

Cumulative Effects and Implementation of a Desert Tortoise Recovery Plan Task

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Desert Tortoise

- Laws that Protect the Desert Tortoise
 - Endangered Species Act
 - United States Fish and Wildlife Biological Opinions
 - CA-ESA
- Why?
 - Predation
 - Disease
 - Vandalism
 - Collection as pets
 - Etc, etc
 - And yes, habitat depletion

Desert Managers Group (DMG)

Develop complementary management guidelines, practices and programs by coordinating and integrating efforts to:

- Conserve and restore desert resources
- Provide quality recreation, public education and visitor services
- Provide for safety of desert users
- Develop and integrate databases and studies necessary for effective resource management
- Promote compatibility in the application of each agency's mission

DMG Participants

Department of Interior

- Bureau of Land Management
- Fish and Wildlife Service
- National Park Service
- Geological Survey
- Bureau of Indian Affairs

State of California

- Department of Fish & Game
- Department of Parks
- Department of Transportation
- Kern County
- San Bernardino County
- Imperial County

Department of Defense

- Naval Air Weapons Station, China Lake
- Edwards Air Force Base
- National Training Center, Fort Irwin
- Marine Corps Air Ground Combat Center, Twenty-nine Palms
- Marine Corps Logistics Base, Barstow
- Marine Corps Air Station, Yuma

Department of Agriculture

- Forest Service

Governing Principles

- Participation does not diminish an agency's autonomy or authority
- Work to create opportunities and develop partnerships to manage resources
- Decisions made by consensus
- Keep the public informed and provide opportunity to comment on DMG activities
- Activities consistent with and/or designed to implement agency resource mgt plans

The Future In the Mojave Desert

- Increased Demand for Resource Protection
- Increased Restrictions
- Encroachment
- Increased Conflict and Litigation
- Increased demands for good science in land management decision making

Interagency Projects

- **Desert Tortoise Monitoring**

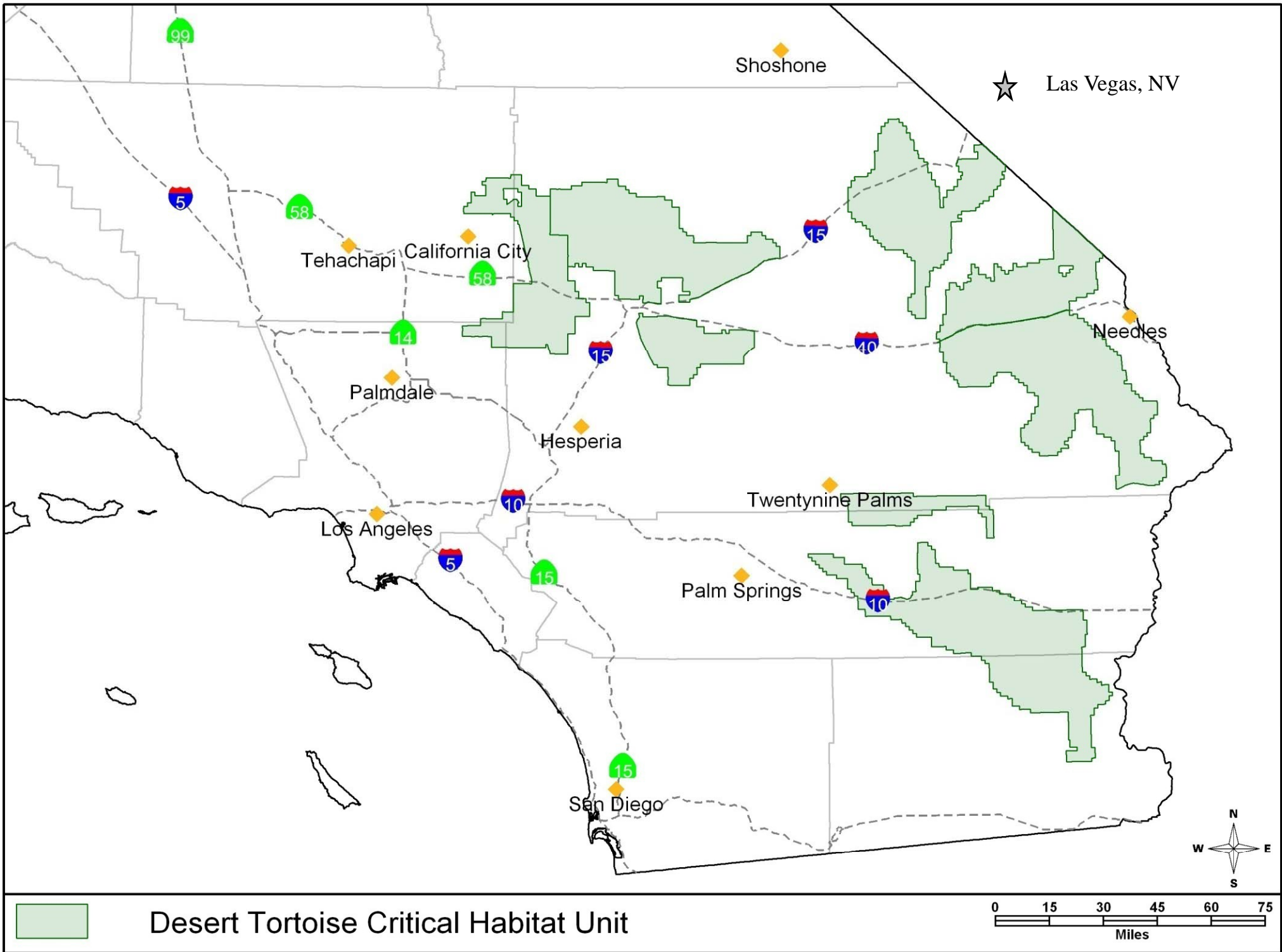
- Monitor desert tortoise population status in relation to recovery goals
 - ❖ Adopted standard monitoring protocols (Line Distance Sampling)
 - ❖ Recovery units sampled for last 6 years

