

## Lake Cahuilla

**Description/Location:** Located about 18 miles east of El Centro, California, the existing Lake Cahuilla ACEC and proposed conservation lands lie in south central Imperial Valley between farm lands and the Imperial Sand Dunes. ACEC 71 lies against the International Border and the All-American Canal. ACEC 69 also lies adjacent to the canal and is contiguous with Interstate 8. ACEC 65 begins adjacent to the Holtville Airport and parallels the East Highline Canal. ACEC 66 covers a segment of an interior shoreline and lies one mile east of ACEC 65. The proposed expansion of conservation lands would connect these units of the existing ACEC and the proposed East Mesa conservation lands. The proposed expansion includes an area one mile wide on either side of the 40' contour of ancient Lake Cahuilla. It spans the Imperial Valley from the Coachella Valley to the north, to the International border to the south.

### **Nationally Significant Values:**

**Cultural:** Rare and unique archaeological values exist within the proposed conservation lands and the existing ACEC. These lands include several large archaeological sites that contain dense accumulations of ceramics, hearths, stone tools, and features that are associated with the shoreline of ancient Lake Cahuilla which has repeatedly in-filled over the last thousand years. These sites contain evidence of habitation, food preparation, early trade, lake-shore adaptation and socio-religious practices, giving us insight into prehistoric human behavior. Archaeological site types vary around the shoreline, ranging from fish traps along the northern shoreline, to geoglyphs or intaglios along the southeastern portions of the shoreline. Areas and landmarks of traditional religious and spiritual concern to Native Americans are located in and visible from the ACEC. Prehistoric archaeological sites listed in and eligible for listing in the NRHP are located within this ACEC.

**Scientific:** Prehistoric archaeological sites with scientific information potential that make them eligible for listing in the NRHP are located within this ACEC. This ACEC also contains significant paleontological resources, including the Palm Springs Formation associated with the shoreline of ancient Lake Cahuilla. Various types of archaeological resources are located within each ACEC.

ACEC #65 – includes excellent portions of frontal beach that contains fossil records.

ACEC #69,71 – contains portions of frontal beach with irregular shore shape and provides an opportunity to manage and examine shoreline versus non-shoreline prehistoric sites.

ACEC #66 – covers large portion of one East Mesa embayment shoreline. Microhabitats provided Native Americans with different and abundant food gathering opportunities

**Special Designations/Management Plan/Date:** One plan covers ACEC #65, 66, 69 and 71/ 1984.

**Relevance and Importance Criteria:** Relevant and significant cultural resources which require special management attention. Sensitive archaeological sites are potentially endangered from uncontrolled sand and gravel removal, off-road vehicle use, and other forms of activity.

Archaeological values within each ACEC are rare and unique in character. The ecological environment of Lake Cahuilla was not duplicated elsewhere in the California Desert. In fact, the circumstances which led to repeated fillings of Lake Cahuilla may not exist elsewhere in the world. Consequently, Lake Cahuilla archaeology provides us with a rare glimpse into prehistoric human behavior which can contribute to our knowledge of our varied cultural heritage.

**Goals:** Protect and enhance cultural and paleontological values while complying with existing legislation and BLM policies. Provide for compatible uses.

**For NLCS Lands** -- Where this ruleset differs from the plan-wide NLCS rulesets, the more restrictive rules will apply.

**Designation and Acreage by Alternative:**

Alternative	BLM Acres of NLCS within ACEC or Wildlife Allocation	BLM Acres within ACEC	BLM Acres within Wildlife Allocation	ACEC Disturbance Cap
No Action	0	14,000	0	NA
Preferred Alternative	30,700	35,700	0	0.10%
1	0	35,800	0	0.10%
2	33,800	33,800	0	0.10%
3	16,700	35,600	0	0.10%
4	12,400	29,200	0	0.10%

\* Acreage values are for BLM managed lands

**Alternatives :**

All Action Alternatives – this existing ACEC would be expanded and managed to protect cultural resources.

No Action: The existing ACEC would be managed as it currently is.

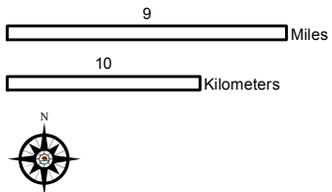
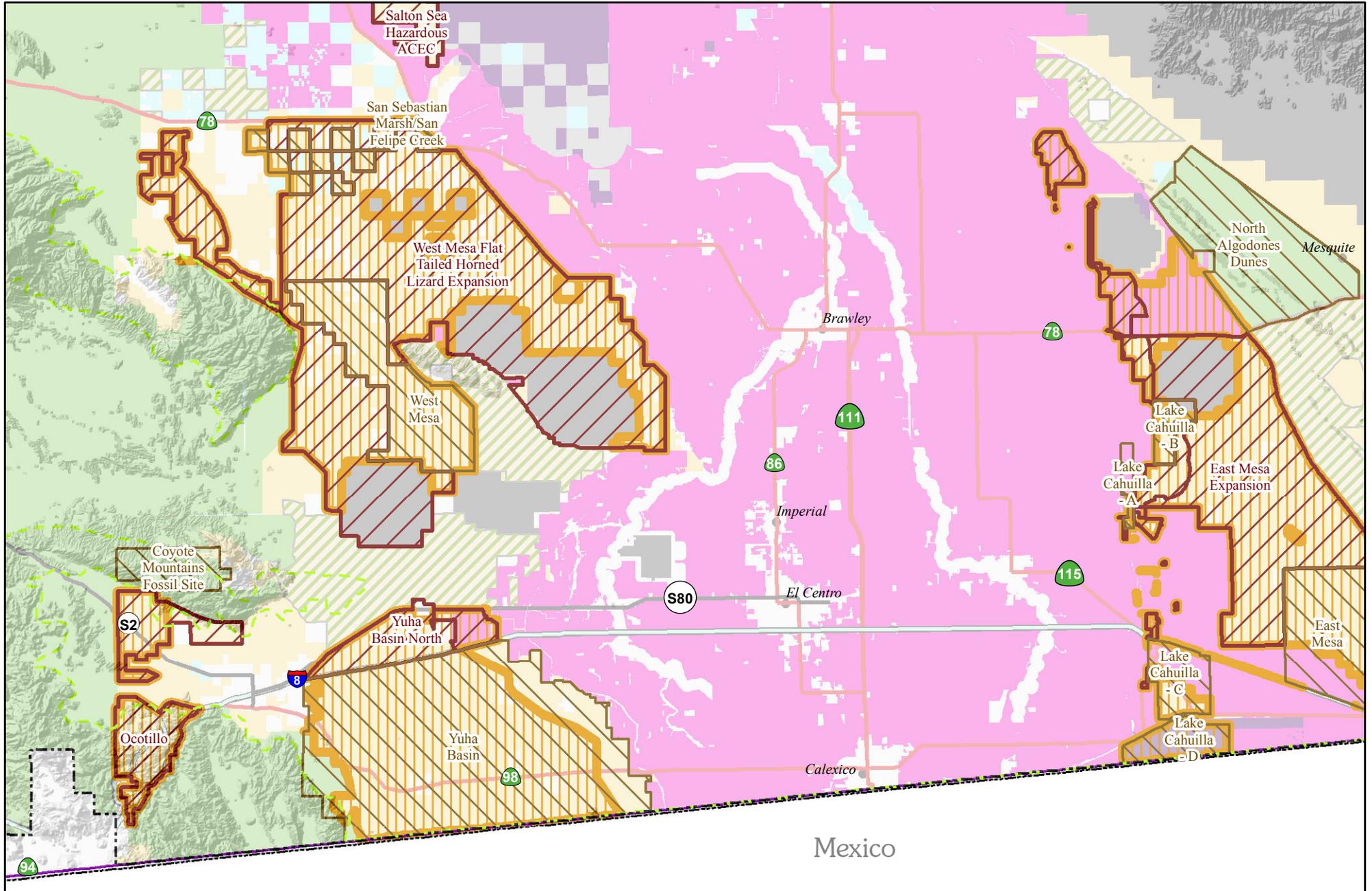
Objectives (desired future conditions)/Allowable Uses/Management Actions	Resource
Objective: Minimize soil disturbance. Preserve existing air quality. Management Actions: Coordinate with the Imperial County Air Pollution Control District to maintain air quality.	Soil, water, air
The Lake Cahuilla ACEC lies largely within a Creosote bush scrub plant community. Major plant species in the area include creosote ( <i>Larrea tridentata</i> ), Mormon tea ( <i>Ephedra trifurca</i> ), and saltbush ( <i>Atriplex canescens</i> ). The area is also dotted with small numbers of honey mesquite dunes ( <i>Prosopis glandulosa</i> ). BLM Special Status Plants include Sand food and the Algodones Dunes sunflower.  Objective: Protect and enhance robust populations of both rare and common native plants. Management Action: Manage vehicular traffic to stay on designated OHV routes. Management Action: Place signs, kiosks and interpretive information at key	Vegetation (incl. special status species)

