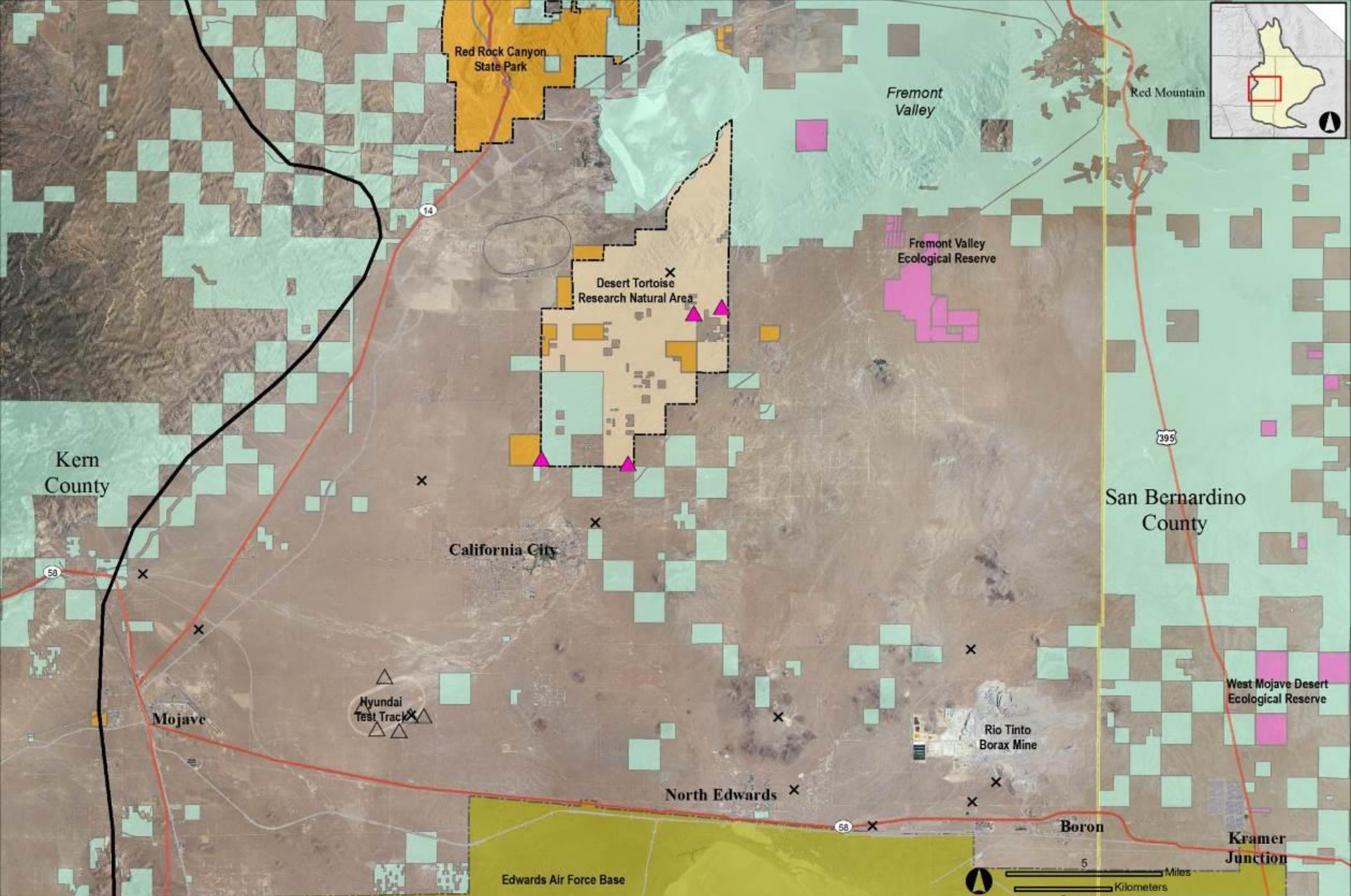


2014 Results

- Camera trapping west of Cal City
- Coso monitoring
- Data on MGS reproduction
- Genetics at MGS-RTGS contact zone around Hinkley

2014 Camera Study

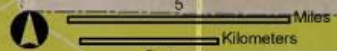
- MGS survey between Cal City and Mojave
- Limited access-area is mostly private land
- Prior MGS records-3 visuals 1985-1998 and 1 trapped 2002
- Dave Delaney and I picked 8 sites on BLM land
- Cameras deployed 2x at each site-March and May

