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IN THE DISTRICT COURT OF THE FIFTH JUDICIAL DISTRICT
OF THE STATE OF IDAHO, IN AND FOR THE COUNTY OF TWIN FALLS

In Re SRBA	)	Subcase No. 31-11845
	)	
	)	STATE OF IDAHO'S TRIAL BRIEF
	)	
Case No. 39576	)	
	)	
	)	
	)	

COMES NOW, the State of Idaho, by and through the undersigned counsel, submits this Trial Brief to the District Court. This Trial Brief discusses the issues as framed by the Court's *Order on Summary Judgment* entered on June 30, 2006. As the Court recognized and summarized well, this subcase proceeding involves a somewhat confused procedural history, because subcase no. 31-11845 is a spin-off from condition no. 6 of water right license no. 31-07311. No purpose would be served in repeating in this Trial Brief this procedural history.

I. STATEMENT OF THE CASE

The District Court entered its *Order Granting Motion to Vacate Trial Date and third Amended Trial Schedule* on July 18, 2006 and modified the trial schedule in its *Order Granting State of Idaho's Motion to Enter Upon Private Land and Conduct Investigation; Scheduling Expert Depositions; Rescheduling Pretrial* on August 25, 2006. These two orders set the following dates for this proceeding:

September 29, 2006	5:00 pm	Deadline for IDWR to File Supplemental Director's Report and/or 706 Report
October 31, 2006	5:00 pm	Deadline to complete discovery and submit expert reports
November 22, 2006	9:00 am	Pretrial Conference Location: Snake River Basin Adjudication 253 3 rd Ave. North Twin Falls, Idaho 83301
		Deadline to file and Exchange Witness/ Exhibit Lists. Trial Brief Deadline.

The Idaho Department of Water Resources ("IDWR") filed its *Second Supplemental Director's Report Regarding Subcase No. 31-11845* and a large map on September 28, 2006.

The State of Idaho filed its *Notice of Service of State Idaho's Reports of Expert Witnesses* on November 1, 2006. This notice evidenced the fact that the State of Idaho caused to be served by hand delivery on Roger D. Ling and Michael P. Tribe, LING, ROBINSON & WALKER, 615 H Street, Rupert, ID 83350 the following expert reports:

1. Dr. J. Wayne Burkhardt, *Vegetation Reconnaissance of the Jernberg Property Relative to Irrigation Water Rights Claims*.
2. Glen H. Logan, *Expert report of Glen H. Logan, Professional Soil Scientist, regarding the Physical and Chemical Characteristics of soils on 672.9 acres of land in Jefferson County, Idaho*.
3. Robert W. Hill, Ph.D., P.E., *Expert Report of Dr. Robert W. Hill Regarding the Snake River Basin Adjudication Case No. 39576; Subcase No. 31-11845;*

Evaluation of Beneficial Use of Uncultivated Land near Mud Lake in Southeastern Idaho.

4. David B. Shaw and Norman C. Young, *Expert Report of David B. Shaw and Norman C. Young Evaluating Diversion and Beneficial Use of Water Under Claim No. 31-11845 (Idaho Properties, LLC).*

The State of Idaho received on November 2, 2006 the Expert Report of Dale Stukenholtz.

II. ISSUE PRESENTED FOR TRIAL

This proceeding is to determine the extent of beneficial use, if any, which occurred under condition no. 6 of water right license no. 31-07311. The extent of this beneficial use was to be described in new subcase no. 31-11845. The Director's Report and objection filed by claimant Jernberg frame the issues for this litigation. Here, the Director's Report for subcase no. 31-11845 included the following recommendations:

QUANTITY:	4.990 CFS Right nos. 31-2395 and 31-11845 are limited to a total combined diversion rate of 6.48 cfs and to a total combined annual diversion volume of 1134 AF.
...	
PLACE OF USE:	Right nos. 31-2395 and 31-11845 are limited to the irrigation of a combined total of 324 acres in a single irrigation season.

Director's Report for Late Claims Recommendation 31-11945. This recommendation provided additional diversion rate but no additional acres or diversion volume over what had been recommended for water right license no. 31-2395, which has the same place of use as 31-11845.

Claimant Ben Jernberg filed a Standard Form 1 Objection (hereinafter *Jernberg's Objection*) checking the Quantity and Place of Use boxes. Claimant Jernberg stated that the quantity "[s]hould be 8.83 cfs. Water Right Nos. 31-2395 and 31-11845 are limited to a total combined diversion rate of 12.48 cfs." Claimant Jernberg omitted any reference to a combined volume limitation. Finally, claimant Jernberg stated that the place of use should be 658 acres instead of the 324 recommended. *Jernberg's Objection* at 2.

