,100	4,900
American Falls Res. Dist. #2:	405,600	388,100	17,500
Burley Irrigation District:	254,300	351,800	-97,500
Milner Irrigation District:	50,800	54,900	-4,100
Minidoka Irrigation District:	280,200	429,500	-149,300
North Side Canal Company:	988,200	1,067,000	-78,800
Twin Falls Canal Company:	1,075,900	1,070,600	5,300

117. The reasonably likely shortages set forth in Finding 116 total 27,700 acre-feet and assume that the members of the Surface Water Coalition that are expected to have shortages (A&B Irrigation District, American Falls Reservoir District #2, and Twin Falls Canal Company) use all of their carryover storage from 2004. The predicted surpluses (Burley Irrigation District, Milner Irrigation District, Minidoka Irrigation District, and North Side Canal Company) are the amounts of estimated carryover storage at the end of the 2005 irrigation season.

118. Members of the Surface Water Coalition are entitled to maintain a reasonable amount of carryover storage to minimize shortages in future dry years pursuant to Rule 42.01.g of the Conjunctive Management Rules (IDAPA 37.03.11.042.01.g).

119. The reasonable amount of carryover storage to which members of the Surface Water Coalition are entitled is determined by averaging (1) the amounts of carryover storage required for Coalition members to have full supplies of water in 2006 if the divertible natural flow and storage accruals in 2006 are the same as in 2002 and (2) the amounts of carryover storage required for Coalition members to have full supplies of water in 2006 if the divertible natural flow and storage accruals in 2006 are the same as in 2004. This results in the following amounts of reasonable carryover storage for Coalition members:

	2005 Carryover Based on 2002 (acre-feet)	2005 Carryover Based on 2004 (acre-feet)	Reasonable Carryover Based on Average (acre-feet)
A&B Irrigation District:	3,500	13,500	8,500
American Falls Res. Dist. #2:	6,300	96,100	51,200
Burley Irrigation District:	-50,000	-36,200	0
Milner Irrigation District:	2,300	12,100	7,200
Minidoka Irrigation District:	-83,800	-52,900	0
North Side Canal Company:	-36,600	203,100	83,300
Twin Falls Canal Company:	34,600	42,200	38,400

120. The reasonably likely material injury predicted for 2005 is the sum of the shortages set forth in Finding 116, if any, and the shortfalls in predicted carryover as compared to the reasonable amounts of carryover storage set forth in Finding 119, if any. If the material injury predicted for 2005 is mitigated with replacement water, the following are the predicted amounts of injury and ending carryover storage for 2005 for the members of the Surface Water Coalition:

	Predicted 2005 Material Injury Shortages + Carryover Shortfalls (acre-feet)	Predicted 2005 Carryover (acre-feet)
A&B Irrigation District:	13,400	8,500
American Falls Res. Dist. #2:	68,700	51,200
Burley Irrigation District:	0	97,500
Milner Irrigation District:	3,100	7,200
Minidoka Irrigation District:	0	149,300
North Side Canal Company:	4,500	83,300
Twin Falls Canal Company:	43,700	38,400
Totals:	133,400	435,400

If the material injury predicted for 2005 is resolved through curtailment, the predicted amounts of carryover storage for 2005 for the Coalition members can not presently be determined, but will be less than shown above, except for the Burley and Minidoka Irrigation Districts.

121. The material injury predicted for 2005 is reasonably likely. However, climatic conditions for the remainder of 2005 can not be precisely predicted, meaning that the predicted material injury and the carryover storage, assuming the predicted material injury is mitigated with replacement water, are both likely to be greater or smaller.

122. A mechanism can be devised whereby additional mitigation will be required if the predicted material injury is less than what is later determined to be the actual material injury, and credits against future mitigation requirements can be recognized if the predicted material injury is more than what is later determined to be the actual material injury.

Simulated Curtailment of Junior Priority Ground Water Rights

123. Nearly all ground water rights authorizing the diversion and use of ground water from the ESPA are junior in priority to the surface water rights held by or for the benefit of the Surface Water Coalition described in Findings 55, 57, 58, 59, 61, 63, 65, and 68. Based on simulations using the Department's ground water model for the ESPA described in Findings 29 and 30, using the average annual consumptive use for irrigation beginning in 1980 through 2001, curtailing all ground water diversions in Water District No. 120 would, over time, increase reach gains in the Snake River between the Near Blackfoot Gage and the Minidoka Gage by a total

amount of 429,300 acre-feet, which equals 66 percent of the total average annual ground water depletions in Water District No. 120, for each year of curtailment. Curtailing all ground water rights in Water District No. 130 would, over time, increase reach gains in the Snake River between the Near Blackfoot Gage and the Minidoka Gage by a total amount of 195,500 acre-feet, which equals 35 percent of the total average annual ground water depletions in Water District No. 130, for each year of curtailment. Curtailing all ground water diversions in Water Districts No. 120 and No. 130 for one year would, over time, increase reach gains in the Snake River between the Near Blackfoot Gage and the Minidoka Gage by a total amount of 624,800 acre-feet, which is nearly five times the amount of the reasonably likely material injury predicted to occur in 2005 to the water rights held by or for the benefit of the Surface Water Coalition members.

124. Based on the Department's water rights data base and ground water model for the ESPA, curtailing all ground water diversions, which at steady-state conditions reduce reach gains in the Snake River between the Near Blackfoot Gage and the Minidoka Gage by more than 10 percent of the amount of depletion to the ESPA resulting from those ground water diversions (10 percent is the uncertainty in model simulations, see Finding 30), within the modeled area for one year under water rights having priority dates of February 27, 1979, and later will increase reach gains in the Snake River between the Near Blackfoot Gage and the Minidoka Gage by a total amount of 133,900 acre-feet, over time.

125. Based on the Department's water rights data base and ground water model for the ESPA, curtailing the subset of ground water diversions for one year under water rights described in Finding 124 within the area defined as the area of common ground water supply for the ESPA in Rule 50 of the Conjunctive Management Rules (IDAPA 37.03.11.050.01) would increase reach gains in the Snake River between the Near Blackfoot Gage and the Minidoka Gage by a total amount of 125,600 acre-feet, over time.

126. Based on the Department's water rights data base and ground water model for the ESPA, curtailing the subset of ground water diversions for one year under water rights described in Finding 124 within Water Districts No. 120 and No. 130, which are wholly within the area of common ground water supply for the ESPA defined in Rule 50 of the Conjunctive Management Rules (IDAPA 37.03.11.050.01) would result in the curtailment of irrigation of 22,660 acres and 58,150 acres, respectively, and would increase reach gains in the Snake River between the Near Blackfoot Gage and the Minidoka Gage by 79,800 acre-feet and 21,200 acre-feet, respectively, over time. The number of acres on which irrigation would be curtailed in Water Districts No. 120 and No. 130 total 80,810 acres, and the total amount of the simulated increase in reach gains over time between the Near Blackfoot Gage and the Minidoka Gage from curtailment in Water Districts No. 120 and No. 130 is 101,000 acre-feet.

127. Based on the Department's water rights data base and ground water model for the ESPA, curtailing the subset of ground water diversions for one year under water rights described in Finding 124 within the North Snake, Magic Valley, Aberdeen-American Falls, Bingham, and Bonneville-Jefferson ground water districts, using the most recent boundaries of the districts provided to the Department, within the area of common ground water supply for the ESPA defined in Rule 50 of the Conjunctive Management Rules (IDAPA 37.03.11.050.01) would result in the curtailment of irrigation on the following acreages and increase reach gains in the Snake

River between the Near Blackfoot Gage and the Minidoka Gage over time by the following amounts:

	Acres Curtailed	Total Accruals (acre-feet)	1 st 6-month Accruals (acre-feet)	2 nd 6-month Accruals (acre-feet)	3 rd 6-month Accruals (acre-feet)
North Snake District:	4,230	2,400	0	0	10
Magic Valley District:	17,200	17,800	10	110	280
Aberdeen-Amer. Falls District:	34,590	52,000	6,850	9,790	6,120
Bingham District:	11,460	14,900	1,760	2,830	1,790
Bonneville-Jefferson District:	8,280	7,200	100	510	660
Totals:	75,760	94,300	8,720	13,240	8,860

	4 th 6-month Accruals (acre-feet)	5 th 6-month Accruals (acre-feet)	6 th 6-month Accruals (acre-feet)	7 th 6-month Accruals (acre-feet)	8 th 6-month Accruals (acre-feet)
North Snake District:	20	30	40	50	60
Magic Valley District:	440	530	590	600	610
Aberdeen-Amer. Falls District:	4,280	3,180	2,510	2,030	1,700
Bingham District:	1,260	940	750	610	510
Bonneville-Jefferson District:	640	560	490	430	370
Totals:	6,640	5,240	4,380	3,720	3,250

128. The total reach gain accruals set forth in Finding 127 are the total accruals that are simulated to occur over a time period of about 20 years or more from the curtailment of the diversion and use of ground water under the water rights and for the irrigation of the lands described in Finding 127 for a single year. The 6-month accruals set forth in Finding 127 are the simulated incremental additions to the reach gains for the first 4 years following curtailment for a single year. By the end of the fourth year, approximately 60 percent of the total reach gain accruals will have occurred. Additional reach gains would continue to accrue until the effects of the single year of curtailment have been fully realized.

129. If curtailment of the diversion and use of ground water under these same rights occurred within the North Snake, Magic Valley, Aberdeen-American Falls, Bingham, and Bonneville-Jefferson ground water districts during each and every year of a four-year period, the following 6-month accruals to the reach gains are simulated to occur using the Department's ground water model:

	Acres Curtailed	Total Accruals (acre-feet)	1 st 6-month Accruals (acre-feet)	2 nd 6-month Accruals (acre-feet)	3 rd 6-month Accruals (acre-feet)
North Snake District:	4,230	9,600	0	0	10
Magic Valley District:	17,200	71,200	10	110	290
Aberdeen-Amer. Falls District:	34,590	208,000	6,850	9,790	12,970
Bingham District:	11,460	59,600	1,760	2,830	3,550
Bonneville-Jefferson District:	8,280	28,800	100	510	760
Totals:	75,760	377,200	8,720	13,240	17,580

	4 th 6-month Accruals (acre-feet)	5 th 6-month Accruals (acre-feet)	6 th 6-month Accruals (acre-feet)	7 th 6-month Accruals (acre-feet)	8 th 6-month Accruals (acre-feet)
North Snake District:	20	40	70	90	120
Magic Valley District:	540	830	1,130	1,430	1,740
Aberdeen-Amer. Falls District:	14,080	16,150	16,580	18,170	18,280
Bingham District:	4,080	4,490	4,830	5,090	5,340
Bonneville-Jefferson District:	1,150	1,320	1,640	1,750	2,010
Totals:	19,870	22,830	24,250	26,530	27,490

130. The total increase in reach gains in the Snake River between the Near Blackfoot Gage and the Minidoka Gage from curtailment for a single year within ground water districts is less than the total increase in reach gains from curtailment within Water Districts No. 120 and No. 130 by 6,700 acre-feet because not all ground water rights having priority dates of February 27, 1979, and later that are within Water Districts No. 120 and No. 130 are also within ground water districts. Nearly all such rights are located east of American Falls Reservoir in an area adjacent to the Aberdeen-American Falls Ground Water District. The amount 6,700 acre-feet is 12.9 percent of the 52,000 acre-feet increase in reach gains that would occur over time from curtailment for a single year in the Aberdeen-American Falls Ground Water District.

131. The predicted reach gains from curtailment of the diversion and use of ground water for irrigation described in Findings 123 through 129 is limited to the reach of the Snake River between the Near Blackfoot Gage and the Minidoka Gage. In its Letter the Surface Water Coalition alleges that water that would also accrue from curtailment of the diversion and use of ground water to the reach of the Snake River between the USGS stream gage located 2.5 miles north of Shelley, Idaho ("Shelley Gage"), and the Near Blackfoot Gage "... is needed and can be put to beneficial use under the Coalition's senior surface water rights." *Letter* at p. 3. Accruals to the reach of the Snake River between the Shelley Gage and the Near Blackfoot Gage that would occur from curtailment of the diversion and use of ground water are not considered because such accruals would be divertible by members of the Surface Water Coalition on a limited basis, particularly during years of low natural flow, since there are other surface water

rights under which diversions from that reach are made that are senior in priority to the rights held by members of the Coalition.

CONCLUSIONS OF LAW

1. The Director issues this Order subsequent to his Order of February 14, 2005, which provided that: "The Director will make a determination of the extent of likely injury after April 1, 2005, when the USBR and USACE release forecasts for inflow to the Upper Snake River Basin for the period April 1 through July 1, 2005." This Order is issued by the Director prior to an opportunity for a hearing being provided to the parties. Any person aggrieved by the Order shall be entitled to a hearing before the Director to contest the action pursuant to Idaho Code § 42-1701A(3). Judicial review of any final order of the Director issued following the hearing shall be had pursuant to Idaho Code § 42-1701A(4).

2. On April 6, 2005, the Director requested the parties to brief the issue of whether Idaho law permits the Coalition members to pursue a delivery call to supply water rights that were decreed in a proceeding(s) to which the ground water users were not a party. The Director requested that the parties review the cases of *Mays v. District Court*, 34 Idaho 200, 200 P. 115 (1921); *Scott v. Nampa Meridian Irr. Dist.*, 55 Idaho 672, 45 P.2d 1062 (1934); *Nettleton v. Higginson*, 98 Idaho 87, 558 P.2d 1048 (1977); *State v. Hagerman Water Right Owners, Inc.*, 130 Idaho 736, 947 P.2d 409 (1997); and any other Idaho Supreme Court decisions that may be relevant to the issue raised.

3. IGWA, on behalf of the holders of potentially affected ground water rights answered the question in the negative. *Idaho Ground Water Appropriators' Brief in Response to Director's April 6, 2005 Order* ("IGWA Br."). Based upon its analysis of the cases for which the Director sought review, IGWA asserted: "Idaho courts have precluded administration as between water rights whose elements are established in separate, unrelated decrees, even where the respective rights have been incorporated within their own water districts under their separate decrees." IGWA Br. at 2.

4. IGWA relies principally upon language in the Idaho Supreme Court's decision in *Mays v. District Court*, 34 Idaho 200, 200 P. 115 (1921) that a water rights decree "is not, and cannot be made, conclusive, as to parties who are strangers to it," and it would be "repugnant to a fundamental principle of our jurisprudence" to conclude that "one's rights can be affected by a decree to which he was a stranger." IGWA Br. at 3. IGWA notes that the Idaho Supreme Court recently restated this principle in *State v. Hagerman Water Right Owners, Inc.*, 130 Idaho 736, 947 P.2d 409 (1997) holding that "[a] decree entered in a private water adjudication binds only those parties to the decree." IGWA Br. at 3-4.

5. IGWA points out that the Idaho Supreme Court reversed the efforts of the Department to combine the operation of two water districts on Upper and Lower Reynolds Creek without first conducting a hearing to determine whether there are sufficient uncontested rights to develop a workable plan for water distribution. *Id.* at 4. "If not, then the [Department] should

proceed with an adjudication pursuant to I.C. § 42-1406 before combining these two districts into one.” *Nettleton v. Higginson*, 98 Idaho 87, 94, 558 P.2d 1048, 1055 (1977). Finally, IGWA cites to an Idaho Supreme Court holding that where rights were decreed in separate adjudications, their relationships need to be determined in a single adjudication such as the SRBA before the rights can be administered together because, depending on the facts of the case, “priority-in-time might not necessarily result in priority of right.” *Devil Creek Ranch v. Cedar Mesa Reservoir & Canal Co.*, 126 Idaho 202, 206, 879 P.2d 1135, 1139 (1994).

6. The Surface Water Coalition and the Bureau of Reclamation answered the question of whether Idaho law permits the Coalition members to pursue a delivery call to supply water rights that were decreed in a proceeding(s) to which the ground water users were not a party in the positive. *Surface Water Coalition's Joint Memorandum in Response to Director's April 6, 2005 Legal Question* (“Coalition Br.”) and *Reclamation's Brief in Response to Director's April 6, 2005 Request* (“USBR Br.”).

7. The Surface Water Coalition argues that the Director’s February 18, 2002, *Final Order Creating Water District 120* requires the Department and the watermaster of Water District 120 to administer by priority the rights of the surface water rights of the Coalition members and the ground water right holders represented by IGWA. Coalition Br. at 2-8. The Coalition also argues that Idaho law requires watermasters to administer all water rights within an organized water district by priority, regardless of the status of a general stream adjudication. Coalition Br. at 8-20. In support of this argument, the Coalition relies principally upon the decision of the Idaho Supreme Court in *Nettleton v. Higginson*. The Coalition summarizes the status of Idaho law on the issue raised as follows:

[W]ater users not party to a former decree are subject to administrative enforcement of the decree by the Director, whether such administration arises from a call or from the Director’s initiative; but, water users not party to a decree are not bound by the decree as *res judicata* in a subsequent adjudication by a court of competent jurisdiction.

Coalition Br. at 9.

8. The USBR argues that the rights of the ground water users represented by IGWA are presently subject to curtailment in favor of the senior surface water rights of the Surface Water Coalition members because of the provisions of the 1968 *Eagle Decree* (*Burley Irrigation Dist. v. Eagle*, No. 21406 (5th Jud. Dist. Twin Falls Cty., Idaho July 10, 1968)) which confirmed the water rights and contracts of the Coalition members and ordered that together they “constitute a scheme or plan for the administration of the Snake River and as such, are binding upon all persons claiming rights to the use of the waters of the Snake River and its tributaries above Milner Dam.” USBR Br. at 11. The USBR argues that this result is consistent with the holdings of the Idaho Supreme Court in *Higginson*, 98 Idaho at 94, 558 P.2d at 1055.

9. Following review of the briefs of the parties on the issue of whether Idaho law permits the members of the Surface Water Coalition to pursue a delivery call to supply water rights that were decreed in a proceeding(s) to which the ground water users were not a party, the Director remains troubled by the conflicting court decisions and recognizes that the issue is not free from doubt. The Director is persuaded, however, that under the circumstances of the

present case it is appropriate to recognize the right of the Coalition members to pursue their *delivery call against the holders of junior priority ground water rights within established water districts who were not parties to nor bound by the prior decrees that adjudicated the surface water rights of the Coalition members.*

10. The Director reaches this conclusion to recognize the Surface Water Coalition delivery call based upon the holding of the majority of the Idaho Supreme Court in *Higginson*, 98 Idaho at 94, 558 P.2d at 1055, that the Department may rely upon a decree for the orderly distribution of water rights among the right holders within adjoining water districts on connected sources until such time as a court action is brought to challenge the rights established in the decree. In this instance, while water rights of the members of the Coalition have not been adjudicated in the SRBA simply because of the timing of the Director's Report for Basin 01, they possess rights that have long been administered by the watermaster of Water District 01.

11. The Director also reaches this conclusion based upon the fact that a junior water right is established subject to all existing water rights. If a junior water right holder has concerns regarding the validity of the senior water right making the delivery call, the junior right holder has the opportunity and right to challenge the senior water right in an adjudication proceeding. Thus, there is an avenue for addressing any due process concerns.

12. Finally, a contrary holding would de-stabilize the priority system and frustrate the conjunctive administration of water rights diverting from a common water supply. The Director must be cognizant of the importance under Idaho law of protecting the interests of a senior priority water right holder against interference by a junior priority right holder from a tributary or interconnected water source. Art. XV, § 3, Idaho Const.; Idaho Code §§ 42-106, 42-237a(g), and 42-607. Under the circumstances of the present case, the Director concludes that recognizing the pending deliver call of the members of the Surface Water Coalition is the proper result.

13. Idaho Code § 42-607 provides that the following shall apply during times of scarcity of water when it is necessary to distribute water between water rights in a water district created and operating pursuant to chapter 6, title 42, Idaho Code, in accordance with the priority of those rights:

[A]ny person or corporation claiming the right to the use of the waters of the stream or water supply comprising a water district, but not owning or having the use of an adjudicated or decreed right therein, or right therein evidenced by permit or license issued by the department of water resources, shall, for the purposes of distribution during the scarcity of water, be held to have a right subsequent to any adjudicated, decreed, permit, or licensed right in such stream or water supply

14. Water rights nos. 01-04045, 01-04052, 01-04055, 01-04056, and 01-04057 listed in the Letter as being held by or for the benefit of members of the Surface Water Coalition are beneficial use rights claimed pursuant to Idaho Code § 42-243 and shall be treated as junior in priority for the purposes of distributing water to any decreed, licensed, or permitted water rights. Only those water rights held by or for the benefit of the members of the Surface Water Coalition that are decreed, licensed, or permitted, taking into account overlapping and redundant rights,

shall have their priorities recognized in determining the extent of injury from the exercise of other decreed, licensed, or permitted water rights.

15. According to the Letter, members of the Surface Water Coalition hold entitlements to water in storage projects owned and operated by the United States through the USBR. While legal title to the water in those projects is held by the United States through the USBR, the SRBA District Court has recognized that delivery organizations, such as the members of the Surface Water Coalition, have beneficial or equitable title to storage water described in their contracts with the USBR. *Final Order on Cross-Motions for Summary Judgment*, Consolidated Subcase 91-63 (SRBA Dist. Ct., Idaho, January 7, 2005) (*appeal filed*). Therefore, the Surface Water Coalition has standing to assert rights to storage water in USBR reservoirs on the Snake River upstream of Milner Dam. Moreover, any concern regarding the standing of the members of the Coalition are resolved by the intervention of the USBR in this proceeding.

16. Surface water rights held by the United States through the USBR for the benefit of members of the Surface Water Coalition to divert water from the Snake River to storage for subsequent release for irrigation uses are supplemental to the natural flow water rights held by the members of the Surface Water Coalition. See Michael W. Straus, Commissioner, *Substantiating Report: Water Supply for Palisades Reservoir Project, Idaho*, 1946 U.S. Bur. Rec. 162; see, e.g., *Burley Irrigation Dist. v. Eagle*, No. 21406, Findings of Fact ¶ VIII (5th Jud. Dist. Twin Falls Cty., Idaho July 10, 1968), supplemented by *Aberdeen-Springfield Canal Co. v. Eagle*, No. 6117. Supplemental Decree (7th Jud. Dist., Fremont Cty., Idaho Mar. 12, 1969).

17. Idaho Code § 42-602, addressing the authority of the Director over the supervision of water distribution within water districts, provides:

The director of the department of water resources shall have direction and control of the distribution of water from all natural water sources within a water district to the canals, ditches, pumps and other facilities diverting therefrom. Distribution of water within water districts created pursuant to section 42-604, Idaho Code, shall be accomplished by watermasters as provided in this chapter and supervised by the director. The director of the department of water resources shall distribute water in water districts in accordance with the prior appropriation doctrine. The provisions of chapter 6, title 42, Idaho Code, shall apply only to distribution of water within a water district.

18. Idaho Code § 42-603, which grants the Director authority to adopt rules governing water distribution, provides as follows:

The director of the department of water resources is authorized to adopt rules and regulations for the distribution of water from the streams, rivers, lakes, ground water and other natural water sources as shall be necessary to carry out the laws in accordance with the priorities of the rights of the users thereof. Promulgation of rules and regulations shall be in accordance with the procedures of chapter 52, title 67, Idaho Code.

In addition, Idaho Code § 42-1805(8) provides the Director with authority to “promulgate, adopt, modify, repeal and enforce rules implementing or effectuating the powers and duties of the department.”

19. The issue of how to integrate the administration of surface and ground water rights diverting from a common water source in the Eastern Snake Plain area has been a continuing point of debate for more than two decades. To date, no court has directly and fully addressed the issue of how to integrate the administration of the surface and ground water rights that were historically administered as separate sources. The progress made in adjudicating the ground water rights in the Snake River Basin Adjudication and the development of the reformulated ground water model for the ESPA used by the Department to simulate the effects of ground water depletions on hydraulically-connected tributaries and reaches of the Snake River now allow for the State to address this issue during this period of unprecedented drought.

20. Resolution of the conjunctive administration issue lies in the application of two well established principles of the prior appropriation doctrine: (1) the principle of "first in time is first in right" and (2) the principle of optimum use of Idaho's water. Both of these principles are subject to the requirement of reasonable use.

21. "Priority of appropriations shall give the better right as between those using the water" of the state. Art. XV, § 3, Idaho Const. "As between appropriators, the first in time is first in right." Idaho Code § 42-106.

22. "[W]hile the doctrine of 'first in time is first in right' [applies to ground water rights] a reasonable exercise of this right shall not block full economic development of underground water resources." Idaho Code § 42-226.

23. It is the policy of this state to integrate the appropriation, use, and administration of ground water tributary to a stream with the use of surface water from the stream in such a way as to optimize the beneficial use of all of the water of this state. "An appropriator is not entitled to command the entirety of large volumes of water in a surface or ground water source to support his appropriation contrary to the public policy of reasonable use of water . . ." IDAPA 37.03.11.020.03; *Schodde v. Twin Falls Land & Water Co.*, 224 U.S. 107, 119 (1912).

24. It is the duty of a watermaster, acting under the supervision of the Director, to distribute water from the public water supplies within a water district among those holding rights to the use of the water in accordance with the prior appropriation doctrine as implemented in Idaho law, including applicable rules promulgated pursuant to the Idaho Administrative Procedure Act. See Idaho Code § 42-607.

25. Water Districts No. 120 and No. 130 were created to provide for the administration of ground water rights in areas overlying the ESPA in the American Falls area and other areas, pursuant to the provisions of chapter 6, title 42, Idaho Code, for the protection of prior surface and ground water rights.

26. Additionally, watermasters for Water Districts No. 120 and No. 130 were appointed by the Director to perform the statutory duties of a watermaster in accordance with guidelines, direction, and supervision provided by the Director. The Director has given specific directions to the watermasters for Water Districts No. 120 and No. 130 to curtail illegal

diversions, measure and report diversions, and curtail out-of-priority diversions determined by the Director to be causing injury to senior priority water rights that are not covered by a stipulated agreement or a mitigation plan approved by the Director.

27. In seeking the administration and curtailment of junior priority ground water rights in Water District No. 120, the Surface Water Coalition cannot preclude the administration and curtailment of junior priority ground water rights in Water District No. 130 that are determined to be causing injury to senior priority water rights held by members of the Surface Water Coalition.

28. In accordance with chapter 52, title 65, Idaho Code, the Department adopted rules regarding the conjunctive management of surface and ground water effective October 7, 1994, IDAPA 37.03.11. The Conjunctive Management Rules prescribe procedures for responding to a delivery call made by the holder of a senior priority surface or ground water right against junior priority ground water rights in an area having a common ground water supply. IDAPA 37.03.11.001.

29. Rule 10 of the Conjunctive Management Rules, IDAPA 37.03.11.010, contains the following pertinent definitions:

01. Area Having A Common Ground Water Supply. A ground water source within which the diversion and use of ground water or changes in ground water recharge affect the flow of water in a surface water source or within which the diversion and use of water by a holder of a ground water right affects the ground water supply available to the holders of other ground water rights.

03. Conjunctive Management. Legal and hydrologic integration of administration of the diversion and use of water under water rights from surface and ground water sources, including areas having a common ground water supply.

04. Delivery Call. A request from the holder of a water right for administration of water rights under the prior appropriation doctrine.

07. Full Economic Development Of Underground Water Resources. The diversion and use of water from a ground water source for beneficial uses in the public interest at a rate that does not exceed the reasonably anticipated average rate of future natural recharge, in a manner that does not result in material injury to senior-priority surface or ground water rights, and that furthers the principle of reasonable use of surface and ground water as set forth in Rule 42.

08. Futile Call. A delivery call made by the holder of a senior-priority surface or ground water right that, for physical and hydrologic reasons, cannot be satisfied within a reasonable time of the call by immediately curtailing diversions under junior-priority ground water rights or that would result in waste of the water resource.

14. Material Injury. Hindrance to or impact upon the exercise of a water right caused by the use of water by another person as determined in accordance with Idaho Law, as set forth in Rule 42.

16. Person. Any individual, partnership, corporation, association, governmental subdivision or agency, or public or private organization or entity of any character.

17. Petitioner. Person who asks the Department to initiate a contested case or to otherwise take action that will result in the issuance of an order or rule.

19. Reasonably Anticipated Average Rate Of Future Natural Recharge. The estimated average annual volume of water recharged to an area having a common ground water supply from precipitation, underflow from tributary sources, and stream losses and also water incidentally recharged to an area having a common ground water supply as a result of the diversion and use of water for irrigation and other purposes. The estimate will be based on available data regarding conditions of diversion and use of water existing at the time the estimate is made and may vary as these conditions and available information change.

20. Respondent. Persons against whom complaints or petitions are filed or about whom investigations are initiated.

30. As used herein, the term "injury" means "material injury" as defined by Rule 10.14 of the Conjunctive Management Rules.

31. The diversion and use of ground water under existing rights results in an average annual depletion of ground water from the ESPA of nearly 2.0 million acre-feet and does not exceed the "Reasonably Anticipated Average Rate of Future Natural Recharge," consistent with Rule 10.07 of the Conjunctive Management Rules.

32. Rule 20 of the Conjunctive Management Rules, IDAPA 37.03.11.020, contains the following pertinent statements of purpose and policies for conjunctive management of surface and ground water resources:

01. Distribution Of Water Among The Holders Of Senior And Junior-Priority Rights. The rules apply to all situations in the State where the diversion and use of water under junior-priority ground water rights either individually or collectively causes material injury to uses of water under senior-priority water rights. The rules govern the distribution of water from ground water sources and areas having a common ground water supply.

02. Prior Appropriation Doctrine. These rules acknowledge all elements of the prior appropriation doctrine as established by Idaho law.

03. Reasonable Use Of Surface And Ground Water. These rules integrate the administration and use of surface and ground water in a manner consistent with the traditional policy of reasonable use of both surface and ground water. The policy of reasonable use includes the concepts of priority in time and superiority in right being subject to conditions of reasonable use as the legislature may by law prescribe as provided in Article XV, Section 5, Idaho Constitution, optimum development of water resources in the public interest prescribed in Article XV, Section 7, Idaho Constitution, and full economic development as defined by Idaho law. An appropriator is not entitled to command the entirety of large volumes of water in a surface or ground water source to support his appropriation contrary to the public policy of reasonable use of water as described in this rule.

04. Delivery Calls. These rules provide the basis and procedure for responding to delivery calls made by the holder of a senior-priority surface or ground water right against the holder of a junior-priority ground water right. The principle of the futile call applies to the distribution of water under these rules. Although a call may be denied under the futile call doctrine, these rules may require mitigation or staged or phased curtailment of a junior-priority use if diversion and use of water by the holder of the junior-priority water right causes material injury, even though not immediately measurable, to the holder of a senior-priority surface or ground water right in instances where the hydrologic connection may be remote, the resource is large and no direct immediate relief would be achieved if the junior-priority water use was discontinued.

05. Exercise Of Water Rights. These rules provide the basis for determining the reasonableness of the diversion and use of water by both the holder of a senior-priority water right who requests priority delivery and the holder of a junior-priority water right against whom the call is made.

33. Rule 40 of the Conjunctive Management Rules, IDAPA 37.03.11.040, sets forth the following procedures to be followed for responses to calls for water delivery made by the holders of senior priority surface or ground water rights against the holders of junior priority ground water rights from areas having a common ground water supply in an organized water district:

01. Responding To A Delivery Call. When a delivery call is made by the holder of a senior-priority water right (petitioner) alleging that by reason of diversion of water by the holders of one or more junior-priority ground water rights (respondents) from an area having a common ground water supply in an organized water district the petitioner is suffering material injury, and upon a finding by the Director as provided in Rule 42 that material injury is occurring, the Director, through the watermaster, shall:

- a. Regulate the diversion and use of water in accordance with the priorities of rights of the various surface or ground water users whose rights are included within the district, provided, that regulation of junior-priority ground water diversion and use where the material injury is delayed or long range may, by order of the Director, be phased-in over not more than a five-year period to lessen the economic impact of immediate and complete curtailment; or
- b. Allow out-of-priority diversion of water by junior-priority ground water users pursuant to a mitigation plan that has been approved by the Director.

02. Regulation Of Uses Of Water By Watermaster. The Director, through the watermaster, shall regulate use of water within the water district pursuant to Idaho law and the priorities of water rights as provided in section 42-604, Idaho Code, and under the following procedures:

- a. The watermaster shall determine the quantity of surface water of any stream included within the water district which is available for diversion and shall shut the headgates of the holders of junior-priority surface water rights as necessary to assure that water is being diverted and used in accordance with the priorities of the respective water rights from the surface water source.

b. The watermaster shall regulate the diversion and use of ground water in accordance with the rights thereto, approved mitigation plans and orders issued by the Director.

c. Where a call is made by the holder of a senior-priority water right against the holder of a junior-priority ground water right in the water district the watermaster shall first determine whether a mitigation plan has been approved by the Director whereby diversion of ground water may be allowed to continue out of priority order. If the holder of a junior-priority ground water right is a participant in such approved mitigation plan, and is operating in conformance therewith, the watermaster shall allow the ground water use to continue out of priority.

d. The watermaster shall maintain records of the diversions of water by surface and ground water users within the water district and records of water provided and other compensation supplied under the approved mitigation plan which shall be compiled into the annual report which is required by section 42-606, Idaho Code.

e. Under the direction of the Department, watermasters of separate water districts shall cooperate and reciprocate in assisting each other in assuring that diversion and use of water under water rights is administered in a manner to assure protection of senior-priority water rights provided the relative priorities of the water rights within the separate water districts have been adjudicated.

03. Reasonable Exercise Of Rights. In determining whether diversion and use of water under rights will be regulated under Rules 40.01.a., or 40.01.b., the Director shall consider whether the petitioner making the delivery call is suffering material injury to a senior-priority water right and is diverting and using water efficiently and without waste, and in a manner consistent with the goal of reasonable use of surface and ground waters as described in Rule 42. The Director will also consider whether the respondent junior-priority water right holder is using water efficiently and without waste.

04. Actions Of The Watermaster Under A Mitigation Plan. Where a mitigation plan has been approved as provided in Rule 42, the watermaster may permit the diversion and use of ground water to continue out of priority order within the water district provided the holder of the junior-priority ground water right operates in accordance with such approved mitigation plan.

34. The Letter filed on January 14, 2005, with the Director by the Surface Water Coalition will be treated pursuant to Conjunctive Management Rule, 40. Rule 40 applies only to areas within Water Districts No. 120 and No. 130.

35. In accordance with Rule 40 of the Conjunctive Management Rules, curtailment of junior priority ground water rights may only occur if the use of water under senior priority rights is consistent with Rule 20.03 of the Conjunctive Management Rules and injury is determined to be caused by the exercise of the junior priority rights. Factors that will be considered in determining whether junior priority ground water rights are causing injury to the senior priority water rights held by or for the benefit of the members of the Surface Water Coalition are set forth in Rule 42 of the Conjunctive Management Rules as follows:

01. Factors. Factors the Director may consider in determining whether the holders of water rights are suffering material injury and using water efficiently and without waste include, but are not limited to, the following:

- a. The amount of water available in the source from which the water right is diverted.
- b. The effort or expense of the holder of the water right to divert water from the source.
- c. Whether the exercise of junior-priority ground water rights individually or collectively affects the quantity and timing of when water is available to, and the cost of exercising, a senior-priority surface or ground water right. This may include the seasonal as well as the multi-year and cumulative impacts of all ground water withdrawals from the area having a common ground water supply.
- d. If for irrigation, the rate of diversion compared to the acreage of land served, the annual volume of water diverted, the system diversion and conveyance efficiency, and the method of irrigation water application.
- e. The amount of water being diverted and used compared to the water rights.
- f. The existence of water measuring and recording devices.
- g. The extent to which the requirements of the holder of a senior-priority water right could be met with the user's existing facilities and water supplies by employing reasonable diversion and conveyance efficiency and conservation practices; provided, however, the holder of a surface water storage right shall be entitled to maintain a reasonable amount of carry-over storage to assure water supplies for future dry years. In determining a reasonable amount of carry-over storage water, the Director shall consider the average annual rate of fill of storage reservoirs and the average annual carry-over for prior comparable water conditions and the projected water supply for the system.
- h. The extent to which the requirements of the senior-priority surface water right could be met using alternate reasonable means of diversion or alternate points of diversion, including the construction of wells or the use of existing wells to divert and use water from the area having a common ground water supply under the petitioner's surface water right priority.

02. Delivery Call For Curtailment Of Pumping. The holder of a senior-priority surface or ground water right will be prevented from making a delivery call for curtailment of pumping of any well used by the holder of a junior-priority ground water right where use of water under the junior-priority right is covered by an approved and effectively operating mitigation plan.

36. There currently is no approved and effectively operating mitigation in place to mitigate for injury, if any, to the water rights held by or for the benefit of the members of the Surface Water Coalition.

37. In Idaho, water rights are real property, Idaho Code § 55-101(1). However, water rights are unique because they are usufructuary, *Washington County Irrigation Dist. v. Talboy*, 55 Idaho 382, 389, 43 P.2d 943, 945 (1935). "[T]he right of property in water is usufructuary, and

consists not so much of the fluid itself as the advantage of its use. . . . [R]unning water, so long as it continues to flow in its natural course, is not, and cannot be made, the subject of private ownership. A right may be acquired to its use which will be regarded and protected as property, but it has been distinctly declared in several cases that this right carries with it no specific property of the water itself." SAMUEL C. WIEL, WATER RIGHTS IN THE WESTERN STATES § 18 (1911). Being usufructuary, water rights do not stand on their own. Instead, water rights "are the complement of, or one of the appurtenances of, the land or other thing to which, through necessity, said water is being applied . . ." Idaho Code § 42-101. The usufructuary nature of a water right is found in Article XV, § 1 of the Idaho Constitution, which states in full:

The use of all waters now appropriated, or that may hereafter be appropriated for sale, rental or distribution; also of all water originally appropriated for private use, but which after such appropriation has heretofore been, or may hereafter be sold, rented, or distributed, is hereby declared to be a public use, and subject to the regulation and control of the state in the manner prescribed by law.

Emphasis added.

38. In addition, Article XV, § 3 of the Idaho Constitution provides that "[t]he right to divert and appropriate the unappropriated waters of any natural stream to *beneficial uses*, shall never be denied. . . ." Emphasis added. According to the Idaho Supreme Court, "it is against the public policy of the state, as well as against express enactments, for a water user to take from an irrigation canal more water, of that to which he is entitled, than is necessary for the irrigation of his land and for domestic purposes. *The waters of this state belong to the state, and the right to the beneficial use thereof is all that can be acquired.*" *Coulson v. Aberdeen-Springfield Canal Co.*, 39 Idaho 320, 323-324, 227 P. 29, 30 (1924) (emphasis added).

39. Even if an appropriator possesses a right to use up to a certain quantity of water, that right is tempered by the concept of beneficial use. *Schodde*, 224 U.S. 107; *Lee v. Hanford*, 21 Idaho 327, 121 P. 558 (1912).

40. "A prior appropriator is only entitled to the water to the extent that he has use for it when economically and reasonably used. It is the policy of the law of this state to require the highest and greatest possible duty from the waters of the state in the interest of agriculture and for useful and beneficial purposes." *Washington State Sugar v. Goodrich*, 27 Idaho 26, 44, 147 P. 1073, 1079 (1915).

41. Again, the Idaho Supreme Court "has declared that 'it is against the public policy of the state . . . for a water user to take from an irrigation canal more water, of that to which he is entitled, than is necessary for the irrigation of his land. . . . That policy logically applies also to a stream supplying several farms, and prohibits appellant from diverting more water than necessary for the beneficial purpose regardless of alleged seniority in right through priority in time.'" *Glenn Dale Ranches, Inc. v. Shaub*, 94 Idaho 585, 588, 494 P.2d 1029, 1032 (1972).

42. Even when an appropriator has control of public water, the appropriator cannot prevent the state from regulating its use. Idaho Const. Art. XV, § 1; Idaho Code § 42-101. For

example, appropriators are prohibited from committing waste or applying water in a non-beneficial manner:

It must be remembered that the policy of the law of this state is to secure the maximum use and benefit of its water resources. *Reynolds Irrigation District v. Sproat*, 69 Idaho 315, 206 P.2d 774; Constitution, Art. 15; §§ 42-104, 42-222 I.C. To effectuate this policy, the legislature has made it a misdemeanor to waste water from a stream, the waters of which are used for irrigation. § 18-4302 I.C. Under this section and the constitutional policy cited, it is the duty of a prior appropriator to allow the water, which he has the right to use, to flow down the channel for the benefit of junior appropriators at times when he has no immediate need for the use thereof.

Mountain Home Irrigation Dist. v. Duffy, 79 Idaho 435, 442, 319 P.2d 965, 968 (1957). See *Stickney v. Hanrahan*, 7 Idaho 424, 433, 63 P. 189, 191 (1900) (“It is the policy of the law to prevent wasting of water.”).

43. In Idaho, ground water is treated similarly to surface water in terms of appropriation, priority, and the requirement that the water be put to a beneficial use:

The traditional policy of the state of Idaho, requiring the water resources of this state to be devoted to beneficial use in reasonable amounts through appropriation, is affirmed with respect to the ground water resources of this state as said term is hereinafter defined and, while the doctrine of “first in time is first in right” is recognized, a reasonable exercise of this right shall not block full economic development of underground water resources.

Idaho Code § 42-226.

Because Idaho Code § 42-226 seeks to promote “*optimum development of water resources . . .* [.]” it is consistent with the Idaho Constitution. *Baker v. Ore-Ida Foods, Inc.*, 95 Idaho 575, 584, 513 P.2d 627, 636 (1973) (emphasis added).

44. In *Fellhauer v. People*, the Colorado Supreme Court, in interpreting a portion of Colorado’s constitution, which the drafters of the Idaho Constitution considered in crafting Article XV, § 3, reached the same conclusions regarding full or optimal economic development of underground water resources:

It is implicit in these constitutional provisions that, along with Vested rights, there shall be Maximum utilization of the water of this state. As administration of water approaches its second century the curtain is opening upon the new drama of Maximum utilization and how constitutionally that doctrine can be integrated into the law of Vested rights. We have known for a long time that the doctrine was lurking in the backstage shadows as a result of the accepted, though oft violated, principle that the right to water does not give the right to waste it.

Fellhauer v. People, 447 P.2d 986, 994 (Colo. 1968).

45. Based upon the Idaho Constitution, Idaho Code, the Conjunctive Management Rules, and decisions by Idaho courts, in conjunction with the reasoning established by the

Colorado Supreme Court in *Fellhauer*, it is clear that injury to senior priority surface water rights by diversion and use of junior priority ground water rights occurs when diversion under the junior rights intercept a sufficient quantity of water to interfere with the exercise of the senior primary and supplemental water rights for the authorized beneficial use. Because the amount of water necessary for beneficial use can be less than decreed or licensed quantities, it is possible for a senior to receive less than the decreed or licensed amount, but not suffer injury. Thus, senior surface water right holders cannot demand that junior ground water right holders diverting water from a hydraulically-connected aquifer be required to make water available for diversion unless that water is necessary to accomplish an authorized beneficial use.

46. In its Letter, the Surface Water Coalition asserts that:

The extent of injury equals the amount of water diminished and the cumulative shortages in natural flow and storage water which is the result of groundwater depletions. Impacts have been occurring as a result of ground water depletions and reduced reach accruals for several years, resulting in material injury to the water rights of the Surface Water Coalition.

Any and all water that is pumped under junior groundwater rights that would otherwise accrue to the Snake River to satisfy a senior surface water right, as demonstrated by the model, results in a 'material injury' to the Surface Water Coalition's senior surface water rights.

Letter at p. 3.

47. Contrary to the assertion of the Surface Water Coalition, depletion does not equate to material injury. Material injury is a highly fact specific inquiry that must be determined in accordance with IDAPA conjunctive management rule 42. The Surface Water Coalition has no legal basis to seek the future curtailment of junior priority ground water rights based on injury alleged by the Coalition to have occurred in prior years.

48. Whether the senior priority water rights held by or for the benefit of members of the Surface Water Coalition are injured depends in large part on the total supply of water needed for the beneficial uses authorized under the water rights held by members of the Surface Water Coalition and available from both natural flow and reservoir storage combined. To administer junior priority ground water rights while treating the natural flow rights and storage rights of the members of the Surface Water Coalition separately would either: (1) lead to the curtailment of junior priority ground water rights, absent mitigation, when there is insufficient natural flow for the senior water rights held by the members of the Surface Water Coalition even though the reservoir space allocated to members of the Surface Water Coalition is full; or (2) lead to the curtailment of junior priority ground water rights, absent mitigation, anytime when the reservoir space allocated to the members of the Surface Water Coalition is not full even though the natural flow water rights held by members of the Surface Water Coalition were completely satisfied. Either outcome is wholly inconsistent with the provision for "full economic development of underground water resources" in Idaho Code § 42-226 articulated as "optim[al] development" in *Baker v. Ore-Ida Foods, Inc.*, 95 Idaho 575, 584, 513, P.2d 627, 636 (1973).

49. The Director has determined that the average of the inflow diverted in 2002 and 2004 for each member of the Coalition provides a reasonable lower-bound estimate of the natural flow that may be divertible in 2005 by each member of the Coalition. *See Findings 103 and 104.*

50. The amounts of water diverted in 1995 are deemed to be the minimum amounts needed for full deliveries to land owners and shareholders served by the members of the Surface Water Coalition. The Director has used the 1995 diversions to predict the shortages in surface water supplies that are reasonably likely for Coalition members in 2005. *See Findings of Fact 115 and 116.*

51. The members of the Surface Water Coalition should not be required to exhaust their available storage water prior to being able to make a delivery call against the holders of junior priority ground water rights. The members of the Coalition are entitled to maintain a reasonable amount of carryover storage water to minimize shortages in future dry years pursuant to Rule 42.01.g of the Conjunctive Management Rules (IDAPA 37.03.11.042.01.g). *See Findings 118 and 119.*

52. The reasonably likely material injury predicted for 2005 is the sum of the shortages set forth in Finding 116, if any, and the shortfalls in predicted carryover as compared to the reasonable amounts of carryover storage set forth in Finding 119, if any. The material injury predicted for 2005 to the members of the Surface Water Coalition is 133,400 acre-feet of water. *See Finding of Fact 120.*

53. Based upon the foregoing Findings of Fact and Conclusions of Law, the Director concludes that members of the Surface Water Coalition will be materially injured in 2005 by ground water depletions in Water Districts No. 120 and No. 130. Holders of certain ground water rights having priorities of February 27, 1979, and later within Water Districts No. 120 and No. 130 are required to either curtail the diversion and use of ground water for the remainder of 2005, provide replacement water to the members of the Surface Water Coalition as mitigation, or a combination of both. The required curtailment or mitigation shall be governed by the following order.

ORDER

The Director enters the following Order in response to the Letter for the reasons stated in the foregoing Findings of Fact and Conclusions of Law.

IT IS HEREBY ORDERED as follows:

1. The watermasters for Water Districts No. 120 and No. 130 are directed to issue written notices by April 22, 2005, or as soon thereafter as practicable, to the holders of consumptive ground water rights in Water Districts No. 120 and No. 130 having priority dates of February 27, 1979, and later and identified to the watermasters by the Department, including consumptive ground water rights for agricultural, commercial, industrial, and municipal uses, excluding in-house culinary uses. The written notices are to advise the holders of such consumptive ground water rights of this Order and to instruct the holders of such rights that they are required to provide replacement water to the members of the Surface Water Coalition as mitigation for out-of-priority depletions, as provided herein, in amounts equal to the annual depletions to the reach gains in the Snake River between the Near Blackfoot Gage and the Minidoka Gage under their rights as determined using the Department's ground water model for the ESPA. The notices are to also advise such right holders that failure to provide sufficient replacement water will result in their diversions being curtailed for the remainder of 2005 or in future years, as provided herein, in accordance with the provisions of Idaho Code §§ 42-602 and 42-607 and the directions and orders of the Director.

2. Holders of ground water rights affected by this Order where the purpose of use is irrigation shall provide the required replacement water through the North Snake, Magic Valley, Aberdeen-American Falls, Bingham, or Bonneville-Jefferson ground water districts. Holders of ground water rights for irrigation that are not members of one of these ground water districts shall be deemed a nonmember participant for mitigation purposes pursuant to H.B. No. 848 (*Act Relating to the Administration of Ground Water Rights within the Eastern Snake River Plain*, ch. 352, 2004 Idaho Sess. Laws 1052) and shall be required to pay the ground water district nearest the lands to which the water right is appurtenant for replacement water as mitigation pursuant to Idaho Code § 42-5259.

3. Holders of ground water rights affected by this Order where the purpose of use is commercial, industrial, or municipal may provide the required replacement water through a ground water district as a nonmember participant for mitigation or may separately or jointly provide the required replacement water.

4. The Department shall allocate the amounts of replacement water required as mitigation to members of the Surface Water Coalition. The amount of replacement water required to mitigate diversions of ground water for irrigation shall be provided by the North Snake, Magic Valley, Aberdeen-American Falls, Bingham, or Bonneville-Jefferson ground water districts as follows:

North Snake Ground Water District:	2,400 acre-feet
Magic Valley Ground Water District:	17,800 acre-feet
Aberdeen-American Falls Ground Water District:	58,700 acre-feet
Bingham Ground Water District:	14,900 acre-feet
Bonneville-Jefferson Ground Water District:	7,200 acre-feet

These amounts equal the increase in reach gains in the Snake River between the Near Blackfoot Gage and the Minidoka Gage that would occur over time based on the ground water model simulations described in Finding 127, except for the Aberdeen-American Falls Ground Water District. The required amount of replacement water for the Aberdeen-American Falls Ground Water District is 12.9 percent more than described in Finding 127 to provide replacement water as mitigation for ground water rights for irrigation that are within Water Districts No. 120 and No. 130 but that are not within any of the ground water districts. Nearly all such rights are located east of American Falls Reservoir in an area adjacent to the Aberdeen-American Falls Ground Water District. See Finding 130.

5. The required replacement water can be provided over time on an annual basis in amounts at least equal to the increase in reach gains in the Snake River between the Near Black Foot Gage and Minidoka Gage that would result from curtailment of the affected ground water rights based on simulations using the Department's ground water model for the ESPA. The simulated increase in reach gains in the Snake River from curtailment of affected ground water rights for irrigation in 2005 for the first four years is set forth in Finding 127. The total amount of replacement water provided for mitigation in 2005 shall not be less than 27,700 acre-feet, which equals the amount of the predicted shortage in 2005 set forth in Findings 115 and 116.

6. If all of the replacement water required for mitigation is not provided in 2005, the amount remaining to be provided shall be an obligation for future years and additive to future mitigation requirements, if any, should material injury continue. The amount remaining as a future obligation shall not be cancelled unless the storage space held by the members of the Surface Water Coalition under contract with the USBR fills.

7. The amount of replacement water required, both for 2005 and in future years, can be reduced by foregoing (curtailing) consumptive uses authorized under the affected water rights or other water rights so long as full beneficial use was made under the forgone rights in the prior year.

8. If at any time the mitigation for out-of-priority depletions is not provided as required herein, the associated water rights are subject to immediate curtailment, based on the priorities of the rights, to the extent mitigation has not been provided.

9. As required herein, the North Snake, Magic Valley, Aberdeen-American Falls, Bingham, and Bonneville-Jefferson ground water districts, and other entities seeking to provide replacement water or other mitigation in lieu of curtailment, must file a plan for providing such replacement water with the Director, to be received in his offices no later than 5:00 pm on April 29, 2005. Requests for extensions to file a plan for good cause will be considered on a case-by-case basis and granted or denied based on the merits of any such individual request for extension.

The plan will be disallowed, approved, or approved with conditions by May 6, 2005, or as soon thereafter as practicable in the event an extension is granted as provided in the order granting the extension. A plan that is approved or approved with conditions will be enforced by the Department and the watermasters for Water Districts No. 120 and No. 130 through curtailment of the associated rights in the event the plan is not fully implemented.

10. The Director will monitor water supply requirements and the water supplies available throughout the irrigation season and may issue additional orders or instructions to the watermasters as conditions warrant.

11. The Director will make a final determination of the amounts of mitigation required and actually provided after the final accounting for surface water diversions from the Snake River for 2005 is complete. To the extent less mitigation is provided than was actually required, a mitigation obligation will carry forward to 2006 and be added to any new mitigation determined to be required for 2006. To the extent more mitigation is provided than was actually required, a mitigation credit will carry forward to 2006 and be subtracted from any new mitigation determined to be required for 2006.

12. The Director will make a determination of the extent of injury reasonably likely to occur to members of the Surface Water Coalition from out-of-priority ground water depletions under water rights within water districts annually after April 1, when the USBR and USACE release forecasts for inflow to the Upper Snake River Basin for the period April 1 through July 31, and require mitigation or curtailment as warranted without further demand by members of the Coalition until such time that a permanent mitigation plan may be approved.

13. Mitigation debits and credits resulting from year-to-year mitigation will continue to accrue and carry forward until such time as the storage space held by the members of the Surface Water Coalition under contract with the USBR fills. At that time, any remaining debits and credits will cancel.

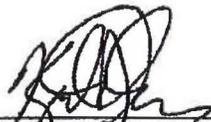
14. Mitigation requirements resulting from orders of the Director in response to other pending requests for water rights administration of junior priority ground water rights may be in addition to the mitigation requirements set forth herein.

IT IS FURTHER ORDERED that pursuant to Idaho Code § 67-5247 this Order is made effective upon issuance due to the immediate danger to the public welfare posed by the lack of certainty existing among holders of water rights for the diversion and use of ground water for irrigation from the Eastern Snake Plain Aquifer as to whether water will be available under the priorities of their respective rights during the 2005 irrigation season.

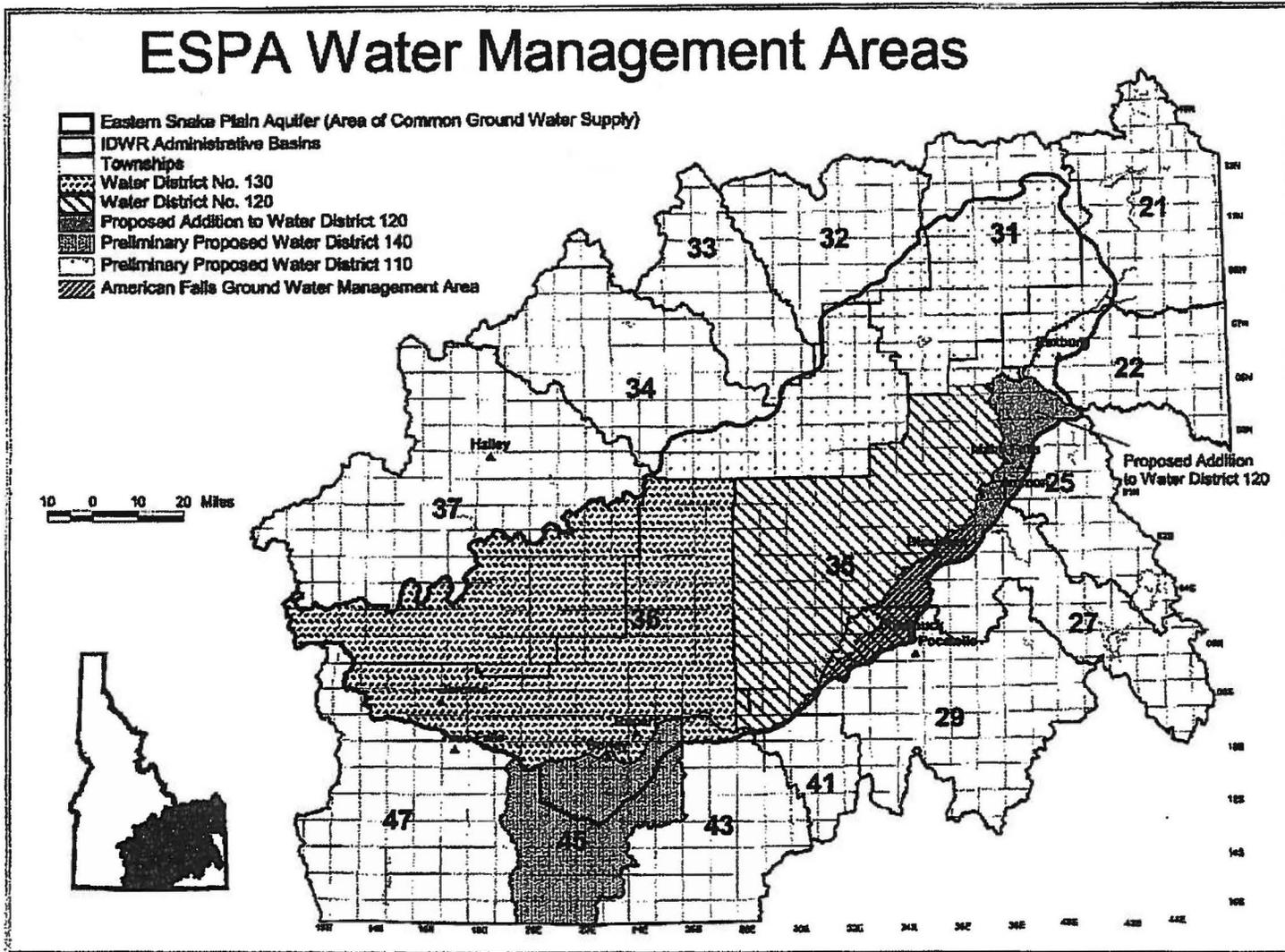
IT IS FURTHER ORDERED that this is a final order of the agency. Any party may file a petition for reconsideration of this final order within fourteen (14) days of the service date of this order. The agency will dispose of the petition for reconsideration within twenty-one (21) days of its receipt, or the petition will be considered denied by operation of law pursuant to Idaho Code § 67-5246.

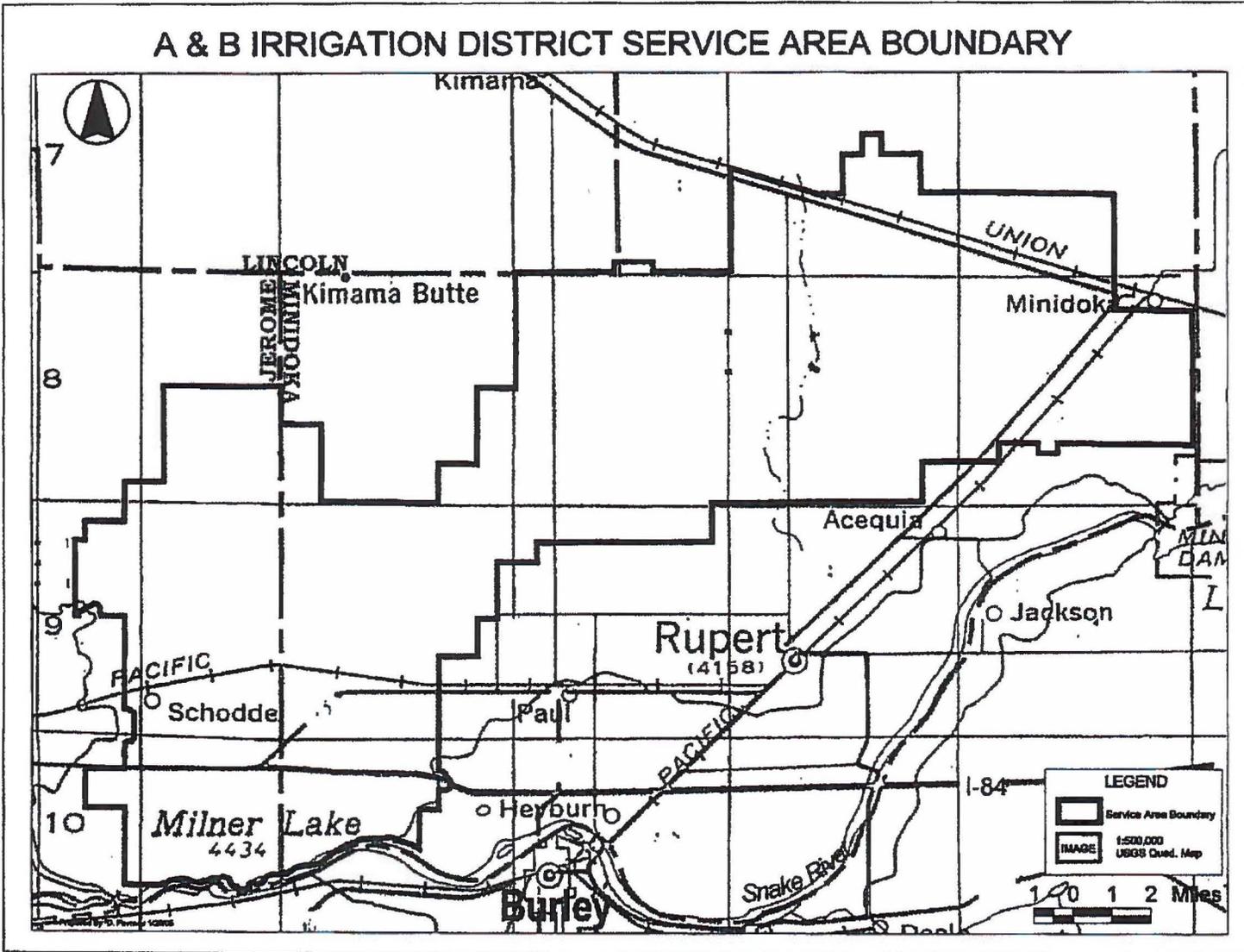
IT IS FURTHER ORDERED that any person aggrieved by this decision shall be entitled to a hearing before the Director to contest the action taken provided the person files with the Director, within fifteen (15) days after receipt of written notice of the order, or receipt of actual notice, a written petition stating the grounds for contesting the action and requesting a hearing. Any hearing conducted shall be in accordance with the provisions of chapter 52, title 67, Idaho Code, and the Rules of Procedure of the Department, IDAPA 37.01.01. Judicial review of any final order of the Director issued following the hearing may be had pursuant to Idaho Code § 42-1701A(4).

DATED this 2nd day of May 2005.