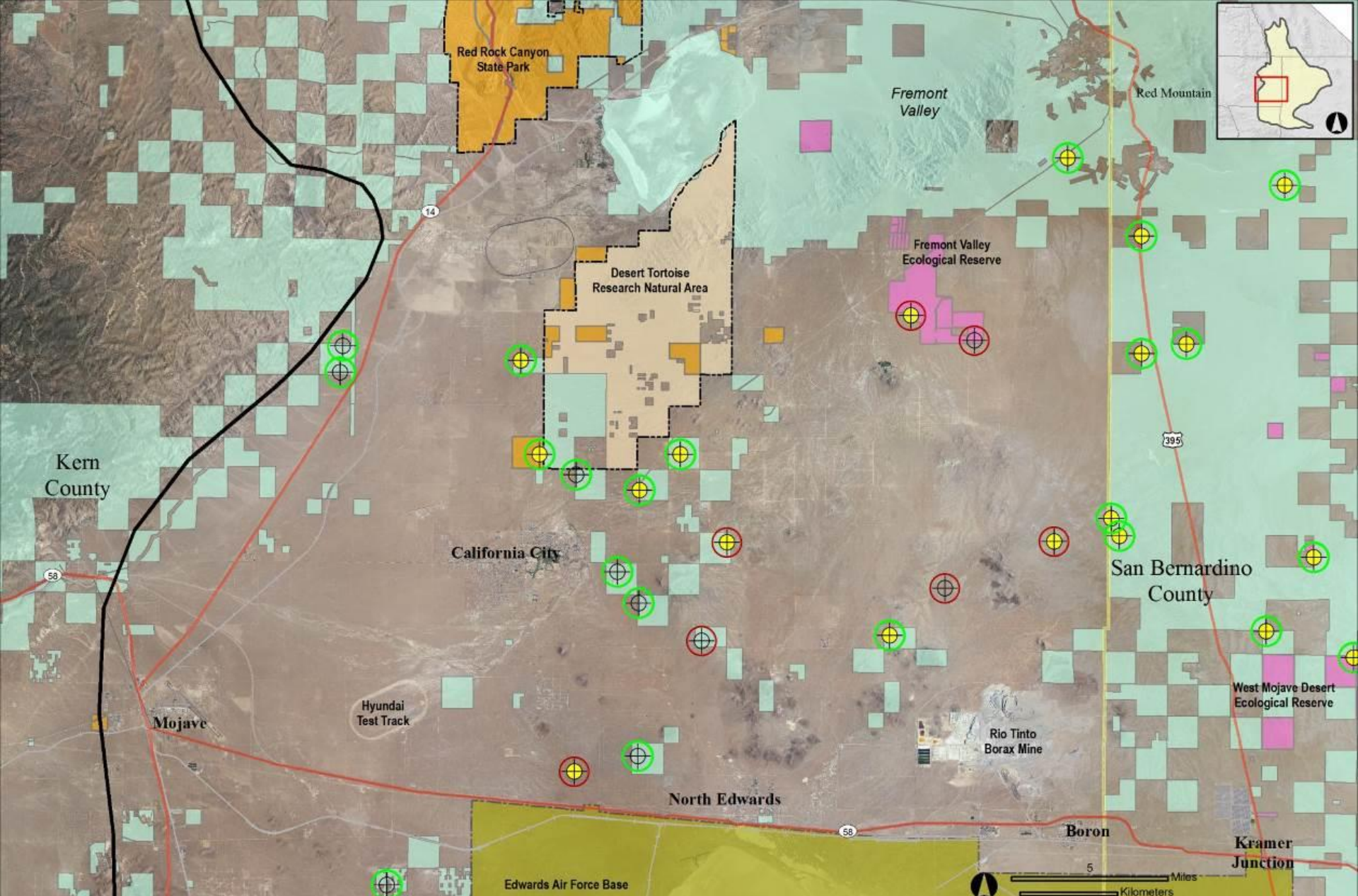


MGS Records California City Region 1973-2002

- MGS Range Boundary
- Incidental observations
- Regional surveys**
- Not detected
- Present

- Bureau of Land Management Public Land (BLM)
- National Conservation Area (BLM)
- CDFW Ecological Reserve
- Other State of California lands
- Military

