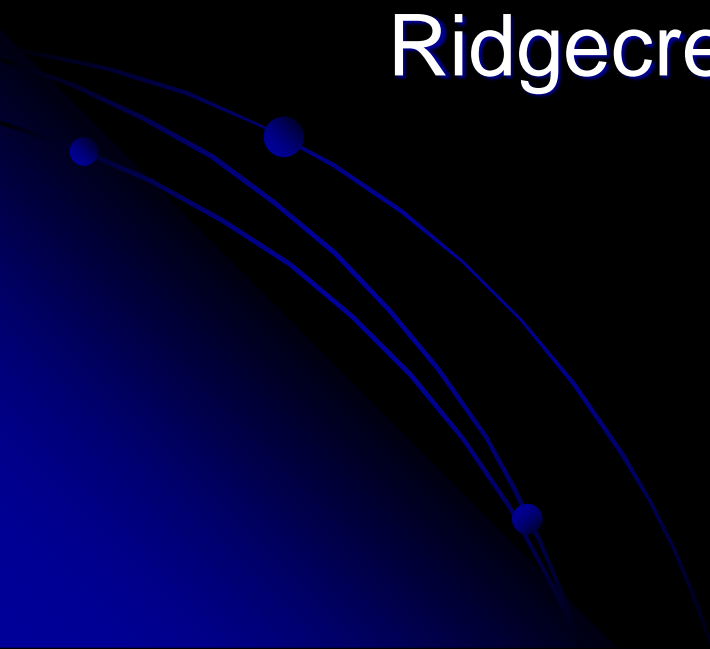


New Projects 2011

Habitat Suitability Modeling

Camera Surveys

Ridgecrest Solar Power Plant



Habitat Suitability Modeling

- USGS Las Vegas is the lead, with Univ. Nevada Reno also involved
- Building on and adapting the desert tortoise model
- Predicting habitat suitability throughout the range (plus a buffer) is the goal
- Connectivity and landscape genetics will be featured also
- Funding from CEC through the PIER Program

Camera Surveys

- MGS surveys on BLM and State lands using camera sampling
- Goal is to demonstrate large-scale sampling with randomized site selection
- Parameters to be estimated are occupancy and detection probability
- Environmental data will be collected at study sites and modeled as covariates
- Funding from BLM and US Army

Develop Sampling Frame

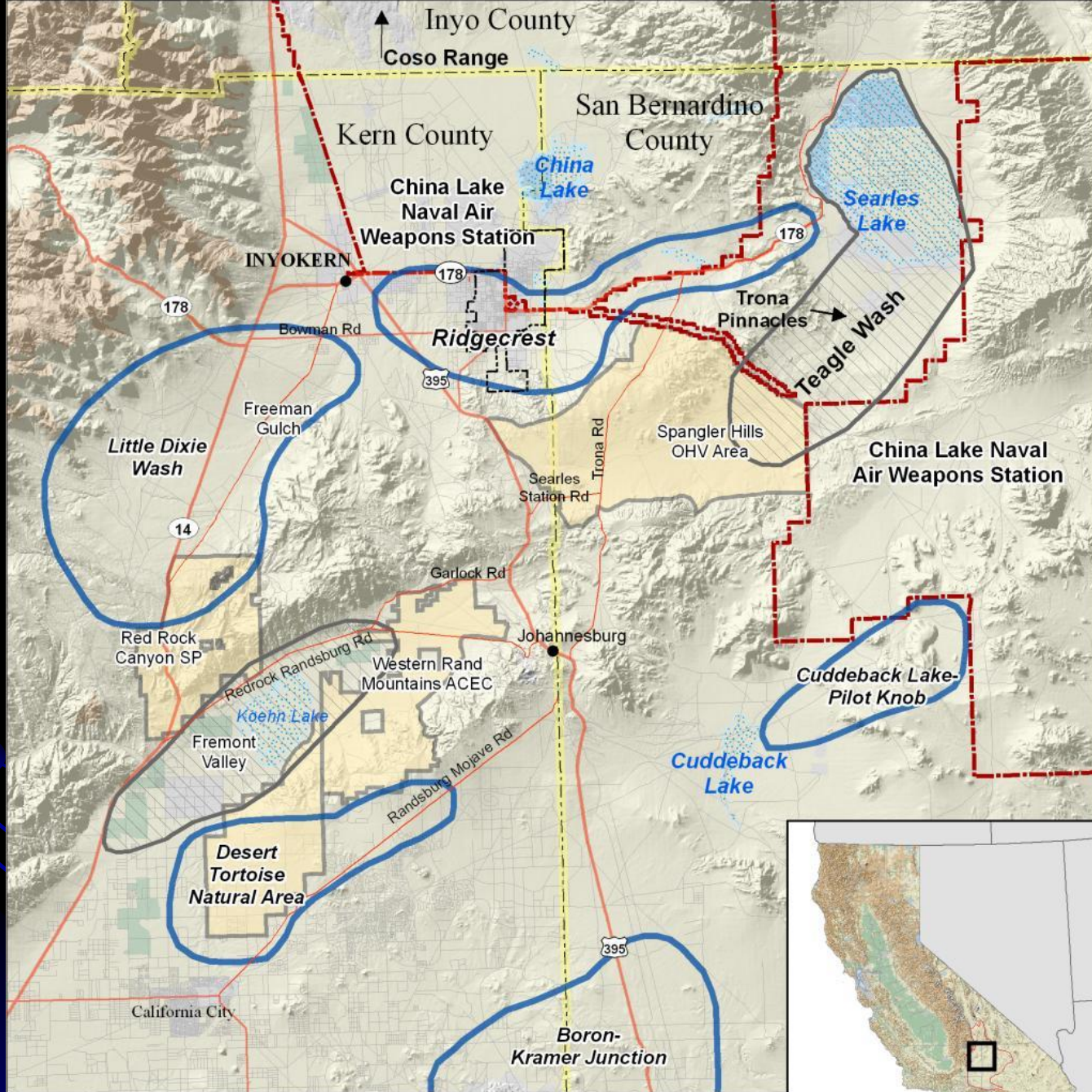
- Uniform system for locating and selecting study sites in a randomized manner
- Basic framework would be 10x10 km grid, roughly same dimensions as 6x6 mi township – ca. 200 of these units cover MGS range
- Within each grid unit, divide into 1x1 km sub-units
- Highest resolution or smallest sampling unit would be 500x500 m block

Site Selection for Camera Studies

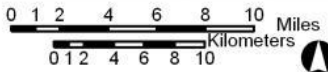
- Agree on priority region to survey, then use GIS layer showing BLM and state ownerships
- Place 10 km, then 1 km, then 0.5 km subdivisions on the map
- Within each randomly-chosen 500x500 study site, 9 cameras at 150 m centers
- 90 cameras available, so sample 10 sites simultaneously

Ridgecrest Solar Power Plant

- Project has been going through CEC permitting process
- Impacts to MGS connectivity are considered to be impossible to fully mitigate
- Applicant has asked for 2-yr suspension of CEC process to conduct study of MGS connectivity values and functions in the region of the project



Mohave ground squirrel populations
 Possible dispersal barrier



Research Planning Process

- This fall will see development of a comprehensive study plan and preparation for spring field season
 - Planning will be open, with agencies and intervenors participating
 - Research components include live-trap sampling, radio-telemetry, habitat analysis, landscape connectivity modeling, and genetic connectivity study
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