



Natural Resources

JANUARY 2024

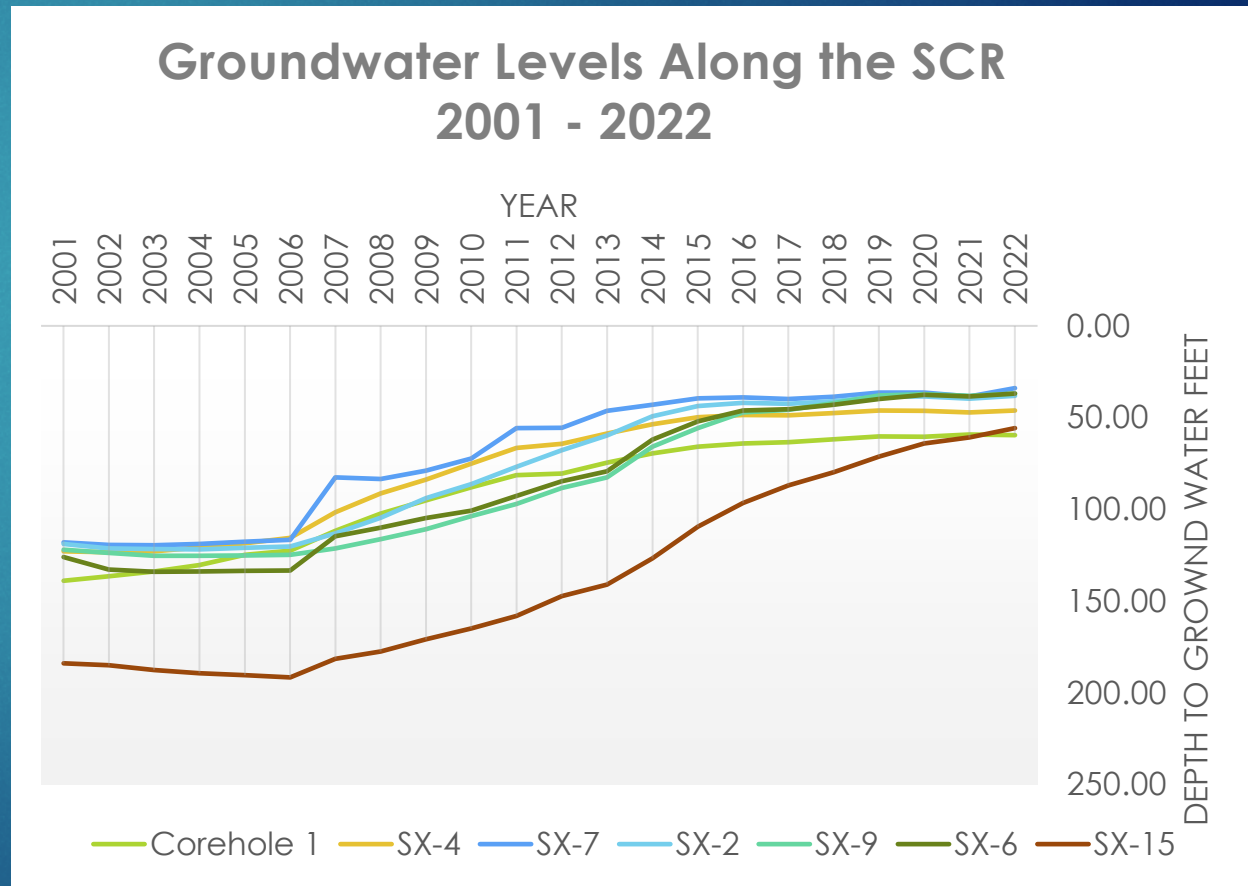
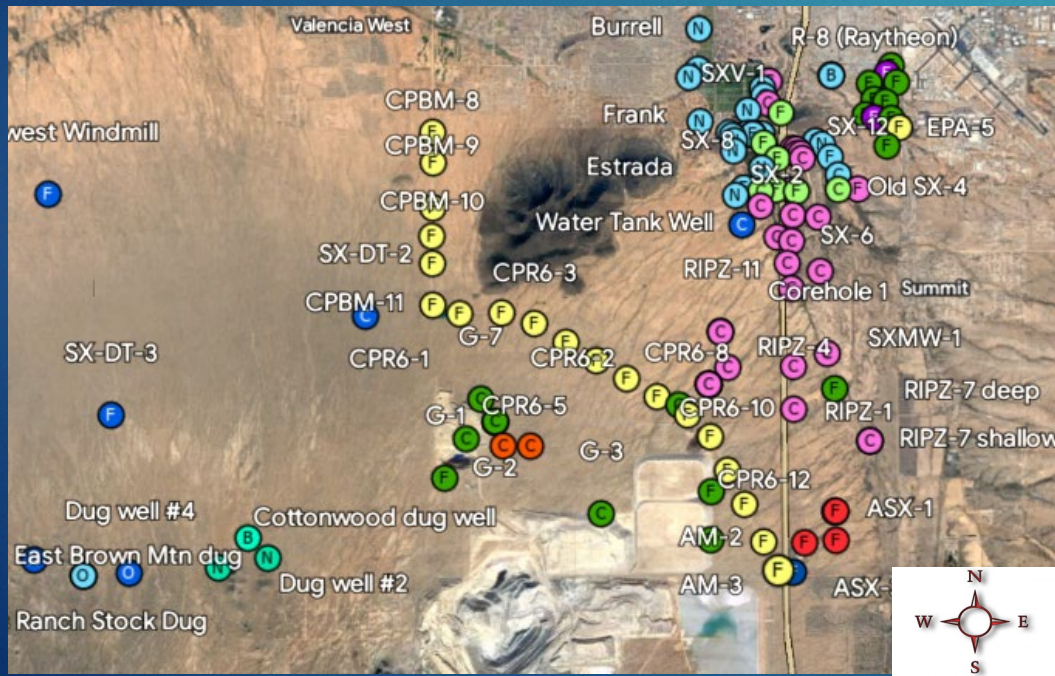
Natural Resources Department

- ▶ Water Resources
- ▶ Mine Reclamation
- ▶ Cemetery Wash
- ▶ Invasive Species
- ▶ Water Harvesting
- ▶ Climate Change Planning



