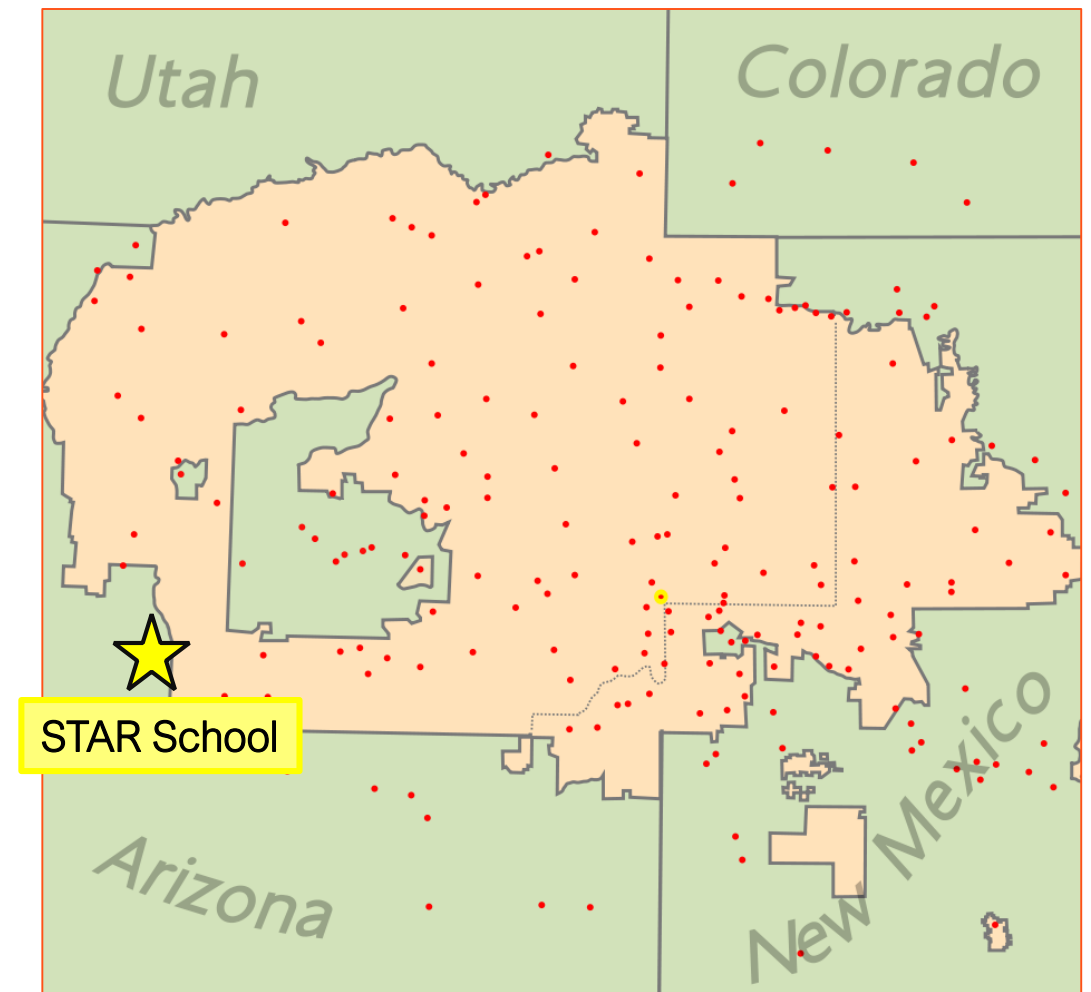


# Painted Desert Demonstration Projects, Inc.

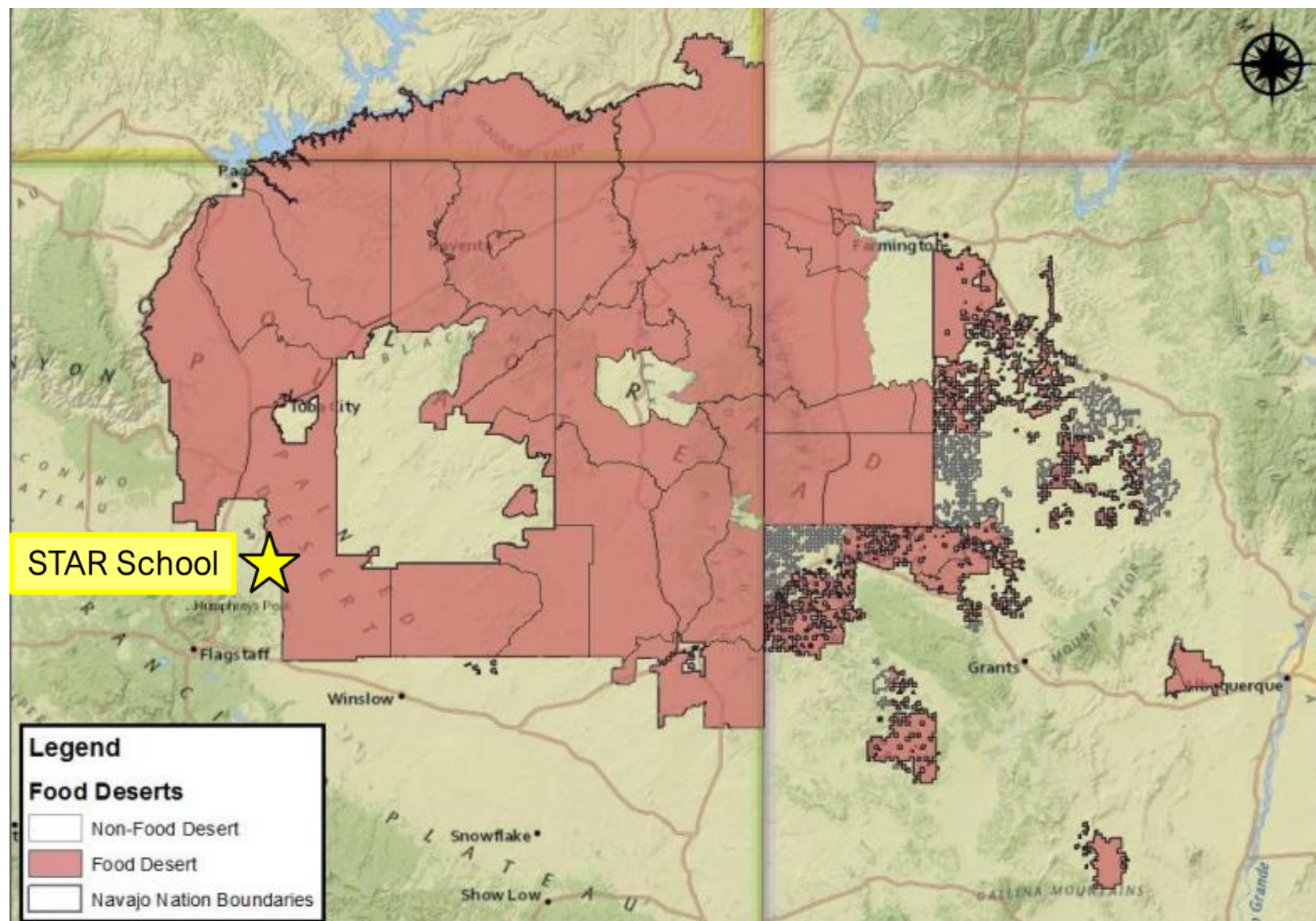
Also Known as the STAR (Service To All Relations) School, Painted Desert Demonstration Projects, Inc. is a non profit 501 (c) 3 Organization

- STAR School is a k-8 charter elementary school serving **Navajo Families**.
- The school is the first public elementary school in the United States entirely powered by solar and wind energy.



# Economic Environment in Navajo Nation Cont'd

- Slow growth and declining population comparing to the State. Navajo population decreased by 3.9%, while AZ population increased 24.6% from 2000 to 2010.
- High onset rate of diet related diseases. More than 50% of Navajo adults are diagnosed as diabetic or pre-diabetic.
- Majority of Navajo Nation is in a “Food Desert” designated by USDA.





# Lack of Reliable Water Supply in Navajo Nation

- 30-50% of the houses have no public water supply and/or wastewater disposal.
- Many homes do not have access to commercial electricity.
- >20,000 households have to haul water long distance.
- Haulers rely on **non-potable and unregulated** water sources.









diabetes

sugar

hypertension

weight reduction

metabolic

obesity hormone

insulin

nutrition

blood glucose level

diagnosis

overweight

disease

type 2

type 1

pancreas

syringe

diet

retinopathy

