

Protecting our Highland Lakes Water Supply

CHALLENGES:

- It is projected that the region could add up to one million residents by 2030 requiring more than 40 billion gallons of additional water each year.
- Most LCRA new water projects are focused on the lower basin.
- More arid weather patterns are shifting eastward stretching into Central Texas and bringing with it more extended droughts.
- Inflows into the lakes are far lower than what they have been historically.
- LCRA's water management policies must be changed to reflect this paradigm shift with a more protective approach to managing the water supply for two million Central Texans.

SOLUTIONS:

- Greater LCRA transparency and increased opportunity for public discussion & engagement.
- Downstream irrigators should pay the full cost of the water, just like everyone else, and NOT be subsidized by LCRA.
- Update LCRA's current Water Management Plan with more protective approach to managing water supply.
 - Adopt policies that reflect smart use and conservation by all, including downstream irrigators.
 - Invest in new water resources for upper basin
 - Encourage use of more modern and efficient agriculture irrigation methods
- Modernize Water Management Plan that:
 - Incorporates declining inflow data and climatology
 - Addresses factors that are reducing inflows
 - Water wells, stock ponds, brush vegetation
 - Includes usage by downstream irrigators
 - Includes environmental releases
 - Provides a Safe Yield

WHO IS CTWC:

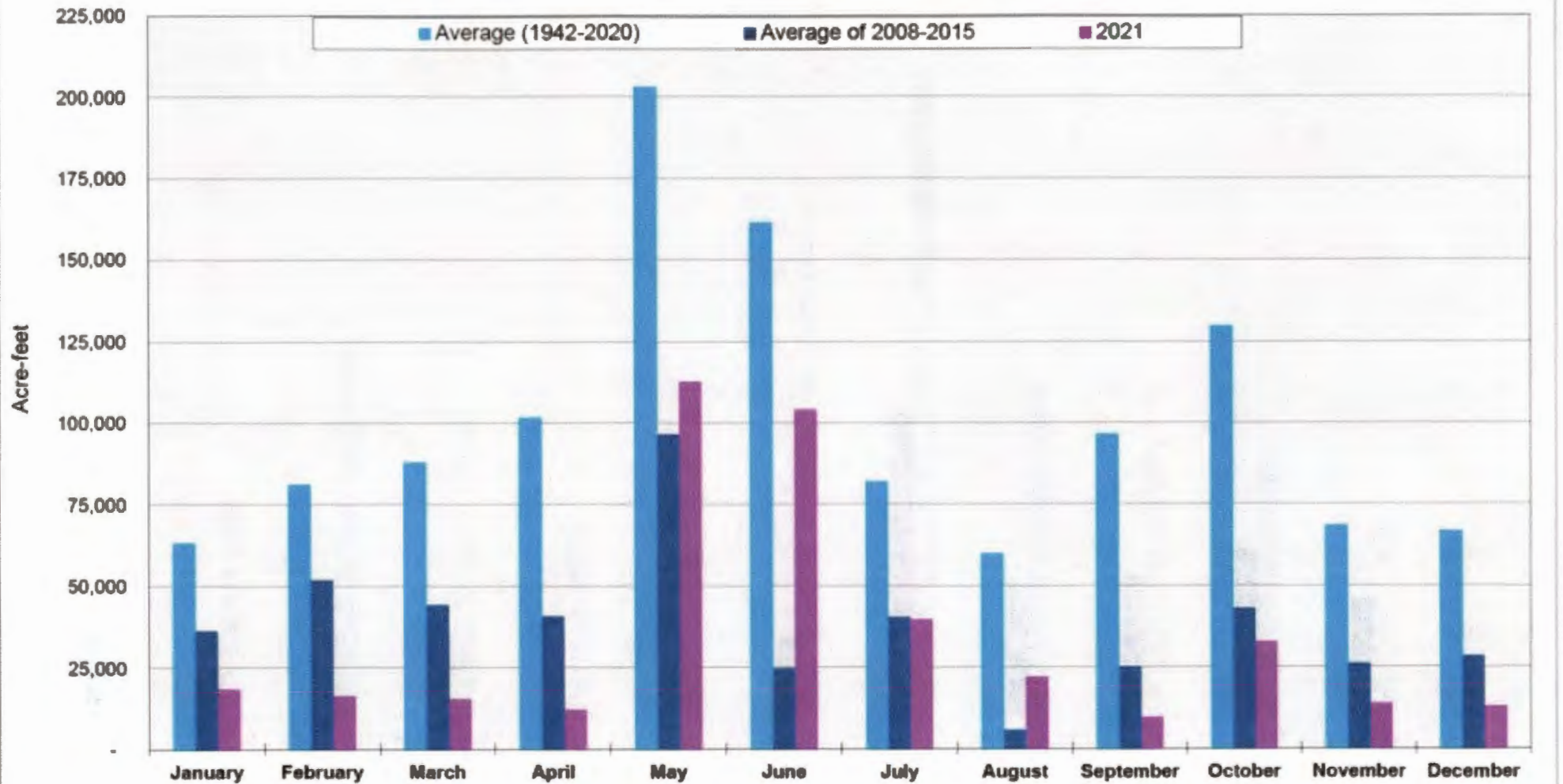
The Central Texas Water Coalition (CTWC) is nonprofit organization founded in 2011 to advocate for evidence-based best practices for managing the Highland Lakes. CTWC partners include more than 3,000 area residents, businesses, affected government entities, property owner associations and environmental interests who are united by their commitment to protect Central Texas' future through responsible water management and conservation policies.

