PROPERTY OF THE STATE OF IDAHO

Form No. 300-W

WATERMASTER'S

DAILY RECORD

Stream Weiser River

Water District #67

Month of May-Aug., ~~19~~ 2015

Watermaster Brandi Horton

~~P. O. Address~~ 2297 Snapplane Midvale, ID 83645

Ten days after the close of the Irrigation season the Watermaster must forward this book to

DEPARTMENT OF WATER

MEASUREMENT OF WATER

Hydraulic Equivalents Which Will Be Found Useful To Irrigators

A cubic foot of water per second of time shall be the legal standard for the measurement of water in this state.

1. One Idaho Miner's inch equals approximately 1/50th of a cubic foot per second, or 9 gallons per minute.

2. A cubic foot per second equals approximately 50 miner's inches, or 450 gallons per minute.

3. One cubic foot per second for 24 hours equals approximately 2 acre feet.

4. One acre foot equals enough water to cover one acre exactly one foot in depth, or 43,560 cubic feet.

5. One miner's inch per acre for 100 days equals 3.97 feet deep on the land.

6. One miner's inch per acre for 150 days equals 5.95 feet deep on the land.

7. Five-eighths miner's inch per acre for 100 days equals 2.48 feet deep on the land.

8. Five-eighths miner's inch per acre for 150 days equals 3.72 feet deep on the land.

9. One-half miner's inch per acre for 100 days equals 1.98 feet deep on the land.

10. One-half miner's inch per acre for 150 days equals 2.98 feet deep on the land.

THE CIPPOLETTI WEIR

This form of measuring device is illustrated on page 5. It has a thin horizontal crest and thin sides; the weirs notch is wider across the top than at the bottom, the sides having a slope of one inch out to four inches up, or a 1:4 slope.

The essential requirements in setting, and the method of using the weir are as follows:

1. It should be set at the lower end of a stilling pool of sufficient length, width and depth to give an even, smooth current with a velocity of approach to the weir of not over one-half foot per second. This pool should be straight and of constant cross section, and the center line should pass through the middle of the weir crest.

2. The crest of the weir should be at right angles to the direction of the flow, and the face of the weir should be perpendicular.

3. The crest of the weir should be level so that the water passing over it will be of the same depth at all points along the crest.

4. The height of the crest above the bottom of the pool should be about three times the depth of the water flowing over it, and the sides of the pool, or box should be a distance from the sides of the crest at least twice the depth of the water passing over it.

5. The length of the crest should be at least three times the depth of the water passing over it, and of even feet, or multiples thereof, to conform to the accompanying tables.

6. The crest should be placed high enough to retard the flow above the weir to the required velocity; and so that the downstream water surface is far enough below the crest that air has free access under the falling sheet of water.

