

Clark County Multi-Species Habitat Conservation Plan Amendment: Progress Update

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DCP Annual Symposium





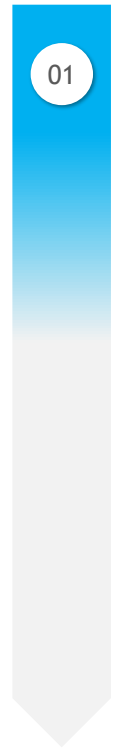
MSHCP Amendment Progress

- 
- Anticipated timeline
 - Covered Species
 - Climate change and the MSHCP
 - Biological Goals and Objectives
 - Plan Area
 - Habitat Quantification Analysis



Anticipated Timeline

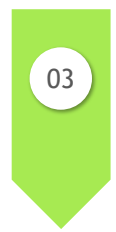
Preliminary
draft MSHCP
Q2 2022



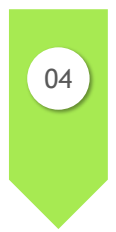
Vegetation
dataset
Q4 2022



Funding
analysis
Q4 2023



Species habitat
models
Q2 2024



Draft MSHCP
Completed
Q2 2025



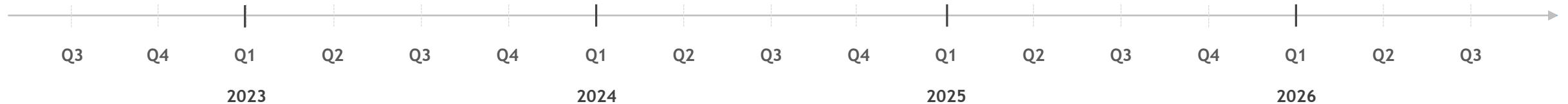
Submit ITP
application
Q3 2025



DEIS
Notice of Availability
Q4 2025



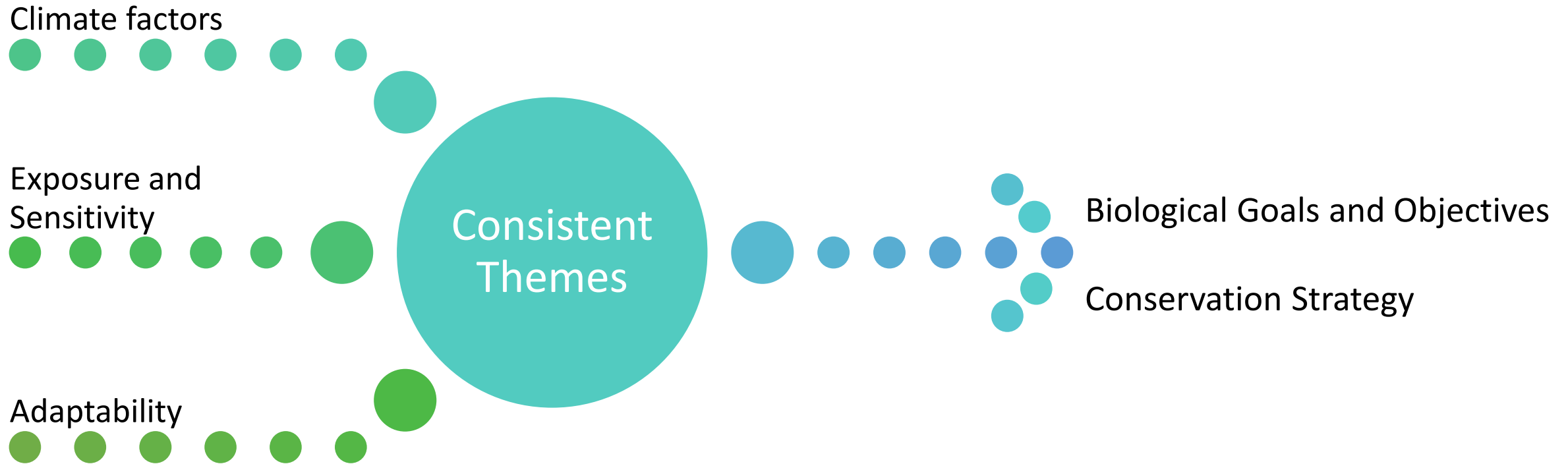
ITP
issued
Q3 2026



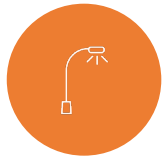
Covered Species

| Wildlife | Plants |
|--|--|
| desert tortoise (<i>Gopherus agassizii</i>) | sticky ringstem (<i>Anulocaulis leiosolenus</i> var. <i>leiosolenus</i>) |
| banded Gila monster (<i>Heloderma suspectum cinctum</i>) | Las Vegas bearpoppy (<i>Arctomecon californica</i>) |
| golden eagle (<i>Aquila chrysaetos</i>) | threecorner milkvetch (<i>Astragalus geyeri</i> var. <i>triquetrus</i>) |
| burrowing owl (<i>Athene cunicularia</i>) | alkali mariposa lily (<i>Calochortus striatus</i>) |
| yellow-billed cuckoo (<i>Coccyzus americanus</i>) | Blue Diamond cholla (<i>Cylindropuntia multigeniculata</i>) |
| gilded flicker (<i>Colaptes chrysoides</i>) | silverleaf sunray (<i>Enceliopsis argophylla</i>) |
| southwestern willow flycatcher (<i>Empidonax traillii extimus</i>) | Pahrump valley buckwheat (<i>Eriogonum bifurcatum</i>) |
| loggerhead shrike (<i>Lanius ludovicianus</i>) | Las Vegas buckwheat (<i>Eriogonum corymbosum</i> var. <i>nilesii</i>) |
| Ridgway's rail (<i>Rallus obsoletus yumanensis</i>) | sticky buckwheat (<i>Eriogonum viscidulum</i>) |
| Bendire's thrasher (<i>Toxostoma bendirei</i>) | white-margined beardtongue (<i>Penstemon albomarginatus</i>) |
| Le Conte's thrasher (<i>Toxostoma lecontei</i>) | Parish phacelia (<i>Phacelia parishii</i>) |
| Arizona Bell's vireo (<i>Vireo bellii arizonae</i>) | St. George blue-eyed grass (<i>Sisyrinchium radicum</i>) |
| desert pocket mouse (<i>Chaetodipus penicillatus</i>) | Joshua tree (<i>Yucca brevifolia</i>) |
| Townsend's big eared bat (<i>Corynorhinus townsendii</i>) | |
| spotted bat (<i>Euderma maculatum</i>) | |

