

Appendix E. HABITAT CONSERVATION OBJECTIVES

Table 2-4: Habitat Conservation Objectives

Community Type	Conservation Objectives	Sensitive Species
<p>Sand Dunes and Sand Fields - Active Desert Dunes - Active Desert Sand Fields - Active Shielded Desert Dunes - Ephemeral Desert Sand Fields - Stabilized and Partially Stabilized Desert Sand Fields - Stabilized and Partially Stabilized Desert Dunes - Stabilized Shielded Desert Sand Fields</p>	<ul style="list-style-type: none"> - Conserve at least 99% of extant sand dunes and sand fields - Avoid stabilization of sand dunes due to adjacent development and spread of non-native species - Maintain, and enhance where feasible, aeolian (wind blown) and fluvial (water borne) sand transport systems - Minimize sand compaction to protect Jerusalem cricket and giant sand treader habitat and to minimize crushing of fringe-toed lizards - Minimize roads within flat-tailed horned lizard habitat which are prone to crushing by vehicles - Avoid crushing of burrows, especially for burrowing owl, giant sand treader cricket, Jerusalem cricket and Round-tailed ground squirrel - Avoid disturbance and compaction of sandy habitats associated with CV milk-vetch and avoid crushing of CV milk-vetch plants - Reduce/control spread of non-native plants like Russian thistle and Saharan mustard; and exotic animals such as non-native ants and brown-headed cowbirds. - Protect <i>Tiquilia palmeri</i> sites, host plant for CV grasshopper - Minimize loss of native vegetation, minimize habitat fragmentation and maintain habitat patch connectivity - Prohibit uncontrolled household pets on public lands to minimize predation of reptiles, small mammals and birds 	<ul style="list-style-type: none"> - flat-tailed horned lizard - Coachella Valley fringe-toed lizard - Le Conte's thrasher - Coachella Valley giant sand treader cricket - Coachella Valley Jerusalem cricket - Coachella Valley milk-vetch - Coachella Valley round-tailed ground squirrel - Palm Springs pocket mouse - burrowing owl - Coachella Valley grasshopper - Casey's June beetle

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Community Type	Conservation Objectives	Sensitive Species
<p>Desert Scrub Communities</p> <ul style="list-style-type: none"> - Blackbrush Scrub - Mojave Mixed Steppe - Mojave Mixed Woody Scrub - Riversidean Sage Scrub - Sonoran Creosote Bush Scrub - Sonoran Mixed Woody and Succulent Scrub 	<ul style="list-style-type: none"> - Conserve at least 99% of extant desert scrub communities - Minimize habitat loss and fragmentation in bighorn sheep essential habitat. - Suppress fire in Sonoran scrub communities to maintain bighorn sheep and desert tortoise habitat - Exclude bighorn sheep from urban areas /provide alternative water sources - Prohibit artificial illumination of mountain slopes on public lands - Prohibit use of pesticides harmful to wildlife - Maintain, and enhance where feasible, aeolian (wind blown) and fluvial (water borne) sand transport systems - Avoid disturbance and compaction of sandy habitats associated with giant sandtreader cricket, CV milk-vetch - Avoid crushing of sensitive plant and animal species - Protect <i>Tiquilia palmeri</i> sites, host plant for CV grasshopper - Avoid disturbance to existing /potential Casey’s June beetle habitat - Reduce/control spread of non-native plants like Russian thistle, Saharan mustard, and to the extent feasible, exotic annual grasses and forbs to protect desert tortoise forage species. - Reduce/control spread of exotic animals such as non-native ants and brown-headed cowbirds. - Avoid overgrazing, soil compaction and erosion caused by domestic animals to protect desert tortoise forage species - Minimize poaching, crushing and illegal collection of desert tortoise - Avoid crushing of burrows, especially for burrowing owl, sand treader cricket, desert tortoise, and Round-tailed ground squirrel - Rehabilitate disturbed areas with native vegetation only - Minimize loss of native vegetation, minimize habitat fragmentation and maintain habitat patch connectivity - Prohibit uncontrolled household pets on public lands to minimize predation of reptiles, small mammals and birds 	<ul style="list-style-type: none"> - Peninsular Ranges bighorn sheep - Coachella Valley round-tailed ground squirrel - Palm Springs pocket mouse - desert tortoise - flat-tailed horned lizard - Le Conte’s thrasher - burrowing owl - Coachella Valley giant sandtreader cricket - Coachella Valley grasshopper - Casey’s June beetle - Coachella Valley milk-vetch - triple-ribbed milk-vetch - Mecca aster - Orocopia sage