<p>recreational sites to better inform the public about the important plant resources.  Management Action: Eradicate and control the spread of invasive and noxious weeds.</p> <p>Objective: Update a baseline of plant species to track environmental changes.  Management Action: Inventory vascular and non-vascular plants, include soil crust species, in the ACEC.</p>	
<p>The current Lake Cahuilla ACEC contains three primary habitat types: creosote bush scrub, mesquite dunes, and canal-created riparian zones. Wildlife diversity is greatest in the artificial riparian areas. The primary species of special management concern are the state and Federally listed endangered Yuma clapper rail and the California black rail. The latter species is State listed and a candidate for Federal listing. These species have been reported in canal side vegetation adjacent to ACEC 71. The flat-tailed horned lizard, a candidate for Federal listing, may occur in the ACEC. Additionally, seven bird species included on the 1982 Audubon Society Blue List of diminishing species occur or potentially occur within the Lake Cahuilla ACEC. These include the sharp-shinned hawk, marsh hawk, Swainson's hawk, long-billed curlew, Bewick's wren, loggerhead shrike, and yellow warbler.</p> <p>Objective: Maintain wildlife habitat that supports native species including that of special status species.  Management Action: Monitor wildlife for habitat and population change.</p>	<p>Fish and Wildlife (incl. special status species)</p>
<p>See programmatic ACEC cultural resources objective and action items in general cultural resources rules.</p> <p>Objective: Protect and preserve cultural resources within and visible from the ACEC.  Management Action: Develop interpretive programs and brochures that explain Lake Cahuilla cultural resources.  Management Action: Prohibit OHV activities except on designated routes of travel.  Management Action: Perform route restoration to erase illegal routes.  Management Action: Prohibit camping within one mile of the 40' contour of ancient Lake Cahuilla.  Management Action: Increase ranger patrols and BLM presence in the area.  Management Action: Nominate the district for listing in the NRHP.  Management Action: Install informative signage and kiosks to ensure the public is aware of restrictions as well as provide interpretation about ancient Lake Cahuilla.</p> <p>Objective: Expand our understanding of the nature, variety, and complexity of cultural resources within the Lake Cahuilla ACEC.  Management Action: Consult with local Indian tribes and knowledgeable traditional practitioners regarding the cultural resource values present within the ACEC.  Management Action: Work with local archaeological organizations and</p>	<p>Cultural Resources</p>

<p>institutions to develop partnerships to enable proactive survey and recordation.</p> <p>Management Action: Apply for grant or other funding to pay for contracting.</p>	
<p>Objective: Ensure the general management and protection of paleontological resources within the ACEC.</p> <p>Management Action: Manage and protect fossil resources consistent with the Paleontological Resources Preservation Act and the Omnibus Act.</p> <p>Management Action: Develop plans and cooperative agreements to increase the inventory and scientific and educational use of paleontological resources.</p> <p>Management Action: Prohibit casual collection of vertebrate fossils without a permit.</p> <p>Management Action: Increase ranger patrols and BLM presence in the area.</p> <p>Management Action: Install informative signage and kiosks to ensure the public is aware of restrictions as well as provide general education about the unique and important resources.</p> <p>Management Action: Develop interpretive programs and brochures that explain Lake Cahuilla paleontology.</p>	Paleontology
<p>Objective: Protect characteristic landscape of the conservation lands and ACEC.</p> <p>Management Actions: Avoid impacts to characteristic landscape by managing to appropriate VRM class. Apply visual mitigation techniques.</p>	Visual Resources
<p>Objective: Manage the route of travel network to fulfill requirements of the original CDCA Plan and the WECO Plan Amendment.</p> <p>Management Action: Provide signage and maps to the public to inform them of route locations and regulations.</p> <p>Management Action: Increase ranger patrols and other BLM personnel visits to the area.</p> <p>Management Action: Monitor the creation of illegal routes and perform route restoration as needed.</p>	Trails and Travel Management
<p>Objective: Protect archaeological sites from physical degradation.</p> <p>Management Action: Prohibit camping except in sand and gravel pits and within 50 feet of approved routes of travel as per the WECO plan. Continue to monitor existing recreational opportunities (hunting, target shooting etc.).</p> <p>Management Action: Increase ranger patrols and other BLM personnel visits to the area.</p> <p>Management Action: Provide signage and maps to the public to inform them of route locations and regulations.</p>	Recreation
<p>Avoid impacts to resource values.</p> <p>Limit linear ROWs to designated transmission corridors.</p>	Rights of Way

