ECOREGION-BASED CONSERVATION IN THE

MOJAVE DESERT

The Nature Conservancy®
OF NEVADA

24 August 2001
Mojave Desert Ecoregional
Planning Team – CAFO/NVFO

ECOREGION-BASED CONSERVATION

IN THE

MOJAVE DESERT

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EXECUTIVE SUMMARY

Overview

This biodiversity assessment of the Mojave Desert Ecoregion is presented by The Nature Conservancy of Nevada with considerable assistance from the California Western Division Office and participation by the Utah and Arizona Chapters. Following the guidelines presented in Geography of Hope (TNC 1997), this report identifies 367 natural areas termed “portfolio sites”, whose protection would ensure the long-term survival of viable, vulnerable species and representative natural communities in the ecoregion.

The Mojave Desert ecoregion encompasses nearly 33 million acres of topographically diverse landscapes ranging in altitude from –282 feet in Death Valley to over 11,900 feet at the top of Mt. Charleston in the Spring Range in Nevada.

The ecoregion supports an impressive array of organisms, many of which are endemic – found nowhere else in the world. Included in this group are such animals as the Amargosa Toad, Panamint Alligator Lizard, Mojave Green Rattlesnake, Mojave Ground Squirrel, Amargosa Vole and the Kelso Jerusalem Cricket. Endemic plants are found throughout the ecoregion and are tightly associated with specific substrates such as alkaline flats (*Nitrophylla mojavensis*), limestone cliff faces (*Mimulus mojavensis*), exposed gypsum outcrops (*Arctomecon californica*), rhyolite beds *(Astragalus funereus*), sand dunes (*Penstemon albomarginatus*), and playa edges *(Phacelia parishii*). There is also an abundant range of natural vegetative communities (135), 288 terrestrial animal targets, 253 terrestrial plant targets and 108 aquatic targets in what is commonly referred to as a “desert wasteland”.

Compared with other ecoregions, the Mojave Desert has the highest degree of federally-owned and managed lands – with over 85% in non-private status. The primary land managers, in order of the percentage of the landscape that they are responsible for are: Bureau of Land Management (48.8%), National Park Service (17.3%), Department of Defense (11.5%), U.S. Fish & Wildlife Service (2.6%), State Parks & Trust Lands (1.8%), Department of Energy (1.1%), U.S. Forest Service (0.8%), Tribal Lands (0.5%), and County Lands (0.5%). Such a mixed public land ownership pattern presents both opportunities and challenges in accomplishing the Conservancy’s mission of protecting the plants, animals and natural communities that represent the diversity of life in this ecoregion.

Goals

This assessment evaluates approximately 600 conservation targets through a series of seven ecological system types including: aquatic; riparian; desert wash; desert scrub; dunes and substrate-dependants; lower montane; and upper montane; as well as isolated rare plants. Data sources included published literature, State Heritage Program databases, regional conservation management planning efforts and expert interviews.

Goals for conservation of target species and communities were established by considering the relative rarity and distribution of targets across the ecoregion and where relevant, community patch size. Goals were also based upon the Conservancy’s desire to secure geographic variability of targets.

Results

The recommended portfolio of 367 sites encompasses approximately 38% of the 32.6 million-acre ecoregion.161 of the proposed sites, 44% of the portfolio, are already well protected (more than 75% of the site) within national parks or refuges. An additional 48% of portfolio sites are on other lands owned and managed by public agencies. The remaining 8% of portfolio sites (29/367) are comprised mostly of private lands (greater than 75%).

Of the sites recommended in the portfolio, a majority can be aggregated into 34 functional units based upon proximity, landscape connectivity, and ecological processes. Selection of action areas will focus on these aggregations since they are inherently large, have a high degree of intactness, and have the greatest potential to conserve biodiversity. These 34 functional aggregations will be assessed by each of the 4 state Conservancy chapters as to whether or how they will be integrated into a 5, 10, or 20 year planning horizon.

As outlined above, 161 of the 367 proposed portfolio sites, roughly 44%, are primarily located within Class I or Class II lands (WSA, RNA, National Park, Wildlife Refuge, etc.). Our assessment of land management status depends heavily on the implementation of various priority conservation areas associated with regional habitat conservation planning (HCP) processes. Most of the regional HCPs are either led by or partnered with the federal land managers to accomplish conservation mitigation which will allow for incidental take of the listed or candidate species on private lands elsewhere. These plans rely heavily on the designation of Areas of Critical Environmental Concern, or ACECs.

Most of the ACECs are associated with the desert tortoise Desert Wildlife Management Areas recommended by the Desert Tortoise Recovery Team for that listed species. These are in various stages of official designation by the primary land managers: the BLM and the National Park Service. It is essential to the assumption of “conserved status” of the portfolio of sites in this analysis that these designations are enabled and adequately funded through resource management plans and tracked by interest groups to insure appropriate and adaptive management. Due to the largely public ownership of the portfolio, TNC must enhance our partnerships with these agencies to accomplish the majority of our conservation goals in this ecoregion.

Strategies

To address potential threats and ensure the long-term protection of the biodiversity within the ecoregion, the Conservancy and its partners must employ a complementary suite of strategies. These include taking direct conservation action at some sites, building community-based programs at others, and pursuing cross-jurisdictional public lands management strategies for most sites in this ecoregion. Cross-jurisdictional strategies include: coordination of management approaches towards multiple-use activities that traverse large portions of the Mojave Desert landscape; continuing to employ creative free-market incentives for a solution to the livestock grazing impasse; reviewing mining locations, standards and practices; coordination of implementation of regional Habitat Conservation Plans to ensure complementary natural community-based habitat protection with an ecoregional perspective towards covered species; and engagement of local colleges and universities to pursue basic and applied research into habitat and species ecological dynamics.

Acknowledgements

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The Mojave Ecoregional Assessment Team would like to recognize and thank Dr. Todd Keeler-Wolf for his assistance in refining our ecological community definitions and also for his participation in the field to locate and identify unique remnants of these communities throughout the West Mojave in California.

Special thanks go to Dr. J.Douglas Ripley of the HQ-US Air Force Office of Environmental Quality for his consistent support of the mission of the Nature Conservancy in general and his awareness of the value of ecoregional assessments in the Sonoran, Mojave and Great Basin Deserts. We appreciate his work in helping us to develop a contextual basis for sound environmental stewardship and decision-making on our nation's defense installations.

And, last but not least, we would like to thank the many experts who took the time to meet with us and pour over maps to record their extensive knowledge of the Mojave Desert and the plants and animals that make it such a unique and captivating ecoregion.

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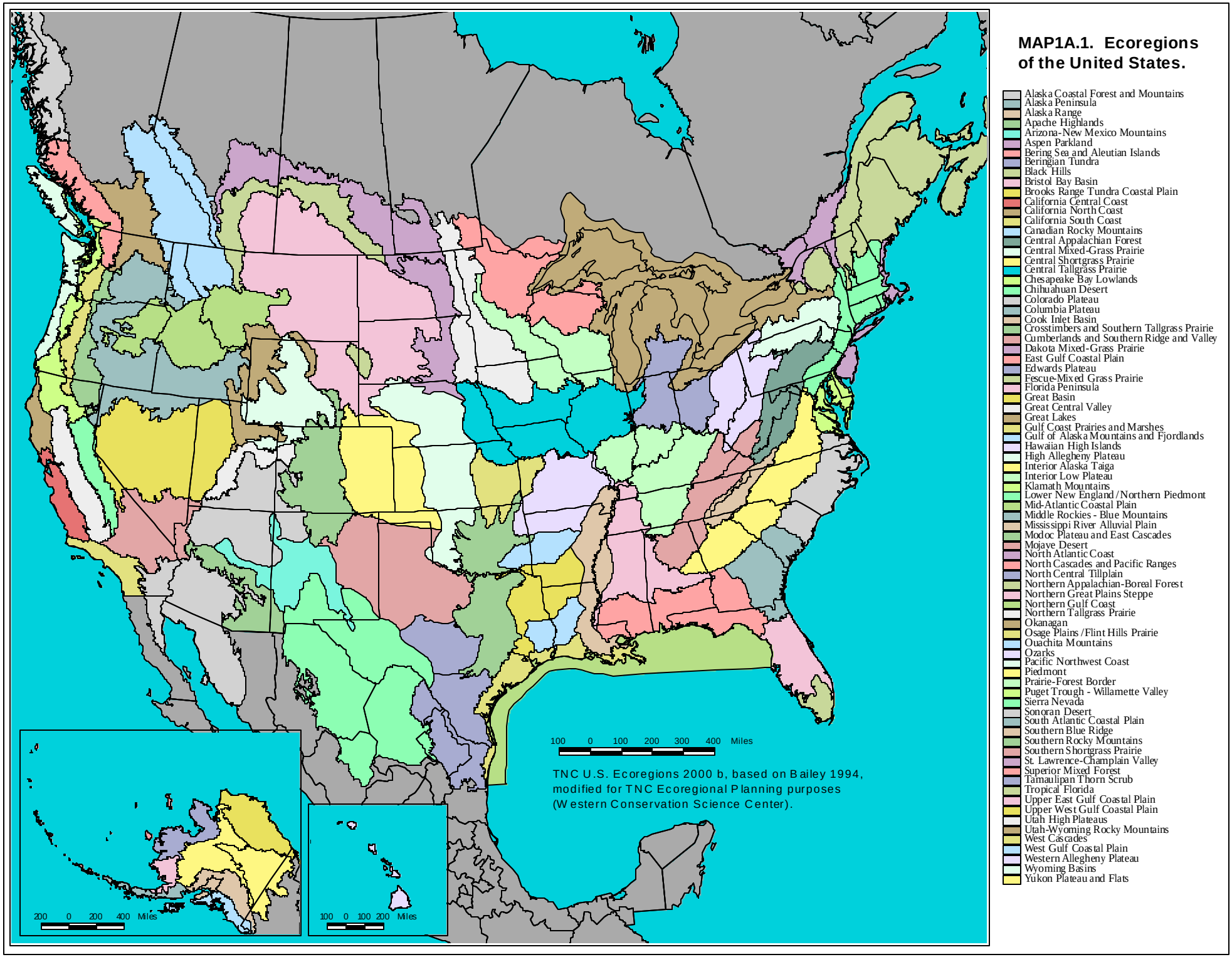
Chapter 1:

THE ECOREGIONAL ASSESSMENT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Alaska Coastal Forest and Mountains
Alaska Peninsula
Alaska Range
Apache Highlands
Arizona-New Mexico Mountains
Aspen Parkland
Bering Sea and Aleutian Islands
Beringian Tundra
Black Hills
Bristol Bay Basin
Brooks Range Tundra Coastal Plain
California Central Coast
California North Coast
California South Coast
Canadian Rocky Mountains
Central Appalachian Forest
Central Mixed-Grass Prairie
Central Shortgrass Prairie
Central Tallgrass Prairie
Chesapeake Bay Lowlands
Chihuahuan Desert
Colorado Plateau
Columbia Plateau
Cook Inlet Basin
Crosstimbers and Southern Tallgrass Prairie
Cumberlands and Southern Ridge and Valley
Dakota Mixed-Grass Prairie
East Gulf Coastal Plain
Edwards Plateau
Fescue-Mixed Grass Prairie
Florida Peninsula
Great Basin
Great Central Valley
Great Lakes
Gulf Coast Prairies and Marshes
Gulf of Alaska Mountains and Fjordlands
Hawaiian High Islands
High Allegheny Plateau
Interior Alaska Taiga
Interior Low Plateau
Klamath Mountains
Lower New England/Northern Piedmont
Mid-Atlantic Coastal Plain
Middle Rockies - Blue Mountains
Mississippi River Alluvial Plain
Modoc Plateau and East Cascades
Mojave Desert
North Atlantic Coast
North Cascades and Pacific Ranges
North Central Tillplain
Northern Appalachian-Boreal Forest
Northern Great Plains Steppe
Northern Gulf Coast
Northern Tallgrass Prairie
Okanagan
Osage Plains/Flint Hills Prairie
Ouachita Mountains
Ozarks
Pacific Northwest Coast
Piedmont
Prairie-Forest Border
Puget Trough - Willamette Valley
Sierra Nevada
Sonoran Desert
South Atlantic Coastal Plain
Southern Blue Ridge
Southern Rocky Mountains
Southern Shortgrass Prairie
St. Lawrence-Champlain Valley
Superior Mixed Forest
Tamaulipan Thorn Scrub
Tropical Florida
Upper East Gulf Coastal Plain
Upper West Gulf Coastal Plain
Utah High Plateaus
Utah-Wyoming Rocky Mountains
West Cascades
West Gulf Coastal Plain
Western Allegheny Plateau
Wyoming Basins
Yukon Plateau and Flats
100 0 100 200 300 400 Miles
TNC U.S. Ecoregions 2000 b, based on Bailey 1994,
modified for TNC Ecoregional Planning purposes
(Western Conservation Science Center).
200 0 200 400 Miles
100 0 100 200 Miles

1. ECOREGIONAL ASSESSMENT

A. Purpose

The mission of The Nature Conservancy is to preserve the plants, animals, and natural communities that represent the diversity of life on Earth by protecting the lands and waters they need to survive. In response to the need to plan and work at larger geographic scales to conserve biodiversity, the Conservancy has adopted an ecoregional approach to achieving its conservation goals. *Conservation by Design: A Framework for Mission Success* (The Nature Conservancy 1996) outlines the need to plan for site-based actions within the context of ecologically-defined areas called ecoregions. Ecoregions are relatively large land areas delineated by biotic and environmental factors that regulate the structure and function of ecosystems within them. Planning at the ecoregional level will help maximize the chances of capturing all conservation targets in sufficient numbers and distribution for their long-term survival. The ecoregion units the Conservancy adopted for conservation planning were delineated by Bailey et al. (1994) and amended by the National Ecoregional Working Group (The Nature Conservancy 1997; See Map 1A.1).

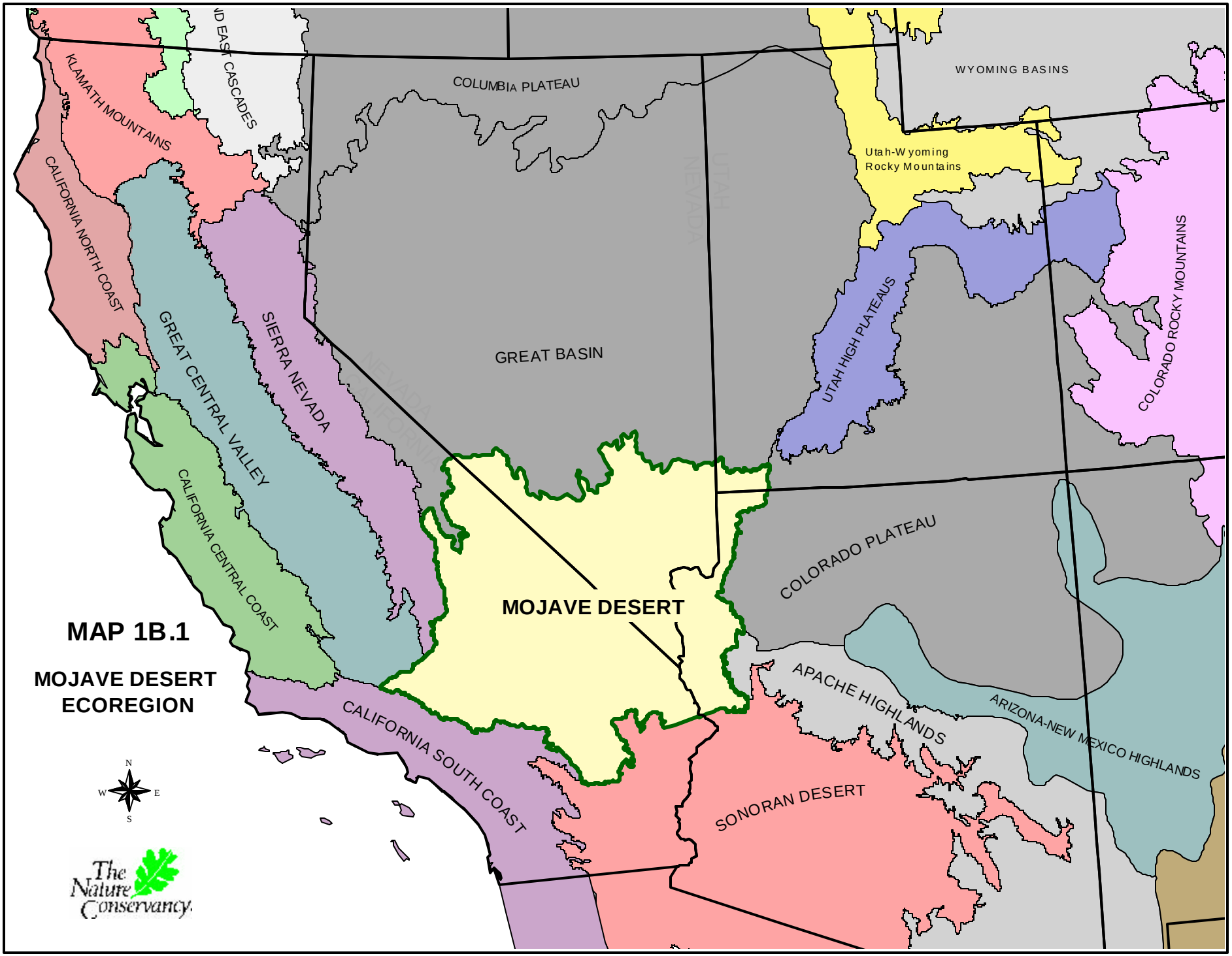
Conservation by Design outlined the Conservancy's new conservation goal as "the long term survival of all viable native species and community types through the design and conservation of portfolios of sites within ecoregions." A portfolio is a suite of sites that, if properly protected and managed, will collectively conserve native species and community types representative of an ecoregion. Long-term viability will be ensured by protecting multiple viable or recoverable occurrences of species and natural communities within ecoregions. The methodology for this new ecoregion-based conservation approach was outlined in *Designing a Geography of Hope: Guidelines for Ecoregion-Based Conservation* (The Nature Conservancy 1997). This approach will enable the Conservancy and others to achieve a greater vision of success. Partners will be crucial to the quality and success of ecoregion-based conservation, especially in largely publicly owned ecoregions such as the Mojave Desert.

This plan is one of the first efforts to assemble and synthesize biological information from a number of disparate planning efforts in the Mojave. This analysis will serve to identify where the Conservancy and other agencies and organizations should work on the ground to achieve the conservation goals along with the strategies and actions necessary to conserve the natural diversity in the Mojave Desert Ecoregion. This first iteration of conservation sites and strategies is intended to be reviewed in several years for efficacy and relevance to the conservation status of the Mojave ecoregion in general and, more specifically to the portfolio of sites recommended within.

B. Description of the Mojave Desert Ecoregion

The Mojave Desert is the smallest of the four American deserts and lies within the Intermountain Semi-Desert and Desert Province as delineated by Bailey et al. (1994). The ecoregion is bounded by the Great Basin Ecoregion to the north, the Apache Highlands Ecoregion to the east, the Sierras and South Coast Ecoregions to the west and southwest, and the Sonoran Ecoregion to the south and southeast (See Map 1B.1). The Mojave Desert extends from southwestern Utah across to southern Nevada to southeastern California over to western and northwestern Arizona.

The Mojave Desert as defined in this report occupies over 32 million acres and is characterized by hot, dry summers and cold, wet winters with the majority of the 4-9 inches of annual precipitation being received in the form of winter rainfall. It ranges in elevation


MAP 1B.1
MOJAVE DESERT ECOREGION
MOJAVE DESERT
COLUMBIA PLATEAU
WYOMING BASINS
Utah-Wyoming Rocky Mountains
KLAMATH MOUNTAINS
CALIFORNIA NORTH COAST
GREAT CENTRAL VALLEY
SIERRA NEVADA
GREAT BASIN
UTAH HIGH PLATEAUS
COLORADO ROCKY MOUNTAINS
COLORADO PLATEAU
CALIFORNIA CENTRAL COAST
CALIFORNIA SOUTH COAST
APACHE HIGHLANDS
ARIZONA-NEW MEXICO HIGHLANDS
SONORAN DESERT
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from a low of –282 feet below sea level in Death Valley to over 11,000 feet in the Spring Mountains and Panamint Range sky islands.

A total of 130 natural plant alliances have been documented within the ecoregion (TNC 1999). Creosote scrub, succulents, and yucca-blackbrush community types dominate the ecoregion. Dominant species of the desert include creosote (*Larrea tridentata)*, white bursage (*Ambrosia dumosa)*, four-winged salt bush (*Atriplex canescens)*, Mojave yucca *(Yucca schidigera)*, blackbrush (*Coleogyne ramossissima)* and Joshua tree (*Yucca brevifolia).*

Upper elevation community types, atypical of a desert ecoregion, do occur due to the presence of significant sky island mountains and mountain ranges that rise to over 11,000 feet in elevation. While not characteristic of the Mojave Desert ecoregion, these massifs contain some of the ecoregion's most isolated communities and species and harbor a high degree of endemism responsible for over 41% of the species on the conservation target list.

The majority (85%) of the Mojave Desert ecoregion is publicly owned by state and federal government. The primary agencies managing the federal lands are the Bureau of Land Management, the National Park Service, and the Department of Defense the US Forest Service and the US Fish and Wildlife Service. Land ownership patterns within the ecoregion are shown on Map 1B.2.

Ecological Processes: The primary ecological processes driving the natural systems of the Mojave Desert ecoregion are climate, groundwater availability, soils, wind and topography. The interaction of these ecological drivers at varying intensities, frequencies and spatial scales is fundamental to maintaining landscape heterogeneity and biotic diversity of desert ecosystems.

Trends in Biodiversity: Deserts are considered to be one of the more imperiled ecosystem types in North America largely due to impacts associated with increasing human developments in the Southwest. Conversion of formerly unfragmented tracts of pristine desert landscapes has brought more impacts further into the fragile ecosystem. This incursion has resulted in an increasing interaction of humans, their houses, machines, pets and introduced exotic species with the native desert species, both plant and animal – more often than not to the detriment of the native species.

According to a recently published report on habitat loss and degradation by the World Wildlife Fund (Ricketts, Dinerstein, et al. 2000), roughly half of the Mojave Desert remains as intact habitat. That report pointed towards urbanization and suburbanization from Los Angeles and Las Vegas, the increasing demand for landfill space, agricultural development along the Colorado River, grazing, off-road vehicles, and military activities as the primary reasons for habitat loss.

The Mojave Desert is also rich in ephemeral plants, many of which are endemic to the ecoregion. Shreve and Wiggins (1964) report that, of the almost 250 ephemeral plants in the Mojave, approximately 80-90 are endemic. During favorable years, the report continues, the region supports more endemic plants per square meter than any location in the United States.

C. Threats

The Mojave Desert is the smallest of North American deserts but possibly the most used and historically abused (Rowlands and Latting 1995). Threats to the ecological integrity of the landscape are both historic and ongoing, with the effects of past abuses still evident throughout the desert. The preponderance of exotic grasses and non-native annual plants is testament to the long history of cattle grazing in this arid ecosystem. The ubiquitous trails that spiderweb from cities, towns and

MAP 1B.2

LAND MANAGEMENT in the MOJAVE DESERT ECOREGION

N
W E
S

10 0 10 20 30 40 Miles

LEGEND

- Ecoregional Boundary
- Rivers and Streams
- Highways
- Lakes

LAND MANAGER

- Bureau of Land Management
- Department of Defense
- Native American Lands
- National Park Service
- U.S. Forest Service
- Department of Energy
- U.S. Fish and Wildlife Service
- State Lands
- Private Lands

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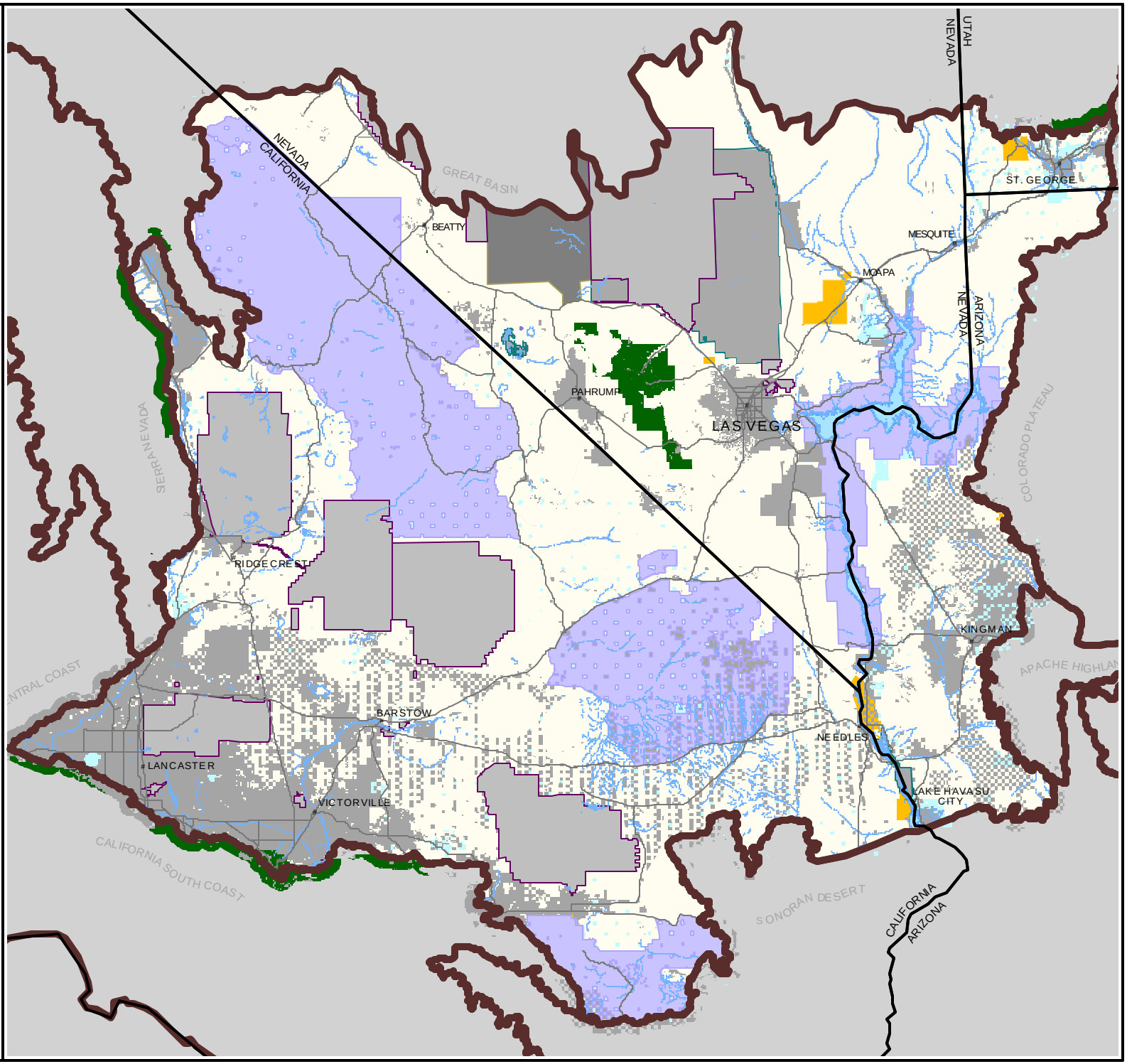


settlements are evidence of the human desire to explore new grounds and test vehicular capabilities – a pattern that is only increasing as these communities proliferate and the popularity of recreational vehicles is at an all time high.

Growing communities demand more power and water resources, which require additional transmission lines, pipelines, and aqueducts to carry these resources from one area to another across the fragile desert landscape. And the mobile human residents of these communities require well-maintained paved roadways to travel from urban center to urban center – resulting in the network of state and federal highways and paved roadways that further fragment the Mojave scenery.

That any of the target elements considered in this analysis have managed to persist is miraculous enough. The fact that there are remnants of fairly "natural" landscapes in this highly fractured environment highlights the urgency of protecting these jewels from inevitable future impacts. Following is a discussion of the broad-scale human impacts in the Mojave Desert that were considered in the analysis of threats to the potential portfolio sites:

Livestock Grazing: The impacts of livestock grazing to the native Mojave Desert ecosystem have been well documented and are primarily divisible into two general categories: direct, and indirect. Direct impacts from livestock grazing in the desert include the actual removal of native vegetation by the large domestic herbivores, such as cattle, sheep, horses or feral burros. This removal is either controlled in the case of managed livestock allotments on public lands, or uncontrolled in the case of large herds of feral horses and burros in several highly impacted areas, primarily in the state of Nevada. Other direct impacts resulting from the presence of large herbivores are: soil disruption through trampling; trampling of small and localized annual plants and microfloral crusts; and trampling and collapse of native mammal and reptile burrows.

Indirect impacts from both controlled and uncontrolled livestock grazing include: distribution of artificial water sources throughout the desert to allow for livestock utilization of a wider range of the public land allotments - indirectly promoting the expansion and proliferation of native predators such as coyote and raven; dispersal and promotion of exotic, invasive annual plants such as Filaree (*Erodium cicutarium),* Cheatgrass *(Bromus tectorum),* Fluffgrass (*Schismus barbatus*) and Red brome *(Bromus rubens),* all of which thrive in disturbed soils and whose seeds are distributed by the feces of the wide ranging livestock. These exotic species also secondarily foster an unnatural fire regime, which continues to select against both native annual and perennial plant species.

In addition, the network of dirt roads that are created and maintained to allow the livestock ranchers to deliver water to troughs, repair windmills and pumps, and maintain corrals and fencelines all further disturb and fragment the fragile desert ecosystem. This road network creates conditions favorable to invasion and dispersal of other exotic vegetation such as Russian thistle (*Salsola kali)* and promotes further exploration by off-highway vehicle enthusiasts.

Mining and Materials Extraction: The general activity of removal of mineral resources from the ground includes hardrock mining, mineral exploration, sand and gravel material removal, and oil and gas exploration. All activities involve surface disturbances of varying degree – with strip mining for gold, copper and coal perhaps the most visible and destructive to the desert ecosystem. Other activities increasing in frequency, such as sand and gravel removal for road construction is also highly disruptive to the natural soil structure and function as well as to native vegetation patterns. The obvious pits that

remain serve as ideal seedbeds for aggressively invasive plant species such as Russian thistle (*Salsola kali*) and filaree (*Erodium cicutarium*).

Hardrock mining such as gold, silver and copper extraction requires incredible amounts of water (measured in millions of gallons daily) for ore processing. This is compounded by the water removed from pit dewatering which can negatively impact nearby springs and local groundwater flow rates and patterns. These water uses, coupled with the use of toxic chemicals to extract the ore from the lode-bearing rock, create conditions generally hostile to all life forms that depend on access to useable water in the desert environment.

Off-Highway/Off-Road Vehicle Activities: Perhaps the most pernicious and difficult to control activity in the Mojave Desert is that of recreational vehicle use. The types of vehicular activities range from casual use on weekends to highly organized and competitive off-road racing attracting hundreds of participants and sometimes thousands of spectators traversing the desert to watch and vicariously participate in these well-funded, highly publicized events. The growth of popularity in recreational vehicles of all types bodes ill for the future of controlling this elective activity. Several authors have pointed to vehicular recreation in the deserts as equivalent to, or even more destructive than, the pre-1932 Taylor Grazing Act days of livestock mismanagement. One Nevada conservationist remarked that, with the proliferation of OHVs, we may recall nostalgically when livestock grazing was the primary threat to the desert ecosystem.

The only hope for containing the impacts of this activity from further fragmenting habitats and disturbing the desert serenity will rest on the shoulders of the public lands managers. These managers will face increasing pressures from both public demand and state and federal regulations to designate “sacrifice areas” set aside for recreational vehicle activities. These sacrifice areas should be located away from conservation areas in order to be protected from the noise, dust, exhaust fumes and vehicle-sparked fires that arise from these activities.

Powerline/Utility Corridors: To allow the new frontiers of development to prosper and support millions of human inhabitants (Los Angeles and Las Vegas) it is necessary to bring in external sources of energy and water from locations nearly a thousand miles away. The typical means of transporting these sources of water and power are long, wide corridors of high-voltage electrical towers and wide, open aqueducts. The pathways chosen for the corridors is often a decision based on cost efficiency for getting the commodity from point A to point B in the cheapest way possible - meaning a direct route.

Landownership patterns frequently complicate this desire for straight lines, and critical habitat of state and federally listed species adds to the costs as mitigation requirements are imposed on habitat destructive activities such as power and utility line installation. Recent advances in technology allow for maintenance and inspection of these lines once installed by means of helicopters, thereby reducing the need for parallel access roads along the powerlines.

The powerline towers themselves prove to be directly and indirectly harmful to the Mojave Desert wildlife, particularly small reptiles, mammals and migratory birds. Predatory birds such as raven and hawks utilize the evenly spaced towers as ideal vantage-points to conserve energy while scanning the deserts below for movement of small prey items.

The towers also provide excellent platforms for nest construction, further improving the efficiency of the predators’ energy budget by allowing them to hunt from home and raise a brood with little expense in commuting. These same towers however can become deadly to migratory birds that inadvertently collide with

the wires or the towers themselves during nighttime migrations. They also prove to be lethal to the very raptors that take advantage of their presence when the birds collide with wires, touch two wires simultaneously with their outstretched wings, or perch on uninsulated poles, resulting in electrocution.

Underground pipelines for the transportation of natural gas, fiberoptic cables, waterlines, or electricity also present problems for the desert environment. The rights-of-way required for the installation of these types of utilities are frequently not wide, but the installation process results in denuded swaths of fertile ground ready for the abundant seed of exotic plant species.

Each right of way also typically requires maintenance of an unobstructed roadway for potential future repairs or replacement of defective parts. These maintenance roads add to the growing network of dirt routes that traverse the desert and provide for increased use by off-highway vehicle enthusiasts looking for new race routes or to explore previously inaccessible areas of the desert environment.

Urbanization/Development: The driving force behind most of the threats and stressors described in this chapter is the growth or installation of new human communities in the desert Southwest. Favorable climate, abundant land and seemingly abundant water, recreational opportunities and an attractive economic climate forms the attraction for retirees and new families alike. This demand for new emigrees into the desert outposts of Barstow, Las Vegas, Mesquite, Kingman and St. George creates a housing and infrastructure boom that generates an incredible number of jobs that keep more people coming.

This rapid and continuous influx of new residents into the desert expands the footprint of the communities that do all they can to absorb the growing population. This requires expansion of delivery of all services and utilities that frequently create a demand for new water pipelines, new electric power lines, new phone cable systems, and all too often new trash storage/containment facilities. Each of these factors alone could significantly further fragment and impact the surrounding desert landscape. Taken together, they create what was referred to earlier as the spiderweb of roads, trails, rights-of-way, and the incidental impacts of unrestrained vehicular recreation, unauthorized trash dumping, passive incursion or intentional release of exotic vegetation and animals, and the inevitable overdemand on groundwater resources.

Exotic/Invasive Species: The cost of preventing the spread of these species could have been minor compared to what estimates are now for eradication of expansive stands once established. Current thinking regarding the control and abatement of tamarisk, short of the discovery of a “silver bullet” of biological control, is that of control of further spread and maintaining the line of abatement efforts, rather than the total eradication of this tenacious species in river systems of the West.

Further complicating efforts to knock back the advance of tamarisk has been the discovery that a federally listed species, the Southwestern Willow Flycatcher (*Empidonax extimus trailii*), is apparently utilizing stands of the noxious plant for nesting along the Colorado River and its tributaries. The fact that tamarisk has essentially already replaced former habitats of willow, cottonwood and ash along riparian systems is bad enough – for the new invader species to qualify as “critical habitat” further complicates the goals of restoration.

Monotypic stands of tamarisk along many smaller tributaries have essentially created an impenetrable wasteland of salty topsoil and occluded understories with minimal diversity. The best management strategy may be to attempt to recreate significant blocks of native

riparian vegetation that can repel the further invasion of this noxious weed. Eradication at this point seems economically unfeasible and biologically improbable.

Road and Highway Construction:
Connecting the major population centers in the Mojave, paved roads and highways have become a population "sink" for many terrestrial vertebrates and probably innumerable invertebrate species. Functioning as an insatiable predator, roads and highways have dramatically affected the seasonal migratory and behavioral movements of vertebrates such as desert tortoises, kit fox, coyotes, and many lizard and snake species that take advantage of the heat retentive capabilities of paved roads at night.

Recent studies on the impact of highways on desert tortoise populations by Karl (1985), and Hoff and Marlow (1997) indicate a depressive zone of influence of paved roads of varying traffic levels up to 1.5 miles on either side of the roadways. This "dead zone" of currently unoccupied habitat results in a significant loss of potential critical habitat for this threatened species throughout the Mojave Desert, but a loss which can be relatively easily remedied through mitigative fencing.

Boarman (1995,1998) has shown that the combination of highway fencing and appropriately designed culverts and underpasses along roadways, results in a decrease in vertebrate losses by 98%. Fence design, with an eye towards the capabilities of multiple species, is crucial to the benefits of these protective barriers not being negated by potentially lethal design flaws for other desert inhabitants.

Groundwater Withdrawal/Drawdown:

The overutilization of groundwater resources by human activities such as mining pit dewatering, mineral processing, industrial development, residential development, and other lesser uses, all combine to seriously affect the viability of aquatic, riparian and mesic-adapted plant and animal communities. Understanding the hydrology of these water-based systems is crucial to determining the tolerances of not only the hydrologic system to recharge itself, but also the target species' and communities' ability to cope with a changed dynamic of water delivery and availability.

Each of the major riparian systems in the Mojave Desert ecoregion, namely the Colorado River, the Virgin River, the Muddy River, the Mojave River, the Amargosa River, the White River drainage system and the Meadow Valley Wash system are impacted to varying degrees by either inappropriate uses of water, overdraft of groundwater, or the impending threat of massive residential development occurring in their watersheds. How these issues will be dealt with to alleviate current or future hydrologic dynamic interruptions is crucial to the viability of the target species and communities that depend upon their function.

D. Phases of Ecoregion-Based Conservation

The ecoregion-based approach to conservation in the Mojave Desert consists of three integrally connected phases: assessment, design and implementation. Each stage is an iterative process within a larger effort that will be refined over time, as new information becomes available. Additionally, each phase is not exclusive of the others and may occur simultaneously with others. The three phases of ecoregion-based conservation more completely described are:

1. *Assessment:* This phase consists of identifying target species and natural communities, compiling data on the targets, setting viability guidelines, and developing conservation goals for the number and distribution of each target.
2. *Design:* This phase includes assembling the suite of sites to conserve all biodiversity in the ecoregion, analyzing threats and feasibility, and developing strategies to ensure long-term survival of the targets at those sites.
3. *Implementation:* This phase consists of on-the-ground conservation actions needed to address threats to the target species and natural plant communities and to fill data gaps to improve future iterations of the ecoregional plan.

E. Ecoregional Planning Team

The Mojave Desert Ecoregional Planning Team was organized in December 1998, consisting of representatives from each state Nature Conservancy Field Office and the Western Regional Office. A core management team consisted of 6 members from Nevada and California, the states containing the majority of the ecoregion. Individual tasks were assigned to specific team members and at times were contracted out for tasks such as the Conservation Management Lands analysis.

F. Data Sources and Management

Data management for the Mojave Desert Ecoregional Plan was carried out through the Nevada Field Office (NVFO) of The Nature Conservancy, with support from TNC's Western Resource Office (WRO), and the California Field Office (CAFO). Using Microsoft Access, a Mojave Desert ecoregional database was created for collecting, cataloguing, analyzing and distributing data during the planning process and beyond. Spatial data was managed using Arc View 3.2, a Geographic Information System (GIS).

Mojave Desert Ecosystem Project (MDEP): Ecoregional data sets including digital elevation models, TM imagery, road layers, and hydrography were obtained through the Mojave Desert Ecosystem Project—a collaborative research effort directed and funded by the Department of Defense.

Target Occurrence Information: Occurrence information was made available by state Heritage programs in the form of GIS Arc View shape files. The variety of methods used by the different state programs complicated the process of unifying these data sets into a single format. In particular, the California Natural Diversity Database (CNDDB) depicts occurrence data using polygons while the other three Heritage programs rely on point data to describe species' locations. Further, there are surprisingly few commonalties in the fields used by the individual programs to describe the biodiversity in their state. Ultimately, the spatial occurrence data was maintained in separate shape files for each state, while the non-spatial components were merged in Access after being imported into the Mojave Database.

In addition to Heritage data, the BLM and National Park Service supplied digital target occurrence information to the planning effort.

This information was maintained in Arc View shape files as well as being imported into the Mojave Desert database.

GAP Vegetation Analyses: The results of GAP vegetation analyses were also collected in GIS format for each of the four states in the ecoregion. Once again, differences in methodology between states complicated integration of the data ecoregion wide. Unification of both the vegetation classification system and the spatial layers describing them was carried out by WRO who produced a single digital vegetation layer for the ecoregion.

Expert Interviews: Despite the plurality of sources for target occurrence information, significant gaps in biodiversity data existed for the Mojave Desert ecoregion. Of particular concern, almost no information was available regarding occurrence viability for species and community targets. To remedy these shortfalls, the planning team traveled throughout the ecoregion conducting an extensive expert interview process. Experts were queried regarding target localities, target viability, threats, processes, and land management information. This information was entered into appropriate fields in the Mojave Desert database.

G. Evaluation of Conservation Management Areas

The Mojave planning team decided early in the planning process that a more detailed look at land ownership and land status would be particularly important to planning in this public land dominated setting. Accordingly, a comprehensive land classification effort was contracted through WRO. Land managers, management types and TNC land class rankings were assessed for all lands in the Mojave (See Map 1G.1). Land Class rankings were assigned based on criteria outlined in *Geography of Hope* and are explained in Table 1G.1.

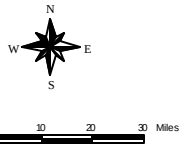
It should be noted that our assessment of land management status depends heavily on the implementation of the various priority conservation areas associated with the regional habitat conservation planning (HCP) processes (Map 1G.2). Most of the regional HCPs are either led by or partnered with the federal land managers to accomplish conservation mitigation which will allow for incidental take of the listed or candidate species on private lands elsewhere. These plans rely on the designation of Areas of Critical Environmental Concern (ACEC).

