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BEFORE THE DEPARTMENT OF WATER RESOURCES
OF THE STATE OF IDAHO

IN THE MATTER OF DISTRIBUTION OF WATER TO WATER RIGHT NOS. 36-02551 & 36-07694 (RANGEN, INC.)	Docket No. CM-DC-2011-004 **IGWA'S POST-HEARING BRIEF**

Idaho Ground Water Appropriators, Inc. (IGWA), acting for and on behalf of its members, submits this post-hearing brief pursuant to the instructions given by the Director at the close hearing on May 16, 2013.

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INTRODUCTION AND SUMMARY OF ANALYSIS

This is the second time Rangen has sought to curtail junior-priority water use. Rangen made its first delivery call in September of 2003. In February of 2004 Director Dreher ordered curtailment of all groundwater rights in Water District 130 with priority dates junior to July 13, 1962 (the priority date of Rangen's water right number 36-2551). (*Order* p. 26, Feb. 25, 2004.) ESPAM1.0 was released shortly thereafter, providing the Director with a better tool for evaluating the impact of groundwater pumping on water flows at Rangen. Based on curtailment predictions of ESPAM1.1, Director Dreher withdrew his prior curtailment order. He found it inappropriate to curtail junior rights for which ESPAM1.1 predicted less than 10 percent of the curtailed water would accrue to the senior water users, which in Rangen's case resulted in no material injury and a futile call. (*Second Amended Order* ¶ 25 p. 28, May 19, 2005.)

After the release of ESPAM1.1, the IDWR began working with the Eastern Snake Hydrologic Modeling Committee (ESHMC) on a number of improvements to the Model. IGWA participated in that effort, recognizing that an improved Model would provide better understanding of the aquifer and facilitate more accurate identification of junior groundwater rights that fall within the 10 percent trimline[1] in response to any given delivery call. Rangen and the Surface Water Coalition (SWC) also participated in the development of ESPAM2.0, but for a different reason. Their goal was to create an opportunity to re-litigate (for the third time) the Director's decision to use a 10 percent trimline.

Director Dreher, Hearing Officer Schroeder, and Director Tuthill were unified in their decision to limit priority administration to junior rights for which at least 10 percent of the curtailed water would accrue to the calling senior under steady state aquifer conditions. They provided two rationales: (i) the policy of Idaho law to secure the maximum use and benefit of its water resources; and (ii) inherent uncertainty in the impacts of curtailment as predicted by ESPAM. Both rationales are as valid now as they were then. Therefore, IGWA asks the Director to maintain the status quo by retaining the 10 percent trimline, which has been

[1] At the hearing, counsel for Rangen and for American Falls Reservoir District No. 2 argued that the parties should not be allowed to speak the word "trimline," contending it is ambiguous and would lead to confusion for reviewing judges. There is no evidence that any judge has to date misunderstood the meaning or effect of that term. Judge Melanson clearly explained: "In conjunction with running the model simulations in response to both delivery calls, the Director assigned a 10% margin of error factor, excluding from administration those junior rights identified by the model to be causing injury but within the 10% margin of error or "trim-line." *Order on Petition for Judicial Review* at 25, Case No. 2008-444 (Fifth Jud. Dist., Gooding County) (June 19, 2009). It is a simple concept, and since there are multiple orders and court decisions that use the word "trimline" it should continue to be used in this case. Creating a new term to replace the word "trimline" is more likely to cause confusion than maintaining consistent terminology.

sanctioned by the Idaho Supreme Court. *Clear Springs Foods, Inc. v. Spackman*, 150 Idaho 790, 817 (2011).

First, however, the Director must apply CM Rule 42[2] to determine whether Rangen is "suffering material injury and using water efficiently and without waste." Rangen operates its facility to raise fish for Idaho Power and to conduct research, and Rangen currently receives sufficient water to do both. While more water would enable Rangen to raise more fish, Rangen does not operate its facility to maximize fish production because Rangen does not want to compete with the commercial fish producers who buy Rangen fish feed. Since Rangen can accomplish its beneficial use with its current water supply, it is not suffering material injury and its delivery call should be denied.

Even if Rangen needed additional water to accomplish its beneficial use, it could use its existing water supply more efficiently, recirculate water through its facility, drill deeper into the Eastern Snake Plain Aquifer (ESPA), and/or pump water from Billingsley Creek. These types of improvements are used at other fish hatcheries in Idaho, and engineers have deemed them feasible for Rangen. Curtailment is not appropriate until Rangen makes such improvements or demonstrates they are not feasible.

Finally, if the Director refuses to require Rangen to improve its diversion and conveyance facilities, administration by priority (i.e. curtailment of junior rights) is still inappropriate because Rangen's means of appropriation, if protected, will unreasonably hinder beneficial use of the ESPA, in violation of article 15, section 3 of the Idaho Constitution. At a minimum, curtailment must be limited to junior rights for which at least 10 percent of the curtailed water will accrue to Rangen, which in Rangen's case results in a futile call.

Therefore, curtailment is not appropriate under the facts of this case.

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[2] The IDWR's *Rules for Conjunctive Management of Surface and Ground Water Sources*, found at IDAPA 37.03.11, are referred to herein as the "CM Rules." Specific provisions within the CM Rules are identified by CM Rule number as opposed to IDAPA number.

QUESTIONS PRESENTED

1. The Director is required to honor the decreed elements of water rights. Rangen's water rights identify only "Martin-Curren Tunnel" as the source of water. Is Rangen permitted to call for the delivery of water to other sources, or must its call be limited to water from the Martin-Curren Tunnel?

2. Curtailment is appropriate only if the senior is suffering "material injury." (CM Rule 42.) Though a senior's water supply may decline, the senior does not suffer material injury if it receives sufficient water to accomplish its beneficial use. Rangen operates its facility to raise fish for Idaho Power and to conduct research, and it receives sufficient water to do both. Is Rangen suffering material injury?

3. If a senior needs more water, but it can meet those needs by using water more efficiently or improving its diversion or conveyance system, curtailment is not appropriate. (CM Rule 42.) Rangen does not use water efficiently, and it can obtain as much water as it may get from curtailment by recirculating water, drilling deeper into the ESPA, and/or pumping water from Billingsley Creek. Should Rangen make such improvements before seeking to curtail beneficial water use under junior-priority water rights?

4. A senior is not permitted to curtail junior rights if its means of appropriation is unreasonable. Idaho Const. art. 15 § 3; *Clear Springs Foods, Inc. v. Spackman*, 150 Idaho 790 (2011). A means of appropriation is unreasonable if it significantly impedes beneficial use of Idaho's water resources. Rangen's means of appropriation, if protected, will unreasonably impede beneficial use of the ESPA. Is Rangen's means of appropriation unreasonable?

5. The Director has discretion to use a trimline to address Model uncertainty and prevent unreasonable waste of water resources. ESPAM2.1 predictions contain considerable uncertainty. Is it appropriate to maintain the 10% trimline used in prior conjunctive management cases?

6. If a senior needs more water, yet curtailment will not produce sufficient water to materially benefit the senior, the senior's delivery call is "futile" and curtailment is not appropriate. (CM Rule 10.08). Curtailment will provide a very small amount of water to Rangen, and not enough to raise more fish or conduct more research. Is Rangen's delivery call a futile call?

STATEMENT OF FACTS

IGWA's incorporates by reference *IGWA's Proposed Findings of Fact and Conclusions of Law* filed herewith.

LEGAL STANDARDS

The Director's disposition of Rangen's delivery call is subject to the Idaho Administrative Procedures Act, Title 67, Chapter 52, Idaho Code. The final order must contain a reasoned statement in support of the decision, and a concise and explicit statement of the facts in the record supporting the decision. Idaho Code § 67-5248. The decision must be supported by substantial evidence in the record, and must not violate constitutional or statutory provisions, exceed the statutory authority of the IDWR, be made upon unlawful procedure, or be arbitrary, capricious, or an abuse of discretion. Idaho Code § 67-5279.

In deciding the various issues presented in this case, the Director must apply appropriate burdens of persuasion and standards of proof. These are explained in *IGWA's Pretrial Brief* filed April 22, 2013. To summarize, since Rangen is receiving less than the maximum rate of diversion authorized under its water rights, any finding that Rangen is not suffering material injury must be supported by clear and convincing evidence. Rangen must make a prima facie showing that it is suffering material injury, but once that is accomplished, juniors have the ultimate burden of proving no injury by clear and convincing evidence.

In contrast, analyses that do not challenge the decreed elements of Rangen's water rights must be based on the preponderance of the evidence standard that normally governs administrative agency decisions. This includes determinations involving reasonable means of diversion, efficient use of water, and the constitutional right of water users to appropriate the water of the ESPA.