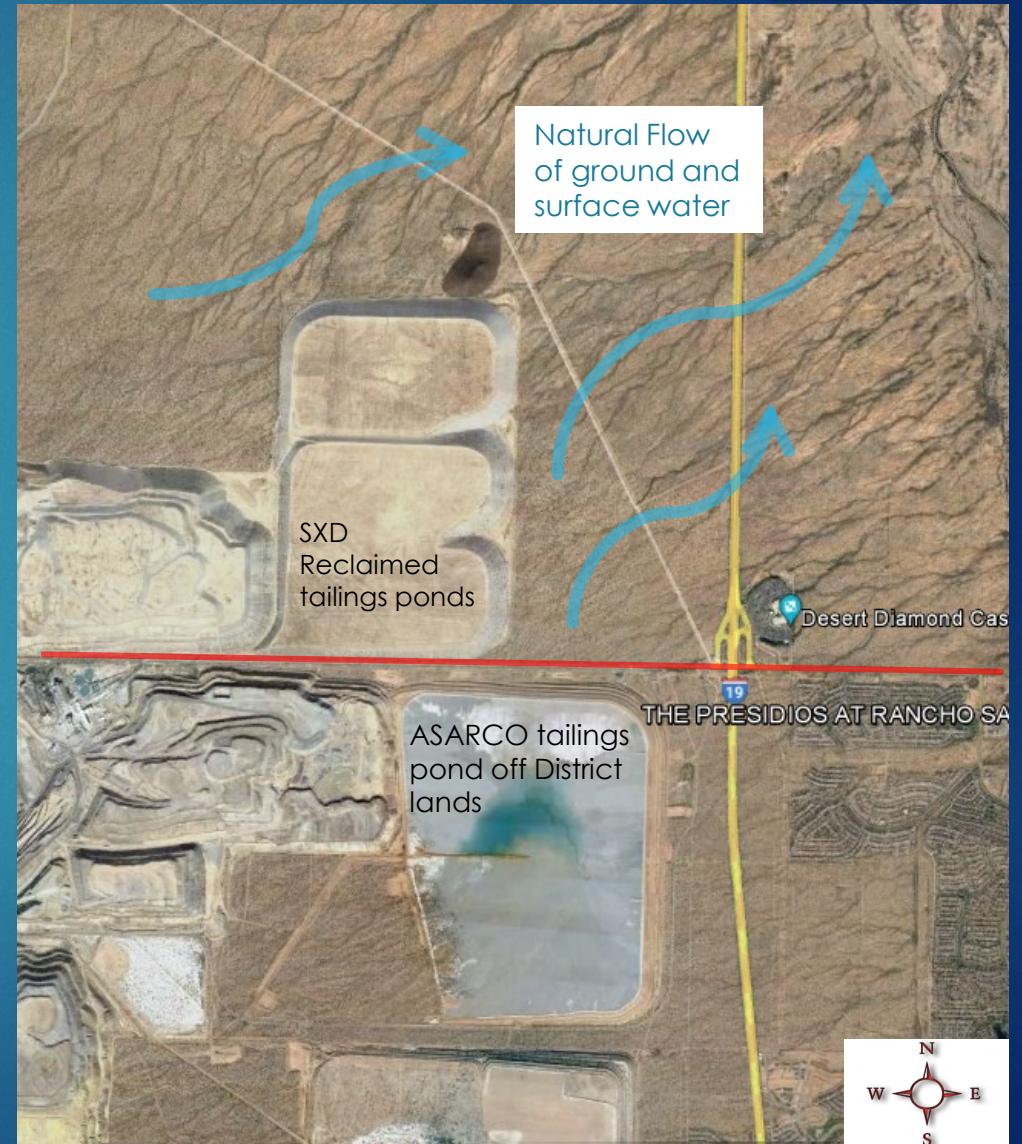
Water Resources – Levels

- ▶ Groundwater Level Monitoring Annually
 - ▶ ~50 wells around the District Monitored for depth
 - ▶ Update Database



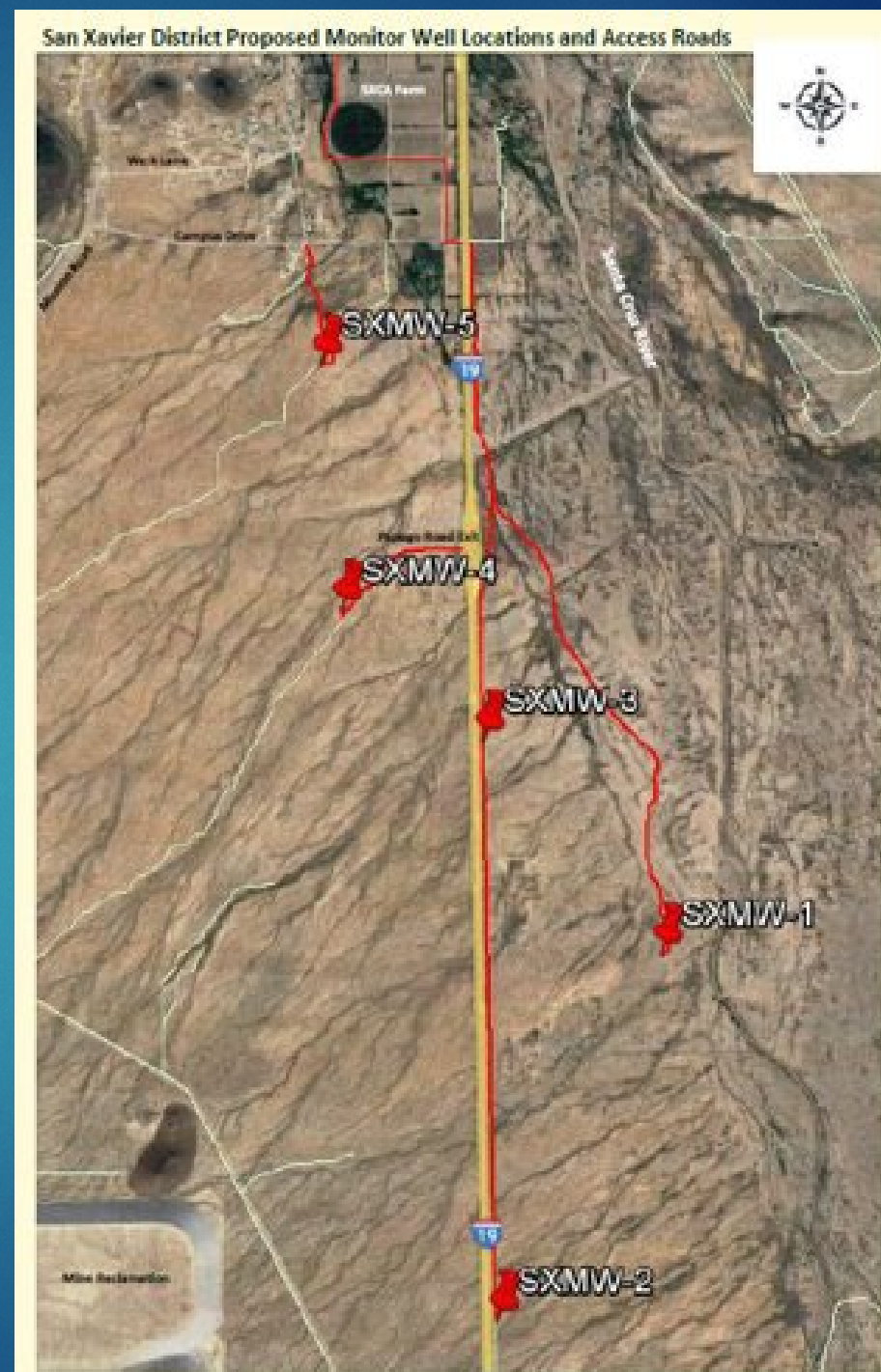
Water Resources - Water Quality and Mining

