Toyota Teams Up with The Nature Conservancy on Water Conservation in the Colorado River Delta

January 30, 2024

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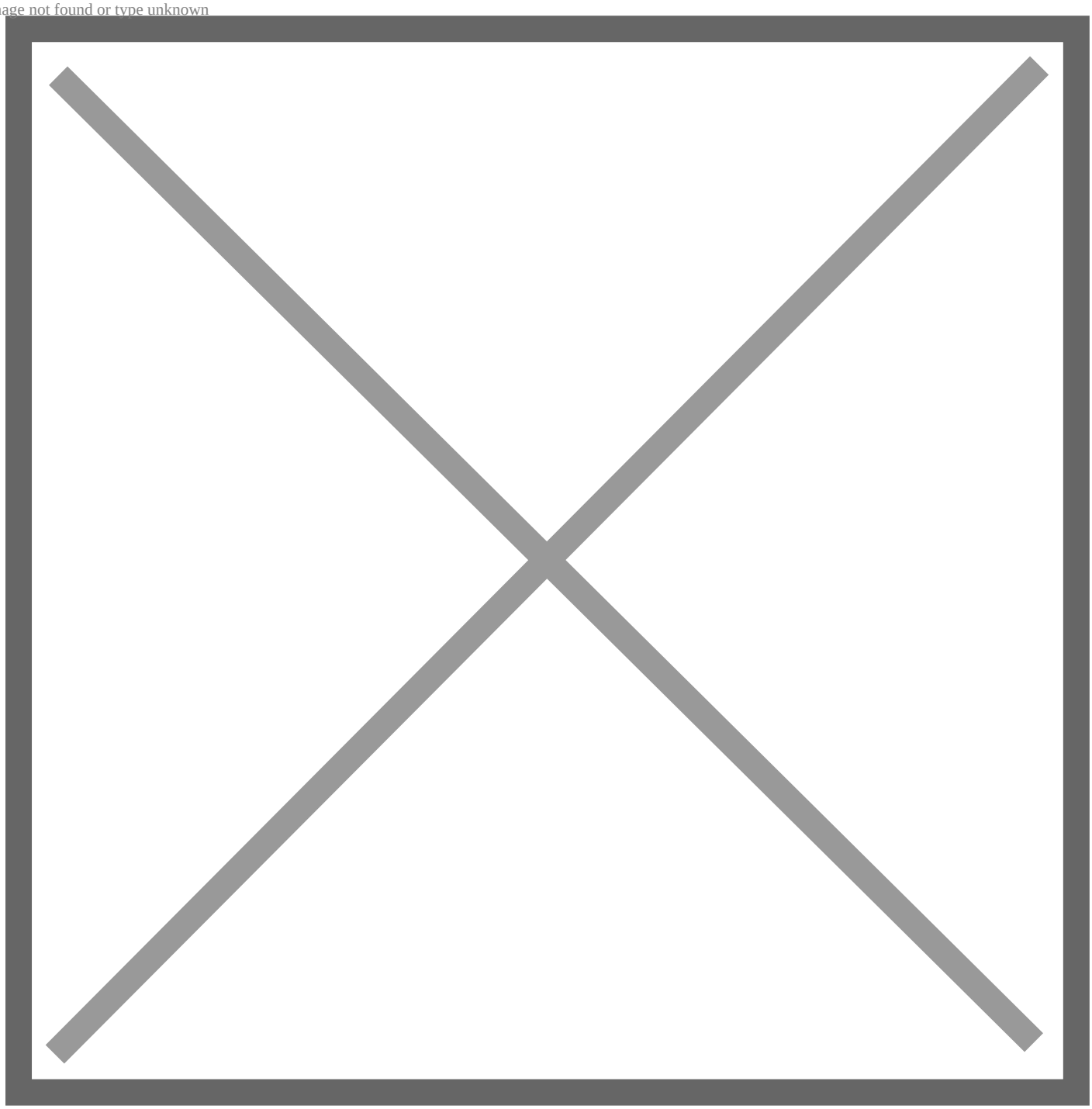
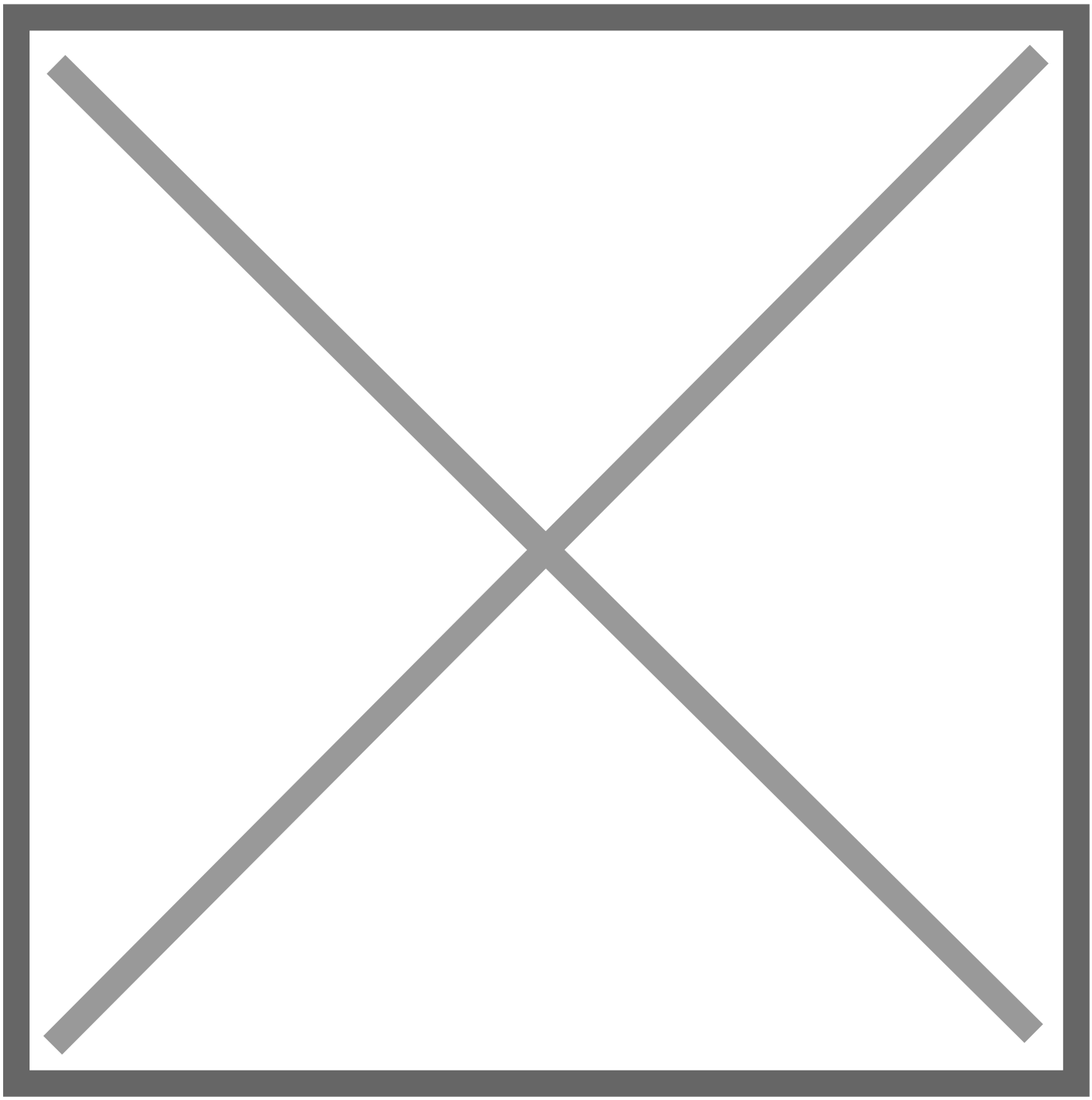


Over 40 million people in the U.S. and Mexico rely on the Colorado River for drinking water, as do farmers with 5.5 million acres of crops that supply vegetables to the entire world.[1] But decades of drought have led to the Colorado River basin system losing over 10 trillion gallons – a volume about the size of Lake Mead.[2] As the drought continues, less and less water is available to balance the needs of people and farmers, not to mention the fish and wildlife that depend on the river's ecosystems.