Table 1G.1 Land Classification Categories

LAND CLASS	DESCRIPTION
Class I (L1)	Lands owned by private entities and managed for biodiversity conservation or administered by public agencies and specially designated for biodiversity conservation through legislative action where natural disturbance events proceed without interference. The agency acting alone cannot change these designations without legislative action and public involvement. Examples include many TNC preserves and other private preserves committed to biodiversity conservation and dedicated as state preserves or natural areas, some national parks, some national wildlife refuges, federal wilderness areas, and some state parks and nature preserves.

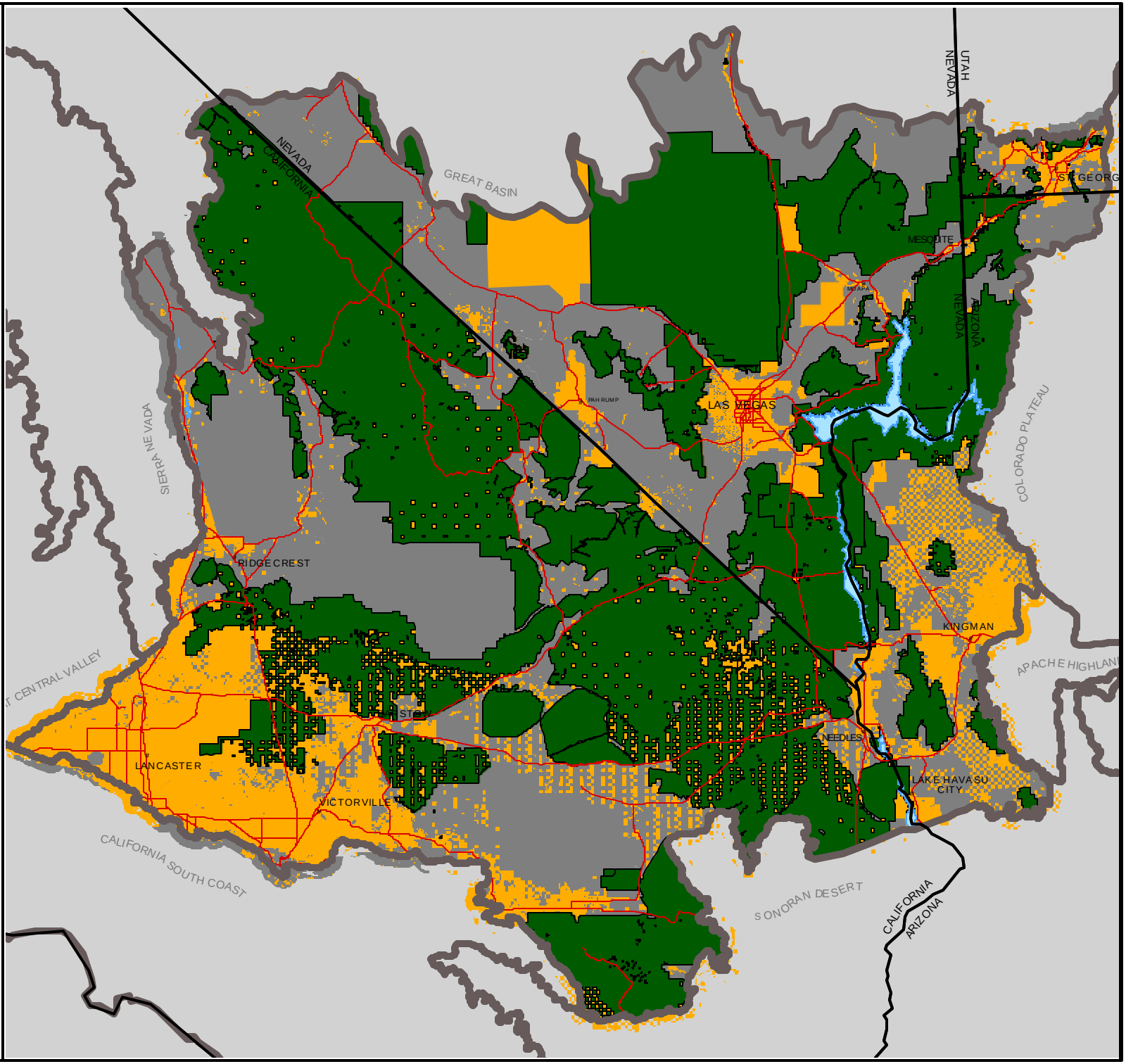
MAP 1 G.1

LAND STATUS in the MOJAVE DESERT



LEGEND

- Class I and II Lands
- Class III Lands
- Class IV Lands
- Ecoregional Boundary
- State Boundary
- Rivers and Streams
- Highways
- Lakes



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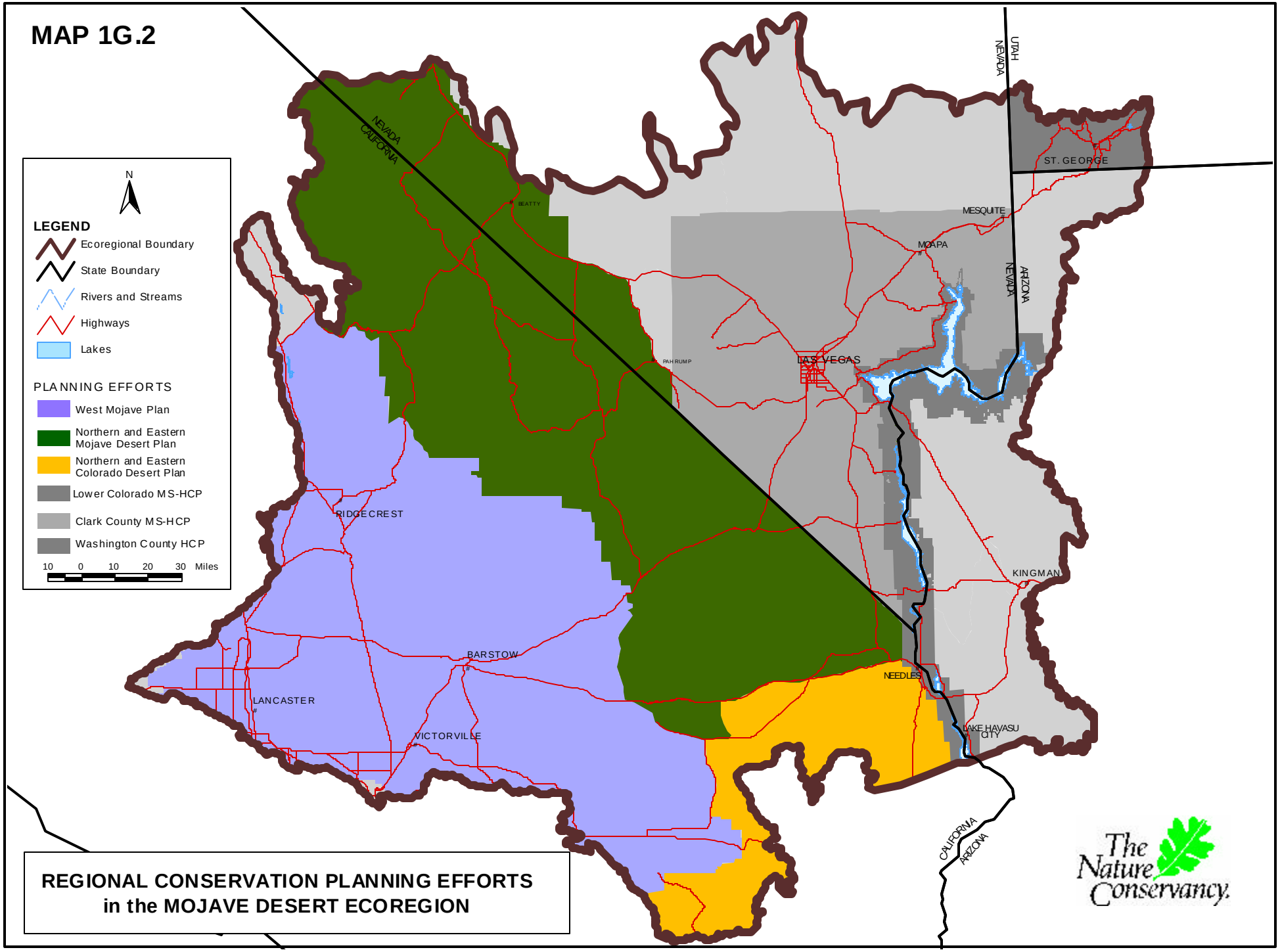

MAP 1G.2
N
LEGEND
Ecoregional Boundary
State Boundary
Rivers and Streams
Highways
Lakes
PLANNING EFFORTS
West Mojave Plan
Northern and Eastern Mojave Desert Plan
Northern and Eastern Colorado Desert Plan
Lower Colorado MS-HCP
Clark County MS-HCP
Washington County HCP
10 0 10 20 30 Miles
NEVADA
CALIFORNIA
UTAH
NEVADA
ARIZONA
NEVADA
CALIFORNIA
ARIZONA
BEATTY
PAHRUMP
LAS VEGAS
MESQUITE
MOAPA
ST. GEORGE
RIDGECREST
KINGMAN
BARSTOW
NEEDLES
LANCASTER
VICTORVILLE
LAKE HAVASU CITY
REGIONAL CONSERVATION PLANNING EFFORTS
in the MOJAVE DESERT ECOREGION
The Nature Conservancy

Class II (L2)	Lands generally managed for their natural values, but that may incur use (e.g., habitat manipulation for game species) that degrades the quality of natural communities. Also includes public lands with administrative designations for biodiversity conservation. Examples include many national wildlife refuges, state wildlife management areas, private preserves managed for game species, BLM areas of critical environmental concern, and federal research natural areas.
Class III (L3)	Lands maintained for multiple uses, including consumptive or recreational values, and not specifically or wholly dedicated to biodiversity conservation, and lands with restricted development rights. Examples include most nondesignated (i.e., multiple-use) public lands administered by the U.S. Department of Agriculture, Forest Service, and BLM, Department of Defense buffer lands, state forests, regional and large local parks and open space, and private lands protected from subdivision by conservation easements and other title restrictions.
Class IV (L4)	Lands with no known protection, including lands used for intensive human activity; agricultural, residential, and urban lands; public buildings and grounds; and transportation corridors.

Results of this analysis confirmed that the Mojave Desert has a substantial proportion of lands owned and managed by federal agencies and that less than 15% of lands are held privately. The distribution of land owners/managers is shown in Figure 1G.1.

Analyses of protected areas in the Mojave revealed that there is also a significant proportion of the Mojave Desert that can be described as Class I or II lands—approximately 48% of the ecoregion (See Figure 1G.2). These protected areas are comprised largely of Desert Tortoise Areas of Critical Environmental Concern (ACEC), Wilderness Areas and National Parks, in particular Death Valley National Park.

H. Conservation Targets

To achieve the goal of representing all vulnerable yet viable native species and communities in the portfolio, the following targets were used (See Appendix I for a complete list of targets).

1. *Natural Plant Communities:* All natural plant communities occurring within the Mojave Desert based upon The Nature Conservancy's national vegetation classification with recent modifications by the Western Conservation Science Center (1999). In the absence of consistent Natural Heritage Program data for natural communities among the four state programs at the association or alliance levels for the Mojave Desert Ecoregion, the Team adopted surrogates for natural community associations at the Alliance or Ecological Group level of classification (See Appendix II).

2. *Imperiled Species*: All species with Natural Heritage Program global ranks of G1-G3 or T1-T3, federal candidates or listed as threatened or endangered by the U.S. Fish & Wildlife Service. For the purposes of this report, the term "imperiled" refers to all taxa considered to be critically imperiled, imperiled, or vulnerable.

3. *Declining, Disjunct and/or Endemic Species*: Species declining through part or all of their range, disjunct from distant ecoregions, endemic to the ecoregion or considered to be of significant concern by scientists at the various expert interviews conducted.

4. *Target Assemblages*: Includes migratory bird concentrations or stopover areas, reptile and amphibian assemblages, and

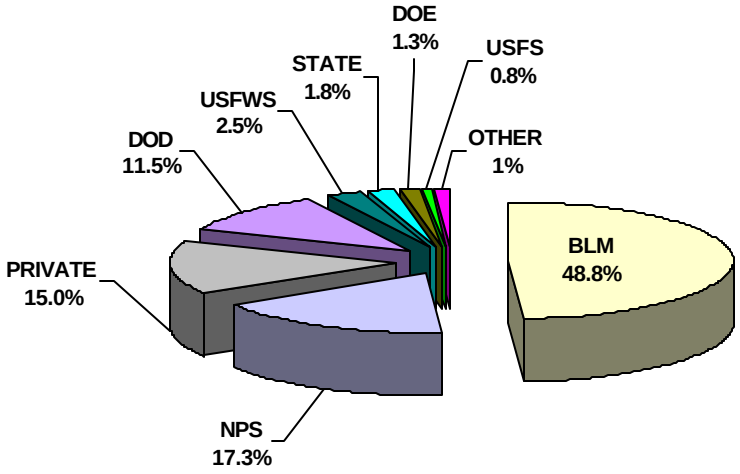


FIGURE 1G.1. DISTRIBUTION OF LAND OWNERSHIP/MANAGEMENT FOR THE MOJAVE DESERT ECOREGION

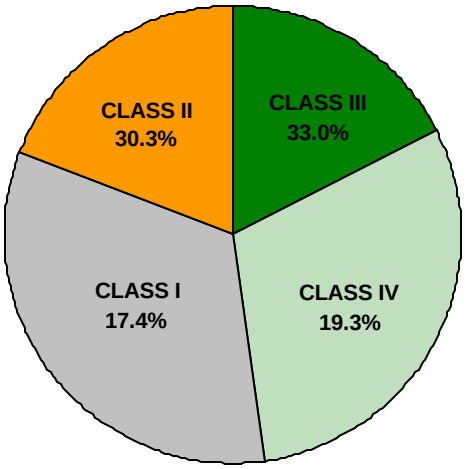


FIGURE 1G.2. DISTRIBUTION OF PROTECTED LANDS IN THE MOJAVE DESERT AS DESCRIBED BY TNC LAND CLASS RANKING

specific, reoccurring associations of species targets with particular vegetative communities and/or geologic substrates.

I. Conservation Goals

Conservation goals set both the number and geographic distribution of viable occurrences required for the presumed long-term viability of each target species and community.

Stratification

Due to the size of the ecoregion and significant vegetative, climatic (temperature and precipitation) and associated biotic differences across the range of the Mojave Desert landscape, we sought an accepted, published method of subdividing the ecoregion into subsections that would assist us in capturing the variation in representative target elements. It is important to note that there are no U.S. Forest Service divisions for the Mojave Desert – it is described as a single section. Therefore, we sought an alternative means of breaking the ecoregion into practical units.

Options for subdivision included: **a)** the use of 6 digit Hydrologic Unit Codes (also referred to as HUCs), which would have yielded over 20 units within the Mojave; **b)** the Desert Tortoise Recovery Units which were largely defined by genetic variations in the Mojave population of Gopherus agassizii, but also integrated the temperature and precipitation gradients of the ecoregion, yielding 6 divisions (5 in the Mojave as we defined it); and **c)** the divisions of the Mojave ecoregion suggested by Dr. Peter Rowlands based upon dominant vegetation community variations throughout the Mojave Desert resulting in 5 sections.

Because the delineation of desert tortoise Recovery Units employed a climatic and vegetative component in concert with genetic variations of the species (Dr. Kristin Berry, Oct. 1999, pers. comm.), we felt the blending of this method with Rowlands' classification yielded the strongest justification for the resulting 6 sections of the ecoregion (See Map 1I.1). Some mapping liberties were taken to accommodate practical representation of geographic differences between subdivisions. It should be emphasized however, that no single methodology of subdividing the ecoregion will satisfy all disciplines. The primary purpose of our division was to facilitate goal setting and is not necessarily reflected in on-the-ground differences in our prioritization of one site over another.

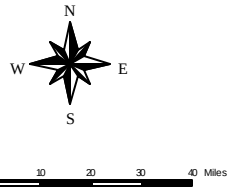
Species Goals

Setting goals for individual target species was accomplished through a consensus decision of the California and Nevada staff based upon previous ecoregional planning experiences and guidelines suggested by *Geography of Hope*. The percentages used were not entirely biologically founded – they are merely guidelines, albeit ambitious ones, that attempt to capture the majority of the best occurrences known in the ecoregion. They are based upon the degree of imperilment as tracked by the Natural Heritage programs in the four states, as well as the relative distributions of each of the target species both within this ecoregion and across neighboring ecoregions.

We decided to use percentages of known viable occurrences rather than absolute numbers of occurrences as other ecoregional planning efforts did. The rationale for this was based upon the high number of narrow endemics present in this ecoregion that preclude our ability to capture more than **1 single occurrence**, despite the best attempts otherwise, since only one occurrence exists. We felt that percentages of known, viable occurrences would provide the flexibility needed, while still setting a high standard for protecting the majority of the best occurrences known in the ecoregion.

MAP 1I.1

SUBREGIONS of the MOJAVE DESERT ECOREGION



LEGEND

Ecoregional Boundary

Highways

SUBREGIONS

- CENTRAL MOJAVE
- EASTERN MOJAVE
- NORTHERN MOJAVE
- SOUTH-CENTRAL MOJAVE
- SOUTH-EASTERN MOJAVE
- WESTERN MOJAVE

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NEVADA
CALIFORNIA
GREAT BASIN
BEATTY
UTAH
NEVADA
ST. GEORGE
MESQUITE
MOAPA
NEVADA
ARIZONA
PAHRUMP
LAS VEGAS
SIERRA NEVADA
COLORADO PLATEAU
RIDGECREST
KINGMAN
APACHE HIGHLAN
BARSTOW
NEEDLES
LANCASTER
VICTORVILLE
LAKE HAVASU CITY
CALIFORNIA SOUTH COAST
SONORAN DESERT
CALIFORNIA
ARIZONA

Table 1I.1 Conservation Goals for Species Targets

Global Rank	Conservation Goal
G1, G2	All known viable occurrences
G3-G5 Endemic/ Limited	75% of known viable occurrences
G3-G5 Widespread	50% of known viable occurrences

Natural Vegetation Community Goals

For natural communities in the ecoregion, goals were based upon a percentage of the known aerial extent for the matrix communities in particular and some large patch communities as well. For all other patch sizes, we based our goals on a percentage of the known number of viable occurrences in the ecoregion. Distribution of the community types also influenced our goals, with the higher degree of endemism bolstering the percentage (Table 1I.2).

An analysis was done of the average patch size of each of the representative natural communities since we did not have data on historic patch size, nor any scientific literature to suggest what was a minimum viable size for any of the Mojave Desert communities. It was assumed that the mean extant patch size would be a good cutoff point for us to seek a percentage of all occurrences equal to or larger than the mean for matrix communities and some large patch communities such as Joshua Tree Woodland.

Table 1I.2 Natural Community Goals

DISTRIBUTION	PATCH SIZE	GOAL
Endemic	Small Patch	70%
Endemic	Large Patch	60%
Endemic	Matrix	40%
Limited	Small Patch	50%
Limited	Large Patch	40%
Limited	Matrix	30%
Widespread	Small Patch	40%
Widespread	Large Patch	30%
Widespread	Matrix	20%
Peripheral	N/A	10%

J. Viability Analysis

Viability refers to the ability of a species to persist for many generations or the ability of a community type to persist over time (The Nature Conservancy 1996). The goal of the viability assessment was to identify ecological factors required to sustain occurrences of targets over the long term. This helps set baseline viability limits for targets. Because population viability analyses have not been completed, and viability guidelines have not been developed for the majority of targets within the Mojave Desert, most teams address the concept of viability of occurrences through the application of Natural Heritage Program element occurrence ranks (A to D). These ranks are assigned based on the criteria of an element occurrence's size, condition and landscape context.

Size – is a measure of the area or abundance of the conservation target's occurrence. For ecological systems and communities size is simply a measure of the occurrence's patch size or geographic coverage. For animal and plant species, size takes into account the area of occupancy and number of individuals. Minimum dynamic area, or the area needed to ensure survival or re-establishment of a target after natural disturbance, is another aspect of size.

Condition – refers to an integrated measure of the composition, structure, and biotic interactions that characterize the occurrence. This includes factors such as reproduction, age structure, biological composition (e.g. the presence of native versus exotic species; presence of characteristic patch types for ecological systems), structure (e.g., canopy, understory, and groundcover in a forested community; spatial distribution and

juxtaposition of patch types or seral stages in an ecological system), and biotic interactions (e.g., levels of competition, predation, and disease).

Landscape Context – refers to an integrated measure of two factors: the dominant environmental regimes and processes that establish and maintain a target occurrence; and connectivity. Dominant environmental regimes and processes include herbivory, hydrologic and water chemistry regimes, geomorphic processes, climatic regimes, fire regimes, and many kinds of natural disturbance. Connectivity includes such factors as species targets having access to habitats and resources needed for life-cycle completion, fragmentation of ecological communities and systems, and the ability of any target to respond to environmental change through dispersal, migration, or recolonization.

When available, Heritage Element Occurrence Ranks (EO Ranks) were used to assess and compare occurrence viability. Additionally, when possible, expert input was collected on size, condition and landscape context of identified occurrences– each rated on a scale of Poor (equivalent to a D rank) to Very Good (an A rank). When specific criteria ranks were impossible to gather from expert interviews (often a result of time constraints) experts were asked to identify only those occurrences they felt were viable in the long term.

K. Portfolio Assembly

Potential Portfolio of Sites

During the expert interview and data collection phase of planning, a total of 731 potential portfolio sites were mapped and attributed by the planning team. Attributes for sites included a catalogue of target occurrences contained at the site, the viability of those occurrences, land ownership at the site as well as some summary data on threats and opportunities where available.

Criteria for Portfolio Selection

Conservation by Design: A Framework for Success (The Nature Conservancy 1996) laid out general guidelines for the assembly of ecoregional portfolios. These guidelines stressed the following attributes of a valid portfolio assembly process:

- **Viability**: The target occurrences for which a site is selected for the portfolio can be maintained over the long term. Ecological processes are largely intact or restorable.
- **Biodiversity Value**: The sites to be included in the portfolio have high quality occurrences of conservation targets.
- **Efficiency of Action**: The sites have multiple viable examples of conservation targets.
- **Complementarity**: The sites capture targets that have not been adequately incorporated into the portfolio.

Ecological System Type Portfolios

To facilitate the application of the above criteria, 7 separate and individual working portfolios were assembled for each of the Mojave's dominant ecological system types. These system types were first described by The Nature Conservancy's WRO during the Mojave natural vegetation community classification effort (See Appendix II). The system types reflect assemblages of vegetation types that are coarser than the ecological group level and include the following 7 types: Desert Aquatic, Desert Riparian, Desert Wash, Dunes and Substrates, Desert Scrub (including Basin and Bajada), Lower Montane, and Upper Montane.

For each system type, a set of primary targets was selected from the larger totality of the Mojave Desert target list. These primary targets included all natural vegetation communities associated with the system type (most commonly assessed at the alliance or ecological group level), as well as species

targets that are known to be dependent or characteristic of the system type in question (based upon literature review and expert opinion).

From the initial set of 731 mapped and attributed sites, a new potential portfolio (suite of sites) was assembled for each ecological system type by the identification of those sites containing viable or restorable primary target occurrences for that system. In effect, the primary targets served as coarse filters, which allowed the planning team to better manage the very large initial data set and break it down into more discreet units for analyses.

Sites that contained exceptional, unique or outstanding occurrences of a primary target were automatically placed in the final portfolio for each system type. Additional sites were then added to these system type portfolios until goals for primary targets were reached, or until it was suspected that amalgamation with other system portfolios would result in the goals being easily attained. Where possible, sites were chosen with the additional goal of achieving representation across the 6 subregions of the Mojave for each of the primary targets.

Where choices existed in selecting sites to fulfill goals, the most favorable site was assessed according to the criteria of viability, biodiversity value, efficiency of action, and complementarity. These criteria were applied in the context of the system type being analyzed, and specific benchmarks for these criteria are discussed in detail for each system type in chapter 2 of this report.

Assembly and Comparison

After a portfolio of sites for each system type was assembled, all system type portfolios were compared against one another to review the degree of overlap and to identify opportunities for creating an efficient and parsimonious final portfolio of conservation sites. Site boundaries were modified to incorporate elements of biodiversity that met our criteria for selection as targets when sites overlapped significantly. Site boundaries were also modified to consolidate land ownership within the Class I and II lands when those areas captured the majority of the populations of target elements.

Rare Plant Analysis

Mojave plant occurrences are often dependent on extremely localized physical and chemical substrate variations. Consequently, many target plant species were not well associated with the coarser habitat types typical of the broad ecological systems defined by this planning process.Therefore, many target plant occurrences were overlooked during the assembly of system type portfolios. In order to compensate for expected shortfalls in goals for plant targets, a rare plant analysis was undertaken to identify a set of isolated plant sites which, if protected, would achieve established conservation goals for these species (see section 2.H).

L. Portfolio Results

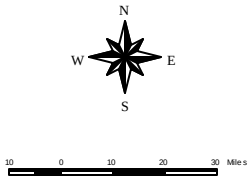
The recommended portfolio of 367 sites encompasses approximately 38% of the 32.6 million-acre ecoregion (See Map 1L.1 and Appendix III). For a complete list of target attributes and land ownership information at these sites refer to Appendix IV.

Of these proposed sites, 44% are already well protected (i.e. where more than 75% of the site is already within Class I or II lands). An additional 48% of portfolio sites are on other lands owned and managed by public agencies (typically classified as class III lands). The remaining 8% of portfolio sites (29/367) are comprised mostly of private lands (where more than ¾ of the site is owned privately). Specific land ownership distribution for the portfolio is presented in Figure 1L.1.

Including results from the isolated rare plant analysis, goals were met for 93% of animal

MAP 1L.1

MOJAVE DESERT ECOREGIONAL PORTFOLIO



LEGEND

- Portfolio Site
- Ecoregional Boundary
- State Boundary
- Rivers and Streams
- Highways
- Lakes

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NEVADA
CALIFORNIA
UTAH
NEVADA
ARIZONA
NEVADA
CALIFORNIA
ARIZONA
BEATTY
PAHRUMP
LAS VEGAS
MOAPA
MESQUITE
ST. GEORGE
RIDGECREST
KINGMAN
BARSTOW
NEEDLES
LANCASTER
VICTORVILLE
LAKE HAVASU CITY

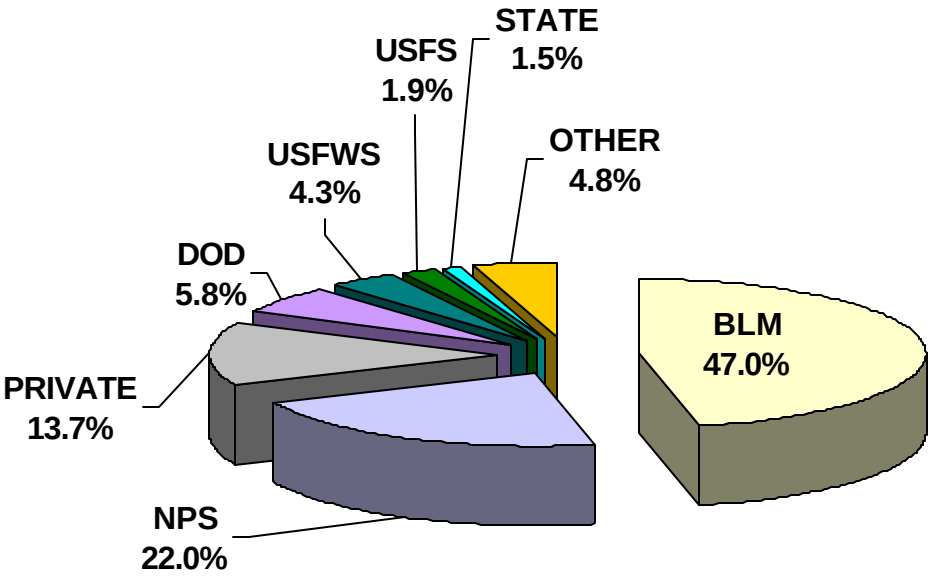
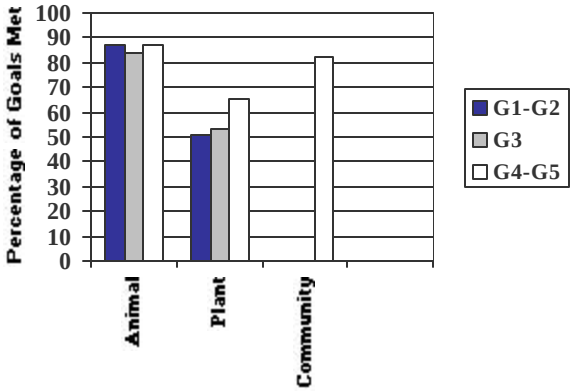


FIGURE 1L.1. LAND OWNERSHIP OF THE MOJAVE DESERT ECOREGIONAL PORTFOLIO

and plant species and 82% of natural vegetation community targets on the Mojave Desert Ecoregional target list. Focusing on a smaller set of primary targets for portfolio selection proved an effective coarse filter process for meeting goals for all targets with the exception of plant species. Using just the primary target coarse filter, goals were met for 83% of animal targets, and 82% of natural vegetation community targets. However, only 56% of the plant targets met goals prior to the isolated plant analysis (Figure 1L.2)

Figure 1L.2 Progress Towards Goals for Mojave Desert Ecoregional Assessment Targets



M. Functional Aggregations

The ambitious conservation and stratification goals of the Mojave Desert ecoregional assessment process resulted in a large number of portfolio sites (367). For The Nature Conservancy to effectively develop conservation strategies among the four state programs that encompass the Mojave, many of these sites have been aggregated into larger functional units based upon spatial proximity, landscape connectivity, and shared ecological processes. This is consistent with the *Geography of Hope* approach which calls for the conservation and protection of not only target elements and natural communities, but also the processes that support them over the long term.

The aggregation of sites resulted in 302 sites being grouped into 34 functional aggregations (See Map 1M.1), leaving another 65 portfolio sites remaining outside of these larger units. It is intended that these aggregations will be inherently large, will have a high degree of intactness, and will have the greatest potential to conserve biodiversity at all scales. The final portfolio of functional aggregations also represents the places where common and widespread communities could be protected through site conservation planning and subsequent action.

N. Selecting TNC Action Sites

The Mojave Desert Ecoregional Team evaluated each functional aggregation as well as those 65 sites that did not fall into an aggregation, based upon five principles: Conservation Value, Complementarity, Threat, Opportunity and Feasibility. Each of the five factors was ranked for each of the sites according to the following guidelines:

Conservation Value refers to the number, scale, diversity, and health of targets at each of the functional landscape sites. Preference should be given to landscapes with both terrestrial and aquatic targets, targets at multiple scales, and based upon target richness.

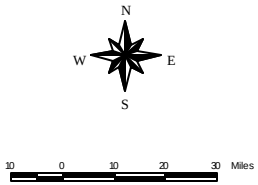
Complementarity is a measure of how different the landscape is from existing conservation areas. Priority should be given to landscapes with targets underrepresented in the existing conservation managed areas.

Threat is a measure of the severity and immediacy of actions that may destroy or significantly degrade targets.

Opportunity refers to the availability of conservation partners, existing planning or conservation efforts, and the availability of resources and funding in implementation of conservation goals for the site.

MAP 1M.1

MOJAVE DESERT PORTFOLIO SITE AGGREGATIONS



LEGEND

- Aggregate Site
- Ecoregional Boundary
- State Boundary
- Rivers and Streams
- Highways
- Lakes

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NEVADA
CALIFORNIA
UTAH
NEVADA
CALIFORNIA
ARIZONA

DEATH VALLEY NATIONAL PARK
OWENS VALLEY AND TRIBUTARIES
COSO RANGE
ARGUS RANGE
AMARGOSA RIVER
AMARGOSA RIVER
NELLIS AIR FORCE RANGES
COYOTE SPRINGS
MORMON MESA
WASHINGTON COUNTY
VIRGIN RIVER COMPLEX
MUDDY RIVER OMPLEX
GOLD BUTTE/ PAKOON
SPRING MOUNTAINS
MUDDY MTS
COLORADO RIVER
HUALAPAI VALLEY
PIUTE-ELDORADO
SKY ISLANDS/ CIMA DOME
KOEHN DRY LAKE
TEHACHAPI FOOTHILLS
FREMONT-KRAMER/ SUPERIOR-CRONESE
MOJAVE RIVER
CADY MTS
ORD/ RODMAN MTS
SOUTH BLACK MTS
COLORADO RIVER
MOJAVE RIVER
LAVIC LAKE/ PISGAH CRATER
ROGERS/ROSAMOND LAKES
BRISTOL DRY LAKE
CAJON PASS
NORTH SLOPE SAN BERNARDINO MTS
MESQUITE LAKE
DALE DRY LAKE
JOSHUA TREE NATIONAL PARK
RIDGECREST
BARSTOW
VICTORVILLE
LAS VEGAS
BULLHEAD CITY
KINGMAN
LAKE HAVASU CITY
ST. GEORGE

Feasibility refers to the "do-ability" of the conservation goals for that site. It integrates both cost and the degree of complexity of implementation as well as a consideration of the political landscape involved at the site.

All functional aggregations and remaining sites were assessed according to the combined ranking of the five principles. As expected, these guidelines prejudiced action site scores towards the functional aggregations since their conservation value was multiplied by the numerous sites subsumed within the larger unit. The large size of the aggregations did not necessarily discount the feasibility of working at these sites since most aggregations were based upon existing protected areas (See Map 1N.1).

The next step in the process will be developing a schedule for implementation of conservation at the "Action Sites" on a 5, 10, or 20 year planning horizon by each of the state programs where the sites are located.

O. Conservation Opportunities

Regional Conservation Plans

The public ownership and management of the overwhelming majority of portfolio sites (>71%) presents both challenges and opportunities for effecting conservation over a large scale. With the Federal and/or State listing of several of the species that are targets in this report, comes a number of regional-scale planning efforts that have been completed or are nearing completion.

Each of the large-scale planning efforts have specific actions they are proposing, or are obligated to perform, to achieve coverage under the Endangered Species Act Section 10 and/or Section 7. This includes the West Mojave Plan (WEMO), the Northern and Eastern Mojave Plan (NEMO), the Northern and Eastern Colorado Plan (NECO), the Lower Colorado River Multiple Species Conservation Program (LCRMSCP), the Washington County Habitat Conservation Plan (WCHCP), and the Clark County Multiple Species Habitat Conservation Plan (CCMSHCP) [Map 1O.1].

Each plan, therefore, must demonstrate on-the-ground conservation benefits to minimize and mitigate the incidental habitat loss they are proposing for the listed species. Each plan must also demonstrate adequate funding to accomplish the conservation goals and adequate safeguards built into the programs to respond to changes, foreseen or unforeseen, should they occur during the course of the plan.

For the regional desert tortoise planning efforts (WEMO, NEMO, NECO, WCHCP, CCMSHCP) a decade-long process of defining critical habitat, recovery areas, and lead management entities has resulted in a mixed bag of conservation achievements to date. However, the processes are in place to integrate substantially with the majority of goals presented in this ecoregional assessment.

Clark County, Nevada, for instance, is in the process of developing it's 10-year Desert Tortoise HCP into a 30-year Multiple Species HCP, which covers many of the conservation targets in the Eastern Subregion of this Mojave Ecoregional Assessment. This program will provide funding for conservation actions benefiting the 79 species in addition to the desert tortoise, covered by their incidental take permit and pre-listing agreements.

Washington County, Utah is in a similar situation relative to a discretely defined area known as the Red Cliffs Desert Reserve. To the extent that area provides adequate conservation protection for the suite of species that inhabit it, the conservation goals developed in this ecoregional assessment should be well served.

MAP 1N.1

PROTECTED STATUS of PORTFOLIO AGGREGATIONS in the MOJAVE DESERT ECOREGION

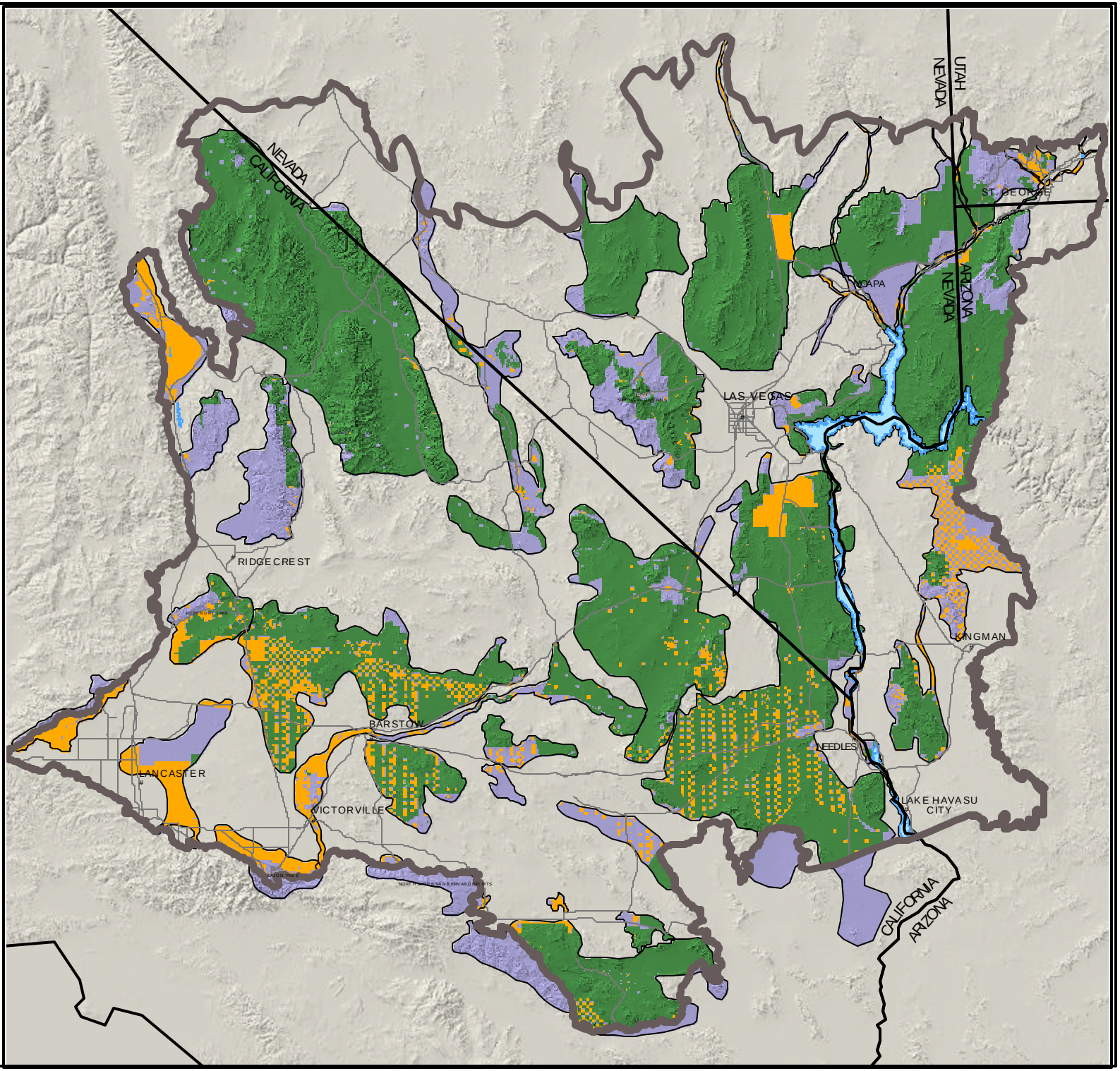
N
W E
S

LEGEND

- LAKES
- ECOREGIONAL BOUNDARY
- STATE BOUNDARY
- HIGHWAYS
- INTERMITTENT STREAM

AGGREGATION PROTECTED STATUS

- CLASS 1 AND 2 LANDS
- CLASS 3 LANDS
- CLASS 4 LANDS



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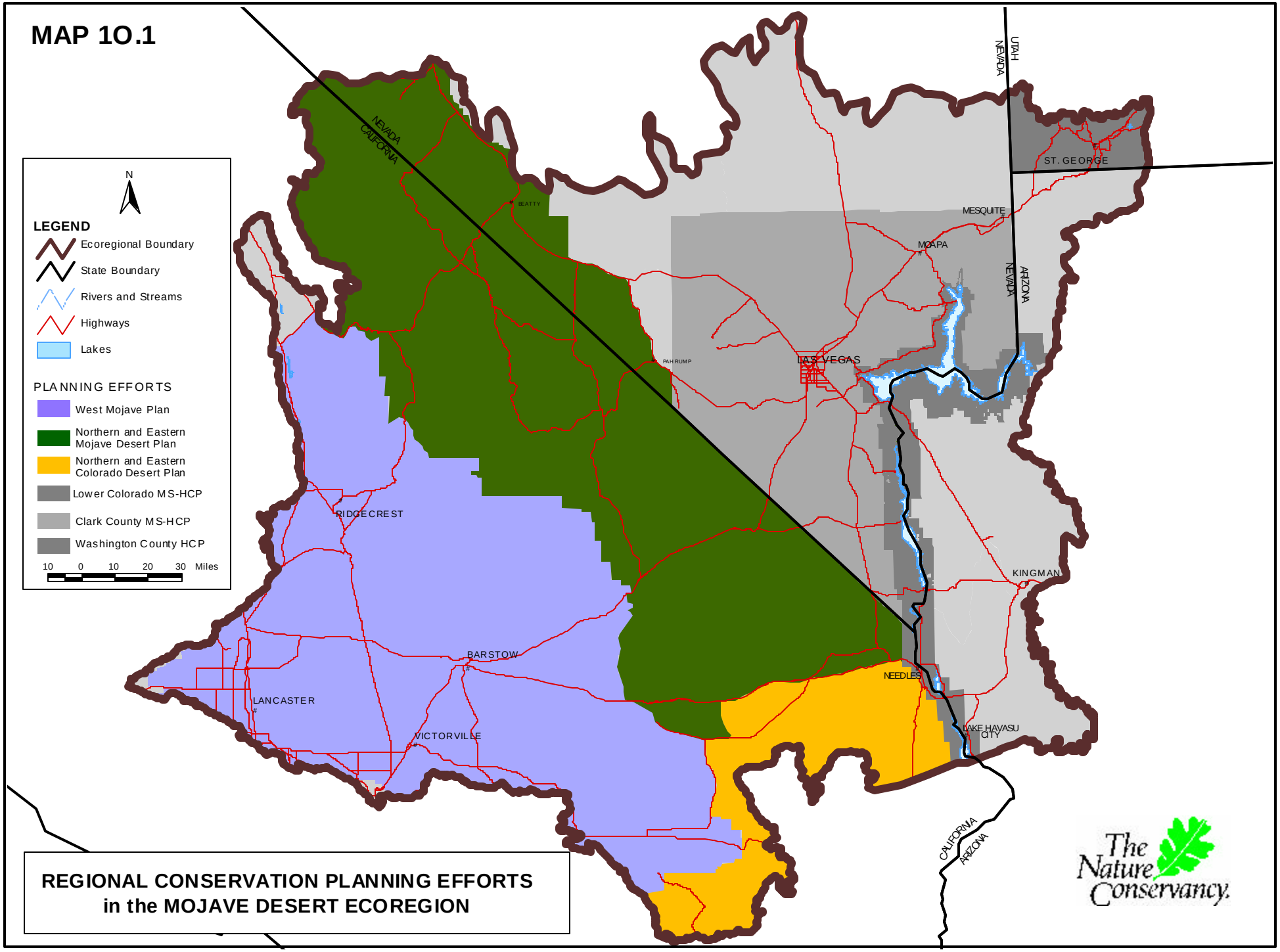

MAP 1O.1
N
LEGEND
Ecoregional Boundary
State Boundary
Rivers and Streams
Highways
Lakes
PLANNING EFFORTS
West Mojave Plan
Northern and Eastern Mojave Desert Plan
Northern and Eastern Colorado Desert Plan
Lower Colorado MS-HCP
Clark County MS-HCP
Washington County HCP
10 0 10 20 30 Miles
NEVADA
CALIFORNIA
UTAH
NEVADA
ARIZONA
NEVADA
CALIFORNIA
ARIZONA
BEATTY
PAHRUMP
LAS VEGAS
MESQUITE
MOAPA
ST. GEORGE
RIDGECREST
BARSTOW
LANCASTER
VICTORVILLE
NEEDLES
KINGMAN
LAKE HAVASU CITY
REGIONAL CONSERVATION PLANNING EFFORTS
in the MOJAVE DESERT ECOREGION
The Nature Conservancy

The three regional coordinated management plans in the California portion of the Mojave Desert are more difficult to assess as far as what will result in terms of on-the-ground conservation benefits for several of the target species we have in common. Since all three plans are still in some stage of development, with varying degrees of scientific input and public participation, the results are difficult to predict at his point. They must strike a balance among social, economic, political and biological factors specific to the areas they will affect.

