

### **NATURAL RESOURCE SUMMARY**



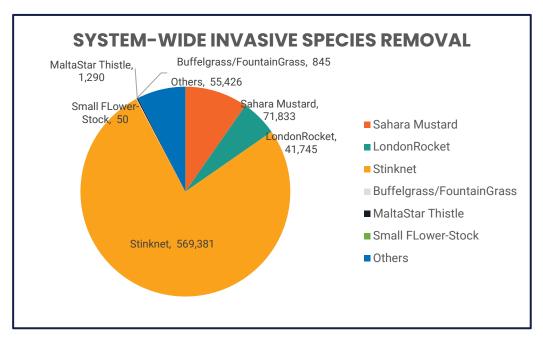
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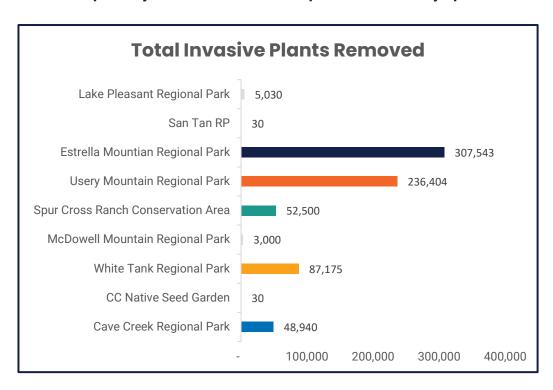
#### **DESERT DEFENDERS- INVASIVE REMOVAL**

#### **Highlights**

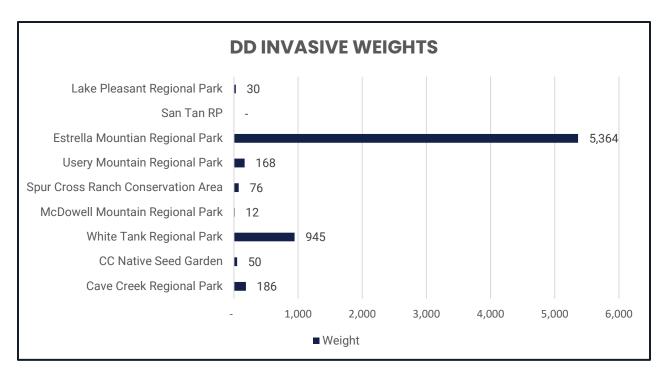
- Hosted 86 Removal Events.
- Removed 740,570 invasive plants, 6,831 pounds.
- Creating DD Communities at five parks (CC, SX, ES, US, and WT).



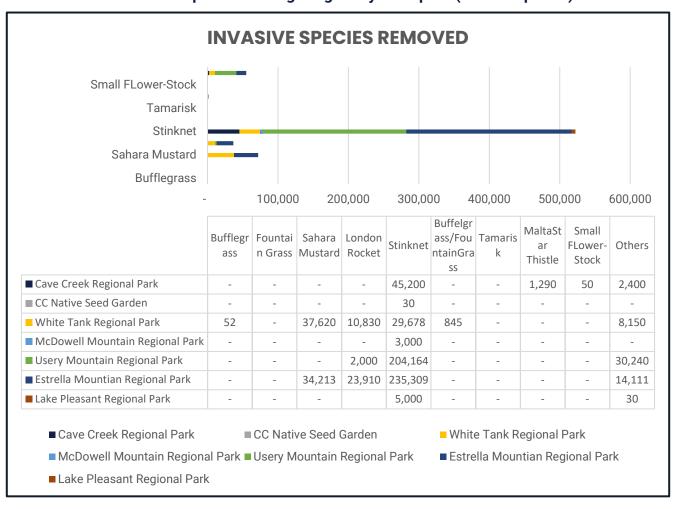
**Graph 1: System-wide number of plants removed by species.** 



**Graph 2: Total number of invasive plants removed by park.** 



**Graph 3 Total bag weights by each park (invasive plants)** 



Graph 4. Total number of invasive plant species removed by park.