The impacts reach all the way downstream to Toyota's assembly plant in Tecate, Mexico (Toyota Motor Manufacturing de Baja California S. de R.L. de C.V., or TMMBC). In Tecate and along the western Baja California coast from Tijuana to Ensenada, over 2 million people get their drinking water from an aqueduct that stretches over 80 miles from a diversion dam on the Colorado River in Mexicali to reservoirs.

Last year, TMNA entered into a multi-year partnership with The Nature Conservancy (TNC) to help address water issues in Baja California. The conservation group works with local partners, cities and agricultural users, aiming to secure a sufficient, sustainable and reliable water supply for people and nature for years to come.

"Our partnership with TNC is about collective action," said Mark Yamauchi, manager in Environmental Sustainability at TMNA. "One of Toyota's global values is Respect for the Environment, and we are showing our respect for TMMBC's watershed by approaching water issues through dual lenses – by working on water conservation projects at the plant, and by engaging with partners like TNC to effect positive change beyond our fence line."



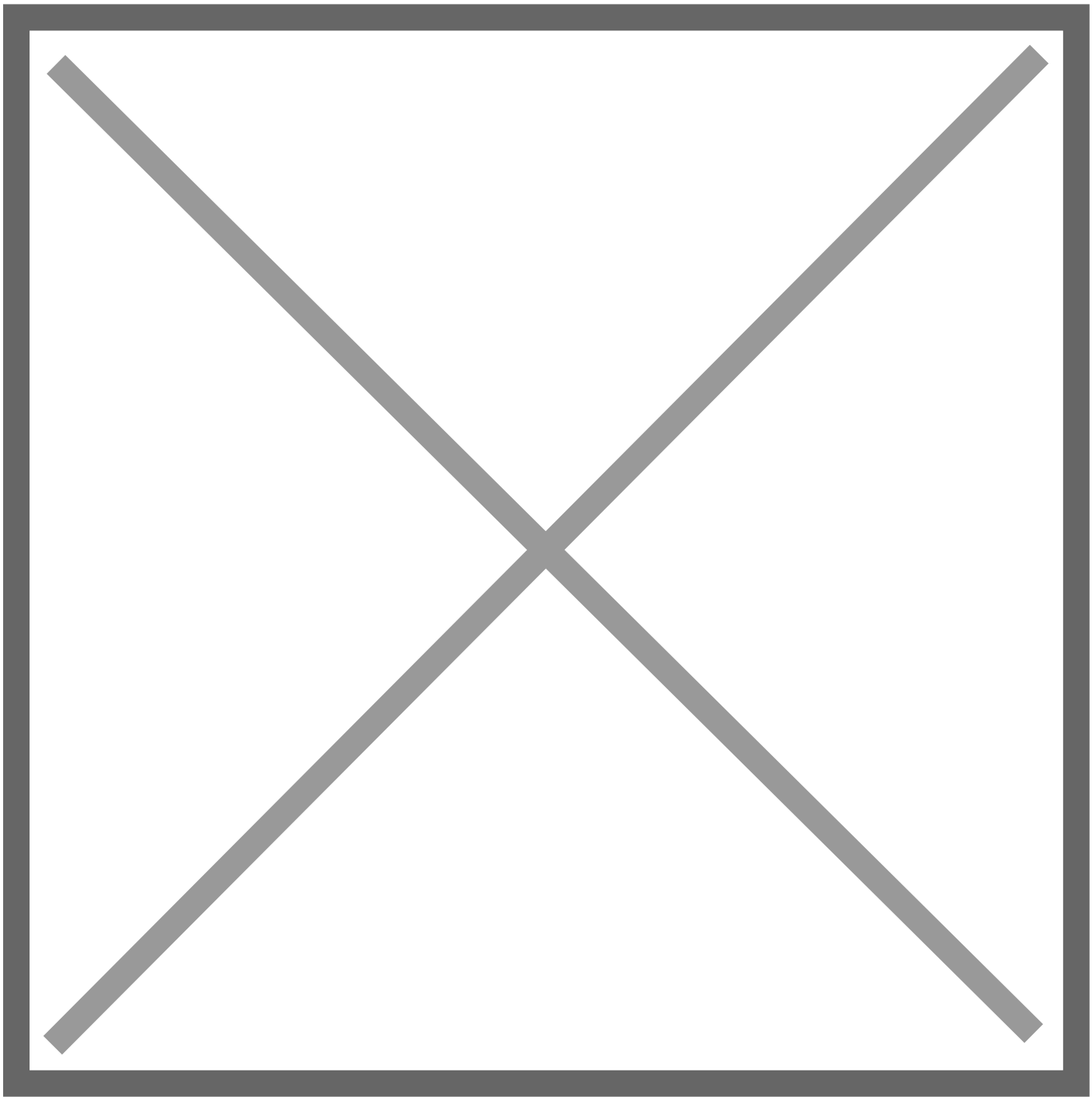
Toyota is developing a water strategy for TMMBC that addresses risks both on- and off-site.

