

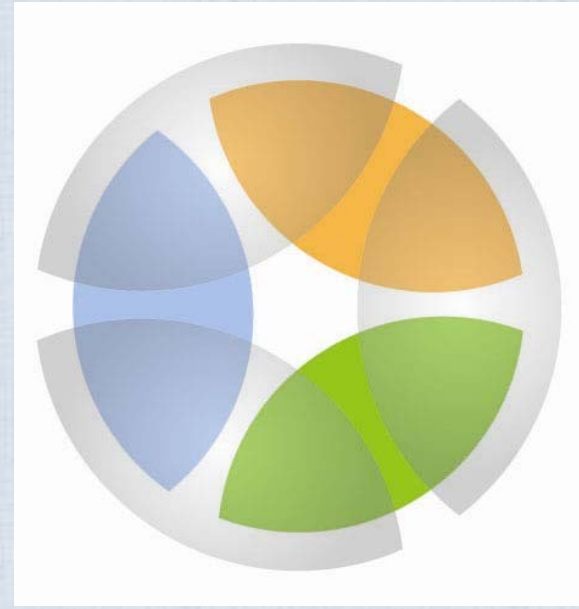
PROJECT NUMBER: 2013-GBI-1450A



Eldorado Desert Tortoise Monitoring

Year 0

AGENCY PARTICIPANTS



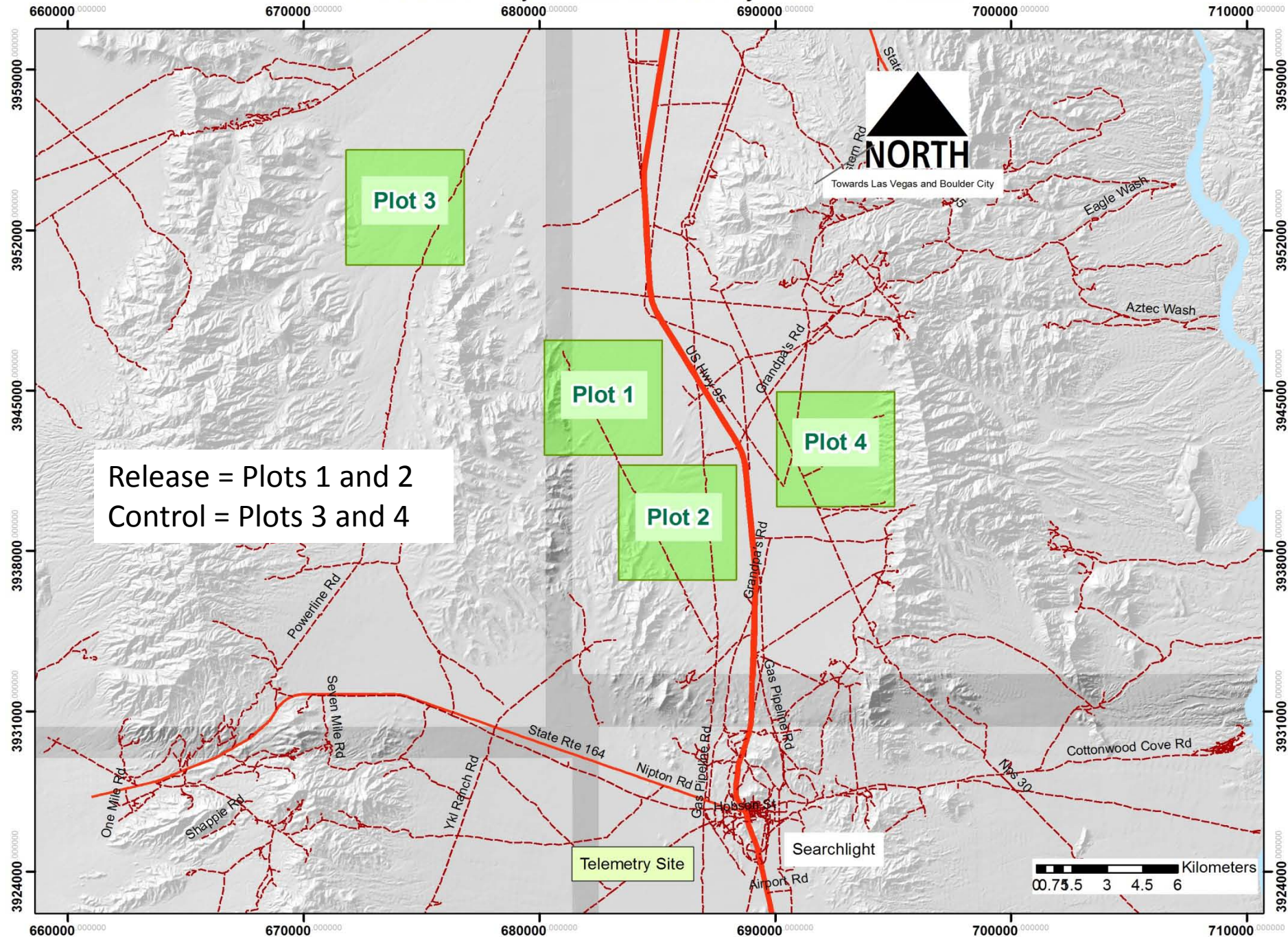
This work was supported by the Clark County Desert Conservation Program and funded by Section 10 (for Year 0), and Southern Nevada Public Land Management Act (for Years 1 and 2) as project # 2013-GBI-1450A to further implement or develop the Clark County Multiple Species Habitat Conservation Plan



