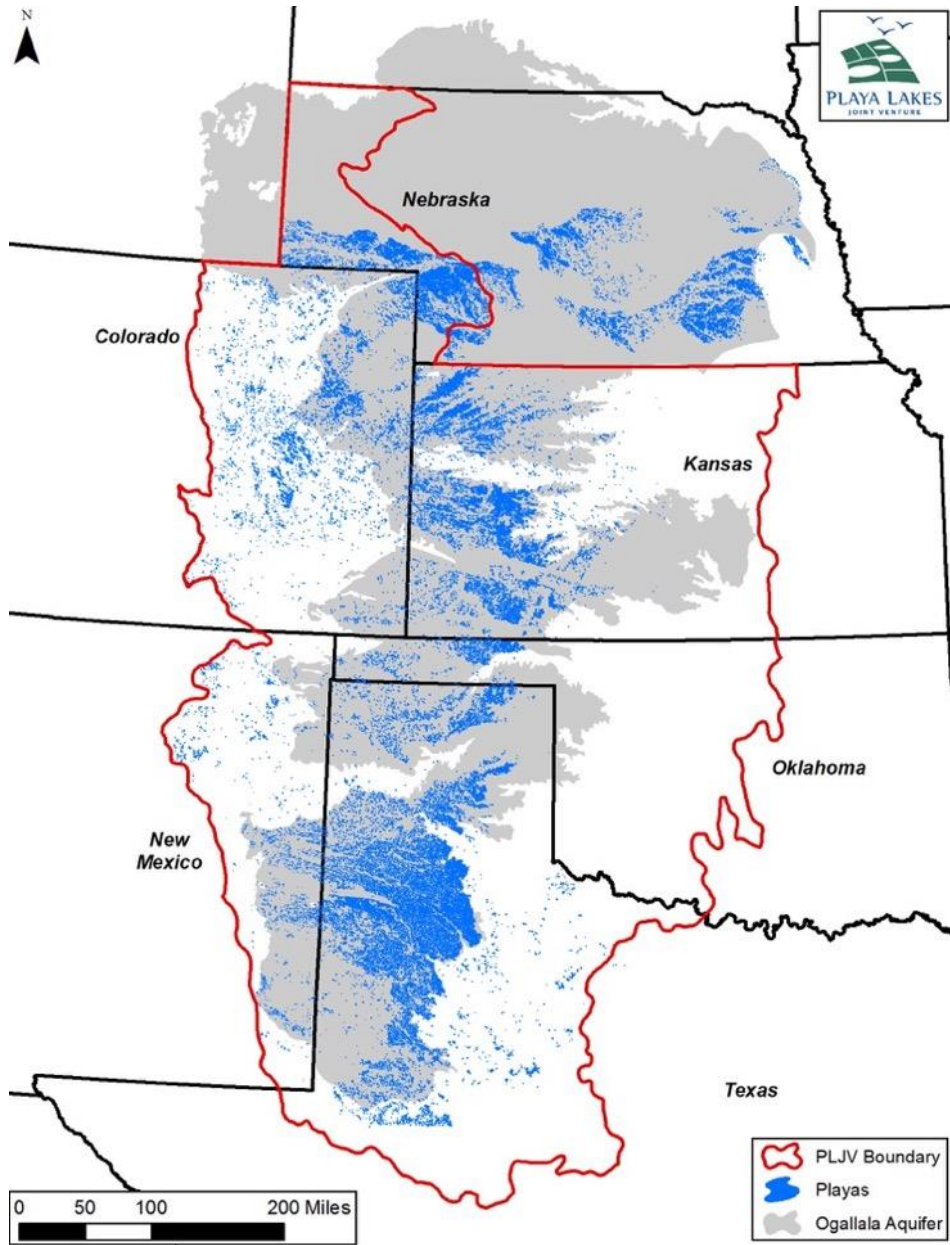


Playas Recharging Kansas Communities

Matt Smith
Playa Lakes Joint Venture



OUR WORK

“Conserve playas, prairies and landscapes of the western Great Plains for the benefit of birds, other wildlife, and PEOPLE.”

PLJV MANAGEMENT BOARD



[BENEFITS](#)[PLAYAS](#)[RECHARGE](#)[TOWNS](#)[STORIES](#)[PROGRAMS](#)[TEAM](#)[NEWS](#)[CONTACT](#)

PLAYAS PROVIDE A SUSTAINABLE FUTURE

Playas provide clean water for Kansans and habitat for wildlife. By conserving playas, you can help them continue to work for Kansas—for generations to come.

[PLAYA BENEFITS](#)[YOUR OPTIONS](#)

KANSAS PLAYAS

- ~22,000 playas in the western part of state
- 3.7 acres average size
- 84% are in cropland

We have mixed emotions
about playas.
But, on most days,
we're thankful for them.

These playas offer a lot of
private benefits—aesthetic
and recreational value,
improved water quality,
as well as aquifer recharge.