TMNA is piloting a stewardship approach at TMMBC that follows the principles set forth by the Alliance for Water Stewardship (AWS) International Water Stewardship Standard and addresses both water availability and quality.

TMMBC is an ideal location for the pilot because it is one of several Toyota sites in North America with extremely high baseline water stress, according to the World Resources Institute's Aqueduct™ Water Risk Atlas. This means that the ratio of water used to available water supply is high, indicating more competition among users. In TMMBC's case, other users are mainly a growing population and the agricultural sector.

The dual aims of our approach are to help ensure a secure water supply for TMMBC long into the future and to contribute to the health and resilience of the watershed. The approach has two main elements: conserving use at the plant and engaging in conservation with partners within the watershed.

Conserving water on-site: TMMBC sits on 700 acres and produces over 150,000 Toyota Tacoma trucks annually. Toyota needs water to operate the plant, mainly to paint vehicles but also to provide potable water for employees' drinking, sanitation and hygiene. One way that TMMBC conserves water on-site is with a membrane bio reactor, which removes solids from water already used in the manufacturing process. This filtered water is then run through a reverse osmosis system to eliminate any dissolved solids. The plant is able to reuse the water over and over again, which saves an estimated 23 million gallons annually.

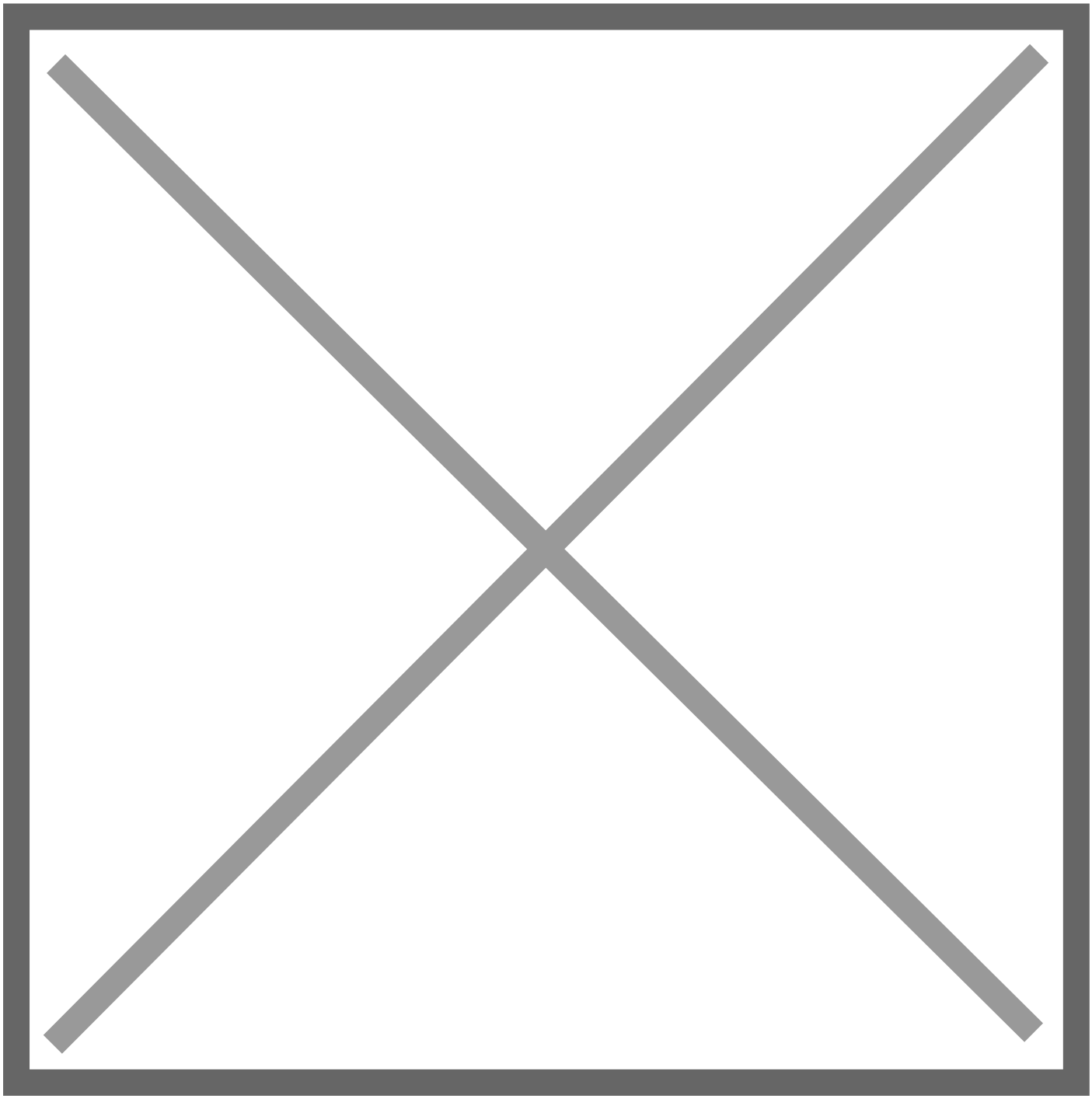