State Climatologist: Increasing Risk of Periods of Drought Need A More Protective Water Management Plan



LCRA Inflows into Lakes Buchanan and Travis thru December 2021

Water Flowing Into Lakes Buchanan and Travis



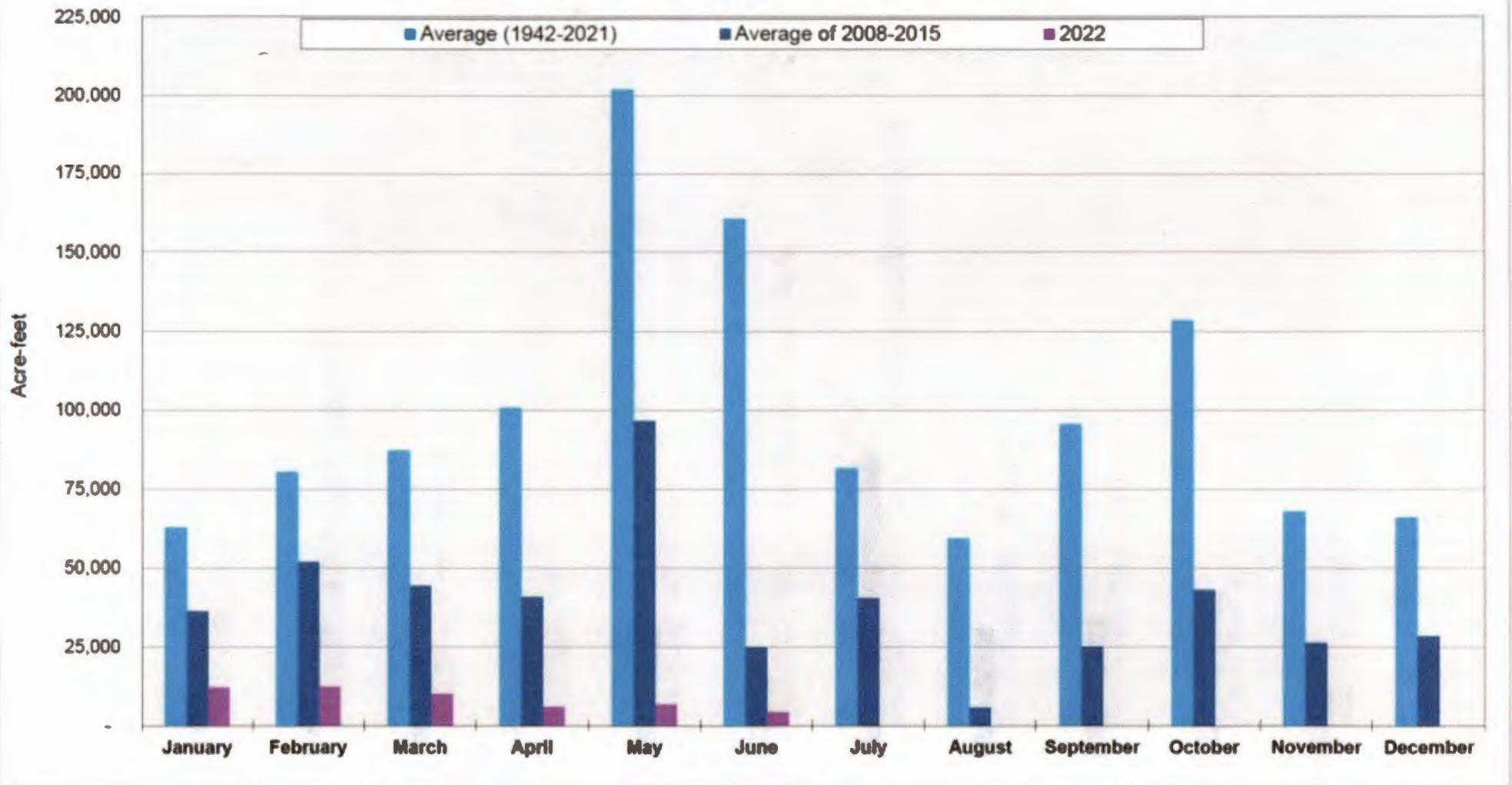
Inflows: the estimated amount of water flowing into lakes Buchanan and Travis from rivers and streams.