In their motion for summary judgment, Claimants Jernberg and Idaho Properties LLC (collectively “Claimants”) modified their position on the diversion rate, moving the Court “for an Order that Water Right No. 31-11845 be partially decreed for groundwater at a quantity of 4.99 cfs.” *Motion for Summary Judgment* at 1. Claimants also modified their position on the size of the place of use, arguing for 663 acres. *Id.*

The Director of IDWR filed a Supplemental Director’s Report Regarding Subcase No. 31-11845 on May 26, 2006. The Director’s Recommendation was modified to increase the acreage to 324.5 acres.

On September 27, 2006, the Director filed a Second Supplemental Director’s Report Regarding Subcase No. 31-11845, concluding “that 324.5 acres is the maximum possible number of irrigated acres within the claimed place of use for water right nos. 31-11845 and 31-2395.”

Several elements related to the measure of beneficial use are at issue here: (1) the number of acres that actually received irrigation on the place of use; (2) the number of acres that actually benefited from irrigation on the place of use; (3) the quantity of water that was actually applied on the place of use; (4) the quantity of water that actually benefited the place of use; and (5) such additional considerations that may be presented at trial.¹ These determinations are complicated by the fact that decreed water right no. 31-2395 has the same place of use. The elements decreed for subcase no. 31-11845 have to accommodate in some manner the existence of this other water right for this land.

¹ These elements are not mutually exclusive; portions of the PPU that may have actually received irrigation may not have actually benefiting therefrom due to soil conditions, vegetation, grazing practices, etc....

III. CLAIMANTS BEAR BOTH THE BURDEN OF PRODUCTION AND THE BURDEN OF PROOF ON EACH ELEMENT DESCRIBING THE WATER RIGHT FOR SUBCASE 31-11845

Claimants “bear[] both the burden of production as well as the burden of proof as to each element of a claimed water right.” *State v. Hagerman Water Right Owners, Inc.*, 130 Idaho 736, 742, 947 P.2d 409, 415 (1997). Pursuant to Idaho Code § 42-1411(4), the Director’s Report “is prima facie evidence of the nature and extent of the water rights under state law.” *Clear Springs Foods, Inc. v. Clear Lakes Trout Co.*, 136 Idaho 761, 764, 40 P.3d 119, 122 (2002). Claimants, as the objecting parties, have “the burden of going forward with evidence to establish any element of a water right which is in addition or inconsistent with the description in a director’s report.” I.C. § 42-1411(5); *see also State v. Hagerman Water Right Owners, Inc.*, 130 Idaho 736, 746, 947 P.2d 409, 419 (1997) (“The director’s report is presumed to be correct until such time as a water claimant produces sufficient evidence to rebut that presumption.”). As a result, Claimants are “required to present substantial evidence . . . in order to overcome the presumption created by the director’s report.” *Clear Springs Foods, Inc.*, 136 Idaho at 764, 40 P.3d at 122; *see also Bongiovi v. Jamison*, 110 Idaho 734, 738, 718 P.2d 1172, 1176 (1986). Substantial evidence is defined “as such relevant evidence as a reasonable mind might accept to support a conclusion; it is more than a scintilla, but less than a preponderance.” *Evans v. Hara’s, Inc.*, 123 Idaho 473, 478, 849 P.2d 934, 939 (1993).

IV. BENEFICIAL USE IS THE MEASURE AND LIMIT OF AN APPROPRIATIVE WATER RIGHT

Idaho courts have long recognized that beneficial use is the measure of an appropriative water right. The State of Idaho cited several early opinions of Idaho courts regarding beneficial use of water in its *Brief in Opposition to Motion for Summary Judgment*. Those cases are equally applicable here, but will not be repeated. A review of one other case reinforces the

State's position that beneficial use is the measure and limit of a water right in Idaho. In *Washington State Sugar Co. v. Goodrich*, the Idaho Supreme Court stated:

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.

27 Idaho 26, 44, 147 P. 1073, 1079 (1915). The Court went on to state in detail the considerations a court should review in making a determination of duty of water for a particular site:

The duty of water depends upon the character and condition of the soil, and in determining the duty of water, reference should always be had to lands that have been prepared and reduced to reasonably good condition for irrigation.

Id. (emphasis added). Thus, the type of soil is a critical factor in determining the amount of water beneficially used by a particular claimant.