- ▶ Sulfate contamination of groundwater from Asarco tailings ponds
- ▶ Possible uranium contamination from tailings and waste rock

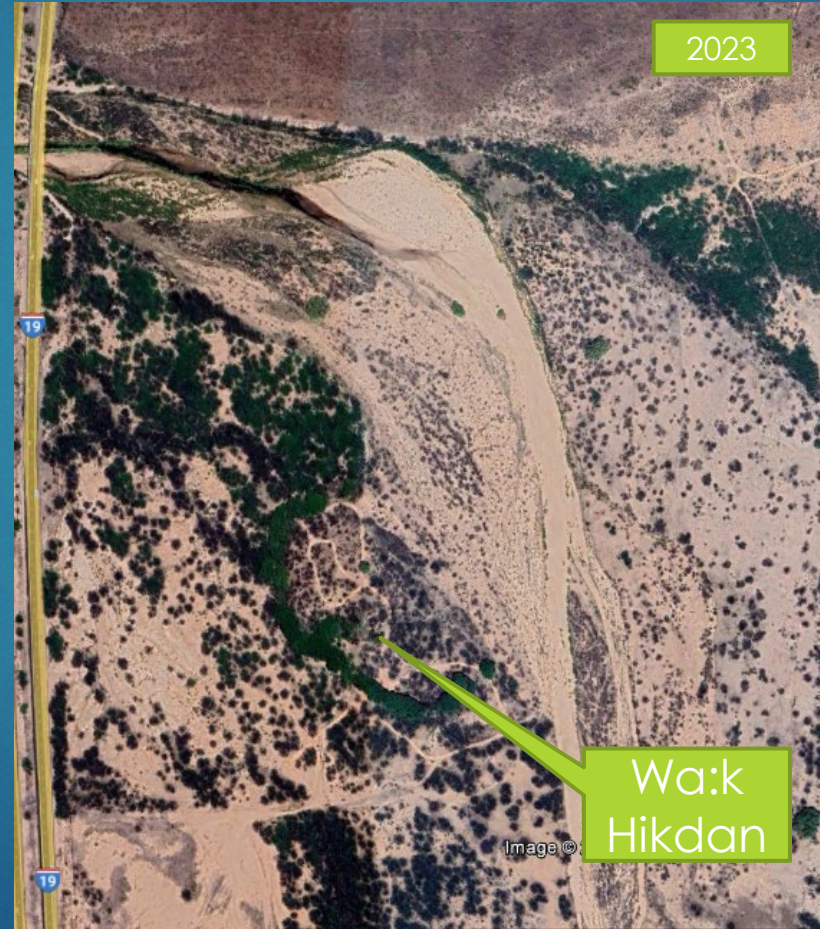
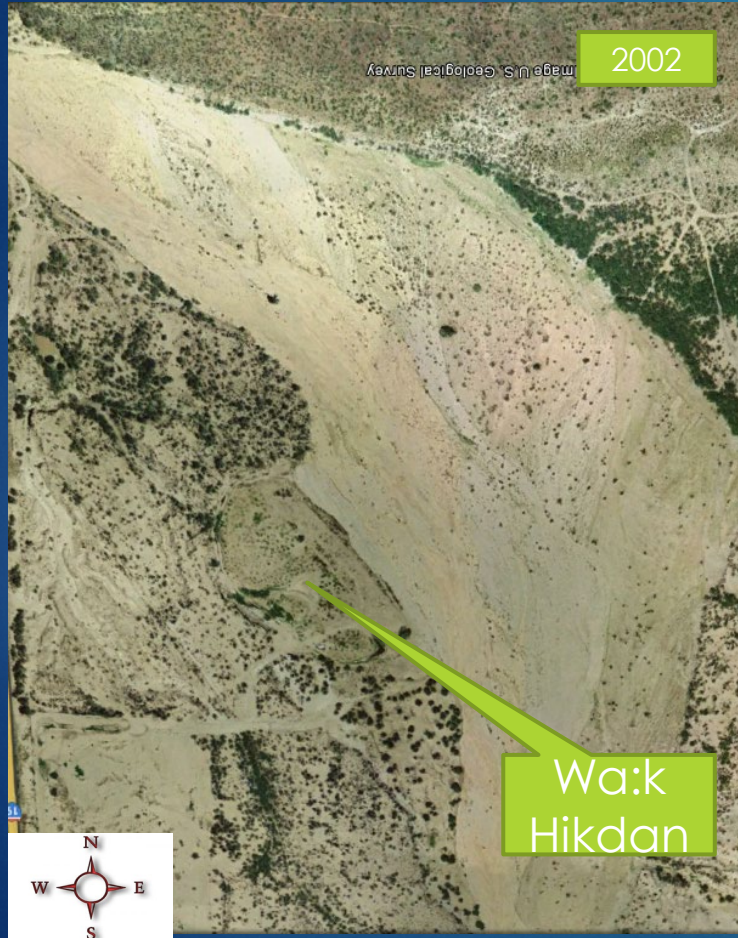


Water Resources - Quality

- ▶ New Monitoring Wells for additional groundwater depth and water quality monitoring to delineate sulfate plume from mine site.
 - ▶ Survey work done
 - ▶ Next step
 - ▶ Appraisals
 - ▶ ROW Access Roads



Water Resources - Ali Akamel



- ▶ Riparian Vegetation is filling in.
- ▶ vegetation and low rainfall this past year has caused a reduction in the surface flows.