—Vance & Louise Ehmke, Farmers

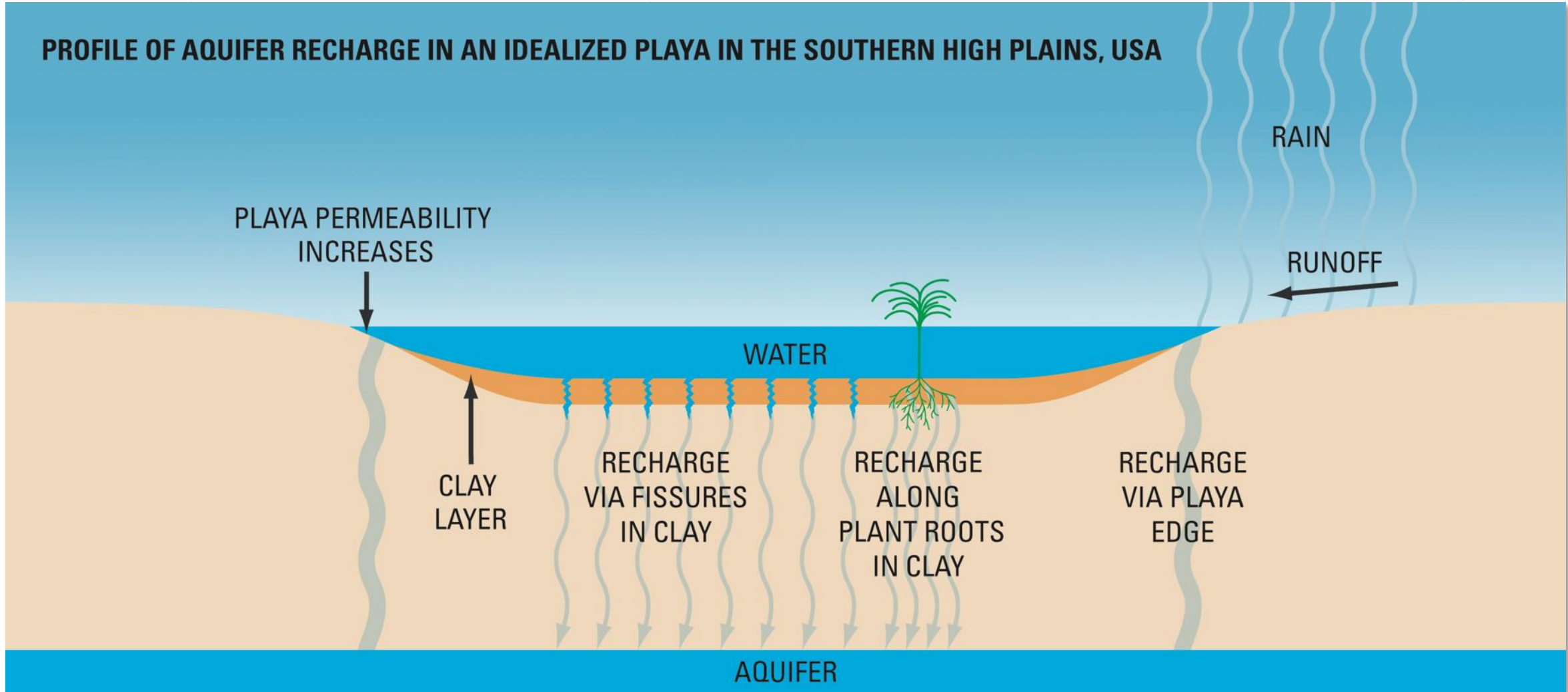


WHAT ARE PLAYAS?

- Small, temporary wetlands mostly on private land
- Lowest point in a closed watershed (no inflow or outflow)
- Collect rainfall and runoff
- Landcover in the watershed greatly determines playa health
- Primary source of recharge for the Ogallala (10-1,000x greater under playas)
- Water through playas is of higher quality
- Good for wildlife (and people!)



WHAT ARE PLAYAS?



3 inches / year
average recharge rate

across a
4-acre playa

=

1-acre ft of water
or
~326,000 gallons



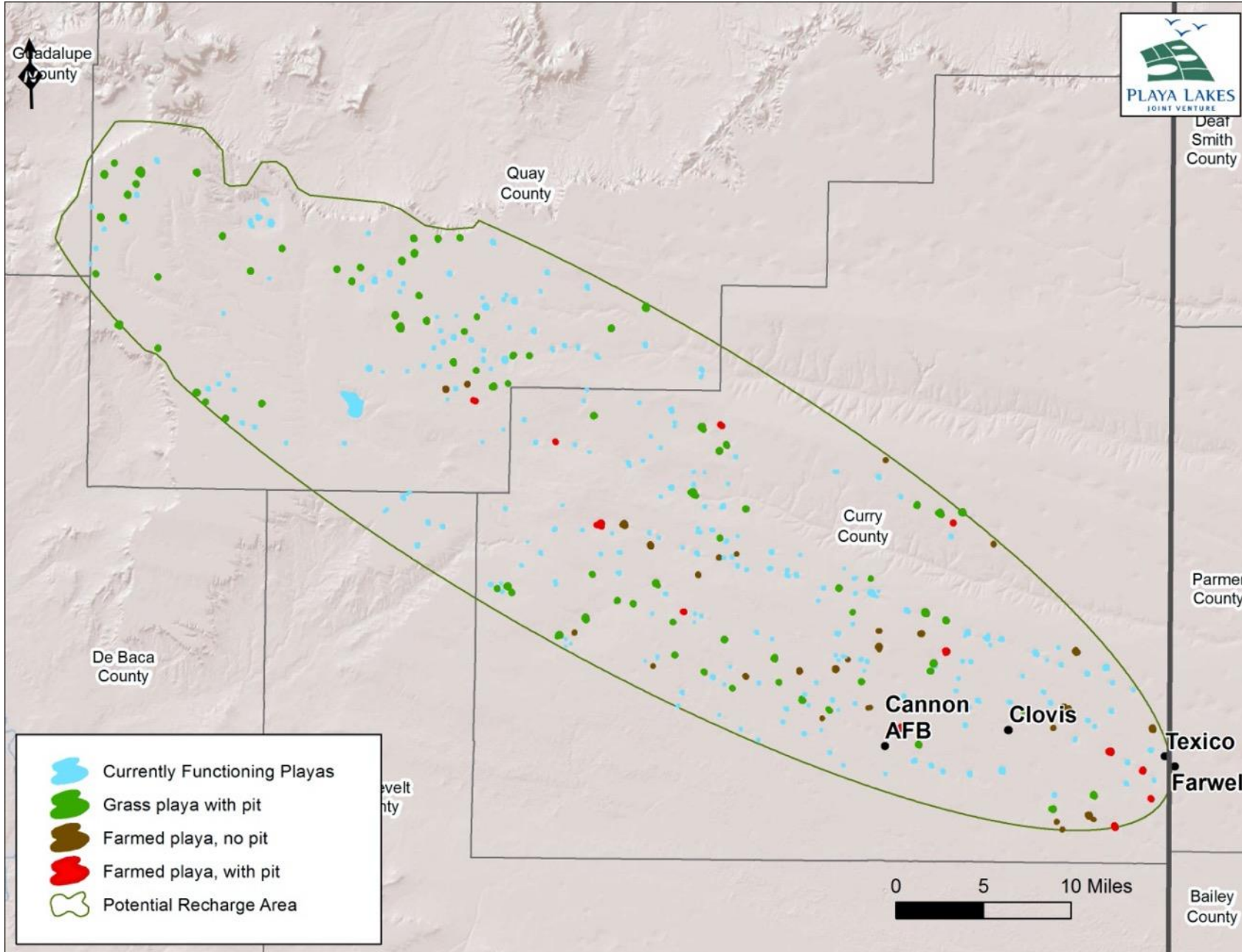
=

Enough for a family of
4 people
for
2 years

RECHARGE MESSAGES

1. Playas are a **major source of recharge** to aquifer
2. Recharge **cannot make up for irrigation**
3. It is enough to **support rain-fed systems, grazing operations and municipalities**
4. If you conserve a playa, that **water is yours**
5. Healthy playas with buffers **improve the water quality**





