

## **Comal County, Edwards Aquifer, and Comal Springs Timeline**

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**15,000- 20,000 years ago-** The earliest Native Americans. While the archeology around Landa Park has only identified artifacts dating back to about 9,000 years, there are probably older artifacts and remains since the Gault site at Florence has artifacts from up to 20,000,000 years ago.

**1691-** Father Damian Massanet wrote about the Tonkawa Native Americans at the Comal Springs. It was called Conaqueyadesta by the Native Americans and Las Fontanas and Comal by the Spaniards. It was an artesian fountain.

**1756-** Mission Nuestra Senora de Guadalupe founded near the springs.

**1807-** Baron de Bastrop secured a land grant that included the Comal Springs.

**November 10, 1821-** Mexico gained independence from Spain and Texas became a Mexican Federation.

**1831-** Juan Martin de Veramendi was awarded five leagues of land which included the Comal Springs.

**March 2, 1836-** The Texas Declaration of Independence was signed.

**1840-** The Republic of Texas adopts the English common law riparian principle that gives landowners the right to reasonable use of water for irrigation or for other purposes.

**March 1, 1845-** The German immigrants arrived on the Comal Tract.

**March 14, 1845-** Prince Carl of Solms-Braunfels bought the 1,265 acre Comal tract.

**December 29, 1845-** Texas becomes a state.

**1846-** Ferdinand Roemer and Ferdinand Jakob Lindheimer describe the flow of the Comal springs as "four or six more springs of even greater volume (than the first) of water. Every one of them could turn a mill at its source."

**1846-** Johann Klingemann buys the three upper Headwater springs of the Comal River.

**June 4, 1847-** William Meriwether bought the land on both sides of the Comal Springs.

**June 1860-** Joseph Landa bought the 680 acre tract including the Comal Springs.

**1869 or 1870-** The Comal River record flood is estimated to be 37.65 feet.

**1870-** Texas Drought

**June 19, 1872-** A flood in New Braunfels wiped out the iron bridge across the Comal River.

**1885-1887-** Texas Drought

**May 28, 1892-** The Sierra Club was founded by John Muir.

**1904- Rule of Capture-** The Texas Supreme Court decided in *Houston & Texas Central Railroad Co. v. East* that underground water would be regulated by the common-law rule regarding groundwater called **the rule of capture** or the English rule, which essentially provides that, absent malice or willful waste, landowners have the right to take all the water they can capture under their land and do with it what they please, and they will not be liable to neighboring landowners even if in so doing they deprive their neighbors of the water's use.

**1907-** The City of New Braunfels buys the Headwaters Springs from Friedrich Klingemann. The City needed the springs because the industry along the Comal River had polluted the river downstream and the city needed clean water.

**1908-1912-** Texas Drought

**1913-** The J-17 Edwards Aquifer Test Well was drilled. It has ranged from 612 feet in the fifties to 703 feet in 1991-92.

**1913-** Using the **rule of capture**, the newly established Texas Board of Water Engineers declares non-appropriated waters in the state to be the property of the state and abolishes riparian rights that applied to land acquired from the state after 1895.

**1915-1918-** Texas Drought

**1924-1925-** Texas Drought

**August 2, 1925-** The Landa family sold the park and springs to J.E. Jarratt Investment Company. They get into financial difficulty after the stock market collapse and the park was closed.

**1925-** The Texas Legislature authorizes the formation of water control and improvement districts.

**1926-** The Texas Supreme Court, in *Motl v. Boyd*, determines that riparian rights are attached only to the ordinary flow and underflow of rivers.

**1931-** The Texas Legislature passes a law designed to prevent artesian water wastage

**1933-** The City of New Braunfels uses federal money to build a cistern wall around the Headwaters springs and cleaned up the property.

**1933-1934-** Texas Drought

**1935-** Establishment of the Guadalupe-Blanco River Authority as a successor to the Guadalupe River Authority which was established in 1933.

**April 17, 1936-** The City of New Braunfels bought Landa Park and the springs.

**1938-1940-** Texas Drought

**1939-** The Texas State Soil and Water Conservation Board is established to enforce the state's soil and water conservation laws.

**1945-** The legislature authorizes the Texas Department of Health to enforce drinking water standards for public water supply systems.

**1948-** The Federal Water Pollution act passed.

**1949-** The Texas legislature declares groundwater to be private property. The legislature also provides for the voluntary establishment of underground water conservation districts.

**1950-1957-** Drought of Record in Texas

**August 1952-** the channel of Comal Springs in Landa Park went dry.

**September 11, 1952-** The Guadalupe went from having almost no flow to near record flood stage in 48 hours. The Comal River peaked at 36.14 feet and 35,000cfs. The Guadalupe River peaked at 30.65 feet and 72,900 cfs.

**1954-** The big Comal spring went dry.

**1956-** Landa Lake went dry.

**1956-** President Eisenhower declares 244 of the state's 254 counties as drought disaster counties.

**1957-** Legislation enabling the construction of Canyon Lake Reservoir. It was completed in 1964.

**1957-** The Texas Water Development Board was formed by the Texas Legislature to oversee all water projects in Texas and loans money for water projects.

**1957-** The Water Planning Act of 1957 mandates a process for developing a plan to meet the state's future water needs.

**1958-** Construction began on the Canyon Lake Dam.

**April 28, 1959-** The Texas Legislature passed the bill enabling the Edwards Underground Water District (EUWD). The first meeting was held on August 12, 1959.

**1959-** The city waterworks was turned over to New Braunfels Utilities (NBU). The Klingemann property was used as the operations base for NBU until 2004.