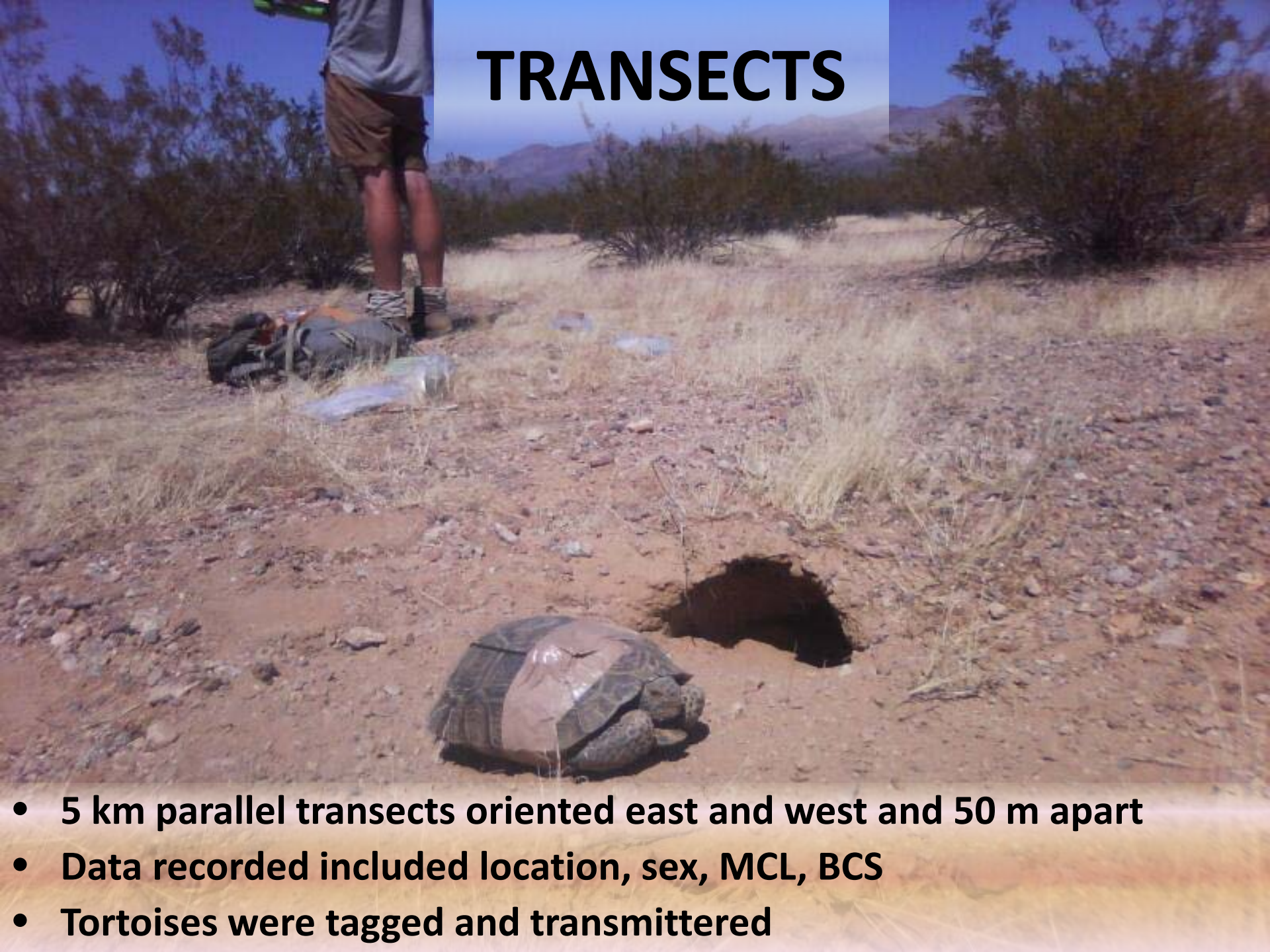
PROJECT OVERVIEW

- 
- Part of a larger population augmentation study
 - Monitor the effectiveness of translocation
 - Compare two control sites to two release sites

Eldorado Valley Translocation Project Plot Locations



TRANSECTS




- 5 km parallel transects oriented east and west and 50 m apart
- Data recorded included location, sex, MCL, BCS
- Tortoises were tagged and transmittered

TELEMETRY

- **Conducted in Piute Valley to estimate the proportion of tortoises active or visible during transect surveys**



HEALTH ASSESSMENTS

- 
- A large tortoise is being held by a person wearing blue gloves. The tortoise is resting on a white plastic bag. The background shows a dry, grassy field under a clear sky.
- **Physical examinations of residents**
 - **Collected tissue samples (oral swabs and blood)**
 - **Notched tortoises**

PROJECT OBJECTIVES

- 1) Collect data on resident tortoises to estimate abundance (density) prior to translocation (Year 0)**
 - Conduct telemetry at one site in Piute Valley to calibrate the results of transect surveys

- 2) Provide a baseline health assessment for resident tortoises prior to translocation of new tortoises**

- 3) Collect data on resident and translocated tortoises for two years after translocation (Years 1 and 2)**
 - Conduct telemetry at one site in Piute Valley to calibrate the results of transect surveys

