

MEMORANDUM

Date: February 02, 2011
To: Water Right File 97-7369
From: cpadilla
Re: Licensing Memo

The examiner found 14 af developed at the lake but that seems to include the entire lake instead of the volume of water gained by adding the development. There were many organizations involved in the design of the log weir and I believe that the design enclosed in the application is how the permit was developed. Based on the diagram of the log weir, there is 1.5 ft of depth added to the lake. In addition I found 9.5 af of evaporation losses from the lake. The license can be issued as follows:

Surface area of lake: $(600 \times 285)/43560 = 3.9$ acres

Evaporation Calculation: ET Idaho indicated evap of 759mm annually

$759\text{mm} \times (0.04\text{in}/1\text{mm}) \times (0.08\text{ft}/1\text{in}) = 2.4$ af per acre $\times 3.9$ acres = 9.5

Log weir adds $1.5\text{ft} \times 3.9$ acres = 5.9 af

$5.9 + 9.5 = 15.4$ afa

ET_{Idaho} 2009: Evapotranspiration and Consumptive Irrigation Water Requirements for Idaho

Please send suggestions for improving this site to [robison at kimberly dot uidaho dot edu](mailto:robison@kimberly.uidaho.edu) Copyright 2010, University of Idaho.

Sandpoint KSPT (NWS --108137)

Statistics based on thirty

For a different land cover or crop click on the above link.

You can highlight this table and copy via the clipboard to a Microsoft Excel or OpenOffice spreadsheet to plot or otherwise work with this data.

Open water - shallow systems (ponds, streams)														
Actual Evapotranspiration (Click here for a graph)														
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Growing Season ^a	Non Growing Season ^b
Mean	mm/day												mm	
Monthly ^c	0.21	0.59	1.32	2.40	3.18	3.74	4.33	4.01	2.87	1.55	0.46	0.15	759	0
15-Day Moving Average ^d	0.21	0.58	1.31	2.38	3.21	3.73	4.37	4.03	2.83	1.55	0.45	0.15		
7-Day Moving Average ^e	0.21	0.58	1.31	2.38	3.20	3.73	4.36	4.03	2.85	1.55	0.45	0.15		
3-Day Moving Average ^f	0.21	0.59	1.32	2.39	3.18	3.73	4.34	4.02	2.86	1.55	0.46	0.15		
Standard Deviation	mm/day												mm	
Monthly	0.06	0.11	0.30	0.29	0.49	0.38	0.68	0.59	0.38	0.34	0.10	0.07	37	0
15-Day Moving Average	0.08	0.15	0.28	0.37	0.49	0.54	0.55	0.56	0.50	0.35	0.13	0.06		
7-Day Moving Average	0.11	0.21	0.36	0.56	0.67	0.74	0.68	0.70	0.64	0.46	0.17	0.09		
3-Day Moving Average	0.15	0.27	0.46	0.72	0.87	0.96	0.85	0.85	0.79	0.54	0.21	0.12		
20% Exceedance	mm/day												mm	
Monthly	0.24	0.67	1.45	2.53	3.53	4.04	4.56	4.31	3.19	1.74	0.52	0.19	789	0
15-Day Moving Average	0.36	0.83	1.73	2.94	4.03	4.55	5.05	4.83	3.71	2.15	0.69	0.25		
7-Day Moving Average	0.47	1.09	2.16	3.38	4.76	4.98	5.42	5.21	4.14	2.40	0.82	0.34		
3-Day Moving Average	0.63	1.23	2.67	3.87	5.11	5.63	5.70	5.50	4.40	2.64	0.98	0.50		