Therefore, land protection classification should be reviewed upon completion of those management plans to see to what degree they have followed the recommendations of the Desert Tortoise Recovery Team and the numerous scientists that have participated in the identification and design of critical habitat areas and management prescriptions for the many non-tortoise species.

Southern Nevada PLMA

In 1999, Congress passed what is known as the Southern Nevada Public Lands Management Act (PLMA). This monumental legislation is an outgrowth of what was formerly the Burton-Santini Act of 1989, which provided for the use of proceeds from the sale of public lands in the Las Vegas Valley for the purchase of environmentally sensitive lands around Lake Tahoe in the northern part of Nevada.

The Southern Nevada PLMA attempts to rectify what was largely viewed as an inequity in the implementation of the Burton-Santini Act. Growth that was occurring in and around Las Vegas was paying for conservation of northern Nevada lands, instead of mitigating the effects of a rapidly growing population on the southern Nevada landscape. The PLMA now allows for the expenditure of 85% of the proceeds of public lands in and around Las Vegas to be expended on the purchase of environmentally sensitive lands in Southern Nevada, with an emphasis on Clark County.

Estimates of income that may be generated by these sales, based upon the current land market values and the amount of public land identified for disposal under the PLMA, range from $650,000,000 to $1 billion. Such a figure would rival the amount allocated by Congress under the Federal Land & Water Conservation Fund (LWCF).

The critical process in decision-making of expenditures under this program will rest with the criteria that are used to rate or rank proposed land purchases. It was decided to utilize criteria similar to what the LWCF employs when choosing which projects to fund.

P. Strategies

On 31 March 2000, the Planning Team presented the preliminary biological recommendations to the 4 State Directors or their representatives and Protection staff. It was agreed that, with over 88% public lands represented in the portfolio, a general public lands conservation strategy should be developed.

If The Nature Conservancy and its partners are to succeed in protecting the full range of native species and natural communities of the Mojave Desert, a suite of conservation strategies must be used to address the most pressing threats to the conservation targets across the ecoregion. This should be approached by working cooperatively with private landowners, public agencies, academia, and others.

Given the large number and wide range of size of the sites, conservation strategies will have to be a mix of direct action at some sites and broad conservation strategies across many sites. At some conservation sites it will mean direct action such as acquiring land, or interest in land, from willing sellers. At other

sites it will require supplementing direct conservation action with community-based conservation programs. All the sites will require working with partners and promoting sound land stewardship.

At the majority of conservation sites, however, direct conservation action, community-based programs, or direct private land stewardship efforts will not be possible due to the public land ownership of the sites. Instead, a suite of broad-based conservation strategies is needed that will serve to secure a future for the diversity of life at the sites within the ecoregion (See Table 1P.1). These strategies should then be integrated into ongoing management planning efforts or adopted into amendments to already completed resource management plans.

Table 1P.1 Summary of Strategies to Address Multi-Site Threats

Threat (Source of Stress)	Stress	Primary Systems Affected	Severity/ Reversibility	Strategies	Partners
Livestock Grazing (including uncon-trolled feral horse and burros)	• Competition for limited resources with native herbivores • Introduction/proliferation of alien plant species • Increase soil erosion • Destruction of cryptogamic soil crust formation • Trampling of small vertebrates (tortoises, lizards) and burrows • Development of artificial water sources to support livestock disrupts predator /prey dynamic on a landscape level • Bank erosion along riparian corridors • Consumption of riparian vegetation prevents tree recruitment	➢ Desert grasslands ➢ Riparian woodland ➢ Alkali meadows ➢ Springs & seeps ➢ Lower montane	Variable – usually reversible if alleviated before plant community conversion has taken place	❖ Work with ranching community to provide tax incentives or other financial motivation for keeping cattle away from springs and stream banks ❖ Support fair market value buyouts of livestock allotments on public lands and agency approval to grant "conservation use" of permits ❖ Support/encourage holistic ecosystem management schemes to provide for balanced multiple uses without harming sensitive ecosystems	▪ BLM ▪ NRCS ▪ State Agencies ▪ Private ranchers ▪ Cattlemen's Assoc. ▪ American Farm Bureau ▪ National Park Service ▪ US Forest Service
Mining & Mineral Withdrawal	• Destruction of habitat • Alteration of soil characteristics and plant succession • Use of toxic chemicals in processing ore releases mercury and cyanide into environment (land, air, water) • Associated large truck vehicular traffic along dirt roads • Utilizes significant amounts of groundwater for processing materials	➢ Upper elevation Desert Scrub ➢ Desert Wash ➢ Desert Scrub ➢ Basins/Bajadas ➢ Lower montane	Severe/ Virtually irreversible	❖ Encourage abandonment or relocation of sand and gravel pit claims ❖ Close priority conservation areas to further claims or mineral discovery ❖ Encourage mineral claim validation checks ❖ Explore feasibility of fair market value buyouts of valid mineral and hard rock mining claims	▪ BLM ▪ National Park Service ▪ Private Mining Companies ▪ State Mineral Agencies ▪ Depts of Transpor-tation ▪ National Mining Associations
Residential Development	• Replacement of natural habitats with artificial ones • Radiating effects of human community presence: dogs, cats, bikes, horses, trash, and OHVs impact area much larger than the footprint of the development • Creates demand for local resources such as sand & gravel, cacti & yuccas, power and water delivery	➢ All Systems	Severe/ Irreversible	❖ Support tax incentives for conservation of priority areas ❖ Educate landowner advisors and town boards ❖ Encourage/support land use planning at landscape level ❖ Pursue fee acquisition and conservation easements of priority tracts (site by site)	▪ Local Land Trusts ▪ Counties ▪ Open Space programs ▪ Local communities ▪ Landowners

Table 1P.1 Summary of Strategies to Address Multi-Site Threats

Threat (Source of Stress)	*Stress*	*Primary Systems Affected*	*Severity / Reversibility*	*Strategies*	*Partners*
Groundwater Withdrawal	• Loss of aquatic and riparian habitats • Alteration of species com-position • Interruption of freshwater delivery processes	➢ Aquatic ➢ Riparian woodland ➢ Wetlands ➢ Playas	Severe/ Unknown if reversible	❖ Develop hydrologic models ❖ Protect recharge zones ❖ Reduce pumping ❖ Discourage additional wells ❖ Research predicted trends of depletion of White River Basin Aquifer (Coyote Springs Development)	▪ State Engineers Office ▪ Water Conservation Districts
Altered Fire Regime	• Altered species composition • Invasion of exotic grasses and forbs • Increased and connective fuel loads result in widespread catastrophic fires • Conversion of desert scrub to a high frequency fire cycle plant community • Suppression of natural lightning-strike fires causes high fuel load buildup	➢ Desert scrub ➢ Joshua tree woodland ➢ Blackbrush scrub ➢ Succulents ➢ Lower montane ➢ Upper montane	Severe and Irreversible	❖ Reduce surface disturbance activities in pristine desert scrub conservation areas ❖ Eliminate livestock grazing in sensitive plant community areas such as succulent scrub communities ❖ Control vehicular recreation on fringes of conservation areas, ensuring adequate buffer zones around them ❖ Prevent open-fire camping within or adjacent to priority conservation areas ❖ Research biological control mechanisms for exotic invasive grasses in desert ecosystems	▪ BLM ▪ National Park Service ▪ US Forest Service ▪ Universities ▪ Dept of Agriculture
Roads / Highways	• Fragmentation of habitat for terrestrial vertebrates and some invertebrates • Direct & continuous mortality for many target organisms • Provides easy access for vehicles to previously pristine areas which compounds type and frequency of other uses • Disconnect of hydrologic surface flow patterns	➢ Basins/bajadas ➢ Riparian woodlands ➢ Desert washes ➢ Wetlands ➢ Desert scrub	Moderate to severe/ Mitigatable in some instances	❖ Installation of highway barriers ❖ Combined with installation or enhancement of culverts, underpasses, and bridges ❖ Ensure integration of sensitive ecological areas locations with planning of roads and highways ❖ Incorporate mitigation actions into highway and roadway upgrades and maintenance scheduling ❖ Transportation Enhancement Act – 21st Century (TEA-21) ❖ Reduce network of dirt roads and trails in priority areas	▪ State Depts of Transportation ▪ Federal Highway Administration ▪ Local county or city planning departments ▪ Local OHV organizations ?

Table 1P.1 Summary of Strategies to Address Multi-Site Threats

Threat (Source of Stress)	*Stress*	*Primary Systems Affected*	*Severity / Reversibility*	*Strategies*	*Partners*
Utility Corridors	• Maintenance access roads further fragment habitat and increase probability of direct impacts of vehicles with terrestrial species • Utility poles provide conveniently distributed perches and nest sites for Ravens • Creates additional linear features providing easy access of OHVs into otherwise protected areas • Installation of underground lines (gas, water, power, phone, cable) creates large swaths of denuded habitat that rapidly colonize with invasive exotic annual plant species	➢ Desert scrub ➢ Basins/Bajadas ➢ Playas	Moderate/ usually irreversible once installed/ Mitigatable	❖ Work with power companies to develop new strategies to protect habitat by avoiding sensitive areas, minimizing or mitigating the impacts of their activities ❖ Gate access to maintenance roads accompanied by peripheral fencing, for authorized personnel only ❖ Encourage development of state of the art revegetation techniques to revegetate denuded areas and discourage weedy exotic invasion	▪ BLM ▪ National Park Service ▪ Major Power and Utility Companies
Vehicular Recreation	• Direct mortality of terrestrial species on or off roads and trails • Disturbance of natural behavior patterns of many vertebrates in and around OHV activity areas • Unsupervised OHV activity typically leads to new roads and trails being created – further impacting habitats •	➢ Desert scrub ➢ Basins &Bajadas ➢ Desert wash ➢ Dunes ➢ Lower montane	Severe/ Reversible with change in management	❖ Prohibit all vehicular traffic in priority conservation areas ❖ Post roads to prevent confusion ❖ Block access to dirt roads with rocks/cacti – rehab at same time ❖ Work with BLM & NPS to redirect race courses away from borders of priority conservation areas ❖ Support enhanced law enforcement on public lands	▪ BLM ▪ National Park Service ▪ State Agencies ▪ Organized OHV groups
Military Ground & Air Training Activities	• Destruction of soil surface cryptogamic crusts • Destruction of native vegetation • Promotion of exotic invasive plant species • Disruption of natural behavior patterns of native vertebrates in and adjacent to training areas • Overflights disrupt bighorn sheep behavior and productivity	➢ Desert scrub ➢ Playas ➢ Basins &Bajadas ➢ Lower montane	Severe (ground impacts), irreversible. Moderate (air activities) easily reversible with change in flight paths, height or frequency.	❖ Identify priority conservation areas on training facilities and work with Base Command through the INRMP process to reroute ground activities or limit to existing disturbed areas ❖ Work with Base Command to alter flight paths. Height of overflights and/or frequency of overflights in or near bighorn sheep critical habitat, particularly around lambing period	▪ Department of Defense – Army ▪ Department of Defense – Navy ▪ Department of Defense – Air Force ▪ Department of Defense - Marines ▪ RAMA ▪ Pentagon contacts

Table 1P.1 Summary of Strategies to Address Multi-Site Threats

Threat (Source of Stress)	*Stress*	*Primary Systems Affected*	*Severity / Reversibility*	*Strategies*	*Partners*
Invasive Exotic Species	• Conversion of native plant communities to alien system • Displacement of native biota through change in habitats and direct competition • Alteration of fire cycle • Predation on native biota by exotics	➢ Desert scrub ➢ Riparian woodland ➢ Aquatic systems ➢ Lower montane	Severe, pernicious, and very expensive to rectify if at all possible	❖ Preserve integrity of soil surface in desert scrub systems ❖ Abate tamarisk from headwaters downstream ❖ Rotenone crucial streams/ponds to remove exotic predatory fish ❖ Fence out feral horses, cattle, burros	▪ BLM ▪ US Fish & Wildlife Service ▪ State Game & Fish Agencies ▪ State & Federal Dept of Agriculture ▪ Soil Conservation Service
Other Recreation (Sand boarding, skiing, horseback riding, rock climbing, camping)	• Destruction of native flora and habitat • Camping near springs and riparian areas inhibits wildlife use of those areas • Rock climbing activities inhibit nesting of Peregrine Falcon and other cliff-dwelling raptors	➢ Dunes ➢ Upper montane ➢ Riparian woodlands ➢ Springs	Severity varies with the type of activity	❖ Block access to sensitive population areas on sand dunes ❖ Designate specific off-trail camping sites at lower elevations below tree limit ❖ Monitor rock climbing use of cliff faces to track use levels and potential impacts to rare species ❖ Limit horse use in wilderness to below tree limit and require weed-free horse feed ❖ Limit future recreational developments to within existing developed/impacted areas ❖ Do not allow additional summer home developments	▪ Bureau of Land Management ▪ U.S. Forest Service ▪ National Park Service
Solar & Wind Energy Developments	• Destruction and fragmentation of habitat	➢ Desert scrub ➢ Basins & Bajadas ➢ Playas	Irreversible and severe depending on which installation	❖ Insure biodiversity information exchange with BLM during project siting stage or proposal stage by proponents applying for permits and public land leases	▪ Bureau of Land Management ▪ Power companies ▪ Dept. of Energy
Film & Video Industry	• Destruction of habitat	➢ Dunes ➢ Playas ➢ Desert scrub	Severe, but some activities mitigatable	❖ Work with BLM to deny permits during application stage based upon objective sensitive species information	▪ Bureau of Land Management

Table 1P.1 Summary of Strategies to Address Multi-Site Threats

Threat (Source of Stress)	*Stress*	*Primary Systems Affected*	*Severity/ Reversibility*	*Strategies*	*Partners*
Global Warming/Climate Change	• Loss of upper montane to alpine habitat • Conversion of desert scrub to playas or badlands	➢ Upper montane ➢ Desert scrub	Potentially severe, but largely unknown at this point	❖ Work with Desert Research Institute or Environmental Protection Agency to track local climate change ❖ Design protected areas with an eye towards allowing habitat shifts in response to significant climate change	▪ EPA ▪ Universities ▪ NOAA
Radiation Exposure (Air, Water, Land)	• Possible/probable genetic alterations affecting viability of populations	➢ All systems?	Potentially severe/largely unknown	❖ Track radiation exposure on properties adjacent to Nevada Test Site	▪ DOE ▪ USGS-BRD ▪ Universities

Chapter 2:

ECOLOGICAL SYSTEM TYPES

A. AQUATICS

Description

During the pluvial periods of the Pleistocene, an extensive drainage system of rivers and lakes existed within what is now the Mojave Desert (Hubbs & Miller 1948). The Owens River, Mojave River, Amargosa River, White River and Colorado River, and several large lakes including Owens Lake, Searles Lake, Panamint Lake, Soda Lake, and Lake Ash Meadows, provided a significant dispersal mechanism for many aquatic and semi-aquatic organisms. However, post pluvial desiccation of the region turned lakes into desert playas and rivers into dry, sandy washes. What remains is a landscape scattered with rare and isolated aquatic habitats in the form of seeps and springs, interspersed occasionally by small perennial riverine systems. The exception to this pattern is the Colorado River, which despite its significant alteration by human populations, continues to move a massive volume of water through this desert ecoregion. Other important aquatic systems which presently support perennial flows include the Owens River and two of the Colorado River's immediate tributaries, the Virgin and Muddy Rivers. Watersheds such as the Amargosa River and the Mojave River currently exist as intermittent drainages with hydrologic connectivity varying year to year depending on precipitation events.

Significant aquatic habitats may also be found in higher elevation landscapes. Mountain ranges such as the Spring Mountains and Amargosa Range are well populated with montane spring habitats that flow perennially thanks to cooler, moister conditions found at higher altitudes.

The desert fishes of this ecoregion have on the whole, been well inventoried and studied. Of the 35 fish species and subspecies described in this ecoregion, 63% are globally ranked G1 or G2 while another 28% have global ranks of 3 or higher but are ranked as T1 or T2 at the subspecies level. The list of targets includes some of the planet's rarest species including the Moapa dace (*Moapa coriacea*) and Devils Hole pupfish (*Cyprinodon diabolis*). Other notable species include the Owens pupfish (*Cyprinodon radiosus*), Virgin spinedace (*Lepidomeda mollispinis*), Virgin River chub (*Gila seminuda*), woundfin (*Plagopterus argentissimus*), humpback chub (*Gila cypha*), flannelmouth sucker (*Catostomus latipinnis*), razorback sucker (*Xyrauchen texanus*), and bonytail chub *(Gila elegans*). Finally, the Mojave's isolated aquatic environments have given rise to many rare and imperiled subspecies among species such as Tui chub (G*ila bicolor* ssp.), speckled dace (*Rhinichthys osculus* ssp.), pupfish, (*Cyprinodon nevadensis* ssp. and *Cyprinodon salinus* ssp.) springfish (*Crenichthys baileyi* ssp.), and desert sucker (*Catostomus clarki* ssp.).

Amphibians represent another significant faunal component of aquatic environments in the Mojave Desert. Twenty-one species of frogs, toads and salamanders are targeted in the aquatic portfolio. Of note, the Amargosa toad (*Bufo nelsoni*) and relict leopard frog (*Rana onca*) are both G1 species that are the focus of ongoing conservation efforts in the region. Frog species are tightly associated with springs and seeps, often along the Colorado River, but are also found in higher elevation landscapes such as the Spring Mountains. Salamander occurrences are

closely tied to aquatic environments in montane settings, and are only found in the northwestern parts of the ecoregion.

Table 2A.1 Aquatic Targets

AMPHIBIANS	GLOBAL RANK
Amargosa Toad	G1G2
Arizona Toad	G4T3
Arroyo Toad	G5?T3?
Black Toad	G1
California Red-Legged Frog	G4T2T3
Great Plains Toad	G5
Red Spotted Toad	
Mountain Yellow-Legged Frog	G3
Pacific Tree Frog	G5
Northern Leopard Frog	G5
Great Basin Spadefoot	G5
Pacific Treefrog	G5
Canyon Treefrog	G?
Relict Leopard Frog	G1
Western Toad	G4
Lowland Leopard Frog	G4
FISHES	
Amargosa Canyon Speckled Dace	G5T1
Amargosa Pupfish	G2T1
Ash Meadows Amargosa Pupfish	G2T2
Bonytail	G1
Cottonball Marsh Pupfish	G1T1
Desert Sucker	G3G4
Devils Hole Pupfish	G1
Flannelmouth Sucker	G3G4
Hiko White River Springfish	G2T1
Humpback Chub	G1
Meadow Valley Speckled Dace	G5T2
Meadow Valley Wash Desert Sucker	G4T2
Moapa Dace	G1
Moapa White River Springfish	G2T2
Mohave Tui Chub	G4T1
Nevada Speckled Dace	G5T1
Oasis Valley Speckled Dace	G5T1
Owens Pupfish	G1
Owens Tui Chub	G4T1
Pahranagat Dace	G1Q
Pahranagat Roundtail Chub	G3T1
Pahrump Poolfish	G1T1
Razorback Sucker	G1
Salt Creek Pupfish	G1T1
Saratoga Springs Pupfish	G2T1
Shoshone Pupfish	G2T1
Speckled Dace	G5
Tecopa Pupfish	G2TX
Virgin River Chub	G3
Virgin Spinedace	G1
Warm Springs Amargosa Pupfish	G2T1
White River Desert Sucker	G4T1T2
White River Speckled Dace	G5T1
White River Springfish	G2T1
Woundfin	G1
INSECTS	
Amargosa Naucorid	G1G3T1
Ash Meadows Naucorid	G1
Death Valley Agabus Diving Beetle	G?
Devils Hole Warm Spring Riffle Beetle	G?T1
Furnace Creek Naucorid Bug	G?
Furnace Creek Riffle Beetle	G?
Moapa Riffle Beetle	G?
Moapa Skater/Water Strider	G?
Naucorid Bug	G?
Riffle Beetle	G5
Saratoga Springs Belastoma Bug	G?
Warm Springs Crawling Water Beetle	G?
MOLLUSKS	
Amargosa Tryonia	G3?
Ash Meadows Pebblesnail	G1
Badwater Snail	G1
Blue Point Springsnail	G1
Corn Creek Springsnail	G1
Cottonball Marsh Tryonia	G?
Crystal Spring Springsnail	G1
Deep Springs Fonticella	G?
Desert Springsnail	G2
Distal-Gland Springsnail	G1
Elongate-Gland Springsnail	G1
Fairbanks Springsnail	G1
Grand Wash Springsnail	G1
Grapevine Springs Elongate Tryonia	G?
Grapevine Springs Squat Tryonia	G?
Grated Tryonia	G2
Hubbs Springsnail	G1
Kingman Springsnail	G1
Median-Gland Nevada Springsnail	G1
Minute Tryonia	G1
Moapa Pebblesnail	G1G2
Moapa Turbin Snail	G1
Oasis Valley Springsnail	G3?
Pahranagat Pebblesnail	G1
Point Of Rocks Tryonia	G1
Robust Tryonia	G?
Southeast Nevada Springsnail	G2
Sportinggoods Tryonia	G1
Spring Mountains Springsnail	G1
Wong's Springsnail	G1G2
HABITAT TYPES	
Aquatic Habitat	
Perennial Stream	
Springs	
Vernal Pool Habitat	

As in the case of desert fishes, the isolated and sometimes harsh aquatic environments of the Mojave have resulted in the evolution of many unique snail species. The Mojave has no less than 20 different species of the genus *Pyrgulopsis* and often, an entire species is restricted to just one or two isolated spring locations. Ten different species of the snail genus *Tryonia* are also known to occur in the Mojave. Of the 34 mollusk species currently described in the Mojave, 32 (94%) are globally ranked as G1 or G2.

Conservation Issues

- The process of desiccation and subsequent isolation of once well-dispersed aquatic fauna has created an ecoregion with an unsurpassed degree of endemism among its aquatic taxa. This isolation has also made aquatic biodiversity in the Mojave extremely vulnerable to extirpation.

- Often times, conserving aquatic species in the Mojave does not come with the luxury of choice among several sites. Instead, the ecoregion is, to a large degree, made up of one and only occurrences and many of these may be of questionable viability; threatened more frequently by impending water withdrawal and development. Nonetheless, these locations may remain the only option for conserving the species in question, and the only alternative to extinction may be restoration.

- Hampering efforts at developing an aquatic classification system is the absence of comprehensive data on springs and seeps ecoregion wide. The small size of springs and seeps often eludes detection via remote sensing, so even properly locating spring sources in the Mojave is a challenge. Inventory work on spring snails has provided a starting point for characterizing these small aquatic environments, but it is estimated that the vast majority of springs and seeps in the Mojave and the invertebrates that inhabit them, are yet to be described (Hershler 1998).

- Taxonomic questions regarding fishes and spring snails in the Mojave continue to generate debate among experts. Recent inventories and species descriptions of spring snails (genus *Pyrgulopsis*), rely heavily on morphological criteria and have yet to be subjected to genetic analyses (Hershler 1998). In the case of desert fishes, the target list will continue to fluctuate in length as distinctions between fish populations are examined and refined for species such as speckled dace, Virgin River chub, and tui chub.

Threats

- Declines and even extinction of several western fishes have been correlated with introductions of non-native fish species). These introductions result in habitat, trophic, and spatial alterations of aquatic environments for which native fishes of the Mojave have little tolerance (Deacon *et al*. 1964, Deacon and Hubbs 1964, Courtenay and Stauffer 1984). Sources of exotic fish include intentional planting of game fish, transport of baitfish and dumping of aquaria species. Additionally, exotic invertebrates, in particular crayfish, pose a significant threat to many of the Mojave's fish and invertebrate fauna.

- The explosive growth of the human population in the Mojave places heavy demands on the region's water supply. In addition to withdrawals from the Colorado River, increasingly, local and regional aquifers are being staked out and prepared for pumping. Tapping regional aquifers will seriously threaten the instream flows of riverine systems and spring outflows throughout the ecoregion.

- Historic development of springheads and streams has already destroyed much of

the critical aquatic habitat in the Mojave, turning natural pools and creek beds into concrete wells and ditches. Meanwhile, those habitats that remain intact are under increasing risk of conversion in the face of urban and recreational development pressures as noted above.

Goals

The following target species goals determined the portfolio selection process: capture all G1 and G2 species occurences, 75% of endemic G3 species occurrences, and 50% of target G3-G5 (non-endemic) occurrences. In the absence of fine filter aquatic targets in some subregions, the category 'springs' was used as a course filter ecosystem target, in which case, a minimum of six occurrences per subregion were sought.

Site identification

Heritage data for all four states proved robust for the purposes of archiving known occurrences of aquatic vertebrates in the Mojave. Information regarding newly identified occurrences, recently extirpated populations, and the viability of known occurrences was gathered during the expert interview process. Unfortunately, remotely sensed and/or digital spatial information depicting spring sites and wetlands varied substantially in quality across the ecoregion, and rarely provided enough information to make informed decisions about the viability of spring habitats. Consequently, data on important spring areas came exclusively from expert opinion.

Site Selection

Assembling an efficient portfolio of aquatic sites in the Mojave Desert was complicated by the extremely isolated nature of this ecoregion's aquatic habitats, and the associated rarity and endemism among the aquatic species that use them. Sites were first and foremost selected based on their outstanding or unique aquatic attributes as characterized by experts and other data sources. In many cases, this process was driven by the presence of a G1 species that was known to only occur at a single location. In fact, meeting the 100% capture goal for G1 and G2 species populated most of the rest of the portfolio since the majority of aquatic targets are ranked as such. Where significant, viable aquatic resources did not coincide with species rarity, land class was used to determine suitability of a site for the portfolio. Specifically, sites where the aquatic habitat was situated greater than 90% within class I or class II lands were included in the portfolio.

Results

In the process of meeting the goal of capturing all G1 and G2 species' occurrences, nearly all the remaining native habitats for fish and mollusk targets in the Mojave were identified as portfolio sites. A total of 112 aquatic portfolio sites were selected for the ecoregion (See Table 2A.2). Many of these sites represent small, isolated springs that are embedded in larger landscapes, either along intermittent riparian corridors or as part of larger montane habitats such as the Spring Mountains.

By far, the eastern subregion contained the most robust selection of aquatic sites including the Colorado River and its two major tributaries, the Muddy and Virgin Rivers. These rivers constitute the Mojave's only significant perennial and continuous riverine systems, and collectively they support an incredibly rich and diverse suite of aquatic fauna. The Pahranagat River, Santa Clara River, Beaver Dam Wash and Meadow Valley Wash also contain important aquatic sites embedded throughout their drainage areas. A number of sites are also located in higher elevation landscapes, particularly within the Spring Mountain Range.
Sites in the northern subregion captured the intermittent flows of the Amargosa River,

which arguably supports the most impressive suite of endemic, isolated and imperiled aquatic species in the world. The system includes Oasis Valley, Ash Meadows, China Ranch, Saratoga Springs, and Cottonball Marsh. Farther west, important aquatic sites were found in the Owens River Valley and other smaller streams and outflows descending out of the Eastern Sierra Ecoregion.

Aquatic sites in the southeastern subregion were associated primarily with the Lower Colorado River including Big Bend, Topoc Marsh/Gorge, and Lake Havasu. The central, western and south-central subregions had very few aquatic locations to choose from. Aquatic sites were essentially restricted to small perennial pockets of the Mojave River and isolated springs and oases scattered amongst the landscape. The western and south-central regions also contained aquatic sites that extended out of the San Bernardino Mountains of California's South Coast ecoregion.

Table 2A.2 Aquatic Portfolio Sites

SITE	BIOLOGICAL ATTRIBUTES * Denotes very good occurrence ** Denotes outstanding occurrence	COMMENTS/OTHER ATTRIBUTES
Northern Mojave		
Amargosa Canyon - China Ranch Wash	• Amargosa Pupfish G2T1 * • Amargosa Canyon Speckled Dace * • Aquatic Invertebrates	➢ Area of high biodiversity
Amargosa River - Grimshaw Lake	• Amargosa Toad (?) G1G2 • Shoshone Pupfish G2T1 * • Tecopa Pupfish G2TX • Amargosa Pupfish G2T1 • Nevada Speckled Dace • Naucorid Bug	➢ Area of high biodiversity ➢ Amargosa toad not confirmed at this site
Amargosa River - Shoshone	• Amargosa Toad (?) G1G2 • Amargosa Pupfish G2T1 • Shoshone Pupfish G2T1 * • Nevada Speckled Dace • Tecopa Pupfish G2TX • Naucorid Bug • Aquatic Invertebrates	➢ Area of high biodiversity ➢ Amargosa toad not confirmed at this site
Argus Range	• Pacific Tree Frog	
Argus Range – Mountain Springs Canyon	• Springs ** • Salamander Habitat	
Ash Meadows	• Pacific Tree Frog • Ash Meadows Amargosa Pupfish G2T2 • Nevada Speckled Dace * • Devils Hole Pupfish G1 * • Devils Hole Warm Spring Riffle Beetle • Ash Meadows Naucorid G1 • Amargosa Naucorid G1G3T1 • Median-Gland Nevada Springsnail G1 • Sportinggoods Tryonia G1 • Point Of Rocks Tryonia G1 • Minute Tryonia G1 • Amargosa Tryonia • Oasis Valley Springsnail • Elongate-Gland Springsnail G1 • Fairbanks Springsnail G1 • Ash Meadows Pebblesnail G1 • Crystal Spring Springsnail G1 • Distal-Gland Springsnail G1 • Amargosa Tryonia	➢ One of the most unique and rare centers of aquatic biodiversity in the world
Bad Water Spring	• Springs • Bad Water Spring G1	➢ Lowest elevation in Death Valley ➢ Protected area
Cane Spring	• Southeast Nevada Springsnail G2	

Table 2A.2 Aquatic Portfolio Sites

SITE	BIOLOGICAL ATTRIBUTES * Denotes very good occurrence ** Denotes outstanding occurrence	COMMENTS/OTHER ATTRIBUTES
Centennial Canyon	• Springs **	
Chloride Cliff	• Badwater Snail G1 *	➢ Protected area
Cottonball Marsh	• Cottonball Marsh Pupfish G1T1 ** • Cottonball Marsh Tryonia * • Badwater Snail G1	➢ Protected area
Darwin Falls	• Springs * • Red Spotted Toad • Western Toad	➢ Protected area
Devil's Cornfield	• Salt Creek Pupfish G1T1 *	➢ Protected area – in Death Valley
Grapevine Spring-DT	• Springs ** • Pacific Tree Frog * • Red Spotted Toad • Badwater Snail G1 • Grapevine Springs Squat Tryonia • Grapevine Springs Elongate Tryonia • Oasis Valley Springsnail	➢ Possibly the highest quality spring complex in the Mojave ➢ Protected area
Haiwee Springs	• Springs * • Western Toad • Salamander Habitat	
Hall Canyon	• Springs **	➢ Protected area
Hogback Creek	• Wong's Springsnail G1G2	
Hunter Mountain	• Springs *	➢ Protected area
Jail Canyon	• Springs **	➢ Protected area
Lubkin Creek	• Wong's Springsnail G1G2	
Nevares Spring	• Badwater Snail	
NW Saratoga Springs	• Amargosa Pupfish	➢ Protected area
Oasis Valley	• Amargosa Toad G1G2 * • Pacific Tree Frog • Oasis Valley Speckled Dace • Oasis Valley Springsnail	➢ Only confirmed location for the Amargosa toad
Owens Lake	• Owens Pupfish G1 • Owens Tui Chub • Wong's Springsnail G1G2	
Owens Valley	• Springs • Owens Pupfish G1 • Owens Tui Chub * • Wong's Springsnail G1G2 *	
Panamint Canyons	• Salamander Habitat	➢ Protected area
Panamint North Playa	• Fairy Shrimp	➢ Protected area
Rose Valley	• Wong's Springsnail G1G2	➢ Transition to Great Basin
Saline Valley	• Springs • Black Toad *Bufo exsul* G1	➢ Good condition ➢ Remote location ➢ Protected area
Telescope Peak	• Salamander Habitat	➢ Protected area

Table 2A.2 Aquatic Portfolio Sites

SITE	BIOLOGICAL ATTRIBUTES * Denotes very good occurrence ** Denotes outstanding occurrence	COMMENTS/OTHER ATTRIBUTES
Travertine Springs	• Springs • Badwater Snail G1	➢ Protected area
Tule Spring	• Springs **	
Tuttle Creek	• Wong's Springsnail G1G2	
South-Central Mojave		
Mojave River	• California Red-Legged Frog • Arroyo Toad	
Mojave River - Forks	• Arroyo Toad • California Red-Legged Frog	
Pipes Canyon	• Perennial Stream	➢ One of the only perennial linear aquatic habitats in subregion
Rabbitsprings	• Springs **	➢ Good spring habitat in otherwise arid landscape
Southeastern Mojave		
Big Bend / Soto Ranch	• Bonytail G1 • Razorback Sucker G1	
Chemehuevi Mts	• Great Plains Toad • Great Basin Spadefoot	➢ Protected Area
Drippings Spring	• Springs	➢ Protected Area
Lake Havasu	• Razorback Sucker G1 • Bonytail G1	
Lake Havasu Shores	• Bonytail G1 • Razorback Sucker G1	
Old Woman Mtn	• Springs	➢ Protected Area
Topock Gorge	• Razorback Sucker G1 • Bonytail G1	➢ Protected Area
Topock Marsh	• Pacific Tree Frog • Razorback Sucker G1 • Bonytail G1	
Western Mojave		
China Lake Basin	• Vernal Pool Habitat • Mohave Tui Chub • Fairy Shrimp	
Leona Valley	• California Red-Legged Frog • Frog Habitat	
Mojave River - Forks	• Arroyo Toad • California Red-Legged Frog	
Oak Creek & Cameron Canyons	• Springs **	
Red Rock Canyon	• Springs **	

Table 2A.2 Aquatic Portfolio Sites

SITE	BIOLOGICAL ATTRIBUTES *Denotes very good occurrence **Denotes outstanding occurrence	COMMENTS/OTHER ATTRIBUTES
Rogers/Rosamond Dry Lakes	• Vernal Pool Habitat • Frog Habitat • Fairy Shrimp	➢ "Top aquatic site in the ecoregion" - Sanders
Central Mojave		
Afton Canyon	• Arroyo Toad • Mohave Tui Chub	
Bitter Spring	• Springs *	➢ Good spring habitat in otherwise arid landscape
Camp Cady	• Mohave Tui Chub	
Granite Mtn. - Ft. Irwin	• Springs *	➢ Good spring habitat in otherwise arid landscape
Hellwind Canyon	• Springs *	➢ Good spring habitat in otherwise arid landscape
Leach Spring	• Aquatic Flora • Springs *	➢ Good spring habitat in otherwise arid landscape
Two Springs	• Aquatic Flora • Springs	➢ Good spring habitat in otherwise arid landscape
Zyzzyx	• Mohave Tui Chub • Saratoga Springs Pupfish G2T1	➢ Protected area
Eastern Mojave		
Arizona Bay	• Razorback Sucker G1 • Southwestern River Otter	
Ash Springs	• White River Speckled Dace • White River Springfish G2T1 • Pahranagat Roundtail Chub • Riffle Beetle • Pahranagat Pebblesnail G1 • Grated Tryonia	
Beaver Dam Wash	• Virgin Spinedace G1 • Desert Sucker	
Beck Spring	• Springs	
Black Canyon	• Springs • Relict Leopard Frog G1 • Devils Hole Pupfish G1 • Razorback Sucker G1	➢ Protected area
Blue Point Spring	• Relict Leopard Frog G1 • Blue Point Springsnail G1	➢ Protected area
Burns Spring Canyon	• Kingman Springsnail G1	➢ Protected area
Calico Spring	• Pacific Tree Frog	
Cold Creek Springs	• Southeast Nevada Springsnail G2	
Corn Creek	• Pahrump Poolfish G1T1 • Corn Creek Springsnail G1	➢ Refugium population of Pahrump poolfish – native habitat extirp'd
Corral Spring	• Relict Leopard Frog G1	➢ Protected area
Crystal Spring	• White River Speckled Dace • White River Desert Sucker • Hubbs Springsnail G1	

Table 2A.2 Aquatic Portfolio Sites

SITE	BIOLOGICAL ATTRIBUTES *Denotes very good occurrence **Denotes outstanding occurrence	COMMENTS/OTHER ATTRIBUTES
Deacon/Brownie Springs	• White River Speckled Dace	
Echo Bay	• Razorback Sucker G1 *	➢ Protected area
Hiko Spring-Pahranagat	• Hiko White River Springfish G2T1 • Hubbs Springsnail G1	
Hiko Springs	• Red Spotted Toad • Western Toad	
Horseshutem Springs	• Southeast Nevada Springsnail G2	
Kiup Spring	• Spring Mountains Springsnail G1	
La Madre Spring	• Pacific Tree Frog • Southeast Nevada Springsnail G2	➢ Protected area
Lake Mojave	• Razorback Sucker G1 • Bonytail G1	
Las Vegas Bay	• Razorback Sucker G1 *	➢ Protected area
Littlefield	• Lowland Leopard Frog • Flannelmouth Sucker • Virgin River Chub • Virgin Spinedace G1 • Woundfin G1 • Desert Sucker	
Lone Grapevine Spring	• Pacific Tree Frog	➢ Protected area
Lower Muddy River	• Virgin River Chub	
Lower Virgin River	• Southwestern Otter	
Lytle Ranch	• Desert Sucker • Virgin Spinedace G1	
Meadow Valley Wash	• Meadow Valley Speckled Dace * • Meadow Valley Wash Desert Sucker	
Middle Springs	• Pacific Tree Frog • Grand Wash Springsnail G1 *	
Middle Virgin River	• Relict Leopard Frog G1 • Flannelmouth Sucker • Virgin River Chub • Woundfin G1	
Mormon Green Springs	• Pacific Tree Frog	➢ Protected area
Mormon Well	• Aquatic Habitat • Virgin Spinedace G1	
Pahranagat Valley	• Perennial Stream • Springs • Western Toad • Great Plains Toad • Northern Leopard Frog • Hiko White River Springfish G2T1* • Pahranagat Roundtail Chub * • White River Desert Sucker • White River Springfish G2T1 • White River Speckled Dace * • Pahranagat Dace G1Q • Riffle Beetle	

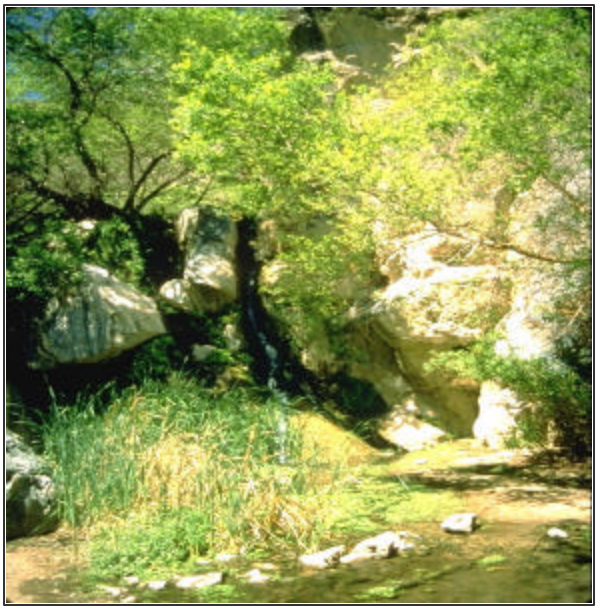
Table 2A.2 Aquatic Portfolio Sites

SITE	BIOLOGICAL ATTRIBUTES *Denotes very good occurrence **Denotes outstanding occurrence	COMMENTS/OTHER ATTRIBUTES
	• Grated Tryonia G2 • Pahranagat Pebblesnail G1	
Pedretti Seeps	• White River Speckled Dace	
Pine Creek Spring	• Pacific Tree Frog	➢ Protected area
Piute Gorge	• Springs ** • Mohave Tui Chub	➢ Protected area
Rainbow Canyon	• Arizona Toad ** • Meadow Valley Wash Desert Sucker ** • Meadow Valley Speckled Dace *	
Rainbow Spring	• Red Spotted Toad • Pacific Tree Frog	➢ Protected area
Red Spring - SM	• Spring Mountains Springsnail G1	
Rogers Spring	• Relict Leopard Frog G1	➢ Protected area
Salt Creek	• Perennial Stream * • Springs * • Amargosa Pupfish G2T1 • Amargosa Canyon Speckled Dace	➢ Historic Site-First Gold Mine In California
Santa Clara River	• Arizona Toad • Red Spotted Toad • Speckled Dace * • Virgin Spinedace G1 * • Desert Sucker * • Flannelmouth Sucker *	
Saratoga Springs	• Springs * • Pacific Tree Frog * • Saratoga Springs Pupfish G2T1 **	➢ Protected area
Tassi/Seven Springs	• Grand Wash Springsnail G1	
Tule Spring	• Springs **	
Upper And Lower Pahranagat Lakes	• Pahranagat Dace G1Q	➢ Protected area
Upper Muddy River	• Springs • Moapa White River Springfish G2T2 ** • Moapa Dace G1 ** • Woundfin G1 • Virgin River Chub ** • Naucorid Bug • Riffle Beetle • Warm Springs Crawling Water Beetle • Grated Tryonia G2 • Moapa Turbin Snail G1 • Moapa Pebblesnail G1G2	
Upper Virgin River	• Virgin River Chub • Desert Sucker	
Virgin River Channel	• Aquatic Habitat • Canyon Treefrog	➢ Red-Shiner Eradication Area

Table 2A.2 Aquatic Portfolio Sites

SITE	BIOLOGICAL ATTRIBUTES *Denotes very good occurrence **Denotes outstanding occurrence	COMMENTS/OTHER ATTRIBUTES
Virgin River Channel (cont.)	• Red Spotted Toad • Speckled Dace • Woundfin G1 * • Virgin Spinedace G1 • Desert Sucker • Virgin River Chub *	
Virgin River Gorge	• Arizona Toad • Desert Sucker • Mohave Tui Chub • Flannelmouth Sucker	
Willow Creek - SM	• Pacific Tree Frog • Southeast Nevada Springsnail G2	
Willow Spring - SM	• Spring Mountains Springsnail G1 • Southeast Nevada Springsnail G2	➢ Protected Area

B. RIPARIAN WETLAND



Description

Riparian areas are landscapes directly influenced by permanent water; bordering rivers, streams, and other aquatic features such as lakes, springs, or seeps. Pluvial desiccation has left the Mojave Desert with narrow, isolated riparian corridors and patches. Considerable variation exists among these habitats in regards to water availability and quality, elevation, climate, soil, and topography. What these wetland areas share in common however is that they create a well-defined zone within a much drier ecosystem which supports a uniquely diverse array of fauna and flora.

