

M E M O R A N D U M

Date: March 4, 2008
To: Water Right File Nos. 63-5094 and 63-32960
From: Aaron Marshall
Re: Water Supply Bank Applications Review
Eagle Sports Legends Investments, LLC lease applications
City of Eagle, rental application

On January 28, 2008, Eagle Sports Legends Investments, LLC submitted applications to lease water right nos. 63-5094 and 63-7847 to the Water Supply Bank (Bank). Simultaneously the City of Eagle (City) submitted an application to rent these water rights from the Bank.

Lease Application, Water Right No. 63-5094

All of this right is offered to the Bank; 1.0 cfs and 360 acre-feet for irrigation and 0.22 cfs for stockwater use from ground water. The total diversion allowed under the right for all uses is 1.0 cfs and 360.0 acre-feet. A partial decree was issued for this right in the SRBA to on February 16, 2007, to Quarter Circle DJ Ranch Co, the original owner of the right. Ownership of the right is currently in the name of Eagle Sports Legends Development, LLC. An article of amendment was filed with the Secretary of State changing the name of the business to Eagle Sports Legends Investments, LLC.

All of this right is accepted into the Bank without an annual volume on the face of the acceptance. The place of use of this right overlaps two other ground water rights, 63-10700 and 63-32960, one surface water right, 63-32958, and is within the boundaries of multiple irrigation districts or ditch companies. A condition of acceptance will identify that the amount available for lease under rights 63-5094 and 63-32960 is limited to a total combined annual volume of 799.2 acre-feet. This is based on 444 acres x 4.5 af/ac x 40% ground water used for irrigation, see description of irrigation practices below.

Lease Application, Water Right No. 63-7847

All of this right is offered to the Bank however, this right was split into water right nos. 63-32959 and 63-32960 and is no longer active. The ownership change notice was submitted to IDWR on October 18, 2006, but was not completed until January 29, 2008, after receipt of the application. Water right no. 63-32960 is the portion now owned by Eagle Sports Legends Investments, LLC. This right provides 3.70 cfs and 1,796.4 acre-feet for irrigation and 0.43 cfs and 26.2 acre-feet for stockwater use from ground water. The total diversion allowed under the right for all uses is 3.70 cfs and 1,822.6 acre-feet. A partial decree was issued for the parent right, 63-7847, in the SRBA on February 16, 2007, to Quarter Circle DJ Ranch Co., the original owner of the right.

All of right 63-32960 is accepted into the Bank without an annual volume on the face of the acceptance. The western 253.5-acre place of use of this right overlaps two other ground water rights, 63-5094 and 63-10700, one surface water right, 63-32958, and is within the boundaries of multiple irrigation districts or ditch companies. A condition of acceptance will identify that the amount available for lease under rights 63-5094 and 63-32960 is limited to a total combined annual volume of 799.2 acre-feet. This is based on 444 acres x 4.5 af/ac x 40% ground water used for irrigation, see description of irrigation practices below. Acceptance of the right will require that the irrigation and stockwater portion appurtenant to the western 253.5 acres is not available for rental from the bank without additional review by the Department. Another condition will limit rental of the irrigation portion of this right appurtenant to the eastern 190.5 acres for municipal use to the consumptive use portion of 342.9 acre-feet, which is an annual diversion volume of 266.7 acre-feet.

Irrigation Practices at Quarter Circle DJ Ranch

During a meeting on February 27, 2008, with attorney Scott Campbell, attorney Bruce Smith, Todd Santiago and ranch manager John Malcom, I requested additional information concerning the historic use of water for irrigation at the Quarter Circle DJ Ranch.

John Malcom stated that he has been employed at the ranch for 19 years. During that time, as an irrigator and ranch manager, he estimated that 40% of the irrigation water was provided by ground water wells and 60% of the irrigation water was provided from surface water sources. However, he was unable to discern which water rights were specifically utilized and to what extent. He indicated that the wells used are flowing under artesian pressure during good water years but water must be pumped during drought years. In reviewing a map of the ranch, John was able to describe the individual wells used for irrigation at the ranch. He identified the wells authorized under 63-5094 as likely capped. I have verified that well construction records show that the artesian flowing well located in the SE $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ Section 3, is capped. He identified two other wells as active irrigation wells, now known as the Rick's Well and Below the Hill Well. Rick's Well is no longer used by the ranch as it is on land owned by Tom Rick's who also owns the other split portion of parent right 63-7847, now described under right 63-32959. The Below the Hill Well is now the only active irrigation well used for irrigation by the ranch.

The ranch lands are flood irrigated using open ditches and siphon tubes. Water from the wells either flows or is pumped into the ditches and comingled with surface water diverted under right 63-32958 from waste water or delivered by a ditch company or irrigation district.

Power records provided by the lessor show some pumping of water from the wells. The power records do not provide evidence of the full use of ground water since the wells are flowing to the surface under artesian pressure much of the time.

The best information available on the use of ground water under the rights offered to the Bank, is the statement from John Malcom that ground water provides approximately 40% of the water used for irrigation on the ranch lands.

Overlap Analysis

Water right nos. 63-5094, 63-32958 (source: waste water), and 63-32960, when combined, are limited to the following: irrigation of 444 acres, diversion rate of 8.88 cfs, annual diversion volume of 1998 acre-feet.

