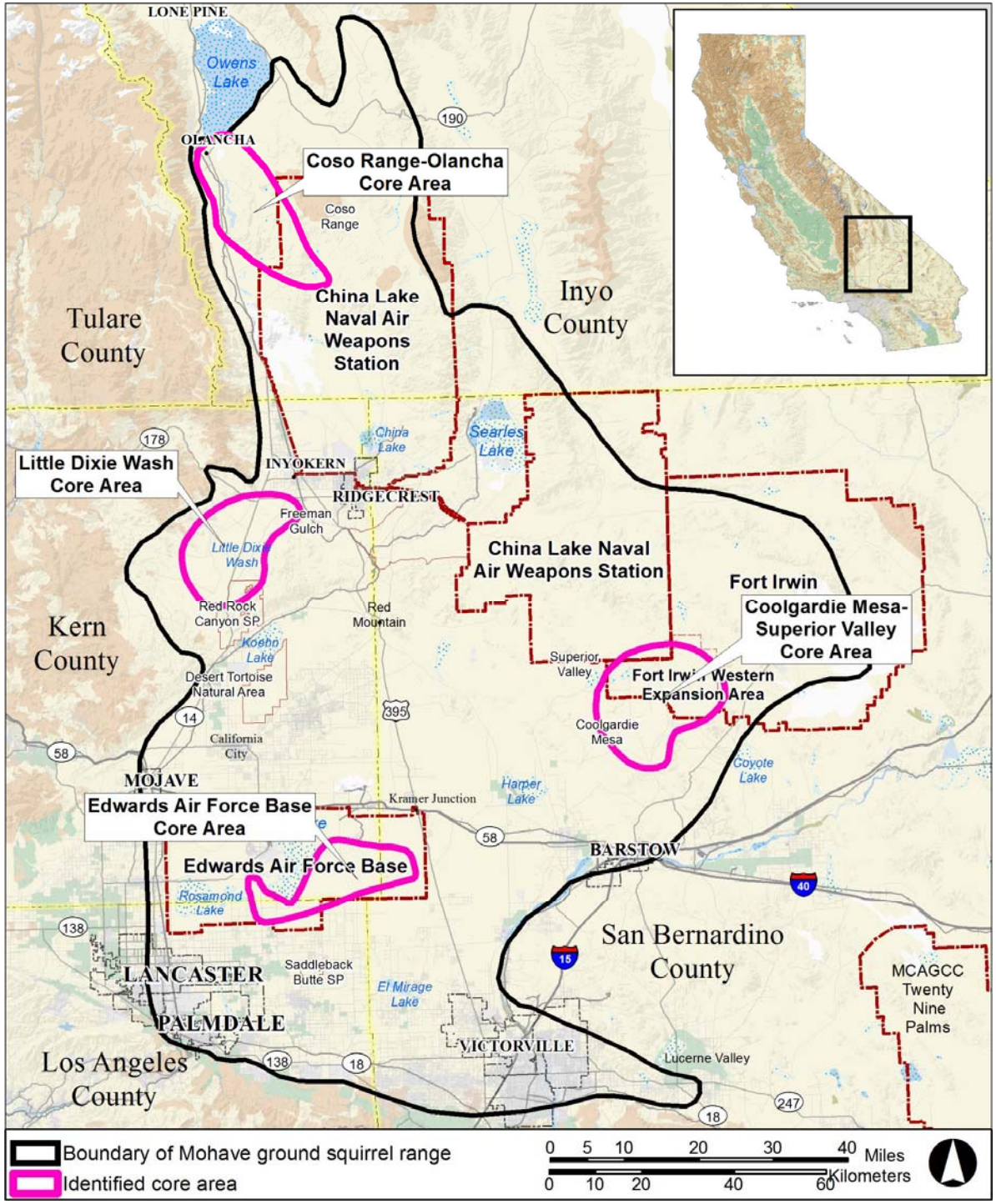
MGS PROJECTS 2018

Coso and BLM projects

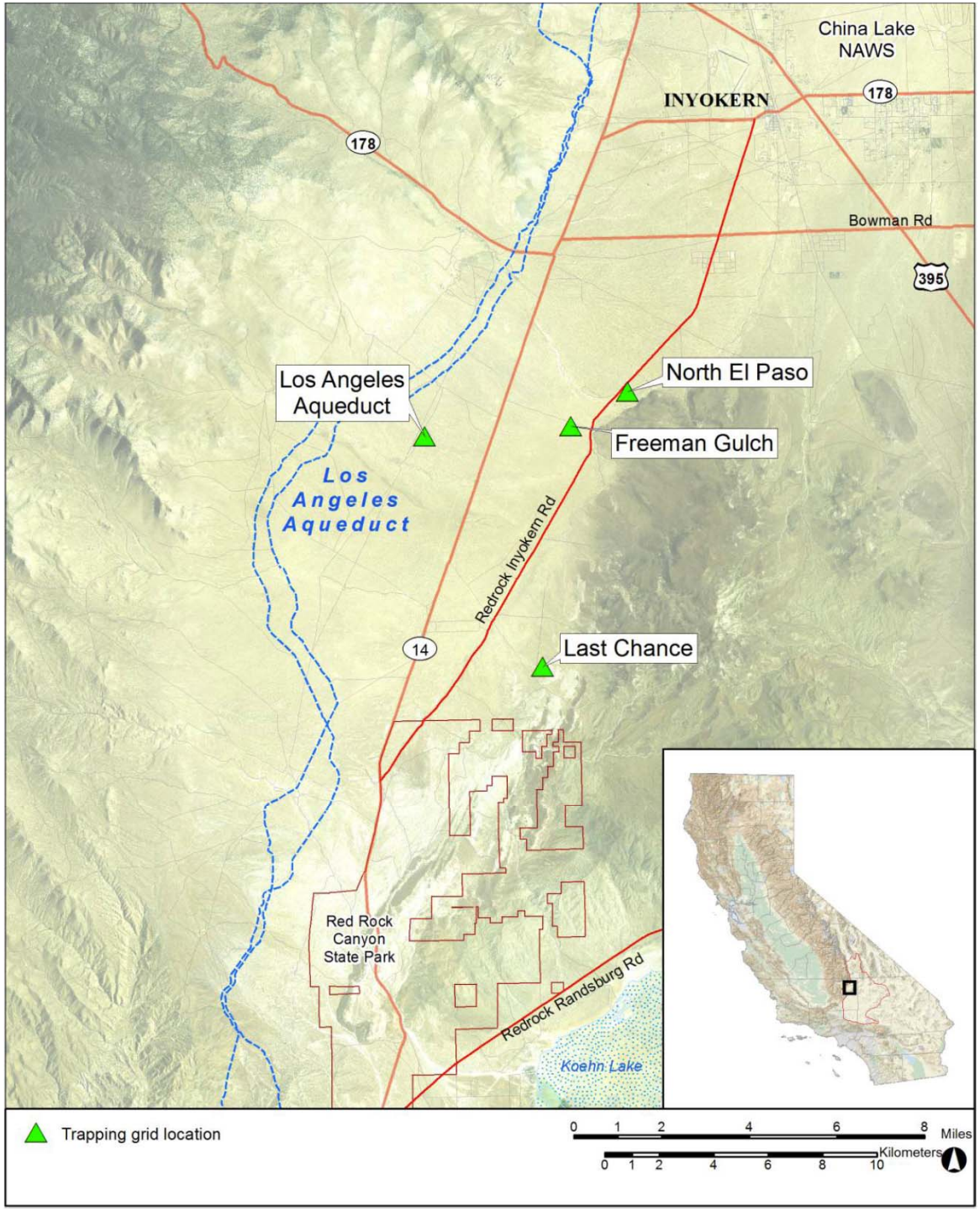

LONE PINE
Owens Lake
OLANCHA
Coso Range-Olancha Core Area
Coso Range
China Lake Naval Air Weapons Station
Tulare County
Inyo County
China Lake
Searles Lake
Little Dixie Wash Core Area
INYOKERN
RIDGECREST
Freeman Gulch
Little Dixie Wash
China Lake Naval Air Weapons Station
Fort Irwin
Coolgardie Mesa-Superior Valley Core Area
Red Rock Canyon SP
Red Mountain
Kern County
Koehn Lake
Superior Valley
Fort Irwin Western Expansion Area
Desert Tortoise Natural Area
Coolgardie Mesa
California City
Coyote Lake
MOJAVE
Harper Lake
Kramer Junction
Edwards Air Force Base Core Area
Edwards Air Force Base
BARSTOW
Rosamond Lake
San Bernardino County
LANCASTER
Saddleback Butte SP
El Mirage Lake
MCAGCC Twenty Nine Palms
PALMDALE
VICTORVILLE
Lucerne Valley
Los Angeles County
Boundary of Mohave ground squirrel range
Identified core area
0 5 10 20 30 40 Miles
0 10 20 40 60 Kilometers

Coso Trapping 2018

- Intrepid band of volunteers trapped Coso Basin and Cactus Peak grids in late March
- Good results – 7 MGS at Coso Basin and 5 at Cactus Peak
- And females were pregnant!
- 2016-17 winter rainfall was adequate for reproduction, so that's probably why numbers were up