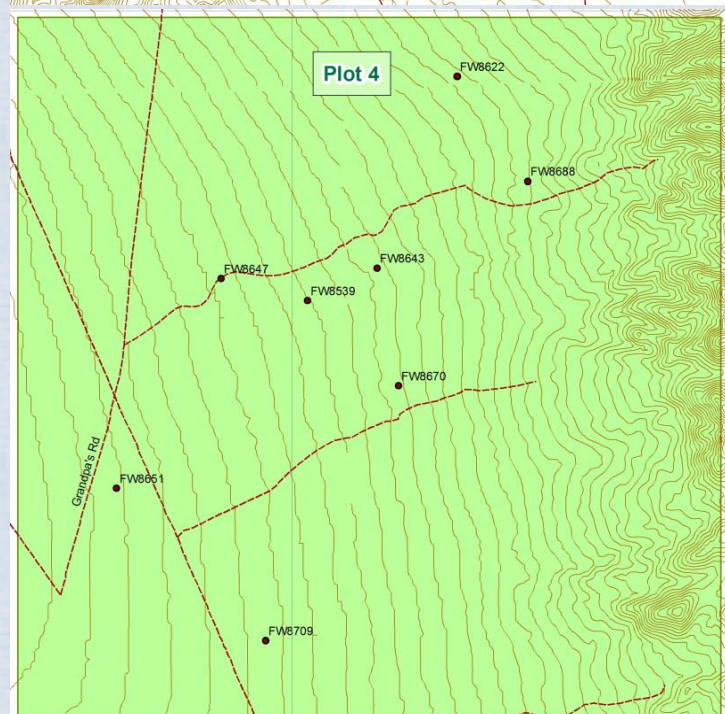
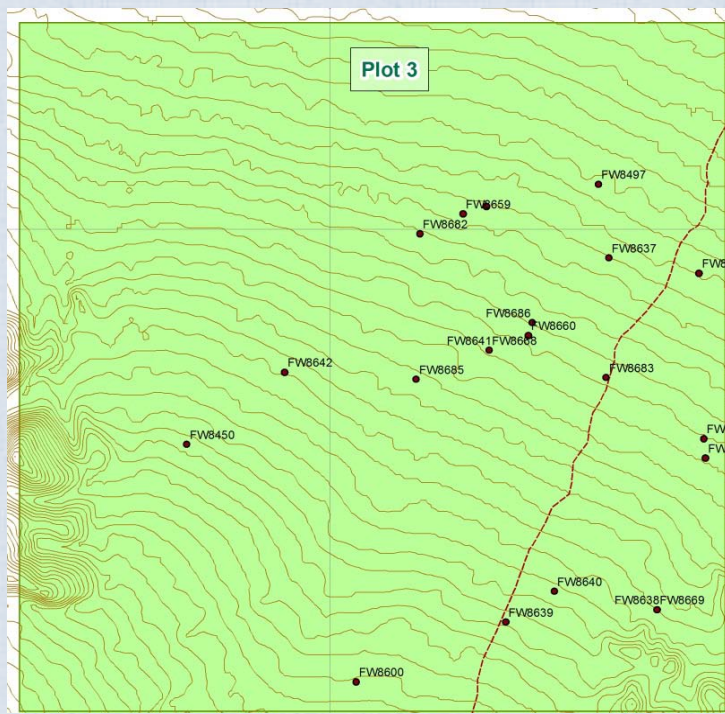
