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Ogallala Aquifer
Program
DUCKS UNLIMITED
CONSERVATION FOR A CONTINENT
OUR WETLANDS. OUR LEGACY.
PHOTO: ETHAN FREEZE

THE *Value* OF THE OGALLALA AQUIFER

The Ogallala Aquifer is a critical natural resource spanning over 111 million acres across eight states in the Central Flyway. The aquifer accounts for 15% of groundwater withdrawals in the contiguous U.S. These withdrawals provide drinking water for at least 2 million people in the U.S. and supports around 30% of the nation's agricultural and livestock production.

Playas, or recharge wetlands, are shallow basins lined with clay that help filter and direct rainfall into the aquifer, ensuring a reliable water supply for both people and wildlife. Nearly 95% of the Ogallala's groundwater is recharged through playa wetlands.

This area has significant overlap with Ducks Unlimited's priority conservation landscapes, which offer important habitats for waterfowl during winter, breeding and migration.

WHY IS CONSERVATION IMPORTANT IN THIS AREA?

Land use changes, invasive species, and cropland conversion have led to playa wetland losses, reducing water recharge to the Ogallala Aquifer. Sediment buildup from erosion also diminishes playa capacity. DU's conservation efforts in this area are focused on reversing these trends by increasing recharge to the aquifer and removing invasive plants that consume excessive water.

CONSERVATION SOLUTIONS AND OPPORTUNITIES

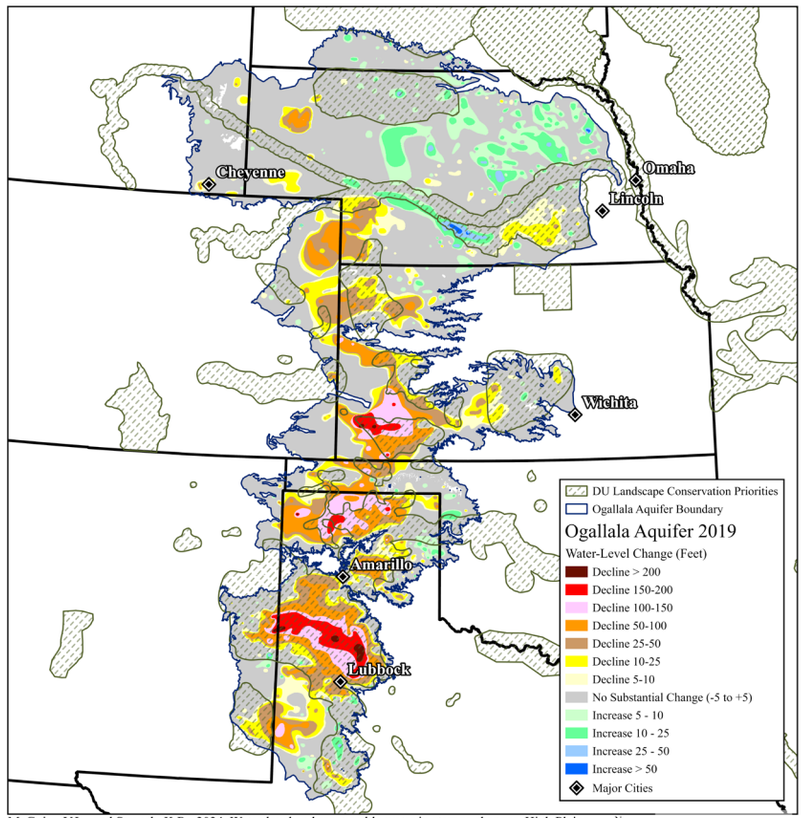
In total, 658 project deliveries from FY22-FY24 in the Ogallala Aquifer have contributed:

- ***5,904 acre-feet in water storage (1.9 billion gallons)***
- ***88,772 kg of Nitrogen (N) reduction***
- ***35,444 kg of Phosphorus (P) reduction***

DU is committed to accelerating these important conservation actions. Our ambition is to raise $25 million in new commitments to the Ogallala Aquifer over the next five years.