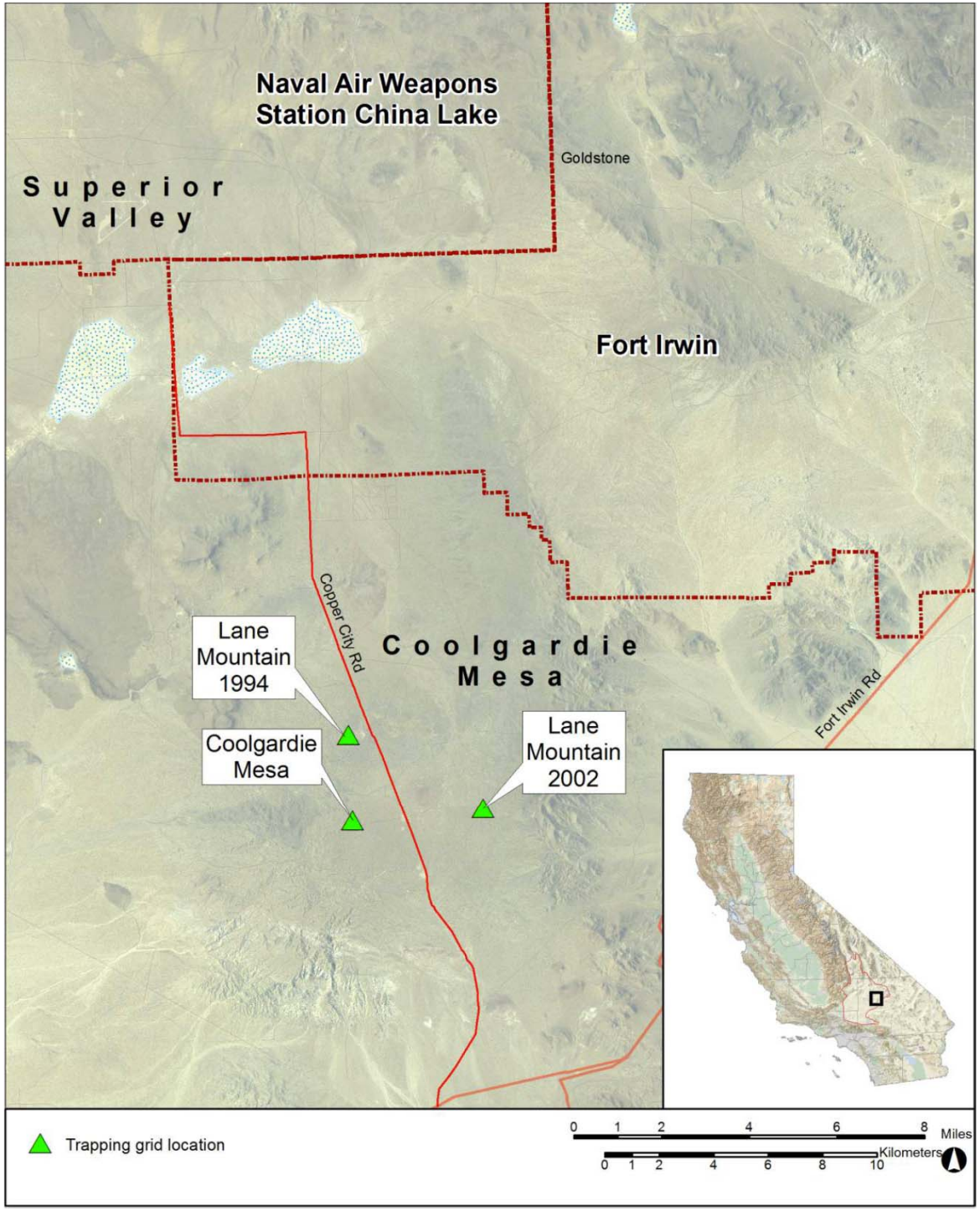
Monitoring on BLM Lands

- 4 grids trapped in Little Dixie Wash core area
- 3 grids trapped in Coolgardie Mesa core area
- MGS-RTGS contact zone W of Hinkley
  - Camera trapping at 16 sites – same as 2017
  - Live trapping at 4 sites
- Development Focus Areas – new project
  - 3 DFAs – North of Kramer, Searles, Haiwee
  - Live trapping and camera trapping


China Lake
NAWS
INYOKERN
178
178
Bowman Rd
395
Los Angeles
Aqueduct
North El Paso
Freeman Gulch
Los
Angeles
Aqueduct
Redrock Inyokern Rd
14
Last Chance
Red Rock
Canyon
State Park
Redrock Randsburg Rd
Koehn Lake
Trapping grid location
0 1 2 4 6 8 Miles
0 1 2 4 6 8 10 Kilometers

Little Dixie Wash

- Same 4 locations as 2017
  - In 2018 MGS caught at North El Paso (4) and Last Chance grids (1)
  - In 2017 no MGS captures but camera detections near Freeman Gulch and Last Chance
- Conclusions
  - Good winter rain throughout MGS range in 2017
  - MGS still sparsely distributed in LDW core area, but numbers increasing somewhat