hypoglycemia

medicine

therapy

insulin resistance

glucose



# A Community School Becomes a Hub for Developing Solutions

- Greenhouse grown fresh produce
- Fresh Produce Aggregation & Distribution
- Community Cold Storage
- Food Processing/Commercial Kitchen
- Farmers Market/Mobile Market
- Navajo Tea Growing & Processing
- Community Water Filtration
- Internet Availability for Community?





# NAVAJO NATION – NORTH LEUPP FAMILY FARMS



Decentralized Water Treatment  
System Installed at NLFF



HAPPY FARMERS AT NLFF



Community Outreach in Navajo



Community Food Education in Navajo





- The Water Box is a Solar Powered Nano-filtration system that can purify water by connecting it with community wells and other raw water sources.
- Our standard system will produce 500-1000 gal/day of safe and potable water for the community.





# Water Bus – Mobile Unit

Working with Apex Applied Technology, Inc. and U of Arizona, we installed a solar powered water treatment system on a retired school bus

- This transformed school bus is used to demonstrate the solar powered filtration technology and educate STAR School students and community.
- The water bus has been used in several remote areas of Navajo Nation and in a Hopi community.





## PREPARE FUTURE LEADERS...





# Regional Food Hub Conceptual Site Plan





# Regional Food Hub Conceptual Site Plan Cont'd

