

*Increasing Giant Kangaroo Rat Presence
on SRT Managed Lands North of Highway
58 in the Carrizo Plain*

Ian Axsom

Assistant Conservation Biologist

iaxsom@sequoiariverlands.org



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SRT has protected more than 28,000 acres in 8 California counties

Including:

- **6** nature preserves that protect **4,000+** acres
- Conservation easements on **~20,000** acres



Conservation Easements

A **conservation easement** is a voluntary legal agreement between a landowner and a land trust or government agency that permanently limits uses of the land in order to protect its **conservation** values.



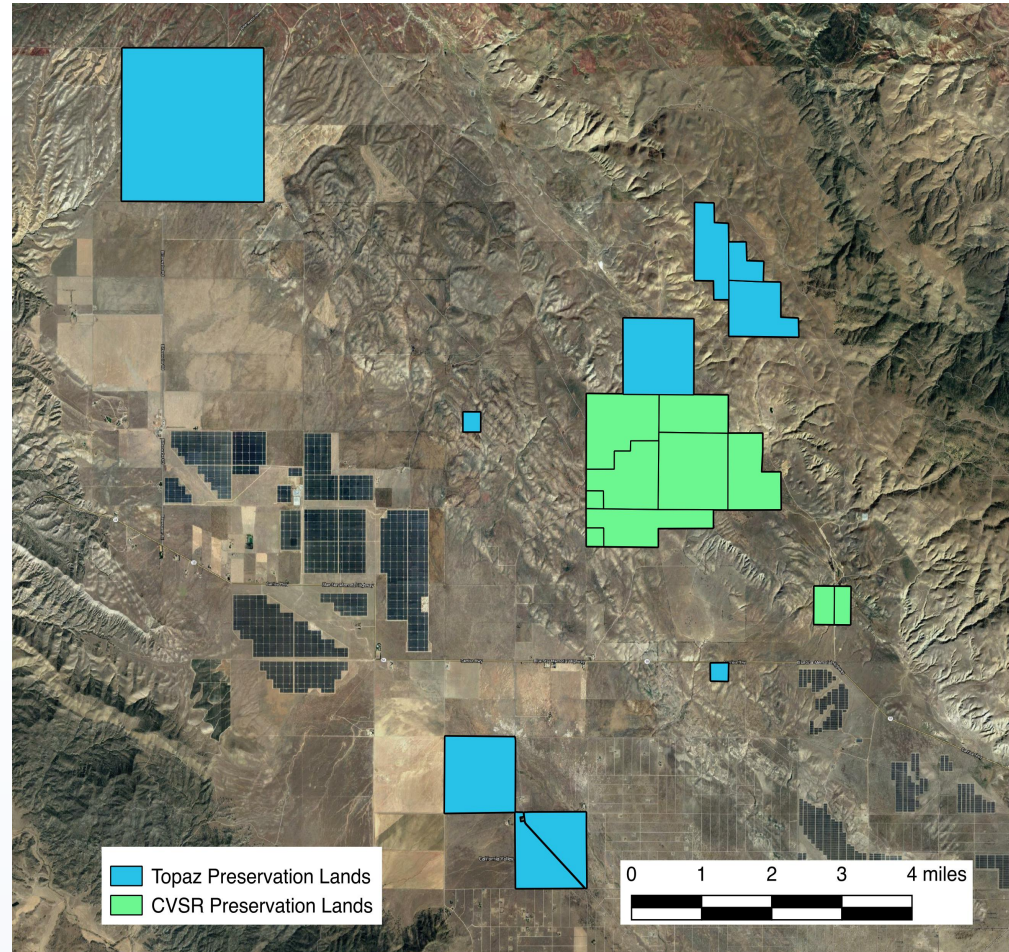
Educational Programs

- Guided hikes
- Field trips for students K-12
- After-school programs
- Service learning days
- Outdoor Juvenile Probation program