Water Resources – Quality in the Community

- ▶ 2022 EPA tested TOUA wells and found PFAS in the east side in San Xavier.
- ▶ 2023 TON Water Resources tested an abandoned well on the east side of I-19 in San Xavier and found PFAS.



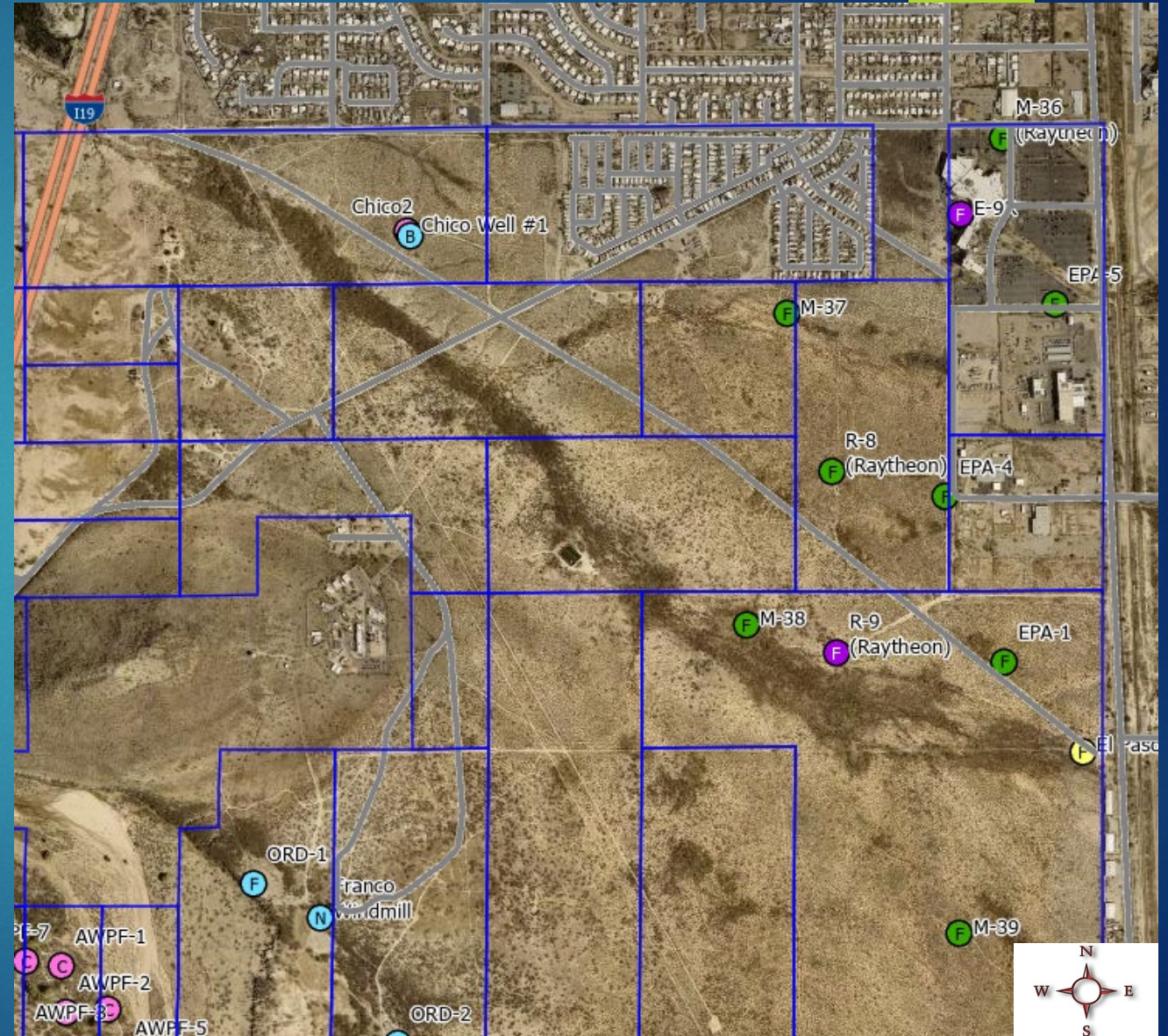
Per- and Polyfluoroalkyl Substances (PFAS)

- ▶ PFAS are a group of man-made chemicals that have been in use since the 1940s.
- ▶ PFAS are (or have been) found in a wide array of consumer products and as an ingredient in firefighting foam.
- ▶ PFAS manufacturing and processing facilities, airports, and military installations are some of the contributors to PFAS releases into the air, soil, and water.
- ▶ Because of their widespread use, most people have been exposed to PFAS, and there is evidence that exposure to certain PFAS may lead to adverse health effects.
- ▶ PFAS are not yet regulated by EPA.