### **DESERT DEFENDERS-CREATING COMMUNITIES OF STEWARDS**







DDS: ES: Renee and Sharon, WT: Nicole, Joette & Sharon, US: Darleen, Cyna, and Mo CC: Stephanie, San Tan: Tanna

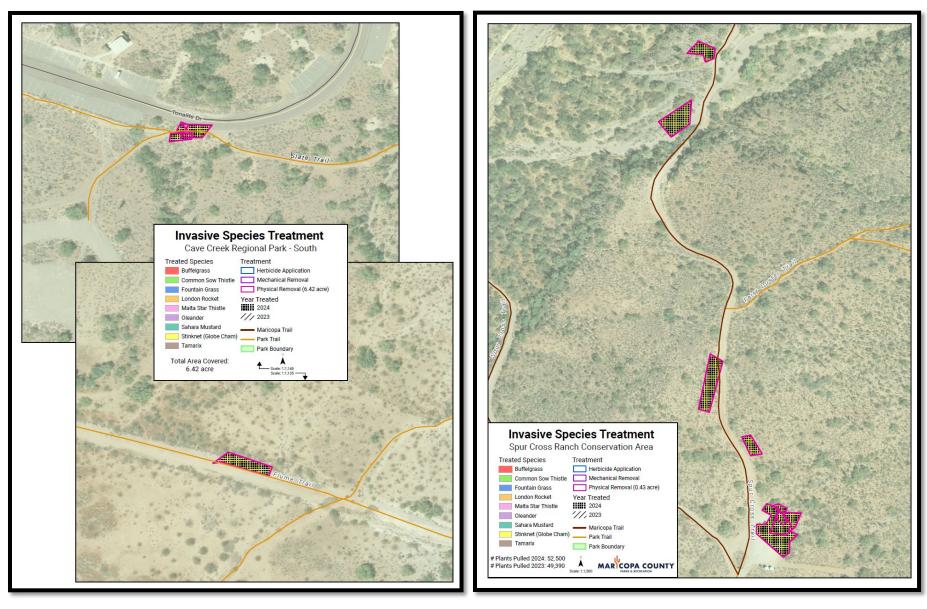






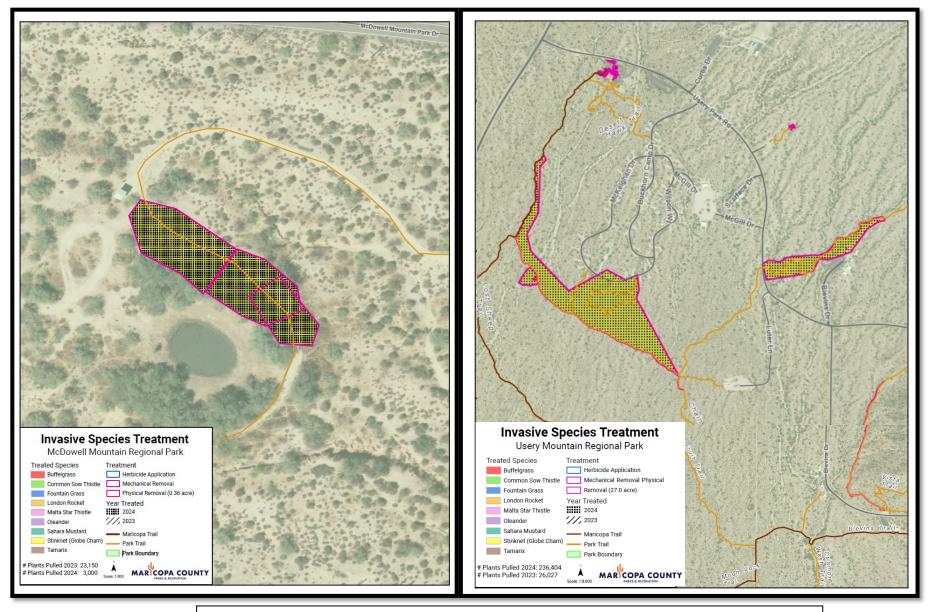
Top Row Left to Right 1. Usery MR., 2. Cave Creek RP Master Naturalists Training A., 3. Cave Creek RP with a 13K MC-Public Service., Bottom Left White Tank RP Removal., and Bottom right Estella MRP Xeric Landscape