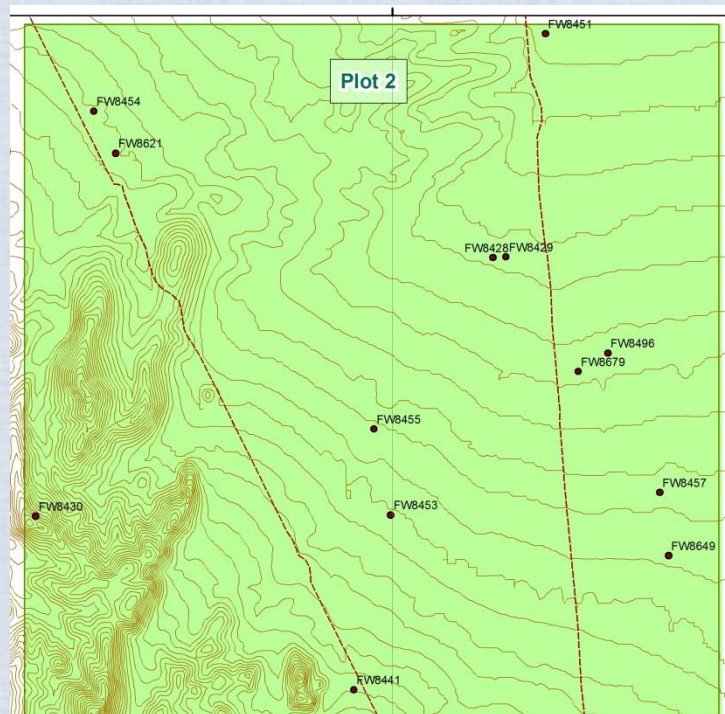
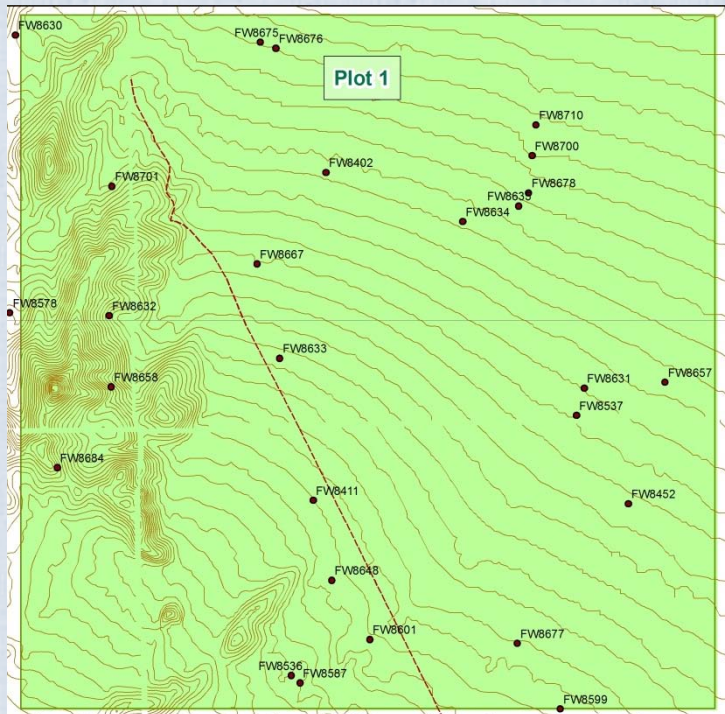
SUMMARY OF PROJECT TO DATE