WATER POTENTIAL FROM PLAYAS

TODAY

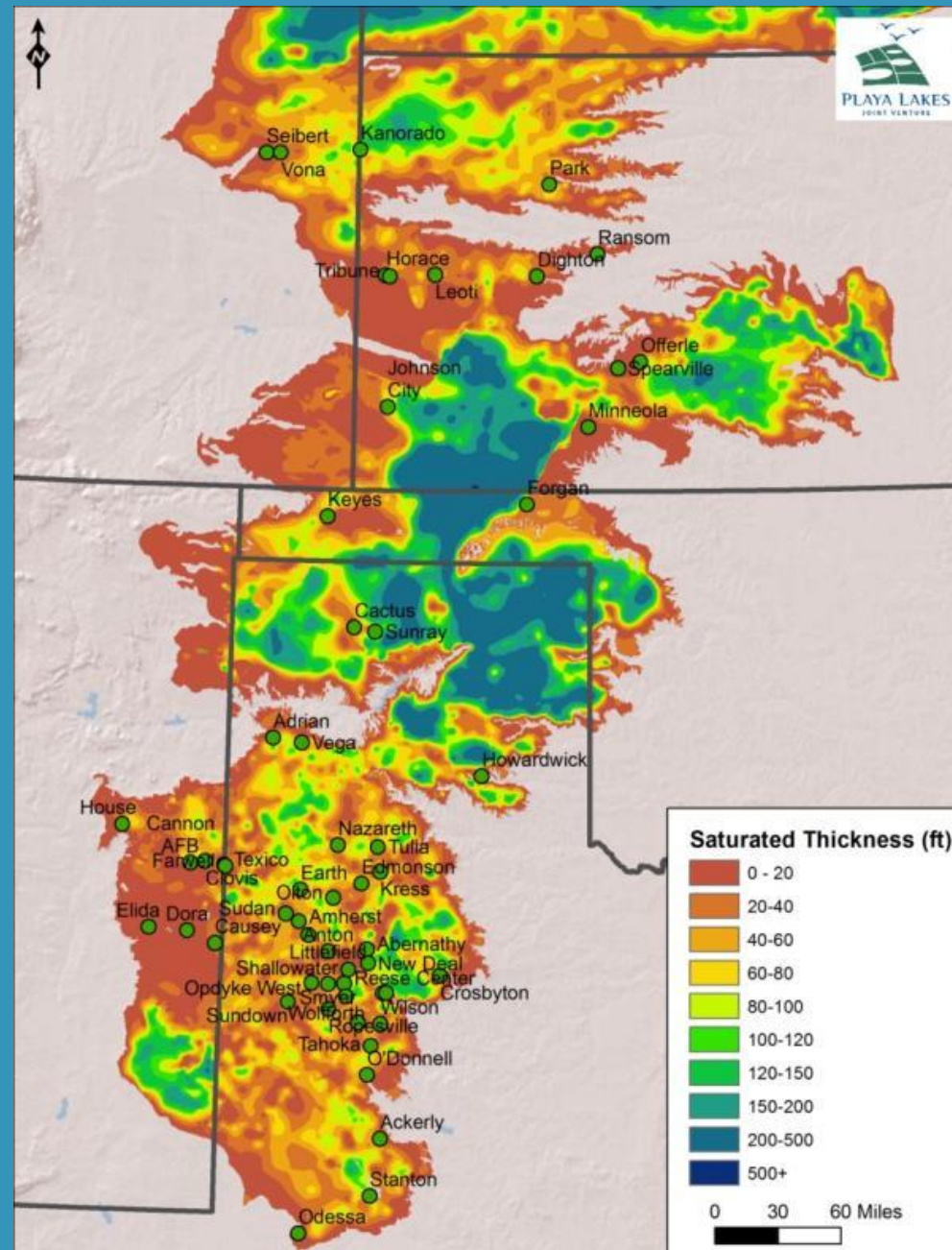
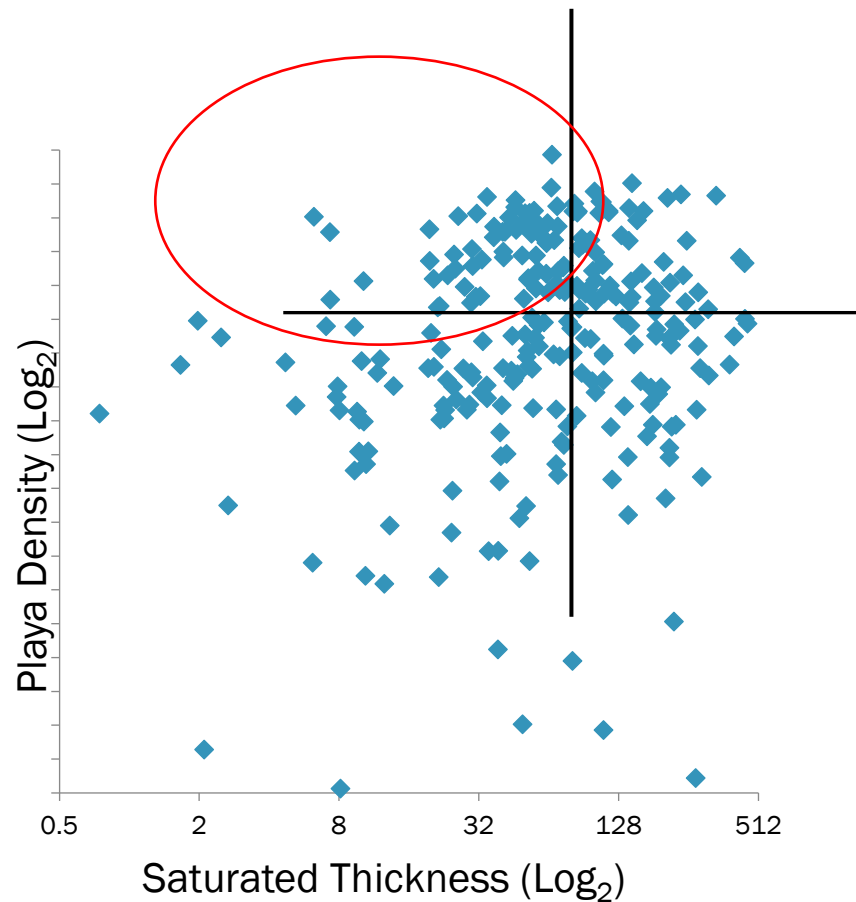
2,752 functional playa-acres recharge about 225 million gallons (15% of municipal use)