### **INVASIVE SPECIES REMOVAL MAPS (CCRP & SX)**



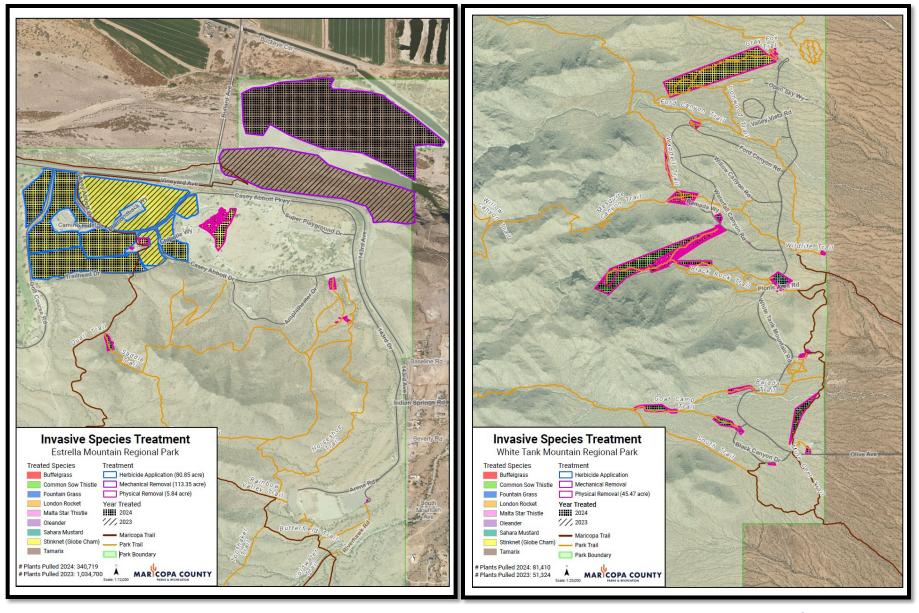
- > CC-DD Team removed over 48,500 invasive plants within 6.5 acres.
- > SX -DD Team removed over 52,500 Invasive Plants within 0.43 acres.

# **INVASIVE SPECIES REMOVAL MAPS (US AND MM)**



- > MM -DD Team removed over 3,000 invasive plants within 0.36 acres.
- > US-DD Team removed over 236,000 invasive plants within 27 acres.

### **INVASIVE SPECIES REMOVAL MAPS (ES & WT)**

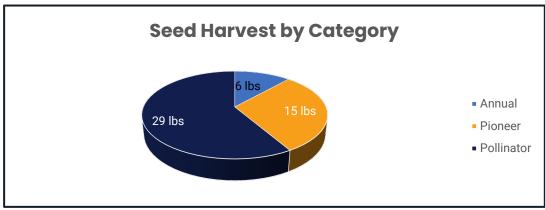


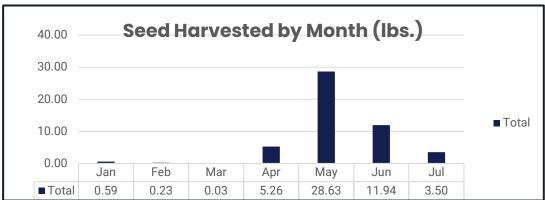
- ➤ ES -DD Team removed over 340,000 invasive plants within 5.9 acres, the contractor treated 85 acres of Stinknet, using pre- and post-emergent herbicide, and AZDFFM contractors masticated 80 acres of Tamarisk.
- > WT -DD Team removed over 87,000 invasive plants within 46 acres.

