



# OKLAHOMA

## water news

MONTHLY NEWSLETTER OF THE OKLAHOMA  
WATER RESOURCES BOARD

Gerald E. Borelli, Chairman

Earl Walker • L.L. Males • John B. Jarboe • James H. Norick • R.C. Johnson • Ralph G. McPherson • Gary W. Smith • Ernest R. Tucker

### Water Fed the Flames of Feud in Early Western Oklahoma

A look at the early times in Oklahoma's 75-year history indicates that water development hasn't always been without growing pains.

A long-standing and colorful feud over the construction, maintenance and management of the Elling Irrigation Canal in Cimarron County from 1917 to 1925 highlights the sometimes painful and perilous nature of water development.

In 1914 Theodore Elling and a contracting company began construction using teams of horses to drag a "fresno" scraper across the earth in back-breaking efforts to gouge out a canal. In three years of tough, exhausting work they succeeded in carving a channel 8.7 miles long.

In looking to the development of irrigation in Western Oklahoma, the State Highway Commission in 1917 gave permit to Elling to divert water from the Cimarron River

into "ditches, canals and other works in connection therewith for the impounding and storing of the waters for application to a beneficial use."

Fred Simmons, State Engineer at the Highway Commission then in charge of granting water rights, was much in favor of the idea.

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### Before Roads and Railroads, Steamboats Plied the Rivers

The first roads in Oklahoma were not roads at all, but rather, the tributaries of the Arkansas and Red Rivers, which supplied the east coast and European markets via New Orleans. Settlements and trading posts dotted the banks of eastern Oklahoma rivers, worked first by the French explorers and fur traders.

Their crafts were the piroque, or dugout canoe, and the clumsy, flat-bottomed bateau which had to be poled laboriously up the river.

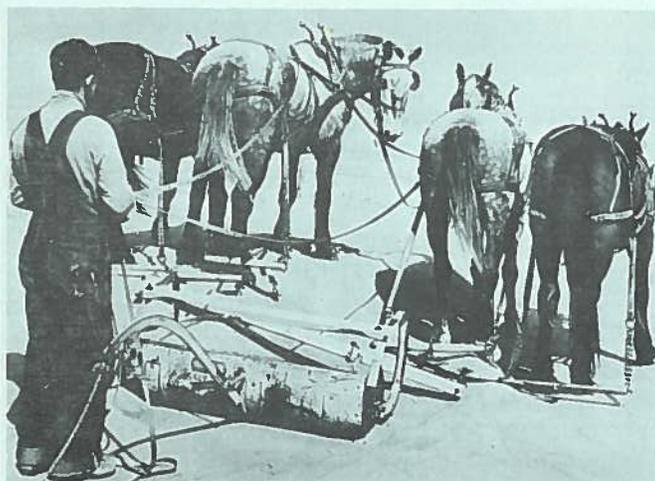
Later added to the river vessels were the keelboats, staunch crafts 50 to 75 feet long and 15 to 20 feet wide and accomodating a cargo of 10 to 20 tons. The first of the keelboats was captained by General Thomas James of St. Louis, who ascended the North Canadian as far as Keokuk Falls in central Oklahoma. Passage downstream with the current was no problem, but upstream travel was quite another matter!

The keelboats were drawn upstream by a rawhide line, perhaps 300 feet long, secured to the mast and hauled by 20 or 30 men walking along the bank, or poled and oared by the boatmen. Fifteen miles a day against the current or in a calm was considered good progress. A small cannon in the bow warded off attack in frontier waters fraught with danger.

It was the keelboat that brought many of Oklahoma's

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COURTESY OKLAHOMA DEPARTMENT OF TRANSPORTATION



A 1920's era "muleskinner" behind a "four-up" fresno.

# Diamond



# Jubilee Issue

*Water Fed the Flames, Continued from page 1*

"Some good alfalfa farms on the Cimarron would be profitable property for the owners and also a fine asset to the county," he said.

In 1918 Elling sold neighbor Julius Kohler one-fourth interest in the ditches, dams and water right, an agreement allowing Kohler partial ownership and access to the river waters, while retaining exclusive management and control for himself.