Engaging with partners: TMNA provided $250,000 to TNC during fiscal years 2023 and 2024 to acquire, secure and monitor the delivery of water volume for environmental restoration in the Colorado River Delta. TNC seeks to permanently protect sufficient and reliable water supply for over 16,100 acres of wetlands along the Hardy River and in the Santa Clara Marsh, the lower Colorado River and the upper Colorado River Estuary where aquifer recharge takes place.

As of the end of 2023, TNC has over 9 miles (15 kilometers) of the river flowing continuously and 49 acres of agricultural land participating in agronomic conservation practices. For example, TNC is piloting a project with

farmers in Mexicali to switch from alfalfa and wheat to barley, which is expected to save 5 million gallons per year.

During the last two years, TMNA has sponsored The Nature Conservancy's program to release water into the Hardy River. This has resulted in 158 million gallons of water restored to the Hardy River, more than the amount used by TMMBC in the same time period. These activities have increased the amount of water available downstream – where it is scarcest – and, according to TNC, have resulted in an increase in the number of fish available for food and game as well as better water quality.



[1] Biden-Harris Administration Advances Long-Term Planning Efforts to Protect the Colorado River System,

Bureau of Reclamation, October 19, 2023

2 Colorado River Basin has lost 10 trillion gallons due to warming temps, enough water to fill Lake Mead, study shows, by Ella Nilsen, CNN, August 1, 2023