<p>No Action/Current Condition:  ACEC 65 currently no competitive geothermal leases  ACEC 66 competitively leased and leased through over-the-counter system for geothermal resources  ACEC 69 competitively leased for geothermal resources  Allowable Uses: Geothermal exploration with stipulations</p> <p>Proposed for All Action Alternatives:  Renewable Energy (Solar, Wind, etc) Not an allowable use. Renewable energy development is not compatible with NLCS and ACEC unit values and criteria</p> <p>Proposed Geothermal:  Continue ACEC 65 currently no competitive geothermal leases  ACEC 66 competitively leased and leased through over-the-counter system for geothermal resources  ACEC 69 competitively leased for geothermal resources  In places where the DFA(geothermal) overlaps this ACEC, geothermals would be allowed with a NSO stipulation.</p>	Renewable Energy
<p>Objective: Permit economic resource development in a way to maximize value without jeopardizing cultural resources.</p> <p>Allowable uses: Oil and gas leasing and development. Mining activities would be allowed with appropriate analysis and mitigation.</p> <p>Management Action: Prohibit extraction of mineral materials (sand and gravel) and petrified wood from ACEC 65, 69 and 71. East Mesa beachline has long been the site for sand and gravel extraction. Historic operations are allowed to continue.</p> <p>Allocation: Limited material sales</p>	Locatable Minerals Mineral Materials Non-Energy Leasables
<p>East Highline Sand and Gravel Activity Management Plan</p> <p>Part of first form withdrawal by Bureau of Reclamation</p> <p>ACEC 66 lies within the Imperial Sand Dunes Recreation Area</p> <p>East Mesa Known Geothermal Resource Area occupies portions of ACEC 69</p> <p>Parts of ACEC 65 lie within the East Brawley KGRA</p>	Overlapping Land Designations

# Lake Cahuilla



## Preferred Alternative ACECs

Date Printed: 5/29/2013

Prepared by BLM California State Office



### ACEC Layers

- Existing ACEC
- Proposed ACEC
- Proposed NLCS
- Design Focus Areas
- Legislatively and Legally Protected

- Cities
- OHV Areas
- CDCA Boundary
- DRECP Boundary
- BLM Field Office

### Land Status

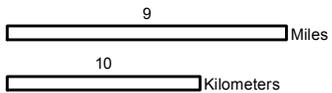
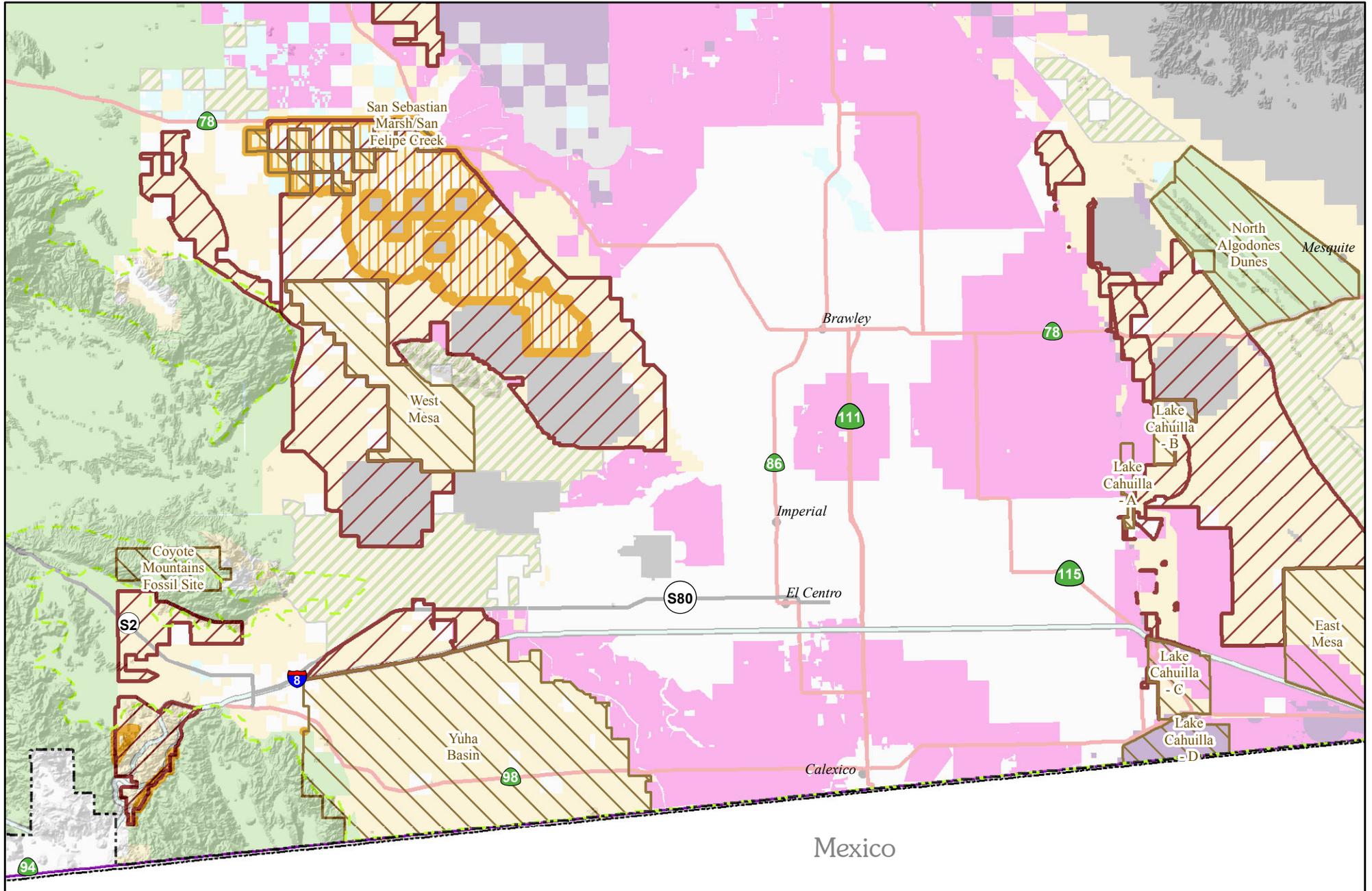
- Bureau of Land Management
- State
- Other Federal
- Military
- Private