Data for 2020 and 2021 is preliminary and subject to change.

Period:	December
Since 1942, December Average (acre-feet):	66,667
2008-2015, December Average (acre-feet):	28,334
December 2021 (acre-feet):	12,972

LCRA Inflows into Lakes Buchanan and Travis June 2022

Water Flowing Into Lakes Buchanan and Travis



Inflows: the estimated amount of water flowing into lakes Buchanan and Travis from rivers and streams.

Data for 2021 and 2022 is preliminary and subject to change.

Period:	June
Since 1942, June Average (acre-feet):	160,646
2008-2015, June Average (acre-feet):	24,718
June 2022 (acre-feet):	4,364

<https://www.lcra.org/download/inflows-totals/?wpdmdl=9368>

INVESTING IN TEXAS

center for
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Rice University's Baker Institute for Public Policy



Commissioned by Texas 2036

Economic Impacts of Severe Droughts

June 14, 2022

Between population growth and increasingly extreme weather, Texas faces the potential for worsening droughts and a flood of negative economic impacts. In the third report in the *Investing in Texas* series, the Center for Public Finance at Rice University's Baker Institute for Public Policy, supported by Texas 2036, examines the costs to Texas of a future with rising water demand and a dwindling supply of water.

Texas State Water Plan

Every five years, Texas produces the State Water Plan to provide an overview of water use trends and to identify critical water supplies to address projected water needs. The 2022 plan focuses on 2020–2070. Based on 16 regional plans, the statewide plan projects that Texas will face increased demands and decreased supplies and includes recommended water supply projects and strategies to meet growing needs.

PROJECTED WATER DEMAND	PROJECTED SUPPLY DECREASE	RECOMMENDATIONS	
9% Increase 17.7M acre-feet to 19.2M acre-feet*	18% Decrease 16.8M acre-feet to 13.8M acre-feet	5,800 Water Management Strategies Per year water supply ↑ 2020: 1.7M acre-feet 2070: 7.7M acre-feet**	2,400 Water Management Strategy Projects Water supply ↑ through new infrastructure = est. cost: \$80 billion

*One acre-foot equals about 326,000 gallons, or enough water to cover an acre of land, about the size of a football field, one foot deep.