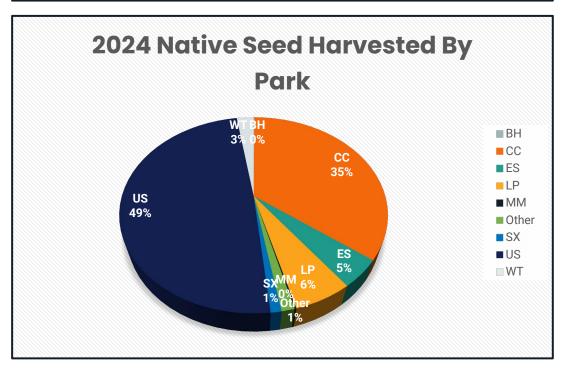
### **NATIVE SEED HARVEST EVENTS**

#### **Highlights**

- Hosted 26 Seed Harvest Events.
- Harvested over 50 pounds, representing over 60 native plant species.







### **NATIVE SEED HARVEST EVENTS**



Left and Top Right: Native Seed Garden-Cave Creek RP, Led by Ranger Kevin, Bottom right Spur Cross Ranch Dragonfly Trail Seed Harvest.





# NATIVE SEED GARDEN (CAVE CREEK RP)



July 2024 Native Seed Garden: 158 perennial plants representing 18 species (subshrub and forbs) plus 150 annuals representing six species.

# POLLINATOR GARDEN (Estrella MRP)









Xeric Landscape and Pollinator Garden (5 Acres) plantings: 792 plants representing 63 species. 294 Trees (10 species), 299 Shrubs-subshrubs (29 species), 140 Forbs (17 species), 18 Cacti (6 species).

# **POLLINATOR GARDEN (Estrella MRP)**



Pollinator Garden (PG) has 280 plants representing 38 species.

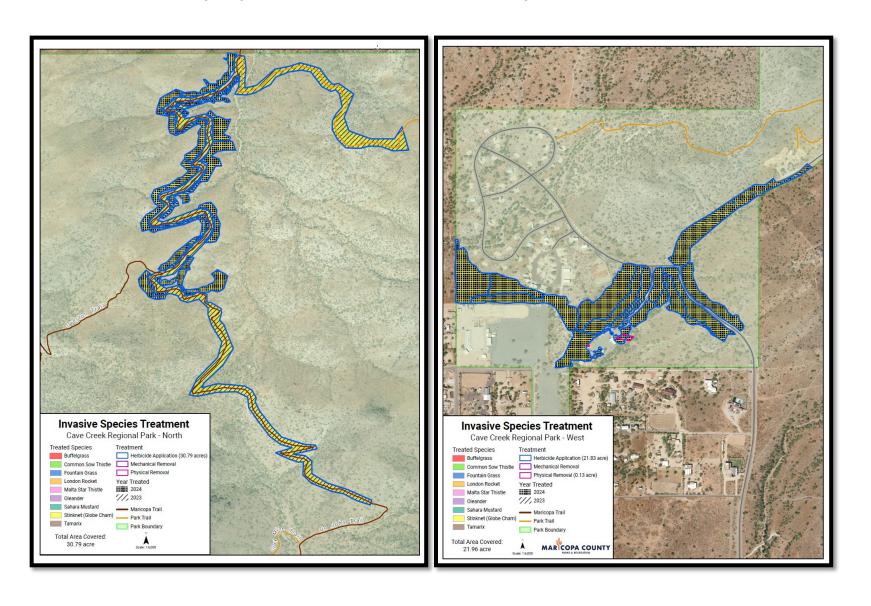
March 24: Water Feature was installed.

Interpretive Signs: Coming Soon.