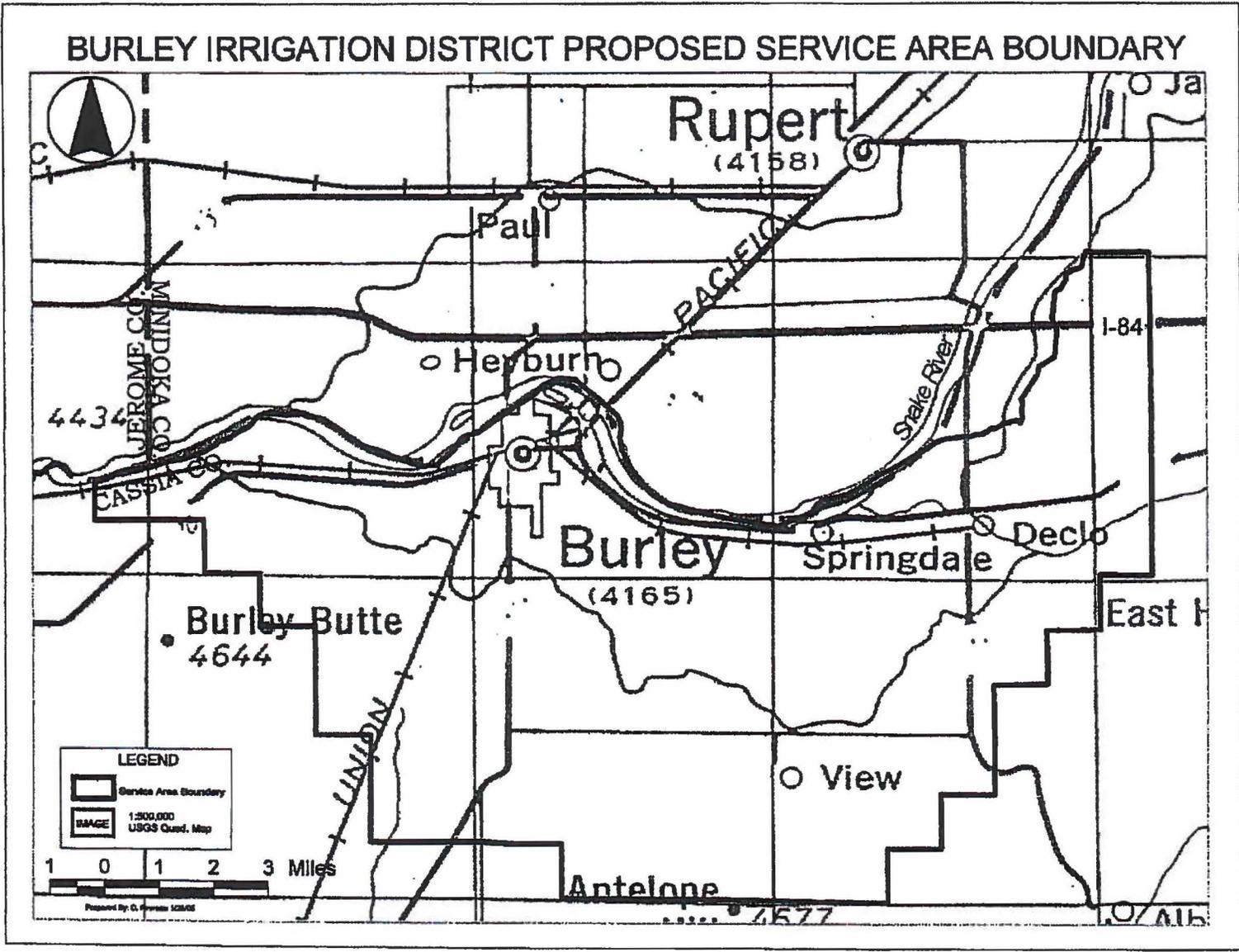


KARL J. DREHER
Director



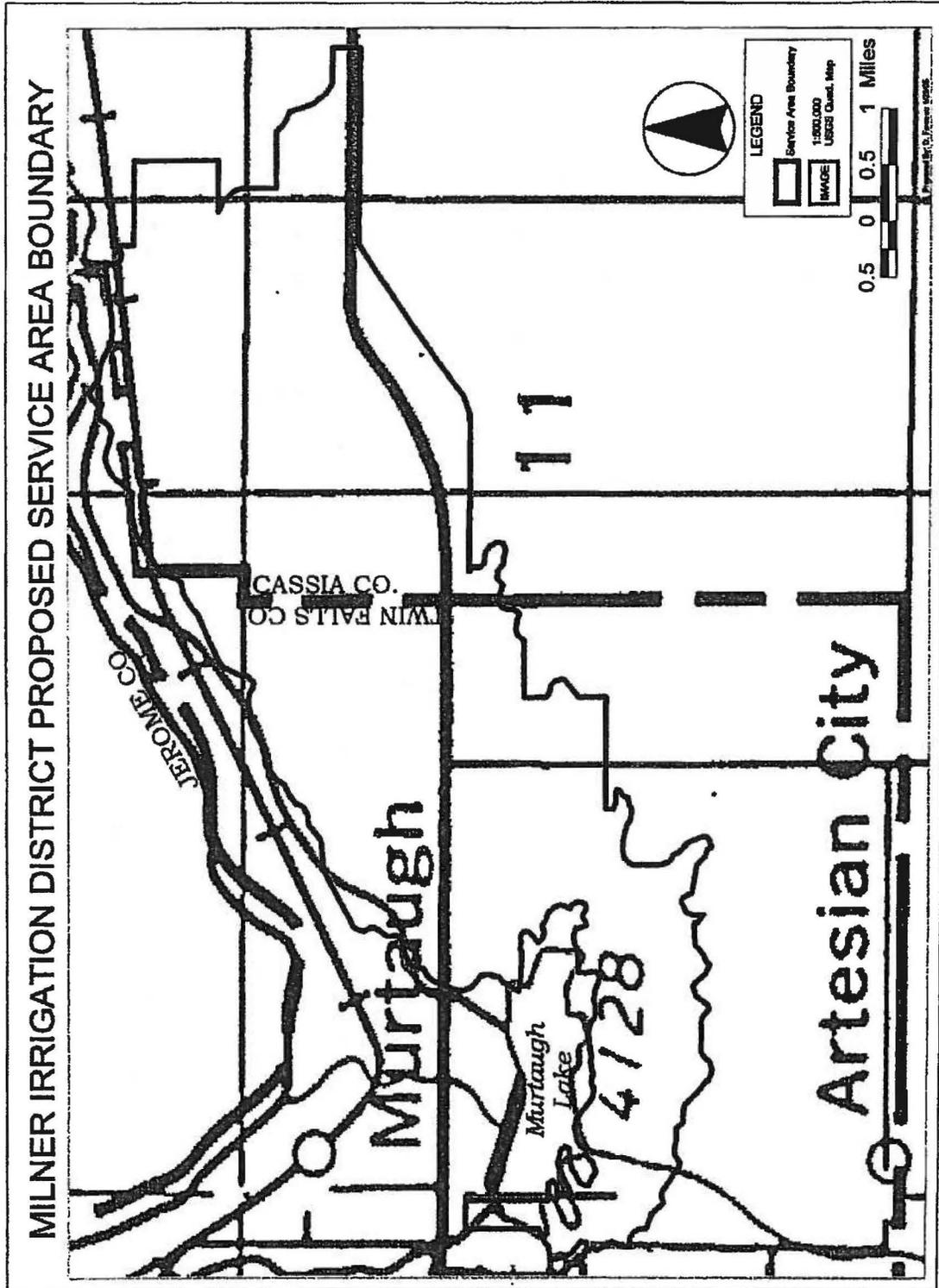


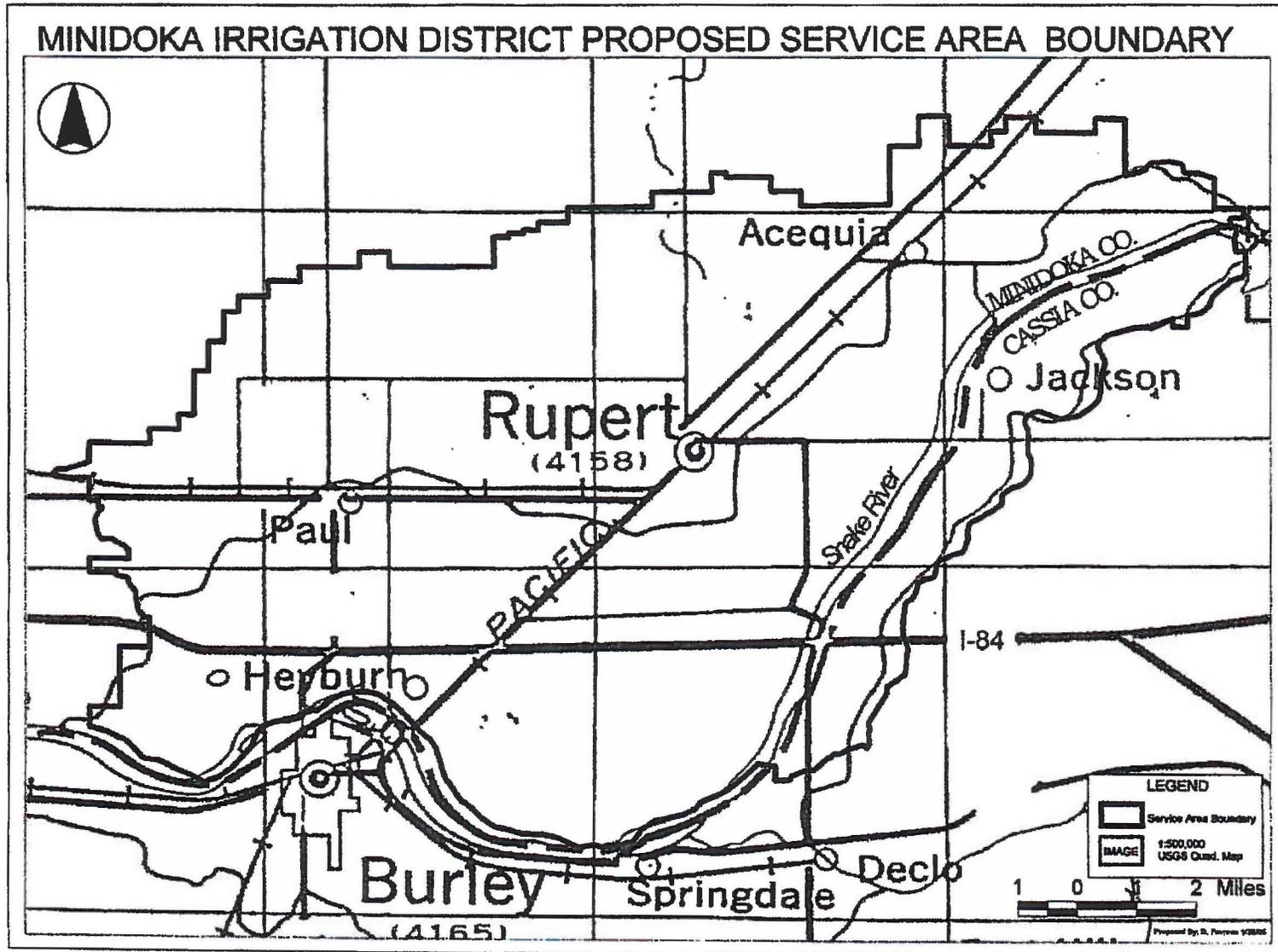
ATTACHMENT B



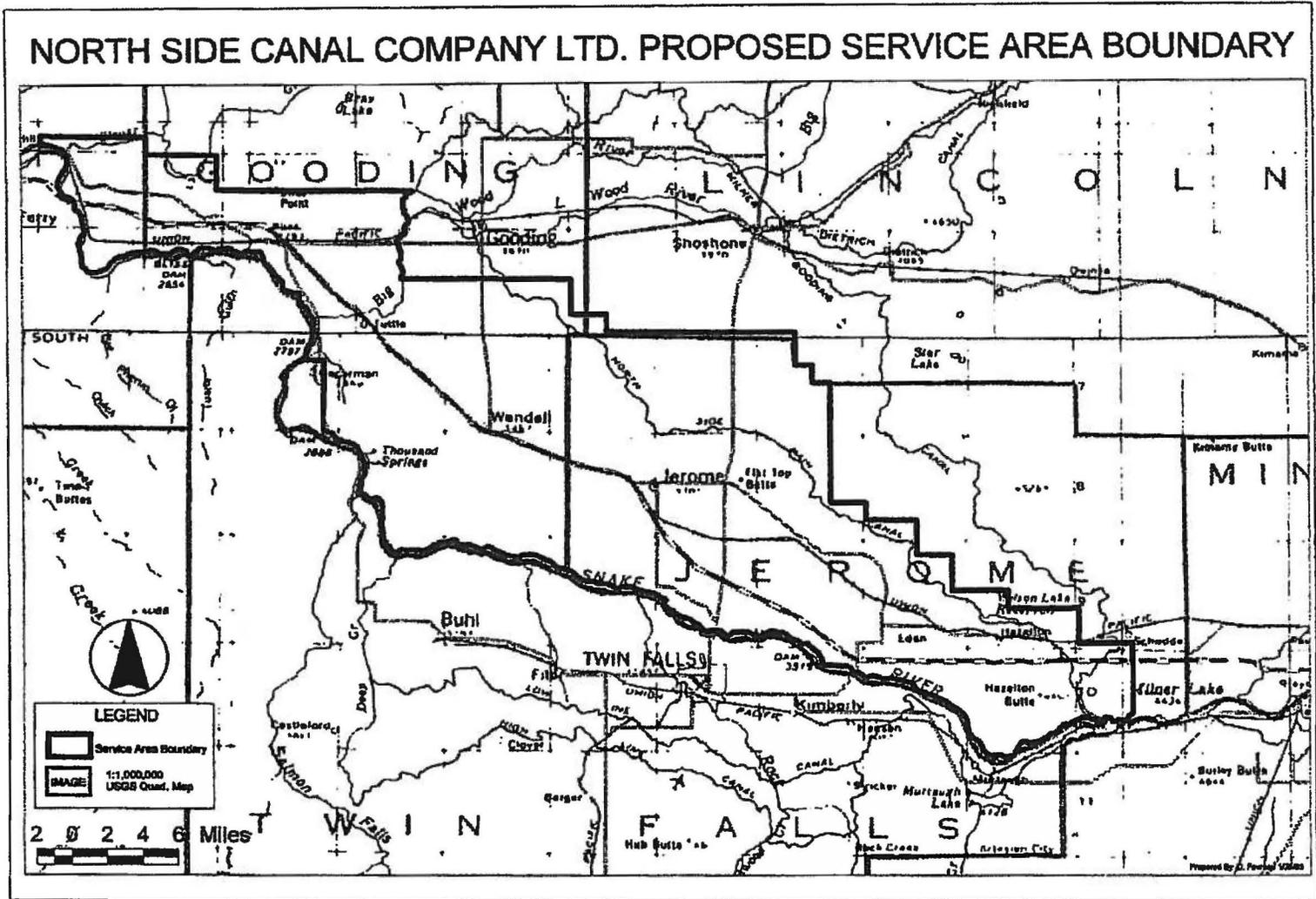
ATTACHMENT D

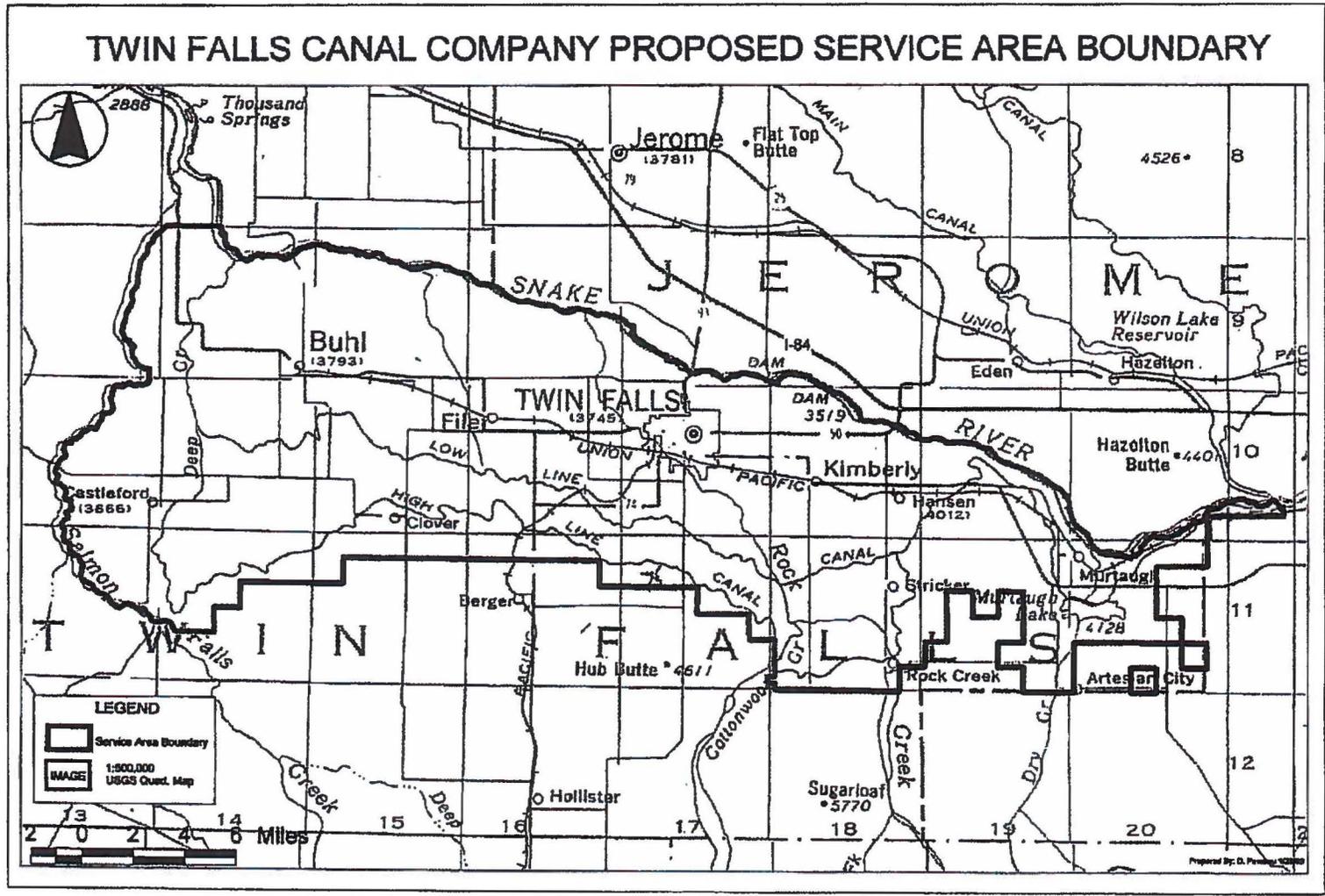
ATTACHMENT E





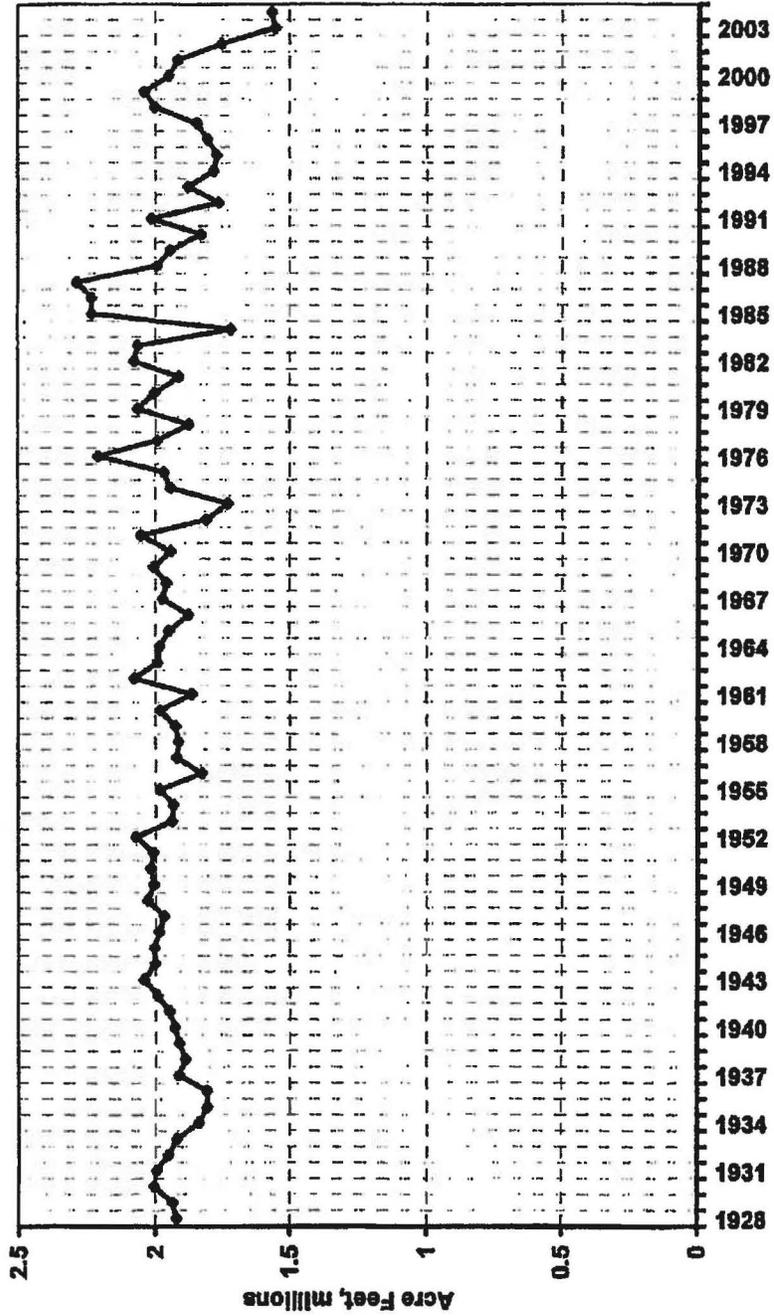
ATTACHMENT F



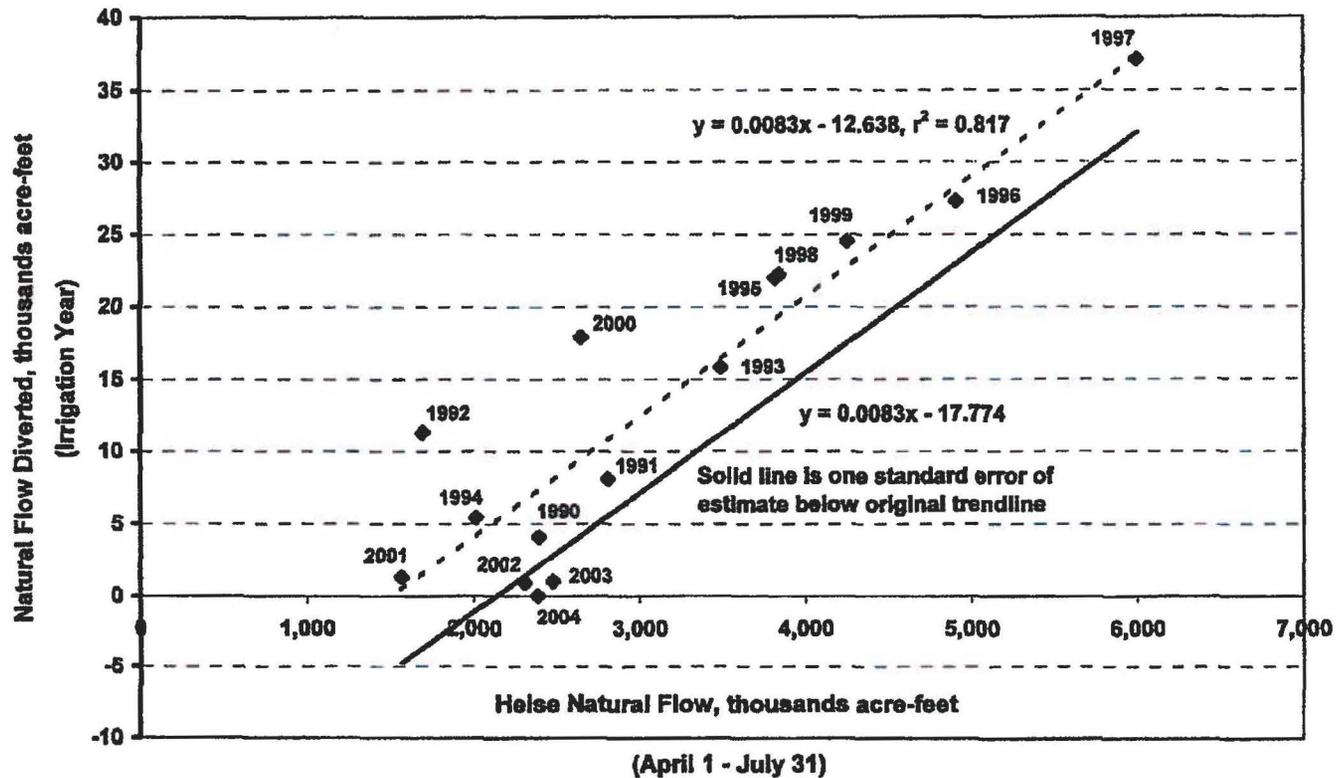


ATTACHMENT I

ANNUAL REACH GAINS TO SNAKE RIVER
NEAR BLACKFOOT TO NEELEY
Includes Return Flows

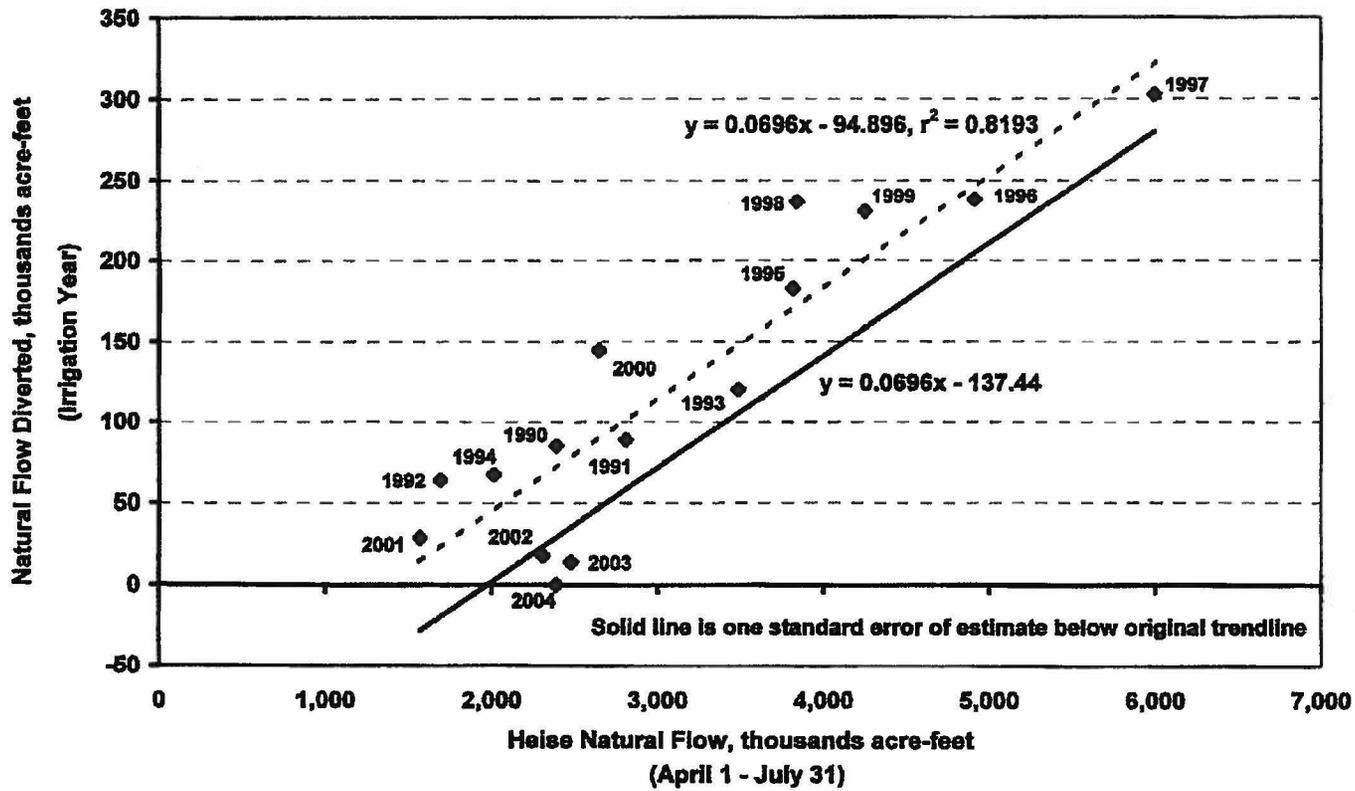


A & B IRRIGATION DISTRICT Natural Flow Diversions with Heise Inflow



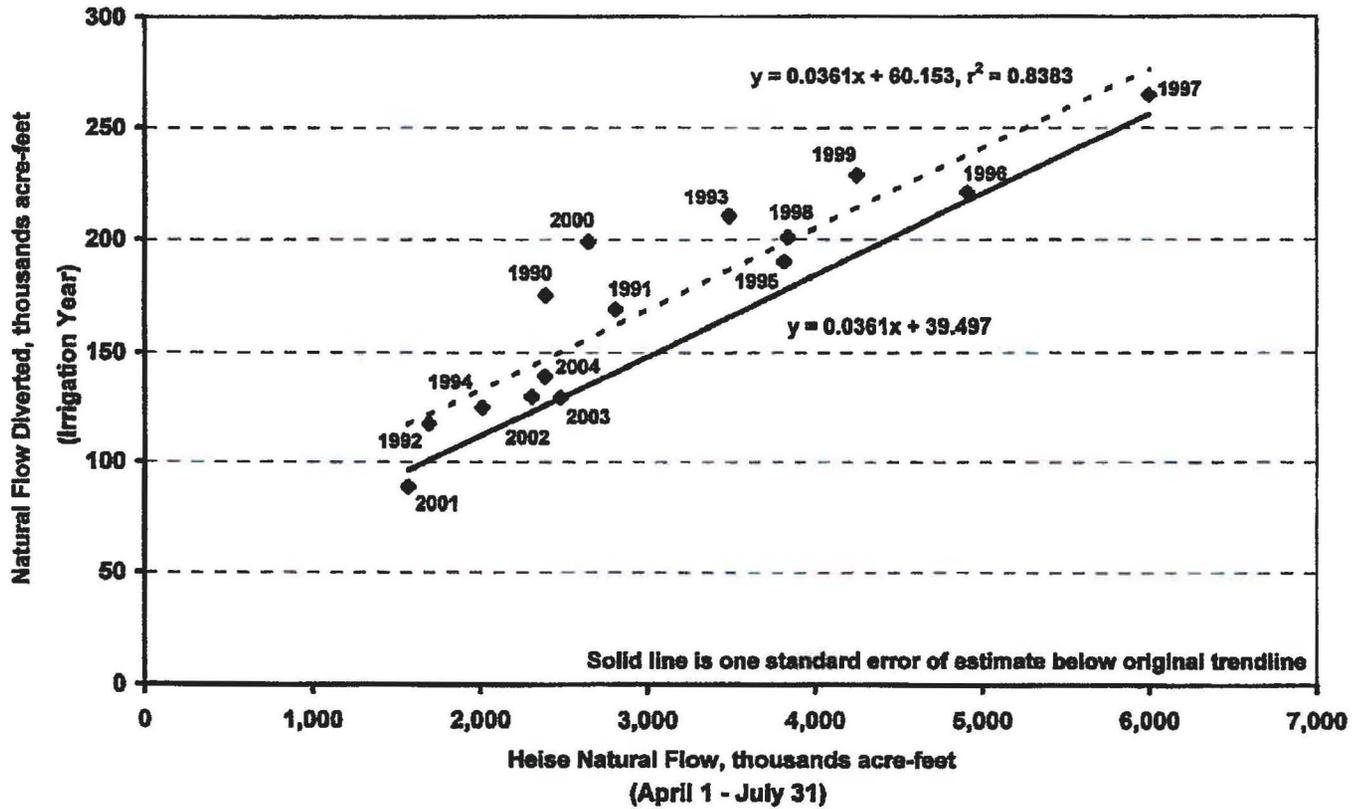
ATTACHMENT J

AMERICAN FALLS RESERVOIR DISTRICT #2 Natural Flow Diversions with Heise Inflow



ATTACHMENT K

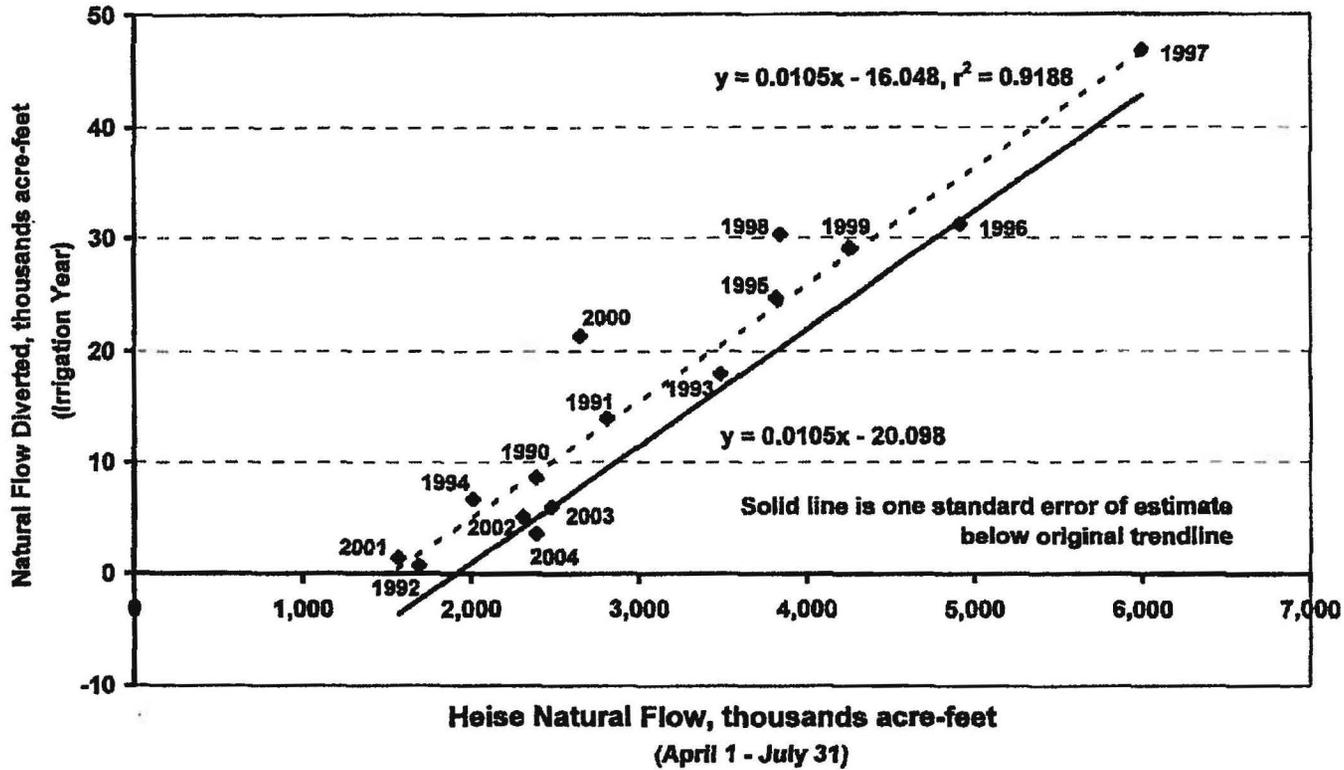
BURLEY IRRIGATION DISTRICT Natural Flow Diversions with Helse Inflow



ATTACHMENT L

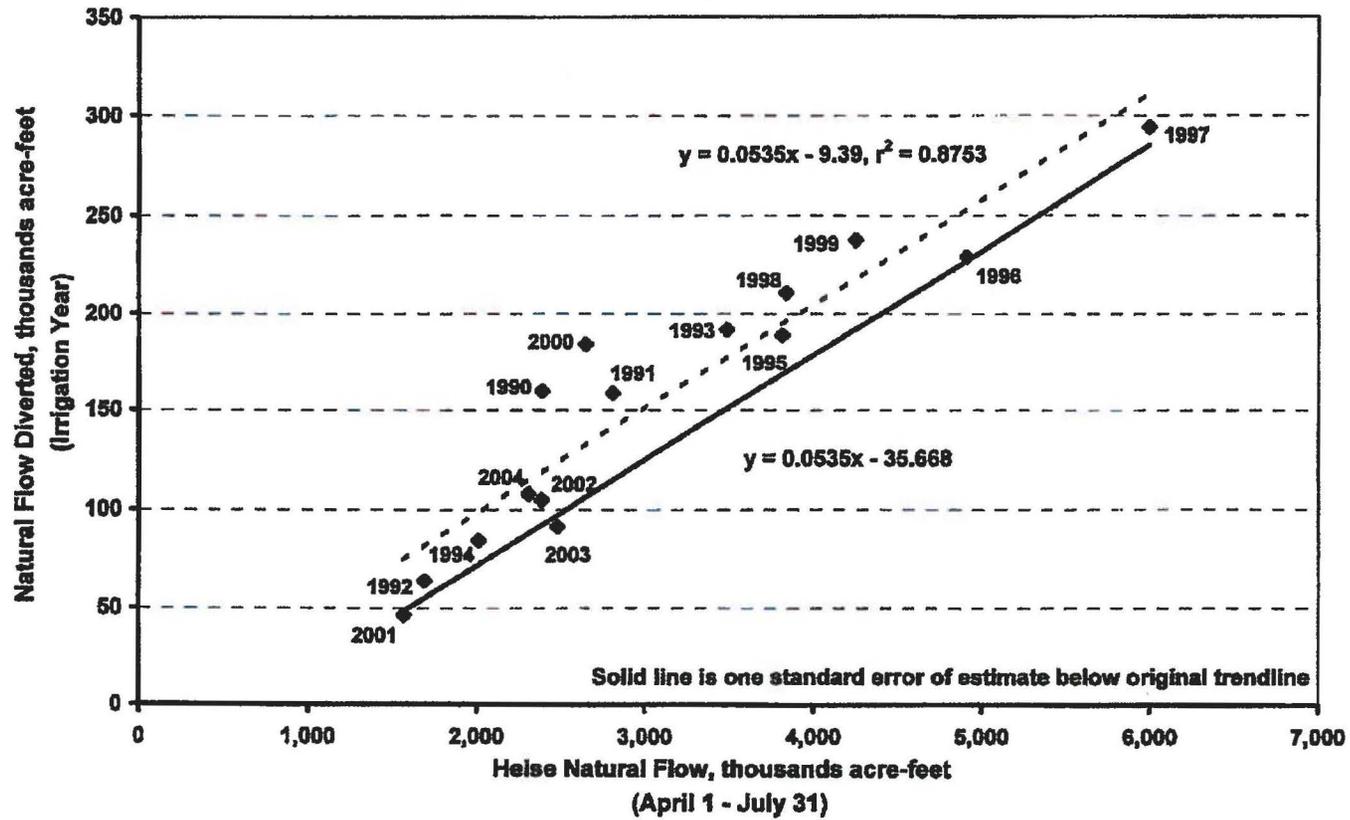
MILNER IRRIGATION DISTRICT

Natural Flow Diversions with Heise Inflow

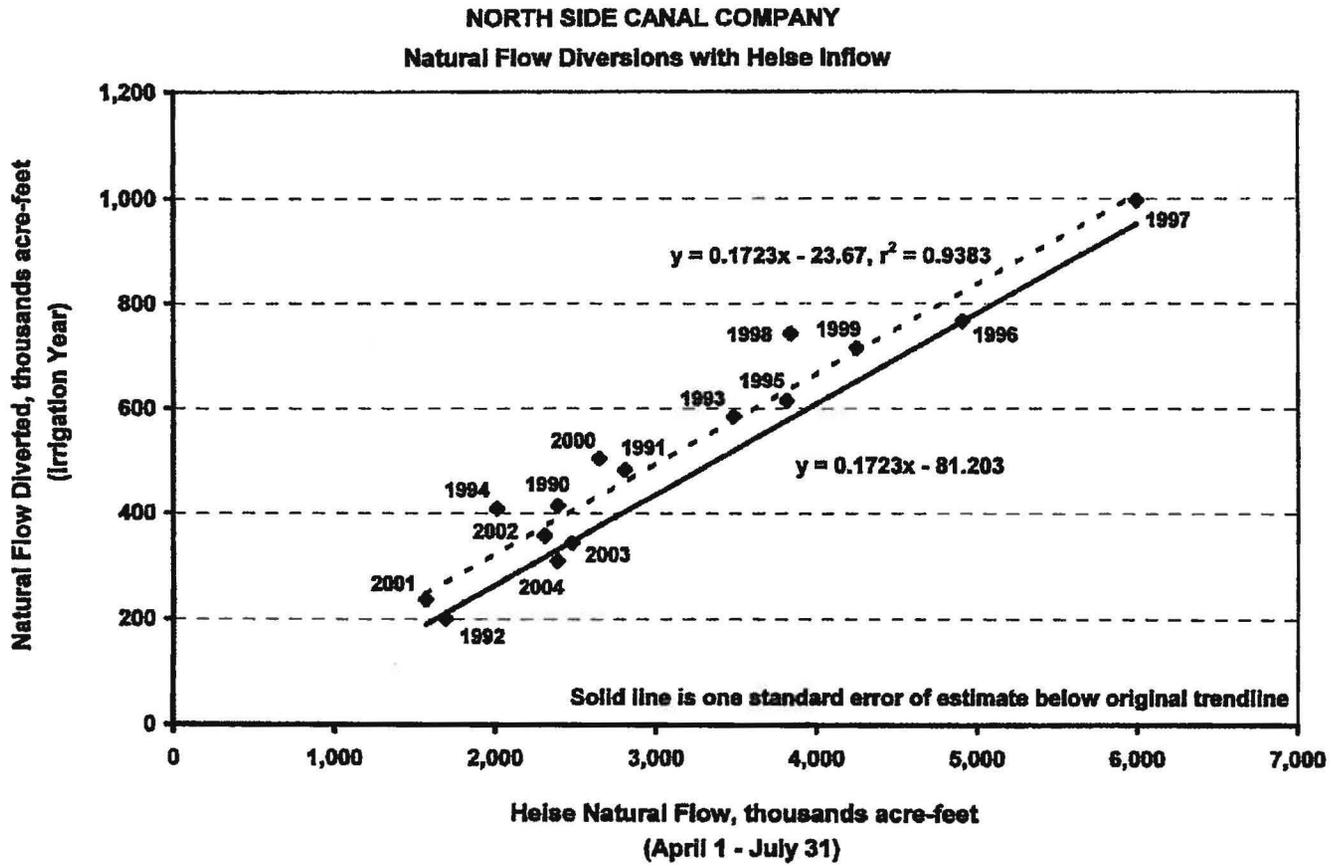


ATTACHMENT M

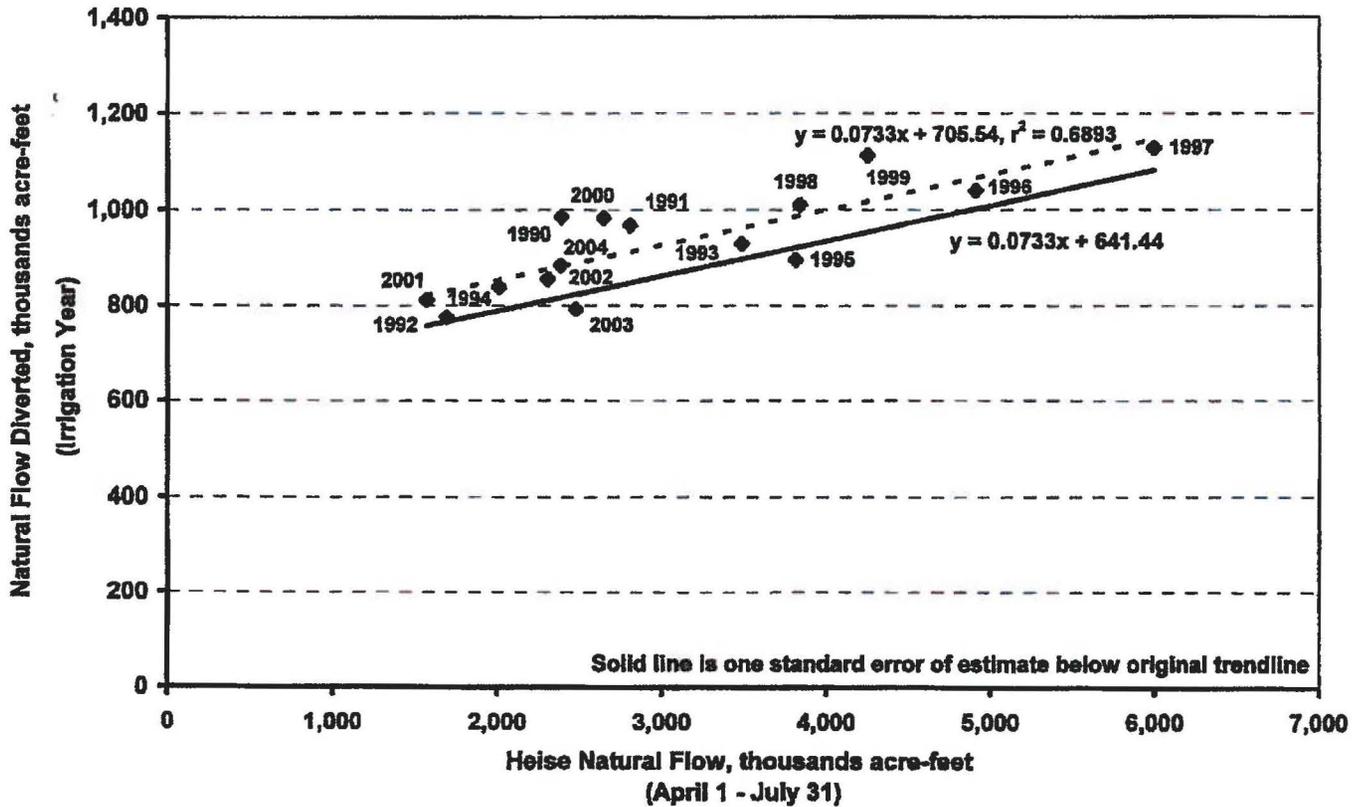
MINIDOKA IRRIGATION DISTRICT Natural Flow Diversions with Heise Inflow



ATTACHMENT N



TWIN FALLS CANAL COMPANY Natural Flow Diversions with Heise Inflow



CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on this 2nd day of May, 2005, the above and foregoing was served by the method indicated below and addressed to the following:

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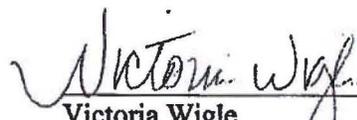
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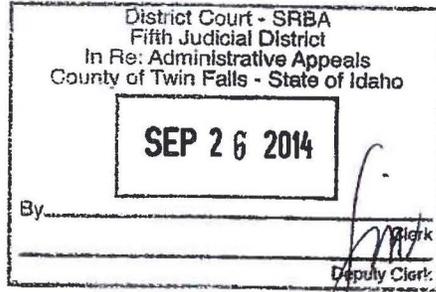
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ADDENDUM D

Memorandum Decision and Order on Petitions for Judicial Review, CV-2010-382, (Fifth Jud. Dist.).



**IN THE DISTRICT COURT OF THE FIFTH JUDICIAL DISTRICT OF THE
STATE OF IDAHO, IN AND FOR THE COUNTY OF GOODING**

IDAHO GROUND WATER
APPROPRIATORS, INC.,

Petitioner,

vs.

CITY OF POCATELLO,

Petitioner,

vs.

TWIN FALLS CANAL COMPANY,
NORTH SIDE CANAL COMPANY, A&B
IRRIGATION DISTRICT, AMERICAN
FALLS RESERVOIR DISTRICT #2,
BURLEY IRRIGATION DISTRICT,
MILNER IRRIGATION DISTRICT, and
MINIDOKA IRRIGATION DISTRICT,

Petitioners,

vs.

GARY SPACKMAN, in his capacity as
Director of the Idaho Department of Water
Resources, and THE DEPARTMENT OF
WATER RESOURCES,

Respondents.

IN THE MATTER OF DISTRIBUTION OF
WATER TO VARIOUS WATER RIGHTS
HELD BY OR FOR THE BENEFIT OF

) Case No.: CV-2010-382
)
) (consolidated Gooding County Cases
) CV-2010-382, CV-2010-383, CV-
) 2010-384, CV-2010-387, CV-2010-
) 388, Twin Falls County Cases CV-
) 2010-3403, CV-2010-5520, CV-2010-
) 5946, CV-2012-2096, CV-2013-2305,
) CV-2013-4417 and Lincoln County
) Case CV-2013-155)

**MEMORANDUM DECISION AND
ORDER ON PETITIONS FOR
JUDICIAL REVIEW**

A&B IRRIGATION DISTRICT,)
 AMERICAN FALLS RESERVOIR)
 DISTRICT #2, BURLEY IRRIGATION)
 DISTRICT, MILNER IRRIGATION)
 DISTRICT, MINIDOKA IRRIGATION)
 DISTRICT, NORTH SIDE CANAL)
 COMPANY AND TWIN FALLS CANAL)
 COMPANY)
 _____)

Appearances:

Travis Thompson of Barker Rosholt & Simpson, LLP, Twin Falls, Idaho, attorneys for A&B Irrigation District, Burley Irrigation District, Milner Irrigation District, North Side Canal Company, and Twin Falls Canal Company.

W. Kent Fletcher of Fletcher Law Office, Burley, Idaho, attorney for American Falls Reservoir District #2 and Minidoka Irrigation District.

Randall Budge of Racine Olson Nye Budge & Bailey, Chartered, Pocatello, Idaho, attorneys for the Idaho Ground Water Appropriators, Inc.

Mitra Pemberton of White & Jankowski, LLP, Denver, Colorado, attorneys for the City of Pocatello.

Michael Orr and Garrick Baxter, Deputy Attorneys General of the State of Idaho, Idaho Department of Water Resources, Boise, Idaho, attorneys for the Idaho Department of Water Resources and Gary Spackman.

I.

STATEMENT OF THE CASE

A. Nature of the Case.

This matter involves a dispute between senior surface water users and junior ground water users over the conjunctive administration of water in the Snake River Basin. The dispute arises in the context of a delivery call initiated by the A&B Irrigation District, American Falls Reservoir District No. 2, Burley Irrigation District, Milner Irrigation District, Minidoka Irrigation District, North Side Canal Company and Twin Falls Canal Company (collectively, “Coalition” or “SWC”) against certain junior ground water rights located in the Eastern Snake Plain Aquifer (“ESPA”). At issue is the methodology utilized by the Director of the Idaho Department of Water Resources (“Department”) for determining material injury to reasonable in-

season demand and reasonable carryover to Coalition members, and his subsequent application of that methodology. The Coalition, Idaho Ground Water Appropriators, Inc. ("IGWA") and the City of Pocatello seek judicial review of the Director's methodology and his application of that methodology. Those parties ask this Court to set aside and remand various aspects of the Director's final orders.

B. Course of proceedings and statement of facts.¹

1. This judicial review proceeding involves a number of *Petitions for Judicial Review*. They seek review of a series of final orders issued by the Director in relation to the Coalition's delivery call. What follows is a recitation of those final orders, the resulting *Petitions for Judicial Review*, and the subsequent proceedings on those *Petitions* before this Court.

2. On June 23, 2010, the Director issued his *Second Amended Final Order Regarding Methodology for Determining Material Injury to Reasonable In-Season Demand and Reasonable Carryover* ("Methodology Order"). 382 R., pp.564-604. *Petitions* seeking judicial review of the *Methodology Order* were filed by the Coalition in Gooding County Case No. CV-2010-384, IGWA in Gooding County Case No. CV-2010-383, and the City of Pocatello in Gooding County Case No. CV-2010-388.

3. On June 24, 2010, the Director issued his *Final Order Regarding April 2010 Forecast Supply (Methodology Steps 3 & 4); Order on Reconsideration* ("As-Applied Order"). 382 R., pp.605-625. *Petitions* seeking judicial review of the *As-Applied Order* were filed by the Coalition in Twin Falls County Case No. CV-2010-3403, IGWA in Gooding County Case No. CV-2010-382, and the City of Pocatello in Gooding County Case No. CV-2010-387.

4. The six *Petitions for Judicial Review* previously mentioned were reassigned to this Court.²

¹ **Footnote Re: Citations to Agency Record.** The agency record in this proceeding consists of two subparts: (1) the previously-compiled record for the judicial review proceeding under Gooding County Case No. CV-2008-551, and (2) the more recently compiled record for the judicial review petitions consolidated under Gooding County Case No. CV-2010-382. For clarity and convenience, citations of the former record will use form "551 R., p. ___," while citations to the latter record will use the form "382 R., p. ___."

² The reassignments were made pursuant to the Idaho Supreme Court's *Administrative Order* dated December 9, 2009, issued *In the Matter of the Appointment of the SBRA District Court to Hear All Petitions for Judicial Review from the Department of Water Resources Involving Administration of Water Rights*.

5. On July 29, 2010, pursuant to the unopposed request of the parties, the Court entered an *Order* consolidating the six *Petitions for Judicial Review* into Gooding County Case No. CV-2010-382 (“Consolidated 382 Case”).

6. On September 17, 2010, the Director issued his *Final Order Revising April 2010 Forecast Supply (Methodology Step 7)*. 382 R., pp.636-645. A *Petition* seeking judicial review of that *Final Order* was filed by the Coalition in Twin Falls County Case No. CV-2010-5520. The *Petition* was reassigned to this Court.

7. On November 30, 2010, the Director issued his *Final Order Establishing 2010 Reasonable Carryover (Methodology Step 9)*. 382 R., pp.684-692. A *Petition* seeking judicial review of that *Final Order* was filed by the Coalition in Twin Falls County Case No. CV-2010-5946. The *Petition* was reassigned to this Court.

8. On December 13, 2010, the Court issued an *Order* staying proceedings in the Consolidated 382 Case pending the Idaho Supreme Court’s issuance of its written decision in Idaho Supreme Court Docket No. 38193-2010. The stay was entered pursuant to the request and agreement of the parties.

9. On January 3, 2011, pursuant to the unopposed request of the parties, the Court entered an *Order* consolidating the Coalition’s *Petitions* in Twin Falls County Case Nos. CV-2010-5520 and 2010-5946 into consolidated the Consolidated 382 Case.

10. On April 13, 2012, the Director issued his *Final Order Regarding April 2012 Forecast Supply (Methodology Steps 1-8)*. 382 R., pp.728-742. On May 9, 2012, the Director issued his *Order Denying Petition for Reconsideration; Denying Motion to Authorize Discovery; Denying Request for Hearing (Methodology Steps 1-8)*. 382 R., pp.753-757. A *Petition* seeking judicial review of that *Final Order* and *Order Denying Petition for Reconsideration* was filed by the Coalition in Twin Falls County Case No. CV-2012-2096. The *Petition* was reassigned to this Court.

11. On April 17, 2013, the Director issued his *Final Order Regarding April 2013 Forecast Supply (Methodology 1-4)*. 382 R., pp.829-846. On May 22, 2013, the Director issued his *Order Denying Petition for Reconsideration; Denying Request for Hearing; Denying Motion to Authorize Discovery (Methodology Steps 1-4)*. 382 R., pp.888-893. A *Petition* seeking judicial review of that *Final Order* and *Order Denying Petition for Reconsideration* was filed by

the Coalition in Twin Falls County Case No. CV-2013-2305. The *Petition* was reassigned to this Court.

12. On June 17, 2013, the Director issued his *Order Releasing IGWA from 2012 Reasonable Carryover Shortfall Obligation (Methodology Step 5)*. 382 R., pp.922-928. On July 18, 2013, the Director issued his *Order Denying AFRD2's Petition for Reconsideration of Order Releasing IGWA from 2012 Reasonable Carryover Shortfall Obligation (Methodology Step 5)*. 382 R., pp.937-943. A *Petition* seeking judicial review of that *Order* and *Order Denying Petition for Reconsideration* was filed by American Falls Reservoir District #2 in Lincoln County Case No. CV-2013-155. The *Petition* was reassigned to this Court.

13. On August 27, 2013, the Director issued his *Order Revising April 2013 Forecast Supply (Methodology 6-8)*. 382 R., pp.948-957. On September 27, 2013, the Director issued his *Order Denying Petition for Reconsideration; Denying Motion to Authorize Discovery; Denying Request for Hearing (Methodology Steps 6-8)*. 382 R., pp.1037-1044. A *Petition* seeking judicial review of that *Order* and *Order Denying Petition for Reconsideration* was filed by the Coalition in Twin Falls County Case No. CV-2013-4417. The *Petition* was reassigned to this Court.

14. On November 12, 2013, pursuant to the unopposed request of the parties, the Court entered an *Order* consolidating the Coalition's *Petitions* in Twin Falls County Case Nos., CV-2012-2096, CV-2013-2305, 2013-4417 and Lincoln County Case No. CV-2013-155 into the Consolidated 382 Case.

15. On December 17, 2013, the Idaho Supreme Court issued its written decision in Idaho Supreme Court Docket No. 38193-2010. Thereafter, the Court lifted the stay in the Consolidated 382 Case. The parties subsequently briefed the issues, and a hearing on the *Petitions* was held before this Court on August 13, 2014.

II.

MATTER DEEMED FULLY SUBMITTED FOR DECISION

Oral argument before the Court in this matter was held on August 13, 2014. The parties did not request the opportunity to submit additional briefing nor does the Court require any. Therefore, this matter is deemed fully submitted for decision on the next business day or August 14, 2014.

III.

STANDARD OF REVIEW

Judicial review of a final decision of the director of IDWR is governed by the Idaho Administrative Procedure Act, Chapter 52, Title 67, Idaho Code § 42-1701A(4). Under IDAPA, the Court reviews an appeal from an agency decision based upon the record created before the agency. Idaho Code § 67-5277; *Dovel v. Dobson*, 122 Idaho 59, 61, 831 P.2d 527, 529 (1992). The Court shall not substitute its judgment for that of the agency as to the weight of the evidence on questions of fact. Idaho Code § 67-5279(1); *Castaneda v. Brighton Corp.*, 130 Idaho 923, 926, 950 P.2d 1262, 1265 (1998). The Court shall affirm the agency decision unless the court finds that the agency's findings, inferences, conclusions, or decisions are:

- (a) in violation of constitutional or statutory provisions;
- (b) in excess of the statutory authority of the agency;
- (c) made upon unlawful procedure;
- (d) not supported by substantial evidence on the record as a whole; or,
- (e) arbitrary, capricious, or an abuse of discretion.

Idaho Code § 67-5279(3); *Castaneda*, 130 Idaho at 926, 950 P.2d at 1265. The petitioner must show that the agency erred in a manner specified in Idaho Code § 67-5279(3), and that a substantial right of the party has been prejudiced. I.C. § 67-5279(4). Even if the evidence in the record is conflicting, the Court shall not overturn an agency's decision that is based on substantial competent evidence in the record.³ *Barron v. IDWR*, 135 Idaho 414, 417, 18 P.3d 219, 222 (2001). The Petitioner also bears the burden of documenting and proving that there was not substantial evidence in the record to support the agency's decision. *Payette River Property Owners Assn. v. Board of Comm'rs.*, 132 Idaho 552, 976 P.2d 477 (1999).

IV.

HISTORY AND PRIOR DETERMINATIONS

The *Petitions for Judicial Review* filed in this case arise in the context of an ongoing delivery call. Before the Court is the methodology established by the Director for determining

³ Substantial does not mean that the evidence was uncontradicted. All that is required is that the evidence be of such sufficient quantity and probative value that reasonable minds *could* conclude that the finding – whether it be by a jury, trial judge, special master, or hearing officer – was proper. It is not necessary that the evidence be of such quantity or quality that reasonable minds *must* conclude, only that they *could* conclude. Therefore, a hearing officer's findings of fact are properly rejected only if the evidence is so weak that reasonable minds could not come to the same conclusions the hearing officer reached. See *eg. Mann v. Safeway Stores, Inc.* 95 Idaho 732, 518 P.2d 1194 (1974); see also *Evans v. Hara's Inc.*, 125 Idaho 473, 478, 849 P.2d 934, 939 (1993).

material injury to the Coalition's reasonable in-season demand and reasonable carryover caused by junior ground water rights, and his subsequent application of that methodology.

Consideration of the issues requires a review of the prior administrative and judicial proceedings undertaken in relation to this call.

A. 2005 Delivery call.

The delivery call at issue here was filed by the Coalition in 2005. 551 R., pp.1-52. On May 2, 2005, the Director issued an *Amended Order* finding that junior ground water diversions from the ESPA were materially injuring the Coalition's natural flow and storage rights. 551 R., pp.1359-1424. The Director's *Amended Order* utilized a "minimum full supply" methodology in determining material injury. 551 R., pp.1382-1385. That methodology relied upon a baseline analysis to determine material injury based upon shortfalls to a chosen baseline quantum of the Coalition's in-season irrigation and reasonable carryover needs. *Id.*

Various parties sought an administrative hearing before the Department on the *Amended Order*. See e.g., 551 R., pp.1642-1657; 551 R., pp.1704-1724. However, that was put on hold while members of the Coalition filed a declaratory judgment action challenging the constitutionality of the Conjunctive Management Rules ("CM Rules").⁴ The declaratory judgment action culminated in the Idaho Supreme Court's written decision in *American Falls Reservoir Dist. No. 2 v. Idaho Dep't of Water Res.*, 143 Idaho 862, 154 P.3d 433 (2007) ("AFRD#2"), which upheld the CM Rules as facially constitutional. Thereafter, the Department proceeded with an administrative hearing on the *Amended Order*. The Director appointed the Honorable Gerald F. Schroeder as the presiding hearing officer ("Hearing Officer").

B. Director's 2008 Final Order.

The Hearing Officer issued his *Opinion Constituting Findings of Fact, Conclusions of Law and Recommendation* on April 29, 2008. 551 R., pp.7048-7118. The Hearing Officer's *Recommendation* analyzed the Director's use of a minimum full supply methodology in determining material injury to the Coalition. 551 R., pp.7086-7095. The Hearing Officer generally approved the Director's use of a minimum full supply methodology, including his use

⁴ The term "Conjunctive Management Rules" or "CM Rules" refers to the *Rules for Conjunctive Management of Surface and Ground Water Resources*, IDAPA 37.03.11.

of a baseline as a starting point for the consideration of the call and in determining material injury. *Id.* But, the Hearing Officer noted that “[t]here have been applications of the concept of a minimum full supply that should be modified if the use of the protocol is to be retained,” and that “there must be adjustments as conditions develop if any baseline supply concept is to be used.” 551 R., pp.7091 & 7093. Exceptions to the Hearing Officer’s *Recommendation* were subsequently filed with the Director by various parties. *See e.g.*, 551 R., pp.7126-7134; 551 R., pp.7141-7197.

On September 5, 2008, the Director issued his *Final Order Regarding the Surface Water Coalition Delivery Call* (“2008 Final Order”). 551 R., pp.7381-7395. The 2008 *Final Order* adopted the findings of fact and conclusions of law of the Hearing Officer’s *Recommendation* except as specifically modified therein, including his recommendation that certain refinements be made to the minimum full supply methodology for determining material injury. 551 R., p.7387. Of significance to the instant proceeding, the Director abandoned the “minimum full supply” methodology in his 2008 *Final Order* in favor of a “reasonable in-season demand” methodology. 551 R., p.7386. Although the Director adopted the Hearing Officer’s recommendation that refinements be made, he did not address those refinements or the details of his new “reasonable in-season demand” methodology in his 2008 *Final Order*, stating:

Because of the need for ongoing administration, the Director will issue a separate final order . . . detailing his approach for predicting material injury to reasonable in-season demand and reasonable carryover for the 2009 irrigation season.

551 R., p.7386. *Petitions* seeking judicial review of the Director’s 2008 *Final Order* were subsequently filed in Gooding County Case No. CV-2008-551.

C. District court decision in Gooding County Case No. CV-2008-551 and Director’s orders on remand.

The district court entered its *Order on Petition for Judicial Review* in Gooding County Case No. CV-2008-551 on July 24, 2009. 551 R., pp.10075-10108. The district court upheld the Director’s adoption of a baseline methodology for determining material injury. It held that “[t]he Director did not abuse discretion or act outside his authority in utilizing a ‘minimum full supply’ or ‘reasonable in-season demand’ baseline for determining material injury.” 551 R., p.10099. However, the court did find that the Director abused his discretion by waiting to issue a separate

final order detailing his approach for determining material injury to reasonable in-season demand and reasonable carryover. The case was therefore remanded to the Director. 551 R., pp.10106-10107. On remand, the Director complied with the district court's instruction. On June 23, 2010, the Director issued his *Methodology Order*, which by its terms provides the Director's methodology for determining material injury to reasonable in-season demand and reasonable carryover. 382 R., pp.564-604. Additionally, on June 24, 2010, the Director issued his *As-Applied Order*, wherein he applied his methodology to determine material injury to members of the Coalition in 2010. 382 R., pp.605-625. Both *Orders* are presently before the Court in this proceeding.

D. Idaho Supreme Court's decision in *In the Matter of Distribution of Water to Various Water Rights Held by or for the Benefit of A&B Irr. Dist.*

Meanwhile, the Coalition appealed the District Court's *Order on Petition for Judicial Review* in Gooding County Case No. CV-2008-551. On December 17, 2013, the Idaho Supreme Court issued its written decision in *In the Matter of Distribution of Waters to Various Water Rights Held by or for the Benefit of A&B Irr., Dist.*, 155 Idaho 640, 315 P.3d 828 (2013) ("2013 SWC Case"). In that decision, the Court held that the Director may employ a baseline methodology for management of water resources, and as a starting point in administration proceedings for considering material injury. 2013 SWC Case, 155 Idaho at 650, 315 P.3d at 838. Although the Director's *Methodology Order* had been issued prior to the Supreme Court's consideration of the 2013 SWC Case, the Court in its opinion made clear that "since the district court did not review this final methodology order, the findings of fact that shape that methodology and any modifications to the methodology are not properly before this Court." 2013 SWC Case, 155 Idaho at 649, 315 P.3d at 837.

V.

METHODOLOGY ORDER ANALYSIS

The stated purpose of the Director's *Methodology Order* "is to provide the methodology by which the Director will determine material injury to [reasonable in-season demand] and reasonable carryover to members of the SWC." 382 R., p.591. Section II of the *Methodology Order* details the Director's approach for determining material injury to reasonable in-season

demand. 382 R., pp.565-585. Section III of the *Methodology Order* details the Director's approach for determining material injury to reasonable carryover. 382 R., pp.585-590. The *Methodology Order* then sets forth a ten step process to be undertaken annually for purposes of determining material injury. 382 R., pp.597-601. The Coalition, IGWA and the City of Pocatello seek judicial review of various aspects of the Director's methodology.

A. The *Methodology Order* fails to provide a proper remedy for material injury to reasonable in-season demand when taking into account changing conditions.

The Coalition argues that the signature flaw of the *Methodology Order* is its failure to properly remedy material injury to reasonable in-season demand based on changing conditions during the irrigation season. It asserts that if material injury to its reasonable in-season demand is greater than originally determined by the Director, the *Methodology Order's* failure to remedy that injury through either curtailment or the requirement of a mitigation plan is contrary to Idaho law. For the reasons set forth below, this Court agrees.

i. Overview of the Director's methodology for determining material injury to reasonable in-season demand.

Reasonable in-season demand is defined under the *Methodology Order* as "the projected annual diversion volume for each SWC entity during the year of evaluation that is attributable to the beneficial use of growing crops within the service area of the entity." 382 R., p.575. Under steps 1 and 2 of the *Methodology Order*, the Director calculates the crop water needs of the Coalition for that year.⁵ However, the Director's initial determination of reasonable in-season demand is not based on those calculations, but rather is based on a historic demand baseline analysis. The *Methodology Order* makes this clear, providing that reasonable in-season demand is initially "equal to the historic demands associated with a baseline year or years ("BLY") as selected by the Director, but will be corrected during the season to account for variations in the climate and water supply between the BLY and actual conditions." 382 R., p.568. The *Methodology Order* uses the values of 2006 and 2008 to arrive at an average baseline year for purposes of the initial reasonable in-season demand determination. 382 R., p.574.

⁵ The term "crop water need" is defined in the *Methodology Order* as "the project wide volume of irrigation water required for crop growth, such that crop development is not limited by water availability, for all crops supplied with surface water by the surface water provider." 382 R., p.579.