### GTFL

- Interstate
- US Hwy
- CA Hwy
- County Hwy



# Lake Cahuilla



## Alternative 1 ACECs

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### ACEC Layers

- Existing ACEC
- Proposed ACEC
- Proposed NLCS
- Design Focus Areas
- Legislatively and Legally Protected

- Cities
- OHV Areas
- CDCA Boundary
- DRECP Boundary
- BLM Field Office

### Land Status

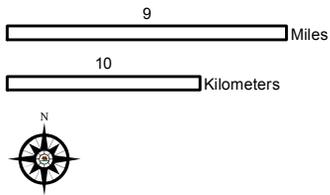
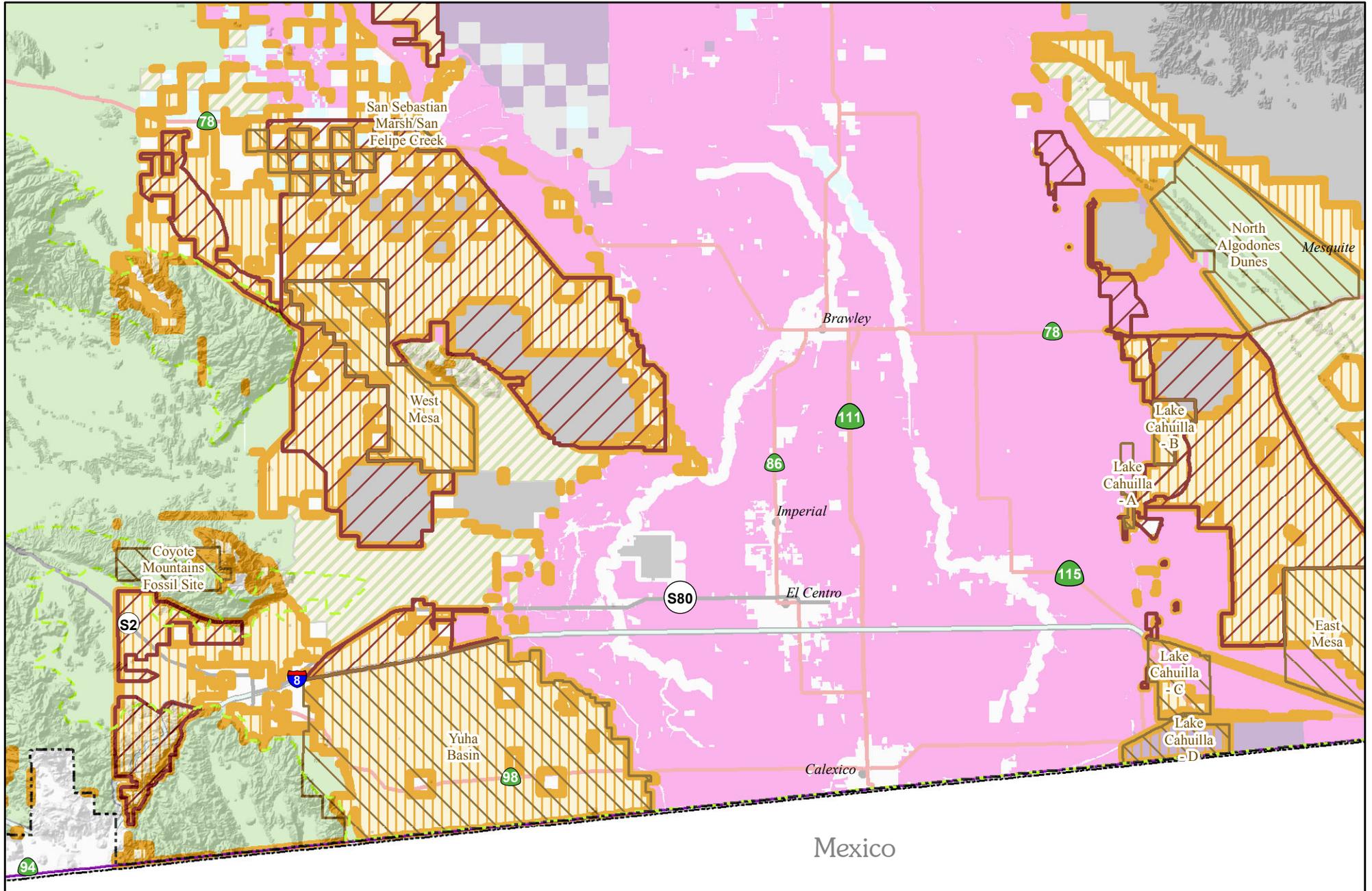
- Bureau of Land Management
- State
- Other Federal
- Military
- Private

### GTLP

- Interstate
- US Hwy
- CA Hwy
- County Hwy



# Lake Cahuilla



## Alternative 2 ACECs

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### ACEC Layers

- Existing ACEC
- Proposed ACEC
- Proposed NLCS
- Design Focus Areas
- Legislatively and Legally Protected