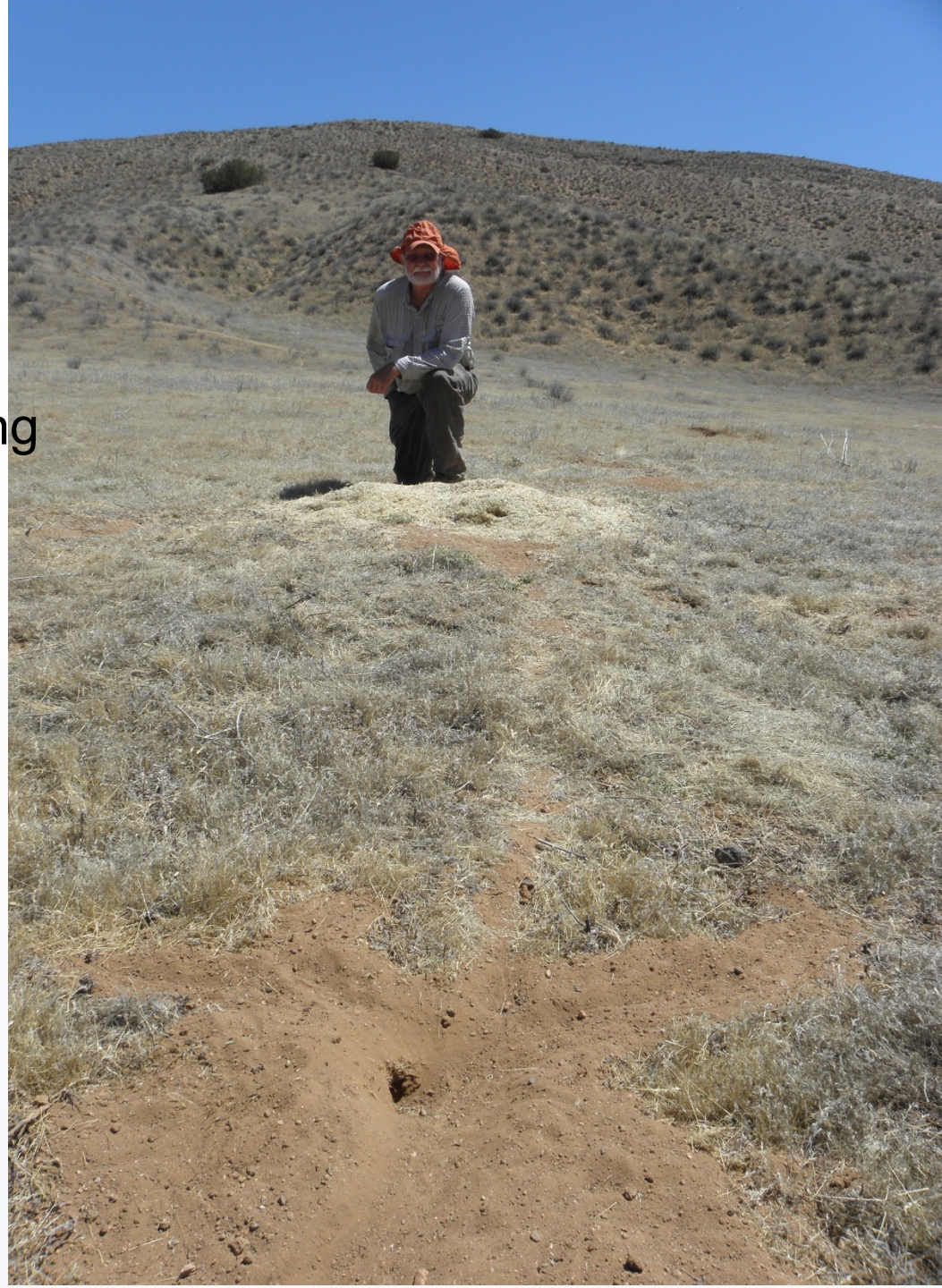
SRT's Role in Carrizo

- Topaz Solar Farm and California Valley Solar Ranch mitigation lands
- Permanently conserved
- Intended to compensate for impacts from development
- Management is guided by Habitat Management Plans



Giant kangaroo rat

- Federally endangered
- Keystone species
- Burrowing and seed caching
- Effects on community
 - Productivity
 - Plant species composition
 - Invertebrate diversity
 - Vertebrate abundance