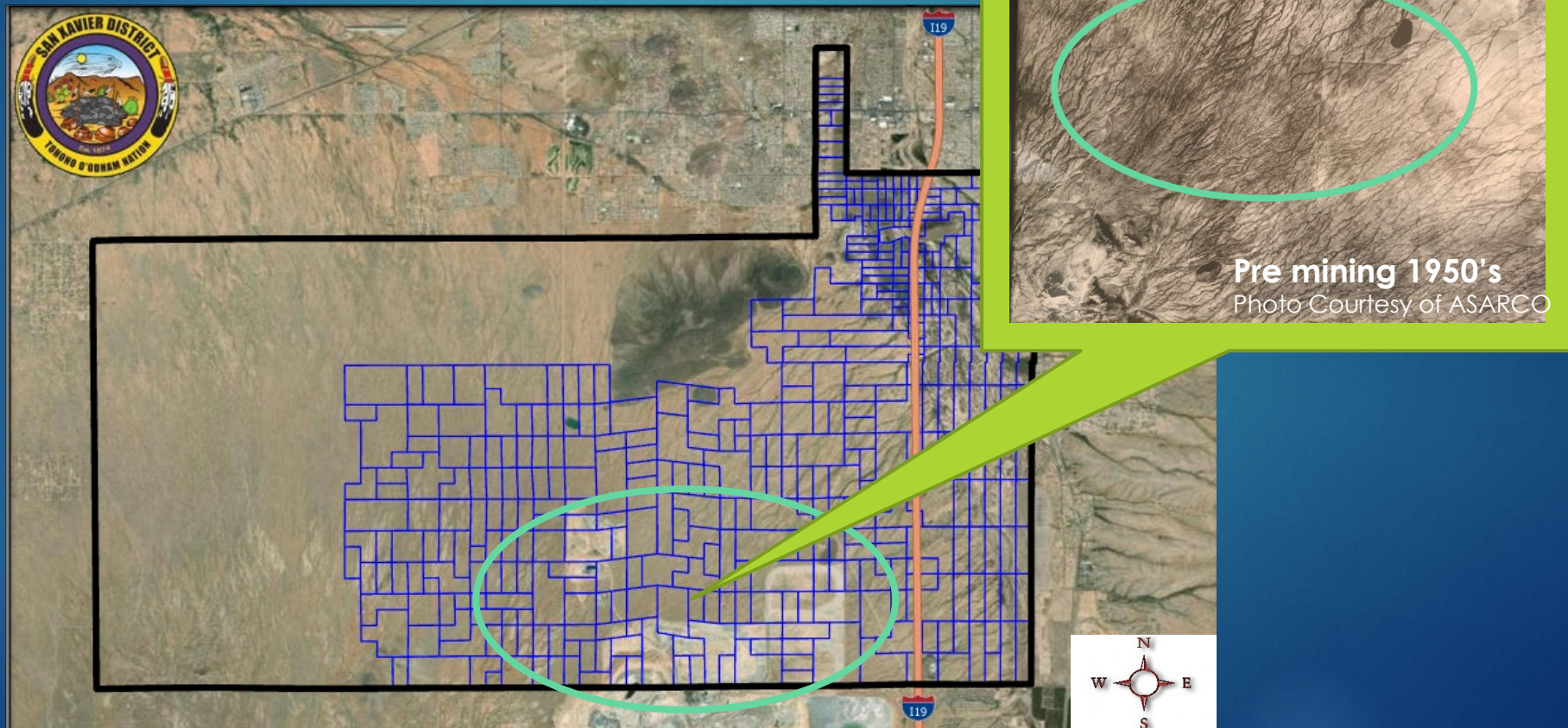
Water Quality

- ▶ TON is working with the EPA to conduct a thorough investigation of the east side wells to determine the extent of the contamination and provide solutions for the District and TOUA.



Mine Reclamation

- ▶ Erosion Monitoring and Repair
- ▶ Storm Water Controls



Mine Reclamation Maintenance

► Annual Erosion Monitoring



Figure 28. Erosion feature distribution and severity

Mine Reclamation - Hired Rummel Construction to Repair Side Slopes of North Dump

Work Began November 14, 2023, and was completed on December 15, 2023



Before



After

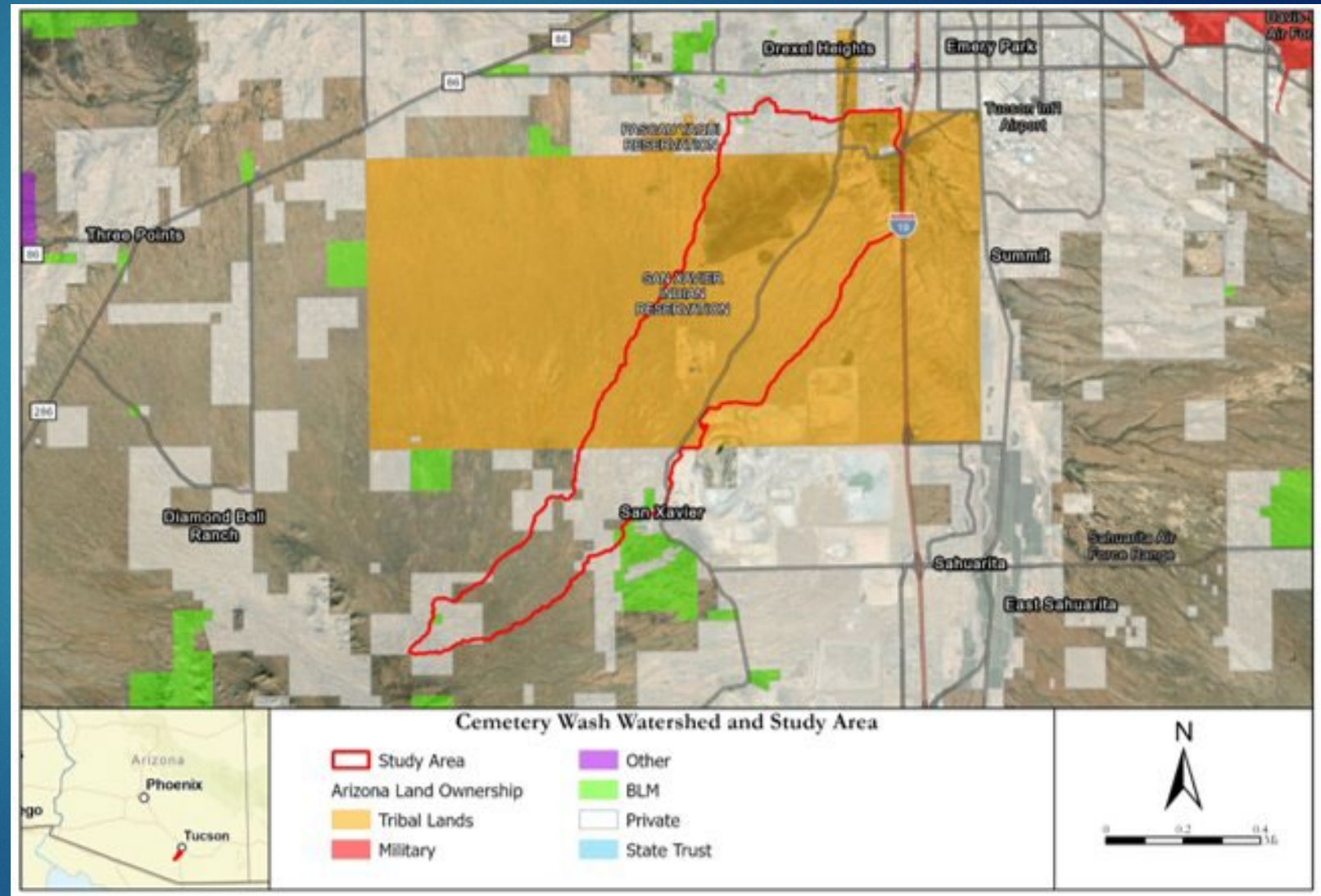
Mine Reclamation -2023 Tailings Spill

- ▶ Overflow from a cleanout pond discharged flowed onto the District side into the mine reclamation channels.
- ▶ ASARCO cleaned up the spill, and actions are being taken to make sure this does not occur in the future.
- ▶ The Technical team is continuing to monitor the area.



