WATER MEASUREMENTS
MEEKER, COLORADO
MARCH 3, 2014

WATER COMMISSIONERS IN THE FIELD

General Responsibilities of the Water Commissioner

- Day to Day Water Administration
- Collecting Records (water users supply?)
- Conducting Field Inspections (Water Court Filings)
- Certain Interstate Compacts
- Hydrographic Program (assist with stream measurements)
- Dam Inspections (assist dam safety engineer)
- Public Information Services

Administration Responsibilities Water Commissioners

- Day to Day Administration
  - Setting the Call on the Stream Based on Supply and Demand
  - Assuring Diversions in Priority for Decreed Uses Without Waste
  - Assuring Diversions Are Measured/Data Recorded
  - Delivery of Augmentation and Other Water After Assessing Transit Losses
  - Operating Exchanges
  - Assuring Other Decree Conditions in Augmentation and Change Cases Are Complied With
  - Court Cases/Field Inspections

- Review of Accounting and Maintenance of Diversion Records

Water Commissioners have the authority to trespass in order to perform their duties…
Provide Access to Headgates
CRS 1973 37-92-502(6)

Also have authority to require accounting to be submitted
CRS 1973 37-92-502 (5a)

Our Authority is generally regarded as from the source (not down the ditch)

What Data Do Water Commissioners Collect and Measure?

- Ditches – a direct diversion from the stream
- Reservoirs
- Pumps
- Springs/Seeps/Mines/Pipelines/Powerplants
- Measuring Points
- Minimum Flow Reaches/Reaches
- Recharge Areas
- Well Fields

Why do we collect measurements?

We are required by law to record water usage as best we can.

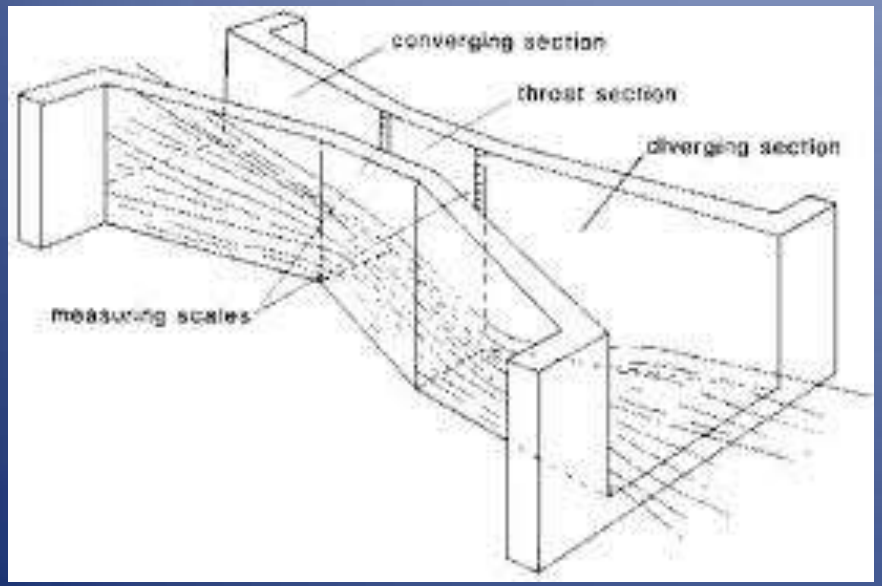
Knowledge of stream system aids in administering a call