Climate-Informed MSHCP Amendment



Biological Goals and Objectives



Reduce indirect impacts



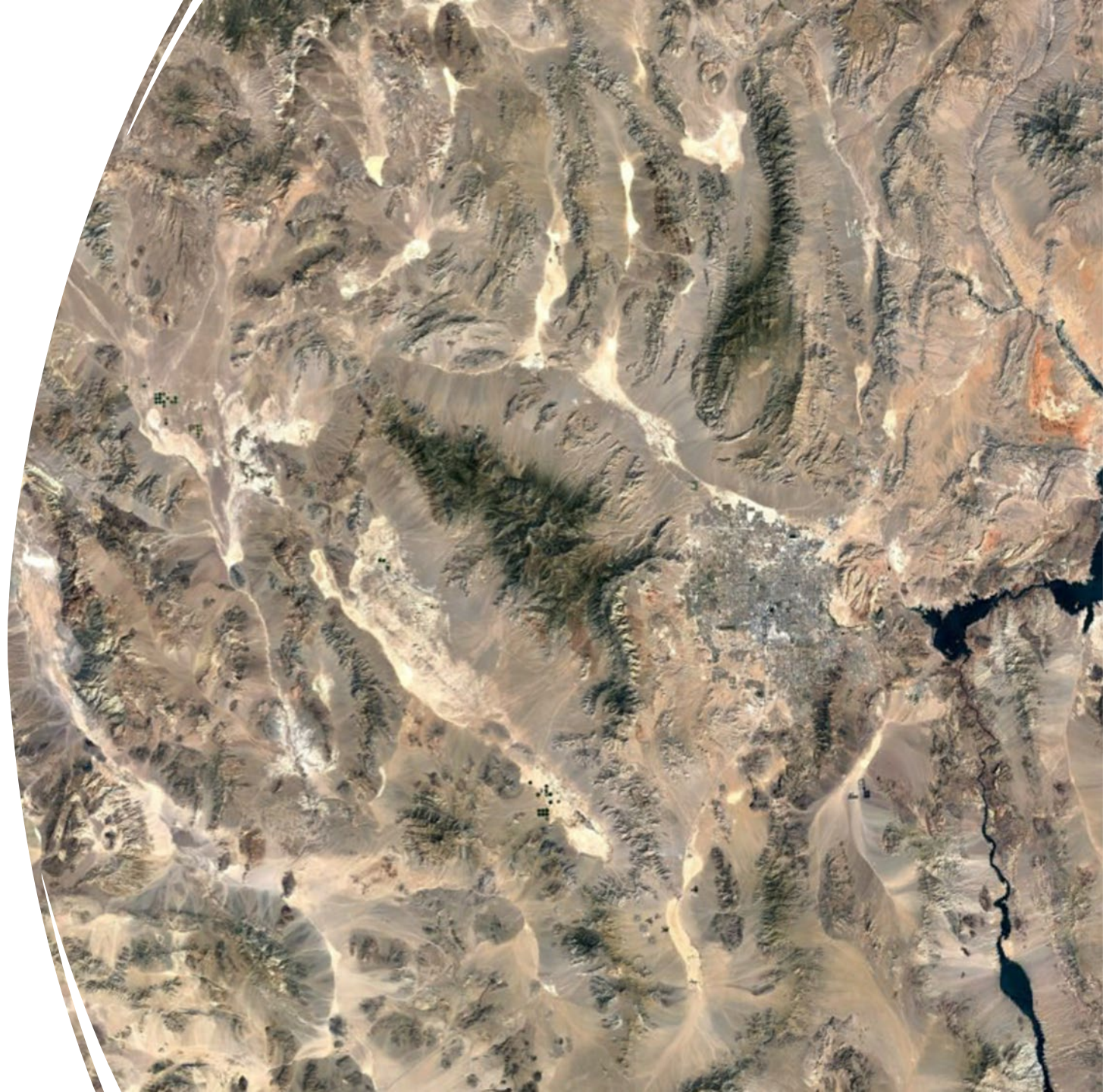
Promote resiliency and redundancy

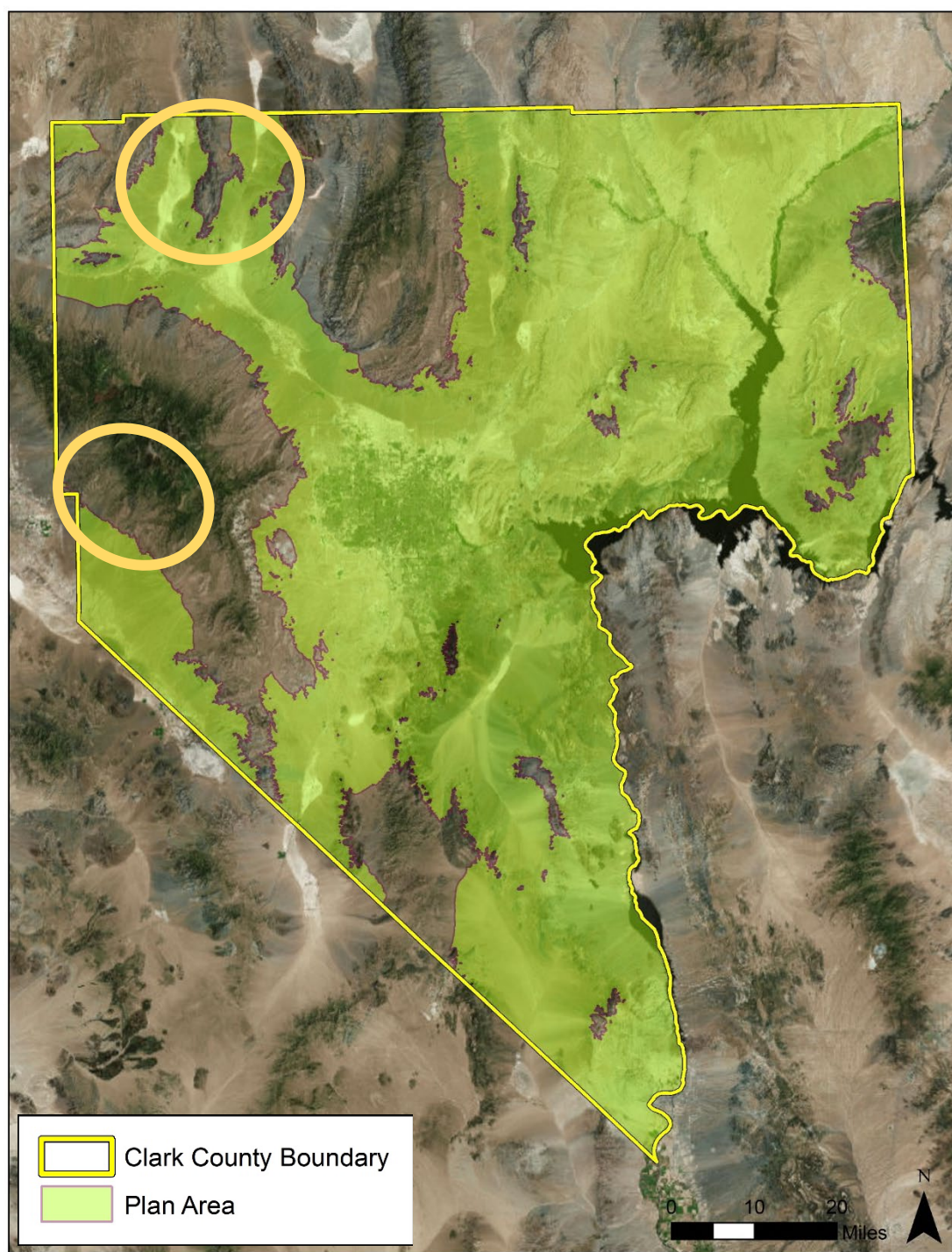


