

THE TEXAS WATER SOURCE

UPDATING CAMP, MARION, AND UPSHUR
COUNTY LANDOWNERS ON LAND
MANAGEMENT AND WATER ISSUES

June 2020

Lake O' the Pines and Big Cypress Creek

Lake O' the Pines was created by the construction of the Ferrell's Bridge Dam on Big Cypress Creek approximately 81 miles upstream from the Red River. The reservoir was created as part of the overall plan for flood control in the Red River Basin below Denison Dam in Oklahoma. The project was authorized by the Flood Control Act of 1946. Additional purposes of both recreation and water supply were added during construction.

The U.S. Army Corps of Engineers began construction of the dam in January 1955 and the dam was completed on December 11, 1959.

18,700 acres of surface water of this lake spreads over parts of five East Texas counties: Marion, Harrison, Upshur, Morris, and Camp. Associated with this lake are 9,000 acres of federally-managed land.

Lake O' the Pines provides water supply storage for the Northeast Texas Municipal Water District which serves the cities of Jefferson, Ore City, Lone Star, Avinger, Hughes Springs, Daingerfield, and Longview. It also supplies water for numerous rural water districts and several steel manufacturing and electricity-generating companies.

Lake O' the Pines is also an important resource to the timber industry and agri-

cultural enterprises such as the poultry industry, dairies, cow/calf operations, and for irrigation. Recreation and tourism are significant resources of income for residents of the watershed. Boating and fishing for trophy bass, catfish, and crappie lure large numbers of recreational users each year.

Big Cypress Creek begins in the southeastern part of Hopkins County and flows southeasterly about 72 miles into Caddo Lake and ultimately the Red River. The creek is impounded several times en route to Caddo Lake, forming Lake Cypress Springs, Lake Bob Sandlin, and Lake O' the Pines.

The stream forms the boundary lines between Camp and Titus, Camp and Morris, and Morris and Upshur counties. Big Cypress Creek is intermittent (flows 30-90% of the time during a normal year) in its upper reaches. It runs through flat to rolling terrain surfaced by sandy and clay loams that support water-tolerant hardwoods, conifers, and grasses.

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For more information:

- <https://www.swfwc.usace.army.mil/lakeopines/Information/History.asp>
- <https://bit.ly/2A3YzMW>

Organization Spotlight

U.S. Army Corps of Engineers

The U.S. Army Corps of Engineers has approximately 34,000 dedicated civilians and soldiers delivering engineering services to customers in more than 90 countries worldwide.

With environmental sustainability as a guiding principle, the Corps is working diligently to strengthen our Nation's security by building and maintaining America's infrastructure and providing military facilities where our service members train, work, and live.

The Corps also dredges America's waterways to support the movement of critical commodities and providing recreation opportunities at their campgrounds, lakes, and marinas. By devising hurricane and storm damage reduction infrastructure, they are reducing risks from disasters.

Another function of the Corps is protecting and restoring the Nation's environment, including cleaning sites contaminated with hazardous, toxic, or radioactive waste and material in an effort to sustain the environment.

The Corps manages hundreds of lakes nationwide, including Lake O' the Pines. Corps personnel focus the resources of these lakes to meet a wide variety of purposes, including generating power for homes and businesses; supplying water for nearby communities; and providing recreational getaways for camping, fishing, boating, hiking and more; all the while striving to be good stewards of the environment in these areas.

Corps personnel work closely with nearby communities, businesses, and organizations at all the lakes it manages to try to find the balance among various priorities that are appropriate for that area. They work to implement a regional watershed approach that takes into consideration the effect changes at a lake will have on nearby related water resources such as rivers, wetlands, and coasts.

For more information:

- <https://www.usace.army.mil>

USACE's Institute for Water Resources

The U.S. Army Corps of Engineers (USACE) Institute for Water Resources (IWR) was formed in 1969 to provide the USACE Civil Works Program with a capability to analyze and anticipate emerging water resource trends and issues facing our Nation. Headquartered in Alexandria, Virginia, IWR has responded to major changes in water resources development policies and addressed ever increasing public interest in water projects, increased awareness of associated environmental concerns, and the policy and technological advances of the 21st Century.

IWR's challenging mission remains integral to shaping the evolution of Federal water resources policy as it supports decision-makers at all levels within the USACE command structure. As such, IWR seeks to maintain a cadre of seasoned practitioners connected with thought leaders in water resources, engineering, economics, financing, land use planning, and related disciplines to link new ideas into practical strategic thought.

IWR fulfills its mission of supporting the USACE Civil Works Directorate by providing: (a) analysis of emerging water resources trends and issues, (b) state-of-the-art planning and hydrologic engineering methods, models, and training, and (c) national data management of results-oriented program and project information across Civil Works business lines.