FUTURE

4,137 functional playa-acres recharge about 337 million gallons (23% of municipal use)

= 8% INCREASE

56 TOWNS LIKE CLOVIS







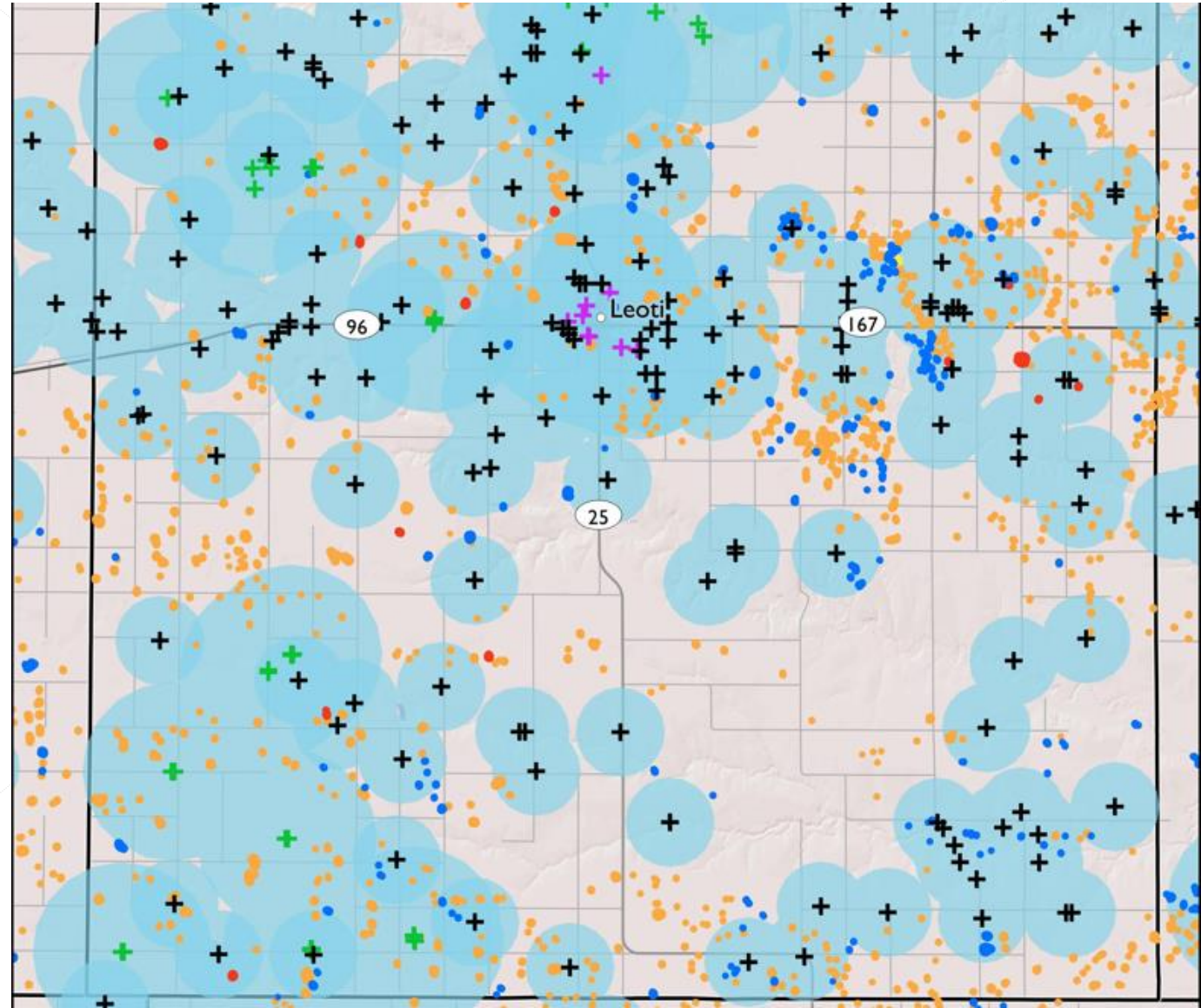
GROUNDWATER RECHARGE & SUSTAINABILITY PROJECT

- Wichita and Greeley counties
- Submitted a NRCS RCPP proposal
- Requested \$1.4 million
- Partner match of \$1.5 million
- Conservation programs
 - Irrigation efficiency
 - Technology
 - Well retirement
 - Playa restoration