V. THE EVIDENCE RELATING TO SOILS, FORAGE, TOPOGRAPHY, AND ECONOMICS ESTABLISHES THAT THE COURT SHOULD ENTER A PARTIAL DECREE FOR WATER RIGHT NO. 31-11845 IN CONFORMITY WITH THE DIRECTOR'S RECOMMENDATION.

A. Introduction

The documents of record with the District Court during the summary judgment hearings provide a glimpse at the evidence to be offered at the trial of this matter. Claimant Jernberg offered the *Affidavit of Ben D. Jernberg in Support of Motion for Summary Judgment* (hereinafter *Jernberg Affidavit*) and the *Affidavit of Joe Llamas in Support of Motion for Summary Judgment* (hereinafter *Llamas Affidavit*). The *Jernberg Affidavit* stated as follows: "That when water is available, this affiant flood irrigated the entire 663 acres of pasture that was originally listed in the conditions of Water Right No. 31-7311." *Jernberg Affidavit* at 2. Similarly, the *Llamas Affidavit* offered a similar statement under oath. *Llamas Affidavit* at 2.

The *Affidavit of Bryce A. Contor in Support of the Motion for Summary Judgment* (hereinafter *Contor Affidavit*) reaches similar conclusions that the entire place of use was irrigated.

The State of Idaho undertook an inter-disciplinary approach to determine whether the physical and other evidence supports these rather general statements about the extent of beneficial use. This work included a review of the following: (1) the soils within the permissible place of use ("PPU"); (2) the topography and capacity of the diversion structures; (3) the forage species that are present within the PPU; and (4) the economics of application of water within the PPU. The independent conclusion from each of these subject areas is that no basis exists for adding water volume or additional acreage to the present Director's Recommendation. A brief summary of what the evidence will show for these subject areas follows.

B. Most of the soils within the PPU cannot be beneficially irrigated because of their high sodium content and lack of present drainage.

Glen Logan is a soil scientist, who will testify for the State of Idaho. He was awarded a bachelor of science degree in Agronomy from Iowa State University in 1953. He began working for the U.S. Department of Agriculture, Soil Conservation Service, in 1954 and left in the same year for a tour of duty in the U.S. Air Force. He returned to the Soil Conservation Service in 1957 in Idaho and retired after thirty years in 1987. During his work at the Soil Conservation Service, he spent fifteen years in the field mapping, classifying and interpreting soils in Idaho. During his last fifteen years at the Soil Conservation Service, he held the position of State Correlator. This position involved supervising all aspects of the publication of Soil Survey Publications in Idaho. During this period, the Soil Conservation Service issued in December 1979 the Soil Survey of Jefferson County, Idaho, "Jefferson County Soil Survey." Exhibit 31. Soil Survey for Jefferson County, Idaho.

Mr. Logan began his work with a review of the Jefferson County Soil Survey, which classified the PPU into the following eight soil units:

Soil Description	Irrigated/Non-irrigated	Acreage
Soil Type 1 Acet-Rock Outcrop Complex	Non-irrigated	0.5
Soil Type 55 Levelton Loam	Non-irrigated	74.0
Soil Type 56 Levelton Loam Drained, Moderately Saline-Alkali	Non-irrigated	134.5
Soil Type 59 Levelton Silty Clay Loam Drained, Moderately Saline-Alkali	Non-irrigated	89.4
Soil Type 61 Lidy Sandy Loam	Irrigated	2.1
Soil Type 82 Medano-Psammaquents Complex	Non-irrigated	1
Soil Type 92 Montlid Silty Clay Loam Moderately Saline-Alkali	Irrigated	19.6
Soil Type 93 Montlid-Heiseton Complex	Non-irrigated	351.9

Exhibit 31. Soil Survey for Jefferson County, Idaho. He will explain that the Jefferson County Soil Survey provides information about the physical properties, chemical characteristics and limitations of the soils. Soil surveys, as found on the place of use are considered order three surveys, which allow a particular mapping unit soil description to include complexes of more than one soil and have inclusions up to 20% of other soils. He will also explain that some of the limitations that are affected by the irrigation of soils are degree of alkali, and drainage conditions. He will testify that the term alkali refers to the presence of exchangeable sodium in the soil and that high levels of sodium interfere with plant growth. He concludes that the high sodium content precludes irrigation of the PPU without first providing adequate drainage and

that the very stony nature of most of the PPU precludes the installation of a drainage system for most of the PPU.