Some of the Centers under the IWR umbrella include:

- Hydrologic Engineering Center
- Navigation and Civil Works Decision Support Center
- Waterborne Commerce Statistics Center
- The Risk Management Center

For more information:

- <https://www.iwr.usace.army.mil>

Timber Management on Lake O' the Pines

Did you know that the Corps of Engineers at Lake O' the Pines actively manages approximately 6500 acres of public forestland?

Considering the following definition of forestry - "The art, science, and practice of managing, on a sustainable basis, the natural resources of forestlands for human benefit" (from Arthur Temple College of Forestry Stephen F. Austin State University) - the Corps developed a mission statement for their forest management. It is "to manage the forest resources of Lake O' the Pines on a sustainable basis consistent with ecosystem principles (and relevant laws and regulations) to insure the health and vigor of the forest trees themselves while enhancing wildlife habitat, protecting cultural resources, insuring water quality, maintaining aesthetic values, and returning tangible benefits to the project and the nation."

Although confronted with many challenges, such as small land holdings, inadequate access, and close neighbors, the Corps strives to keep the health of the forest foremost in any decisions made concerning activities conducted in the forest.

Many of the goals in the management of the forestland at lake O' the Pines are similar to "Ecosystem Management Goals" as defined by Agee and Johnson (1988) and include:

- maintaining viable populations of native species;
- representing native ecosystem types across their natural range of variation;
- maintaining ecological processes (i.e., disturbance regimes, hydrological processes, nutrient cycles, etc.); and
- managing over periods of time long enough to develop the potential of species and ecosystems, all while accommodating human use of the forest-land.

Examples of vegetation ecosystem types include:

- the shortleaf pine-bluegrass complex of Northeast Texas and Southwest Arkansas,
- the longleaf pine-wiregrass complex of mid- and Southeast Texas,

- the bottomland hardwood forest, and
- the Post Oak Savanna of the western edge of East Texas.

Both pine-dominated uplands and bottomland hardwood forests exist at Lake O' the Pines. Properly managed, the pine tree dominated ecosystems provide habitat structure for many species, including eastern wild turkey and bobwhite quail, along with lesser known species such as Bachmann's and Henslow's sparrows. The bottomland forest provides habitat and food in the form of acorns for species such as the eastern gray squirrel, deer, and wood ducks.

Tools and activities used to accomplish the Corps' goals include the use of prescribed fire, occasional selective harvests, forest inventory, regeneration regimes (both natural and artificial) which include seed-tree, shelterwood, and gap-phase (small clear cuts) treatments, and creation of open spaces.

Proper forestry activities help maintain the health of the forest stand by improving individual tree growth and vigor and reducing the prospect of pest infestations. In conjunction with prescribed fire, these harvests help lessen the chances of wildfires. Utilizing these "tools" also helps improve habitat for the species that utilize the particular ecosystem.

During forest management activities, the Corps incorporates design features and practices that are known as "Best Management Practices," or BMPs. BMPs include special management guidelines in "Streamside Management Zones" (SMZs), proper logging road design, and restrictions on using equipment in saturated soils. These efforts help forest managers maintain and protect the quality of water that flows into Lake O' the Pines.

For more information:

- <https://www.swfwc.usace.army.mil/lakeopines/Natresources.asp>
- <https://tfsweb.tamu.edu/BMP>
- <https://tfsweb.tamu.edu/forestrmanagementinfoformationsheets>

Distribution of *The Texas Water Source* is provided free of charge to forest landowners of Camp, Marion, and Upshur counties. This publication is funded by the Texas State Soil and Water Conservation Board through a Clean Water Act §319(h) grant from the U.S. Environmental Protection Agency. PLEASE ADVISE US IF YOU WISH YOUR NAME TO BE REMOVED FROM OUR MAILING LIST.

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Lake O' the Pines Contacts

Lake O' the Pines is in the Fort Worth District of the U.S. Army Corps of Engineers. Their mission: to "supply water to the North East Texas Municipal Water District and their customers and to provide flood protection to Shreveport, Louisiana, and the Red River; also to offer some of the best fishing, camping, and boating in Texas."

U.S.A.C.E.
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Jefferson, Texas 75657

Hours: M-F 8:00 am - 4:30 pm

Phone: (903) 665-2336

Camping Reservations:
1-877-444-6777 or www.recreation.gov

Website:
<https://www.swf-wc.usace.army.mil/lakeopines>

On the website, you can find information on lake elevation and gate opening, road closures, facility opening and closure, water safety, natural resources, invasive species, volunteer programs, and more.



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