ANALYSIS

Curtailment of junior groundwater pumping is often an inefficient and potentially ineffective means of providing additional water to a senior water user. Groundwater exists in a very different hydrologic environment than surface water. It cannot simply be shepherded from one water user to another through rivers, canals, and ditches. Usually, exponentially more groundwater must be curtailed than will be received by the senior, the water will take years to show up, and it may show up at a time when the senior doesn't need it. This is why the CM Rules exist.

The CM Rules were developed to adapt to the groundwater environment, two sometimes competing constitutional edicts: on one hand, the doctrine that "first in time is first in right;" on the other hand, the right to appropriate the

unappropriated water of this state. Both are found in Article 15, Section 3 of the Idaho Constitution, and are addressed below in section 4 of this brief. Suffice it to say that in the conjunctive management context, administration strictly by priority often counteracts the "policy of the law of this State [] to secure the maximum use and benefit, and least wasteful use, of its water resources." *Clear Springs Foods*, 150 Idaho at 808 (quoting *Poole v. Olaveson*, 82 Idaho 496, 502 (1960).

The CM Rules address this tension by prescribing a very judicious approach to groundwater administration. Before curtailing beneficial water use, the Director must be persuaded that the senior is suffering material injury, that the senior is using water efficiently and its water needs cannot be met by improving its diversion or conveyance facilities, and that curtailment will not unreasonably impede full development of the resource. He must consider not only the verbiage of the CM Rules, but also the constitutional, statutory, and common law provisions on which they are predicated. (*See* CM Rules 5, 10.12, and 20.02.) The CM Rules and related provisions of law require the Director to answer the following questions:

1. Is Rangen receiving less than the maximum rate of diversion authorized by its SRBA partial decrees?
2. If so, does Rangen need more water to accomplish its beneficial use?
3. If so, can Rangen meet its water needs by using existing water supplies more efficiently, employing conservation practices, or improving its diversion and conveyance facilities?
4. If not, should administration by priority be limited at all by the constitutional right to appropriate unappropriated water?
5. Would curtailment be futile?

There is no dispute that the amount of water that discharges from the ESPA at Rangen has declined from peak levels of the 1960s, and that Rangen is receiving less than the maximum rate of diversion authorized under its water rights. However, as explained below, Rangen is receiving sufficient water to accomplish its beneficial use, and even if it did need more water, it can obtain substantially more water by improving its diversion and conveyance facilities. Rangen's delivery call should therefore be denied.

Rangen's call should also be denied because Rangen's means of diversion, if protected, will unreasonably impede maximum beneficial use of the ESPA. At a minimum, curtailment must be limited to junior rights for which at least 10 percent of the curtailed water will accrue to Rangen, which results in a futile call, as did Rangen's prior delivery call.

As a preliminary matter, it must also be pointed out that Rangen's delivery call is limited to water from the Curren Tunnel.

1. Rangen's delivery call is limited to water from the Curren Tunnel.

Much of the evidence presented by Rangen is based on the sum of water flows measured in the CTR Raceways and in Billingsley Creek at the Lodge Dam. (Ex. 1290; Courtney, Tr. 138:25-140:8; Maxwell, Tr. 277:10-22.) These measurements include water from the Curren Tunnel, Billingsley Creek, various springs, and irrigation return flow from above the Hagerman Rim. Rangen's water rights do not include all of this water. (Courtney, Tr. 142:20-144:5.)

Rangen's water right decrees authorize the diversion of water from the "Martin-Curren Tunnel"[3] only. Before the hearing, Rangen filed a motion for summary judgment, arguing that it should be permitted to call for the delivery of water to any source within the Rangen spring/tunnel complex. The *Order Granting in Part and Denying in Part IGWA's Petition for Reconsideration and Clarification* (May 10, 2013) notes that Rangen's partial decrees "do not list 'Spring(s)' and/or 'Unnamed Stream' as additional sources," but it then states "there are genuine issues of material fact concerning what source(s) of water—other than Martin-Curren Tunnel—Rangen may lawfully divert within T07S R14E S32 SESWNW." This statement is perplexing. Only if the Director were not bound to honor the decreed source could there be questions of fact over whether Rangen can divert water from sources other than the Curren Tunnel. As a matter of law, the only authorized source of water under Rangen's decreed water rights is "Martin-Curren Tunnel."

Rangen presented evidence at the hearing that appears aimed at supporting an argument that it should be permitted to divert water from any source within the same 10-acre tract as the Curren Tunnel. This argument conflates the source and point of diversion elements of Rangen's water right, contradicts SRBA precedent, and produces untenable results.

The source and point of diversion elements serve different purposes. The source identifies the name of the waterway from which water may be diverted. The point of diversion identifies the location on that source from which water may be diverted.

The fact that water rights have traditionally described the location of the point of diversion to the nearest 40- or 10- acre tract via the Public Land Survey System does not authorize the water right owner to divert water from any source within that 40- or 10-acre tract. As Special Master Booth held in SRBA subcase number 63-08447 (Kandler), "identifying the source in a license or decree prevents water users from changing to a different source that may still lie within the legal description of the point of diversion." *In Re SRBA, Subcase No. 63-08447,* Memo. Decision and Order on Mot. for Summ. J. (August 28, 2007) at 10.

[3] The Martin-Curren Tunnel is commonly referred to as the Curren Tunnel.

A host of evils would arise if water users were permitted to change sources at will. This was illustrated at the hearing by exhibit numbers 2417 and 2418 and corresponding testimony by Dr. Brockway (Tr. 1081:14-1083:12).

Therefore, the Director should rule as a matter of law that Rangen is not authorized to divert water from sources other than the Martin-Curren Tunnel under water rights 36-2551 and 36-7694.

2. Rangen is not suffering material injury because it can accomplish its beneficial use with its current water supply.

Curtailment is appropriate only if Rangen is suffering material injury. CM Rule 40.01. Material injury is defined 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." CM Rule 10.14 (emphasis added). The phrase "exercise of a water right" refers to the *use* of water. A water right is not a right to possess water; it is a right to use water owned by the people of the state. *Coulsen v. Aberdeen-Springfield Canal Co.*, 39 Idaho 320, 323-24 (1924); *see also* Idaho Const. art. 15 § 3 ("Priority of appropriation shall give the better right as between those using the water") and Idaho Code § 42-104 ("The appropriation must be for some useful and beneficial purpose, and when the appropriator or his successor in interest ceases to use it for such purpose, the right ceases"). Accordingly, CM Rule 42 instructs the Director to consider "[t]he amount of water being diverted and used compared to the water rights." CM Rule 42.02.e (emphasis added).

The Idaho Supreme Court affirmed in *American Falls Reservoir Dist. No. 2 v. Idaho Department of Water Resources*, 143 Idaho 862 (2007) ("*AFRD2*") that material injury is measured by the impact to the senior's actual beneficial use of water, as opposed to simply the impact to the water supply. Senior water users appealed the Director's ruling that "depletion does not equate to material injury," and that "injury is a highly fact specific inquiry that must be determined in accordance with IDAPA conjunctive management rule 42." *Id.* at 868. The Court sided with the Director, holding that "responding to delivery calls, as conducted pursuant to the CM Rules, does [sic] not constitute a re-adjudication." *Id.* at 876-77. "If this Court were to rule the Director lacks the power in a delivery call to evaluate whether the senior is putting the water to beneficial use," the Court explained, "we would be ignoring the constitutional requirement that priority over water be extended only to those using the water." *Id.* at 876. When responding to a delivery call, the Director has "the duty and authority" to evaluate the senior's use of water in determining material injury. *Id.*

For the Director to find material injury, there must be evidence that the senior is "substantially injured, not merely a fanciful injury but a real and actual

injury." *Beecher v. Cassia Creek Irrigation Co.*, 66 Idaho 1, 7 (1944). It is not enough to show only that the senior is not receiving as much water as it would otherwise, or that her or she is merely capable of diverting more water. There must be evidence that the senior actually needs additional water to accomplish his or her beneficial use. As explained in *Munn v. Twin Falls Canal Co.*, 43 Idaho 198, 207 (1926), "[i]t is a cardinal principle established by law and the adjudications of this court that the highest and greatest duty of water be required. The law allows the appropriator only the amount actually necessary for the useful or beneficial purpose to which he applies it." The amount "actually necessary" assumes the senior is using water efficiently because "[a] prior appropriator is only entitled to the water to the extent that he has use for it when economically and reasonably used." *Washington State Sugar Co. v. Goodrich*, 27 Idaho 26, 44 (1915); *see also Munn*, 42 Idaho at 207 ("No person is entitled to use more water than good husbandry requires") and Idaho Code § 42-101 (requiring "economical use, by those making a beneficial application of the same").