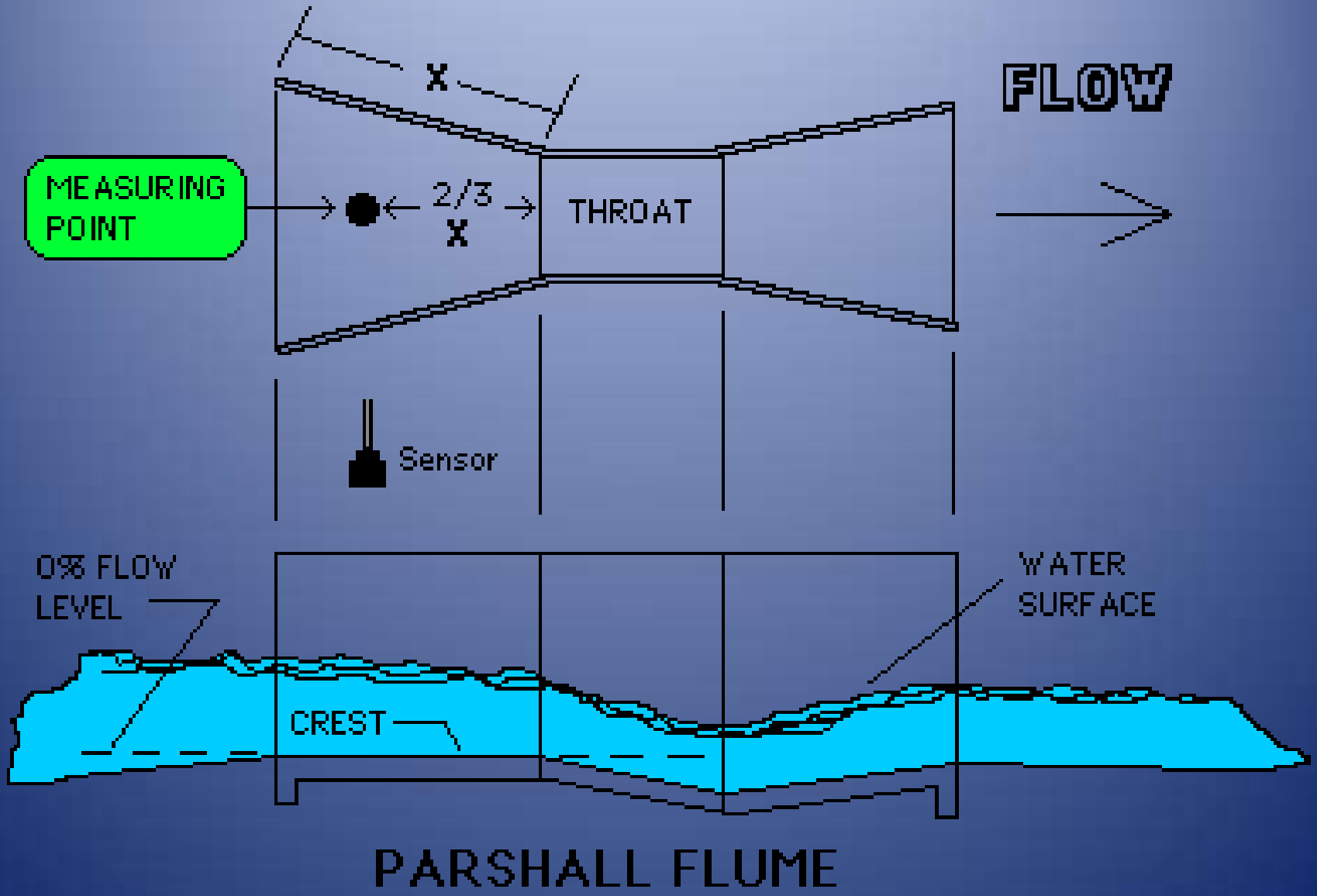
Your water right is only as valuable as what you use, measuring the water, helps determine that use.

Administrative purposes: For “call” type situations, you are limited to your decreed uses and water right amount.

