



LTA Frequently Asked Questions FAQs on Lake Level Safeguards

Based on stakeholder questions, concerns and rumors

Lake Texoma Association

- **What is the Lake Texoma Association?**

The Lake Texoma Association (LTA) is a nonprofit corporation organized in Oklahoma, celebrating its 60th year of operations in 2014. The mission of the LTA is preserving and protecting Lake Texoma and promoting the Texoma region. The LTA office is in Kingston, OK and is run by two full time employees, the Executive Director and Office Manager, as well as a volunteer Board of Directors.

- **Who is on the Board of Directors for the Lake Texoma Association?**

The LTA Board of Directors (BoD) is a group of individuals interested in the mission of LTA who volunteer their time and resources to ensure the success of the LTA mission. The LTA BoD is comprised of an equal number of volunteers from both Texas and Oklahoma. The LTA BoD also represents a healthy mix of individuals as well as businesses from the water's edge of Lake Texoma, such as marina operators, to those off the lake shores, such as bank presidents, public utilities, county commissioners and Tribal representatives.

- **What does the Lake Texoma Association do?**

The LTA endeavors to fulfill their mission with the help and coordination of stakeholders throughout the Texoma region such as Federal and State Legislators, Texoma regional officials and business leaders, Texoma regional Chambers of Commerce, Federal and State Agencies, and civic organizations, to name a few. The LTA is quick to identify issues and opportunities impacting Lake Texoma and diligently pursues activity toward action and resolution as required. A meticulous approach and timely research is required to resolve many of the issues that impact Lake Texoma. Additionally, the many stakeholders with the ability to effect change or create input on matters of concern to Lake Texoma must be coordinated to strategize a constructive path forward focused on mutual goal accomplishment for stakeholders involved. As such, you may not see a face from the LTA trying to gain recognition for one off accomplishments. However, you should know the LTA is working in earnest behind the scenes to protect and promote Lake Texoma, as has been our heritage.

- **Does LTA represent Oklahoma and Texas stakeholders?**

- LTA Board of Directors from OK, TX and different stakeholder interests.
- LTA Executive Director in particular and Board members are very active meeting coordinating, and communicating with OK and TX chambers of commerce, civic organizations and with federal/state/local legislators and officials.
- LTA alternates Board of Director meetings between OK and Texas.

LTA serves on the Tulsa District Corps of Engineers Lake Texoma Advisory Committee comprised of members from OK, TX, AR and LA.

- **How has LTA provided information to stakeholders and cooperated with other regional organizations?**

The Lake Texoma Association has been working constructively with Oklahoma and Texas federal, state and local legislators, officials and organizations for several years to promote and protect Lake Texoma through floods, blue green algae, excessive siltation/nutrients and droughts and other issues. We all recognized that the lake levels were too low and action had to be taken. *But* actions also had to be factual, constructive and non-inflammatory to prevent major decreases in recreation, tourism, real estate values and individual jobs which unfortunately occurred in some cases. The only realistic quick fix was for it to rain since the existing federal laws do not provide adequate safeguards for Lake Texoma particularly during natural or manmade drought conditions. Pointing out problems is important but providing effective solutions for complex issues is essential for successful resolution.

Over the past several months LTA has provided extensive information about Lake Texoma and other drought impacted lake areas of the U.S to Oklahoma and Texas legislators, officials, Indian Nations, media, organizations and individuals regarding low lake levels, negative impacts on recreation, tourism, the regional economy and individuals. More importantly, the LTA promptly submitted proposed specific federal legislation to provide safeguards for Lake Texoma to both Oklahoma and Texas legislators and officials. LTA uses their website, Facebook page, newsletters, briefings, meetings and other methods to disseminate information.

LTA hosted a Lake Texoma Regional meeting on April 4, 2014, 6:30 PM at the Durant, OK High School Auditorium with officials from the Army Corps of Engineers, Southwestern Power Administration and LTA to provide updated and factual Lake Texoma regional information for attendees from Oklahoma, Texas and other areas. A large numbers of stakeholders were very interested to hear directly from the Corps and Southwester Power Administration representatives about the water levels on Lake Texoma. Accurate information and sound legislative proposals are required for stakeholders and also to gain the proactive support of legislators and decision makers.

The LTA continues to work effectively with a large number of Lake Texoma regional organizations and welcomes the constructive support of Oklahoma and Texas legislators, officials, Indian Nations, organizations, stakeholders and individuals around the Lake Texoma Region and other areas.

Lake Texoma Region

- **Why does Lake Texoma exist?**

Lake Texoma and the Denison Dam were built starting in the late 1930s into the 1940s. The purposes of the Lake Texoma project were flood control, hydropower, and water supply. Recreation was officially added as a project purpose by Congress in 1988. Today, recreation has grown in significance as Lake Texoma draws over 6,000,000 people a year to the Texoma region.