OGALLALA AQUIFER WATER-LEVEL CHANGE

PREDEVELOPMENT *to* 2019



McGuire, V.L., and Strauch, K.R., 2024, Water-level and recoverable water in storage changes, High Plains Aquifer, predevelopment to 2019 and 2017 to 2019: U.S. Geological Survey Scientific Investigations Report 2023–5143, 15 p., https://doi.org/10.3133/sir20235143.

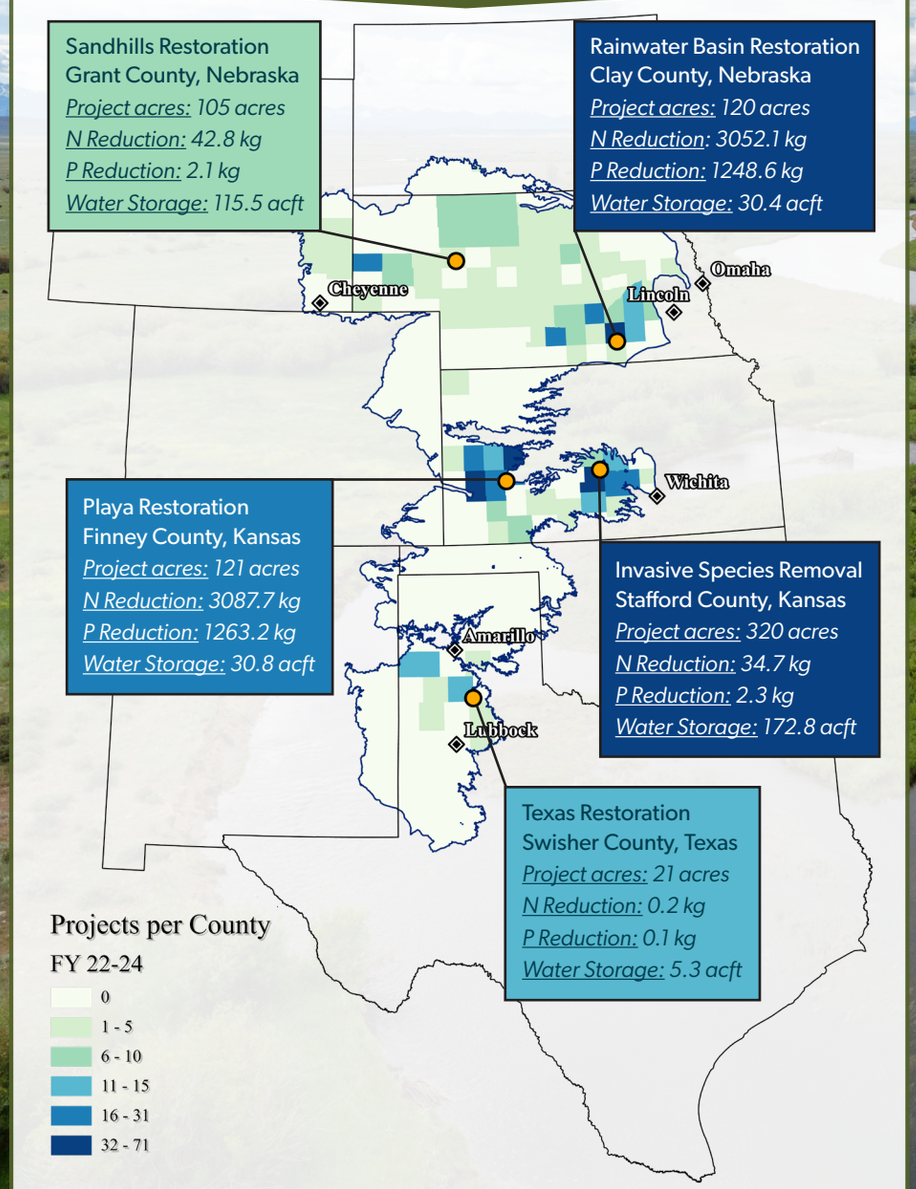
WORKING TOGETHER FOR WATER

Ducks Unlimited delivers landscape-scale outcomes through strong public partnerships and private contributors with corporations like Apex Clean Energy, Cargill, PepsiCo, Frito-Lay, Meta, the Bonneville Environmental Foundation, and public organizations and agencies including the Playa Lakes Joint Venture, the U.S. Department of Agriculture, and U.S. Fish and Wildlife Service. Through collaborative initiatives, these partners have provided funding and resources to restore thousands of acres, contributing millions of gallons of water to the aquifer annually.

DU MAJOR SPONSORS

John and Nancy Brager are Nebraska residents who understand the importance of conservation and replenishment of the Ogallala for the long-term health of their communities. The Bragers have contributed nearly $1M to support DU projects benefiting the Ogallala Aquifer.

RESTORING THE OGALLALA AQUIFER



DUCKS UNLIMITED'S CONSERVATION ACTIONS ADDRESS MAJOR THREATS IN THE OGALLALA AQUIFER LANDSCAPE. THESE INCLUDE:

PLAYA RESTORATION

Playa wetlands offer a range of ecological, economic and social benefits as they are a crucial part of multiple ecosystems. Ducks Unlimited and partners work across this region to restore vital ecosystems through sediment removal, native grass buffers and hydrological improvements.