Community engagement



Invasive plant management

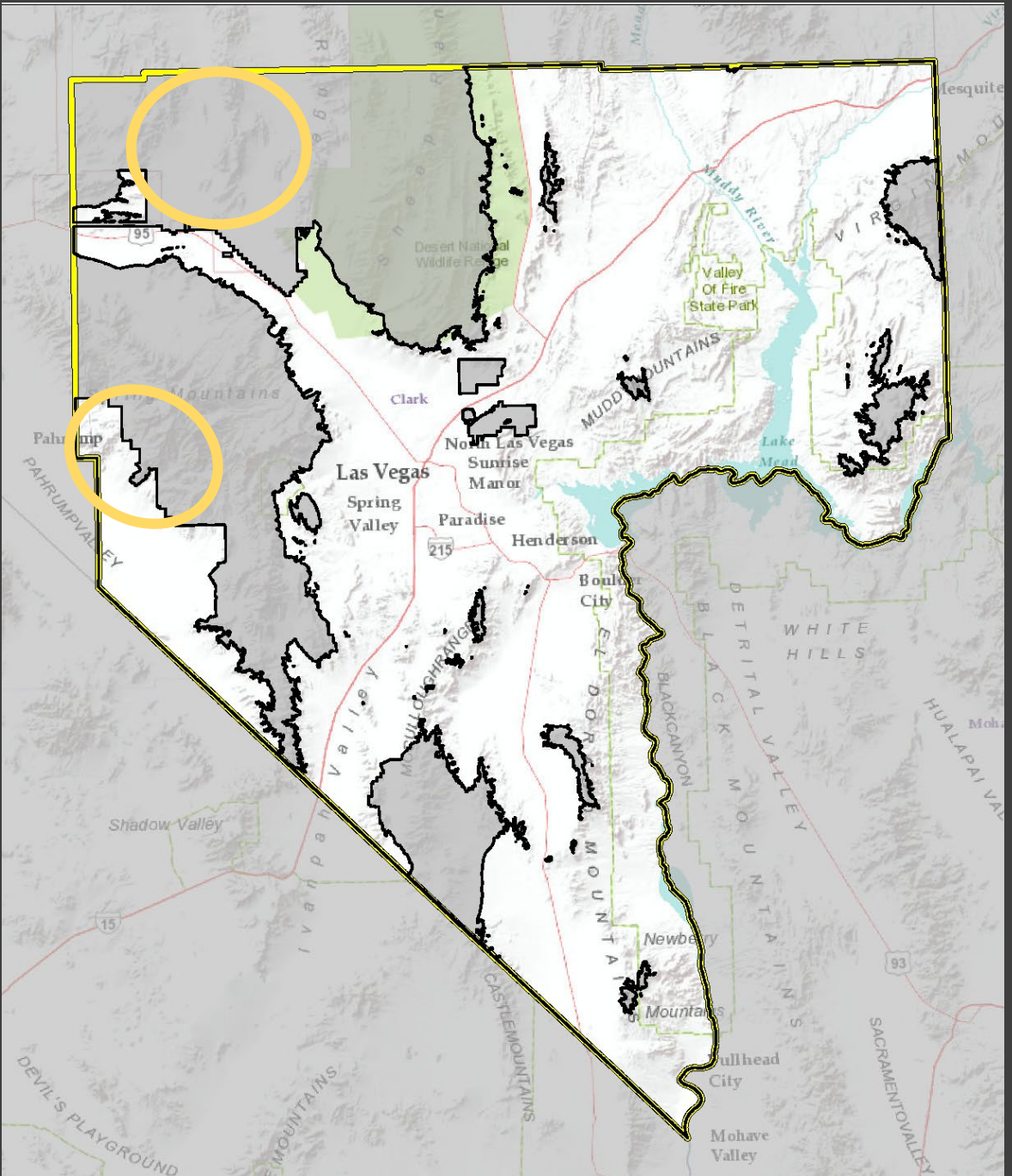




Plan Area

- Below 4,000 feet
- Modifications
 - Excluding some DoD lands
 - Adding lands above 4,000 feet in one proposed reserve