- **Transect crew had an average of 2 years line-distance-sampling experience**
- **Telemetry crew had an average of 3.5 years of desert tortoise experience**
- **Health Assessment team completed the FWS/SDZ training workshop**
- **Crew members were provided refresher training prior to the season**

	TRANSECTS ASSIGNED	TRANSECTS COMPLETED	TRANSECTS INTERRUPTED	TRANSECTS SHORTENED
PLOT 1	100	100	0	4
PLOT 2	100	100	4	16
PLOT 3	100	100	0	0
PLOT 4	100	100	0	0
TOTAL	400	400	4	20

*Transects walked 14 April-22 May 2014

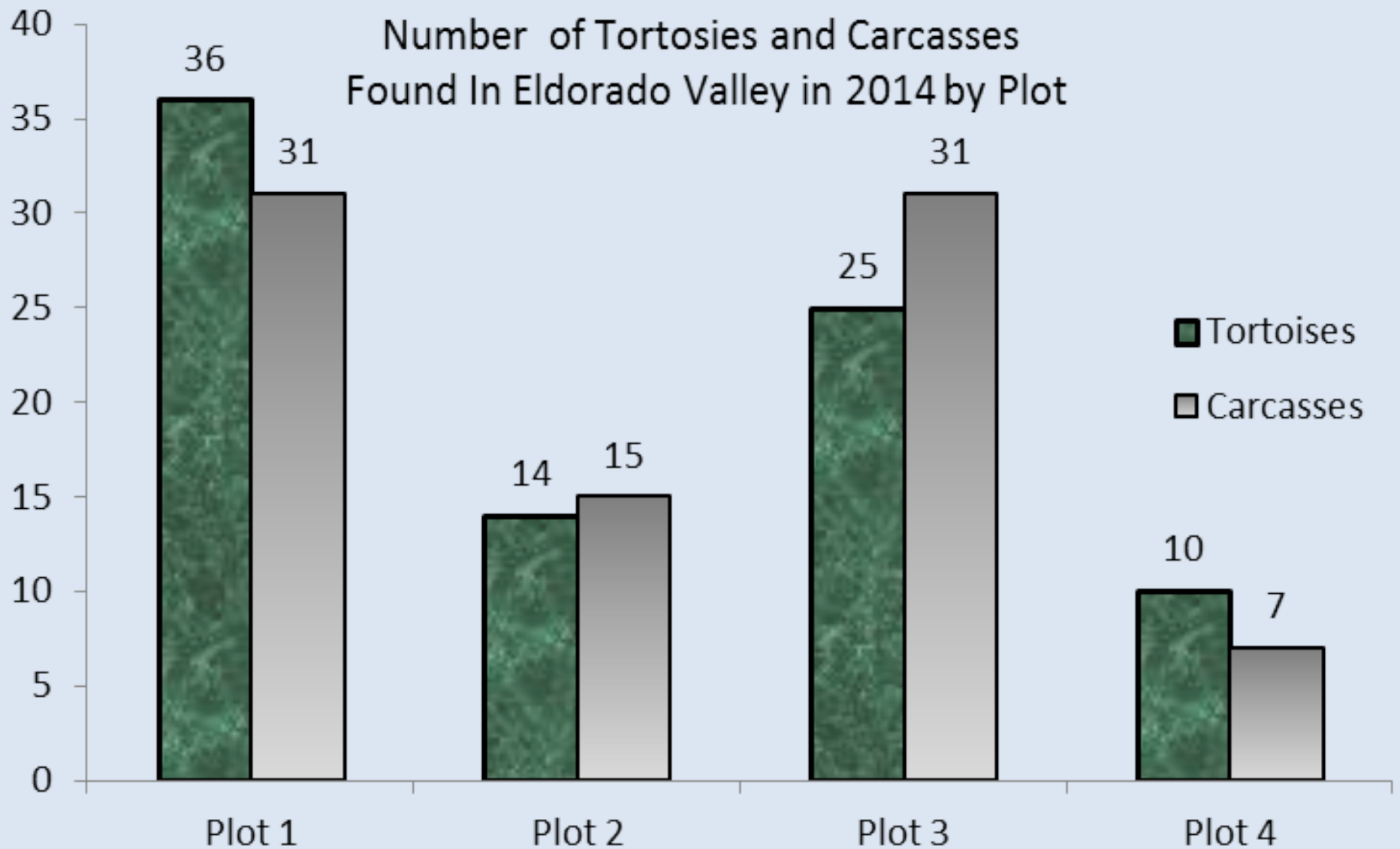


- **Telemetry monitored from 10 April - 22 May 2014**
 - 2 days of observations were made before the start of the field season



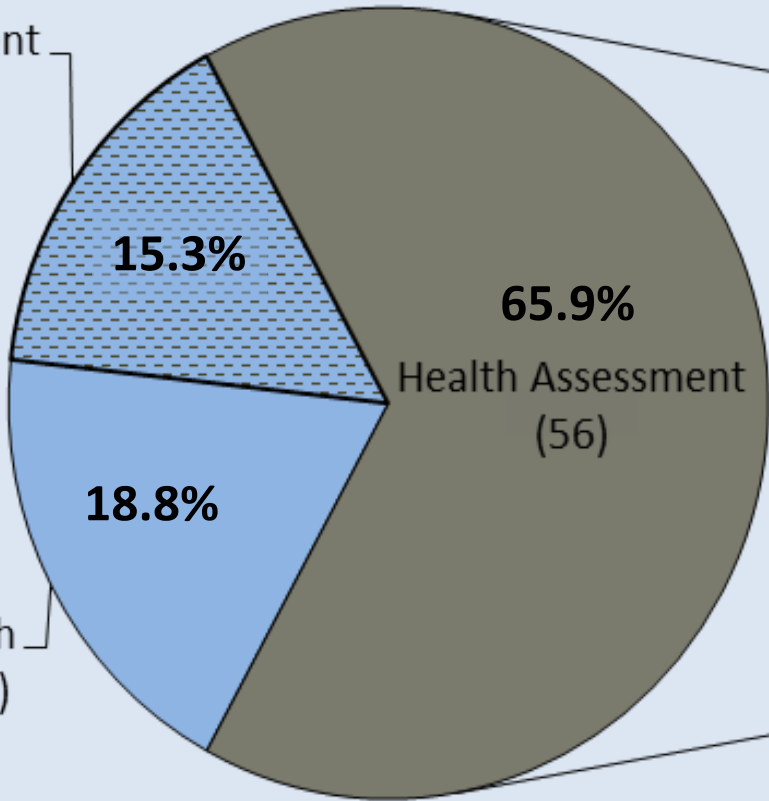
- **Average number of observations = 35.2/day**
 - 18.5/day when 15 tortoises were monitored prior to transect surveys
 - 36.5/day when 12 were monitored concurrent with transect surveys