**For the lists of recommended water management strategies and projects, visit www.twdb.texas.gov/waterplanning/swp/2022.

A Brief Timeline of Statewide Water Planning

1950s	1957	1961	1997	2010-2014
A 7-year dry spell left all but one Texas county classified as a disaster area. This Drought of Record is the current benchmark for future disaster planning.	The state legislature created the Texas Water Development Board to ensure water-related financial and logistical assistance.	The board began publishing the State Water Plan , Texas' most comprehensive water supply planning tool.	After another severe drought, a regional water planning process began, shifting from a centralized model to the local level.	2011: The worst one-year drought in Texas' history hits, costing the state's agriculture sector \$7.6 billion, according to the State Comptroller.

To download a copy of the report, visit www.texas2036.org/investing-in-texas.

Economic Impacts: Statewide

According to a recent Texas State Climatologist report, extreme weather patterns may reduce water availability and increase the intensity of future droughts.

Statewide water needs will jump by more than 80% between 2020 and 2050, from 3.1 million acre-feet to 5.7 million acre-feet. This shift in water availability will negatively impact existing businesses and future economic development.

The following charts forecast the impacts of severe drought on the state's economy if the State Water Plan recommendations are not implemented and if Texas were to experience a dry spell that matches or surpasses the Drought of Record. The potential losses reflect any one given year within that decade.

NEGATIVE IMPACTS	2020-29	2030-39	2040-49	2050-59
Gross domestic product loss	\$98.2B	\$111.1B	\$111.1B	\$117.6B
Tax revenue loss on production & imports	\$9.9B	\$10.5B	\$9.7B	\$9.5B
Job loss	598,210	756,637	850,470	988,056

Due to data and methodological limitations, the actual economic impacts are likely significantly larger.

Economic Impacts: Industry

Throughout Texas Water Development Board's [16 regions](#), the economic impacts vary depending on the area's primary industry sector. Collectively, current projections show that manufacturing, energy and agriculture are especially at risk for the potential of financial downturns due to severe droughts. This data reflects the regions where each industry is most influential to its economy.

MANUFACTURING

TOP 5 REGIONS TOTAL IMPACT	2020-29	2030-39	2040-49	2050-59
Income loss (state total: 82% ~\$258B)	\$6.4B	\$12.9B	\$16.6B	\$21.6B
Job loss (state total: 77% ~1.5M+)	46,727	93,733	116,585	149,067

ENERGY

TOP 5 REGIONS TOTAL IMPACT	2020-29	2030-39	2040-49	2050-59
Income loss (state total: 81% ~\$137B)	\$49.7B	\$50.1B	\$42.2B	\$34.3B
Job loss (state total: 75% ~396K)	241,831	240,697	198,535	157,638

AGRICULTURE

TOP 5 REGIONS TOTAL IMPACT	2020-29	2030-39	2040-49	2050-59
Income loss (state total: 54% ~\$5.4B)	\$2.8B	\$3.4B	\$3.6B	\$3.9B
Job loss (state total: 45% ~150K)	52,693	60,389	63,332	67,807

A Closer Look: Semiconductor Manufacturing

According to the State Comptroller, global semiconductors trade equaled nearly \$2 trillion in 2020, making these "chips"—the brains behind devices—the fourth-most highly traded product in the world. With more than 200 semiconductor facilities in Texas, the state is well positioned to be an industry leader.

In 2020, Texas led the nation in chip exports and was the No. 2 employer in the U.S. It also contributed \$15.3 billion to the state's GDP. To attract more semiconductor investment, including two key future federal institutes, the state launched the National Semiconductor Centers Texas Task Force in Oct. 2021.

If a Drought of Record occurs this decade, the semiconductor industry is expected to lose \$2.7 billion in any given year, with losses expected to exceed \$6.1 billion by the middle of the century. To continue Texas' ascent in the industry, planning and mitigating the potential for future severe drought must be prioritized.