**1961-** The Edwards Underground Water District signed an agreement with the US Corp of Engineers to survey the underground waters of the Edwards Aquifer.

**1961-1967-** Texas Drought

**1963-** The Clean Air Act was passed. This has been amended multiple times.

**1964-** The Canyon Lake Dam was completed.

**1970-1971-** Texas Drought

**1971-** The Texas legislature authorizes the creation of Municipal Utility Districts (MUDs).

**1972-** The U.S. Congress passes the Federal Clean Water Act, which requires standards for all point source discharges into receiving water bodies. The law requires a minimum of secondary treatment of all municipal sewage water.

**May 11 1972-** 16 inches of rain fell on the Blieders Creek watershed which caused a flood in Blieders Creek, then the Comal River and then into the Guadalupe River. The peak flow in the Comal was 60,800 cfs and the Guadalupe River was 92,600 cfs.

**1974-** The U.S. Congress enacts the Safe Drinking Water Act.

**1984-** A revised Texas Water Plan addresses future demand for water by identifying conservation strategies for increasing water resources.

**1987-** The U.S. Congress passes the Federal Water Quality Act intending to reduce nonpoint source water pollution.

**1987-** The Wellhead Protection Program, approved by the U.S. Environmental Protection Agency, is initiated in Texas.

**1987-** The Edwards Underground Water District (EUWD) develops the state's first region-wide drought management plan.

**1988-1990-** Texas Drought

**1991-** Sierra Club v Babbitt lawsuit about the Comal Springs and the violations of the Endangered Species Act was judged in favor of the Sierra Club.

**1991-** The Texas Clean Rivers Act establishes a state program to reduce nonpoint source water pollution.

**March 1991-** Ron Pucek opened his Living Waters Artesian Springs catfish farm in southern Bexar County in March of 1991. Because the "right of capture" prevailed, he was free to take as much water from the Aquifer as he could put to a beneficial use. News reports indicated he had drilled the world's largest water well, 30 inches in diameter, and was using about 45 million gallons per day - enough water to support 250,000 people, about one-fourth of San Antonio's population at the time. This was drilled into the Edwards Aquifer.

**1992-** The Texas Water Commission declares the Edwards Aquifer to be an underground river; however, the Texas Supreme Court rules this attempt to regulate the Edwards Aquifer unconstitutional.

**1993-** Sierra Club v Babbitt Appeal denied in favor of the Sierra Club. The U.S. Fish and Wildlife Service (USFWS) did not agree with the appeal or participate in the appeal.

**1993-** Because of the lawsuit, the Edwards Aquifer Authority was formed with the Edwards Aquifer Act (SB 1477) of 1993. The EUWD was dissolved on the formation of the Edwards Aquifer Authority.

**1993-** Texas Natural Resources Conservation Commission (TNRCC) was formed from combining the Texas Water Commission and the Texas Air Control Board.

**1995-96-** Texas Drought

**1996-** The Texas Supreme Court upheld the Edwards Aquifer Act in *Barshop v. Medina Under. Wat. Cons. Dist.*

**1997-** The Texas Legislature formed the 16 Regional Water Planning Groups under the Texas Water Development Board (TWDB) to develop water supplies and prepare plans to meet the state's future water needs.

**October 17-18, 1998-** New Braunfels flood. 31 inches of rain. The Comal River was the highest ever recorded since 1869, at 39.2 feet and it was estimated to be between 130,000 and 180,000 cfs flow.

**1999-** Drought Preparedness Council established by the 76th Texas Legislature.

**1999-** The Texas Legislature passed Senate Bill 1911 to create county-based groundwater conservation districts that can regulate groundwater use and collect fees.

**1999-2002-** Texas Drought

**2002-** The Greater Edwards Aquifer Alliance formed.

**2002-** The TWDB's State Water Plan obligates state funding for development of water resources and became the first comprehensive statewide water management plan.

**2002-** The TNRCC was replaced with the Texas Commission on Environmental Quality (TCEQ).

**June 30-July 7, 2002-** The Guadalupe River flooded upstream from Canyon Lake causing the Canyon Lake Gorge. 35 inches of rain. The water topped the spillway at 4:28 P.M. The peak going over the spillway was on July 7, 2002. The Guadalupe River in New Braunfels reached 69,300 cfs.

**2003-** In December, SAWS purchases the remaining tangible assets of Living Water Artesian Springs, Ltd., including its well, and an additional 3,125 acre-feet in water rights. Overall, SAWS pays more than \$30 million for water sales, leases, land, and equipment.

**2005-** The Hill Country Alliance is formed.

**2005-2006-** Texas Drought

**2006-** The USFWS implemented the Edwards Aquifer Recovery Implementation Program (EARIP) to try and reach consensus on maintaining the Edwards Aquifer at sufficient levels to protect the Endangered and Threatened species living in and around the aquifer.

**2007-2008-** Texas Drought

**2010-2011-** Texas Drought

**2013-** the USFWS approved the Edwards Aquifer Authority's Habitat Conservation Plan (HCP), which is a regional 15-year plan designed to protect the water flow and species in the Edwards Aquifer region.

**June 17, 2015-** The Comal Trinity Groundwater Conservation District was formed by TX HB 2407.

**2016-** Ground was broken for The Headwaters of the Comal in New Braunfels.

**2017-** After negotiating with USFWS for years, Comal County finally approved the Comal County Regional Habitat Conservation Plan.

**2017-** Formation of the Hill Country Conservation Network.

**2018-** Formation of the Comal County Conservation Alliance.

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