Number of Tortosies and Carcasses Found In Eldorado Valley in 2014 by Plot



85 total tortoises, excluding recaptures
(not depicted: 88 with recaptures)
84 total carcasses

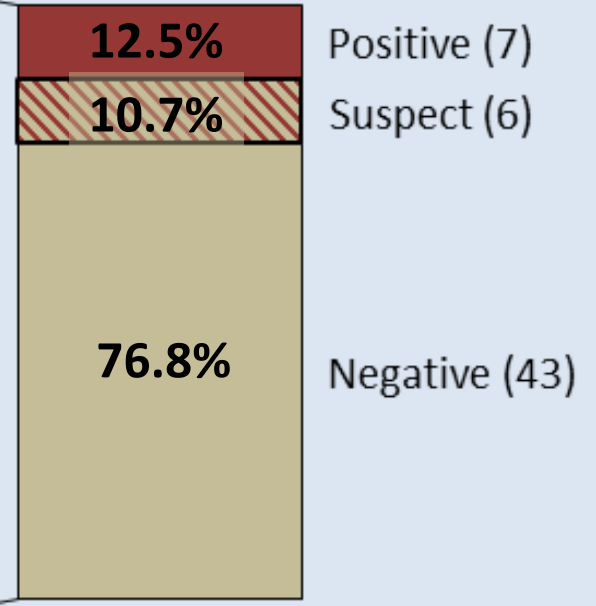
Unavailable for
Health Assessment
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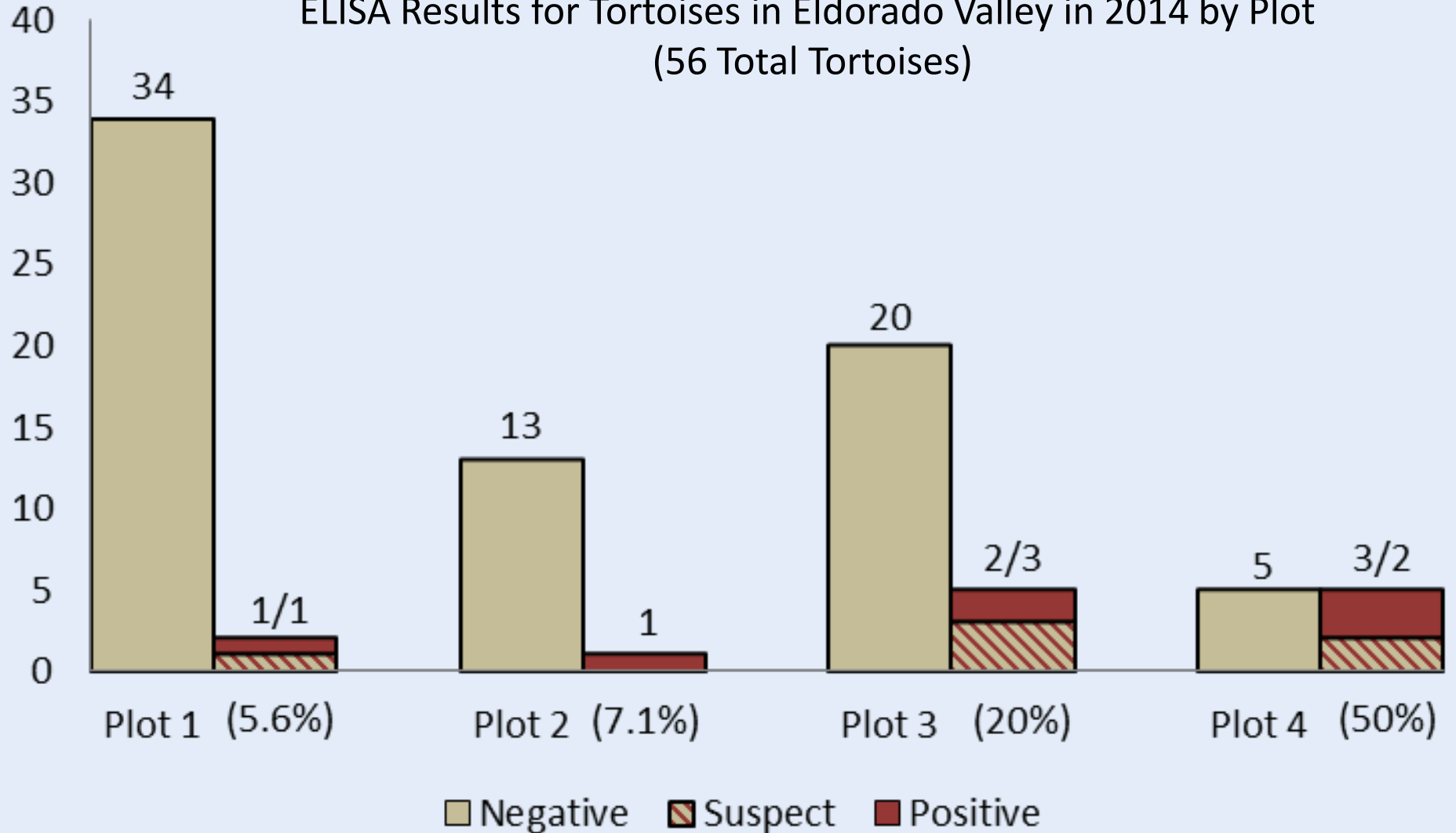
Unable to Attach
Transmitter (16)