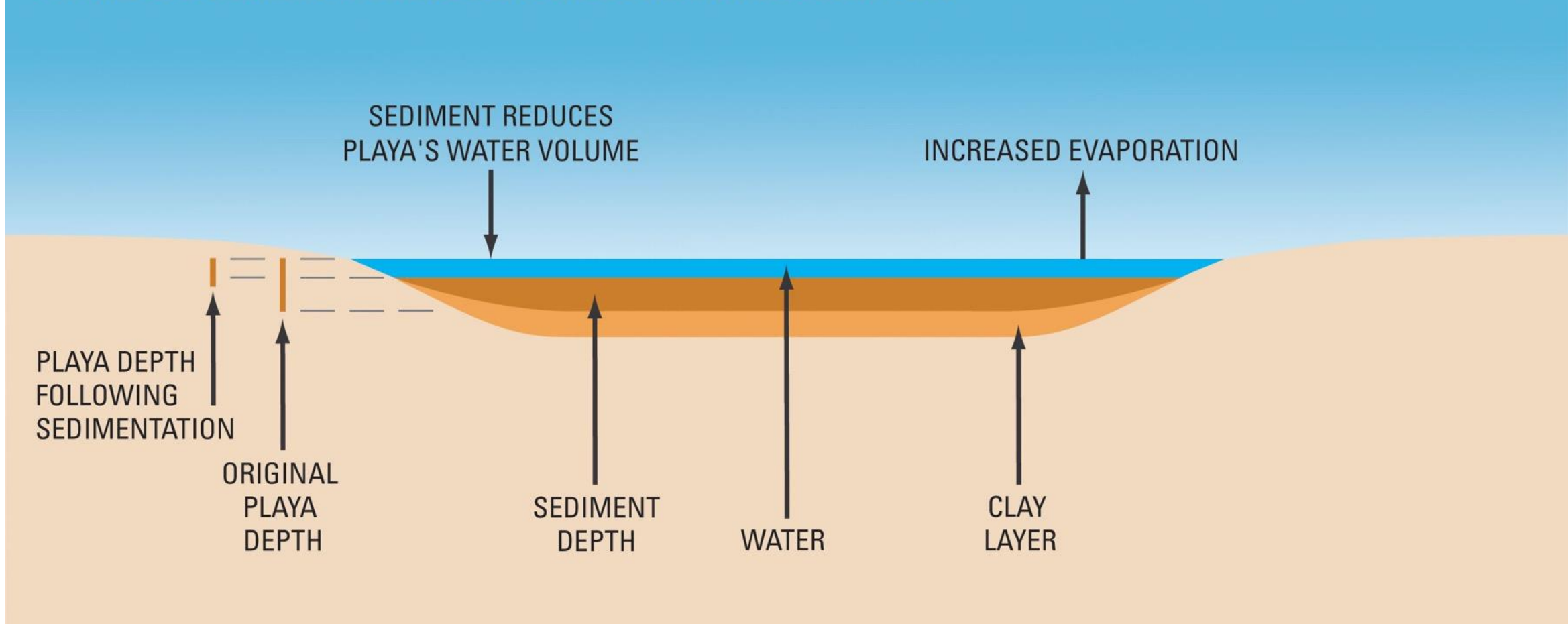
PRIORITY PLAYAS

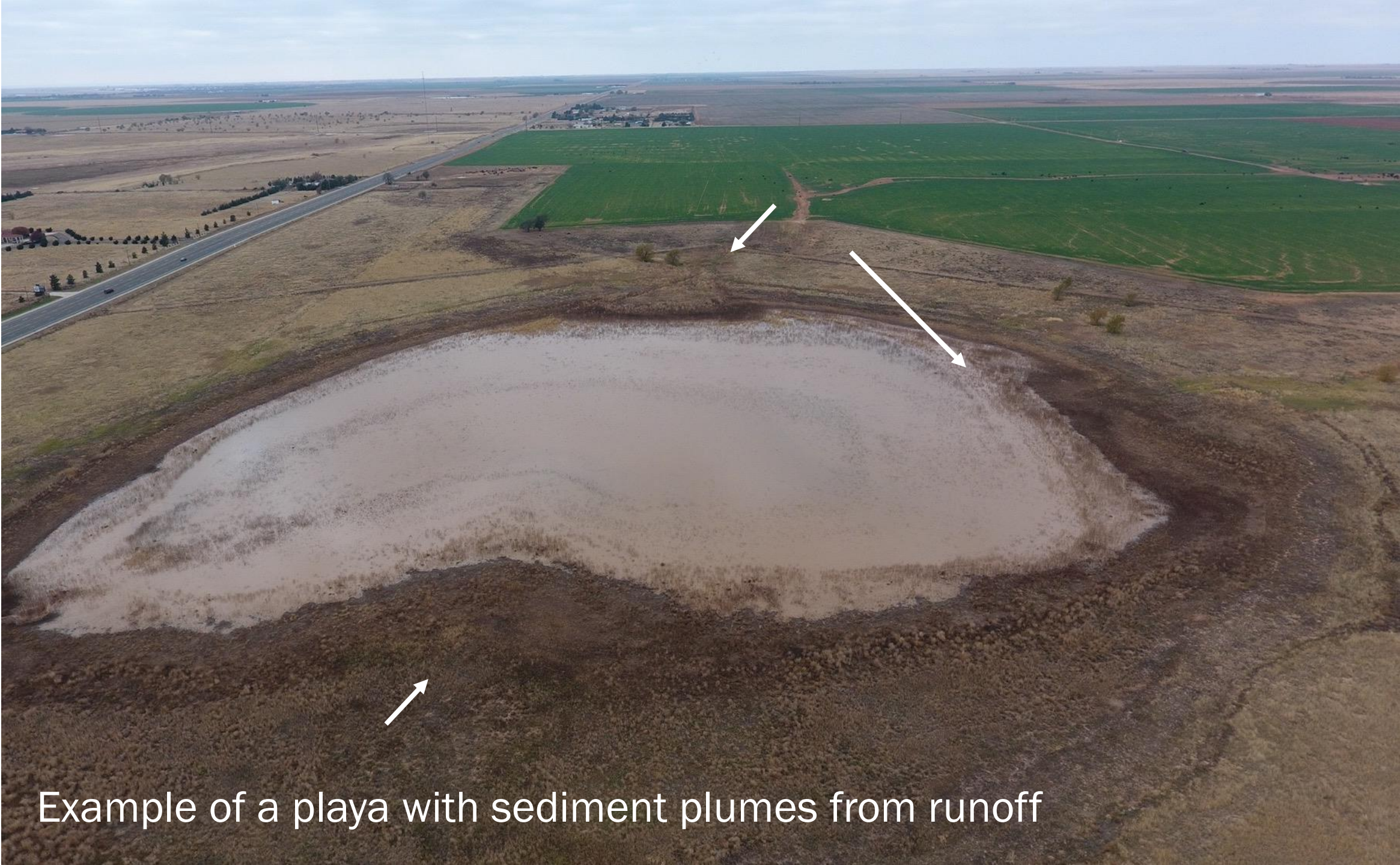
- Playas within 2 miles of municipal & stock wells
- Playas within 1 mile of domestic wells
- 1,387 acres needing work
- 585 playas need sediment removed & buffer planted