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Community Type	Conservation Objectives	Sensitive Species
<p>Chaparral Communities</p> <ul style="list-style-type: none"> - Chamise Chaparral - Interior Live Oak Chaparral - Mixed Montane Chaparral - Northern Mixed Chaparral - Redshank Chaparral - Scrub Oak Chaparral - Semi-Desert Chaparral - Upper Sonoran Manzanita Chaparral - Upper Sonoran Mixed Chaparral 	<ul style="list-style-type: none"> - Conserve at least 99% of extant chaparral communities - Manage fire to avoid senescence of vegetation due to fire suppression - Minimize habitat loss and fragmentation in bighorn sheep essential habitat - Exclude bighorn sheep from urban areas/ provide alternative water sources - Avoid artificial illumination of mountain slopes on public land - Prohibit use of pesticides harmful to wildlife - Avoid trampling of sensitive plant species - Avoid disturbance to endemic species - Reduce/control spread of non-native plants like Russian thistle, Saharan mustard, and to the extent feasible, exotic annual grasses and forbs to protect desert tortoise forage species - Reduce/control spread of exotic animals such as non-native ants and brown-headed cowbirds. - Avoid overgrazing by domestic animals, soil compaction and erosion to protect desert tortoise forage species - Avoid crushing of desert tortoise burrows - Minimize poaching, crushing and illegal collection of desert tortoise - Rehabilitate disturbed areas with native vegetation only - Maintain habitat patch connectivity - Prohibit uncontrolled household pets on public lands to minimize predation of reptiles, small mammals and birds 	<ul style="list-style-type: none"> - Peninsular Ranges bighorn sheep - gray vireo - triple-ribbed milk-vetch - desert tortoise - Pratt's dark aurora blue butterfly

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Community Type	Conservation Objectives	Sensitive Species
<p>Desert Alkali Scrub Communities - Desert Saltbush Scrub - Desert Sink Scrub</p>	<ul style="list-style-type: none"> - Conserve at least 99% of extant desert alkali scrub communities - Minimize trampling of soils to protect Linanthus populations - Avoid noise, dust and destruction of vegetation during thrasher nesting season, December through June on public land - Minimize roads within flat-tailed horned lizard habitat to reduce probability of lizards being run over by vehicles - Avoid trampling of sensitive plant and animal species - Control spread of non-native plants like Russian thistle, Saharan mustard, and to the extent feasible, exotic annual grasses and forbs. - Reduce/control spread of exotic animals such as non-native ants and brown-headed cowbirds. - Avoid overgrazing by domestic animals, soil compaction and erosion to protect desert tortoise forage - Avoid disturbance to endemic species - Avoid crushing of burrows - Rehabilitate disturbed areas with native vegetation only - Minimize loss of native vegetation, minimize habitat fragmentation and maintain habitat patch connectivity - Prohibit uncontrolled household pets on public lands to minimize predation of reptiles, small mammals and birds 	<ul style="list-style-type: none"> - flat-tailed horned lizard - Le Conte’s thrasher - Crissal thrasher - Coachella Valley Grasshopper - Migratory riparian birds