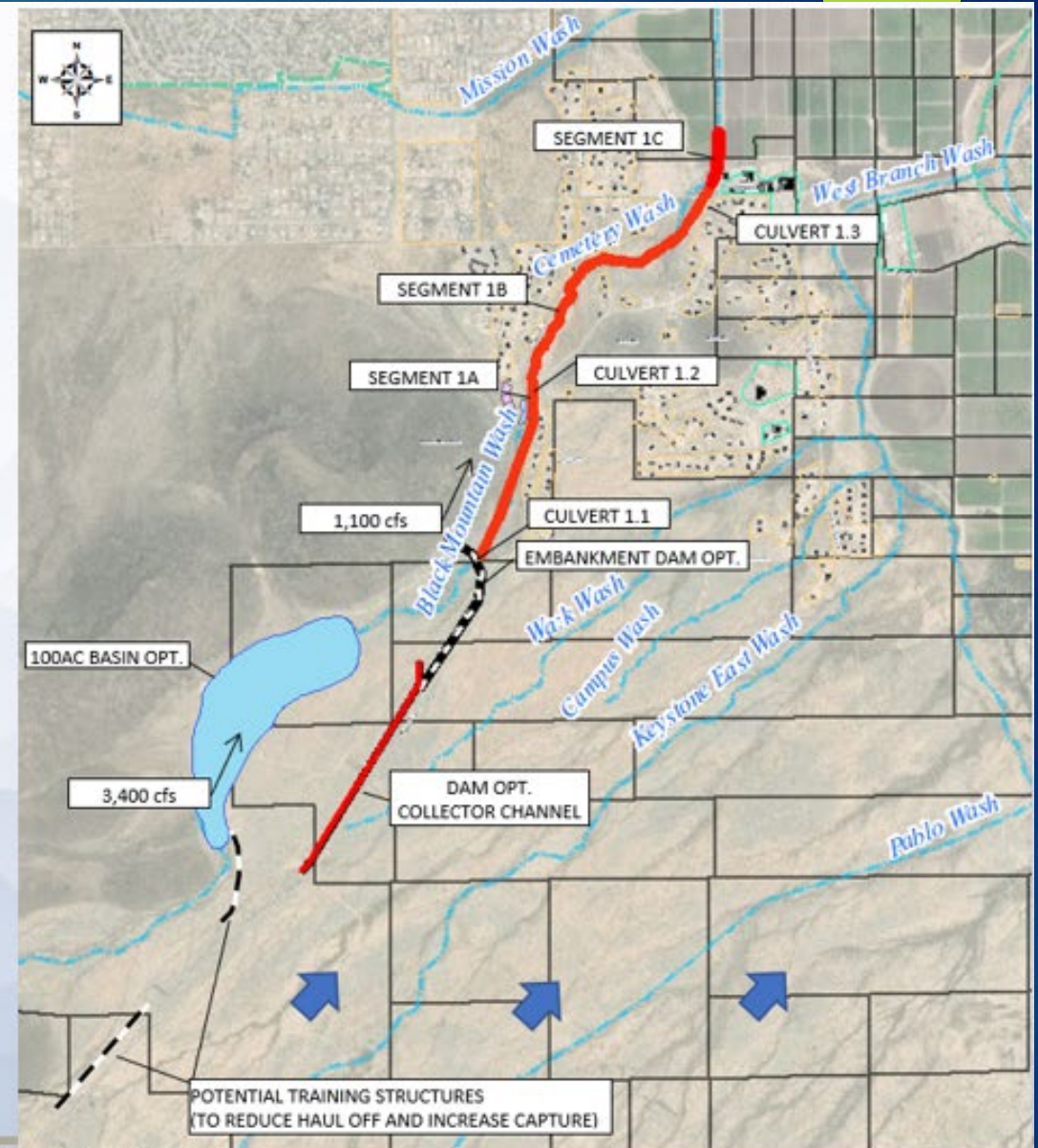
Cemetery Wash NRCs Plan/EA

- ▶ Alternatives have been selected to explore.



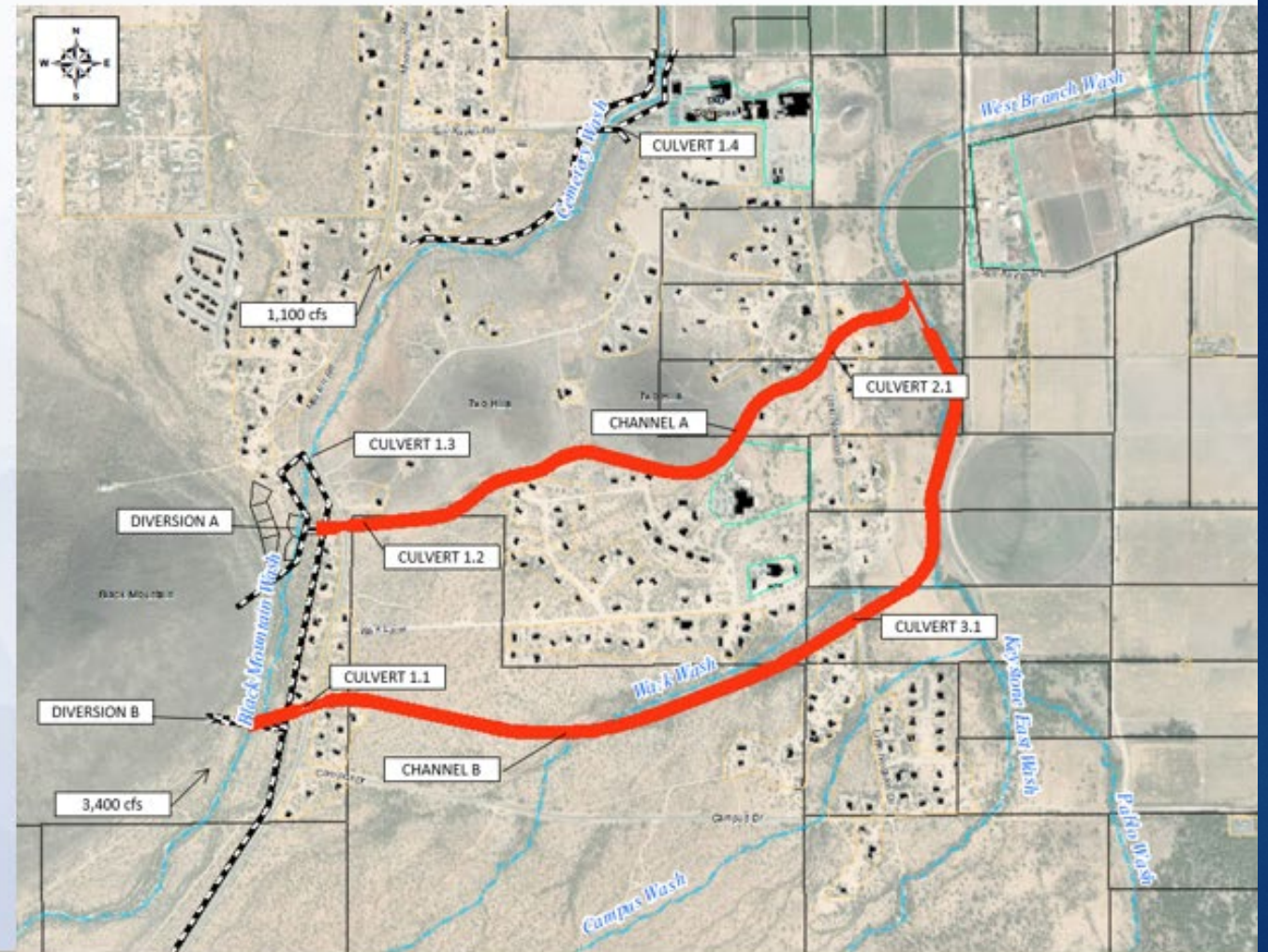
Alternative 2 Overview – Regional Detention