Lands irrigated under the above rights are located within the boundaries of Drainage District No. 2, New Dry Creek Ditch Co., and Middleton Irrigation Assn Inc./Middleton Mill Ditch Co. John Malcom and documentation in water right files indicate that the Quarter Circle DJ Ranch lands are provided water from one of the above entities.

Rental Application

The City is seeking 2.0 cfs and 320.0 acre-feet of ground water for municipal use for five years. The City identified six points of diversion on the application, two of which are included in the City of Eagle 7-Day Aquifer Test Report, June 2006, prepared by Holladay Engineering. These two wells, the Eaglefield and Legacy wells, are points of diversion identified on applications for permit 63-32089 and 63-32090 and are generally located in T04N, R01W, Section 11.

A rental agreement is already in effect for the City providing 0.80 cfs and 130.0 acre-feet of ground water for municipal use through 2008. During a meeting on February 26, 2008, IDWR Director Dave Tuthill agreed that this rental agreement could be extended up to a maximum of five years since a final order was issued the same day in the matters of applications to appropriate water nos. 63-32089 and 63-32090.

Computation of Available Rental Water

Determination of the quantity of water available for rent and the portion authorized for diversion under water right no. 63-32960 was derived through the following analysis:

Three ground water rights (63-5094, 63-10700, and 63-32960) overlap in-part on the 444-acre place of use described under right 63-32960. In total, these rights authorize a diversion rate of 6.79 cfs. The portion of right 63-32960 accepted into the Bank is the eastern 190.5-acre portion that will not be irrigated during the term of the lease.

$6.79 \text{ cfs} / 444 \text{ ac} = 0.0153 \text{ cfs/ac}$ from ground water.

$0.0153 \text{ cfs/ac} \times 190.5 \text{ ac} = 2.91 \text{ cfs}$, maximum flow rate under right 63-32960 that may be appurtenant to the eastern 190.5-acre portion of the place of use when surface water is not available.

The rental is limited by the diversion rate indicated on the application, **2.00 cfs**.

The diversion and use of water will also be limited when combined with rental of permit 63-12448 for 0.80 cfs and permit nos. 63-32089 and 63-32090 to a total combined rate of 2.23 cfs, the quantity authorized for municipal use under permit no. 63-32089.

The use of all rights on the 444-acre place of use is limited to the standard field headgate requirement of 4.5 af/ac, which is a total of 1,998 acre-feet. The maximum consumptive irrigation requirement for the area is 3.5 af/ac. The best estimate available regarding the proportionate use of water for irrigation on the place of use, as stated by ranch manager John Malcom, is 40% ground water and 60% surface water.

$190.5 \text{ ac} \times 4.5 \text{ af/ac} \times 0.40 = \mathbf{342.9 \text{ af}}$, portion of right 63-32960 available for rent after unstacking from surface water rights appurtenant to same place of use.

$190.5 \text{ ac} \times 3.5 \text{ af/ac} \times 0.40 = \mathbf{266.7 \text{ af}}$, consumptive use portion of right 63-32960 available for diversion under rental agreement for municipal use

Hydrologic Analysis

Based on the well driller's report available for Rick's Well, reports for abandoning wells, beneficial use field reports, information from John Malcom, and the June 2006, City of Eagle, Idaho 7-Day Aquifer Test Report, prepared by Holladay Engineering, the source for the rights offered to the Bank is the deep aquifer zone.

The deep aquifer zone is the source of water for permit applications 63-32089 and 63-32090 and some of the protestants to those applications. The Eaglefield and Legacy wells are completed in the deep aquifer zone, 345 to 425 ft bgs and 282 to 352 ft bgs, respectively. These wells are included as points of diversion on the current rental application. These wells were also identified in the 7-Day Aquifer Test Report. During that test, the Eaglefield Well was utilized as the pumping well while the Legacy Well was used as a monitoring well. Rick's Well is identified in the report as Monitoring Well No. 6.

Rick's Well and Below the Hill Well are both located within 4,000 ft of the Eaglefield Well and are hydraulically connected to the Eaglefield and Legacy wells as demonstrated by the results of the 7-Day Aquifer Test Report. Water left undiverted from wells used under the rights offered to the Bank could be interpreted as leaving water in the deep aquifer zone for diversion using the Eaglefield and Legacy wells. However, changing the point of diversion any distance will have a different impact to nearby wells and the actual quantity of water left undiverted is unknown due to the lack of water use records. The impacts to nearby wells will likely resemble the modeled draw downs described in finding of fact no. 39 in the final order in the matter of applications to appropriate water nos. 63-32089 and 63-32090 in the name of the City of Eagle, issued by the Director of the Department of Water Resources on February 26, 2008.

Since the diversion and use of water under this rental agreement will be limited when combined with the rental of permit 63-12448 and permit nos. 63-32089 and 63-32090 to a total combined rate of 2.23 cfs, the impact of diversion through this rental to nearby water users will not likely exceed the impact anticipated under permit nos. 63-32089 and 63-32090 as described in the final order.

WATER SUPPLY BANK RENTAL APPLICATION - CITY OF EAGLE EAGLEFIELD AND LEGACY DEVELOPMENT AREA MAP²