- Cities
- OHV Areas
- CDCA Boundary
- DRECP Boundary
- BLM Field Office

### Land Status

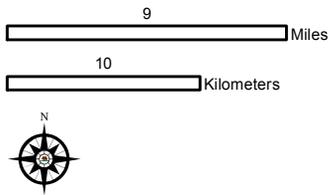
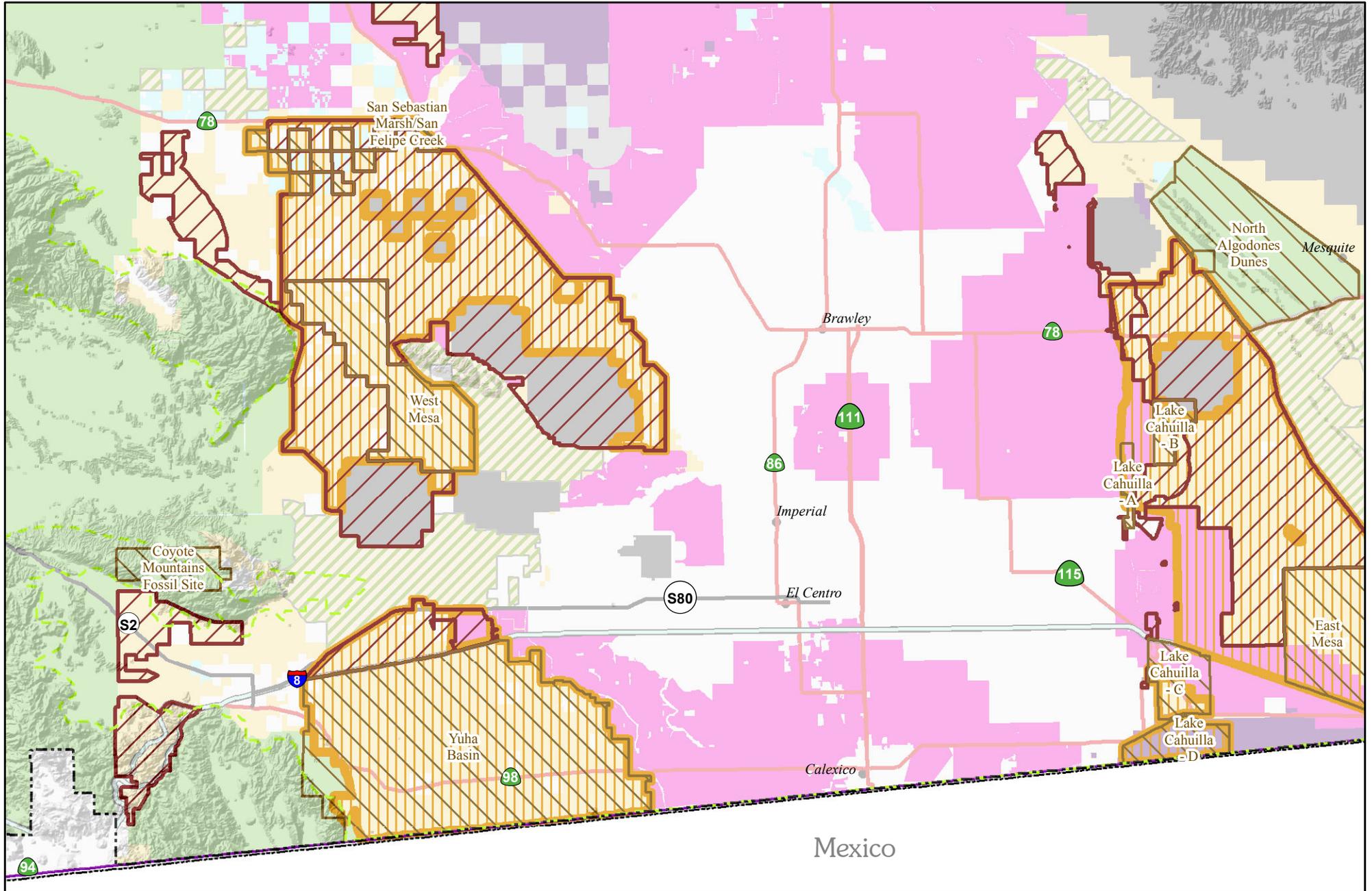
- Bureau of Land Management
- State
- Other Federal
- Military
- Private

### GTLF

- Interstate
- US Hwy
- CA Hwy
- County Hwy



# Lake Cahuilla



## Alternative 3 ACECs

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### ACEC Layers

- Existing ACEC
- Proposed ACEC
- Proposed NLCS
- Design Focus Areas
- Legislatively and Legally Protected

- Cities
- OHV Areas
- CDCA Boundary
- DRECP Boundary
- BLM Field Office

### Land Status

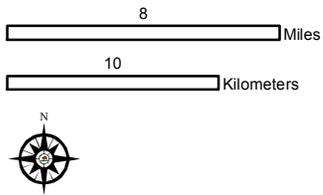
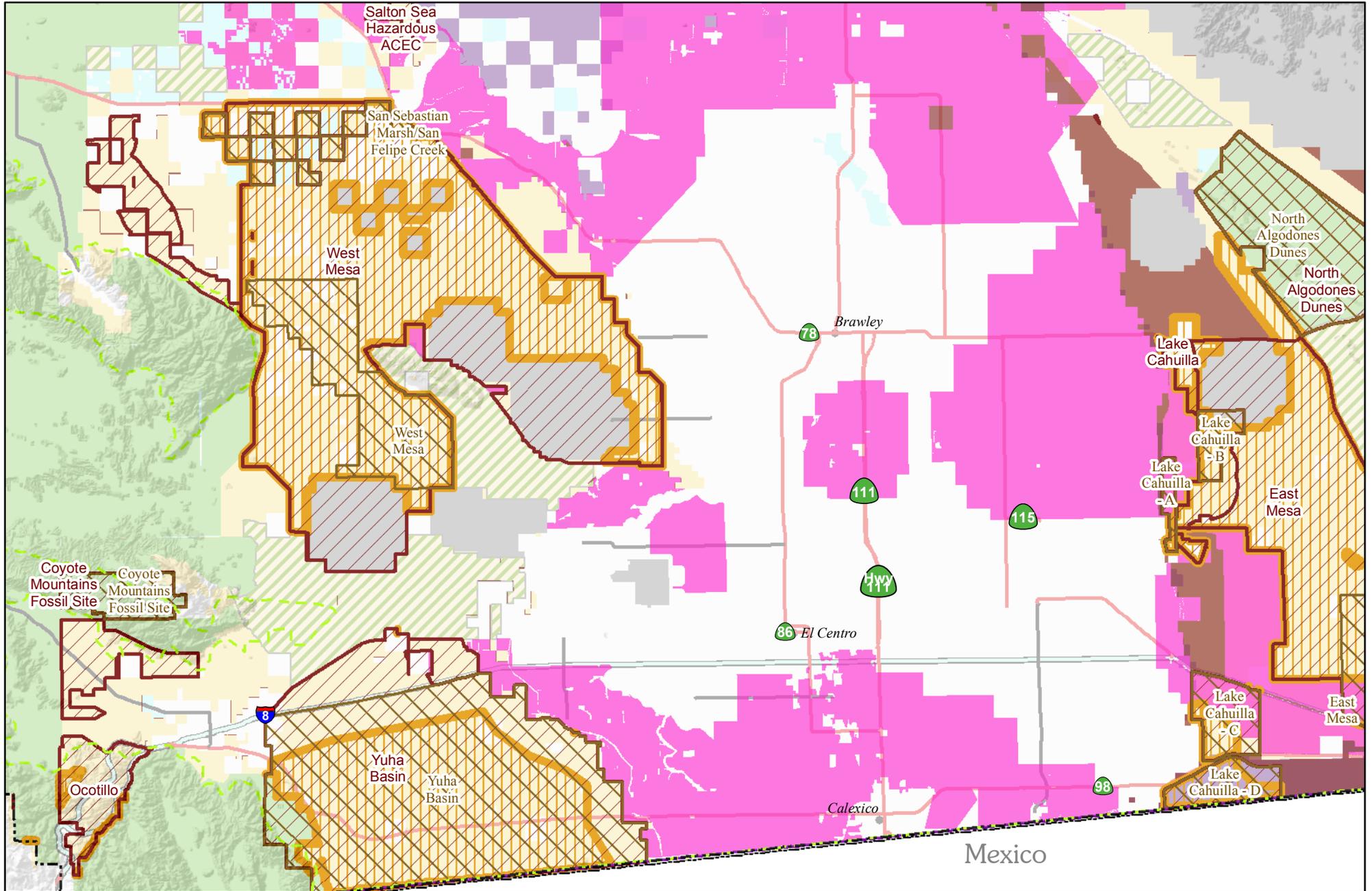
- Bureau of Land Management
- State
- Other Federal
- Military
- Private