- 100-year Design level to meet local “all weather access” concerns for AOIs
- May Not Fully address AOI 4, Little Nogales Drive Due to potential bypass.
- Very effective for sediment capture.
 - Potential degradation in reaches 1A-1B, may exacerbate sedimentation in 1C.
- Culvert/Bridge Crossings
 - Basin/Dam Embankment Outfall Structures
 - Mission Rd at Cemetery Wash
 - San Xavier Road at Cemetery Wash



Alternative 3 Overview – Levee Corridors

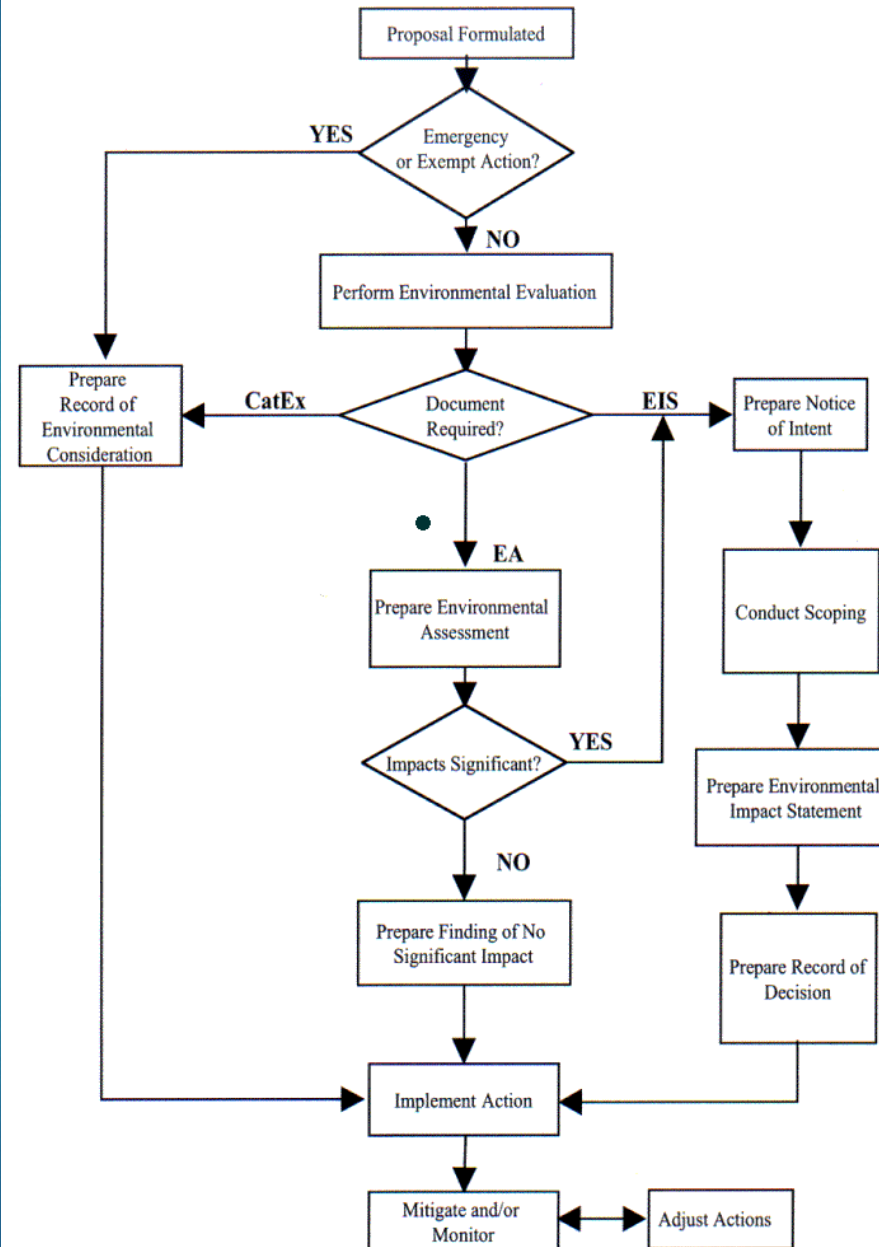
- 100-year Design level to meet local “all weather access” concerns for AOIs
- Potential Sediment Deposition Concerns in Levee Corridors
- Culvert/Bridge Crossings
 - Mission Rd Diversion A (Wa:k)
 - Mission Rd Diversion B (Campus)
 - Mission Rd at Cemetery Wash
 - San Xavier Road at Cemetery Wash



Cemetery wash - Next Steps

- ▶ Selected alternatives will be further investigated, and public will review and comment on the results before finalization.
- ▶ Projected costs of all the alternatives exceed \$25 million so the project will be moving into a category needing an Environmental Impact Statement (EIS) as opposed to an Environmental Assessment (EA).

Figure 3-1. The NEPA Process



Invasive Species

▶ Buffelgrass

- ▶ Working with the Tucson Audubon Society to treat buffelgrass on Martinez Hill from a grant to help protect purple martin habitat.



Water Harvesting

- ▶ ARPA Funds
- ▶ Progress on Education Center with 2 workshops provided to community.
- ▶ SOW and obtaining quotes for 5 home sites and two new home builds for rainwater harvesting systems.
- ▶ Purchased a Chipper to support soil health, water retention, and erosion prevention around the district.



Are you interested in Rainwater Harvesting?

