

## Water Use Information for Water Right Applications

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The diversion figure in water right applications is the quantity of water expressed as a flow rate in cfs (cubic feet per second) and/or as a volume in acre-feet to be taken from a well, river, spring, etc. for the required purpose. The depletion figure is the quantity of water consumed which will be lost to the hydrologic system through said use. Depleted water does not return to the surface water sources or underground aquifers via seepage, drainage, etc. but is consumed in the growth of plants and animals, evaporation, and transmission away from the area. The following figures are used for general quantification. As new data is available, these figures may change. If applicants provide specific figures based on design criteria, testing data, monitored measurements, etc. which differ from these amounts, such information will be reviewed and considered. One cubic-foot per second equals about 450 gallons per minute. One acre-foot of water equals 325,851 gallons.

**DOMESTIC** (inside use only): Water diversion for a fulltime (permanent residence) use is evaluated at 0.45 acre-foot per family. Parttime (seasonal or recreational) use is equated at 0.25 acre-foot per family. Depletion is generally 20% if using a septic tank or drain field system. It varies if the residence is connected to a community sewage system depending on the treatment method used and its distance away from the diverted source.

**IRRIGATION** (any outside watering): This purpose includes watering of crops, lawns, gardens, orchards, and landscaping. The [diversion amount \(irrigation duty\)](#) ranges from 2 acre-feet per acre in cool, mountain meadow areas to 6 acre-feet per acre in low, hot southern areas of the state. Higher, cooler valleys are generally 3 acre-feet per acre, and lower moderate areas 4 or 5 acre-feet per acre. If land is subirrigated or supplemented by other rights or supplies, the diversion rate may be less than average for the area. Generally the irrigation season is described as April 1 to October 31 and/or the general frostfree period in the area. Some court decrees and early rights authorize differing periods. Depletion varies considerably due to differing soils, temperatures, wind factors, etc. and can range from about 40% to about 70%. Figures are taken from available studies (particularly "Consumptive Use of Irrigated Crops in Utah", Research Report 145, [Consumptive Use Information Tables](#)).

**STOCKWATERING**: The diversion figures for this purpose are based on year-round watering. Stock operations for lesser or intermittent periods would need adjustment accordingly. Water diverted for this use is generally considered to be 100% depleted by the animal, evaporation, phreatophytes, and/or waste water collection.

cow or horse	0.028	acre-foot
sheep, goat, swine, moose, or elk	0.0056	acre-foot
ostrich or emu	0.0036	acre-foot
llama	0.0022	acre-foot
deer, antelope, bighorn sheep, or mt. goat	0.0014	acre-foot
chicken, turkey, chukar, sagehen, or pheasant	0.00084	acre-foot
mink or fox (caged)	0.00005	acre-foot

**INDUSTRIAL, COMMERCIAL, RECREATIONAL, COMMUNITY AND MINING**: Projects are evaluated on an individual basis. Parameters include method of processing or manufacturing, number of employees, length of workshift and period of operation, type of waste processing and/or discharge, and types of employee and/or public facilities (showers, food preparation, etc.). The [Utah State Administrative Rules for Public Drinking Water Systems](#) are guidelines for such estimates.

[Tool for estimating diversion and depletion](#)