Rangen must make a prima facie showing of material injury. The Idaho Supreme Court ruled in *AFRD2* that this does not mean that the senior must re-prove he is entitled to his decreed water right, but he does have to provide facts "relevant to the determination of how much water is actually needed." AFRD2, 143 Idaho at 878 (citing Idaho Code § 42-237b). Once the senior makes this showing, "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." *Id.* The standard of proof to overcome a prima facie showing of material injury is clear and convincing evidence. *A&B Irrigation District v. Idaho Dept. of Water Resources*, 153 Idaho 500, 524 (2012).

Rangen provided no material details of its purported injury until the hearing, where it asserted that decreased water flows have impaired its ability to perform research and to produce fish for commercial sale. While both assertions seem plausible, they are contradicted by concrete evidence of Rangen's actual research capabilities and business practices.

Rangen personnel testified that decreased water flows have impaired Rangen's research efforts, and that Rangen would like more water so it can perform more research. Yet Rangen has always received and continues to receive sufficient water to fully operate its dedicated research facility (the "Greenhouse"). (Ramsey, Tr. 711:14-17; Tate, Tr. 894:16-23.) Rangen constructed the Greenhouse in 1992 specifically for research, and it is the best-suited facility at Rangen for performing research on fish of all sizes. (Woodling, Tr. 1236:25-1238:19, 1247:22-1249:3, 1254:11-16; Ramsey, Tr. 1203:13-21.) Despite the continued availability of sufficient water to perform any research it desires in the Greenhouse, Rangen has conducted very little research since 1989. (Woodling,

Tr. 1238:14-1239:2, 1240:20-1241:9.)

Rangen expressed a desire to perform research in the Large Raceways because its customers like to see research done in "real world conditions." (Kinyon, Tr. 529:21-530:16.) In other words, Rangen desires to conduct research in the Large Raceways for marketing purposes. Dr. Woodling testified, and Doug Ramsey agreed, that any research that could be performed in the Large Raceways could be performed more accurately in the Greenhouse. (Woodling, Tr. 1254:11-19; Ramsey, Tr. 1203:17-21.) While the desire to show uninformed clients that research is being done in the Large Raceways may make business sense, Hearing Officer Schroeder ruled previously, and Director Spackman agreed, that a desire to support marketing propaganda does not warrant curtailment. *In The Matter of Distribution of Water to Water Rights Nos. 36-04013A, 36-04013B and 36-07148 (Snake River Farm)*, CM-MP-2009-004, Final Order Concerning the Over-the-Rim Mitigation Plan at 3 (March 18, 2011). Research is a valid beneficial use of water; marketing isn't. So long as Rangen continues to receive sufficient water to conduct research in the Greenhouse, there is no material injury to Rangen's ability to perform research.

Rangen also testified that it wants more water so it can raise more fish for sale. However, this is contradicted by Rangen's own fish rearing and business practices. Rangen does not own any fish processing plants. It is primarily a fish feed manufacturer. Wayne Courtney testified that more than 95 percent of the revenue of Rangen's aquaculture business comes from the sale of fish feed. (Tr. 128:7-10.) And, Joy Kinyon admitted on cross-examination that Rangen avoids competing with the commercial fish producers who buy Rangen feed. (Tr. 512:2-17.) Mr. Kinyon attempted to qualify that testimony by stating that Rangen does not lease other production facilities, but that only confirms Rangen's resolve to avoid competing with its feed customers.

Perhaps the most compelling evidence that Rangen does not operate to maximize fish production is the fact that it could have been raising far more fish over the last decade than it has, simply by ordering eggs more often and taking advantage of peak water flows. In the past, Rangen raised as many as seven cycles of fish. Currently, it orders eggs only three times per year at the times and in the quantities needed to meet its obligations to Idaho Power. Mr. Rogers explained, using exhibit 2128 to illustrate, that Rangen could raise far more fish with its current water supply, even within the flow and density restrictions of the Idaho Power contract.

Rangen did not dispute that it could raise more fish by simply ordering more eggs, but instead pointed to the existence of empty raceways as if that proved they had insufficient water to raise as many fish as they would like. Ironically, however, Rangen's counsel explained during cross-examination of Mr.

Rogers that Rangen doesn't pump water from Billingsley Creek to fill more of the Small Raceways because Rangen doesn't need more water in the Small Raceways. (Rogers, Tr. 1891:3-1892:22). This line of questioning corroborates the other evidence that Rangen does not maximize fish production.

The reality is that Rangen operates its facility to meet the lucrative Idaho Power contract, and undisputed evidence shows that Rangen can meet its obligations to Idaho Power contract with its current water supply. (Courtney, Tr. 531:18-23, 532:9-13; Kinyon, Tr. 507:3-10; Ramsey, Tr. 701:8-14.)

The evidence clearly and convincingly shows that Rangen: (i) continues to meet its obligations under the Idaho Power contract with its current water supply; (ii) can perform any research it desires in the Greenhouse; and (iii) does not operate its hatchery to maximize fish production. Therefore, Rangen is not suffering material injury and its delivery call should be denied. If the Director makes this ruling, he need not address the remaining arguments in this brief.

3. Curtailment is not appropriate until Rangen improves its diversion and conveyance system or demonstrates it is not feasible to do so.

Even if Rangen needed additional water to accomplish its beneficial use, curtailment of junior rights is not appropriate if its water needs "could be met with the user's existing facilities and water supplies by employing reasonable diversion and conveyance efficiency and conservation practices" (CM Rule 42.01.g), or "could be met by using alternate reasonable means of diversion or alternate points of diversion, including the construction of wells or the use of existing wells to divert water from the area having a common ground water supply under the petitioner's surface water right priority." (CM Rule 42.01.h).

These requirements are grounded in the policy of Idaho law "to secure the maximum use and benefit, and least wasteful use, of its water resources." *Poole*, 82 Idaho at 502. More than a century ago the Idaho Supreme Court declared: "Economy must be required and demanded in the use and application of water." *Farmer's Co-operative Ditch Co. v. Riverside Irrigation District, Ltd.*, 16 Idaho 525, 535 (1909). In *Washington State Sugar Co. v. Goodrich*, 27 Idaho 26, 44 (1915), it said:

> It is the settled law of this state that no person can, by virtue of a prior appropriation, claim or hold more water than is necessary for the purpose of the appropriation . . . . 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.

(Internal cite omitted.) In *Nettleton v. Higginson*, 98 Idaho 87, 91 (1977), the Court recognized that "the entire water distribution system under Title 42 of the Idaho Code is to further the state policy of securing the maximum use and benefit of its water resources." In *Kunz v. Utah Power & Light Co.,* 117 Idaho 901, 904 (1990), the Court reasoned, "[b]ecause Idaho receives little annual precipitation, Idahoans must make the most efficient use of this limited resource." And, recently, in *Clear Springs Foods*, 150 Idaho at 808, the Court reaffirmed, "[t]he policy of securing the maximum use and benefit, and least wasteful use, of the State's water resources applies to both surface and underground waters, and it requires that they be managed conjunctively."

Accordingly, the Idaho Supreme Court has repeatedly required seniors to implement diversion and conveyance efficiencies rather than take water from junior users. In *Bennett v. Nourse*, 22 Idaho 249 (1912), a water user (Bennett) contended that his water right should be measured at the end of his ditch instead of at the head, which would have required increasing the amount diverted into his ditch by 50 percent. The Court rejected the request, requiring him instead "to construct his ditch so that there will be the least possible waste of water, and no doubt by either piping or cementing portions of the ditch where the greatest waste occurs, Bennett can save much of his water." *Id.* at 254. Similarly, in *Basinger v. Taylor*, 36 Idaho 591, 597 (1922), the Court deemed a senior's conveyance loss of fifty percent to be "unreasonable, excessive and against public policy," and held that junior users "could have forced the individual [seniors] to take measures to greatly reduce it if the issue had been raised between them."

More recently, in *In re Delivery Call of A&B Irrigation District*, 153 Idaho 500 (2012), the Court upheld the Director's ruling that a senior water user had an obligation to interconnect its system of groundwater wells before looking to curtail junior rights. *Id.* at 513-14. The senior argued that this was an unconstitutional application of the CM Rules, but the Court found it to be clearly within the Director's discretion under CM Rule 42. *Id.*

As explained below, the Curren Tunnel is an inherently inefficient and unreliable means of appropriating water from the ESPA, Rangen does not carefully measure or efficiently use water, and Rangen can obtain as much or more than it may get from curtailment by recirculating water, drilling deeper into the ESPA, and/or pumping water from Billingsley Creek. Other fish hatcheries in Idaho have implemented these types of improvements, and Rangen could follow suit, presumably for less money than it has spent seeking to curtail junior rights.