Kohler's interest wasn't solely monetary. His family had worked hard to help construct parts of the canal. Kohler's son Robert recalls that he and his brothers "grew up on the handle of a fresno."

From the beginning, however, the agreement was flavored by sharp disagreement and spiced with a good deal of animosity.

Kohler fumed about not getting his share of the water, while Elling stubbornly refused to allow him more water by opening dams and gates.

In its time, the feud was well known by most residents in Cimarron and Texas Counties. In a letter from Project Engineer C. Samule Johnson to Simmons in 1923, Johnson wrote: "This feud between Mr. Elling and Mr. Kohler has been brewing and frothing for a long time and is very, very bitter. In fact, the local authorities predict that it must wind up in a killing."

The heated differences between Elling and Kohler over the development and operation of the canal caused Simmons to appoint a watermaster to make a "complete and painstaking investigation" of the facts in order to resolve the problems.

Bert McGowan, seeking to perform his duties in helping friends and neighbors adjust a dispute, may have taken on more than he could handle when he accepted the position in May, 1923.

Within a month, a perpetual injunction was filed by Elling seeking to prevent McGowan from doing his "set duties", after McGowan had used bolt cutters to sever a chain holding a water gate closed.

In another month, McGowan was charged in a separate suit with numerous offenses, including "having no knowledge in the construction and operation of an irrigation canal, causing extensive damage, and being unaware of the sudden nature of rising and falling water in the Cimarron River."

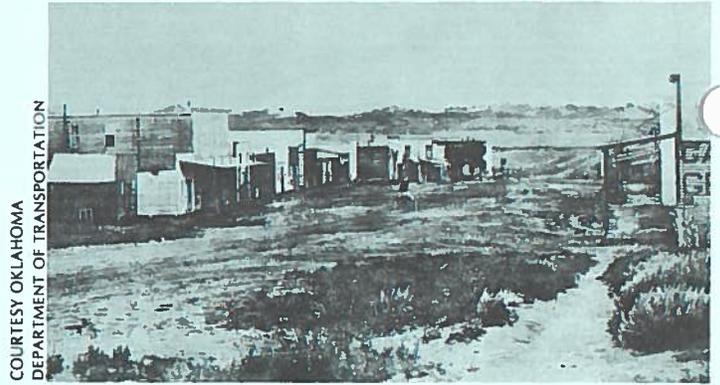
In court, his appointment to the watermaster position was labeled a ruse put over by Kohler, County Commissioner L.H. Hood and McGowan himself.

"I have acted in this matter according to my conscience dictations, and if it isn't right it is unintentional on my part," McGowan said.

The number of disputes continued to grow.

"Three or four lawsuits are now pending in the District over this canal, its construction and other matters; sentiment favors Mr. Elling decidedly, as he is a man some sixty-six years old, has a big heart and has worked like a dog to make a go of this irrigation system," Johnson wrote to Simmons in June, 1923.

The court failed to recognize the dogged efforts ex-



COURTESY OKLAHOMA DEPARTMENT OF TRANSPORTATION

**The City of Beaver in 1893. In the next county, men and horses were beginning to gouge out an irrigation canal that would later be known as "the Old Settler's Ditch."**

ended by Elling, concluding that he had abandoned the project, and ordering him to bear most of the cost of making improvements.

Elling and Kohler maintained steady disagreement for years after the cases, and despite the intervention of various private and public agencies to dispose of the disagreement, satisfaction was never achieved.

"We feel that as far as we are concerned, Elling and Kohler have a bitter disagreement and will continue in spite of any efforts of outside parties," the Conservation Commission wrote in 1932.

Records show that the troubles resulted in substantial financial loss for Kohler, who never could get water through the ditch to irrigate his land, even after considerable outlay of funds for construction and repair. Elling also suffered, and according to Simmons, was broken in spirit, physically and financially.

The Cimarron River's waters were also central in the more peaceful but sometimes troublesome early water development in nearby Beaver and Harper Counties.

In 1893 preliminary work on a 17-mile long irrigation canal was begun under territorial law in Harper County, and in 1895 the "Settlers Milling Canal and Irrigation Company" incorporated "for the express purpose of using water out of the flow of the Cimarron" to irrigate 6,000 acres of alfalfa and small grain.