In the Mojave, riparian vegetation can be generally classified as woodland, shrubland, or marsh and seep. Dominant woodland species include Fremont cottonwood (*Populus fremontii)*, velvet ash (*Fraxinus velutina*), and willow (*Salix* sp.). Marsh and seep are characterized by reeds, rushes and cattails (*Phragmites* sp., *Juncus* sp., *Scirpus* sp., and *Typha* sp.) and alkalai sacaton (*Sporobolus airoides*). Shrubland species include quailbush (*Atriplex lentiformis*), and peripherally, western water birch (*Betula occidentalis*). California fan palm oases are also found, though peripherally, in the Mojave Desert. These woodlands are dominated by *Washingtonia filifera* and are located in the southwestern parts of the ecoregion (See Table 2B.1).

Table 2B.1 Riparian Wetland Community Targets

TARGET COMMUNITIES	PATCH TYPE	DISTRI-BUTION	GOAL
Alkali Marsh	Small Patch	Widespread	40%
Alkali Meadow / Seep	Large Patch	Widespread	50%
California Fan Palm Oasis	Small Patch	Peripheral	10%
Interior Riparian Forest And Woodland	Small Patch	Limited	50%
Interior Riparian Marsh And Seep	Small Patch	Widespread	40%
Interior Riparian Shrubland	Small Patch	Limited	50%
Mesquite Bosque	Small Patch	Limited	50%
Mixed Cottonwood-Willow Riparian Woodland	Linear	Limited	50%
Water Birch Riparian Scrub	Linear	Limited	50%

Riparian environments in the Mojave provide critical habitat for numerous bird species including Southwestern Willow Flycather, Western Yellow-Billed Cuckoo, Bell's Vireo, and Yuma Clapper Rail. The Mojave Desert is also an important stopover habitat for numerous neotropical migratory bird species as well as waterfowl and shore birds.

Other important taxa that depend on riparian habitats include amphibians, voles (*Microtus* sp.), reptiles, including the San Diego horned lizard, Panamint alligator lizard and southwestern pond turtle, and numerous plant species, such as alkali mariposa lily (*Calochortus striatus*). (See Table 2B.2)

Table 2B.2 Riparian Wetland Targets

BIRDS	GLOBAL RANK
Shorebird Habitat	
Waterfowl Habitat	
Neotropical Migratory Bird Habitat	
Abert's Towhee	G3G4
Arizona Bell's Vireo	G5T1
Blue Grosbeak	G5
Brown-Crested Flycatcher	G5
California Black Rail	G4T1
Costa's Hummingbird	G5
Inyo California Towhee	G4G5T1
Lawrence's Goldfinch	G4G5
Lucy's Warbler	G5
Southwestern Willow Flycatcher	G5T2
Summer Tanager	G5
Vermilion Flycatcher	G5
Western Least Bittern	G5T1
Western Yellow-Billed Cuckoo	G5T2T3
Yellow Warbler	G5T2
Yellow-Breasted Chat	G5
Yuma Clapper Rail	G5T3
AMPHIBIANS	
Amphibian Habitat	
Salamander Habitat	
Amargosa Toad	G1G2
Arizona Toad	G4T3
Arroyo Toad	G5?T3?
Black Toad	G1
California Red-Legged Frog	G4T2T3
Great Basin Spadefoot	G5
Mountain Yellow-Legged Frog	G3
Northern Leopard Frog	G5
Pacific Tree Frog	G5
Red Spotted Toad	
Relict Leopard Frog	G1
Western Toad	G4
MAMMALS	
Amargosa Vole	G5T1
Mohave River Vole	G5T1
Owens Valley Vole	G5T1
Pahranagat Valley Montane Vole	G5T1
Southwestern Otter	G5T1
Virgin River Montane Vole	G5T2?Q
REPTILES	
Panamint Alligator Lizard	G1G2
San Diego Horned Lizard	G4T3T4
Southwestern Pond Turtle	G4T2T3
PLANTS	
Calochortus striatus	G2

Conservation Issues

- Riparian habitats play an important role in the health and function of aquatic ecosystems. Riparian zones are critical to regulating temperature, energy inputs, water chemistry, and flow regimes of aquatic systems.

- Cover and foraging habitat supplied by riparian areas provide migratory corridors for many species that move through the otherwise exposed and arid landscape of the Mojave Desert. Activities that degrade or destroy linear riparian zones, even in cases where only a small portion of the corridor is affected, threaten to sever critical ecological linkages.

- In addition to providing critical stop over points for migratory bird species, riparian zones in the Mojave Desert contain essential foraging and nesting habitats for listed or declining species such as Southwest Willow Flycatcher, Bell's Vireo, and Yellow-Billed Cuckoo. While several of the target bird species are considered widespread, the loss of riparian habitat could result in precipitous population declines rangewide.

Threats

- By definition, riparian vegetation depends on the availability of perennial water, both surface and subsurface. Pumping from surface water sources, as well as from regional and local aquifers, will result in significant habitat loss for this system.

- Historic development of springheads and channelization of streambeds has already severely altered much of the riparian habitat in the Mojave Desert. Meanwhile, those habitats that remain intact are under increasing risk of conversion in the face of rapidly increasing urban and recreational development pressures

- Inappropriate livestock grazing practices combined with trampling and grazing pressures from feral ungulates such as wild horses and burros, continues to severely degrade vegetation and soil stability along riparian zones.

- The combination of soil erosion and soil compaction along stream banks and pool edges caused by off road vehicular traffic can significantly impair vegetation growth in riparian areas. Even when seemingly localized, such impacts may sever important connectivity along migration corridors.

- One of the most prolific threats to riparian areas of the southwest is the spread of alien invasive species such as tamarisk (*Tamarix ramosissima*). The Mojave Desert is no exception with tamarisk invading riparian areas, particularly in the wake of disturbance. Resultant negative impacts include the displacement of native vegetation, reduced biodiversity, stream bank armoring (which impedes the natural process of steam meandering), and loss of instream water through increased rates of evapo-transpiration.

Goals

Most community types were considered small patch, and with the exception of Interior Marsh and Seep, categorized as 'Limited' to this ecoregion. Percentage goals for these patch size and distribution types are listed in Table 2B.1. The small and linear nature of riparian communities prevented the accurate characterization of aerial extent based on GAP coverage. Accordingly, goals were pursued based on the number of community occurrences.

Goals for individual species targets were based largely on distribution and global rank as follows: capture all G1 and G2 species occurrences, 75% of endemic G3 species occurrences, and 50% of target G3-G5 (non-endemic) occurrences.

Site Identification

Important riparian areas were easily identified by experts who have come to know these sites as critical habitat for flora and fauna of the Mojave Desert. Data collected during the interview process was usually well supported by Heritage Program information and data from other planning efforts such as the West Mojave Plan and the Clark County MSHCP. GAP identified riparian areas were not relied upon for the purpose of locating riparian sites due to inconsistencies in vegetation mapping and classification. Further, many riparian areas of interest were simply too small to be identified by the GAP mapping process.

Site Selection

There is a clear functional linkage between aquatic and riparian habitats and it is shortsighted, if not impossible to conserve one system type and not the other. Recognizing this fact, riparian sites were selected only after the aquatics portfolio had been assembled and potential riparian sites that coexisted with already selected aquatic sites were automatically placed into the riparian portfolio. In addition, sites that contained exceptional or unique riparian target occurrences were brought into the portfolio. Finally, sites where riparian habitats were found to be 90% or greater overlapping with already protected lands were included. In most cases this selection process guaranteed that subregional representation was achieved and that goals were met. Where needed, other sites were brought into the portfolio on a case by case basis, preference being given to sites with the highest percentage of protected area.

Results

A total of 146 riparian sites were identified for inclusion in the portfolio (See Table 2B.3). Over half (76) of these sites had already been

selected as Aquatic portfolio sites. Thirty-two percent (46 of the 146 sites) were predominantly located on protected lands (e.g. at least 90% of the site was on Class I or II land.) It is also worth noting that 40% of the riparian sites selected had *no* private land component and that only 9% could be characterized as predominantly private (containing over 90% private lands).

As expected, the distribution of riparian sites in the ecoregion reflected a pattern similar to that found in the aquatic portfolio. In addition to significant riparian resources associated with the Colorado River and Lake Mead, the eastern subregion supported several important linear riparian sites including the Muddy River, Virgin River, Santa Clara River, Pahranagat Valley, Beaver Dam Wash and Meadow Valley Wash. The Spring Mountains also contained numerous riparian sites associated with montane springs and seeps.

The southeastern subregion's riparian sites were grouped along the Colorado River at locations such as Topoc Marsh and Lake Havasu. Some small but critical canyons in the southern Black Mountains were also identified.

Important riparian habitats selected in the northern subregion were associated with the Amargosa drainage, including Oasis Valley, China Ranch, Grimshaw Lake, Shoshone, Saratoga, and Cottonball Marsh. Also contributing to riparian richness of the subregion were numerous higher elevation canyons found in montane settings such as the Panamint Range, Argus Range, and Cottonwood Mountains.

The extremely arid nature of the western side of the ecoregion limited both the size and number of riparian habitats. In the Central Mojave, a few isolated but perennial flowing segments of the Mojave River combined with a handful of seeps and springs to make up the portfolio in this subregion. In the western subregion and south-central subregion, drainage from the San Bernardino Mountains supported the majority of sites including stretches of the Mojave River. In the west, of particular importance was the Rogers/ Rosamond Dry Lakes site that supports critical and expansive wetland habitat for shorebirds, neotropical migrants, waterfowl and amphibians. Also of note were the native California fan palm oases sites of the south-central subregion found in the Twentynine Palms area.

Table 2B.3 Riparian Wetland Portfolio Sites

SITE	BIOLOGICAL ATTRIBUTES *Denotes very good occurrence **Denotes outstanding occurrence	COMMENTS/OTHER ATTRIBUTES
Central Mojave		
Afton Canyon	• Mixed Cottonwood – Willow Riparian Woodland • Interior Riparian Marsh and Seep ** • Montane Riparian Scrub • Arroyo Toad • Southwestern Willow Flycatcher * • Summer Tanager • Yuma Clapper Rail • Southwestern Pond Turtle	➢ Aquatic portfolio site ➢ Largest and most intact riparian area in central Mojave
Bitter Spring	• Mesquite Bosque-Riparian Wdlnd **	➢ Aquatic portfolio site
Cady Mts	• Neotropical Migratory Bird Habitat *	➢ Protected area
Camp Cady	• Mesquite Bosque-Riparian Wdlnd * • Interior Riparian Forest And Woodland • Mixed Cottonwood-Willow Riparian Woodland • Riparian Bird Habitat * • Montane Riparian Scrub • Summer Tanager • Neotropical Migratory Bird Habitat • Western Yellow-Billed Cuckoo • Southwestern Willow Flycatcher • Lucy's Warbler • Southwestern Pond Turtle	➢ Aquatic portfolio site ➢ Protected area
Cronese Basin	• Mesquite Bosque • Migratory Bird Habitat **	➢ Area of high biological diversity ➢ Protected area
Hellwind Canyon	• Mesquite Bosque-Riparian Woodland • Mixed Cottonwood-Willow Riparian Woodland **	➢ Aquatic portfolio site
Paradise Spring	• *Calochortus striatus* G2 **	
Eastern Mojave		
Arizona Bay	• Mixed Cottonwood-Willow Riparian Woodland • Southwestern River Otter	➢ Aquatic portfolio site
Beaver Dam Wash	• Mixed Cottonwood-Willow Riparian Woodland • Interior Riparian Forest & Woodland • Blue Grosbeak • Riparian Bird Habitat *	➢ Aquatic portfolio site
Black Canyon	• Mixed Cottonwood-Willow Riparian Woodland • Relict Leopard Frog G1	➢ Aquatic portfolio site ➢ Protected area – Lake Mead NRA
Blue Point Spring	• Relict Leopard Frog G1	➢ Aquatic portfolio site
Bull Canyon	• Mixed Cottonwood-Willow Riparian Woodland	➢ At Granite Mountains, most consistently perennial stream in Mojave Preserve ➢ Protected area
		➢

Table 2B.3 Riparian Wetland Portfolio Sites

SITE	BIOLOGICAL ATTRIBUTES *Denotes very good occurrence **Denotes outstanding occurrence	COMMENTS/OTHER ATTRIBUTES
Burns Spring Canyon	• Interior Riparian Forest and Woodland • Interior Riparian Marsh and Seep • Interior Riparian Shrubland	➢ Aquatic portfolio site
Calico Spring	• Pacific Tree Frog	➢ Aquatic portfolio site
Corn Creek	• Mesquite Bosque/Riparian Woodland • Mesquite Bosque • Costa's Hummingbird • Summer Tanager • Abert's Towhee • Blue Grosbeak • Migratory Bird Habitat	➢ Aquatic portfolio site
Corral Spring	• Relict Leopard Frog G1	➢ Aquatic portfolio site ➢ Protected Area
Cove Spring	• Mixed Cottonwood-Willow Riparian Woodland **	
Fire Mountain	• Mixed Cottonwood-Willow Riparian Woodland	➢ Protected area
Fort Pierce	• Riparian Habitat	
Granite Cove	• Mixed Cottonwood-Willow Riparian Woodland	➢ Protected area
Grapevine/Sacaton Canyon	• Mixed Cottonwood-Willow Riparian Woodland • Abert's Towhee	➢ Protected area
Hiko Springs	• Interior Riparian Forest & Woodland ** • Western Toad • Red Spotted Toad	➢ Large and important riparian area in biologically rich Newberry Mts ➢ Aquatic portfolio site
Horse Thief Canyon	• Mixed Cottonwood-Willow Riparian Woodland *	➢ Protected area
Kingman Wash	• Mixed Cottonwood-Willow Riparian Woodland	➢ Protected area
La Madre Spring	• Pacific Tree Frog	➢ Aquatic portfolio site ➢ Protected Site
Lake Mojave	• Mixed Cottonwood-Willow Riparian Woodland	➢ Aquatic portfolio site
Littlefield	• Interior Riparian Forest And Woodland * • Mixed Cottonwood-Willow Riparian Woodland • Interior Riparian Shrubland * • Southwestern Willow Flycatcher	➢ Aquatic portfolio site
Lone Grapevine Spring	• Pacific Tree Frog	➢ Aquatic portfolio site ➢ Protected area
Lower Granite Gorge	• Southwestern Willow Flycatcher	➢ Protected area
Lower Meadow Valley Wash	• Mesquite Bosque-Riparian Woodland	
Lower Muddy River	• Mixed Cottonwood-Willow Riparian Woodland • Western Least Bittern	➢ Aquatic portfolio site
		➢

Table 2B.3 Riparian Wetland Portfolio Sites

SITE	BIOLOGICAL ATTRIBUTES *Denotes very good occurrence **Denotes outstanding occurrence	COMMENTS/OTHER ATTRIBUTES
Lower Virgin River	• Interior Riparian Forest & Woodland * • Mixed Cottonwood-Willow Riparian Woodland • Interior Riparian Marsh And Seep • Interior Riparian Shrubland • Western Yellow-Billed Cuckoo • Lucy's Warbler • Arizona Bell's Vireo * • Southwestern Willow Flycatcher • Abert's Towhee • Yellow Warbler * • Yellow-Breasted Chat • Blue Grosbeak • Southwestern Otter	➢ Aquatic portfolio site ➢ Large, functionally intact linear riparian corridor, critical nesting area and foraging site for birds and other wildlife
Lytle Ranch	• Interior Riparian Forest & Woodland * • Costa's Hummingbird * • Arizona Bell's Vireo *	➢ Aquatic portfolio site ➢ Excellent riparian bird habitat
Meadow Valley Wash	• Mixed Cottonwood-Willow Riparian Woodland	➢ Aquatic portfolio site ➢ One of the Mojave's longest contiguous riparian zones ➢ Important wildlife corridor
Middle Springs	• Pacific Tree Frog	➢ Aquatic portfolio site
Middle Virgin River	• Mixed Cottonwood-Willow Riparian Woodland • Relict Leopard Frog G1 • Blue Grosbeak * • Costa's Hummingbird * • Southwestern Willow Flycatcher	➢ Aquatic portfolio site ➢ Large, functionally intact linear riparian corridor, critical nesting area and foraging site for birds and other wildlife
Mormon Green Springs	• Pacific Tree Frog	➢ Aquatic portfolio site ➢ Protected area
Overton Wildlife Management Area	• Mixed Cottonwood-Willow Riparian Woodland • Lucy's Warbler • Southwestern Willow Flycatcher	➢ Protected area

Table 2B.3 Riparian Wetland Portfolio Sites

SITE	BIOLOGICAL ATTRIBUTES *Denotes very good occurrence **Denotes outstanding occurrence	COMMENTS/OTHER ATTRIBUTES
Pachalca Springs	• Riparian Habitat ** • Springs **	➢ Protected area ➢ Very large riparian area ➢ High faunal richness ➢ High quality
Pahranagat Valley	• Mixed Cottonwood-Willow Riparian Woodland • Interior Riparian Marsh And Seep • Interior Riparian Shrubland • Northern Leopard Frog • Western Toad • Southwestern Willow Flycatcher * • Western Yellow-Billed Cuckoo • Blue Grosbeak • Yellow-Breasted Chat • Summer Tanager • Yellow Warbler • Pahranagat Valley Montane Vole	➢ Aquatic portfolio site ➢ Riparian corridor of significant length and regional importance to numerous Mojave desert faunal species ➢ Important migratory bird and waterfowl stopover
Pierce Ferry Delta	• Mixed Cottonwood-Willow Riparian Woodland • Southwestern Willow Flycatcher	➢ Protected area
Piute Gorge	• Interior Riparian Forest & Woodland • Mixed Cottonwood-Willow Riparian Woodland • Riparian Bird Habitat ** • Arizona Bell's Vireo	➢ One of a kind oasis ➢ Protected area ➢ Aquatic portfolio site
Quail Creek	• Western Yellow-Billed Cuckoo	
Rainbow Canyon	• Mixed Cottonwood-Willow Riparian Woodland • Arizona Toad • Vermilion Flycatcher • Summer Tanager • Yellow-Breasted Chat • Blue Grosbeak • Western Yellow-Billed Cuckoo	➢ Aquatic portfolio site ➢ Comparatively undisturbed, intact riparian canopy
Rainbow Spring	• Red Spotted Toad • Pacific Tree Frog	➢ Aquatic portfolio site ➢ Protected area
Riverside Marsh	• Interior Riparian Forest and Woodland • Interior Riparian Marsh and Seep • Southwestern Willow Flycatcher • Shorebird Habitat	
Rogers Spring	• Relict Leopard Frog G1	➢ Aquatic portfolio site ➢ Protected Area
Salt Creek	• Mesquite Bosque/Riparian Woodland • Neotropical Migratory Bird Habitat ** • Migratory Bird Habitat	➢ Aquatic portfolio site
Santa Clara River	• Interior Riparian Forest and Woodland • Arizona Toad • Red Spotted Toad • Western Yellow-Billed Cuckoo	➢ Aquatic portfolio site

Table 2B.3 Riparian Wetland Portfolio Sites

SITE	BIOLOGICAL ATTRIBUTES *Denotes very good occurrence **Denotes outstanding occurrence	COMMENTS/OTHER ATTRIBUTES
Santa Clara River (cont)	• Summer Tanager	
Saratoga Springs	• Pacific Tree Frog • Migratory Bird Habitat	➢ Aquatic portfolio site ➢ Protected area
Segmillers Pond	• Interior Riparian Forest and Woodland • Interior Riparian Marsh and Seep * • Arizona Bell's Vireo • Shorebird Habitat * • Abert's Towhee • Blue Grosbeak • Southwestern Willow Flycatcher	
Soda Lake	• Neotropical Migratory Bird Habitat ** • Waterfowl Habitat	➢ Protected area
Spring Mountains	• Arizona Toad • Southwestern Willow Flycatcher • *Calochortus striatus* G2	
Tassi/Seven Springs	• Mixed Cottonwood-Willow Riparian Woodland	➢ Aquatic portfolio site ➢ Protected Area
Tyrell Wash	• Mixed Cottonwood-Willow Riparian Woodland	➢ Protected area
Upper Muddy River	• Interior Riparian Forest & Woodland • Interior Riparian Marsh & Seep • Interior Riparian Shrubland • Yellow Warbler • Arizona Bell's Vireo • Western Yellow-Billed Cuckoo • Lucy's Warbler • Southwestern Willow Flycatcher • Blue Grosbeak • Costa's Hummingbird • Yellow-Breasted Chat • Abert's Towhee • Vermilion Flycatcher • Summer Tanager	➢ Aquatic portfolio site ➢ Large, functionally intact linear riparian corridor, critical nesting area and foraging site for birds and other wildlife
Upper Virgin River	• Interior Riparian Forest and Woodland • Costa's Hummingbird * • Southwestern Willow Flycatcher • Blue Grosbeak * • Yellow-Breasted Chat * • Abert's Towhee *	➢ Aquatic portfolio site ➢ Large, functionally intact linear riparian corridor, critical nesting area and foraging site for birds and other wildlife
Virgin River Channel	• Interior Riparian Forest & Woodland • Interior Riparian Marsh & Seep * • Red Spotted Toad • Yellow-Breasted Chat * • Waterfowl Habitat • Arizona Bell's Vireo • Abert's Towhee • Blue Grosbeak * • Southwestern Willow Flycatcher • Western Yellow-Billed Cuckoo	➢ Aquatic portfolio site ➢ Large, functionally intact linear riparian corridor, critical nesting area and foraging site for birds and other wildlife

Table 2B.3 Riparian Wetland Portfolio Sites

SITE	BIOLOGICAL ATTRIBUTES *Denotes very good occurrence **Denotes outstanding occurrence	COMMENTS/OTHER ATTRIBUTES
Virgin River Channel (continued)	• Costa's Hummingbird * • Shorebird Habitat	
Virgin River Gorge	• Mixed Cottonwood-Willow Riparian Woodland • Arizona Toad • Blue Grosbeak	➢ Aquatic portfolio site
White Hills-Lake Mead	• San Diego Horned Lizard	➢ Protected area
Willow Bay	• Mixed Cottonwood-Willow Riparian Woodland • Southwestern Willow Flycatcher	
Willow Creek - SM	• Pacific Tree Frog • Southwestern Willow Flycatcher	➢ Aquatic portfolio site
Northern Mojave		
Alabama Hills North	• *Sidalcea covillei* G2	
Alabama Hills South	• *Sidalcea covillei* G2 **	
Amargosa Canyon - China Ranch Wash	• Black Willow • Interior Riparian Forest & Woodland • Western Yellow-Billed Cuckoo • Crissal Thrasher • Brown-Crested Flycatcher • Elf Owl • Summer Tanager • Bat Foraging Habitat • Amaragosa Vole • *Cordylanthus tecopensis* G2 • *Nitrophila mohavensis* G1	➢ High concentration of biodiversity ➢ Aquatic portfolio site
Amargosa River - Grimshaw Lake	• Mesquite Bosque-Riparian Woodland • Sinkholes ** • Common Reed • Amargosa Toad (?) • Southwestern Willow Flycatcher • Neotropical Migratory Bird Habitat * • Western Yellow–Billed Cuckoo • Lucy's Warbler • Least Bell's Vireo • Amaragosa Vole	➢ High concentration of biodiversity ➢ Aquatic portfolio site ➢ (Amargosa toad occurrence unconfirmed)

Table 2B.3 Riparian Wetland Portfolio Sites

SITE	BIOLOGICAL ATTRIBUTES *Denotes very good occurrence **Denotes outstanding occurrence	COMMENTS/OTHER ATTRIBUTES
Amargosa River - Shoshone	• Mesquite Bosque-Riparian Woodland • Common Reed • Amargosa Toad (?) • Southwestern Willow Flycatcher • Neotropical Migratory Bird Habitat * • Phainopepla • Vermilion Flycatcher • Lucy's Warbler • Least Bell's Vireo • Western Yellow-Billed Cuckoo • Amargosa Vole • *Nitrophila mohavensis* G1 • *Cordylanthus tecopensis* G2	➢ High concentration of biodiversity ➢ Aquatic portfolio site ➢ (Amargosa toad occurrence unconfirmed)
Argus Range - Great Falls Basin	• Cottonwood - Ash Riparian • Mixed Cottonwood-Willow Riparian Woodland • Salamander Habitat • Inyo California Towhee ** • Riparian Bird Habitat • Panamint Alligator Lizard G1G2	➢ Excellent canyon riparian habitat
Argus Range - Mountain Springs Canyon	• Interior Riparian Forest and Woodland * • Salamander Habitat • Inyo California Towhee ** • Panamint Alligator Lizard G1G2	➢ Excellent canyon riparian habitat ➢ Aquatic portfolio site
Argus Range Canyon	• Inyo California Towhee • Panamint Alligator Lizard G1G2	
Ash Meadows	• Mesquite Bosque • Pacific Tree Frog • *Spiranthes infernalis* G1 • *Grindelia fraxino-pratensis* G2 • *Nitrophila mohavensis* G1 • *Mentzelia leucophylla* G1Q • *Cordylanthus tecopensis* G2 • *Centaurium namophilum* G2 • *Calochortus striatus* G2 • *Ivesia kingii* var.*eremica* G3T1T2	➢ Epicenter of endemism, rarity, and unique biodiversity ➢ Aquatic portfolio site
Centennial Canyon	• Interior Riparian Forest & Woodland	➢ Aquatic portfolio site
Chloride Cliff	• *Fimbristylis thermalis*	➢ Aquatic portfolio site ➢ Protected Area
Coso Range	• Willow • Panamint Alligator Lizard G1G2 • Western Chuckwalla	➢ Excellent example of transition between great basin and Mojave ➢ Very remote and removed from urban development
Cottonball Marsh	• Interior Riparian Marsh & Seep **	➢ Aquatic portfolio site ➢ Protected area
Cottonwood Canyon	• Red Spotted Toad • Pacific Tree Frog	➢ Protected area

Table 2B.3 Riparian Wetland Portfolio Sites

SITE	BIOLOGICAL ATTRIBUTES *Denotes very good occurrence **Denotes outstanding occurrence	COMMENTS/OTHER ATTRIBUTES
Darwin Falls	• Mixed Cottonwood-Willow Riparian Woodland • Interior Riparian Marsh & Seep • Western Toad • Red Spotted Toad • Loggerhead Shrike • Neotropical Migratory Bird Habitat	➢ Protected area ➢ Aquatic portfolio site
Deadman Canyon	• Inyo California Towhee • Panamint Alligator Lizard G1G2	
Dedeckera Canyon	• Interior Riparian Forest & Woodland • Red Spotted Toad	➢ Protected area
Eagle Borax Spring	• Interior Riparian Marsh & Seep • Migratory Bird Habitat	➢ Protected area
Furnace Creek	• Mesquite Bosque	➢ Protected area
Grapevine Spring-DT	• Mixed Cottonwood-Willow Riparian Woodland • Pacific Tree Frog • Red Spotted Toad • Least Bell's Vireo	➢ Best spring complex in Death Valley ➢ Aquatic portfolio site ➢ Protected area
Haiwee Reservoir	• Riparian Habitat • Shorebird Habitat	
Haiwee Springs	• Willow • Interior Riparian Shrubland • Western Toad * • Salamander Habitat • Panamint Alligator Lizard G1G2	➢ Unique association-monoculture of indigo bush ➢ Aquatic portfolio site
Hall Canyon	• Inyo Mtn Salamander • Panamint Alligator Lizard G1G2	➢ Protected area ➢ Aquatic portfolio site
Hogback Creek	• Yellow-Breasted Chat • Western Yellow-Billed Cuckoo	➢ Aquatic portfolio site
Hunter Mountain	• Mixed Cottonwood-Willow Riparian Woodland • Bird Habitat	➢ Aquatic portfolio site ➢ Protected area
Lubkin Creek	• *Sidalcea covillei* G2	➢ Aquatic portfolio site
Oasis Valley	• Mixed Cottonwood-Willow Riparian Woodland • Alkali Sacaton-Coastal Saltgrass • Interior Riparian Marsh & Seep • Amargosa Toad G1G2 ** • Pacific Tree Frog * • Yellow Warbler • Southwestern Willow Flycatcher • Vermillion Flycatcher	➢ Aquatic portfolio site ➢ Only confirmed location for the Amargosa toad

Table 2B.3 Riparian Wetland Portfolio Sites

SITE	BIOLOGICAL ATTRIBUTES *Denotes very good occurrence **Denotes outstanding occurrence	COMMENTS/OTHER ATTRIBUTES
Olancha Creek	• Interior Riparian Forest & Woodland • Neotropical Migratory Bird Habitat • Owens Valley Vole	
Olancha Dunes	• Owens Valley Vole	
Owens Lake	• Waterfowl Habitat • Shorebird Habitat • Migratory Bird Habitat • Western Least Bittern • Owens Valley Vole • *Sildalcea covillei* G2	➢ Aquatic portfolio site
Owens Valley	• Alkali Meadow / Seep • Western Least Bittern * • Western Yellow-Billed Cuckoo • Owens Valley Vole * • *Sidalcea covillei* G2 **	➢ Aquatic portfolio site
Panamint Canyons	• Mixed Cottonwood-Willow Riparian Woodland • Salamander Habitat • Shorebird Habitat • Neotropical Migratory Bird Habitat • Loggerhead Shrike • Panamint Alligator Lizard G12	➢ Protected area ➢ Aquatic portfolio site
Rose Valley	• Alkali Meadow / Seep • Mixed Cottonwood-Willow Riparian Woodland • Interior Riparian Marsh And Seep	➢ Great basin transition ➢ Aquatic portfolio site
Saline Valley	• Mesquite Bosque-RW • Alkali Meadow / Seep • Mixed Cottonwood-Willow Riparian Woodland • Interior Riparian Marsh And Seep • Black Toad • Shorebird Habitat • Neotropical Migratory Bird Habitat • Waterfowl Habitat	➢ Good condition ➢ Remote area ➢ Aquatic portfolio site ➢ Protected area
Sheppard Creek	• Water Birch Riparian Scrub	
South End Saline Valley	• Mixed Cottonwood-Willow Riparian Woodland	➢ Protected area
Telescope Peak	• Salamander Habitat	➢ Aquatic portfolio site ➢ Protected area
Travertine Springs	• Least Bell's Vireo • *Centaurium namophilum* G2 • *Fimbristylis thermalis*	➢ Aquatic portfolio site ➢ Protected area
Tuber Canyon	• Inyo Mtn Salamander G2 • Panamint Alligator Lizard G1G2	➢ Protected area
Tuttle Creek	• Alkali Meadow / Seep	➢ Aquatic portfolio site
Wildhorse Mesa/ Etcharren Valley	• Inyo California Towhee ** • *Calochortus striatus* G2	

Table 2B.3 Riparian Wetland Portfolio Sites

SITE	BIOLOGICAL ATTRIBUTES *Denotes very good occurrence **Denotes outstanding occurrence	COMMENTS/OTHER ATTRIBUTES
Willow Spring	• Western Chuckwalla	➢ Aquatic portfolio site
South-Central Mojave		
Cottonwood Spring	• California Fan Palm Oasis • Yellow Warbler • Bendire's Thrasher	➢ Protected area
Cottonwood/Old Woman Springs	• Interior Riparian Forest & Woodland • Neotropical Migratory Bird Habitat	
Cushionberry Springs	• Alkali Marsh • Riparian Habitat • Montane Riparian Scrub • Yellow Warbler • Yellow-Breasted Chat • Loggerhead Shrike • Summer Tanager • *Calochortus striatus* G2 • *Puccinellia parishii* G2	
Fortynine Palms Oasis	• California Fan Palm Oasis * • Riparian Bird Habitat	➢ Protected area
Mesquite Lake - Twentynine Palms	• Mesquite Bosque • Waterfowl Habitat **	
Mojave River	• Mixed Cottonwood-Willow Riparian Woodland • Interior Riparian Forest & Woodland • Arroyo Toad • California Red-Legged Frog • Southwestern Willow Flycatcher • Yellow-Breasted Chat • Summer Tanager • Riparian Bird Habitat • Mohave River Vole • San Diego Horned Lizard • Southwestern Pond Turtle * • *Hemizonia mohavensis* G1	➢ Aquatic portfolio site ➢ Isolated riparian pockets provide rare cover and foraging habitat in the arid western half of the ecoregion
Mojave River - Forks	• Interior Riparian Forest & Woodland • Interior Riparian Marsh & Seep • California Red-Legged Frog • Arroyo Toad • Shorebird Habitat • Neotropical Migratory Bird Habitat • Least Bell's Vireo • San Diego Horned Lizard • *Hemizonia mohavensis* G1	➢ Aquatic portfolio site

Table 2B.3 Riparian Wetland Portfolio Sites

SITE	BIOLOGICAL ATTRIBUTES *Denotes very good occurrence **Denotes outstanding occurrence	COMMENTS/OTHER ATTRIBUTES
Munsen Canyon	• California Fan Palm Oasis	➢ Protected area
Newberry Mtn-CA	• Loggerhead Shrike • Neotropical Migratory Bird Habitat • Western Chuckwalla	➢ Protected area
North Slope San Bernardino Mts - Carbonate Belt	• Montane Riparian Scrub • Summer Tanager • Yellow-Breasted Chat • Neotropical Migratory Bird Habitat ** • San Diego Horned Lizard • *Calochortus striatus* G2	➢ Transition zone
Ord Mnts.	• Riparian Habitat	➢ Perhaps only non-impacted Southcentral Mojave site ➢ Protected area
Pipes Canyon	• Interior Riparian Marsh And Seep • Interior Riparian Shrubland * • Neotropical Migratory Bird Habitat • Southwestern Willow Flycatcher • Southern Desert Horned Lizard	➢ Adjacent uplands are high in biological diversity ➢ Transition between two ecoregions ➢ Aquatic portfolio site
Rabbitsprings	• Alkali Meadow / Seep • Interior Riparian Shrubland • Neotropical Migratory Bird Habitat • *Calochortus striatus* G2 * • *Puccinellia parishii* G2 • *Sidalcea neomexicana*	➢ According to sanders is the number two area in need of protection ➢ Aquatic portfolio site
Rattlesnake Canyon	• Red Spotted Toad	➢ Protected area
Twenty Nine Palms - West	• Bird Habitat ** • Migratory Bird Habitat	
Willow And Hackberry Canyons	• Loggerhead Shrike • Yellow Warbler • Western Chuckwalla	➢ Complete link for natural communities corridor between the Mojave and the San Bernardino mountains
Southeastern Mojave		
Big Bend / Soto Ranch	• Mesquite Bosque-Rw • Mixed Cottonwood-Willow Riparian Woodland • Interior Riparian Marsh & Seep • Yuma Clapper Rail • Western Yellow-Billed Cuckoo • Yellow-Breasted Chat • Western Least Bittern • Brown-Crested Flycatcher • Arizona Bell's Vireo • Elf Owl • Crissal Thrasher	➢ Aquatic portfolio site

Table 2B.3 Riparian Wetland Portfolio Sites

SITE	BIOLOGICAL ATTRIBUTES *Denotes very good occurrence **Denotes outstanding occurrence	COMMENTS/OTHER ATTRIBUTES
Chemehuevi Mts	• Great Basin Spadefoot	➢ Close proximity to Colorado river provides habitat for riparian and water-dependent species ➢ Protected area ➢ Aquatic portfolio site
Drippings Spring	• Mixed Cottonwood-Willow Riparian Woodland • Interior Riparian Shrubland	➢ Protected area ➢ Aquatic portfolio site
Gold Road Well	• Mixed Cottonwood-Willow Riparian Woodland • Riparian Habitat	➢ Protected area
Ironwood Wash	• Riparian Habitat	➢ Protected area
Lake Havasu Shores	• Mixed Cottonwood-Willow Riparian Woodland • Southwestern Willow Flycatcher • Yellow-Breasted Chat • Arizona Bell's Vireo • Elf Owl	➢ Aquatic portfolio site
Topock Gorge	• Mixed Cottonwood-Willow Riparian Woodland • Interior Riparian Marsh And Seep • Southwestern Willow Flycatcher • Peregrine Falcon • Yuma Clapper Rail	➢ Aquatic portfolio site
Topock Marsh	• Interior Riparian Marsh & Seep • Interior Riparian Shrubland • Pacific Tree Frog • Western Yellow-Billed Cuckoo • Sonoran Yellow Warbler • Southwestern Willow Flycatcher • Yellow-Breasted Chat • Brown-Crested Flycatcher • Summer Tanager • Yuma Clapper Rail • Crissal Thrasher • Arizona Bell's Vireo	➢ Aquatic portfolio site
Western Mojave		
Big Rock Wash	• Interior Riparian Forest & Woodland ** • Mixed Cottonwood-Willow Riparian Woodland • Western Redtail Skink	➢ High priority for protection ➢ Only known location of large cottonwood riparian woodland in desert west of the Mojave river

Table 2B.3 Riparian Wetland Portfolio Sites

SITE	BIOLOGICAL ATTRIBUTES *Denotes very good occurrence **Denotes outstanding occurrence	COMMENTS/OTHER ATTRIBUTES
Cottonwood Creek	• Mixed Cottonwood-Willow Riparian Woodland • Interior Riparian Shrubland **	➢ No exotics ➢ Dense stand of Joshua tree ➢ Protected area
Harper Dry Lake Basin	• Alkali Meadow / Seep • Neotropical Migratory Bird Habitat • Yuma Clapper Rail • Waterfowl Habitat ** • Shorebird Habitat • Riparian Bird Habitat	➢ Important landscape linkage at the southern base of Calico mountains
Kings Canyon	• Southwestern Willow Flycatcher • Neotropical Migratory Bird Habitat • *Aesculus californica*	➢ Unique location for a number of species ➢ Transition of plant communities form San Gabriel mountains to the Mojave desert ➢ No exotics
Koehn Dry Lake - SW	• Mesquite Bosque • Interior Riparian Marsh & Seep • Waterfowl Habitat *	➢ Historic alkali marshes
Leona Valley	• Mixed Cottonwood-Willow Riparian Woodland • Frog Habitat • California Red-Legged Frog • Least Bell's Vireo • San Diego Horned Lizard • Southwestern Pond Turtle	➢ Aquatic portfolio site
Little Rock Wash	• Interior Riparian Forest & Woodland ** • Mixed Cottonwood-Willow Riparian Woodland • Neotropical Migratory Bird Habitat	➢ No exotics ➢ Wildlife corridor form San Bernardino mountains to the Mojave
Mojave River - Forks	• Interior Riparian Forest & Woodland • Interior Riparian Marsh & Seep • California Red-Legged Frog • Arroyo Toad • Shorebird Habitat • Least Bell's Vireo • Neotropical Migratory Bird Habitat • San Diego Horned Lizard • *Hemizonia mohavensis* G1	➢ Aquatic portfolio site
North Slope San Bernardino Mts – Joshua Tree Woodland	• San Diego Horned Lizard	
Red Rock Canyon	• *Calochortus striatus* G2	➢ Aquatic portfolio site

Table 2B.3 Riparian Wetland Portfolio Sites

SITE	BIOLOGICAL ATTRIBUTES *Denotes very good occurrence **Denotes outstanding occurrence	COMMENTS/OTHER ATTRIBUTES
Rogers/Rosamond Dry Lakes	• Mesquite Bosque • Alkali Meadow / Seep • Frog Habitat • Tricolored Blackbird • Waterfowl Habitat • Shorebird Habitat • Southwestern Pond Turtle • *Puccinellia parishii* G2 • *Calochortus striatus* G2 ** • *Astragalus preussii* var *preussii*	➢ Sanders recommends as top aquatic/riparian site in ecoregion ➢ Historically supported excellent marsh and riparian ➢ Important shorebird and waterfowl stopover
Summit Creek	• Interior Riparian Forest & Woodland • Neotropical Migratory Bird Habitat	
Summit Valley/Cajon Pass	• Interior Riparian Forest & Woodland • Mixed Cottonwood-Willow Riparian Woodland • California Red-Legged Frog • Arroyo Toad • Southwestern Willow Flycatcher • Least Bell's Vireo • Two-Striped Garter Snake • Coastal Western Whiptail • San Diego Horned Lizard • *Hemizonia mohavensis* G1	

C. DESERT WASH

Description

Desert washes capture and concentrate sheet flow during intense summer rain events and are characterized by sandy soils and loose gravel substrates. As runoff is collected, moisture infiltration in wash soils exceeds infiltration on the surrounding uplands allowing washes to sustain comparatively higher densities of vegetation, including important woodland habitats.