Naval Air Weapons Station China Lake
Goldstone
Superior Valley
Fort Irwin
Copper City Rd
Coolgardie Mesa
Lane Mountain 1994
Coolgardie Mesa
Lane Mountain 2002
Fort Irwin Rd
Trapping grid location
0 1 2 4 6 8 Miles
0 1 2 4 6 8 10 Kilometers

Coolgardie Mesa

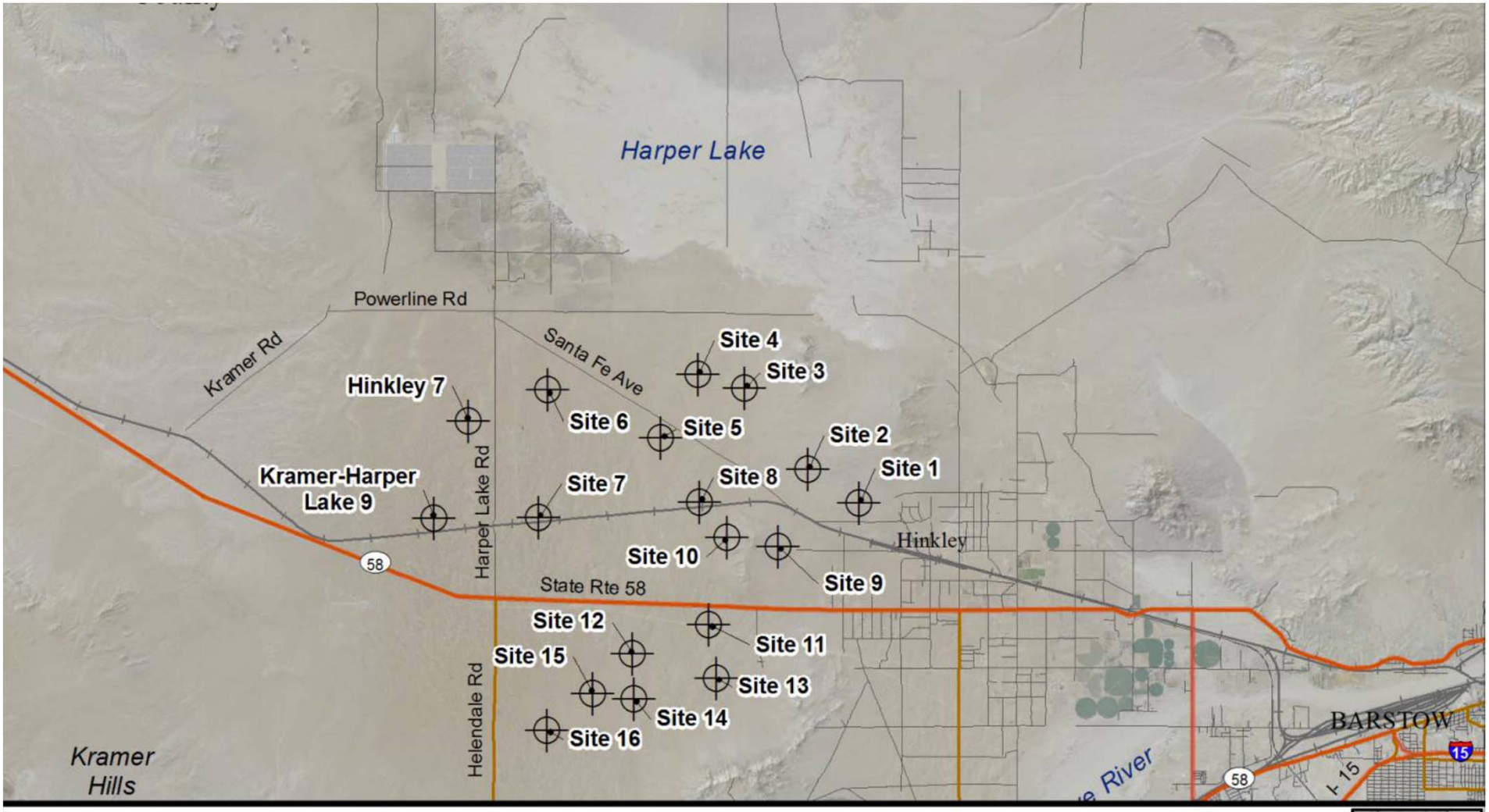
- Same 3 locations as 2017
  - In 2018 MGS caught at Coolgardie Mesa grid (5) but no sign of reproduction
  - In 2017 no MGS captures, but 1 apparent juvenile visual detection
- Conclusions
  - Reproduction in CM core area in 2017
  - 2018 result – MGS present at 1 of 3 sites but no juveniles produced here

Core Area Conclusions

- All 7 grids have been trapped in previous years
- MGS adults have been captured at all these sites dating back to 2002, 1994, and even 1980
- MGS still present in both core areas and numbers up a bit due to reproduction in 2017
- But distribution very sparse and numbers low