- **How important is recreation on Lake Texoma to the Texoma regional economy?**

Lake Texoma recreation is the essential to the growing community economies in the Texoma region. According to statistical data from 2010, approximately 6,000,000 people visit Lake Texoma every year. If we conservatively estimate each of those individuals spend \$100, it is easy to see how visitors to Lake Texoma equates into an influx of revenue to Texoma communities of roughly \$600,000,000. While it is true that the Texoma communities have spent significant efforts to successfully grow the region, it is undeniable that Lake Texoma creates a major tourist and recreation driver for the economic engine that benefits regional businesses as well as state and local tax revenues. The volume of visitors to Lake Texoma translates into an exponential impact to revenues generated throughout the Texoma region in the form of off the lakeshore related activities such as shopping, dining, car & boat repair, gasoline, etc.

- **What are some of the competing stakeholder interests of Lake Texoma?**

Flood control, water supply, hydroelectric power, regulation of Red River water flows, improvement of navigation, and recreation are the official project purposes and represent only part of the stakeholder interests. The Lake Texoma Economic Engine has hundreds of millions of dollars of installed non-federal assets around the lake with major new developments planned or underway. Additionally Lake Texoma generates several hundred million dollars/year annual business and tax revenue and over 2,700 jobs. The Lake Texoma ecosystem/environment benefits all of the stakeholders.

There are very important social and quality of life stakeholders that must be considered as well even though they may not be official project purposes. By providing opportunities for active recreation, Lake Texoma helps combat one of the most significant of the nation's health problems: lack of physical activity. Recreational programs and activities at lakes also help strengthen family ties and friendships; provide opportunities for children to develop personal skills, social values, and self-esteem; and increase water safety. Over 6 million annual stakeholders and taxpayers have been living at or visiting Lake Texoma for several decades.

- **What is the Lake Texoma Watershed and why should I care about rain in Southwest Oklahoma and the Texas panhandle?**

The Red and Washita rivers that feed Lake Texoma are the major contributors to water inflows to Lake Texoma. Additionally, the watershed of Lake Texoma, the 39,719 square acre miles generally to the north and west of Lake Texoma, produces water inflows into Lake Texoma through smaller tributaries. Looking at the past experience and the future climatological forecasts, it is easy to see that the Lake Texoma Watershed is, has been, and is forecast to be under increasingly severe, multi-year, drought climate conditions.

- **Why are the local Texoma region ponds and lakes full, but Lake Texoma is not?**

Since we know that the watershed for Lake Texoma has been in a drought climate condition since 2011, we can understand how dry the soil is within the watershed. As such, much of the water from rains within the watershed is quickly absorbed into the dry soil. Additionally, since the Lake Texoma watershed is predominately north and west of the Texoma region, rainfall in the Texoma region will do little to increase the water volume in Lake Texoma.

- **Why are the water levels currently receding so quickly on Lake Texoma?**

Most of us have seen the greatly varying water levels on Lake Texoma. In times of flood, with the lake water flowing over the spillway, to times of drought, such as is the current occurrence; in every case the primary responsibility rests with Mother Nature. Combined with the ongoing drought conditions, the Southwestern Power Administration is using the hydropower generators at the Denison Dam to generate electricity for their customers per one of the many project purposes of Lake Texoma.

- **Why do federal laws need to be amended or changed?**

Recreation and tourism represent hundreds of millions of dollars of existing and future lake related economic development and annual revenue and public/taxpayer use by more than six million annual visitors that were not present when federal flood control and power laws were enacted in the 1930's or with subsequent amendments to these and other water development acts. Effective drought control and conservation are as important now as flood control and hydropower.

- **Who owns the waters of Lake Texoma and other federal lakes?**

The states own the waters of Lake Texoma and similar federal managed reservoirs. The federal authorities, such as the Corps or U.S. Bureau of Reclamation, store the state water in the reservoir.

- **What are the overall drought impacts on Lake Texoma?**

- Most lake area businesses have reported 20 to 40% reductions in revenue during previous droughts resulting in \$120-140 million revenue loss / per year.
- Over 2,700 Oklahoma and Texas jobs at Lake Texoma are being affected to varying degrees as well as the overall regional economy.
- Regional destinations, businesses, tourism, recreation and importantly individuals and families that have been enjoying the Lake Texoma area for several generations are impacted by the drought conditions on Lake Texoma.

- **What are some of the more specific impacts on Lake Texoma Stakeholders?**

612 msl: Significant Negative Impacts Start to Occur. At 610 msl approximately 50% of boat launching ramps closed for modern 18-26 foot trailerable boats used on larger lakes, some boat slips do not have adequate water, boat houses have to be moved if possible within restricted and wind protected coves. Navigation hazards increase. Users and visitors decrease use of lake area facilities. Economy starts significant decrease.

612 msl and below: Major negative economic and social impacts increase exponentially as lake elevation decreases toward worst case conditions. More boat launching ramps are increasingly closed or severely limited, boat houses have to be moved significant distances stopping ramp access and electrical service to boats, other water sports and activities are severely limited. Boaters must be ferried to slips. Major navigation hazards exist in increasing locations. Water access to several recreation areas and marina/resorts by boat is severely restricted or stopped. Boaters, fishermen, campers and others seek other lakes (if available in the region) and non-lake related recreation, some permanently. Some marinas and lake related businesses such as restaurants, stores, lodging and maintenance face temporary closures or bankruptcies. Extended layoffs in regional businesses increasingly occur. Real estate values and prospects for new developments and investments decrease. Permanent and part-time residents, renters and prospective buyers and investors look elsewhere.

