Mean Flood Discharge

	Dec.	Jan.	Feb.	March.
1912	400 cf.	425	246	227
1913	295	368	275	196
1914	263	60	—	—
1915	522	346	193	191
1916	290	355	320	614

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cf. × 60 = ac. ft. per min.

1 sec. ft. = 1.98 ac. ft. in 24 hrs.

= 2.0 = 60 ac. ft. per min.

Area 193 sq. mi. (Lake Surface).

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1 sec ft = $\frac{1.98 \text{ (ac)}}{123520 \text{ (ac)}} \times 12 \text{ (in)} = .0001923 \text{ (in) per day}$ (over the Lake)

$= \frac{1.98}{123520} \times 1 \text{ (ft)} = .00001603 \text{ (ft) per day}$ (over the Lake)

1 ac ft/24 hr. $= \frac{1}{123520} \times 1 \text{ (ft)} = .00000810 \text{ (ft) per day}$ (over Lake)

log of 123,520 = 5.09174

col of 123,520 = 4.90826-10

log of 23.76 = 1.37585

1 sec ft = .0001923 inches (log 8.28411-10) 123,520 ac. in Lake T.

1. Ein Wolf fiel einst in eine Grube und heulte laut.
2. Dies hörte ein Fuchs und kam schnell herbei. 3. Er nannte den Wolf ein dummes Tier, weil er die List der Menschen nicht bemerkt hatte. Indem er so spottete, rannte er schadenfroh am Rande der Grube hin und her. 4. Dabei machte er aber einen Fehltritt und stürzte selbst kopfüber in die Tiefe.

6229.57

Run-out of levee to central level at least .128 ft.

Total level therefore 6229.70

Total elevation 6230.04

.000016

1000

.016000

8

.128000

6229.57

6229.698

Date	Discharge ~~Lake Gage~~	Gage Lowering. Av. daily.	Temp — Max	Min	Mean	Disc in excess of 2 & O Balance	Expect from Govt.	act ?	?

Method I –

1909 (completed by separate calculations)

Reading of Gage last day of month and discharge during month. } Taken from ~~Reclamation~~ Blue Prints; 7 acre [illegible] 2; last day of month. [illegible] 300.

	(Dec)	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
1910	7.70 R	7.65 +.46	7.65 7.46 .38	7.58 .21	8.00 .08	8.42 .08	8.30 .17	7.87 .34	7.20 .32	6.58 .22	6.05 .18	5.80 .14	5.81 .14
1911	5.80	6.84 .16	7.10 .28	7.14 .35	7.33 .30	8.04 .08	9.10 .22	9.08 .40	8.58 .21	7.95 .19	7.50 .19	7.29 .18	7.00 .21
1912	6.98	6.90 .22	6.70 .13	6.65 .12	6.80 .03	7.30 .01	7.60 .01	7.59 .08	7.05 .22	6.75 .18	6.20 .17	6.07 .14	5.78 .15
1913	5.78	5.90 .19	5.68 .13	5.66 .10	5.88 .00	6.50 .00	6.65 .01	6.68 .12	6.39 .19	5.71 .21	5.23 .19	4.95 .15	5.35 .14
1914	5.35	6.80 .04	7.04 .02	7.25 .01	7.95 .00	8.88 .05	9.49 .04	9.49 .13	9.00 .18	8.35 .24	7.93 .20	7.50 .25	7.10 .26
1915	7.07	7.20 .18	7.60 .09	7.60 .10	7.95 .00	8.59 .00	9.09 .00	8.95 .10	8.49 .23	7.80 .18	7.35 .15	6.96 .15	7.01 .15
1916	7.00	8.05 .19	8.11 .15	8.12 .32	8.58 .02	9.17 .01	9.68 .01	9.68 .05	9.24 .25	8.82 .20	8.42 .21	8.07 .19	8.19 .16

(Blue Prints)