Under step 3, the Director makes his initial determination of water supply. Step 3 occurs after the United States Bureau of Reclamation (“USBOR”) and the United States Corps of Engineers (“USACE”) issue their Joint Forecast predicting unregulated inflow volume at the Heise Gage. 382 R., p.598. The Joint Forecast is typically released within the first two weeks of April. *Id.* Thereafter, the Director issues an April Forecast Supply for the water year. *Id.* The Director also determines in step 3 whether a demand shortfall to any member of the Coalition will occur in the coming season. *Id.* Demand shortfall is the difference between reasonable in-season demand and the April Forecast Supply. *Id.* If reasonable in-season demand is greater than the April Forecast Supply, a demand shortfall exists. *Id.*

Under step 4, if the demand shortfall is greater than the reasonable carryover shortfall from the previous year,⁶ material injury exists or will exist, and junior users are required to establish their ability to mitigate that injury to avoid curtailment. 382 R., pp.598-599. To mitigate, junior users only need establish their ability to secure mitigation water to be provided to the Coalition at a later date, which the Director refers to as the “Time of Need.” The Director then makes adjustments to his calculations throughout the irrigation season as conditions develop. These adjustments are provided for in steps 6 and 7 of the *Methodology Order*, which provide that at various times throughout the irrigation season, the Director will recalculate reasonable in-season demand and adjust demand shortfall for each member of the Coalition. 382 R., pp.599-600. The Director’s recalculations are based on actual crop water need up to that point and a revised Forecast Supply, among other things. *Id.*

Step 8 addresses the obligations of junior water users after the Director makes his in-season recalculations and adjustments. These obligations generally trigger when Coalition members have exhausted their storage water rights to where all that remains in the reservoirs is an amount of water equal to their reasonable carryover. The Director refers to this as the “Time of Need.”⁷ Step 8 provides:

Step 8: At the Time of Need, junior ground water users are required to provide the lesser of the two volumes from Step 4 (May 1 secured water) and the

⁶ Junior water users will have previously mitigated for any reasonable carryover shortfall from the previous year under step 9 of the *Methodology Order*. 382 R., pp.600-601.

⁷ The *Methodology Order* provides that “[t]he calendar day determined to be the Time of Need is established by predicting the day in which the remaining storage allocation will be equal to reasonable carryover, or the difference between the 06/08 average demand and the 02/04 supply. The Time of Need will not be earlier than the Day of Allocation.” 382 R., p.584 fn.9.

[reasonable in-season demand] volume calculated at the Time of Need. **If the calculations from steps 6 or 7 indicate that a volume of water necessary to meet in-season projected demand shortfalls is greater than the volume from Step 4, no additional water is required.**

382 R., p.600. While junior user's original mitigation obligation for material injury to reasonable in-season demand may be adjusted downward under the plain language of step 8, it may not be adjusted upward.

ii. Idaho law requires that out-of-priority diversions can only be permitted pursuant to a properly enacted mitigation plan.

The Coalition takes issue with step 8 of the *Methodology Order*. They assert that it unlawfully permits out-of-priority water use to occur without remedy of curtailment or a properly enacted mitigation plan. This Court agrees. In the *2013 SWC Case*, the Idaho Supreme Court held that the CM Rules "require that out-of-priority diversions only be permitted pursuant to a properly enacted mitigation plan." *2013 SWC Case*, 155 Idaho at 653, 315 P.3d at 841. Further, that when the Director responds to a delivery call "the Director shall either regulate and curtail the diversions causing injury or approve a mitigation plan that permits out-of-priority diversion." *Id.* at 654, 315 P.3d at 842. The Court's holding in this respect was based on the plain language of Rule 40 of the CM Rules, which provides that once the Director makes a determination of material injury, the Director shall:

a. Regulate the diversion and use of water in accordance with the priorities of rights of the various surface or ground water users whose rights are included within the district . . . ; or

b. Allow out-of-priority diversion of water by junior-priority ground water users pursuant to a mitigation plan that has been approved by the Director.

IDAPA 37.03.11.040.01.a, b.

This Court finds that step 8 of the *Methodology Order* is inconsistent with Rule 40 of the CM Rules and the precedent established in the *2013 SWC Case*. Step 8 effectively caps junior users' mitigation obligations for material injury to reasonable in-season demand to that amount determined in step 4. This determination is made in or around April. The cap remains in place even if changing conditions during the irrigation season establish that material injury to reasonable in-season demand is greater than originally determined. When that scenario arises,

step 8 provides that junior users are required to deliver to the Coalition the water they previously secured as mitigation under step 4. Even though that amount of water will be insufficient to remedy the full extent of material injury, the plain language of step 8 provides that “no additional water is required.” The result is that material injury to reasonable in-season demand is realized by the Coalition, out-of-priority junior water use occurs, and no remedy of curtailment or the requirement of a mitigation plan exists to address that injury. The endorsement of such unmitigated out-of-priority water use is contrary to Idaho’s doctrine of prior appropriation.

The Director justifies his decision as follows. First, he states that “the purpose of predicting need is to project an upper limit of material injury at the start of the season.” 382 R., p.569. He then provides:

Just as members of the SWC should have certainty at the start of the irrigation season that junior ground water users will be curtailed, in whole or in part, unless they provide the required volume of mitigation water, in whole or in part, junior ground water users should also have certainty entering the irrigation season that the predicted injury determination will not be greater than it is ultimately determined at the Time of Need **If it is determined at the time of need that the Director under-predicted the demand shortfall, the Director will not require that junior ground water users make up the difference, either through mitigation or curtailment. This determination is based upon the Director’s discretion and his balancing of the principle of priority of right with the principles of optimum utilization and full economic development of the State’s water resources. Idaho Const. Art XV, § 3; Idaho Const. Art. XV, § 7; Idaho Code § 42-106; Idaho Code § 42-226.**

382 R., p.594 (emphasis added).

The justifications relied upon by the Director do not permit out-of-priority water use in contravention of CM Rule 40 and the *2013 SWC Case*. Neither Article XV, Section 3, nor Article XV, Section 7 of the Idaho Constitution permits such water use to occur under the circumstances presented. The Idaho Supreme Court has held that nothing in Article XV, § 7 “grants the legislature or the Idaho Water Resource Board the authority to modify that portion of Article XV, §3, which states, ‘Priority of appropriation shall give the better right as between those using the water [of any natural stream].’” *Clear Springs Foods, Inc. v. Spackman*, 150 Idaho 790, 807, 252 P.3d 71, 88 (2011). With respect to Idaho Code § 42-226, the Idaho Supreme Court has directed that it, and its reference to “full economic development,” has no application in delivery calls between senior surface water users and junior ground water users, such as the one at issue here. *A&B Irr. Dist. v. Idaho Dept. of Water Res.*, 153 Idaho 500, 509,

284 P.3d 225, 234 (2012). The Court therefore finds that the legal justifications expressly relied upon by the Director do not support his determination to refrain from requiring further mitigation or curtailment from junior users if material injury to reasonable in-season demand is greater than originally determined in step 4 due to changing conditions.

iii. The Director's "total water supply" argument does not justify out-of-priority diversions without a properly enacted mitigation plan.

In briefing and at oral argument, counsel for the Department asserts another justification for step 8 of the *Methodology Order*. Counsel argues that under a "total water supply" theory, "the Director is not required to determine material injury to in-season demand and 'reasonable carryover' separately, nor is he required to order separate mitigation for each."⁸ Counsel suggests that if material injury to reasonable in-season demand is greater than originally determined under step 4, the Department need not curtail or require a mitigation plan to make up the difference. Rather, it can require Coalition members to exhaust their reasonable carryover to cure the material injury. Then, at a point later in the year, make a subsequent determination as to material injury to reasonable carryover and mitigation at that time. In so arguing, counsel refers to steps 9 and 10 of the *Methodology Order*, wherein the Director in or around November 30th determines material injury to reasonable carryover and establishes the mitigation obligations of the juniors. This Court rejects this argument.

As an initial matter, counsel's total water supply argument appears contrary to the plain language of the Director's *Methodology Order*. The *Methodology Order* itself contains separate and unique methodologies for determining material injury to reasonable in-season demand (Section II) and reasonable carryover (Section III).⁹ 382 R., pp.565 & 585. The methodologies described in Sections II and III of the *Methodology Order* establish that a determination of material injury will be conducted for both reasonable in-season demand and for reasonable carryover, and that such determinations will be conducted and mitigated separately. *Id.* For

⁸ The Court notes that this justification was not set forth by the Director in his *Methodology Order*. Notwithstanding, the Court will address the argument.

⁹ Section II of the *Methodology Order* is entitled "Methodology for Determining Material Injury to Reasonable In-Season Demand." 382 R., p.565. Section III of the *Methodology Order* is entitled "Methodology for Determining Material Injury to Reasonable Carryover." 382 R., p.585.

example, when detailing his methodology for determining material injury to reasonable in-season demand in Section II, the Director sets forth his calculation of demand shortfall and directs:

The amount calculated represents the volume that junior ground water users will be required to have available for delivery to members of the SWC found to be materially injured by the Director. The amounts will be calculated in April, **and if necessary, at the middle of the seasons and at the time of need.**

382 R., p.585 (emphasis added). The argument is also contrary to steps 3 and 4 of the *Methodology Order*, wherein the Director mitigates for material injury to reasonable in-season demand by requiring junior users to establish their ability to secure mitigation water or face curtailment. 382 R., pp.598-599.

More importantly, the total water supply argument is contrary to law. The concept of a “total water supply” arises out of Rule 42 of the CM Rules. The Rule permits the Director to consider the Coalition’s natural flow and storage rights in conjunction with one another when determining material injury. IDAPA 37.03.011.042.g. Indeed, the Director does so in his *Methodology Order* when determining material injury to reasonable in-season demand as well as in determining the Coalition’s “Time of Need.” However, problems arise when the Coalition is required to deplete its reasonable carryover, *in addition to its other storage water*, to address its material injury to reasonable in-season demand. Under Idaho law the holder of a surface water storage right is entitled to maintain a reasonable amount of carryover-over storage to assure water supplies for future dry years. IDAPA 37.03.011.042.g; *AFRD#2*, 143 Idaho at 880, 154 P.3d at 451. Counsel’s argument fails to address what happens if the Coalition’s reasonable carryover is insufficient to address the full extent of material injury to reasonable in-season demand. Additionally, while the Coalition will have been required to deplete its reasonable carryover under counsel’s argument, out-of-priority water use will have occurred without curtailment or the enactment of a mitigation plan. If junior users are unable to secure all or part of their mitigation obligation in November due to cost, scarcity or unwillingness, the remedy of curtailment is lost, as the out-of-priority water use will have already occurred. In that scenario, there is no contingency to protect senior rights as required by the *2013 SWC Case*. Such a result is not contemplated by the CM Rules, and is in contravention of the plain language of CM Rule 40 and the Idaho Supreme Court’s precedent in the *2013 SWC Case*.

- iv. The Director may require use of reasonable carryover pursuant to a properly enacted mitigation plan that contains appropriate contingency provisions to protect senior rights.**

In conjunction with step 8, if the Director determines a greater volume of water is necessary than the previously determined to address material injury to reasonable in-season demand, the ability of junior users to secure additional in-season water during what is typically the most water intensive stage of the irrigation season is problematic. Further problematic is that curtailment at that stage would not only have a devastating impact on junior users but may not timely provide sufficient water to the Coalition. Accordingly, curtailment may still not prevent the Coalition from relying on its reasonable carryover to help get through the remainder of the irrigation season. Nonetheless, a viable mitigation plan is still possible.

In conjunction with a properly enacted and approved mitigation plan, the Director could require the Coalition to rely on its reasonable carryover provided that: 1) existing carryover storage allocations meet or exceed the additional shortfall to the revised reasonable in-season demand; and 2) junior users secure a commitment at that time for a volume of water equal to the shortfall to the revised reasonable in-season demand to be provided the following season if necessary. This could be accomplished through an option or lease to provide water. The water would provide mitigation for any shortfalls to reasonable carryover determined to exist at the end of the season. If no shortfall is determined to exist due to changing conditions, then the option or lease need not be exercised. If a shortfall is determined to exist, then the option or lease is in place to be exercised in whole or in part as required to mitigate for any shortfall. The water would be secured but not have to be provided until such time as it can be determined whether or not the storage allocations will fill next season. This process eliminates the risk of the Director not being able to compel junior users to secure water at the end of the season in lieu of curtailment the following season. And, curtailment the following season may not provide sufficient water in storage to remedy the injury to storage, particularly if curtailment will also be required as a result of a demand shortfall to reasonable in-season demand the following season.

The process is consistent with the requirement set forth in the *2013 SWC Case* “that out-of-priority diversions only be permitted pursuant to a properly enacted mitigation plan.” *2013 SWC Case*, 155 Idaho at 653, 315 P.3d at 841. It also eliminates the problem of securing water that will not be put to beneficial use because the water is being secured for the next season and

the amount secured can be adjusted down at the end of the instant season thereby leaving plenty of time for the unneeded water to be used elsewhere. Following any adjustment at the end of the instant season the amount of water that ultimately be secured would be the same as is currently required under Step 9.

B. The *Methodology Order's* use of the values of 2006 and 2008 to arrive at an average baseline year for purposes of the initial reasonable in-season demand determination is supported by substantial evidence.

The Coalition argues that the Director's use of the values of 2006 and 2008 to arrive at an average baseline year for purposes of the initial reasonable in-season demand determination is not supported by substantial evidence and must be set aside. 382 R., p.574. The Idaho Supreme Court has already approved the Director's employment of a baseline methodology as a starting point in administration proceedings and for determining material injury. *2013 SWC Case*, 155 Idaho at 648-653, 315 P.3d at 836-841. The Court finds that the Director's use of the values of 2006 and 2008 to arrive at an average baseline year is supported by substantial evidence.

The *Methodology Order* explains that a baseline year is selected by analyzing three factors: (1) climate; (2) available water supply; and (3) irrigation practices. 382 R., p. 569. To capture current irrigation practices, the *Methodology Order* limits the identification of a baseline year to 1999 and beyond. *Id.* Additionally, the *Methodology Order* instructs as follows:

[A] BLY should represent a year(s) of above average diversions, and should avoid years of below average diversions. An above average diversion year(s) selected as the BLY should also represent a year(s) of above average temperatures and ET, and below average precipitation to ensure that increased diversions were a function of crop water need and not other factors. In addition, actual supply (Heise natural flow and storage) should be analyzed to assure that the BLY is not a year of limited supply.

382 R., p.570. The Director found that "using the values of 2006 and 2008 (06/08) to arrive at an average BLY fits the selection criteria for all members of the Coalition."¹⁰ 382 R., p.574. In so holding, the Director made findings that the 06/08 average has below average precipitation, near average ET, above average growing degree days, and represents years in which diversions were not limited by availability of water supply. *Id.* These findings are supported by the record.

¹⁰ The Director determined that using values from a single year would not fit the selection criteria for all members of the Coalition. 382 R., p.574.

See 551 R., Ex. 8000, Vol. IV, Appdx. AS-1-8. Therefore, the Court finds that the Director's decision in this respect was reached through an exercise of reason, is within the limits of his discretion and must be affirmed.

Furthermore, the Court's holding regarding step 8 of the *Methodology Order* should alleviate the concerns raised by the Coalition on this issue. The baseline year should only be used as a starting point. As set forth above, it cannot result in the implementation of a cap on junior users' mitigation obligations. If changing conditions establish that material injury is greater than originally determined pursuant to the baseline analysis, then adjustments to the mitigation obligations of the juniors must be made when the Director undertakes his mid-season recalculations. The Coalition's concerns should be addressed since the mid-season adjustments include recalculating reasonable in-season demand for each member of the Coalition based on, among other things, actual crop water need to that point. 382 R., p.599.

C. The *Methodology Order's* provision for the consideration of supplemental ground water does not violate Idaho law. However, the Director's finding regarding ground water fractions is not supported by substantial evidence and must be remanded.

Step 1 of the *Methodology Order* provides in part that "[i]n determining the total irrigated acreage [of Coalition members], the Department will account for supplemental ground water use." 382 R., p.597. The Coalition argues that the *Methodology Order's* consideration of supplemental ground water use violates Idaho law and has no relevance to the administration of the Coalition's senior rights. This Court disagrees. The Idaho Supreme Court has directed that in responding to a delivery call, the Director has the authority "to consider circumstances when the water user is not irrigating the full number of acres decreed under the water right." *AFRD#2*, 143 Idaho at 876, 154 P.3d at 447. If it is established that acreage accounted for under the Coalition's senior surface water rights is being irrigated from a supplemental ground water source, that is a factor the Director has the authority to consider in the context of a delivery call. If the supplemental ground water rights being used are themselves subject to curtailment under the senior call, (as suggested may be the case here by the Hearing Officer¹¹), that factor should also be accounted for by the Director. However, the *Methodology Order's* instruction that the Department will consider supplemental ground water use when determining the total irrigated

¹¹ 551 R., p.7507

acreage of Coalition members does not violate Idaho law. The Director's decision to include that instruction in the *Methodology Order* is affirmed.

That said, the Court finds that the Director's assignment of an entity wide split for each member of the Coalition of the ground water fraction to the surface water fraction is not supported by substantial evidence in the record. In the *Methodology Order*, the Director makes the following finding:

All acres identified as receiving supplemental ground water within the boundaries of a single SWC entity will initially be evaluated by assigning an entity wide split of the ground water fraction to the surface water fraction as utilized in the development of the ESPA Model. See *Ex. 8000 Vol. II, Bibliography at II*, referencing *Final ESPA Model, IWRRI Technical Report 06-002 & Design Document DDW-017*. For each entity the ground water fraction to the surface water fraction is as follows: A&B 95:5; AFRD2 30:70; BID 30:70; Milner 50:50; Minidoka 30:70; NSCC 30:70; & TFCC 30:70. If these ratios change with a subsequent version of the ESPA Model, the Department will use the values assigned by the current version of the ESPA Model.

382 R., p.576 fn.6. The Coalition argues that there is no factual support in the record justifying these ground water fractions, and that the Director's finding is arbitrary and capricious. The Department, IGWA and the City of Pocatello do not respond to the Coalition's argument in this respect.

A review of the record supports the Coalition's position. The record does not contain evidence that acres accounted for under the Coalition's senior surface water rights are being irrigated from a supplemental ground water source. Or that the ground water fractions utilized by the *Methodology Order* reflect such supplemental ground water use. If the Director is going to administer to less than the full amount of acres set forth on the face of the Coalition's *Partial Decrees*, such a determination must be supported by clear and convincing evidence. See, e.g., *A&B Irr. Dist., v. Idaho Dept. of Water Res.*, 153 Idaho 500, 524, 284 P.3d 225, 249 (holding, "Once a decree is presented to an administrating agency or court, all changes to that decree, permanent or temporary, must be supported by clear and convincing evidence"). Here, the parties fail to cite the Court to anything submitted before the Department in either written form or via oral testimony establishing the use of supplemental ground water by individual irrigators within the Coalition. That such was the case is illustrated by the Hearing Officer's limited findings on the issue. He found only that "an undetermined number of individual irrigators within SWC may hold supplemental ground water rights. . . ." and that "[i]t would seem that any

such ground water rights would be junior to the surface irrigations rights and subject to curtailment.” 551 R., p.7507 (emphasis added). The Director did not address the Hearing Officer’s findings in his *Methodology Order*, or include any further analysis on his findings. Rather, to support his ground water fraction finding, the Director cites to a document entitled *Final ESPA Model, IWRRI Technical Report 06-002 & Design Document DDW-017*, which is not in the record. Therefore, the Court finds the Director’s finding is not supported by substantial evidence in the record. The Director’s ground water fractions as set forth in the *Methodology Order* are hereby set aside and remanded for further proceedings as necessary.

D. The *Methodology Order*’s reliance upon the Joint Forecast, and its use of the Heise Gage, to determine the available water supply for the Twin Falls Canal Company is set aside and remanded for further proceedings as necessary.

The Coalition argues that the Director’s reliance upon the Joint Forecast, and its focus on the Heise Gage, to predict the available water supply for the Twin Falls Canal Company is arbitrary and capricious and not supported by substantial evidence. In response to this argument, the Department concedes the following in its briefing:

The Department recognizes that while the Joint Forecast is a “good indicator” for predicting the supplies of most Coalition members, it is “not the best evidence” for purposes of predicting TFCC’s supply. *SWC Methodology Brief* at 36. The Director has “previously expressed to TFCC that the Department is willing to work with the TFCC to improve the predictors for TFCC for future application in the *Methodology Order* and Department staff have even met with TFCC consultants on this issue.”

Corrected Br. of Respondents, p.37 fn.30 (July 30, 2014). As a result, the Coalition’s argument on this issue is unopposed. Therefore, the Director’s decision in this respect is set aside and remanded for further proceedings as necessary.

E. The Director in his discretion may use the U.S. Department of Agriculture’s National Agriculture Statistics Service data as a factor in determining crop water need, but should also take in account available data reflecting current cropping patterns.

Under steps 1 and 2 of the *Methodology Order*, the Director calculates the crop water needs of the Coalition for that year. In determining crop water need, the *Methodology Order* instructs that among other things the Director “will utilize crop distributions based on

distributions from the United States Department of Agriculture's National Agricultural Statistics Service ("NASS")." 382 R., p.580. The *Methodology Order* goes onto provide:

NASS reports annual acres of planted and harvested crops by county. NASS also categorizes harvested crops by irrigation practice, i.e., irrigated, non irrigated, non irrigated following summer fallow, etc. *Crop distribution acreage will be obtained from NASS by averaging the "harvested" area for "irrigated" crops from 1990-2008.* Years in which harvested values were not reported will not be included in the average. In the future, the NASS data may not be the most accurate source of data. The Department prefers to rely on data from the current season if and when it becomes usable.

Id. (emphasis added). The Coalition argues that the *Methodology Order's* designation of NASS data for 1990-2008 average crop distribution fails to capture current cropping patterns, resulting in under-determined crop water need. Specifically, that changes in cropping patterns have resulted in the planting of more water intensive crops such as corn and alfalfa in recent years which is not reflected in the 1990-2008 data.

The Court finds that the Director's decision to use NASS data as a factor in determining the Coalition's crop water need is a matter within his discretion. That said, while the Director may use historic cropping data as a starting point in determining crop water need, he should also take into account available data reflecting current cropping patterns. The *Methodology Order* provides that "the Department prefers to rely on data from the current season if and when it becomes usable." 382 R., p.580. Likewise, the Hearing Officer in addressing the issue of crop water need made the following recommendation which was adopted by the Director:

If there have been significant cropping changes resulting in either greater or less need for water, those factors should be factored. This is an area of caution. Cropping decisions are matter for the irrigators acting within their water rights. Those decisions should be driven by the market. The fact that a particular crop may take less water does not dictate that it be planted.

551 R., p.7099. Taking in account available data reflecting current cropping patterns also addresses the Coalition's concerns regarding the Director's decision to factor in only "harvested" area when considering historic NASS data. Since the *Methodology Order* already provides that the Director prefers to use data from the current seasons if and when it becomes usable, no remand is necessary on this issue.

F. The *Methodology Order's* timing for initial determinations of water supply and material injury to reasonable in-season demand do not run afoul of Idaho law.

The Coalition takes issue with the timing of the Director's initial determinations of water supply and material injury to reasonable in-season demand under the *Methodology Order*. Under step 3 of the *Methodology Order*, the Director makes his initial determination of water supply through the issuance of his April Forecast Supply. 382 R., p.598. This occurs after the USBOR and USACE issue their Joint Forecast, which is typically released within the first two weeks of April. Then, the Director first determines whether a demand shortfall will occur for any member of the Coalition for the coming season. *Id.* If material injury exists or will exist, step 4 of the *Methodology Order* provides the juniors another fourteen days or until May 1st, whichever is later, to establish their ability to mitigate that material injury or face curtailment. *Id.* The Coalition asks this Court to set aside steps 3 and 4 of the *Methodology Order* and remand with instructions that the Director's initial determinations of water supply and material injury to reasonable in-season demand be made prior to the irrigation season (i.e., prior to March 15th).

The Coalition relies on the *2013 SWC Case* for the proposition that these initial determinations must occur prior to the irrigation season. In that case, the Court distinguished the two ways the Director may utilize a baseline methodology. *2013 SWC Case*, 155 Idaho at 650, 315 P.3d at 838. First, the Court directed that such a methodology may be used in a management context in preparing a pre-season management plan for the allocation of water resources. *Id.* Second, the Court directed that the Director may also use such a methodology in an administrative context "in determining material injury in the context of a water call." *Id.* The Court instructed that if the Director chooses to utilize a baseline methodology to "develop and implement a pre-season management plan for allocation of water resources," it must "be made available in advance of the applicable irrigation season" *Id.* at 653, 315 P.3d at 841. The irrigation season delineated on the Coalition's senior surface water rights begins March 15th.

The parties dispute whether the *Methodology Order* could be considered a pre-season management plan as contemplated in the *2013 SWC Case*. However, it is plain that the baseline methodology set forth in the *Methodology Order* is utilized by the Director in an administrative context in this case. Specifically, it is used as a starting point for consideration of the Coalition's call for administration, and as a starting point in determining the issue of material injury. The

procedural background of the *Methodology Order* makes clear that it was issued in response to the Coalition's 2005 call. In his 2008 *Final Order*, the Director explained he would be issuing a separate final order because of the need for ongoing administration. 551 R., p.7386. The stated purpose of the *Methodology Order* is "to set forth the Director's methodology for determining material injury to RISD and reasonable carryover to members of the SWC." 382 R., p.565. Therefore, the Court finds that the *Methodology Order's* baseline methodology is used in an administrative context "in determining material injury in the context of a water call." 2013 SWC Case, 155 Idaho at 650, 315 P.3d at 838.

The Idaho Supreme Court has directed that "[w]hile there must be a timely response to a delivery call, neither the Constitution nor statutes place any specific timeframes on this process," and that it is "vastly more important that the Director have the necessary and pertinent information and the time to make a reasoned decision based on the available facts." *AFRD#2*, 143 Idaho at 875, 154 P.3d at 446. In this case, the Director found that it is necessary to wait until the Joint Forecast is issued to make the initial determinations at issue here. 382 R., p.572. He held that "given current forecasting techniques, the earliest the Director can predict material injury to RISD 'with reasonable certainty' is soon after the Joint Forecast is issued." 382 R., p.582. In so finding, the Director held that the Joint Forecast "is generally as accurate a forecast as is possible using current data gathering and forecasting techniques." 382 R., p.572. And, that it is "a good indicator of the total available irrigation water supply for a season." *Id.* The Director's holding is supported by the record. *See. e.g.*, 551 R., p.1379. Therefore, the Court finds that the Director's decision in this respect was reached through an exercise of reason, is within the limits of his discretion and must be affirmed.

G. The Director's use of the ESPA Model boundary to determine a curtailment priority date in steps 4 and 10 of the *Methodology Order* is set aside and remanded.

The Coalition argues that steps 4 and 10 of the *Methodology Order* unlawfully and arbitrarily reduce junior ground water acres subject to administration in the event of curtailment. Step 4 provides in part as follows:

If junior ground water users fail or refuse to provide this information by May 1, or within fourteen (14) days from issuance of the values set forth in Step 3, whichever is later in time, the Director will issue an order curtailing junior ground water users. Modeled curtailment shall be consistent with previous Department

efforts. The ESPA Model will be run to determine the priority date necessary to produce the necessary volume within the model boundary of the ESPA. However, because the Director can only curtail junior ground water rights within the area of common ground water supply, CM Rule 50.01, junior ground water users will be required to meet the volumetric obligation within the area of common ground water supply, not the full model boundary.

382 R., p.598-599.

The plain language of step 4 directs that the Director will use the ESPA Model to determine the curtailment priority date necessary to remedy material injury “within the model boundary of the ESPA.” *Id.* Step 4 then notes that under the CM Rules, the Director “can only curtail junior ground water rights within the area of common ground water supply.” *Id.* Thus, step 4 recognizes a conflict between the model boundary of the ESPA and the area of common ground water supply. The conflict arises from the fact that the ESPA Model boundary and the boundary of the area of common ground water supply – as it is defined by the CM Rules – are not consistent with one another. The ESPA Model boundary is larger, and contains ground water rights that are not within the area of common ground water supply. This fact is undisputed by the parties. It is the Coalition’s position that the *Methodology Order* wrongly uses the ESPA Model boundary, instead of the boundary of the area of common water supply, to determine a curtailment priority date. And, that the Director’s practice in this respect results in unmitigated material injury contrary to law. This Court agrees.

When a senior water user seeks the conjunctive administration of ground water rights under the CM Rules, the senior user is seeking administration within the area of common ground water supply. The plain language of CM Rules make this clear. The Rules prescribe the procedures for responding to a delivery call made “in an area having a common ground water supply.”¹² IDAPA 37.03.11.001. Likewise, the Rules provide for administration when a delivery call is made by the holder of a senior-priority water right “alleging that by reason of diversion of water by the holders of one (1) or more junior-priority ground water rights ... from

¹² An “area having a common ground water supply” is defined as:

A ground water source within which the diversion and use of ground water or changes in ground water recharge affect the flow of water in a surface water source or within which the diversion and use of water by a holder of a ground water right affects the ground water supply available to the holders of other ground water rights.

IDAPA 37.03.11.010.01

an area having a common water supply in an organized water district the petitioner is suffering material injury.” IDAPA 37.03.11.040.01 (emphasis added). As a result, the *Methodology Order’s* use of the ESPA Model to determine the curtailment priority date necessary to remedy material injury to the Coalition’s water rights “within the model boundary of the ESPA” is problematic. Absent further analysis, which the *Methodology Order* does not provide for, it will result in unmitigated material injury and out-of-priority water use to the detriment of the Coalition in the event of curtailment.

The Director’s application of step 4 in 2010 is illustrative. Under steps 3 and 4 of the *Methodology Order*, the Director determined a demand shortfall to reasonable in-season demand of 84,300 acre-feet to various Coalition members. 382 R., p.186. As permitted in step 4, the Director gave the junior users 14 days to mitigate by establishing their ability to secure 84,300 acre-feet of water. 382 R., p.188. In the event the juniors could not, the Director utilized the ESPA Model boundary to determine the curtailment priority date necessary to increase appropriate reach gains in the Snake River by 84,300 acre-feet. 382 R., p.187. This exercise resulted in a curtailment priority date of April 5, 1982. *Id.* However, the Director then provided that “[c]urtailing only those ground water rights located within the area of common ground water supply [junior to April 5, 1982], IDAPA 37.03.11.050.01, will increase reach gains . . . by 77,985 acre-feet.” *Id.* The amount of 77,985 acre-feet would not have fully mitigated the material injury. Notwithstanding, the *Methodology Order* does not provide further analysis or a mechanism to adjust the curtailment priority date upward within the boundary of the area of common water supply to provide enough water to fully mitigate the injury.

Therefore, the Court finds that the *Methodology Order’s* use of the ESPA Model boundary to determine a curtailment priority date is arbitrary and contrary to the CM Rules. It includes ground water rights in the modeling that are not subject to curtailment under the plain language of the CM Rules to the detriment of the Coalition. The Court further finds that the use of the ESPA Model boundary results in out-of-priority water use contrary to law. The Director should either (1) use the boundary of the area of common water supply to determine a curtailment priority date, or (2) add further analysis to the *Methodology Order* to convert the curtailment priority date arrived at by using the ESPA Model boundary to a priority date which will provide the required amount of water to the Coalition when applied to the boundary of the

area of common water supply. The Director's decision in this respect is set aside and remanded for further proceedings as necessary.

H. The Coalition's argument that mitigation water for material injury to reasonable carryover must be provided up front has previously been addressed and will not be revisited.

With respect to the issue of mitigation of material injury to reasonable carryover, the Coalition argues that the *Methodology Order* is contrary to Idaho law in that it does not require the transfer of actual mitigation water to the Coalition's storage space up front to "carryover" for use in future years. This Coalition's argument in this respect has previously been addressed and rejected. In Gooding County Case No. CV-2008-551, the district court held that as long as assurances are in place, such as an option for water, that mitigation water could be acquired and transferred the following irrigation season, then junior users need not transfer that mitigation water up front to be carried over:

In this regard, although the Director adopted a "wait and see" approach, the Director did not require any protection to assure senior right holders that junior ground water users could secure replacement. ... *This does not mean that juniors must transfer replacement water in the season of injury*, however, the CMR require that assurances be in place such that replacement water can be acquired and will be transferred in the event of a shortage. An option for water would be such an example. Seniors can therefore plan for the future the same as if they have the water in their respective accounts and juniors may avoid the threat of curtailment.

Order on Petition for Judicial Review, Gooding County Case No. CV-2008-551, p.19 (July 24, 2009) (emphasis added). Given that the decision of the district court in this respect was not overturned by the Idaho Supreme Court in the *2013 SWC Case*, this Court sees no reason to revisit the issue. The Director's decision in this respect is affirmed.

I. The *Methodology Order's* process for determining reasonable carryover does not violate the CM Rules.

The CM Rules provide that in determining reasonable carryover, "the Director shall consider the average annual rate of fill of storage reservoirs and the average annual carry-over for prior comparable water conditions and the projected water supply for the system." IDAPA 37.03.11.042.g. The Coalition argues that the Director's *Methodology Order* fails to consider

these factors in its process for determining reasonable carryover, and asks this Court to set aside and remand the same. Section III of the *Methodology Order* sets forth the Director's methodology for determining material injury to reasonable carryover. 382 R., pp.585-590. A review of Section III reveals that the Director does consider and analyze, consistent with CM Rule 42.g, the projected water supply, average annual rate of fill and average annual carryover of the Coalition members. The *Methodology Order* first considers the projected water supply. 382 R., pp.585-586. It uses the values of Heise Gage natural flow data for the years 2002 and 2004 to establish a projected typical dry year supply as the projected water supply. 382 R., p.585. In so doing, the Director notes that "[t]he Heise natural flow, for the years 2002 and 2004, were well below the long term average" *Id.* The *Methodology Order* then considers and sets forth the annual percent fill of storage volume by Coalition members from 1995 to 2008. 382 R., pp.586-587. Last, the *Methodology Order* considers and sets forth actual average carryover of Coalition members from 1995-2008. 382 R., pp.587-588.

The CM Rules do not limit the Director's determination of reasonable carryover to consideration of the factors enumerated in CM Rule 42.g, but only require that the Director consider those enumerated factors. The Court finds based on a review of the *Methodology Order* that the Director's process for determination reasonable carryover does consider the enumerated factors. Therefore, the Court finds that the Director's process was reached through an exercise of reason, is within the limits of his discretion and must be affirmed.

J. Step 10 of the *Methodology Order* is set aside and remanded for further proceedings.

The Coalition argues that the transient modeling provision of step 10 of the *Methodology Order* is contrary to law. Step 10 provides in part as follows:

As an alternative to providing the full volume of reasonable carryover shortfall established in Step 9, junior ground water users can request that the Department model the transient impacts of the proposed curtailment based on the Department's water rights data base and the ESPA Model. The modeling effort will determine total annual reach gain accruals due to curtailment over the period of the model exercise. In the year of injury, junior ground water users would then be obligated to provide the accrued volume of water associated with the first year of the model run. In each subsequent year, junior ground water users would be required to provide the respective volume of water associated with reach gain accruals for that respective year, until such time as the reservoir storage space held by members of the SWC fills, or the entire volume of water from Step 9 less any previous accrual payments is provided.

382 R., p.601 (internal citations omitted). The Director justifies his determination in this respect as follows:

Because of the uncertainty associated with this prediction, and in the interest of balance priority of right with optimum utilization and full economic development of the State's water resources, Idaho Const. Art. XV, § 3; Idaho Const. Art. XV, § 7; Idaho Code § 42-106; Idaho Code § 42-226, the Director will use the ESPA Model to simulate transient curtailment of the projected reasonable carryover shortage.

382 R., pp.596-597. For reasons stated elsewhere in this decision (see Section V.A.ii above), the Court finds that the articles and code sections relied upon by the Director do not justify his decision. The Department acknowledges as much in its briefing, providing that "the Director did not have the benefit of the guidance in *Clear Springs* and the 2012 and 2013 *A&B* decisions when the *Methodology Order* was issued."¹³ *Corrected Brief of Respondents*, p.68. The Department thus suggests that "a remand to the Director with instructions to apply the Idaho Supreme Court's guidance is the appropriate remedy if this Court determines that the *Methodology Order* does not provide an adequate explanation of the basis for the transient modeling provision of Step 10." *Id.*

This Court agrees that the transient modeling provision of step 10 must be set aside and remanded for further proceedings. Counsel for the Department argues that the provision is supported by the CM Rules' provisions for phased-in curtailment. However, this justification was not contemplated or detailed by the Director in the *Methodology Order*. Rather, it is being raised for the first time on judicial review. The Court does question the viability of phased curtailment as a justification for the practice outlined in step 10. Reasonable carryover is surface water "which is retained or stored for future use in years of drought or low-water." *AFRD#2*, 143 Idaho at 878, 154 P.3d at 449. As the *Methodology Order* is currently constituted, the out-of-priority use resulting in the material injury to the Coalition's reasonable carryover will have already occurred by the time the Director reaches step 10 of the *Methodology Order*. It is questionable whether after-the-fact phased curtailment, as contemplated by the CM Rules, would be consistent with Idaho law or satisfies the purpose of reasonable carryover. For the reasons set

¹³ Counsel refers to the Idaho Supreme Court's decisions in *Clear Springs Foods, Inc. v. Spackman*, 150 Idaho 790, 252 P.3d 71 (2011), *A&B Irr. Dist. v. Idaho Dept. of Water Resources*, 153 Idaho 500, 284 P.3d 225 (2012), and *In the Matter of Distribution of Waters to Various Water Rights Held by or for the Benefit of A&B Irr., Dist.*, 155 Idaho 640, 315 P.3d 828 (2013), respectively.

forth in this section, the transient modeling provision of step 10 will be set aside and remanded for further proceedings as necessary.

K. The *Methodology Order's* procedures for determining Coalition members' reasonable in-season demand are consistent with Idaho law.

The City of Pocatello and IGWA both argue that the Director's methodology for determining the Coalition's reasonable in-season demand, as set forth in the *Methodology Order*, are contrary to law. They assert several arguments in support of their position. Each will be addressed in turn.

i. The Director did not act contrary to law or abuse his discretion in considering the Coalition's historic use in determining reasonable in-season demand.

The primary argument asserted by IGWA and the City of Pocatello is that the *Methodology Order* unlawfully considers the Coalition's historic use in initially determining reasonable in-season demand. As discussed above, the Director uses a historic demand baseline analysis that utilizes the values of 2006 and 2008 to arrive at an average baseline year for purposes of the initial reasonable in-season demand determination. 382 R., p.574. However, the *Methodology Order* also provides that the initial reasonable in-season demand determination "will be corrected during the season to account for variations in climate and water supply between the BLY and actual conditions." 382 R., p.568. Further, that "[g]iven the climate and system operations for the year being evaluated will likely be different from the BLY, the BLY must be adjusted for those differences." 382 R., p.575. The Director's consideration of the Coalition's historic use in this context is not contrary to law. The Idaho Supreme Court has already affirmed "the Director's use of a *predicted baseline of a senior water right holders' needs* as a starting point in considering the material injury issue in a water call." *2013 SWC Case*, 155 Idaho at 656, 315 P.3d at 844 (emphasis added). Therefore, the Court finds that the *Methodology Order's* use of a baseline analysis as the starting point in determining the Coalition's reasonable in-season demand is not contrary to law.

In conjunction with their argument, the City of Pocatello and IGWA assert that the *Methodology Order's* process for determining reasonable in-season demand fails to consider

various contemporary factors. IGWA argues that it fails to consider acres that are no longer irrigated, crop needs, water diverted by the Coalition for use by others, and water leased by the Coalition to other water users. IGWA and the City of Pocatello additionally argue that it fails to consider certain factors listed in CMR Rule 42, including the rate of diversion compared to the acreage of land served, the annual volume of water diverted, the system diversion and conveyance efficiency, and the method of irrigation water application. This Court disagrees.

A review of the *Methodology Order* reveals that the Director's calculation of reasonable in-season demand provides for the consideration of all the factors raised by IGWA and the City of Pocatello. For instance, the Director's consideration of project efficiency and crop water need includes the following:

Monthly irrigation entity diversion ("Q_D") will be obtained from Water District 01's diversion records. Ex. 8000, Vol. II, at 8-4, 8-5. *Raw monthly diversion values will then be adjusted to remove any water diversions that can be identified to not directly support the beneficial use of crop development within the irrigation entity.* Examples of adjustments include the removal of diversions associated with in-season recharge *and diversion of irrigation water on the behalf of another irrigation entity.* Adjustments, as they become known to the Department, will be applied during the mid-season updates and in the reasonable carryover shortfall calculation. Examples of adjustments that can only be accounted for later in the season include SWC deliveries for flow augmentation, SWC Water placed in the rental pool, and SWC private leases. *Adjustments are unique to each irrigation season and will be evaluated each year. Any natural flow or storage water deliveries to entities other than the SWC for purposes unrelated to the original right will be adjusted so that the water is not included as a part of the SWC water supply or carryover volume.* Water that is purchased or leased by a SWC member may become part of IGWA's shortfall obligation; to the extent that member has been found to have been materially injured. . . . *Conversely, adjustments will be made to assure that water supplied to private leases or to the rental pool will not increase the shortfall obligation.*

382 R., p.578 (emphasis added). Therefore, the Court finds that the *Methodology Order* takes into consideration acres that are no longer irrigated, crop needs, water diverted by the Coalition for use by others, and water leased by the Coalition to other water users. Furthermore, both the Hearing Officer and the Director found, in considering the Rule 42 factors, that the Coalition members operate reasonable and efficient irrigation projects. The Director found that "as found by the hearing officer in his recommended order, members of the SWC operate reasonably and without waste," and that he will not "impose greater project efficiencies upon members of the SWC than have been historically realized." 382 R., p.551; 551 R., pp.7102-7104.

In conjunction with IGWA's and the City of Pocatello's argument in this respect, it is necessary to reiterate the presumptions and evidentiary standards that apply to a delivery call. *See e.g., 2013 SCW Case*, 155 Idaho at 650, 315 P.3d at 838 (providing, "when utilizing the baseline in the administration context, the Director must abide by established evidentiary standards, presumptions, and burdens of proof"). First, when a call is made "the presumption under Idaho law is that the senior is entitled to his decreed water right." *AFRD#2*, 143 Idaho at 878, 154 P.3d at 449. Then, "[o]nce a decree is presented to an administrating agency or court, all changes to that decree, permanent or temporary, must be supported by clear and convincing evidence." *A&B Irr., Dist.*, 153 Idaho at 524, 284 P.3d at 249. Finally, "[o]nce the initial determination is made that material injury is occurring *or will occur*, the junior then bears the burden of proving that the call would be futile or to challenge, in some other constitutionally permissible way, the senior's call." *AFRD#2*, 143 Idaho at 878, 154 P.3d at 449 (emphasis added).

These presumptions and evidentiary standards are instructive on this issue. The *Methodology Order* provides for the Director's consideration of the factors with which IGWA and the City of Pocatello are concerned. However, if the junior users believe for some reasons that the seniors will receive water they cannot beneficially use, it is their burden under the established evidentiary standards and burdens of proof to prove that fact by clear and convincing evidence. For example, the juniors may assert that the Director in their opinion is considering some, but not *all* acres that are no longer irrigated by the seniors. Or it may be their opinion that the Director is considering some, but not *the full extent* of water diverted by the seniors for use by others. In that scenario, it is then their burden under the established evidentiary standards and burdens of proof get evidence supporting their position before the Director in an appropriate fashion.

- ii. **The Director did not abuse his discretion or act contrary to law in declining to adopt a water budget methodology to determine the Coalition's water needs.**

IGWA and the City of Pocatello argue that the Director's *Methodology Order* should have adopted a water budget methodology to determine the water needs of the Coalition. At the hearing before the Hearing Officer, the parties each proposed a water budget methodology for

determining the water needs of the Coalition. The Director declined to adopt any such methodology, favoring instead the use of a baseline demand analysis as the starting point in determining reasonable in-season demand. 382 R., pp.575-577. The Director's decision in this respect is supported by law, the record, and is within his discretion.

The Idaho Supreme Court has already affirmed "the Director's use of a predicted baseline of a senior water right holders' needs as a starting point in considering the material injury issue in a water call." *2013 SWC Case*, 155 Idaho at 656, 315 P.3d at 844. Furthermore, the Director's reasoning for declining to adopt a water budget method is supported by the record. The record establishes that both the Hearing Officer and the Director questioned the validity of using a water budget methodology under the facts and circumstances presented, recognizing the wildly differing results reached by the surface water and ground water experts under such an approach. In addressing the issue, the Hearing Officer stated:

The irony in this case is that surface water and ground water expert testimony used much of the same information and in some respects the same approaches and came up with a difference of 869,000 acre-feet for an average diversion budget analysis of SWC districts for the period from 1990 through 2006. . . . The total under the SWC analysis is 3,274,948 acre-feet as compared to the Pocatello analysis of . . . 2,405,861[acre-feet].

551 R., p.7096. The Hearing Officer concluded that such results do "not promote much faith in the science of the water budget analysis," and declined to adopt any of the presented water budget approaches. 551 R., pp.7096-7097. The Director echoed these sentiments in his *Methodology Order* when making the determination to utilize a baseline methodology. 382 R., pp.576-577. As set forth in detail above, the Court finds that the Director's use of the values of 2006 and 2008 to arrive at an average baseline year for purposes of the initial reasonable in-season demand determination is supported by substantial evidence. In reviewing the Director's assessment and rejection of the water budget methodology, this Court finds that the Director's decision was reached through an exercise of reason, is within the limits of his discretion and must be affirmed.

- iii. The *Methodology Order's* use of the values of 2006 and 2008 to arrive at an average baseline year for purposes of the initial reasonable in-season demand determination is not contrary to law.**

The City of Pocatello and IGWA allege that the *Methodology Order* impermissibly overestimates the reasonable in-season demand of the Coalition. They point to the Director's use of the values of 2006 and 2008 to arrive at an average baseline year for purposes of a reasonable in-season demand determination. They assert that the Director's use of those values results in the selection of a baseline year of above average temperatures and evapotranspiration and below average precipitation, which in turn impermissibly results in overestimated reasonable in-season demand. It is their position that the Director must determine the needs of the Coalition based on historic use data associated with a year with average temperatures, evapotranspiration and precipitation. This Court disagrees.

The Director's adoption of a baseline year intentionally utilizes above average temperatures and evapotranspiration and below average precipitation. In selecting a baseline year, Director notes that "demand for irrigation water typically increases in years of higher temperature, higher evapotranspiration ("ET"), and lower precipitation." 382 R., p.569. He then explains that it is necessary to select a baseline year of above average temperatures and evapotranspiration and below average precipitation in order to protect senior rights:

Equality in sharing the risk will not adequately protect the senior priority surface water right holder from injury. The incurrence of actual demand shortfalls by a senior surface water right holder resulting from pre-irrigation season predictions based on average data *unreasonably shifts the risk of shortage to the senior surface water right holder*. Therefore, a BLY should represent a year(s) of above average diversions, and should avoid years of below average diversions. An above average diversion year(s) selected as the BLY should also represent a year(s) of above average temperatures and ET, and below average precipitation to ensure that increased diversions were a function of crop water need and not other facts.

382 R., pp.569-570 (emphasis added). In his *Methodology Order*, the Director found that "using the values of 2006 and 2008 (06/08) to arrive at an average BLY fits the selection criteria for all members of the SWC." 382 R., p.574.

The Director did not err in his intentional adoption of a baseline year based on above average temperatures and evapotranspiration and below average precipitation. The Court agrees that use of such data is necessary to protect senior rights if the Director is going to administer to an amount less than the full decreed quantity of the Coalition's rights. The arguments set forth by the City of Pocatello and IGWA that the Director must use data associated with an average year fail to take into account the legal limitations placed on the Director in responding to a

delivery call. The senior is entitled to a presumption under Idaho law that he is entitled to his decreed water right. *AFRD#2*, 143 Idaho at 878, 154 P.3d at 449. If the Director is going to administer to less than the full quantity of the decreed water right, his decision must be supported by clear and convincing evidence in order to adequately protect the senior right. *A&B Irr. Dist.*, 153 Idaho at 524, 284 P.3d at 249.

If the Director determined the needs of the Coalition based on historic use data associated with an average year, any decision to administer to less than the full quantity of the Coalition's decreed rights based on that data would not adequately protect its senior rights. Using data associated with an average year by its very definition would result in an under-determination of the needs of the Coalition half of the time. The Director simply cannot rely upon such data if he is going to administer to less than the decreed quantity of the Coalitions' water rights as his analysis would not be supported by clear and convincing evidence.

The City of Pocatello and IGWA additionally argue that the Director's use of the values of 2006 and 2008 violates the law of case. Specifically, they argue that the use of such data violates the Hearing Officer's recommendation, which they interpret as requiring use of data associated with an average year. Whether this interpretation of the Hearing Officer's recommendation is accurate need not be addressed. What is important is that after the Hearing Officer issued his *Recommendation*, but before the Director issued his *Methodology Order*, case law developed instructing the Director concerning the significance of a decreed water right in a delivery call. *Memorandum Decision and Order on Petition for Judicial Review*, Minidoka County Case No. 2009-647 (May 4, 2010). In that case, the district court held that if the Director determines to administer to less than the decreed quantity of water, such a determination must be supported by clear and convincing evidence. *Id.* at 38. The Director in issuing his *Methodology Order* was bound to follow this case law.¹⁴ As set forth above, using data associated with an average year in order to administer to less than the full decreed quantity of the Coalitions' water rights would not meet a clear and convincing evidence standard. Therefore, the arguments set forth by IGWA and the City of Pocatello are unavailing.

¹⁴ The district court's decision in this regard was ultimately affirmed by the Idaho Supreme Court on appeal. *A&B Irr. Dist. v. Idaho Dept. of Water Resources*, 153 Idaho 500, 284 P.3d 225 (2012).

L. The *Methodology Order's* procedures for determining water supply are consistent with Idaho law.

IGWA and the City of Pocatello additionally argue that the Director wrongly underestimates the forecasted water supply in the *Methodology Order*. The *Methodology Order* explains that in determining water supply “[t]he actual natural flow volume that will be used in the Director’s Forecast Supply will be one standard error below the regression line, which underestimates the available supply.” 382 R., p.582. Further,

By using one standard error of estimate, the Director purposefully underestimates the water supply that is predicted in the Joint Forecast. . . . The Director’s prediction of material injury to RISD is purposefully conservative. While it may ultimately be determined after final accounting that less water was owed than was provided, this is an appropriate burden for the juniors to carry. Idaho Const. Art. XV, § 3, Idaho Code § 42-106.

382 R., p.594. IGWA and the City of Pocatello argue that the Director’s intentional underestimation of the forecasted water supply is an abuse of discretion and contrary to Idaho law. This Court disagrees for the reasons set forth in the preceding section regarding the Director’s use of the values of 2006 and 2008 to arrive at an average baseline year for purposes of the initial reasonable in-season demand determination. The analysis set forth in that preceding section is incorporated herein by reference. The Court finds that the Director did not abuse his discretion or act contrary to law in finding that the use of one standard error below the regression line is necessary to protect senior rights if the Director is going to administer to an amount less than the full decreed quantity of the Coalition’s rights. The Court finds that the Director’s decision to utilize such a regression analysis was reached through an exercise of reason, is within the limits of his discretion and must be affirmed.

M. Neither the City of Pocatello nor IGWA were denied due process.

The City of Pocatello and IGWA argue that the Director denied them due process by declining to allow them to present evidence challenging the *Methodology Order* after his issuance of that *Order*. This Court disagrees. Idaho Code Section 42-1701A provides in part that “any person aggrieved by any action of the director, including any decision, determination, order or other action . . . who is aggrieved by the action of the director, and who has not previously been afforded an opportunity for a hearing on the matter shall be entitled to a hearing

before the director to contest the action.” In this case, the City of Pocatello and IGWA were previously afforded an opportunity for hearing. On January 16, 2008, a hearing was commenced before the Hearing Officer that resulted in the development and issuance of the *Methodology Order*. 551 R., p.7382. For approximately fourteen days, evidence and testimony was presented to the Hearing Officer by the parties, including IGWA and the City of Pocatello. Both IGWA and Pocatello had the opportunity at that hearing to present their theories and testimony on how material injury to the Coalition should be determined. Among other things, those parties had the opportunity to present their water budget analysis, which was rejected by the Hearing Officer and Director for reasons stated in the record. After considering the parties’ evidence and arguments, the Director adopted the methodology for determining material injury set forth in the *Methodology Order*. The question of whether the *Methodology Order*’s process for determining material injury is contrary to law, or inconsistent with the record, is a matter for judicial review. This Court has taken up those arguments in this decision. As a result, the IGWA and the City of Pocatello are not entitled to the relief they seek on this issue.

VI.

ANALYSIS OF METHODOLOGY AS APPLIED

The Director issued his *Methodology Order* in June 2010. Since that time, the Director has issued several final orders applying his methodology to subsequent water years. Those final orders have resulted in the filing of a number of *Petitions* seeking judicial review of the Director’s applications.

A. The Director’s application of the *Methodology Order* in 2013 failed to adjust the mitigation obligations of the juniors to take into account changing conditions.

The Coalition argues that the Director’s application of the *Methodology Order* in 2013 was contrary to law. On April 17, 2013, the Director issued his *Final Order Regarding April 2013 Forecast Supply (Methodology Steps 1-4)*. 382 R., pp.829-846. In that *Order*, the Director concluded that the Twin Falls Canal Company would experience material injury to reasonable in-season demand in the amount of 14,200 acre-feet. 382 R., p.831. He also determined that the rest of the Coalition members would experience no material injury to reasonable in-season

demand. *Id.* Consistent with step 4 of the *Methodology Order*, the Director gave IGWA fourteen days to secure 14,200 acre-feet of mitigation water to avoid curtailment. 382 R., p.835. IGWA filed its *Notice of Secured Water* with the Director on April 22, 2013. 382 R., pp.848-853.

After the Director undertook his in-season recalculations, he issued his *Order Revising April 2013 Forecast Supply (Methodology Steps 6-8)* on August 27, 2013. 382 R., pp.948-957. In that *Order*, the Director revised his original material injury determination based on changing conditions. He increased the material injury to reasonable in-season demand for the Twin Falls Canal Company from 14,200 acre-feet to 51,200 acre-feet. 382 R., p.953. He also increased the material injury to reasonable in-season demand for American Falls Reservoir District No. 2 from no material injury to 54,000 acre-feet of material injury. *Id.* Consistent with step 8 of the *Methodology Order*, the Director did not require the junior users to secure additional mitigation water to address the increased material injury, nor did he provide for curtailment. 382 R., p.954. Rather, the Director required the juniors to release the 14,200 acre-feet of mitigation water they had previously secured. *Id.* He then directed the Watermaster for Water District 01 to allocate 6,900 acre-feet to the Twin Falls Canal Company, and 7,300 acre-feet to American Falls Reservoir District No. 2 to address their respective material injuries. *Id.* As a result, the Twin Falls Canal Company did not get the amount of mitigation water that the Director ordered was to be secured for it under his *Final Order Regarding April 2013 Forecast Supply (Methodology Steps 1-4)*.

The Coalition argues that the Director's refusal to adjust the juniors' mitigation obligation in 2013 is contrary to law. This Court agrees. In 2013, the Director did not provide a proper remedy for material injury to the reasonable in-season demand of the Twin Falls Canal Company or American Falls Reservoir District No. 2 when taking into account changing conditions. Namely, the Director improperly capped the mitigation obligations of junior users to that amount of material injury determined under step 4 (i.e., 14,200 acre-feet) even though changing conditions resulted in an increase of material injury to both the Twin Falls Canal Company and American Falls Reservoir District No. 2 (i.e., 51,200 acre-feet and 54,000 acre-feet, respectively). The analysis and justifications for the Court's finding in this respect are set forth above under Section V.A. of this decision. They will not be repeated here, but are incorporated by reference. The Court finds that the Director's failure to adjust the mitigation

obligations of the juniors to take into account changing conditions in 2013 resulted in prejudice to the Coalition's senior water rights and was contrary to law.

The Department argues that no further mitigation or curtailment was required in 2013 because "the April forecast and the in-season adjustments to it were predictions of material injury . . . not final determinations of actual material injury." Respondents' Br., pp.29-30. First, this argument is internally inconsistent with the *Methodology Order*, and the Director's application of the *Methodology Order* in 2013. In contravention of this argument, the *Methodology Order* itself provides for mitigation or curtailment if material injury to reasonable in-season demand is determined to exist in April. In fact, contrary to the Department's current argument, the Director required IGWA to secure mitigation water in 2013 following his initial April determination that the Twin Falls Canal Company would experience material injury to reasonable in-season demand in the amount of 14,200 acre-feet. 382 R., p.836. Second, the Department's argument is contrary to law. The Idaho Supreme Court has made clear that the burden of proof in a delivery call switches to the junior users once a determination has been made that material injury "is occurring or will occur." *AFRD#2*, 143 Idaho at 878, 154 P.3d at 449 (emphasis added). When the Director makes his April and mid-seasons calculations of material injury to reasonable in-season demand, he is making the determination under the plain language of the *Methodology Order* that material injury is or will occur. Therefore, the proper burdens of proof and evidentiary standards must be applied. The Director's *Order Revising April 2013 Forecast Supply (Methodology Steps 6-8)* is set aside and remanded for further proceedings as necessary.

B. The Court finds that the *Methodology Order* provides a reasonable timeframe for the Director to make adjustments to his initial material injury determination based on changing conditions. However, the Director failed to follow that timeframe in 2013.

The Coalition argues that in 2012 and 2013 the Director failed to timely make adjustments to his initial material injury determinations to take into account changing conditions. When and how often the Director adjusts his initial material injury determination to reasonable in-season demand based on changing conditions is a matter with which the Director exercises great discretion. The Director makes his initial material injury determination in or around April. The Director then makes adjustments to his initial determination throughout the irrigation season

as conditions develop, as provided for in steps 6 and 7 of the *Methodology Order*. These occur “approximately halfway through the irrigation season.” 382 R., p.599. The Court finds that the *Methodology Order* provides a reasonable timeframe for the Director to make adjustments to his initial material injury determination. It would be unreasonable, for example, to require the Director to update his material injury determination to reasonable in-season demand on a daily or weekly basis as a result of changing conditions. If the Director determines that changing conditions require earlier, or more frequent adjustments, than that provided for in his *Methodology Order*, the Director may undertake such adjustments in his discretion.

The Coalition argues that in 2012 the Director failed to timely make adjustments to his initial material injury determination to reasonable in-season demand. It points to the fact that shortly after the USBOR and USACE issued their Joint Forecast on April 5, 2012, the USBOR and USACE issued a revised Joint Forecast on April 16, 2012 that reduced predicted water flows. The Director made his initial material injury determination based on the April 5, 2012, Joint Forecast, and then declined to update his initial material injury again in April following the issuance of the revised Joint Forecast. 382 R., p.755. The Court finds that the Director did not abuse his discretion in this respect. As stated above, the Court finds that the *Methodology Order* provides a reasonable timeframe for the Director to make adjustments to his initial material injury determination. When the Director makes his in-season adjustments pursuant to steps 6 and 7 of the *Methodology Order*, he issues a revised forecast supply. That revised forecast supply will take into account the changing water conditions that differ from his initial April Forecast Supply. The Director must then adjust the mitigation obligations of the junior users accordingly. It is noted that the Court’s holding regarding step 8 of the *Methodology Order* should alleviate the concerns raised by the Coalition on this issue, since the initial material injury determination will not result in a cap of the junior users’ mitigation obligations. The Court finds that the Director’s decision in this respect was reached through an exercise of reason, is within the limits of his discretion and must be affirmed.

With respect to 2013, the Court finds that the Director acted arbitrarily and capriciously by waiting until August 27 to apply step 6 of the *Methodology Order*. Step 6 provides that “approximately half way through the irrigation season” the Director will revise the April forecast and determine the “time of need” for purposes of providing mitigation. 382 R., p. 599. In 2013, the Director did not issue his *Order Revising April 2013 Forecast Supply (Methodology 6-8)*

until August 27, 2013. 382 R., pp.948-957. The Coalition argues the Director's delay in applying step 6 required its members to make water delivery decisions for the remainder of the irrigation season without the benefit of the revised forecast and any related mitigation obligation. The Coalition argues the Director acted arbitrarily and capriciously by delaying the application of step 6. This Court agrees.

The Director identifies the "irrigation season" as running from "the middle of March to the middle of November - an eight month span." 382 R., p. 1039. Therefore, mid-July is halfway through the irrigation season. The word "approximately" is defined as "almost correct or exact: close in value or amount but not precise." See e.g. www.merriam-webster.com/dictionary/approximately. Although step 6 provides for some flexibility by not requiring the revision to be made precisely halfway through the irrigation season, a delay of close to a month and half does not even fit under a generous interpretation of the word "approximately." In this regard, the Director acted arbitrarily and capriciously. The Director should apply his established procedure as written or further define and/or refine the procedure so that Coalition members relying on the procedure know when to anticipate its application and are able to plan accordingly.

C. The Director's calculation of crop water need of the Minidoka Irrigation District, Burley Irrigation District, and the Twin Falls Canal Company in 2013, as set forth in his *Order Revising April 2013 Forecast Supply (Methodology Steps 6-8)* is set aside and remanded for further proceedings as necessary.

The Coalition asserts that the Director has erroneously refused to use certain irrigated acreage information provided by it when determining its crop water need under steps 1 and 2 of the *Methodology Order*. The Coalition's argument focuses primarily on the 2013 water year. Step 1 of the *Methodology Order* requires the Coalition "to provide electronic shape files to the Department delineating the total irrigated acres within their water delivery boundary or confirm in writing that the existing electronic shape file from the previous year has not varied by more than 5%" on or before April 1. 382 R., p.597. Step 2 provides that starting at the beginning of April, the Department will calculate the cumulative crop water need volume for all land irrigated with surface water within the boundaries of each member of the SWC. *Id.* It further provides that volumetric values of crop water need will be calculated "using ET and precipitation values

from the USBR's AgriMet program, *irrigated acres provided by each entity*, and crop distributions based on NASS data." *Id.*

The record establishes that in March of 2013, the members of the Coalition provided the Director with shape files showing the acres being irrigated within the water delivery boundaries for the Minidoka Irrigation District, Burley Irrigation District, and the Twin Falls Canal Company. 382 R., pp.821-828; *see also* 20130329 BID & TFCC Folder (in Bastes Stamped OCR Docs) (382 R., Disc 1). With respect to the A&B Irrigation District, Milner Irrigation District and North Side Canal Company, the Coalition informed the Director that the acres being irrigated within the water delivery boundaries for those entities was the same as the previous year. *Id.* Therefore, the Court finds that the Coalition timely complied with the *Methodology Order's* step 1 requirements. The Director also found that the Coalition complied with step 1 in 2013. 382 R., p.830.

The record further establishes that even though the Minidoka Irrigation District, Burley Irrigation District, and the Twin Falls Canal Company timely complied with the step 1 requirements, the Director did not use the irrigated acreage data provided by those entities data to calculate their crop water needs in 2013. IDWR 8-27-13_August Background Data Folder, document entitled "DS RISD Calculator" (in Bastes Stamped OCR Docs) (382 R., Disc 1). Rather, the Director used irrigated acreage data for the Burley Irrigation District and Minidoka Irrigation District contained in a report prepared by SPF Water Engineering in 2005 (i.e., 551 Ex. 4300). *Id.* With respect to the Twin Falls Canal Company, the Director used irrigated acreage data contained in a report from 2007 (i.e., 551 Ex. 4310). *Id.* In doing so, the Director calculated the crop water needs of those entities based on less irrigated acres than that provided by those entities. *Id.* The Director provides no reasoning or rationale in his *Order Revising April 2013 Forecast Supply (Methodology Steps 6-8)* for deviating from step 2 of the *Methodology Order* in this respect. 382 R., pp.948-957. As set forth above, if the Director is going to administer to less than the full amount of acres set forth on the face of the Coalition's *Partial Decrees*, such a determination must be supported by clear and convincing evidence. *See e.g., A&B Irr. Dist., v. Idaho Dept. of Water Res.*, 153 Idaho 500, 524, 284 P.3d 225, 249 (holding, "Once a decree is presented to an administrating agency or court, all changes to that decree, permanent or temporary, must be supported by clear and convincing evidence"). Since

the Director's decision to deviate from step 2 in this respect is not supported by reasoning it is hereby set aside and remanded for further proceedings as necessary.

D. The Coalition is not entitled to the relief it seeks on the issue of the Director's process for the use of storage water as mitigation.

The Coalition argues that the Director has failed to require that the use of storage water for mitigation be accomplished in accordance with the Water District 01 Rental Pool rules and procedures. Further, that the Director has provided no formal defined process for interaction between IDWR, Water District 01, and junior ground water users when addressing storage water leased, optioned, or otherwise contracted for mitigation purposes. The Coalition complains specifically of the mitigation water secured by IGWA in 2010 and 2013. With respect to storage water secured by IGWA under its 2010 mitigation plan, this Court has already held that mitigation plan, and its use of storage water located in the Upper Snake Reservoir System for mitigation, complied with the requirements of the CM Rules. *Memorandum Decision and Order on Petition for Judicial Review*, Twin Falls County Case No CV-2010-3075 (Jan. 25, 2011). This Court's holding in that case will not be revisited.¹⁵ With respect to the mitigation water secured by IGWA in 2013, the Court finds that the Director reviewed leases and contracts evidencing that IGWA had secured the required amount of mitigation water. 382 R., pp.881-887. Based on his review, the Director found that those leases and contracts would provide water to the Coalition at the Time of Need, and concluded that IGWA had satisfied its mitigation obligation. 382 R., p.884. The Court finds the Director's holding in this respect complied with the requirements of the CM Rules, as well as this Court's decision in Twin Falls County Case No. CV-2010-3075. In addition, the Court finds that the Coalition is not entitled to the relief it seeks on this issue, as it has failed to establish that its substantial rights have been prejudiced as a result of the mitigation water secured in 2010 and 2013. I.C. § 67-5279(4).