Woodland communities are typified by spatially intermittent but established stands of desert willow (*Chilopsis linearis*), catclaw (*Acacia greggii*), desert ironwood (*Olneya tesota*), and smoketree (*Psorothamnus spinosus*). In the southern parts of the ecoregion, where Sonoran Desert influences are more prevalent, blue palo verde (*Cercidium floridum*) and crucifixion thorn (*Castela emoryi*) are dominant. Mesquite (*Prosopis* spp.) woodlands are also typical of Mojave Desert washes and are often located where wash systems overlap with riparian corridors, playa edges and dune systems. Associated shrubs include saltbush *(Atriplex canescens*), quailbush (*Atriplex lentiformis*), wolfberry (*Lycium* spp.), arrowweed (*Pluchea sericea*), and creosote (*Larrea tridentata*). (See Table 2C.1)

Species targets associated with wash habitats include plants that thrive in loose gravelly substrates such as *Astragalus preussii* var *preussii* and *Mimulus mohavensis*. Reptiles such as the Gila Monster and Passerine bird species such as Phainopepla (*Phainopepla nitens*) also make use of foraging and cover opportunities associated with wash woodlands (See Table 2C.2).

Table 2C.1 Desert Wash Communities

COMMUNITY TARGETS	PATCH TYPE	DISTRIBUTION	GOAL
Greasewood-Mixed Scrub	Linear	Widespread	40%
Mesquite Bosque	Small Patch	Limited	50%
Velvet Ash- Mesquite Woodland	Linear	Endemic	70%
Rabbitbrush Scrub	Linear	Limited	50%
Mojave Desert Wash	Linear	Limited	50%
Blue Palo Verde Shrubland	Linear	Limited	50%
Catclaw Acacia Shrubland	Linear	Limited	50%
Crucifixion Thorn Shrubland	Linear	Limited	50%
Desert Hackberry Shrubland	Linear	Limited	50%
Desert Ironwood Shrubland	Linear	Limited	50%
Smoketree Shrubland	Linear	Limited	50%
Sweet Desert Willow Shrubland	Linear	Limited	50%
Spiny Hopsage Shrubland Alliance	Linear	Limited	50%

Table 2C.2 Desert Wash Species Targets and Habitats

BIRDS	GLOBAL RANK
Desert Wash Bird Habitat	
Phainopepla	G5
REPTILES	
Gila Monster	G4
PLANTS	
Senna covesii	G5?
Mimulus mohavensis	G2
Astragalus preussii var. *preussii*	G4T4

Conservation Issues

- Scarification processes necessary for seed germination of some Mojave Desert endemic plant species depend on flood events occurring in desert washes.
- The loose, uncompacted soils of dry wash beds allow for easy subterranean

excavation by small mammals and reptiles.

- Bank edges in particular provide excellent substrates for burrows and dens utilized by kit foxes, badgers, gila monsters, desert tortoises and burrowing owls.

- The vertical structural diversity of woodland species such as mesquite and acacia provides passerine bird species with rare foraging and nesting opportunities in the otherwise uniform desert scrub dominated landscapes.

- The increased faunal richness in desert washes benefits predatory species such as Gila monster, which prey on eggs, ground-nesting birds, small mammals and other reptiles.

- All the above factors contribute to the value of washes as critical corridors through which vertebrates and invertebrates alike can move through the desert landscape.

Threats

- Efforts by transportation departments, as well as municipalities, aimed at preventing flash flood damage often call for the construction of retention basins along dry washes and channelization of wash beds. These practices replace native soils and vegetation with concrete or riprap, and the impoundment of floodwaters deprives wash habitats of critical hydrologic inputs needed to sustain natural communities.

- Dry washes are rich in construction grade aggregates and are frequently targeted for sand and gravel mining. Extraction of these materials can result in significant disruption to soils, vegetation, and fauna within the wash as well as surrounding upland habitats.

- The functionality of dry washes as faunal migration corridors are degraded when the linear continuity of the wash is broken or severed by vehicular traffic cutting across it, or worse, when the length of the wash is used as a road bed. While dry washes are naturally disturbed habitats, disturbance occurs as a result of intense but *infrequent* storms. Constant off-road traffic compacts loose soil substrates, destroys vegetation, disturbs native fauna, and erodes wash banks, resulting in a highly altered state of persistent disturbances.

Goals

Percentage goals for the patch and linear distribution types of Mojave Desert Wash communities are listed in Table 1. Velvet-ash mesquite is the one endemic community type in this system, the rest being of limited distribution. The sometimes small and linear nature of wash communities hindered the accurate characterization of aerial extent by GAP coverage. Accordingly, goals were pursued based on the number of community occurrences.

Goals for individual species targets were based largely on distribution and global rank as follows: capture all G1 and G2 species occurrences, 75% of endemic G3 species occurrences, and 50% of target G3-G5 (non-endemic) occurrences.

Site Identification

Desert wash habitats are important to many desert scrub fauna, but few are specifically desert wash obligates. This explains why a very small set of wash dependent species was targeted for site identification and portfolio assembly purposes (See Table 2C.2).

Community types on the other hand are tightly tied to specific wash environments. In many cases, experts were able to identify specific alliances associated with desert washes including smoketree, palo verde, crucifixion

thorn and mesquite dominated woodland alliances. Where less detailed information was available, the more general cover type classification of 'Mojave Desert Wash' was used to identify sites. 'Desert wash bird habitat' was also used as a general community classification for those wash woodlands that supported a high density and diversity of bird species. GAP vegetation mapping was useful in eliciting expert opinion, but could not be used independently to select sites since habitat viability information was not a component of this remotely sensed data set.

Site Selection

Early results from expert input indicated that significant desert wash habitats tended to be associated with, or part of, riparian environments. Consequently, in order to facilitate efficiency among these system portfolios, desert wash sites that co-existed or overlapped with riparian portfolio sites were automatically placed into the wash portfolio. In addition, sites that contained exceptional or unique desert wash target occurrences were brought into the portfolio. Finally, the portfolio captured sites where wash habitats were found to be 90% or greater within protected lands. In most cases, this selection process was sufficient to meet target goals and subregional representation. Where needed, other sites were brought into the portfolio on a case by case basis to meet goals, preference being given to sites with the highest percentage of protected area.

Results

Configuration of wash sites varied across the ecoregion. Some sites, such as California Wash and the Upper Mojave River, were configured as linear areas which followed along a major wash bed. Other sites, such as the Ord-Rodman Mountains, were delineated as amorphous, non-linear areas in order to reflect the presence of many smaller interconnected wash systems.

A total of 86 desert wash sites were selected, 58% of which coexist with aquatic and riparian sites already selected as portfolio sites (See Table 2C.3). The remaining sites captured outstanding or unique examples of desert wash targets as well as wash systems already considered protected by Class I and II lands.

In the eastern subregion, several important desert wash networks were identified including the Grand Wash Complex, Kane Springs/Pahranagat Wash, California Wash, Piute Wash and washes associated with the major riparian corridors of the region. Similarly, wash sites in the southeastern subregion were associated with riparian areas—particularly along the Colorado River, with Sacramento Wash, Piute Wash and Homer Wash standing out as significant representative systems.

In the northern subregion, desert wash sites were typically associated with the lower ends of canyons emerging from the area's numerous mountain ranges. Significant desert wash woodlands were also found in conjunction with riparian habitats of the Amargosa and Owens River drainages.

Central Mojave Desert wash sites were concentrated along the Mojave River. In the western subregion the choice of viable desert wash sites was severely restricted by the degree of development underway in that part of the ecoregion. Most selected sites were associated with riparian zones spilling out of the San Bernardino Mountains. South-central desert wash sites were also connected with San Bernardino drainages, but additional sites were found among low elevation mountain ranges and adjacent basins such as the Ord-Rodman Mountains and Pinto Basin.

Table 2C.3 Desert Wash Portfolio Sites

SITE	BIOLOGICAL ATTRIBUTES * Denotes very good occurrence ** Denotes outstanding occurrence	COMMENTS/OTHER ATTRIBUTES
Eastern Mojave		
Bridge Canyon	• Mojave Desert Wash • Le Conte's Thrasher • Phainopepla • Loggerhead Shrike	➢ Protected area
Burro Wash	• Catclaw • Mesquite Bosque-DW	➢ Protected area
California Wash	• Catclaw ** • Mesquite Bosque-DW • Phainopepla	
Corn Creek	• Mesquite Bosque • Le Conte's Thrasher • Loggerhead Shrike • Phainopepla	➢ Aquatic portfolio site ➢ Riparian portfolio site
Grand Wash Complex	• Mojave Desert Wash **	➢ Wash and riparian complex ➢ Riparian portfolio site ➢ Protected area
Granite Cove	• Phainopepla *	➢ Riparian portfolio site ➢ Protected area
Grapevine Spring/Lp	• Mojave Desert Wash • Banded Gila Monster	➢ Horsetail occurrence-unusual for the Mojave ➢ Protected area
Grapevine/Sacaton Canyon	• Smoketree • Mojave Desert Wash • Le Conte's Thrasher • Loggerhead Shrike • Phainopepla	➢ Protected area
Hackberry Spring	• Desert Hackberry *	➢ Protected area
Hiko Springs	• Phainopepla *	➢ Aquatic portfolio site ➢ Riparian portfolio site
Kane Springs/Pahranagat Wash	• Catclaw ** • Desert Willow ** • Desert Wash Bird Habitat • Banded Gila Monster	
Lower Gold Butte	• Mojave Desert Wash • *Astragalus geyeri* var. *triquetrus* G2G3 • *Eriogonum viscidulum* G2	➢ Protected area
Lower Meadow Valley Wash	• Phainopepla	➢ Riparian portfolio site
Lytle Ranch	• Phainopepla *	➢ Aquatic portfolio site ➢ Riparian portfolio site ➢ Protected area
Meadow Valley Wash	• Mojave Desert Wash • Banded Gila Monster	➢ Aquatic portfolio site ➢ Riparian portfolio site
Middle Virgin River	• Phainopepla * • *Astragalus geyeri* var. *triquetrus* G2G3 • *Eriogonum viscidulum* G2	➢ Aquatic portfolio site ➢ Riparian portfolio site
Pipe Spring	• Catclaw	➢ Protected area

Table 2C.3 Desert Wash Portfolio Sites

SITE	BIOLOGICAL ATTRIBUTES * Denotes very good occurrence ** Denotes outstanding occurrence	COMMENTS/OTHER ATTRIBUTES
Pipe Spring (cont.)	• Loggerhead Shrike • Phainopepla • Le Conte's Thrasher	
Piute Gorge	• Desert Willow * • Catclaw • Mojave Desert Wash • Banded Gila Monster	➢ Aquatic portfolio site ➢ Riparian portfolio site ➢ Protected area
Piute Wash	• Mojave Desert Wash ** • Le Conte's Thrasher	➢ Protected area
Rainbow Canyon	• Phainopepla • Loggerhead Shrike • Banded Gila Monster	➢ Aquatic portfolio site ➢ Riparian portfolio site
Salt Creek	• Neotropical Migratory Bird Habitat	➢ Aquatic portfolio site ➢ Riparian portfolio site
Stump Springs	• Mesquite Bosque	
Tassi/Seven Springs	• Phainopepla *	➢ Aquatic portfolio site ➢ Riparian portfolio site ➢ Protected area
Upper Muddy River	• Le Conte's Thrasher • Loggerhead Shrike • Lucy's Warbler • Phainopepla	➢ Aquatic portfolio site ➢ Riparian portfolio site
Upper Virgin River	• Phainopepla *	➢ Aquatic portfolio site ➢ Riparian portfolio site
Virgin River Channel	• Phainopepla *	➢ Aquatic portfolio site ➢ Riparian portfolio site
Northern Mojave		
Amargosa Canyon - China Ranch Wash	• Mesquite Bosque-DW • Bat Foraging Habitat • *Nitrophila mohavensis* G1	➢ Aquatic portfolio site ➢ Riparian portfolio site
Amargosa River - Shoshone	• Neotropical Migratory Bird Habitat • Phainopepla • Lucy's Warbler • *Nitrophila mohavensis* G1	➢ Area of high biological biodiversity ➢ Riparian portfolio site ➢ Aquatic portfolio site
Argus Range - Great Falls Basin	• Mojave Desert Wash • Le Conte's Thrasher • Panamint Alligator Lizard G1G2	➢ Riparian portfolio site
Argus Range - Mountain Springs Canyon	• Mojave Desert Wash • Panamint Alligator Lizard G1G2	➢ Aquatic portfolio site ➢ Riparian portfolio site
Ash Meadows	• Mesquite Bosque • Velvet Ash – Mesquite • *Mentzelia leucophylla* G1Q • *Nitrophila mohavensis* G1	➢ Aquatic portfolio site ➢ Riparian portfolio site

Table 2C.3 Desert Wash Portfolio Sites

SITE	BIOLOGICAL ATTRIBUTES *Denotes very good occurrence **Denotes outstanding occurrence	COMMENTS/OTHER ATTRIBUTES
Black Magic - Joshua Tree	• Smoketree	➢ Protected area
Deadman Canyon	• Mojave Desert Wash • Panamint Alligator Lizard G1G2	➢ Riparian portfolio site
Emigrant Canyon	• Mojave Desert Wash	➢ Protected area
Haiwee Springs	• Spiny Hopsage - Mixed Scrub • Mojave Desert Wash • Panamint Alligator Lizard G1G2	➢ Aquatic portfolio site ➢ Riparian portfolio site
Oasis Valley	• Rabbitbrush Scrub	➢ Aquatic portfolio site ➢ Riparian portfolio site
Olancha Dunes	• Greasewood - Mixed Scrub **	➢ Riparian portfolio site
Owens Valley	• Greasewood - Mixed Scrub	➢ Aquatic portfolio site ➢ Riparian portfolio site
Panamint Canyons	• Loggerhead Shrike • Neotropical Migratory Bird Habitat • Panamint Alligator Lizard G1G2 • *Lupinus magnificus* var *magnificus*	➢ Aquatic portfolio site ➢ Riparian portfolio site ➢ Protected area
Stewart Valley	• Mesquite Bosque–Desert Wash **	
Wildhorse Mesa/Etcharren Valley	• Mojave Desert Wash	➢ Riparian portfolio site
South-Central Mojave		
Cottonwood Spring	• Mojave Desert Wash • *Senna covesii*	➢ Riparian portfolio site ➢ Protected area
Cottonwood/Old Woman Springs	• Neotropical Migratory Bird Habitat • *Mimulus mohavensis* G2	➢ Riparian portfolio site
Daggett Wash	• Mojave Desert Wash • Neotropical Migratory Bird Habitat • *Mimulus mohavensis* G2	
Fried Liver Wash	• Desert Willow	➢ Protected area
Gold Crown Wash / Pinto Mtn	• Smoketree • Desert Willow • Catclaw • Loggerhead Shrike	➢ High diversity of shrubs and trees in drainage ➢ Supports wide variety of wildlife species that would typically be found in the Sonoran Desert ➢ Protected area

Table 2C.3 Desert Wash Portfolio Sites

SITE	BIOLOGICAL ATTRIBUTES *Denotes very good occurrence **Denotes outstanding occurrence	COMMENTS/OTHER ATTRIBUTES
Kane Wash	• Desert Willow • Smoketree • Catclaw • Mojave Desert Wash • Le Conte's Thrasher • Loggerhead Shrike • Sidewinder • *Mimulus mohavensis* G2	➢ Corridor for species movement between Daggett Wash and Newberry Mountain ➢ Excellent wash ➢ Important water source for desert bighorn and other wildlife species ➢ Free of exotic tamarisk
Mojave River	• Mojave Desert Wash • Le Conte's Thrasher • Southwestern Pond Turtle	➢ Aquatic portfolio site ➢ Riparian portfolio site
Mojave River Wash	• Mojave Desert Wash • Loggerhead Shrike	
Munsen Canyon	• Mojave Desert Wash	➢ Protected area ➢ Riparian portfolio site
Newberry Mountain-Ca	• Mojave Desert Wash • Loggerhead Shrike • Neotropical Migratory Bird Habitat • *Mimulus mohavensis* G2	➢ Riparian portfolio site ➢ Protected area
Ord Mountains	• Mojave Desert Wash • *Mimulus mohavensis* G2	➢ Riparian portfolio site
Ord-Rodman Mountains Complex	• Mojave Desert Wash • Loggerhead Shrike • *Mimulus mohavensis* G2	
Pinto Basin	• Mojave Desert Wash	➢ Protected area
Pinto Wye Wash	• Desert Willow	➢ Protected area
Pipes Canyon	• Desert Willow • Mojave Desert Wash • Le Conte's Thrasher • Neotropical Migratory Bird Habitat • Southern Desert Horned Lizard	➢ Pipes canyon and adjacent uplands are areas of high biological diversity ➢ Transition zone between two ecoregions ➢ Riparian portfolio site ➢ Aquatic portfolio site
Rodman Mountains	• Desert Willow • Smoketree • Mojave Desert Wash • Loggerhead Shrike • Neotropical Migratory Bird Habitat • *Mimulus mohavensis* G2	➢ Only non-impacted site in this subregion
Silver Mountain	• Le Conte's Thrasher • *Mimulus mohavensis* G2	

Table 2C.3 Desert Wash Portfolio Sites

SITE	BIOLOGICAL ATTRIBUTES *Denotes very good occurrence **Denotes outstanding occurrence	COMMENTS/OTHER ATTRIBUTES
Willow and Hackberry Canyons	• Desert Hackberry • Mojave Desert Wash • Loggerhead Shrike • Le Conte's Thrasher	➢ Provides a complete link for protecting a corridor of natural communities between the Mojave desert and the San Bernardino mountains ➢ Riparian portfolio site
Southeastern Mojave		
Calumet Dune	• Mojave Desert Wash • Mojave Fringe-Toed Lizard	➢ Protected area
Chemehuevi Mountains	• Mojave Desert Wash	➢ Area of high biological diversity ➢ Mixture of Sonoran and Mojave species ➢ Proximity to the Colorado river provides habitat for riparian and water-dependent species ➢ Aquatic portfolio site ➢ Riparian portfolio site ➢ Protected area
Chemehuevi Wash	• Smoketree * • Blue Palo Verde ** • Mojave Desert Wash • Desert Wash Bird Habitat ** • Crucifixion Thorn	
Homer Wash	• Smoketree • Blue Palo Verde • Mojave Desert Wash	
Pinto Basin – Ocotillo	• Mojave Desert Wash	➢ Protected area
Sacramento Wash	• Mojave Desert Wash **	
Walnut Creek	• Catclaw	➢ Big horn sheep corridor
Western Mojave		
Big Rock Wash	• Le Conte's Thrasher	➢ Riparian portfolio site
Kings Canyon	• Neotropical Migratory Bird Habitat • Rabbitbrush Scrub	➢ Unique locations for a number of species ➢ Transition of plant communities from the San Gabriel Mountains to the Mojave desert ➢ No exotics established in canyons ➢ Riparian portfolio site
Leona Valley	• Southwestern Pond Turtle	➢ Aquatic portfolio site ➢ Riparian portfolio site
Little Dixie Wash	• Mojave Desert Wash * • Le Conte's Thrasher	

Table 2C.3 Desert Wash Portfolio Sites

SITE	BIOLOGICAL ATTRIBUTES *Denotes very good occurrence **Denotes outstanding occurrence	COMMENTS/OTHER ATTRIBUTES
Central Mojave		
Afton Canyon	• Mojave Desert Wash • Southwestern Pond Turtle	➢ Aquatic portfolio site ➢ Riparian portfolio site
Alvord Mountain	• Mojave Desert Wash ** • Loggerhead Shrike • Le Conte's Thrasher	
Bitter Spring	• Mojave Fringe-Toed Lizard	➢ Aquatic portfolio site ➢ Riparian portfolio site
Cady Mountains	• Mojave Desert Wash • Neotropical Migratory Bird Habitat • Crucifixion Thorn	➢ Riparian portfolio site ➢ Protected area
Camp Cady	• Lucy's Warbler • Neotropical Migratory Bird Habitat • Phainopepla • Southwestern Pond Turtle	➢ Aquatic portfolio site ➢ Riparian portfolio site
Cronese Basin	• Mesquite Bosque • Desert Willow • Mojave Desert Wash • Loggerhead Shrike • Phainopepla • Mojave Fringe-Toed Lizard	➢ Area of high biological diversity ➢ Riparian portfolio site ➢ Protected portfolio area
Daggett Wash	• Mojave Desert Wash ** • Neotropical Migratory Bird Habitat • *Mimulus mohavensis* G2	
Sleeping Beauty Wash	• Smoketree ** • Mojave Desert Wash ** • Loggerhead Shrike • Le Conte's Thrasher	
Upper Mojave River Wash	• Southwestern Pond Turtle	

D. DUNES AND SUBSTRATES

Description

The weathering of geological substrates in the Mojave Desert has resulted in a variety of unique habitats including sand dunes, limestone outcrops, desert pavements, and badlands. Harsh living conditions in these habitats result in a unique set of organisms adapted for survival.

Sand and sediments washed down from surrounding mountains accumulate in desert basins. Strong winds can move these unstabilized sediments across the landscape until they settle in areas where the winds are dissipated. Sand may accumulate in shallow sheets or deeper unconsolidated dunes. Unlike many soils in desert basins, sand dunes are well-drained and non-saline. As a result, their vegetation differs considerably from the surrounding basin or bajada. Widely-spaced perennial species with creeping stems and rhizomes are well-adapted to these habitats. A large percentage of these plants, as well as some associated insects have evolved into unique species due to the unusual biological conditions and physical separation of each sand dune system.

Limestone and /or dolomite deposits are found in several mountain ranges of the Mojave Desert. Many rare plant species are restricted to the unusual mineral concentrations of limestone or dolomitic outcrops. The eastern Mojave is particularly rich in these substrates.

On some old, undisturbed slopes of the Mojave Desert, a thin surface of closely packed gravel resembling pavement may develop. The process under which these surfaces form is not well understood but scientists agree that it is either the addition or removal of fine grained sediments by wind that results in desert pavements.

Other weathered surfaces in the Mojave Desert including lava flows, granite pediments, and badlands support specialized plants. The relationships of these species to their habitat's edaphic properties vary and are not well-understood.

Conservation Issues

- Many species associated with dunes and substrates are endemic to particular locales with unusual biological and physical conditions. Disturbance to these areas may impact entire populations.

- Sand dunes are popular destinations for off-road vehicles and military training. Plants and animals are easily disturbed in loose sand.

- The formation and maintenance of sand dunes is dependent on the supply and transport of sediments from sources that may be miles distant. Alteration of sediment sources or movement areas may impact physical and biological properties of the dunes themselves.

- Disturbance of desert pavements by vehicle or animal traffic may expose easily erodable soil horizons below the surface.

Site Identification

Potential dune and substrate sites were identified using a total of 82 conservation

targets. These targets are listed in Table 2D.1 and include 15 communities, 26 wildlife species, and 41 plant species. Data sources included state heritage programs, WEMO, GAP, literature, and expert interviews. More than 250 potential sites were identified with one or more conservation target.

Table 2D.1 Dune and Substrate Communities and Species Targets

COMMUNITIES	GLOBAL RANK
Badlands / Mudhills	
Cactus Garden	
Caves And Cliffs	
Cinder Cones	
Cryptobiotic Soils	
Desert Pavement	
Granitic Substrates	
Gypsum Substrates	
Lava Flow / Exposed Bedrock	
Limestone Substrates	
Sand Fields	
Sand Source	
Sandstone Substrates	
Stabilized And Partially-Stabilized Sand Dunes	
Unstabilized Sand	
ANIMALS	
Aegialian Scarab Beetle	G1
American Badger	G5
Baker Desertsnail	G1T1
Big Dune Miloderes Weevil	G1Q
Cactus Mouse	G5
Chisel-Toothed Kangaroo Rat	G5T4
Death Valley June Beetle	?
Desert Kangaroo Rat	G5
Desert Night Lizard	G5
Dune Invertebrates	?
Giuliani's Dune Scarab	G1
Kelso Giant Sand Treader Cricket	G1
Kelso Jerusalem Cricket	?
Kit Fox	G4
Merriam's Kangaroo Rat	G5T?
Mohave Ground Squirrel	G2?
Mojave Fringe-Toed Lizard	?
Mojave Green Rattlesnake	G5
Panamint Alligator Lizard	G1G2
Panamint Kangaroo Rat	G5
Saline Valley Snow Front Scarab Beetle	?
Sidewinder	G5
Sonoran Lyre Snake	?
Utah Milk Snake	G5T4Q
Utah Mountain Kingsnake	G5T3
Victorville Shoulderband	G1
PLANTS	
Agave utahensis var. *Nevadensis*	G4T3Q
Antennaria soliceps	G1
Anulocaulis leioslenus	?
Arctomecon californica	G3
Arctomecon humilis	G1
Arctomecon merriamii	G2
Arenaria kingii ssp. *Rosea*	G4T2
Arenaria stenomeres	G2
Astragalus ackermanii	G2
Astragalus aequalis	G2
Astragalus albens	G1
Astragalus ampullarioides	G1Q
Astragalus funereus	G2
Astragalus geyeri var. *Triquetrus*	G2G3
Astragalus holmgreniorum	G1
Astragalus lentiginosus var. *micans*	G5T1Q
Astragalus lentiginosus var. *sesquimetralis*	G5T1
Astragalus mohavensis var. *Hemigyrus*	G3T2
Astragalus mokiacensis	G2G3
Astragalus nyensis	G3
Astragalus phoenix	G2
Astragalus preussii var preussii	G4T4
Astragalus remotus	G2
Atriplex parishii	G2?
Camissonia exilis	G1
Canbya candida	G2
Chrysothamnus eremobius	G1
Cirsium virginense	G2
Cordylanthus tecopensis	G2
Cymopterus ripleyi	G2
Ditaxis californica	G2
Eriogonum viscidulum	G2
Gilia maculata	G1
Hesperocallis undulata	G3G4
Linanthus arenicola	G2?
Oenothera californica ssp. *eurekensis*	G4?T1
Penstemon albomarginatus	G2
Penstemon calacareous	G2
Petalonyx thurberi ssp. *gilmanii*	G5T2
Stillingia linearifolia	G4
Swallenia alexandrae	G1

Site Ranking

Potential dune and substrate sites were stratified into six subregions. All sites were evaluated for the viability of the conservation targets present and the quality of the surrounding landscape. Portfolio selection was limited to sites with community-level targets or sites with two or more G1G2 species-level

targets. Preference was first given to the best example of each conservation target then, if necessary, additional sites were selected based on road fragmentation and current level of management (Class 1 or 2). The minimum number of sites selected was guided by conservation goals that ranged from 40% coverage for limited large patch communities such as dunes to a categorical 70% for largely endemic small patch communities such as limestone substrates.

Results

Ninety-one sites are recommended as portfolio sites for dunes and substrates (See Table2D.2).

Table 2D.2 Dune and Substrate Portfolio Sites

SITE	BIOLOGICAL ATTRIBUTES * Denotes very good occurrence ** Denotes exceptional occurrence	COMMENTS/OTHER ATTRIBUTES
Northern Mojave		
Eureka Foothills	• Stabilized and partially stabilized dunes • *Astragalus lentiginosus var micans* G3T1 • *Oenothera califonica ssp eurekensis* G1T1	
Marble Canyon Outflow	• Stabilized and partially stabilized dunes • *Oenothera Califonica ssp eurekensis* G1T1 • *Swallenia alexandrae* G1	
Argus Range	• Limestone substrates • Panamint kangaroo rat · *Petalonyx thurburi ssp gilmanii* G5T2	
Ash Meadows	• *Arctomecon merriamii* G2 • *Astragalus phoenix* G2 - *Petalonyx thurburi ssp gilmanii* G5T2	➢ Extremely biologically diverse alkali wetland system with high degree of endemism
Big Dune	• Stabilized and partially stabilized dunes • Giulani's dune scarab • Big Dune Miloderes weevil	➢ Threatened by off-road vehicle recreation proliferation ➢ Only small portion of dune protected - by signage only
Cottonball Marsh	• Desert pavement	
Cottonwood Mountains	• Limestone substrates • *Penstemon calacareous* G2 • *Pentalonyx thurburi ssp gilmanii* G5T2	
Death Valley Salt Flat	• Desert pavement	
Eureka Dunes-AP	• Stabilized and partially stabilized dunes • Merriams kangaroo rat • Dune invertebrates • Kit fox • *Astragalus lentiginosus var micans* G5T1 • *Oenothera californica ssp eurekensis* G4T1 - *Swallenia alexandrae* G1	
Furnace Creek	• Desert pavement	➢ Wholly contained within Death Valley National Park ➢ Uncontrolled hikers/campers affects integrity of this system
Haiwee Springs	• Cinder cones • Panamint kangaroo rat • Mojave ground squirrel	➢ Very diverse site – both from systems and targets
Marble Canyon/Saline/ Eureka Valley	• Stabilized and partially stabilized dunes • *Astragalus lentiginosus var micans* G5T1 • *Oenothera californica ssp eurekensis* G4T1 • *Swallenia alexandrae* G1	

Table 2D.2 Dune and Substrate Portfolio Sites

SITE	BIOLOGICAL ATTRIBUTES * Denotes very good occurrence ** Denotes exceptional occurrence	COMMENTS/OTHER ATTRIBUTES
Mesquite Flat	• Stabilized and partially stabilized dunes • Mesquite bosque **	
Nopah Range **Oasis Valley**	• Limestone substrates • Mojave yucca • Stabilized and partially stabilized dunes • Desert kangaroo rat • Chisel-toothed kangaroo rat • Desert pocket mouse • *Astragalus funereus* G2	➢ Northern-most stand of Mojave yucca ➢ Primarily on unprotected BLM land – applications for privatization have been filed at BLM (3/2000). ➢ Southern extent of Sarcobatus community
Owens Lake	• Desert pavement and salt flat • Lava flow / exposed bedrock • Stabilized and partially stabilized dunes • Mojave ground squirrel • Dune invertebrates	
Panamint Dunes	• Stabilized and partially stabilized dunes • Dune invertebrates - *Petalonyx thurberi ssp gilmanii*	
Saline Valley	• Stabilized and partially stabilized dunes • Lava flow / exposed bedrock • Dune invertebrates	
Telescope Peak	• Limestone substrates	➢ Second highest point in the Mojave Desert ecoregion
Upper Amargosa River / Lower Carson Slough	• Lava flow / exposed bedrock • *Cordylanthus tecopensis* G2	
Eastern Mojave		
Bitter Springs Valley	• Gypsum substrates - *Arctomecon californica* G3	
Bloomington Hill	• *Arctomecon humilis* G1 • Bearpoppy bee (*Perdita meconis*) G1? • Sonoran lyre snake G?	➢ Located in active OHV play area – very threatened by growing St.George area
Budweiser Wash	• Desert pavement and salt flat • Stabilized and partially stabilized dunes	
Cactus Valley	• Cactus garden • Sidewinder • Sonoran lyre snake	➢ Adjacent to Piute-Eldorado DWMA – should be incorporated ➢ Small-claim mining greatest proximate threat
Clark Mountain	• Limestone substrates • *Agave utahensis var nevadensis* G4T3	➢ western limit of *Agave utahensis* ➢ High plant diversity/endemics
Coyote Springs Valley	• Mesquite bosque * • Kit fox • *Arctomecon merriamii* G2 • *Arenaria stenomeres* G2	➢ In planned Clark County MSHCP protected area, but very threatened by inholding development at former Aerojet property & BLM leased lands
Gold Butte	• *Arctomecon californica* G2 • *Astragalus mokiacensis* G2G3 • *Cirsium virgenense* G2 • *Eriogonum viscidulum* G2	➢ Clark County MSHCP planned protected area ➢ BLM ACEC ➢ Very few anthropogenic impacts

Table 2D.2 Dune and Substrate Portfolio Sites

SITE	BIOLOGICAL ATTRIBUTES * Denotes very good occurrence ** Denotes exceptional occurrence	COMMENTS/OTHER ATTRIBUTES
Gold Butte Pakoon	• *Arctomecon californica* G2 • *Astagalus geyeri var triquetris* G2G3 • *Astragalus nyensis* G3 • *Cirsium virgenense* G2 • *Eriogonum viscidulum* G2 • Sidewinder • Mojave green rattlesnake	➢ High priority desert tortoise recovery area – DWMA ➢ Most livestock grazing has been or is being bought out and retired ➢ Few small gold mines ➢ Oil & gas drilling remain a threat
Granite Mountains – Mesquite	• Lava flow / exposed bedrock • Mesquite bosque	
Horsethief Canyon	• Desert pavement / lava flow	
Bull Canyon Succulents	• Lava flow exposed bedrock	
Jean Dry Lake Valley	• Stabilized and partially stabilized dunes - *Penstemon albomarginatus* G2	➢ Very active OHV play area ➢ Active livestock grazing allotment ➢ Sand & gravel mining active ➢ Proposed large-scale airport development on horizon
Kingston Mountains	• Limestone substrates - *Agave utahesis var. nevadensis* G4T3	➢ High plant diversity / endemics
Lava Beds (JAD 28)	• Lava flow exposed bedrock	
Lower Gold Butte	• *Arctomecon californica* G3 • *Astragalus geyeri var. triquetrus* G2G3 • *Eriogonum viscidulum* G2	➢ On Lake Mead NRA – protected by remoteness ➢ Few impacts besides feral burros and some OHV
Lower Virgin River	• *Astragalus geyeri var. triquetrus* G2G3 • *Astragalus nyensis* G3 • *Eriogonum viscidulum* G2	
LP8	• *Astragalus geyeri var. triqeutrus* G2G3 • *Eriogonum viscidulum* G2	
Mid Hills	• Cactus garden	
Mormon Mesa Lower	• *Astragalus geyeri var. triquetrus* G2G3 • *Astragalus nyensis* G3 • *Eriogonum viscidulum* G2	➢ Active grazing allotment ➢ Not included in Clark County MSHCP, but should be ➢ Good desert tortoise habitat & desert grassland
Mormon Mesa Upper	• *Astragalus geyeri var. triquetrus* G2G3 • *Eriogonum viscidulum* G2	➢ High priority DWMA for Clark County MSHCP ➢ OHV events continue to fragment landscape
Muddy Mountains	• Gypsum substrates • *Agave utahensis var nevadensis* G4T3 • *Arctomecon californica* G3 • *Astragalus geyeri var. triquetrus* G2G3 • *Cirsium virginense* G2	

Table 2D.2 Dune and Substrate Portfolio Sites

SITE	BIOLOGICAL ATTRIBUTES * Denotes very good occurrence ** Denotes exceptional occurrence	COMMENTS/OTHER ATTRIBUTES
New York Mountain	• Limestone substrates	➢ Diverse cacti on hillsides
Providence Mountain	• Cactus garden	➢ Within Mojave National Preserve ➢ Some pressures from camping and other recreational activities
Price City Hills	• Merriam's kangaroo rat • *Arctomecon humilis* G1 • *Astragalus ampullarioides* G1	
Riverside Bridge	• *Astragalus geyeri var. triquetrus* G2G3 • *Eriogonum viscidulum* G2	➢ Proximity to town of Mesquite is the primary threat at this site
Sand Hollow Wash	• *Astragalus geyeri var. triquetrus* G2G3 • *Eriogonum viscidulum* G2	
Sandy Point	• Stabilized and partially stabilized dunes	
Saratoga Springs (Ibex Dunes)	• Stabilized and partially stabilized dunes • Mojave fringe-toed lizard - *Cordylanthus tecopensis* G2	
Sheep Range	• *Astragalus ackermanii* G2 • *Astragalus nyensis* G3 • *Chrysothamnus eremobius* G1	➢ Contained within Desert National Wildlife Range ➢ Overflights from Air Force can be problematic for bighorn sheep
Spring Mountains	• *Antennaria soliceps* G1 • *Arenaria kingii ssp rosea* G4T2 • *Astragalus aequalis* G2 • *Astragalus funereus* G2	➢ Extremely diverse sky-island site – high degree of endemism ➢ Protected within Spring Mountains National Conservation Area ➢ Recreational pressures and vacation home development are major threats
St. Thomas Wash	• Gypsum substrates • *Arctomecon californica* G3 • *Astragalus geyeri var. triquetrus* G2G3 • *Eriogonum viscidulum* G2	
Toquap Wash	• *Astragalus geyeri var. triquetrus* G2G3 • *Astragalus nyensis* G3 • *Eriogonum viscidulum* G2	➢ Outstanding wash site – threatened by OHV race events
Tyrell Wash	• Stabilized and partially stabilized dunes - *Hesperocallis undulata* G3G4	
Valjean Hills	• Stabilized and partially stabilized dunes - *Linanthus arenicola* G2?	
Warner Valley / Fort Pierce Wash	• Stabilized and partially stabilized dunes • Kit fox • Merriam's kangaroo rat • Sonoran lyre snake • Sidewinder • Dune invertebrates • *Arctomecon humilis* G1	

Table 2D.2 Dune and Substrate Portfolio Sites

SITE	BIOLOGICAL ATTRIBUTES * Denotes very good occurrence ** Denotes exceptional occurrence	COMMENTS/OTHER ATTRIBUTES
White Hills – Lake Mead	• Gypsum substrates • *Anulocaulis leioslenus* G? • *Arctomecon californica* G3	
Woods Mountains	• Cactus garden	
Southeastern Mojave		
Bristol Dry Lake	• Lava flow / exposed bedrock	➢ Sand source for Calumet Dunes
Calumet Dune	• Stabilized and partially stabilized dunes • Mojave fringe-toed lizard	
Chemehuevi Mtns.	• Cactus garden • Sonoran lyre snake	
Chemehuevi Valley	• Desert pavement / salt flat	➢ Proposed Desert tortoise DWMA ➢ Strong Sonoran influence in vegetative communities and some vertebrate species
Fenner Valley	• Cactus garden	➢ Extension of Piute Valley DWMA, also proposed for ACEC status for desert tortoise
Lead Mountain Dunes	• Stabilized and partially stabilized dunes • Desert kangaroo rat • Badger • Mojave fringe-toed lizard • Sidewinder	
Marble Mountains	• Limestone substrates	
South-Central Mojave		
Cushionberry Springs	• Limestone substrates • *Astragalus albens* G1	
Dale Dry Lake	• Stabilized and partially stabilized dunes • Mojave fringe-toed lizard	
Gold Crown Wash / Pinto Mountain	• Cactus garden • Stabilized and partially stabilized dunes • Badger	
Lavic lake / Pisgah Crater	• Lava flow / exposed bedrock • Unstabilized sand • Merriam's kangaroo rat • Sidewinder • *Linanthus arenicola* G2 • *Penstemon albomarginatus* G2	
Lavic Lake Wash	• Stabilized and partially stabilized dunes • Merriam's kangaroo rat • Sidewinder	
Newberry Mtn – CA	• Desert pavement / salt flat • Granitic substrates	

Table 2D.2 Dune and Substrate Portfolio Sites

SITE	BIOLOGICAL ATTRIBUTES * Denotes very good occurrence ** Denotes exceptional occurrence	COMMENTS/OTHER ATTRIBUTES
North Slope San Bernardino Mtns - Carbonate Belt	• Limestone substrates • *Astragalus albens* G1	➢ Unique and diverse association of carbonate endemic plants ➢ Planned protection under the West Mojave Plan
Ord Mountains	• Desert pavement / salt flat • Lava flow / exposed bedrock	
Ord / Rodman Mtns Complex	• Lava flow / exposed bedrock • *Linanthus arenicola* G2	➢ Diverse systems and species site
Quakenbush Dunes	• Stabilized and partially stabilized dunes • Badger • Kit fox • Desert kangaroo rat • Sidewinder • Mojave fringe-toed lizard	
Central Mojave		
Avawatz Mountains	• Limestone substrates	
Bitter Spring Dunes	• Stabilized and partially stabilized dunes • Mojave fringe-toed lizard	
Brodwell Lake / Bristol Mtn.	• Stabilized and partially stabilized dunes • Mojave fringe-toed lizard	
Cronese Basin	• Stabilized and partially stabilized dunes • Mojave fringe-toed lizard • *Linanthus arenicola* G2	
Devils Playground (Kelso Dunes)	• Stabilized and partially stabilized dunes • Mojave fringe-toed lizard • Kelso giant sand treader cricket–endemic • Kelso jerusalem cricket - endemic • *Linanthus arenicola* G2	➢ Completely contained within Death Valley National Park ➢ Essentially unmonitored recreational use (non-motorized)
Eastgate 1 and 2	• Caves and cliffs • Sandstone substrates	
Pilot Knob / Slocum Mountain	• Lava flow / exposed bedrock • Sidewinder	
Pilot Knob Valley	• Stabilized and partially stabilized dunes • *Linanthus arenicola* G2	
Red Pass Lake	• Stabilized and partially stabilized dunes • Mojave fringe-toed lizard • *Linanthus arenicola* G2	
Soda Lake	• Baker desert snail • *Linanthus arenicola* G2	➢ Sand source for Kelso Dunes (Devils Playground) ➢ Only known occurrence of Baker desert snail

Table 2D.2 Dune and Substrate Portfolio Sites

SITE	BIOLOGICAL ATTRIBUTES * Denotes very good occurrence ** Denotes exceptional occurrence	COMMENTS/OTHER ATTRIBUTES
Western Mojave		
Badlands	• Badlands and mudhills • Mojave ground squirrel • *Linanthus arenicola* G2	
China Lake Basin	• Stabilized and partially stabilized dunes • *Linanthus arenicola* G2	
China Lake Dunes	• Stabilized and partially stabilized dunes • Dune invertebrates • *Linanthus arenicola* G2	
Cuddeback Lake / Grass Valley	• Stabilized and partially stabilized dunes • Mojave ground squirrel	
North Slope San Bernardino Mountains -Joshua Tree Woodland	• Mojave ground squirrel • *Canbya candida* G2	
Paxton Playa	• Stabilized and partially stabilized dunes • *Atriplex parishii* G2	
Yardings	• Stabilized and partially stabilized dunes	➢ Unusual type of sand dune – called "star dunes" or "yardangs"

E. DESERT SCRUB

Description

Desert scrub is a broadly defined term referring generally to a complex of vegetation types in the Mojave and Sonora deserts that are uniquely adapted to the harsh conditions present in desert ecosystems. The plant communities that make up “desert scrub” typically are tolerant of low humidity, prolonged droughts, dessicating winds, high alkalinity or salinity, rocky or very sandy soils, and the periodic influx of high quantities of water in the form of surface flooding.