### GTIF

- Interstate
- US Hwy
- CA Hwy
- County Hwy



# Lake Cahuilla



## Alternative 4 ACECs

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### ACEC Layers

- Existing ACEC
- Proposed NLCS
- Proposed ACEC
- Proposed Wildlife Allocation
- Legislatively and Legally Protected

### Design Focus Areas

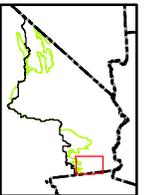
- Design Focus Areas
- Variance Lands
- OHV Areas
- CDCA Boundary
- DRECP Boundary
- BLM Field Office

### Land Status

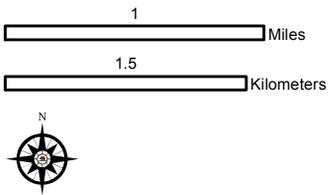
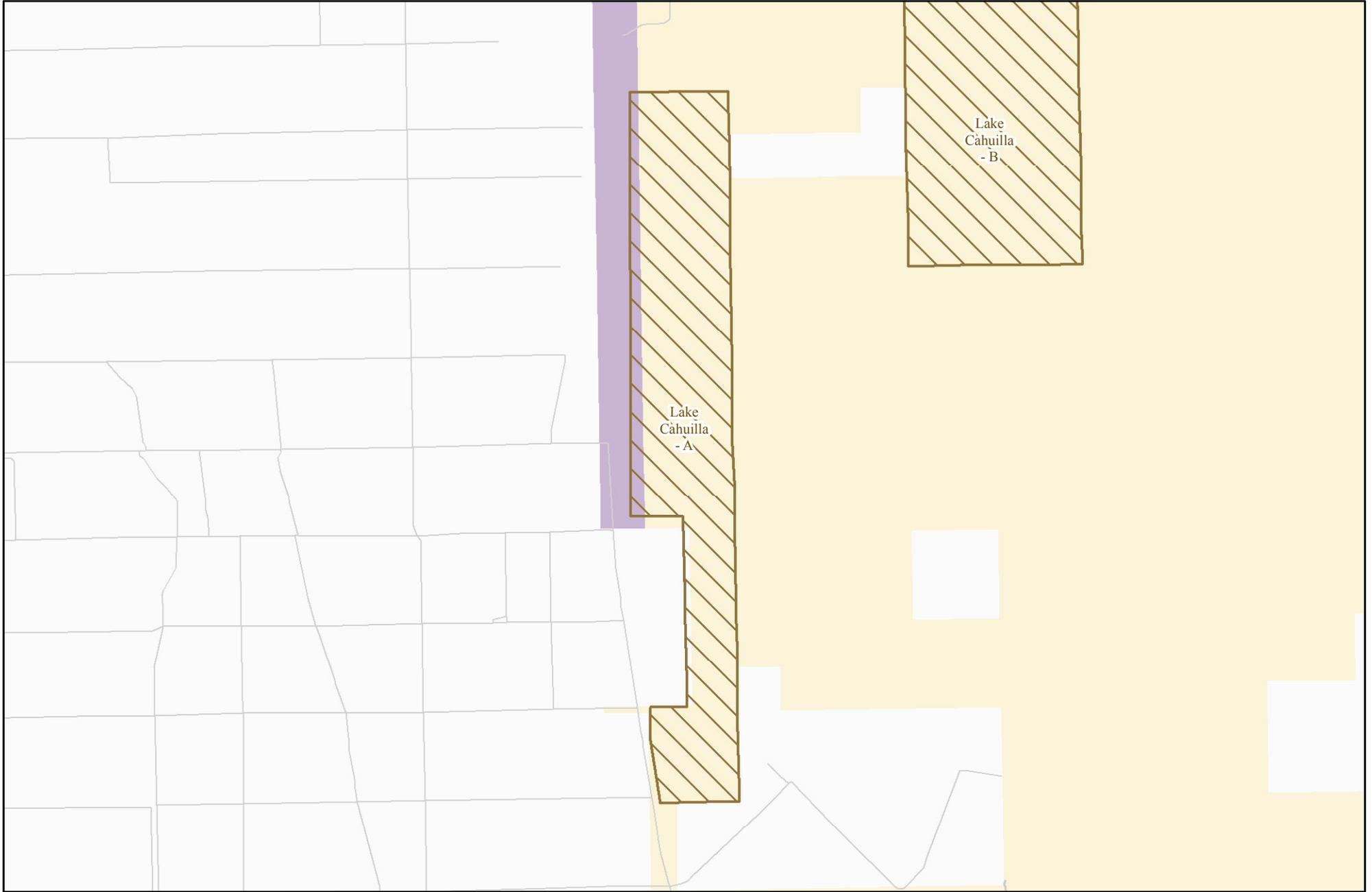
- Bureau of Land Management
- State
- Other Federal
- Military
- Private