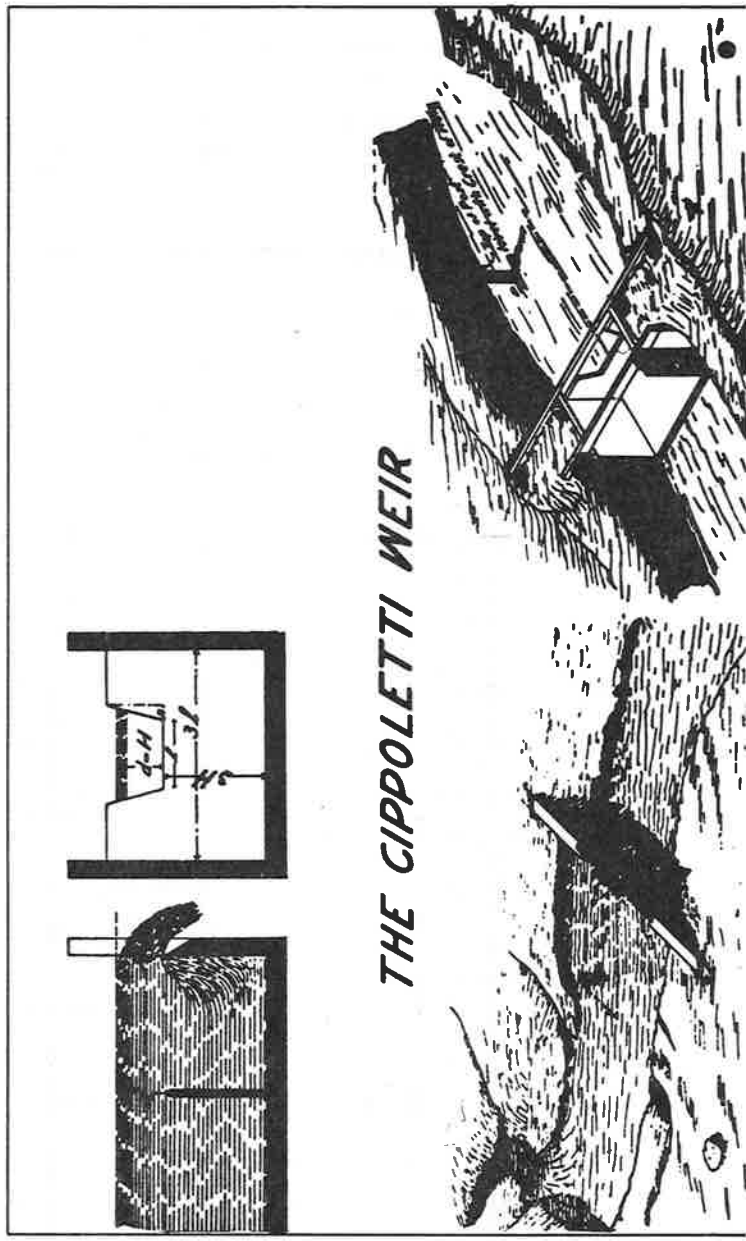
7. The depth of the water passing over the weir should be measured with accuracy at a point where the surface curve does does not affect the measurement. This may be done by driving a nail partially into the upstream face of the weir structure at the exact level of the crest and far enough to one side that it will be in comparatively still water; or by driving a substantial peg into the bottom of the pool several feet upstream from the crest, in still water, the top of which is exactly level with the crest; then measuring the depth of water above this nail or peg. The discharge in cubic feet per second can then be determined directly by this depth, or head, in inches and the length of the crest in inches from the table printed on page 4.

Discharge of Cippoletti Weirs in Cubic Feet per Second

Discharge Computed for head in inches, and length of crest in inches.

Head in Ins.	LENGTH OF WEIR—INCHES 12	18	24	36	Head in Ins.	LENGTH OF WEIR—INCHES 12	18	24	36
1	.08	.12	.16	.24	6 5/8	.....	2.07	2.76	4.14
1 1/8	.10	.15	.19	.29	6 3/4	.....	2.13	2.84	4.26
1 1/4	.11	.17	.23	.34	6 7/8	.....	2.19	2.92	4.38
1 3/8	.13	.20	.26	.39					
1 1/2	.15	.22	.30	.45	7	.....	2.25	3.00	4.50
1 5/8	.17	.25	.33	.50	7 1/8	.....	.....	3.08	4.62
1 3/4	.19	.28	.38	.56	7 1/4	.....	.....	3.16	4.74
1 7/8	.21	.31	.42	.62	7 3/8	.....	.....	3.25	4.87
					7 1/2	.....	.....	3.33	4.99
2	.23	.34	.46	.69	7 5/8	.....	.....	3.41	5.12
2 1/8	.25	.38	.50	.75	7 3/4	.....	.....	3.50	5.24
2 1/4	.27	.41	.55	.82	7 7/8	.....	.....	3.58	5.37
2 3/8	.30	.45	.59	.89					
2 1/2	.32	.48	.64	.96	8	.....	.....	3.67	5.50
2 5/8	.34	.52	.69	1.03	8 1/8	.....	.....	3.75	5.63
2 3/4	.37	.55	.74	1.11	8 1/4	.....	.....	3.84	5.76
2 7/8	.40	.59	.79	1.19	8 3/8	.....	.....	3.93	5.89
					8 1/2	.....	.....	4.01	6.02
3	.42	.63	.84	1.26	8 5/8	.....	.....	4.11	6.16
3 1/8	.45	.67	.89	1.34	8 3/4	.....	.....	4.19	6.29
3 1/4	.47	.71	.95	1.42	8 7/8	.....	.....	4.29	6.43
3 3/8	.50	.75	1.00	1.51					
3 1/2	.53	.80	1.06	1.59	9	.....	.....	4.37	6.56
3 5/8	.56	.84	1.12	1.68	9 1/8	.....	.....	.....	6.69
3 3/4	.59	.88	1.17	1.76	9 1/4	.....	.....	.....	6.84
3 7/8	.62	.93	1.24	1.86	9 3/8	.....	.....	.....	6.98
					9 1/2	.....	.....	.....	7.12
4	.65	.97	1.29	1.94	9 5/8	.....	.....	.....	7.26
4 1/8	.68	1.02	1.36	2.04	9 3/4	.....	.....	.....	7.40
4 1/4	.71	1.06	1.42	2.13	9 7/8	.....	.....	.....	7.54
4 3/8	.74	1.11	1.48	2.22					
4 1/2	.77	1.16	1.55	2.32	10	.....	.....	.....	7.69
4 5/8	.80	1.21	1.61	2.42	10 1/8	.....	.....	.....	7.84
4 3/4	.84	1.26	1.68	2.52	10 1/4	.....	.....	.....	7.97
4 7/8	.87	1.31	1.74	2.62	10 3/8	.....	.....	.....	8.12
					10 1/2	.....	.....	.....	8.27
5	.91	1.36	1.81	2.72	10 5/8	.....	.....	.....	8.42
5 1/8	.....	1.41	1.88	2.82	10 3/4	.....	.....	.....	8.56
5 1/4	.....	1.46	1.95	2.92	10 7/8	.....	.....	.....	8.72
5 3/8	.....	1.51	2.02	3.03					
5 1/2	.....	1.56	2.09	3.13	11	.....	.....	.....	8.87
5 5/8	.....	1.62	2.16	3.24	11 1/8	.....	.....	.....	9.02
5 3/4	.....	1.67	2.23	3.35	11 1/4	.....	.....	.....	9.17
5 7/8	.....	1.73	2.31	3.46	11 3/8	.....	.....	.....	9.33
					11 1/2	.....	.....	.....	9.48
6	.....	1.78	2.38	3.57	11 5/8	.....	.....	.....	9.63
6 1/8	.....	1.84	2.45	3.68	11 3/4	.....	.....	.....	9.79
6 1/4	.....	1.90	2.53	3.80	11 7/8	.....	.....	.....	9.94
6 3/8	.....	1.95	2.61	3.91					
6 1/2	.....	2.02	2.69	4.03	12	.....	.....	.....	10.10