85 Total Tortoises

ELISA Results



ELISA Results for Tortoises in Eldorado Valley in 2014 by Plot
(56 Total Tortoises)



23.2% Total Positive and Suspect
12.5% Positive

STATUS OF PROJECT OBJECTIVES

1) COMPLETED

Collect data on resident tortoises to estimate abundance (density) prior to translocation

- Conduct telemetry at one site in Piute Valley to calibrate the results of transect surveys

2) COMPLETED

Provide a baseline health assessment for resident tortoises prior to translocation of new tortoises

3) Collect data on resident and translocated tortoises for two years after translocation

- Conduct telemetry at one site in Piute Valley to calibrate the results of transect surveys

VALUE TO MSHCP IMPLEMENTATION

OBJECTIVE 1: Collect transect and telemetry data on resident tortoises

CURRENT MSHCP CONSERVATION EFFORT: Protect existing desert tortoise populations and monitor to detect trends



OBJECTIVE 2:

Provide baseline health assessments for resident tortoises prior to translocation

CURRENT MSHCP CONSERVATION EFFORT:

**Assess disease through
applied research**



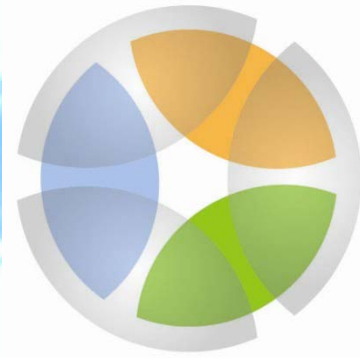


OBJECTIVE 3: Collect transect and telemetry data on resident and translocated tortoises for 2 years after translocation

CURRENT MSHCP CONSERVATION EFFORT: Improve effectiveness of translocation methods and monitoring



THANK YOU



QUESTIONS?

(Permission to use photographs provided by The Great Basin Institute)

Overview of Tortoise Locations - All Plots (as of 22 May 2014)