Until the mid-1930's, the irrigation project operated efficiently and effectively for the participants in the venture, and through the years all were prosperous.

Two dramatic developments began to eat away at the prosperity.

Winds and drought brought soil-robbing dust storms, lessening the productivity of the land. Recurring storms whipped loose plowed soil into the Cimarron, causing it to run sluggishly over wide, sandy beds. Tributaries became little more than dry arroyos.

Also in the 30's, there began to be a shift from horse power to tractor power, and as this change took place settlers were finding it increasingly difficult to keep silt from accumulating in the canal.

"The river bed and adjacent land was so sandy and loose that it was impossible to perform this work with an ordinary farm tractor," Roy Brandenburg, Rural Super-

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*Before Roads, Continued from page 1*

pioneer settlers and members of the Five Civilized Tribes who sought resettlement. The first of the soldiers dispatched to the new Fort Smith were transported by keelboats in 1817.

It was about this time that Pierre Choteau left the family fur trade in St. Louis to establish a trading post on Grand River near Salina (Oklahoma). Early river cargoes had been chiefly furs and hides, but as traders and settlers diversified, grain, salt, bacon, lead, beeswax, cotton, leather and pecans left the river ports. Also transported were Pawnee Indian slaves, defeated in tribal wars and bound for the slave market in New Orleans.

Typical of the resourceful businessmen along the routes was Mark Bean, who developed great cargoes of bacon, grain and salt on his farm on the Illinois River. On his farm was a prolific salt spring, its waters producing a bushel of high quality salt for every 55 gallons of water in his kettles.

Earlier than Choteau's trading post was the smaller trading post at Three Forks, where the Grand, Arkansas and Verdigris Rivers join and continue as the Arkansas. From Three Forks, shipments of raw materials could go down the Arkansas to the Mississippi and on to New Orleans, or be moved on barges upriver to St. Louis.

The biggest boon to river traffic was the steamboat, which could maneuver upstream and downstream currents with equal facility and tow as many as five barges or keelboats. The first of the river steamers ascended the Arkansas into Oklahoma after the establishment of Fort Gibson, and by 1828, Fort Gibson was the acknowledged head of steam navigation.

In April 1827, two steamers, the Scioto and the Velocipede arrived at the Fort loaded with merchandise from Louisville, Kentucky. Five weeks later, the Highland Laddie came upstream to Fort Gibson with cargo from New Orleans. In February 1828, the Facility landed at the fort, towing two keelboats bearing 300 Creek Indians to their new country in the west. Before the end of the boating season, the end of June in 1828 — dictated by low water levels — the Facility had made five round trips to Fort Gibson.

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## Oklahoma Did it First and Best! The Sandstone Creek Project

Like a brown satin ribbon, Sandstone Creek meanders in sluggish channels through 65,000 acres of rolling grassland and prize stands of sorghum, wheat, alfalfa, cotton and corn in western Oklahoma.

The tranquility that embraces the watershed belies the violent history of a rampaging stream sweeping away the livelihood of the farmers in a boil of angry brown water. About nine times a year from the 1920's to the mid-40's, the untamed waters of Sandstone Creek drowned their dreams and scourged their land and crops with \$60,000 in losses annually.

Today, the land treatment and 24 floodwater retention reservoirs that dot the world's first upstream flood control project save Oklahomans more than \$70,000 a year through reduced damage and more efficient use of floodplain lands. The project has also shown the world the workability of upstream flood control.

Oklahoma Water Resources Board Member L.L. "Red" Males, banker in nearby Cheyenne, recalls the difficult times.

"Farmers would lose one crop in three, at least. That was the average over a period of years, which made it pretty rough," he said.

District "H" Highway Foreman Gene Ford remembers one farmer who could only raise "water moccasins and sunflowers" in the hard years before flood control.

During those years, though, members of Congress were moving towards the development of a national flood control program, and many members of both the House and Senate thought that the retardation of runoff and waterflow in the upper watersheds was the most feasible manner in which to protect those downstream.

In 1934 they were given more food for thought. An April Oklahoma storm unleashed 11 inches of rain in the watershed and neighboring tributaries that caused the loss of 17 lives near Hammon.