A. The Curren Tunnel is an inefficient and unreliable means of diverting water from the ESPA.

Before curtailing junior rights, CM Rule 40.03 instructs the Director to

consider whether the senior 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." (CM Rule 40.03.)

Rangen gets its water from a man-made tunnel excavated into the ESPA in the late 1800's for irrigation purposes. It intercepts the water table of the ESPA and conveys it to the surface by gravity flow, similar to "qanats" that have been used throughout the world for centuries. (Ex. 2232; Ex. 1299 at 6.) Ex. 2198 is a schematic cross-section of the Curren Tunnel.

The problem with the Curren Tunnel is that it was constructed high on the Hagerman Rim, near the top of the groundwater table in this part of the ESPA, to allow water from the Tunnel to be transported by gravity flow to elevated farmland south of Rangen. It essentially skims water off the top of the ESPA, and as a result is very susceptible to small changes in the elevation of the water table, much as a very shallow well would be susceptible to small changes in the water table. As shown in exhibit 2201, flow from the Tunnel changes dramatically with small changes in the elevation of the groundwater table, whereas flow from the natural springs at Rangen has changed relatively little over time. Had the Curren Tunnel been excavated at a lower elevation it would have accessed more water with much more steady and reliable flows. (Hinckley, Tr. 2246:14.)

As explained in subsection E below, there is an abundant supply of groundwater in the ESPA in the vicinity of Rangen. Any water shortage to Rangen is not because of inadequate water in the ESPA, but because the Curren Tunnel is constructed so that it can only access water at the surface of the ESPA. Therefore, it is reasonable for the Director to require Rangen to improve its diversion and conveyance system before seeking to curtail junior water use.

B. Rangen does not carefully measure or make efficient use of its water.

Rangen measures the water flowing in its CTR Raceways and in Billingsley Creek at the Lodge Dam. It does not measure the flow of water through the Hatch House, Greenhouse, Small Raceways, or Large Raceways. In fact, before this case, Rangen didn't even know the flow capacities of the pipes that transport water into, out of, or between those facilities. Further, the water measured at the Lodge Dam includes irrigation return flows and other water that may not have been used in any Rangen facility. This is not standard practice. Most aquaculture facilities carefully measure and manage the water diverted through each fish rearing container. They also carefully measure and manage dissolved oxygen and nitrates in their water supply, which Rangen doesn't do. Simply put, Rangen's water management practices do not exhibit the type of care or efficiency normally used in the industry. (*See* IGWA's Proposed FF 47-55.)

The water measurements Rangen does take (at the CTR Raceways and Lodge Dam) similarly reflect a lack of commitment to efficient water use. (*See* IGWA's Proposed FF 35-40.) Rangen uses a non-standard measurement device, and most surprisingly, has used different rating tables at different times, resulting in inconsistent water measurements. Rangen has no explanation for its use of differing rating tables.

What's more, neither of the tables used by Rangen are accurate. Rangen's measurements have been consistently lower than USGS measurements since 1980. (Ex. 3358; Sullivan, Tr. 1428:22-1430:2.) Mr. Sullivan was able to calculate that Rangen's measurements underestimate actual water flows by 15.9 percent, meaning Rangen has had 15.9 percent more water to use than it has measured over the last 30 plus years. *Id.* This makes it difficult to understand the extent of beneficial use or waste of water. (Sullivan, Tr. 1560:17-24.)

Perhaps most troubling is that Rangen has been aware for a number of years that its water measurements were suspect, yet did nothing to validate them and refused to allow the IDWR to install a more accurate measurement device. In 2006, the IDWR asked Rangen for permission to install a new, more accurate measuring device that could provide real-time data—at no cost to Rangen. It would measure the same water Rangen measures in the CTR Raceways and at the Lodge Dam. However, Rangen's attorney advised Tim Luke that Rangen would not allow other measuring devices *for fear they would discredit Rangen's past water measurements.*

Rangen argued at the hearing that the measuring device proposed by the IDWR may not have been able to verify Rangen's own measurements due to a possibility that if it were installed in the wrong place it may have occasionally captured irrigation return flows that enter Billingsley Creek next to the public road. Rangen also emphasized that the IDWR's purpose for the device was to provide better data for ESPAM, but that misses the point. The addition of an improved measuring device clearly had potential to verify the accuracy of Rangen's measurements. What is significant is that Rangen believed its measurements were questionable, yet refused an opportunity for better data because it was more concerned with setting itself up for a delivery call than having an accurate understanding of its water supply.

It turns out Rangen was right—its measurements were off by more than 15 percent. Had Rangen allowed the IDWR to install an improved measuring device, Rangen may have discovered 7 years ago that it had been calculating flow and density indices that were too low. In other words, Rangen could have been raising more fish, but that has not been Rangen's objective.

There are a number of things Rangen could do at little or no cost to use water more efficiently and substantially increase fish production with its current

water supply, including ordering more eggs, rearing more than three cycles of fish annually, moving fish between rearing facilities at different times, timing its fish cycles to take advantage of peak flows, using the CTR Raceways for production, carefully measuring and tracking flows through each rearing facility, and regularly monitoring oxygen and ammonia in its water supply. These are standard practices for hatcheries that seek to maximize fish production. (*See* IGWA's Proposed FF 49-55.)

Rangen's poor water measurements, its refusal to allow the IDWR to install a more accurate measuring device, and its inefficient use of available water makes it reasonable for the Director to require Rangen to improve its diversion and conveyance system and use water more efficiently before seeking to curtail beneficial water use by juniors. (Sullivan, Tr. 1560:17-24.)

C. Curtailment will provide Rangen with little additional water.

It is further reasonable for Rangen to improve its diversion and conveyance system because curtailment will eliminate vast amounts of groundwater use while generating little water for Rangen. Even if the Director curtails every groundwater right junior to July 13, 1962, within the area of common groundwater supply (479,203 acres), ESPAM2.1 predicts that only 16.9 cfs (1% of the curtailed water) will accrue to the Rangen model cell under steady state conditions. (Ex. 1319 at 73.) Even if this were an accurate prediction, only 63% of it (10.6 cfs) would accrue to the Curren Tunnel. (Ex. 3654 at 3.) However, ESPAM2.1 over-predicts the effect of curtailment on flows at the Curren Tunnel. The actual effect of full curtailment on flows at the Curren Tunnel is likely 5-7 cfs. (*See* IGWA's Proposed FF 90-93.) If a trimline is implemented, that figure is smaller still. (*See* section 4.C below.)

Rangen can obtain much more water than this by recirculating water, drilling deeper into the ESPA, and/or pumping water from Billingsley Creek to the Small Raceways.

D. Rangen can augment its water supply by recirculating water.

Idaho law allows water users to capture and reuse water. Rangen's water use is non-consumptive, which makes reuse especially practical. In 2004, Rangen evaluated whether it would be feasible to recirculate its water supply, and determined that it was. (Ex. 1203.) Tom Rogers testified that recirculation has been used at other aquaculture facilities and is feasible at the Rangen facility. (Tr. 1865:16-1866:25, 1869:7-1870:13.) Yet, Rangen has not seriously considered this possibility. (Courtney, Tr. 362:25-362:3).

The fact that recirculation may be an inconvenience to Rangen is not enough to make it an unreasonable prerequisite to pursuing curtailment. In

Ravndal v. Northfork Placers, 60 Idaho 305 (1939), the Idaho Supreme Court considered whether an upstream miner could cause injury to a downstream farmer by introducing sediment into the stream. The court held that the upstream user was not permitted to contaminate the stream "to such a degree as to inflict substantial injury upon another user of the waters of said stream," but included this qualification:

> We do not mean to say that the agriculturist may captiously complain of a reasonable use of water by the miner higher up the stream, although it pollutes and makes the water slightly less desirable, nor that a court of equity should interfere with mining industries because they cause slight inconveniences or occasional annoyances, *or even some degree of interference, so long as such do no substantial damage*.

Id. at 312 (quoting *Arizona Copper Co. v. Gillespie*, 12 Ariz. 190 (1909) (emphasis in original). While *Ravndal* deals with the introduction of contaminates, the rationale is in keeping with the requirement in CM Rule 42.01.g that seniors implement reasonable conveyance efficiencies before seeking to curtail beneficial water use by juniors.

