

Oklahoma

Water News

MONTHLY NEWSLETTER OF THE OKLAHOMA WATER RESOURCES BOARD

Part II concludes an article begun in the September issue. This article is excerpted from one first printed in The Chronicles of Oklahoma, the quarterly publication of the Oklahoma Historical Society, by Dr. Bernice N. Crockett.

Part I pointed out that 10 of the 253 suspension bridges (across major rivers) in the world between 1741 and 1932 were in Oklahoma: two across the Canadian River and eight across Red River.

A problem which almost stopped the time clock in cable bridge building in winter was the frosting or icing over of the three-foot walkways used by the wire runners. Even an assured, insured wire runner hesitated before stepping on the iced-over walkway towering high above the river bed. Not until Mr. Miller suggested using "pear burners" to remove the icy frost were the wire runners willing to walk or run.

Don Dennis of the Dennis Hereford Ranch out from Grady, Oklahoma, has many memories of the old Nocona Bridge. "Back in the 30's when I as seven or eight years old," Mr. Dennis recalled, "I was riding my little Shetland pony when we started a bunch of steers across the old

In better days, the 16-foot wide Telephone Bridge was wide enough to turn a car around on—"at least you could if it was a Model T." On December 10, 1940, at the age of 13 years, its rusted cables pulled loose and the graceful bridge slipped gradually into her watery grave. This family posed on the damaged approach to the bridge.

Ingenuity Essential Ingredient in Building Red's Early Bridges

swinging bridge. My father got the steers started across and put me in behind them so I could keep them from turning back. By the time we got to about the middle of the bridge those old steers had had enough of the swinging, swaying uphill walk and started milling around, which started the bridge to going sideways. Any minute it looked like they were going to pitch me and my pony overboard—and every time I got a glimpse over the edge of the bridge, the way down looked longer and scarier. Good thing my father finally saw what was going on and came to my rescue."

By 1950, the life of the old Bluff

Bridge had been ended by arson from the Texas side.

Progressing from the west to the east along the Red River in 1927, the fifth suspension bridge to be built was the Airline Bridge, located between Wilson, Oklahoma, and Saint Jo, Texas.

Early settlers recall fording the river in dry times or wading across. Others remember disasters on the flooded river when their houses washed away and all they had left were some of their trunks found lodged in treetops farther down the river.

There were several fords in the region where cattlemen drove cattle

Continued on page 2



Bridges, continued from page 1

across: Illinois Bend, Spanish Fort, Yellow Bank, Seay and Chisholm.

That a long-held dream was about to become a reality was brought to the attention of the people of Wilson and the surrounding communities in the spring of 1927. A good roads picnic sponsored by the Wilson and Marietta chambers of commerce was held June 14, 1927, so the people could see proof of progress in the making.

By September 13, 1927, another big celebration marked the dedication and opening of the new bridge. Called a new and improved suspension bridge costing \$140,000, the opening drew large crowds from both Texas and Oklahoma. The structure had a 16-foot roadway and a total length of 852 feet, consisting of one 700-foot main span and an approach of eight spans of creo-timber.

By 1933 the federal receiver for the owners of the Airline Toll Bridge offered to sell the states of Oklahoma and Texas the bridge for \$7500.

The sixth and seventh suspension toll bridges across the Red River were a set of twins, both located between Bryan County, Oklahoma, and Fannin County, Texas. Both were built by the Austin Bridge Company in 1927 and dedicated on the same day—July 4, 1927.

Sowell's Bluff Bridge connected Durant and Bonham, and 15 miles downstream, the Telephone Bridge (also called the Bryan-Fannin Bridge) connected Bennington, Oklahoma, and Honey Grove, Texas, (although the nearest Texas community was Telephone.)

The Telephone Bridge was over 1000 feet long and 16 feet wide, and according to its toll collector, Bess Freeman, "You could turn a car around on it, at least you could if it was a Model T."

Times were hard during those years and people did not have much money, so Mrs. Freeman was forced to keep a special place for those travelers who said they did not have a dime to pay for going across the bridge. This special place was her woodpile which held a supply of big

wooden blocks where she made the dimeless individuals split the blocks into kindling.