- C. The vegetation on the uncultivated portions of the PPU cannot be beneficially irrigated because it consists mostly of species that cannot tolerate regular irrigation and that are of low to no forage value or palatability.

Dr. J. Wayne Burkhardt is a range consultant and an associate professor emeritus with the University of Nevada, Reno. Dr. Burkhardt was awarded a Bachelor's degree in Forestry, a Master's degree in Rangeland Management, and a Ph.D in Range Ecology, all from the University of Idaho. Dr. Burkhardt is also a certified farm and ranch appraiser. His expertises include rangeland vegetation, rangeland grazing, range management, and rangeland economics.

Dr. J. Wayne Burkhardt has determined that the uncultivated portion of the PPU, consisting of approximately 534 acres, has not been irrigated to a significant beneficial or productive use for at least twenty years. Dr. Burkhardt will explain how the current vegetation on the uncultivated portion of the PPU consists primarily of native, arid rangeland species of low to no forage value or palatability and of invasive or noxious weeds. He will explain how he found no irrigated pasture forage plants within the study sites and only limited dry range plants.

Dr. Burkhardt will explain that irrigation of arid and semi-arid native rangeland vegetation is neither a customary practice nor a proven beneficial or economical practice. He will explain that the grazing capacity on the uncultivated portion of the PPU is likely 10 to 15 acres per AUM. He will explain that the grazing capacity on improved, irrigated pastureland is about 2 to 3 AUMs per acre, or 20 to 45 times more productive than that on the uncultivated portion of the PPU. Dr. Burkhardt will further discuss how conversion of arid and semi-arid rangeland to improved pasture requires more than just irrigation; he will explain that such conditions require removal of the existing vegetation and drill seeding with pasture grasses and

forbs. Dr. Burkhardt found no evidence of such conversion practices on the uncultivated portion of the PPU.

Finally, Dr. Burkhardt will discuss how the presence of Wyoming big sagebrush on portions of the PPU indicates that such areas have not received regular irrigation for twenty years or more. He will explain how Wyoming big sagebrush is an arid species that cannot tolerate regular irrigation. He will explain how Wyoming big sagebrush will die when exposed to regular irrigation. Dr. Burkhardt will explain how he found Wyoming big sagebrush growing in the bottoms of the ditches serving the southeastern part of the PPU. He will explain how he aged specimens of these Wyoming big sagebrush and how he found that the specimens were at least twenty years old. According to Dr. Burkhardt, the ages of the Wyoming big sagebrush are directly indicative of the use, or in this case the non-use, of the implicated ditches.

D. The irrigation system delivers an adequate rate and volume of water to irrigate only 258 acres of the PPU

David Shaw is a licensed professional engineer and land surveyor in the State of Idaho. Mr. Shaw received both a Bachelor's and a Master's degree in agricultural engineering from the University of Idaho, and is a certified Idaho water right examiner. Mr. Shaw spent twenty-three years with the Idaho Department of Water Resources, eleven of which spent as the Chief of Department's Adjudication Bureau. Mr. Shaw's expertise includes agricultural and hydrological engineering, delivery system design, hydrology, water right adjudication, and water right administration.

Norm Young is a licensed professional engineer and land surveyor in the State of Idaho. Mr. Young received both a Bachelor's and a Master's degree in agricultural engineering from the University of Idaho. Mr. Young spent thirty-three years with the Idaho Department of Water Resources, twenty-five of which spent as the Administrator of the Water Management Division.

Mr. Young's expertise includes agricultural and hydrological engineering, delivery system design, hydrology, water right adjudication, and water right administration. David Shaw and Norm Young are both members of the ERO Resources Corporation consulting firm.

Analysis of the capacity of the irrigation system serving the PPU, conducted by David Shaw and Norm Young of ERO Resources Corporation (collectively "ERO"), supports the findings in the Director's Report that only a portion of the PPU has been irrigated. ERO will explain how they used GPS cross-section data gathered by IDWR to calculate the maximum amount of water that one ditch segment could deliver to the next downstream ditch segment using the Manning Equation for calculating gravity flow in open channels; ERO will explain how their analysis indicates that the irrigation system does not have sufficient head to serve all areas of the PPU, especially the southern and southeastern portions of the PPU. ERO will explain how they compared ditch bank height elevations to the elevations of the areas to be served by their corresponding ditches. *See* Exhibit 27, Expert Report of David B. Shaw and Norman C. Young Evaluating Diversion and Beneficial Use of Water under Claim No. 31-11845 (Idaho Properties, LLC.) (Figure 21). ERO will explain how these elevations indicate that the irrigation system, as it existed in the mid-1980s, could distribute water to no more than 258 acres of the PPU.² This determination is less than the 324 acres recommended in the Director's Report.