¹⁵ A final judgment was entered in Twin Falls County Case No CV-2010-3075 on January 21, 2011. No appeal was taken from that final judgment.

E. The Director's decision to deny the Coalition the opportunity for a hearing in 2012 and 2013 is in violation of Idaho Code § 42-1701A.

At the administrative level, the Coalition requested hearings before the Department with respect to several final orders issued in 2012 and 2013, wherein the Director applied his methodology to the facts and circumstances presented by those water years. Those final orders include the Director's (1) *Final Order Regarding April 2012 Forecast Supply (Methodology Steps 1-8)* dated April 13, 2012, (2) *Final Order Regarding April 2013 Forecast Supply (Methodology Steps 1-4)* dated April 17, 2013, and (3) *Order Revising April 2013 Forecast Supply (Methodology Steps 6-8)* dated August 27, 2013. 382 R., pp.728-742; 382 R., pp.829-846; and 382 R., pp.948-957. The Coalition argued it was entitled to such hearings under Idaho Code § 42-1701A, asserting that no administrative hearing had previously been held on those matters. The Director denied the requests, finding that the Coalition had been afforded hearings on the issues raised. 382 R., p.757; 382 R., pp.890-891; and 382 R., p.1040. The Director held that hearings conducted in 2008 and 2010 constituted hearings previously afforded to the Coalition on the matters. *Id.* This Court holds that the Director's decision in this respect was made in violation of Idaho Code § 42-1701A.

Idaho Code § 42-1701A provides in part that "any person aggrieved by any action of the director, including any decision, determination, order or other action . . . who is aggrieved by the action of the director, and who has not previously been afforded an opportunity for a hearing on the matter shall be entitled to a hearing before the director to contest the action." I.C. § 42-1701A. The plain language of the statute is mandatory. The Director does not specify the previous hearings in 2008 and 2010 on which he relies in denying the Coalition's requests for hearing. However, the Director likely refers to the hearing held before Hearing Officer commencing on January 18, 2008, and the hearing on the *Methodology Order* held on May 24, 2010. Those two hearings pertained specifically to the development and issuance of the *Methodology Order*. However, the Director thereafter issued a series of final orders, listed above, applying his methodology to the facts and circumstances arising in the 2012 and 2013 water years. The hearings conducted in 2008 and 2010 did not address his application of his methodology to the 2012 and 2013 water years. And, a review of the Coalition's *Requests for Hearing* establishes that the Coalition raised issues, and requested hearings on issues, not previously addressed in the 2008 and 2010 hearings.

The Coalition's *Request for Hearing on Order Revising April 2013 Forecast Supply (Steps 6-8)* is illustrative. 382 R., pp.969-979. The Coalition requested a hearing on the Director's issuance of his *Order Revising April 2013 Forecast Supply (Methodology Steps 6-8)* on August 27, 2013. It asserted that waiting until August 27 to issue a revised forecast was contrary to step 6 of the *Methodology Order*, which provides that "[a]pproximately halfway through the irrigation season" the Director will issue a revised forecast supply. 382 R., pp.970-971. The Coalition also requested a hearing on the Director's decision to apportion the 14,200 acre-feet of mitigation water secured by IGWA to give 7,300 acre-feet to American Falls Reservoir District No. 2 and 6,900 acre-feet to the Twin Falls Canal Company. 382 R., pp.971-972. It asserted that such an apportionment was in error, given that the entirety of the mitigation water was initially secured to address material injury to the Twin Falls Canal Company. *Id.* The record establishes that neither of these matters had been previously addressed in a prior administrative hearing. These arguments do not attack the *Methodology Order* itself, but rather challenge whether the Director complied with the terms of the *Methodology Order* in his application of his methodology to the 2013 water year. Therefore, the Director was statutorily required to afford the Coalition a hearing under the plain language of Idaho Code § 42-1701A.

Since the Director did not previously afford the Coalition a hearing on the issuance raised in the subject *Requests for Hearing*, the Director's decisions to deny the Coalition the opportunity for a hearing on those *Requests* were made in violation of Idaho Code § 42-1701A. The Court further finds that substantial rights of the Coalition members were prejudiced in the form of their statutory right to an administrative hearing. As a result, the Director's decisions in this respect are hereby set aside and remanded for further proceedings as necessary.

F. The City of Pocatello is not entitled to the relief it seeks with respect to the Director's *As-Applied Order*.

The City of Pocatello seeks judicial review of the Director's *As-Applied Order* on several grounds. It first argues that the *As-Applied Order*, wherein the Director applied steps 3 and 4 of the *Methodology Order* to the 2010 water year, is arbitrary and capricious. Specifically, that the *As-Applied Order* arbitrarily and capriciously based its initial material injury determination to the Coalition's reasonable in-season demand upon a historic demand baseline analysis and an intentional underestimation of water supply. This argument is not an attack on the *As-Applied*

Order, but rather another challenge to the Director's methodology for determining material injury to reasonable in-season demand as set forth in the *Methodology Order*. This Court addressed and rejected the City's argument in this respect above under Sections V.K. and V.L.

The City of Pocatello next argues that requiring junior users to secure mitigation water that is ultimately not required for beneficial use is contrary to Idaho law.¹⁶ Again, this is not a challenge to the *As-Applied Order*, but rather a challenge to steps 4 and 8 of the *Methodology Order*. If the Director determines that material injury to reasonable in-season demand exists or will exist under steps 3 and 4, then the junior users are required under step 4 to establish their ability to mitigate that injury to avoid curtailment. 382 R., pp.598-599. To avoid curtailment, junior users only need establish their ability to secure mitigation water to be provided to the Coalition at a later date (i.e., the "Time of Need"). Step 8 then provides that if the Director's in-season recalculations and adjustments establish that material injury to reasonable in-season demand is less than initially determined due to changing conditions, the juniors will not need to provide the full amount of water initially secured to the Coalition. 382 R., p.600. The City's argument that this result is contrary to law is unavailing, and fails to account for the burdens of proof and evidentiary standards established by Idaho law.

As stated in more detail above, when the Director makes his initial material injury determination to reasonable in-season demand in April, he is making the determination that material injury is occurring or will occur. Under the CM Rules and established Idaho law, the Director must curtail at that point, or allow out-of-priority water use pursuant to a properly enacted mitigation plan. *2013 SWC Case*, 155 Idaho at 653, 315 P.3d at 841. There is no presumption that administering to the full quantity of the Coalition's decreed water rights will result in waste. To the contrary, since the Coalition's water rights are decreed rights, Idaho law dictates that proper weight must be given to the decreed quantity of those rights. As a result, the presumption under Idaho law is that the Coalition members are entitled to their decreed quantities in times of shortage. *AFRD#2*, 143 Idaho at 878, 154 P.3d at 449. If junior users believe that administering to the full decreed amount of the Coalition's water rights will result in waste, they must come forth with clear and convincing evidence establishing that fact. *A&B Irr. Dist.*, 153 Idaho at 524, 284 P.3d at 249.

¹⁶ As set forth in further detail below, the Director's *As-Applied Order* did not require or result in the City of Pocatello securing mitigation water in 2010 that was not ultimately required for beneficial use.

It is against these legal presumptions, burdens of proof, and evidentiary standards that the Director's *Methodology Order* must be analyzed. In the *Methodology Order*, the Director recognizes that "[i]f the Director predicts that the SWC will be materially injured, the consequence of that prediction is an obligation that must be borne by junior ground water users." 382 R., p.593. And, that:

By requiring that junior ground water users provide or have options to acquire water in place during the season of need, the Director ensures that the SWC does not carry the risk of shortage to their supply. By not requiring junior ground water users to provide mitigation water until the time of need, the Director ensures that junior ground water users provide only the amount of water necessary to satisfy the reasonable in-season demand.

Id. The Court finds that the Director's analysis in this respect protects senior rights in times of shortage by appropriately accounting for the legal presumptions, burdens of proof, and evidentiary standards required by Idaho law. Therefore, the Court finds that the Director's decision in this respect was reached through an exercise of reason, is within the limits of his discretion and must be affirmed.

The City of Pocatello next argues that in determining the reasonable in-season demand of the Coalition in his 2010 *As-Applied Order*, the Director failed to account for all water diverted by Coalition members for delivery to other entities (i.e., wheeled water). The *Methodology Order* provides that in calculating the Coalition's reasonable in-season demand, "any natural flow or storage water deliveries to entities other than the SWC for purposes unrelated to the original right will be adjusted so that the water is not included as a part of the SWC water supply or carryover volume." 382 R., p.578. The City argues that the Director erroneously failed to subtract all wheeled water from the Coalition's reasonable in season demand calculations. This Court disagrees. The City relies on Exhibit 3000 from the hearing on the *As-Applied Order* in 2010. That exhibit provides that "Wheeled water transactions for A&B, AFRD2, Minidoka, and TFCC *may have occurred*, but values were less than 1% of total demand and therefore were not considered." 382 Ex. 3000, *Hearing on the As-Applied Order*. That exhibit only establishes that wheeled water transactions "may have occurred." The fact that such transaction may have occurred is not sufficient if the Director is going to use that data to administer to less than the full amount of the Coalition's decreed rights. *A&B Irr. Dist.*, 153 Idaho at 524, 284 P.3d at 249 (holding, "Once a decree is presented to an administering agency or court, all changes to

that decree, permanent or temporary, must be supported by clear and convincing evidence”). The City points to no clear and convincing evidence in the record establishing that such transactions did occur. Therefore, the City is not entitled to the relief it seeks on this issue.

The City of Pocatello next argues that the Director improperly limited the scope of a hearing held on one of the Director’s orders applying his methodology to the 2010 water year. This Court disagrees. On April 29, 2010, the Director issued his *Order Regarding April 2010 Forecast Supply (Methodology Steps 3 & 4)*. 382 R., pp.185-198. Unlike the Coalition’s requests for hearings in 2012 and 2013, which were improperly denied, the Director acted consistent with Idaho Code § 42-1701A in 2010 by granting a hearing following the issuance of his April 29, 2010, *Order* when requested. The April 29, 2010, *Order* was limited to applying steps 3 and 4 of the *Methodology Order* to the 2010 water year. Therefore, the Director did not err in limiting the evidence presented at that hearing to information relevant to whether the Director’s application of steps 3 and 4 to the 2010 water year complied with the *Methodology Order*. 382 R., p.466. The Court finds, after a review of the record in this case, that the Director complied with the requirements of Idaho Code § 42-1701A, and that the City of Pocatello had a meaningful opportunity to be heard at that hearing, as Department staff familiar with the *Order* were present at that hearing to present evidence and testimony and to be subject to examination. Therefore, the City of Pocatello’s request for relief on this issue is denied.

Last, with respect to all of the issues raised by the City of Pocatello relating to the Director’s *As-Applied Order*, the Court finds that City of Pocatello has failed to establish that its substantial rights were prejudiced as a result of that *Order* under Idaho Code § 67-5279(4). The Director’s *As-Applied Order* required no action on the part of the City of Pocatello. The Director did not order the City of Pocatello to mitigate any material injury to the Coalition in 2010 in his *As-Applied Order*. Nor has the City of Pocatello established that it would have been in the curtailment zone in 2010 under the *As-Applied Order*. Only IGWA was required to show it ability to secure mitigation water under the Director’s *As-Applied Order* in 2010 in order to avoid curtailment. Therefore, since the City of Pocatello has failed to establish that its substantial rights were prejudiced as a result of the Director’s *As-Applied Order*, it is not entitled to the relief it seeks with respect to that *Order*. I.C. § 67-5279(4).

VII.

REMAINING FINAL ORDERS

The Coalition filed *Petitions* seeking judicial review of the Director's *Final Order Revising April 2010 Forecast Supply (Methodology Step 7)*, dated September 17, 2010, *Final Order Establishing 2010 Reasonable Carryover (Methodology Step 9)*, dated November 30, 2010, and *Order Releasing IGWA from 2012 Reasonable Carryover Shortfall Obligation (Methodology Step 5)*, dated June 13, 2013. The Coalition provided no briefing or argument specific to these *Final Orders* on judicial review. However, through these *Final Orders* the Director applied his methodology as set forth in the *Methodology Order*. To the extent these *Final Orders* applied the *Methodology Order* in a manner inconsistent with this Court's analysis and holdings regarding the *Methodology Order* as set forth herein, they are set aside and remanded for further proceedings as necessary.

VIII.

CONCLUSION AND ORDER OF REMAND

For the reasons set forth above, the actions taken by Director in this matter are affirmed in part and set aside in part. The case is remanded for further proceedings as necessary consistent with this decision.

IT IS SO ORDERED.

Dated September 26, 2014



ERIC J. WILDMAN
District Judge

CERTIFICATE OF MAILING

I certify that a true and correct copy of the MEMORANDUM DECISION AND ORDER ON PETITIONS FOR JUDICIAL REVIEW was mailed on September 26, 2014, with sufficient first-class postage to the following:

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ADDENDUM E

Final Order Regarding Rangen, Inc. 's Petition for Delivery Call; Curtailing Ground Water Rights Junior to July 13, 1962, (IDWR Jan. 29, 2014); this order was at issue before the Court in Case No. CV-2014-1338 (Fifth Jud. Dist.).

4. On May 21, 2012, the City of Pocatello (“Pocatello”) petitioned to be designated as a respondent or alternatively to intervene in the proceeding. Pocatello is a municipality with ground water rights junior to Rangen’s water rights and could be curtailed if Rangen is successful in its delivery call. The Director granted Pocatello’s petition to be designated as a respondent on May 29, 2012.

5. On July 24, 2012, A&B Irrigation District, American Falls Reservoir District #2, Burley Irrigation District, Milner Irrigation District, Minidoka Irrigation District, North Side Canal Company and Twin Falls Canal Company (collectively, the “Surface Water Coalition” or “SWC”) petitioned for limited intervention in the proceeding for the purpose of addressing the application of ESPAM 2.0 in the Rangen delivery call. The water delivery entities comprising the SWC hold senior surface water rights on the Snake River and filed a separate delivery call against junior ground water users. The Department employed a previous version of ESPAM to determine the effects of ground water pumping on the SWC’s senior priority water rights. The Director granted the SWC’s petition for limited intervention on August 14, 2012.

6. On August 14, 2012, Buckeye Farms, Inc. (“Buckeye”) petitioned for limited intervention in the Rangen proceeding for the purpose of addressing the application of ESPAM 2.0. Buckeye argued that it has several surface water rights downstream from Rangen and should be allowed to participate in the proceeding because “[f]uture conjunctive administration involving Buckeye’s senior surface water rights will involve ESPAM 2.0.” *Buckeye Farms, Inc Petition for Limited Intervention* at 3. On August 21, 2012, both IGWA and Pocatello filed responses in opposition to Buckeye’s petition. The Director denied Buckeye’s petition on September 11, 2012, stating Buckeye’s petition was untimely and that Buckeye’s limited interests are adequately represented by existing parties. *Order Denying Buckeye Farms, Inc.’s Petition for Limited Intervention* at 2-3.

7. On August 21, 2012, Fremont-Madison Irrigation District (“Fremont-Madison”) petitioned to be designated as a respondent or alternatively to intervene in the proceeding. The Director granted Fremont-Madison’s petition to be designated as a respondent on September 11, 2012, concluding Fremont-Madison meets the definition of a respondent according to the Department’s rules of procedure because Fremont-Madison is an irrigation district that diverts ground water from the Eastern Snake Plain Aquifer (“ESPA”) and could be curtailed if Rangen is successful in its delivery call. *Order Designating Fremont-Madison a Respondent* at 1.

8. Several dispositive motions were filed prior to the hearing. Rangen filed a *Motion for Partial Summary Judgment Re: Material Injury* on January 9, 2013. The motion was disposed of by an *Order Denying Rangen, Inc.’s Motion for Partial Summary Judgment Re: Material Injury* issued April 24, 2013.

9. Rangen filed a *Motion for Partial Summary Judgment Re: Source* on March 8, 2013, which was disposed of by an *Order Granting In Part and Denying in Part Rangen, Inc.’s Motion for Partial Summary Judgment Re: Source* issued on April 22, 2013.

10. Pocatello filed a *Motion for Declaratory Order Regarding Rangen’s Legal Obligation to Interconnect* on March 8, 2013. The motion was disposed of by an *Order Denying*

City of Pocatello's Motion for Declaratory Order Re: Rangen's Legal Obligation to Interconnect issued on April 23, 2013.

11. The hearing on Rangen's delivery call commenced on May 1, 2013, at the Department's State Office in Boise, Idaho. The hearing concluded on May 16, 2013. The hearing was bifurcated. The first part of the hearing focused on issues of material injury and beneficial use and the second part of the hearing focused on issues related to ESPAM 2.1.¹

II. History of the Rangen Facility

12. Rangen started business in 1925. Courtney, Vol. I, p. 53. The company was formally incorporated in 1935 and has been in business for over 88 years. *Id.* Aquaculture is one of the company's business enterprises. *Id.*

13. Rangen owns and operates a fish research and propagation facility ("Rangen Facility") in the Thousands Springs area near Hagerman, Idaho. Courtney, Vol. I, p. 55. Rangen Exhibit 1005² is a schematic diagram of the Rangen Facility and is attached as Attachment A. The Rangen Facility is situated below a canyon rim at the headwaters of Billingsley Creek. *Id.* Torliel Rangen began construction of the Rangen Facility in 1962. *Id.* at 62.

14. The Rangen Facility was developed in stages. Courtney, Vol. I, p. 61. The facility started with a series of concrete channels for fish rearing, now commonly referred to as the "small raceways" and the "large raceways," and a hatch house for incubation of fish eggs. Rangen Ex. 1014; Courtney, Vol. I, pp. 60, 66. Rangen also constructed some earthen ponds for fish rearing and holding. The facility was expanded in 1976, when additional raceways, now referred to as the "CTR raceways," were constructed. Courtney, Vol. I, p. 61. In approximately 1992, the greenhouse was added to the back of the hatch house to expand Rangen's hatching and research capabilities. *Id.* Other buildings were added over time, but their addition is not relevant to this proceeding.

15. Rangen first filed a delivery call in September of 2003, seeking to curtail junior-priority ground water users. In February of 2004, a previous Director of the Department, Karl Dreher, ordered curtailment of all ground water rights in Water District 130 with priority dates junior to July 13, 1962 (the priority date of Rangen's water right no. 36-02551). *Order* at 26 (Feb. 25, 2004). However, ESPAM model version 1.0 was released shortly thereafter. Based on the curtailment predictions of ESPAM 1.0, Director Dreher withdrew his curtailment order, concluding instead that the Rangen delivery call was futile. *Second Amended Order* at 28 (May 19, 2005).

¹ As described later in this order, ESPAM 2.0 was updated shortly before the hearing commenced. The latest version is referred to as ESPAM 2.1.

² All references to "Exhibit" or "Ex." in this order refer to exhibits from the administrative hearing in this matter.

III. Source of Water and Diversions

16. Immediately east of the Rangen Facility, water emanates from numerous springs on the talus slopes just below the canyon rim. Water also emanates from what is called the "Martin-Curren Tunnel" or "Curren Tunnel." The tunnel is a large, excavated conduit constructed high on the canyon rim and extends approximately 300 feet into the canyon wall. Tate, Vol. IV, p. 911. The first 50 feet of the tunnel is supported by a corrugated metal pipe approximately 6 feet in diameter. Brendecke, Vol. IX, p. 2039. The remaining 250 feet of the excavation is an open tunnel unsupported by any structure. *Id.* The main tunnel bifurcates into two tunnels approximately 150-200 feet into the tunnel from its mouth. *Id.*; IGWA Ex. 2328. The record does not clearly establish when the tunnel was built, but the tunnel predates the construction of the Rangen Facility.

17. A concrete collection box located near the mouth of the Curren Tunnel collects water for delivery to Rangen and holders of early priority irrigation water rights via pipelines. Pocatello Ex. 3651. The concrete box is commonly referred to as the "Farmers' Box." Since 2002, the water historically diverted by the senior-priority irrigation water right holders has been replaced with surface water delivered by the Sandy Pipeline. Sullivan, Vol. VI, p. 1345; Brendecke, Vol. IX, p. 2081. Currently, only Rangen diverts from the Farmers' Box, but senior priority irrigation water right holders may call for delivery of water from Curren Tunnel in the future.

18. Further down the talus slope is a second concrete water collection box with an open top, commonly referred to as the "Rangen Box." Rangen rediverts the water from the Farmers' box through two plastic pipes down to the Rangen Box. Sullivan, Vol. VII, p. 1661. Water is then delivered from the Rangen Box via a 12-inch diameter steel pipe to the small raceways. *Id.* The water diverted by Rangen can then be routed from the small raceways down through the large and CTR raceways. *Id.* Rangen Exhibit 1292, a picture showing the two collection boxes and the distribution piping, is attached as Attachment B. Water can also be spilled out the side of the Rangen Box and returned to the talus slope.

19. In the early 1980's, Rangen built a 6-inch white PVC pipeline to divert water from inside the Curren Tunnel and deliver the water to the hatch house and greenhouse buildings. The water is used in the hatch house and/or greenhouse and then can be discharged either back into Billingsley Creek or discharged directly into the small raceways and used in the large and CTR raceways. Sullivan, Vol. VI, p. 1336.

20. The main diversion for the large raceways is located downstream from the talus slope, where the defined channel for Billingsley Creek begins. Sullivan, Vol. VI, p. 1336. This Rangen diversion is commonly referred to as the "Large Raceway Diversion" or "Bridge Diversion." The Bridge Diversion collects and diverts the spring flows that arise on the talus slope below the Curren Tunnel and water spilled from the Rangen Box. *Id.*

IV. Rangen Water Rights

21. Rangen holds five water rights for the Rangen Facility. The five water rights have been decreed through the Snake River Basin Adjudication ("SRBA"). Rangen's decreed water rights are summarized as follows:

ELEMENTS OF RANGEN, INC.'S WATER RIGHTS					
WATER RIGHT NO.:	36-00134B	36-00135A	36-15501	36-02551	36-07694
PRIORITY DATE:	Oct. 9, 1884	Apr. 1, 1908	July 1, 1957	July 13, 1962	Apr. 12, 1977
SOURCE:	Martin-Curren Tunnel Tributary: Billingsley Creek	Martin-Curren Tunnel Tributary: Billingsley Creek	Martin-Curren Tunnel Tributary: Billingsley Creek	Martin-Curren Tunnel Tributary: Billingsley Creek	Martin-Curren Tunnel Tributary: Billingsley Creek
QUANTITY:	0.09 cfs ³	0.05 cfs	1.46 cfs	48.54 cfs	26.0 cfs
DIVERSION POINT:	T07S R14E S32 SESWNW	T07S R14E S32 SESWNW	T07S R14E S32 SESWNW	T07S R14E S32 SESWNW	T07S R14E S32 SESWNW
PURPOSE AND PERIOD OF USE:	Domestic (0.07 cfs) 01-01 to 12-31 Irrigation (0.09 cfs) 03-15 to 11-15	Domestic (0.05 cfs) 01-01 to 12-31 Irrigation (0.05 cfs) 03-15 to 11-15	Fish Propagation (1.46 cfs) 01-01 to 12-31	Domestic (0.10 cfs) 01-01 to 12-31 Fish Propagation (48.54 cfs) 01-01 to 12-31	Fish Propagation (26.0 cfs) 01-01 to 12-31
PLACE OF USE:	Domestic T07S R14E S31 SENE S32 SWNW Irrigation T07S R14E S31 SWNE 2 SENE 4 S32 SWNW1 (7 acres total)	Domestic T07S R14E S31 SENE S32 SWNW Irrigation T07S R14E S31 SWNE 2 SENE 4 S32 SWNW 1	Fish Propagation T07S R14 E S31 SENE S32 SWNW	Domestic T07S R14E S31 SENE S32 SWNW Fish Propagation T07S R14E S31 SENE S32 SWNW	Fish Propagation T07S R14E S31 SENE S32 SWNW

³ Cubic feet per second.

22. Water right nos. 36-00134B and 36-00135A are for irrigation and domestic purposes. They are not for fish propagation.

23. Water right nos. 36-15501, 36-02551, and 36-07694 authorize a total, cumulative diversion of 76.0 cfs for fish propagation. The priority dates associated with the three fish propagation water rights are July 1, 1957, July 13, 1962 and April 12, 1977, respectively.

24. Rangen alleges that it “is not receiving all of the water to which it is entitled pursuant to decreed water rights nos. 36-02551 and 36-07694.” *Petition* at 3. Rangen does not allege injury to water right nos. 36-00134B, 36-00135A, and 36-15501. *Id.*

25. The source for water right nos. 36-02551 and 36-07694 is the Martin-Curren Tunnel, which is commonly referred to as the Curren Tunnel. Rangen Ex. 1026; Rangen Ex. 1028. The point of diversion for both water rights is described as the 10 acre tract: SESWNW T07S R14E S32. *Id.*

26. On March 8, 2013, Rangen filed a *Motion and Brief in Support of Motion for Partial Summary Judgment Re: Source* (“Source Brief”). Rangen sought a ruling that it is entitled to judgment as a matter of law as follows: (1) the source for water rights 36-02551, 36-07694, and 36-15501 is surface water, not ground water; and (2) its delivery call “is not limited only to water from the mouth of the Martin-Curren Tunnel itself.” *Source Brief* at 2. Rangen stated that IGWA and Pocatello “contend that Rangen’s water rights at issue are ground water rights (as opposed to surface water) and that Rangen can only call for water discharging from the mouth of the Martin-Curren Tunnel itself and not the entire spring complex that supplies Rangen’s Research Hatchery.” *Id.* at 2-3.

27. On the issue of source, the Director reviewed the SRBA decrees and concluded the decrees were not ambiguous:

Water right nos. 36-2551, 36-7694, and 36-15501 were decreed in the SRBA with the following Source element: Martin-Curren Tunnel, tributary to Billingsley Creek. ... The fact that the source and tributary are named demonstrate that the rights were decreed from a surface water source. *See* [IDAPA 37.03.01.060] (“For surface water sources, the source of water shall be identified The first named downstream water source to which the source is tributary shall also be listed. For ground water sources, the source shall be listed as ‘ground water.’”). Consistent with [IDAPA 37.03.01.060], listing a source and tributary for surface water rights, and only “ground water” for ground water rights, was the custom and practice in the SRBA. In 1997, Rangen’s Martin-Curren Tunnel water rights were partially decreed. The partial decrees were entered pursuant to Idaho Rule of Civil Procedure 54(b). No appeal has ever been taken. The plain language of Rangen’s partial decrees from the SRBA show that Martin-Curren Tunnel is unambiguously surface water.

Order Granting in Part and Denying in Part Rangen, Inc.’s Motion For Partial Summary Judgment Re: Source (“Order on Summary Judgment”) at 4 (April 22, 2013).

28. The Director also concluded that previous Idaho Supreme Court decisions already decided that the source of the Martin-Curren Tunnel is surface water. *Order on Summary Judgment* at 4. The Idaho Supreme Court case *Musser v. Higginson*, 125 Idaho 392, 871 P.2d 809 (1994), involved a delivery call by water users other than Rangen with water rights from the Martin-Curren Tunnel. The Court in *Musser* specifically described the source as “springs.” *Musser* at 394, 871 P.2d at 811. Spring water users are considered surface water users, not ground water users. *Clear Springs Foods, Inc. v. Spackman*, 150 Idaho 790, 804, 252 P.3d 71, 85 (2011) (“The Spring Users are not appropriators of ground water . . . [t]hey are appropriators of surface water flowing from springs.”). The Court in *A&B Irr. Dist. v. Idaho Dept. of Water Res.*, had cause to discuss the *Musser* Court’s characterization of the source and recognized that the Martin-Curren Tunnel is considered surface water. *A&B Irr. Dist. v. Idaho Dept. of Water Res.*, 153 Idaho 500, 509, 284 P.3d 225, 234 (2012)(Concluding that the Court in *Musser* could not have opined on the application of the Ground Water Act because the call was “between senior spring users and junior ground water users.”)

29. Based on the above conclusions, the Director granted summary judgment to Rangen on the issue of source. *Order on Summary Judgment* at 7.

30. On the second issue, the Director again started with the SRBA decrees:

The point of diversion element decreed by the SRBA district court unambiguously limits diversion to T07S R14E S32 SESWNW. Therefore, by the unambiguous terms of its SRBA partial decrees, Rangen is not authorized to divert water from sources outside T07S R14E S32 SESWNW. Without a water right that authorizes diversion outside T07S R14E S32 SESWNW, Rangen cannot call for delivery of water from sources located outside its decreed point of diversion. IDAPA 37.03.11.001 (“rules prescribe procedures for responding to a delivery call made by the holder of a senior-priority surface or ground water right) (emphasis added); 37.03.11.010.25 (defining “water right” to mean “[t]he legal right to divert and use . . . the public waters of the state of Idaho where such right is evidenced by a decree . . .”).

Order on Summary Judgment at 6 (emphasis in original).

31. However, summary judgment was not granted to any party on the issue of the point of diversion because questions of material fact remained related to how water is diverted by Rangen from the Curren Tunnel. *Id.* 6-7.

V. Water Measurements

32. Rangen has measured the flows through the Rangen Facility since 1966. Ramsey, Vol. III, p. 617; Rangen Ex. 1075. Since 1995, Rangen has been required by the Department to measure the flows through the Rangen Facility and report the measurements annually to the watermaster. IDWR Staff Memorandum, Ex. 3203, p. 13.

33. The water that flows through the Rangen Facility is measured at two different locations, the CTR raceways and the lodge pond dam.⁴ Maxwell, Vol. I, p. 269; Rangen Ex. 1074. Rangen's measurements at the CTR raceways and the lodge pond dam, summed together, quantify all inflow that is tributary to Billingsley Creek upstream from those measurement locations, except for diversions to the senior irrigation rights from the Farmers' Box. Courtney, Vol. I, p. 142. Irrigation return flows sporadically discharge into Billingsley Creek above the lodge dam measurement point. Rangen is not able to beneficially use these irrigation return flows, but the irrigation return flows are included in Rangen's measurements. *Id.*, pp. 142-143. Rangen measures the flows weekly. *Id.*, p. 270. The weekly measurements from the CTR raceways and the lodge pond dam are summed for reporting purposes. Maxwell, Vol. I, p. 281; Rangen Ex. 1094. Rangen also measures flows weekly at the large raceways, but the large raceways measurement data are not reported to the watermaster. Maxwell, Vol. I, p. 278.

34. To determine the flow of water in the CTR raceways, Rangen employees measure the depth of water (head) flowing over wooden check board dams in each raceway using a ruler placed on top of the board. Maxwell, Vol. I, pp. 270-273. This method of measuring head with a ruler on top of the board is commonly referred to as "sticking the weir." Sullivan, Vol. XI, p. 1387. Rangen employees clean the upper board in each multi-board dam prior to measuring the head to prevent error from moss accumulation. Erwin, Vol. I, p. 249. Rangen also inspects the upper dam board to ensure that the board is centered and flush. Maxwell, Vol. I, pp. 273-274. Rangen uses the same procedure to measure head at the lodge pond dam.

35. Frank Erwin, who has been watermaster for Water District 36 for more than 16 years, observed Rangen employee Dan Maxwell measuring water three or four times. Erwin, Vol. I, p. 249. Erwin stated Maxwell did "a good job" and that Maxwell "probably does a little better job at it than I would be able to do." *Id.*, p. 245. He stated that Rangen sends him annual reports of their water measurements and that he has never had an issue with any of Rangen's measurements. *Id.*

36. Wooden check board dams are considered nonstandard measurement devices and are not listed as an acceptable measuring device in the Department's *Minimum Acceptable Standards for Open Channel and Closed Conduit Measuring Devices*. Yenter, Vol. III, p. 557; IDWR Staff Memorandum, Ex. 3203, p. 59; Luke, Vol. V, pp. 1134-1135. Roughness, rounding, and sagging in wooden check boards can cause measurement error. Sullivan, Vol. VI, pp. 1408-1409.

37. Although wooden check board dams are considered nonstandard measuring devices, the Department historically accepted measurements using these structures because the Department's standards allow an accuracy of +/- 10% for open channel measuring devices when compared to measurements using standard portable measuring devices. The Department's experience is that flows rates derived by treating wooden check board dams as weirs generally

⁴ The Department has measured the flow from the mouth of Curren Tunnel since 1993. The Curren Tunnel flow data are not used by the watermaster to determine the overall flows through the Rangen Facility, as most water that emanates from the Curren Tunnel is counted either at the measurement in the CTR raceways or at the lodge pond dam.

provide an accuracy of +/- 10%. Yenter, Vol. III, p. 567; IDWR Staff Memorandum, Ex. 3203, p. 13; Luke, Vol. V, pp. 1139,1140, 1168.

38. Two questions were raised related to Rangen's measurements. The first question is whether Rangen historically under-measured its flows because Rangen was using an incorrect rating table. The second question is whether United States Geological Survey ("USGS") flow measurements downstream from the Rangen Facility are a more accurate representation of historic flows through the Rangen Facility and should be relied upon in this proceeding.

39. The Francis equation for a standard suppressed rectangular weir with full bottom contraction is $Q=CLH^{3/2}$ where the weir coefficient "C" is 3.33, and:

Q=flow rate in cubic feet per second

L=length of the weir crest in feet

H=head of water over the weir crest in feet

40. Each weir type has a unique weir coefficient and relates the measurement of the head on the weir to the flow rate over the weir. Brockway, Vol. IV, p. 935. A wooden check board dam employed by Rangen is considered a suppressed weir with a nonstandard weir blade. *Id.*

41. After measuring the head over the wooden check board dams, Rangen employees consult a rating table and identify the flow value corresponding to the measured head for each raceway. By referring to a rating table, a water user can determine flow rates based solely upon the head of water over the weir without calculating the flow with a weir equation. The values in a rating table should be derived either from a weir equation or from direct measurements of discharge and head at numerous flow rates.

42. Historically, Rangen has used at least two different rating tables. It is not clear how Rangen's rating tables were derived. The accuracy of Rangen's original and revised rating tables was an issue discussed extensively at the hearing. The parties, including Rangen, agree that there are problems with the original and the revised rating tables.

43. If compared to the Francis equation, the weir coefficient implicit in Rangen's original rating table varied with the depth of water over the weir crest. Pocatello Ex. 3345, p. 18. Prior to December 1998, Rangen's rating table implied a weir coefficient that averaged between 3.27 and 3.40. *Id.*

44. Sometime between December 1998 and July 2003, Rangen revised its rating table. Pocatello Ex. 3345, p. 18. Between December 1998 and July 2003, there are no measured head data available with which to determine the implicit average weir coefficient. *Id.* Starting in July 2003 through the present, the available measurement data suggest that the revised table had an equivalent weir coefficient in the range of 3.05 to 3.09. *Id.*

45. When the head over a wooden dam board exceeds approximately two times the width of the board crest, the nappe, or the sheet of water flowing over the top of the dam board, begins to "spring" from the front edge of the dam board, and simulates the physical "springing"

of water across a sharp crested weir blade. Brockway, Vol. IV, pp. 955-958. The width of Rangen's dam boards is 1 and 5/8 inches. Two times 1 and 5/8 inches is 3 and 1/4 inches. The vast majority of Rangen's head measurements exceeded 3 and 1/4 inches, more than two times the dam board width. *Id.*, p. 959. Rangen's wooden dam boards act like a standard suppressed sharp-crested weir. *Id.*, p. 959. Without actually calibrating the measurement of flows over the nonstandard dam boards, the best approximation of a correct flow computation for measurements of head at Rangen's wooden check board dams, would be to use the Francis formula with the standard suppressed sharp-crested weir coefficient of 3.33. Brockway, Vol. IV, pp. 959, 962.⁵

46. In 2003, the Department evaluated Rangen's measurements in connection with Rangen's previous delivery call. Department employees measured flows at the large and CTR raceways and the lodge pond dam by "sticking the weir." Department employees measured a combined total discharge of 18.69 cfs for the CTR raceways and the lodge pond dam. Rangen Ex. 1129, p. 3. The day prior to the Department's measurement, Rangen employees measured a combined total discharge of 17.52 cfs for the CTR raceways and the lodge pond dam, a difference of 1.17 cfs, or a difference of approximately -6%. *Id.*, p. 12.

47. The employment of a nonstandard measuring device and the under-reporting of flow rate values due to the uncalibrated rating table is cause to review other available flow rate measurement values. The USGS periodically measures Billingsley Creek flows at a site just downstream of the Rangen Facility. Sullivan, Vol. VI, pp. 1414-1415. The USGS derives flow values by measuring velocities across the creek's flow profile and by multiplying each measured velocity by a cross sectional area to compute the flow rate in each individual cross sectional area using a current meter. The flow rates for each area are summed, resulting in a total flow rate. The method described above is considered a standard method of water measurement, is listed as an acceptable measuring method in the Department's *Minimum Acceptable Standards for Open Channel and Closed Conduit Measuring Devices*, and is employed to calibrate the accuracy of weirs and other measuring devices. USGS flow measurements are widely accepted as accurate and objective measurements.

48. When a USGS hydrographer measures flow rates, the hydrographer assigns a quality rating to the measurement. Sullivan, Vol. VI, p. 1423. This is a quasi-quantitative rating of the quality of the measurement. Various factors are considered in rating the measurement. The USGS quantifies the standard error⁶ associated with each rating. The highest rating assigned to measurements in Billingsley Creek below the Rangen Facility is "good," abbreviated by the letter "G." When a measurement is rated "G," the estimated standard error is plus or minus 5%. A lesser rating of "fair" is abbreviated by the letter "F." When a measurement is rated "F," the estimated standard error of the measurement is plus or minus 8%. *Id.* at 1424. The lowest rating is "poor," abbreviated by the letter "P." When a measurement is rated "P," the estimated standard error of the measurement is greater than 8%. *Id.* The abbreviation "U" means the measurement was unrated and means that, for some reason, the hydrographer didn't assign a

⁵ Brockway derived a weir coefficient for measuring flows discharging over splash board dams at another fish propagation facility. The other facility's weir coefficient was 3.68. Brockway distinguished the other facility's weir coefficient from the standard 3.33 value by observing that the head measurements over the dam board at the other facility were near or below two times the width of the dam board, resulting in a larger coefficient.

⁶ A standard error of 5% means there is a 68% probability that the true measurement is within plus or minus 5% of the true value. Sullivan, Vol. VI, p. 1423.

rating. *Id.* Most of the USGS measurements in Billingsley Creek below the Rangen Facility are rated as “good” or “fair” measurements. The rating of measurement conditions may be “fair” because, as discussed in the IDWR staff memorandum, flow and/or cross-sectional conditions are less than ideal. IDWR Staff Memorandum, Ex. 3203, p. 65.

49. Rangen presented evidence that there is a small drain that discharges into Billingsley Creek between where Rangen measures flows from the Rangen Facility and where the USGS measures flow in Billingsley Creek. This drain sometimes carries irrigation return flows to the creek. Sullivan, Vol. VI, p. 1419. However, the record does not support a finding that these return flows affected the USGS measurements because the USGS generally measures the flow in Billingsley Creek during the non-irrigation season. *Id.*

50. Pocatello compared the USGS measurements taken downstream from Rangen with Rangen’s reported flows closest to the date of the USGS measurement. Pocatello’s expert, Greg Sullivan, testified that comparison of Rangen’s reported flows with flows measured by the USGS below the Rangen Facility show a systematic under-measurement of Rangen’s flows, especially since 1980. Sullivan estimated the measurement error to be 15.9% based on the comparison of 45 measurements by the USGS between 1980 and 2012. Sullivan, Vol. VI, pp. 1428-1429; Pocatello Ex., p. 3349.

51. In addition, Sullivan derived a weir coefficient for the Rangen Facility by solving the standard weir equation for the weir coefficient using 14 of the USGS flow measurements and Rangen head measurements made nearest in time. Sullivan derived an average weir coefficient of 3.62. Sullivan, Vol. VI, pp. 1438-1439.

52. The Director finds, based upon clear and convincing evidence, that Rangen’s use of a nonstandard measuring device with an inaccurate rating curve has resulted in under-reporting of flows at the CTR raceways and Rangen’s lodge pond dam.

VI. Historical Spring Flows

53. Notwithstanding Rangen’s use of inaccurate rating tables and under-reporting of its flows, it is clear that spring flows in the area of the Curren Tunnel have declined significantly. IDWR Staff Memorandum, Ex. 3203, p. 2. In 1966, Rangen’s reported hatchery flows averaged 50.7 cfs. Rangen Ex. 1075. In 2012, spring complex flows averaged just 14.6 cfs. *Id.* If one redetermines Rangen’s reported flows using Pocatello’s estimated measurement error of 15.9% since 1980, the declines in flow rate from the Rangen springs have been dramatic. Even if the 15.9% correction is applied to the 2012 spring complex discharge, flows declined by over 33 cfs between 1966 and 2012.

54. Discharge from the mouth of Curren Tunnel has been measured by the Department since 1993. Pocatello, Ex. 3650, p. 5. The measured discharge does not include flow in the 6-inch PVC pipe. The sum of the tunnel discharge and flow in the 6-inch PVC pipe represents the flow available from the Curren Tunnel source. Rangen began submitting flow data for the 6-inch PVC pipe to the Department in 1996. Sullivan used data available from 1996 through 2011 to extrapolate Curren Tunnel flows prior to 1996. *Id.* Sullivan estimated the

average annual tunnel flow in 1966 was 32.1 cfs.⁷ Pocatello, Ex. 3650, Table A-5. By 2011, the average annual tunnel flow had declined to 4.4 cfs. *Id.*, Table A-1.

55. There is no single reason for the decline in flow. Several anthropogenic activities on the Eastern Snake Plain caused reductions in spring flows near Rangen and throughout the Thousand Springs complex. These activities included diversion of ground water from wells, reduction in incidental recharge because of increased delivery and application efficiencies for surface water irrigation, and reductions in incidental recharge because of an overall reduction in surface water delivered for irrigation of the Eastern Snake Plain. Reduction in natural recharge derived from precipitation has also contributed to declines in spring flow. Because the Rangen spring complex is hydraulically connected to the ESPA, it is clear that ground water pumping has contributed to the decrease in discharge, but other activities have also contributed.

VII. Effects of Declining Flows on Rangen

56. Rangen argues that its ability to conduct research has been hindered because of reduced spring flows. Ramsey, Vol. III, p. 691; Kinyon, Vol. II, pp. 452,460; Rangen Ex. 1161. An important aspect of the Rangen Facility is its research. Rangen conducts experiments at its facility to: (a) improve its commercial fish food, (b) treat or prevent disease, and (c) improve its fish rearing (husbandry) techniques. Because of lower flows, Rangen is not able to conduct all the desired experiments. Ramsey, Vol. III, pp. 692-693. Rangen would conduct more research if the flows were higher. Kinyon, Vol. V, p. 1183.

57. Pocatello argues that, historically, most of Rangen's experiments have been conducted inside the hatchhouse and greenhouse, not outside in the raceways, and that outside experiments in production ponds do not generate reliable data. Woodling, Vol. VI, pp. 1239-1240. Pocatello references a Rangen analysis suggesting that more reliable data could be generated from studies in the greenhouse as opposed to the outside raceways. Woodling, Vol. VI, p. 1246. Rangen's response to this argument is that its clients want experiments in outdoor raceways in a production-type setting, not a laboratory setting, and that Rangen would conduct experiments in the outdoor raceways if more water were available. Ramsey, Vol. III, pp. 697-698. For example, Rangen testified it would experiment with fishmeal replacements. Kinyon, Vol. V, p. 1185; Ramsey, Vol. V, p. 1197. Rangen testified to numerous other studies it would undertake. Kinyon, Vol. V, pp. 1184-1186; Ramsey, Vol. V, pp. 1198-1199.

58. Pocatello also argues that if Rangen wants to undertake outside studies, it should modify the way it conducts raceway studies and initiate fish tagging studies instead. Woodling, Vol. VI, pp. 1249-1250. Pocatello suggests Rangen would then need only two raceways and would gather better data. Pocatello recognizes that its suggested alternative study method would require much more manpower to complete, but suggests Rangen can find volunteers with the Idaho State Fish and Game or Idaho Power Company ("Idaho Power").

⁷ Pocatello's Ex. 3650, Table A-5 is based on Rangen's reported values for flow in the CTR raceways and lodge pond dam. The values in Table A-5 do not incorporate Pocatello's correction of Rangen's reported values based on comparison with the USGS data.

59. Rangen also argues that its ability to raise more fish has been hindered because of the reduced flows. Tate, Vol. IV, pp. 867-868. There currently is sufficient water available to the hatchery and the greenhouse to raise more fish should Rangen desire to do so. Tate, Vol. IV, p. 894. The bottleneck for raising more fish is the outside raceways. Rangen has sufficient water to operate the small raceways during some parts of the year but not others. *Id.*, p. 895. Rangen could open up the other raceways and add more fish if it had more water. Tate, Vol. IV, pp. 868, 905-906. Furthermore, while the water may be sufficient to satisfy its existing contractual obligations, Rangen would raise more eggs in the hatchhouse than are currently being raised if it had more water in other parts of the facility to put those fish, when the fish are grown out. Ramsey, Vol. III, p. 719.

60. Rangen argues that it employs many fewer people now than it once did. Kinyon, Vol. II, p. 452. There may be multiple reasons for a reduction in employees, including a slump in the fish hatchery industry. Church, Vol. VIII, pp. 1965, 1974.

VIII. Rangen's Use of Water

61. Rangen currently raises fish for commercial processing, research, and for public sale to fish pond operators and others. Kinyon, Vol. II, p. 474. Since 2004, Rangen has also contracted with Idaho Power to raise trout. Rangen Ex. 1141. Idaho Power stocks the fish in the Middle Snake River and American Falls Reservoir. Kinyon, Vol. II, p. 422. Raising fish for restocking is commonly referred to as raising fish for conservation purposes, and the fish are commonly referred to as conservation fish. The timing and the way Rangen raises the fish for Idaho Power is dictated primarily by the contract with Idaho Power. Kinyon, Vol. II, p. 478; Maxwell, Vol. II, p. 316; Tate, Vol. IV, p. 860.

62. Because the fish for Idaho Power are being raised for conservation purposes (as opposed to being raised for processing), Rangen is contractually required to satisfy specific flow and density indexes when raising the fish. Kinyon, Vol. II, p. 482. A flow index is a measurement of the relationship between the number and size of fish and the flow rate of water in a rearing space. The density index is a measurement of the relationship between the number and size of fish and the available rearing volume of water. Ramsey, Vol. III, p. 721; Smith, Vol. IV, p. 812. The Idaho Power's contract requires that Rangen employ a specific flow index so that the ratio of flow to fish is higher than the ratio of flow to fish when raising fish for processing purposes. Similarly, the Idaho Power contract requires that Rangen employ a specific density index so that the ratio of volume of water to fish is higher than the ratio of volume of water to fish than might be used when raising fish for processing purposes. Requiring higher flow and density indexes is a standard industry practice when raising conservation fish because the goal is to produce fish that are better able to survive in the wild and are more physically attractive to anglers. Kinyon, Vol. II, pp. 482-483. Since contracting with Idaho Power, raising fish for Idaho Power has been the main focus of Rangen's fish production efforts. The Idaho Power contract governs the timing of Rangen's purchases of its fish eggs and Rangen's movement of fish from one rearing location to another through the facility. Rangen raises some extra fish beyond those required by the Idaho Power contract. Rangen sells these extra fish for processing and other purposes.

63. IGWA and Pocatello argue Rangen's use of water is unreasonable. First, they argue Rangen is not efficiently using its water, is not efficiently raising fish at the facility, and could be raising more fish if they would take advantage of peak spring flows. They assert Rangen could be raising more fish for the Idaho Power contract, even under the density index imposed through the Idaho Power contract, Rangen could be raising more fish. Rogers, Vol. VIII, p. 1829. They argue the lack of records related to dissolved oxygen suggests Rangen is not trying to maximize fish production. *Id.*, p. 1839. They suggest that Rangen's failure to maximize the number of fish it raises is unreasonable and constitutes waste. *Id.*, p. 1849. Furthermore, they argue Rangen could be taking steps to further aerate its water, so it could raise even more fish. *Id.*, p. 1840.

64. IGWA and Pocatello also argue that Rangen's use of the water is unreasonable because Rangen is not recycling the water it has already beneficially used to raise more fish. Rogers, Vol. VIII, pp. 1843, 1866. Recycling water would require a pump-back system or reconfiguring the present system for water delivery. *Id.* Prior to filing its delivery call, Rangen considered constructing a pump-back system but ultimately rejected the idea. Courtney, Vol. I, p. 113; Courtney, Vol. II, pp. 400-404; Rangen Ex. 1203. Raceways require continuous replenishment with fresh water. Courtney, Vol. II, p. 401. Interruption of this flow would result in the loss of fish and likely a significant monetary loss. *Id.* A pump-back system would require redundant power sources and pumps to ensure that a loss of power or a pump failure would not deprive fish of water, thereby killing the fish. Courtney, Vol. I, p. 112; Courtney, Vol. II, p. 401. The cost of building the pump-back system, without the redundant power sources and pumps, was estimated to be \$116,000. Courtney, Vol. II, p. 403. The annual costs of operating the system run between \$22,000 and \$46,000. *Id.* Because of the significant costs to build the project, and other concerns about the issues of water quality and water temperature associated with a pump-back system, Rangen ultimately rejected the idea of a pump-back system. Courtney, Vol. I, p. 113. The cost of building redundant systems along with annual operating costs makes a pump-back system cost prohibitive.

65. Water must contain dissolved oxygen for fish to extract the oxygen through their gills. The minimum level of dissolved oxygen in water for rearing fish is approximately 5 to 5.5 parts per million. Smith, Vol. IV, p. 840; Rogers, Vol. VIII, p. 1828. Rangen maintains a dissolved oxygen level of approximately seven parts per million in the CTR raceways, which is at the bottom of its system. Maxwell, Vol. II, p. 320. The solubility of dissolved oxygen in the water varies because of water temperature and other factors, but a typical oxygen saturation level for water at the Rangen springs is nine parts per million. Rogers, Vol. VIII, p. 1828. IGWA and Pocatello suggest, because Rangen does not regularly measure the oxygen levels in its raceways, Rangen is not efficient in its operation. Rogers, Vol. VIII, pp. 1839-1843. They argue, if Rangen wanted to maximize its production, Rangen could further aerate its water as part of a pump-back system. *Id.*

66. Water depleted of dissolved oxygen can be aerated to restore the level of dissolved oxygen. Water can be aerated mechanically by injecting oxygen or by creating a head drop where water is exposed to oxygen in the atmosphere. Rangen does not mechanically inject oxygen. Smith, Vol. IV, p. 840. There are slight vertical drops within the Rangen Facility that provide some aeration. *Id.*

IX. Diversion Works

67. In 2004, Rangen hired SPF Water Engineering, LLC (“SPF”) to evaluate a number of projects with the intent of improving Rangen’s water supply. IGWA Ex. 2040. The evaluations were supportive technical information for grant funding applications from the Idaho Department of Commerce and Labor. *Id.*

68. SPF evaluated the possible construction of a new vertical ground water well near the upstream end of the Rangen raceways. IGWA Ex. 2040, p. 7. Ground water in a new well would have to be lifted more than 100 feet. *Id.* There were three concerns with this approach. The first concern was the pumping costs associated with lifting the water from the wells to raceways. *Id.*, pp. 7-8. The second concern was that this would require redundant systems to protect against a loss of water from failure of power or pumps. *Id.*, p. 8. The third concern was that, because of the ESPA moratorium on new appropriations, Rangen would not be able to obtain a new water right absent mitigation. *Id.*

69. A second option studied was the construction of a horizontal well at a lower elevation than the Curren Tunnel. IGWA Ex. 2040, p. 8. While SPF believed a horizontal well would increase flow to the Rangen Facility, it also believed that a horizontal well would likely decrease current discharge to the Curren Tunnel, to other springs in the vicinity of the Curren Tunnel and possibly to wells located on the rim above the Curren Tunnel. *Id.*

X. Eastern Snake Plain Aquifer

70. The ESPA is defined as the aquifer underlying an area of the Eastern Snake Plain that is about 170 miles long and 60 miles wide, excluding areas lying both south of the Snake River and west of the line separating sections 34 and 35, Township 10 South, Range 20 East, Boise Meridian. The ESPA is defined as an area having a common ground water supply. IDAPA 37.03.11.050.

71. The ESPA is highly productive and is composed predominately of fractured Quaternary basalt having an aggregate thickness that may, at some locations, exceed several thousand feet and generally decreases in thickness along the margins of the aquifer. The fractured Quaternary basalt is generally characterized by high hydraulic conductivity. The presence of interbedded sediments, a volcanic rift zone, and less permeable basalts result in lower hydraulic conductivity in some areas of the aquifer. Notable areas of lower hydraulic conductivity are in the vicinity of Mud Lake and in the Great Rift zone, which extends north to south across the plain from the Craters of the Moon to just west of American Falls Reservoir. These zones of lower hydraulic conductivity impede the transmission of water through the aquifer.

72. The ground water in the ESPA is hydraulically connected to the Snake River and tributary springs at various places and to varying degrees. One of the locations at which a direct hydraulic connection exists between the ESPA and springs tributary to the Snake River is in the Thousand Springs area. The amount of water that discharges from the aquifer to hydraulically

connected surface water sources is largely dependent on ground water elevations and hydraulic conductance.

73. Based on averages for the time period from October of 1980 through September of 2008⁸, the ESPA receives approximately 7.7 million acre feet of recharge on an average annual basis from the following sources: incidental recharge associated with surface water irrigation on the plain (5.3 million acre feet), infiltration of precipitation on non-irrigated lands (0.7 million acre feet), underflow from tributary drainage basins (1.1 million acre feet), and seepage losses from rivers and streams (0.6 million acre feet). Rangen Ex. 1273A, Figure 8.

74. Based on averages for the time period from October of 1980 through September of 2008, the ESPA discharges approximately 8.0 million acre feet on an average annual basis through the Snake River and tributary springs (5.4 million acre feet), evapotranspiration in wetlands (0.1 acre feet), and ground water withdrawals (2.5 million acre feet). *Id.*

75. For the time period from October of 1980 through September of 2008, average annual discharge from the ESPA exceeded annual average recharge by approximately 270,000 acre feet, resulting in declining aquifer water levels and declining discharge to hydraulically connected reaches of the Snake River and tributary springs. *Id.*

XI. History of ESPA Model

76. The Enhanced Snake Plain Aquifer Model (“ESPAM”) is a calibrated regional ground water model representing the ESPA. ESPAM version 1.0 (“ESPAM 1.0”) was developed by the Department working in collaboration with the Eastern Snake Hydrologic Modeling Committee (“ESHMC”), a technical committee comprised of representatives of water user groups and government agencies. ESPAM 1.0 simulated the effects of ground water pumping from the ESPA on the Snake River and tributary springs.

77. In determining a previous Rangen delivery call to be a futile call using ESPAM 1.0, former Director Dreher determined that curtailment of water rights junior to July 13, 1962 would not result in a meaningful increase in the quantity of water discharging from springs in the vicinity of the Rangen Facility. *Second Amended Order*, p. 28 (May 19, 2005).

78. Following the previous Rangen delivery call, ESPAM 1.0 was superseded by a revised and recalibrated model version 1.1 (“ESPAM 1.1”). In *Clear Springs Foods, Inc. v. Spackman*, a delivery call proceeding instituted by Clear Springs Foods, ESPAM 1.1 was used to estimate the effects of ground water pumping on the springs in the Thousand Springs area, the name for the general geographic location where Rangen diverts water. The Idaho Supreme Court upheld the Director’s application of ESPAM 1.1. *Clear Springs Foods, Inc. v. Spackman*, 150 Idaho 790, 814, 252 P.3d 71, 95 (2011).

79. In the Clear Springs Foods delivery call, a trim line was used to limit the area of curtailment simulated with ESPAM 1.1. The trim line was defined by model cells in which 10%

⁸ Volumes were calculated from the ESPAM 2.1 water budget, which extended from 1980 to 2008. Rangen Ex. 1273A.

or greater of the curtailed use would result in benefits to the Buhl to Thousand Springs reach (the reach within which Clear Springs Foods diverted water) at steady state. Because much of the benefit to the Buhl to Thousand Springs reach would occur at locations other than Clear Springs Foods' point of diversion, the Department subsequently estimated that Clear Springs Foods would receive 6.9% of the benefit accruing to the Buhl to Thousand Springs reach. Therefore, the trim line applied in Clear Springs Foods limited curtailment to areas where Clear Springs Foods was predicted to receive at least 0.69% (6.9% of 10%) of the total benefits of curtailment at steady state.

80. In the Blue Lakes delivery call, a trim line was used to limit the area of curtailment simulated with ESPAM 1.0. The trim line was defined by model cells in which 10% or greater of the curtailed use would result in benefits to the Devil's Washbowl to Buhl reach (the reach within which Blue Lakes diverted water) at steady state. Because much of the benefit to the Devil's Washbowl to Buhl reach would occur at locations other than Blue Lakes Trout Farms' point of diversion, the Department subsequently estimated that Blue Lakes Trout Farms would receive 20% of the benefit accruing to the reach. Therefore, the trim line applied in the Blue Lakes delivery call limited curtailment to areas where Blue Lakes Trout Farm was predicted to receive at least 2% (20% of 10%) of the total benefits of curtailment at steady state.

81. In 2005, the ESHMC and the Department started working on updates to ESPAM 1.1. The revision to ESPAM 1.1 was referred to as ESPAM 2.0. The model was refined and recalibrated with additional data. In particular, the model was calibrated using monthly water levels and flow targets, including measured spring discharges within 14 specific model grid cells. The springs captured and used by Rangen were measured throughout the model calibration period, and the monthly average spring discharge in the model cell where spring flows are captured by Rangen was a target for model calibration. The revision of the ESPAM was in progress when Rangen filed its Petition in December of 2011. The parties to this proceeding agreed to wait until the work on the updated model by the ESHMC was complete before going to hearing.

82. "During development of ESPAM 2.0, IDWR discovered that values from Covington and Weaver (1990) that were used to estimate discharge for Thousand Springs and springs in the Thousand Springs to Malad spring reach for calibration of ESPAM1.1 were inaccurate. These values were corrected in the calibration targets for ESPAM2.0. These corrections resulted in a significant decrease in the spring discharge target at Thousand Springs and a significant increase in spring discharge targets in the Billingsley Creek area." IDWR Staff Memorandum, Ex. 3203, p. 32. Because of these adjustments, Rangen challenged the previous determination of a futile call. The update to ESPAM 2.0 was the basis for Rangen's renewed delivery call.

83. The Director concluded that Rangen's request to apply ESPAM 2.0 to the delivery call was premature because the ESHMC had not yet completed its work on the revisions. *Prehearing Conference* (Jan. 19, 2011) (audio recording). The Director explained the remaining steps needed before ESPAM 2.0 would be ready to be applied in the proceeding. *Id.* The Director and the parties agreed to hold regular status conferences to receive reports on the status of ESPAM 2.0. *Order Continuing Prehearing Conference* at 1 (Feb. 1, 2012).

84. In July of 2012, the ESHMC determined that the calibration of ESPAM 2.0 was complete and recommended that the Department begin using ESPAM 2.0 rather than ESPAM 1.1 for ground water modeling. Email from Rick Raymondi to Gary Spackman, *ESPAM Version 2.0* (July 16, 2012). In response, an order was issued adopting ESPAM 2.0 for use in the Rangen delivery call. *Order Re: Eastern Snake Plain Aquifer Model and the Rangen, Inc. Delivery Call at 1* (July 27, 2012). However, during the preparation of the final project report, data calculation mistakes were discovered in the model input data used for calibration. Email from Rick Raymondi to ESHMC members, *ESPAM Version 2* (Oct. 4, 2012). The model was re-calibrated in November 2012, resulting in the release of ESPAM 2.1. In January of 2013, the ESHMC endorsed the use of ESPAM 2.1 in place of ESPAM 2.0. Email from Rick Raymondi to Gary Spackman, *ESPAM2.1* (Jan. 16, 2013). ESPAM 2.1 was subsequently used by the Department and the parties in this proceeding to simulate the effects of ground water withdrawals on flows available to the Rangen Facility.

XII. ESPAM 2.1 is the Best Available Science

85. “ESPAM 2.1 is a numerical groundwater model that was developed for the purpose of determining the effects of groundwater pumping on discharge to spring and river reaches, such as the Rangen spring cell.” IDWR Staff Memorandum, Ex. 3203, p. 2. “Numerical models are . . . the most robust approach for predicting the effects of groundwater pumping on surface-water discharge.” *Id.* “ESPAM 2.1 is a regional groundwater model and is suitable to predict the effects of junior groundwater pumping on discharge at the Rangen spring cell because the spring discharge responds to regional aquifer stresses, and junior groundwater pumping is a dispersed, regional aquifer stress.” *Id.* “ESPAM 2.1 . . . is an imperfect approximation of a complex physical system, but it is the best available scientific tool for predicting the effects of groundwater pumping on discharge at the Rangen spring cell and other spring and river reaches.” *Id.*

86. ESPAM 2.1 was developed in an open, collaborative environment, with guidance from the ESHMC. During development of ESPAM 2.1, decisions regarding the conceptual model, modeling methods, and modeling data were presented to the ESHMC with opportunity for committee members to provide comments and suggest alternative approaches. *Id.*, p. 3. By developing the model in collaboration with the ESHMC, the Department benefitted from the input of a number of individuals with expertise in hydrology, geology, and ground water modeling.

87. The ESHMC is comprised of professionals working on eastern Snake Plain water issues. Regular members include agency representatives (Idaho Department of Water Resources, U.S. Bureau of Reclamation (USBR), U.S. Fish and Wildlife Service, U.S. Geological Survey (USGS)), industry representatives (Idaho Power), researchers (University of Idaho, Idaho Water Resources Research Institute), and private consultants (AMEC; Brockway Engineering, PLLC; HDR, Inc.; Leonard Rice Engineers, Inc.; Principia Mathematica, Inc.; Rocky Mountain Environmental Associates, Inc.; Spronk Water Engineers, Inc.; and others) representing water users on the eastern Snake Plain. Rangen Ex. 1273A, p. 2.

88. ESPAM 2.1 incorporates the spatial distribution of recharge and groundwater pumping, a large number of water level and aquifer discharge observations, regional-scale hydrogeology, and the transient response of aquifer discharge to spatially and temporally distributed recharge and pumping. *Id.*, p. 5.

89. ESPAM 2.1 answers the following questions relevant to the Rangen water call:

- a. What is the effect of junior groundwater pumping within the ESPA on discharge at the Rangen spring cell?
- b. What portion of curtailed groundwater use will accrue to the Rangen spring cell?
- c. What portion of curtailed groundwater use will accrue to other spring cells?

90. During development of ESPAM2.1, model uncertainty was reduced through collaboration with the ESHMC and the use of model calibration tools. The ESHMC provided input on decisions about the conceptual model, calibration targets, and water budget input data. *Id.*, p. 3, Exhibit 1273A.

91. The Department evaluated the predictive uncertainty of ESPAM 2.1 by repeatedly recalibrating the model and comparing predicted impacts from ground water pumping at eight different locations in the Eastern Snake Plain. Impacts were evaluated for two targets: Clear Lakes spring and the near Blackfoot to Minidoka reach of the Snake River. Exhibit 1277, p.5. The predictive uncertainty for Clear Lakes spring was not significant for each of the eight analyses. The largest predictive uncertainty with respect to Clear Lakes spring was noted for ground water pumping in the Big Lost River area. With alternative calibrations of the model, the predicted impact of ground water pumping in the Big Lost River area on spring discharge at Clear Lakes ranged from 3% of the pumping rate to less than 1% of the pumping rate. *Id.*, p. 9. The predictive uncertainty for the near Blackfoot to Minidoka reach was not significant for pumping locations evaluated on the western side of the plain, but higher uncertainty in the near Blackfoot to Minidoka reach was noted for some pumping locations evaluated on the eastern side of the plain. *Id.*, p. 12. Lack of water level data in the Craters of the Moon area and noise in the calibration target for the near Blackfoot to Minidoka reach may contribute to higher predictive uncertainty for pumping locations evaluated on the eastern side of the plain. *Id.* There is lower uncertainty on the western side of the Great Rift. There is generally higher uncertainty on the eastern side of the Great Rift, however impacts from several pumping locations evaluated on the eastern side of the Great Rift had negligible impacts on Clear Lakes.

92. Expert witnesses employed by Rangen testified that the ESPAM 2.1 development process resulted in a very robust model with good calibration results. Colvin, Vol. X, pp. 2403-2404; Brockway, Vol. X, pp. 2296 - 2327.

93. Expert witnesses employed by junior ground water users offered criticisms of using ESPAM 2.1 for administration of water rights. The following is a summary of the criticisms offered.