To convert discharge to miner's inches, multiply discharge in cubic feet per second by 50.



Month of ..... 19 .....

NOTE—Figures to be given in cubic feet per second for 24-hour periods, or 24-hour second feet. Give name of owner of water rights, not tenant.

DAYS OF MONTH

Name of Present Owner	~~Address~~	Water Right Ident. No.	Amount Second Feet (cfs)	1 May 15th	2 May 31st	3 June 15th	4	5	Acres Cultivated	Sec.	Twp.	R
Middle Valley Ditch	8' par. →			73.7	71.6	68.1						
Allison-Jewel	8' rec. →			27.1	24.5	17.9						
Cambridge Ditch	4' par. →			24.2	24.5	13.3						
Bacon Valley	18" par. →			0.00	0.0	0.0						
Cardlex-Yantis	4' cip. →			6.2	5.9	3.5						
Haun Ditch	18" par. →			0.0	4.1	3.1						
TJ Glenn	18" par. →			5.3	5.3	2.4						
Osborn-Groom	3' cip. →			4.3	4.0	2.3						
Farmer's Canal	6' rec. (replaced July 5' rec.) →			12.2	11.7	7.0						
Robertson-Sevey	2' par. →			6.7	6.4	5.1						
East Fork Ditch	5' par. →			0.0	10.1	6.7						

Month of ..... 19 .....

NOTE—Figures to be given in cubic feet per second for 24-hour periods, or 24-hour second feet. Give name of owner of water rights, not tenant.

DAYS OF MONTH

Name of Present Owner	Water Right Ident.	Amount 2nd Feet (cfs)	6 June 30	7	8 July 15	9	10	11 July 31	12	13 Aug. 15	14	15 Aug. 31	Acres Cultivated	Sec.	Twp.	R
Middle Valley Ditch			67.4		68.1			68.8		66.1		61.4				
Allison-Jewel			15.3		15.0			15.3		12.5		12.8				
Cambridge Ditch			13.3		14.5			13.6		12.8		13.8				
Bacon Valley			6.0		4.4			2.7		0.0		0.0				
Cardex-Yantis			0.5		0.7			0.5		0.5		0.5				
Haun Ditch			1.3		1.0			1.2		1.0		1.0				
TJ Glenn			2.5		2.4			2.6		2.4		2.3				
Osborn-Groom			2.6		2.5			2.5		2.3		2.1				
Farmer's Canal			6.1		6.8			7.0		6.6		6.6				
Robertson-Seven			4.6		4.6			4.8		4.7		4.6				
East Fork Ditch			5.4		4.7			4.7		4.1		4.0				