Correction Differences –

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
1910	+.41	+.19	+.33	+.50	+.50	+.05	–.09	–.35	–.40	–.32	–.14	+.15
1911	+1.20	+.54	+.39	+.49	+.79	+1.28	+.38	–.29	–.44	–.26	–.03	–.08
1912	+.14	–.07	+.07	+.18	+.49	+.31	+.07	–.32	–.12	–.38	+.01	–.14
1913	+.31	–.09	+.08	+.22	–.38	+.16	+.15	–.10	–.47	–.29	–.13	+.54
1914	+1.49	+.26	+.22	+.70	+.98	+.70	+.13	–.31	–.41	–.22	–.18	–.14
15	+.31	+.49	+.10	+.35	+.64	+.50	–.04	–.23	–.51	–.30	–.24	+.20
16	+1.24	+.21	+.33	+.48	+.60	+.52	+.05	–.19	–.22	–.19	–.16	+.28

Taken from U.S.G.S. Water Supply Papers 300

	(Dec)	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
1900										5.93	5.91 .08	6.00 .07	6.10 .04
1901	6.10	6.18 .05	7.00 .04	7.10 .02	7.40 .00	7.92 .00	8.33 .01	8.43 .12	8.13 .21	7.73 .16	7.50 .14	7.16 .22	7.28 .06
1902	7.28	7.08 .06	7.50 .03	8.24 .03	8.42 .02	8.68 .05	9.02 .05	8.79 .10	8.37 .21	7.83 .17	7.39 .17	7.08 .17	7.04 .17
1903	7.04	6.91 .14	7.24 .05	7.45 .10	7.86 .01	8.44 .01	8.88 .02	8.70 .11	8.25 .18	7.75 .20	7.30 .19	7.55 .13	7.35 .13
1904	7.35	7.10 .15	8.30 .05	9.25 .21	9.55 .30	10.15 .41	10.38 .45	9.94 .45	9.33 .40	8.76 .38	8.44 .34	7.88 .35	7.80 .32
1905	7.80	7.70 .21	7.75 .20	7.90 .16	8.18 .01	8.50 .09	8.65 .11	8.40 .16	7.90 .20	7.30 .19	6.70 .20	6.40 .15	6.20 .14
1906	6.20	7.08 .16	7.20 .18	7.55 .23	7.90 .24	8.70 .28	9.50 .29	9.85 .37	9.30 .39	8.70 .38	8.00 .37	7.50 .35	7.85 .33
1907	7.85	8.00 .36	8.00 .34	9.35 .39	9.80 .40	10.40 .47	11.15 .56	11.19 .67	10.45 .64	9.60 .60	9.00 .56	8.30 .46	8.40 .42
1908	8.40	8.12 .39	7.72 .32	7.40 .31	7.54 .11	7.88 .03	8.08 .03	7.90 .16	7.33 .23	6.96 .19	6.62 .18	6.40 .15	6.10 .14
1909		7.78 .11	7.90	7.70	7.80	8.32	8.92	8.64	8.15	7.50	7.20	7.50	7.48
1910	7.68	7.65 .45	7.46 .37	7.58 .20	8.08 .08	8.46 .08	8.30 .17	7.87 .34	7.18 .32	6.58 .22	6.08	5.80	5.80
1911		7.10	7.00	7.14	7.37	8.10	9.10	9.05	8.56	7.9[illegible]	7.50	7.29	7.00
1912		6.90	6.70	6.65	6.80	7.30							

(To check.)

Correction Differences

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
1900										+.06	+.16	+.14
1901	+.13	+.86	+.12	+.30	+.52	+.42	+.22	–.09	–.24	–.09	–.02	+.18
1902	–.14	+.45	+.77	+.20	+.31	+.39	–.13	–.21	–.37	–.27	–.14	+.13
1903	+.01	+.38	+.31	+.42	+.59	+.46	–.07	–.27	–.30	–.26	+.38	–.07
1904	–.10	+.25	+.14	+.60	+1.01	+.68	+.01	–.21	–.19	+.02	–.21	+.24
1905	+.11	+.25	+.31	+.29	+.41	+.26	–.09	–.30	–.41	–.40	–.15	–.06
1906	+1.04	+.30	+.58	+.59	+1.08	+1.09	+.72	–.16	–.22	–.33	–.15	+.68
1907	+.51	+.34	+1.74	+.85	+1.07	+1.31	+.71	–.10	–.25	–.04	–.24	+.52
1908	+.11	–.08	–.01	+.25	+.37	+.23	–.02	–.34	–.24	–.10	–.07	–.16

Purpose to Compare with Murphy's Blue Print Curve and form new Means for Monthly run-off.