- **Why is water being used from Lake Texoma when there are limited inflows due to the drought conditions?**

The Corps and Southwester Power Administration state that the requirements of Public Law (PL) 100-71 are being followed. See PL 100-71 explanation. The Corps, SWPA and water users state that “while recreation was made an authorized Lake Texoma project purpose by the Water Resources Development Act of 1986 (PL 99-662) and has a place in stakeholder discussions, no storage was allocated to recreation; therefore, there is no particular lake level or volume of storage that must be protected or preserved for recreational use.”

“All storage in the conservation pool is allocated to the water supply and hydropower purposes. Although the hydropower users would try to prevent such action, **in an extreme drought situation where inflows can not offset demand usage**, the lake could be drawn to elevation 590, the bottom of the conservation pool, *to meet the water supply and hydropower needs and still be in full compliance with PL 100-71.*”

- **Is recreation a project purpose of Lake Texoma?**

Yes. Water Resources Development Act (WRDA) 1986, Section 838, Lake Texoma Recreation Added as Project Purpose and Reallocation of Water from Hydropower to Water Supply. Full copy at: [PL 99-662](#).

[Water Resources Development Act of 1986](#). Recreation is a Lake Texoma project purpose but water is not allocated for recreation by federal laws like Flood Control, Hydropower and Water Supply.

- **If recreation is so important to the Texoma regional economy and it's a project purpose of Lake Texoma, why is it not given the same priority as the other project purposes of hydropower and water supply?**

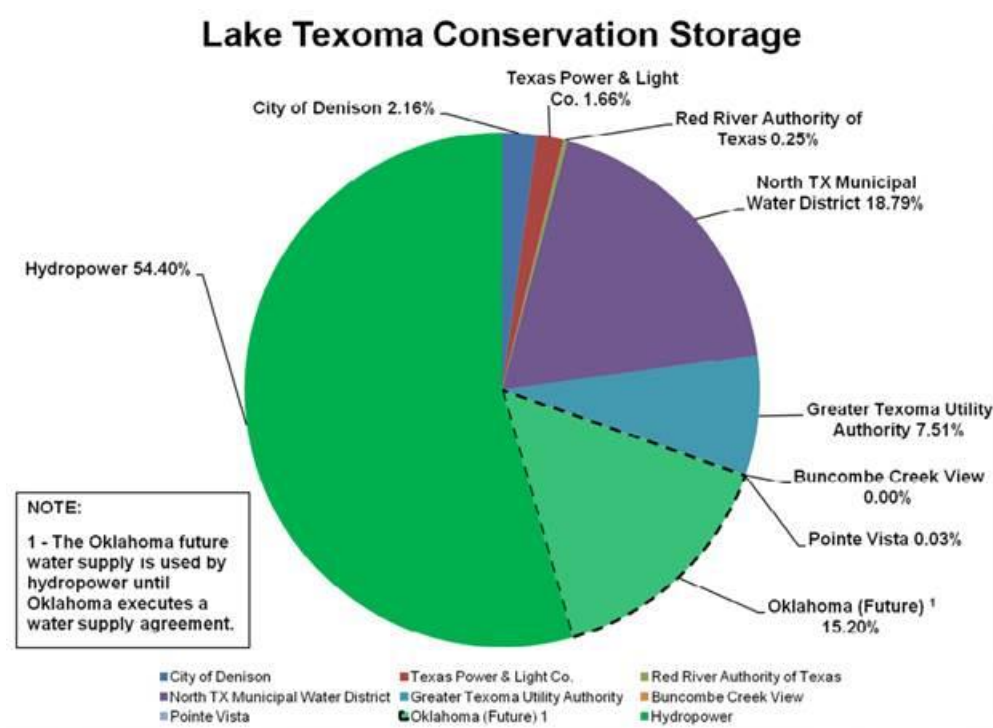
That goes to the original legislative intent when the applicable federal laws are written and enacted. Legislative intent will also affect resulting amended or new federal laws and regulations for Lake Texoma.

- **How does LTA propose to address that issue?**

Federal laws need to be amended or changed to address and rebalance present and future demands, priorities and requirements. The LTA is taking steps to initiate action to change the laws that govern water usage on Lake Texoma.

- **Who uses water from Lake Texoma and what right do they have to use that water?**

According to the U.S. Army Corps of Engineers, water has been allocated by federal laws and state permits to the following percentages of water in the conservation pool.



