

DESERT TORTOISE MONITORING

PROJECT #: 2021-GBI-2030A

PROJECT #: 2017-GBI-1741A



AGENCY PARTICIPANTS



Boulder City Conservation Easement Desert Tortoise Telemetry

PROJECT #: 2021-GBI-2030A

Year 5





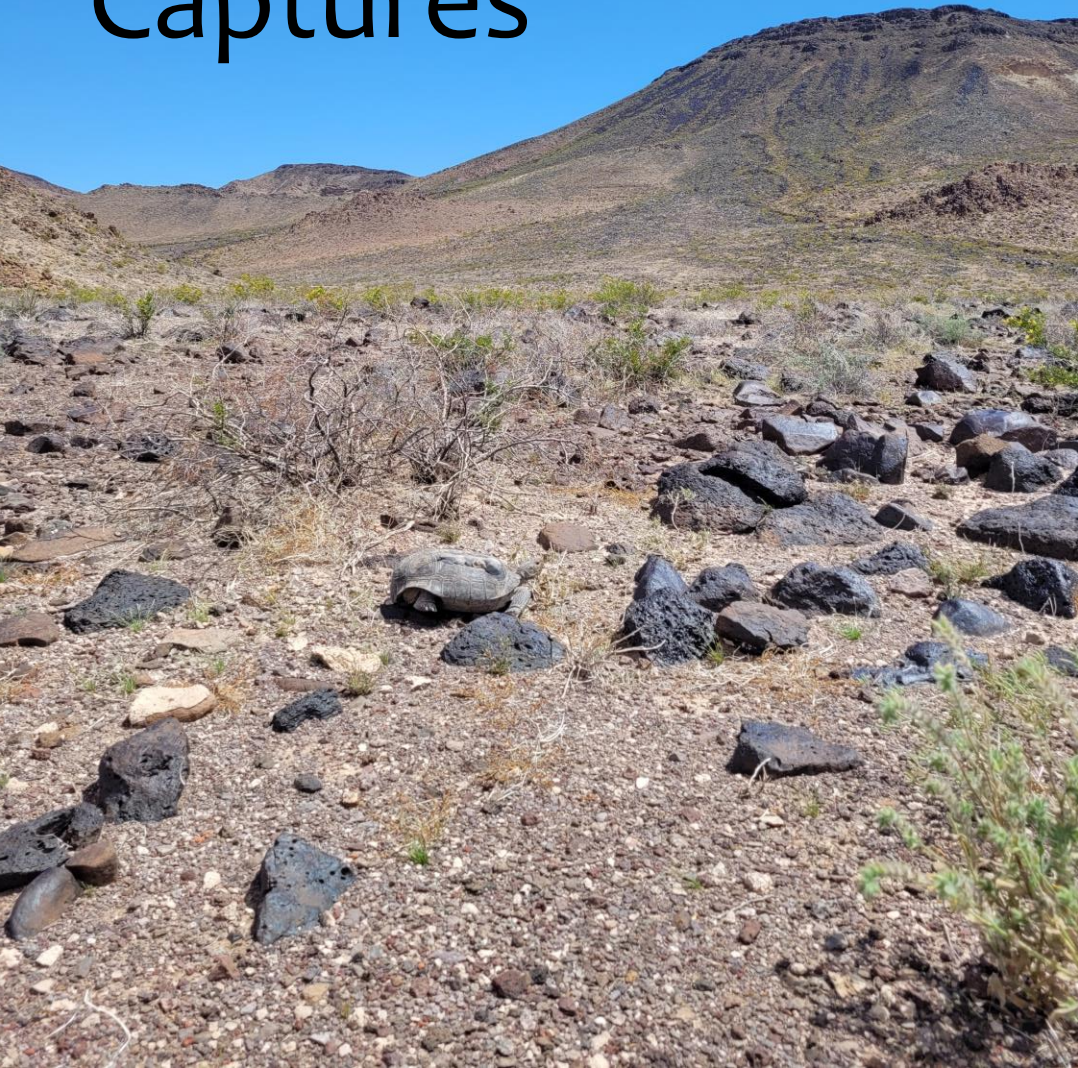
Project Overview

- Help understand and assess population augmentation
- Determine survivorship and movement patterns of translocated and resident desert tortoise
- Began monitoring in Oct 2014
- Monthly observations Nov-Feb
- Weekly observations Mar-Oct

Slow & Steady Wins the Race...