For \$1.50 per ton capacity, one could take a tractor across the bridge; threshing outfits (limited to not over 10 tons) cost \$10; an automobile \$1, while a horse and buggy or other vehicle could go across for a quarter. A two-horse team could get across for fifty cents, while a three-horse team had to pay \$1.75. Livestock, either loose or led, only required ten cents each. A minimum charge for a truck was a dollar and a half, while a truck over one ton cost one dollar per ton of capacity.

***A man on a horse
could cross the bridge
for 15 cents; a person
on foot, for a dime.***

The Sowell's Bluff Bridge (Durant-Bonham) was a two-span suspension bridge with a total length of 1595 feet and a 15-foot, 9-inch roadway. By 1933 the Sowell's Bluff Bridge had been jointly purchased by Oklahoma and Texas and made free. It was a fine bridge and after it was made free, there was a tremendous increase in travel between the two states.

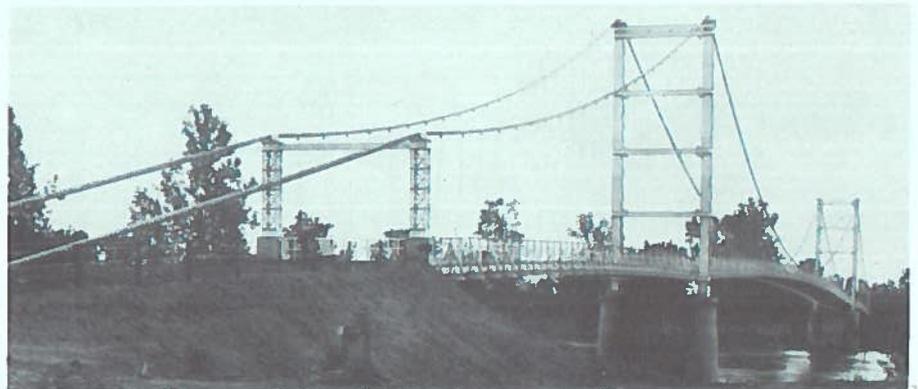
On January 15, 1934, a norther of terrific force came up which caused the Sowell's Bluff Bridge to fall. At 1 a.m. the wire cables on the Fannin side of the river became twisted, then snapped, broken in half, and the entire massive structure fell to the river

below—a complete wreck.

Questioned about the fall of the Telephone Bridge some six years later, Mrs. Freeman said she thought that the soil of that particular part of the country had caused the cables to rust to the extent that they pulled loose from the "dead men" which anchored the bridge. The cables, according to Mrs. Freeman, pulled loose slowly, and the bridge gradually sank toward the river below. The bridge remained a toll bridge till the day of its collapse December 10, 1940. Austin Bridge Company dismantled the bridge, but some of the pilings may still be seen standing up from the waters of the Red River—mute reminders of a long-ago day when the people of Bryan and Fannin Counties gathered to celebrate the joint dedication of the twins on July 4, 1927.

The last link in the chain of suspension toll bridges across Red River was forged in the heart of the Choctaw Indian Nation. It was the Idabel-Clarksville Bridge, built in 1928–1929 south of Garvin. It had a center span of 700 feet and side spans of 250 feet each—total length of 1200 feet. The bridge had a plank floor on the 16-foot roadway. The concrete main piers at either end were founded on shale, with anchor piers and cable rests on untreated wood piling. There were reported to be 1100–1200 wires in each cable.

The Austin Bridge Company completed the bridge May 19, 1929, but



As strong and well built as it was, the Idabel-Clarksville bridge stood only four years before succumbing to the siren song of the river. The bridge was doomed almost from the beginning, wrecked by the capricious Red River on the eve of its dedication on May 19, 1929, and plunged to its final rest on May 31, 1933.

on May 23, when more than 400 people went to see the new bridge opened, an estimated 40 feet of the Red River bank had caved in near the bridge. Heavy rains continued to hinder road construction.

