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OCT 19 2004

Department of Water Resources

BEFORE THE STATE OF IDAHO DEPARTMENT OF WATER RESOURCES

IN THE MATTER OF APPLICATION
FOR TRANSFER NO. 71076

**STIPULATION FOR WITHDRAWAL OF
PROTEST**

1. Prior the hearing in this matter, the Parties reached an agreement to settle the Protest filed by Paradise Springs Farm.
2. Under the terms of the settlement, JRG Partners' ("JRG") Application for Transfer No. 71076 shall be approved, subject to the following conditions:
 - JRG shall install a measuring device on the point of diversion that measures instantaneous flow and total volume of water diverted; and
 - The total maximum annual volume of water JRG may divert under water right 22-7641 for wildlife storage and aesthetic purposes is 14.3 acre feet.
3. The parties' agreement to limit the total annual volume for wildlife storage and aesthetic purposes is based on limiting JRG's diversion of water from the aquifer for these purposes to the same volume of water it previously diverted for irrigation of 5 acres.
4. The calculation of the volume of water previously diverted for irrigation is included in the attached Exhibit A.
5. Based on the agreement discussed above, Paradise Springs Farm withdraws its Protest.

ORIGINAL

PARADISE SPRINGS FARM

Dated: 10/7/04

MIL T-0
Michael Reid
Paradise Springs Farm

JRG PARTNERS

Dated: 10/15/04

Ch. n. n. n.
Attorney, JRG Partners

CERTIFICATE OF SERVICE

I hereby certify that on this 15th day of October 2004, I caused to be served a true and correct copy of the foregoing document by the method indicated below and addressed to the following:

Michael L. Reid
Paradise Springs Farm
P.O. Box 801
Victor, ID 83455

☒ U.S. Mail
☐ Facsimile
☐ Hand Delivery
☐ Overnight Mail
☐ E-mail

Heidi C. Meier for
John M. Marshall

EXHIBIT A



Memorandum

DATE: October 1, 2004
TO: John Marshall
FROM: Christian Petrich
RE: Calculation of irrigation withdrawals under Water Right 22-7641

Yesterday's proposed Stipulation to Withdraw Protest was based on limiting the total annual diversion volume under Water Right 22-7641 to 14.3 acre-feet annually (afa). This memo outlines the basis for the proposed 14.3 afa withdrawal estimate.

Consumptive Use (CU) is the amount of water that a crop transpires during a specific time period. Consumptive Irrigation Requirement (CIR) is the amount of water that must be applied to meet the consumptive use demand. CIR is less than CU because some of the CU is met by natural precipitation.

CU and CIR data have been compiled for various National Oceanic and Atmospheric (NOAA) weather stations in the state by Allen and Brockway (1983). The CU and CIR data are maintained on the web¹ by the University of Idaho Kimberly Research Station. The closest weather station to the JRG property is in Driggs, Idaho.

The CU and CIR data are provided for several crop types. The crop history for the 5 acres of land irrigated under Water Right 22-7641 is unavailable. Alfalfa was selected as a "typical" crop. Alfalfa has CU and CIR values that are greater than some crops, and less than others.

The estimated CU and CIR rates for alfalfa based on conditions in Driggs, Idaho² are provided in Table 1. These data are provided in millimeters of water per unit area. A crop of alfalfa would consume a total of 718 mm of water (Table 1), or 2.36 feet per acre (304.8 mm = 1 foot), in an average irrigation season. The average amount of water required for irrigation (CIR) would be 1.86 feet per acre. The total 5-acre area would have an approximate consumptive use of 11.8 acre-feet and would require a total of 9.3 acre-feet of irrigation water in an average year.

¹ <http://www.kimberly.uidaho.edu/water/appndxet/index.shtml>

² <http://www.kimberly.uidaho.edu/cgi-bin/getcui.pl?fname=driggs.dat&GetIt=Retrieve>

Irrigation delivery is never 100% efficient. In this case, irrigation water was first diverted to a pond, piped to the 5-acre irrigated area, and then distributed with various hand lines within the 5-acre irrigated area. It can be assumed that the efficiency of such an irrigation system is 65%. A total of 14.3 acre-feet of water would be required to meet a 9.3 acre-feet irrigation demand if the delivery system was 65% efficient ($9.3 / 0.65 = 14.3$). Thus, the total estimated amount of ground water withdrawn for irrigation under Water Right 22-7641 is 14.3 acre feet per year.

	May	Jun	Jul	Aug	Sep	Total (mm)	Total (ft per acre)	Total for 5 Acres (ft)
MEAN CU	3.42	6.45	6.6	4.79	2.14	718	2.36	11.78
MEAN CIR	2.36	4.87	5.88	3.96	1.42	567	1.86	9.30
Based on Allen and Brockway (1983)								

Table 1: Summer month and seasonal total Consumptive Use (CU) and Irrigation Requirement (CIR) data based on conditions in Driggs, Idaho.

REFERENCE

Allen, R.G. and Brockway, C.E., 1983. Estimating Consumptive Irrigation Requirements for Crops in Idaho, Idaho Water Resources Research Institute (prepared for the Idaho Department of Water Resources).