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Community Type	Conservation Objectives	Sensitive Species
<p>Marsh Communities - Cismontane Alkali Marsh - Coastal and Valley Freshwater Marsh</p>	<ul style="list-style-type: none"> - Conserve at least 99% of extant marsh communities - Reduce/control spread of non-native plants like tamarisk, Russian thistle and Saharan mustard - Reduce/control spread of exotic animals such as non-native ants and brown-headed cowbirds, amphibians such as bullfrogs and fish such as tilapia and crayfish. - To the extent activities are under BLM authority, maintain water levels, water quality and proper functioning condition of seeps, springs, marshes and wetlands - Minimize disturbance to sensitive species, especially during nesting season - Rehabilitate disturbed areas with native vegetation only - Minimize loss of native vegetation, minimize habitat fragmentation and maintain habitat patch connectivity - Prohibit uncontrolled household pets on public lands to minimize predation of reptiles, small mammals and birds 	<ul style="list-style-type: none"> - Yuma clapper rail - California black rail - desert pupfish

<p>Dry Wash Woodland and Mesquite Communities</p> <ul style="list-style-type: none"> - Desert Dry Wash Woodland - Mesquite Bosque - Mesquite Hummocks 	<ul style="list-style-type: none"> - Conserve at least 99% of extant dry wash woodland and mesquite communities - Maintain, and enhance where feasible, aeolian (wind blown) and fluvial (water borne) sand transport systems - Avoid disturbance of sandy habitats associated with Linanthus (low benches along washes) CV milk-vetch, and Mecca aster - Avoid crushing of sensitive plants - Avoid crushing of burrows for desert tortoise and Round-tailed ground squirrels - Reduce/control spread of non-native plants like Russian thistle, Saharan mustard, arundo, tamarisk, fountain grass, and if feasible, exotic annual grasses and forbs to protect desert tortoise forage - Reduce/control spread of exotic animals such as non-native ants and brown-headed cowbirds. - Avoid overgrazing by domestic animals, soil compaction and erosion to protect desert tortoise forage - Minimize poaching, crushing and illegal collection of desert tortoise - Avoid noise, dust and destruction of vegetation during thrasher nesting season, December through June - Suppress fire in Sonoran scrub communities - Exclude sheep from urban areas/provide alternative water sources - Prohibit use of pesticides harmful to wildlife - Rehabilitate disturbed areas with native vegetation only - Minimize loss of native vegetation, minimize habitat fragmentation and maintain habitat patch connectivity - Prohibit uncontrolled household pets on public lands to minimize predation of reptiles, small mammals and birds 	<ul style="list-style-type: none"> - Peninsular Ranges bighorn sheep - desert tortoise - Coachella Valley round-tailed ground squirrel - Palm Springs pocket mouse - Le Conte's thrasher - Crissal thrasher - migratory riparian birds - Coachella Valley grasshopper - Coachella Valley milk-vetch - Little San Bdo Mtns linanthus - triple-ribbed milk-vetch - Mecca aster - Orocopia sage
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<p>Riparian Communities</p> <ul style="list-style-type: none"> - Arrowweed Scrub - Desert Fan Palm Oasis Woodland - Sonoran Cottonwood-Willow Riparian Forest - Southern Arroyo Willow Riparian Forest - Southern Sycamore-Alder Riparian Woodland -Tamarisk Scrub (Non-Native) 	<ul style="list-style-type: none"> - Conserve at least 99% of extant native riparian communities - Reduce/control spread of non-native plants like tamarisk, arundo, fountain grass, Russian thistle, Saharan mustard, and to the extent feasible, exotic grasses and forbs to protect desert tortoise forage - Reduce/control spread of exotic animals such as non-native ants and brown-headed cowbirds, amphibians such as bullfrogs and fish such as tilapia and crayfish. - To the legal extent feasible, avoid degradation of water quality with infusion of nitrates/nitrites - Avoid development and alteration of streamside gravel bars and terraces to protect arroyo toad habitat - Maintain water levels for salamanders to the legal extent feasible. - Avoid overgrazing by domestic animals, soil compaction and erosion to protect desert tortoise forage - Avoid crushing of desert tortoise burrows - Minimize poaching, crushing and illegal collection of desert tortoise - Avoid disturbance to endemic species - Avoid crushing of burrows - Avoid noise, dust and destruction of vegetation during thrasher nesting season, December through June - Avoid trampling of sensitive plant species - Exclude sheep from urban areas/provide alternative water sources - Prohibit use of pesticides harmful to wildlife - Rehabilitate disturbed areas with native vegetation only - Minimize loss of native vegetation, minimize habitat fragmentation and maintain habitat patch connectivity - Prohibit uncontrolled household pets on public lands to minimize predation of reptiles, small mammals and birds 	<ul style="list-style-type: none"> - desert pupfish - desert slender salamander - arroyo southwestern toad - desert tortoise - least Bell's vireo - yellow warbler - yellow-breasted chat - southwestern willow flycatcher - summer tanager - crissal thrasher - migratory riparian birds - triple-ribbed milk-vetch - southern yellow bat - Peninsular Ranges bighorn sheep
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<p>Woodland and Forest Communities - Mojavean Pinyon and Juniper Woodland - Peninsular Juniper Woodland and Scrub</p>	<ul style="list-style-type: none"> - Conserve at least 99% of extant woodland and forest communities - Manage fire to avoid senescence of the vegetation due to fire suppression - Exclude bighorn sheep from urban areas and provide alternative water sources - Avoid artificial illumination of mountain slopes - Reduce/control spread of non-native plants like tamarisk, arundo, fountain grass, Russian thistle, Saharan mustard, and if feasible, exotic annual grasses and forbs to protect desert tortoise forage - Reduce/control spread of exotic animals such as non-native ants and brown-headed cowbirds. - Avoid overgrazing by domestic animals, soil compaction and erosion to protect desert tortoise forage - Avoid crushing of desert tortoise burrows - Minimize poaching, crushing and illegal collection of desert tortoise - Prohibit use of pesticides harmful to wildlife - Rehabilitate disturbed areas with native vegetation only - Minimize loss of native vegetation, minimize habitat fragmentation and maintain habitat patch connectivity - Prohibit uncontrolled household pets on public lands to minimize predation of reptiles, small mammals and birds 	<ul style="list-style-type: none"> - Peninsular Ranges bighorn sheep - gray vireo - triple-ribbed milk-vetch - desert tortoise - Pratt's aurora blue butterfly
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Appendix E. continued