- a. The time-constant transmissivity model does not adequately represent conditions in the ESPA aquifer, which is an unconfined aquifer where transmissivity may vary with time.
- b. ESPAM 2.1 does not adequately represent detailed geologic features and groundwater flow direction in the immediate vicinity of the Rangen Facility.
- c. Uncertainty in the water budget, particularly uncertainty in the spatial distribution of canal seepage within the North Side Canal Company service area, contributes to uncertainty in model predictions of impacts to spring flows in the Rangen model cell.
- d. Interpretation of calibration results indicates that ESPAM 2.1 is biased toward over-predicting impacts to spring flows in the Rangen model cell.
- e. It is not appropriate for the Department to use a regional model as a tool for the administration of water rights.

94. The experts criticizing use of ESPAM 2.1 did not offer reasonable alternatives to using ESPAM 2.1. IGWA's experts argued that "any application of ESPAM 2.1 must acknowledge and accept that there is an inherent and unquantifiable level of uncertainty in the predictions generated by the model." Brendecke, Vol. XI, p. 2741. IGWA's experts further argued that uncertainty could be acknowledged by discounting the prediction generated by the model, or by applying a zone of exclusion or trim line. Hinckley, Vol. X, pp. 2489-2498, Brendecke, Vol. XI, 2741-2743. However, IGWA's experts acknowledged that model uncertainty does not provide a definitive location for a trim line. Hinckley, Vol. XI, p. 2551.

95. Department staff and Rangen's expert witnesses responded to the above criticisms in the staff memorandum and testimony. The following is a summary of the responses offered.

- a. ESPAM 2.1 uses time-constant transmissivity to approximate conditions in the unconfined ESPA aquifer. Time-constant transmissivity models of unconfined systems are common in practice, because calibrating models with variable transmissivity is generally not feasible with state of the art calibration tools. IDWR Staff Memorandum, Ex. 3203, p. 29. Employment of time-constant transmissivity is an accepted scientific practice for modeling aquifers where drawdown is generally expected to be less than 10% of the total saturated thickness. *Id.*, p. 5.
- b. Although ESPAM 2.1 is a regional model that accounts for variation in geologic features within the constraints of a one-square-mile grid cell, ESPAM 2.1 was calibrated to observed monthly spring discharge in the Rangen model cell. These discharge data reflect local and regional geologic controls on hydrologic responses to ground water pumping and other aquifer stresses. IDWR Staff Memorandum, Ex. 3203, pp. 4, 28. Further, Dr. Brendecke explored the effects of changing the model to better represent local geologic detail and ground

water flow direction as discussed by Mr. Hinckley. Dr. Brendecke presented three alternative conceptual models (AMEC Model 1, AMEC Model 2, and the “composite model”) that he asserted resulted in a “more realistic representation of the local hydrogeology” near the Rangen Facility. IGWA Ex. 2401, p. 42. The impacts of junior groundwater pumping on the model cell containing the Rangen spring predicted by AMEC Model 1 and AMEC Model 2 were very similar to the impacts predicted by ESPAM 2.1, and do not contradict the Department staff conclusion that ESPAM 2.1 is the best available tool for predicting the impacts of groundwater pumping on the Rangen spring cell. IDWR Staff Memorandum, Ex. 3203, p. 38; Wylie, Vol. XII, p. 2925; Colvin, Vol. X, p. 2412. The calibration method used in AMEC’s “composite model” did not follow proper procedures. Wylie, Vol. XII, p. 2923. The quality of the calibration of the composite model was compromised. Colvin, Vol. X, pp. 2418-2419.

c. The ESPAM 2.1 calibration procedure allowed adjustment of several components of the water budget (including evapotranspiration, tributary underflow, recharge on non-irrigated lands, canal seepage, and non-Snake River seepage) within ranges of uncertainty determined by the ESHMC. The IDWR predictive uncertainty analysis incorporated the impact of uncertainty associated with these components of the water budget. IDWR Staff Memorandum, Ex. 3203, p. 10. Not all sources of uncertainty significantly impact every prediction. This is illustrated by the IDWR predictive uncertainty analysis, which incorporated the uncertainty associated with many of the components of the water budget and indicated that predictive uncertainty is low with respect to the response at the Clear Lakes spring cell. *Id.* Regarding the water budget in the North Side Canal Company service area, the ESPAM 2.1 water budget did simulate a reduction in incidental recharge over the calibration period, because the sum of incidental recharge and canal seepage in the North Side Canal Company service area is equal to recorded diversions less crop irrigation requirement and return flows. Canal seepage losses varied with time, because diversions varied with time. *Id.*, p. 33. Information to refine the spatial distribution of the canal seepage was not available to the Department during development of ESPAM 2.1.

d. Department staff disagree with the conclusion that calibration results indicate ESPAM 2.1 is biased to over-predict impacts to spring flows in the Rangen model cell. IDWR Staff Memorandum, Ex. 3203, pp. 39, 57. Mr. Hinckley’s and Dr. Brendecke’s arguments that the model is biased to over-predict impacts are based largely on comparison of model results with well and spring discharge data collected only after the year 2000. Ignoring data collected before 2000 compromises their interpretation. It is important to consider both older and more recent data to obtain the best representation of the physical system. IDWR staff memorandum, p. 37. The difference between recent low flow values and older historic values is the spring’s response to changes in the aquifer water budget and is critical to the prediction of the impacts of ground water pumping. *Id.*, p. 57. Contrary to IGWA’s arguments, evaluation of ESPAM2.1’s calibration results, which under-predict the difference between

flows in the 1980s and the 2000s, suggests that the model would be more likely to under-predict the impacts of ground water pumping on spring flows in the Rangen cell. *Id.* IGWA's arguments are further contradicted by the results obtained from Dr. Brendecke's alternative model (AMEC Model 2), which he states "*appears to resolve the overprediction problem noted for ESPAM 2.1 in recent years.*" IGWA Ex. 2401, p. 45. AMEC Model 2 predicts a response of 18.0 cfs in response to curtailment within the model domain, which is slightly higher than the ESPAM 2.1-predicted response of 17.9 cfs. IDWR Staff Memorandum, Ex. 3203, p. 57.

e. It is appropriate for the Department to use a regional model as a tool for conjunctive administration of water rights, because the effect of junior ground water pumping within the Eastern Snake Plain, an approximately 11,000 square mile area, on spring discharge and river reaches is a regional-scale question that cannot be addressed with a small-scale, local model. IDWR Staff Memorandum, Ex. 3203, p. 4. ESPAM 2.1 was developed specifically to predict the effect of regional aquifer stresses such as ground water pumping on river reaches and springs, including the model cell containing the Rangen spring. *Id.*, p. 2. ESPAM 2.1 incorporates much more information about the aquifer than can be considered in other predictive methods available to the Department, and incorporates data that specifically reflect how spring discharge in the Rangen cell has responded to regional aquifer stresses in the past. *Id.*, p. 4. This is the reason that numerical models are recognized by the USGS as the most robust approach for predicting the effects of groundwater pumping on surface-water discharge. *Id.*, p. 2.

96. The criticisms raised in Finding of Fact 93 fail to persuade the Director that ESPAM 2.1 should not be used in this proceeding. The Director finds, based upon clear and convincing evidence, that ESPAM 2.1 is the best technical scientific tool currently available to predict the effect of ground water pumping on flows from springs located in the Rangen cell. The Director acknowledges that there is uncertainty in the model predictions, but disagrees with IGWA's conclusion that ESPAM 2.1 is biased toward over-predicting impacts to flows at the Rangen model cell.

XIII. Prediction of Impacts of Ground Water Pumping on Curren Tunnel Flow

97. ESPAM 2.1 predicts the effect of ground water pumping on the aggregate flows from springs located within the Rangen model cell, including but not limited to the Curren Tunnel. ESPAM 2.1 cannot distinguish the water flowing from the Curren Tunnel from water discharging from other springs within the model cell. Because Rangen's water rights only authorize diversion of water from the Curren Tunnel source, the historical relationship between Curren Tunnel discharge and total spring complex discharge must be used to predict the portion of the modeled effects that will accrue to the Curren Tunnel.

98. The Department has measured discharge from the mouth of Curren Tunnel since 1993. Pocatello, Ex. 3650, p. 5. The measured discharge does not include flow in the 6-inch PVC pipe. Rangen submitted flow data for the 6-inch PVC pipe to the Department beginning in

1996. *Id.* The sum of the measured tunnel discharge and flow in the 6-inch PVC pipe represents the flow available from the Curren Tunnel source.

99. Historically, the total spring complex discharge is the sum of the flow in Rangen's CTR raceways, Rangen's lodge pond dam, and irrigation diversions from the Farmers' Box. As described in Section V above, Rangen's use of a nonstandard measuring device with an inadequate rating curve has resulted in under-reporting of flows at the CTR raceways and Rangen's lodge pond dam.

100. In Pocatello Exhibit 3650, Figure 1, Pocatello's expert witness Greg Sullivan plotted data for measured Curren Tunnel flow rates on the "y" axis and data for measured total spring flows on the "x" axis, and performed a linear regression of the data. The resulting regression line represents the historic relationship between Curren Tunnel flow and total flow in the spring complex. The slope of the regression line in Exhibit 3650, Figure 1 is the coefficient 0.7488 associated with the "x" variable and represents the change in flow at Curren Tunnel corresponding to a 1 cfs change in total spring complex flow. The increase in flow at Curren Tunnel resulting from curtailment can be computed by multiplying the predicted increase in total spring flow from ESPAM 2.1 by 0.7488. *Id.*, p. 7. This analysis used flow data reported by Rangen, and predicts that approximately 75% of curtailment benefits accruing to the model cell would accrue to Curren Tunnel. Because this analysis used Rangen's under-reported flow data, the Director finds, based upon clear and convincing evidence, that the slope of the regression line is too high.

101. Sullivan plotted another regression line using adjusted data. Pocatello Ex. 3654, Fig. 1. Data values that were under-reported were "corrected for the historical 15.9% under-measurement of flows by Rangen by multiplying the reported flows by a factor of 1.189 (computed as $1/[1-0.159]$)." *Id.*, Fn. 2. The slope of Sullivan's alternative regression line is 0.6337, which is the coefficient associated with the "x" variable. This analysis predicts that approximately 63% of curtailment benefits accruing to the model cell would accrue to Curren Tunnel. Because there is uncertainty about the accuracy of the USGS measurements used by Sullivan to adjust the under-reported data, the slope of this regression line may be too low or too high.

102. There are two reasons why the Director should apply the 63% proportion to determine the increase in Curren Tunnel flow from the total simulated increase in flow to the Rangen model cell. First, all parties agree that the data used to calculate the 75% proportion were under-reported. The alternative regression line plotted by Sullivan is a credible method to correct the under-reported data. Second, applying a 75% proportion to determine the increase in the Curren Tunnel flow may result in Rangen benefiting from its own under-reporting of flows if mitigation by direct flow to Rangen is provided in lieu of curtailment.

103. Using ESPAM 2.1, Department staff simulated curtailment of ground water rights for irrigation within the model boundaries bearing priority dates later than July 13, 1962, the priority date of Rangen's water right no. 36-02551. The simulated increase in discharge to the Rangen model cell at steady state is 17.9 cfs. IDWR Staff Memorandum, Ex. 3203, p. 6.

104. Department staff eliminated points of diversion inside the model boundary but outside the boundary of common ground water supply as described in Rule 50 of the Department's Conjunctive Management Rules. After the removal of these points of diversion from the simulation, the model predicted a total of 16.9 cfs of reach gains to the Rangen cell attributable to modeled curtailment of junior ground water diversions within the area of common ground water supply at steady state.

105. In model simulations of curtailment for each model cell, Department staff determined the percentage of water that would ultimately accrue to the Rangen cell and the percentage that would ultimately accrue to other spring cells or river reaches. These percentages will be referred to hereafter as a "depletion percentage" of ground water pumping on the Rangen model cell. For example, if 10 cfs of ground water pumping is modeled within a given model cell and the modeled decrease in discharge at the Rangen cell is 0.1 cfs, the depletion percentage for points of diversion within that model cell is 1%. In this example, the simulated decrease in discharge and depletion percentage for all other springs and river reaches are 9.9 cfs and 99%, respectively. A map of the ESPA showing the depletion percentage for each model cell with respect to spring discharge in the Rangen cell is provided in Figure 1. IDWR Staff Memorandum, Ex. 3203, p. 9.

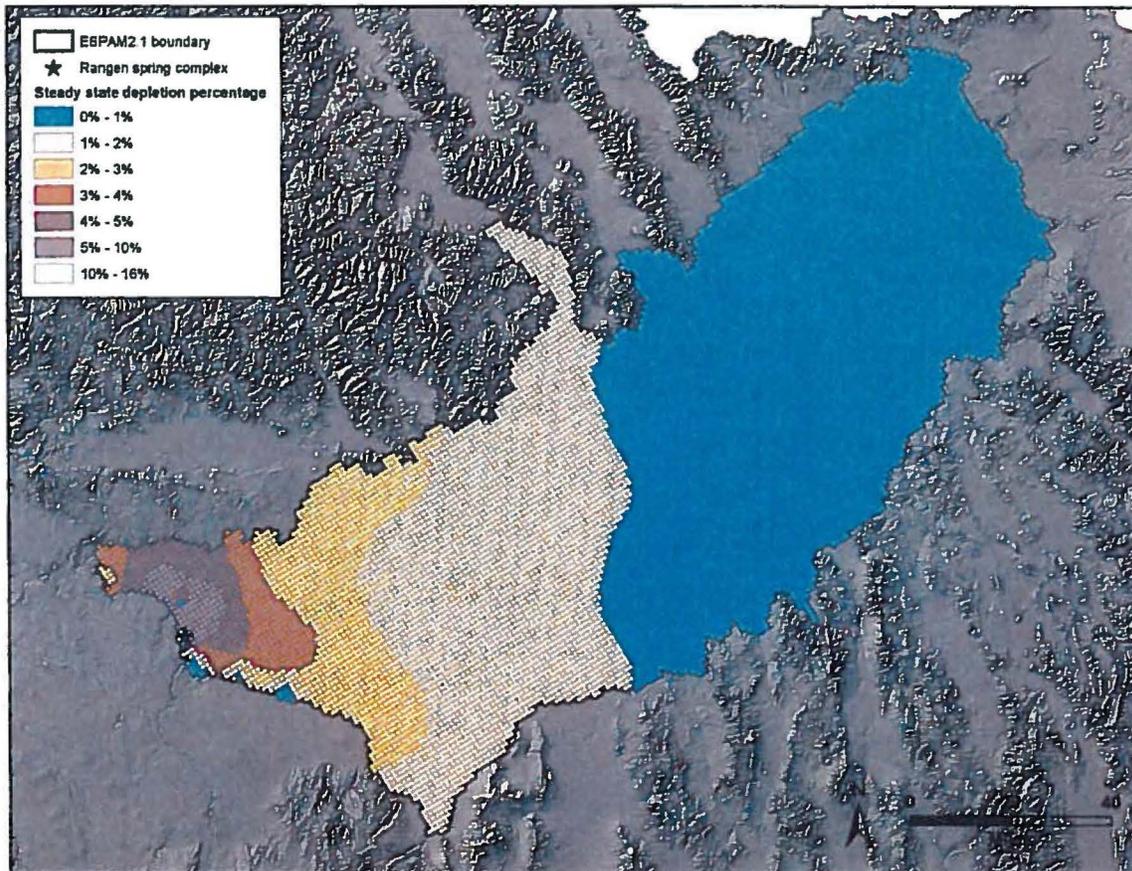


Figure 1. Depletion percentages indicating the portion of curtailed ground water use predicted to accrue to the Rangen model cell.

106. Department staff used ESPAM 2.1 to predict the benefit to discharge in the Rangen model cell resulting from curtailment within areas bounded by various depletion percentages. See Figure 2 below, taken from IDWR Staff Memorandum, Ex. 3203, p. 51. For each depletion percentage, the predicted increase in discharge in the Rangen model cell was plotted against the number of curtailed acres.

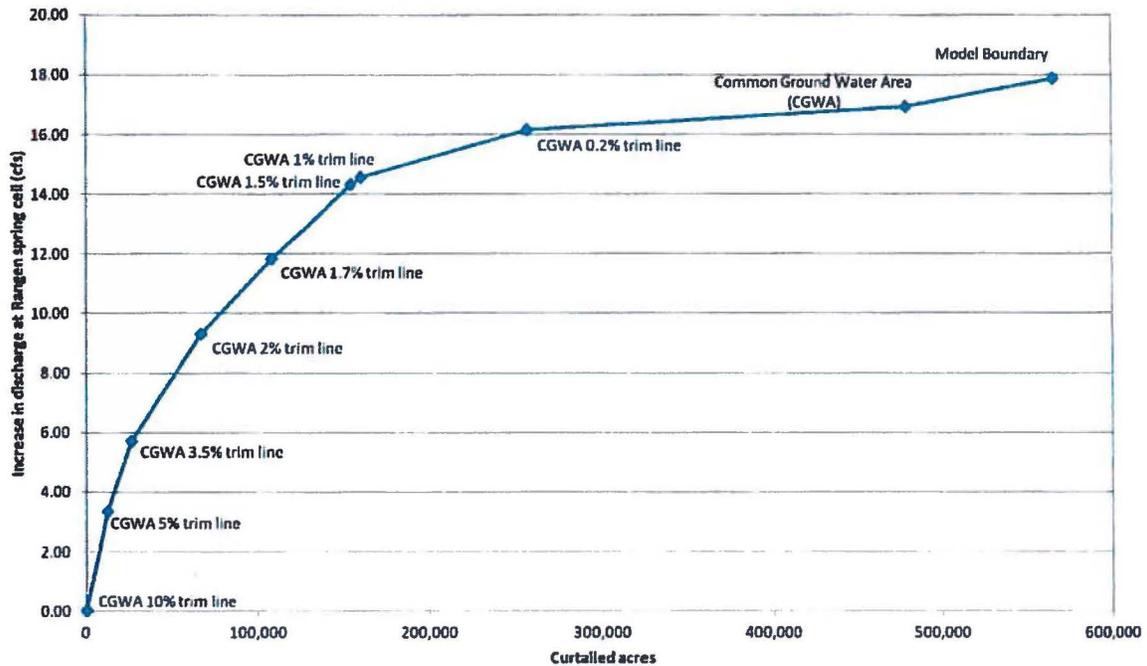


Figure 2. Acres of ground water irrigation curtailed and simulated increase in spring discharge in the model cell.

This chart illustrates that the benefit of curtailment with respect to the number of acres curtailed diminishes significantly where the depletion percentage approaches 1.0 to 1.5% and the benefit approaches approximately 14.3 to 14.6 cfs.

107. Because Rangen is only entitled to the portion of the benefit that is predicted to accrue to Curren Tunnel, a revised chart was prepared (Figure 3). This chart also illustrates that the benefit of curtailment with respect to the number of acres curtailed diminishes significantly where the depletion percentage for the Rangen model cell approaches 1.0 to 1.5% and the corresponding benefit to Curren Tunnel approaches approximately 9.0 to 9.2 cfs.

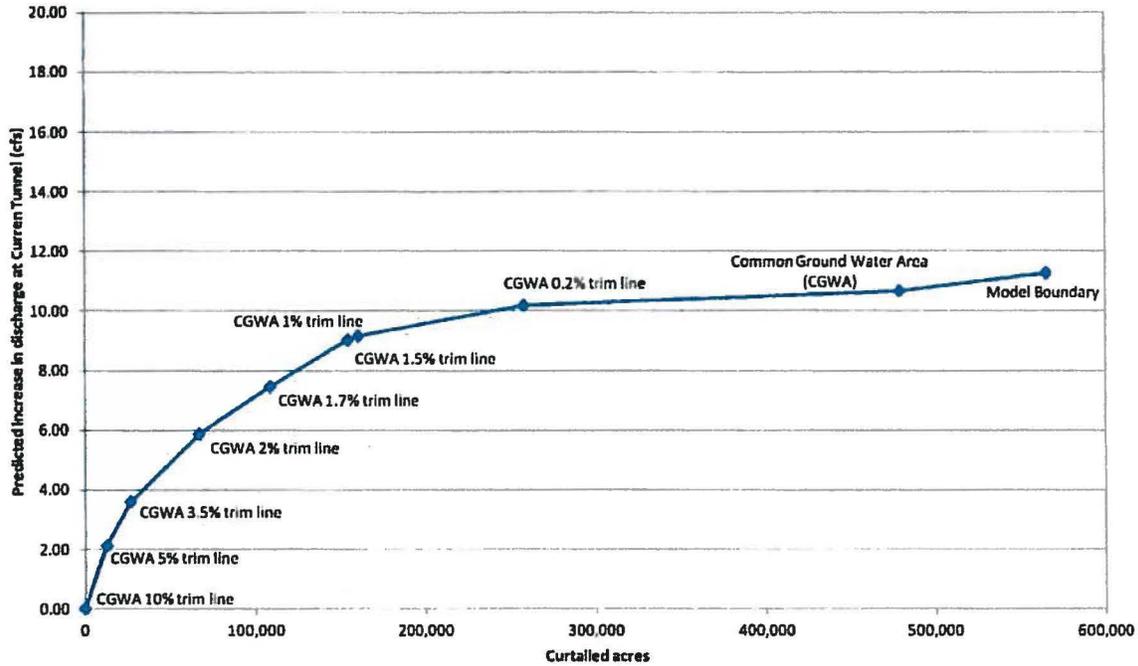


Figure 3. Acres of ground water irrigation curtailed and predicted increase in spring discharge from Curren Tunnel.

108. The diminishing benefits correspond with the location of the Great Rift (Figure 4), where low transmissivity impedes the transmission of water through the aquifer. IDWR Staff Memorandum, Ex. 3203, p. 8.

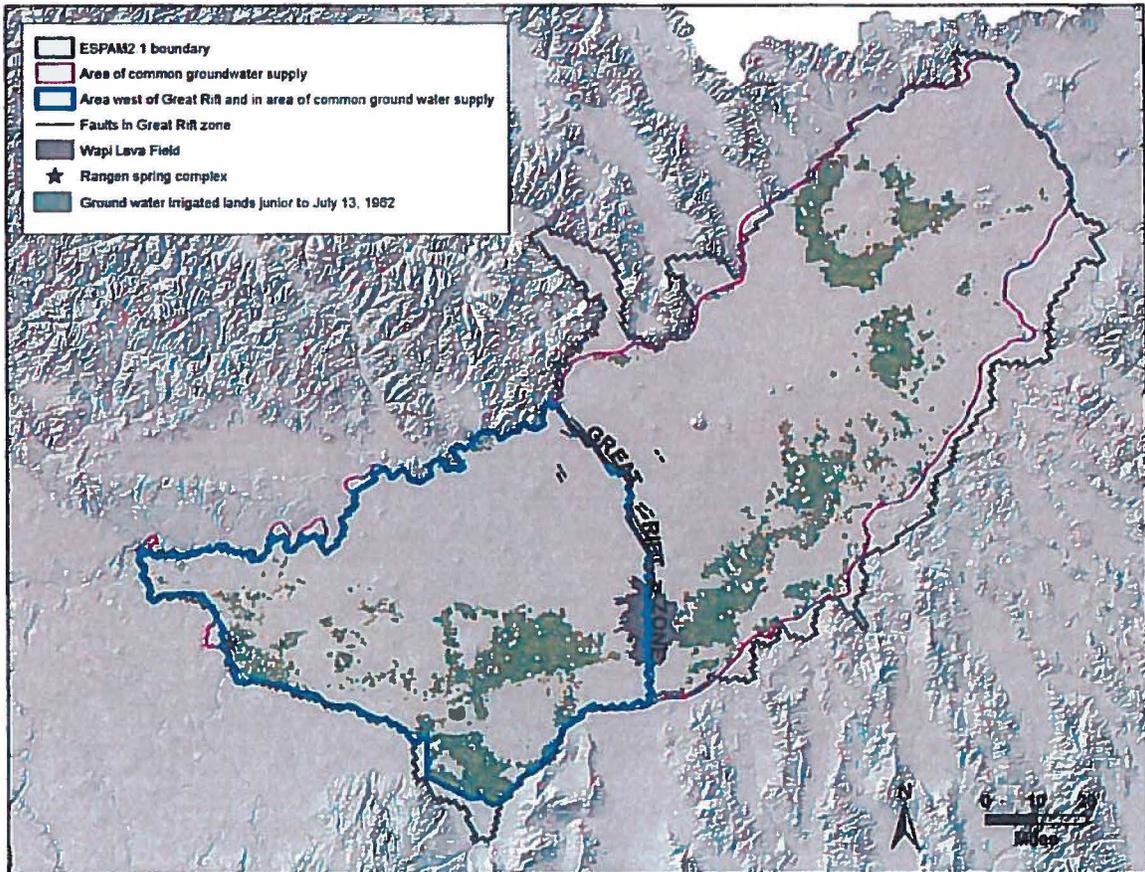


Figure 4. Delineation of area west of the Great Rift.

109. If ground water points of diversion located east of the Great Rift are eliminated from the simulation (Figure 5), ESPAM 2.1 predicts the curtailment of the remaining junior wells in the area of common ground water supply would accrue 14.4 cfs of benefit to the Rangen model cell at steady state. The predicted increase in discharge to Curren Tunnel is 9.1 cfs (63% of 14.4 cfs).

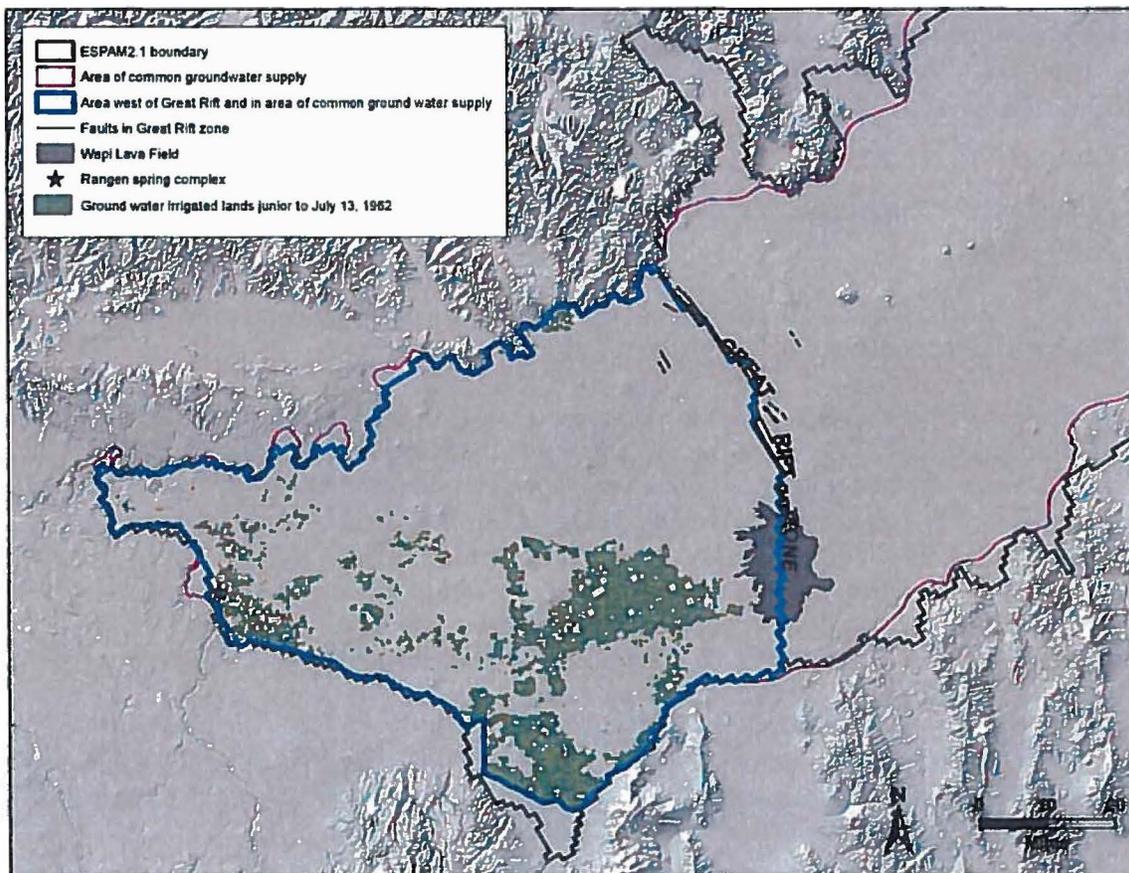


Figure 5. Junior ground water irrigated lands within area of common ground water and west of the Great Rift.

110. Curtailment of junior ground water irrigation west of the Great Rift would curtail irrigation of approximately 157,000 acres, resulting in curtailment of irrigation of approximately 17,000 acres per cfs of predicted benefit to the Curren Tunnel. Curtailment of junior ground water irrigation east of the Great Rift would curtail irrigation of approximately 322,000 additional acres, resulting in curtailment of irrigation of approximately 204,000 acres per cfs of predicted benefit to the Curren Tunnel.

111. While Curren Tunnel discharge will continue to vary with climate and surface water irrigation practices, historic values can be used to evaluate the range of flow rates that can be expected to be available from Curren Tunnel if junior ground water use is curtailed. From the

time the Department began measuring Curren Tunnel discharge in 1993, the maximum annual average discharge measured at the mouth of the tunnel was 18.2 cfs in 1997. Pocatello Ex. 3650, Table A-1. Including the discharge from the 6-inch PVC pipe, the annual average flow available from Curren Tunnel in 1997 was 19.1 cfs. *Id.* The lowest average annual flow available from Curren Tunnel was 3.1 cfs in 2005. *Id.* The average annual flow has not exceeded 7 cfs since 2002. *Id.* Because the predicted increase in Curren Tunnel flow from curtailing ground water rights junior to July 13, 1962 within the area of common ground water supply and west of the Great Rift is 9.1 cfs, the average annual discharge from Curren Tunnel after several years of curtailment within the model boundary is expected to be less than 17 cfs.

CONCLUSIONS OF LAW

I. Idaho Law Applicable to the Distribution of Water Under the Prior Appropriation Doctrine

1. Idaho Code § 42-602, addressing the authority of the Director over the supervision of water distribution within water districts, provides:

The director of the department of water resources shall have direction and control of the distribution of water from all natural water sources within a water district to the canals, ditches, pumps and other facilities diverting therefrom. Distribution of water within water districts created pursuant to section 42-604, Idaho Code, shall be accomplished by watermasters as provided in this chapter and supervised by the director. The director of the department of water resources shall distribute water in water districts in accordance with the prior appropriation doctrine. The provisions of chapter 6, title 42, Idaho Code, shall apply only to distribution of water within a water district.

2. Idaho's Constitution provides that "[p]riority of appropriation shall give the better right as between those using the water" of the State. Idaho Const. Art. XV, § 3. "As between appropriators, the first in time is first in right." Idaho Code § 42-106.

3. Beneficial use plays an equally important role in the prior appropriation doctrine: "The prior appropriation doctrine is comprised of two bedrock principles—that the first appropriator in time is the first in right and that water must be placed to a beneficial use." *In Matter of Distribution of Water to Various Water Rights Held By or For The Benefit of A & B Irrigation Dist.*, Docket Nos. 38191, 38192, 38193, slip op. at 14 (Idaho Dec. 17, 2013). "A prior appropriator is only entitled to the water to the extent that he has use for it when economically and reasonably used. It is the policy of the law of this state to require the highest and greatest possible duty from the waters of the state in the interest of agriculture and for useful and beneficial purposes." *Washington State Sugar Co. v. Goodrich*, 27 Idaho 26, 44, 147 P. 1073, 1079 (1915).

4. Idaho Code § 42-603, which grants the Director authority to adopt rules governing water distribution, provides as follows:

The director of the department of water resources is authorized to adopt rules and regulations for the distribution of water from the streams, rivers, lakes, ground water and other natural water sources as shall be necessary to carry out the laws in accordance with the priorities of the rights of the users thereof. Promulgation of rules and regulations shall be in accordance with the procedures of chapter 52, title 67, Idaho Code.

In addition, Idaho Code § 42-1805(8) provides the Director with authority to “promulgate, adopt, modify, repeal and enforce rules implementing or effectuating the powers and duties of the department.”

5. It is the duty of a watermaster, acting under the supervision of the Director, to distribute water from the public water supplies within a water district among those holding rights to the use of the water in accordance with the respective priority of the rights subject to applicable Idaho law, including applicable rules promulgated pursuant to the Idaho Administrative Procedure Act. See Idaho Code §§ 42-602 and 607.

II. Conjunctive Management Rules

6. In accordance with chapter 52, title 65, Idaho Code, rules regarding the conjunctive management of surface and ground water were adopted by the Department, effective October 7, 1994. IDAPA 37.03.11. The Conjunctive Management Rules (“CM Rules”) prescribe procedures for responding to a delivery call made by the holder of a senior priority surface or ground water right against junior priority ground water rights in an area having a common ground water supply. IDAPA 37.03.11.001.

7. The CM Rules “give the Director the tools by which to determine ‘how the various ground and surface water sources are interconnected, and how, when, where and to what extent the diversion and use of water from one source impacts [others].’” *American Falls Reservoir Dist. No. 2 v. Idaho Dept. of Water Resources*, 143 Idaho 862, 878, 154 P.3d 433, 449 (2007) (citations omitted).

8. Generally, junior-priority ground water users are entitled to a hearing prior to curtailment. *Clear Springs Foods, Inc. v. Spackman*, 150 Idaho 790, 815, 252 P.3d 71, 96 (2011). Any hearing will determine whether the senior-priority water right holder is suffering material injury and whether both the senior-priority and junior-priority water right holders are diverting and using water efficiently without waste. IDAPA 37.03.11.040.03.

9. The burden is not on the senior-priority water right holder to re-prove an adjudicated water right. *American Falls*, 143 Idaho at 878, 154 P.3d at 449. In a delivery call, the Director must give a decree proper legal effect by establishing a presumption that the senior is entitled to his decreed quantity. *Id.* However, there may be some post-adjudication factors which are relevant to the determination of how much water is actually needed by the senior. *Id.* A determination in a delivery call proceeding that less than the decreed amount is needed must

be supported by clear and convincing evidence. *A&B Irr. Dist. v. Idaho Dept. of Water Resources*, 153 Idaho 500, 524, 284 P.3d 225, 249 (2012).

10. Once the initial determination is made that material injury is occurring or will occur, the junior then bears the burden of proving that the call would be futile or to challenge, in some other constitutionally permissible way, the senior's call. *American Falls*, 143 Idaho at 878, 154 P.3d at 449. Any defense raised, such as waste or futile call, must be proven by clear and convincing evidence. *A&B Irr. Dist.*, 153 Idaho at 517, 284 P.3d at 242.

11. Beneficial use acts as a measure and limit upon the extent of a water right. *In Matter of Distribution of Water to Various Water Rights Held By or For The Benefit of A & B Irrigation Dist.*, Docket Nos. 38191, 38192, 38193, slip op. at 14 (Idaho Dec. 17, 2013). A person claiming a right under a decree is not entitled to the use of more water than can be beneficially used. *Id.* The wasting of water is both contrary to Idaho law and is a recognized defense to a delivery call. "Neither the Idaho Constitution, nor statutes, permit...water right holders to waste water or unnecessarily hoard it without putting it to some beneficial use." *American Falls*, 143 Idaho at 880, 154 P.3d at 451. "Simply put, a water user has no right to waste water. If more water is being diverted than can be put to beneficial use, the result is waste. Consequently, Idaho law prohibits a senior from calling for the regulation of juniors for more water than can be put to beneficial use." *In the Matter of the Petition for Delivery Call of A&B Irrigation District for the Delivery of Ground Water and for the Creation of a Ground Water Management Area*, Memorandum Decision and Order on Petition for Judicial Review, Minidoka Dist. Court Case No. 2009-000647 at 31-32 (May 4, 2010) (Hon. E. Wildman).

12. The agency's experience, technical competence, and specialized knowledge may be utilized in the evaluation of the evidence. Idaho Code § 67-5251(5); IDAPA 37.01.01.600. "Somewhere between the absolute right to use a decreed water right and an obligation not to waste it and to protect the public's interest in this valuable commodity, lies an area for the exercise of discretion by the Director." *American Falls*, 143 Idaho at 880, 154 P.3d at 451. This discretion is not unfettered, nor is it to be exercised without judicial oversight. *Id.* The courts determine whether the exercise of discretion is being properly carried out. *Id.*

III. Material Injury

13. In considering a petition for delivery call, the Director must first determine whether the holder of a senior water right is suffering material injury and using water efficiently and without waste. Material injury is defined by the Conjunctive Management Rules as "[h]indrance to or impact upon *the exercise of a water right* caused by the use of water by another person as determined in accordance with Idaho Law, as set forth in Rule 42." IDAPA 37.03.11.010.14 (emphasis added). Material injury requires impact upon the exercise of a water right. *Clear Springs Foods*, 150 Idaho at 811, 252 P.3d at 92.

14. CM Rule 42 lists the factors the Director may consider in determining whether Rangen is suffering material injury and using water efficiently and without waste. Factors listed in Rule 42 solely relevant to other beneficial uses, such as irrigation, should not be considered in this delivery call. The factors relevant in this proceeding, using CM Rule 42's lettering

identifiers, include: (a) the amount of water available to Rangen from its decreed source; (b) the effort or expense of Rangen to divert water from the source; (c) whether the junior ground water rights affect the quantity and timing of when water is available; . . . (e) the amount of water being diverted and used compared to the water rights; (f) the existence of water measuring devices; (g) [i]whether Rangen's needs could be satisfied with the user's existing facilities and water supplies and [ii] the reasonableness of Rangen's diversions and activities; and (h) whether the senior water right could be met using alternate reasonable means of diversion or alternate points of diversion.

i. Amount of Water from the Source

15. The source for water right nos. 36-02551 and 36-07694 is the Curren Tunnel. The point of diversion for both water rights is described to the 10 acre tract: SESWNW Sec. 32, T7S, R14E. While Rangen has historically diverted water from Billingsley Creek at the Bridge Diversion located in the SWSWNW Sec. 32, T7S, R14E, Rangen's SRBA decrees do not identify Billingsley Creek as a source of water and do not include a point of diversion in the SWSWNW Sec. 32, T7S, R14E. A decree entered in a general adjudication such as the SRBA is conclusive as to the nature and extent of the water right. Idaho Code § 42-1420. Administration must comport with the unambiguous terms of the SRBA decrees. Because the SRBA decrees identify the source of the water as the Curren Tunnel, Rangen is limited to only that water discharging from the Curren Tunnel. Because the SRBA decrees list the point of diversion as SESWNW Sec. 32, T7S, R14E, Rangen is restricted to diverting water that emits from the Curren Tunnel in that 10-acre tract.

16. Dr. Charles Brockway ("Dr. Brockway") testified that Rangen is entitled to divert water at the Bridge Diversion (which is located outside the SESWNW) because Rangen is legally entitled to all the water that emanates from springs in the talus slope in the SESWNW. Brockway, Vol. V, p. 1074-1075. When questioned about how Rangen can legally divert water at a point not listed as a point of diversion in its SRBA decree, Dr. Brockway stated that springs arising in the SESWNW constitute a legal point of diversion. *Id.* p. 1075-1076. In other words, Dr. Brockway argues that a physical diversion structure at the springs is not necessary to declare the spring water appropriated, and that a spring itself, without any sort of diversion structure, constitutes a diversion of water.

17. First, Dr. Brockway's argument ignores the fact that the source listed on the water rights is the Curren Tunnel. Setting aside that impediment for discussion purposes, Dr. Brockway's suggestion that a spring itself constitutes a point of diversion is contrary to Idaho water law. Idaho water law generally requires an actual physical diversion and beneficial use for the existence of a valid water right. *State v. United States*, 134 Idaho 106, 111, 996 P.2d 806, 811 (2000). The only recognized exception to this rule is for instream beneficial uses of water. *Id.* Taken to its logical conclusion, Dr. Brockway's argument means that any water user could claim as his point of diversion the highest headwater of the state and then argue for protection up to the water source. This troublesome outcome underscores the problem of Dr. Brockway's argument and diminishes the credibility of his testimony.

18. Because Rangen's decreed source and point of diversion limit Rangen to only water discharging from the Curren Tunnel and diverted in the 10 acre tract, the evaluation of material injury must consider this limitation. The Director must determine whether Rangen's ability to divert water that discharges from the Curren Tunnel and is diverted in the 10-acre tract has diminished sufficiently that Rangen has been materially injured.

ii. The Existence of Water Measuring Devices

19. Although Rangen has historically measured water at the bottom of the raceways and not at the Curren Tunnel, the Department has measured the discharge of Curren Tunnel since 1993. Experts testifying on behalf of junior ground water users have established a relationship between the total spring complex discharge and the discharge of the Curren Tunnel.

20. Rangen currently measures the flows through the facility at two different locations, the CTR raceways and the lodge pond dam. While the detailed methods of measuring at these locations are considered a nonstandard measurement method, the Department has historically accepted the measurements and associated flow rates. For purposes of this decision, the Director accepts the use of the dam boards as a substitute for a standard weir, given the measurement conditions of flow over the dam boards.

21. Because Rangen used incorrect rating tables for determining flow rates, Rangen's reported historic flows were lower than actual flows. Sullivan used USGS data to determine the magnitude of error in Rangen's reported flow rates. He concluded the measurement error to be 15.9% based on the comparison of 45 measurements by the USGS between 1980 and 2012. Finding of Fact 50. Sullivan also plotted a regression line to determine the relationship between Curren Tunnel discharge and the corrected historic measurement of total spring complex discharge. Finding of Fact 101. The slope of the regression indicates that the change in discharge of Curren Tunnel is 63% of the corresponding change in total spring complex discharge. If curtailment of ground water pumping results in an increase in the total flow of the spring complex, 63% of that benefit would be realized at the Curren Tunnel. The other 37% of the benefit from curtailment would accrue to the talus slope springs below the Curren Tunnel and would not be available to water rights 36-02551 and 36-07694.

22. Because of Rangen's measurement error, the Director adopts Sullivan's corrected calculation of the proportion of the benefit to total spring flows in the Rangen model cell that would accrue to the Curren Tunnel. The Director concludes, based upon clear and convincing evidence, that a percentage of 63% should be used to compute the quantity of water the ground water users may be required to provide as mitigation to avoid curtailment.

iii. Amount of Water Diverted Compared to the Water Right

23. It is clear that spring flows have declined significantly. One of IGWA's own experts, who first visited the Rangen property back in 1976, described the declines as significant. Rogers, Vol. VIII, pp. 1899-1900. Rangen's reported hatchery flows in 1966 averaged 50.7 cfs. Finding of Fact 53. In 2012, spring complex flows averaged just 14.6 cfs. *Id.* Notwithstanding Rangen's estimated measurement error of 15.9% since 1980, the declines have been dramatic.

Even if the 15.9% correction is applied to the 2012 spring complex discharge, flows declined by over 33 cfs between 1966 and 2012. Based on the relationship between Curren Tunnel flow and total spring complex flow, the corresponding decline in Curren Tunnel discharge between 1966 and 2012 would have been approximately 21 cfs. This decline in flow is substantial, resulting in Rangen diverting significantly less than allowed under its water rights.

24. Rangen is authorized to divert up to 76 cfs pursuant to water rights 36-15501, 36-02551, and 36-07694. Rangen asserts it is not receiving the quantity of water authorized for diversion by water rights 36-02551 and 36-07694. Water rights 36-02551 and 36-07694 authorize a total diversion of 74.54 cfs.

25. An issue was raised at the hearing regarding Rangen's junior fish propagation water right, water right no. 36-07694, and the extent of its beneficial use at the time of licensing. The predicted increase in discharge to the Curren Tunnel from curtailing ground water rights junior to July 13, 1962 (the priority date for water right no. 36-02551) within the ESPAM 2.1 model boundaries, within the area of common ground water supply, and west of the Great Rift is 9.1 cfs. Finding of Fact 109. The average annual discharge from Curren Tunnel after several years of curtailment within the model boundary is expected to be less than 17 cfs. Finding of Fact 111. Because Rangen's two senior fish propagation rights, water right nos. 36-15501 and 36-02551, authorize diversion of a total of 50 cfs from Curren Tunnel, it is not expected that curtailment will ever result in more water than the two additional senior water rights are authorized to divert. Thus, the issue of extent of beneficial use for water right no. 36-07694 is never likely to arise and is moot.

iv. Existing Facilities, Water Supplies, and Needs of Rangen for Water Use

26. As a result of declining spring flows, Rangen has been hindered in its ability to exercise its water rights from the Curren Tunnel. A number of Rangen staff testified regarding the impact of the declining flows and Rangen's ability to raise more fish if Rangen had more water. Finding of Fact 59. The Director finds the testimony of Rangen's staff on this point credible. The reduction in flows from the Curren Tunnel have caused a reduction in the number of fish that Rangen could raise at the Rangen Facility and impeded Rangen's full beneficial use of water that could have been diverted pursuant to its water rights.

27. Rangen's ability to conduct the type of research it would like to conduct also has been hindered. Findings of Fact 56. The Director finds the testimony of Rangen's staff credible and concludes that the reduced flows at the Curren Tunnel have hindered the way Rangen would conduct its research.

28. Pocatello argues that if Rangen wants to undertake outside research studies, it should modify the way it conducts raceway studies and initiate fish tagging studies instead. Finding of Fact 58. Fish tagging studies require less water but requires more manpower to complete. *Id.* Pocatello suggests Rangen can get the required manpower by finding volunteers with the Idaho State Fish and Game or Idaho Power Company. *Id.* The Director finds that Pocatello's suggestion of modification of Rangen's fish study processes, while interesting, is not

required of Rangen. The Director will not dictate in detail how Rangen must conduct its studies. The Director concludes Rangen's plans for research are reasonable.

29. The ground water users argue that Rangen could be producing more fish if Rangen would rotate more fish through the Rangen Facility and if Rangen would take advantage of peak spring flows. Findings of Fact 63. The ground water users also argue Rangen has not maximized the number of fish it raises because it does not oxygenate its water, has not maximized the number of eggs it orders, and has not maximized the number of cycles of fish moving through the facility because of its Idaho Power contract.

30. While beneficial use acts as a measure and limit upon the extent of a water right, *In Matter of Distribution of Water to Various Water Rights Held By or For The Benefit of A & B Irrigation Dist.*, Docket Nos. 38191, 38192, 38193, slip op. at 14 (Idaho Dec. 17, 2013), this does not mean that a water user must maximize his beneficial use, or otherwise risk his water use be deemed inadequate or unreasonable. There could be a circumstance where a water use might be deemed no longer beneficial. "What is a beneficial use at one time may, because of changed conditions, become a waste of water at a later time." *State, Dep't of Parks v. Idaho Dep't of Water Admin.*, 96 Idaho 440, 448, 530 P.2d 924, 932 (1974) (Justice Bakes concurring specially) (citations omitted). This is not such a case. In this case, Rangen is beneficially using water by raising fish to satisfy its contract with Idaho Power and to sell fish on the open market. IGWA and Pocatello have failed to show, by clear and convincing evidence, that Rangen's water use is unreasonable. *A&B Irr. Dist. v. Idaho Dept. of Water Resources*, 153 Idaho 500, 524, 284 P.3d 225, 2249 (2012). The Director concludes Rangen's water use is reasonable.

v. Whether Ground Water Rights Affect the Quantity and Timing of When Water is Available

31. The total average annual discharge of the spring complex in the vicinity of the Rangen Facility declined over 33 cfs between 1966 and 2012 in response to changes in the ESPA water budget. Finding of Fact 53. Decreased incidental recharge associated with surface water irrigation, decreased recharge derived from precipitation, and increased ground water pumping have all contributed to declines in discharge from the spring complex in the vicinity of the Rangen Facility and from Curren Tunnel. Finding of Fact 55. While it is clear that junior-priority ground water pumping is a significant component of the ESPA water budget, quantifying the portion of the declines that is attributable to ground water pumping is complex. ESPAM 2.1 is a numerical ground water model that was developed for the purpose of determining the effects of ground water pumping on discharge to spring and river reaches. ESPAM 2.1 simulations establish that junior-priority ground water pumping is a substantial component of the decline in spring complex discharge. ESPAM 2.1 simulations predict that approximately 14 cfs of the decline to the spring complex can be attributed to junior-priority ground water pumping west of the Great Rift and in the area of common groundwater supply. The relationship between Curren Tunnel flow and total spring complex discharge indicates that approximately 9 cfs of the decline in flow from Curren Tunnel can be attributed to junior-priority ground water pumping west of the Great Rift and in the area of common groundwater supply. Finding of Fact 109.

32. As previously discussed, as a result of declining spring flows, Rangen has been hindered in its ability to exercise its water rights from the Curren Tunnel. The reduction of flows affects the number of fish Rangen raises and the research it is able to undertake. Ground water diversions have reduced the quantity of water available to Rangen for beneficial use of water pursuant to its water rights.

vi. Alternate Reasonable Means of Diversion or Alternate Points of Diversion

33. IGWA and Pocatello argue that Rangen's water needs could be met using alternate means of diversion. Specifically, they point to the report prepared by SPF in 2004 to evaluate a number of projects with the intent of improving Rangen's water supply. IGWA and Pocatello suggest that Rangen should be required to explore and implement these alternative means of diversion prior to making a delivery call. The two proposals they focus on from the SPF report are the proposals to construct a vertical well and a horizontal well at the Rangen Facility.

34. Both proposals were considered and rejected by Rangen. With the vertical well, the three concerns highlighted were: the pumping costs associated with lifting the water from the wells to raceways, the redundant power and pumping systems necessary to protect against a loss of power or pumps, and that Rangen would not be able to obtain a new water right absent mitigation because of the ESPA moratorium on new appropriations. The concern regarding the horizontal well was that such a well would likely decrease current discharge to the Curren Tunnel, decrease discharge of other springs in the vicinity of the Curren Tunnel, and possibly reduce ground water levels in wells located on the rim above the Curren Tunnel. Wayne Courtney, executive vice president for Rangen testified about the concerns with the well proposals. He explained that Rangen did not implement the proposal for alternate points of diversion because Rangen "felt that the risk was too great for any possible outcome." Courtney, Vol. I, p. 111-112. Rangen was concerned that new wells might damage the geohydrology of the area and would actually injure the existing springs and injure water users that rely on the springs for their water. *Id.* at 112. The Director concludes that Rangen's reasons for rejecting the proposals are reasonable. IGWA and Pocatello have failed to show, by clear and convincing evidence, that Rangen's means of diversion is unreasonable. The Director concludes that Rangen employs "reasonable diversion and conveyance efficiency and conservation practices" in diverting water from the Curren Tunnel.

vii. Effort or Expense to Divert Water from the Source

35. Because the method of diversion is reasonable, the effort and expense by Rangen to divert water from the source is also reasonable.

IV. Conclusion Regarding Material Injury

36. The Director concludes that pumping by junior ground water users has materially injured Rangen.

V. ESPAM 2.1 Results and Area of Common Ground Water

37. ESPAM 2.1 is a technical improvement to ESPAM 1.1 in part because ESPAM 2.1 was calibrated to monthly observations of spring discharge within individual model cells and is capable of simulating the impacts of depletions from or accretions to the aquifer on spring discharge within those model cells. ESPAM 1.1 was calibrated to significantly fewer spring discharge data. ESPAM 1.1 was only capable of simulating depletions from or accretions to a group of springs that, in total, contribute water to larger segmented reaches of the Snake River. In ESPAM 2.1, spring discharge in the model cell where Rangen's water is derived was a target used for calibration of the model. The outflow of water in the vicinity of the Rangen Facility was identified as a model calibration target because flows from the Rangen Facility had been measured over a sufficiently long period of time and with enough frequency.

38. Idaho courts previously held that ESPAM 1.1 was the best scientific tool for estimating the impact of pumping on spring flows. Recognizing that every model is an approximation of physical reality, ESPAM 2.1 is a technical improvement to ESPAM 1.1 and is the best available science for simulating the impacts of ground water pumping. There is no other technical instrument as reliable as ESPAM 2.1 that can be used to determine the effects of ground water pumping on the ESPA and hydraulically-connected reaches of the Snake River and its tributaries. Accordingly, the outputs from ESPAM 2.1 simulations will be used to determine impacts to total flow in the Rangen spring complex.

39. ESPAM 2.1 simulations determined that curtailment of ground water diversions authorized by priority dates earlier than July 13, 1962 would result in a total increase in flow in the Rangen model cell of 17.9 cfs.

40. Rule 50 of the CM Rules delineates the boundaries of the ESPA area of common ground water supply. The delineated area is the area within which the Director is currently authorized to administer junior priority ground water rights to satisfy senior priority surface water rights. Any curtailment of junior ground water rights in this matter will be limited to water rights with points of diversion within the delineated area of common ground water supply.

41. IDWR is only authorized to curtail diversions within the area of common ground water supply described by Rule 50 of the CM Rules. Removing water right points of diversion outside of the area of common ground water supply reduces the total simulated increase in flows in the Rangen model cell to 16.9 cfs.

VI. Trim Line

42. The applicability of a trim-line was previously litigated in the Clear Springs delivery call. *Clear Springs*, 150 Idaho 790, 812, 252 P.3d 71, 93 (2011). In *Clear Springs*, the Department used ESPAM 1.1 to determine effects of ground water pumping, just as ESPAM 2.1 is being applied in this proceeding. *Clear Springs*, 150 Idaho at 814, 252 P.3d at 95. With ESPAM 1.1, former Director Dreher found that "the degree of uncertainty associated with application of the [Aquifer] ground water model is 10 percent" and based on that level of

possible uncertainty, he limited the number of junior water right curtailed. *Clear Springs*, 150 Idaho at 812-13, 252 P.3d at 93-94 (bracketed language in original).

43. In the Clear Springs delivery call, the 10% trim line was applied based on accrual of the benefits of curtailment to the Buhl to Thousand Springs reach, which contained multiple ESPAM model cells and several other springs not diverted by the calling party. The calling party was estimated to receive 6.9% of the benefits accruing to the Buhl to Thousand Springs reach. In the Clear Springs delivery call, the trim line limited curtailment to areas where the calling party would receive at least 0.69% (6.9% of 10%) of the benefits of curtailment.

44. Because the 10% trim line applied in Clear Springs delivery call was based on model predictions of impacts to a multi-cell reach containing several springs, applying a 10% trim line based on model predictions of impacts to a single model cell, as proposed by IGWA, would result in a significantly different standard than was applied in the Clear Springs delivery call.

45. Similarly, in the Blue Lakes delivery call, the 10% trim line was applied based on accrual of the benefits of curtailment to the Devil's Washbowl to Buhl reach, which contained multiple ESPAM model cells and several other springs not diverted by the calling party. The calling party was estimated to receive 20% of the benefits accruing to the Devil's Washbowl to Buhl reach. In the Blue Lakes delivery call, the trim line limited curtailment to areas where the calling party would receive at least 2% (20% of 10%) of the benefits of curtailment.

46. The district court in the Clear Springs delivery call affirmed the application of a trim line on appeal: "The evidence also supports the position that the model *must* have a factor for uncertainty as it is only a simulation or prediction of reality... ." *Clear Springs*, 150 Idaho at 816, 252 P.3d at 97 (emphasis added). Because the model is just a "simulation or prediction of reality", the district court held that "it would be inappropriate to apply the [model] results independent of the assigned margin of error." *Id.* The district court concluded "the use of a trim-line for excluding juniors within the margin of error is acceptable simply based on the function and application of a model...the Director did not abuse discretion by apply the 10% margin of error 'trim line.'" *Id.* The Idaho Supreme Court affirmed the Director's application of the trim line, finding that the Director properly exercised discretion in making the trim line determination: "The Director perceived the issue as discretionary, he acted within the outer limits of his discretion and consistently with the legal standards applicable to the available choices, and reached his decision through an exercise of reason. The district court did not err in upholding the Director's decision in this regard." *Id.* at 817, 252 P.3d at 98.

47. Substantial testimony was presented about the approximations and possible inaccuracies of using a regional model to simulate the depletions to Rangen spring complex discharge caused by ground water diversions from the ESPA. Ground water users diverting from the ESPA argued that any application of the model should acknowledge that there is an unquantifiable level of uncertainty in the predictions generated by the model by either discounting the prediction or applying a trim line. Rangen and the SWC argue that regardless of inaccuracies in the model, it is the best estimate of the impacts of junior ground water pumping on flows in the Rangen cell, therefore no trim line should be applied.

48. Because numerical models are approximations of complex physical systems, aquifer modeling is a dynamic process. ESPAM 2.1 is the result of improvements to previous versions of the model, and it will likely be improved upon through future efforts of the Department and the ESHMC. Some of the criticisms of the model have merit, and may be addressed in future versions of the model as data availability and improvements in computing technology allow. While there is the potential to improve the model given additional time and resources, ESPAM 2.1 is currently the best available scientific tool. Imperfections in the model should not preclude the Department from using the model as an administrative tool, and should not be the basis for using other predictive methods that have less scientific basis. The Director concludes that ESPAM 2.1 predicted responses to curtailment are the best available predictions.

49. Because of the complexity of the model, the margin of error associated with model predictions cannot be quantified. The lack of a quantifiable margin of error associated with the model does not mean that the model should be abandoned, but simply that its use should be tempered with the fact that it is a "simulation or prediction of reality." The Director concludes that there is uncertainty in the predicted increase in spring flow resulting from curtailment and that the actual response may be lower or higher than predicted. This variance should be taken into consideration when considering a trim line.

50. The Curren Tunnel and the Rangen spring complex are located west of the Great Rift, a low transmissivity feature that impedes the transmission of water through the aquifer Finding of Fact 108, Figure 4. While there is some predicted depletion of Curren Tunnel discharge attributable to points of diversion east of the Great Rift, the contribution is small. ESPAM 2.1 establishes, by clear and convincing evidence, that the portion of benefits of curtailed ground water use east of the Great Rift that would accrue to the Rangen spring complex is generally less than 1%. Finding of Fact 105, Figure 1. The benefit of curtailment with respect to the number of acres curtailed diminishes significantly if areas east of the Great Rift are included in the curtailment. Finding of Fact 107, Figure 3. The argument that no trim line is appropriate was considered and rejected in *Clear Springs*. The effect of the Great Rift on propagation of impacts to Curren Tunnel should be taken into consideration when deciding on a trim line.

51. Delineating a trim line using the Great Rift will limit curtailment to an area where the Rangen spring cell is predicted to receive at least 1% of the benefits of curtailment, and the calling party is predicted to receive at least 0.63% of the benefits of curtailment. This is similar to the trim lines applied to ESPAM 1.1 in the Clear Springs delivery call and the Blue Lakes delivery call, where the calling parties were predicted to receive 0.69% and 2% of the curtailed benefits, respectively.

52. The Idaho Supreme Court stated, "Given the nature of the decisions which must be made in determining how to respond to a delivery call, there must be some exercise of discretion by the Director." *American Falls*, 143 Idaho at 875, 154 P. 3d at 446. The Director perceives this issue of a trim line as one of limited discretion and applies the legal standards established by Idaho courts. *Clear Springs*, 150 Idaho at 813, 252 P.3d at 94.

53. The Director must consider the diminishing benefits of curtailment beyond the Great Rift. An appropriator is not entitled to command the entirety of large volumes of water in a surface or ground water source to support his appropriation contrary to the public policy of reasonable use of water. CM Rule 20. Demand should be viewed in light of reasonableness and optimum development of water resources in the public interest. CM Rules 20 and 42; *American Falls*, 143 Idaho at 876-80, 154 P.3d at 447-51; *Clear Springs*, 150 Idaho at 807-10; 252 P.3d at 88-91; *In Matter of Distribution of Water to Various Water Rights Held By or For The Benefit of A & B Irrigation Dist.*, *supra*, slip op. at 13-17.

54. “The policy of the law of this State is to secure the maximum use and benefit, and least wasteful use, of its water resources.” *Clear Springs*, 150 Idaho at 808, 252 P.3d at 89 (quoting *Poole v. Olaveson*, 82 Idaho 496, 502, 356 P.2d 61, 65 (1960)). The Idaho Constitution enunciates a policy of promoting optimum development of water resources in the public interest. *Baker v. Ore-Ida Foods, Inc.*, 95 Idaho 575, 584, 513 P.2d 627, 636 (1973); Idaho Const. Art. XV, § 7. “There is no difference between securing the maximum use and benefit, and least wasteful use, of this State’s water resources and the optimum development of water resources in the public interest. Likewise, there is no material difference between ‘full economic development’ and the ‘optimum development of water resources in the public interest.’ They are two sides of the same coin. Full economic development is the result of the optimum development of water resources in the public interest.” *Clear Springs*, 150 Idaho at 809, 252 P.3d at 90. “The policy of securing the maximum use and benefit, and least wasteful use, of the State’s water resources applies to both surface and ground waters, and it requires that they be managed conjunctively.” *Clear Springs*, 150 Idaho at 809, 252 P.3d at 90.

55. Low transmissivity impedes the transmission of water through the aquifer at the Great Rift. Finding of Fact 108. This low transmissivity causes the benefit of curtailment compared to the number of acres curtailed to diminish significantly. As provided in Findings of Fact 105 through 108, generally less than 1% of the benefits of curtailment of water users east of the Great Rift will accrue to the Rangen spring cell. Even less will be expected to accrue to the Curren Tunnel. Curtailment of junior ground water irrigation west of the Great Rift would dry up approximately 157,000 acres, resulting in curtailment of irrigation of approximately 17,000 acres per cfs of predicted benefit to the Curren Tunnel. Finding of Fact 110. Curtailment of junior ground water irrigation east of the Great Rift would dry up approximately 322,000 additional acres, resulting in curtailment of irrigation of approximately 204,000 acres per cfs of predicted benefit to the Curren Tunnel. *Id.* In addition, there is uncertainty in the model. There is lower predictive uncertainty on the western side of the Great Rift. Finding of Fact 91. There is generally higher predictive uncertainty on the eastern side of the Great Rift, however impacts from several pumping locations evaluated on the eastern side of the Great Rift had negligible impacts on the spring cell evaluated in the Department’s predictive uncertainty analysis. *Id.* Uncertainty in the model justifies use of a trim line. *Clear Springs*, 150 Idaho at 816, 252 P.3d at 97. The Director concludes curtailment of ground water diversions on the east side of the Great Rift is not justified. To curtail junior ground water users east of the Great Rift would be counter to the optimum development of Idaho’s water resources in the public interest and the policy of securing the maximum use and benefit, and least wasteful use, of the State’s water resources. This conclusion is consistent with previous conclusions regarding trim lines applied in *Clear Springs* delivery call and the *Blue Lakes* delivery call.

56. Eliminating water rights with points of diversion east of the Great Rift results in a simulated curtailment benefit to the Rangen model cell of 14.4 cfs at steady state.

57. The predicted curtailment benefit to the Curren Tunnel, computed as 63% of the simulated curtailment benefit to the Rangen model cell, is 9.1 cfs.⁹

VII. Rule 40 Call Determination

58. Rule 40 of the CM Rules provides in relevant part that upon a determination of material injury:

[T]he Director, through the watermaster, shall:

...

Regulate the diversion and use of water in accordance with the priorities of rights of the...ground water users whose rights are included within the district, provided, that regulation of junior-priority ground water diversion and use where the material injury is delayed or long range may, by order of the Director, be phased-in over not more than a five-year (5) period to lessen the economic impact of immediate and complete curtailment; or [a]llow out-of-priority diversion of water by junior-priority ground water users pursuant to a mitigation plan that has been approved by the Director.

...

[T]he Director shall consider whether the petitioner making the delivery call is suffering material injury to a senior-priority water right and is diverting and using water efficiently and without waste, and in a manner consistent with the goal of reasonable use of surface and ground waters as described in Rule 42. The Director will also consider whether the respondent junior-priority water right holder is using water efficiently and without waste.

IDAPA 37.03.11.40.

59. In the material injury analysis above, the Director considered whether Rangen is diverting and using water efficiently, without waste, and in a matter consistent with the goal of reasonable use. The Director concludes Rangen is diverting and using water efficiently, without waste and in a matter consistent with the goal of reasonable use. Testimony was presented at hearing regarding respondent junior-priority water right holders' use of water. The Director concludes the junior-priority water right holders are using water efficiently and without waste.

60. Because Rangen has suffered material injury, the Director will curtail ground water rights bearing dates of priority earlier than July 13, 1962, with points of diversion located both within the area of common ground water supply and west of the Great Rift as delineated in Figure 5, Finding of Fact 109.

⁹ Rangen may not be entitled to all of the predicted increase in discharge of the Curren Tunnel if senior water right holders call for delivery of water from the Curren Tunnel.

ORDER

IT IS HEREBY ORDERED that, at 12:01 a.m. on or before March 14, 2014, users of ground water holding consumptive water rights bearing priority dates junior to July 13, 1962, listed in Attachment C to this order, within the area of common ground water, located west of the Great Rift, and within a water district that regulates ground water, shall curtail/refrain from diversion and use of ground water pursuant to those water rights unless notified by the Department that the order of curtailment has been modified or rescinded as to their water rights. This order shall apply to all consumptive ground water rights, including agricultural, commercial, industrial, and municipal uses, but excluding ground water rights used for *de minimis* domestic purposes where such domestic use is within the limits of the definition set forth in Idaho Code § 42-111 and ground water rights used for *de minimis* stock watering where such stock watering use is within the limits of the definitions set forth in Idaho Code § 42-1401A(11), pursuant to IDAPA 37.03.11.020.11.

IT IS FURTHER ORDERED that the watermasters for the water districts within the area of common ground water, located west of the Great Rift, and who regulate ground water, are directed to issue written notices to the holders of the consumptive ground water rights listed in Attachment C to this order. The water rights on the list bear priority dates junior to July 13, 1962. The written notices are to advise the holders of the identified ground water rights that their rights are subject to curtailment in accordance with the terms of this order.