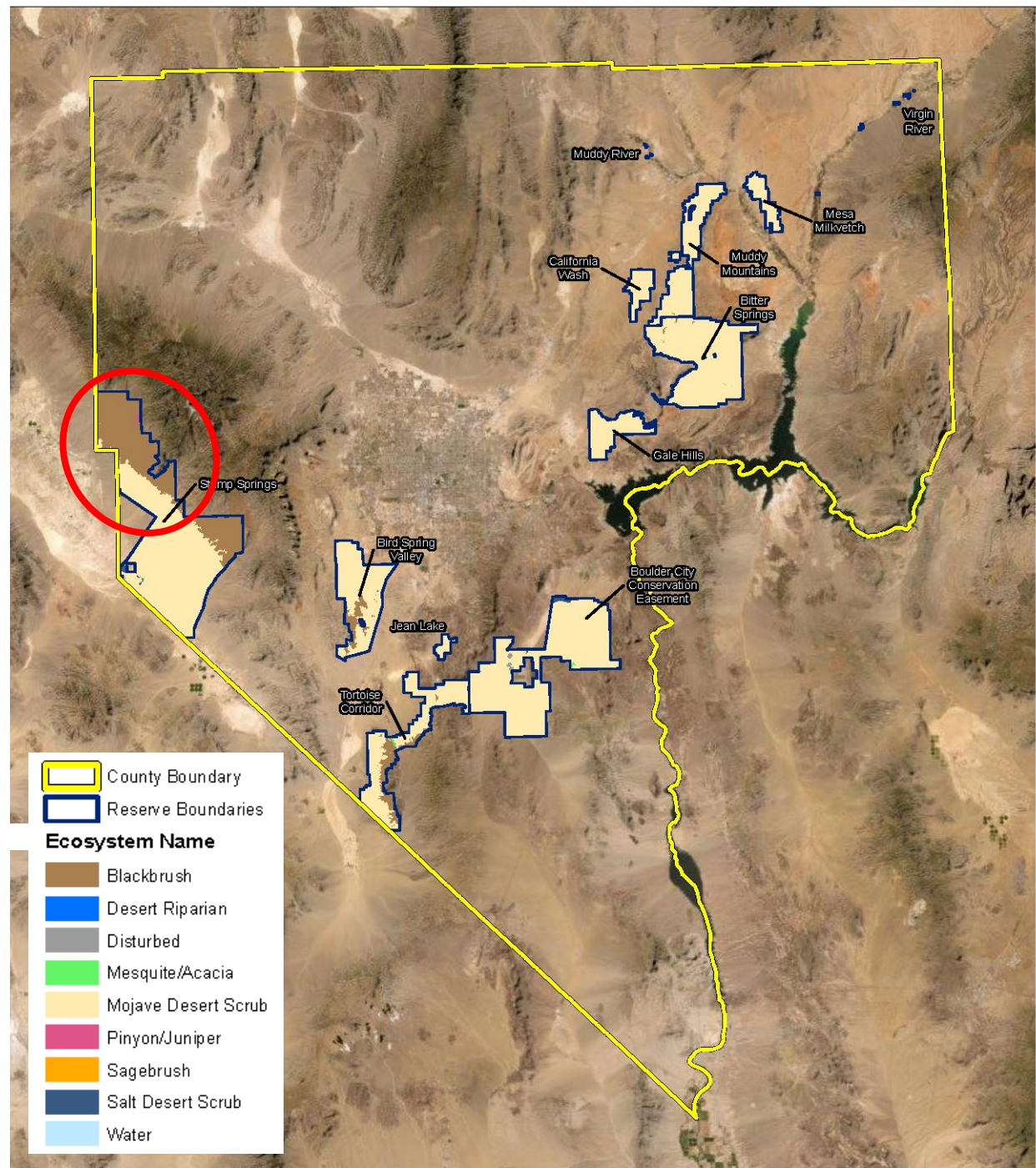
Plan Area

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