- **Public Outreach and Education**

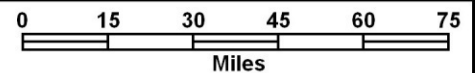
- Provide coordinated information about agency missions, desert resources and visitor opportunities
- Increase public awareness of and support for desert tortoise recovery
 - ❖ www.californiadeserts.gov, www.deserttortoise.gov
 - ❖ Lancaster Visitor Center
 - ❖ Mojave Max Campaign
 - ❖ Public attitude survey

Interagency Projects

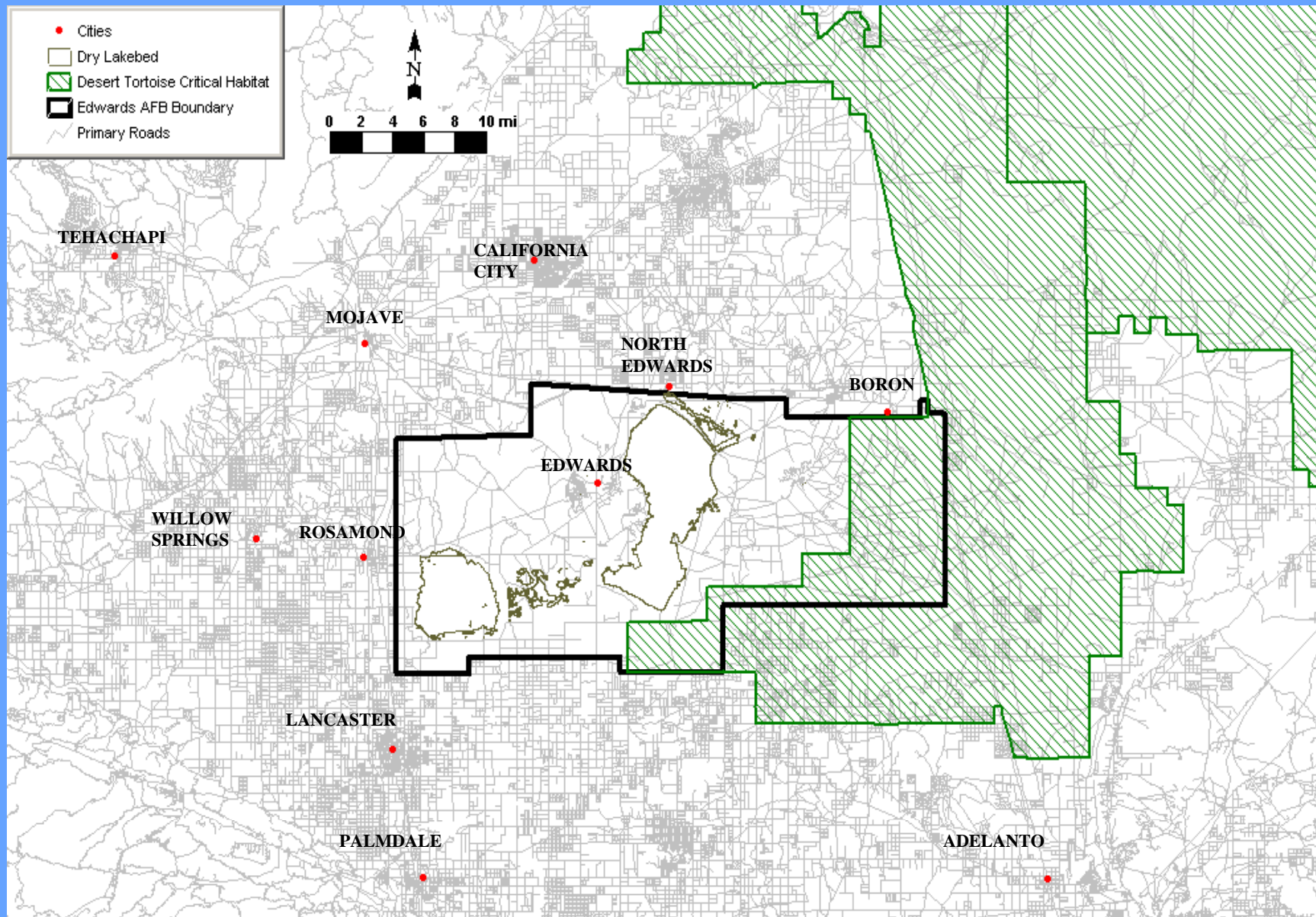
- **Integrated Science and Data Management**
 - Coordinate scientific studies and monitoring programs needed for effective resource management and planning
 - ❖ Effectiveness of Desert Tortoise Recovery Actions report
 - ❖ **Raven Management Environmental Assessment**
 - ❖ Mojave Ground Squirrel Conservation Strategy