West of Hinkley

- As in 2017 – surveys at same 16 camera sites E of Harper Lake Rd/Helendale Rd
  - Unlike 2017 MGS were detected at 4 camera sites
  - So MGS moved eastward toward Hinkley about 4 mi
  - No RTGS detections (apparently)
- Live-trapping was planned for late May /early June
  - Only trapped in late May / concern that MGS would estivate early
  - Adults were caught at 4 different locations
  - No sign of reproduction



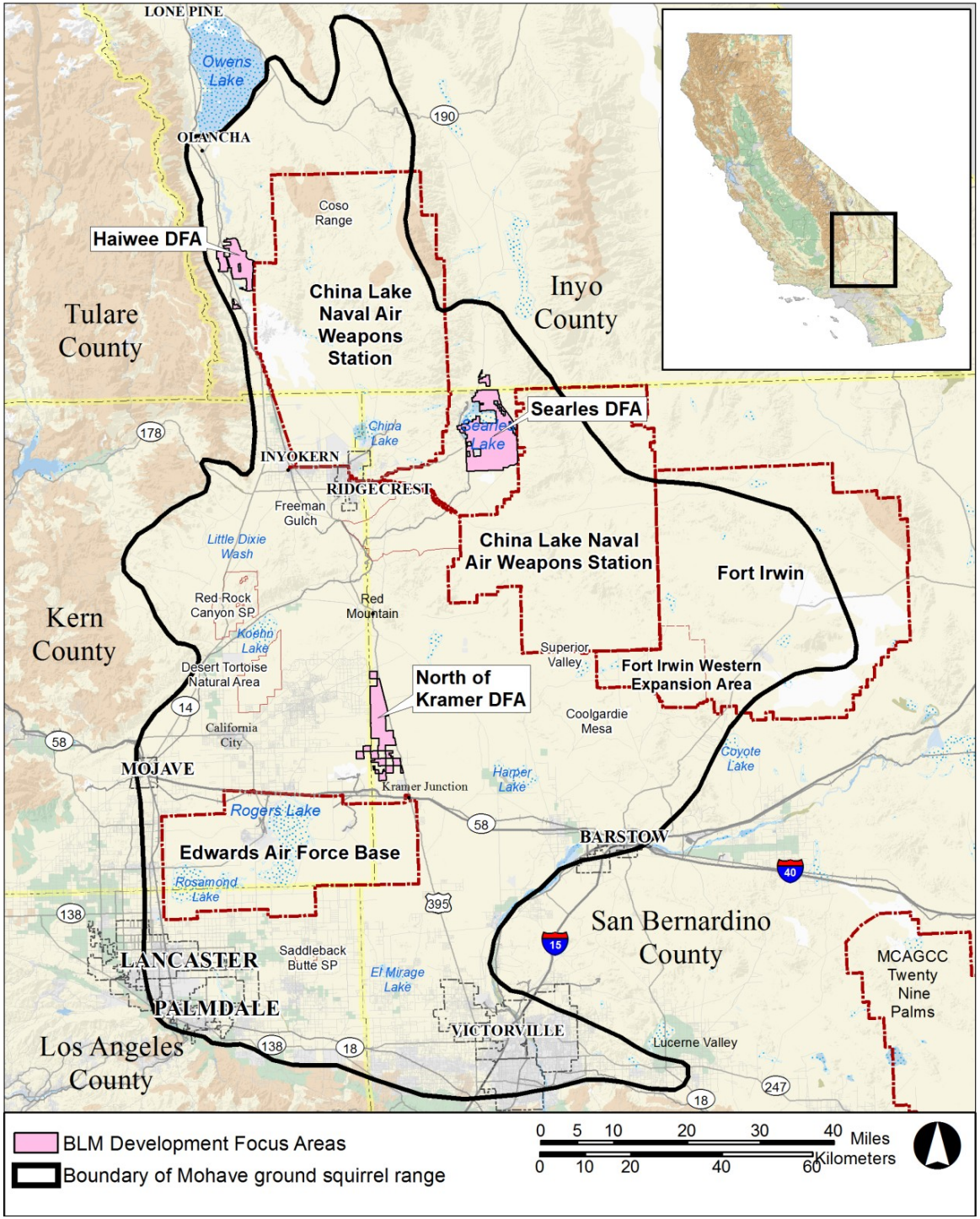
Camera trapping site

5 Miles

5 Kilometers

Surveys at 3 DFAs

- First year to monitor MGS occurrence
  - North of Kramer (Bowling Alley)
  - Searles Lake
  - Haiwee (Rose Valley)
- Both live-trapping and trail cameras
  - NOK 4 camera sites, 4 trapping grids
  - SL 4 camera sites
  - HA 1 camera site, 1 trapping grid