BLM Land Health Standards

Land Health Standards. Adopt the rangeland health standards developed for livestock grazing in consultation with the California Desert District Advisory Council, for use as regional land health standards. These regional land health standards would apply to all BLM lands and programs, and would be implemented through terms and conditions of permits, leases and other authorizations, actions, resource monitoring, assessments undertaken in accordance with BLM's land use plans. BLM would seek to incorporate these standards into the multi-jurisdictional monitoring program for the CVMSHCP, and to coordinate with local jurisdictions in monitoring and assessment of land health. These standards may not be used to permanently prohibit allowable uses established by law, regulation or land use plans.

1. **Soils.** Soils exhibit infiltration and permeability rates that are appropriate to soil type, climate, geology, landform, and past uses. Adequate infiltration and permeability of soils allow accumulation of soil moisture necessary for optimal plant growth and vigor, and provide a stable watershed. As indicated by:
 - Canopy and ground cover are appropriate for the site;
 - There is diversity of plant species with a variety of root depths;
 - Litter and soil organic matter are present at suitable sites;
 - Maintain the presence of microbiotic soil crusts that are in place;
 - **Evidence of wind or water erosion does not exceed natural rates for the site; and**
 - Hydrologic and nutrient functions maintained by permeability of soil and water infiltration are appropriate for precipitation.