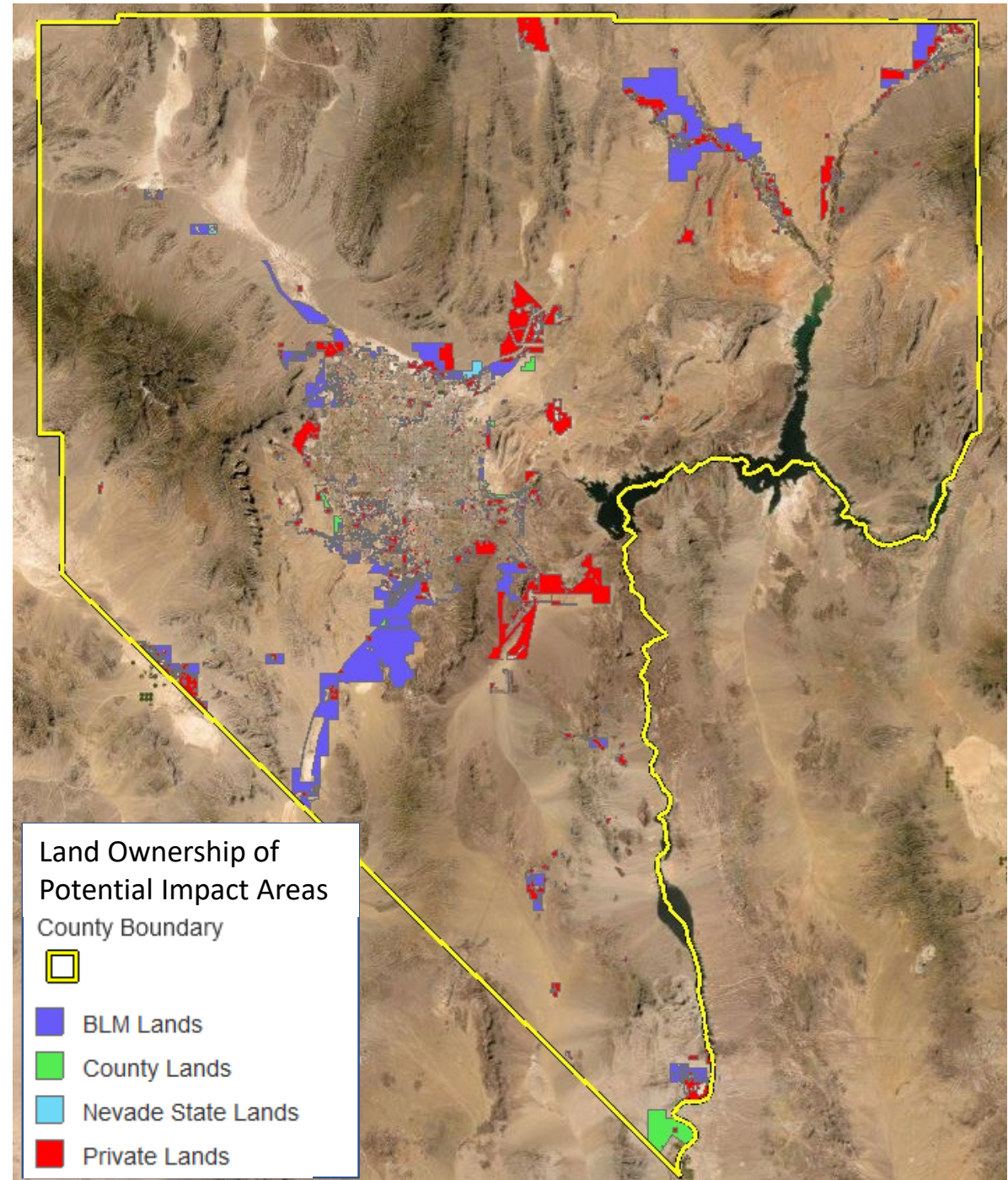
Reserve System

