

September 2, 2020

Mr. Daniel Nelson
Idaho Department of Water Resources
PO Box 83720
Boise, ID 83720-0098

RE: Field Exam Report for Water Right Permit No. 63-32366

Dear Mr. Nelson:

This letter and attachments to the Beneficial Use Field Report are being submitted in response to your letter of July 23, 2020 regarding the above referenced water right permit. Exhibit A included with the revised Beneficial Use Field Report is the design document dated 1-21-2019 used as the basis from calculating pond volume. The spreadsheet labeled Exhibit C was used to calculate average and maximum pond depths. Since the surface area and volumes are included on the design document the average and maximum pond depths were calculated per your request.

Exhibit B is an annotated copy of Exhibit A that shows where the Thurman Mill and Warm Springs Ditch Companies water enters the subdivision. Water from both companies enter the subdivision in the same ditch and can be supplied to pond 2 or pond 8 as needed for irrigation purposes.

The only water that leaves the Lakemoor Ponds, other than irrigation applied to lands within the subdivision, is overflow from Pond 1 during flooding conditions. Pond 1 can discharge to an earthen channel along the north edge of Lakemoor Subdivision. The channel continues westerly between Lakemoor and Laguna Point Subdivisions then turns north into the Laguna Point Subdivision.

Since the ponds intercept and are filled by shallow ground water, seepage rate is not a factor in water loss from the ponds. Soil porosity may well impact the rate at which the water surface elevation in the ponds rise and fall due to changes in the level of ground water, but from a water supply standpoint seepage is not a factor.

None of the Et Idaho stations are ideally situated to estimate the pond evaporation loss in the Lakemoor Subdivision. To better estimate evaporation loss from the ponds the average of the shallow pond evaporation from the Boise, Emmett and Nampa stations were used. The resulting evaporation loss of 43.3 acre-feet per year is shown in Exhibit D, attached to the Beneficial Use Field Report. The ponds replaced low management pasture that was irrigated by surface water from the

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1842 Clarkson St.
Denver, CO 80218
303.830.1188

Durango
1015 ½ Main Avenue
Durango, CO 81301
970.422.2136

Hotchkiss
P.O. Box 932
161 South 2nd St.
Hotchkiss, CO 81419
970.872.3020

Idaho
4001 East Main Street
Emmett, ID 83617
208.365.7684

Thurman Mill and Warm Springs Ditch Companies. The same method of using the average of evapotranspiration from the Boise, Emmett and Nampa Et Idaho stations was utilized to determine the historical evapotranspiration loss from low management pasture. Exhibit E, attached to the Beneficial Use Field Report, shows the historical evapotranspiration to be 47.9 acre-feet, larger than the evaporation loss from the new ponds. The total 78.5 acre-feet shown on the permit is also more than the evaporation loss from the ponds.

Also as shown on Exhibit A to the Beneficial Use Field Report, the larger ponds all have a relatively flat bottom and sloping sides. The smaller ponds such as pond 7 appear to have similar sloping sides but due to the small size there is not a flat bottom in the pond. The average pond depth was determined by using the surface area and volumes shown on Exhibit A. Ponds 8 and 9 are shown clearly enough to digitize the flat bottom area of the pond and the sloping area. As described in Exhibit C to the Beneficial Use Field Report, a factor was calculated to estimate the maximum depth of the ponds and all were found to be less than 28 feet.

The total volume of the 12 ponds is 229.4 acre-feet, less than the capacity of 533 acre-feet that was applied for and the recommended surface area of the ponds is 19.8 acres based on digitized pond surface areas in Google Earth.

A licensing amendment is requested to correct the number and location of the 12 aesthetic ponds located in the Lakemoor Subdivision. A licensing amendment would be appropriate since neither the total volume nor the total surface area of the ponds exceed the amounts permitted.

Please let me know if and additional information is required to issue a Water Right License for Water Right Permit No. 63-32366.

Yours truly,



Dave Shaw

Enc.

cc: Dan Torfin via Email