- **Has the LTA considered hiring or consulting an attorney to immediately stop the hydropower generation and water supply removal of water from Lake Texoma during the drought?**

Lake Texoma Association members have contacted an attorney and were advised that the existing PL 100-71 federal law provided wide discretion to the Corps of Engineers, Southwestern Power Administration/ electric coops and water districts and that PL 100-71 needed to be amended or another federal law enacted to provide necessary safeguards for effective drought control and conservation. For example PL100-71, paragraph (4) when the water surface elevation is between 607 and 590 msl, (a) provides for the Corps to

notify the SWPA that hydro-electric power generation should only be made to satisfy critical power needs on the power scheduling entity's electrical system as determined by the power scheduling entity.

- **Is the new Panda gas-fired power plant in Sherman Texas going to use Lake Texoma water?**

LTA has been advised that the new power plant will be operational approximately June 2014. The water used for that plant will be obtained from the existing Greater Texoma Utility Authority state water permit for water from Lake Texoma.

- **What may occur when the North Texas Municipal Water District pipeline connected to Lake Texoma is restored to operation estimated in June 2014?**

After over two years of non-use due to invasive Zebra Mussels and pipeline improvements, the NTMWD reportedly will not exceed their authorized and Texas state water permit limits that were in existence before the pipeline improvements were installed. They are authorized to remove water the equivalent of 2.5 ft. per year of lake elevation from Lake Texoma following federal Public Law 100-71 lake level actions.

- **What are the future water plans and alternatives for Lake Texoma by DFW water districts?**

Source of excerpt: Texas Region C 2011 Water Plan, Section 4D.5, Lake Texoma from Texas Water Development Board

“The U.S. Congress has passed a law allowing the Corps to reallocate an additional 300,000 acre-feet of storage in Lake Texoma from hydropower use to water supply, 150,000 acre-feet for Texas and 150,000 acre-feet for Oklahoma. The North Texas Municipal Water District is purchasing 100,000 of the 150,000 acre-feet of storage for Texas and has received a Texas water right to divert an additional 113,000 acre-feet per year from Lake Texoma. The remaining 50,000 acre-feet of storage was reserved by Congress for the Greater Texoma Utility Authority, which is purchasing storage and has received a Texas water right for the supply.”

“Further reallocation of hydropower storage to water supply in Lake Texoma would provide additional yield. According to the Corps of Engineers, the firm yield of Lake Texoma with all hydropower storage reallocated to water supply would be 1,088,500 acre-feet per year ⁽⁸⁾. Texas’ share would be 544,250 acre-feet per year, leaving about 220,000 acre-feet per year of additional supply available to Texas by the reallocation of more hydropower storage to municipal use (beyond the supplies already contracted for and the currently authorized reallocation). Further reallocation would require a new authorization by Congress.”

“As discussed in Section 4E, Lake Texoma is a recommended source of additional water supply for the North Texas Municipal Water District (113,000 acre-feet per year) and the Greater Texoma Utility Authority (56,500 acre-feet per year). It is an alternative source of supply for Dallas Water Utilities and the Upper Trinity Regional Water District.”

Source of information: Texas Water Development Board 2012 Water Plan, Appendix A.3 Alternative Water Strategies and Cost Estimates. Page 269 identifies; Lake Texoma-not authorized (blend), not authorized (desalinate), and to Dallas Water Utilities (DWU) (blend). Page 270 identifies Oklahoma water to DWU. *Note:* In June 2013, U.S. Supreme Court ruled that a Texas state agency has no right to reach into Oklahoma for a share of water.

- **What are the actions underway or planned by the LTA to reduce negative impacts on Lake Texoma?**

- Red/Washita River and Lake Texoma Watershed Sustainability Study and Plan funded by multi-agency federal and states to address excessive siltation and nutrients that cause increasing blue green and golden algae.
- Continue to provide research, content and wide distribution of water, watershed sustainability and drought related issues pros/cons and alternative solutions from several local, regional and national sources and areas.
- Continue to provide extensive information to Lake Texoma Region and other OK, TX and out-of-state stakeholders, national and regional tourism/recreation/industry organizations, federal/state/local legislators and officials, and federal/state/local biologists and conservationists.
- Encourage and provide information, as needed, to support and help ensure the Federal Legislation Congressional proposal which has been given to Oklahoma and Texas federal and state legislators and officials to amend or enact new legislation.
- Encourage and provide information, as needed, to support and help ensure that the federal legislation that has been proposed / updated to add Drought Control as a Lake Texoma Project Purpose and includes effective legislative language and regulations for preemptive drought management, conservation and supply/demand pricing.
- Draft a proposal requesting a solution to provide temporary power from the SWPA OK/AR/MO grid to their Texas co-op customers via an existing 138 KV transmission line during Lake Texoma watershed natural and manmade droughts.
- Provide for Stakeholder Outreach Efforts:
 - Petition to change public laws effecting Lake Texoma water usage;
 - Provide information on regulations for beach cleanup efforts;
 - Keep public informed with factual material and data regarding Lake Texoma to mitigate misinformation;
 - LTA Frequently Answered Questions (FAQ's).

