

REPORT ON WATER MEASUREMENTS FOR SUMMER OF 1957

Pinto Creek

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Pinto Creek is used at Pinto for one week and then all the stream except 1/4 c.f.s. which is diverted at Pinto for culinary purposes is allowed to flow into the New Castle reservoir.

This summer I have only seen one family live at Pinto for a period of one week and they hauled their drinking water from a spring. It would therefore appear that this 1/4 c.f.s. is wasted.

During the week when the stream is diverted above Pinto there is some water raises in the creek between Pinto and the New Castle reservoir. This is diverted and used by four farms along the creek and the small amount that raises below the last farm runs into the reservoir. These streams are only about .25 c.f.s. and are very poorly attended. They are often moved only once a week and result in much waste. In fact, since no families live at Pinto the main stream is often poorly attended when diverted at Pinto. Following is a table showing the amount of water in the creek at various places and times this summer.

Date	Amount in the creek below the Pinto Diversion c.f.s.	Amount diverted at the Knell Ranch c.f.s.	Amount diverted at the Platt Ranch c.f.s.	Amount diverted at the Tullis Ranch c.f.s.	Amount diverted at Harrison Ranch c.f.s.	Amount flowing into the reservoir c.f.s.	Gain c.f.s.
July 26	0	.19	50	.35	.21	.20	1.45
July 30	1.01	.30	0	0	0	1.47	.76
Aug. 13	.85	.27	0	0	.76	.15	.33
Aug. 19	0	.13	0	.47	.25	.22	1.07
Aug. 22	0	.13	0	.67	.23	.12	1.15
Aug. 27	.80	.19	0	0	0	0.96	.35
Sept 13	1.02	.15	0	0	0	1.03	.16

It appears from the chart that the gain is greater when the main stream is diverted at Pinto and the spring water is diverted at each ranch but the water is then so inefficiently applied that the net gain is very small.

The seepage loss of the culinary stream is shown on the report of "small streams." Only one good test was obtained on the main stream when diverted at Pinto and that ran 6.82 percent loss per mile on a stream of 1.38 c.f.s.

Little Pinto

By August 13, the Little Pinto stream was not reaching the Page Ranch except for a short time during the night. Below this ranch a little water raised in the channel and was diverted into a ditch and run 1.6 miles into a reservoir. When a sufficient amount had collected it was released and used to irrigate the Hulet farm. The stream would not have reached the farm if it had not first been reservoired.

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Pleasant Creek

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The flows at Pleasant Creek are tabulated on an accompanying sheet. All the ranches appeared to have all the water needed this year. There will be storage water held over in the Bowns Reservoir this year.

There has been nothing done at the Pleasant Creek Ranch this year except to plant 5 acres of grain which died from drouth.

At the Notom Ranch there has been alot of water lost. Most of it was due to deep seepage which came out of the hillside and ran down the creek making the loss very noticeable.

At the Sandy Ranch they have completed the underground sprinkling system on 50 acres and are preparing to install pipe on approximately 500 acres more. The production has not been high but it appears that improvements are being made as fast as conditions will permit. The only waste water that has been visable there was on one occasion when they were flushing the sand from their head ditches.

FLOW METER MEASUREMENTS

In the Beryl area they do not have an active pumping association, but Bruno Biasi is President of a purchasing organization which is the most active organization they have. I spent quite a little time with Mr. Biasi and he was very cooperative. He feels that 3 a.f. is plenty of water and said he had been at every hearing to fight for the fellows who were staying home complaining. Now he is going to stay home and farm with 3 ac. ft. He asked me to go over the matter with Mr. Otto Fife who is their purchasing agent. Mr. Fife wants the name and address of the factory representative. Mr. Fife will arrange a meeting between the parties concerned.

Few wells in the Beryl area have discharge pipes small enough for this meter, but as a demonstration, I put the meter on the well of Neal Bracken. He irrigated border strips of barley 380 ft. long and 30 ft. wide. He applied from 6.85" to 8.18" depth.

On the alfalfa pasture the strips were 521' long and 35' wide. When irrigating two at a time, he applied 7.83" and when irrigating one at a time 6.52".

The pasture was adjacent to the pump and, therefore, had very little loss in head ditches. The barley patch was about 1000' away and the best we could estimate from the time required to fill the ditch and the length of flow after the pump was turned off there was 27.3 percent lost in the head ditch. A number of farmers were contacted and all appeared willing to cooperate but will need prodding if the meters are installed in time for next season.

In the Milford area we contacted Mr. Tolley who is Secretary of the local S.C.S. group and very active in the pumpers association. He appeared to be more cooperative and reasonable upon our second visit. We also contacted Mr. Leo Myer, President of the S.C.S. Group and he promised to discuss the matter of meters at their next meeting and see what their group wanted to do regarding ordering meters.

As a demonstration the meter was installed on the well of Mr. Griffiths who was irrigating fall barley. He definitely traded water for labor and regulated the water only at 12 hr. intervals. He applied 13" of water and felt that was plenty good as 2 more irrigations next spring would mature the crop and stay close to the allowable 3 ac. ft. I spent some time trying to show him the folly of his thinking, but he had no great desire to learn. A goodly number of farmers were contacted in each area and I feel some good was done, but it will require some more contacts early next spring if the meters are installed on time.

After one day in the Beryl area with the county agent, he is more in favor of the meters. My impression was that the farmers in the Beryl area are more able to purchase the meters and are much more cooperative.