Extensive alluvial fans, or bajadas, form around the perimeter of the interior mountains of the Mojave Desert. These bajadas extend outward to low intervening basins, which commonly contain dry lakebeds or playas. Playas receive water runoff and fine sediments from the surrounding mountains and desert and may contain standing water during the rainy season. Playas are also sites where large amounts of water evaporate, leaving behind high concentrations of salts in playa soils. The entire elevational range of below-sea-level playas to the upper-most peaks of the Panamint Range occur in Death Valley and capture the full compliment of desert scrub vegetative communities as described in the following sections. These are broken down into the major dominant plant communities, beginning with the most common one, creosote scrub, and are partially adapted from Rowlands (1982, 1995) and Vasek and Barbour (1988).

Creosote Scrub - Creosote bush scrub occurs on well-drained sandy flats, bajadas, and upland slopes throughout much of the Mojave Desert. It is found below sea level in Death Valley, and up to elevations of 1500 m elsewhere. On washes, outcrops and steep slopes, *Larrea tridentata* is present but not dominant and it is excluded from dense soils in and around playas or other areas of high salt concentrations. Other authors have suggested that limiting factors for the presence of creosote is the spacing of soil particles, suggesting that creosote bush has high soil oxygen demands. Another author suggests that cold air drainage is the most important factor limiting creosote at the lower basin elevations, such as in and around playas.

The northern limit of creosote bush scrub is located generally in an irregular broad band from Death Valley and Sarcobatus Flats east to Pahranagat Valley in Nevada and then to just north of St. George, Utah. Much interdigitation of typical Great Basin Desert plant species occurs at the northern transitional limits of this community type thus making clean boundaries between these two desert ecoregions difficult to delineate. Severity of winter frosts is suspected to be the limiting factor at this latitude, but Beatley (1974) theorizes that excessive rainfall during the winter period may also be key to this range limitation.

The eastern extent of creosote scrub is sharply defined at the Hurricane Cliffs in northwestern Arizona at the northeastern edge of the Mojave ecoregion and by the Grand Wash Cliffs at the eastern and southeastern edge. This sharp boundary disappears at the southern end of this region where a gradual influx of Sonoran species such as Ocotillo (*Fouqueria splendens),* Palo Verde (*Cercidium floridum)* and Smoke Tree

(*Olneya tesota)* begins to creep into the Mojave. Creosote is common to both deserts so cannot be utilized to delineate the boundary between these two ecoregions.

In stable, old communities of creosote scrub, the creosote bushes, or their clones, may attain ages of several thousand years according to Vasek (1980) as a result of vegetative segmentation. On actively eroding surfaces such as rocky washes, or in young communities, creosote clones are relatively small or scarcely apparent. The consequences of cloning and community age have largely been ignored in considerations of population structure but would appear to be significant.

Although superficially creosote scrub seems monotonous and uniform throughout the Mojave Desert, there are significant local and regional differences in community composition. Diversity increases with topographic diversity and is influenced by relative community age (Johnson et al. 1975, Vasek and Barbour 1988). It is also affected by the rockiness of the soil and annual precipitation. Creosote density generally increases with increasing annual precipitation, but the relationship appears not to be very close as can be seen in Table 24-1 in Vasek and Barbour (1988).

The associated species that occupy the interstitial spaces between clumps or individuals of creosote bushes vary according to the regional location across the Mojave and were utilized along with some related climatic factors to define the subregions by Rowlands (1982).

Saltbush Scrub – This community type has two phases depending on the degree of saturation of soil by available groundwater: the xerophytic phase on dry soils; and the halophytic phase on saturated soils and usually with high salt or alkali concentrations (Vasek and Barbour 1988). The important species that make up the xerophytic phase of saltbush scrub are: *Atriplex polycarpa, Atriplex hymenolytra* and *Atriplex confertifolia.* All these species have limited salt tolerances and usually can be found in basins and valleys throughout the Mojave Desert.

The halophytic phase of saltbush scrub occurs in playas, sinks, and near seeps with available surface water or high mineral content groundwater. Important species that make up this phase of saltbush scrub are: *Nitrophila occidentalis, Allenrolfea occidentalis, Suaeda* spp., and *Sarcobatus vermiculatis.* Vasek and Barbour point out that this phase of saltbush scrub strongly resembles the non-shrubby alkali meadow community described by Thorne, 1976.

It is common to encounter gradients between the halophytic and xerophytic shrub species around the numerous dry lake playas across the Mojave Desert ecoregion. Typically the playas themselves are salt crusted and devoid of vegetation. As one reaches the edge of the dry lake the common halophytic shrub species appear patchily and proceed to integrate with an increasing occurrence of the xerophytic species as the distance from the playa edge increases and available ground water and concurrent salt and alkali minerals decrease.

Eventually the xerophytic saltbush scrub community is replaced by creosote scrub as the salt or alkali mineral content decreases to a tolerable level and groundwater is out of reach of the xerophytic saltbush species. Water and salt concentrations therefore clearly control relative community distributions (Vasek and Barbour 1988).

Playas – This community target, also commonly referred to as dry lake beds, forms a unique system that is inextricably linked to both the vegetative communities and species targets that are discussed in this desert scrub chapter. The relationship is also closely tied to system targets such as dunes and some of the substrate dominant plant and animal

communities dependant upon the source of sand for viability of their habitat sites.

The playas identified in this section range in size from several hundred to several thousand acres and are the foundation for numerous portfolio sites. As such they have been folded into the general Desert Scrub system and become an important attribute to those sites where Saltbush Scrub and some of the dune-dependant targets are also located.

Shadscale Scrub – This community type is considered by several authors to form a distinct zone between sagebrush scrub and creosote scrub at the upper elevations of typical Mojave Desert classifications. It is typified by low, often spinescent, microphyllous shrubs of uniform shape and size occurring in western and southern Nevada and some portions of eastern California. At the northern limits of its range it is commonly found in broad desert valleys of the Great Basin ecoregion in distinctly alkaline soils. To the south, however, it occurs on steep mountain slopes with heavy, rocky soils (Vasek and Barbour 1988).

Shadscale scrub is dominated by *Atriplex confertifolia* and *Artemisia spinescens*, which occur in 97% and 83% respectively of all stands examined by Billings (1949). In addition, *Sarcobatus baileyi* provides a significant fraction of the shrub cover in about 2/3 of the stands examined by Billings. It is considered to be a zonal vegetation on the basis that the differences between sagebrush scrub and shadscale scrub, both floristically and physiognomically, are far more than any intra-community variation (Vasek and Barbour 1988).

Along the southern border of shadscale distribution discussed by Billings (1949), Joshua trees occasionally form open woodlands in a shadscale matrix. In other areas, particularly in southeastern Nevada, shadscale vegetation appears to be replaced by blackbrush (*Coleogyne ramosissima*) which is also considered to be an elevationally delimited transitional vegetation type between creosote scrub and sagebrush scrub communities and consequently between the Mojave Desert and Great Basin ecoregions.

Joshua Tree Woodland – The Joshua tree woodland and associated plant communities form a unique structurally diverse large-patch community type that serves as a definitive and characteristic vegetative symbol of the Mojave Desert. Two forms are recognized by botanists – *Yucca brevifolia* variety *jaegeriana* and the rhizomatous clumping form *Yucca brevifolia* variety *herbertii*.

Joshua trees occur at the same upper elevation limits of the Mojave Desert along with shadscale scrub and blackbrush scrub, although Joshua trees tend to occur on sandier, finer-grained loose soils. Although structurally they appear to dominate the landscape in relatively dense woodlands within their preferred bands of soil and temperature regimes, they form less than 20% of the vegetative landcover.

Blackbrush Scrub – The blackbrush community, although occupying more rocky sloped habitats than the elevationally associated Joshua tree, occupies up to 65% of the plant cover in dense monotypic stands. This is a transition community between creosote scrub and the open drainage basins dominated by Great Basin sagebrush scrub at middle elevations of the Great Basin Desert ecoregion.

Blackbrush scrub is a community particularly susceptible to fires and conversion of the community to an unnatural fire cycle due to the invasion of exotic grass species such as red brome and Schismus. This vegetative community carries fire more than other Mojave Desert assemblages due to the density of plants in the zones in which it occurs. The remnants of these fires, whether naturally caused by lightning strikes or human caused by careless disposal of cigarettes or

vehicle sparks can be strikingly evident across the landscape as they are rapidly replaced by non-native grasslands that are even more vulnerable to repeat ignitions.

There are concerns among biologists and land managers alike that the blackbrush community is in decline across the Mojave, particularly in the northeast portion of the ecoregion due to an increase in fire events resulting from the proliferation of human activities in the desert. Coincident with detrimental effects on blackbrush are negative impacts on all associated and adjacent plant communities such as Joshua Tree woodlands, another non-fire-adapted community that seldom recovers from devastating fires. These other communities are also in decline across the ecoregion as human uses of the desert increase in frequency and type of activities and expand their range within formerly protected, roadless areas of the Mojave.

Conservation Issues

- The density and associated species composition of desert scrub communities are largely dependent on soil type and microclimatic factors as well as slope and aspect.
- Matrix communities require large expanses of relatively intact habitat in order to preserve the more subtle processes that maintain the integrity of both vegetative communities and the animal species that depend on them.
- The remaining large landscape-scale expanses of these matrix types are coming under increasing pressure from a variety of anthropogenic uses – both commercial and recreational – resulting in increasing fragmentation and degradation of the quality of these natural communities.
- The desert tortoise serves as an important *surrogate* species for determining the integrity and sufficiency of preservation of particularly the creosote scrub matrix community. However, the tortoise may not be the best *indicator* of habitat perturbations in the short term due to it's conservative approach to survival in the desert ecosystem

Threats

The majority of landscape level threats are described in the Ecoregional Assessment Chapter, Section D and in Table 1Q.1, but are repeated in this section due to the fact that the following list significantly affects the integrity of almost all proposed Desert Scrub portfolio sites.

- Livestock grazing significantly impacts the proper function and species composition of primarily the Western Mojave portfolio sites.
- Off-highway vehicle recreation is increasing in scope and scale across the Mojave. Due to the variety of events and their differential impacts on ecosystem integrity, strategies should be developed individually to address each.
- Exotic plant species, particularly the grasses and other annuals, are displacing native grasslands at an alarming rate – coincident with the proliferation of roads and trails and OHV activities which serve as transportation corridors and soil preparation for their infiltration into previously protected sites.
- Exotic animal species are also increasing in scope and scale, particularly in riparian and aquatic habitats, causing declines in native vertebrate populations and in some cases local extirpations.
- Residential development continues to spread as the desert communities of Barstow, Baker, Riverside, Needles, Las Vegas, Mesquite and St. George grow at phenomenal rates. With development comes a host of related threats beyond the initial destruction of habitat that affects a huge landscape beyond the footprint of the communities themselves.

- Mining and mineral withdrawals seem to largely be on the decline due to the falling price of precious metals like gold and silver. However, the development previously referred to requires enormous amounts of sand and gravel for housing and business construction and for road development to access the new and expanding communities.

- Fire is an increasing threat to the species composition and persistence of several of our target communities. Directly related to the proliferation of non-native grasses and annuals, a new fire frequency has developed that selects against all succulent communities such as Joshua tree, Mojave Yucca, and all cacti assemblages.

Site Identification

Significant desert scrub sites were identified by one-on-one expert interviews as well as utilizing the GAP vegetation maps and the 1994 Recovery Plan for the Desert Tortoise (Mojave Population). Conservation targets include 19 natural communities, 18 wildlife species and, 6 plant species (See Tables 2E.1 and 2E.2).

The desert scrub system and its six major communities described earlier are considered to be matrix (creosote scrub, xerophytic saltbush scrub) or large-patch (Joshua tree woodland, blackbrush scrub, hydrophytic saltbush scrub, playa) communities. As such, there are two methods that could be utilized to set goals for both coverage and subregional representation across the ecoregion: 1) A minimal percentage of known aerial extent, or; 2) A minimal number of known patch occurrences in each subregion. It was decided, due primarily to the lack of absolute confidence in the GAP coverage of the more discrete community types such as Joshua tree woodlands, that goals for the matrix communities would be set by percent of known aerial extent by GAP. The large and small patch communities would have goals established by a minimum number of known occurrences as identified by the experts within each subregion if possible (i.e. if the type occurs in the respective subregion).

Creosote Scrub – This community type forms a virtually ubiquitous matrix across the Mojave Desert ecoregion as well as adjacent ecoregions such as the Sonoran and Chihuahan Desert ecoregions. The dominant plant is *Larrea tridentata* with a diverse understory of subdominants in some subregions and virtually no other significant occurrence of other subdominant plant associations in other subregions. It was decided that the best method of determining good quality occurrences of creosote scrub was to make choices based upon a surrogate species which was also a target in the Mojave ecoregion – the desert tortoise.

In 1992 the U.S. Fish and Wildlife Service assembled a highly qualified recovery team of population ecologists, desert tortoise biologists, conservation biologists, botanists and desert ecologists to develop the recovery plan for the desert tortoise. This team comprises an amalgamation of expertise that identified discrete areas in the range of the Mojave population of the desert tortoise that would support viable and recoverable populations of this largest reptile in the Mojave Desert. As such, the areas they identified as priorities for conservation action, largely targeted towards federal land managers, are treated as expert-identified polygons with biodiversity values and landscape attributes similar to, albeit larger than, other expert drawn sites in the Mojave portfolio.

With the exception of the northern subregion, the distribution of these recovery areas meets the overall ecoregional goals of equal representation across the range of the target species and communities.

It is well documented that the degree of association between this federally listed reptile

and the matrix plant community is very tight across the tortoise's range in the Mojave ecoregion. The assumption is then reasonable that the best populations of desert tortoise should reflect the best remaining examples of its preferred habitat type – creosote scrub. Therefore, by association, the priority critical habitat units that have been identified for the recovery of this threatened species were likewise chosen as the best examples of viable creosote scrub community. These large blocks of mostly public lands will be designated on a state by state and agency by agency basis as ACECs or, in the case of Clark County, Nevada, Desert Wildlife Management Areas (DWMAs).

Depending upon who the major land manager or landowner is, each regional jurisdiction will be responsible for designating the ACECs or DWMAs to promote recovery of the desert tortoise. Clark County, Nevada has been ahead of the tortoise protection curve due largely to its early development of the currently largest Habitat Conservation Plan in the nation – in existence since 1991.

DWMAs established by Clark County in close cooperation with the Bureau of Land Management, National Park Service and the City of Boulder City are the primary mitigation measure to support an incidental take permit that covers all undeveloped private lands in Clark County, Nevada. Roughly 140,000 acres of private land out of 5.6 million acres county-wide are covered for a 30-year period.

Other entities in the range of the Mojave population of the desert tortoise are either just completing the process of designating DWMAs and ACECs or still identifying and determining what uses will continue to be allowed on the mostly public lands in these recovery areas. Other ongoing or recently completed large, landscape level desert tortoise planning efforts (with the lead agency/entity identified in parentheses) include: the West Mojave Management Plan (BLM); the Northern and Eastern Mojave Management Planning effort (NPS); the Washington County Multi-Species HCP (Washington County, Utah); and the Northern Colorado Desert Management Plan (BLM).

Based on the assumption therefore that the desert tortoise DWMAs represent the best populations of this species and its habitat type, all 14 recovery areas were chosen as priority sites. These sites also capture large matrix examples of creosote scrub community due to the large amount of acreage (a minimum of 100,000 acre blocks has been recommended) required to accomplish the desert tortoise recovery objectives based upon calculations of minimal viable population size of 1,000 breeding adults (USFWS 1994).

Table 2E. 1 Desert Scrub Target Communities

TARGET COMMUNITY	PATCH TYPE	DISTRI-BUTION	GOALS
Alkali Playa	Large	Limited	40%
Alkali Meadows/Seeps	Large	Widespread	30%
Mesquite Bosque	Small	Limited	50%
Saltbush Scrub	Matrix	Limited	30%
Fourwing Saltbush	Matrix	Limited	30%
Creosote Bush – Mixed Scrub	Matrix	Limited	30%
Mojave Mixed Scrub	Large	Endemic	60%
Desert Grassland & Shrub Steppe	Large	Widespread	30%
Desert Playa – Mixed Scrub	Large	Limited	40%
Enriched Succulent Mixed Scrub	Small	Endemic	70%
Joshua Tree – Big Galleta Sparse Woodland	Large	Endemic	60%
Joshua Tree Woodland	Large	Endemic	60%
Ocotillo Shrubland	Small	Limited	50%
Blackbrush – Mixed Scrub	Large	Limited	40%
Ambrosia dumosa dwarf shrubland alliance	Small	Limited	50%
Teddy-bear Cholla shrubland alliance	Small	Limited	50%
Sonora Mixed Desert Scrub – Brittlebush	Large	Peripheral	10%
Sonora-Mojave Mixed Desert Scrub	Large	Limited	40%
Sonoran Mixed Scrub – Palo Verde – mixed cacti	Large	Peripheral	10%

Other Desert Scrub Communities: The other community types that comprise the broad desert scrub system category, namely shadscale scrub, saltbush scrub, blackbrush scrub, Joshua tree woodland, and playas were evaluated on a site by site basis along with all other primary desert scrub communities and target species (See Tables2E.1 and 2E.2). Minimal patch sizes were set for each community type depending on how they were classified (large patch, small patch or matrix) and taking into consideration their natural range of patch sizes based on the average acreage across the ecoregion.

Table 2E.2 Desert Scrub Target Species

MAMMALS	GLOBAL RANK
Badger	G5
Kit Fox	G4
Mojave Ground Squirrel	G2
Merriam's Kangaroo Rat	G5
Bat Hibernacula/Diversity	?
BIRDS	
LeConte's Thrasher	G4
Phainopepla	G4
Burrowing Owl	G4
REPTILES	
Desert Tortoise	G4
Mojave Patch-nosed Snake	G5
Desert Iguana	G5
Mojave Fringe-toed Lizard	G4
Leopard Lizard	G5
Gila Monster	G4T3
Chuckwalla	G5T4
Desert Horned Lizard	G5
Desert Night Lizard	G5
San Diego Horned Lizard	G4T3
PLANTS	
Penstemon albomarginatus	G2
Phacelia parishii	G2
Arctomecon californica	G3
Eriophyllum mohavense	G2
Mimulus mohavensis	G2
Astragalus jaegerianus	G1

Site Evaluation/Assessment

Each site was attributed with it's particular species and community composition based upon GAP-indicated data, Heritage databases, and expert interviews.

In addition to the target species and communities present at each site, other factors were utilized to rank sites for their suitability in the conservation portfolio. These factors were largely based upon the three variables that were asked of experts during the site nomination phase of interviews: Size, Condition, and Landscape Context. Other factors such as the degree of roadedness, the number of systems supported by the site, and species richness were evaluated as to whether to choose a site for inclusion in the portfolio.

Site Selection Process

All sites from the 241 potential portfolio polygons were checked for information relevant to the desert scrub primary targets, which had to include some expert information or Heritage data points to qualify for the first cut. GAP information alone was felt to be too unreliable upon which to base a site selection.

Among the first cut of potential portfolio sites, all sites that experts identified as containing "exceptional, unique or outstanding" examples of a target species, community, or assemblage of species were automatically selected for the draft portfolio. Likewise, all polygons that contained A or B Heritage occurrence ratings were similarly chosen for the same rationale.

Sites that encompassed rare or endemic plant species which were not essentially desert scrub community-related nor linked to the processes responsible for maintaining the desert scrub system were not automatically chosen. Rather, these "orphan sites" were

noted for consideration in the site design phase of conservation planning which will follow this larger scale, coarser filter ecoregional approach.

Conservation Management Lands: Following the prior biologically-based selection of sites for the desert scrub system, practicality in conservation implementation had to be considered given the scope and scale of the Mojave portfolio as it was emerging. This meant that all sites were evaluated based upon their inclusion (spatially) in an already "protected" landscape.

This approach considered all sites located in National Parks, National Preserves, National Monuments, Areas of Critical Environmental Concern (where conservation of the natural resource was the primary focus), Wilderness Study Areas (although this status could be downgraded at a future date), Wilderness Areas, Research Natural Areas, Wildlife Refuges (where the target species or community was not a harvestable resource) and Desert Wildlife Management Areas. Although primarily politically defined management units, their protection from large-scale urban developments, groundwater withdrawals, industrial development and most other major anthropogenic stresses cannot be minimized when compared to the threats that unprotected private land sites are vulnerable to.

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Implementation of a portfolio containing these publicly owned and federally managed locations results in an efficiency of landscape scale conservation. It also requires close coordination with the land managers and inclusion of their staff in the design and strategic planning for these sites.

Results

107 desert scrub sites are recommended for inclusion in the Mojave Desert portfolio (See Table 2E.3). These sites include the full range of elevational representation of this system type, from alkaline playas to blackbrush-Joshua Tree woodlands and big sagebrush communities at the northern edge of the ecoregion. The sites are described fully in the following attribute tables.

The progress of the Desert Scrub system towards meeting the overall ecoregional conservation goals was impressive, yet not unexpected considering it encompasses the definitive communities for the Mojave Desert as a whole. An analysis remains to be done of whether the sites chosen for this draft of the portfolio truly capture the range of diversity of all those elements for which we had no expert information or Heritage data points

Table 2E.3 Desert Scrub Portfolio Sites

SITE	BIOLOGICAL ATTRIBUTES * Denotes very good occurrence ** Denotes exceptional occurrence	COMMENTS/OTHER ATTRIBUTES
Central Mojave		
ASJE	• Joshua tree woodland • Mojave Ground Squirrel ** • *Astragalus jaegerianus* **	
Broadwell Lake to Bristol Mountain	• Alkali playa • Mojave fringe-toed lizard	➢ Contains partially stabilized sand dunes
Cady Mountains	• Mojave mixed woody scrub • *Hilaria rigida* herbaceous alliance • Chuckwalla * • Crucifixion Thorn • *Penstemon albomarginatus*	➢ Neotropical migratory bird habitat ➢ Raptor habitat
Coolgardie Mesa	• Joshua tree woodland • LeConte's Thrasher * • Panamint kangaroo rat • Mojave ground squirrel * • *Astragalus jaegerianus* • *Eriophyllum mohavense*	
Coyote Lake – Disjunct Playas	• Saltbush scrub • Phainopepla • *Phacelia parishii* *	➢ Contains partially stabilized sand dunes
Cronese Basin	• Crucifixion thorn * • Mesquite bosque • Saltbush scrub • Phainopepla • Mojave fringe-toed lizard • *Androstephium brevifolium* • *Linanthus arenicola*	➢ Area of high biological diversity ➢ Neotropical migratory bird habitat ➢ Mojave desert washes ➢ Partially stabilized sand dunes
Cronese Valley	• *Hilaria rigida* herbaceous alliance * • Mesquite bosque • *Chilopsis linearis* int. flooded shrub alliance • *Androstephium brevifolium* • *Linanthus arenicola*	➢ Mojave desert washes ➢ OHV recreation is increasing threat
Cuddeback Lake – Grass Valley	• Fourwing saltbush • Joshua tree woodland • Mojave ground squirrel * • Shadscale scrub • *Cymopterus deserticola* • *Eriophyllum mohavense*	➢ Desert playas ➢ Rare plant assemblage ➢ Partially stabilized sand dunes

Table 2E.3 Desert Scrub Portfolio Sites

SITE	BIOLOGICAL ATTRIBUTES * Denotes very good occurrence ** Denotes exceptional occurrence	COMMENTS/OTHER ATTRIBUTES
Fremont-Kramer/ Superior-Cronese DWMA	• Creosote bush – mixed scrub * • Desert tortoise * • Reptile scrub habitat * • Burrowing owl (nesting) • Mojave ground squirrel • Panamint kangaroo rat • *Phacelia parishii* • *Eriophyllum mohavense* • *Cymopterus deserticola* • *Eschcholzia minutiflora* var.*twisselmanii*	➢ Outstanding desert scrub site – high diversity ➢ Good bat diversity & habitats ➢ Good raptor diversity & habitats ➢ Nesting colony of Tricolor Blackbirds
Goldstone Complex	• Creosote bush – mixed scrub * • Playa scrub • Blackbrush – mixed scrub * • Mojave ground squirrel ** • Southern desert horned lizard * • *Astragalus jaegerianus*	➢ Outstanding biological diversity site ➢ Good reptile scrub habitat ➢ Good bat habitat & diversity
Lavic Lake – Pisgah Crater	• Fourwing saltbush • Crucifixion thorn woodland • Merriam's kangaroo rat • Reptile scrub habitat • *Penstemon albomarginatus* *	➢ Drainages and crucifixion thorn woodland creates good habitat for several Sonoran bird species – may allow for northernmost extensions of these species
Pilot Knob – Slocum Mountain	• Joshua tree – Spiny hopsage • Joshua tree woodland * • Desert grassland – shrub steppe • Burrowing Owl • Mojave ground squirrel • Reptile scrub habitat *	➢ This site is located at the edge of the East/West moisture gradient for the ecoregion
Superior Valley	• Creosote bush – mixed scrub * • Saltbush scrub • Desert grassland – shrub steppe * • Joshua tree – Big galleta sparse woodland • Spiny hopsage shrubland alliance • Mojave ground squirrel • Burrowing Owl * • *Cymopterus deserticola*	➢ Good raptor habitat ➢ Geologically diverse site ➢ Good systems diversity resulting in high biodiversity
Eastern Mojave		
Beaver Dam Slope	• Desert grassland – shrub steppe • Joshua tree woodland • Mojave green rattlesnake * • Desert tortoise * • Utah Western blind snake * • Glossy snake * • Western Leaf-nosed snake * • *Eriogonum viscidulum* * • *Pediomelum castoreum*	➢ Desert Wildlife Management Area for priority desert tortoise population as well as a suite of other herps and plants

Table 2E.3 Desert Scrub Portfolio Sites

SITE	BIOLOGICAL ATTRIBUTES * Denotes very good occurrence ** Denotes exceptional occurrence	COMMENTS/OTHER ATTRIBUTES
Blue Diamond Hills	• *Hilaria rigida* herbaceous alliance • Gila monster • Chuckwalla • *Penstemon bicolor* ssp. *bicolor* • Cactus diversity ** • *Agave utahensis* var. *eborispina* • *Opuntia multigeniculata* var. *williamsii*	➢ Outstanding cactus garden on limestone cliffs/shelves ➢ Only location for endemic Blue Diamond cholla ➢ Extremely threatened by gypsum mine and residential development potential
Bull Canyon Succulents	• Enriched succulents and woody shrub* • Joshua tree woodland	
Cactus Valley	• Desert grassland – shrub steppe * • Cactus species diversity * • Desert tortoise *	➢ Rich assemblage of cacti and succulents adjacent to a protected Desert Wildlife Management Area ➢ Small-claim mining is primary threat to this valley in the New York Range
Castle Cliff/Woodbury Hardy	• Desert tortoise * • Mojave green rattlesnake * • Gila monster • Utah western blind snake • Glossy snake	➢ Excellent reptile diversity ➢ Adjacent to Beaver Dam Slope site
Cima Dome – Joshua Tree Woodland	• Blackbrush – mixed scrub • Joshua tree woodland ** • Mojave mixed scrub	➢ Inside the Mojave National Preserve ➢ Some mining issues remain to be resolved
Coyote Springs Valley	• Creosote bush – mixed scrub * • Desert tortoise * • Gila monster • *Arctomecon merriami* • *Arenaria stenomeres* • *Penstemon bicolor* ssp. *bicolor*	➢ Critical Desert Tortoise habitat for the NorthEast Recovery Unit ➢ Significant large washes traverse the valley ➢ Contiguous with Desert National Game Range ➢ Extremely threatened by large scale residential development
Desert Lake Valley	• Alkali playa • Fourwing saltbush – winterfat scrub • Desert tortoise • *Phacelia parishii*	➢ On Nellis Air Force Training Ranges ➢ Target for aerial bombing maneuvers
Dog Bone Lake	• Alkali playa • Fourwing saltbush – winterfat scrub • Desert tortoise	➢ On Nellis Air Force Ranges ➢ Target for aerial bombing maneuvers

Table 2E.3 Desert Scrub Portfolio Sites

SITE	BIOLOGICAL ATTRIBUTES * Denotes very good occurrence ** Denotes exceptional occurrence	COMMENTS/OTHER ATTRIBUTES
Gold Butte	• Mojave mixed woody scrub • Desert grassland – shrub steppe • Joshua tree – Big galleta sparse woodland • Gila Monster * • Reptile scrub habitat • *Arctomecon californica* ** • *Astragalus mokiacensis* • *Dudleya pulverulenta* • *Phacelia anelsonii* • *Pediomelum castorium*	➢ Excellent Mojave Desert Scrub representation with few anthropogenic impacts ➢ Adjacent to the Gold Butte-Pakoon basin DWMA
Gold Butte – Pakoon DWMA	• Creosote bush – mixed scrub ** • Joshua tree – Big galleta sparse woodland • *Hilaria rigida* herbaceous alliance • Sonoran mixed desert scrub – brittlebush • Desert tortoise * • Reptile scrub habitat * • *Arctomecon californica* ** • *Astragalus geyeri* var. *triquetris* • *Astragalus nyensis* • *Eriogonum viscidulum* * • *Petalonyx parryi*	➢ Critical desert tortoise habitat recommended by the Recovery Team ➢ Very low degree of roadedness should be preserved in status quo
Granite Mountain Bajadas	• Enriched succulent and woody scrub * • Joshua tree woodland	➢ Unique assemblage of succulents
Grapevine/Sacaton Canyon	• Joshua tree woodland • Burrowing Owl • Chuckwalla • *Dudleya pulverulenta*	➢ In Lake Mead NRA – impacts from recreational camping, picnicking ➢ Good diversity of habitat types and perennial springs
Halloran Summit	• Blackbrush scrub –mixed scrub** • *Opuntia bigelovii* shrubland alliance • Chuckwalla	➢ Very dense stand of blackbrush and Mojave yucca mix ➢ Nice sized patches of Teddy Bear cholla ➢ Threatened by adjacent I-15 highway and fires caused by vehicle sparks and cigarettes
Hualapai Valley	• Desert grassland – shrub steppe • Sonora – Mojave mixed desert scrub • Raptor foraging area * • *Phacelia parishii*	➢ Potentially superb desert grasslands bordered by steep cliffs will require significant management changes with restoration
Ivanpah Valley DWMA	• Joshua tree woodland * • Blackbrush – mixed scrub • Desert tortoise *	➢ Desert tortoise recovery unit and long-term study plots ➢ Good diversity of playas, bajadas ➢ Cattle grazing continues to impact

Table 2E.3 Desert Scrub Portfolio Sites

SITE	BIOLOGICAL ATTRIBUTES * Denotes very good occurrence ** Denotes exceptional occurrence	COMMENTS/OTHER ATTRIBUTES
Jean Dry Lake and foothills	• Saltbush scrub • Alkali playa • Desert grassland and shrub steppe • Desert tortoise • Reptile scrub habitat • *Penstemon albomarginatus*	➢ 40 acre stand of White-margined Penstemon fenced by BLM on dunes system ➢ Source of sand for dunes and transport corridor threatened by new large airport development
Joshua Tree NNL	• Desert grassland – shrub steppe • Joshua tree woodland ** • Sonora – Mojave mixed desert scrub • Gila monster • *Arctomecon californica* • *Mortonia scabrella* var. *utahensis*	➢ Excellent Joshua Tree woodland ➢ Newly designated Grand Wash Cliffs/Parashant Canyon National Monument
Lanfair Valley	• *Hilaria rigida* herbaceous alliance** • *Hilaria jamesii* herbaceous alliance • Joshua tree woodland • Desert tortoise * • Reptile scrub habitat *	
Mesquite Valley – North Playa	• Fourwing saltbush – winterfat scrub • Blackbrush – mixed scrub	
Mormon Mesa – Upper	• Desert grassland – shrub steppe • Desert tortoise * • *Astragalus geyeri* var. *triquetrus* • *Astragalus nyensis* • *Eriogonum viscidulum* **	➢ One of two highest priority desert tortoise populations in the NE recovery unit
Mormon Mesa – Lower	• Desert grassland – shrub steppe • Reptile scrub habitat • *Astragalus geyeri* var. *triquetrus* * • *Pediomelum castorium*	➢ Site with mixed cottonwood-willow riparian woodland on shores of Lake Mead NRA ➢ Not a designated tortoise recovery area – livestock grazing continues
Nellis Air Force Base	• Blackbrush – mixed scrub • Desert tortoise • *Arctomecon californica* *	➢ One of two remaining large viable private parcels with *Arctomecon californica* in the Las Vegas Valley
Newberry Mountains	• Gila monster • Chuckwalla *	➢ One of best Chuckwalla populations, seriously threatened by Commercial Collection
Oatman Bat Complex	• Sonora mixed desert scrub – brittlebush • Sonoran-Mojave mixed desert scrub • Bat hibernacula and maternal roosts	➢ Series of abandoned mine shafts form an important habitat matrix for many bat species.

Table 2E.3 Desert Scrub Portfolio Sites

SITE	BIOLOGICAL ATTRIBUTES * Denotes very good occurrence ** Denotes exceptional occurrence	COMMENTS/OTHER ATTRIBUTES
Pintwater Range	• Fourwing saltbush – winterfat scrub • Big sagebrush – spiny hopsage scrub • Blackbrush – mixed scrub	➢ On Nellis Air Force Ranges
Piute, Eldorado, Fenner Valleys DWMA	• Creosote bush – mixed scrub * • Joshua tree – Big galleta sparse woodland * • *Hilaria rigida* herbaceous alliance • Mojave mixed scrub • Burrowing Owl • Desert tortoise ** • Reptile scrub habitat • *Astragalus allachrous* var. *playanus* • *Echinocereus engelmannii* var. *howei* • *Opuntia basilaris* var. *brachyclada* • *Penstemon albomarginatus*	➢ Only DWMA for desert tortoises currently designated, funded and managed for the benefit of multiple species and communities ➢ Mitigation area for the Clark County Multiple Species HCP ➢ One of two high priority recovery populations for desert tortoise in the NorthEast recovery unit
Red Cliffs Desert Reserve	• Saltbush scrub • Desert grassland and shrub steppe • Desert tortoise ** • Gila monster * • Chuckwalla	➢ Washington County HCP mitigation area – strong community support and agency partners focus ➢ Peregrine falcon nesting area
Red Lake Edge	• Sonora-Mojave mixed desert scrub • Desert grassland & shrub steppe • *Phacelia parishii*	
River Mountains	• *Eriogonum fasciculatum* shrubland alliance • Desert iguana * • Desert tortoise * • Gila monster * • Chuckwalla *	
Roach Lake	• Saltbush scrub • Desert grassland – shrub steppe • *Penstemon albomarginatus* *	➢ Threatened by proposed airport development and a lot of OHV recreation
Sheep Range	• Desert grassland – shrub steppe • Big sagebrush – Spiny hopsage scrub • Blackbrush – mixed scrub • *Astragalus nyensis* • *Gilia ripleyi* • *Porophyllum pygmaeum*	➢ Important "sky island" with similar degree of endemism as Spring Mountains nearby ➢ Mostly protected within the Desert National Wildlife Range ➢ Good Bighorn Sheep site
Snow Canyon – SP	• Utah Juniper woodland • *Arctomecon humilis* * • *Echinocereus engelmannii* var. *howei* • *Echinocereus engelmannii* var. *purpurea*	➢ Semi-protected state park, subject to incursions by OHV recreation ➢ Part of mitigation area for Washington Co. HCP for desert tortoise – Red Cliffs Desert Reserve

Table 2E.3 Desert Scrub Portfolio Sites

SITE	BIOLOGICAL ATTRIBUTES * Denotes very good occurrence ** Denotes exceptional occurrence	COMMENTS/OTHER ATTRIBUTES
Soda Lake	• Alkali playa • Alkali meadow/seep • Fourwing saltbush – winterfat scrub • *Linanthus arenicola* • *Eremarionta rowelli bakerensis* • *Gila bicolor mohavensis*	➢ Migratory waterfowl habitat ➢ Neotropical migratory bird habitat ➢ Unique association of vegetation and landforms ➢ Unusually sharp contrast between playa and rugged Soda Mtn.
South Black Mountain	• Blackbrush mixed scrub • Sonoran population – desert tortoise • Gilbert's red-tailed skink • Gila monster • *Petalonyx nitidus* • *Pyrgulopsis conica*	➢ Bat colonies and foraging habitat
Teddy Bear Forest	• Fourwing saltbush – winterfat scrub • *Opuntia bigelovii* shrubland alliance * • Gila monster	
Warner Valley / Ft. Pierce Wash	• Desert grassland – shrub steppe • Burrowing Owl • Gila monster • *Arctomecon humilis* * • *Pediocactus sileri* • *Petalonyx parryi* *	➢ Endemic dune invertebrates ➢ Good bat species diversity ➢ Partially stabilized sand dunes
White Hills – Lake Mead	• Sonora-Mojave mixed desert scrub • *Anulocaulis leioslenus* ** • *Arctomecon californica* ** • *Petalonyx parryi*	➢ Mixed cottonwood-willow riparian woodland on shores of Lake Mead NRA ➢ Nesting Peregrine Falcons
Woods Mountains	• Joshua tree – Big galleta sparse woodland • Cactus garden • *Fouqueria splendens* shrubland alliance **	
Northern Mojave		
Cactus Flat	• Joshua tree woodland • Big sagebrush – spiny hopsage scrub • Shadscale scrub • Mojave ground squirrel • Golden eagle	
Coso Range	• *Ephedra nevadensis* shrubland alliance * • Spiny hopsage – mixed scrub • Big sagebrush scrub • Mojave Ground Squirrel * • Panamint alligator lizard • Chuckwalla	➢ Important bat habitat ➢ System diversity, good landscape quality overall ➢ Most remote area from urban development in the Mojave

Table 2E.3 Desert Scrub Portfolio Sites

SITE	BIOLOGICAL ATTRIBUTES * Denotes very good occurrence ** Denotes exceptional occurrence	COMMENTS/OTHER ATTRIBUTES
Death Valley	• Alkali playa • Saltbush scrub • Shadscale scrub • Reptile scrub habitat · *Eriogonum continuum* · *Gilmania luteola* · *Assiminea infima* • *Fimbristylis thermalis*	➢ Lowest point in the continental US ➢ Completely contained within Death Valley National Park ➢ Rare fish habitat in thermal springs ➢ Outstanding geologic diversity
Emigrant Canyon	• Mojave mixed woody scrub * • Joshua tree woodland • *Gilia ripleyi* • *Sphaeralcea rusbyi* var. *eremicola*	
Fallout Hills	• Fourwing saltbush – winterfat scrub • Desert grassland & shrub steppe • Big sagebrush – spiny hopsage scrub	
Haiwee Springs	• Big sagebrush scrub • Spiny hopsage mixed scrub • Mojave Ground Squirrel • Panamint alligator lizard • *Petalonyx nitidus* • *Phacelia nashiana*	➢ Good habitat diversity with springs, washes, willow woodlands ➢ Good bat habitat ➢ Amphibian diversity ➢ Near monoculture of Indigo Bush near cinder cones
Halfpint Range	• Fourwing saltbush – winterfat scrub • Big sagebrush – spiny hopsage scrub • *Gilia nyensis* • *Camissonia megalantha* • *Hulsea vestita* ssp. *Inyoensis* • *Perityle intricata* • *Phacelia beatleyae* • *Phacelia mustelina*	
Indian Spring Valley	• Desert grassland & shrub steppe • Big sagebrush – spiny hopsage scrub • Reptile scrub habitat * • *Phacelia parishii* ** • *Arctomecon merriami* • *Perityle intricata*	➢ Well developed desert pavement areas ➢ On Nellis Air Force Training Ranges – playas subject to periodic bombing
Last Chance Range	• Desert grassland & shrub steppe • Big sagebrush - spiny hopsage scrub • *Gilia ripleyi* * • *Penstemon calcareous* • *Cymopterus gilmanii* • *Dedeckera eurekensis*	
Marble Canyon, Saline, Eureka Valleys	• Joshua Tree woodland • *Cymopterus gilmanii* * • *Oenothera californica* ssp *eurekensis* * • *Penstemon calcareus* **	➢ Unique assemblage of rare plants