PLAYA IMPACTS

PROFILE OF A SEDIMENT-FILLED PLAYA IN THE SOUTHERN HIGH PLAINS, USA





Example of a playa with sediment plumes from runoff

HEALTHY RESTORED PLAYA

- Intact playa basin
- Excess sediment removed
- No pits, trenches, roads or other modifications
- Native grass buffer to trap sediment while allowing water in
- Goes through natural wet-dry cycles
- Appreciated and managed by owner

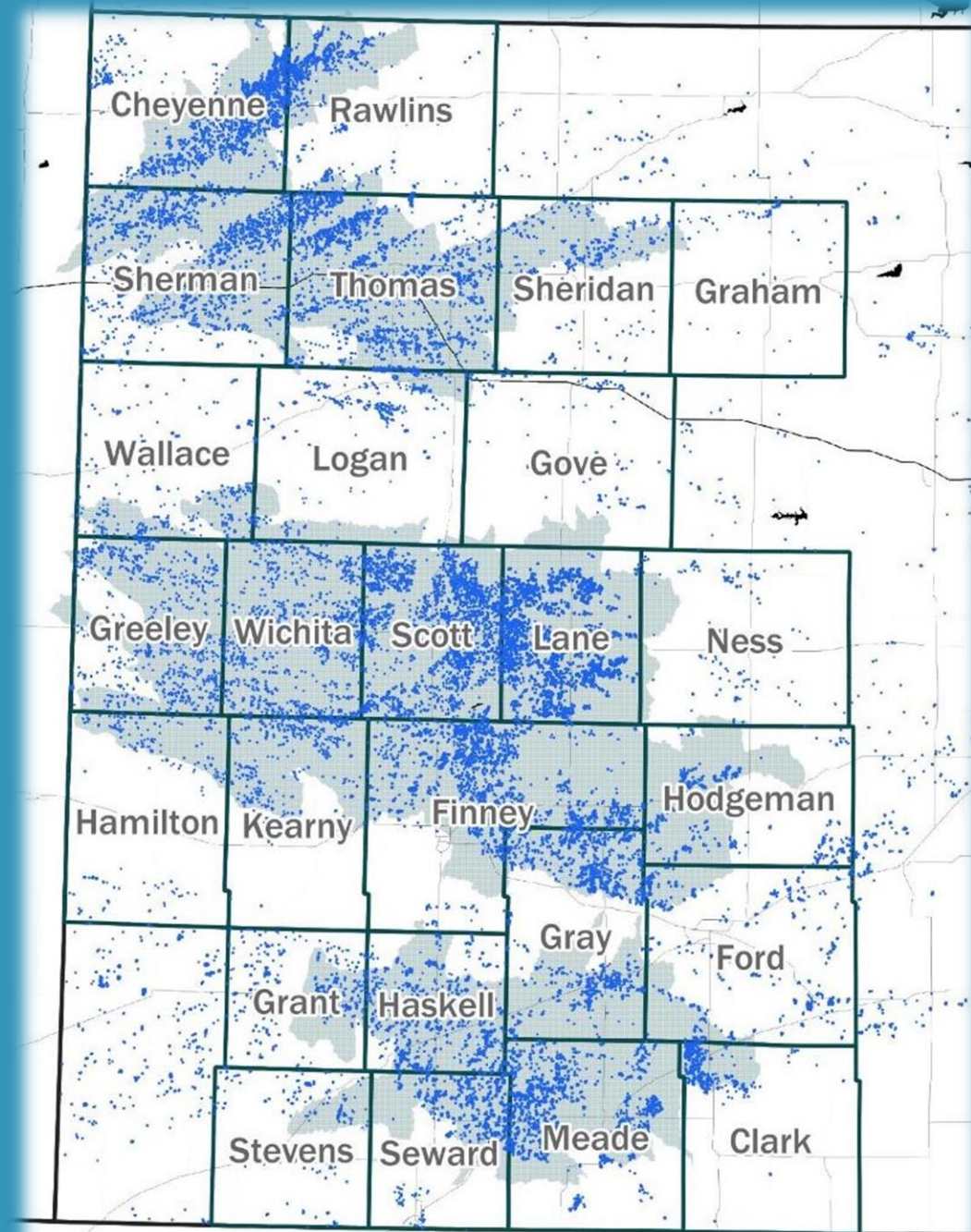


State Acres for Wildlife Enhancement

What is SAFE?