Desert Tortoise Critical Habitat Unit



Critical Habitat in Relationship to Edwards AFB



Raven Population “Explosion”

- Historically – occasional transit in Mojave Desert, predation on desert tortoise minuscule
- Current raven population >800-1000% higher
- Basic assumption - Raven predation on desert tortoises is a learnt behavior – target only ravens known to prey on desert tortoises
- Removing a relatively small number of ravens has the potential to substantially reduce predation of desert tortoises

Project Background and Previous Planning

Goal - to reduce raven predation on hatchling and juvenile desert tortoises

- 1989 a multiagency pilot raven control program was initiated – pilot program halted by a TRO initiated by the Humane Society
- 1990 a follow-up to the aborted pilot program – delayed because of public concern
- April 2, 1990 the Mojave population of the desert tortoise listed as threatened under the ESA
- Technical Review Team (TRT) established, 1993-1994 recommended and implemented an experimental raven removal program.
- Appeal filed 1993 for removing ravens without evidence of desert tortoise predation
- 2006 DMG, as a group, voted to proceed with a new NEPA analysis with the USFWS as the lead agency



Edwards AFB Conservation DATA



Search All Documents

**Master NEPA - Search All NEPA
& Related Documents**

Edwards NEPA Documents

-Edwards Specific NEPA Analysis

-Large Programs NEPA Analysis

**Regional NEPA & Related Background
Documents**

-NEPA Documents

-High Interest SMAs

Master Natural Resources

All Edwards Specific NR Data

-Edwards BOs

-Edwards Nat Res Data

Regional and Related NR Data

-Regulatory Documents (mostly ESA)
(INRMPs, Plans, Critical Habitat, HCPs)

-Regional Studies

-High Interest (Desert Tortoise)

Master Cultural Resource DATA

Public Comments and Alternatives Considered

- **Extensive public comment and review of Draft Environmental Assessment**

- **Alternatives Considered and Dismissed – all alternatives suggested by public were addressed in detail and the evaluation explained**

- **Examples of alternatives recommended by the public**

- Establish a hunting season and/or bounty for permitted hunters
- Establish an Adopt-a-Raven Program
- Trap and Relocate Ravens
- Provide Another Food Source for Ravens
- Implement Visual or Auditory Aversion for Ravens
- Conditioned Taste Aversion (CTA)
- Introduce a Predator for Ravens
- Implement a Birth Control or Chemical Sterilization Program
- Allow Diseases (e.g., WNV and Newcastle's Disease) to Reduce the Raven Population
- Control/Reduce Human Population Control
- Modify all utility poles and towers to preclude raven perching or nesting

Adaptive Management Alternatives

1. Alternative A or Current Program;
2. Alternative B–Integrated Predator Management Emphasizing Cultural and Physical Methods;
3. Alternative C–Integrated Predator Management and Removal of Ravens from Desert Tortoise Management Areas;
4. Alternative D–Integrated Predator Management and Removal of Ravens from Desert Tortoise Management Areas and Raven Concentration Areas;
5. Alternative E–Integrated Predator Management using only Nonlethal Cultural and Physical Methods; and
- 6. Alternative F-Integrated Predator Management using a Phased Approach of Alternatives B, C, and D.**

Summary

- Responsibilities:
 - Lead agency is the US Fish and Wildlife Service
 - This was a joint level Desert Managers Group (DMG)
- Goal:
 - The EA allows us to remove ravens where we find evidence of predation on desert tortoises
 - **Key Point** -- The goal is not to remove all ravens, but to remove the minimum number of ravens needed to stop desert tortoise predation.
- When:
 - Final USFWS EA - March 2008
 - Edwards Adoption EA FONSI – June 2008
 - Publication of USAF FONSI/Adoption and waiting period ended 3 July 2008