The fact that Rangen's own expert deemed recirculation to be a practical option for Rangen provides substantial evidence that Rangen can likely meet its water needs by recirculating its current water supply. Therefore, before Rangen seeks to curtail beneficial water use, the Director should require Rangen to employ "reasonable ... conveyance efficiency and conservation practices" by recirculating its water supply, or demonstrate it is not feasible to do so.

E. Rangen can augment its water supply by drilling deeper into the ESPA.

It is also reasonable to require Rangen to drill wells to reach deeper into the aquifer than does the Curren Tunnel. As mentioned above, CM Rule 42.01.h asks whether Rangen's water needs could be met "by using alternate reasonable means of diversion or alternate points of diversion, including the construction of wells . . . ." In addition, the CM Rules instruct the Director to consider "[t]he amount of water available in the source from which the water right is diverted" (CM Rule 42.01.a) and the "[t]he effort or expense of the holder of the water right to divert water from the source." (CM Rule 42.01.b.)

Rangen paid nothing to construct the Curren Tunnel (it was developed decades earlier by irrigators) and for the last half-century has expended nothing to improve it, relying on gravity and high groundwater levels in the aquifer to obtain its supply. Other fish hatcheries in the state have to pump water to augment their surface water supply, and the junior-priority water users whom Rangen seeks to

curtail expend substantial sums to drill, deepen, improve, and replace wells; purchase, maintain, and replace pumps; and extend power lines and pay for power to operate the same.

Rangen determined in 2004 that drilling a horizontal well at a lower elevation than the Curren Tunnel is a feasible means of augmenting its water supply. Rangen's engineer concluded that this could be considered a "well deepening" of the Curren Tunnel. (Ex. 1199 at 13, Ex. 2040 at 8.) Horizontal wells are used throughout the world to draw groundwater to the surface without the operating expenses required to pump vertical wells. (Ex. 2232.) Drilling a horizontal well at a lower elevation at Rangen would increase the total supply of water available to Rangen, and unlike the Curren Tunnel, would suffer little impact from small changes in the elevation of the groundwater table. (Hinckley, Tr. 2227:1-21, 2245:9-16, 2246:14-17, Ex. 2247.)

While vertical wells would not have the advantage of gravity flow, they are used by a number of fish hatcheries in Idaho and could likely be used by Rangen to augment its water supply. (Rogers, Tr. 1776:19 - 1777:22.) The ESPA in the vicinity of Rangen is abundantly productive and could feasibly be developed through construction of vertical wells. (Hinckley, Tr. 2237:21 - 2246:17.)

Trying to increase flow from the Curren Tunnel by raising the water table across the entire ESPA through curtailment is speculative and tenuous, whereas drilling wells is almost certain access to additional water. Curtailment of every groundwater right across the ESPA that is junior to July 13, 1962, will raise the water level of the ESPA by only a few feet—a fraction of the saturated thickness of the aquifer. Instead of trying to raise the groundwater table across the entire ESPA to slightly increase flows at one minor outlet, it is reasonable to require Rangen to spend some money to reach deeper into the aquifer, as other water users do.

Therefore, before Rangen seeks to curtail beneficial water use, the Director should require Rangen to implement "alternate reasonable means of diversion or alternate points of diversion, including the construction of wells" (CM Rule 42.01.h), or to demonstrate it is not feasible to do so. If the Director makes this ruling, he need not address the remaining arguments in this brief.

F. Rangen can augment its water supply by pumping water from Billingsley Creek.

Rangen can augment the supply of water available to the Hatch House, Greenhouse,[4] and Small Raceways by pumping first-use water a short distance

[4] The Greenhouse was constructed in 1992, creating a demand for water that did not exist previously, and creating a potential source of injury that did not exist when

from Billingsley Creek. Dr. Brendecke provided an engineering schematic to show that this water could be pumped from Billingsley Creek to the Hatch House, Greenhouse, or Small Raceways to augment any shortage in those facilities.

Many fish hatcheries in Idaho use pumps as a supplemental or a primary supply of water (Rogers, Tr. 1865:16-1866:25; Ex. 2128 Table 2.4.), and it would be feasible for Rangen to do the same. (Rogers, Tr.1870:21-1871:10, Ex. 2121 at 13.) The Director has previously concluded that pump systems can be designed with sufficient redundancy to reduce the risk of pump failure to a reasonable and acceptable level. (2011 Over-the-Rim Final Order, pp. 3, 7.) While Rangen does not presently have an authorized point of diversion on Billingsley Creek, Rangen has until recently believed it does have the right to divert water from Billingsley Creek, yet it has not made any effort to make that first-use water available to the Small Raceways, which Rangen complains has insufficient water. Before Rangen seeks to curtail beneficial water use, it is reasonable to require Rangen to implement this type of conveyance efficiency, even if it requires filing an application for permit or transfer.

Given the inaccuracy of Rangen's water measurements and the inefficiency with which it uses water, it is reasonable for the Director to require Rangen to recirculate water, drill deeper into the ESPA, and/or pump water from Billingsley Creek before looking to curtail junior rights. If the Director makes this ruling, he need not address the remaining arguments in this brief.

4. Rangen's means of appropriation is unreasonable.

If the Director refuses to require Rangen to improve its diversion and conveyance system, he must determine whether or to what extent administration by priority (i.e. curtailment of junior rights) is appropriate. Article 15, section 3 of the Idaho Constitution enunciates the well-known rule that "[p]riority of appropriation shall give the better right as between those using the water." This is a fundamental principle of Idaho water law.

However, as the Idaho Supreme Court observed in *AFRD2*, administration by priority "is not an absolute rule without exception." 143 Idaho at 880. It is tempered by a companion rule of water allocation, also found in article 15, section 3, Idaho Constitution: "The right to divert and appropriate the unappropriated waters of any natural stream to beneficial use, shall never be denied."

Rangen's water rights were licensed or decreed in the SRBA. The Greenhouse qualifies as an "enlargement" because it "enlarged the use of said water without increasing the rate of diversion," but it does not benefit from the amnesty granted by Idaho Code § 42-1426 because this did not occur before November 19, 1987. Consequently, Rangen's use of water in the Greenhouse is technically illegal, and junior-priority water users are not responsible for any shortage in the water supply to the Greenhouse.

The constitutional right to divert and appropriate unappropriated water may have various applications, but one of them is to facilitate full development of Idaho's water resources. Shortly after statehood, the Idaho Supreme Court declared: "It is against the spirit and policy of our constitution and laws, as well as contrary to public policy, to permit the wasting of our waters, which are so badly needed for the development and prosperity of the state." *Stickney v. Hanrahan*, 7 Idaho 424, 435 (1900). As mentioned above, the Court held in *Poole*, 82 Idaho at 502, that the "policy of the law of this State is to secure the maximum use and benefit, and least wasteful use, of its water resources." The Court reinforced this in *Clear Springs Foods, Inc. v. Spackman*, 150 Idaho 790, 808 (2012), stating, "[i]t is clearly state policy that water be put to its maximum use and benefit."

Usually, administration by priority is in harmony with full development of the resource. The priority system enables water users to analyze water delivery records, determine water availability under a given priority date, and develop projects suited to available water supplies. For example, once the earliest and most reliable river flows were fully developed, farmers utilized more ephemeral water supplies under later-priority water rights to raise crops such as wheat and barley that have shorter irrigation seasons. And once later-priority flows were fully developed, they built reservoirs to capture wintertime flows and high spring runoff for use later in the summer. In this way, administration by priority has facilitated nearly complete development of Idaho's surface water resources.

Occasionally, however, priority can be exercised in a manner that impedes full development of water resources. When this occurs, the constitutional right to appropriate unappropriated water and its attendant principles of reasonable and efficient water use may constrain or even preclude rigid administration by priority.

For example, curtailment of a junior right is not appropriate if it will not provide sufficient water to the senior within a reasonable time for him to apply it to beneficial use or will result in waste of the resource (the "futile call doctrine"). *Gilbert v. Smith*, 97 Idaho 735, 739 (1976); *see also* CM Rule 10.08. Similarly, a senior is not entitled to curtail far more water than is needed to accomplish his or her beneficial use. *Van Camp v. Emery*, 13 Idaho 202 (1907). In *Van Camp*, a senior sought to command the entire flow of a stream even though the senior would put only a portion of it to beneficial use. The Idaho Supreme Court deemed this impermissible, explaining: "In this arid country where the largest duty and the greatest use must be had from every inch of water in the interest of agriculture and home-building, it will not do to say that a stream may be dammed so as to cause sub-irrigation of a few acres at a loss of enough water to surface-irrigate ten times as much by proper application." *Id.* at 208.

