

Date: 8/27/2019

Subject: **Clam River Open Channel Flow Test Using the Float Method**

On Tuesday, Aug. 27, 2019 at 10:30 am the LMPOI conducted the subject test to determine the estimated amount of water flowing down the Clam River channel about 100 feet from the back of the dam. The lake levels at the time of the test were 6.30 (staff gage) or 1289.7 feet above MSL. Both dam gates were fully closed, the 8" square minimum flow orifice was open. (no water was flowing over the top of the winter gate)

The IEI method of measurement was used as shown in the attached supporting documents and worksheet.

Channel width = 19.5 feet

Average channel depth = 0.62 feet.

Total area = $19.5 \times 0.62 = 12.09$ square feet

Adjusted channel velocity = 0.37 feet per second

Results:

CFS = (Area x velocity) = $12.09 \times 0.37 = \underline{4.47 \text{ Cubic Feet / Second}}$

(CFS x 448.83 = GPM)

$4.47 \text{ CFS} \times 448.83 = 2006.27$ gallons per minute passing through the dam.

$2006.27 \times 60 \text{ minutes} = 120,376.2$ gallons per hour x 24 hours = **2,889,028.8 gallons per day.**

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