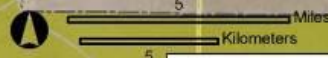


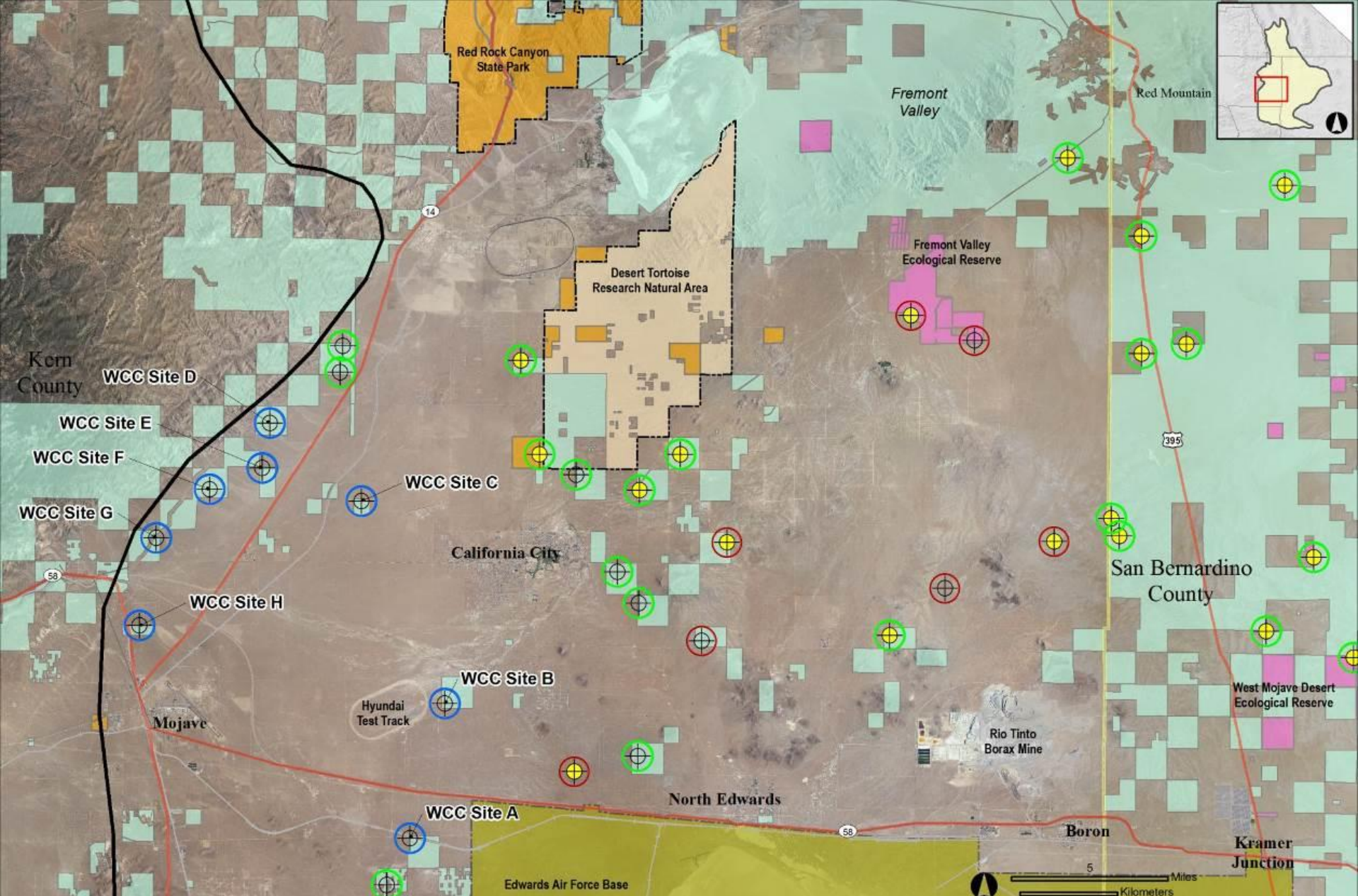


MGS Camera Sites California City Region 2011-2013





- MGS Range Boundary
- 2011 Camera Study Present
- 2011 Camera Study Not detected
- 2013 Camera Study Present
- 2013 Camera Study Not detected







- Bureau of Land Management Public Land (BLM)
- National Conservation Area (BLM)
- CDFW Ecological Reserve
- Other State of California lands
- Military



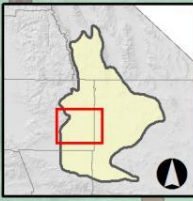
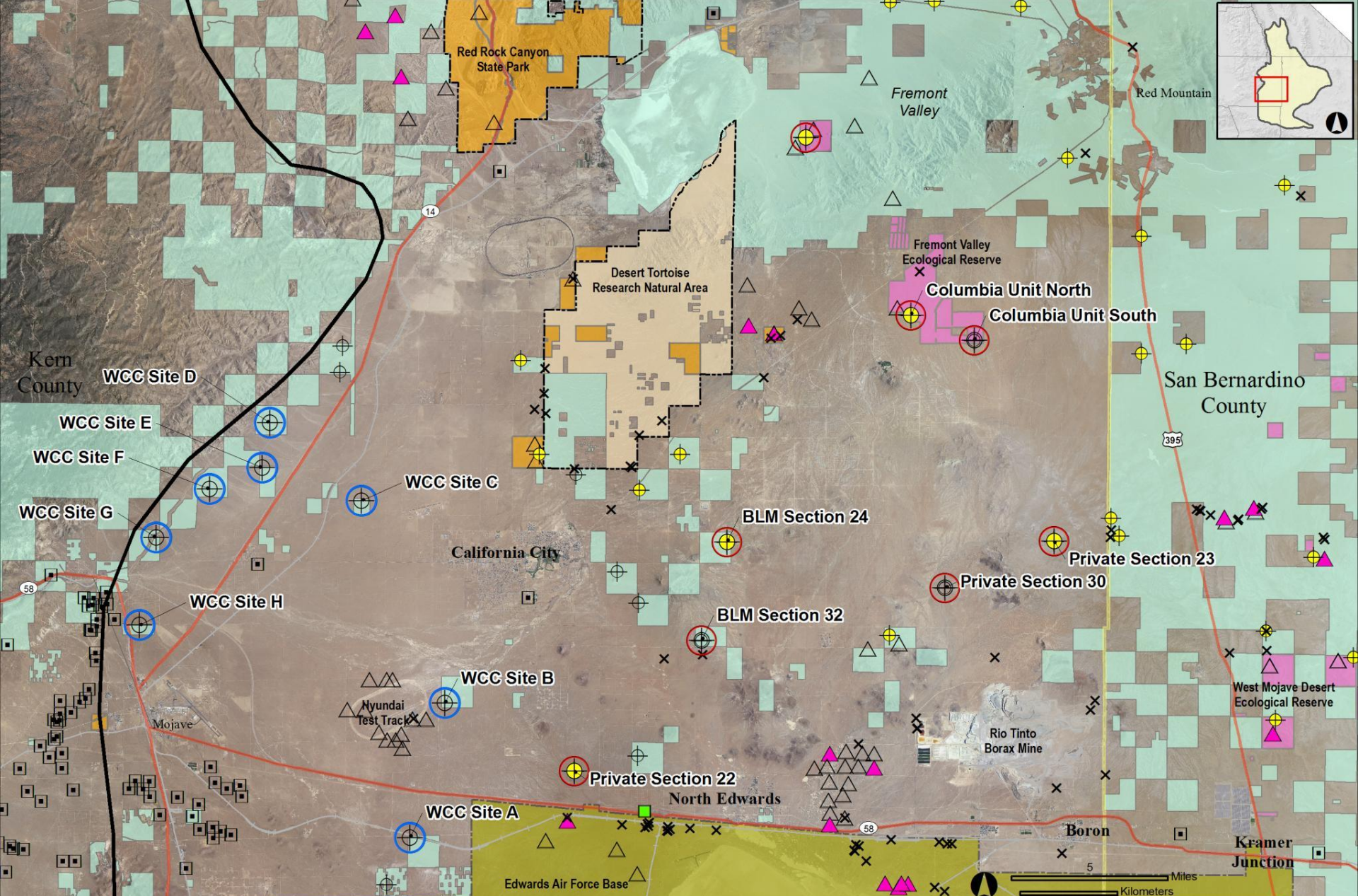


MGS Camera Sites California City Region 2011-2014

 MGS Range Boundary
  2011 Camera Study
  2013 Camera Study
  2014 Camera Study

 Not detected	 Not detected	 Not detected
 Present	 Present	 Present

	Bureau of Land Management Public Land (BLM)
	National Conservation Area (BLM)
	CDFW Ecological Reserve
	Other State of California lands
	Military