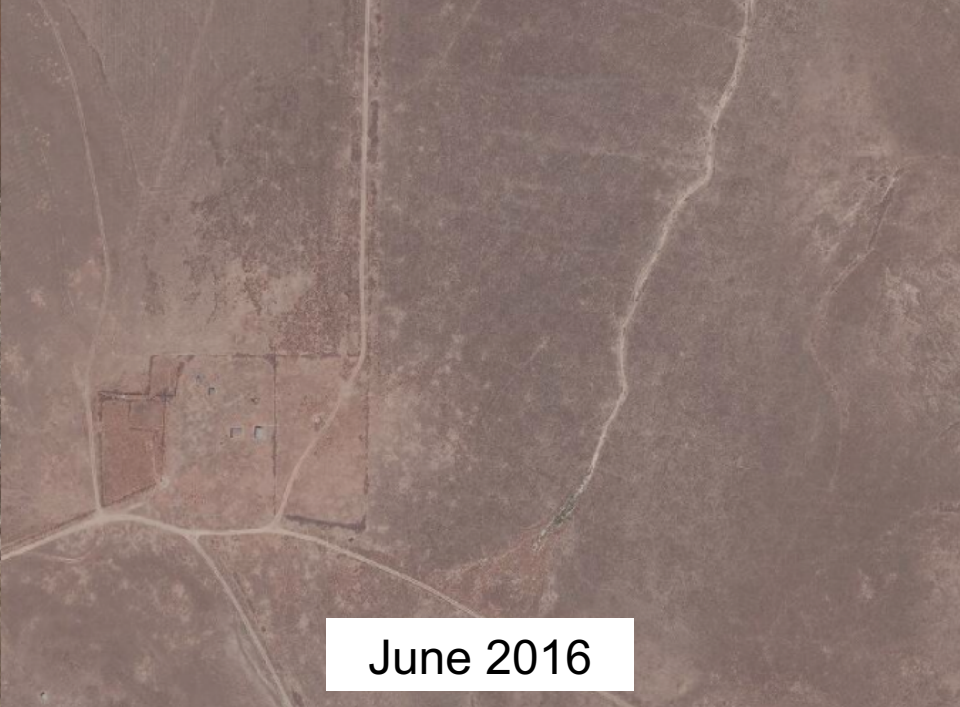
Giant kangaroo rat

- First detected on SRT lands North of HWY 58 in fall 2016
- We don't know what is driving the movement but it may be in response to environmental or land use change
- Arrival detectable in satellite imagery