Beyond aquifer recharge, playas offer numerous ecosystem benefits as they:

- Improve water quality through removal of nitrogen (N) and phosphorous (P) fertilizer runoff.
- Mitigate flood risks.
- Support biodiversity including crucial resources for migrating waterfowl.
- Sustain native vegetation that intercepts sediments and contaminants.
- Provide water resources for communities, livestock, agriculture and wildlife.

FAST FACTS

80% OF PLAYAS HAVE BEEN ALTERED, BUT RESTORATION REACTIVATES THEIR NATURAL FUNCTION.

UP TO 95% OF THE WATER BEING CONTRIBUTED TO THE AQUIFER **COMES SOLELY FROM PLAYAS**

A SINGLE 4-ACRE PLAYA CAN CONTRIBUTE APPROXIMATELY **325,851 GALLONS OF WATER ANNUALLY** TO THE AQUIFER—ENOUGH WATER TO SUSTAIN EIGHT PEOPLE FOR AN ENTIRE YEAR.

RECHARGE RATES IN PLAYAS ARE 10 TO 1,000 TIMES HIGHER THAN IN OTHER AREAS, MAKING THEIR CONSERVATION ESSENTIAL.

APEX CLEAN ENERGY

Apex Clean Energy has contributed significantly to wildlife conservation through its Apex Conservation Grant (ACG) Program. In the Texas Panhandle, DU was awarded $150,000 from Young Wind and El Sauz Wind to fund the Texas Playa Conservation Initiative partnership with the Playa Lakes Joint Venture, Texas Parks and Wildlife, and others to restore critical wildlife habitat and enhance recharge benefits to the Ogallala Aquifer.

— PROJECT EXAMPLES —


PHOTO: RWBJV

LOCATION: Nebraska

PROJECT FOCUS: Restoring the Rainwater Basin, once home to 12,000 playas covering 200,000 acres.

DELIVERIES: Collaborate with landowners to remove sediment, establish native grass buffers and improve water retention.

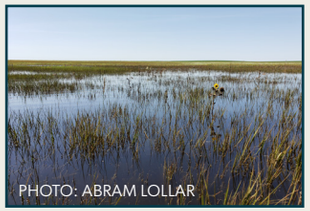


PHOTO: ABRAM LOLLAR

LOCATION: Kansas

PROJECT FOCUS: Restoring Kansas' 22,000 playas, 85% of which are degraded.

