



Irrigation Committee Report
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Written and submitted by: Karl Davis

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Charter: To develop a plan with Big Elk Meadow lot owners so they can purchase water for Lawn and Garden Irrigation.

Committee Members: Karl Davis and Kent Broome as Co-Chairman, Robert Forsberg, Selina Davis and Paul McDaniel

Our Irrigation Rules and Decree

Our Owners Manual under the Rules and Regulations section for Water Use places restrictions on outdoor watering:

1. Water is in short supply. Uses of water in Big Elk Meadows are strictly regulated by Colorado State law and the courts. Outdoor watering and washing of cars from Big Elk water lines is prohibited. No bleeders are allowed for private residences. Directly drawing water from lakes or creeks on BEM property is prohibited except with approval of the Board of Directors. Said approval, if granted, is not given in perpetuity and can be rescinded if conditions warrant.

Our decree in paragraph 14 subparagraph B defines our outside irrigation rules. I attached paragraph 14 below. Our water accounting spreadsheet follows the decree. It allows us to set an irrigation value for lawn and a value for garden in acres. That value then computes an acre feet per acre value for each month from May through October. A daily value is computed and placed in each daily cell for the year. When you add the values together for the six months it adds up to 1.55 acre feet of water for each acre we record for lawn irrigation and .38 acre feet of water for each acre of garden irrigation.

Keeping track of irrigation water will be for direct lake water and will be separate from how we keep track of household water use. Household water is cleaned and recorded on the master meter. We have to replace 10% of that water. It appears that we have to replace all the irrigation water.

The purpose of the Irrigation Committee is to plan how we will disperse or dispense the water we want to use for irrigation. It is important for the committee to define how a member can access lake water.



14. The maximum estimated total annual water use by Big Elk Meadows is 38.34 acre feet per year, with a total consumptive loss to the stream system of 20.70 acre feet per year, including net evaporation from the lakes. The amount of evaporation replacement has been credited with the historic consumptive use of the natural surface and subsurface depletions by the naturally irrigated meadows and open stream beds prior to construction of the Big Elk Meadows lakes. A summary of depletions and consumptive use by Big Elk Meadows is attached hereto as Exhibit B. No additional outside lawn irrigation beyond that at the time of the entry of this decree is permitted, or will be permitted by Big Elk Meadows, unless such irrigation is accounted for and additional replacements made as necessary to replace depletions on a timely basis. Any such additional outside irrigation, or any other additional uses, will be calculated and replaced according to the following equations:

A. Inbuilding, inhouse and maintenance of the swimming pool: Consumptive use = 10% of the monthly metered pumping of all wells used for the potable water system. If a mechanical waste water treatment system is installed and in use by any portion of the Big Elk Meadows, the consumptive rate for that portion of water use will be reduced from 10% to 5%.

B. Turf and Garden Irrigation: Consumptive use of irrigation water = area of irrigated turf x monthly consumptive use rate. All irrigated turf and garden areas will be measured annually for the calculation of the consumptive use of irrigation water. Monthly turf consumptive use rates are as follows:

May - 0.25 ac-ft/ac Aug. - 0.30 ac-ft/ac
June - 0.33 ac-ft/ac Sept.- 0.23 ac-ft/ac
July - 0.36 ac-ft/ac Oct. - 0.08 ac-ft/ac

Garden area equivalent to turf area is four to one.

C. Horses and livestock equivalent = Number of horses x 0.00093 ac-ft/month.

D. Lake Evaporation: Net Lake evaporation = Total lake area in acres x monthly evaporation rate less credit for historic subirrigated meadows within the reservoir's foot print. The calculation for average lake evaporation depletion is set forth in Exhibit C hereto.