● **Why are effective Preemptive Drought Control and Conservation Measures Necessary?**

Federal hydropower and water supply interests, as well as several DFW regional water districts, are apparently counting on very heavy rainfalls and effective runoff throughout their watersheds during the Spring of 2014 to replenish very low reservoir lake elevations. If not, the water districts say will take action by the end of the summer. Repetitive historic droughts occurring since the late 1800's can exist for several years highly increasing the risk levels. National Weather Service and USDA records over the last 15 years indicate the North Texas and Southern Oklahoma regions have had significantly higher than normal rainfalls leading most people and officials to believe that those are normal conditions.

Preemptive drought controls, conservation measure, and supply/demand pricing results have to be achieved to significantly reduce risks for all stakeholder interests. It's much easier to effectively manage and conserve scarce water resources than to be in a crisis situation where all that can be done is complain about emergency water levels and conditions after the water has already been used extensively for non-essential purposes. Water is currently being used for substantially more than drinking water, sanitary and essential public and commercial purposes.

● **What is Water Supply and Demand Pricing and how can it help?**

Water and electricity conservation publicity campaigns and difficult to administer water regulations have limited results by themselves. Western U.S and international cities and towns in arid areas have found that one of the most effective ways to balance supply and demand with meaningful conservation and reclamation is to price water. Others use pricing to effectively conserve electricity use. According to economic theory and practice in many areas, the most efficient way to regulate demand is through prices;

as the price increases, consumers use less, and demand falls. In a recent survey of 1,600 households across ten countries, Grafton et al. found that price-based approaches are one of the most efficient methods of managing urban water demand.

A Lake Texoma reservoir (and possibly Upper Red/Washita River) water supply/demand/pricing market based approach can utilize exponentially increasing incentives (price decreases) for increased use of water above the top of the conservation pool (617 msl) and exponentially increasing disincentives (price increases) for increased use of water below the top of the conservation pool. This action can result in improved water planning, budgeting, use, actual conservation and help address greatly increasing demands on scarce water resources. Individuals can help reduce increasing prices by using water and electricity/water bills, energy/water efficient appliances and proactive efforts to help conserve increasing scarce resources. Supply/demand pricing should not affect Red River Compact agreements with Oklahoma, Texas, Arkansas and Louisiana.

- **Why is LTA requesting changes to Public Law 100-71 and why is the existing version inadequate to provide effective Lake Texoma safeguards?**

The Lake Texoma Association has been established for sixty years and is a separate non-profit organization for Oklahoma and Texas (Texoma) region of Lake Texoma. LTA has members on the U.S. Army Corps of Engineers Lake Texoma Advisory Committee established below in federal 1987 Public Law 100-71.

The following federal Public Law 100-71 provided some *limited and voluntary* drought and conservation safeguards in 1987 for hydropower and water supply uses. Now, over 25 years later, these safeguards require an effort to be rebalanced and strengthened in view of returning historic extended drought conditions, low lake elevations and major economic development in the Texoma Region.

The following PL 100-71 response/action points established for lake elevations between; 617 and 612 msl, 612 and 607 msl, and 607 and 590 msl have been incorporated into the existing Tulsa District Corps of Engineers Drought Contingency Plan for Drought Levels 1 through 4. Lake elevation 590 msl is the bottom of the Lake Texoma Conservation Pool for hydropower and water supply purposes and use. *Key and voluntary items have been annotated.*

- **What does Public Law 100-71 say regarding Lake Texoma?**

Key and voluntary items have been annotated.

Public Law 100-71 Excerpt for Lake Texoma: Establishment of the Lake Elevation Action Points and Corps of Engineers Lake Texoma Advisory Committee

The Public law of July 11, 1987 is available for review at: 100th Congress, <http://history.nih.gov/research/downloads/PL100-71.pdf> . Go to Pdf pages 11 and 12 of 86 under: Operations and Maintenance, General Provisions for Lake Texoma information.

EXCERPT July 11, 1987

**CHAPTER 111, DEPARTMENT OF DEFENSE, CORPS of ENGINEERS - Civil
DEPARTMENT OF THE ARMY**

The Secretary of the Army shall file a report with the appropriate committees of the House of Representatives and the Senate within ninety days after a written request is made pursuant to the provisions of subsection (m) of section 103 of Public Law 99-662 indicating the action taken on the request. In addition, the Secretary of the Army shall file a report with the appropriate committees of the House of Representatives and the Senate within ninety days after enactment of this Act listing any project or study falling under the provisions of subsection (e)(1) of section 103 of Public Law 99-662.

Pursuant to the Federal Advisory Committee Act (Public Law 92-4631, the Secretary of the Army is directed to establish an advisory committee for the Denison Dam (Lake Texoma), Red River, Texas and Oklahoma project authorized by the Flood Control Act approved June 28, 1938 (52 Stat. 1219). The purpose of the Committee shall be advisory only and it shall provide information and recommendations to the Corps of Engineers regarding the operations of Lake Texoma for its congressionally authorized purposes. The Committee shall be composed of representatives equally divided among the project purposes and between the States of Texas and Oklahoma. **Added Note:** Establishes Lake Texoma Advisory Committee (LTAC).