MGS Studies California City Region 2001-2014

MGS Range Boundary MGS Range Boundary

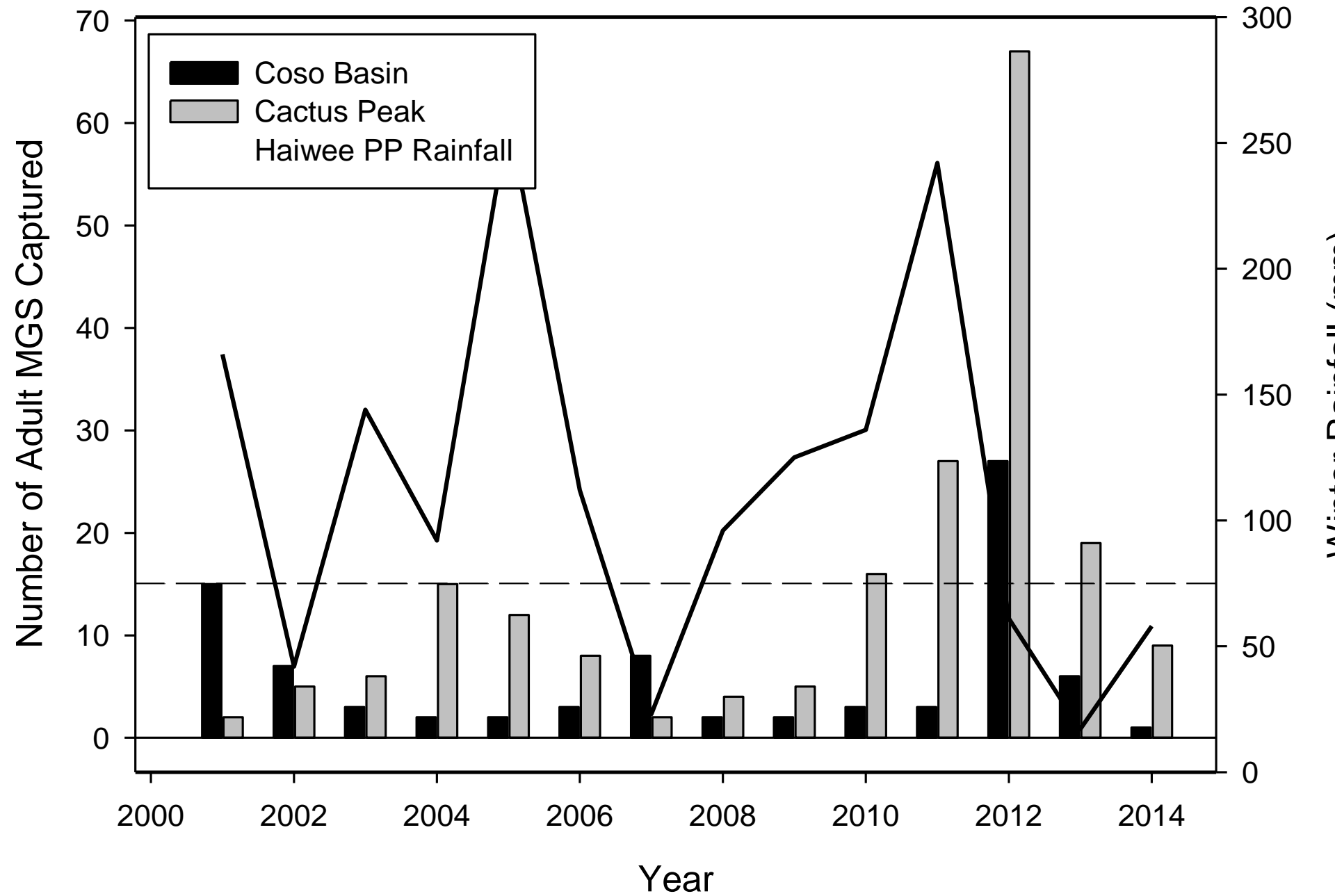
Incidental observations	Regional surveys	Protocol grids	2011 Camera study	2013 Camera Study	2014 Camera Study
Present	Not detected	Not detected	Not detected	Not detected	Camera station
	Present	Present	Present	Present	