COME JOIN US!

.....

Every Tuesday Morning
from 6am-8am at the
Education Center

BROUGHT TO YOU BY:

 NATURAL RESOURCES DEPARTMENT  EDUCATION CENTER  SAN XAVIER DISTRICT COVID DEPT

FOR MORE INFORMATION CONTACT US:

☎ 520-573-4059 ☎ 520-807-8620 ☎ 520-573-4010



SXD Education Center
RAINWATER HARVESTING WORK DAY
OCTOBER 14TH

7am - Noon

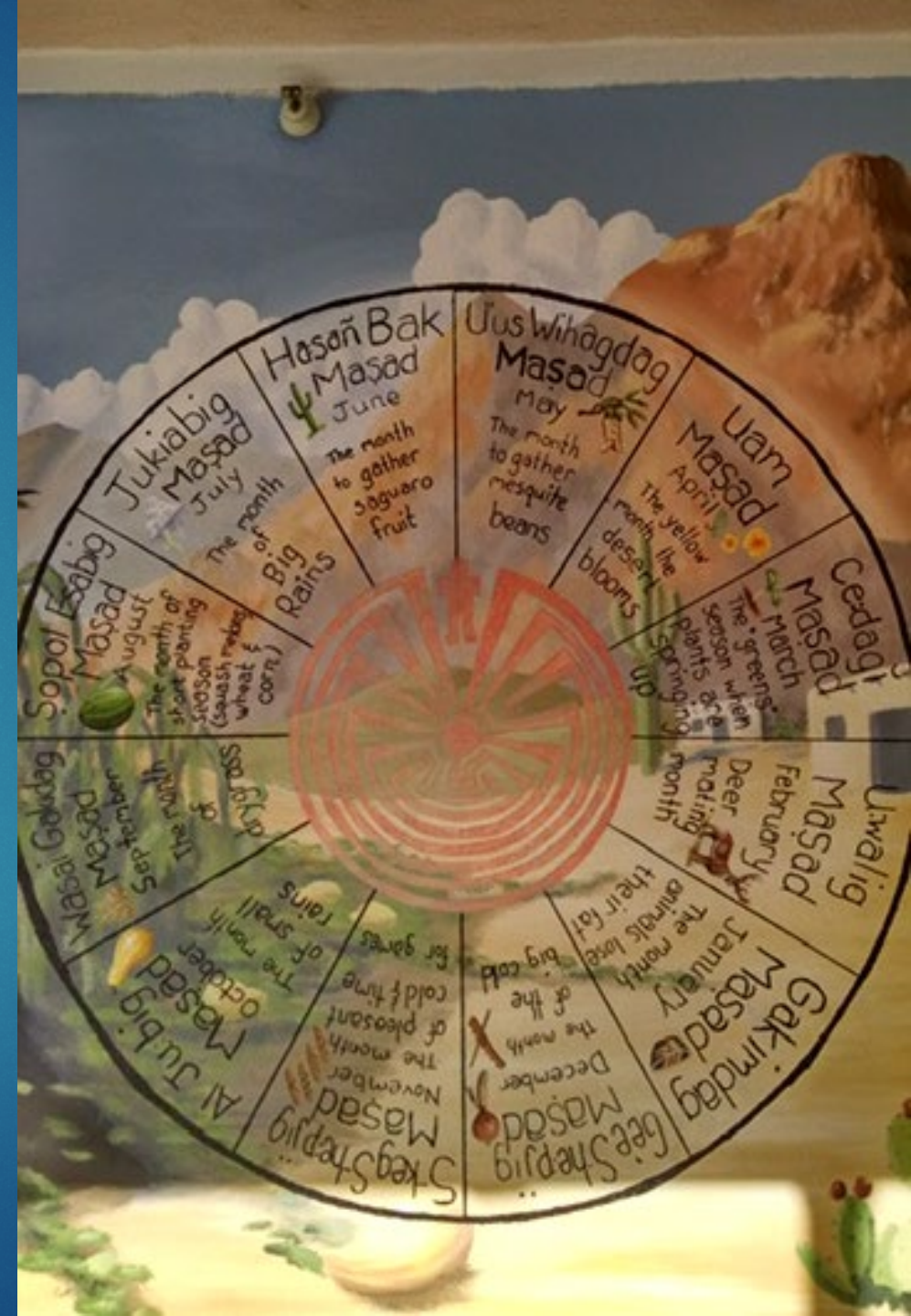
TOOLS, GLOVES, & SNACKS PROVIDED!

LEARN HOW TO PLANT THE RAIN!



Climate Change Planning

- ▶ How Are we going to pass knowledge on to the next land stewards to plan for the future?



MONSOON RAINFALL
NOW COMPARED TO THIS TIME LAST SEASON

	2020	2021
TUCSON	0.46"	7.56"
PHOENIX	0.10"	1.84"
FLAGSTAFF	1.47"	6.01"
SHOW LOW	1.43"	8.11"
PRESCOTT	1.36"	6.08"
PAYSON	1.61"	7.07"



Climate Change Exposures

- ▶ Hotter Temperatures
- ▶ Drought
- ▶ Extreme Storm Events
- ▶ Fire

Pressing Concerns in San Xavier

- ▶ Public Health
- ▶ CAP Shortage
- ▶ Increased Groundwater Pumping
- ▶ Mining (Water Quality)
- ▶ Range Management
- ▶ Land Development
- ▶ Invasive Species Related to Fire



Climate Change Planning

- ▶ Communicate with the Community about Climate Change
- ▶ Work with the Community on Identifying Resiliencies and Solutions
- ▶ Develop Recommendations for Adaptations



Climate Change Planning Funded by the UA

Community Workshops

Saturday, January 27th
Saturday, February 17th
Saturday, February 24th
Saturday, April 6th

Community Building
8 AM - 12 Noon

Refreshments,
Lunch, and
Incentives Included!

The San Xavier District Climate Change Resilience Project is looking to hire 3 Young Adult Ambassadors!

BENEFITS

- \$600 stipend
- Grow and share your knowledge of climate change
- Inform community members & District Leaders
- Support the District and Nation with overall climate assessments

ELIGIBILITY

- 18 years of age or older
- Complete our Ambassador training
- Available Saturdays to support 4 community workshops
- Open to various community outreach activities
- Knowledgeable of O'odham language and culture



Thank you!
Please Stop By Our Booth For More
Information

Or Contact US @:

- ▶ David Tenario (520)573-4056 dtenario@waknet.org
- ▶ Cie'na Schlaefli (520)573-4054 cschlaefli@watknet.org