DELIVERIES: Fill pits, remove sediment and improve water runoff management.

GOAL: Restore 2,000 acres of playas annually with private and public funding.


PHOTO: STEVE CONRADY

LOCATION: Texas

PROJECT FOCUS: Restoring the 9,100 playas in the Texas Panhandle

DELIVERIES: Work with landowners to fill pits, remove silt/sediment and restore natural hydrology.

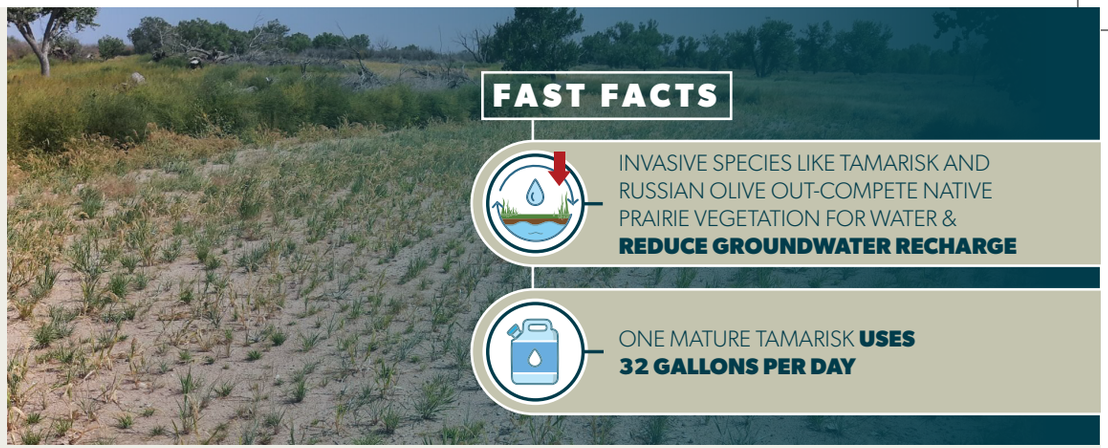
RESTORED: 1,100 acres

INVASIVE SPECIES REMOVAL

Another significant threat to the Ogallala Aquifer lies in the rapid multiplication of invasive, water-intensive trees known such as Tamarisk and Russian Olive.

Invasive species removal benefits:

- Improved groundwater availability for agriculture and communities.
- Restored native vegetation and natural river flows, benefiting wildlife and livestock.



FAST FACTS

INVASIVE SPECIES LIKE TAMARISK AND RUSSIAN OLIVE OUT-COMPETE NATIVE PRAIRIE VEGETATION FOR WATER & **REDUCE GROUNDWATER RECHARGE**

ONE MATURE TAMARISK **USES 32 GALLONS PER DAY**

— PROJECT EXAMPLE —

LOCATION: Kansas, Nebraska, and Colorado

PROJECT FOCUS: Removing invasive tree species to restore native vegetation, improve groundwater recharge and enhance livestock forage.

DELIVERIES:

- Removing deep-rooted, woody, invasive species that deplete water resources.
- Developing land management plans and providing technical assistance to landowners.
- Repurposing removed wood for uses like dairy cattle bedding.

BONNEVILLE ENVIRONMENTAL FOUNDATION

Bonneville Environmental Foundation (BEF) connects corporate funding with conservation partners to achieve mutual sustainability goals across the country. In Nebraska, BEF secured a $220,000 investment from Meta to complete playa restoration in the Rainwater Basin. The project will convert cropland to restored wetland and upland habitats in Fillmore County, Nebraska, producing quantifiable volumetric water benefits that help Meta meet their goal of becoming water positive by 2030.

CARGILL

Through Cargill's decades of support of the Ogallala Aquifer, they have helped restore thousands of acres of wetlands and enhanced watershed recharge efforts on the Platte River in Kansas and Nebraska. This partnership supports the company's goal of enabling the restoration of 600 billion liters of water by 2030 in priority watersheds.