The United States Supreme Court (applying Idaho law) relied on the

constitutional right to appropriate unappropriated water to essentially deny a water delivery call in *Schodde v. Twin Falls Land & Water Company*, 224 U.S. 107 (1912). In that case, a senior water user (Schodde) sought to recover damages caused by junior water diversions that interfered with the senior's water supply. The senior had at great expense constructed a series of water wheels to divert water from the Snake River onto his adjacent 430-acre farm. *Id.* at 114-116. A dam was later constructed downstream to divert water into the Twin Falls Canal under junior-priority water rights. *Id.* The dam backed up the flow of the Snake River and "destroyed the current in the river by means of which [the senior]'s water wheels were driven," making it "impossible" for the senior to divert water from the River. *Id.* at 116. The senior suffered damages totaling $56,650 (more than $1.3 million in today's dollars).[5] *Id.*

This created quite a conundrum. On one hand, the Court "recognized fully the right of the [senior] to the volume of water actually appropriated for a beneficial purpose." *Id.* at 117. On the other hand, the Court realized that protecting the senior would severely impede beneficial use of the Snake River. The Court noted that the Twin Falls Canal was constructed "for the purpose of supplying water for irrigation and domestic purposes to the settlers on about 300,000 acres of arable and arid lands," that for many landowners "there is no other supply available for irrigation, stock, domestic, or manufacturing purposes except the water from said canal," and that "without the dam the Twin Falls scheme with all its present great promise fails." *Id.* at 116, 118. "Not only this," the Court continued, "but the Government is now constructing a dam across the river some distance above plaintiff for another extensive irrigating scheme, known as the Minidoka Project, which will take a large amount of the water and so much that probably there will not be enough left, especially at low stages of the river, for the full operation of the plaintiff's wheels." *Id.* at 118-19.

The answer to this problem laid in the constitutional right to appropriate unappropriated water. The Court explained,

> As by Art. 15, Sec. 3, Constitution of Idaho, all unappropriated waters are subject to appropriation, it follows that all water that plaintiff has legally appropriated belongs to him, but all other is subject to appropriation. It is unquestioned that what he has actually diverted and used upon his land, he has appropriated, but can it be said that all the water he uses or needs to operate his wheels is an appropriation? As before suggested, there is neither statutory nor judicial authority that such a use is an appropriation. Such use also lacks one of the essential attributes of an appropriation; it is not reasonable.

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[5] Calculated using Consumer Price Index for 1913 (the earliest available data; Annual Average: 9.9) and August 2012 (230.379).

Schodde, 224 U.S. at 117-18. The Court further reasoned that "to uphold as an appropriation the use of the current of the river to the extent required to work the plaintiff's [sic] wheels would amount to saying that a limited taking of water from the river by appropriation for a limited beneficial use, justified the appropriation of all the water in the river as incident to the limited benefit resulting from the use of the water actually appropriated." *Id.* at 117. The Court found this to violate Idaho law, concluding that "there was no right under the constitution and laws of the State of Idaho to appropriate the current of the river so as to render it impossible for others to apply the otherwise unappropriated waters of the river to beneficial uses." *Id.*

Significantly, the ruling that the senior's means of diversion was unreasonable was not predicated on the availability of alternative means of diversion. The Court acknowledged that the junior-priority diversion made it "impossible for plaintiff to so arrange or change his said dams or water wheels or flumes, or to build or construct other dams or water wheels or flumes that will raise any water whatever from said stream that can be used upon the [senior]'s lands." 224 U.S. at 116. The Court further recognized that the senior "has not been able to irrigate said lands or any part thereof or to raise profitable crops thereon or to use the same as pasture lands, and will not in the future be able to irrigate said lands or to raise profitable crops or any crops thereon, as long as [the junior]'s dam is maintained." *Id.* (Electric and diesel pumps were of course not available for irrigation use in 1910.) Nonetheless, the Court held that he "cannot divert it by the means he first adopted for taking water from the river." *Id.* at 119. While the senior retained the right to divert and use water from the Snake River (should he find a way to do it), he was not permitted to curtail junior rights because that would have unreasonably hindered full development of the resource.

The Idaho Supreme Court has cited *Schodde* favorably on multiple occasions, most recently in *Clear Springs Foods*, where the Court reaffirmed the "policy of securing the maximum use and benefit, and least wasteful use, of the State's water resources," and the rule that "a senior appropriator [is] not protected in an unreasonable means of appropriation." *Clear Springs Foods*, 150 Idaho at 809; *see also Id.* at 807, n. 4 ("By 'priority of appropriation,' we are not referring to being protected in an unreasonable means of diversion.").

With respect to groundwater specifically, the Idaho Legislature codified the rule that priority cannot be exercised in a manner that blocks full development of the resource. The introductory section of the Ground Water Act states:

> 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. The Act furthers this objective by providing: "Prior appropriators of underground water shall be protected in the maintenance of reasonable ground water pumping levels." *Id.* This means "[a] senior appropriator is not absolutely protected in either his historic water level or his historic means of diversion." *Baker v. Ore-Ida Foods, Inc.*, 95 Idaho 575, 544 (1973) (aff'd in *Clear Springs Foods*, 150 Idaho at 802). The Act does "not permit[] a ground water appropriator with an unreasonably shallow well to block further use of the aquifer." *Clear Springs Foods*, 150 Idaho at 790.

While the provisions of the Ground Water Act relating to pumping levels apply specifically to well users, the ultimate policy of the Act that "a reasonable exercise of [priority] shall not block full economic development of underground water resources" applies expressly to all "ground water resources of this state." *Id.* Whether or not Rangen's water rights are administered as groundwater rights, the Ground Water Act legislatively reinforces the constitutional right to appropriate unappropriated water by affirming that "in some situations senior appropriators may have to accept some modification of their rights in order to achieve the goal of full economic development." *Clear Springs Foods*, 150 Idaho at 802 (quoting *Baker*, 95 Idaho at 544).

As explained below, the constitutional right to appropriate unappropriated water is incorporated into the CM Rules. It requires the Director to consider the extent to which administration by priority will impede maximum beneficial use of the ESPA. Curtailment is inappropriate in this case because Rangen's means of appropriation, if protected, will unreasonably impede beneficial use of the ESPA. At a minimum, curtailment must be limited to junior rights for which at least ten percent of the curtailed water will accrue to Rangen.

A. The constitutional right to appropriate unappropriated water is incorporated into the CM Rules.

The constitutional right to appropriate unappropriated water is incorporated into the CM Rules. CM Rule 20.03 states: "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," and, "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 42 requires the Director to consider the "amount of water available in the source from which the water right is diverted" and evaluate the "reasonableness of water diversions" and whether

water is being used "efficiently and without waste." Similarly, CM Rule 42.01.g limits holders of storage water rights to a "reasonable amount of carryover storage." These rules implement article 15, section 3 of the Idaho Constitution by restraining senior users from exercising priority in a manner that unreasonably impedes full development of Idaho's water resources.

As the CM Rules indicate, the determination of whether administration by priority unconstitutionally impedes full development of the resource is governed by a standard of reasonableness. Idaho law does not require absolutely efficient water use, but it does require reasonable efficiency. In *Basinger v. Taylor*, 36 Idaho 591 (1922), the Idaho Supreme Court stated, "A water user is entitled allowance for only a *reasonable* loss in conducting water from the point of diversion to the place of use." *Id.* at 597 (emphasis added). In *Clark v. Hansen*, 35 Idaho 449 (1922), the Court held, "the question of the reasonableness or unreasonableness of the loss from the ditch through seepage and evaporation is a proper subject for inquiry." *Id.* at 455.

Issues involving reasonableness are matters properly within the Director's discretion. In *AFRD2*, Rangen and others argued that the CM Rules are unconstitutional because they permit the Director to limit or refuse curtailment based on a standard of reasonableness as opposed to objective standards. *AFRD2*, 143 Idaho at 875. They complained that allowing the Director to evaluate the reasonableness of their water use fails to give effect to their water right decrees. *Id.* at 875. The Idaho Supreme Court rejected that argument, holding that "[g]iven 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." *Id.*

The Court further stated that "reasonableness is not an element of a water right; thus, evaluation of whether a diversion is reasonable in the administration context should not be deemed a re-adjudication." *Id.* at 877. Accordingly, the determination of whether Rangen's means of diversion and appropriation are reasonable is governed by the preponderance of the evidence standard that normally governs agency decisions. *N. Frontiers v. State ex re. Cade*, 129 Idaho 437, 439 (Ct. App. 1996) (citing 2 Am. Jur. 2d Administrative Law § 363 (1994)) ("administrative hearings are governed by a preponderance of the evidence standard"). Indeed, decisions like this illustrate why the Director is required by law to be a licensed engineer, Idaho Code §42-1701(2), and instructed to utilize his "experience, technical competence, and specialized knowledge" when distributing water, Idaho Code § 67-5251(5); *see also* IDAPA 37.01.01.600.