- Hardships of 2022
 - Ongoing drought
 - Large predation event
 - Late bloom for 2023
- Goals for 2023
 - Increase total # of resident tortoises
 - Finish strong

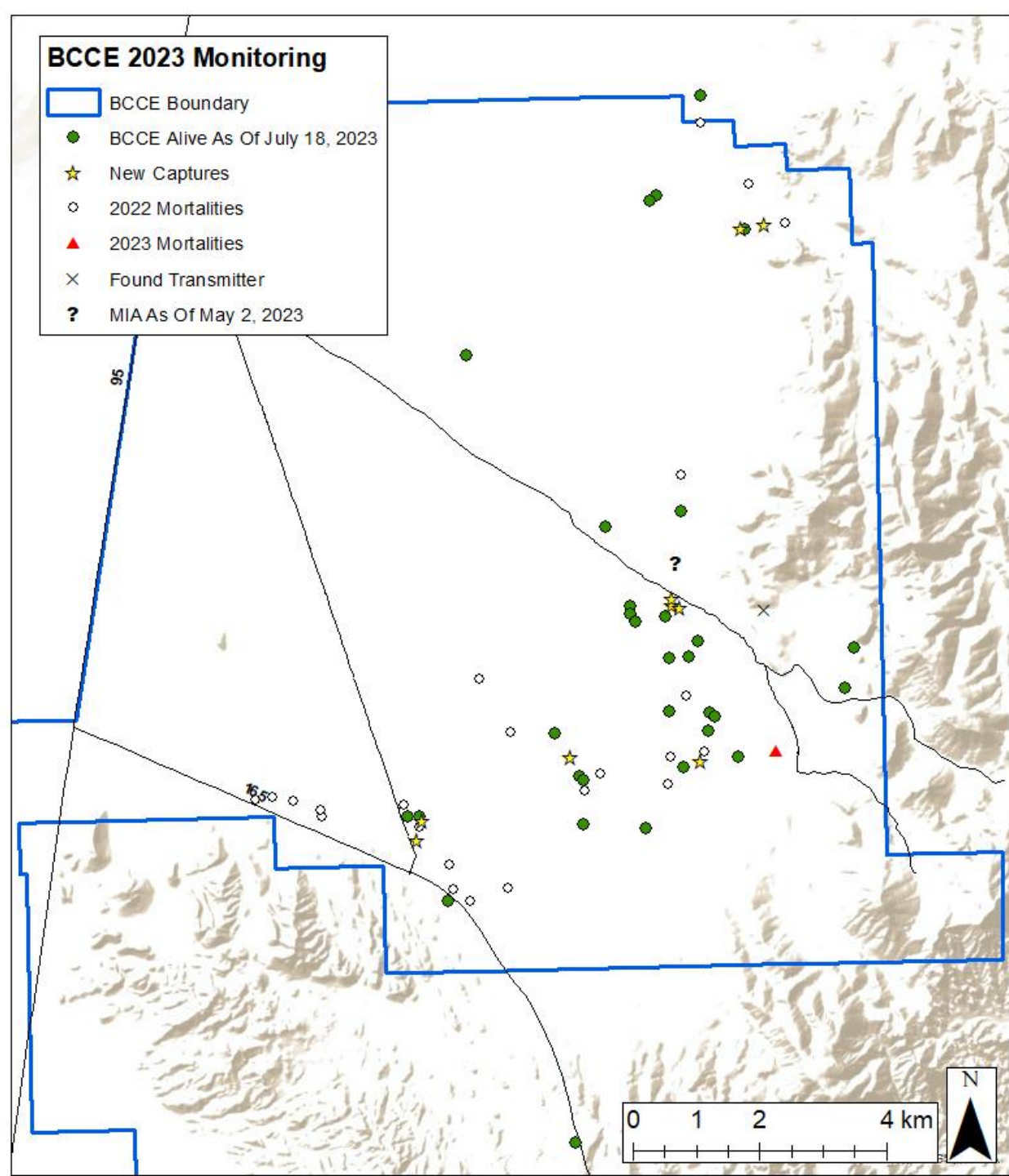
Nine New Captures





BCCE 2023 Monitoring

- 20 Resident
- 21 Translocated
- 524 Total Observations



What's Next?

- Continue weekly monitoring until Oct
- Monthly monitoring in Nov
- Submit Final Project Data and Final Report to DCP
- Additional funding to continue monitoring efforts