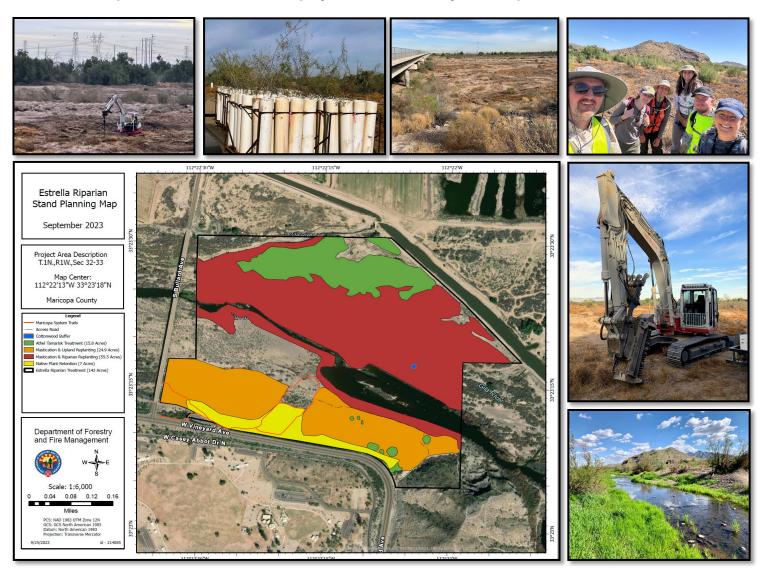
# GRANTS- HFI GRANT (2022-2024) CAVE CREEK RP

NPS Regional Invasive Plant Management Team applied herbicide applications, treating 60 acres in Fall 2023 and Spring 2024, with continued treatment planned for Fall 2024.



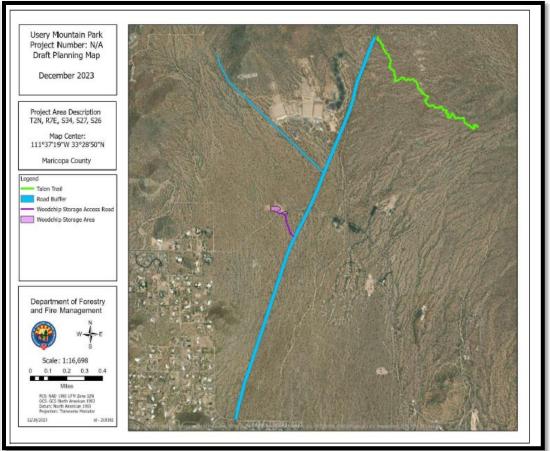
### PARTNERSHIPS: RIPARIAN HABITAT RESTORATION (ES)

- Phase 1: Dec 2023-March 2024.Masticated 80 acres of Invasive Tamarisk and planted over 1300 Native Tall Pot Trees.
- > Phase 2: Fall 2024-2025 Continue Tamarisk treatment, invasive species treatment (stinknet and others), and supplemental planting.
- > Monitoring: Photo Plots, Drone Imagery, Tree survivability, and Vegetation Transects



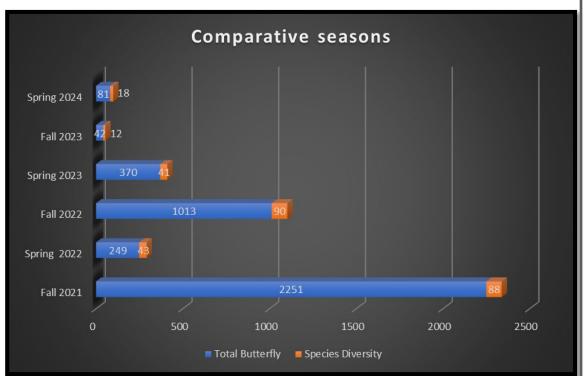
#### **SHADED FUEL BREAKS**





- > 2023 Usery MRP began in the summer of 2023, will continue to be installed in the fall of 2024, and will be maintained until 2026.
- Fire Fuel Reductions and Shaded Fuel Break Schedule: Usery MRP 2023-2026, McDowell MRP Fall 2023, Cave Creek RP 2024, Spur Cross Ranch CA 2024, White Tank and HRP 2025, Estrella and Buckeye Hills 2026.