- Nine reserves on public lands
 - Stump Springs expanded above 4,000 feet for climate change adaptation/resilience
- Three reserves on private lands
 - Riparian habitats
 - Mojave Desert scrub (BCCE)



Potential Impact Areas

- Potential impact area - 289,565 acres
 - Undeveloped private parcels
 - County or State-owned lands
 - Disposal lands
- MSHCP Amendment/ITP maximum impact - 215,000 acres





Ecosystems

| Ecosystem | Acres in Potential Impact Area | Acres in Current Reserve System |
|---------------------|--------------------------------|---------------------------------|
| Blackbrush | 5,160 | 71,397 |
| Desert riparian | 5,526 | 414 |
| Disturbed | 1 | 392 |
| Mesquite/Acacia | 3,025 | 2929 |
| Mojave Desert scrub | 266,413 | 359,820 |
| Pinyon/Juniper | 0 | 698 |
| Playa | 3,634 | 0 |
| Sagebrush | 0 | 27 |
| Salt desert scrub | 5,750 | 2497 |
| Water | 55 | 14 |

Habitat Quality Analysis

- Several covered species interact and utilize similar habitat types
 - Species with similar habitat needs were analyzed together
 - Minimizing tracking by single species

| ECOSYSTEM/HABITAT ASSOCIATION | COVERED SPECIES |
|---|--|
| Mojave Desert Scrub and Mesquite/Acacia Ecosystems | <ul style="list-style-type: none"> • desert tortoise • banded Gila monster • golden eagle • burrowing owl • loggerhead shrike • LeConte's thrasher • Arizona Bell's vireo • desert pocket mouse • Townsend's big-eared bat • spotted bat |
| Blackbrush Ecosystem | <ul style="list-style-type: none"> • gilded flicker • Bendire's thrasher • Joshua tree • Blue Diamond cholla |
| Desert Riparian Scrub and Woodland Ecosystem | <ul style="list-style-type: none"> • western yellow-billed cuckoo • southwestern willow flycatcher |
| Desert Riparian Marsh Ecosystem | <ul style="list-style-type: none"> • Yuma Ridgway's rail |
| Hydrology Dependent Ecosystem | <ul style="list-style-type: none"> • alkali mariposa lily • Parish's phacelia • St. George's blue-eyed grass |
| Wind-blown Sand | <ul style="list-style-type: none"> • Threecorner milkvetch |
| Gypsiferous Soil | <ul style="list-style-type: none"> • sticky ringstem • Las Vegas bearpoppy • silverleaf sunray • Las Vegas buckwheat • Mojave poppy bee |
| Sandy Soil | <ul style="list-style-type: none"> • sticky buckwheat • white-margined beardtongue |
| Playa Ecosystem | <ul style="list-style-type: none"> • Pahrump Valley buckwheat |