Eldorado Valley Post Translocation Surveys

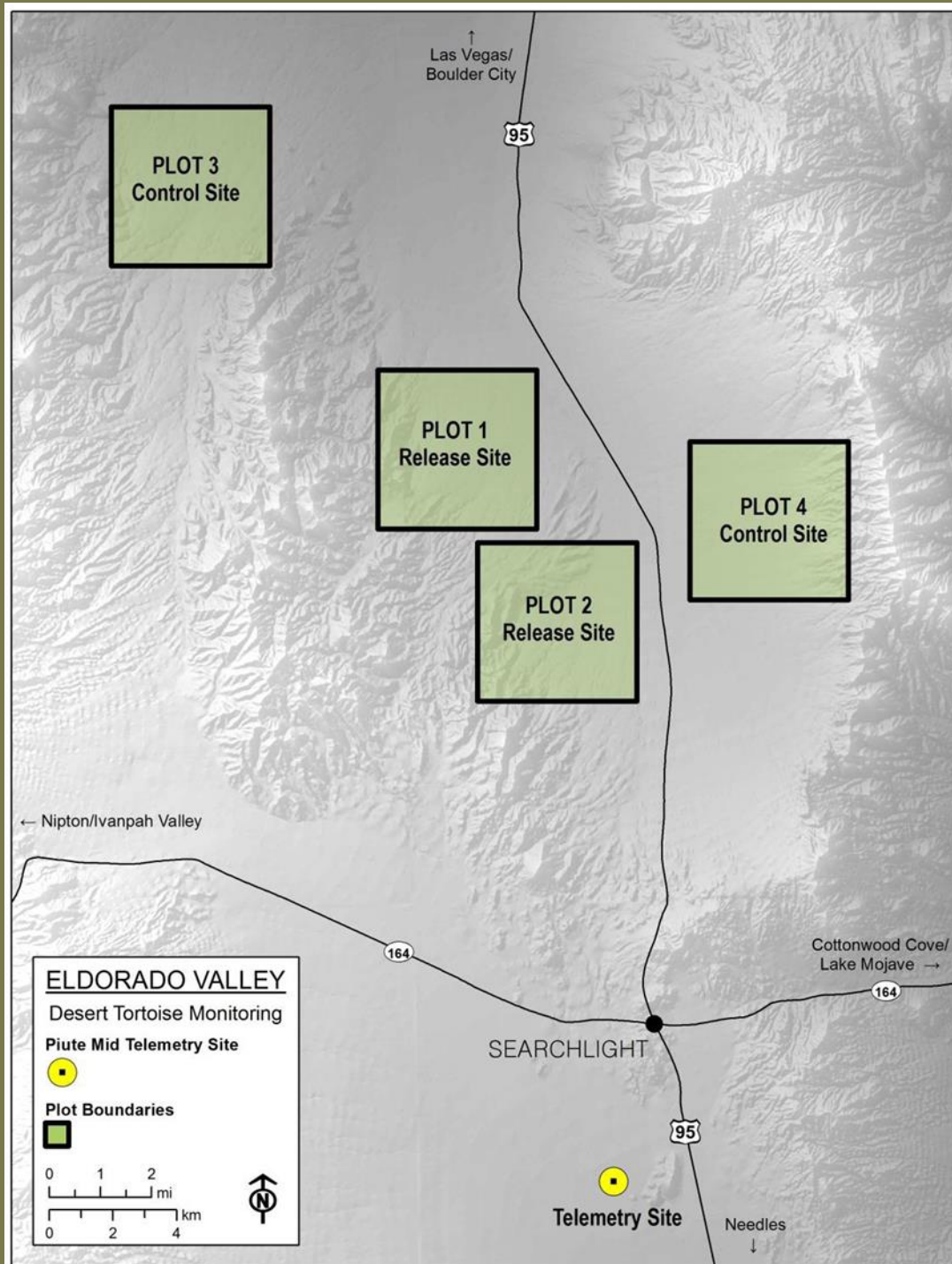
PROJECT #: 2017-GBI-1741A



Project Overview

- Help understand and assess population augmentation
- Monitor the effectiveness of translocation by comparing two control sites to two release sites
- Collect data on resident tortoises prior to translocation (2014) and post-translocation (2015-2016, 2023-2024)







Single-Observer Transect Protocol

- Line distance sampling
- 5 km parallel transects oriented east-west, 50 m apart
- 2 transects per day
- Tortoise observations: MCL, sex, BCS, nares health, parasite load, tags, and location data
- Carcass observations: condition, ID, location data, MCL and sex when possible
- Transect vs opportunistic

Preseason Training









Observations

- April 3-May 10
- 400 assigned transects
- 103 tortoises
 - 88 transect: 74 new, 7 recaptures, 7 unk
 - 15 opp: 13 new, 2 recaptures
- 117 carcasses
 - 113 transect: 14 w/ existing tags
 - 4 opp: 1 w/ existing tag





Telemetry

- Conducted in Piute Valley (Piute-Mid) to estimate proportion of tortoises active or visible during transect surveys
- Data used to calibrate the results of transect surveys

Telemetry

Stratum	Transmitter Equipped Tortoises	Days Surveyed	Observations	Average Observations per Day
Piute-Mid	13	38	822	21.6



Upcoming

- Submit Final Project Data and Final Report to DCP in Sept
- Next season's recruitment set to begin late fall











QUESTIONS?



Photo Credit:
Great Basin Institute
Sarah Mendoza