(Printed Statements)

– Method II –

Same as on Preceding Change

Refigured on Basis of First Day of Month and Factor of 1.98 acre feet. (1 sec. feet per month)

[Over]

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
1900									5.93	5.93 – 5.91 / .08 / .06	5.91 – 6.00 / .07 / .16	6.00 – 6.10 / .04 / .14
1901	6.10 – 6.18 / .05 / .13	6.18 – 6.97 / .04 / .83	6.97 – 7.10 / .01 / .14	7.10 – 7.40 / — / .30	7.40 – 7.92 / — / .52	7.92 – 8.33 / .01 / .42	8.33 – 8.43 / .11 / .21	8.43 – 8.11 / .21 / –.11	8.11 – 7.73 / .16 / –.22	7.73 – 7.50 / .14 / –.09	7.50 – 7.16 / .12 / –.22	7.16 – 7.30 / .06 / .20
1902	7.30 – 7.08 / .06 / –.16	7.08 – 7.50 / .03 / .45	7.50 – 8.24 / .03 / .77	8.24 – 8.42 / .02 / .20	8.42 – 8.68 / .05 / .31	8.68 – 9.02 / .05 / .39	9.02 – 8.77 / .10 / –.15	8.77 – 8.36 / .20 / –.21	8.36 – 7.80 / .17 / –.39	7.80 – 7.37 / .16 / –.27	7.37 – 7.06 / .17 / –.14	7.06 – 7.04 / .16 / .14
1903	7.04 – 6.91 / .13	6.91 – 7.24 / .05 / .38	7.24 – 7.50 / .10 / .36	7.50 – 7.87 / .01 / .38	7.87 – 8.44 / .01 / .58	8.44 – 8.88 / .02 / .46	8.88 – 8.70 / .10 / –.08	8.70 – 8.25 / .17 / –.28	8.25 – 7.74 / .19 / –.32	7.74 – 7.29 / .19 / –.26	7.29 – 7.55 / .12 / .38	7.55 – 7.25 / .13 / –.07
1904	7.25 – 7.10 / .15	7.10 – 8.30 / .05 / 1.25	8.30 – 9.27 / .20 / 1.17	9.27 – 9.55 / .29 / .57	9.55 – 10.16 / .40 / 1.01	10.16 – 10.38 / .43 / .65	10.38 – 9.94 / .43 / –.01	9.94 – 9.32 / .39 / –.23	9.32 – 8.75 / .36 / –.21	8.75 – 8.43 / .33 / .01	8.43 – 7.88 / .34 / –.21	7.88 – 7.80 / .31 / .23
1905	7.80 – 7.68 / .20 / .08	7.68 – 7.75 / .19 / .26	7.75 – 7.90 / .16 / .31	7.90 – 8.18 / .01 / .29	8.18 – 8.50 / .09 / .41	8.50 – 8.65 / .10 / .25	8.65 – 8.35 / .15 / –.15	8.35 – 7.85 / .19 / –.31	7.85 – 7.30 / .19 / –.36	7.30 – 6.70 / .19 / –.41	6.70 – 6.40 / .15 / –.15	6.40 – 6.20 / .13 / –.07
1906	6.20 – 7.06 / .15 / 1.01	7.06 – 7.20 / .18 / .32	7.20 – 7.59 / .22 / .61	7.59 – 7.90 / .23 / .54	7.90 – 8.70 / .27 / 1.07	8.70 – 9.55 / .28 / 1.13	9.55 – 9.80 / .36 / .61	9.80 – 9.30 / .38 / .12	9.30 – 8.70 / .37 / –.23	8.70 – 8.00 / .36 / .34	8.00 – 7.50 / .34 / –.16	7.50 – 7.85 / .32 / .67
1907	7.85 – 8.00 / .35 / .50	8.00 – 8.00 / .33 / .33	8.00 – 9.35 / .38 / 1.73	9.35 – 9.80 / .39 / .84	9.80 – 10.45 / .46 / 1.11	10.45 – 11.13 / .54 / 1.22	11.13 – 11.17 / .65 / .69	11.17 – 10.40 / .62 / .15	10.40 – 9.60 / .58 / .22	9.60 – 8.96 / .55 / –.09	8.96 – 8.30 / .45 / –.21	8.30 – 8.40 / .41 / .51