### GTLF

- Interstate
- US Hwy
- CA Hwy
- County Hwy



# Lake Cahuilla - A



**No Action ACECs**  
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### ACEC Layers

- Existing ACEC
- OHV Areas
- Legislatively and Legally Protected

- Cities
- CDCA Boundary
- DRECP Boundary
- BLM Field Office

### Land Status

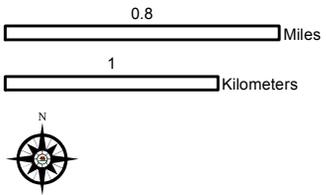
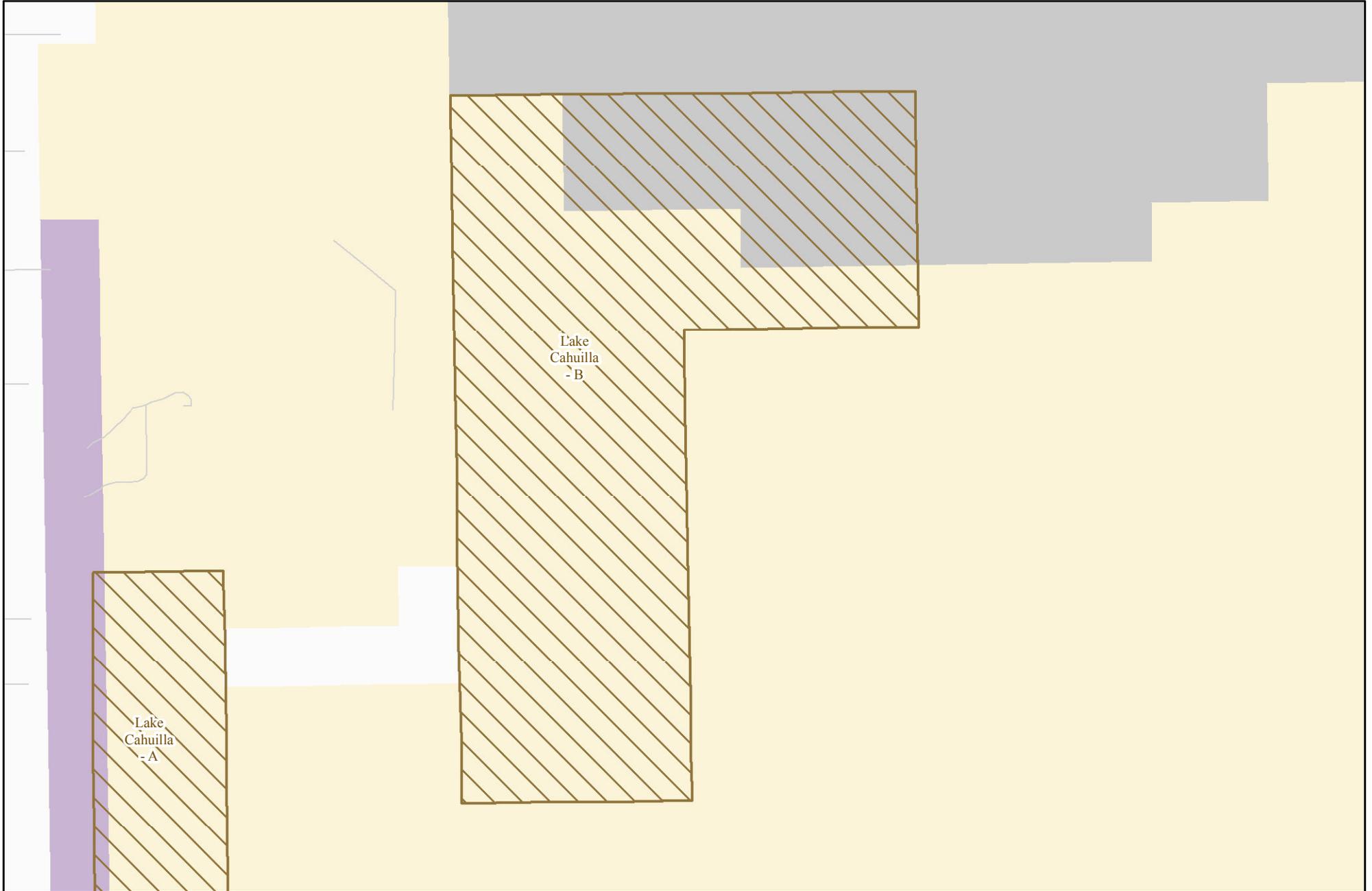
- Bureau of Land Management
- State
- Other Federal
- Military
- Private

### GTLF

- Interstate
- US Hwy
- CA Hwy
- County Hwy



# Lake Cahuilla - B



**No Action ACECs**  
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### ACEC Layers

-  Existing ACEC
-  OHV Areas
-  Legislatively and Legally Protected

-  Cities
-  CDCA Boundary
-  DRECP Boundary
-  BLM Field Office

### Land Status

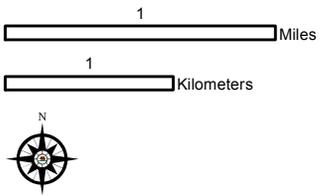
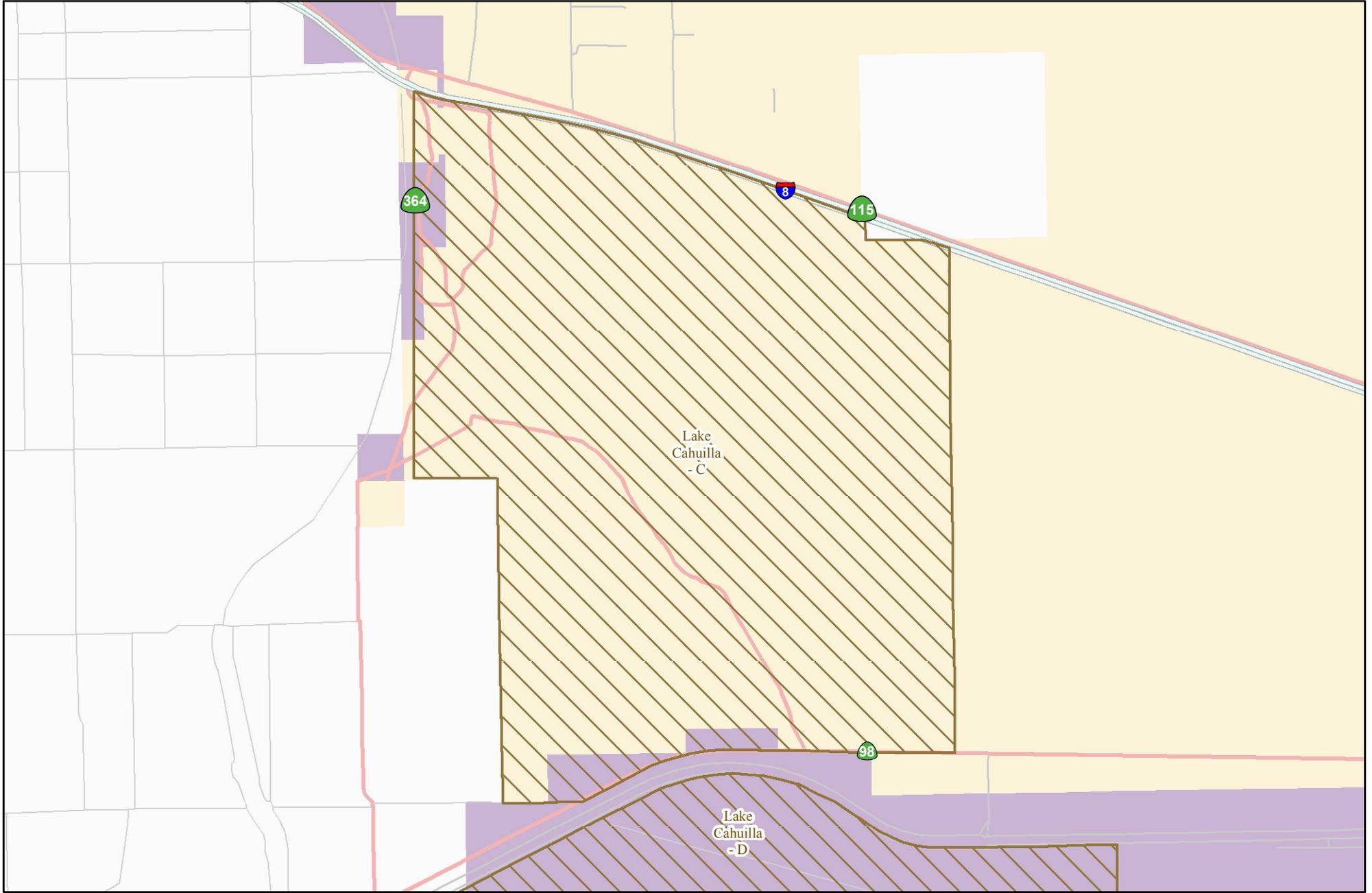
-  Bureau of Land Management
-  State
-  Other Federal
-  Military
-  Private