It is important to recognize that the reasonableness of an appropriation depends on the extent to which it hinders maximum beneficial use of the resource. As mentioned above, the ruling in *Schodde* that the senior's means of diversion were unreasonable had nothing to do with the efficiency of the senior's actual

diversion structures. By all indications, his water wheels and flumes were an effective means of diverting and conveying water to his property. Nothing in the decision suggests they were leaky or inefficient. Nonetheless, the Court declared them to be "not reasonable" because they would, if protected, have precluded beneficial use of a large amount of water in the Snake River. *Schodde*, 224 U.S. at 118. Despite severe financial harm, the Court denied the senior any relief, explaining that "the right of appropriation must be exercised with some regard to the rights of the public." *Id.* at 120. "It is not an unrestricted right," the Court stated, but "must be exercised with reference to the general condition of the country and the necessities of the people, and not so to deprive a whole neighborhood or community of its use and vest an absolute monopoly in a single individual." *Id.* at 121 (quoting *Basey v. Gallagher*, 87 U.S. 670, 683 (1874)).

Wasting water is prohibited not because it harms the senior doing the wasting, but because it prevents junior users from putting that water to beneficial use. Likewise, commanding large amounts of water to support beneficial use of only a small portion of it is prohibited not because it harms the senior, but because it impedes maximum beneficial use of the resource. As mentioned above, the Idaho Supreme Court refused to allow a senior to measure his water right at the end of this ditch because of the ninety percent conveyance loss which the Court found to be "against public policy." *Clark*, 35 Idaho at 455. In *Basinger*, the Court held that a conveyance loss of fifty percent was "unreasonable, excessive and against public policy." 36 Idaho at 597. It is for this same reason that holders of storage water rights are limited to a reasonable amount of carryover. The Idaho Supreme Court upheld the reasonable carryover limitation in CM Rule 42.02.g precisely because of "abuses that could occur when one is allowed to carryover water despite detriment to others." *AFRD2*, 143 Idaho at 880.

In evaluating whether Rangen's means of appropriation is reasonable, it is not enough for the Director to consider only whether Rangen's immediate diversion structures and conveyance facilities are leaky or inefficient. Even if they are not, he must consider whether protecting Rangen's means of appropriation will unreasonably impede beneficial use of the ESPA.

B. Rangen's means of appropriation, if protected, will unreasonably impede full development of the ESPA.

Rangen's means of appropriation, if protected, will have as deleterious an effect on beneficial use of the ESPA as Schodde's means of diversion would have had on beneficial use of the Snake River. Like the Snake River was then, the ESPA contains an abundant and sustainable supply of water that cannot be fully developed if Rangen's means of appropriation is to be protected.

The amount of groundwater stored in the ESPA, and corresponding spring

flows in the Milner to King Hill reach is substantially above the natural, pre-irrigation levels. (Brendecke, Tr. 2570: 7-23.) Further, groundwater levels in the area have been stable over the last seven years, and in some cases have increased slightly following the record drought of the early 2000s. (Ex. 1250; Carlquist, Tr. 1683:18-25.) There is an abundant supply of groundwater (Ex. 2247 at 28-30), and it is not being "mined" by groundwater pumping (i.e. withdrawals are not outpacing recharge). (Brendecke, Tr. 2568:16-2569:22). The ESPA receives approximately 7.7 million acre feet of recharge annually, whereas groundwater irrigation consumes approximately 2.2 million acre-feet annually. (Ex. 2344.)

Rangen's means of appropriation exhibits the same characteristics that made Schodde's means of appropriation unreasonable. Whereas Schodde's water wheels skimmed water off the top of the Snake River, the Curren Tunnel skims water off the top of the ESPA. (*See* IGWA's Proposed FF 11-12.) Schodde's water wheels required the support of the entire current of the River; the Curren Tunnel requires maintenance of high aquifer levels throughout the entire ESPA. The only way to sustain Rangen's water delivery through the Curren Tunnel is to maintain a large volume of groundwater that cannot be appropriated in order to keep overflow from the ESPA at peak levels. Paraphrasing *Schodde*,

> To uphold Rangen's appropriation of the entire storage of the ESPA would amount to saying that a limited taking of water from the ESPA by appropriation for a limited beneficial use, justifies the appropriation of all of the water in the ESPA incident to the limited benefit resulting from the water actually appropriated. It is unquestioned that what Rangen has actually diverted and used in its facility, it has appropriated, but can it be said that Rangen has made an appropriation of all of the water in the ESPA needed to maintain peak overflow from its spring outlet? There is neither statutory nor judicial authority that such a use is an appropriation. Such use also lacks one of the essential attributes of an appropriation; it is not reasonable.

Cf. Schodde, 224 U.S. at 117.

In this case, curtailing every junior groundwater right across the ESPA will raise the groundwater table by only a few feet—a small fraction of the total saturated thickness of the aquifer. To protect Rangen's means of appropriation would be no different than protecting a shallow well, precluding beneficial use of a vast quantity of usable groundwater. This is precisely what the constitutional right to appropriate unappropriated water, as well as the Ground Water Act, prohibit.

It is also significant that Rangen's means of appropriation is dependent on artesian pressure, which the Ground Water Act declines to protect for Rangen. In evaluating whether the exercise of priority will block full economic development

of Idaho's groundwater resources, Idaho Code § 42-226 instructs the Director to "consider and protect the thermal and/or artesian pressure values for low temperature geothermal resources and for geothermal resources," but only "to the extent that he determines such protection is in the public interest." Even for geothermal resources, artesian pressure is protected only so long as it is in the public interest. No protection at all is granted for the non-geothermal water appropriated by Rangen.

The Oregon Supreme Court used similar reasoning in concluding that "the method of diversion by way of natural overflow is a privilege only and cannot be insisted upon ... if it interferes with the appropriation by others of the waters for a beneficial use." *Warner Valley Stock Co. v. Lynch*, 215 Ore. 523, 538, 336 P.2d 884, 891 (1959).

The fact that (a) Rangen's water rights were appropriated when ESPA overflow was at an all-time high; (b) these peak flows cannot be restored without returning to flood irrigation, retiring Palisades Reservoir in favor of winter canal flows, and drying up nearly one million groundwater irrigated acres; (c) annual recharge to the ESPA (7.5 million acre-feet) is far above annual groundwater withdrawals (2.1 million acre-feet); (d) current aquifer discharge in the Thousand Springs area remain more than 1,000 cfs above natural levels; and (e) groundwater levels are stable and there is an abundant supply of available groundwater in the Rangen area, clearly demonstrates that Rangen's means of appropriation, if it is protected by Rangen being permitted to curtail junior water use, will unreasonably impede beneficial use of the ESPA.

For these reasons, the Director should conclude that Rangen's means of appropriation is unreasonable, and deny Rangen's delivery call. If the Director makes this ruling, he need not address the remaining argument in this brief.

C. Alternatively, curtailment should be restrained by a 10 percent trimline.

If the Director does not find Rangen's means of appropriation to be unreasonable, then at a minimum, a 10 percent trimline should be implemented to avoid unreasonable waste of the ESPA water resources.

In *Van Camp v. Emery*, 13 Idaho 202 (1907), the Idaho Supreme Court held that administration by priority is patently unreasonable if only ten percent of the curtailed water will reach the senior water user. In that case, a senior sought to dam a stream and thereby raise the water table to sub-irrigate adjacent meadows. This worked well for the senior, but it prevented juniors from irrigating far more acres with the same water. The Court barred the senior from damming the stream, holding: "In this arid country where the largest duty and the greatest use must be had from every inch of water in the interest of agriculture and home-building, it

will not do to say that a stream may be dammed so as to cause sub-irrigation of a few acres at a loss of enough water to surface-irrigate ten times as much by proper application." *Id.* at 208.

In *Schodde*, the United State Supreme Court agreed with *Van Camp,* finding it obviously unreasonable to curtail junior water rights if only ten percent of the curtailed water could be put to beneficial use by the senior:

> Suppose from a stream of 1000 inches a party diverts and uses 100, and in some way uses the other 900 to divert his 100, could it be said that he made such a reasonable use of the 900 as to constitute an appropriation of it? Or, suppose that when the entire 1000 inches are running, they so fill the channel that by a ditch he can draw off to his land 100 inches, can he then object to those above him and appropriating the other 900 inches, because it will so lower the stream that his ditch becomes useless? This would be such an unreasonable use of the 900 inches as will not be tolerated under the law of appropriation.