A resident near the bridge recalled the night of May 19, 1929, as the night the river changed its course, and by morning had moved the entire structure into Oklahoma.

During construction, after the bridge framework and flooring were put in, some local boys would ride their horses across the bridge, turn around and run them back across. The big thrill came from having the bridge floor sink and then rise in front of them. The floor of the bridge would rise up so high in front of one that a rider could not see over it to the Oklahoma side of the bridge. These boys became night riders, naturally, because they were not allowed on the bridge during the day.

Not until June 19 could the *(Idabel) Gazette* triumphantly announce that June 20 was to be the big day. Even though the roads would not be completed for another 30 days, plans were set for a giant celebration.

In 1931, after Governor Murray took office, it was reported that when he was offered the bridge for Oklahoma, he refused because he said it would fall.

By May 31, 1933, the *Idabel* paper announced that the Clarksville and *Idabel* Bridge was out, "completely wrecked by high water and overflow of Red River. There is small hope for it ever being rebuilt."

If changing channels was a game any river could play, the Red proved a master of it.

Strong and well built as it was, there was no way of the bridge coping with the idiosyncrasies of such an intractable force of nature as the Red River. With a rise, she was irresistible, with a low she was as sneaky an enemy as could be imagined, while at medium stages of water "the low sandy banks are subject to very rapid erosion."

In his discussion of the hazards of bridge construction Shannon Miller (of the Austin Bridge Company) points out that "not only do severe weather conditions create tremendous problems but difficult and sometimes unpredictable foundation complications arise. The Canadian River has shifting sand to depths of forty to fifty feet; Red River has shifting sand above hard shale at twenty to thirty feet."

Some say "there is no other river remotely like Red River. When the river is on the rise, she exhibits a wave phenomena unlike any other stream."

That these Galloping Gerties played an important role in the history of progress for both Oklahoma and Texas can never be doubted. If the years covered by their service were not always long, they were vital because of the times and places in which they were offered.

While the records show Oklahoma's Gerties were victims to a range of catastrophes—tornado, norther, flood, channel change, bank erosion and arson—Red River was their executioner, mindlessly indifferent to the havoc she had wrought.

"Oh that river, that river," one old-timer exclaimed in prideful nostalgia at the vagaries of such a one. "You never could depend on that river. One day you could jump across from one sand bar to the next without getting your feet wet; next day she would be boiling along like a runaway freight, breaking down anything that got in her way."



Planning Division Moves

In an effort to free up available space at agency headquarters in Oklahoma City, the OWRB's Planning and Development Division has been moved to Broadway Office Park, near 63rd and North Broadway Extension.

The new address for the Planning Division is 6501 N. Broadway, Building #3, Suite 110, 73116. Their new phone number is (405) 842-7896.

Wright New BuRec Manager

Gerald L. Wright, a 31-year veteran of the Bureau of Reclamation, has been named manager of the Bureau's newly reorganized Oklahoma/Texas Projects Office in Oklahoma City.

Wright began his career with the Bureau in 1958 at the agency's Glen Canyon Unit in Page, Arizona. The following year, he moved to the Oklahoma City Office where he handled a variety of responsibilities until being named Chief of the Engineering Branch in 1972. Following a year long stint in the Southwest Regional Office in Amarillo, he returned to Oklahoma City to assume the post of Assistant Reclamation Representative.

From 1982 to 1988, Wright was Regional Planning Officer at the Southwest Region Office.

Wright holds a bachelor's degree in civil engineering from the Missouri School of Mines and Metallurgy. He also has a master's of public administration from Shippensburg State College in Pennsylvania.

USGS Program Century Old

This year marks the 100-year anniversary of the U.S. Geological Survey flow measurement program. According to U.S. Interior Secretary Manuel Lujan, Jr., measuring of flows in the nation's rivers and streams was initiated in 1889 by installation of a crude gage on the Rio Grande River, 50 miles north of Santa Fe near Embudo, New Mexico.