#### **BUTTERFLY MONITORING**





- Fall 2023: 42 total butterflies of 12 species. It was cloudy and drizzled during the counts.
- > Spring 2024: 81 total butterflies of 18 species. It was a cloudy day, so the butterfly numbers were low, the sun appeared late, and it was windy.
- New Butterfly Brochures: Brushfoot, Metalmark and Swallowtail series, and Sulphur and Skipper series

### **DRONE MONITORING with OET**





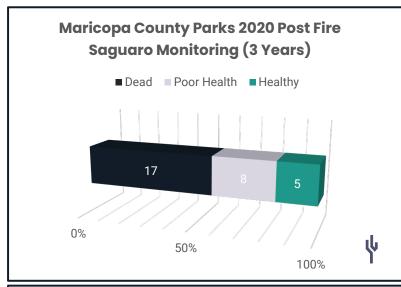
OET-GIS uses RGB and Multispectral to assist Natural Resources in monitoring and documenting invasive species, stinknet, tamarisk, and wildfire impacts.

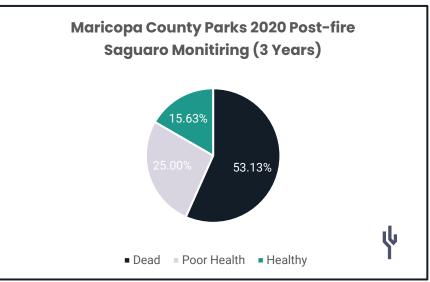
- > UMRP 2023-2024
- 2023-2024 > MMRP
- > SCRCA 2025-2026
- > CCRP 2025-2026
- > ESRP 2026-2027
- > WTRP 2026-2027
- 2027-2028 > HRP
- **≻** BHRP 2029

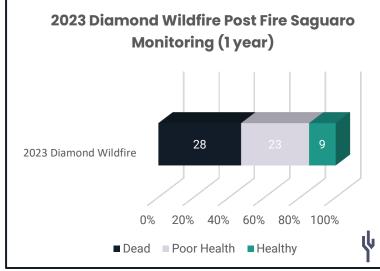
### SAGUARO TRANSECT MONITORING

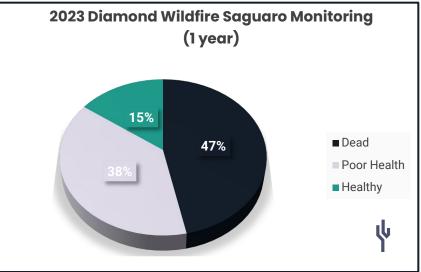
Post Fire Effects monitoring of the 2020 wildfires at three parks, results show that 53% (17) of the Cacti are dead, 25% (8) are in poor condition, and 15.6% (5) cacti appear healthy (n-18).

The Diamond Wildfire showed similar results after one year, with 47% (28) of the Saguaro cacti dead, 38% (23) in poor condition, and 15% (9) Healthy (n=65). It is predicted that the saguaros in poor condition (30% or greater scorch) will perish in the next few years; our results represent 26% or greater scorch as we used the Braun and Blauquist classes.

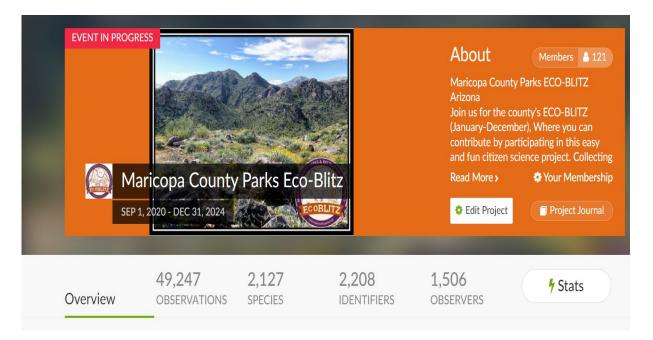








# **ECO BLITZ**





- > Over 49,247 observations, 2,127 species, and 1,056 Observers (121 are members).
- Each year, there are 12 monthly challenges. Interpretive Rangers provide input and promote the Eco blitz in their programs.