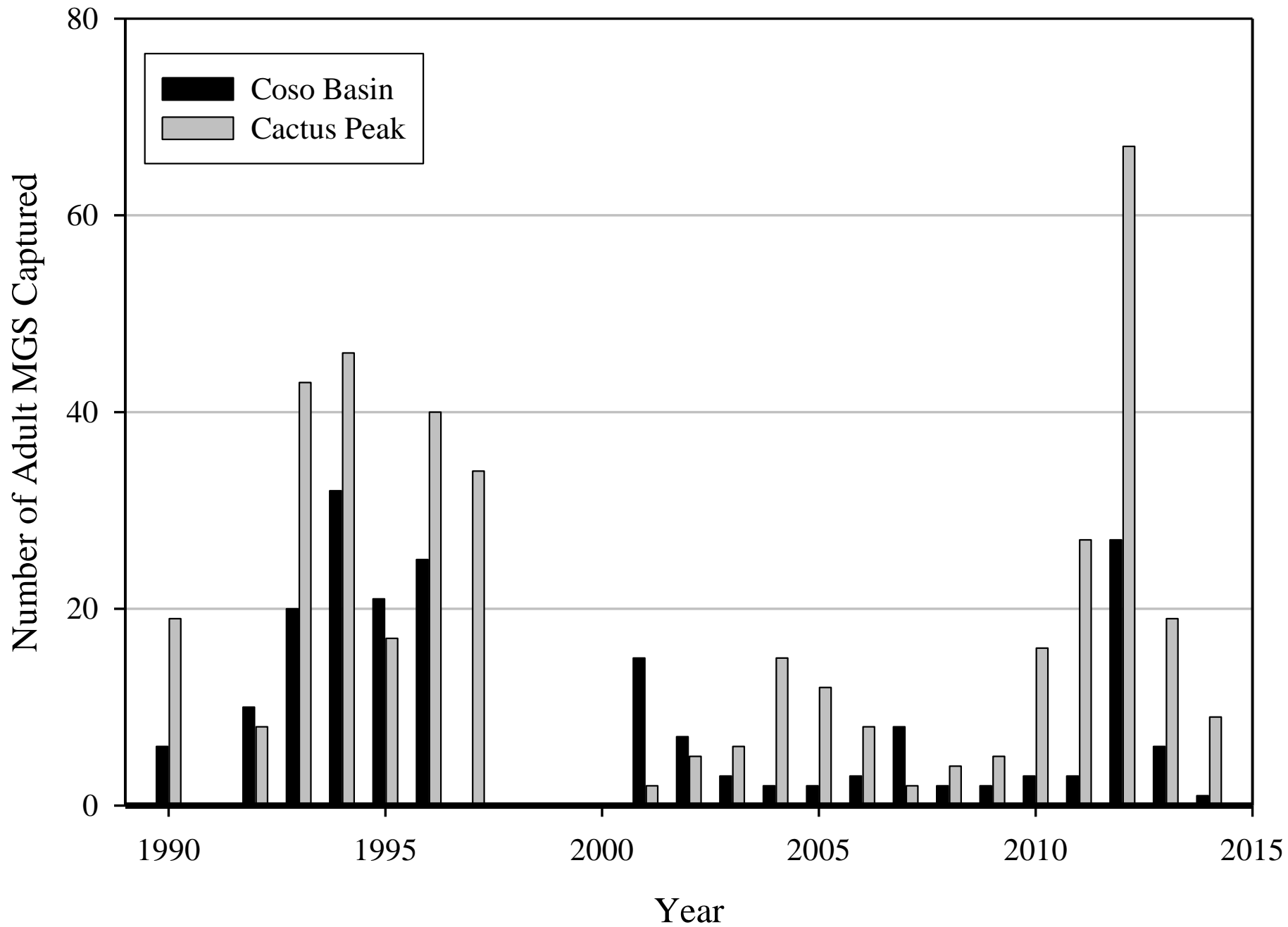
	Bureau of Land Management Public Land (BLM)
	National Conservation Area (BLM)
	CDFW Ecological Reserve
	Other State of California lands
	Military

Scale: 5 Miles / 5 Kilometers

Coso Monitoring 2014

- Trapping Mar. 24-29 at 2 Coso sites
- Many volunteers helped to make it a success once again
- After 4 yrs of good rainfall, MGS adult numbers were highest in 2012 (27 and 67)
- Then no reproduction in 2012 and 2013
- I predicted 3 and 6 adult MGS at 2 sites in 2014

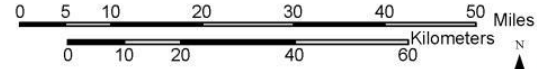




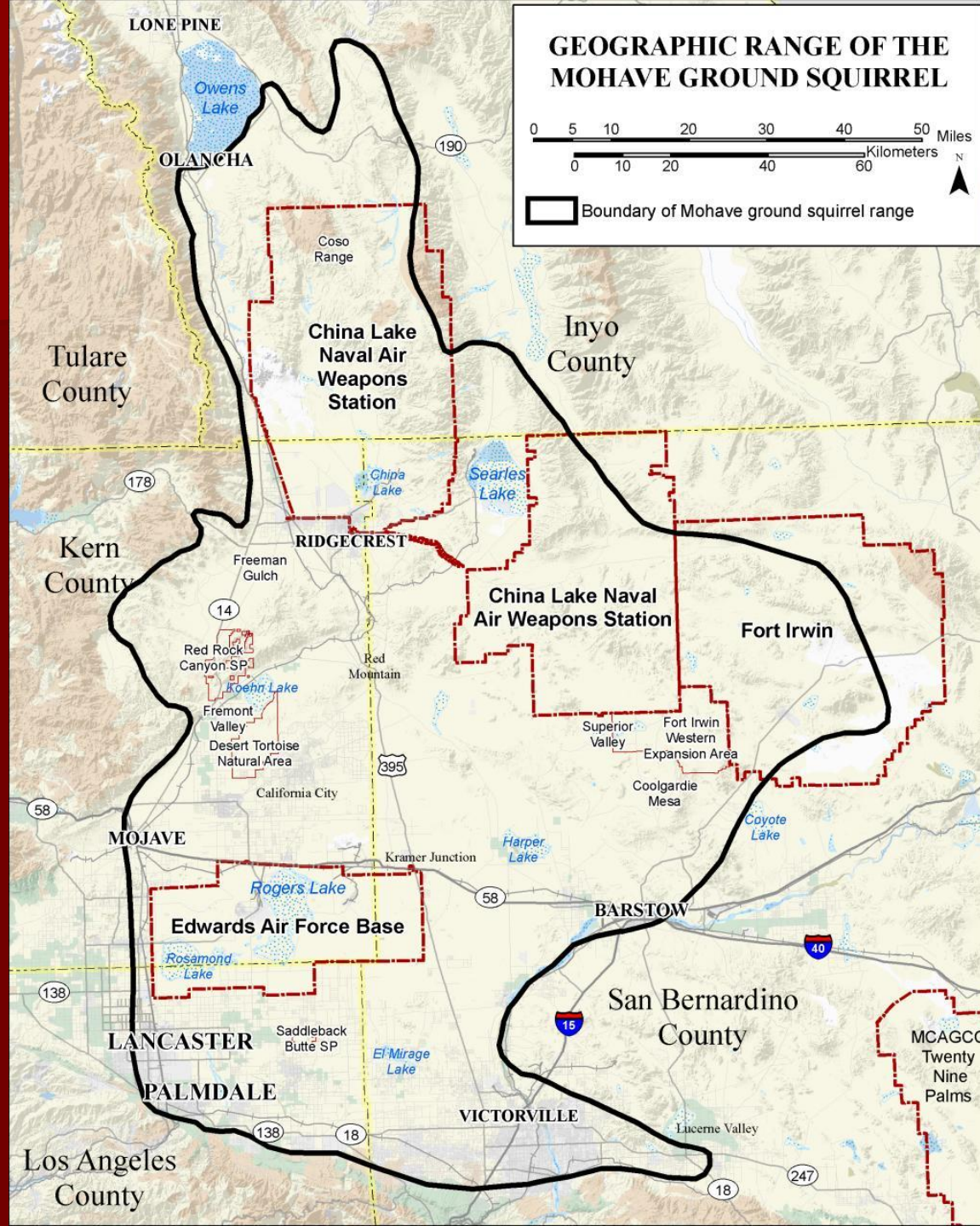
What about MGS reproduction?