IT IS FURTHER ORDERED that holders of ground water rights affected by this Order may participate in a mitigation plan through a Ground Water District or Irrigation District if a plan is proposed by a Ground Water District or Irrigation District. The mitigation plan must provide simulated steady state benefits of 9.1 cfs to Curren Tunnel or direct flow of 9.1 cfs to Rangen. If mitigation is provided by direct flow to Rangen, the mitigation may be phased-in over not more than a five-year period pursuant to CM Rule 40 as follows: 3.4 cfs the first year, 5.2 cfs the second year, 6.0 cfs the third year, 6.6 cfs the fourth year, and 9.1 cfs the fifth year. Holders of ground water rights that are not members of a ground water district may be deemed a nonmember participant for mitigation purposes pursuant to H.B. No. 737 (*Act Relating to the Administration of Ground Water Rights within the Eastern Snake River Plain*, ch. 356, 2006 Idaho Sess. Laws 1089) and Idaho Code § 42-5259. If a mitigation plan is approved and the holder of such a junior priority ground water right elects not to join a ground water district, the Director will require curtailment.

Dated this 29th day of January, 2014.


GARY SPACKMAN
Director

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on this 29th day of January, 2014, the above and foregoing document was served on the following by providing a copy in the manner selected:

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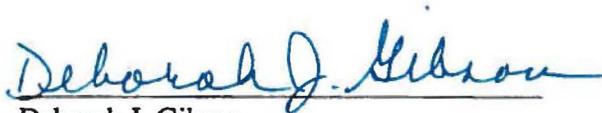
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Deborah J. Gibson
Assistant to the Director

ADDENDUM F

Order, In the Matter of Distribution of Water to Water Rights Nos. 36-02356A, 36-07210, and 36-04727 (May 19, 2005) (Blue Lakes Trout Farm, Inc.) (Without Attachments).

**BEFORE THE DEPARTMENT OF WATER RESOURCES
OF THE STATE OF IDAHO**

IN THE MATTER OF DISTRIBUTION OF)
WATER TO WATER RIGHTS NOS. 36-02356A,) **ORDER**
36-07210, AND 36-07427)
_____)

This matter is before the Director of the Department of Water Resources (“Director” or “Department”) as a result of a letter dated March 22, 2005 (“Letter”), from Gregory Kaslo of Blue Lakes Trout Farm, Inc. The Letter demands that the Director “direct the Watermaster for Water District 130 to administer water rights in the Water District as required by Idaho Code § 42-607 in order to supply Blue Lakes’ prior rights.”

Based upon the Director’s consideration of this matter, the Director enters the following Findings of Fact, Conclusions of Law, and Order.

FINDINGS OF FACT

The Eastern Snake River Plain Aquifer and the Department’s Ground Water Model

1. The Eastern Snake River Plain Aquifer (“ESPA”) is defined as the aquifer underlying an area of the Eastern Snake River Plain that is about 170 miles long and 60 miles wide as delineated in the report “Hydrology and Digital Simulation of the Regional Aquifer System, Eastern Snake River Plain, Idaho,” U. S. Geological Survey (“USGS”) Professional Paper 1408-F, 1992, excluding areas lying both south of the Snake River and west of the line separating Sections 34 and 35, Township 10 South, Range 20 East, Boise Meridian. The ESPA is also defined as an area having a common ground water supply. *See* IDAPA 37.03.11.050.
2. The ESPA is predominately in fractured Quaternary basalt having an aggregate thickness that may, at some locations, exceed several thousand feet, decreasing to shallow depths in the Thousand Springs area. The ESPA fractured basalt is characterized by high hydraulic conductivities, typically 1,000 feet/day but ranging from 0.1 feet/day to 100,000 feet/day.
3. Based on averages for the time period from May of 1980 through April of 2002, the ESPA receives approximately 7.5 million acre-feet of recharge on an average annual basis from the following: incidental recharge associated with surface water irrigation on the plain (3.4 million acre-feet); precipitation (2.2 million acre-feet); underflow from tributary drainage basins (1.0 million acre-feet); and losses from the Snake River and tributaries (0.9 million acre-feet).

4. Based on averages for the time period from May of 1980 through April of 2002, the ESPA also discharges approximately 7.5 million acre-feet on an average annual basis through sources including complexes of springs in the Thousand Springs area, springs in and near American Falls Reservoir, and the discharge of nearly 2.0 million acre-feet annually in the form of depletions from ground water withdrawals.

5. From the pre-irrigation conditions of the 1860s until the 1950s, the amount of water diverted from the Snake River and its tributaries for gravity flood/furrow irrigation increased substantially, from about 8 million acre-feet, or less, in the early 1900s to about 9.5 million acre-feet in the early 1950s. USGS Professional Paper 1408-F, p. F14. Significant quantities of the surface water diverted were in excess of crop consumptive uses and provided incidental recharge to the ESPA above the average incidental recharge of 3.4 million acre-feet described in Finding 3 for the May 1980 through April 2002 time period. Ground water levels across the ESPA responded by rising at many locations. For example, the average rise in ground water levels near Jerome, Idaho, and near Fort Hall, Idaho, was 20 to 40 feet over several tens of years. The average rise in ground water levels west of American Falls was 60 to 70 feet. USGS Professional Paper 1408-A, p. A40. As a result, spring discharges in the Thousand Springs area correspondingly increased based on USGS data as shown on Attachment A.

6. Beginning in about the 1960s to 1970s time period through the most recent years, the total combined diversions of natural flow and storage releases above Milner Dam for irrigation using surface water supplies have declined from an average of nearly 9 million acre-feet annually to less than 8 million acre-feet annually, notwithstanding years of drought, because of conversions from gravity flood/furrow irrigation to sprinkler irrigation in surface water irrigation systems and other efficiencies implemented by surface water delivery entities. The measured decrease in cumulative surface water diversions above Milner Dam for irrigation reflects the fact that less water is generally needed in the present time to fully irrigate lands authorized for irrigation with a certain crop mix under certain climatic growing conditions than was needed in the 1960s to 1970s for the same lands, crop mix, and climatic growing conditions. With parallel appropriations of ground water, which dramatically increased beginning in about 1950, ground water levels across the ESPA have responded by declining at most locations where levels had previously risen, exacerbated by the worst consecutive period of drought years on record for the upper Snake River Basin. As a result, spring discharges in the Thousand Springs area have correspondingly declined based on USGS data as also shown on Attachment A.

7. The ground water in the ESPA is hydraulically connected to the Snake River and tributary surface water sources at various places and to varying degrees. One of the locations at which a direct hydraulic connection exists between the ESPA and springs tributary to the Snake River is in the Thousand Springs area.

8. Hydraulically-connected ground water sources and surface water sources are sources that within which, ground water can become surface water, or surface water can become ground water, and the amount that becomes one or the other is largely dependent on ground water elevations.

9. When water is pumped from a well in the ESPA, a conically-shaped zone that is drained of ground water, termed a cone of depression, is formed around the well. This causes surrounding ground water in the ESPA to flow to the cone of depression from all sides. These depletionary effects propagates away from the well, eventually reaching one or more hydraulically-connected reaches of the Snake River and its tributaries, including springs in the Thousand Springs area. When the depletionary effects reach a hydraulically-connected reach of the Snake River or the points of discharge for springs in the Thousand Springs area, reductions in flow begin to occur in the form of losses from the river, reductions in spring discharge, or reductions in reach gains to the river. The depletions to the Snake River and its tributaries increase over time, with seasonal variations corresponding to seasonal variations in ground water pumping, and then either recede over time, if ground water pumping from the well ceases, or reach a maximum over time beyond which no further significant depletions occur, if ground water pumping from the well continues from year to year. This latter condition is termed a steady-state condition.

10. Various factors determine the specific hydraulically-connected reach of the Snake River or spring complexes affected by the pumping of ground water from a well in the ESPA; the magnitude of the depletionary effects to a hydraulically-connected reach or spring complex; the time required for those depletionary effects to first be expressed as reductions in river flow or spring discharge; the time required for those depletionary effects to reach maximum amounts; and the time required for those depletionary effects to either recede, if ground water pumping from the well ceases, or reach steady-state conditions, if ground water pumping continues. Those factors include the proximity of the well to the various hydraulically-connected reaches or springs, the transmissivity of the aquifer (hydraulic conductivity multiplied by saturated thickness) between the well and the hydraulically-connected reach of the Snake River or springs, the riverbed hydraulic conductivity, the specific yield of the aquifer (ratio of the volume of water yielded from a portion of the aquifer to the volume of that portion of the aquifer), the period of time over which ground water is pumped from the well, and the amount of ground water pumped that is consumptively used.

11. The time required for depletionary effects in a hydraulically-connected reach of the Snake River or tributary springs to first be expressed, the time required for those depletionary effects to reach maximum amounts, and the time required for those depletionary effects to either recede, if ground water pumping from the well ceases, or reach steady-state conditions, if ground water pumping continues, can range from days to years or even decades, depending on the factors described in Finding No. 10. Generally, the closer a well in the ESPA is located to a hydraulically-connected reach of the Snake River or tributary springs, the larger will be the flow reductions in the hydraulically-connected reach or springs, as a percentage of the ground water depletions, and the shorter will be the time periods for depletionary effects to first be expressed, for those depletionary effects to reach maximum amounts, and for those depletionary effects to either recede or reach steady-state conditions. However, essentially all depletions of ground water from the ESPA cause reductions in flows in the Snake River and spring discharges equal in quantity to the ground water depletions over time.

12. The Department uses a calibrated ground water model to determine the effects on the ESPA and hydraulically-connected reaches of the Snake River and its tributaries from pumping a single well in the ESPA, from pumping selected groups of wells, and from surface water uses on lands above the ESPA.

13. In 2004, in collaboration with the Idaho Water Resources Research Institute, University of Idaho, U. S. Bureau of Reclamation ("USBR"), USGS, Idaho Power Company, and consultants representing various entities, including certain entities relying on the discharge of springs in the Thousand Springs area, the Department completed reformulation of the ground water model used by the Department to simulate effects of ground water diversions and surface water uses on the ESPA and hydraulically-connected reaches of the Snake River and its tributaries, including springs in the Thousand Springs area. This effort was funded in part by the Idaho Legislature and included significant data collection and model calibration intended to reduce uncertainty in the results from model simulations.

14. Below Milner Dam, the Snake River is incised and springs in the Thousand Springs area emanate from the canyon wall. The ground water model used by the Department prior to the reformulation of the model represented the Thousand Springs area as a single, hydraulically-connected, tributary reach of the Snake River. In the reformulated ground water model for the ESPA described in Finding 13, the Thousand Springs area was divided into six adjacent groupings of spring complexes, or spring reaches, based on the relative magnitude of spring discharge as follows:

- a. Devil's Washbowl to the USGS stream gage located near Buhl, Idaho ("Buhl Gage") – includes springs having moderately large rates of discharge at intermittent locations;
- b. Buhl Gage to Thousand Springs – includes springs having somewhat larger average rates of discharge per river mile than in the reach Devil's Washbowl to Buhl Gage;
- c. Thousand Springs – includes springs having very large rates of discharge;
- d. Thousand Springs to Malad Gorge – includes springs having moderate discharge;
- e. Malad Gorge – includes springs having very large rates of discharge near the confluence of the Malad and Snake Rivers; and
- f. Malad Gorge to Bancroft – includes springs having relatively small rates of discharge.

15. The segment that includes the water supply for Alpheus Creek, from which Blue Lakes Trout diverts surface water, is the Devil's Washbowl to Buhl Gage spring reach. Based on measurements by the USGS, flows at the head of Alpheus Creek accounted for 20 percent of the

reach gains in the Devil's Washbowl to Buhl Gage spring reach for the steady state conditions used to calibrate the ESPA ground water model.

16. The reformulated ground water model for the ESPA was calibrated to recorded ground water levels in the ESPA, spring discharge in the spring reaches described in Finding 14, and reach gains or losses to Snake River flows, determined from stream gages together with other stream flow measurements, for the period May 1, 1980 to April 30, 2002. The calibration targets, consisting of measured ground water levels, reach gains/losses, and discharges from springs, have inherent uncertainty resulting from limitations on the accuracy of the measurements. The uncertainty in results predicted by the ESPA ground water model cannot be less than the uncertainty of the calibration targets. The calibration targets having the maximum uncertainty are the reach gains or losses determined from stream gages, which although rated "good" by the USGS, have uncertainties of up to 10 percent.

17. Discharges from springs in the segments or reaches described in Finding 14 have diminished primarily because of significant reductions in incidental recharge of the ESPA from surface water irrigation, resulting from changes in surface water irrigation systems and application practices (conversion from application by gravity flood/furrow irrigation to application by sprinkler systems), and the last five consecutive years of drought.

18. Spring discharges are also reduced as a result of ground water withdrawals from the ESPA for irrigation and other consumptive purposes, especially ground water that is diverted in relatively close proximity to the area of the springs. Simulations using the Department's calibrated computer model of the ESPA show that ground water withdrawals from certain portions of the ESPA for irrigation and other consumptive purposes cause depletions in the flow of springs discharging in the spring reaches described in Finding 14. When superimposed on diminished spring discharges resulting from changes in surface water irrigation and drought, reductions in spring discharges caused by ground water depletions under relatively junior priority water rights can potentially cause injury to senior priority water rights dependent on spring sources.

19. The Department is implementing full conjunctive administration of rights to the use of hydraulically-connected surface and ground waters within the Eastern Snake River Plain consistent with Idaho law and available information. The results of simulations from the Department's ground water model are suitable for making factual determinations on which to base conjunctive administration of surface water rights diverted from the Snake River and its tributaries and ground water rights diverted from the ESPA.

20. The Department's ground water model represents the best available science for determining the effects of ground water diversions and surface water uses on the ESPA and hydraulically-connected reaches of the Snake River and its tributaries. There currently is no other technical basis as reliable as the simulations from the Department's ground water model for the ESPA that can be used to determine the effects of ground water diversions and surface water uses on the ESPA and hydraulically-connected reaches of the Snake River and its tributaries.

Creation and Operation of Water Districts No. 120 and No. 130

21. On November 19, 2001, the State of Idaho sought authorization from the Snake River Basin Adjudication (“SRBA”) District Court for the interim administration of water rights by the Director in all or parts of the Department’s Administrative Basins 35 and 41 overlying the ESPA in the American Falls area and all or parts of Basins 36 and 43 overlying the ESPA in the Thousand Springs area. On January 8, 2002, the SRBA District Court issued an order authorizing the interim administration by the Director. After notice and hearing, the Director issued two orders on February 19, 2002, creating Water District No. 120 and Water District No. 130, pursuant to the provisions of Idaho Code § 42-604.

22. On August 30, 2002, the State of Idaho filed a second motion with the SRBA District Court seeking authorization for the interim administration of water rights by the Director in the portion of the Department’s Administrative Basin 37 overlying the ESPA in the Thousand Springs area. On November 19, 2002, the SRBA District Court issued an order authorizing the interim administration by the Director. After notice and hearing, the Director issued an order on January 8, 2003, revising the boundaries of Water District No. 130 to include the portion of Administrative Basin 37 overlying the ESPA, pursuant to the provisions of Idaho Code § 42-604.

23. On July 10, 2003, the State of Idaho filed a third motion with the SRBA District Court seeking authorization for the interim administration of water rights by the Director in the portion of the Department’s Administrative Basin 29 overlying the ESPA in the American Falls area. On October 29, 2003, the SRBA District Court issued an order authorizing the interim administration by the Director. After notice and hearing, the Director issued an order on January 22, 2004, revising the boundaries of Water District No. 120 to include the portion of Administrative Basin 29 overlying the ESPA, pursuant to the provisions of Idaho Code § 42-604.

24. Water Districts No. 120 and No. 130 were created, and the respective boundaries revised, to provide for the administration of water rights, pursuant to chapter 6, title 42, Idaho Code, for the protection of prior surface and ground water rights. As a result, the watermasters for Water Districts No. 120 and No. 130 were given the following duties to be performed in accordance with guidelines, direction, and supervision provided by the Director:

- a. Curtail illegal diversions (i.e., any diversion without a water right or in excess of the elements or conditions of a water right);
- b. Measure and report the diversions under water rights;
- c. Enforce the provisions of any stipulated agreement; and
- d. Curtail out-of-priority diversions determined by the Director to be causing injury to senior priority water rights that are not covered by a stipulated agreement or a mitigation plan approved by the Director.

25. On April 15, 2005, the State of Idaho filed three motions with the SRBA District Court seeking authorization for the interim administration of water rights by the Director in the Department's Administrative Basin 25; Basins 31, 32, and 33; and Basin 45. If the SRBA District Court authorizes interim administration in these administrative basins, nearly all ground water rights authorizing diversion of ground water from the ESPA will be subject to administration through water districts, when combined with the ground water rights already in Water Districts No. 120 and No. 130. At the time of filing Director's Reports in the SRBA later this year for the relatively few remaining ground water rights authorizing diversions from the ESPA, additional motions will be filed by the State of Idaho seeking authorization for interim administration of those remaining rights. While authorization for interim administration of the remaining ground water rights is subject to determinations to be made by the SRBA District Court, the Director anticipates that water districts covering all of the ESPA will be in place for the irrigation season of 2006, and all ground water rights authorizing diversions from the ESPA will be subject to administration through water districts established pursuant to chapter 6, title 42, Idaho Code.

26. The general location and existing boundaries for Water Districts No. 120 and No. 130 as well as the location and existing boundaries for the American Falls Ground Water Management Area are shown on Attachment B. Boundaries for a proposed addition to Water District No. 120 as well as areas for potential future water districts (Water Districts No. 110 and No. 140) are also shown on Attachment B.

Conjunctive Management Rules

27. Idaho Code § 42-603 authorizes the Director "to adopt rules and regulations for the distribution of water from the streams, rivers, lakes, ground water and other natural water sources as shall be necessary to carry out the laws in accordance with the priorities of the rights of the users thereof." Promulgation of such rules and regulations must be in accordance with the procedures of chapter 52, title 67, Idaho Code.

28. On October 7, 1994, the Director issued *Order Adopting Final Rules; the Rules for Conjunctive Management of Surface and Ground Water Resources* (IDAPA 37.03.11) ("Conjunctive Management Rules"), promulgated pursuant to chapter 52, title 67, Idaho Code, and Idaho Code § 42-603.

29. Pursuant to Idaho Code § 67-5291, the Conjunctive Management Rules were submitted to the 1st Regular Session of the 53rd Idaho Legislature (1995 session). During no legislative session, beginning with the 1st Regular Session of the 53rd Idaho Legislature, have the Conjunctive Management Rules been rejected, amended, or modified by the Idaho Legislature. Therefore, the Conjunctive Management Rules are final and effective.

30. The Conjunctive Management Rules "apply to all situations in the state where the diversion and use of water under junior-priority ground water rights either individually or collectively causes material injury to uses of water under senior-priority water rights. The rules

govern the distribution of water from ground water sources and areas having a common ground water supply.” IDAPA 37.03.11.020.01.

31. The Conjunctive Management Rules “acknowledge all elements of the prior appropriation doctrine as established by Idaho law.” IDAPA 37.03.11.020.02.

The Letter Submitted by Blue Lakes Trout Seeking Administration of Water Rights and Application of the Conjunctive Management Rules

32. On March 22, 2005, the Director received the hand-delivered Letter from Gregory Kaslo of Blue Lakes Trout Farm, Inc. demanding that the Director “direct the Watermaster for Water District 130 to administer water rights in the Water District as required by Idaho Code § 42-607 in order to supply Blue Lakes’ prior rights.”

33. The Letter stated that: “Currently, Blue Lakes is receiving 137.7 cfs. At its low point in 2003, Blue Lakes received only 111 cfs. It is very likely that Blue Lakes will experience even greater shortages during 2005. The current and ongoing water shortages have significantly reduced Blue Lakes’ production.”

34. The water rights held by Blue Lakes Trout that Kaslo sought to have protected by the administration of junior priority water rights are as follows pursuant to decrees issued by the SRBA District Court:

Water Right No.:	36-02356A	36-07210	36-07427
Source:	Alpheus Creek	Alpheus Creek	Alpheus Creek
Priority Date:	May 29, 1958	November 17, 1971	December 28, 1973
Beneficial Use:	Fish Propagation	Fish Propagation	Fish Propagation
Diversion Rate:	99.83 cfs	45.00 cfs	52.23 cfs
Period of Use:	Jan. 1 – Dec. 31	Jan. 1 – Dec. 31	Jan. 1 – Dec. 31

35. Rule 10.04 of the Conjunctive Management Rules defines a “delivery call” as: “A request from the holder of a water right for administration of water rights under the prior appropriation doctrine.” The Letter, described in Finding 32 seeking administration of water rights to supply Blue Lakes’ prior rights, comes within the definition of a delivery call.

36. Water Districts No. 36A, No. 120, and No. 130 were created pursuant to Idaho Code § 42-604. Water District No. 36A includes water rights that divert from the same source as Blue Lakes’ water rights and that are both senior in priority and junior in priority to Blue Lakes’ water rights. Other water rights in Water District No. 36A, both senior in priority and junior in

priority to Blue Lakes' rights, are diverted from other sources that are hydraulically connected through the ESPA, to varying degrees, to the source for Blue Lakes' water rights. Water rights diverted from these other sources, which are hydraulically connected through the ESPA to the source for Blue Lakes' water rights, do not interfere with or impact Blue Lakes' water rights.

37. Water District No. 120 contains water rights that are junior in priority to Blue Lakes' water rights and divert from ground water that is hydraulically connected to the source for Blue Lakes' water rights. Such water rights could potentially interfere with and potentially impact Blue Lakes' water rights.

38. Water District No. 130 contains surface water rights that divert from sources that are hydraulically connected through the ESPA to the source for Blue Lakes' water rights but do not interfere with or impact Blue Lakes' water rights. Water District No. 130 also contains water rights that are junior in priority to Blue Lakes' water rights and divert from ground water that is hydraulically connected to the source for Blue Lakes' water rights. Such water rights could potentially interfere with and potentially impact Blue Lakes' water rights.

39. Rule 40 of the Conjunctive Management Rules is titled "Responses to Calls for Water Delivery Made by the Holders of Senior-Priority Surface or Ground Water Rights Against the Holders of Junior-Priority Ground Water Rights from Areas Having a Common Ground Water Supply in an Organized Water District." Rule 40 applies to the delivery calls made by Blue Lakes against the holders of junior priority ground water rights in both Water District No. 120 and Water District No. 130.

40. Some of the junior priority ground water rights that could potentially interfere with and potentially impact Blue Lakes' water rights are not in a water district created pursuant to the provisions of Idaho Code § 42-604 because a final decree has not been issued by the SRBA District Court and the requirements for interim administration of these rights pursuant to Idaho Code § 42-1417 have not been met.

41. Rule 30 of the Conjunctive Management Rules is titled "Responses to Calls for Water Delivery Made by the Holders of Senior-Priority Surface or Ground Water Rights Against the Holders of Junior-Priority Ground Water Rights Within Areas of the State Not in Organized Water Districts or Within Water Districts Where Ground Water Regulation Has Not Been Included in the Function of Such Districts or Within Areas That Have Not Been Designated Ground Water Management Areas."

42. Rule 41 of the Conjunctive Management Rules is titled "Administration of Diversion and Use of Water Within a Ground Water Management Area."

43. The Letter described in Finding 32, seeking administration of water rights in order to supply Blue Lakes' prior rights, did not meet the requirements set forth in Rule 30 of the Conjunctive Management Rules. Also, the Letter did not seek administration of junior priority ground water rights in the American Falls Ground Water Management Area as provided in Rule 41 of the Conjunctive Management Rules. Pursuant to Rule 41, such administration could not

occur until the irrigation season of 2006, even if material injury to Blue Lakes' rights was determined to be occurring as a result of diversion and use of ground water under junior priority rights in the American Falls Ground Water Management Area.

44. While Rule 40 of the Conjunctive Management Rules is applicable to the Letter described in Finding 32, neither Rule 40 nor any other provisions of the Conjunctive Management Rules are applicable to delivery calls or demands for water distribution by the holder of a senior priority water right against the holder of a junior priority surface water right.

Authorized Diversion Rate for Water Rights Nos. 36-02356A, 36-07210, and 36-07427

45. Springs discharging in the Thousand Springs area do not discharge at a constant rate or at a rate that progressively increases or decreases from year to year. While there are overall increases or decreases in the discharge from individual springs between years (inter-year variations), there are also pronounced within-year or intra-year variations in discharge from individual springs.

46. Simplistically, overall variations between years in the discharge of springs in the Thousand Springs area result from differences between the amounts of ground water depletions and recharge to the ESPA above the springs, with delays in the response of spring discharge ranging at the extremes from days to decades depending on the proximity of ground water depletions and recharge and the other factors set forth in Finding 10. Factors affecting overall variations between years in the cumulative discharge from springs in the Thousand Springs area as well as from individual springs include but are not necessarily limited to: variations in surface water supplies available for irrigation above the ESPA, which affect cropping decisions and the amount of incidental recharge to the ESPA; changes in the amounts and timing of tributary underflow to the ESPA, which also reflect numerous variations upgradient from where tributary underflow contributes to the ESPA; inter-year variations in precipitation and temperature, which not only affect the amount of surface water used above the ESPA and associated incidental recharge to the ESPA, but also affect the quantity of ground water withdrawals and depletions from the ESPA; and differences between years in the quantity of intentional or managed recharge to the ESPA.

47. Intra-year variations in the discharge from individual springs result from the factors described in Finding 46 but also from other factors including: variations in surface water application above the ESPA and associated incidental recharge in response to seasonal changes in precipitation and temperature; variations in timing of ground water withdrawals and depletions from the ESPA in close proximity to individual springs; and the timing of intentional or managed recharge to the ESPA in close proximity to individual springs.

48. While both the regional and local factors affecting inter-year and intra-year variations in spring discharge are generally understood, the interactions between these factors are complex and the specific effects of individual factors and various combinations of factors on the discharge from individual springs are not presently quantifiable.

49. Both inter-year and intra-year variations in the discharge from the springs that are the sources for water rights nos. 36-02356A, 36-07210, and 36-07427 existed when appropriations for these rights were initiated (May 29, 1958; November 17, 1971; and December 28, 1973; respectively). There are no known measurements, nor any other means, for reasonably determining the intra-year variations in the discharges from the springs comprising the source for these water rights on the dates of appropriation for these water rights.

50. The rates of diversion authorized pursuant to water rights nos. 36-02356A, 36-07210, and 36-07427 (99.83 cfs, 45.00 cfs, and 52.23 cfs, respectively) are not quantity entitlements that are guaranteed to be available to Blue Lakes Trout. Rather, the authorized rates of diversion are the maximum rates at which water can be diverted under these rights, respectively, when such quantities of water are physically available and the rights are in priority. Blue Lakes Trout cannot call for the curtailment of junior priority water rights at all times that insufficient water is physically available to fill water rights no. 36-02356A, no. 36-07210, or no. 36-07427 at the authorized rates of diversion. Blue Lakes Trout is not entitled to a water supply that is enhanced beyond the conditions that existed at the time such rights were established; i.e., Blue Lakes Trout cannot call for the curtailment of junior priority water rights simply because seasonally the discharge from springs is less than the authorized rates of diversion for Blue Lakes' rights unless such seasonal variations are caused by depletions resulting from diversion and use of water under junior priority rights.

51. Blue Lakes Trout can only call for the distribution of water to its rights through the curtailment of junior priority ground water rights from the hydraulically-connected ESPA when such curtailment would result in a usable amount of water reaching Blue Lakes' points of diversion in time of need, and depletions causing material injury as a result of diversion and use of ground water under such junior priority rights have not been adequately mitigated.

Factors Considered in Determining Material Injury To and Reasonableness of Water Diversions Under Water Rights Nos. 36-02356A, 36-07210, and 36-07427

52. The water rights held by Blue Lakes Trout, described in Finding 34, authorize the combined or total diversion of 197.06 cfs for fish propagation purposes, with the first right for 99.83 cfs having a priority date of May 29, 1958; the second right for 45.00 cfs having a priority date of November 17, 1971; and the last right for 52.23 cfs having a priority date of December 28, 1973.

53. The measured diversions to the Blue Lakes Trout facilities, as reported to the Department, exclude the diversion of 25.3 cfs to Pristine Springs, Inc. Pristine Springs holds water right no. 36-02603C for the diversion of 25.3 cfs from Alpheus Creek for fish propagation purposes under the priority date of April 17, 1964. This right is junior in priority to Blue Lakes' first right but senior in priority to Blue Lakes' second and third rights. The quantity of water authorized for diversion under water right no. 36-02603C, 25.3 cfs, was measured as being

diverted and applied to beneficial use by the Department during the field examination confirming the extent of beneficial use under this right conducted by the Department on September 8, 1975.

54. The Pristine Springs facilities are located downstream of the Blue Lakes Trout facilities, but Pristine's water right no. 36-02603C is diverted together with the three water rights held by Blue Lakes Trout at the diversion structure on Alpheus Creek. The diversion structure on Alpheus Creek includes a 14-foot wide broad crested weir, stilling well, staff gage, and continuous recorder, and provides the inlet for a pipeline that conveys the combined diversions of Blue Lakes Trout and Pristine Springs for a distance of approximately one-third mile to a concrete control structure located at the Blue Lakes Trout facilities. At this concrete control structure, the flow is divided, and the quantity of water that Pristine Springs is authorized to use under water right no. 36-02603C (25.3 cfs maximum) is distributed to another pipeline, with the remaining water distributed to the Blue Lakes Trout facilities under its water rights.

55. The diversion structure, conveyance pipeline, and pipeline to Pristine Springs described in Finding 54 were constructed or reconstructed in the year 2000. The conveyance pipeline has a total capacity of 220 cfs¹ for conveying the total amount of water diverted under the three water rights held by Blue Lakes Trout and water right no. 36-02603C held by Pristine Springs. Prior to the reconstruction, water was diverted under the combined water rights held by Blue Lakes Trout and Pristine Springs at a shared diversion structure on Alpheus Creek, but conveyed through a canal system, a portion of which bypassed the Blue Lakes Trout facilities. The main canal from the original Alpheus Creek diversion works for Blue Lakes Trout was known and referred to as the "Perrine Ditch" or "Main Channel" in records of measured diversions maintained by the USGS.

56. Blue Lakes Trout submits records to the Department on an annual basis showing the total amount of water diverted from Alpheus Creek under its three rights. These annual submittals are for the time period beginning in March 1995. Attachment C shows the time history of total measured diversions from Alpheus Creek under the three Blue Lakes rights from March 1995 through December 2004. The flows in Alpheus Creek typically peak during the period of October through December, with the lowest flows typically occurring during the period of May through August.

57. Blue Lakes Trout has not submitted any historical measurements of the amounts of water diverted and applied to beneficial use under water rights nos. 36-02356A, 36-07210, and 36-07427 for diversions prior to March 1995. On March 1, 1977, the Department conducted a field examination confirming beneficial use for water right no. 36-07427. At that time, the total measured diversion from Alpheus Creek was 190.4 cfs, which presumably included 25.3 cfs diverted under water right no. 36-02603C held by Pristine Springs.

58. The USGS maintains field measurement records that are used to prepare and distribute USGS data reports titled "Miscellaneous Streamflow Measurements in Idaho" for

¹ EHM Engineering of Twin Falls, Idaho, designed the conveyance pipeline. On April 19, 2005, Gerald Martens, P.E., reported to Cindy Yenter, the Watermaster for Water District No. 130, that the conveyance pipeline has a maximum design capacity of 220 cfs.

various time periods. The field measurement records include periodic measurements of total diversions from Alpheus Creek into the Perrine Ditch dating back to April 1, 1958. For the USGS data report "Miscellaneous Streamflow Measurements in Idaho, 1968-2001," Basic Data Release, 2002, the supporting field records show that the maximum total diversion measured by the USGS from Alpheus Creek into the Perrine Ditch under the combined water rights held by both Blue Lakes Trout and Pristine Springs following the appropriation of Blue Lakes' last water right (no. 36-07427) was 210 cfs on November 5, 1980. Assuming Pristine Springs was receiving its full authorized quantity of 25.3 cfs, Blue Lakes Trout was receiving 184.7 cfs of the total 210 cfs diverted from Alpheus Creek into the Perrine Ditch on November 10, 1980.

59. Assuming Pristine Springs was diverting 25.3 cfs from Alpheus Creek on November 10, 1980, 184.7 cfs is the maximum amount of water known to have been diverted from Alpheus Creek by Blue Lakes Trout, for which recorded measurements are available to the Department, under the three water rights described in Finding 34. The water rights held by Blue Lakes Trout authorize the diversion of up to 197.06 cfs when such quantity of water is available, which would include all or a portion of the water that Pristine Springs might not divert, at times, under water right no. 36-02603C.

60. Based on the records of flow measurements submitted annually by Blue Lakes Trout to the Department for the time period beginning in March of 1995 through December 2004, the following table summarizes the maximum daily flow, average daily flow, and minimum daily flow by month for the water supply diverted from Alpheus Creek to the Blue Lakes Trout facilities for March 1995 through February 1996 and 2004:

Month	Year	Max. Daily Flow	Average Daily Flow	Min. Daily Flow
January	1996	159.40 cfs	157.60 cfs	156.20 cfs
	2004	142.80	138.66	137.05
February	1996	155.10	154.16	153.30
	2004	137.65	134.90	133.10
March	1995	150.10	148.64	147.70
	2004	136.50	134.07	131.45
April	1995	143.40	143.16	143.00
	2004	133.65	127.47	121.50
May	1995	145.60	143.26	138.60
	2004	130.30	121.36	114.95
June	1995	144.70	140.94	139.10
	2004	123.15	120.35	116.05
July	1995	138.30	138.11	137.80
	2004	130.90	126.26	119.30
August	1995	144.70	140.03	135.10
	2004	135.95	128.79	122.05
September	1995	152.90	149.41	145.60
	2004	143.95	138.08	131.45

October	1995	160.10	157.88	153.70
	2004	164.60	146.30	139.90
November	1995	166.00	164.05	162.30
	2004	153.85	149.45	144.50
December	1995	162.90	160.99	160.40
	2004	147.45	140.06	136.50

61. Comparing same-month maximum daily, average daily, and minimum daily flows diverted to the Blue Lakes Trout facilities between years for the years described in Finding 60 demonstrates that there have been decreases in the water supply available for diversion to the Blue Lakes Trout facilities between 1995 and 2004 for the months March through December and between 1996 and 2004 for the months of January and February. Depending on the month and whether comparisons are made between maximums, averages, or minimums, decreases through 2004 are typically about 10 cfs to 20 cfs, which is about 10 percent to 15 percent of the earlier corresponding flows. In 2004, the maximum average of the daily flows diverted to the Blue Lakes Trout facilities was 149.45 cfs during the month of November. This is 35.25 cfs, or 19 percent, less than the maximum amount of water presumed to have ever been diverted by Blue Lakes as described in Finding 58.

62. In its Letter of March 22, 2005, Blue Lakes asserts that: "It is very likely that Blue Lakes will experience even greater shortages during 2005." As shown on Attachment C, the flows in Alpheus Creek available for diversion by Blue Lakes have been stable since the seasonal low in 2003, and the pattern of flows for 2005 is expected to be similar.

63. Based on the records of flow measurements submitted by Blue Lakes Trout to the Department for the years 1995 through 2004, the quantity of water available at the source for water right no. 36-02356A with the priority date of May 29, 1958, is currently sufficient to fill this right at the authorized diversion rate of 99.83 cfs. *See* IDAPA 37.03.11.042.01.a.

64. Based on the records of flow measurements submitted by Blue Lakes Trout to the Department for the years 1995 through 2004, and taking into account the variations in spring flows between months that have existed since the date of appropriation for water right no. 36-07210, the quantity of water available at the source for water right no. 36-07210 with the priority date of November 17, 1971, is currently sufficient to fill this right at the authorized diversion rate of 45.00 cfs when the flows in Alpheus Creek are at seasonal highs. *See* IDAPA 37.03.11.042.01.a.

65. Based on the records of flow measurements submitted by Blue Lakes Trout to the Department for the years 1995 through 2004, and taking into account the variations in spring flows between months that have existed since the date of appropriation for water right no. 36-07427, the quantity of water available at the source for water right no. 36-07427 with the priority date of December 28, 1973, is currently insufficient to fill this right when Pristine Springs is diverting the full quantity of 25.3 cfs under water right no. 36-02603C (*see* Findings 58 and 59), even when the flows in Alpheus Creek are at seasonal highs. The quantity of water available at

the source for water right no. 36-07427 is expected to continue to be insufficient during 2005. *See* IDAPA 37.03.11.042.01.a.

66. Based on the results from field inspections conducted on April 11, 2005, by Cindy Yenter, the watermaster for Water District No. 130 and Brian Patton, a registered professional civil engineer, Blue Lakes Trout has expended reasonable efforts to divert water for right no. 36-07427 from its source for use at the Blue Lakes Trout facilities. *See* IDAPA 37.03.11.042.01.b.

67. Based on the Department's water rights data base and simulations using the Department's ground water model for the ESPA described in Findings 13 and 14, the diversion and consumptive use of ground water under water rights having priority dates later than the priority date for water right no. 36-07427 (December 28, 1973) in Water District No. 120, and which at steady-state conditions reduce spring discharge in the Devil's Washbowl to Buhl Gage spring reach by more than 10 percent of the amount of depletion to the ESPA resulting from those ground water diversions (10 percent is the uncertainty in model simulations, *see* Finding 16), has insignificant effects on the quantity and timing of water available from springs discharging in the Devil's Washbowl to Buhl Gage spring reach, which includes the source for Alpheus Creek from which Blue Lakes Trout diverts surface water. However, the diversion and consumptive use of such rights in Water District No. 130 does affect the quantity and timing of water available from springs discharging in the Devil's Washbowl to Buhl Gage spring reach based on simulations using the ground water model for the ESPA. *See* IDAPA 37.03.11.042.01.c.

68. Based on the records of flow measurements submitted by Blue Lakes Trout to the Department for the years 1995 through 2004, as well as the field investigations on April 11, 2005, described in Finding 66, Blue Lakes Trout is currently diverting and using surface water within the authorized diversion rate for water rights nos. 36-02356A, 36-07210, and 36-07427. *See* IDAPA 37.03.11.042.01.e.

69. Based on the field investigations on April 11, 2005, described in Finding 66, the Blue Lakes Trout facilities have adequate water measuring and recording devices. *See* IDAPA 37.03.11.042.01.f.

70. Based on the results from the field inspection on April 11, 2005, described in Finding 66, Blue Lakes Trout is employing reasonable diversion, conveyance efficiency, and conservation practices. A pump-back system could conceivably be constructed that would enable Blue Lakes to re-use a portion of the water diverted by Blue Lakes during times that water right no. 36-07427 could not otherwise be satisfied. Such a pump-back system could be operated so as not to interfere with water right no. 36-07757 held by Pristine Springs, Inc. for the diversion of 215 cfs from just downstream of the Blue Lakes' Trout facilities. However, considering the decreed elements of water right no. 36-07427 it is not reasonable to require Blue Lakes Trout to incur the costs for such a system. *See* IDAPA 37.03.11.042.01.g.

71. Based on the results from the field inspection on April 11, 2005, described in Finding 66, there are no alternate reasonable means of diversion or alternate points of diversion

that Blue Lakes Trout should be required to implement to provide water for right no. 36-07427 during times the right would not otherwise be satisfied. Two alternatives that potentially could increase the supply of water for water right no. 36-07427 have been conceptually identified: (1) substituting the use of water in the Devil's Washbowl to Buhl Gage spring reach by the City of Twin Falls with an alternate supply; and (2) constructing a pump station and conveyance system to the Blue Lakes' facilities from the Snake River, if water from the Snake River would be of suitable quality. However, considering the decreed elements of water right no. 36-07427 it is not reasonable to require Blue Lakes Trout to implement either alternative. See IDAPA 37.03.11.042.01.h.

Regulation of Surface Water Diversions Under Rights Junior to Water Right No. 36-07427

72. There are two diversions of surface water from Alpheus Creek upstream of the Blue Lakes Trout diversion under water rights that are junior to water right no. 36-07427 held by Blue Lakes.

73. Water right no. 36-08593 has the priority date of July 19, 1991, and is held by Blue Lakes Country Club, Inc. The right authorizes the diversion of 0.7 cfs from the headwaters of Alpheus Creek that when combined with water right nos. 36-02083A for 1.15 cfs and 36-02083B for 0.05 cfs (each having the priority date of May 26, 1949), authorize the total diversion of 1.9 cfs for the irrigation of 95 acres. Pursuant to an agreement dated January 29, 1993, between Blue Lakes Trout and Blue Lakes Country Club, the watermaster for Water District No. 130 reports that Blue Lakes Country Club diverts up to 350 acre-feet of water from Alpheus Creek annually during the irrigation season, at a maximum instantaneous rate up to 2.9 cfs and a volume not to exceed 2.5 acre-feet per day, for irrigation of up to 93 acres during nighttime hours only, in exchange for Blue Lakes Trout not objecting to this diversion and use of water.

74. Water rights nos. 36-07239 and 36-15455 are held by Simplot McCollum Development Company, dba Canyon Springs. Water right no. 36-07239 has the priority date of April 24, 1972, and authorizes the diversion of 6.0 cfs from Alpheus Creek, just downstream of the diversion of the Blue Lakes Country Club rights, for fish propagation. This right is generally curtailed by the watermaster for Water District No. 130, except during the higher flow months during the winter, to distribute water to Blue Lakes Trout water right no. 36-07210. Water right no. 36-15455 has the priority date of March 1, 1987, and authorizes the diversion of 0.46 cfs from Alpheus Creek for irrigation. Water right no. 36-15455 has not been in priority for diversion and use of water nor has water been diverted under this right since the creation of Water District No. 130.

75. There are no diversions of surface water from Alpheus Creek under rights later in priority to Blue Lakes Trout water right no. 36-07427 that are not currently being administered to distribute water to this right.

Effects of Curtailing Ground Water Diversions Under Rights Junior to Water Right No. 36-07427

76. Water rights within Water District No. 130 that (1) authorize the diversion and use of ground water for consumptive uses from the area of common ground water supply described in Finding 1, (2) have priority dates later than the priority date for water right no. 36-07427 (December 28, 1973), and (3) based on model simulations reduce spring discharge in the Devil's Washbowl to Buhl Gage spring reach by more than 10 percent of the amount of depletion to the ESPA resulting from those ground water diversions (10 percent is the uncertainty in model simulations, *see* Finding 16), are listed in Attachment D for consumptive uses other than domestic or stockwater and in Attachment E for domestic or stockwater uses.

77. The Department's ground water model for the ESPA, described in Findings 13 and 14, was used to simulate the effects of curtailing the diversion and use of ground water for the irrigation of 57,220 equivalent² acres on an ongoing basis under the water rights described in Finding 76 for irrigation purposes. The results of the simulation show that curtailing the diversion and use of ground water for the irrigation of these lands would increase the discharge of springs in the Devil's Washbowl to Buhl Gage spring reach, which includes the source for Alpheus Creek from which Blue Lakes Trout diverts surface water, by an average of 51 cfs at steady state conditions.

78. Using the ground water model of the ESPA to simulate the curtailment of the diversion and use of ground water: (1) in 2005 for the irrigation of 12,070 equivalent acres on an ongoing basis under water rights having priority dates later than July 31, 1987; followed by (2) the curtailment of the diversion and use of ground water for the irrigation of an additional 12,020 equivalent acres in 2006 on an ongoing basis under water rights having priority dates of February 25, 1980, and later; followed by (3) the curtailment of the diversion and use of ground water for the irrigation of an additional 11,110 equivalent acres in 2007 on an ongoing basis under water rights having priority dates of March 9, 1977, and later; followed by (4) the curtailment of the diversion and use of ground water for the irrigation of an additional 10,590 equivalent acres in 2008 on an ongoing basis under water rights having priority dates of June 10, 1975, and later; and followed by (5) the curtailment of the diversion and use of ground water for the irrigation of an additional 11,430 equivalent acres in 2009 on an ongoing basis under water rights having priority dates later than December 28, 1973; results in simulated increases to the average discharge of springs in the Devil's Washbowl to Buhl Gage spring reach of 10 cfs, 20 cfs, 30 cfs, 40 cfs, and 51 cfs, respectively, at steady state conditions.

² For the ESPA ground water model, an algorithm is used to simulate the effects of supplemental ground water irrigation where surface water is deliverable for some portion of the irrigation of those lands. For each model cell, acreages simulated to be irrigated with both surface water and supplemental ground water are replaced with acreages simulated to be irrigated using all ground water such that the simulated consumptive use on the replacement acreage equals the consumptive use on the acreage with supplemental ground water irrigation. The equivalent acreage consists of the sum of acreages irrigated solely with ground water and the replacement acreages for acreages irrigated with both surface water and ground water.

79. Only ground water diverted and used for agricultural irrigation purposes was included in the modeled curtailment simulation described in Finding 77. Based on USGS data, and disregarding the priority dates of ground water rights from the ESPA, about 95 percent of the ground water diverted from the ESPA is used for irrigation. Uses pursuant to ground water rights from the ESPA for public, domestic, industrial, and livestock purposes constitute 2.6 percent, 1.2 percent, 0.7 percent, and 0.6 percent of the total ground water diversions from the ESPA, respectively. Since a significant portion of these other uses is nonconsumptive, the depletions to the ESPA from irrigation uses that contribute to reduced spring discharges in the Thousand Springs area, and other reaches of the Snake River that are hydraulically connected to the ESPA, are greater than 95 percent of the total depletions from all uses of ground water.

80. Using the Department's ground water model for the ESPA to simulate increases in reach gains and spring discharges resulting from the curtailment of the diversion and use of ground water solely for agricultural irrigation purposes provides reasonable quantification of the increases in reach gains and spring discharges resulting from the curtailment of the diversion and use of ground water for all purposes.

81. *Certain members of the North Snake Ground Water District, created pursuant to Idaho Code §§ 42-5202 et seq. and underlying approximately the western half of Water District No. 130, have implemented conversions from ground water irrigation to surface water irrigation that result in some increase in spring discharges in the Thousand Springs area, including the Devil's Washbowl to Buhl Gage spring reach. Documentation of the exact location of such converted lands and the extent of surface water used for irrigation in lieu of ground water has not been submitted to the Department, and the Department cannot currently determine the resulting increases in spring discharges.*

82. Matters expressed herein as a Finding of Fact that are later deemed to be a Conclusion of Law are hereby made as a Conclusion of Law.

CONCLUSIONS OF LAW

1. Idaho Code § 42-602, addressing the authority of the Director over the supervision of water distribution within water districts, provides:

The director of the department of water resources shall have direction and control of the distribution of water from all natural water sources within a water district to the canals, ditches, pumps and other facilities diverting therefrom. Distribution of water within water districts created pursuant to section 42-604, Idaho Code, shall be accomplished by watermasters as provided in this chapter and supervised by the director. The director of the department of water resources shall distribute water in water districts in accordance with the prior appropriation doctrine. The provisions of chapter 6, title 42, Idaho Code, shall apply only to distribution of water within a water district.

2. Idaho Code § 42-603, which grants the Director authority to adopt rules governing water distribution, provides as follows:

The director of the department of water resources is authorized to adopt rules and regulations for the distribution of water from the streams, rivers, lakes, ground water and other natural water sources as shall be necessary to carry out the laws in accordance with the priorities of the rights of the users thereof. Promulgation of rules and regulations shall be in accordance with the procedures of chapter 52, title 67, Idaho Code.

In addition, Idaho Code § 42-1805(8) provides the Director with authority to “promulgate, adopt, modify, repeal and enforce rules implementing or effectuating the powers and duties of the department.”

3. The issue of how to integrate the administration of surface and ground water rights diverting from a common water source in the Eastern Snake Plain area has been a continuing point of debate for more than two decades. To date, no court has directly and fully addressed the issue of how to integrate the administration of the surface and ground water rights that were historically administered as separate sources. The progress made in adjudicating the ground water rights in the Snake River Basin Adjudication and the development of the reformulated ground water model for the ESPA used by the Department to simulate the effects of ground water depletions on hydraulically-connected tributaries and reaches of the Snake River now allow the State to address this issue during this period of unprecedented drought.

4. Resolution of the conjunctive administration issue lies in the application of two well established principles of the prior appropriation doctrine: (1) the principle of “first in time is first in right” and (2) the principle of optimum use of Idaho’s water. Both of these principles are subject to the requirement of reasonable use.

5. “Priority of appropriations shall give the better right as between those using the water” of the state. Art. XV, § 3, Idaho Const. “As between appropriators, the first in time is first in right.” Idaho Code § 42-106.

6. “[W]hile the doctrine of ‘first in time is first in right’ is recognized [and applies to ground water rights], a reasonable exercise of this right shall not block full economic development of underground water resources.” Idaho Code § 42-226.

7. Because it is the policy of this state to integrate the appropriation, use, and administration of ground water tributary to a stream with the use of surface water from the stream in such a way as to optimize the beneficial use of all of the water of this state, “[a]n appropriator is not entitled to command the entirety of large volumes of water in a surface or ground water source to support his appropriation contrary to the public policy of reasonable use of water . . .” IDAPA 37.03.11.020.03; *see also Schodde v. Twin Falls Land & Water Co.*, 224 U.S. 107, 119 (1912).

8. It is the duty of a watermaster, acting under the supervision of the Director, to distribute water from the public water supplies within a water district among those holding rights

to the use of the water in accordance with the prior appropriation doctrine as implemented in Idaho law, including applicable rules promulgated pursuant to the Idaho Administrative Procedure Act. *See* Idaho Code § 42-607.

9. The Director created Water Districts No. 130 and No. 120 on February 19, 2002, and extended the boundaries of Water Districts No. 130 and No. 120 on January 8, 2003, and January 22, 2004, respectively, to provide for the administration of ground water rights in the area overlying the ESPA in the Thousand Springs area and the American Falls area, pursuant to the provisions of chapter 6, title 42, Idaho Code, for the protection of prior surface and ground water rights.

10. The Director has appointed watermasters for Water Districts No. 120 and No. 130 to perform the statutory duties of a watermaster in accordance with guidelines, direction, and supervision provided by the Director. The Director has given specific directions to the watermasters for Water Districts No. 120 and No. 130 to curtail illegal diversions, measure and report diversions, and curtail out-of-priority diversions determined by the Director to be causing injury to senior priority water rights that are not covered by a stipulated agreement or a mitigation plan approved by the Director.

11. In accordance with chapter 52, title 67, Idaho Code, the Department adopted rules regarding the conjunctive management of surface and ground water effective October 7, 1994. IDAPA 37.03.11. The Conjunctive Management Rules prescribe procedures for responding to a delivery call made by the holder of a senior priority surface or ground water right against junior priority ground water rights in an area having a common ground water supply. IDAPA 37.03.11.001.

12. Rule 10 of the Conjunctive Management Rules, IDAPA 37.03.11.010, contains the following pertinent definitions:

01. Area Having a Common Ground Water Supply. A ground water source within which the diversion and use of ground water or changes in ground water recharge affect the flow of water in a surface water source or within which the diversion and use of water by a holder of a ground water right affects the ground water supply available to the holders of other ground water rights.

03. Conjunctive Management. Legal and hydrologic integration of administration of the diversion and use of water under water rights from surface and ground water sources, including areas having a common ground water supply.

04. Delivery Call. A request from the holder of a water right for administration of water rights under the prior appropriation doctrine.

07. Full Economic Development Of Underground Water Resources. The diversion and use of water from a ground water source for beneficial uses in the public interest at a rate that does not exceed the reasonably anticipated average rate of future natural recharge, in a manner that does not result in material injury to senior-priority surface or ground water rights,

and that furthers the principle of reasonable use of surface and ground water as set forth in Rule 42.

08. Futile Call. A delivery call made by the holder of a senior-priority surface or ground water right that, for physical and hydrologic reasons, cannot be satisfied within a reasonable time of the call by immediately curtailing diversions under junior-priority ground water rights or that would result in waste of the water resource.

14. Material Injury. Hindrance to or impact upon the exercise of a water right caused by the use of water by another person as determined in accordance with Idaho Law, as set forth in Rule 42.

16. Person. Any individual, partnership, corporation, association, governmental subdivision or agency, or public or private organization or entity of any character.

17. Petitioner. Person who asks the Department to initiate a contested case or to otherwise take action that will result in the issuance of an order or rule.

19. Reasonably Anticipated Average Rate Of Future Natural Recharge. The estimated average annual volume of water recharged to an area having a common ground water supply from precipitation, underflow from tributary sources, and stream losses and also water incidentally recharged to an area having a common ground water supply as a result of the diversion and use of water for irrigation and other purposes. The estimate will be based on available data regarding conditions of diversion and use of water existing at the time the estimate is made and may vary as these conditions and available information change.

20. Respondent. Persons against whom complaints or petitions are filed or about whom investigations are initiated.

13. As used herein, the term "injury" means "material injury" as defined by Rule 10.14 of the Conjunctive Management Rules.

14. The diversion and use of ground water under existing rights results in an average annual depletion of ground water from the ESPA of nearly 2.0 million acre-feet and does not exceed the "Reasonably Anticipated Average Rate of Future Natural Recharge," consistent with Rule 10.07 of the Conjunctive Management Rules.

15. Rule 20 of the Conjunctive Management Rules contains the following pertinent statements of purpose and policies for conjunctive management of surface and ground water resources:

01. Distribution of Water Among the Holders of Senior and Junior-Priority Rights. The rules apply to all situations in the State where the diversion and use of water under junior-priority ground water rights either individually or collectively causes material injury to uses of water under senior-priority water rights. The rules govern the distribution of water from ground water sources and areas having a common ground water supply.

02. Prior Appropriation Doctrine. These rules acknowledge all elements of the prior appropriation doctrine as established by Idaho law.

03. Reasonable Use Of Surface And Ground Water. These rules integrate the administration and use of surface and ground water in a manner consistent with the traditional policy of reasonable use of both surface and ground water. The policy of reasonable use includes the concepts of priority in time and superiority in right being subject to conditions of reasonable use as the legislature may by law prescribe as provided in Article XV, Section 5, Idaho Constitution, optimum development of water resources in the public interest prescribed in Article XV, Section 7, Idaho Constitution, and full economic development as defined by Idaho law. An appropriator is not entitled to command the entirety of large volumes of water in a surface or ground water source to support his appropriation contrary to the public policy of reasonable use of water as described in this rule.

04. Delivery Calls. These rules provide the basis and procedure for responding to delivery calls made by the holder of a senior-priority surface or ground water right against the holder of a junior-priority ground water right. The principle of the futile call applies to the distribution of water under these rules. Although a call may be denied under the futile call doctrine, these rules may require mitigation or staged or phased curtailment of a junior-priority use if diversion and use of water by the holder of the junior-priority water right causes material injury, even though not immediately measurable, to the holder of a senior-priority surface or ground water right in instances where the hydrologic connection may be remote, the resource is large and no direct immediate relief would be achieved if the junior-priority water use was discontinued.

05. Exercise Of Water Rights. These rules provide the basis for determining the reasonableness of the diversion and use of water by both the holder of a senior-priority water right who requests priority delivery and the holder of a junior-priority water right against whom the call is made.

11. Domestic and Stock Watering Ground Water Rights Exempt. A delivery call shall not be effective against any ground water right used for domestic purposes regardless of priority date where such domestic use is within the limits of the definition set forth in Section 42-111, Idaho Code, nor against any ground water right used for stock watering where such stock watering use is within the limits of the definition set forth in Section 42-1401A(12), Idaho Code; provided, however, this exemption shall not prohibit the holder of a water right for domestic or stock watering uses from making a delivery call, including a delivery call against the holders of other domestic or stockwatering rights, where the holder of such right is suffering material injury.

16. Rule 40 of the Conjunctive Management Rules sets forth the following procedures to be followed for responses to calls for water delivery made by the holders of senior priority surface or ground water rights against the holders of junior priority ground water rights from areas having a common ground water supply in an organized water district:

01. Responding to a Delivery Call. When a delivery call is made by the holder of a senior-priority water right (petitioner) alleging that by reason of diversion of water by the holders of one or more junior-priority ground water rights (respondents) from an area having a common ground water supply in an organized water district the petitioner is suffering material injury, and upon a finding by the Director as provided in Rule 42 that material injury is occurring, the Director, through the watermaster, shall:

- a. Regulate the diversion and use of water in accordance with the priorities of rights of the various surface or ground water users whose rights are included within the district, provided, that regulation of junior-priority ground water diversion and use where the material injury is delayed or long range may, by order of the Director, be phased-in over not more than a five-year period to lessen the economic impact of immediate and complete curtailment; or
- b. Allow out-of-priority diversion of water by junior-priority ground water users pursuant to a mitigation plan that has been approved by the Director.

02. Regulation of Uses of Water by Watermaster. The Director, through the watermaster, shall regulate use of water within the water district pursuant to Idaho law and the priorities of water rights as provided in section 42-604, Idaho Code, and under the following procedures:

- a. The watermaster shall determine the quantity of surface water of any stream included within the water district which is available for diversion and shall shut the headgates of the holders of junior-priority surface water rights as necessary to assure that water is being diverted and used in accordance with the priorities of the respective water rights from the surface water source.
- b. The watermaster shall regulate the diversion and use of ground water in accordance with the rights thereto, approved mitigation plans and orders issued by the Director.
- c. Where a call is made by the holder of a senior-priority water right against the holder of a junior-priority ground water right in the water district the watermaster shall first determine whether a mitigation plan has been approved by the Director whereby diversion of ground water may be allowed to continue out of priority order. If the holder of a junior-priority ground water right is a participant in such approved mitigation plan, and is operating in conformance therewith, the watermaster shall allow the ground water use to continue out of priority.
- d. The watermaster shall maintain records of the diversions of water by surface and ground water users within the water district and records of water provided and other compensation supplied under the approved mitigation plan which shall be compiled into the annual report which is required by section 42-606, Idaho Code.
- e. Under the direction of the Department, watermasters of separate water districts shall cooperate and reciprocate in assisting each other in assuring that diversion and use of water under water rights is administered in a manner to assure protection of senior-priority water rights provided the relative priorities of the water rights within the separate water districts have been adjudicated.

03. Reasonable Exercise of Rights. In determining whether diversion and use of water under rights will be regulated under Rules 40.01.a., or 40.01.b., the Director shall consider whether the petitioner making the delivery call is suffering material injury to a senior-priority water right and is diverting and using water efficiently and without waste, and in a manner consistent with the goal of reasonable use of surface and ground waters as described in Rule

42. The Director will also consider whether the respondent junior-priority water right holder is using water efficiently and without waste.

04. Actions of the Watermaster under a Mitigation Plan. Where a mitigation plan has been approved as provided in Rule 42, the watermaster may permit the diversion and use of ground water to continue out of priority order within the water district provided the holder of the junior-priority ground water right operates in accordance with such approved mitigation plan.

17. In accordance with Rule 40 of the Conjunctive Management Rules, curtailment of junior priority ground water rights may only occur if the use of water under senior priority rights is consistent with Rule 20.03 of the Conjunctive Management Rules and injury is determined to be caused by the exercise of the junior priority rights. Factors that will be considered in determining whether junior priority ground water rights are causing injury to the senior priority water rights held by Blue Lakes Trout are set forth in Rule 42 of the Conjunctive Management Rules as follows:

01. Factors. Factors the Director may consider in determining whether the holders of water rights are suffering material injury and using water efficiently and without waste include, but are not limited to, the following:

- a. The amount of water available in the source from which the water right is diverted.
- b. The effort or expense of the holder of the water right to divert water from the source.
- c. Whether the exercise of junior-priority ground water rights individually or collectively affects the quantity and timing of when water is available to, and the cost of exercising, a senior-priority surface or ground water right. This may include the seasonal as well as the multi-year and cumulative impacts of all ground water withdrawals from the area having a common ground water supply.
- d. If for irrigation, the rate of diversion compared to the acreage of land served, the annual volume of water diverted, the system diversion and conveyance efficiency, and the method of irrigation water application.
- e. The amount of water being diverted and used compared to the water rights.
- f. The existence of water measuring and recording devices.
- g. The extent to which the requirements of the holder of a senior-priority water right could be met with the user's existing facilities and water supplies by employing reasonable diversion and conveyance efficiency and conservation practices; provided, however, the holder of a surface water storage right shall be entitled to maintain a reasonable amount of carry-over storage to assure water supplies for future dry years. In determining a reasonable amount of carry-over storage water, the Director shall consider the average annual rate of fill of storage reservoirs and the average annual

carry-over for prior comparable water conditions and the projected water supply for the system.

h. The extent to which the requirements of the senior-priority surface water right could be met using alternate reasonable means of diversion or alternate points of diversion, including the construction of wells or the use of existing wells to divert and use water from the area having a common ground water supply under the petitioner's surface water right priority.

02. Delivery Call For Curtailment of Pumping. The holder of a senior-priority surface or ground water right will be prevented from making a delivery call for curtailment of pumping of any well used by the holder of a junior-priority ground water right where use of water under the junior-priority right is covered by an approved and effectively operating mitigation plan.

18. The Letter received on March 22, 2005, by the Director from Gregory Kaslo demanding that the Director "direct the Watermaster for Water District 130 to administer water rights in the Water District as required by Idaho Code § 42-607 in order to supply Blue Lakes' prior rights" is a delivery call as defined by Rule 10.04 of the Conjunctive Management Rules against junior priority ground water rights and a demand for the administration of surface water rights pursuant to Idaho Code § 42-607.

19. Rule 40 of the Conjunctive Management Rules applies to the delivery call made by Blue Lakes Trout against the holders of junior priority ground water rights, but not surface water rights, in Water Districts No. 36A, No. 120, and No. 130.

20. There are no surface water rights in Water District No. 36A that are junior in priority to water right no. 36-07427 held by Blue Lakes Trout and that are diverted from the same surface water source as right no. 36-07427. There are no surface water rights in Water District No. 120.

21. There are two surface water rights in Water District No. 130 that authorize the diversion of water from Alpheus Creek upstream of Blue Lakes Trout and that are junior in priority to water right no. 36-07427 held by Blue Lakes. One of the two rights is curtailed when the water supply from Alpheus Creek is insufficient to fill water right no. 36-07427. The other right is diverted pursuant to an agreement between Blue Lakes Country Club and Blue Lakes Trout that essentially subordinates 1.7 cfs of water right 36-07427 to Blue Lakes Country Club (*see Finding 73*).

22. There are no ground water rights subject to administration included within Water District No. 36A.

23. Rules 40 and 42 of the Conjunctive Management Rules require the Director to make determinations regarding "material injury" and the "reasonableness of water diversions" in responding to a delivery call against junior priority ground water rights in Water Districts No. 120 and No. 130.

24. The reductions in the quantity of water discharging from springs in the Thousand Springs area attributable to depletions to the ESPA from the diversion and use of ground water in Water Districts No. 120 and No. 130 do not automatically constitute material injury to surface water rights diverting from springs or dependent on sources formed by springs even when the diversion and use of ground water occur under water rights that are junior in priority to such surface water rights. Whether reductions in the quantity of water discharging from springs caused by the diversion and use of ground water under junior priority rights in Water Districts No. 120 and No. 130 constitute material injury is dependent on the factors enumerated in Rule 42 of the Conjunctive Management Rules.

25. Since the records of flow measurements maintained by the Department, beginning in March 1995, show that the quantity of water available at the Blue Lakes Trout facilities has been sufficient to continuously fill water right no. 36-02356A at the authorized diversion rate of 99.83 cfs and to fill water right no. 36-07210 at the authorized diversion rate of 45.00 cfs when the flows in Alpheus Creek are at seasonal highs, the exercise of junior priority ground water rights have not reduced the quantity of water available for water rights no. 36-02356A and no. 36-07210. Therefore, there is no material injury to water rights no. 36-02356A and no. 36-07210.

26. Based on simulations using the Department's reformulated and recalibrated ground water model, curtailing the diversion and use of ground water on an ongoing basis under rights for agricultural irrigation that (1) are in the area of common ground water supply described in Finding 1 and Water District No. 130, (2) have priority dates later than the priority date for water right no. 36-07427 (December 28, 1973), and (3) reduce spring discharge in the Devil's Washbowl to Buhl Gage spring reach by more than 10 percent of the amount of depletion to the ESPA resulting from those ground water diversions (10 percent is the uncertainty in model simulations, see Finding 16), would increase the discharge of springs in the Devil's Washbowl to Buhl Gage spring reach, which includes the water supply for Alpheus Creek from which Blue Lakes Trout diverts surface water, by a total average amount of 51 cfs at steady state conditions.

27. Based on the records of flow measurements submitted annually by Blue Lakes Trout to the Department for the time period beginning in March of 1995 through December of 2004, there have been decreases in the water supply available for diversion to the Blue Lakes Trout facilities. The decreases are typically about 10 cfs to 20 cfs, which is about 10 percent to 15 percent of the corresponding flows during the time period March 1995 through February 1996. In 2004, the maximum average of the daily flows diverted to the Blue Lakes Trout facilities was 149.45 cfs during the month of November. This is 35.25 cfs, or 19 percent, less than the maximum amount of water presumed to have ever been diverted by Blue Lakes as described in Finding 58.

28. When superimposed on the effects of changes in surface water irrigation, described in Finding 6, and drought, the diversion and consumptive use of ground water under water rights junior in priority to water right no. 36-07427 held by Blue Lakes Trout are reducing the quantity of water available to water right no. 36-07427, thereby causing material injury.