Table 2E.3 Desert Scrub Portfolio Sites

SITE	BIOLOGICAL ATTRIBUTES * Denotes very good occurrence ** Denotes exceptional occurrence	COMMENTS/OTHER ATTRIBUTES
Massachusetts Mountain	• Fourwing saltbush – winterfat scrub • Alkali playa • *Camissonia megalantha* • *Astragalus funereus* • *Phacelia beatleyae*	
Oasis Valley	• Alkali meadow & seep ** • Shadscale scrub • Fourwing saltbush • Amargosa toad ** • Desert tortoise • Oasis Valley speckled dace ** • Oasis Valley springsnail * • *Astragalus funereus* *	➢ Neotropical migratory bird habitat ➢ Only confirmed location for endemic Amargosa toad ➢ Cottonwood-willow riparian woodland ➢ Headwaters of the Amargosa River drainage system
Panamint Canyons	• Mojave mixed scrub * • Panamint alligator lizard • *Enceliopsis covillei* • *Lupinus magnificus* var.*magnificus*	➢ Neotropical migratory bird habitat ➢ Very systems-diverse region with high species richness ➢ Good bat habitat
Shoshone Mountain	• Big sagebrush – spiny hopsage scrub • Fourwing saltbush – winterfat scrub • *Astragalus oophorus* var. *clokeyanus* • *Penstemon pahutensis*	
Slate Range	• Blackbrush – mixed scrub • Grayia spinosa shrubland alliance • Saltbush scrub • Joshua tree woodland • Creosote – desert holly scrub • Mojave ground squirrel	
Spotted Range	• Big sagebrush – spiny hopsage scrub • Fourwing saltbush – winterfat scrub • *Agave utahensis* var. *eborispina* • *Arabis shockleyi* • *Arctomecon merriami* • *Astragalus nyensis* • *Gilia ripleyi* • *Perityle intricata*	
Xanadu Lowland	• Desert pavement • *Hilaria rigida* herbaceous alliance* • *Ephedra nevadensis* shrubland alliance • Reptile scrub habitat	➢ Well developed desert pavement areas ➢ Good ungrazed reference point for desert grasslands condition
South-Central Mojave		
Cactus Garden – JTNP	• *Opuntia bigelovii* shrubland alliance *	

Table 2E.3 Desert Scrub Portfolio Sites

SITE	BIOLOGICAL ATTRIBUTES * Denotes very good occurrence ** Denotes exceptional occurrence	COMMENTS/OTHER ATTRIBUTES
Gold Crown Wash/ Pinto Mountain	• Acacia shrubland alliance • Mojave mixed woody scrub • Desert tortoise • Chuckwalla	➢ Area of high biological diversity ➢ Outstanding bat habitat & diversity ➢ Good cactus garden ➢ System diversity ➢ Protection of this area in conjunction with adjacent managed-use zones could ensure connectivity corridor between Sonoran (Colorado Desert) population of desert tortoise in JTNP and Mojave populations to the north.
Joshua Tree DWMA	• Joshua tree woodland ** • Sonora-Mojave mixed scrub • Desert tortoise • Gila monster • Merriam's kangaroo rat • *Ammoselinum giganteum* • *Erigeron parishii* • *Escobaria vivipara* var. *alversonii* • *Matelea parvifolia* • *Monardella robinsonii* • *Senna covesii*	➢ Mostly contained within Joshua Tree National Park ➢ Good bat habitat and diversity ➢ Breeding neotropical migratory birds ➢ Rare plant diversity
Kane Wash	• *Acacia greggii* shrubland alliance • *Psorothamnus spinosus* shrubland alliance • *Chilopsis linearis* int. flooded shrub alliance • American badger • Chuckwalla • *Mimulus mohavensis*	➢ Important Raptor habitat ➢ Outstanding desert wash system – still free of exotic Tamarisk ➢ Good bat habitat ➢ Corridor for species movement between Daggett and Newberry Mountains
Lavic Lake/Pisgah Crater	• Fourwing saltbush • Alkali playa • Crissal's Thrasher • Merriam's kangaroo rat • Reptile scrub habitat • *Penstemon albomarginatus* * • Crucifixion thorn • *Linanthus arenicola*	➢ Great landscape diversity resulting in species richness ➢ Lava flow ➢ Drainage and presence of Crucifixion thorn provides habitat for several bird species more typical of Sonoran Desert – may serve as the Western extension of their range

Table 2E.3 Desert Scrub Portfolio Sites

SITE	BIOLOGICAL ATTRIBUTES * Denotes very good occurrence ** Denotes exceptional occurrence	COMMENTS/OTHER ATTRIBUTES
Mesquite Lake – 29 Palms	• Alkali playa • Mesquite bosque * • Saltbush scrub • Mojave fringe-toed lizard	➢ Migratory waterfowl habitat
Munsen Canyon	• *Opuntia bigelovii* shrubland alliance • California fan palm oasis • Mojave desert wash	
North Slope San Bernardino Mts. – Carbonate Belt	• Mojave mixed woody scrub * • Desert rosy boa • San Diego horned lizard • *Erigeron parishii* **	➢ Outstanding and irreplaceable rare plant assemblage on limestone substrate ➢ High priority site for the WEMO plan ➢ Neotropical migratory bird habitat ➢ Geologic diversity resulting in biological diversity
Ord Mountains	• *Hilaria rigida* herbaceous alliance • *Mimulus mohavensis* **	➢ Good mix of system types especially when in combination with the other sites within this general Ord/Rodman Mts complex
Ord Mountains – Cactus Garden	• Cactus species diversity * • Joshua tree woodland	➢ Good mix of system types especially when in combination with the other sites within this general Ord/Rodman Mts complex
Ord-Rodman Mountains Complex	• *Mimulus mohavensis* • *Linanthus arenicola*	"
Pinto Basin	• Desert pavement and salt flat • Joshua tree woodland • Mojave desert wash • Desert tortoise *	➢ Diverse basin with a host of Sonoran/Mojave transitional species and communities
Pipes Canyon	• Joshua tree woodland * • LeConte's Thrasher * • Southwestern Willow Flycatcher • Desert rosy boa • Southern desert horned lizard • *Astragalus tricarinatus* • *Erigeron parishii* • *Gilia maculata*	➢ Extraordinary diversity of system types and species ➢ Neotropical migratory bird habitat ➢ Rare invertebrates ➢ Perennial stream ecosystem ➢ Oak woodland & chaparral present
Pleasant Valley Playa	• Alkali playa • Mesquite bosque • Saltbush scrub • Joshua tree woodland	
Queen Valley	• Joshua tree – Big galleta sparse woodland • *Hilaria rigida* herbaceous alliance • Big sagebrush – spiny hopsage • Joshua tree woodland **	

Table 2E.3 Desert Scrub Portfolio Sites

SITE	BIOLOGICAL ATTRIBUTES * Denotes very good occurrence ** Denotes exceptional occurrence	COMMENTS/OTHER ATTRIBUTES
Rodman Mountains	• Desert grassland – shrub steppe • Joshua tree woodland • Mojave desert wash • *Psorothamnus spinosus* shrubland alliance • Desert tortoise * • Chuckwalla • *Mimulus mohavensis*	➢ Good bat habitat & species diversity ➢ Neotropical migratory bird habitat ➢ Good systems diversity ➢ Only non-impacted southern Mojave site
Twentynine Palms – West	• Mesquite bosque • Creosote – mixed scrub	➢ Neotropical migratory bird habitat
Upper Johnson Valley	• Playa • Saltbush scrub • Creosote rings • Mojave Yucca rings **	➢ Important location with both creosote rings and Yucca rings.
Southeastern Mojave		
Black Top Fan	• Merriam's kangaroo rat • Southern desert horned lizard • Chuckwalla • Reptile scrub habitat *	
Bristol Dry Lake	• Alkali playa & Saltbush scrub • Fourwing saltbush – winterfat scrub	➢ Lava flows – exposed bedrock ➢ Sand source for nearby dunes
Cadiz Dry Lake & Dunes	• Alkali playa • Mojave fringe-toed lizard	➢ Partially stabilized sand dunes
Chemehuevi DWMA	• Sonoran – Mojave mixed desert scrub • Joshua tree woodland • Desert tortoise * • *Penstemon albomarginatus*	➢ Reptile scrub habitat ➢ Mojave desert washes
Dead Mountains	• *Fouqueria splendens* shrubland • *Opuntia bigelovii* shrubland alliance • Smoketree • *Psorothamnus spinosus* shrubland • Phainopepla	
Lead Mountain Dunes	• Creosote – mixed scrub • Partially stabilized sand dunes • LeConte's Thrasher • Southern desert horned lizard • Mojave fringe-toed lizard	➢ Mojave desert washes ➢ Good reptile habitat
Oatman Bat Complex	• Sonoran mixed desert scrub – brittlebush • Sonoran – Mojave mixed desert scrub • Bat hibernacula – maternity roosts * • Sonoran population –Desert tortoise • *Chrysothamnus teretifolius*	➢ Excellent bat habitat ➢ Transitional area between Sonoran Desert and Mojave Desert

Table 2E.3 Desert Scrub Portfolio Sites

SITE	BIOLOGICAL ATTRIBUTES * Denotes very good occurrence ** Denotes exceptional occurrence	COMMENTS/OTHER ATTRIBUTES
Pinto Basin – Ocotillo	• *Fouqueria splendens* shrubland * • Joshua tree woodland	
Piute, Eldorado, Fenner Valley DWMA	• Creosote bush – mixed scrub * • Desert grassland – shrub steppe • Joshua tree woodland * • Reptile scrub habitat * • Desert tortoise ** • *Astragalus allachrous* var. *playanus* • *Echinocereus engelmanii* var. *howeii* • *Opuntia basilaris* var. *brachyclada* • *Penstemon albomarginatus*	➢ High priority Desert tortoise conservation area – serves as mitigation for the Clark County Multiple Species HCP ➢ Site conservation plan completed for this region in 1997 (TNC) ➢ OHV and mining issues continue to threaten integrity of this site
Sacramento Mountain – Westside	• *Ambrosia dumosa* dwarf shrubland • *Opuntia bigelovii* shrubland alliance *	➢ Cactus garden ➢ Some riparian habitat
South Black Mountain	• Sonoran – Mojave mixed desert scrub • Bat colonies & foraging site • Gilbert's red-tailed skink • Chuckwalla • Gila Monster • *Pyrgulopsis conica*	➢ Geologically diverse site resulting in high biodiversity ➢ Site is at the transitional area between Sonoran and Mojave desert ecoregions
Western Mojave		
Castle Butte Atriplex	• Fourwing saltbush **	
Cuddeback Lake – Grass Valley	• Fourwing saltbush • Desert Playa mixed scrub • Shadscale scrub • Mojave ground squirrel * • *Cymopterus deserticola* • *Eriophyllum mohavense*	➢ Stabilized dunes and playa system ➢ Rare plant assemblage
ERMO	• Mojave mixed scrub * • Creosote bush – mixed scrub * • Saltbush scrub • Mojave ground squirrel * • *Cymopterus deserticola* • *Eriophyllum mohavense* **	➢ Mostly contained within the Ft. Irwin Army Training Range
Fremont-Kramer/ Superior-Cronese DWMA	• Desert tortoise * • Reptile scrub habitat • Burrowing Owl nesting sites • Mojave ground squirrel • LeConte's Thrasher • *Androstephium breviflorum* • *Astragalus jaegerianus* • *Eriophylum mohavense* • *Phacelia parishii* • *Escholzia minutiflora* ssp. *twisselmanii*	

Table 2E.3 Desert Scrub Portfolio Sites

SITE	BIOLOGICAL ATTRIBUTES * Denotes very good occurrence ** Denotes exceptional occurrence	COMMENTS/OTHER ATTRIBUTES
Fremont Valley	• Creosote rings * • Mojave ground squirrel • *Phacelia nashiana*	
Harper Dry Lake Basin	• Alkali meadow/seep • Desert playa mixed scrub • Mesquite bosque • Joshua tree – Big galleta sparse woodland * • *Hilaria rigida* herbaceous alliance ** • Mojave ground squirrel • Yuma Clapper Rail • *Eriophyllum mohavense*	➢ Neotropical migratory bird habitat ➢ Playas and mud flats create good conditions for shorebirds and other waterfowl ➢ Raptor habitat ➢ Important landscape linkage around the southern base of the Calico Mtns
Haystack Butte	• Joshua tree woodland * • Mojave ground squirrel ** • Chuckwalla • *Cymopterus deserticola* ** • *Loeflingia squarrosa* var. *aartemi*	
Koehn Dry Lake - SW	• Desert playa mixed scrub • Interior riparian marsh & seep • Mesquite bosque • Mountain Plover	➢ Good waterfowl habitat ➢ Meadows & playa
Kramer Junction N/NE	• Shadscale scrub • Saltbush scrub • Mojave ground squirrel • *Eriophyllum mohavense*	
Little Rock Wash	• Joshua tree woodland ** • Mixed cottonwood-willow riparian • California juniper woodland • Semi-desert chapparal • Saltbush scrub	➢ Important wildlife corridor from San Bernardinos to Mojave ➢ High habitat quality ➢ No exotic invasive trees such as Tamarisk established yet ➢ Neotropical migratory bird habitat
Mt. General	• *Hilaria rigida* herbaceous alliance * • Saltbush scrub	
North Antelope Valley	• Desert grassland – shrub steppe • Rabbitbrush scrub • Joshua tree woodland **	➢ Antelope Valley Poppy Preserve – wildflower fields ➢ Unique association of veg types
North Rosamond Atriplex	• Saltbush scrub • Desert playa mixed scrub	
Rand Mountain/ Desert Tortoise Natural Area	• *Poa secunda* desert grassland • Mojave ground squirrel * • Panamint kangaroo rat • Desert tortoise • Reptile scrub habitat * • *Hemizonia arida*	➢ Protected for desert tortoise since mid-80's – impacts from surrounding uses continued to affect the area so that tortoise populations continue to decline ➢ OHV recreation is major threat to integrity of this area

Table 2E.3 Desert Scrub Portfolio Sites

SITE	BIOLOGICAL ATTRIBUTES * Denotes very good occurrence ** Denotes exceptional occurrence	COMMENTS/OTHER ATTRIBUTES
Red Rock Canyon/ El Paso Mountains	• Joshua tree woodland • Big sagebrush scrub • Saltbush scrub • Mojave ground squirrel • Chuckwalla • *Escholzia minutiflora* ssp. *twisselmanii* ** • *Hemizonia arida* ** • *Phacelia nashiana*	➢ Very good bat habitat ➢ Good raptor habitat
Rogers & Rosamond Dry Lakes	• Joshua tree woodland • Alkali meadow-seep • Mesquite bosque • Saltbush scrub • Mountain plover • Western Pond turtle • *Astragalus preusii* var. *preusii* • *Loeflingia squarrosa* var.*artemisiarum* • *Cymopterus deserticola* ** • *Puccinellia parishii* **	➢ High biodiversity site due to variety of systems represented ➢ Shorebird habitat ➢ Fairy shrimp in ephemeral playa ➢ Nesting Tricolor Blackbirds
Scodie Mountain	• Joshua tree woodland • Mojave ground squirrel	➢ Mojave desert washes represented ➢ Mixed cottonwood – willow riparian
Tehachapi Foothills	• Desert grassland & shrub steppe • Rabbitbrush scrub • Saltbush scrub • Joshua tree woodland • Mixed cottonwood-willow riparian • California juniper woodland • Semi-desert chaparral	➢ Atypical Mojave desert scrub site on western edge of ecoregion ➢ Mixed cottonwood – willow riparian
Yardings	• Alkali playa – mixed scrub • Mojave ground squirrel • Desert tortoise • *Eriophyllum mohavense* • *Cymopterus deserticola*	➢ Partially stabilized sand dunes

F. LOWER MONTANE

Description

The lower montane chaparral and woodland community occurs between 3,500-8,000 ft. and consists of chaparral and pinyon-juniper woodland communities. In the Mojave Desert, this ecological group joins a number of other wildlife habitats. At lower elevations, the group may interface with habitats such as Joshua tree and desert scrub and at higher elevations, pinyons and junipers are found with white fir as mixed conifer.

Chaparral vegetation is found throughout the Mojave occurring at the interface between desert scrub and lower tree line. In some areas, chaparral vegetation covers the peaks of arid ranges, such as Granite and Desert ranges. Chaparral vegetation differs in the western Mojave and eastern Mojave in two ways: species composition and fire tolerance. Chaparral types typical of the western Mojave include chamise, Riversidian sage scrub, birchleaf mountain mahogany and Ceanothus, all of which rely on fire for regeneration. In the eastern Mojave, chaparral is represented by manzanita, turbinella live oak, curl-leaf mountain mahogany and mixed shrub types. These communities are generally fire intolerant or the role of fire is less well known (Comer 1999).

Pinyon pine and juniper communities occur as open woodlands of widely spaced, small trees (10 to 30 ft). The woodlands are characterized by having one or more of the following species as a conspicuous emergent above a shrubby or herbaceous understory: *Pinus monophylla* (one/single-leaf pinyon), *Juniperus osteosperma* (Utah juniper), *J. californica* (California juniper), *P. quadrifolia* (four-leaf pinyon), *P. edulis* (two-leaf pinyon). Most frequently, the community is dominated by single-leaved pinyon, in association with Utah or California juniper. Other common associations in pinyon-juniper woodland include black or big sagebrush species, Mormon tea, antelope bush and mountain mahogany (Thorne et al.1992).

California juniper woodland occurs in most of California, south into Baja California, and a limited distribution in the eastern portion (Nevada and Arizona) of the Mojave Desert. It occurs on only one range in Nevada (Newberry Mountains), where it grows at the lowest elevation (3,600 ft) of all the Nevada conifers (Charlet 1996). Utah juniper woodland is distributed throughout the Intermountain west, entering the Mojave Desert from the north and east. It is closely associated with pinyon pine woodlands. The higher Mojave desert mountains in Inyo and San Bernardino counties, including Mid Hills, New York and Providence mountains, are dominated by pinyon pine-Utah juniper vegetation (Lanner 1999). In addition, disjunct populations occur in the San Bernardino Mountains and north of the San Gabriel Mountains at the southwest margin of the Mojave Desert.

Conservation Issues

- The semi-desert chaparral community, found extensively along the southwest boundary, is poorly represented on status 1 or 2 land and thus at great risk. A 1998 analysis by the California Natural Diversity Database identified semi-desert chaparral as a threatened vegetation type.

- The chaparral types of the Mojave Desert vary in their tolerance to fire. Chaparral types in the western California, e.g. Riversidian sage, ceanothus, and chamise are adapted to cycles of drought and fire by stump-sprouting or regenerating following fire (Comer 1999). Chaparral species from the Great Basin, e.g. curl-leaf mountain mahogany, are not fire tolerant and are replaced with *Artemisia, Purshia, Amelanchier, Holodiscus* and others (Comer 1999). California juniper is fire-intolerant and is replaced by chaparral following fires.

- Generally, the pinyon-juniper woodland represents the southern and westernmost expression of widespread vegetation types occurring in the Great Basin and Colorado Plateau regions (Vasek and Thorne, p. 808).

- As bird habitat, the pinyon-juniper woodlands seem impoverished when compared with oak woodland or montane forest. However, in food production for birds, pinyon-juniper woodland ranks very high (Small, 1974). Pinyon nuts and juniper berries are important food sources and many wildlife species serve as dispersal agents for these plants. In winter months, for example, birds from the subalpine forests fly down to feast on juniper berries and pine nuts (Small, 1974).

- Bighorn sheep have important habitat requirements that relate to topography, visibility, water availability and forage quality and quantity. Thus, many types of habitat are crucial to the viability of bighorn sheep populations, including mountainous terrain, washes, and springs. Desert bighorn sheep concentrate in summer months around waterholes, but in the fall, after rain has fallen and water is available again in their plant foods, they move to higher, more remote ridges (Steinhart 1990).

- Connectivity of pinyon-juniper woodland habitat with lower elevation habitat is critical. During non-breeding season pinyon jays and mountain quail from adjacent but higher pinyon-juniper woodland move down to the lower elevations. Due to winter snows and frost in this environment most of the birds either migrate far to the south or withdraw slightly to the milder winter climate of the low deserts to the south and southeast.

- Major mountain ranges with moist upland habitats are relatively unexplored and new species or new occurrences of amphibians and reptiles could occur at the lower montane woodland elevations (Greene and Luke 1992). New species of plants continue to be discovered throughout the Mojave and Intermountain West.

- Pinyon pines may well be the slowest growing group of pines. Junipers also are slow growers. As a result, the succession sequence requires a relatively long period.

- Major threats to the lower montane include poor fire management, invasion of weedy plants especially annual grasses, high recreational use of the woodland, and high landscape fragmentation, particularly in the southwestern portion and large urban areas of the ecoregion.

Site Identification

Significant lower montane chaparral and woodland community sites were identified using expert workshops, WEMO data, CNDDB data, Arizona and Nevada Natural Heritage Programs, TNC's working classification of terrestrial ecological communities (Comer 1999), GAP vegetation data, Sierra Nevada Ecoregion Plan (1999), and other literature. Despite the variety of wildlife and plant species dependent upon the lower montane chaparral and woodland communities of the Mojave Desert, the data regarding their status

and location was limited. Therefore, lower montane conservation targets were limited to 13 natural communities, 4 wildlife species, and 52 plant species (See Table 2F.1).

Table 2F. 1 Lower Montane Communities and Species Targets

CONSERVATION TARGET	GLOBAL RANK
SEMI-DESERT CHAPARRAL COMMUNITY GROUP	
Semi-Desert Chaparral	
Semi-Desert Chaparral – Chamise Chaparral	
Semi-Desert Chaparral – Manzanita	
Semi-Desert Chaparral – Mixed Oak Chaparral	
Semi-Desert Chaparral – Mountain Mahogany-Mixed Shrub	
Semi-Desert Chaparral – Riversidian Sage Scrub	
Semi-Desert Chaparral - Ceanothus	
PINYON-JUNIPER WOODLAND COMMUNITY GROUP	
California Juniper Woodland	
Pinyon-Juniper Woodland	
Utah Juniper Woodland	
Single Leaf-Pinyon Pine-Mixed Shrub Woodland	
Curl Leaf-Mountain Mahogany-Pinyon Pine Woodland	
Digger Pine-Oak Woodland	
ANIMAL SPECIES	
Scott's Oriole	G5
Gray Vireo	G5
Nelson's Bighorn Sheep	G4T3
San Diego Horned Lizard	G4T3T4
PLANT SPECIES	
Astragalus albens	G1
Astragalus ampullariodes	G1
Astragalus jaegerianus	G1
Erigeron uncialis	G1
Eriogonum eremicola	G1
Eriogonum ericifolim thornei	G1
Hemizonia mojavensis	G1
Ionactis caelestis	G1
Ivesia patellifera	G1
Lotus argyreus multicaulis	G4T1
Opuntia basilaris brachyclada	G5T1
Perityle villosa	G1
Tetradymia argyrea	G4S1
Angelica scabrida	G2
Astragalus aequalis	G2
Astragalus calycosus var. monophyllidius	G5T2
Astragalus cimae var. *cimae*	G2T2
Canbya candida	G2
Epilobium nevadense	G2
Erigeron ovinus	G2
Erigeron parishii	G2
Eriogonum heermannii var. *clokey*	G5T2
Galium hilendiae ssp. *kingstonensse*	G4T2
Glossopetalon clokeyii	G2
Hulsea vestita ssp. *inyoensis*	G5T2
Monardella robisonii	G2
Penstemon albomarginatus	G2
Penstemon calcareus	G2
Penstemon stephensii	G2
Penstemon thompsonii var. *jaegeri*	G4T2
Phacelia anelsoni	G2
Phacelia mustelina	G2
Porophyllum pygmaeum	G2
Townsendia smithii	G2
Calochortus plummerae	G3
Castilleja martinii var. *clokeyi*	G4T3
Cordylanthus eremicus	G3
Cymopterus gilmanii	G3
Escobaria vivipara var. *rosea*	G4T3
Gilia nyensis	G3
Glossopetalon pungens	G3
Ivesia jaegeri	G3
Lesquerella hitchcockianus	G3
Lomatium graveolens clarkii	G3T1
Lupinus holmgrenianus	G3?
Penstemon bicolor ssp. *bicolor*	G4T3
Penstemon bicolor ssp. *roseus*	G4T3
Penstemon pahutensis	G3
Salvia dorrii var. *clokeyi*	G5T3
Townsendia jonesii var. *tumulosa*	G3T3
Viola aurea	G3
Viola purpurea var. *charlestonensis*	G3Q

A total of 81potential lower montane chaparral and woodland sites were identified and evaluated in the Mojave Desert ecoregion. The following criteria were used to select sites:

- Occurrences of target natural communities as mapped by experts in workshops.
- Occurrences of target natural communities as mapped by TNC's working classification of terrestrial ecological communities were used to more accurately reflect the distribution of the community.

- Occurrences of target wildlife and plant species as mapped by aforementioned databases, expert opinion, or TNC's working classification of terrestrial ecological communities for lower montane chaparral and woodland.

Site Ranking

Potential lower montane chaparral and woodland sites were stratified into 6 subregions and were evaluated for biological richness and landscape attributes.

Biological Value: Each site was evaluated for occurrences of lower montane chaparral and woodland target species and communities. Sites were assessed based on expert collected input relating to the viability of target occurrences i.e. whether the occurrence was exceptional, extant or marginal. Unique occurrences were also identified.

Landscape Attributes: Five landscape attributes were noted for each site:

1. Percent of site on class 1 or 2 land.
2. Connectivity to upper montane ecological group. An intact, landscape gradient from upper montane habitat to the desert floor is important for biodiversity. To capture the elevation gradient, lower montane chaparral and woodland sites proximate to upper montane ecological group were noted.
3. Connectivity to bighorn sheep habitat. Using bighorn sheep data from WEMO and expert opinion, lower montane chaparral and woodland sites that overlapped with permanent/seasonal occupied range were identified.
4. Site integrity. Site integrity is determined solely by degree of fragmentation by roads relative to sites within the same subregion. Sites that are 'relatively' large in size with little fragmentation were considered of greater site integrity than small, highly fragmented sites
5. Site heterogeneity. The number of co-occurring communities in the sites.

Portfolio Design

Minimum portfolio assembly goals for target communities were based on global rank and distribution relative to the ecoregion (Table 2). For wildlife and plant target species, 100% of G1 and G2, 75% of endemic G3-G5, with at least one occurrence in each subregion in which they occur, and 50% of all other G3-G5 targets, with at least one occurrence in each of the subregions in which they occur.

Table 2F.2 Lower Montane Community Goals

COMMUNITY	DISTRIBUTION/ PATCH SIZE	GOAL
Pinyon-Juniper Woodland		
California Juniper Woodland	Limited, Large Patch	40%
Pinyon-Juniper Woodland	Widespread, Large Patch	30%
Utah Juniper Woodland		30%
Juniper Woodland	Unknown	30%?
Semi-Desert Chaparral		
Semi-Desert Chaparral	Limited, Small Patch	50%
Semi-Desert Chaparral – Mixed Oak Chaparral		50%
Semi-Desert Chaparral – Mtn Mahogany–Mixed Scrub		50%
Semi-Desert Chaparral – Manzanita		50%
Curl-Leaf Mountain Mahogany – Pinyon/Pine Woodland		50%
Single-Leaf Pinyon-Pine-Mixed Shrub Woodland		50%
Digger Pine/Oak Woodland		50%
Semi-Desert Chaparral – Chamise Chaparral	Peripheral, Small Patch	10%

Portfolio Selection

The portfolio was selected using the following guidelines:

1. Accept all biologically outstanding and/or unique sites.
2. Accept all sites to meet minimum wildlife and plant target species conservation goals.
3. Add sites to meet minimum conservation goals for target species and communities. When a decision has to be made between sites with equal biological richness, select sites based on the following order of landscape attributes:
   a. Sites with excellent connectivity to an upper montane ecological group portfolio
   b. Sites predominantly on Class 1 and 2 land (>90%)
   c. Sites embedded within or adjacent to occupied bighorn sheep habitat
   d. Sites of greater landscape integrity (less roaded)
   e. Sites with greater site heterogeneity

Results

Thirty-six sites were selected for the portfolio (See Table 2F.3). The natural distribution of lower montane chaparral and woodland varied remarkably across the ecoregion. In addition, the extent of lower montane represented on class 1 and 2 land varied by both subregion and community type. For example, lower montane vegetation in the western subregion occurs predominantly on class 3 and 4 land.

The landscape values that most influenced the portfolio decision were: sites with occupied permanent and seasonal bighorn sheep habitat; sites with high biodiversity values and low roadedness; sites with large acreage of a community type rather than many small patches; and sites with good connectivity to upper montane to alpine portfolio sites.

Lower Montane Chaparral: As a whole, the principal distribution of the semi-desert chaparral community group is in the eastern subregion, with the Cerbat, New York, Providence, Sheep, Spring and Virgin mountains contributing the largest percentage of chaparral. In the southeastern subregion, the greatest extent of chaparral occurs in the Mojave Mountains, while Summit Valley/Cajon Pass and Tehachapi Foothills contribute the greatest populations in the western subregion. Semi-desert chaparral and semi-desert chaparral-mountain mahogany-mixed scrub occurs in the northern subregion.

With the exception of semi-desert chaparral-mountain mahogany-mixed scrub and some occurrences in the eastern subregion, this ecological group is not well represented on Class 1 and 2 land.

Semi-desert chaparral-chamise, semi-desert chaparral-riversidian sage scrub, and semi-desert chaparral-ceanothus are restricted to the periphery of the western subregion and occur on class 3 and 4 land. Fragmentation from roads and suburban development is the primary impacts to these sites.

Semi-desert chaparral-mixed oak chaparral and semi-desert chaparral are well represented in the ecoregion, but again, largely on class 3 and 4 land.

Lower Montane Woodland: With the exception of pinyon juniper woodland and California juniper woodland, the four remaining lower montane woodland community groups (Utah juniper, single leaf pinyon pine-mixed scrub woodland, curl leaf mountain mahogany-pinyon pine woodland are not well represented on class 1 and 2 land (except Sheep Range). These communities typically occur on lands in multiple use.

In an attempt to not over-represent the following communities: pinyon juniper woodland, singleleaf pinyon pine-mixed scrub,

curl leaf mountain mahogany-pinyon pine woodland, and California juniper woodland, not all sites on class 1 and 2 land in the northern, central and south-central subregions were selected.

California juniper woodland is widespread across the Argus, Clark and New York mountains, and is well represented on class 1 land at Death Valley National Park, Mojave Preserve, and Joshua Tree National Park. Several sites occurring on class 1 land with examples of California and pinyon juniper woodland was not selected for the portfolio for efficiency sake.

Utah juniper woodland could only be captured in the eastern subregion. A large percentage of our conservation goal for pinyon-juniper woodland was met in this subregion.

Though tiny areas occur at Spring Mountain and the north slope of San Bernardino Mountain, large, good examples of single-leaf pinyon pine-mixed scrub woodland could only be captured in the northern subregion.

Table 2F.3 Lower Montane Portfolio Sites

Site	Biological Attributes * Denotes Very Good Occurrence ** Denotes Exceptional Occurrence	Comments/Other Attributes
Eastern Mojave		
Beaver Dam Mountain	• Semi-desert chaparral mixed oak and mountain mahogany Utah juniper woodland • Pinyon-juniper woodland • Utah speckled kingsnake • *Epilobium nevadense*	➢ Low fragmentation ➢ Connectivity to other systems ➢ Largely class 3 and 4 lands ➢ Utah juniper woodland accounting for 31% of the ecoregion total
Black Rock Mountain	• Oak woodland • Pinyon-juniper woodland • *Haplopappus scopulorum* •*Townsendia smithii* **	➢ Largely class 1 and 2 lands ➢ Low fragmentation ➢ Connectivity to upper montane
Cerbat Mountains	• Semi-desert chaparral manzanita shrub and mixed oak • Pinyon-juniper woodland ** •*Tetradymia argyraea*	➢ Class 3 and 4 lands ➢ Moderate to high fragmentation ➢ Connectivity to other systems ➢ Pinyon Juniper woodland captures 12% of ecoregional total
Clark Mountain	• California juniper woodland • Gray Vireo • Gilbert's skink • *Agave utahensis nevadensis* • *Escobaria vivipara alversoni* • *Erigeron uncialis* • *Cymopterus gilmanii*,	➢ California juniper woodland 5% of ecoregional total ➢ Class 3 and 4 lands in mining and grazing ➢ Low fragmentation ➢ Multiple systems
Granite Mountains	• Semi-desert chaparral • Pinyon-juniper woodland ** • California juniper woodland • Nelson bighorn sheep • Scott's oriole	➢ Unusual shrub diversity ➢ No rare plants ➢ Class 1 and 2 lands (in UC preserve system) ➢ Low fragmentation ➢ Multiple systems
Kingston Mountains	• Pinyon-juniper woodland ** • California juniper woodland • Nelson bighorn sheep • *Agave utahensis nevadensis* • *Galium hilendiae kingstonense* • *Nolina bigelovii* ** • *Penstemon stephensii* • *Ivesia patellifera*	➢ Class 3 and 4 land ➢ Low fragmentation ➢ Multiple systems ➢ Only population of *Ivesia patellifera* in subregion
McCullough Mountains	• Semi-desert chaparral – mountain mahogany shrub, • Pinyon-juniper woodland, • Utah juniper woodland • Nelson bighorn sheep • *Phacelia anelsoni* • *Penstemon albomarginatus* • *Penstemon bicolor bicolor* · *Penstemon bicolor roseus*	➢ Low fragmentation ➢ Multiple systems ➢ Connectivity to lower elevation systems

Table 2F.3 Lower Montane Portfolio Sites

Site	Biological Attributes * Denotes Very Good Occurrence ** Denotes Exceptional Occurrence	Comments/Other Attributes
Mormon Mountains	• Semi-desert chaparral – mountain mahogany shrub • Pinyon-juniper woodland • Utah juniper woodland • Nelson bighorn sheep • *Agave utahensis nevadensis* • *Erigeron ovinus*	➢ Class 1 and 2 lands ➢ Low fragmentation ➢ Connectivity to upper montane ➢ Multiple systems
New York Mountain	• Semi-desert chaparral – coastal chaparral ** • Pinyon-juniper woodland ** • California juniper woodland • Oak woodland ** • Gray Vireo • Nelson bighorn sheep • Gilbert skink • *Astragalus cimae cimae* • *Argyrochosma limitanea* • *Eriogonum ericifolium thornei* • *Lotus argyaeus multicaulis* • *Lyceurus phleoides phleoides* • Wooten lacefern • *Escobaria vivipara alversoni* • *Cordylanthus eremicus*	➢ Coastal Chapparal -1 of 2 sites in subregion ➢ Pinyon-juniper woodland represents 17% of total ➢ Multiple use impacts ➢ Moderate road fragmentation ➢ Multiple systems connected and in very good condition
Providence Mountain	• Semi-desert chaparral • Pinyon-juniper woodland * • California juniper woodland ** • Nelson bighorn sheep • *Penstemon calcareous* • *Penstemon stephensii*	➢ Class 1 and 2 land ➢ Low fragmentation ➢ Multiple systems ➢ Bighorn connectivity ➢ 1 of 2 sites in subregion semi-desert chaparral – coastal shrub ➢ 4% of total California juniper woodland acreage in ecoregion
Sheep Range	• Semi-desert chaparral mountain mahogany • Semi-desert chaparral manzanita shrub* • Pinyon-juniper woodland • Utah juniper woodland • Curl-leaf mountain mahogany • Gray Vireo • California bighorn sheep • *Astragalus calycosus monophyllidius* • *Erigeron ovinus* • *Glossopetalon pungens glabrum* • *Glossopetalon pungens pungens* • *Lesquerella hitchockianus* •*Townsendia jonesii tumulosa* • *Porophyllum pygmaeum* • *Agave utahensis nevadensis*	➢ Class 1 and 2 land ➢ Low fragmentation ➢ Connectivity to upper montane and bighorn connections ➢ High system diversity ➢ Semi-desert chaparral manzanita shrub 1 of 2 sites in subregion ➢ Pinyon-juniper woodland 14% of ecoregion total ➢ Curl-leaf mountain mahogany 22% of total

Table 2F.3 Lower Montane Portfolio Sites

Site	Biological Attributes * Denotes Very Good Occurrence ** Denotes Exceptional Occurrence	Comments/Other Attributes
Spring Mountains	• Semi-desert chaparral mountain mahogany • Pinyon-juniper woodland 18% of total, • Curl-leaf mountain mahogany 16% of total	➢ Over 15 endemic plants, mammals and invertebrates ➢ Class 1 and 2 lands ➢ Low fragmentation ➢ High system diversity ➢ Connectivity to upper montane/alpine ➢ Lower montane systems in good condition
Virgin Mountains	• Semi-desert chaparral mountain mahogany • Pinyon-juniper woodland 13% of total • Gray Vireo • Gilbert's skink • Utah Mountain kingsnake • *Lomatium graveolens clarki* • *Haplopappus scopulorum* •*Townsendia smithii*	➢ Some class 1 and 2 land ➢ Low fragmentation ➢ High system diversity ➢ Impacts from recreation and mining on class 3 and 4 land.
Northern Mojave		
Argus Range – Maturango Peak	• California juniper woodland ** • Single leaf-pinyon-mixed woodland • Nelson's bighorn sheep	➢ Single leaf-pinyon-mixed woodland – extensive according to GAP
Argus Range – Great Falls Basin	• Pinyon juniper woodland ** • Single leaf pinyon pine- mixed scrub woodland • Nelson's bighorn sheep	➢ Excellent proximity to other declining ecological systems
Black Mountain/DT	• California juniper woodland • Nelson's bighorn sheep • California bighorn sheep	➢ Class 1 land ➢ Connectivity to portfolio upper montane to alpine community
Coso Range	• Single leaf-mountain mahogany-pinyon pine woodland • Nelson's bighorn sheep	➢ Most extensive stand of single leaf-mountain mahogany-pinyon pine woodland, according to GAP
Grapevine Mountains	• California juniper woodland ** • Pinyon-juniper woodland * • Curl-leaf-mountain mahogany-pinyon pine woodland • Nelson's bighorn sheep • *Perityle villosa* • *Phacelia mustelina* • *Castilleja martinii var clokeyi* • *Penstemon pahutensis* • *Lupinus holmgrenianus*	➢ Class 1 land ➢ Extensive pinyon-juniper woodland, as mapped by GAP
Hunter Mountain	California juniper woodland Nelson's bighorn sheep	➢ Connectivity to upper montane/ alpine community portfolio site ➢ Class 1 land

Table 2F.3 Lower Montane Portfolio Sites

Site	Biological Attributes * Denotes Very Good Occurrence ** Denotes Exceptional Occurrence	Comments/Other Attributes
Last Chance Range	• California juniper woodland • Pinyon-juniper woodland • Curl leaf-mountain mahogany-pinyon pine woodland • *Penstemon calcareus* • Nelson's bighorn sheep	➢ Connectivity to upper montane to alpine community portfolio site
Panamint Ridge	• California juniper woodland ** • Pinyon-juniper woodland ** • Western redtail skink • Nelson's bighorn sheep	➢ Class 1 land ➢ Connectivity to upper montane/ alpine community portfolio site
Sylvania Mountain	• Pinyon-juniper woodland * • Single leaf-pinyon pine-mixed scrub woodland • Curl leaf-mountain mahogany-pinyon pine woodland	➢ Extensive pinyon-juniper woodland, as mapped by GAP
Tin Mountain	• California juniper woodland **	➢ Good landscape value
Central Mojave		
Avawatz Mountains	• Semi-desert chaparral * • California juniper woodland * • Pinyon-juniper woodland * • Utah juniper woodland *	➢ Permanent/seasonal Nelson's bighorn sheep range ➢ High landscape quality and heterogeneity ➢ Good sagebrush-pinyon juniper transition.
South-Central Mojave		
North Slope San Bernardino Mountains – Carbonate belt	• California juniper woodland • Pinyon-juniper woodland • Single-leaf pinyon pine-mixed shrub woodland • Gray vireo • San Diego horned lizard • Nelson's bighorn sheep • *Astragalus albens* • *Erigeron parishii*	➢ Permanent/seasonal Nelson's bighorn sheep range ➢ Rare assemblage of carbonate endemic plants
Pipe Canyon	• Semi-desert chaparral • Semi-desert chaparral-manzanita • Oak woodland • Scott's oriole	➢ Partial linkage between permanent and seasonal Nelson's bighorn sheep range
Queen Mountain/ Rattlesnake Canyon/Wonderland of Rocks	• California juniper woodland • Pinyon-juniper woodland • Utah juniper woodland • Nelson's bighorn sheep • *Monardella robinsonii*	➢ Permanent/seasonal Nelson's bighorn sheep range ➢ Class 1 land

Table 2F.3 Lower Montane Portfolio Sites

Site	Biological Attributes * Denotes Very Good Occurrence ** Denotes Exceptional Occurrence	Comments/Other Attributes
Southeastern Mojave		
Hualapai Mountains	• Semi-desert chaparral – manzanita • mixed oak woodland • Pinyon-juniper woodland • Desert tortoise	➢ No rare plants ➢ Class 1 and 2 lands ➢ Low fragmentation ➢ Connectivity to upper montane ➢ Multiple systems
Mojave Mountain	• Semi-desert chaparral – manzanita 12% of total • Semi-desert chaparral – mixed oak, 13% of total • Pinyon-juniper woodland	➢ No rare plants ➢ Little class 1 or 2 lands ➢ High fragmentation ➢ Connection to lower scrub
Western Mojave		
Big Rock Wash	• Semi-desert chaparral • California juniper woodland • Gilberts skink	➢ Only lower montane site in subregion ➢ No rare plants ➢ Mostly class 4 lands ➢ High fragmentation ➢ Connectivity to riparian system
King's Canyon	• Oak woodland **	➢ No rare species ➢ Class 3 and 4 land ➢ High fragmentation ➢ Multiple systems ➢ Connectivity to adjacent ecoregion
Leona Valley	• Semi-desert chaparral – chamise • Semi-desert chaparral – mixed oak woodland • Digger pine - oak woodland • San Diego horned lizard	➢ No rare plants ➢ No class 1 or 2 land ➢ Highly fragmented ➢ Connectivity to upper montane and adjacent ecoregion ➢ Semi-desert chaparral – chamise 1 of 2 populations in ecoregion ➢ Digger pine - oak woodland 75% of population in ecoregion and only site in western subregion
North Slope San Bernardino Mountains	• Semi-desert chaparral • Semi-desert chaparral – mixed oak • Semi-desert chaparral – mountain mahogany • Pinyon-juniper woodland ** • California juniper woodland • Singleleaf pinyon woodland • San Diego horned lizard • *Canbya candida*	➢ No class 1 or 2 land ➢ Moderate to high fragmentation ➢ Multiple systems

Table 2F.3 Lower Montane Portfolio Sites

Site	Biological Attributes * Denotes Very Good Occurrence ** Denotes Exceptional Occurrence	Comments/Other Attributes
Sheep Creek	• Semi-desert chaparral – mixed oak • California juniper woodland • Oak woodland ** • San Diego horned lizard	➢ No rare plants ➢ No class 1 or 2 land ➢ High fragmentation and suburbanization ➢ Multiple systems
Summit Valley/Cajon Pass	• Semi-desert chaparral • Semi-desert chaparral – manzanita • Semi-desert chaparral – mixed oak • Semi-desert chaparral – Riversidian sage scrub • Semi-desert chaparral – ceanothus • Oak woodland • San Diego horned lizard • *Rana aurora draytonii* • *Hemizonia mojavensis* • *Calochortus plummerae* • *Viola aurea* • *Opuntia basilaris brachyclada* –only population in ecoregion	➢ No class 1 or 2 land ➢ Highly fragmented but with pockets of topographic protection ➢ Good connectivity with upper montane and adjacent ecoregion ➢ Multiple systems ➢ Semi-desert chaparral – manzanita 74% of total ➢ Semi-desert chaparral – Riversidian sage scrub only site in ecoregion 100% of total ➢ Semi-desert chaparral – ceanothus only site in ecoregion ➢ Oak woodland isolated site 1 of 2 in ecoregion
Tehachapi Foothills	• Semi-desert chaparral • California juniper woodland	➢ No rare plants or animals ➢ No class 1 or 2 land ➢ Moderate to high fragmentation ➢ Connectivity to upper montane and adjacent ecoregion ➢ Multiple systems

G. UPPER MONTANE

Description

Similar to other parts of the world, the Mojave Desert was once cooler and moister than it is today. The drying and warming climatic conditions that followed the most recent ice age caused habitats such as pinyon pine and juniper forests to retreat northward and to higher elevations where temperature and moisture regimes are more suitable (Raven & Axelrod 1977). In the Mojave Desert, there are several mountain ranges that support high elevation forests, including Providence, New York, Spring, and Clark Mountains in the eastern subregion and some of the ranges in Death Valley National Park in the northern subregion, particularly the extensive Panamint Range (Telescope Peak), which reaches 11,000 ft.