1908	8.40 – 8.12 / .37 / .09	8.12 – 7.72 / .31 / –.09	7.72 – 7.40 / .30 / –.02	7.40 – 7.54 / .10 / .24	7.54 – 7.88 / .03 / .37	7.88 – 8.10 / .03 / .25	8.10 – 7.90 / .15 / .05	7.90 – 7.33 / .23 / –.34	7.33 – 6.89 / .19 / –.25	6.89 – 6.60 / .18 / –.11	6.60 – 6.40 / .15 / –.05	6.40 – 6.10 / .14 / –.16
1909	6.10 – 7.80 (6.30) / .11 / 1.81	7.80 – 8.10 / .29 / .39	8.10 – 7.85 / .34 / .09	7.85 – 7.80 / .29 / .24	7.80 – 8.32 / .16 / .68	8.32 – 8.92 / .28 / .88	8.92 – 8.64 / .28 / #	8.64 – 8.15 / .27 / –.22	8.15 – 7.50 / .23 / –.42	7.50 – 7.20 / .21 / –.09	7.20 – 7.50 / .19 / .49	7.50 – 7.70 / .29 / .78
1910	7.48 – 7.65 / .44 / .71	7.65 – 7.46 / .36 / .17	7.46 – 7.58 / .20 / .32	7.58 – 8.00 / .07 / .49	8.00 – 8.46 / .07 / .53	8.46 – 8.30 / .16 / #	8.30 – 7.87 / .33 / –.10	7.87 – 7.20 / .31 / –.36	7.20 – 6.58 / .21 / –.41	6.58 – 6.08 / .17 / –.33	6.08 – 5.80 / .13 / –.15	5.80 – 5.81 / .13 / .14
1911	5.80 – 7.00 / .15 / 1.35	7.00 – 7.10 / .26 / .36	7.10 – 7.14 / .33 / .37	7.14 – 7.37 / .28 / .51	7.37 – 8.10 / .08 / .81	8.10 – 9.10 / .21 / 1.21	9.10 – 9.05 / .38 / .33	9.05 – 8.56 / .20 / –.29	8.56 – 7.90 / .18 / –.48	7.90 – 7.50 / .18 / –.22	7.50 – 7.29 / .17 / –.04	7.29 – 7.00 / .20 / –.09
1912	7.00 – 6.90 / .21 / .11	6.90 – 6.70 / .12 / –.08	6.70 – 6.65 / .11 / .06	6.65 – 6.80 / .03 / .18	6.80 – 7.30 / .01 / .51	7.30 – 7.60 / .01 / .31	7.60 – 7.59 / .08 / .07	7.59 – 7.05 / .21 / –.33	7.05 – 6.75 / .17 / –.13	6.75 – 6.20 / .16 / –.39	6.20 – 6.07 / .13 / #	6.07 – 5.78 / .15 / –.14
1913	5.78 – 5.90 / .18 / .30	5.90 – 5.68 / .12 / –.10	5.68 – 5.66 / .10 / .08	5.66 – 5.88 / — / .22	5.88 – 6.50 / — / .62	6.50 – 6.65 / .01 / .16	6.65 – 6.68 / .12 / .15	6.68 – 6.39 / .19 / –.10	6.39 – 5.71 / .20 / –.48	5.71 – 5.23 / .18 / –.30	5.23 – 4.95 / .14 / –.14	4.95 – 5.35 / .13 / .53
1914	5.35 – 6.80 / .03 / 1.48	6.80 – 7.04 / .02 / .26	7.04 – 7.25 / .01 / .22	7.25 – 7.95 / — / .70	7.95 – 8.88 / .05 / .98	8.88 – 9.49 / .09 / .70	9.49 – 9.49 / .12 / .12	9.49 – 9.00 / .17 / –.32	9.00 – 8.35 / .23 / –.42	8.35 – 7.93 / .19 / –.23	7.93 – 7.50 / .24 / –.19	7.50 – 7.07 / .25 / –.18
1915	7.07 – 7.20 / .17 / .30	7.20 – 7.60 / .09 / .49	7.60 – 7.60 / .10 / .10	7.60 – 7.95 / — / .35	7.95 – 8.59 / — / .64	8.59 – 9.09 / — / .50	9.09 – 8.93 / .09 / –.07	8.93 – 8.49 / .22 / –.22	8.49 – 7.80 / .17 / –.52	7.80 – 7.35 / .14 / –.31	7.35 – 6.96 / .14 / –.25	6.96 – 7.00 / .14 / .18
1916	7.00 – 8.05 / .18 / 1.23	8.05 – 8.11 / .15 / .21	8.11 – 8.12 / .31 / .32	8.12 – 8.58 / .02 / .48	8.58 – 9.17 / .01 / .60	9.17 – 9.68 / .01 / .52	9.68 – 9.68 / .05 / .05	9.68 – 9.24 / .25 / –.19	9.24 – 8.82 / .20 / –.22	8.82 – 8.42 / .20 / –.20	8.42 – 8.07 / .19 / –.16	8.07 – 8.19 / .16 / .28