29. There are two pending delivery calls before the Director filed by Clear Springs Foods, Inc., alleging injury to water rights no. 36-04013B and no. 36-07083 having priority dates of February 4, 1964, and July 8, 1969, respectively. The diversion and consumptive use of ground water under water rights junior in priority to water rights no. 36-04013B and no. 36-07083 held by Clear Springs Foods that may cause material injury to these rights encompass the water rights determined herein to cause material injury to water right no. 36-07427 held by Blue Lakes Trout.

30. The material injury to water right no. 36-07427 held by Blue Lakes Trout caused by the diversion and consumptive use of ground water under junior priority water rights in Water District No. 130 is both delayed and long range.

31. Unless a replacement water supply of suitable water quality for use by Blue Lakes Trout is provided by the holders of junior priority ground water rights causing material injury to water right no. 36-07427, or by the ground water district(s) or irrigation district through which mitigation can be provided, the Director should order the curtailment of such rights phased-in over a five-year period to lessen the economic impact of immediate and complete curtailment pursuant to IDAPA 37.03.11.040.01.a. The Director should order ongoing curtailment of junior priority ground water rights causing material injury to water right no. 36-07427 until there is no longer material injury. Material injury will cease when the total amount of water available for beneficial use by Blue Lakes Trout under rights no. 36-02356A, no. 36-7210, and no. 36-07427 at the average monthly seasonal maximum reaches 183 cfs, when Pristine Springs is diverting 25.3 cfs under water right no. 36-02603C, or up to 197.06 cfs when Pristine Springs is diverting less than 25.3 cfs. The rate amount of 183 cfs equals the maximum amount of water diverted by Blue Lakes Trout when Pristine Springs diverts 25.3 cfs (*see* Finding 58) less the subordination to Blue Lakes Country Club for 1.7 cfs (*see* Finding 73 and Conclusion 21).

ORDER

In response to the water delivery call made by Blue Lakes Trout Farm, Inc., and for the reasons stated in the foregoing Findings of Fact and Conclusions of Law, the Director orders as follows:

IT IS HEREBY ORDERED that the watermaster for Water District No. 130 is directed to issue written notices within five (5) days of the date of this Order to the holders of consumptive ground water rights in Water District No. 130 listed in Attachments D and E that have priority dates later than December 28, 1973, including consumptive ground water rights for agricultural, commercial, industrial, municipal, or other consumptive uses, excluding ground water rights used for de minimis domestic purposes where such domestic use is within the limits of the definition set forth in Idaho Code § 42-111 and ground water rights used for de minimis stock watering where such stock watering use is within the limits of the definition set forth in Idaho Code § 42-1401A(12), pursuant to IDAPA 37.03.11.020.11. The written notices are to advise the holders of such consumptive ground water rights of this order and that unless the rights are determined to be for non-consumptive uses, in-house culinary uses, or for uses within the limits of the definitions set forth in Idaho Code §§ 42-111 or 42-1401A(12), the rights are subject to curtailment as follows:

- (1) By 5:00 pm on May 30, 2005, the irrigation district or ground water district(s) that hold or represent holders of ground water rights for consumptive uses having priority dates later than December 28, 1973, causing material injury to water right no. 36-07427 (the "affected water rights"), must submit a plan or plans to the Director to provide mitigation by offsetting the entirety of the depletion to the ESPA under such rights or to provide Blue Lakes Trout with a replacement water supply of suitable water quality of 10 cfs (20 percent of 51 cfs), reduced by 20 percent of the average amount simulated to accrue to the Devil's Washbowl to Buhl Gage spring reach at steady state conditions resulting from approved mitigation plan(s), if any, or from suitably documented conversions from ground water irrigation to surface water irrigation, using the Department's ground water model for the ESPA. The Director will act by June 6, 2005, to disallow, approve, or approve with conditions, the plan or plans.
- (2) To the extent plan(s) for mitigation or providing Blue Lakes Trout with replacement water are not timely submitted and approved by the Director by June 6, 2005, then beginning on June 7, 2005, and until further order of the Director, ground water diversions under rights listed in Attachment D for irrigation purposes having priority dates later than July 31, 1987, are to cease. Beginning on April 1, 2006, and until further order of the Director, ground water diversions under rights listed in Attachment D for irrigation purposes having priority dates of February 25, 1980, and later are to cease. Beginning on April 1, 2007, and until further order of the Director, ground water diversions under rights listed in Attachment D for irrigation purposes having

priority dates of March 9, 1977, and later are to cease. Beginning on April 1, 2008, and until further order of the Director, ground water diversions under rights listed in Attachment D for irrigation purposes having priority dates of June 10, 1975, and later are to cease. Beginning on April 1, 2009, and until further order of the Director, ground water diversions under rights listed in Attachment D for irrigation purposes having priority dates later than December 28, 1973, are to cease. Based on simulations using the ground water model of the ESPA, after each phase of the curtailment the cumulative average discharge of springs in the Devil's Washbowl to Buhl Gage spring reach is simulated to increase by 10 cfs, 20 cfs, 30 cfs, 40 cfs, and 51 cfs, respectively. Beginning with the last phase of curtailment, the priority date for the required curtailment will be increased to the extent that increases in the spring discharge are simulated to accrue to the Devil's Washbowl to Buhl Gage spring reach at steady state conditions resulting from approved mitigation plan(s) pursuant to provision (1) above, if any, or from suitably documented conversions from ground water irrigation to surface water irrigation, using the Department's ground water model for the ESPA.

- (3) As an alternative to compliance with provision (2) above, the irrigation district and ground water district(s) that hold or represent holders of ground water rights for consumptive uses having priority dates later than December 28, 1973, can submit a plan or plans to the Director by 5:00 pm on May 30, 2005, to forego (curtail) consumptive uses authorized under the affected water rights or other water rights beginning on June 7, 2005, over a period of not more than five years ("substitute curtailment") and continuing until further order of the Director so long as full beneficial use was made under the forgone rights in the prior year or use under the rights was forgone in the prior year for purposes of mitigation for which credits for mitigation to the Devil's Washbowl to Buhl Gage spring reach have not otherwise been granted. The Director will act by June 6, 2005, to disallow, approve, or approve with conditions, the substitute curtailment plan or plans. Based on simulations of the substitute curtailment using the Department's ground water model for the ESPA, phased curtailment under the substitute plan(s) must result in simulated cumulative increases to the average discharge of springs in the Devil's Washbowl to Buhl Gage spring reach at steady state conditions by at least 10 cfs, 20 cfs, 30 cfs, 40 cfs, and 51 cfs, respectively, for each year of the five-year period in which curtailment is implemented. As for provision (2) above, curtailment under substitute plan(s) will be reduced to the extent that increases in the spring discharge are simulated to accrue to the Devil's Washbowl to Buhl Gage spring reach at steady state conditions resulting from approved mitigation plan(s) pursuant to provision (1) above, if any, or from suitably documented conversions from ground water irrigation to surface water irrigation, using the Department's ground water model for the ESPA.

- (4) Unless approved mitigation, replacement water supply, or substitute curtailment is provided on behalf of the holder of an affected water right for irrigation by an irrigation district, the holder of a ground water right for irrigation that is not a member of a ground water district when such district is providing approved mitigation, replacement water supply, or substitute curtailment, collectively "mitigation purposes" under provisions (1) or (3) above, shall be deemed a nonmember participant for mitigation purposes pursuant to H.B. No. 848 (*Act Relating to the Administration of Ground Water Rights within the Eastern Snake River Plain, ch. 352, 2004 Idaho Sess. Laws 1052*) and shall be required to pay the ground water district nearest the lands to which the water right is appurtenant for mitigation purposes pursuant to Idaho Code § 42-5259.
- (5) If at any time the approved mitigation, replacement water, or substitute curtailment is not provided as required herein, the associated water rights are subject to immediate curtailment, based on the priorities of the rights, to the extent mitigation, replacement water, or substitute curtailment has not been provided.
- (6) The holder of an affected ground water right listed in attachments D and E where the purpose of use is commercial, domestic, industrial, municipal, or stockwater, who is not a member of a ground water district when such district is providing approved mitigation, replacement water supply, or substitute curtailment, may participate in such mitigation purposes as a nonmember participant in the ground water district for mitigation purposes and pay the ground water district nearest the place of use for the water right an equitable share of the costs for mitigation. Further evaluation by the Department of whether the diversion and use of ground water under rights listed in Attachment E are consumptive and whether those rights are excluded from curtailment, pursuant to IDAPA 37.03.11.020.11, is ongoing and will be completed as soon as practicable. In any event, diversions of ground water under water rights for commercial, domestic, industrial, municipal, or stockwater, shall not be subject to curtailment in 2005, and the holders of such rights shall have until June 1, 2006, to obtain water rights that have priority dates earlier than December 28, 1973, subject to the provisions of Idaho Code § 42-222 or § 42-222A when the place of use is within a county where a declaration of a drought emergency exists on the date of the temporary transfer. Holders of ground water rights for domestic or municipal purposes having priority dates later than December 28, 1973, may also be able to exercise their constitutional preference as provided in Article XV, § 3 of the Idaho Constitution. The time period in which to obtain water rights that have priority dates earlier than December 28, 1973, shall be in lieu of a phased-in period for curtailment.

IT IS FURTHER ORDERED that pursuant to Idaho Code § 67-5247 this Order is made effective upon issuance due to the immediate danger to the public welfare posed by the lack of certainty existing among holders of water rights for the diversion and use of ground water for irrigation from the Eastern Snake Plain Aquifer as to whether water will be available under the priorities of their respective rights during the 2005 irrigation season.

IT IS FURTHER ORDERED that this is a final order of the agency. Any party may file a petition for reconsideration of this final order within fourteen (14) days of the service date of this order. The agency will dispose of the petition for reconsideration within twenty-one (21) days of its receipt, or the petition will be considered denied by operation of law pursuant to Idaho Code § 67-5246.

IT IS FURTHER ORDERED that any person aggrieved by this decision shall be entitled to a hearing before the Director to contest the action taken provided the person files with the Director, within fifteen (15) days after receipt of written notice of the order, or receipt of actual notice, a written petition stating the grounds for contesting the action and requesting a hearing. Any hearing conducted shall be in accordance with the provisions of chapter 52, title 67, Idaho Code, and the Rules of Procedure of the Department, IDAPA 37.01.01. Judicial review of any final order of the Director issued following the hearing may be had pursuant to Idaho Code § 42-1701A(4).

DATED this 19 th day of May 2005.



KARL J. DREHER
Director

ADDENDUM G

Order, In the Matter of Distribution of Water to Water Rights Nos. 36-04013A, et al. (Jul. 8, 2005) (Clear Springs). This order was before the Court in Case No. CV-2008-444 (Fifth Jud. Dist.).

**BEFORE THE DEPARTMENT OF WATER RESOURCES
OF THE STATE OF IDAHO**

IN THE MATTER OF DISTRIBUTION OF WATER)
TO WATER RIGHTS NOS. 36-04013A, 36-04013B)
AND 36-07148 (SNAKE RIVER FARM); AND TO)
WATER RIGHTS NOS. 36-07083 AND 36-07568)
(CRYSTAL SPRINGS FARM))

ORDER

This matter is before the Director of the Department of Water Resources (“Director” or “Department”) as a result of two letters dated May 2, 2005 (“Letters”), from Larry Cope of Clear Springs Foods, Inc (“Clear Springs”). The Letters request water rights administration in Water District No. 130 pursuant to Idaho Code § 42-607 in order to effectuate the distribution of water to the water rights identified in the above caption that are held by Clear Springs for the diversion and use of water at its Snake River Farm and Crystal Springs Farm.

Based upon the Director’s consideration of this matter, the Director enters the following Findings of Fact, Conclusions of Law, and Order.

FINDINGS OF FACT

The Eastern Snake River Plain Aquifer and the Department’s Ground Water Model

1. The Eastern Snake River Plain Aquifer (“ESPA”) is defined as the aquifer underlying an area of the Eastern Snake River Plain that is about 170 miles long and 60 miles wide as delineated in the report “Hydrology and Digital Simulation of the Regional Aquifer System, Eastern Snake River Plain, Idaho,” U. S. Geological Survey (“USGS”) Professional Paper 1408-F, 1992, excluding areas lying both south of the Snake River and west of the line separating Sections 34 and 35, Township 10 South, Range 20 East, Boise Meridian. The ESPA is also defined as an area having a common ground water supply. *See* IDAPA 37.03.11.050.

2. The ESPA is predominately in fractured Quaternary basalt having an aggregate thickness that may, at some locations, exceed several thousand feet, decreasing to shallow depths in the Thousand Springs area. The ESPA fractured basalt is characterized by high hydraulic conductivities, typically 1,000 feet/day but ranging from 0.1 feet/day to 100,000 feet/day.

3. Based on averages for the time period from May of 1980 through April of 2002, the ESPA receives approximately 7.5 million acre-feet of recharge on an average annual basis from the following: incidental recharge associated with surface water irrigation on the plain (3.4

million acre-feet); precipitation (2.2 million acre-feet); underflow from tributary drainage basins (0.9 million acre-feet); and losses from the Snake River and tributaries (1.0 million acre-feet).

4. Based on averages for the time period from May of 1980 through April of 2002, the ESPA also discharges approximately 7.5 million acre-feet on an average annual basis through sources including complexes of springs in the Thousand Springs area, springs in and near American Falls Reservoir, and the discharge of nearly 2.0 million acre-feet annually in the form of depletions from ground water withdrawals.

5. From the pre-irrigation conditions of the 1860s until the 1950s, the amount of water diverted from the Snake River and its tributaries for gravity flood/furrow irrigation increased substantially, from about 8 million acre-feet, or less, in the early 1900s to about 9.5 million acre-feet in the early 1950s. USGS Professional Paper 1408-F, p. F14. Significant quantities of the surface water diverted were in excess of crop consumptive uses and provided incidental recharge to the ESPA above the average incidental recharge of 3.4 million acre-feet described in Finding 3 for the May 1980 through April 2002 time period. Ground water levels across the ESPA responded by rising at many locations. For example, the average rise in ground water levels near Jerome, Idaho, and near Fort Hall, Idaho, was 20 to 40 feet over several tens of years. The average rise in ground water levels west of American Falls was 60 to 70 feet. USGS Professional Paper 1408-A, p. A40. As a result, spring discharges in the Thousand Springs area correspondingly increased based on USGS data as shown on Attachment A.

6. Beginning in about the 1960s to 1970s time period through the most recent years, the total combined diversions of natural flow and storage releases above Milner Dam for irrigation using surface water supplies have declined from an average of nearly 9 million acre-feet annually to less than 8 million acre-feet annually, notwithstanding years of drought, because of conversions from gravity flood/furrow irrigation to sprinkler irrigation in surface water irrigation systems and other efficiencies implemented by surface water delivery entities. The measured decrease in cumulative surface water diversions above Milner Dam for irrigation reflects the fact that less water is generally needed in the present time to fully irrigate lands authorized for irrigation with a certain crop mix under certain climatic growing conditions than was needed in the 1960s to 1970s for the same lands, crop mix, and climatic growing conditions. With parallel appropriations of ground water, which dramatically increased beginning in about 1950, ground water levels across the ESPA have responded by declining at most locations where levels had previously risen, exacerbated by the worst consecutive period of drought years on record for the upper Snake River Basin. As a result, spring discharges in the Thousand Springs area have correspondingly declined based on USGS data as also shown on Attachment A.

7. The ground water in the ESPA is hydraulically connected to the Snake River and tributary surface water sources at various places and to varying degrees. One of the locations at which a direct hydraulic connection exists between the ESPA and springs tributary to the Snake River is in the Thousand Springs area.

8. Hydraulically-connected ground water sources and surface water sources are sources that within which, ground water can become surface water, or surface water can become

ground water, and the amount that becomes one or the other is largely dependent on ground water elevations.

9. When water is pumped from a well in the ESPA, a conically-shaped zone that is drained of ground water, termed a cone of depression, is formed around the well. This causes surrounding ground water in the ESPA to flow to the cone of depression from all sides. These depletionary effects propagate away from the well, eventually reaching one or more hydraulically-connected reaches of the Snake River and its tributaries, including springs in the Thousand Springs area. When the depletionary effects reach a hydraulically-connected reach of the Snake River or the points of discharge for springs in the Thousand Springs area, reductions in flow begin to occur in the form of losses from the river, reductions in spring discharge, or reductions in reach gains to the river. The depletions to the Snake River and its tributaries increase over time, with seasonal variations corresponding to seasonal variations in ground water pumping, and then either recede over time, if ground water pumping from the well ceases, or reach a maximum over time beyond which no further significant depletions occur, if ground water pumping from the well continues from year to year. This latter condition is termed a steady-state condition.

10. Various factors determine the specific hydraulically-connected reach of the Snake River or spring complexes affected by the pumping of ground water from a well in the ESPA; the magnitude of the depletionary effects to a hydraulically-connected reach or spring complex; the time required for those depletionary effects to first be expressed as reductions in river flow or spring discharge; the time required for those depletionary effects to reach maximum amounts; and the time required for those depletionary effects to either recede, if ground water pumping from the well ceases, or reach steady-state conditions with continuing seasonal variations, if ground water pumping continues. Those factors include the proximity of the well to the various hydraulically-connected reaches or springs, the transmissivity of the aquifer (hydraulic conductivity multiplied by saturated thickness) between the well and the hydraulically-connected reach of the Snake River or springs, the riverbed hydraulic conductivity, the specific yield of the aquifer (ratio of the volume of water yielded from a portion of the aquifer to the volume of that portion of the aquifer), the period of time over which ground water is pumped from the well, and the amount of ground water pumped that is consumptively used.

11. The time required for depletionary effects in a hydraulically-connected reach of the Snake River or tributary springs to first be expressed, the time required for those depletionary effects to reach maximum amounts, and the time required for those depletionary effects to either recede, if ground water pumping from the well ceases, or reach steady-state conditions with continuing seasonal variations, if ground water pumping continues, can range from days to years or even decades, depending on the factors described in Finding No. 10. Generally, the closer a well in the ESPA is located to a hydraulically-connected reach of the Snake River or tributary springs, the larger will be the flow reductions in the hydraulically-connected reach or springs, as a percentage of the ground water depletions, and the shorter will be the time periods for depletionary effects to first be expressed, for those depletionary effects to reach maximum amounts, and for those depletionary effects to either recede or reach steady-state conditions with continuing seasonal variations. However, essentially all depletions of ground water from the

ESPA cause reductions in flows in the Snake River and spring discharges equal in quantity to the ground water depletions over time.

12. The Department uses a calibrated ground water model to determine the effects on the ESPA and hydraulically-connected reaches of the Snake River and its tributaries from pumping a single well in the ESPA, from pumping selected groups of wells, and from surface water uses on lands above the ESPA.

13. In 2004, in collaboration with the Idaho Water Resources Research Institute (“IWRRI”), University of Idaho, U. S. Bureau of Reclamation (“USBR”), USGS, Idaho Power Company, and consultants representing various entities, including certain entities relying on the discharge of springs in the Thousand Springs area, the Department completed reformulation of the ground water model used by the Department to simulate effects of ground water diversions and surface water uses on the ESPA and hydraulically-connected reaches of the Snake River and its tributaries, including springs in the Thousand Springs area. This effort was funded in part by the Idaho Legislature and included significant data collection and model calibration intended to reduce uncertainty in the results from model simulations.

14. Below Milner Dam, the Snake River is incised and springs in the Thousand Springs area emanate from the canyon wall. The ground water model used by the Department prior to the reformulation of the model represented the Thousand Springs area as a single, hydraulically-connected, tributary reach of the Snake River. In the reformulated ground water model for the ESPA described in Finding 13, the Thousand Springs area was divided into six adjacent groupings of spring complexes, or spring reaches, based on the relative magnitude of spring discharge as follows:

- a. Devil’s Washbowl to the USGS stream gage located near Buhl, Idaho (“Buhl Gage”) – includes springs having moderately large rates of discharge at intermittent locations;
- b. Buhl Gage to Thousand Springs – includes springs having somewhat larger average rates of discharge per river mile than in the reach Devil’s Washbowl to Buhl Gage;
- c. Thousand Springs – includes springs having very large rates of discharge;
- d. Thousand Springs to Malad Gorge – includes springs having moderate discharge;
- e. Malad Gorge – includes springs having very large rates of discharge near the confluence of the Malad and Snake Rivers; and
- f. Malad Gorge to Bancroft – includes springs having relatively small rates of discharge.

15. The segment that includes the springs providing the source of water from which Clear Springs diverts surface water for its Snake River Farm is the Buhl Gage to Thousand Springs spring reach. Based on measurements published by the USGS (USGS Maps 1-1947-A through 1-1947-E) of spring discharges in the Buhl Gage to Thousand Springs spring reach taken at various times when the discharges from springs in the Thousand Springs area were near the historical maximums and used to calibrate the ESPA ground water model, the maximum authorized amount of water diverted by Clear Springs for its Snake River Farm (equal to the total diversion rate of 117.67 cfs under the water rights for the Snake River Farm) accounted for 7 percent of the measured reach gains in the Buhl Gage to Thousand Springs spring reach.

16. The segment that includes the springs providing the source of water from which Clear Springs diverts surface water for its Crystal Springs Farm is the Devil's Washbowl to Buhl Gage spring reach. Based on measurements published by the USGS (USGS Maps 1-1947-A through 1-1947-E) of spring discharges in the Devil's Washbowl to Buhl Gage spring reach taken at various times when the discharges from springs in the Thousand Springs area were near the historical maximums and used to calibrate the ESPA ground water model, the maximum authorized amount of water diverted by Clear Springs for its Crystal Springs Farm (equal to the total decreed diversion rate of 335.1 cfs) accounted for 31 percent of the measured reach gains in the Devil's Washbowl to Buhl Gage spring reach.

17. The reformulated ground water model for the ESPA was calibrated to recorded ground water levels in the ESPA, spring discharge in the spring reaches described in Finding 14, and reach gains or losses to Snake River flows, determined from stream gages together with other stream flow measurements, for the period May 1, 1980 to April 30, 2002. The calibration targets, consisting of measured ground water levels, reach gains/losses, and discharges from springs, have inherent uncertainty resulting from limitations on the accuracy of the measurements. The uncertainty in results predicted by the ESPA ground water model cannot be less than the uncertainty of the calibration targets. The calibration targets having the maximum uncertainty are the reach gains or losses determined from stream gages, which although rated "good" by the USGS, have uncertainties of up to 10 percent.

18. The Director relied on results from the reformulated ground water model for the ESPA described in Findings 13, 14, and 17 for an order he issued on April 19, 2005 (amended on May 2, 2005) in response to a filing by the Surface Water Coalition¹, seeking the curtailment of ground water rights junior in priority to the surface water rights held by members of the Coalition, and two orders he issued on May 19, 2005, in response to filings by Rangen, Inc. and Blue Lakes Trout Farm, Inc., seeking the curtailment of ground water rights junior in priority to the surface water rights held by Rangen and Blue Lakes, respectively.

19. IWRRI is completing documentation of the development and calibration of the reformulated ground water model for the ESPA described in Findings 13, 14, and 17. During preparation of the documentation, IWRRI determined subsequent to the orders issued by the Director on May 19, 2005, that incorrect data entry had occurred during calibration of the ESPA

¹ A&B Irrigation District, American Falls Reservoir District #2, Burley Irrigation District, Milner Irrigation District, Minidoka Irrigation District, North Side Canal Company, and Twin Falls Canal Company.

ground water model involving the calibration targets used for the river reaches above the Thousand Springs area. Return flows measured during model development were not integrated into calibration targets, and the return flows that were used during calibration for the river reach between the USGS gaging stations at Near Blackfoot and Neeley were the return flows between the USGS gaging stations at Blackfoot and Neeley. The data entry errors did not significantly affect results from simulations using the reformulated ground water model for the ESPA².

20. Discharges from springs in the segments or reaches described in Finding 14 have diminished primarily because of significant reductions in incidental recharge of the ESPA from surface water irrigation resulting from changes in surface water irrigation systems and application practices (conversion from application by gravity flood/furrow irrigation to application by sprinkler systems), changes in the place of use for surface water diverted under water rights held by or for the benefit of the North Side Canal Company, and the last five consecutive years of drought.

21. Spring discharges are also reduced as a result of ground water withdrawals from the ESPA for irrigation and other consumptive purposes, especially ground water that is diverted in relatively close proximity to the area of the springs. Simulations using the Department's calibrated computer model of the ESPA show that ground water withdrawals from certain portions of the ESPA for irrigation and other consumptive purposes cause depletions in the flow of springs discharging in the spring reaches described in Finding 14. When superimposed on diminished spring discharges resulting from changes in surface water irrigation and drought, reductions in spring discharges caused by ground water depletions under relatively junior priority water rights can potentially cause injury to senior priority water rights dependent on spring sources.

22. The Department is implementing full conjunctive administration of rights to the use of hydraulically-connected surface and ground waters within the Eastern Snake River Plain consistent with Idaho law and available information. The results of simulations from the Department's ground water model are suitable for making factual determinations on which to base conjunctive administration of surface water rights diverted from the Snake River and its tributaries and ground water rights diverted from the ESPA.

23. The Department's ground water model represents the best available science for determining the effects of ground water diversions and surface water uses on the ESPA and hydraulically-connected reaches of the Snake River and its tributaries. There currently is no other technical basis as reliable as the simulations from the Department's ground water model for the ESPA that can be used to determine the effects of ground water diversions and surface water uses on the ESPA and hydraulically-connected reaches of the Snake River and its tributaries.

² The ground water model for the ESPA calibrated with the data entry errors is designated version 1.0. The recalibrated model corrected for data entry errors is designated version 1.1.

Creation and Operation of Water Districts No. 120 and No. 130

24. On November 19, 2001, the State of Idaho sought authorization from the Snake River Basin Adjudication ("SRBA") District Court for the interim administration of water rights by the Director in all or parts of the Department's Administrative Basins 35 and 41 overlying the ESPA in the American Falls area and all or parts of Basins 36 and 43 overlying the ESPA in the Thousand Springs area. On January 8, 2002, the SRBA District Court issued an order authorizing the interim administration by the Director. After notice and hearing, the Director issued two orders on February 19, 2002, creating Water District No. 120 and Water District No. 130, pursuant to the provisions of Idaho Code § 42-604.

25. On August 30, 2002, the State of Idaho filed a second motion with the SRBA District Court seeking authorization for the interim administration of water rights by the Director in the portion of the Department's Administrative Basin 37 overlying the ESPA in the Thousand Springs area. On November 19, 2002, the SRBA District Court issued an order authorizing the interim administration by the Director. After notice and hearing, the Director issued an order on January 8, 2003, revising the boundaries of Water District No. 130 to include the portion of Administrative Basin 37 overlying the ESPA, pursuant to the provisions of Idaho Code § 42-604.

26. On July 10, 2003, the State of Idaho filed a third motion with the SRBA District Court seeking authorization for the interim administration of water rights by the Director in the portion of the Department's Administrative Basin 29 overlying the ESPA in the American Falls area. On October 29, 2003, the SRBA District Court issued an order authorizing the interim administration by the Director. After notice and hearing, the Director issued an order on January 22, 2004, revising the boundaries of Water District No. 120 to include the portion of Administrative Basin 29 overlying the ESPA, pursuant to the provisions of Idaho Code § 42-604.

27. Water Districts No. 120 and No. 130 were created, and the respective boundaries revised, to provide for the administration of water rights, pursuant to chapter 6, title 42, Idaho Code, for the protection of prior surface and ground water rights. As a result, the watermasters for Water Districts No. 120 and No. 130 were given the following duties to be performed in accordance with guidelines, direction, and supervision provided by the Director:

- a. Curtail illegal diversions (i.e., any diversion without a water right or in excess of the elements or conditions of a water right);
- b. Measure and report the diversions under water rights;
- c. Enforce the provisions of any stipulated agreement; and
- d. Curtail out-of-priority diversions determined by the Director to be causing injury to senior priority water rights that are not covered by a stipulated agreement or a mitigation plan approved by the Director.

28. On April 15, 2005, the State of Idaho filed three motions with the SRBA District Court seeking authorization for the interim administration of water rights by the Director in the Department's Administrative Basin 25; Basins 31, 32, and 33; and Basin 45. If the SRBA District Court authorizes interim administration in these administrative basins, nearly all ground water rights authorizing diversion of ground water from the ESPA will be subject to administration through water districts, when combined with the ground water rights already in Water Districts No. 120 and No. 130. At the time of filing Director's Reports in the SRBA later this year for the relatively few remaining ground water rights authorizing diversions from the ESPA, additional motions will be filed by the State of Idaho seeking authorization for interim administration of those remaining rights. While authorization for interim administration of the remaining ground water rights is subject to determinations to be made by the SRBA District Court, the Director anticipates that water districts covering all of the ESPA will be in place for the irrigation season of 2006, and all ground water rights authorizing diversions from the ESPA will be subject to administration through water districts established pursuant to chapter 6, title 42, Idaho Code.

29. The general location and existing boundaries for Water Districts No. 120 and No. 130 as well as the location and existing boundaries for the American Falls Ground Water Management Area are shown on Attachment B. Boundaries for a proposed addition to Water District No. 120 as well as areas for potential future water districts (Water Districts No. 110 and No. 140) are also shown on Attachment B.

Conjunctive Management Rules

30. Idaho Code § 42-603 authorizes the Director "to adopt rules and regulations for the distribution of water from the streams, rivers, lakes, ground water and other natural water sources as shall be necessary to carry out the laws in accordance with the priorities of the rights of the users thereof." Promulgation of such rules and regulations must be in accordance with the procedures of chapter 52, title 67, Idaho Code.

31. On October 7, 1994, the Director issued *Order Adopting Final Rules; the Rules for Conjunctive Management of Surface and Ground Water Resources* (IDAPA 37.03.11) ("Conjunctive Management Rules"), promulgated pursuant to chapter 52, title 67, Idaho Code, and Idaho Code § 42-603.

32. Pursuant to Idaho Code § 67-5291, the Conjunctive Management Rules were submitted to the 1st Regular Session of the 53rd Idaho Legislature (1995 session). During no legislative session, beginning with the 1st Regular Session of the 53rd Idaho Legislature, have the Conjunctive Management Rules been rejected, amended, or modified by the Idaho Legislature. Therefore, the Conjunctive Management Rules are final and effective.

33. The Conjunctive Management Rules "apply to all situations in the state where the diversion and use of water under junior-priority ground water rights either individually or collectively causes material injury to uses of water under senior-priority water rights. The rules

govern the distribution of water from ground water sources and areas having a common ground water supply.” IDAPA 37.03.11.020.01.

34. The Conjunctive Management Rules “acknowledge all elements of the prior appropriation doctrine as established by Idaho law.” IDAPA 37.03.11.020.02.

The Letters Submitted by Clear Springs Seeking Administration of Water Rights and Application of the Conjunctive Management Rules

35. On May 2, 2005, the Director received by email the two Letters from Larry Cope of Clear Springs Foods, Inc. requesting “water rights administration in Water District 130 pursuant to I.C. Section 42-607 in order to effectuate the delivery of Clear Springs Foods, Inc., a/k/a Clear Springs, water rights ...” at its Snake River Farm (water rights nos. 36-04013A, 36-04013B, and 36-07148) and at its Crystal Springs Farm (water rights nos. 36-07083 and 36-07568). Each of the letters also states that water provided “through proper administration of junior surface and ground water rights within Water District 130 will be put to beneficial use by Clear Springs.”

36. The water rights held by Clear Springs for diversion and use at its Snake River Farm, including those that Clear Springs sought to have protected by the administration of junior priority water rights, are as follows pursuant to decrees issued by the SRBA District Court:

Water Right No.:	36-02703	36-02048	36-04013C	36-04013A	36-04013B	36-07148
Source:	Springs ³	Springs ³	Springs ³	Springs ³	Springs ³	Springs ³
Priority Date:	11/23/1933	04/11/1938	11/20/1940	09/15/1955	02/04/1964	01/31/1971
Beneficial Use:	Fish Prop- agation	Fish Prop- agation	Fish Prop- agation ⁴	Fish Prop- agation	Fish Prop- agation	Fish Prop- agation ⁵
Diversion Rate:	40.00 cfs	20.00 cfs	14.00 cfs	15.00 cfs	27.00 cfs	1.67 cfs
	(117.67 cfs total for fish propagation)					
Period of Use:	Year round	Year round	Year round	Year round	Year round	Year round

37. One of the two letters described in Finding 35 pertaining to the Snake River Farm included measured diversions of available spring discharge for the years 1988 through 2004. The

³ Tributary to Clear Lakes. Source is also known as Clear Springs.

⁴ Water right also authorizes diversion and use of 0.04 cfs, not to exceed 13,000 gallons per day, for domestic use.

⁵ Water right also authorizes the diversion and use of 0.04 cfs for domestic use.

history of measured diversions of available spring discharge for the Snake River Farm is shown on Attachment C.

38. The water rights held by Clear Springs for diversion and use at its Crystal Springs Farm that Clear Springs sought to have protected by the administration of junior priority water rights are as follows pursuant to decrees issued by the SRBA District Court:

Water Right No.:	36-07083	36-07568
Source:	Crystal Springs	Crystal Springs
Priority Date:	07/08/1969	09/06/1975
Beneficial Use:	Fish Propagation	Fish Propagation
Diversion Rate:	300.00 cfs	200.00 cfs
(Combined use limited to a total combined diversion rate of 335.10 cfs)		
Period of Use:	Year round	Year round

39. One of the two letters described in Finding 35 pertaining to the Crystal Springs Farm included measured diversions of available spring discharge for the years 1978 through 2004. The history of measured diversions of available spring discharge for the Crystal Springs Farm is shown on Attachment D.

40. Rule 10.04 of the Conjunctive Management Rules defines a “delivery call” as: “A request from the holder of a water right for administration of water rights under the prior appropriation doctrine.” The Letters, described in Finding 35, seeking water rights administration pursuant to Idaho Code § 42-607 to effectuate the delivery of the Clear Springs water rights at its Snake River Farm and at its Crystal Springs Farm each come within the definition of a delivery call.

41. Water Districts No. 36A, No. 120, and No. 130 were created pursuant to Idaho Code § 42-604. Water District No. 36A includes water rights that are both senior in priority and junior in priority to Clear Springs’ water rights and that are diverted from other sources that are hydraulically connected through the ESPA, to varying degrees, to the source for Clear Springs’ water rights. Water rights diverted from these other sources, which are hydraulically connected through the ESPA to the source for Clear Springs’ water rights, do not interfere with or impact Clear Springs’ water rights.

42. Water District No. 120 contains water rights that are junior in priority to Clear Springs’ water rights and divert from ground water that is hydraulically connected to the source for Clear Springs’ water rights. Such water rights could potentially interfere with and potentially impact Clear Springs’ water rights.

43. Water District No. 130 includes water rights that divert from the same surface water source as the water rights for Crystal Springs Farm and that are both senior in priority and junior in priority to the water rights for Crystal Springs Farm. Other water rights in Water District No. 130, both senior in priority and junior in priority to Clear Springs' rights for both the Snake River Farm and the Crystal Springs Farm, are diverted from other surface water sources that are hydraulically connected through the ESPA, to varying degrees, but do not interfere with or impact Clear Springs' water rights. Water District No. 130 also contains water rights that are junior in priority to Clear Springs' water rights and divert from ground water that is hydraulically connected to the source for Clear Springs' water rights. Such water rights could potentially interfere with and potentially impact Clear Springs' water rights.

44. Rule 40 of the Conjunctive Management Rules is titled "Responses to Calls for Water Delivery Made by the Holders of Senior-Priority Surface or Ground Water Rights Against the Holders of Junior-Priority Ground Water Rights from Areas Having a Common Ground Water Supply in an Organized Water District." Rule 40 applies to the delivery calls made by Clear Springs for its Snake River and Crystal Springs farms against the holders of junior priority ground water rights in both Water District No. 120 and Water District No. 130.

45. Some of the junior priority ground water rights that could potentially interfere with and potentially impact Clear Springs' water rights are not in a water district created pursuant to the provisions of Idaho Code § 42-604 because a final decree has not been issued by the SRBA District Court or the requirements for interim administration of these rights pursuant to Idaho Code § 42-1417 have not been met.

46. Rule 30 of the Conjunctive Management Rules is titled "Responses to Calls for Water Delivery Made by the Holders of Senior-Priority Surface or Ground Water Rights Against the Holders of Junior-Priority Ground Water Rights Within Areas of the State Not in Organized Water Districts or Within Water Districts Where Ground Water Regulation Has Not Been Included in the Function of Such Districts or Within Areas That Have Not Been Designated Ground Water Management Areas."

47. Rule 41 of the Conjunctive Management Rules is titled "Administration of Diversion and Use of Water Within a Ground Water Management Area."

48. The Letters, described in Finding 35, seeking water rights administration pursuant to Idaho Code § 42-607 to effectuate the delivery of the Clear Springs water rights at its Snake River Farm and at its Crystal Springs Farm do not meet the requirements set forth in Rule 30 of the Conjunctive Management Rules. Also, the Letters do not seek administration of junior priority ground water rights in the American Falls Ground Water Management Area as provided in Rule 41 of the Conjunctive Management Rules. Pursuant to Rule 41, such administration could not occur until the irrigation season of 2006, even if material injury to Clear Springs' rights was determined to be occurring as a result of diversion and use of ground water under junior priority rights in the American Falls Ground Water Management Area.

49. While Rule 40 of the Conjunctive Management Rules is applicable to the Letters described in Finding 35, neither Rule 40 nor any other provisions of the Conjunctive Management Rules are applicable to delivery calls or demands for water distribution by the holder of a senior priority water right against the holder of a junior priority surface water right.

Authorized Diversion Rate for Water Rights Nos. 36-04013A, 36-04013B, and 36-07148 (Snake River Farm) and for 36-07083 and 36-07568 (Crystal Springs Farm)

50. Springs discharging in the Thousand Springs area do not discharge at a constant rate or at a rate that progressively increases or decreases from year to year. While there are overall increases or decreases in the discharge from individual springs between years (inter-year variations), there are also pronounced within-year or intra-year variations in discharge.

51. Simplistically, overall variations between years in the discharge of springs in the Thousand Springs area result from differences between the amounts of ground water depletions and recharge to the ESPA above the springs, with delays in the response of spring discharge ranging at the extremes from days to decades depending on the proximity of ground water depletions and recharge and the other factors set forth in Finding 10. Factors affecting overall variations between years in the cumulative discharge from springs in the Thousand Springs area as well as from individual springs include but are not necessarily limited to: variations in surface water supplies available for irrigation above the ESPA, which affect cropping decisions and the amount of incidental recharge to the ESPA; changes in the amounts and timing of tributary underflow to the ESPA, which also reflect numerous variations upgradient from where tributary underflow contributes to the ESPA; inter-year variations in precipitation and temperature, which not only affect the amount of surface water used above the ESPA and recharge to the ESPA, but also affect the quantity of ground water withdrawals and depletions from the ESPA; and differences between years in the quantity of intentional or managed recharge to the ESPA.

52. Intra-year variations in the discharge from individual springs result from the factors described in Finding 51 but also from other factors including timing of: surface water application above the ESPA and associated incidental recharge; ground water withdrawals and depletions from the ESPA; and intentional or managed recharge to the ESPA.

53. While both the regional and local factors affecting inter-year and intra-year variations in spring discharge are generally understood, the interactions between these factors are complex and the specific effects of individual factors and various combinations of factors on the discharge from individual springs are not presently quantifiable.

54. Both inter-year and intra-year variations in the discharge from the springs that are the sources for water rights nos. 36-04013A, 36-04013B, and 36-07148 (Snake River Farm) and for 36-07083 and 36-07568 (Crystal Springs Farm) existed when appropriations for these rights were initiated (September 15, 1955; February 4, 1964; January 31, 1971; July 8, 1969; and September 6, 1975; respectively). There are no known measurements, nor any other means, for reasonably determining the intra-year variations in the discharges from the springs comprising

the source for these water rights on the dates of appropriation for these water rights. However, the factors that are known to cause both inter-year and intra-year variations clearly existed at the time the appropriations for these rights were initiated.

55. The rates of diversion authorized pursuant to water rights nos. 36-04013A, 36-04013B, and 36-07148 (Snake River Farm) and for 36-07083 and 36-07568 (Crystal Springs Farm) (15.00 cfs, 27.00 cfs, 1.67 cfs, 300.00 cfs, and 35.10 cfs⁶, respectively) are not quantity entitlements that are guaranteed to be available to Clear Springs at all times. Rather, the authorized rates of diversion are the maximum rates at which water can be diverted under these rights, respectively, when such quantities of water are physically available and the rights are in priority. Clear Springs cannot call for the curtailment of junior priority water rights at all times that insufficient water is physically available to fill water rights nos. 36-04013A, 36-04013B, 36-07148, 36-07083, and 36-07568 at the authorized rates of diversion. Clear Springs is not entitled to water supplies at its Snake River Farm or its Crystal Springs Farm that are enhanced beyond the conditions that existed at the time such rights were established; i.e., Clear Springs cannot call for the curtailment of junior priority ground water rights simply because seasonally the discharge from springs is less than the authorized rates of diversion for Clear Springs' rights unless such seasonal variations are caused by depletions resulting from diversion and use of water under such junior priority rights.

56. Clear Springs can only call for the distribution of water to its rights for its Snake River Farm or its Crystal Springs Farm through the curtailment of junior priority ground water rights from the hydraulically-connected ESPA when such curtailment would result in a usable amount of water reaching the source for the Snake River Farm or the source for the Crystal Springs Farm in time of need, and depletions causing material injury as a result of diversion and use of ground water under such junior priority rights have not been adequately mitigated.

Analysis of Material Injury, Reasonableness of Diversions, and Effects of Junior Rights (Snake River Farm)

Factors Considered in Determining Material Injury To and Reasonableness of Surface Water Diversions Under Water Rights Nos. 36-04013A, 36-04013B, and 36-07148

57. The water rights held by Clear Springs for its Snake River Farm, described in Finding 36, authorize the combined or total diversion of 117.67 cfs for fish propagation purposes, with the first right for 40.00 cfs (no. 36-02703) having a priority date of November 23, 1933; the second right for 20.00 cfs (no. 36-02048) having a priority date of April 11, 1938; the third right for 14.00 cfs (no. 36-04013C) having a priority date of November 20, 1940; the fourth right for 15.00 cfs (no. 36-04013A) having a priority date of September 15, 1955; the fifth right for 27.00 cfs (no. 36-04013B) having a priority date of February 4, 1964; and the last right for 1.67 cfs (no. 36-07148) having a priority date of January 31, 1971.

⁶ The authorized diversion rate for water right no. 36-07568 is 200.00 cfs but when combined with water right no. 36-07083, the combined authorized diversion rate is 335.10 cfs.

58. The Department's water right file for water rights nos. 36-04013A, 36-04013B, and 36-04013C includes an undated memorandum captioned "Snake River Trout Water Measurements" from Mike Fennen (affiliation unknown) to Bob Erkins and Dave Erickson of Thousand Springs Trout Farms, Inc. (the holder of water rights nos. 36-02703, 36-02048, 36-04013A, 36-04013B, 36-04013C, and 36-07148 prior to the rights being acquired by Clear Springs). The memorandum includes measurements made in July of 1972 showing total diversion of water to the Snake River Farm of 118.86 cfs. July of 1972 is subsequent to the latest priority of the rights held by Clear Springs for its Snake River Farm and demonstrates that the total amount of water authorized for diversion and use (117.67 cfs) under water rights nos. 36-02703, 36-02048, 36-04013A, 36-04013B, 36-04013C, and 36-07148 has been diverted and presumably applied to beneficial use at times when available. Additionally, the history of measured diversions included with the letter described in Finding 35 pertaining to the Snake River Farm showed that 116 cfs, which is only marginally less than the total amount authorized for diversion and use under the rights, was diverted and presumably applied to beneficial use at the Snake River Farm on November 1, 1989.

59. Attachment C shows the time history of measured diversions, included with the letter described in Finding 35 pertaining to the Snake River Farm, taken on ten-day intervals from 1988 through 1991 and weekly intervals since 1991 from the springs providing the source of water for the water rights held by Clear Springs for its Snake River Farm. The measured diversions show that discharges from the springs and the diversions to the Snake River Farm typically peak during the period of October through December, with the lowest flows typically occurring during the period of May through August.

60. The time history of spring discharge and diversions to the Snake River Farm depicted in Attachment C shows that spring discharge and diversions have declined. The seasonal maximum spring discharge and diversion in 2004 was 93.18 cfs at the time of the weekly measurement on October 20, 2004, which is 24.5 cfs less, or about 21 percent less, than the total authorized diversion under Clear Springs' water rights nos. 36-02703, 36-02048, 36-04013A, 36-04013B, 36-04013C, and 36-07148.

61. Based on the records of flow measurements included with the letter described in Finding 35 pertaining to the Snake River Farm, the quantity of water available at the source for water rights nos. 36-02703, 36-02048, and 36-04013C with the priority dates of November 23, 1933, April 11, 1938, and November 20, 1940, respectively, is currently sufficient to continuously fill these rights at the combined authorized diversion rate of 74.00 cfs. The quantity of water available at the source for water right no. 36-04013A with the priority date of September 15, 1955, taking into account the seasonal variations in spring flows that have existed since the date of appropriation for this right, is also currently sufficient to fill this right at the authorized diversion rate of 15.00 cfs when the discharges from springs providing the source of water for this right are at seasonal highs. *See* IDAPA 37.03.11.042.01.a.

62. Based on the records of flow measurements included with the letter described in Finding 35 pertaining to the Snake River Farm and taking into account the seasonal variations in

spring flows that have existed since the dates of appropriation for these rights, the quantity of water available at the source for water rights nos. 36-04013B and 36-07148 with the priority dates of February 4, 1964, and January 31, 1971, respectively, is currently insufficient to fill these rights even when the spring discharge providing the source for the rights is at seasonal highs. The quantity of water available at the source for water rights nos. 36-04013B and 36-07148 is expected to continue to be insufficient during 2005. *See* IDAPA 37.03.11.042.01.a.

63. The Clear Lake Ranch P.U.D. Master Association, Inc. holds a permit for water right no. 36-08329 having the priority date of June 2, 1987, and authorizing the diversion of surface water for domestic use (0.7 cfs) and commercial use (0.2 cfs) from the same source as for water rights nos. 36-04013B and 36-07148 held by Clear Springs for its Snake River Farm. The priority date for water right no. 36-08329 is later than the priority dates for water rights nos. 36-04013B and 36-07148.

64. Based on the results from field inspections conducted on May 5, 2005, by Cindy Yenter, the watermaster for Water District No. 130, and Brian Patton, a registered professional civil engineer, Clear Springs has expended reasonable efforts to divert water for rights nos. 36-04013B and 36-07148 from the source for use at the Snake River Farm, except for the following. The western-most spring collection box that diverts spring discharge into the 54-inch diameter pipeline to the Snake River Farm was found to be in disrepair, and an estimated 2 cfs of collected spring discharge was escaping the box. *See* IDAPA 37.03.11.042.01.b.

65. During the field inspection of May 5, 2005, the watermaster for Water District No. 130 identified approximately 7 or 8 acres of irrigated grass and landscaping around the facilities at the Snake River Farm. The maximum amount of irrigation authorized under the water rights held by Clear Springs for the Snake River Farm is one acre, one-half acre under the domestic portion of water right no. 36-04013C and one-half acre under the domestic portion of water right no. 36-07148. Therefore, there is no water right authorizing the irrigation of approximately 6 or 7 acres of grass and landscaping around the facilities at the Snake River Farm.

66. Based on the Department's water rights data base and simulations using version 1.1 of the Department's ground water model for the ESPA described in Findings 13, 14, 17, and 19, the diversion and consumptive use of ground water under water rights having priority dates later than the priority date for water right no. 36-04013B (February 4, 1964) in Water District No. 120, and which at steady-state conditions reduce spring discharge in the Buhl Gage to Thousand Springs spring reach by more than 10 percent of the amount of depletion to the ESPA resulting from those ground water diversions (10 percent is the uncertainty in model simulations, *see* Finding 17), has insignificant effects on the quantity and timing of water available from springs discharging in the Buhl Gage to Thousand Springs spring reach, which includes the source from which Clear Springs diverts surface water for its Snake River Farm. However, the diversion and consumptive use of such rights in Water District No. 130, mainly from within the boundaries of the North Snake Ground Water District, does affect the quantity and timing of water available from springs discharging in the Buhl Gage to Thousand Springs spring reach based on simulations using the ground water model for the ESPA. *See* IDAPA 37.03.11.042.01.c.

67. Based on the records of flow measurements included with the letter described in Finding 35 pertaining to the Snake River Farm, as well as the field investigations on May 5, 2005, described in Finding 64, except for the unauthorized irrigation of approximately 6 or 7 acres described in Finding 65 Clear Springs is currently diverting and using surface water at the Snake River Farm within the authorized diversion rate for water rights nos. 36-02703, 36-02048, 36-0413C, 36-04013A, 36-04013B, and 36-07148. *See* IDAPA 37.03.11.042.01.e.

68. Based on the field investigations on May 5, 2005, described in Finding 64, the Clear Springs Snake River Farm facilities have adequate water measuring and recording devices. *See* IDAPA 37.03.11.042.01.f.

69. Based on the results from the field inspection on May 5, 2005, described in Finding 64, other than the collection box that is in disrepair Clear Springs is employing reasonable diversion, conveyance efficiency, and conservation practices at the Snake River Farm. Other than repairing the collection box, no other means for using the existing facilities and water supplies at the Snake River Farm were identified that Clear Springs should be required to implement given the decreed elements of water rights nos. 36-04013B and 36-07148. *See* IDAPA 37.03.11.042.01.g.

70. Based on the results from the field inspection on May 5, 2005, described in Finding 64, there are no alternate reasonable means of diversion or alternate points of diversion that Clear Springs should be required to implement at the Snake River Farm to provide water for rights nos. 36-04013B and 36-07148 during times the rights would not otherwise be satisfied given the decreed elements of water rights nos. 36-04013B and 36-07148. *See* IDAPA 37.03.11.042.01.h.

Effects of Curtailing Ground Water Diversions Under Rights Junior to Water Rights Nos. 36-04013B and 36-07148

71. Version 1.1 of the Department's ground water model for the ESPA, described in Findings 13, 14, 17 and 19, was used to simulate the effects of curtailing the diversion and use of ground water for the irrigation of 52,470 equivalent⁷ acres on an ongoing basis under water rights within Water District No. 130 that (1) authorize the diversion and use of ground water for consumptive uses from the area of common ground water supply described in Finding 1, (2) have priority dates later than the priority date for water right no. 36-0413B (February 4, 1964), and (3) based on model simulations reduce spring discharge in the Buhl Gage to Thousand Springs

⁷ For the ESPA ground water model, an algorithm is used to simulate the effects of supplemental ground water irrigation where surface water is deliverable for some portion of the irrigation of those lands. For each model cell, acreages simulated to be irrigated with both surface water and supplemental ground water are replaced with acreages simulated to be irrigated using all ground water such that the simulated consumptive use on the replacement acreage equals the consumptive use on the acreage solely with supplemental ground water irrigation. The equivalent acreage consists of the sum of acreages irrigated solely with ground water and the replacement acreages for acreages irrigated with both surface water and ground water.

spring reach by more than 10 percent of the amount of depletion to the ESPA resulting from those ground water diversions (10 percent is the uncertainty in model simulations, *see* Finding 17). The results of the simulation show that curtailing the diversion and use of ground water for the irrigation of these lands would increase the discharge of springs in the Buhl Gage to Thousand Springs spring reach, which includes the springs from which Clear Springs diverts surface water for its Snake River Farm, by an average of 38 cfs, varying from a seasonal low of about 14 cfs to a seasonal high of about 62 cfs, at steady state conditions.

72. Based on the simulations using the ESPA ground water model described in Finding 71 and assuming that 7 percent of any increase in reach gains in the Buhl Gage to Thousand Springs spring reach would accrue to the Snake River Farm diversions (*see* Finding 15), it is estimated that curtailing the diversion and use of ground water for the irrigation of 52,470 equivalent acres on an ongoing basis under water rights within Water District No. 130 that have priority dates later than the priority date for water right no. 36-0413B (February 4, 1964) would increase the discharge of springs providing the water supply for water right nos. 36-04013B and 36-07148 held by Clear Springs by an average of 2.7 cfs, varying from a seasonal low of about 1 cfs to a seasonal high of about 4.3 cfs, at steady state conditions. The amount of 4.3 cfs is about one-sixth of the shortage described in Finding 60.

73. Only ground water diverted and used for agricultural irrigation purposes was included in the modeled curtailment simulation described in Finding 71. Based on USGS data, and disregarding the priority dates of ground water rights from the ESPA, about 95 percent of the ground water diverted from the ESPA is used for irrigation. Uses pursuant to ground water rights from the ESPA for public, domestic, industrial, and livestock purposes constitute 2.6 percent, 1.2 percent, 0.7 percent, and 0.6 percent of the total ground water diversions from the ESPA, respectively. Since a significant portion of these other uses is nonconsumptive, the depletions to the ESPA from irrigation uses that contribute to reduced spring discharges in the Thousand Springs area, and other reaches of the Snake River that are hydraulically connected to the ESPA, are greater than 95 percent of the total depletions from all uses of ground water.

74. Using the Department's ground water model for the ESPA to simulate increases in reach gains and spring discharges resulting from the curtailment of the diversion and use of ground water solely for agricultural irrigation purposes provides reasonable quantification of the increases in reach gains and spring discharges resulting from the curtailment of the diversion and use of ground water for all purposes.

75. On May 19, 2005, the Director issued his order in response to a letter dated March 22, 2005, from Blue Lakes Trout Farm, Inc. seeking the administration of water rights in Water District No. 130 to supply Blue Lakes' prior rights. The order found that diversions of ground water for consumptive purposes under certain junior priority rights are causing material injury to water right no. 36-07427 (priority date of December 28, 1973) held by Blue Lakes and required replacement water be provided directly to Blue Lakes, phased involuntary curtailment of ground water rights by priority, or phased voluntary substitute curtailment, separately or in combination.

76. Through submittals on May 27, June 14, and June 17, 2005, the Idaho Ground Water Appropriators ("IGWA") on behalf of its members has documented actions that have been taken to provide substitute curtailment, although termed replacement water, for 2005 as required by the order of May 19, 2005, and a subsequent order dated June 7, 2005, issued in response to the IGWA submittal of May 27, 2005. The actions taken consist of acquisition and use of surface water for irrigation of certain lands in lieu of irrigation using ground water ("conversions") in the North Snake Ground Water District and voluntary curtailment of ground water irrigation of certain lands in the Magic Valley Ground Water District and the North Snake Ground Water District. These actions, or equivalent future actions, must be ongoing and based on simulations using the Department's ground water model for the ESPA, must result in cumulative increases to the average discharge of springs in the Devil's Washbowl to Buhl Gage spring reach at steady state conditions by at least 10 cfs, 20 cfs, 30 cfs, 40 cfs, and 51 cfs⁸, respectively, for each year of the five-year period in which substitute curtailment must be implemented, or until there is no material injury to water right no. 36-07427 (priority date of December 28, 1973) held by Blue Lakes Trout.

77. Based on simulations using the Department's ground water model for the ESPA, the actions taken by the North Snake and Magic Valley ground water districts described in Finding 76 not only affect spring discharge in the Devil's Washbowl to Buhl Gage spring reach, which includes springs that provide the source of water for the water rights held by Blue Lakes Trout, but also affect spring discharge in the Buhl Gage to Thousand Springs spring reach, which includes the springs that provide the source of water for the water rights held by Clear Springs for its Snake River Farm. The Department's ground water model for the ESPA (version 1.1) was used to simulate the effects of the non-depletion of ground water on spring discharge in the Buhl Gage to Thousand Springs spring reach associated with conversions verified by the Department, including 18 percent incidental recharge from percolation, and documented voluntary curtailment described in Finding 76, excluding conversions and voluntary curtailment that based on model simulations contribute 10 percent or less of the non-depletion to the spring discharge in the Buhl Gage to Thousand Springs spring reach (10 percent is the uncertainty in model simulations, *see* Finding 17). Based on these model simulations, the actions taken by the North Snake and Magic Valley ground water districts in 2005, which must be ongoing as described in Finding 76, will increase spring discharge in the Buhl Gage to Thousand Springs spring reach by an average of 7.8 cfs at steady state conditions.

⁸ Reduction in spring discharge in the Devil's Washbowl to Buhl Gage spring reach from diversion and use of ground water under certain junior priority rights simulated using version 1.0 of the Department's ground water model for the ESPA. This quantity is subject to being amended to 48 cfs based on simulations using version 1.1 of the Department's ground water model for the ESPA.

**Analysis of Material Injury, Reasonableness of Diversions, and Effects of Junior Rights
(Crystal Springs Farm)**

**Factors Considered in Determining Material Injury To and Reasonableness of
Surface Water Diversions Under Water Rights Nos. 36-07083 and 36-07568**

78. The water rights held by Clear Springs for its Crystal Springs Farm, described in Finding 38, authorize the combined or total diversion of 335.10 cfs for fish propagation purposes, with the first right for 300.00 cfs (no. 36-07083) having a priority date of July 8, 1969, and the second right for 200.00 cfs (no. 36-07568) having a priority date of September 6, 1975.

79. The Department's water right file for water right no. 36-07568 includes a letter from C. E. Brockway, P.E., dated December 1, 1977, listing three points of diversion to the Crystal Springs Farm and measuring devices. The letter includes measured diversions at the three points of diversions at various times during 1977 indicating a total diversion of water to the Crystal Springs Farm of 335.10 cfs. The year 1977 is subsequent to the latest priority of the two rights held by Clear Springs for its Crystal Springs Farm and demonstrates that the total amount of water authorized for diversion and use (335.10 cfs) under water rights nos. 36-07083 and 36-07568 has been diverted and presumably applied to beneficial use at times when available. Additionally, the history of measured diversions included with the letter described in Finding 35 pertaining to the Crystal Springs Farm showed that 335.10 cfs or more was diverted and presumably applied to beneficial use at the Crystal Springs Farm from 1984 through 1990 at times that spring discharges were at seasonal highs.

80. Attachment D shows the time history of measured diversions, included with the letter described in Finding 35 pertaining to the Crystal Springs Farm, taken on monthly intervals since 1978 from Crystal Springs, the source of water for the water rights held by Clear Springs for its Crystal Springs Farm. The measured diversions show that discharges from the springs and the diversions to the Crystal Springs Farm typically peak during October and November, with the lowest flows typically occurring during April and May.

81. The time history of spring discharge and diversions to the Crystal Springs Farm depicted in Attachment D shows that spring discharge and diversions have declined since peaking in 1987. The seasonal maximum spring discharge and diversion in 2004 was 259.81 cfs at the time of the monthly measurement on September 21, 2004, which is 75.3 cfs less, or about 22 percent less, than the total authorized diversion under Clear Springs' water rights nos. 36-07083 and 36-07568. *See* IDAPA 37.03.11.042.01.a

82. Based on the records of flow measurements included with the letter described in Finding 35 pertaining to the Crystal Springs Farm and taking into account the seasonal variations in spring flows that have existed since the dates of appropriation for these rights, the quantity of water diverted from the source using the existing diversion facilities for water rights nos. 36-07083 and 36-07568 with the priority dates of July 8, 1969, and September 6, 1975, respectively, is currently insufficient to fill these rights even when the spring discharge providing the source for the rights is at seasonal highs. The quantity of water available using the existing diversion

facilities for water rights nos. 36-07083 and 36-07568 is expected to continue to be insufficient during 2005.

83. The existing diversion facilities for water rights nos. 36-07083 and 36-07568, held by Clear Springs for its Crystal Springs Farm, include an unlined collection canal that extends approximately 1,200 feet north and west of the hatchery facilities across land presently owned by the State of Idaho. Clear Springs holds an easement dated November 28, 1969, on the State of Idaho's land for its collection canal.

84. The U. S. Fish & Wildlife Service ("USFWS") owns a steelhead hatchery known as the Magic Valley Hatchery that was constructed by the U. S. Army Corps of Engineers ("USCOE"). The Magic Valley Hatchery is located on the south side of the Snake River approximately 3,000 feet across from and west of the Crystal Springs Farm.

85. The diversion facilities for the Magic Valley Hatchery consist of a lined collection canal that extends north and west from a point that is laterally about 100 feet from the northwest end of the existing collection canal for the Crystal Springs Farm. The collection canal for the Magic Valley Hatchery is approximately 1,500 feet long and as with the collection canal for the Crystal Springs Farm described in Finding 76, the collection canal for the Magic Valley Hatchery is sited on land presently owned by the State of Idaho pursuant to an easement dated April 11, 1972.

86. Based on two letters to Colonel Robert B. Williams of the USCOE from Larry Cope dated June 3, 1985, and October 1, 1985, the eastern-most portion of the Magic Valley Hatchery collection canal, which is laterally within about 100 feet of the western-most portion of the Crystal Springs Farm collection canal, was excavated during the first half of June in 1985. The letter of October 1, 1985, included measurements of spring discharge collected by the Crystal Springs Farm collection canal taken on June 7 and June 10, 1985. The measurements indicated that excavation of the eastern-most portion of the collection canal for the Magic Valley Hatchery reduced spring discharge into the collection canal for the Crystal Springs Farm by 12 cfs.

87. As a result of the 12 cfs reduction in spring discharge to the Crystal Springs Farm collection canal following excavation of the eastern-most portion of the collection canal for the Magic Valley Hatchery, the USCOE placed a temporary pipe connecting the collection canals for both facilities so that water could be delivered from the collection canal for the Magic Valley Hatchery to the Crystal Springs Farm collection canal a few days following June 10, 1985, to replace spring discharge diverted by the Magic Valley Hatchery that otherwise would have been diverted by the Crystal Springs Farm.

88. Based on a letter from Lieutenant Colonel Terrence C. Salt of the USCOE to Larry Cope dated October 29, 1985, the USCOE agreed to construct a permanent control structure and pipeline between the collection canals for the Magic Valley Hatchery and Crystal Springs Farm capable of delivering 13 cfs of spring discharge collected by the Magic Valley Hatchery to the Crystal Springs Farm collection canal.

89. Attachment E shows the Crystal Springs Farm facilities and a portion of the Magic Valley Hatchery facilities along with the location of the spring discharge collection and conveyance facilities for each. A control structure that regulates the quantity of collected spring discharge that is conveyed through an inverted siphon across the river to the Magic Valley Hatchery is located approximately 450 feet along and from the eastern end of the collection canal for the Magic Valley Hatchery. Collected spring discharge that is not conveyed through the inverted siphon spills from the Magic Valley Hatchery collection canal through a pipe, the discharge end of which is located approximately 200 feet northwest of the control structure. The pipe discharges into a pre-existing spring discharge channel.

90. The USCOE remains the right holder of record for the three water rights held for fish propagation at the Magic Valley Hatchery. The three water rights held by the USCOE for the Magic Valley Hatchery are as follows pursuant to decrees issued by the SRBA District Court:

Water Right No.:	36-07033	36-07164	36-07653
Source:	Crystal Springs	Crystal Springs	Crystal Springs
Priority Date:	07/10/1968	03/05/1971	11/03/1976
Beneficial Use:	Fish Propagation	Fish Propagation	Fish Propagation
Diversion Rate:	50.00 cfs ⁹ 6.00 cfs ¹¹ 39.00 cfs ¹³	6.49 cfs ⁹	25.00 cfs ¹⁰ 69.00 cfs ¹²

91. The source for water rights nos. 36-07083 and 36-07568 held by Clear Springs for its Crystal Springs Farm and the source for water rights nos. 36-07033, 36-07164, and 36-07653 held by the USCOE for the Magic Valley Hatchery is decreed as "Crystal Springs." Except for smaller springs located from about 700 feet to 1,000 feet southeast of the eastern end of the collection canal for the Crystal Springs Farm, the main source for the rights held for both the Crystal Springs Farm and Magic Valley Hatchery is the same complex of springs spanning a distance of approximately one-half mile northwest of the Crystal Springs Farm.

92. The Department has previously determined that the source for water rights nos. 36-07083 and 36-07568 held by Clear Springs for its Crystal Springs Farm and the source for water rights nos. 36-07033, 36-07164, and 36-07653 held by the USCOE for the Magic Valley Hatchery is the same source. *See, e.g., Proposed Memorandum Decision and Order in the*

⁹ From July 1 through following April 30
¹⁰ From July 1 through August 31
¹¹ From May 1 through May 31
¹² From September 1 through following April 30
¹³ From June 1 through June 30

Matter of Applications for permit Nos. 36-8330 & 36-8374 (Crystal Springs) to Establish a Minimum Streamflow in the Name of the Idaho Water Resource Board, December 2, 1988 (Adopted as Final Order on December 23, 1988).