Schodde, 224 U.S. at 119.

In *Clark* the Idaho Supreme Court considered the reasonableness of an actual conveyance system where "on a certain day about ninety percent of the water diverted was lost in the first two miles of the ditch," and concluded that it "would be against public policy to permit any such waste." 35 Idaho at 455. In *Basinger* the Court declared a conveyance loss of fifty percent "unreasonable, excessive and against public policy." 36 Idaho at 597.

In *AFRD2*, the Court quoted *Schodde*, stating that "water rights must be exercised with 'some regard to the public' and 'necessities of the people, and not so to deprive a whole neighborhood or community of its use and vest an absolute monopoly in a single individual,'" and affirmed that "[n]either the Idaho Constitution, nor statutes, permit irrigation districts and individual water right holders to waste water or unnecessarily hoard it without putting it to some beneficial use." *AFRD2*, 143 Idaho at 880. The Court explained:

> 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.

The justices in *Van Camp*, *Schodde*, *Clark*, *Basinger*, and *AFRD2* found it patently unreasonable to curtail beneficial water use under junior rights if only 10

percent of the curtailed water would reach the calling senior.

Accordingly, the Director implemented a 10 percent trimline in response to the Blue Lakes, Clear Springs, and Surface Water Coalition delivery calls. This decision was challenged in *Clear Springs Foods*, but the Court upheld it as a reasonable exercise of discretion. 150 Idaho at 814.

Director Dreher gave two related rationales for the 10 percent trimline. One was that ESPAM cannot perfectly predict the effect of curtailing junior rights, and it is not appropriate to curtail junior rights without reasonable certainty the senior will actually benefit from it. The second was that the state policy of maximum beneficial use of its water resources precludes curtailment of a junior right if an insignificant portion of the junior's water would actually be put to beneficial use by the senior making the delivery call. He said:

> It's difficult for me to see how you could provide for full economic development of the ground water resource, while respecting all aspects of Idaho law implementing the prior appropriation doctrine, and curtail ground water use that was junior to a calling senior right, if you didn't know whether that -- curtailing that ground water use would or would not produce a meaningful amount of water to the calling senior right.
>
> And so for the purposes of administration, I consulted with one of my staff members at the time, Dr. Allan Wylie, on his view of model uncertainty. And collaboratively we came to the conclusion, although it was in the end my determination, that the highest degree of uncertainty in the model results were the outcome of using measured stream gauge records for the purposes of determining Snake River reach gains. And that uncertainty was plus or minus 10 percent.
>
> Now, that was the largest source of uncertainty. And we knew the model had to be -- couldn't be any better than plus or minus 10 percent. And perhaps could be, you know, we hadn't -- the committee hadn't completed its full work of quantifying uncertainty, so hypothetically -- although I'm not aware that any determination has subsequently been made -- hypothetically the uncertainty could have been larger than plus or minus 10 percent. But it was unquantifiable. We could quantify that there was at least 10 percent uncertainty, which means that if -- if -- if there was -- if it was uncertain within that 10 percent criteria that curtailing junior priority ground water use would in fact provide a meaningful supply to the calling senior right, then I made the determination it was not appropriate to curtail such junior priority ground water use if, in fact, we didn't know whether curtailment would result in a meaningful amount of water reaching the calling senior right.
>
> ... when it comes to administration of rights, you don't curtail juniors because it might make a difference. You curtailed only

> those juniors that you know will make a difference.

In The Matter of Distribution of Water to Water Rights Nos. 36-02356A, 36-07210, and 36-07427, et al., Hearing. Tr. pp. 1166-68 (December 6, 2007) (attached hereto as Appendix A.) The hearing officer, Honorable Gerald Schroeder, concurred with that reasoning:

> The Spring Users are entitled to curtailment, or alternative redress, but not to the extent of drying up hundreds of thousands of acres when that action may contribute little or nothing in any reasonable time to their shortage. The same logic applies to exclusion from curtailment of water users whose consumption is so small that it is unlikely any benefit to the Spring Users could be traced but the effect on the individual user potentially devastating.

Opinion Constituting Findings of Fact, Conclusions of Law and Recommendation at 23 (January 11, 2008). Director Tuthill adopted this ruling. *Final Order* at 2 (July 11, 2008) ("Findings of Fact set forth in the Director's orders . . . unless expressly discussed and modified herein, are incorporated by reference.").

These rationales are as valid in this case as they were in the Blue Lakes, Clear Springs, and SWC delivery call cases. While ESPAM 2.1 is an improvement over 1.1, there is still a great deal of uncertainty in its ability to predict the impact of groundwater pumping, particularly with respect to water flows at a discrete outlet within a single model cell, as with the Curren Tunnel in the Rangen cell. (*See* IGWA's Proposed FF 79-83.)

Testimony and expert reports describe conceptual uncertainty (limitations in the ESPAM2.1 structure with respect to potentially important aspects of the local hydrogeology), input data uncertainty (inaccuracies, errors, and other deficiencies in the input data for model calibration), and parameter uncertainty (non-unique parameter sets that provide alternative, acceptable model calibrations). (*See* IGWA's Proposed FF 71-77.) Although difficult or impossible to quantify, all of these factors contribute to predictive uncertainty regarding the impacts of aquifer-wide curtailment on flows at Rangen. Some sources of uncertainty are likely to produce random errors in the predicted impacts, but others have been identified with systematic errors, creating a bias toward over-prediction of the impacts at Rangen. (*See* IGWA's Proposed FF 80-84.)

ESPAM2.1 is the best science available and IGWA supports its use, but it isn't perfect, and to the extent the Model is used to curtail vested water rights, those imperfections must be acknowledged. Even if ESPAM2.1 were perfect, it is not reasonable to curtail beneficial use of any water right if less than 10 percent of the curtailed water will accrue to the senior. The Idaho Supreme Court upheld the 10 percent trimline as a reasonable exercise of the Director's discretion. *Clear Springs Foods*, 150 Idaho at 814. Should the Director undertake curtailment in

this case, IGWA implores him to maintain the status quo. Anything less will open Pandora's box and unreasonably impede beneficial use of the ESPA.

5. Curtailment is futile.

If the Director does not deny Rangen's delivery call for any of the reasons set forth above, he must determine whether the small amount of water Rangen may receive from curtailment is sufficient to materially benefit Rangen without resulting in waste of the resource. (CM Rule 10.08.)

As stated above, Rangen already receives sufficient water to conduct any research it desires and to meet its obligations to Idaho Power, and there is compelling evidence that Rangen would not increase fish production if it had more water, not the least of which is the fact that Rangen has for years been raising far fewer fish than it could with its water supply. But if the Director concludes that Rangen would raise more fish with more water, 2 cfs is needed to fill an additional Small Raceway, and 4.8 cfs is needed to fill an additional Large Raceway. Without the ability to operate an additional Large Raceway to complete the rearing cycle, there is no benefit to rearing additional fish in the Small Raceways. Thus, the minimum amount of water Rangen needs to materially increase fish production is 4.8 cfs.

Director Dreher deemed Rangen's prior delivery call to be futile because only 0.4 cfs was projected to accrue to Rangen. (*Second Amended Order*, CL25 at 28 (May 19, 2005).) Based on ESPAM2.1, curtailment with a 10 percent trimline will provide less than 0.01 cfs to the Martin-Curren Tunnel, which is insufficient to materially increase fish production at Rangen. (*See* IGWA's Proposed FF 99.)

Therefore, if the Director fails to deny Rangen's delivery call for any of the reasons set forth previously, he should deny it as a futile call, as Director Dreher did previously.

CONCLUSION

Rangen's delivery call should be denied for four independent reasons. First, Rangen is not suffering material injury because it is able to meet its current beneficial use with its current water supply. Second, Rangen does not use water efficiently, and it can obtain as much water as it may get from curtailment by recirculating water, drilling deeper into the ESPA, and/or pumping water from Billingsley Creek. Third, Rangen's means of appropriation, if protected, will unreasonably impede beneficial use of the ESPA. Fourth, at a minimum the Director should maintain the 10% trimline used in prior conjunctive management cases, which under the facts of this case results in a futile call.

RESPECTFULLY SUBMITTED this 21st day of June, 2013.

RACINE, OLSON, NYE, BUDGE &
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CERTIFICATE OF MAILING

I certify that on this 21st day of June, 2013, the foregoing document was served on the following persons in the manner indicated.

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