The Corps of Engineers, taking into consideration recommendations of the Southwestern Power Administration and the Lake Texoma Advisory Committee, shall, to the extent feasible, develop a management plan for the conservation pool in Lake Texoma that:

- (1) **attempts to maintain a water surface elevation between 617 and 612 msl:** Provided however, That hydroelectric power will be generated to help satisfy electric loads when the water surface elevation is between 617 and 612 msl;
- (2) when the water surface elevation drops to 612 msl or lower, implements a public information program;
- (3) **when the water surface elevation is between 612 and 607 msl,** provides for the Corps to notify the SWPA that hydroelectric power generation should only be made when it is needed for **rapid response, short term peaking purposes as determined by the power scheduling entity;**
- (4) **when the water surface elevation is between 607 and 590 msl**
 - (a) provides for the Corps to notify the SWPA that hydro-electric power generation should only be made to satisfy critical power needs on the power scheduling entity's electrical system **as determined by the power scheduling entity;** and
 - (b) **provides for the Corps of Engineers to notify municipal and industrial water users that they should implement water conservation measures designed to lessen the impact of municipal and industrial water withdrawals.**

Any amendments to the current water control plan specified above shall not supersede or adversely affect any existing permit, lease license contract, public law or flood control operation relating to Denison Dam (Lake Texoma). The management plan shall have no impact upon the provisions of section 838 of the Water Resources Development Act of 1986. The management plan shall be reevaluated on or after September 30,1989 by the Corps of Engineers, taking into consideration the recommendations of the Southwestern Power Administration and the Lake Texoma Advisory Committee.

The United States Army Corps of Engineers, Tulsa District, shall issue a final report on the Oklahoma portion of the comprehensive study of the Red River Basin, Oklahoma, Arkansas, Louisiana and Texas, no later than September 30,1988.

The management plan specified above should be formally processed to the Committees on Environment and Public Works and Public Works and Transportation in the Senate and House of Representatives, respectively, if appropriate, for authorization as required prior to any amendments to the current operating plan that could impact health and safety, authorized purposes, or expose the Federal Government to liability. *None of the funds in this Act or any other Act relating to water resource development may be used to construct or enter into an agreement to construct additional hydroelectric power generation units at Denison Dam (Lake Texoma) until September 30,1989.*

Section 91 of the Water Resources Development Act of 1974 is amended by striking out "\$28,725,000" in the last sentence and inserting in lieu thereof "\$30,500,000".

Added Note: WRDA 1986, Section 838 referred to above – Relates to Lake Texoma Recreation Added as Project Purpose and Reallocation of Water from Hydropower to Water Supply. Full copy at: [PL 99-662, Water Resources Development Act of 1986](#)

- **The Corps of Engineers and Southwestern Power Administration state that Recreation is an official Lake Texoma Project Purpose by federal law but has no water allocated for that purpose like hydropower and water supply. Why?**

Recreation is a *non-consumable use* of Lake Texoma water. In other words recreation and tourism do not remove water from the lake for use like hydropower and water supply.

Real preemptive drought control and water conservation that LTA and others propose address responsible use and stewardship of increasingly scarce water resources and should not require allocation of water. The Red River Watershed and Lake Texoma in particular do not have unlimited water resources. Basic science tells us that we cannot continue to use more water from reservoirs and streams than scarce rains provide for runoff and water replacement in multi-year drought conditions now and in the future.

- **What are the Definitions and Requirements for Hydropower Short Term Peaking and Other Parameters?**

LTA requested the laws, regulations, memorandums of understanding, letters of agreement, etc. sources for the Short Term Peaking definitions from the Corps of Engineers.

Examples are provided from the Corps Lake Texoma Advisory Committee Corps Hydrological Briefing 12/11/2013 and other Corps documents. "**From Public Law 100-71, July 11, 1987:** "When the water surface elevation is between 612 and 607 msl, provides for the Corps to notify the SWPA that hydroelectric power generation should only be made when it is needed for rapid response, **short term peaking purposes** as determined by the power scheduling entity." "**Short-term peaking means 6-8 hours per day of full power equivalent in high-demand months, and 4-6 hours per day in lower demand months.**"

Several document references were provided by the Corps. Searches of the documents did not result in finding specific "peaking" or "short-term peaking" explanations or definitions. Although general information was provided in Corps of Engineers Southwestern Division (SWD) Operating Plan 9-21-10 paragraphs; 3.2.4 *Special Operations*, 3.2.4.2 *Short Term Power Emergencies*, 3.2.4.3 *Declared Power Emergency*, and 3.2.4.4 *Short Term Emergency*.

The other questions were regarding the maximum drawdown rates for Lake Texoma of 1 foot per week and 3 feet per four week period (month). Those maximum drawdown rates are established in the Corps of Engineers Southwestern Division Operating Plan dated 9-21-10, Table 4.