ERO will also discuss the complicated history of the water rights on the Jernberg property. ERO will explain how the application for the permit upon which water right Nos. 31-11845 and 31-07311 are based included 280 acres owned by the U.S. Bureau of Land

² Claimants have leveled and cultivated a 169 acre grain field located on the southwest side of the PPU in parts of Sections 16 and 21. Approximately 30 acres of this field are west of and outside of the PPU defined for water right No. 31-11845. It appears that the entire 169 acre grain field is currently being served with water under water right No. 31-11845. The 258 acres that ERO found to be served by the irrigation system does not include the 30 acres of the 169 acre grain field that is outside of the PPU.

Management (“BLM”). ERO will also explain how the irrigation system on the PPU relies upon a ditch that traverses, and potentially trespasses upon, BLM property.³

E. The cost of energy to irrigate the PPU exceeds the benefits to be derived from irrigation of the uncultivated pasture land.

Dr. Robert W. Hill is a practicing irrigation engineer registered in the State of Utah. He was awarded a Bachelor in Engineering Science and a Master in Civil Engineering from Brigham Young University in 1967 and 1969 and a Ph.D. in Civil Engineering from Utah State University in 1973. His specialty subjects include irrigation, agricultural hydrology, agro-meteorology, crop water requirements, crop yield and irrigation scheduling models, soil-water-plant management research, and water resource systems simulation and computerized hydraulics design.

Dr. Robert W. Hill evaluated the benefits to be derived from irrigating the PPU and the energy costs to provide those benefits in 1986, the date that the beneficial use examination took place for water right no. 31-7311. Dr. Hill began his analysis by using the potential annual vegetative dry matter production for the forage species identified in the Jefferson County Soil Survey for years when the precipitation amounts were described as unfavorable (8 inches per year), normal (10 inches per year) and favorable years (12 inches per year).⁴ Through a series of calculations and conversions he determined that the storage of one acre inch of water in the root zone of an acre of the uncultivated pasture in soil units 56, 59 and 93 would produce 51 pounds of grazeable forage and that the value of this additional forage was \$0.63.

³ ERO will also describe how they calculated the cost of fuel to operate the West well in 1986 as approximately \$8.13 per hour.

⁴ The potential annual vegetative dry matter production is a total amount that includes palatable and unpalatable species. The proportion of palatable species on soil units 56, 59, and 93 is 68 per cent; it is 85 per cent for soil unit 55.

Dr. Hill also uses the claimant's description of past operation of the wells for irrigation of the PPU to derive an estimate of the cost of producing the benefits described above in 1986. Dr. Hill's analysis takes into account the seepage losses from the various ditches, application efficiency for the irrigation system, and energy costs that existed in 1986. He will also testify that his analysis underestimates the actual cost because his analysis ignored other operation and maintenance costs. He determined that the estimated energy cost of storing an acre inch of water in the root zone of an acre of uncultivated pasture was \$2.80. Finally Dr. Hill concludes that the cost of energy alone to produce an AUM of grazeable dry matter was more than four times the value of the resulting AUMs and that such use does not constitute a beneficial use of water.

VI. CONCLUSION

A substantial dispute remains regarding the description of the elements of the water right for subcase no. 31-11845. While claimant Jernberg will present evidence that the amount of 3.5 acre feet per acre was beneficially used on the described place of use for subcase no. 31-11845, the physical evidence will rebut this evidence. The evidence will demonstrate that the Director's Recommendation regarding subcase no. 31-11845 is supported by substantial evidence and the District Court should decree that water right as recommended by the Director of the Idaho Department of Water Resources.

DATED this 22nd day of November 2006.

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CERTIFICATE OF SERVICE

I certify that on this 22nd day of November 2006, I caused to be served the original and copies of the STATE OF IDAHO'S TRIAL BRIEF on the following persons by the indicated methods:

1. Original to:

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2. Copies to

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Chief of Natural Resource Division

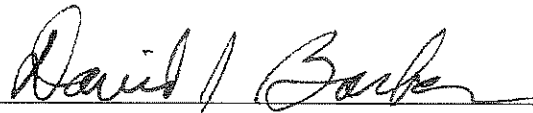
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Not Applicable

A handwritten signature in cursive script, reading "David J. Barber", written over a horizontal line.

DAVID J. BARBER

Deputy Attorney General