Measuring Stream Diversions
The Parshall Flume

The Parshall Measuring Flume





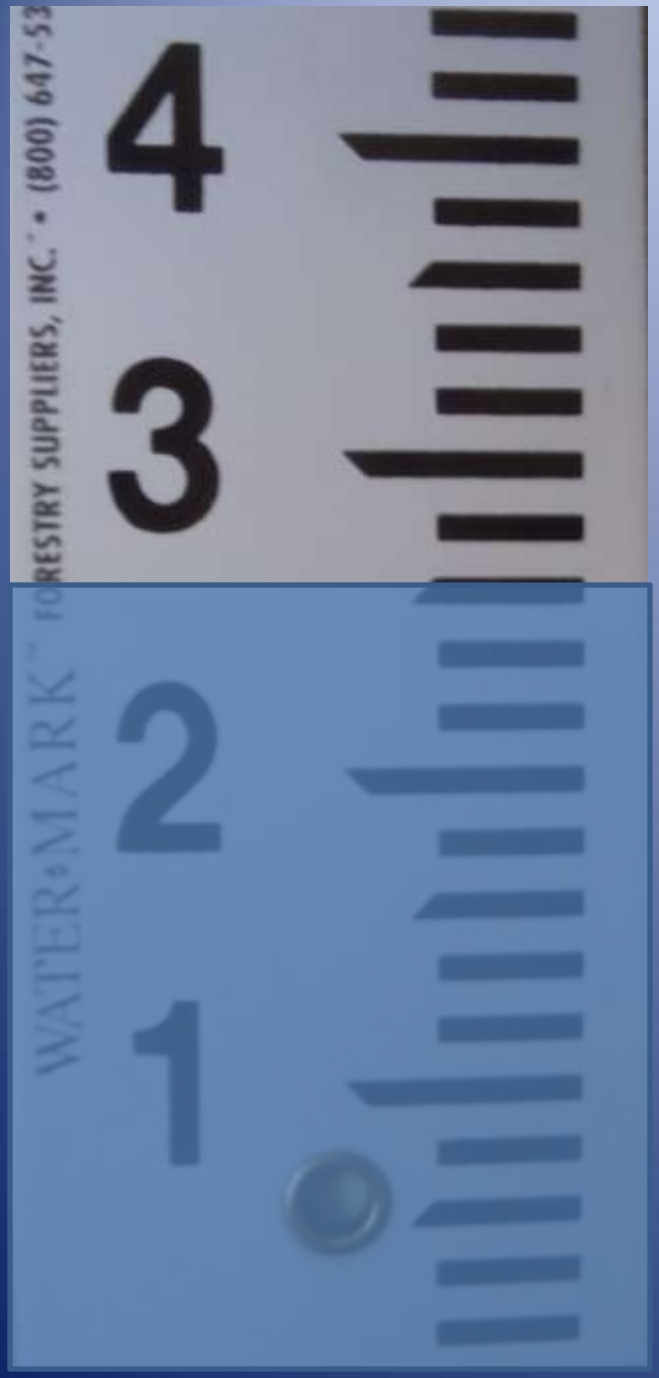
PARSHALL FLUME


09/30/2012


500
GALLONS
1000
PER
MINUTE
1500
ACRE FEET X .001
HEMET CALIFORNIA
DANGER
Propeller
FLOW
McCROMETER

Flume Measurement	FLUME SIZE IN INCHES				
	3	6	9	12	18
0.00	0.000	0.000	0.000	0.000	0.000
0.01	0.001	0.001	0.003	0.004	0.005
0.02	0.002	0.004	0.008	0.010	0.015
0.03	0.004	0.008	0.014	0.019	0.027
0.04	0.007	0.013	0.022	0.030	0.042
0.05	0.010	0.018	0.031	0.042	0.060
0.06	0.013	0.024	0.041	0.055	0.079
0.07	0.016	0.031	0.052	0.070	0.100
0.08	0.020	0.038	0.064	0.086	0.123
0.09	0.024	0.046	0.077	0.102	0.148
0.10	0.028	0.054	0.091	0.120	0.174
0.11	0.033	0.063	0.105	0.139	0.201
0.12	0.037	0.072	0.120	0.159	0.230
0.13	0.042	0.082	0.135	0.179	0.260
0.14	0.047	0.092	0.152	0.201	0.292
0.15	0.053	0.103	0.168	0.223	0.324
0.16	0.058	0.114	0.186	0.246	0.358
0.17	0.064	0.125	0.204	0.270	0.393
0.18	0.070	0.137	0.223	0.294	0.429
0.19	0.076	0.149	0.242	0.319	0.466
0.20	0.082	0.162	0.262	0.345	0.505
0.21	0.089	0.175	0.282	0.372	0.544
0.22	0.095	0.188	0.303	0.399	0.584
0.23	0.102	0.202	0.324	0.427	0.626
0.24	0.109	0.216	0.346	0.456	0.668
0.25	0.116	0.230	0.368	0.485	0.711
0.26	0.123	0.245	0.391	0.515	0.756
0.27	0.131	0.260	0.414	0.545	0.801
0.28	0.138	0.276	0.438	0.576	0.847
0.29	0.146	0.291	0.462	0.608	0.894
0.30	0.154	0.307	0.487	0.640	0.942
0.31	0.162	0.324	0.512	0.673	0.990
0.32	0.170	0.340	0.537	0.706	1.040
0.33	0.179	0.357	0.563	0.740	1.090
0.34	0.187	0.375	0.589	0.774	1.142
0.35	0.196	0.392	0.616	0.809	1.194
0.36	0.204	0.410	0.643	0.845	1.246
0.37	0.213	0.428	0.671	0.881	1.300

June 2, 2013



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0.37	0.213	0.428	0.671	0.881	1.300

July 8, 2013

Name of Structure **XYZ Ditch** Used for **Irrigation** IRRIGATION YEAR: 2013

Month	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
1											0	
2								.608				
3												
4												
5												
6												
7												
8									.515			
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20										.413		
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
31												
DSF	0	0	0	0	0	0	0	0	0	0	0	0
AF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Numbers indicate (please circle one) Measurement on flume Conversion from Flume to CFS Estimate Chip test

Examples of data that is vague but can be helpful, may or may not be entered depending on what other info I have on the structure

"I turned the ditch on June 2nd and shut it off July 5th and back on July 30th and shut off for good August 8th"

"I used my pond for cattle only and I have 30 head of cattle, my pond was dry by mid-August"

"Couldn't get water into my ditch at all therefore I couldn't use it this year"

Examples of data that will not be entered

"Same as last year"

"1 cfs for the entire irrigation season"

"Full ditch from spring til creek was dry"

"I used whatever my water right is"

"What should I put down? You're the water commissioner you should know"

COLORADO DIVISION OF WATER RESOURCES

DEPARTMENT OF NATURAL RESOURCES

THIS STRUCTURE

Has been closed/adjusted this _____ day of _____, 20 _____, pursuant to Section 37-92-501, C.R.S. **DO NOT DISTURB** in any manner **UNDER PENALTY OF LAW**. See Sections 37-89-101 to 104, C.R.S. Information can be obtained by contacting the undersigned.

_____

WATER COMMISSIONER

Address:_____

_____

_____

Telephone:_____