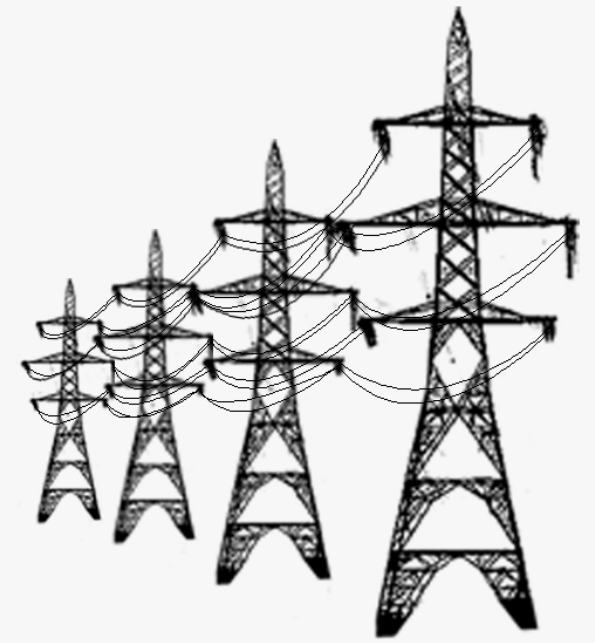
Habitat Quality

- Roads

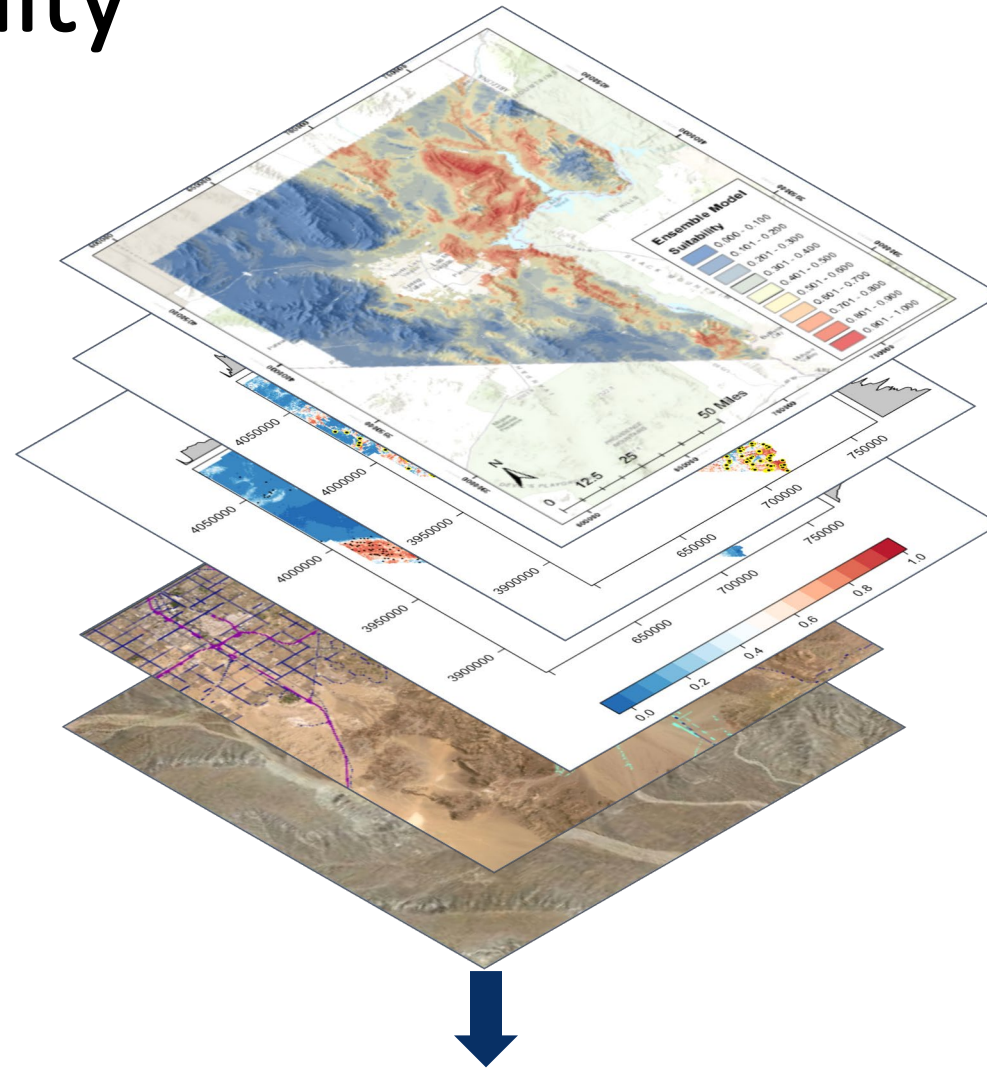
- Unfenced vs Fenced
- Proxy for disturbance
- Invasive plants
- Dust
- Noise

- Transmission towers

- Predator nest resource
- Proxy for disturbance (maintenance roads)