[Over]

Check Marks-

✓ = Complete agreement between two methods

X = Checks within .02 or .03.

○ = Larger Discrepancy.

◎ = Still larger Discrepancy.

⊗ = ReChecked and found within limits of data on hand.

1 Sec Ft = 1.98 ac. ft in 24 hrs.

Factor used in Figuring
Discharge of Lake ~~in Terms of Gage Height~~ Equivalent -

(a) Factor in Inches;

1 Sec. Foot per day Discharge = $\frac{1.98 \text{ (ac ft)}}{123520 \text{ (area of lake) (ac ft)}} \times 12 \text{ in.} = .00019236$ inches

per 24 hrs (1 day) over surface of lake.

(b) Factor in Feet;

1 Sec Foot per Day = $\frac{1.98}{123520} \times 1 \text{ ft} = .00001603$ ft per day over lake.

(c) Based on Acre-Feet
in case only Acre Feet are given in Tables:

1 Acre Feet per Day = $\frac{1}{123520} \times 1 \text{ ft} = .00000810$ ft per Day over lake

NB. — all checked by logs, slide rule, and long hand,

Relation of Precip at Tahoe City & Crest of Lake

Snow Covers around Lake Tahoe.
1916–17

	Jany 23		February 14–16			March 18		
	Depth	Water	Depth	Water	Percentage of Jany 23	Depth	Water	Percentage of Jany 23
Tahoe City	No. 1 – Jan. 19 – 26.3	6.87	[Feb. 9-10] 28.6	7.85		72.3	20.74	
Sunnyside						71.3	21.95	
Blackwood	33.2	9.27				[March 23] 74.7	26.70	
Mc Kinneys						77.6	28.51	
Meeks Bay	24.8	6.34	26.9	7.14		53.6	16.82	
Rubicon Park			20.0	5.60		61.4	17.52	
Tallac						39.7	11.47	
Bijou			12.9	3.10		37.0	10.27	
Zephyr Cove			9.6	2.76		33.7	8.50	
Glenbrook			10.3	2.60		31.8	9.08	
Incline	9.5	2.31	8.9	2.26		21.28	6.70	
Carnelian Bay						39.7	11.26	

March 1915 – Prec. over Entire Area 27.3% less than at Tahoe City { West Side 14.47 in / East " 7.33 } av. 10.90

" 1916 " " " " 23.9% " " " " " { West Side 23.74 / East " 15.36 } av. 19.55

" 1917 " " " " 32.4 " " " " " { West Side 19.37 / East " 8.64 } av. 14.01

Extreme Variation 8.5%

av 27.9%

3) 83.6
27.9

100
27.9
72.1

April – June

1915-16 +2°F

1917-18 ~~April +0.4~~ May −0.8 June ~~+10.0~~ +9.0
= 9.6

1918-19 April +2.1 May +7.2 June +1.8
= 11.1

1915-16 ~~April −1.6 May −1.6 June +0.8~~
April +2.8 May −1.6 June +0.8
= +2.0

Loss –
=

Flow for Seas. Crops.

Evap. Tables in Part I.

Loss of Storage by Evap.
(a) in Table

Montana. Rainfall
+ Floods.

Precip + Poss. Run-Off
in Tables

Light-dens. makes early run-off and diminishes concentration (?)
Certainly does not cause shrinkage.