2. **Native Species.** Healthy, productive and diverse habitats for native species, including special status species (Federal T&E, Federal proposed, Federal candidates, BLM sensitive, or California State T&E, and CDD UPAs) are maintained in places of natural occurrence. As indicated by:
 - Photosynthetic and ecological processes continue at levels suitable for the site, season, and precipitation regimes;
 - Plant vigor, nutrient cycle, and energy flow are maintaining desirable plants and ensuring reproduction and recruitment;
 - Plant communities are producing litter within acceptable limits;
 - Age class distribution of plants and animals are sufficient to overcome mortality fluctuations;
 - Distribution and cover of plant species and their habitats allow for reproduction and recovery from localized catastrophic events;
 - Alien and noxious plants and wildlife do not exceed acceptable levels;
 - Appropriate natural disturbances are evident; and
 - Populations and their habitats are sufficiently distributed to prevent the need for listing special status species.

3. **Riparian / Wetland and Stream Function.** Wetland systems associated with subsurface, running, and standing water, function properly and have the ability to recover from major disturbances. Hydrologic conditions are maintained. As indicated by:
 - Vegetative cover will adequately protect banks, and dissipate energy during peak water flows;
 - **Dominant vegetation is an appropriate mixture of vigorous riparian species;**
 - Recruitment of preferred species is adequate to sustain the plant community;

- Stable soils store and release water slowly;
 - Plant species present indicate soil moisture characteristics are being maintained;
 - There is minimal cover of invader/shallow-rooted species, and they are not displacing deep-rooted native species;
 - Maintain shading of stream courses and water sources for riparian dependent species;
 - Stream is in balance with water and sediment being supplied by the watershed;
 - Stream channel size and meander is appropriate for soils, geology, and landscape; and
 - Adequate organic matter (litter and standing dead plant material) is present to protect the site and to replenish soil nutrients through decomposition.
4. **Water quality.** Surface and groundwater complies with objectives of the Clean Water Act and other applicable water quality requirements, including meeting the California State standards. Best Management Practices would be implemented to help achieve these standards. Achievement of standards would be indicated by:
- Chemical constituents, water temperature, nutrient loads, fecal coliform, turbidity, suspended sediment and dissolved oxygen do not exceed the applicable requirements.
 - Achievement of the standards for riparian, wetlands and water bodies;
 - Aquatic organisms and plants (e.g., macro invertebrates, fish, algae and plants) indicate support for beneficial uses; and
 - Monitoring results or other data that show water quality is meeting the standards.

US Forest Service Standards and Guides for Management Practices, pertaining to wildlife and fish within the Monument

Management Activity: RIPARIAN AREAS AND WETLANDS

Management Direction:

1. Manage riparian areas primarily for resources dependent on a high-quality aquatic system and habitat (dependent resources). **Standard and Guideline:** a. Relocate conflicting uses from riparian areas on a planned basis and as opportunities present themselves. b. Adverse impacts from uses and activities will be fully mitigated.
2. Manage riparian areas to maintain and enhance overall distribution of multi-layered, multi-species stands of vegetation, consistent with site potential.
3. Do not reduce vegetation canopy below 50% in riparian systems not capable of supporting fish.
4. Maintain herbaceous cover in good to excellent condition in riparian areas. Standard and Guideline: FSM 2209.21 (Range Handbook).
5. Conduct periodic inventory to determine the condition and trend of riparian areas.

Management Activity: WILDLIFE AND FISH

Management Direction:

1. Coordinate with California Department of Fish and Game and US Fish and Wildlife Service during preparation of environmental assessments and plans having significant effects on fish and/or wildlife habitat.
2. Cooperate with private land developers, citizens groups, local government and agencies to achieve goal for fish and wildlife habitat management, and to maintain species viability.
3. Coordinate with other agencies, Southern California forests, PSW, local universities and conservation groups developing management guides for TES species and emphasis species.
4. Participate with land ownership adjustment and rights-of-way programs to achieve fish and wildlife management goals.
5. Manage habitat for TES species to enhance populations and to permit their timely removal from designated lists. Manage for genetic and geographic diversity and long-term viability of the species on the Forest.
6. Emphasize sensitive species habitat protection and improvement in all forest management activities.
7. Re-evaluate and modify habitat management direction, if necessary when a TES species is de-listed.
8. Coordinate planning and implementation of OHV activities to accommodate the needs of wildlife and fish.
9. Maintain existing structural improvements for fish and wildlife.
10. Require appropriate mitigation measures (including off-site) where fish and wildlife habitat are affected.
11. Coordinate with CDFG and the USFWS to introduced desired wildlife species into selected locations.
12. Coordinate in managing the transportation system to minimize disturbances in important emphasis species habitat.
13. Manage public use of waterfalls to maintain plant and animal communities and provide compatible recreation use.
14. Provide for information, education and interpretation of the fish and wildlife and sensitive plant resources to optimize public enjoyment while providing adequate protection.
15. Avoid introducing barriers to movement of deer, bear, mountain lion, and bighorn sheep.
16. Strive to maintain low motorized road and trail densities in wildlife emphasis areas.

Management Activity: SOUTHERN RUBBER BOA

Management Direction:

1. Strive to maintain a minimum of 9 down logs of all age and decay classes per acre over time in rubber boa habitat (min log size = 12" diameter, 20' long).
Standard and Guideline: a. create and strive to retain a minimum of 3 class 1 down logs/ac at each timber harvest entry. b. Institute measures such as area closures and permit limits to restrict public fuelwood gathering when monitoring indicates a significant departure from the desired state.

2. Retain rock outcrops and areas with significant surface rock in their natural state in rubber boa habitat.
3. Continue inventory of potential habitat for rubber boa.

Management Activity: PENINSULAR BIGHORN SHEEP

Management Direction:

1. Coordinate with BLM and CDFG to manage the Santa Rosa Mountain Sheep population in accordance with the habitat management plan.
2. Establish seasonal closures as necessary to protect important habitat for peninsular bighorn sheep.
3. Manage domestic sheep and goat grazing to prevent disease transfer to bighorn sheep.

Management Activity: SNAG-DEPENDENT SPECIES

Management Direction:

1. Retain 5-10 hard snags/5 acres in managed stands (min size is 12" DBH and 40' tall, where possible), for snag-dependent species. **Standard and Guideline:** a. Where deficient, create sufficient snags to meet the desired state during each timber entry. b. Sign snags for their protection where appropriate. c. Institute measures such as area closures and permit limits to restrict public fuelwood gathering when monitoring indicates a significant departure from the desired state.
2. Retain soft snags and acorn storage trees where they are not a public safety hazard.

Management Activity: SPOTTED OWL

Management Direction:

1. All identified territories will be protected. **Standard and Guideline:** a. Develop territory management plans to insure protection of territories.

Management Activity: SENSITIVE FOREST RAPTORS

Management Direction:

1. Manage suitable habitat within known territories (compromised of nest site and one-mile radius of surrounding forested land) to perpetuate sufficient high quality habitat over time. **Standard and Guideline:** a. Fully mitigate for losses in habitat capability when development must take place in nest stands.
2. Avoid disturbance within occupied nest stands from March to mid-July.
3. Locate high-use dispersed recreation and developed recreation sites outside of nest stands.
4. Avoid creation of openings larger than one acre in nest stands. **Standard and Guideline:** a. Exceptions allowed when wildlife biologist and silviculturist recommend larger openings for long-term maintenance.
5. Manage to protect habitat from wildfire by treating fuels in adjacent areas (thinning). **Standard and Guideline:** a. Avoid treatments during the nesting season.

Management Activity: RIPARIAN-DEPENDENT SPECIES INCLUDING LEAST BELL'S VIREO

Management Direction:

1. See Riparian Area direction.
2. Fully mitigate for reductions in habitat capability resulting from uses and activities.
3. Survey potential least Bell's vireo habitat periodically to determine occupancy.
4. Improve habitat for these emphasis species.