9. RABBIT CREEK FLOOD IRRIGATION

Note: It was through our resurrection of the derelict Rabbit Creek place that Jeanne and I earned the reputation that resulted in the opportunity to put together the Phantom Canyon Ranch assembly a couple of years later. The next few installments of my history will recount some of the details of our efforts on Rabbit Creek.

The epicenter of the wreck left behind by Speculators A and B on the Rabbit Creek place was the irrigation system. There were several problems to fix.

When the SCS dam spillway washed out it had taken several hundred feet of the outlet ditch below the headgate with it. I hired a contractor with a large track hoe to dig a deep ditch through the embankment on the east side of the outlet works to reconnect with the original ditch below the washout.

Dealing with the washed-out spillway was the next order of business. In the end, the solution was to give up on the spillway and dam – though not for lack of trying. 1978 and 1979 saw several floods on Rabbit Creek – I got a good education.

Our contractor began bulldozing a new spillway. Then before it was finished, we got a stout flood that took it all out.

Rethinking the situation, I figured the amount of water the reservoir could hold represented only a couple of days of stream flow. Replacing the spillway yet again seemed pointless for such a small amount of water.

A couple more floods in quick succession argued forcefully that a temporary diversion made the most sense (1978-79 were big flood years – I don't think Rabbit Creek has ever flooded like that since).

I bought a small caterpillar with a loader and backhoe and set to cutting a ditch through the bottom of the old reservoir. Using rocks from the streambed, I built up a cobblestone dike by hand across the stream and lined it with sheet plastic to divert water into my new big ditch. The next flood took it out, but it only took a couple of hours of hand labor and $5 worth of plastic sheet to replace it – the same principle as a 'water gap' for a fence crossing a stream.

The problem with Rabbit Creek is that its usable flows last for only a few weeks in the spring. So, when the water comes, you have to be ready to take all you can possibly handle (George Williams had stressed the importance of this during my visits with him). Fortunately, the soils on Rabbit Creek can hold a lot of moisture, so flooding them liberally pays off.

In anticipation of irrigating, we burned the old ditches and dragged the meadows to break the thatch, scatter the old cow manure and flatten the gopher mounds.[1]

I bought the largest ditcher I could find and hooked it to our biggest tractor to pull the widest head ditches I could. With the big ditcher and my caterpillar-backhoe, I scrambled to rebuild and enlarge the ditches in time to irrigate as soon as Rabbit Creek started to run.

It had been very dry on into April and I was starting to wonder if Rabbit Creek would run at all. Then we got a couple of feet of snow at the end of April and in a few days the creek was running strong.

Although no small job, the place irrigated really nicely. We covered 200 acres in 21 days. When we were done, we turned the water over to Ed Hanson to irrigate his pasture east of Weymouth Lane.

After we ironed out the kinks the first year, Jeanne took over most of the flood irrigation on Rabbit Creek. We began as soon as the creek started to run strong, even if was below freezing and the ditches were skimmed over with ice in the mornings. 21 days later we were done. Jeanne was a first-rate irrigator. A good job of irrigating was key to the great hay crops we produced (see photo on opposite page).

For the head ditches, I made 12' wide drop dams (a bigger version of what we used at the Wellington farm) to span the big ditches. The dams were put in place for a 'set' and then moved when the water had spread across the field below that section of the ditch.

Each dam consisted of three components: a 3"x3" oak dam stick, a 12'x12' sheet of 10-mil black plastic and an 'A' frame made of 1x4s. This simple design was fully adjustable to completely block the ditch or let any amount of water by.

By this means, several dams could be set in series to create 'stair steps' that allowed water to be let out of the ditch at regular intervals while accommodating the slope of the ditch and whatever amount of water was available.

Wind is common in the spring. Setting a 10-mil twelve-foot square dam in the wind presents a challenge. Jeanne had a way of folding and unfolding the plastic so she could set one of these big dams without unfurling it in the wind and soaking her in freezing spray (see photo on opposite page).

A bull elk used to come down into the Rabbit Creek meadows to watch Jeanne set those dams. I guess he was impressed.

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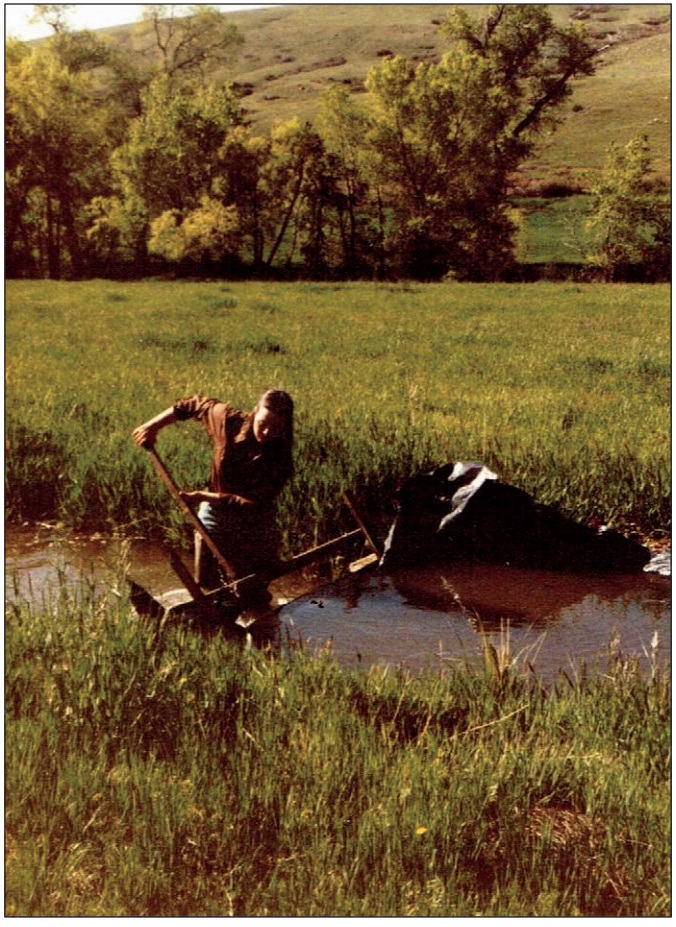
[1] This is a 'throw away' job on some ranches. I think it is an important one to do right. It starts with systematic winter feeding. Most ranches that have hay meadows use them to pasture cows in the winter. As hay is fed on the meadows, the result is a lot of cow manure. If the hay is fed in a sequential pattern, feeding on fresh ground every day, the cow pies and hay that doesn't get eaten will be distributed more or less evenly over the hay meadows. In 'dragging' the meadows with a harrow, the idea is to break up the cow pies. In Livermore the ideal condition for doing this is as soon as possible on spring mornings after a little moisture and an overnight frost. As it warms up, the damp manure thaws and a harrow pulled briskly across the meadow will cause the cow pies to 'explode', dispersing finely and evenly.

Graphics and layout by Nina Judson



Jeanne adjusting one of our big dams in the head ditch on the north side of Rabbit Creek.

Hay meadow on the south side of Rabbit Creek looking east.

Graphics and layout by Nina Judson