



**Texas Water
Resources
Institute**

**January/February 1982
Volume 8
No. 1**

A Pond to Call My Own

By Lou Ellen Ruesink, Editor, Texas Water Resources

Give me land, lots of land, with a pond to call my own.

Don't legislate.

Let me dam and impound all the water that is mine.

Don't regulate.

Let me hold all the rain for my cows and fishes,

Gaze at the water and measure feet not inches.

The law says rain's mine until it runs out my fences.

Don't change this state.

A stock tank, or farm pond, is close to the top of every urban cowboy's wish list. He dreams of a small body of water to call his very own: water to sustain his cattle, to mirror his horses, or to enhance his pine stand. Certainly he would like a small pond to harbor big catfish, to entertain his family, or to attract wildlife.

This dream becomes a reality for many Texas landowners each year who build at least 4,000 small ponds in the state annually. The Soil Conservation Service estimates that there are over 458,000 farm ponds now in Texas--that's 17 percent of all farm ponds in the U.S. Texas, in fact, has more farm ponds than any other state except Missouri.

Texans seem to like their water in the same condition as their money--in something they can hold on to and show off to others. Natural bodies of water are practically nonexistent in the state, but in the past 30 years there has been a tremendous increase in standing surface water in the state--both in large public reservoirs and small private ponds. Dams do not create water, however; they simply stop it from moving downstream.

Small private ponds are considered by many Texans to be a major waste of Texas' limited water resources. Farm ponds, they say, are a "consumptive use of water" serving few people, yielding little benefit, and reducing the amount of water available for the state's major supply reservoirs.

Small ponds do not store water as efficiently as larger reservoirs. They expose a larger percentage of their water to surface evaporation and to water-demanding soil and plants. In addition to the evaporation losses from water surfaces, small impoundments lose large amounts of water to seepage and plants whose roots penetrate the saturated zone at the water's edge. Cottonwoods, for instance, may draw as much as 90 inches of water a year from a saturated zone three feet below the ground surface.

The concern over the effect of farm ponds grows as they increase in size and number. The effect of a single stock tank may be small, but where there are many in a watershed, their impact may be considerable. The impact of farm ponds is also relative to the amount of runoff, the climate, and the geology of the watershed.

A study of water yields during the 1950 drought years found that farm ponds reduced the downstream water yield by as much as 50 to 80 percent. This impact would be even greater in drought conditions today because of the increase in numbers and storage capacity of farm ponds.

"Far too much water which should be put to beneficial use simply escapes from farm ponds back to the atmosphere or into the earth without performing any beneficial service for Texans or for animal life in the state," according to a report by the **Texas Society of Professional Engineers (TSPE)**. This group estimates that about 1,860,000 acre-feet is lost from small impoundments during an average year in this water deficient state.

Especially concerned with this loss are those whose job it is to meet municipal and industrial water demands now and in the future. Henry Graeser, who headed the Dallas Water Utilities during the drought years of the 1950's, speaks for municipal suppliers throughout the state:

"We must find a way to put an end to some of our wasteful practices which encourage the consumptive use of water without gaining a maximum benefit in terms of product value and employment opportunities. A prime example is the folly of our present statutory allowance of 200 acre-feet to be impounded without a permit. In the midwestern and western portions of our state the thousands of private fishing lakes on watersheds are a flagrant waste of our water resources where the water is needed the most."

The problem of allocating Texas' water resources among competing users is growing in intensity. Not only must allocations of our scarce resources consider market values for purposes of agriculture, recreation, industry, energy production, and municipal use, but also for such extra market values as public health, fish and wildlife, and esthetics.

At the present time state water agencies have no accurate method of estimating the effect of farm ponds on water rights, but the concerns of downstream water users that their water rights could be seriously affected as small reservoirs increase in number seem justified.

TEXAS LAW

Under Texas law, holders of downstream water rights have little or no legal claim to rainfall runoff before it reaches a defined streambed. Once water makes its way to a defined water course, it loses its status as diffused surface water and is governed then by the law relating to surface water in rivers and reservoirs.

Present Texas law states that diffused surface water belongs to the owner of the land upon which it falls. The law allows a landowner to hold that water on his land so long as no dam holds more than 200 acre-feet (enough water to cover a Little League ballfield 200 feet deep) and so long as the water is used only for domestic or livestock needs.

The state requires a permit to hold or use the water if the reservoir exceeds the storage limits, if the dam is on a stream, or if the water is put to uses other than domestic or livestock purposes. Permits are granted by the Water Rights Commission, the agency responsible for all surface water rights in the state.

To qualify for a permit, a farm pond must be designed to store water efficiently and be used for beneficial purposes. Permitted ponds must not be detrimental to the public welfare and must not impair existing water rights.

The TSPE has recommended in a study published in 1974 that no reservoir larger than ten acre-feet in capacity should be allowed without a permit. The engineers stated that a landowner may currently impound more than 65 million gallons of water in a single reservoir without a permit. They estimate this to be 85 times the amount of water actually needed by a typical single family cattle-ranching operation on three sections of land. More often than not, an owner of three sections of land would have more than one pond since the state does not limit the number of ponds a landowner may build.

The TSPE study also pointed out that the law exempting ponds under 200 acre-feet does not recognize the wide variations in rainfall, runoff, and other hydrologic factors that affect surface water yields. Under normal conditions it takes 24,000 acres of land to supply a 200-acre-foot reservoir in the El Paso area. This compares to 10,000 acres on the High Plains, 2,400 acres in Central Texas, and only 600 acres in East Texas.

In low rainfall years, the engineers conclude, it is quite likely that runoff in many areas of the state would be held almost totally behind private dams and lost entirely to downstream reservoirs and users.

OUR WATER

Farm ponds generally add monetary and aesthetic value to a piece of property. They represent a significant recreation resource, especially for people living in the rural areas of the state. They encourage wildlife, satisfy thirsty cattle, and sustain home gardens throughout long, dry Texas summers.

Since the average farm pond in the state stores less than 7 acre-feet of water, most would not be affected by the 10 acre-feet maximum capacity proposed by the Texas Society of Professional Engineers.

But should the landowner have the legal right to hold water far in excess of his needs?

While present Texas law says water belongs to the landowner if it falls and stays on his land, many Texans now feel that water is too precious for anyone to waste. More and more believe: "It's your land or it's my land, but it's OUR water."