"That gave us the impetus for this program," Males said. "Scores of homes were washed away, hundreds of livestock drowned and all the roads and railroad bridges were gone. Yet our thinking was that the greatest loss to our river valley was the loss of the soil."

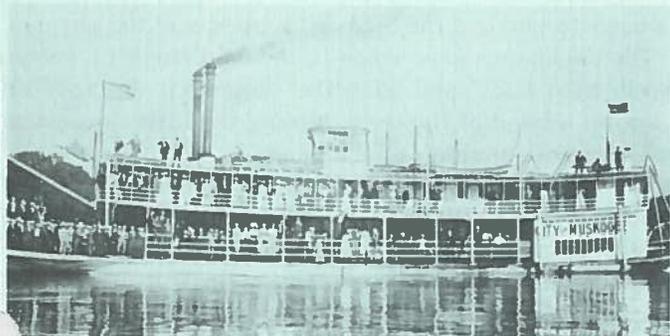
When Congress passed the Flood Control Act of 1944, the Washita River was one of the 11 selected for watershed improvement.

"Of course, this stuff was going on all over the nation, and we were included because of the terrible flood in '34. But we'd been having floods every year, and they just didn't know about them," Males said.

Males and other members of the Upper Washita Soil Conservation District were still unsure how to best control the floodwaters.

"I don't know who had the bright idea of building multiple reservoirs on a watershed, but they expected it to work. The people like myself out here on the ground didn't know what they were talking about when they

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Another steam leviathan, the Katy railroad's steam engine, closed a colorful chapter of riverboat traffic in Oklahoma until the opening of the McClellan-Kerr Arkansas River Navigation System. Only pleasure boats such as the "City of Muskogee" tarry as reminders of Oklahoma's swashbuckling steamboat era.

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visor of the Harper County Farm Security Administration wrote in 1937. "Therefore, a large portion of the older settlers moved away from their land."

The dust storms and age of farm mechanization that sent Oklahomans scurrying to California soon cooperated to allow deterioration of the canal to an unusable state.

Eventually the storms waned, and the end of the dust bowl era brought renewed hope to area residents.

"Since the younger generation has become interested in the irrigation of their farms, and a great many of the older settlers have moved back on their farms, there has been a decided effort on their part to rebuild and reconstruct the ditch so that it would be usable," Brandenburg said.

In 1940 a reorganized corporation signed loan papers allowing them to proceed with a \$25,000 project to widen, straighten, dredge and excavate the entire length of the canal.

Hopes were at their highest. Brandenburg saw the construction as enabling the project to be put in a "much better and more permanent condition" than ever before.

"From a rehabilitation standpoint, nothing we could do would be so effective as the reconstruction and reestablishment of this irrigation canal," Brandenburg noted. "It will enable farmers on the ditch to increase the yield on their crop acreage to almost double their previous receipts."

Brandenburg wasn't alone in his enthusiasm. The majority of the stockholders were progressive and optimistic, believing that the rebuilt facility would put new life into the community.

In the next three years, progress occurred slowly, and optimism faded. Construction costs reached \$50,000, and as funds ran out work on the project ceased.

Regional Conservation Service official H.G. Wilmot reported on the project, halted while 75 percent complete.

"Little, if any, benefit can be derived from the system in its present condition. All in all, the project has been a dismal failure, causing much bitterness among the stockowners of the company who believe the cause to be inefficiency and incompetence on the part of the Government agencies involved in the proceedings," he said.

The largest stockowner in the company summed up the attitude of the majority of the stockholders when he said, "I have been swindled many times in my life, but this one is the granddaddy of them all."

Water development continued in the region despite the unhappy stockowners and the Elling-Kohler disagreement. History of the area tells us that for many years the Cimarron River was the most reliable source of water for irrigation, and many of the state's earliest water rights are found along the course it cuts through northwestern Oklahoma.

The passing years have seen the elimination of some of the earlier troubles. The Kohler family acquired all

water rights to the Elling Canal and have used it to irrigate for many years.

"It looks beautiful. We've had all kinds of water in it this summer," Robert Kohler says.

Although low flows and chloride contamination limit irrigation from the Cimarron, particularly in Harper County, the supply of good quality ground water has made the river basin one of the most productive farming regions in the country.