LONE PINE
Owens Lake
OLANCHA
190
Coso Range
Haiwee DFA
China Lake Naval Air Weapons Station
Inyo County
Tulare County
Searles DFA
Searles Lake
178
China Lake
INYOKERN
RIDGECREST
Freeman Gulch
Little Dixie Wash
China Lake Naval Air Weapons Station
Fort Irwin
Red Rock Canyon SP
Red Mountain
Kern County
Koehn Lake
Superior Valley
Fort Irwin Western Expansion Area
Desert Tortoise Natural Area
North of Kramer DFA
14
California City
Coolgardie Mesa
58
Coyote Lake
MOJAVE
Harper Lake
Kramer Junction
Rogers Lake
58
BARSTOW
Edwards Air Force Base
40
Rosamond Lake
395
138
San Bernardino County
15
LANCASTER
Saddleback Butte SP
El Mirage Lake
MCAGCC Twenty Nine Palms
PALMDALE
VICTORVILLE
Lucerne Valley
Los Angeles County
138
18
247
18
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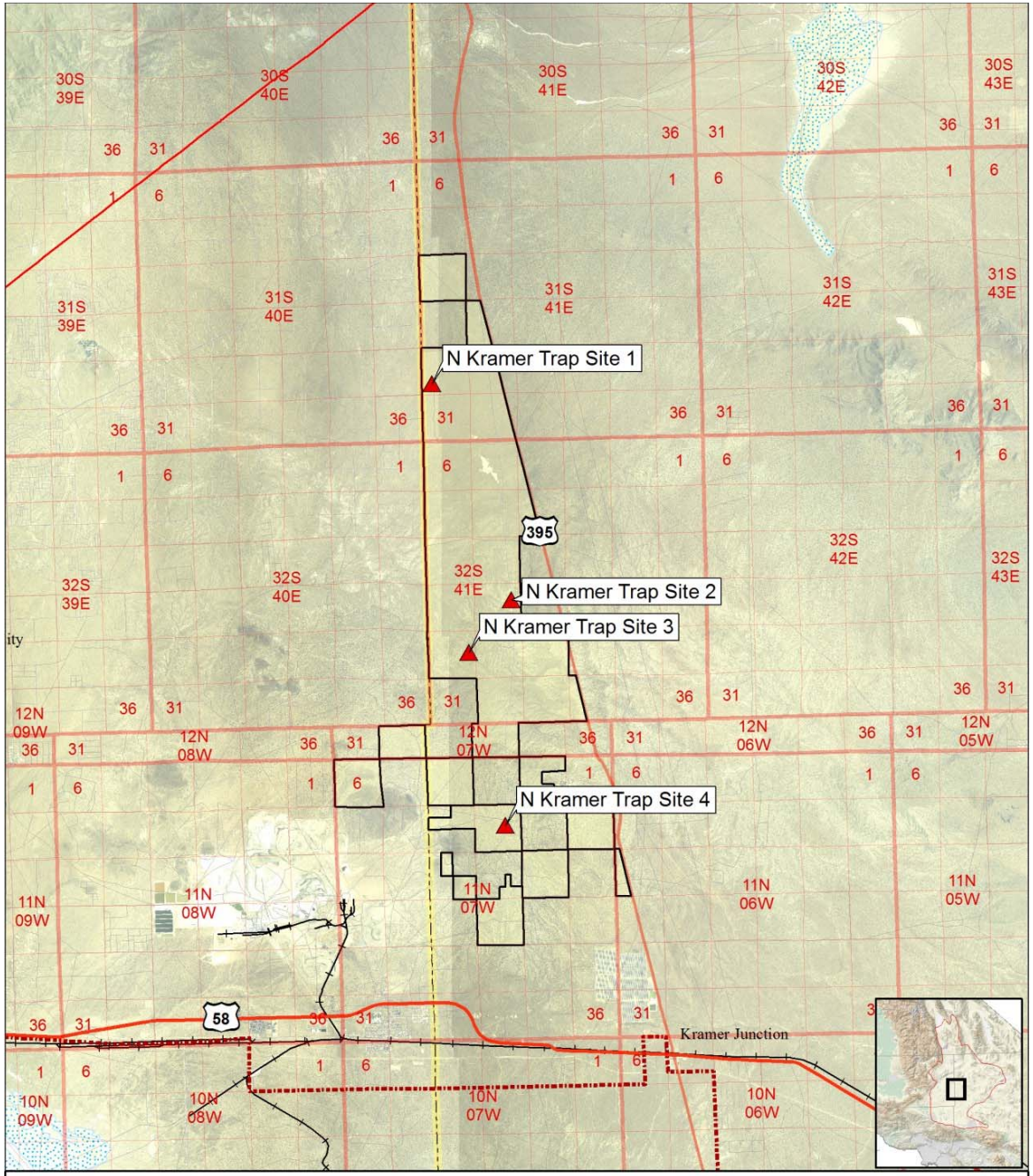
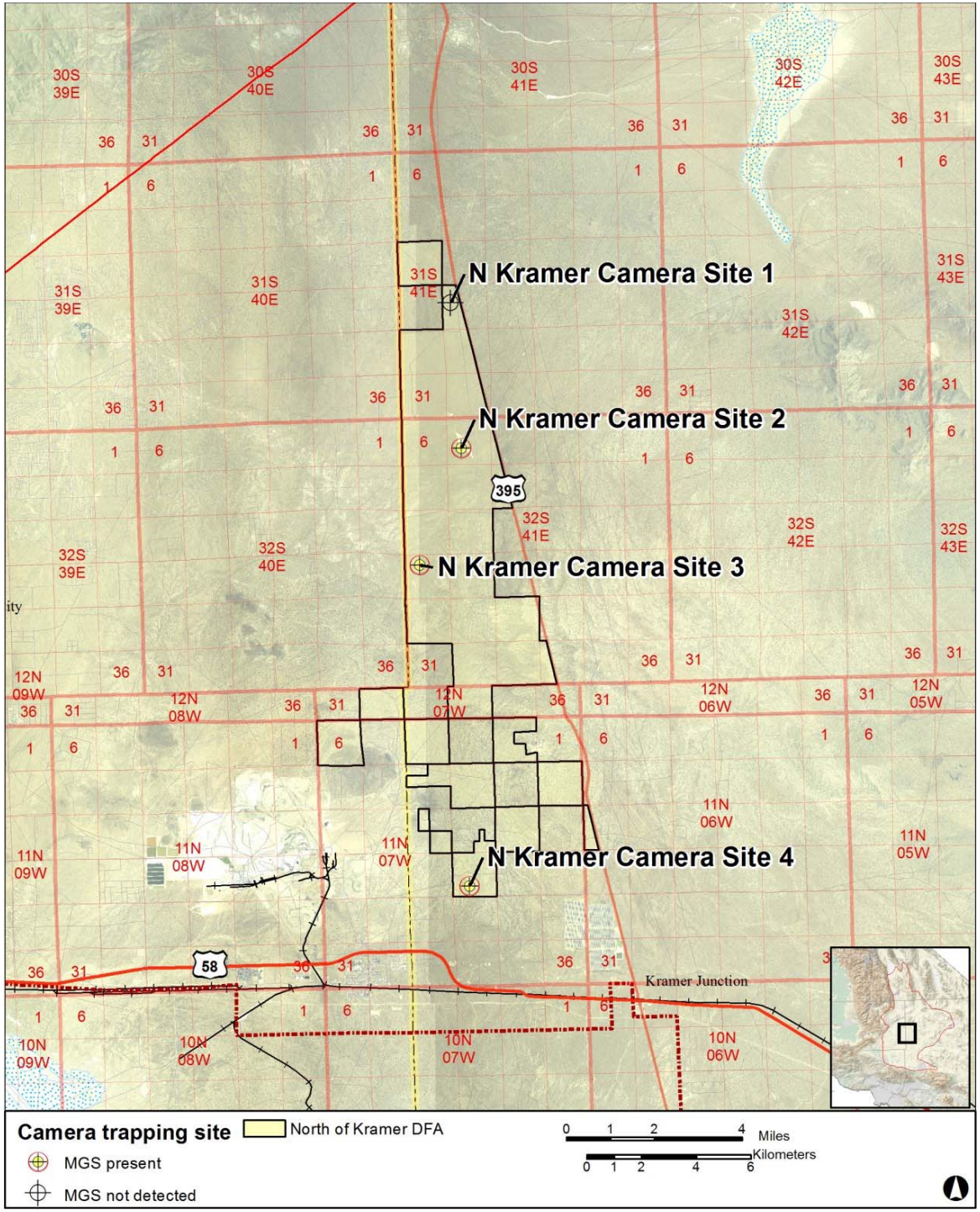
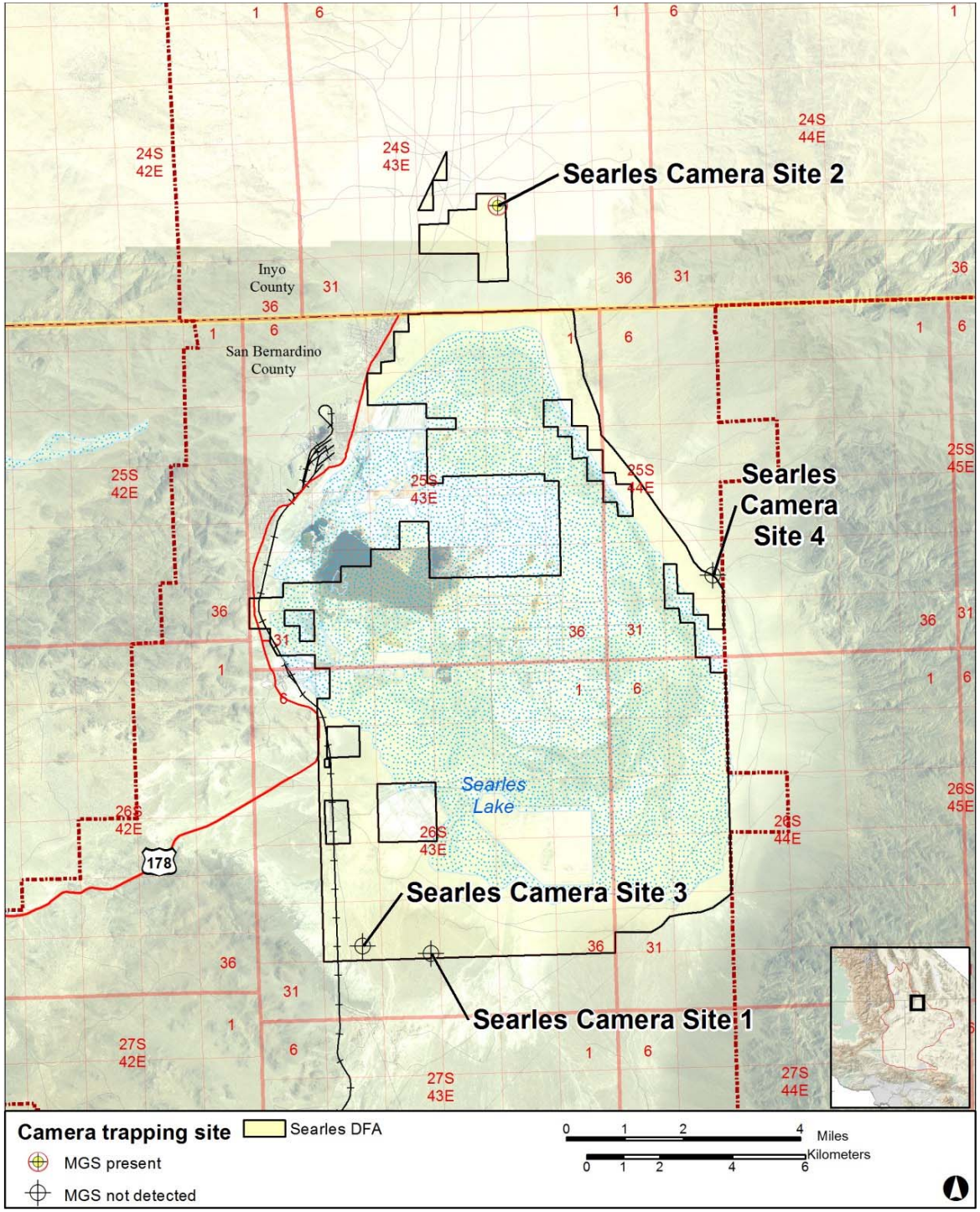