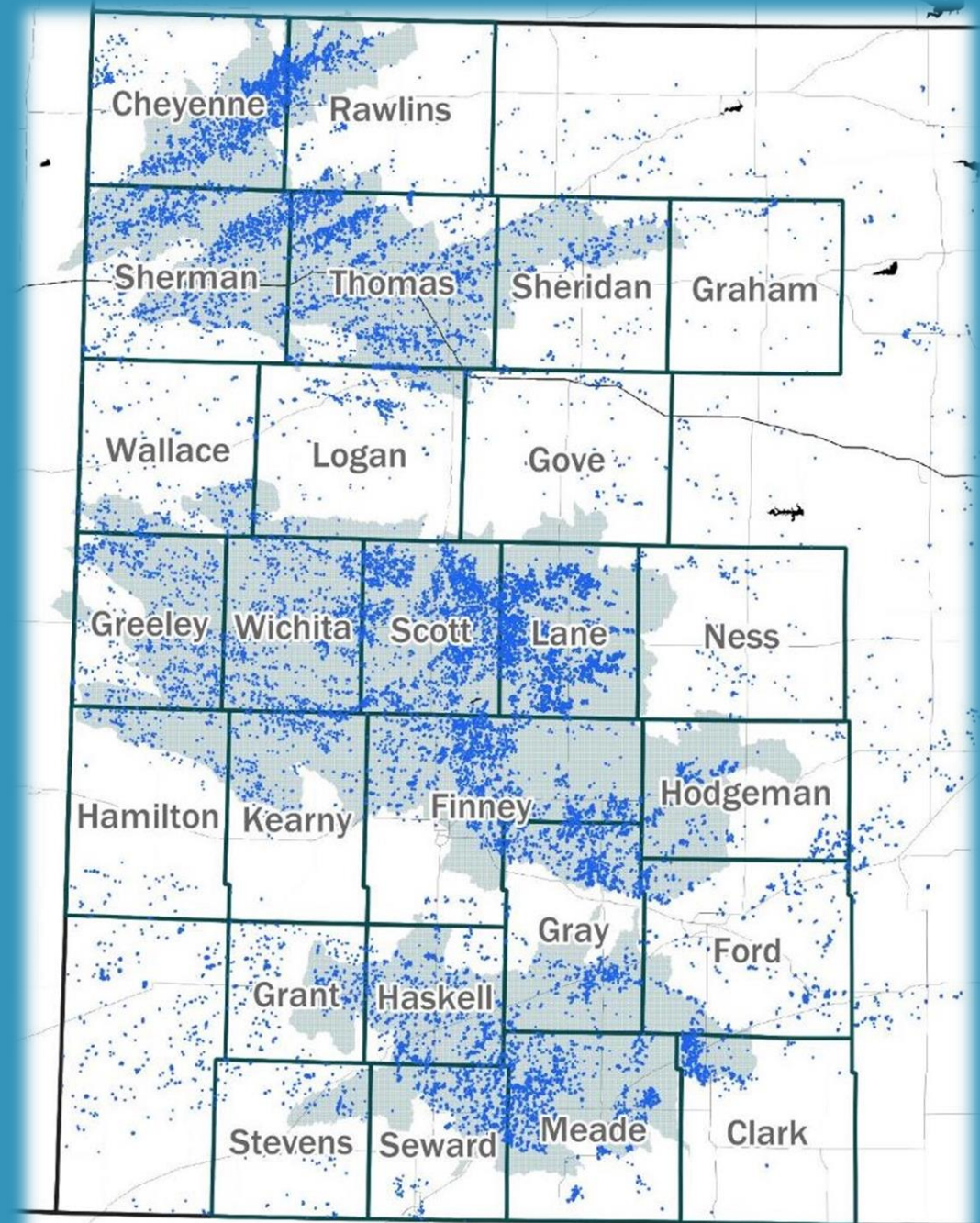
“SAFE practices provide the flexibility to meet the specific needs of high-value wildlife species in a participating state or region”

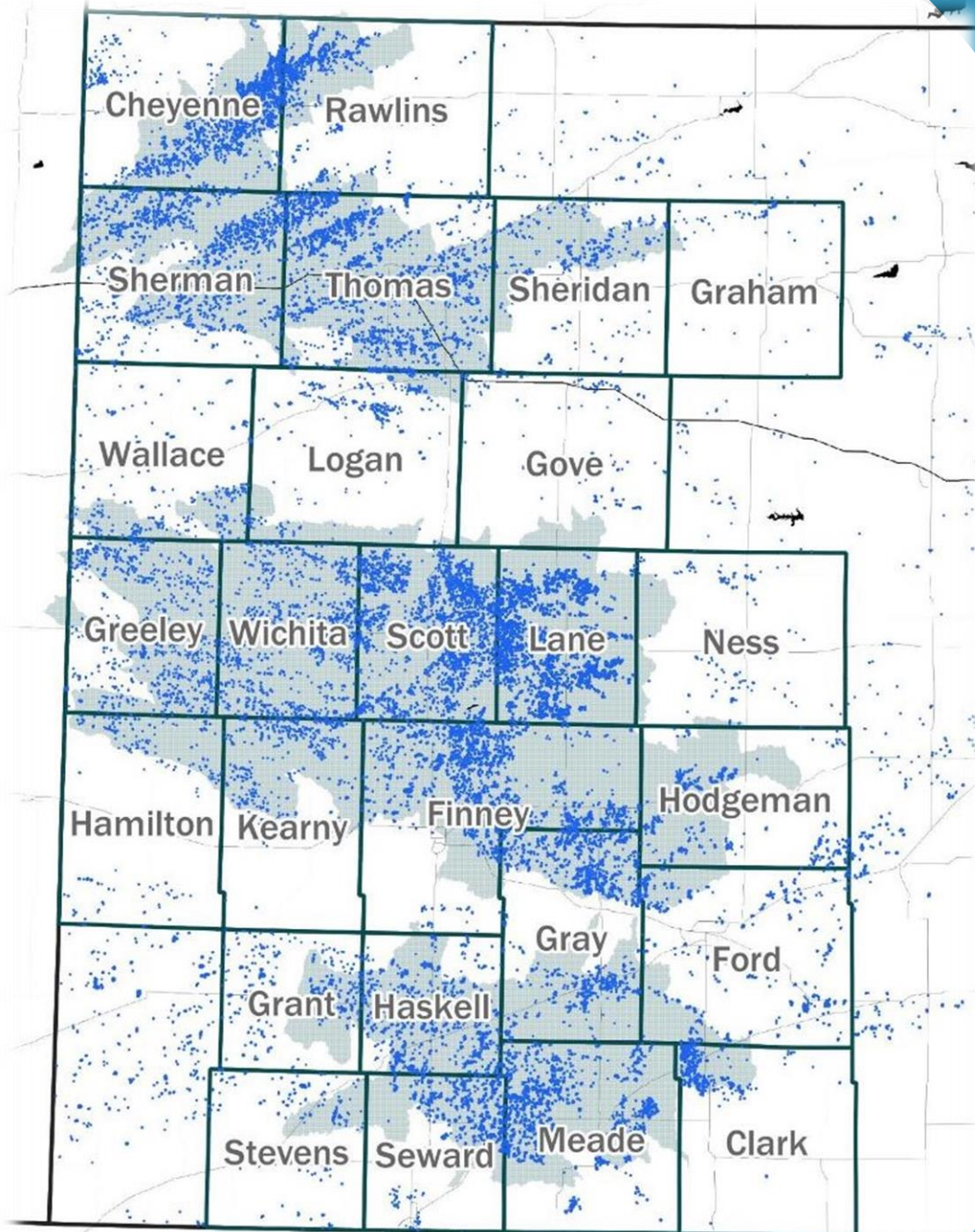
“Conservation practices currently offered under CRP are fine-tuned through SAFE to improve, connect or create higher-quality habitat to promote healthier ecosystems”



What is it really?