State Engineer Simmons in 1923 only wanted for "folks to get together, pull together and make beneficial use of the area's waters." Oklahoma's 75 years of history have seen great progress toward making his wishes come true.

*Before Roads, Continued from page 3*

The Red River was also navigated by steamboats, but later than they had been able to penetrate the Arkansas River. For many years, "the Raft," a huge drift of logs obstructed the channel of the stream in northwestern Louisiana, so that only keelboats could navigate the waters. In 1838, after eight years of work by the U.S. Army Corps of Engineers, the logjam was cleared and steamboat traffic on the Red flourished. The chief ports were Kiamichi Landing and Jones Plantation at the mouth of the Boggy in the Choctaw Nation, but during times of high water, daring captains ventured as far up the river as Fort Washita.

The river gamblers and rough-and-tumble crewmen of the great steamers on Oklahoma's rivers brought even more color to the state's bright frontier.

An early river traveler at the Fort Gibson Landing reported: "At the sound of the boat whistle, or possibly the firing of the swivel cannon at its bow, the landing would be lined by a throng of welcoming spectators, and the Negro roustabouts swung their hats and sang sweet songs of praise for their boat. Then a crowd would rush aboard to the bar to get a drink of ice water or lemonade.

"Indians would line the wharf, staring in wonder at the great 'fire canoe' until the engineer, in a spirit of mischief would blow off the mud valve with its loud roar and clouds of vapor, causing a hasty retreat of such sightseers."

When the boat was loaded for its return trip, the gangplank was raised, the bell clanged, the paddle wheels turned and the big craft slipped into the channel. "The deckhands gave voice to the wild chant of 'Far yo well, Miss Lucy' and soon the steamboat disappeared around a bend of the river, leaving the little outpost to its wonted isolation and loneliness."

It was only the coming of another steam leviathan that sounded the death knell for the great river boats. The MKT completed its survey for a roadbed across Oklahoma during 1870, and by February 1871, trains were running to Muskogee. The feverish construction pace saw one and one-half miles of track laid per day.

All-weather, year-round rail transportation virtually closed the book on river traffic, ending a colorful chapter of speedy, steam-belching boats, and daring captains and swashbuckling river adventures in Oklahoma.

*Oklahoma Did it First, Continued from page 3*

came out with this, but we trusted the Department of Agriculture," Males recalled.

Initiation of the project required obtaining easements from landowners for the construction and maintenance of the dams and reservoirs which invariably spread across the land of several title-holders. The average site in this area involved signatures of five grantors, and some would require more than 20.

Jack Rhoton, a farmer on the Sandstone, was one who greeted the announcement that a piece of his land had been selected for a dam site with less than joy.

"I raised the devil about it," he said. "There was nowhere you could go to see what one of these things looked like, and I was skeptical."

Even Males admitted that the group was obtaining easements without knowing what they would get in return. Working in hope and faith, the group was the first in the nation to meet all requirements for construction.

Questions about the project were answered by the roar of bulldozers moving earth to form dams, reservoirs and spillways in a 5-year construction period beginning in 1948.

By 1953, the area had been transformed. The Department of Agriculture's Soil Conservation Service had designed and supervised a system of 24 floodwater retarding structures at strategic locations in the watershed. In exchange, local farmers had applied about 95 percent of the required land treatment measures, including seeding of grassland, stubble mulching, cover cropping, terracing, contour farming, strip cropping, farm ponds and field diversion.

The typical floodwater retarding structure has an average drainage area of 1,932 acres. Detention pools were designed to hold back at least the maximum runoff to be expected once in 25 years, while spillways were designed for the flood of 100-year frequency occurring when the detention pools were full.

The system protects flood-prone bottomland by releasing impounded water from the detention ponds through automatic draw-down tubes at a rate no faster than tributary banks can hold, leaving crops safe from overflow.



"Our community is so proud of the Sandstone Creek Project we put up a sign. We claim we are the first in the world and nobody disputes it, so we go ahead claiming it," says OWRB Member L.L. "Red" Males.



STAFF PHOTO BY STEVE LINDLEY

Males' devotion to watershed development made him the first recipient of the "Watershed Man of the Year" award in 1959.