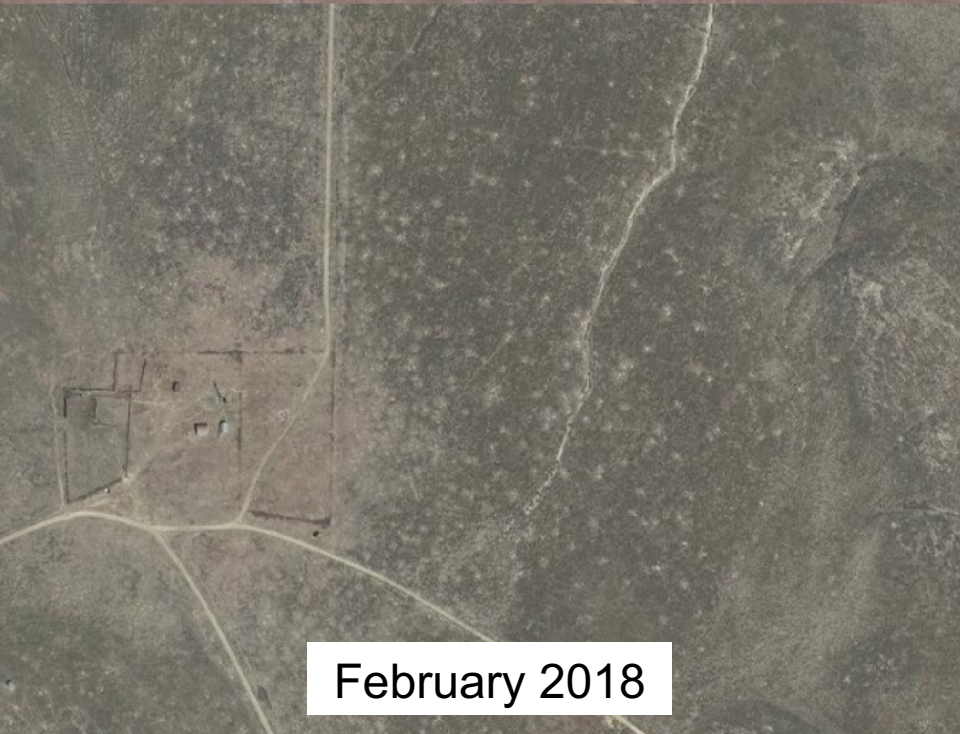
May 2010



June 2016



June 2017



February 2018

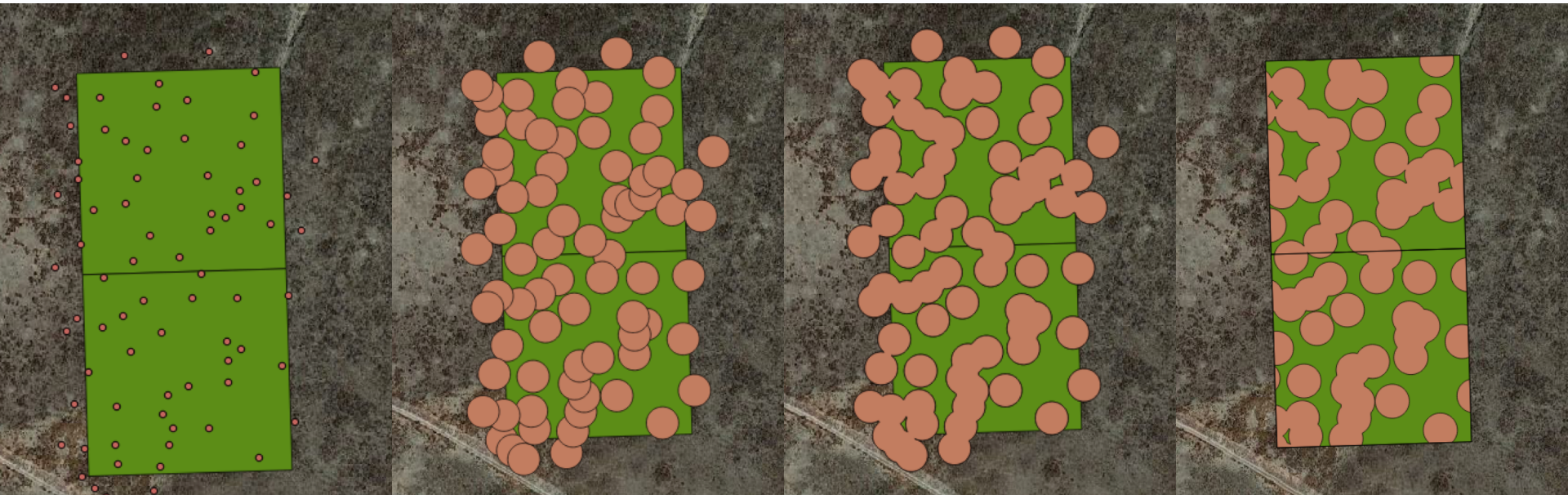
Survey Methods

- Randomly selected 1 hectare grids
- Walking surveys
- Took GPS points of GKR precincts



Analysis Methods

- Research average GKR home range size
 - ~240 m²
- Buffer each point by a circle with that area
- Dissolve and clip excess



Results

- GKR were present in 48% of all grid cells
- Within only cells where GKR were present, GKR occupied 19% of each cell
- Including all cells surveyed, GKR occupied 9% of each cell

Conclusions

- GKR are present and fairly widespread on SRT managed lands north of Highway 58
- GKR densities appear to be less than those found in the core habitat areas to the south.

Going forward

- Mark recapture survey on small subset of grids
- Maintain suitable habitat through ecologically based regenerative grazing
- Continue to monitor GKR use of SRT lands in Carrizo





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