Habitat Quality Analysis



Habitat Suitability Models for species, occurrence data



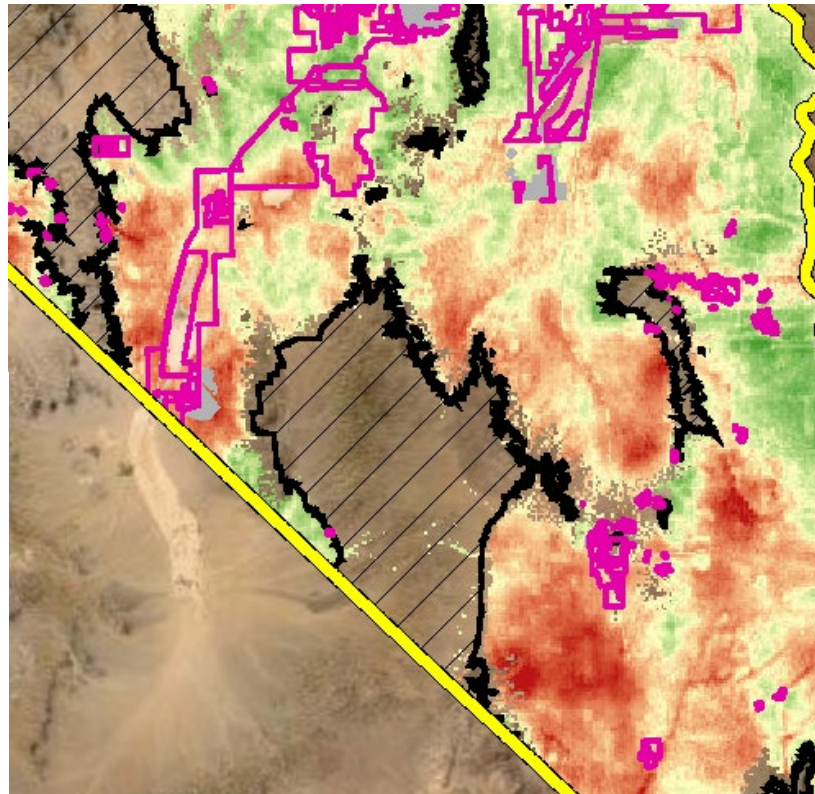
Roads, distance to water, transmission lines, etc

Habitat Quality Index



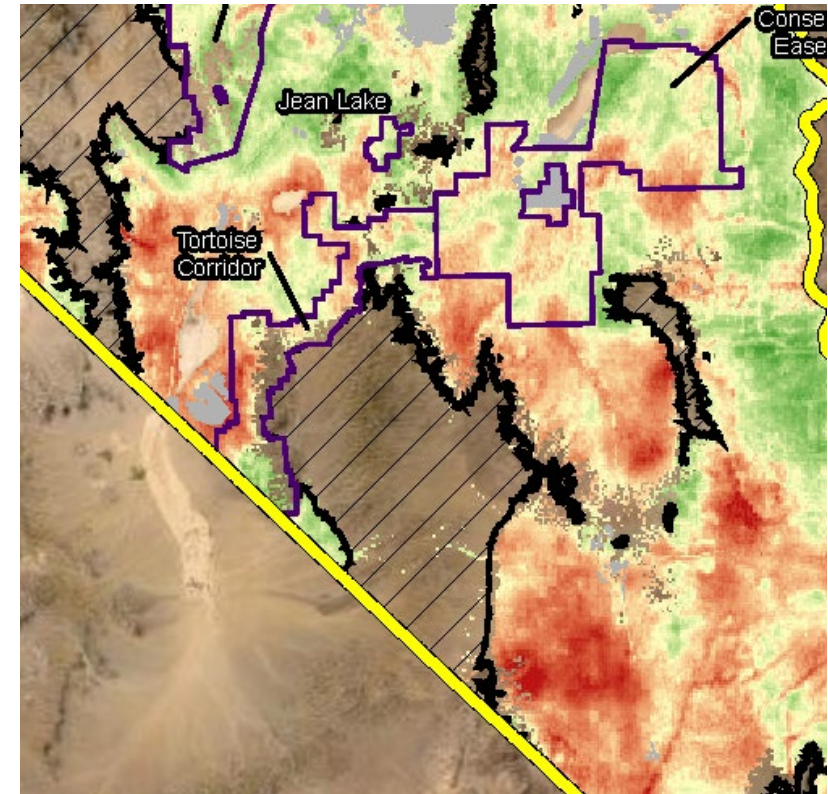
Habitat Quality Analysis – Mojave Desert Scrub and Mesquite-Acacia

Impacts



128,686 Qualified Acres

Reserve System



155,385 Qualified Acres

- County Boundary
 - Impact Areas
 - Outside of Plan Area
 - Existing Urban/Disturbed
- Habitat Quality Index**
- High : 1
 - Low : 0.06



Next Steps

- Habitat quality models
 - Final feedback from the Service
 - Revised data (species models and vegetation data)
- Permittee review of draft documents
- Ongoing coordination with BLM and Service on the Reserve System



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PETALUMA • SAN DIEGO