### GTLF

-  Interstate
-  US Hwy
-  CA Hwy
-  County Hwy



# Lake Cahuilla - C



## No Action ACECs

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### ACEC Layers

Existing ACEC

OHV Areas

Legislatively and Legally Protected

Cities

CDCA Boundary

DRECP Boundary

BLM Field Office

### Land Status

Bureau of Land Management

State

Other Federal

Military

Private

### GTLF

Interstate

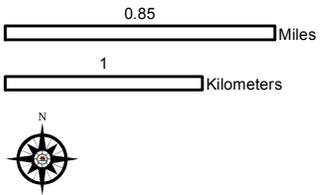
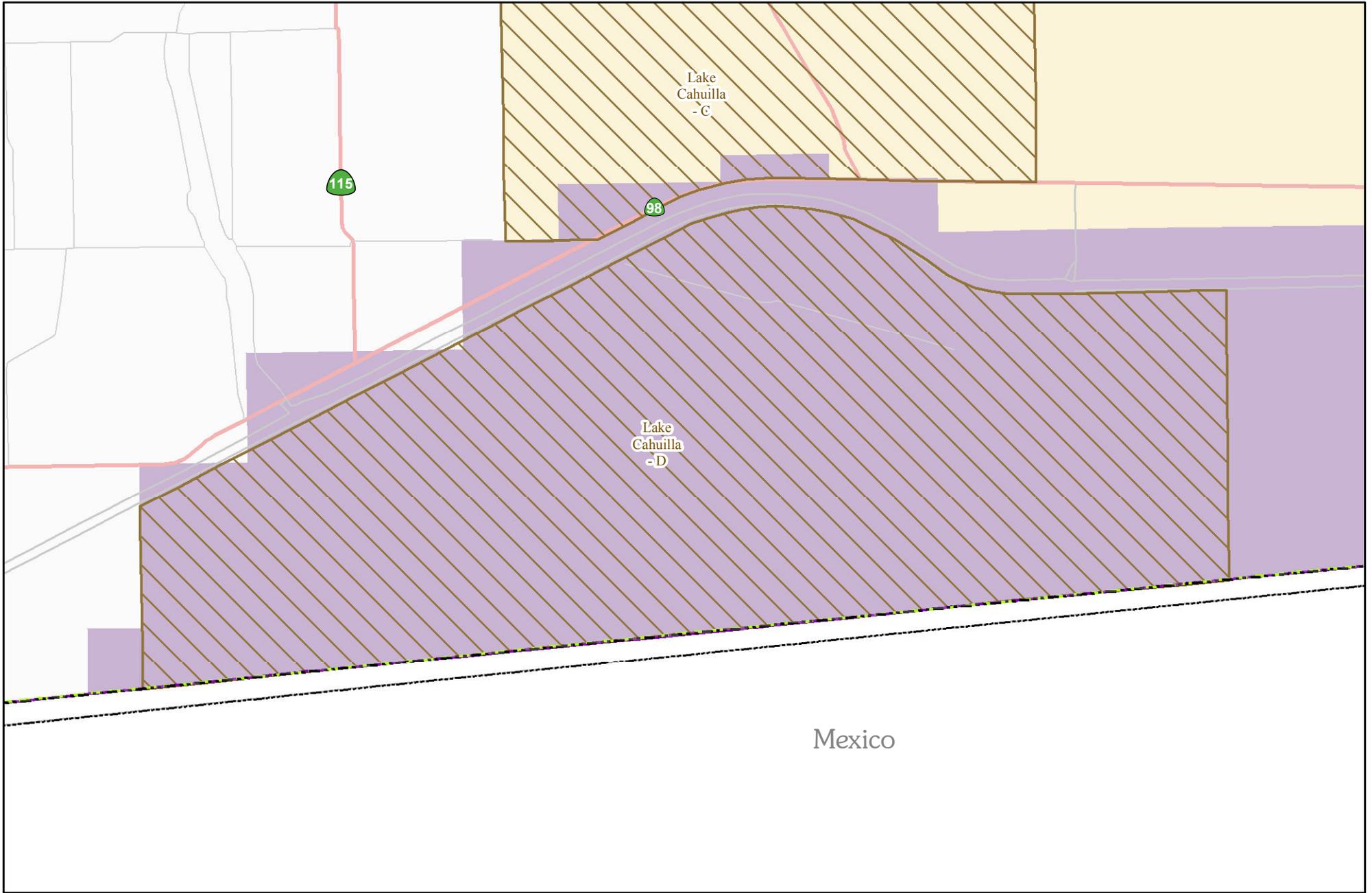
US Hwy

CA Hwy

County Hwy



# Lake Cahuilla - D



**No Action ACECs**  
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 Prepared by BLM California State Office



### ACEC Layers

- Existing ACEC
- OHV Areas
- Legislatively and Legally Protected

- Cities
- CDCA Boundary
- DRECP Boundary
- BLM Field Office

### Land Status

- Bureau of Land Management
- State
- Other Federal
- Military
- Private

### GTLF

- Interstate
- US Hwy
- CA Hwy
- County Hwy