- **What are some of the impacts to the environment from the low levels of Lake Texoma?**

Natural and manmade droughts and low Lake Texoma elevations may cause:

- Increased concentration of forage fish in cold/cool weather months, increased food supply and fish growth. Decrease forage may decrease future productivity.
- Reduced striper upstream spawning on the Red and Washita Rivers due to reduced stream flows and areas.
- Increased concentration of natural and manmade (point and non-point source) nutrients and potential alga blooms of Golden, Blue Green and other species.
- According to the following University of Oklahoma study of Lake Texoma, *Temporal and spatial variability of an invasive toxigenic protist in a North American subtropical reservoir* indicated that Golden Algae (*Prymnesium parvum*) blooms increase with lower water levels in the Lebanon Pool.

- Increased salinity, fish stress and die offs in some lake areas as lake elevations decrease.
- Decreased number of deep lake areas for temperature sensitive fish populations such as but not limited to large adult stripers. Lake Texoma is fortunate that it has several deep areas that fish can relocate to during exceptionally high water temperatures and low oxygen levels. Increasing water temperatures cause decreased oxygen levels and stress on all types of fish. Late summer and early fall reservoir thermocline conditions compress fish in a much narrower cool water column and increases stress.
- Decreased Zebra Mussel populations but usually recover when lake levels increase.
- Effects on the fish and other aquatic populations below the lowest lake level of 599 msl are unknown. Lake levels impacts to Stripers is unknown below 605 msl as this level has not been reached since Stripers were populated in Lake Texoma.

- **What are the Impacts of the historic drought in Texas as of 2/13/2014?**

News Article from the *Austin Statesman*: Almost three years have passed since the rains returned and Texas emerged from a historic drought. Yet there still isn't enough water. The impact of record-breaking heat and years of little or no rainfall can be felt long after a dry spell passes, and Texas is now struggling with the brunt of a historic yearlong drought that crippled the state's lakes, agriculture and water supplies.

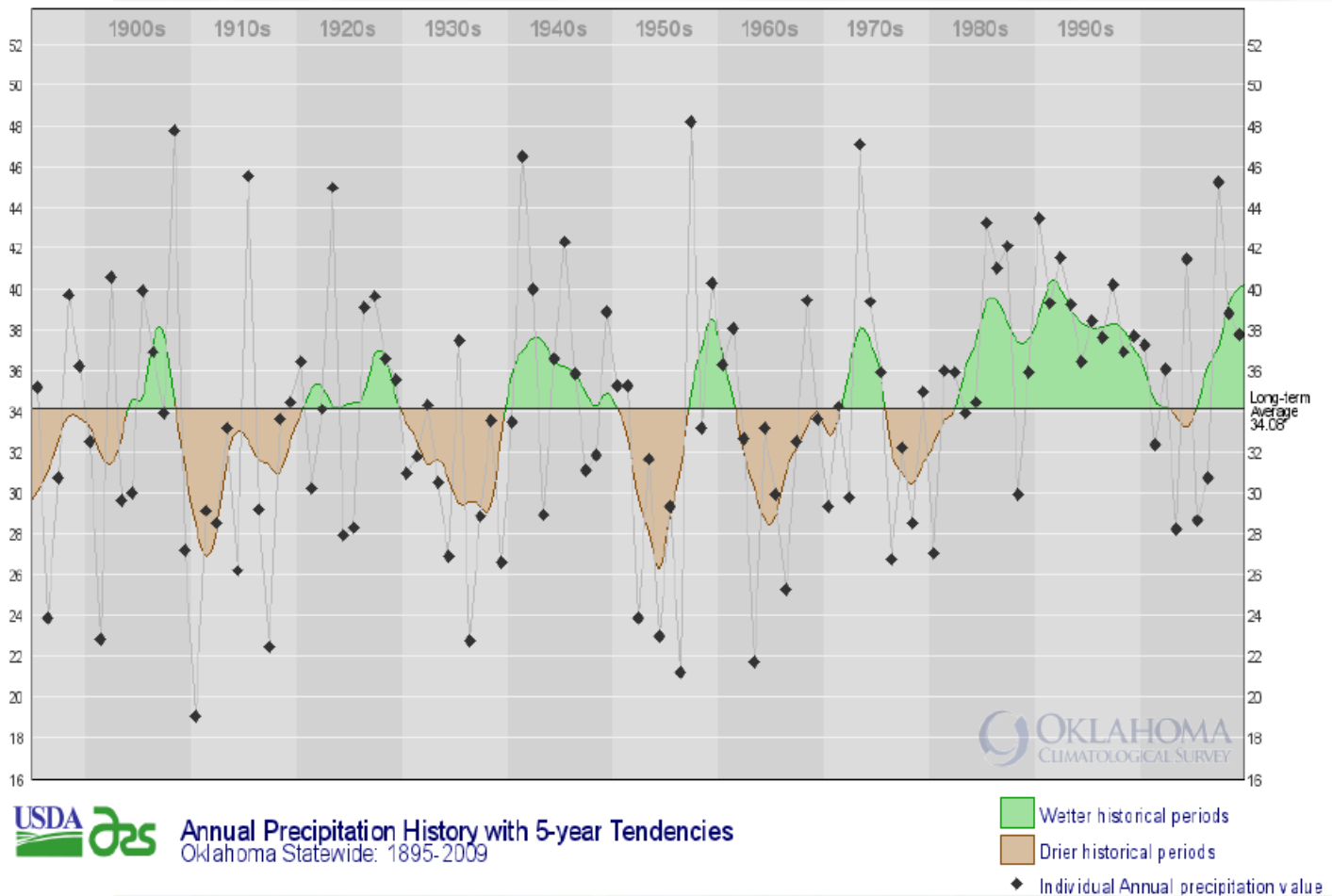
The impacts of record-breaking heat and years of low or no rainfall can be felt years after the dry spell passes, and Texas is now struggling with some of the worst impacts of a historic one-year drought that crippled the state's lakes, agriculture and water supplies. More than 50 percent of Texas remains in drought despite more consistent rainfall in the past two years, climatologists said. "It's been a doozy of a drought," said **Mark Svoboda, a climatologist with the National Drought Mitigation Center at the University of Nebraska in Lincoln.** "It's cumulative so that system has not recovered."