Reaction to the system was positive and immediate.

Farmer J.R. Simmons commented in 1954, "I've seen many a flood on the Sandstone that would swim a horse over any of my bottom fields. Once I lost 80 hogs, and I always lost about three miles of fence and the crops. But there was no flooding on my lands last spring and if it hadn't been for the dams, the creek would have flooded big."

Neighbor Raymond Williams echoed Simmons feelings.

"Last year (1954) I irrigated about 20 acres of alfalfa and made about 500 more bales than if I had not irrigated. It's mighty nice to hold some of the raindrops in these detention reservoirs to use when we need them instead of having them all at one time in a flood."

The enthusiasm spread.

"When this was completed, people from every place came over just to see it. They couldn't believe it and we couldn't either. So we got 'em here from every country in the world, I guess. Black ones, yellow ones, white ones and every other color came in here with a group to see if it really worked."

If the Washita had a drop of water added for every visitor to the flood control project, perhaps even the dams and reservoirs couldn't have held the cascade of water.

"This was the demonstration area of the whole country. We had tours out there — sometimes one or two a week — for ten years or more, taking people around, showing them what it was, what it did, and what it looks like," Males said.

With the success of the project unquestioned and the clamor over it unending, Males took to the road.

"I went to many different states with a bunch of slides, and they'd have me show them to their people on their watersheds. I went to Kansas enough to be a voter up there.

"It's something that being able to see sure does help. It's awfully hard to explain in words," Males recounted.

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Oklahoma Did it First, Continued from page 5

Containing the Sandstone has not only stopped floods, but has helped raise the water table and kept a steady flow in the creek, increasing the amount of water available for irrigation.

Wildlife habitats have been created around some of the lakes, housing turkey, quail and deer.

The water is also available for recreation.

"Ten years ago nobody could have made us believe that our people were hungry for water recreation. We never had any. We didn't know that we even wanted any. But now, everyone for miles around is using them for everything — camping, boating, fishing and water-skiing," Males said.

The sum of the efforts expended by Oklahomans on the first upstream flood control project in the world is an impressive figure.

"The land treatment plus the detention reservoirs have stabilized the economy of farmers and ranchers on the watershed, and there is no way of estimating the value of the wildlife areas and recreational facilities to the people in our area of the state," Males concludes.

Some things never work well, like a 50-cent watch or the Minnesota Vikings in a Super Bowl. Other things fail in their first attempts but succeed spectacularly thereafter, like early tries at human flight. But for a first-time-ever attempt in the world, the Sandstone Creek Upstream Flood Control Project has succeeded remarkably well.

The dedication, hard work and willingness to try something new by Oklahomans involved in the project have written a chapter of unchallenged success in the state's water history.

Historical references included in this issue from "The Story of Oklahoma" by Muriel H. Wright; "Garden Sass: A Catalog of Arkansas Folkways" by Nancy McDonough; "Oklahoma, A History of Five Centuries" by Arrell M. Gibson; "Oklahoma, Its Past and Present" by Edwin C. McReynolds, et al.



### Salute to Ray Trent, Former Board Member

V. Ray Trent, 66, former Oklahoma Water Resources Board Member and long-time water activist, died September 7 of cancer at St. Anthony's Hospital.

Trent championed the cause of water development in the state during a 10-year tenure in the state legislature and service on the Water Resources Board in 1977-78. He also served as Oklahoma's representative on the National Water Resources Association Board of Directors.

### Territorial Oklahoma Provided State "Flower"

One of the more unusual state symbols in the nation is Oklahoma's designation of the parasitic mistletoe as its official state flower.

Its origin was in a bleak, cold winter in 1891 territorial Oklahoma, as a young man's wife died of pneumonia and her body was placed in a homemade coffin. There were no flowers available to soften the bare boards, so sprays of mistletoe were used instead.

A neighbor sought to comfort the grieving husband.

"George, if I ever have a chance to see this territory become a state, I'll see that the mistletoe is its state flower," he said.

He kept his promise as a member of the Constitutional Convention in 1907.

MARY E. WHITLOW, Editor

STEVE B. LINDLEY, Writer

MIKE McGAUGH, Layout

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