"Today, the USGS has in place a nationwide network of more than 50,000 monitoring stations to gather quality and quantity data on surface and groundwater resources," Lujan pointed out. "Data generated from this network of gaging stations form the basis of many of the states' water resource policies."

The Water Board uses data from approximately two hundred USGS stream and groundwater gages in Oklahoma—many equipped with continuous recorders—to help determine supplies available for future appropriation and assess water quality of rivers, lakes and aquifers. The first

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Mainstream, continued from page 3

stream flow gaging station in Oklahoma was established in 1902 on the North Canadian River north of El Reno.

Embudo was chosen as the site for the first gaging station due to con-

cerns about downstream irrigation water needs in the southwestern U.S. and Mexico. The station was also accessible by railroad, an important factor in obtaining necessary equipment and supplies. Inexperienced hydrologists used a bread pan to

measure evaporation and a barrel raft to navigate swift flows of the Rio Grande. Today, the Embudo station and many others have equipment for transmitting flow data to satellite receiving stations which, in turn, feed that data to ground-based computers.

**ACTIVE CONSERVATION STORAGE IN SELECTED OKLAHOMA LAKES AND RESERVOIRS
AS OF SEPTEMBER 22, 1989**

| PLANNING REGION LAKE/RESERVOIR | CONSERVATION STORAGE (AF) | PERCENT OF CAPACITY | PLANNING REGION LAKE/RESERVOIR | CONSERVATION STORAGE (AF) | PERCENT OF CAPACITY |
|-----------------------------------|------------------------------|------------------------|-----------------------------------|------------------------------|------------------------|
| SOUTHEAST | | | Wister | 63,250 | 100.0 ² |
| Atoka | 123,475 | 99.5 | Sardis | 302,500 | 100.0 |
| Broken Bow | 907,498 | 98.9 | NORTHEAST | | |
| Pine Creek | 77,700 | 100.0 ² | Eucha | 77,000 | 96.7 |
| Hugo | 157,600 | 100.0 ² | Grand | 1,471,560 | 98.6 |
| McGee Creek | 109,679 | 99.9 | Oologah | 544,240 | 100.0 |
| CENTRAL | | | Hulah | 30,594 | 100.0 |
| Thunderbird | 105,925 | 100.0 | Fort Gibson | 365,200 | 100.0 |
| Hefner | 70,290 | 93.2 | Heyburn | 5,972 | 90.5 |
| Overholser | 16,620 | 100.0 | Birch | 19,200 | 100.0 |
| Draper | 78,673 | 78.7 | Hudson | 200,300 | 100.0 |
| Arcadia | 27,390 | 100.0 | Spavinaw | 30,600 | 100.0 |
| SOUTH CENTRAL | | | Copan | 43,400 | 100.0 |
| Arbuckle | 62,571 | 100.0 | Skiatook | 319,400 | 100.0 |
| Texoma | 2,637,700 | 100.0 | NORTH CENTRAL | | |
| Waurika | 203,100 | 100.0 | Kaw | 428,600 | 100.0 ² |
| SOUTHWEST | | | Keystone | 616,000 | 100.0 |
| Altus | 95,116 | 71.6 | NORTHWEST | | |
| Fort Cobb | 78,423 | 100.0 | Canton | 97,500 | 100.0 |
| Foss | 151,875 | 59.3 ¹ | Fort Supply | 13,900 | 100.0 |
| Tom Steed | 81,502 | 91.6 | Great Salt Plains | 31,400 | 100.0 |
| EAST CENTRAL | | | STATE TOTALS | | |
| Eufaula | 2,329,700 | 100.0 | | 12,602,953 | 96.7 |
| Tenkiller | 627,500 | 100.0 | | | |

1. Conservation storage lowered for project modification
2. Seasonal pool operation

Data courtesy of U.S. Army Corps of Engineers, Bureau of Reclamation, Oklahoma City Water Resources Department, and City of Tulsa Water Superintendent's Office.

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OKLAHOMA WATER NEWS

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*Oklahoma
Homecoming '90*

... a year to rekindle pride, celebrate excellence in education and our communities and invite all former Oklahomans back for a visit.