Officially, the drought that parched Texas starting in 2011 and its lingering effects are not as severe as the years long, record-making "drought of record" that stretched through the 1950s. That drought has since been the foundation of all water planning in the state.

But a combination of factors — including a rapidly expanding population, more upstream diversions to meet those growing needs and years without a major tropical system — have in some ways made this dry spell worse. "More people, more straws in the drink, so you don't necessarily need a drought as in the '50s to see impacts worse than in the '50s. So that's what we're seeing," Svoboda said. As a result, local authorities have lakes that have little to no water. *That is forcing officials to prioritize how to distribute the dwindling water supplies while rushing to find new resources and rapidly building the necessary infrastructure in time for the next big drought, which climatologists say will become more of a norm.*

- **What are the historic drought trends for the Southern Oklahoma and North Texas areas?**

The following precipitation chart indicates repetitive multi-year droughts occur approximately every 15 years since 1895. Note that the region has received abnormally higher precipitation levels the past 15 years. Extended droughts can be expected to return and must be addressed effectively with updated federal laws and regulations.



- **What can I do, as a concerned stakeholder, to help protect and preserve Lake Texoma?**

Do your part to make sure that visitors know that Lake Texoma is open for fun and adventure & locally support existing initiatives targeted at preserving Lake Texoma.

- **Publicize** that we have large beaches and that we care enough about our beautiful Lake Texoma to establish community outreach programs that endeavor to clean up those beaches.
- **Announce** that the fishing on Lake Texoma is phenomenal; just pick your fish...striper, catfish, perch, all delicious and nutritious.
- **Broadcast** that the lake is open to enjoy boating. The Lake Texoma Association office, your favorite marina or the Denison Dam Corps office can give visitors the latest ramp information updates.
- **Encourage** others to enjoy activities with family and friends in our Texoma region.
- **Get involved** in beach cleanup initiatives around Lake Texoma.
- **Pick up** a copy of the 2014 Guide to Lake Texoma, or online at www.LakeTexomaOnline.com, and **share** it with everyone you know so that they will come to know the visitor opportunities available in our area.
- **Write** your federal and state legislators (addresses available at www.LakeTexomaOnline.com) to tell them about the conditions on Lake Texoma. **Tell** them your concerns and request effective action take place to amend PL 100-71.
- **Sign** the LTA petition (www.Change.org -> Search for 100-71) which will be necessary during our crusade in Washington DC that requests changes be made to federal laws to protect our water reservoirs in Oklahoma and Texas.

- **Become a Member** of the Lake Texoma Association to help fund the significant expense of legal and legislative actions that will be required to achieve our 60 year mission of protecting and preserving Lake Texoma. Find out all of the benefits associated with LTA membership at www.LakeTexomaOnline.com

- **Why does the LTA Petition on Change.org reference PL 100-71, but doesn't say anything about Lake Texoma?**

The LTA petition to change the Public Law does not mention Lake Texoma by design, but rather references PL 100-71, which does apply to Lake Texoma. Since we know that we need the law governing federal reservoirs to be changed in Washington DC with a Congressional action, the more support we can get around changing these laws, the better chance we have for success. The Lake Texoma Association has already teamed up with the Oklahoma Marinas Association (OMA) and the Marina Association of Texas (MAT) to gain broader support of our initiative. If our petition can apply to multiple areas in several states, and therefore numerous legislative representatives throughout the United States, the more signatures we stand to gain. The more federal legislators that are engaged in this important initiative, the more our voices will be heard in Washington DC. Please do your part today, and sign the petition, to become an essential part of the plan for change.

- **Why is all of my personal information required on the petition at www.Change.org?**

Any petition that is recognized legally requires individuals to provide pertinent information about themselves. On the Change.org petition, this is no exception. Requirements to support the LTA petition include first and last name, full address, email and phone number. Individual petition signers may opt to exclude their name from online viewing; however, they will be counted in the actual petition listing which will ultimately go to support our cause in Washington DC. The petition itself takes less than 5 minutes to sign. While you are there, take a look at all of the interesting comments, also optional, of concerned stakeholders who have already signed the petition showing support.