- About 3 inches of winter rain needed for reproduction
- At Coso, ~2 inches and no reproduction
- Further south, juveniles were documented at 4 different sites
- South of Cal City, Phacelia Park, Harper Lake Road, and Ft. Irwin WEA
- Late rains – 3.68 inches at Lancaster

GEOGRAPHIC RANGE OF THE MOHAVE GROUND SQUIRREL



 Boundary of Mohave ground squirrel range



MGS-RTGS Interactions

- Desert area west of Hinkley toward Kramer Junction is possible contact zone
- Volunteer trapping in 2013 and 2014 at 12 grids here
- Tissue samples taken for genetic analysis from 20 individuals
- Marjorie Matocq will report the results shortly

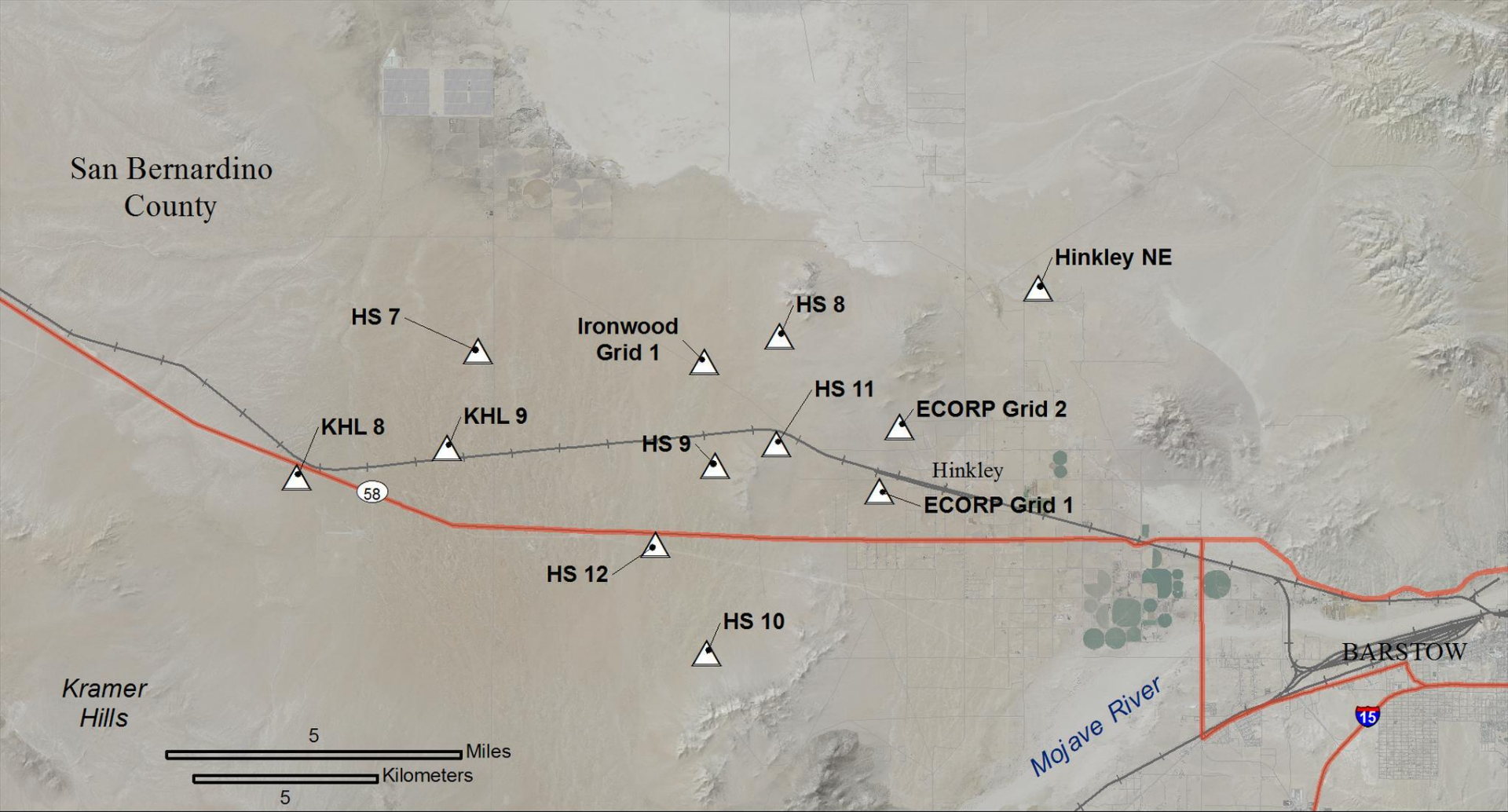
2012-04-27 1:07:46 PM M 4/5

90°F



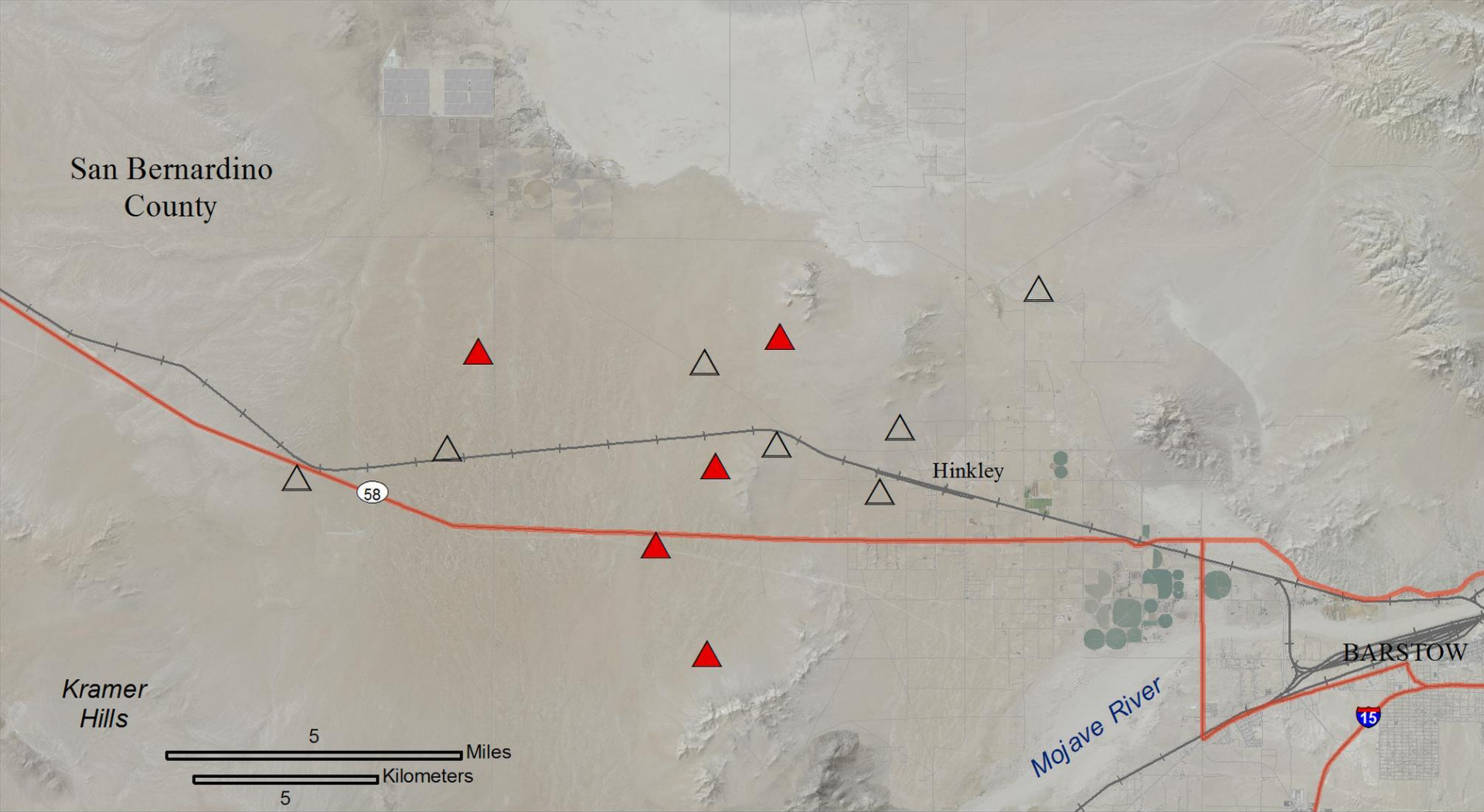
PC800 HYPERFIRE PRO





△ Regional survey grid

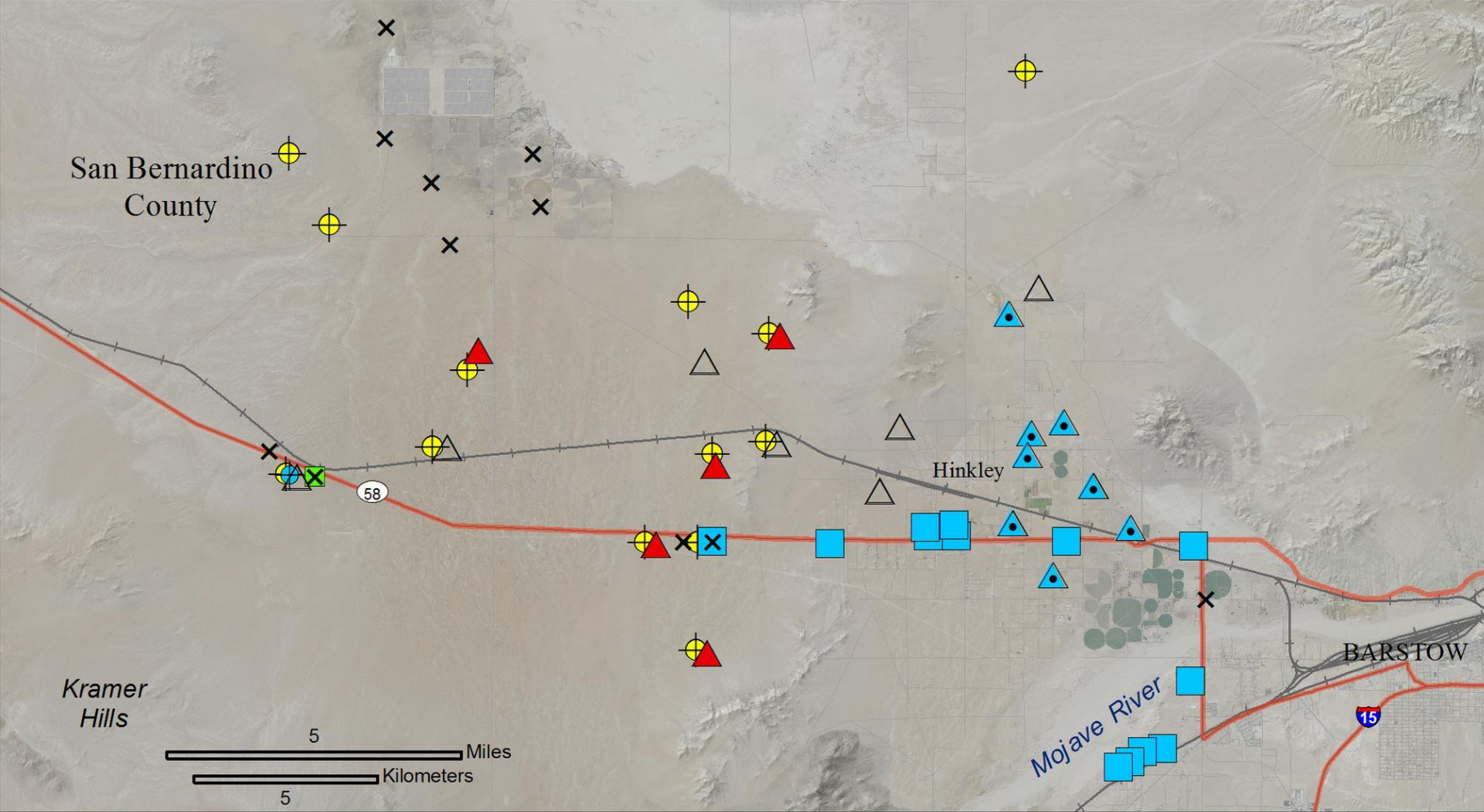




Regional survey results

- ▲ MGS present
- △ MGS not detected





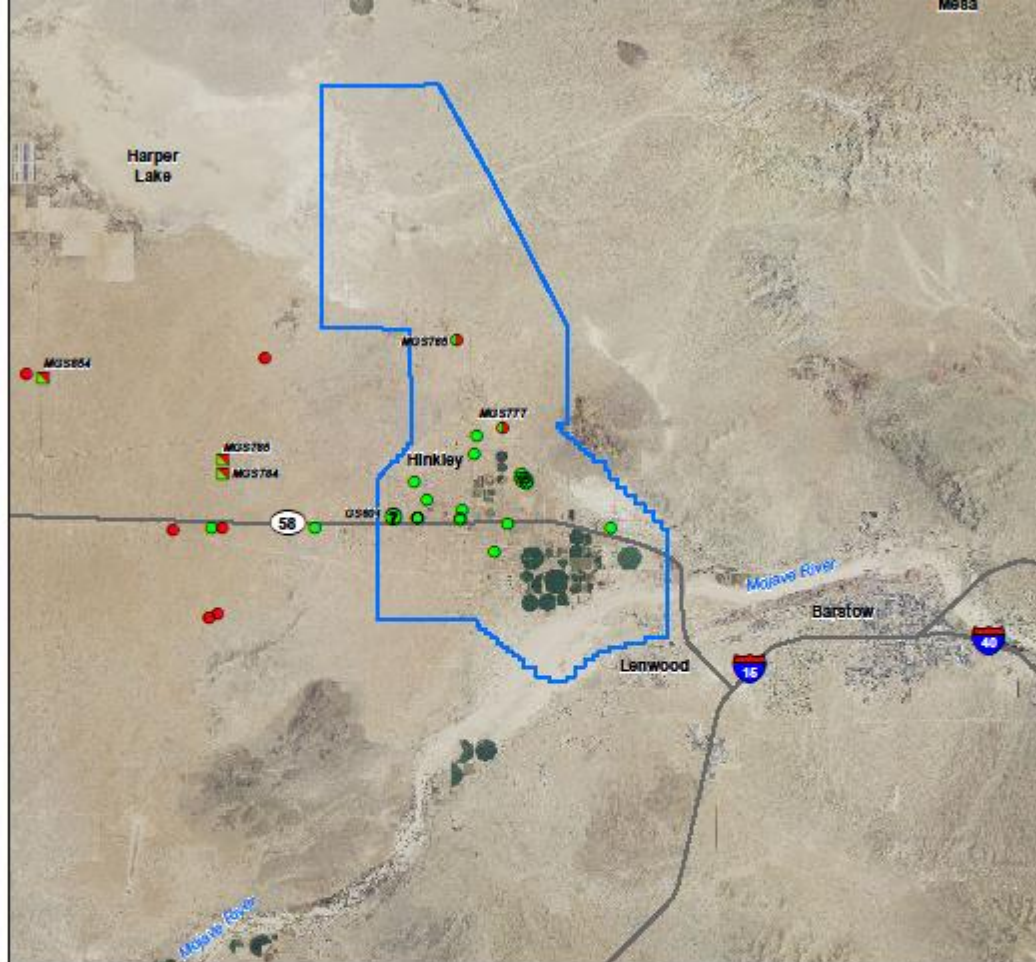
MGS Records

- × Incidental observations
- △ Not detected
- ▲ Present
- Not detected
- Present
- ⊕ Not detected
- ⊙ Present

RTGS Records

- Protocol RTGS present
- ▲ Regional surveys
- ⊕ Camera station





- LEGEND**
- MGS
 - RTGS
 - RTGS?
 - F2 Hybrid
 - Backcross MGS
 - Project Study Area

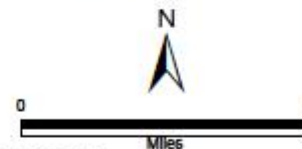


FIGURE 5
GEOGRAPHIC DISTRIBUTION OF
MOHAVE GROUND SQUIRRELS,
ROUND-TAILED GROUND
SQUIRRELS, AND HYBRIDS IN
THE HINKLEY AREA BASED
UPON GENETIC ANALYSIS
 PACIFIC GAS AND ELECTRIC COMPANY
 HINKLEY COMPRESSOR STATION
 HINKLEY, CALIFORNIA