93. On May 5, 2005, Cindy Yenter, the watermaster for Water District No. 130, and Brian Patton, a registered professional civil engineer, conducted a field inspection of the diversion facilities and measurement devices utilized by Clear Springs at its Crystal Springs Farm. Clear Springs generally has sufficient measuring devices in place at its Crystal Springs Farm. *See IDAPA 37.03.11.042.01.f.*

94. During the field inspection on May 5, 2005, described in Finding 93, an estimated 75 cfs of collected spring discharge was being spilled to the Snake River from the collection canal for the Magic Valley Hatchery. Department staff reviewed the diversion records submitted by the Magic Valley Hatchery for the years 2003 and 2004 and although the Magic Valley Hatchery diversions in 2003 and 2004 were generally within the combined authorized rates of diversion for water rights nos. 36-07033, 36-07164, and 36-07653, approximately 30 cfs to 40 cfs was diverted from Crystal Springs between September 1 and April 30 by the Magic Valley Hatchery under water rights nos. 36-07164 and 36-07653 having priority dates of March 5, 1971, and November 3, 1976, respectively, both of which are junior in priority to the priority date of July 8, 1969, for water right no. 36-07083 and the latter of which is junior to the priority date of September 6, 1975, for water right no. 36-07568, both held by Clear Springs for the Crystal Springs Farm. Between April 30 and September 1 of 2003 and 2004, as much as an additional 44 cfs was available but spilled to the Snake River due to seasonal reductions in the authorized diversion rate for water rights nos. 36-07033, 36-07164, and 36-07653 held by the USCOE for the Magic Valley Hatchery.

95. No factors have been identified that would preclude Clear Springs from extending the collection canal for the Crystal Springs Farm generally westerly along the hillside below the collection canal for the Magic Valley Hatchery for a distance of about 800 feet, more or less, to capture additional discharge from Crystal Springs at the spill point from the collection canal for the Magic Valley Hatchery, which can be regulated using the existing control structure on the Magic Valley Hatchery collection canal in accordance with the rights held by the USCOE. Because a significant amount of water is available for diversion from Crystal Springs to the Crystal Springs Farm under water rights nos. 36-07083 and 36-07568, Clear Springs has not expended reasonable efforts or expense to divert water for rights nos. 36-07083 and 36-07568 from Crystal Springs for use at the Crystal Springs Farm. *See IDAPA 37.03.11.042.01.a and IDAPA 37.03.11.042.01.b.*

96. Based on the Department's water rights data base and simulations using version 1.1 of the Department's ground water model for the ESPA described in Findings 13, 14, 17 and 19, the diversion and consumptive use of ground water under water rights having priority dates later than the priority dates for water rights nos. 36-07083 (July 8, 1969) and 36-07568 (September 6, 1975) in Water District No. 120, and which at steady-state conditions reduce spring discharge in the Devil's Washbowl to Buhl Gage spring reach by more than 10 percent of the amount of depletion to the ESPA resulting from those ground water diversions (10 percent is

the uncertainty in model simulations, *see* Finding 17), has insignificant effects on the quantity and timing of water available from springs discharging in the Devil's Washbowl to Buhl Gage spring reach, which includes Crystal Springs. However, the diversion and consumptive use of such rights in Water District No. 130 does affect the quantity and timing of water available from springs discharging in the Devil's Washbowl to Buhl Gage spring reach based on simulations using the ground water model for the ESPA. *See* IDAPA 37.03.11.042.01.c.

97. Based on the records of flow measurements included with the letter described in Finding 35 pertaining to the Crystal Springs Farm, as well as the field investigations on May 5, 2005, described in Finding 86, Clear Springs is currently diverting and using surface water at the Crystal Springs Farm within the authorized diversion rate for water rights nos. 36-07083 and 36-07568. *See* IDAPA 37.03.11.042.01.e.

98. Based on the results from the field inspection on May 5, 2005, described in Finding 93, Clear Springs may not be employing reasonable diversion and conveyance efficiencies for the Crystal Springs Farm. In addition to extending the collection canal used to divert water from Crystal Springs, lining the collection canal to the Crystal Springs Farm would also increase the quantity of water at Crystal Springs Farm, although the amount of the increase has not been determined. Other than extending the collection canal and perhaps lining the canal, no other means for using the existing facilities and water supplies for the Crystal Springs Farm were identified that Clear Springs should be required to implement given the decreed elements of water rights nos. 36-07083 and 36-07568. *See* IDAPA 37.03.11.042.01.g.

99. Based on the results from the field inspection on May 5, 2005, described in Finding 93, other than extending the collection canal for the Crystal Springs Farm there are no alternate reasonable means of diversion or alternate points of diversion that Clear Springs should be required to implement at the Crystal Springs Farm to provide water for rights nos. 36-07083 and 36-07568 during times the rights would not otherwise be satisfied given the decreed elements of water rights nos. 36-07083 and 36-07568. *See* IDAPA 37.03.11.042.01.h.

Effects of Curtailing Ground Water Diversions Under Rights Junior to Water Rights Nos. 36-07083 and 36-07568

100. Version 1.1 of the Department's ground water model for the ESPA, described in Findings 13, 14, 17, and 19, was used to simulate the effects of curtailing the diversion and use of ground water for the irrigation of 80,650 equivalent¹² acres on an ongoing basis under water rights within Water District No. 130 that (1) authorize the diversion and use of ground water for consumptive uses from the area of common ground water supply described in Finding 1, (2) have priority dates later than the priority date for water right no. 36-07083 (July 8, 1969), and (3) based on model simulations reduce spring discharge in the Devil's Washbowl to Buhl Gage spring reach by more than 10 percent of the amount of depletion to the ESPA resulting from those ground water diversions (10 percent is the uncertainty in model simulations, *see* Finding 17). The results of the simulation show that curtailing the diversion and use of ground water for the irrigation of these lands would increase the discharge of springs in the Devil's Washbowl to

Buhl Gage spring reach, which includes the springs from which Clear Springs diverts surface water for its Crystal Springs Farm, by an average of 69 cfs, varying from a seasonal low of about 51 cfs to a seasonal high of about 86 cfs, at steady state conditions.

101. Based on the simulations using the ESPA ground water model described in Finding 100 and assuming that 31 percent of any increase in reach gains in the Devil's Washbowl to Buhl Gage spring reach would accrue to the Crystal Springs Farm diversions (*see* Finding 16), it is estimated that curtailing the diversion and use of ground water for the irrigation of 80,650 equivalent acres on an ongoing basis under water rights within Water District No. 130 that have priority dates later than the priority date for water right no. 36-07083 (July 8, 1969) would increase the discharge of springs providing the water supply for water right nos. 36-07083 and 36-07568 held by Clear Springs by an average of 21 cfs, varying from a seasonal low of about 16 cfs to a seasonal high of about 27 cfs, at steady state conditions. The amount of 27 cfs is about one-third of the shortage described in Finding 81.

102. Only ground water diverted and used for agricultural irrigation purposes was included in the modeled curtailment simulation described in Finding 100. Using the Department's ground water model for the ESPA to simulate increases in reach gains and spring discharges resulting from the curtailment of the diversion and use of ground water solely for agricultural irrigation purposes provides reasonable quantification of the increases in reach gains and spring discharges resulting from the curtailment of the diversion and use of ground water for all purposes. *See* Finding 73.

103. The Department's ground water model for the ESPA (version 1.1) was used to simulate the effects of the conversions verified by the Department, including 18 percent incidental recharge from percolation, and documented voluntary curtailment implemented by the North Snake and Magic Valley ground water districts described in Finding 76 in response to the order described in Finding 75. Based on these simulations, excluding conversions and voluntary curtailment that based on model simulations contribute 10 percent or less of the non-depletion to the spring discharge in the Devil's Washbowl to Buhl Gage spring reach (10 percent is the uncertainty in model simulations, *see* Finding 17), the actions taken by the North Snake and Magic Valley ground water districts in 2005, which must be ongoing as described in Finding 76, will increase spring discharge in the Devil's Washbowl to Buhl Gage spring reach, which includes the springs from which Clear Springs diverts surface water for its Crystal Springs Farm, by an average of 12.2 cfs at steady state conditions.

104. Assuming that 31 percent of any increase in reach gains in the Devil's Washbowl to Buhl Gage spring reach would accrue to the Crystal Springs Farm diversions (*see* Finding 16), it is estimated that the effects of the ongoing conversions and voluntary curtailment implemented by the North Snake and Magic Valley ground water districts for 2005 and described in Finding 76 will increase the discharge of springs providing the water supply for water right nos. 36-07083 and 36-07568 held by Clear Springs by an average of 3.8 cfs at steady state conditions.

105. Assuming that 31 percent of any increase in reach gains in the Devil's Washbowl to Buhl Gage spring reach would accrue to the Crystal Springs Farm diversions (*see* Finding 16),

it is estimated that the effects of the ongoing curtailment and substitute curtailment implemented in phases over five years in the North Snake and Magic Valley ground water districts as described in Finding 76 will increase the discharge of springs providing the water supply for water right nos. 36-07083 and 36-07568 held by Clear Springs by an average of about 15 cfs (31 percent of 48 cfs) at steady state conditions.

106. Matters expressed herein as a Finding of Fact that are later deemed to be a Conclusion of Law are hereby made as a Conclusion of Law.

CONCLUSIONS OF LAW

1. Idaho Code § 42-602, addressing the authority of the Director over the supervision of water distribution within water districts, provides:

The director of the department of water resources shall have direction and control of the distribution of water from all natural water sources within a water district to the canals, ditches, pumps and other facilities diverting therefrom. Distribution of water within water districts created pursuant to section 42-604, Idaho Code, shall be accomplished by watermasters as provided in this chapter and supervised by the director. The director of the department of water resources shall distribute water in water districts in accordance with the prior appropriation doctrine. The provisions of chapter 6, title 42, Idaho Code, shall apply only to distribution of water within a water district.

2. Idaho Code § 42-603, which grants the Director authority to adopt rules governing water distribution, provides as follows:

The director of the department of water resources is authorized to adopt rules and regulations for the distribution of water from the streams, rivers, lakes, ground water and other natural water sources as shall be necessary to carry out the laws in accordance with the priorities of the rights of the users thereof. Promulgation of rules and regulations shall be in accordance with the procedures of chapter 52, title 67, Idaho Code.

In addition, Idaho Code § 42-1805(8) provides the Director with authority to “promulgate, adopt, modify, repeal and enforce rules implementing or effectuating the powers and duties of the department.”

3. The issue of how to integrate the administration of surface and ground water rights diverting from a common water source in the Eastern Snake Plain area has been a continuing point of debate for more than two decades. To date, no Idaho court has directly and fully addressed the issue of how to integrate the administration of the surface and ground water rights that were historically administered as separate sources. The progress made in adjudicating the ground water rights in the Snake River Basin Adjudication and the development of the reformulated ground water model for the ESPA used by the Department to simulate the effects of ground water depletions on hydraulically-connected tributaries and reaches of the Snake River now allow the State to address this issue during this period of unprecedented drought.

4. Resolution of the conjunctive administration issue lies in the application of two well established principles of the prior appropriation doctrine: (1) the principle of “first in time is first in right” and (2) the principle of optimum use of Idaho’s water. Both of these principles are subject to the requirement of reasonable use.

5. “Priority of appropriations shall give the better right as between those using the water” of the state. Art. XV, § 3, Idaho Const. “As between appropriators, the first in time is first in right.” Idaho Code § 42-106.

6. “[W]hile the doctrine of ‘first in time is first in right’ is recognized [and applies to ground water rights], a reasonable exercise of this right shall not block full economic development of underground water resources.” Idaho Code § 42-226.

7. Because it is the policy of this state to integrate the appropriation, use, and administration of ground water tributary to a stream with the use of surface water from the stream in such a way as to optimize the beneficial use of all of the water of this state, “[a]n appropriator is not entitled to command the entirety of large volumes of water in a surface or ground water source to support his appropriation contrary to the public policy of reasonable use of water . . .” IDAPA 37.03.11.020.03; *see also Schodde v. Twin Falls Land & Water Co.*, 224 U.S. 107, 119 (1912).

8. It is the duty of a watermaster, acting under the supervision of the Director, to distribute water from the public water supplies within a water district among those holding rights to the use of the water in accordance with the prior appropriation doctrine as implemented in Idaho law, including applicable rules promulgated pursuant to the Idaho Administrative Procedure Act. *See* Idaho Code § 42-607.

9. The Director created Water Districts No. 130 and No. 120 on February 19, 2002, and extended the boundaries of Water Districts No. 130 and No. 120 on January 8, 2003, and January 22, 2004, respectively, to provide for the administration of ground water rights in the area overlying the ESPA in the Thousand Springs area and the American Falls area, pursuant to the provisions of chapter 6, title 42, Idaho Code, for the protection of prior surface and ground water rights.

10. The Director has appointed watermasters for Water Districts No. 120 and No. 130 to perform the statutory duties of a watermaster in accordance with guidelines, direction, and supervision provided by the Director. The Director has given specific directions to the watermasters for Water Districts No. 120 and No. 130 to curtail illegal diversions, measure and report diversions, and curtail out-of-priority diversions determined by the Director to be causing injury to senior priority water rights that are not covered by a stipulated agreement or a mitigation plan approved by the Director.

11. In accordance with chapter 52, title 67, Idaho Code, the Department adopted rules regarding the conjunctive management of surface and ground water effective October 7, 1994. IDAPA 37.03.11. The Conjunctive Management Rules prescribe procedures for responding to a

delivery call made by the holder of a senior priority surface or ground water right against junior priority ground water rights in an area having a common ground water supply. IDAPA 37.03.11.001.

12. Rule 10 of the Conjunctive Management Rules, IDAPA 37.03.11.010, contains the following pertinent definitions:

01. Area Having a Common Ground Water Supply. A ground water source within which the diversion and use of ground water or changes in ground water recharge affect the flow of water in a surface water source or within which the diversion and use of water by a holder of a ground water right affects the ground water supply available to the holders of other ground water rights.

03. Conjunctive Management. Legal and hydrologic integration of administration of the diversion and use of water under water rights from surface and ground water sources, including areas having a common ground water supply.

04. Delivery Call. A request from the holder of a water right for administration of water rights under the prior appropriation doctrine.

07. Full Economic Development Of Underground Water Resources. The diversion and use of water from a ground water source for beneficial uses in the public interest at a rate that does not exceed the reasonably anticipated average rate of future natural recharge, in a manner that does not result in material injury to senior-priority surface or ground water rights, and that furthers the principle of reasonable use of surface and ground water as set forth in Rule 42.

08. Futile Call. A delivery call made by the holder of a senior-priority surface or ground water right that, for physical and hydrologic reasons, cannot be satisfied within a reasonable time of the call by immediately curtailing diversions under junior-priority ground water rights or that would result in waste of the water resource.

14. Material Injury. Hindrance to or impact upon the exercise of a water right caused by the use of water by another person as determined in accordance with Idaho Law, as set forth in Rule 42.

16. Person. Any individual, partnership, corporation, association, governmental subdivision or agency, or public or private organization or entity of any character.

17. Petitioner. Person who asks the Department to initiate a contested case or to otherwise take action that will result in the issuance of an order or rule.

19. Reasonably Anticipated Average Rate Of Future Natural Recharge. The estimated average annual volume of water recharged to an area having a common ground water supply from precipitation, underflow from tributary sources, and stream losses and also water incidentally recharged to an area having a common ground water supply as a result of the diversion and use of water for irrigation and other purposes. The estimate will be based on available data regarding conditions of diversion and use of water existing at the time the estimate is made and may vary as these conditions and available information change.

20. Respondent. Persons against whom complaints or petitions are filed or about whom investigations are initiated.

13. As used herein, the term “injury” means “material injury” as defined by Rule 10.14 of the Conjunctive Management Rules.

14. The diversion and use of ground water under existing rights results in an average annual depletion of ground water from the ESPA of nearly 2.0 million acre-feet and does not exceed the “Reasonably Anticipated Average Rate of Future Natural Recharge,” consistent with Rule 10.07 of the Conjunctive Management Rules.

15. Rule 20 of the Conjunctive Management Rules contains the following pertinent statements of purpose and policies for conjunctive management of surface and ground water resources:

01. Distribution of Water Among the Holders of Senior and Junior-Priority Rights. The rules apply to all situations in the State where the diversion and use of water under junior-priority ground water rights either individually or collectively causes material injury to uses of water under senior-priority water rights. The rules govern the distribution of water from ground water sources and areas having a common ground water supply.

02. Prior Appropriation Doctrine. These rules acknowledge all elements of the prior appropriation doctrine as established by Idaho law.

03. Reasonable Use Of Surface And Ground Water. These rules integrate the administration and use of surface and ground water in a manner consistent with the traditional policy of reasonable use of both surface and ground water. The policy of reasonable use includes the concepts of priority in time and superiority in right being subject to conditions of reasonable use as the legislature may by law prescribe as provided in Article XV, Section 5, Idaho Constitution, optimum development of water resources in the public interest prescribed in Article XV, Section 7, Idaho Constitution, and full economic development as defined by Idaho law. An appropriator is not entitled to command the entirety of large volumes of water in a surface or ground water source to support his appropriation contrary to the public policy of reasonable use of water as described in this rule.

04. Delivery Calls. These rules provide the basis and procedure for responding to delivery calls made by the holder of a senior-priority surface or ground water right against the holder of a junior-priority ground water right. The principle of the futile call applies to the distribution of water under these rules. Although a call may be denied under the futile call doctrine, these rules may require mitigation or staged or phased curtailment of a junior-priority use if diversion and use of water by the holder of the junior-priority water right causes material injury, even though not immediately measurable, to the holder of a senior-priority surface or ground water right in instances where the hydrologic connection may be remote, the resource is large and no direct immediate relief would be achieved if the junior-priority water use was discontinued.

05. Exercise Of Water Rights. These rules provide the basis for determining the reasonableness of the diversion and use of water by both the holder of a senior-priority water

right who requests priority delivery and the holder of a junior-priority water right against whom the call is made.

11. Domestic and Stock Watering Ground Water Rights Exempt. A delivery call shall not be effective against any ground water right used for domestic purposes regardless of priority date where such domestic use is within the limits of the definition set forth in Section 42-111, Idaho Code, nor against any ground water right used for stock watering where such stock watering use is within the limits of the definition set forth in Section 42-1401A(12), Idaho Code; provided, however, this exemption shall not prohibit the holder of a water right for domestic or stock watering uses from making a delivery call, including a delivery call against the holders of other domestic or stockwatering rights, where the holder of such right is suffering material injury.

16. Rule 40 of the Conjunctive Management Rules sets forth the following procedures to be followed for responses to calls for water delivery made by the holders of senior priority surface or ground water rights against the holders of junior priority ground water rights from areas having a common ground water supply in an organized water district:

01. Responding to a Delivery Call. When a delivery call is made by the holder of a senior-priority water right (petitioner) alleging that by reason of diversion of water by the holders of one or more junior-priority ground water rights (respondents) from an area having a common ground water supply in an organized water district the petitioner is suffering material injury, and upon a finding by the Director as provided in Rule 42 that material injury is occurring, the Director, through the watermaster, shall:

a. Regulate the diversion and use of water in accordance with the priorities of rights of the various surface or ground water users whose rights are included within the district, provided, that regulation of junior-priority ground water diversion and use where the material injury is delayed or long range may, by order of the Director, be phased-in over not more than a five-year period to lessen the economic impact of immediate and complete curtailment; or

b. Allow out-of-priority diversion of water by junior-priority ground water users pursuant to a mitigation plan that has been approved by the Director.

02. Regulation of Uses of Water by Watermaster. The Director, through the watermaster, shall regulate use of water within the water district pursuant to Idaho law and the priorities of water rights as provided in section 42-604, Idaho Code, and under the following procedures:

a. The watermaster shall determine the quantity of surface water of any stream included within the water district which is available for diversion and shall shut the headgates of the holders of junior-priority surface water rights as necessary to assure that water is being diverted and used in accordance with the priorities of the respective water rights from the surface water source.

b. The watermaster shall regulate the diversion and use of ground water in accordance with the rights thereto, approved mitigation plans and orders issued by the Director.

c. Where a call is made by the holder of a senior-priority water right against the holder of a junior-priority ground water right in the water district the watermaster shall first determine whether a mitigation plan has been approved by the Director whereby diversion of ground water may be allowed to continue out of priority order. If the holder of a junior-priority ground water right is a participant in such approved mitigation plan, and is operating in conformance therewith, the watermaster shall allow the ground water use to continue out of priority.

d. The watermaster shall maintain records of the diversions of water by surface and ground water users within the water district and records of water provided and other compensation supplied under the approved mitigation plan which shall be compiled into the annual report which is required by section 42-606, Idaho Code.

e. Under the direction of the Department, watermasters of separate water districts shall cooperate and reciprocate in assisting each other in assuring that diversion and use of water under water rights is administered in a manner to assure protection of senior-priority water rights provided the relative priorities of the water rights within the separate water districts have been adjudicated.

03. Reasonable Exercise of Rights. In determining whether diversion and use of water under rights will be regulated under Rules 40.01.a., or 40.01.b., the Director shall consider whether the petitioner making the delivery call is suffering material injury to a senior-priority water right and is diverting and using water efficiently and without waste, and in a manner consistent with the goal of reasonable use of surface and ground waters as described in Rule 42. The Director will also consider whether the respondent junior-priority water right holder is using water efficiently and without waste.

04. Actions of the Watermaster under a Mitigation Plan. Where a mitigation plan has been approved as provided in Rule 42, the watermaster may permit the diversion and use of ground water to continue out of priority order within the water district provided the holder of the junior-priority ground water right operates in accordance with such approved mitigation plan.

17. In accordance with Rule 40 of the Conjunctive Management Rules, curtailment of junior priority ground water rights may only occur if the use of water under senior priority rights is consistent with Rule 20.03 of the Conjunctive Management Rules and injury is determined to be caused by the exercise of the junior priority rights. Factors that will be considered in determining whether junior priority ground water rights are causing injury to the senior priority water rights held by Clear Springs are set forth in Rule 42 of the Conjunctive Management Rules as follows:

01. Factors. Factors the Director may consider in determining whether the holders of water rights are suffering material injury and using water efficiently and without waste include, but are not limited to, the following:

a. The amount of water available in the source from which the water right is diverted.

b. The effort or expense of the holder of the water right to divert water from the source.

c. Whether the exercise of junior-priority ground water rights individually or collectively affects the quantity and timing of when water is available to, and the cost of exercising, a senior-priority surface or ground water right. This may include the seasonal as well as the multi-year and cumulative impacts of all ground water withdrawals from the area having a common ground water supply.

d. If for irrigation, the rate of diversion compared to the acreage of land served, the annual volume of water diverted, the system diversion and conveyance efficiency, and the method of irrigation water application.

e. The amount of water being diverted and used compared to the water rights.

f. The existence of water measuring and recording devices.

g. The extent to which the requirements of the holder of a senior-priority water right could be met with the user's existing facilities and water supplies by employing reasonable diversion and conveyance efficiency and conservation practices; provided, however, the holder of a surface water storage right shall be entitled to maintain a reasonable amount of carry-over storage to assure water supplies for future dry years. In determining a reasonable amount of carry-over storage water, the Director shall consider the average annual rate of fill of storage reservoirs and the average annual carry-over for prior comparable water conditions and the projected water supply for the system.

h. The extent to which the requirements of the senior-priority surface water right could be met using alternate reasonable means of diversion or alternate points of diversion, including the construction of wells or the use of existing wells to divert and use water from the area having a common ground water supply under the petitioner's surface water right priority.

02. Delivery Call For Curtailment of Pumping. The holder of a senior-priority surface or ground water right will be prevented from making a delivery call for curtailment of pumping of any well used by the holder of a junior-priority ground water right where use of water under the junior-priority right is covered by an approved and effectively operating mitigation plan.

18. The Letters received on May 2, 2005, by the Director from Larry Cope of Clear Springs Foods, Inc. requesting "water rights administration in Water District 130 pursuant to I.C. Section 42-607 in order to effectuate the delivery of Clear Springs Foods, Inc., a/k/a Clear Springs, water rights ..." at its Snake River Farm (water rights nos. 36-04013A, 36-04013B, and 36-07148) and at its Crystal Springs Farm (water rights nos. 36-07083 and 36-07568) are delivery calls as defined by Rule 10.04 of the Conjunctive Management Rules against junior priority ground water rights and a demand for the administration of surface water rights pursuant to Idaho Code § 42-607.

19. Rule 40 of the Conjunctive Management Rules applies to the delivery calls made by Clear Springs against the holders of junior priority ground water rights, but not surface water rights, in Water District No. 130. There are no surface water rights within Water District No. 120, and there are no surface water rights within Water District No. 36A that authorize diversion of water from the same sources as the water rights held by Clear Springs for its Snake River and Crystal Springs farms.

20. There is one surface water right in Water District No. 130 that authorizes the diversion and use of water from the same spring source as water rights nos. 36-04013B and 36-07148 held by Clear Springs for its Snake River Farm and that has a later priority date than the rights held by Clear Springs. Water right no. 36-08329 is held by Clear Lake Ranch P.U.D. Master Association, authorizes the diversion of 0.7 cfs for domestic purposes and 02.cfs for commercial purposes, and has a priority date of June 2, 1987. Water rights nos. 36-04013B and 36-07148 held by Clear Springs have the earlier priority dates of February 4, 1964, and January 31, 1971, respectively.

21. There are two surface water rights in Water District No. 130 that authorize the diversion and use of water from the same spring source as water rights nos. 36-07083 and 36-07568 held by Clear Springs for its Crystal Springs Farm and that have later priority dates than one or both of the rights held by Clear Springs. Water rights nos. 36-07164 and 36-07653 are held by the USCOE, authorize the diversion of up to 6.49 cfs and up to 69 cfs, respectively, for fish propagation, and have priority dates of March 5, 1971, and November 3, 1976, respectively. Water rights nos. 36-07083 and 36-07568 held by Clear Springs have the earlier priority dates of July 8, 1969, and September 6, 1975, respectively.

22. Rules 40 and 42 of the Conjunctive Management Rules require the Director to make determinations regarding "material injury" and the "reasonableness of water diversions" in responding to a delivery call against junior priority ground water rights in Water District No. 130.

23. The reductions in the quantity of water discharging from springs in the Thousand Springs area attributable to depletions to the ESPA from the diversion and use of ground water in Water District No. 130 do not automatically constitute material injury to surface water rights diverting from springs or dependent on sources formed by springs even when the diversion and use of ground water occur under water rights that are junior in priority to such surface water rights. Whether reductions in the quantity of water discharging from springs caused by the diversion and use of ground water under junior priority rights in Water District No. 130 constitute material injury is dependent on the factors enumerated in Rule 42 of the Conjunctive Management Rules.

24. The records of spring discharge diverted to the Snake River Farm included with the pertinent letter described in Finding 35 show that the quantity of water available at the source for water rights nos. 36-02703, 36-02048, and 36-04013C, with the priority dates of November 23, 1933, April 11, 1938, and November 20, 1940, respectively, is currently sufficient to continuously fill these rights at the combined authorized diversion rate of 74.00 cfs. Similarly, the quantity of water available at the source for water right no. 36-04013A with the priority date

of September 15, 1955, taking into account the seasonal variations in spring flows that have existed since the date of appropriation for this right, is also currently sufficient to fill this right at the authorized diversion rate of 15.00 cfs when the discharges from springs providing the source of water for this right are at seasonal highs. Therefore, there is no material injury to water rights nos. 36-02703, 36-02048, 36-04013C, or 36-04013A.

25. Based on the records of spring discharge diverted to the Snake River Farm included with the pertinent letter described in Finding 35, the quantity of water available at the source for water rights nos. 36-04013B and 36-07148 with the priority dates of February 4, 1964, and January 31, 1971, respectively, was 24.5 cfs less than the combined authorized diversion rate for these rights of 28.67 cfs at the seasonal maximum spring discharge in 2004, which is expected to be similar in 2005.

26. Because of the estimated 2 cfs of collected spring discharge observed to be escaping the western-most spring collection box for the 54-inch diameter pipeline to the Snake River Farm, which was found to be in disrepair during the field inspections conducted on May 5, 2005, Clear Springs has not gone to reasonable effort or expense to divert water from the source for water right no. 36-04013B as required by Rule 42.01.b. of the Conjunctive Management Rules. *See* IDAPA 37.03.11.042.01.b.

27. Because of the approximately 6 or 7 irrigated acres of grass and landscaping around the facilities at the Snake River Farm observed during the field inspections conducted on May 5, 2005, in excess of the 1 acre authorized under water rights held for the Snake River Farm, Clear Springs is not diverting and using water consistent with the water rights as required by Rule 42.01.e. of the Conjunctive Management Rules. *See* IDAPA 37.03.11.042.e.

28. Based on simulations using the Department's reformulated and recalibrated ground water model, curtailing the diversion and use of ground water on an ongoing basis under rights for agricultural irrigation that (1) are in the area of common ground water supply described in Finding 1 and Water District No. 130, (2) have priority dates later than the priority date for water right no. 36-04013B (February 4, 1964) held by Clear Springs for its Snake River Farm, and (3) reduce spring discharge in the Buhl Gage to Thousand Springs spring reach by more than 10 percent of the amount of depletion to the ESPA resulting from those ground water diversions (10 percent is the uncertainty in model simulations, see Finding 17), would increase the discharge of springs in the Buhl Gage to Thousand Springs spring reach, which includes the springs from which Clear Springs diverts surface water to the Snake River Farm, by a total average amount of 38 cfs at steady state conditions.

29. Assuming that 7 percent of any increase in reach gains in the Buhl Gage to Thousand Springs spring reach would accrue to the Snake River Farm diversions (*see* Finding 15), it is estimated that curtailing the diversion and use of ground water on an ongoing basis under water rights within Water District No. 130 that have priority dates later than the priority date for water right no. 36-0413B (February 4, 1964) would increase the discharge of springs providing the water supply for water right nos. 36-04013B and 36-07148 held by Clear Springs by an average of 2.7 cfs, varying from a seasonal low of about 1 cfs to a seasonal high of about

4.3 cfs, at steady state conditions. The amount of 4.3 cfs is about one-sixth of the shortage described in Finding 60.

30. Notwithstanding the disrepair of the western-most spring collection box for the 54-inch diameter pipeline to the Snake River Farm, the out-of-priority diversion of up to 0.9 cfs by the Clear Lake Ranch P.U.D. Master Association under water right no. 36-08329, and the unauthorized irrigation of 6 to 7 acres of grass and landscaping at the Snake River Farm, when superimposed on the effects of changes in surface water irrigation, described in Finding 6, and drought, the diversion and consumptive use of ground water under water rights junior in priority to water rights nos. 36-04013B and 36-07148 held by Clear Springs for its Snake River Farm are reducing the quantity of water available to water rights nos. 36-04013B and 36-07148, thereby causing material injury.

31. The material injury to water rights nos. 36-04013B and 36-07148 held by Clear Springs for its Snake River Farm caused by the diversion and consumptive use of ground water under junior priority water rights in Water District No. 130 is both delayed and long range.

32. Conditioned on repair of the western-most spring collection box for the 54-inch diameter pipeline to the Snake River Farm acceptable to the Director, the Director should order the curtailment of junior priority ground water rights causing material injury to water rights nos. 36-04013B and 36-07148 held by Clear Springs for its Snake River Farm phased-in over a five-year period to lessen the economic impact of immediate and complete curtailment pursuant to IDAPA 37.03.11.040.01.a, offset by verified substitute curtailment (conversions and voluntary curtailment) provided through the ground water district(s) or irrigation district through which mitigation can be provided. Involuntary curtailment and substitute curtailment together should be implemented in 2005, 2006, 2007, 2008, and 2009, such that based on simulations using the Department's ground water model for the ESPA, phased curtailment will result in simulated cumulative increases to the average discharge of springs in the Buhl Gage to Thousand Springs spring reach at steady state conditions of at least 8 cfs, 16 cfs, 23 cfs, 31 cfs, and 38 cfs, for each year respectively.

33. The Director should order ongoing curtailment of junior priority ground water rights causing material injury to water rights nos. 36-04013B and 36-07148, offset by verified substitute curtailment, until there is no longer material injury. Material injury will cease when the total amount of water available for beneficial use by Clear Springs at its Snake River Farm under rights no. 36-02703, no. 36-02048, no. 36-04013C, no. 36-04013A, no. 36-04013B, and no. 36-07148 at the seasonal maximum spring discharge reaches 117.67 cfs.

34. Based on the records of spring discharge diverted to the Crystal Springs Farm included with the pertinent letter described in Finding 35, the quantity of water available at the source for water rights nos. 36-07083 and 36-07568 having priority dates of July 8, 1969, and September 6, 1975, respectively, was 75.3 cfs less than the combined authorized diversion rate for these rights of 335.1 cfs at the seasonal maximum spring discharge in 2004, which is expected to be similar in 2005.

35. Because no factors have been identified that would preclude Clear Springs from extending the collection canal for the Crystal Springs Farm generally westerly along the hillside below the collection canal for the Magic Valley Hatchery for a distance of about 800 feet, more or less, to capture an estimated additional 30 cfs to 74 cfs of seasonally-dependent and varying spring discharge from the source for water rights nos. 36-07083 and 36-07568, Clear Springs has not gone to reasonable effort or expense to divert water from the source, used reasonable diversion and conveyance practices, or used reasonable alternate points of diversion for water rights nos. 36-07083 and 36-07568 as required by Rules 42.01.b., 42.01.g., and 42.01.h. of the Conjunctive Management Rules. *See* IDAPA 37.03.11.042.01.b, .g, and .h.

36. Based on simulations using the Department's reformulated and recalibrated ground water model, curtailing the diversion and use of ground water on an ongoing basis under rights for agricultural irrigation that (1) are in the area of common ground water supply described in Finding 1 and Water District No. 130, (2) have priority dates later than the priority date for water right no. 36-07083 (July 8, 1969) held by Clear Springs for its Crystal Springs Farm, and (3) reduce spring discharge in the Devil's Washbowl to Buhl Gage spring reach by more than 10 percent of the amount of depletion to the ESPA resulting from those ground water diversions (10 percent is the uncertainty in model simulations, see Finding 17), would increase the discharge of springs in the Devil's Washbowl to Buhl Gage spring reach, which includes the springs from which Clear Springs diverts surface water to the Crystal Springs Farm, by a total average amount of 69 cfs at steady state conditions.

37. Assuming that 31 percent of any increase in reach gains in the Devil's Washbowl to Buhl Gage spring reach would accrue to the Crystal Springs Farm diversions (*see* Finding 16), it is estimated that curtailing the diversion and use of ground water on an ongoing basis under water rights within Water District No. 130 that have priority dates later than the priority date for water right no. 36-07083 (July 8, 1969) would increase the discharge of springs providing the water supply for water right nos. 36-07083 and 36-07568 held by Clear Springs by an average of 21 cfs, varying from a seasonal low of about 16 cfs to a seasonal high of about 27 cfs, at steady state conditions. The amount of 27 cfs is about one-third of the shortage described in Finding 81.

38. Assuming that 31 percent of any increase in reach gains in the Devil's Washbowl to Buhl Gage spring reach would accrue to the Crystal Springs Farm diversions (*see* Finding 16), it is estimated that the effects of the ongoing curtailment and substitute curtailment implemented in phases over five years in the North Snake and Magic Valley ground water districts as required by the order issued by the Director on May 19, 2005, providing for the administration of certain junior priority ground water rights to supply the prior rights of Blue Lakes Trout as described in Findings 75 and 76, will increase the discharge of springs providing the water supply for water rights nos. 36-07083 and 36-07568 held by Clear Springs by an average of about 15 cfs (31 percent of 48 cfs) at steady state conditions, which is 12 cfs less than what is estimated would result from curtailing the diversion and use of ground water on an ongoing basis under water rights within Water District No. 130 that have priority dates later than the priority date for water right no. 36-07083 (July 8, 1969).

39. Employing reasonable effort or expense to divert water from the source and using reasonable diversion practices and alternate points of diversion for water rights nos. 36-07083 and 36-07568, by extending and improving the collection canal for the Crystal Springs Farm to capture and convey additional seasonally-dependent spring discharge from the source for water rights nos. 36-07083 and 36-07568, as required by Rules 42.01.b., 42.01.g., and 42.01.h. of the Conjunctive Management Rules, would immediately provide more water to Crystal Springs Farm, varying from at least about 30 cfs to 74 cfs, than would be provided from curtailing the diversion and use of ground water on an ongoing basis under water rights within Water District No. 130 that have priority dates later than the priority date for water right no. 36-07083 (July 8, 1969).

40. The Director should not order additional curtailment of the diversion and use of ground water under water rights within Water District No. 130 that have priority dates later than the priority date for water right no. 36-07083 (July 8, 1969) held by Clear Springs for its Crystal Springs Farm unless Clear Springs extends and improves the collection canal for the Crystal Springs Farm to capture and convey the additional seasonally-dependent spring discharge that exists at the source and under the priority dates for water rights nos. 36-07083 and 36-07568 and material injury is occurring to water rights nos. 36-07083 and 36-07568 from the diversion and use of such junior priority ground water rights, or unless Clear Springs demonstrates to the satisfaction of the Director that extending and improving the collection canal for the Crystal Springs Farm is infeasible.

ORDER

In response to the water delivery calls made by Clear Springs Foods, Inc. for its Snake River and Crystal Springs Farms, and for the reasons stated in the foregoing Findings of Fact and Conclusions of Law, the Director orders as follows:

IT IS HEREBY ORDERED that by July 22, 2005, Clear Springs must present evidence acceptable to the Director of a legal basis to continue irrigation of the grass and landscaping at its Snake River Farm facilities. If an acceptable legal basis to continue irrigation is not provided by July 22, 2005, then beginning on July 25, 2005, the Director will instruct the watermaster for Water District No. 130 to curtail the irrigation of grass and landscaping at the Snake River Farm on all but one acre, which is authorized collectively under water rights nos. 36-04013C and 36-07148.

IT IS FURTHER ORDERED that the watermaster for Water District No. 130 is instructed to provide a copy of this order to the Clear Lake P.U.D. Master Association and provide notice that the Association shall have until June 1, 2006, to obtain use of water pursuant to a water right having a priority date earlier than the priority date for water right no. 36-04013C (February 4, 1964) held by Clear Springs for its Snake River Farm, and cease its out-of-priority diversions under water right no. 36-08329. If the Association fails to obtain use of such water right by June 1, 2006, and the water supply available at the source for water rights held by Clear Springs for diversion and use at its Snake River Farm is less than the total amount of 117.67 cfs,

the watermaster shall immediately curtail diversions by the Association under water right no. 36-08329 as necessary to distribute water to Clear Springs' prior rights.

IT IS FURTHER ORDERED that when repair of the western-most spring collection box for the 54-inch diameter pipeline to the Snake River Farm is made to the satisfaction of the Director, ground water diversions under certain rights for consumptive uses later in priority than February 4, 1964, determined by the Director to cause material injury to water rights nos. 36-04013B and 36-07148 held by Clear Springs for its Snake River Farm, are subject to ongoing curtailment, until further order of the Director, as follows:

- (1) Ground water rights for consumptive uses subject to curtailment include rights for agricultural, commercial, industrial, municipal, or other consumptive uses, excluding ground water rights used for de minimis domestic purposes where such domestic use is within the limits of the definition set forth in Idaho Code § 42-111 and ground water rights used for de minimis stock watering where such stock watering use is within the limits of the definitions set forth in Idaho Code § 42-1401A(12), pursuant to IDAPA 37.03.11.020.11.
- (2) Involuntary curtailment will be phased-in over a five-year period, offset by substitute curtailment (conversions and voluntary curtailment) provided through the ground water district(s) or irrigation district through which mitigation can be provided and verified by the Department. Involuntary curtailment and substitute curtailment together must be implemented in 2005, 2006, 2007, 2008, and 2009, such that based on simulations using the Department's ground water model for the ESPA, phased curtailment will result in simulated cumulative increases to the average discharge of springs in the Buhl Gage to Thousand Springs spring reach, which includes the springs that provide the source of water for the water rights held by Clear Springs for its Snake River Farm, at steady state conditions of at least 8 cfs, 16 cfs, 23 cfs, 31 cfs, and 38 cfs, for each year respectively.
- (3) The actions taken by the Idaho Ground Water Appropriators in 2005 on behalf of its members, consisting of acquisition and use of surface water for irrigation of certain lands in lieu of irrigation using ground water ("conversions") in the North Snake Ground Water District and voluntary curtailment of ground water irrigation of certain lands in the Magic Valley Ground Water District, and thus far approved by the Director as ongoing, are recognized as increasing spring discharge in the Devil's Washbowl to Buhl Gage spring reach by an average of 7.8 cfs at steady state conditions based on simulations using the Department's ground water model for the ESPA. Once Clear Springs has completed repair of the western-most spring collection box for the 54-inch diameter pipeline to the Snake River Farm, additional ongoing voluntary curtailment within the North Snake and Magic Valley ground water districts must be identified to increase the simulated spring

discharge in the Devil's Washbowl to Buhl Gage spring reach to at least 8 cfs, or a corresponding amount of involuntary curtailment in 2005 by priority date will be ordered by the Director.

- (4) Unless approved mitigation or substitute curtailment is provided on behalf of the holder of an affected water right for irrigation by an irrigation district, the holder of a ground water right for irrigation that is not a member of a ground water district when such district is providing approved substitute curtailment considered to be for "mitigation purposes" under provision (3) above, shall be deemed a nonmember participant for mitigation purposes pursuant to H.B. No. 848 (*Act Relating to the Administration of Ground Water Rights within the Eastern Snake River Plain*, ch. 352, 2004 Idaho Sess. Laws 1052) and shall be required to pay the ground water district nearest the lands to which the water right is appurtenant for mitigation purposes pursuant to Idaho Code § 42-5259.
- (5) If at any time the mitigation or substitute curtailment is not provided as required herein, the water rights subject to curtailment as provided herein shall be immediately curtailed by the watermaster for Water District No. 130, based on the priorities of the rights, to the extent mitigation or substitute curtailment has not been provided.
- (6) The holder of a ground water right subject to curtailment as provided herein where the purpose of use is commercial, domestic, industrial, municipal, or stockwater, who is not a member of a ground water district when such district is providing approved substitute curtailment, may participate in such mitigation purposes as a nonmember participant in the ground water district for mitigation purposes and pay the ground water district nearest the place of use for the water right an equitable share of the costs for mitigation. In any event, diversions of ground water under water rights for commercial, domestic, industrial, municipal, or stockwater, shall not be subject to curtailment in 2005, and the holders of such rights shall have until June 1, 2006, to obtain water rights that have priority dates earlier than February 4, 1964, subject to the provisions of Idaho Code § 42-222 or § 42-222A when the place of use is within a county where a declaration of a drought emergency exists on the date of the temporary transfer. Holders of ground water rights for domestic or municipal purposes having priority dates later than February 4, 1964, may also be able to exercise their constitutional preference as provided in Article XV, § 3 of the Idaho Constitution. The time period in which to obtain water rights that have priority dates earlier than February 4, 1964, shall be in lieu of a phased-in period for curtailment.

IT IS FURTHER ORDERED that no additional curtailment of the diversion and use of ground water under water rights within Water District No. 130 that have priority dates later than the priority date for water right no. 36-07083 (July 8, 1969) held by Clear Springs for its Crystal

Springs Farm will be ordered, beyond what is already required pursuant to this order and the Director's order of May 19, 2005, issued in response to the delivery call made by Blue Lakes Trout Farm, Inc., unless Clear Springs extends and improves the collection canal for the Crystal Springs Farm to capture and convey the additional seasonally-dependent spring discharge that exists at the source and under the priority dates for water rights nos. 36-07083 and 36-07568 and material injury is occurring to water rights nos. 36-07083 and 36-07568 from the diversion and use of such junior priority ground water rights, or unless Clear Springs demonstrates to the satisfaction of the Director that extending and improving the collection canal for the Crystal Springs Farm is infeasible.

IT IS FURTHER ORDERED that pursuant to Idaho Code § 67-5247 this Order is made effective upon issuance due to the immediate danger to the public welfare posed by the lack of certainty existing among holders of water rights for the diversion and use of ground water for irrigation from the Eastern Snake Plain Aquifer as to whether water will be available under the priorities of their respective rights during the 2005 irrigation season.

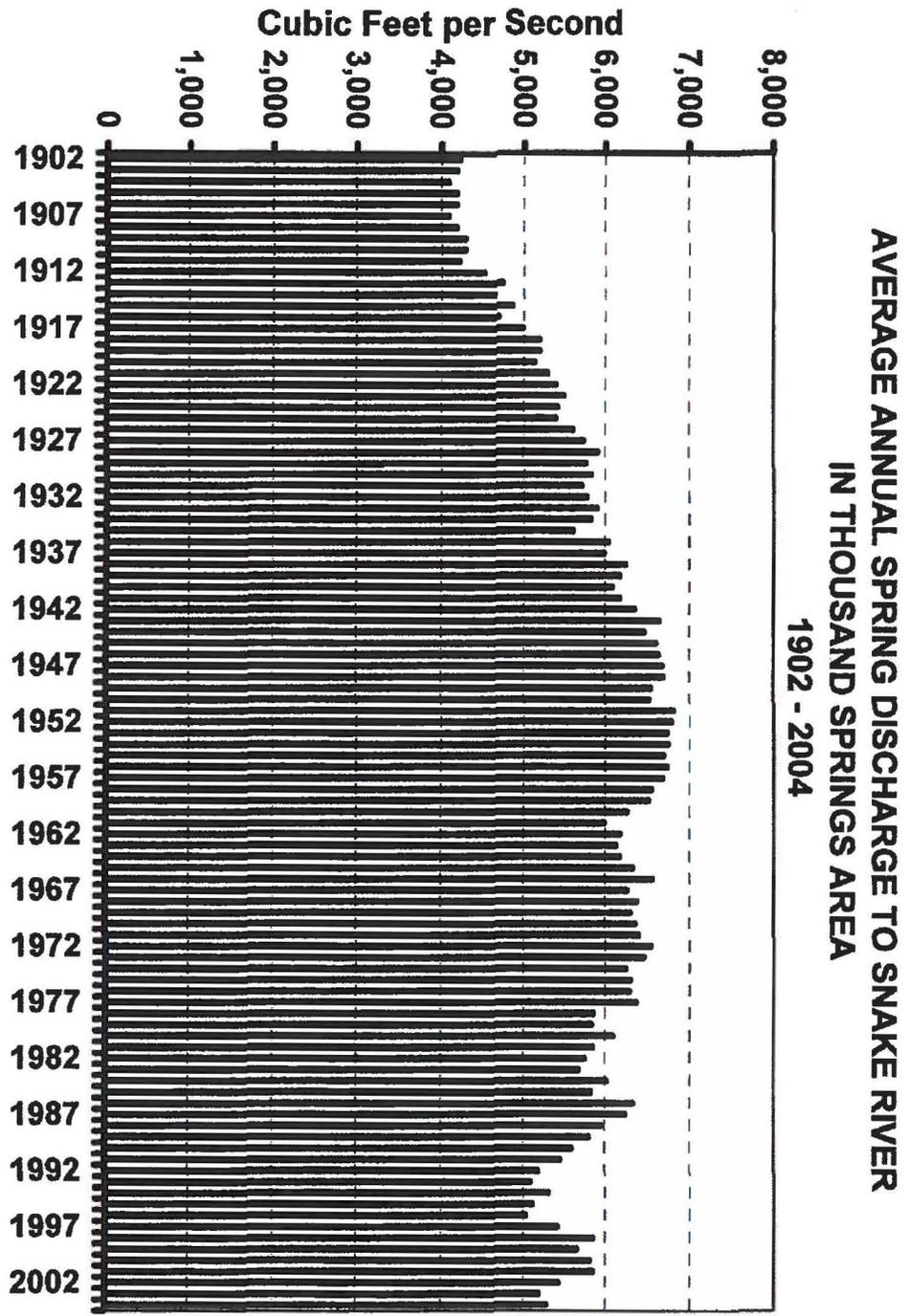
IT IS FURTHER ORDERED that this is a final order of the agency. Any party may file a petition for reconsideration of this final order within fourteen (14) days of the service date of this order. The agency will dispose of the petition for reconsideration within twenty-one (21) days of its receipt, or the petition will be considered denied by operation of law pursuant to Idaho Code § 67-5246.

IT IS FURTHER ORDERED that any person aggrieved by this decision shall be entitled to a hearing before the Director to contest the action taken provided the person files with the Director, within fifteen (15) days after receipt of written notice of the order, or receipt of actual notice, a written petition stating the grounds for contesting the action and requesting a hearing. Any hearing conducted shall be in accordance with the provisions of chapter 52, title 67, Idaho Code, and the Rules of Procedure of the Department, IDAPA 37.01.01. Judicial review of any final order of the Director issued following the hearing may be had pursuant to Idaho Code § 42-1701A(4).

DATED this 8 th day of July 2005.



KARL J. DREHER
Director

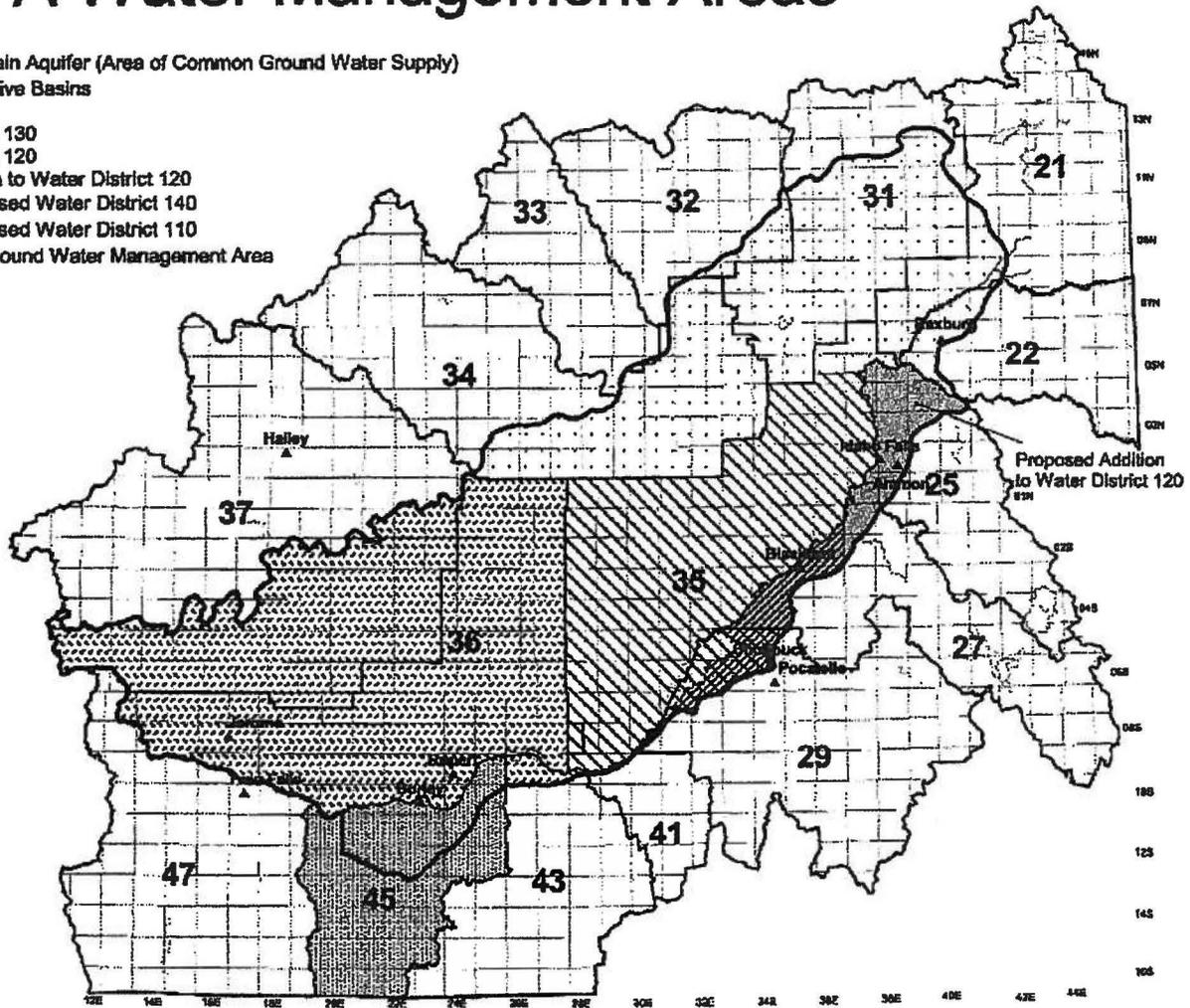


ATTACHMENT A

ESPA Water Management Areas

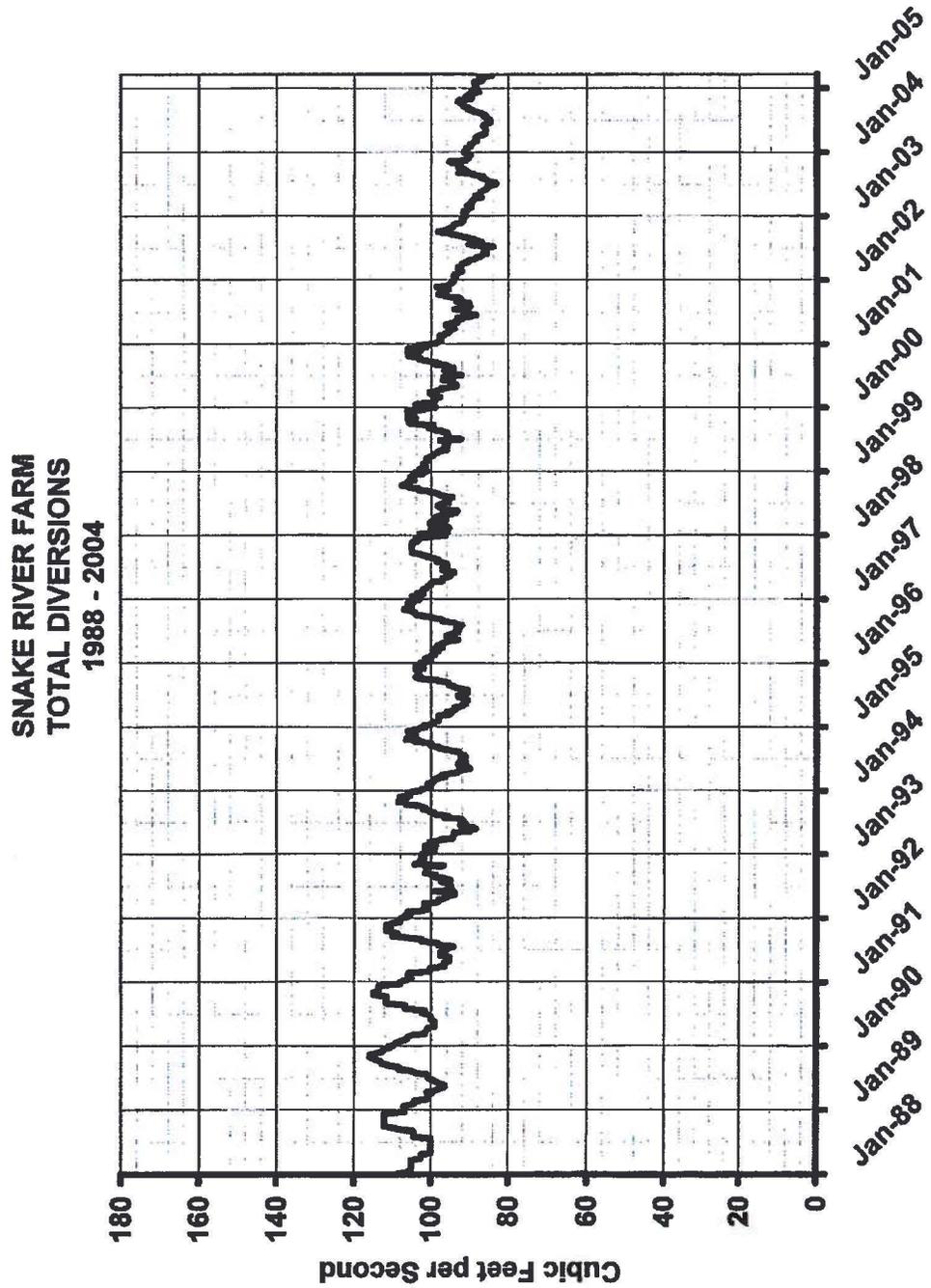
-  Eastern Snake Plain Aquifer (Area of Common Ground Water Supply)
-  IDWR Administrative Basins
-  Townships
-  Water District No. 130
-  Water District No. 120
-  Proposed Addition to Water District 120
-  Preliminary Proposed Water District 140
-  Preliminary Proposed Water District 110
-  American Falls Ground Water Management Area

10 0 10 20 Miles



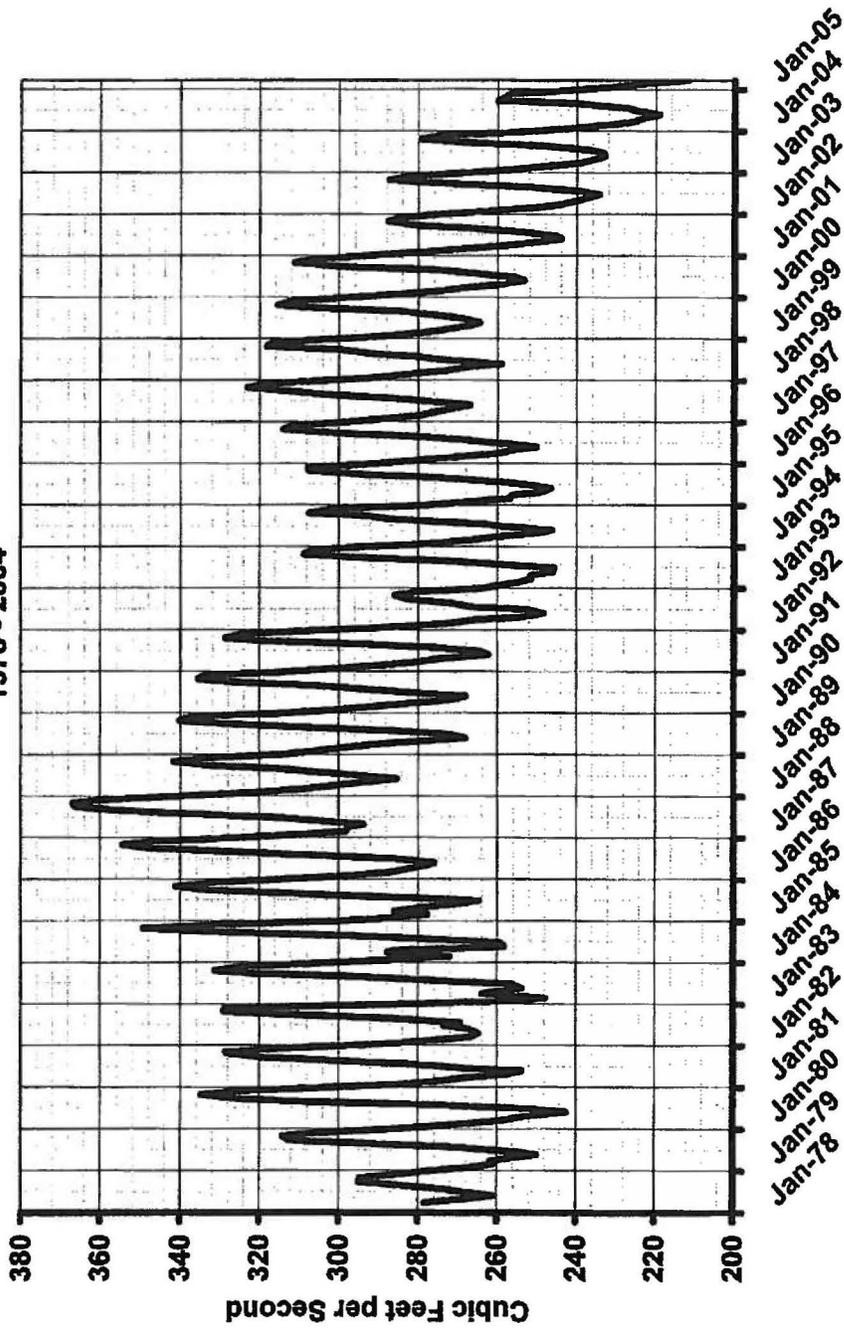
ATTACHMENT B

ATTACHMENT C



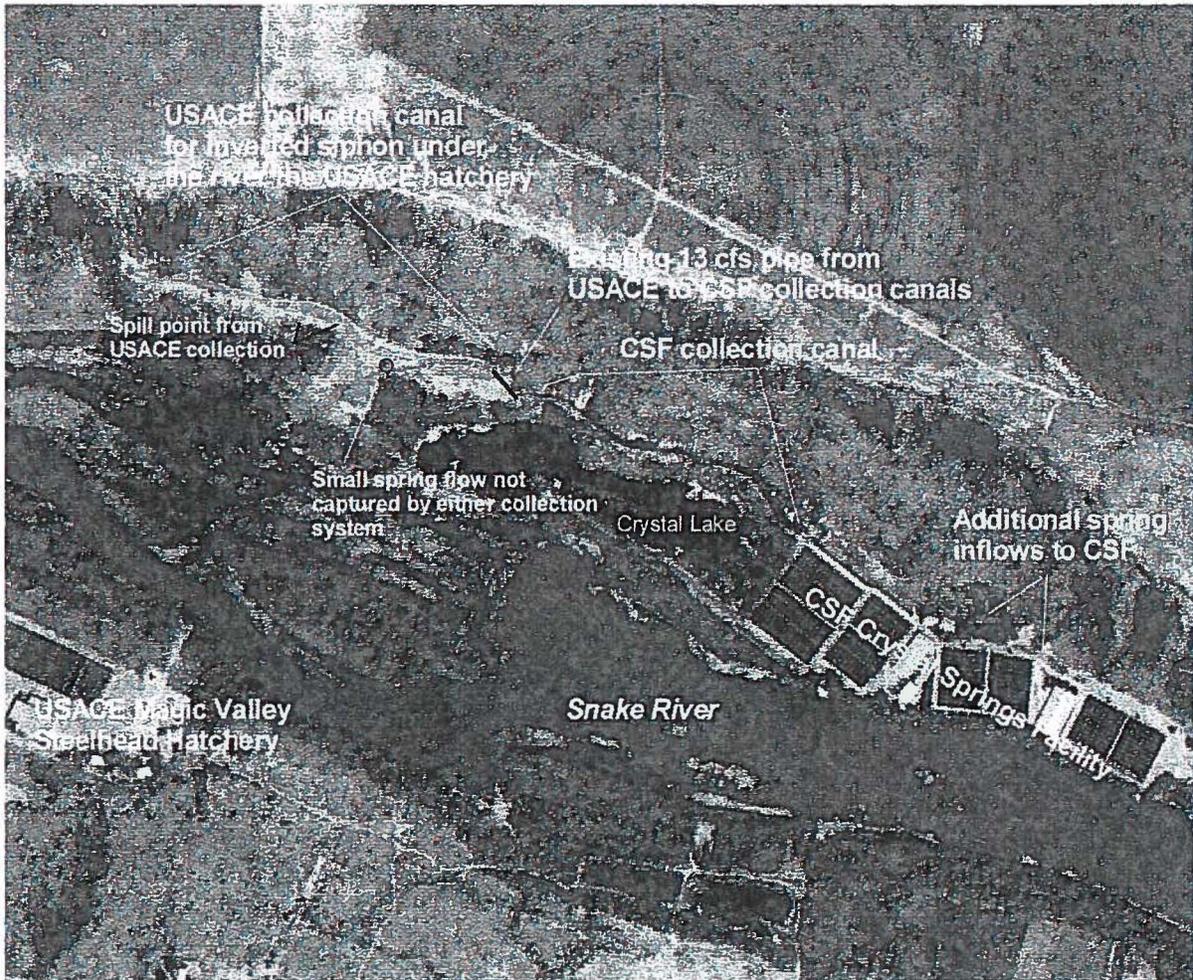
ATTACHMENT D

CRYSTAL SPRINGS FARM
TOTAL DIVERSIONS
1978 - 2004



ATTACHMENT E

**Spring Discharge Collection and Conveyance Facilities
Crystal Springs Farm and Magic Valley Hatchery**



CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on this 8th day of July, 2005, the above and foregoing document was served by placing a copy of the same in the United States mail, postage prepaid and properly addressed to the following:

LARRY COPE
CLEAR SPRINGS FODDS, INC.
PO BOX 712
BUHL ID 83303-1237
(208) 543-5608

U.S. Mail, Postage Prepaid
 Facsimile
 E-mail

JOHN SIMPSON
BARKER ROSHOLT
PO BOX 2139
BOISE ID 83701-2139
(208) 344-6034
jks@idahowaters.com

U.S. Mail, Postage Prepaid
 Facsimile
 E-mail

NORTH SNAKE GWD
152 E MAIN ST
JEROME ID 83338
(208) 388-1300

U.S. Mail, Postage Prepaid
 Facsimile

MAGIC VALLEY GWD
809 E 1000 N
RUPERT ID 83350-9537

U.S. Mail, Postage Prepaid
 Facsimile

MIKE CREAMER
JEFF FEREDAY
GIVENS PURSLEY
PO BOX 2720
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mcc@givenspursley.com
cf@givenspursley.com

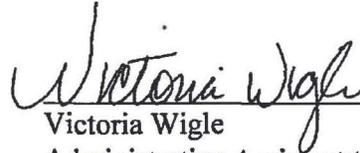
U.S. Mail, Postage Prepaid
 Facsimile
 E-mail

CINDY YENTER
WATERMASTER - WD 130
IDWR – SOUTHERN REGION
1341 FILLMORE ST STE 200
TWIN FALLS ID 83301-3380
(208) 736-3037
cindy.yenter@idwr.idaho.gov

U.S. Mail, Postage Prepaid
 Facsimile
 E-mail

FRANK ERWIN
WATERMASTER
WATER DIST 36
2628 S 975 E
HAGERMAN ID 83332

(x) U.S. Mail, Postage Prepaid



Victoria Wigle
Administrative Assistant to the Director
Idaho Department of Water Resources