Trapping grid location

▲ MGS present

△ MGS not detected


N Kramer Camera Site 1
N Kramer Camera Site 2
N Kramer Camera Site 3
N Kramer Camera Site 4
395
58
Kramer Junction
30S 39E
30S 40E
30S 41E
30S 42E
30S 43E
31S 39E
31S 40E
31S 41E
31S 42E
31S 43E
32S 39E
32S 40E
32S 41E
32S 42E
32S 43E
12N 09W
12N 08W
12N 07W
12N 06W
12N 05W
11N 09W
11N 08W
11N 07W
11N 06W
11N 05W
10N 09W
10N 08W
10N 07W
10N 06W
Camera trapping site
North of Kramer DFA
MGS present
MGS not detected
Miles
Kilometers


Searles Camera Site 2
Searles Camera Site 4
Searles Camera Site 3
Searles Camera Site 1
Inyo County
San Bernardino County
Searles Lake
178
24S 42E
24S 43E
24S 44E
25S 42E
25S 43E
25S 44E
25S 45E
26S 42E
26S 43E
26S 44E
26S 45E
27S 42E
27S 43E
27S 44E
Camera trapping site
Searles DFA
MGS present
MGS not detected
Miles
Kilometers

DFA Results

- Haiwee DFA – MGS at both camera and live-trapping sites (young detected)
- North of Kramer
  - MGS at 4 of 4 live-trapping grids (no young)
  - MGS at 3 of 4 camera sites
- Searles Lake
  - No live-trapping in 2018
  - MGS only at Camera Site 2 / north end of lake (no young)

Thanks to All the Field Crew

- Steven Chen
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- Chad Steiner
- Kyle Tabor
- Bill Vanherweg
- Erin Whitfield
- Rachel Woodard
- and more!!