- Producer driven
- Targeted (aquifer, playa location)
- Innovative reverse auction
- Move away from existing wetland practices
- Built on partnerships
- Multiple ecosystem benefits
- Ranking considers cost/benefit
- Restores the hydrology





MIGRATORY BIRD SAFE ACCEPTED OFFERS 2017-18

- Kansas – 1st & 2nd Sign-ups
 - 220 offers
 - 11,681 acres accepted
- Previous 25 years (WRP, ACEP and CP23A) resulted in 11,255 acres in Kansas

17 Months = 11,681 acres

25 Years = 11,225 acres

PLAYA CRP PRACTICE THAT WORKS

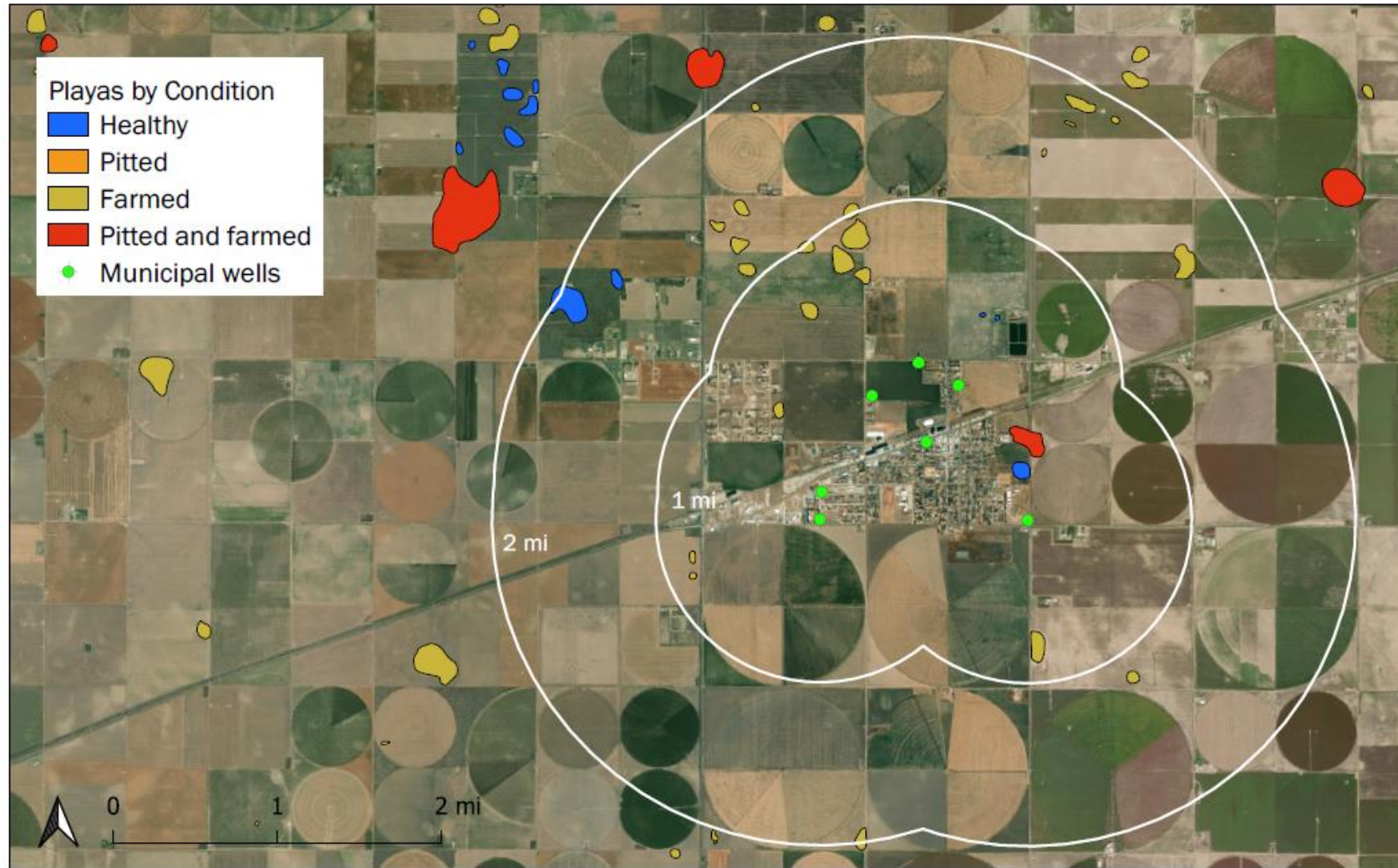
- Built on partnerships
- Fosters a positive conservation atmosphere
- Relevant to people
- Supports critical resource needs
- Measurable outcomes
- Efficient delivery
- Provides water for communities



WHAT'S NEXT?

Exporting the Work to Other Communities

Sublette Playas Near Municipal Water Supplies



Playa Assessment within 2 mi of Municipal Wells

Prepared by Playa Lakes Joint Venture
 Data from Kansas Geological Survey, PLJV,
 ESRI, US Census
 February 22, 2022

	Healthy	At-Risk (Farmed)	At-Risk and Modified	Total
Playa Acres	33.4	104.0	14.5	151.9
Ac-ft Recharge	8.3	26.0	3.6	37.9
Drinking Water # People	74	232	32	338
Percentage of Population	5.2%	16.3%	2.3%	23.8%



THANK YOU



Matt Smith
Playa Lakes Joint Venture



785-420-7000



matt.smith@pljv.org

PLAYAS: ECOSYSTEM GOODS & SERVICES

- Water Quality
 - Grass buffers around playas trap sediment and filter contaminants from the water
 - Soil bacteria in playas denitrify water
- Water Quantity
 - Groundwater recharge is 10 - 1,000x greater under playas than the surrounding upland
- Floodwater Storage
 - Playas can assist towns with floodwater retention and storage
- Carbon Sequestration
 - Healthy playas store carbon
- Biodiversity Hotspots
 - Species richness for plants, amphibians, and birds can be 300% greater than in grasslands without playas
- Recreation
 - Playas provide opportunities for hunting, wildlife viewing, and scenery