The forested mountaintops of the ranges form a series of "islands." The basin lowlands surrounding the ranges have become barriers to plant and animal migrations of cooler and more moisture-adapted species, enabling only the most mobile animals and seeds to travel freely. This allowed relict species to persist while new species evolved within the mountain refuge of the present-day ranges (Nachlinger and Reese 1996). The diverse topography and geology of the ranges in combination with a history of long isolation from neighboring highlands has resulted in areas of exceptional biological uniqueness.

Relict, Rocky Mountain white fir (*Abies concolor ssp. concolor*) populations reach their western limit in the Mojave Desert of southeastern California (Jones 1996). White fir associates with pinyon pine and an understory of predominantly Rocky Mountain and Great Basin plant species in a white fir-pinyon woodland community (Jones 1996). The most prominent stands occur on ranges above 1,500 m in elevation on Kingston, Clark, New York, Panamint and Spring Mts. White fir is the largest and one of the oldest trees (likely to have persisted since the Pleistocene) in the East Mojave Desert (Thorne et al.1981).

The subalpine woodland community consists of white pines, either Limber pine (*Pinus flexilis*) or Bristlecone pine woodland (*P. longaeva*) or the two mixed, and occupies the uppermost wooded slopes on the highest desert mountains between 2900 and 3500 m (Vasek and Thorne 1977). Bristlecone pine woodland extends from Utah into the desert ranges of eastern California (Vasek and Thorne 1977). The trees are usually too short and too widely spaced for this community to merit the term "forest," sometimes applied to it.

Conservation Issues

- The high desert ranges have a significant effect on desert biotic communities. Most important, they generate thunderstorms in summer months when humid tropical air is

forced up against them. Even if it doesn't rain across the desert floor, water flows down desert washes.

- Many such remnant habitats support species that are found nowhere else in the desert. The patchiness of these isolated mountaintop habitats makes them – and their relict species assemblages – particularly vulnerable to habitat destruction and resultant extirpation (Latting 1976). Protection of the relict upper montane to alpine communities is important in the event of major climatic changes.

- The montane white fir forest of the Mojave Desert ranges is the westernmost attenuation of the white fir-Douglas fir-blue spruce zone of the Wasatch series. The dominants of the Wasatch forest gradually drip out westward until only *Abies concolor ssp. concolor* is left in the eastern Mojave ranges, where it is largely telescoped into the uppermost pinyon zone (Vasek and Thorne 1977). It should not be confused with the white fir-sugar pine forest of the Transverse and Peninsular Ranges of southern California nor the Sierran mixed conifer forest in which the Sierran white fir (*A. concolor ssp lowiana*) is present (and lacking from the desert range). On the basis of present distributions, the two montane fir forests, Sierran and Great Basin, may never have been contiguous across the Mojave desert.

- Potential threats and stressors to alpine ecosystem include fires and fire management (habitat degradation), recreation activities and development (dispersed and concentrated recreation), and introduced species (Clark County MSHCP/EIS 1999).

- Major mountain ranges with moist upland habitats are relatively unexplored and new species or new occurrences of amphibians and reptiles could occur at high elevations (Greene and Luke 1992). Recently, the California tree frog, known only from coastal southern California, was discovered at a mountain spring on the Granite Mountain Preserve. In addition, tricolored kingsnakes are found in moist wooded areas in the western US, including pinyon pine forests and could occur in the upper elevations of the Clarks, Kingston, New York or Providence Mountains.

Site Identification

Significant upper montane to alpine sites were identified using expert workshops, heritage data (CA, NV, AZ, UT), TNC's working classification of terrestrial ecological communities, GAP vegetation data, and literature.

With the exception of a few, well documented sites, such as Spring Mountain, data regarding the status and location of upper montane to alpine associated wildlife and plant species of the Mojave Desert, was limited. Conservation targets include 12 natural communities, 7 wildlife species, 20 plant species, and 8 invertebrate species (Table 1). Spring Mountain, however, is responsible for capturing a large number of the plant species and all of the invertebrate species.

Table 2G.1 Upper Montane Communities and Species Targets

COMMUNITIES	GLOBAL RANK
Ash	
Mountain Sagebrush	
Gray Pine	
Ponderosa Pine	
White Fir	
White Fir - Limber Pine- Aspen Forest	
White Fir – Ponderosa Pine - Mountain Mahogany	
Bristlecone Pine Woodland	
Bristle Cone-White Fir-Limber Pine Woodland Or Forest	
Alpine – Subalpine Meadow	
Conifer	

ANIMALS	
Nelson's Bighorn Sheep	G4T3
Palmer's Chipmunk	G2
Kingston Mountain Chipmunk	G5T1T2
Zebratail Lizard	G5
California Tree Frog	G5
Pacific Treefrog	G5
Western Redtail Skink	G5T4
Utah Mountain Kingsnake	G5T3
Long-Legged Myotis	
Long-eared Myotis	
Spring Mountains Acastus Checkerspot	G?T3
Morand's Checkerspot	G5T3
Spring Mountains Comma Skipper	G5T3
Spring Mountains Icarioides Blue	G5T3
Spring Mountains Blue	G5T2
Spring Mountains Ant	G1
Nevada Admiral	G5T3
Carole's Silverspot	G5T3
PLANTS	
Draba paucifructa	G1
Angelica scabrida	G2
Draba jaegeri	G1G
Epilobium nevadense	G2
Erigeron ovinus	G2
Ivesia cryptocaulis	G2
Silene clokeyi	G2
Sphaeromeria compacta	G2
Cirsium clokeyi	G2G3
Synthyris ranunculina	G2G3
Astragalus oophorus var. *clokeyanus*	G4T2
Penstemon thompsoniae ssp. *jaegeri*	G4T2
Antennaria soliceps	G3
Ivesia jaegeri	G3
Lesquerella hitchcockii	G3
Viola purpurea var. *charlestonensis*	G3Q
Sedum niveum	G3
Townsendia jonesii var. *tumulosa*	G3T3
Erigeron uncialis var. *conjugans*	G3T3?
Lupinus magnificus var. *magnificus*	G3TH
Erigeron uncialis var. *uncialis*	G?T3?
Salvia dorrii var. *clokeyi*	G5T3

A total of 18 potential upper montane to alpine sites were identified and evaluated in the Mojave Desert ecoregion. The following criteria was used:

- Occurrence of target natural communities as mapped by experts in workshops.
- Occurrences of target natural communities as mapped by TNC's working classification of terrestrial ecological communities and literature.
- Occurrences of target wildlife or plant (G1-G3) species as mapped by database or expert opinion in associated with a target community.

Site Evaluation

Each potential site was examined for biological richness and landscape sites were assessed based on expert collected input relating to the viability of target occurrences i.e. whether the occurrence was exceptional, extant or marginal. Unique occurrences were also identified.

Sites were then evaluated for landscape quality, based on three attributes: (1) percentage of site on class 1 or 2 land, (2) heterogeneity, and (3) connectivity to high quality lower montane and chaparral site.

Portfolio Selection

Minimum portfolio assembly goals for target communities were based on global rank and distribution relative to the ecoregion (Table 2). For wildlife and plant target species, 100% of G1 and G2, 75% of endemic G3-G5, with at least one occurrence in each subregion in which they occur, and 50% of all other G3-G5 targets, with at least one occurrence in each of the subregions in which they occur.

Table 2G.2 Upper Montane Communities Goals

COMMUNITY	DISTRIBUTION/ PATCH SIZE	GOAL
White fir/Limber pine/ Aspen forest	Limited, Small Patch	50%
Bristlecone pine/White fir/Limber pine forest		
Bristlecone pine woodland		
Pinyon pine-white fir forest/ white fir		
Limber pine		
Alpine/Subalpine meadow		
White fir/Ponderosa pine/Mountain mahogany	Limited, Large Patch	40%
Bristlecone pine/white fir/limber pine woodland	Limited, Matrix	30%
Ash	Unknown	
Gray pine		
Stipa lettermanii herbaceous alliance		
Conifer		
Ponderosa pine		

Portfolio sites were selected in the following order:

1. All sites with outstanding and/or unique occurrence
2. All sites with a G1-G3 plant and wildlife species
3. Sites were added to the portfolio to fulfill minimum portfolio assembly goals for target natural communities and species. Priority was directed to sites on class 1 and 2 land followed by sites with good connectivity to high quality lower montane habitat.

Results

A total of 16 upper montane to alpine sites were selected for the portfolio (See Table 2G.3). The upper montane to alpine habitat is not distributed uniformly across the ecoregion. The distribution of upper montane to alpine community group in the Mojave ecoregion is limited to primarily two subregions, the northern and eastern subregion. Limited representation occurs in the western subregion.

The representation of the ecological group on Class 1 and 2 land varies by subregion. All upper montane to alpine sites in the northern subregion occur on class 1 land (Death Valley National Park) and nearly half of the sites within the eastern subregion are more than 85% on Class 1 and 2 land. Sites in the western subregion, however, occur on private land. For these the northern and westerm subregions, the landscape attributes of roadedness and Class 1 or 2 land did not add much value when comparing sites within a subregion and thus were not deciding factors in portfolio selection.

In addition to supporting subalpine to alpine communities, the ranges of the eastern subregion selected for the portfolio also support extensive stands of lower montane communities. Maintaining the elevation gradient, connection from desert scrub to alpine habitat, and preserving the once widespread alpine community, is valuable. Thus, upper montane to alpine community sites with connectivity to good examples of lower montane sites was important in portfolio decision.

Due to the small patch size, relict nature of the community, the limited distribution among subregions, and important connectivity to lower montane habitat, these sky islands are of great significance.

The principal distribution of white pine, both limber pine and bristlecone pine, with exception of Spring Mts and Sheep Range in eastern subregion, occurs in northern subregion. All sites supporting these two community types are captured in the portfolio, and are on Class 1 land.

The eastern subregion supports some of the highest ranges and the principal distribution of *Abies concolor var concolor* is in the eastern subregion (as mentioned earlier, the white fir reaches their western limit in the eastern subregion of the Mojave Desert). White fir and white fir associations are wellrepresented in the portfolio.

Only two alpine-subalpine meadow sites were documented, one at Panamint Ridge (northern subregion) and Mojave River-North Fork (western subregion).

The range of gray pine is extensive along the westside of the Sierra Mountain ecoregion. Gray pine is documented at two sites in the western subregion. The southernmost example was included in the portfolio. The other site is captured at San Emigdio/Tejon Ranch in the San Joaquin Valley

Table 2G.3 Upper Montane Portfolio Sites

SITE	BIOLOGICAL ATTRIBUTES * Denotes very good occurrence ** Denotes exceptional occurrence	COMMENTS/OTHER ATTRIBUTES
Eastern Mojave		
Beaver Dam Mountains	• Ponderosa Pine * • Utah Mountain kingsnake • Zebratail lizard • *Epilobium nevadense*	➢ One of two examples of Ponderosa Pine in subregion/ecoregion ➢ One of three occurrences of Utah Mountain kingsnake in subregion/ecoregion ➢ Only occurrence of zebratail lizard in this part of the subregion ➢ Only occurrence of *Epilobium nevadense* in subregion/ecoregion
Cerbat Mountains	• White fir/limber-pine/aspen forest • Western redtail skink	➢ Southeastern-most example of WF/L-P/A forest
Clark Mountain	• Ash • Pinyon pine - white fir forest ** • California tree frog • *Erigeron uncialis var uncialis*	➢ Only example of Ash in subregion (?) ➢ Largest of the pinyon-white fir forest stands in ecoregion ➢ Only example of *Erigeron uncialis var uncialis* in subregion/ecoregion ➢ 92% Class 1 land
Kingston Range	• Pinyon pine - white fir forest ** • Kingston Mountain chipmunk • Nelson's bighorn sheep habitat	➢ One of the four most noteworthy pinyon-white fir forest in ecoregion ➢ One of two examples of Kingston mountain chipmunk in ecoregion ➢ 87% Class 1 land
New York Mountain	• White fir forest ** • Nelson's bighorn sheep habitat • Kingston Mountain chipmunk • Western redtail skink • *Sedum niveum*	➢ One of four most noteworthy white fir forests in ecoregion ➢ One of two examples of Kingston Mountain chipmunk in ecoregion ➢ One of two examples of Western redtail skink in subregion ➢ Only example of *Sedum niveum* in subregion ➢ 100% Class 1 land
Providence Mountain	• White fir forest	➢ Critical landscape link for upper and lower montane community group in southwestern extent of range

Table 2G.3 Upper Montane Portfolio Sites

SITE	BIOLOGICAL ATTRIBUTES * Denotes very good occurrence ** Denotes exceptional occurrence	COMMENTS/OTHER ATTRIBUTES
Sheep Range	• White fir-ponderosa pine-mountain mahogany woodland and forest • Nelson's bighorn sheep • *Erigeron ovinus* • *Lesquerella hitchcockii* • *Townsendia jonesii var tumulosa*	➢ One of two occurrences of white fir-ponderosa pine-mountain mahogany woodland and forest in ecoregion ➢ Only occurrence of *Erigeron ovinus* ➢ One of two occurrences of *Lesquerella hitchcockii* ➢ One of two occurrences of *Townsendia jonesii var tumulosa* ➢ 100% Class 1 land
Spring Mountains	• White fir forest ** • White fir-ponderosa pine-mountain mahogany woodland • Bristlecone-white fir-limber pine woodland and forest • Bristlecone pine woodland • Palmer's chipmunk *	➢ One of four most noteworthy White fir forests in ecoregion ➢ One of two occurrences of white fir-ponderosa pine-mountain mahogany woodland and Bristlecone-white fir-limber pine woodland and forest in ecoregion, as mapped by TNC/GAP ➢ Only example of Palmer's chipmunk ➢ Rare invertebrates ➢ 25-30 rare, endemic plants
Northern Mojave		
Black Mountain/DT	• Bristlecone pine woodland • Limber pine forest • *Hyla regilla*	
Grapevine Mountains	• Mountain sagebrush	➢ Only example of mountain sagebrush in ecoregion ➢ Excellent extent of conifers ➢ Class 1 land
Hunter Mountain	• Bighorn sheep	➢ Excellent extent of conifers ➢ Class 1 land
Last Chance Range	• Bristlecone pine woodland • Bighorn sheep	➢ Class 1 land

Table 2G.3 Upper Montane Portfolio Sites

SITE	BIOLOGICAL ATTRIBUTES * Denotes very good occurrence ** Denotes exceptional occurrence	COMMENTS/OTHER ATTRIBUTES
Panamint Ridge	• White fir, bristlecone pine woodland, and limber pine forest ** • Alpine-subalpine meadow • Western redtail skink • Bighorn sheep • *Lupinus magnificus* var *magnificus*	➢ Excellent example of white fir, bristlecone pine woodland, and limber pine forest ➢ Only example of alpine-subalpine meadow in subregion ➢ Class 1 land
Western Mojave		
Kings Canyon	• Gray pine	➢ Southernmost range of Gray Pine
Mojave River - Forks	• Alpine – subalpine meadow	

H. ISOLATED RARE PLANT ANALYSIS

Description

The site selection process in the Mojave Desert ecoregion was driven by target natural communities and a subset of 'primary targets' that were selected based on their known dependence and co-occurrence with habitats characteristic of the ecological system types being analyzed. However, Mojave plant occurrences are often dependent on extremely localized physical and chemical substrate variations and as a result, many target plant species were not well associated with the coarser filter communities defined for this planning process. Therefore, a number of target plant occurrences were missed in the initial portfolio.

While goals for G1-G2 were met for 83% of animal species, the Mojave Desert portfolio captured only 56% of target plant species. Declining and endemic G3-G5 plant occurrences were likewise under represented in the portfolio. In order to make-up for these shortfalls, a rare plant analysis was undertaken to identify a set of isolated plant sites, which if adequately protected, would achieve established conservation goals for these species.

TABLE 2H.1 TARGETS FOR THE ISOLATED RARE PLANT ANALYSIS

TARGET PLANT NAME	GRANK
Agave utahensis var. nevadensis	G4T3Q
Arctomecon californica	G3
Arctomecon humilis	G1
Arctomecon merriamii	G2
Astephanus utahense	G4
Astragalus amphioxys var. *musimonum*	G5T2
Astragalus ampullarioides	G1Q
Astragalus atratus var. *mensanus*	G4T1
Astragalus funereus	G2
Astragalus holmgreniorum	G1
Astragalus jaegerianus	G1
Astragalus lentiginosus var. *sesquimetralis*	G5T1
Astragalus mohavensis var. *hemigyrus*	G3T2
Astragalus nyensis	G3
Calochortus striatus	G2
Camissonia exilis	G1
Camissonia gouldii	G1
Camissonia megalantha	G3
Canbya candida	G2
Cirsium virginense	G2
Cymopterus deserticola	G2
Cymopterus ripleyi	G2
Cymopterus ripleyi var. *saniculoides*	G3G4T3Q
Cynanchum utahense	
Dedeckera eurekensis	G2
Ditaxis californica	G2
Dudleya pulverulenta var. *arizonica*	G3T?
Enceliopsis nudicaulis var. *corrugata*	G5T2
Epilobium nevadense	G2
Erigeron parishii	G2
Eriogonum bifurcatum	G1G2
Eriogonum contiguum	G3G3
Eriogonum viscidulum	G2
Eriophyllum mohavense	G2
Eschscholzia minutiflora ssp. *twisselmannii*	G5T2
Escobaria vivipara var. *alversonii*	G4T3
Fendlerella utahensis	G5
Gilia maculata	G1
Gilia ripleyi	G2G3
Hemizonia arida	G1

Hemizonia mohavensis	G1
Hesperocallis undulata	G3G4
Lathyrus hitchcockianus	G2
TABLE 2H.1 TARGETS FOR THE ISOLATED RARE PLANT ANALYSIS Cont…	
TARGET PLANT NAME	**GRANK**
Linanthus arenicola	G2?
Maurandya petrophila	G1
Mentzelia candelariae	G3?Q
Mimulus mohavensis	G2
Monardella robisonii	G2
Nemacaulis denudata var. *gracilis*	G4T3?
Opuntia basilaris var. *brachyclada*	G5T1
Oryctes nevadensis	G2
Oxytheca watsonii	G2
Pediocactus sileri	G3
Pediomelum castoreum	G3
Pediomelum mephiticum	G3?
Penstemon albomarginatus	G2
Penstemon bicolor ssp. *bicolor*	G3T2Q
Penstemon calcareus	G2
Penstemon fruticiformis ssp. *amargosae*	G3T2T3
Penstemon stephensii	G2
Petalonyx nitidus	G4
Petalonyx parryi	G3G4
Phacelia anelsonii	G2G3
Phacelia mustelina	G2
Phacelia parishii	G2G3
Phacelia pulchella var. *gooddingii*	G5T2T3
Phacelia sp. 1	G2
Porophyllum pygmaeum	G2
Ranunculus andersonii var. *juniperinus*	G4T3?Q
Selaginella leucobryoides	G3
Selinocarpus nevadensis	G5
Stillingia linearifolia	G4
Tetracoccus ilicifolius	G1
Tetradymia stenolepis	G4
Townsendia smithii	G2

Site Selection

Heritage data from Nevada, Arizona, California and Utah State programs provided the primary data source for this analysis (Table 2H.1). Species point location data from the BLM's West Mojave Plan was also used. The following conservation goals were retained for this analysis:

G1G2 Plants: The portfolio goal was to capture all known viable occurrences or 100%

G3-G5 Endemic/Limited: The portfolio goal was to capture 75% of known viable occurrences

G3-G5 Widespread: The portfolio goal was to capture 50% of known viable occurrences. Selection priority went to (1) occurrences of higher quality as defined by Heritage Element Occurrence ranks; (2) occurrences within protected areas, preferably Class I and II lands, otherwise occurrences on public lands were preferred to those private land; (3) occurrences in close proximity to currently existing portfolio sites; (4) occurrences falling within identified (proposed) site aggregations, and (5) occurrences within a potential site, i.e. a site that was identified as a potential site but was not included in the final Mojave portfolio.

Results

The initial portfolio under-represented 75 of the 227 Mojave plant species. In order to meet conservation goals, 193 sites were added to the portfolio. (Table 2H.3)

G1G2 Plants: Of the 100 plant species whose goals were set at 100% of known viable occurrences, 61 were fully captured within the initial portfolio selection. To capture all the known viable occurrences of the 39 remaining G1G2 target plants, 101 additional isolated plant sites were identified.

G3-G5 Endemic/Limited: Of the 49 G3-G5 Endemic/Limited target plant species 28 were fully captured within the initial portfolio selection. To achieve the 75% of known viable occurrences conservation goal, 74 additional isolated plant sites were added to the portfolio.

G3-G5 Widespread: Of the 60 G3-G5 widespread plants on the Mojave Desert target list, 45 were fully captured within the initial portfolio selection. Thirteen additional isolated plant sites were added to the portfolio to achieve the 50% of known viable occurrences conservation goal.

Future Considerations

- Of the 230 special status plants that occur in the Mojave, only 25% have any sort of baseline status reports and these contain only minimal information concerning population distribution and perceived threats. To better meet our future conservation goals and create more realistic portfolio goals greater emphasis needs to be placed on inventory, life-history studies, long-term monitoring, habitat requirements, and distribution of the Mojave plant species.

- There were 38 occurrences of Mojave plant species, often expert identified, in which there was little available information and no Heritage occurrences found in the Gap analysis. The team delegated these occurrences to a second iteration list to be researched further and fully developed in conjunction with specific site conservation plans. Of these 38 plants, 12 were listed as G1G2 or T1T2, and 17 were listed as G3-G5 or T3T4. Lastly, there were 9 species that had no listed G-ranks at all. (Table 2H.2)

- TNC needs to work with federal partners to develop an efficient method for protection of endemic plants, as well as those identified as limited and declining in the Mojave ecoregion.

- Private plant conservation groups should be brought into the process to insure the broadest possible information sharing to assure that conservation of these species occurs.

TABLE 2H.2 - RARE PLANTS WITH NO OCCURRENCE INFORMATION

TARGET PLANT NAME	GLOBAL RANK
Abronia nana ssp. *covillei*	G4T3T4
Agave utahensis	G4
Allium nevadense	G4
Allium parishii	G3
Arabis pulchra munciensis	?
Astragalus gilmanii	
Astragalus nutans	G3
Astragalus serenoi shockleyi	
Astragulus lentiginosus var. *boreganus*	
Berberis fremontii	
Botrychium crenulatum	G3
Cordylanthus eremicus ssp. *eremicus*	G3?T3
Cryptantha clokeyi	G3?T1
Cryptantha welshii	G3
Dudleya saxosa saxosa	G4T3
Ericameria gilmanii	G1
Eriogonum corymbosum var. *aureum*	G4G5T3?Q
Eriogonum eremicola	G1
Eriogonum intrafractum	G3
Eriogonum microthecum panamintinus	
Eriogonum umbellatum var. *juniporinum*	G5T3?
Euphorbia exstipulata var. *exstipulata*	
Galium hypotrichium ssp. *tomentellum*	G5T1
Galium munzii	G5
Hulsea vestita ssp. *inyoensis*	G5T2T3
Lomatium scabrum var. *tripinnatum*	G3G4T2T3
Lotus argyraeus var. *notitius*	G4?T1
Muhlenbergia appressa	
Muilla coronata	G3
Oenothera caespitosa ssp. *crinita*	G5T1
Opuntia bigelovii	
Pedicularis semibarbatus charlestonensis	G4T3Q
Pholisma sonorae	G3
Polygala heterorhyncha	G2Q
Sanvitalia albertii	G5S1
Selaginella utahensis	G2
Selaginella watsonii	G4
Trifolium kingii ssp. *macilentum*	G4T2T4

TABLE 2H.3 ISOLATED RARE PLANT LOCATIONS

LC: *Occurrence selected because of its protected status*
EOR: *Occurrence selected based on relative strength of its Element Occurrence Rank*
G: *Denotes that all viable occurrences of this species were necessary to achieve goals*
EX: *Occurrence chosen based on expert recommendation*

SITE CODE	PLANT TARGET	SELECTION CRITERIA
AGUTNE1	*Agave utahensis* var. *nevadensis*	LC
ARCA1	*Arctomecon californica*	EOR
ARHU1	*Arctomecon humilis*	G
ARHU2	*Arctomecon humilis*	G
ARHU3	*Arctomecon humilis*	G
ARHU4	*Arctomecon humilis*	G
ARHU5	*Arctomecon humilis*	G
ARHU6	*Arctomecon humilis*	G
ARME1	*Arctomecon merriamii*	LC
ARME10	*Arctomecon merriamii*	LC
ARME11& 12	*Arctomecon merriamii*	LC
ARME11& 12	*Arctomecon merriamii*	LC
ARME13	*Arctomecon merriamii*	LC
ARME14	*Arctomecon merriamii*	LCS
ARME15	*Arctomecon merriamii*	LCS
ARME2&3	*Arctomecon merriamii*	LC
ARME4,5, &6	*Arctomecon merriamii*	LC
ARME7	*Arctomecon merriamii*	LC
ARME8	*Arctomecon merriamii*	LC
ARME9	*Arctomecon merriamii*	LC
ASAM1	*Astragalus ampullarioides*	G
ASAM2	*Astragalus ampullarioides*	G
ASAM3	*Astragalus ampullarioides*	G
ASAM4	*Astragalus ampullarioides*	G
ASAMMU 1	*Astragalus amphioxys* var. *musimonum*	G
ASFU1	*Astragalus funereus*	G
ASFU2	*Astragalus funereus*	G
ASFU3	*Astragalus funereus*	G
ASFU4	*Astragalus funereus*	G
ASFU4	*Scelerocactus polyancitrus*	G
ASFU5	*Astragalus funereus*	G
ASHO1	*Astragalus holmgreniorum*	G
ASHO2	*Astragalus holmgreniorum*	G
ASHO3	*Astragalus holmgreniorum*	G
ASHO4	*Astragalus holmgreniorum*	G
ASHO5	*Astragalus holmgreniorum*	G

SITE CODE	PLANT TARGET	SELECTION CRITERIA
ASLESE1	*Astragalus lentiginosus* var. *sesquimetralis*	G
ASMOHE1	*Astragalus mohavensis* var. *hemigyrus*	LC
ASMOHE2	*Astragalus mohavensis* var. *hemigyrus*	EX
ASMOHE3	*Astragalus mohavensis* var. *hemigyrus*	EX
ASMOHE4	*Astragalus mohavensis* var. *hemigyrus*	EX
ASNY1	*Astragalus nyensis*	LC
ASNY2	*Astragalus nyensis*	LC
ASNY3	*Astragalus nyensis*	LC
ASNY4	*Astragalus nyensis*	LC
ASUT1	*Astephanus utahense*	G
CACA1	*Canbya candida*	G
CACA2	*Canbya candida*	G
CAEX1	*Camissonia exilis*	G
CAEX2	*Camissonia exilis*	G
CAEX3	*Camissonia exilis*	G
CAEX3	*Poa nevadensis*	G
CAGO1	*Camissonia gouldii*	G
CAME1	*Camissonia megalantha*	LC
CAME2&3	*Camissonia megalantha*	G
CAST1	*Calochortus striatus*	G
CAST10	*Calochortus striatus*	G
CAST11	*Calochortus striatus*	G
CAST12	*Calochortus striatus*	G
CAST13	*Calochortus striatus*	G
CAST2	*Calochortus striatus*	G
CAST3&4	*Calochortus striatus*	G
CAST5&6	*Calochortus striatus*	G
CAST7	*Calochortus striatus*	G
CAST8	*Calochortus striatus*	G
CAST9	*Calochortus striatus*	G
CIVI1	*Cirsium virginense*	G
CIVI2	*Cirsium virginense*	G
CIVI3	*Cirsium virginense*	G
CIVI4	*Cirsium virginense*	G
CYDE1	*Cymopterus deserticola*	G
CYDE2	*Cymopterus deserticola*	G
CYDE3	*Cymopterus deserticola*	G
CYDE4	*Cymopterus deserticola*	G
CYRI1	*Cymopterus ripleyi*	G
CYRI2	*Cymopterus ripleyi*	G
CYRI3	*Cymopterus ripleyi*	G
CYRISA1,2, &3	*Cymopterus ripleyi* var.*saniculoides*	EX
DEEU1	*Dedeckera eurekensis*	G

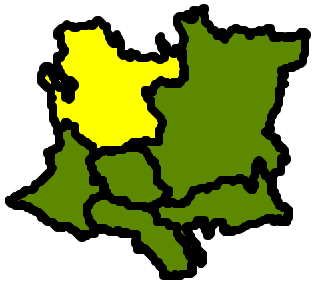
TABLE 2H.3 ISOLATED RARE PLANT LOCATIONS

SITE CODE	PLANT TARGET	SELECTION CRITERIA
DEEU2	*Dedeckera eurekensis*	G
DUPUAR1	*Dudleya pulverulenta* var. *arizonica*	LC
ERBI1	*Eriogonum bifurcatum*	G
ERBI2	*Eriogonum bifurcatum*	G
ERBI3	*Eriogonum bifurcatum*	G
ERBI4	*Eriogonum bifurcatum*	G
ERBI5	*Eriogonum bifurcatum*	G
ERBI6	*Eriogonum bifurcatum*	G
ERBI7	*Eriogonum bifurcatum*	G
ERBI8	*Eriogonum bifurcatum*	G
ERCO1	*Eriogonum contiguum*	LC
ERMO1	*Eriophyllum mohavense*	G
ERMO2	*Eriophyllum mohavense*	G
ERPA1&2	*Erigeron parishii*	G
ERPA3	*Erigeron parishii*	G
ESMITW1	*Eschscholzia minutiflora* ssp. *twisselmannii*	EOR
ESMITW2	*Eschscholzia minutiflora* ssp. *twisselmannii*	EOR
ESMITW3	*Eschscholzia minutiflora* ssp. *twisselmannii*	EOR
ESVIAL1	*Escobaria vivipara* var. *alversonii*	EX
GIMA1	*Gilia maculata*	G
GIMA2	*Gilia maculata*	G
GIMA3	*Gilia maculata*	G
GIMA4	*Gilia maculata*	G
GIMA5	*Gilia maculata*	G
GIMA6	*Gilia maculata*	G
GIRI1	*Gilia ripleyi*	LC
GIRI2	*Gilia ripleyi*	LC
HEAR1	*Hemizonia arida*	G
HEAR2	*Hemizonia arida*	G
HEMO1	*Hemizonia mohavensis*	G
LAHI1	*Lathyrus hitchcockianus*	G
LAHI2	*Lathyrus hitchcockianus*	G
LAHI3	*Lathyrus hitchcockianus*	G
LAHI4	*Lathyrus hitchcockianus*	G
LAHI5	*Lathyrus hitchcockianus*	G
LAHI6	*Lathyrus hitchcockianus*	G
LIAR34	*Linanthus arenicola*	LC
LIAR1	*Linanthus arenicola*	EOR
LIAR2	*Linanthus arenicola*	EOR
LIAR27	*Linanthus arenicola*	LC
LIAR28	*Linanthus arenicola*	LC
LIAR29	*Linanthus arenicola*	LC
LIAR3	*Linanthus arenicola*	LC
LIAR30	*Linanthus arenicola*	LC
LIAR31	*Linanthus arenicola*	LC
LIAR32	*Linanthus arenicola*	LC
LIAR33	*Linanthus arenicola*	LC
LIAR35&36	*Linanthus arenicola*	LC
LIAR4-26	*Linanthus arenicola*	G
LIAR4-26	*Androstephium brevifolium*	G
MAPE1	*Maurandya petrophila*	G
MAPE2	*Maurandya petrophila*	G
MECA1	*Mentzelia candelariae*	G
MIMO1	*Mimulus mohavensis*	G
MIMO2	*Mimulus mohavensis*	G
MORO1	*Monardella robisonii*	G
MORO2	*Monardella robisonii*	G
MP5	*Phacelia anelsonii*	G
NEDEGR1	*Nemacaulis denudata var gracilis*	LC
OPBABR1	*Opuntia basilaris var brachyclada*	G
OPBABR2	*Opuntia basilaris var brachyclada*	G
OPBABR3	*Opuntia basilaris var brachyclada*	G
OPBABR4	*Opuntia basilaris var brachyclada*	G
ORNE1	*Oryctes nevadensis*	G
ORNE2	*Oryctes nevadensis*	G
ORNE3	*Oryctes nevadensis*	G
OXWA1	*Oxytheca watsonii*	G
PEAL ACEC 15	*Penstemon albomarginatus*	LC
PEAL16	*Penstemon albomarginatus*	EOR
PEAL17	*Penstemon albomarginatus*	G
PEAL18	*Penstemon albomarginatus*	EX
PEAL19	*Penstemon albomarginatus*	EX
PEAL20	*Penstemon albomarginatus*	EX
PEAL21	*Penstemon albomarginatus*	EX
PEAL22	*Penstemon albomarginatus*	G
PEAL23	*Penstemon albomarginatus*	G
PEAL24	*Penstemon albomarginatus*	G
PEAL25	*Penstemon albomarginatus*	G
PEAL26	*Penstemon albomarginatus*	G
PEAL27	*Penstemon albomarginatus*	G
PEAL28	*Penstemon albomarginatus*	G
PEAL28	*Penstemon albomarginatus*	G
PEBIBI1	*Penstemon bicolor* ssp. *bicolor*	EX
PEBIBI2	*Penstemon bicolor* ssp. *bicolor*	G
PEBIBI3	*Penstemon bicolor* ssp. *bicolor*	EX
PECA1	*Pediomelum castoreum*	G
PECA1	*Penstemon calcareus*	G
PEFRAM1,2, &3	*Penstemon fruticiformis* ssp. *amargosae*	EOR
PEFRAM1,2, &3	*Arctomecom merriamii*	EOR

TABLE 2H.3 ISOLATED RARE PLANT LOCATIONS

PENI1	*Petalonyx nitidus*	LC
SITE CODE	**PLANT TARGET**	**SELECTION CRITERIA**
PENI2	*Petalonyx nitidus*	G
PEPA1	*Astragalus holmgreniorum*	G
PEPA1	*Petalonyx parryi*	G
PEPA2	*Astragalus holmgreniorum*	G
PESI1	*Pediocactus sileri*	G
PEST1	*Penstemon stephensii*	G
PH1	*Phacelia sp. 1*	G
PHMU1	*Phacelia mustelina*	G
PHMU2	*Phacelia mustelina*	G
PHPA1	*Phacelia parishii*	G
PHPA2	*Phacelia parishii*	G

SITE CODE	PLANT TARGET	SELECTION CRITERIA
PHPA3	*Phacelia parishii*	G
PHPA4	*Phacelia parishii*	G
PHPA5	*Phacelia parishii*	G
PHPUGO1	*Phacelia pulchella* var. *gooddingii*	G
POPY1	*Poropyllum pygmaeum*	G
SENE1	*Selinocarpus nevadensis*	EX
SENE2	*Selinocarpus nevadensis*	LC
STLI1	*Stillingia linearifolia*	G
STLI2	*Stillingia linearifolia*	G
STLI3	*Stillingia linearifolia*	G
TOSM1	*Townsendia smithii*	G
TOSM2	*Townsendia smithii*	G



Rare Plant Sites Mojave Desert Northern Subregion

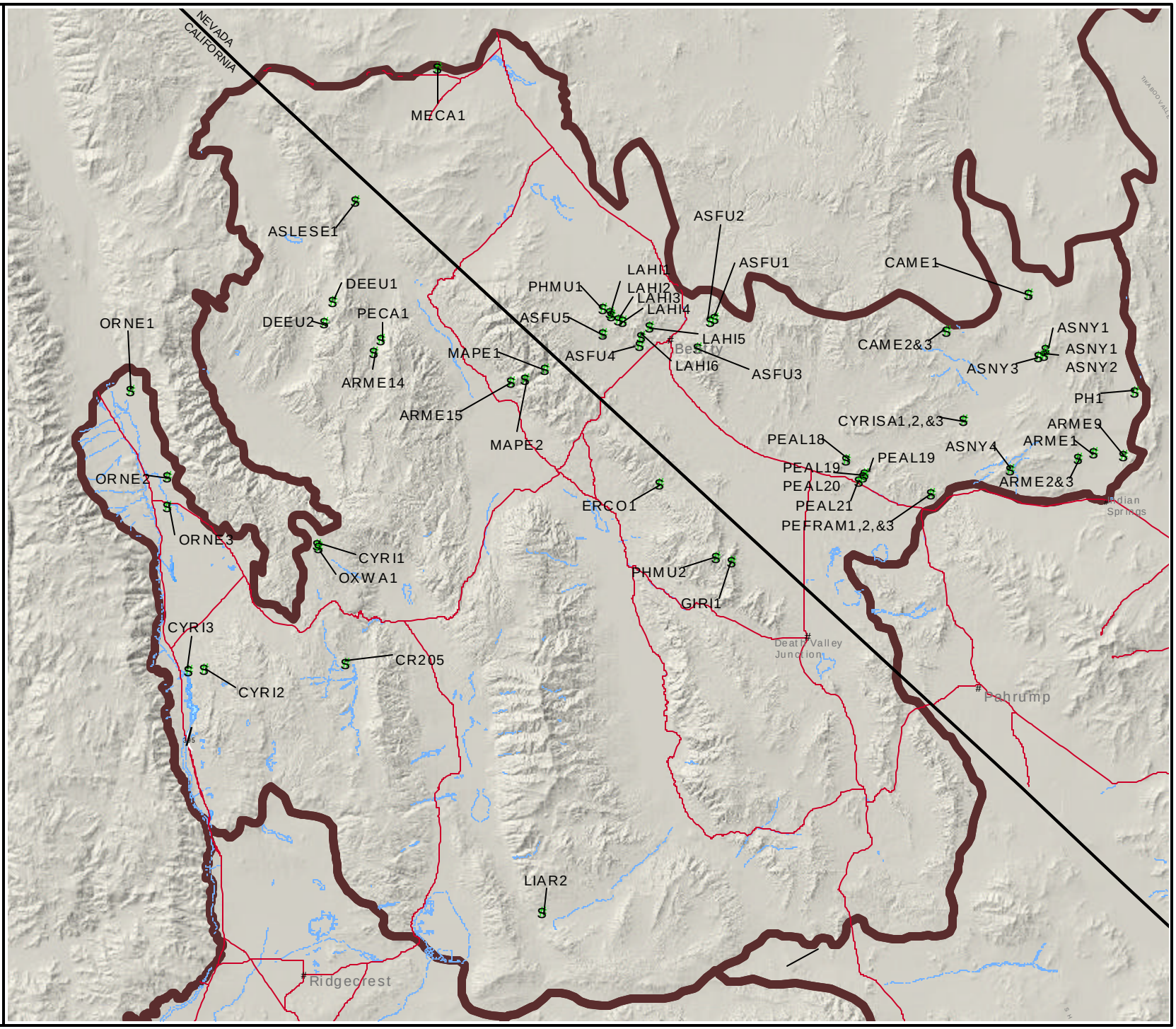
N

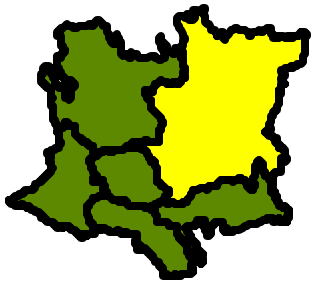
SCALE 1:1,200,000

LEGEND

- Rare Plant Site
- Subregional Boundary
- State Boundary
- Rivers and Streams
- Highways
- Lakes

The Nature Conservancy





Rare Plant Sites Mojave Desert Eastern Subregion

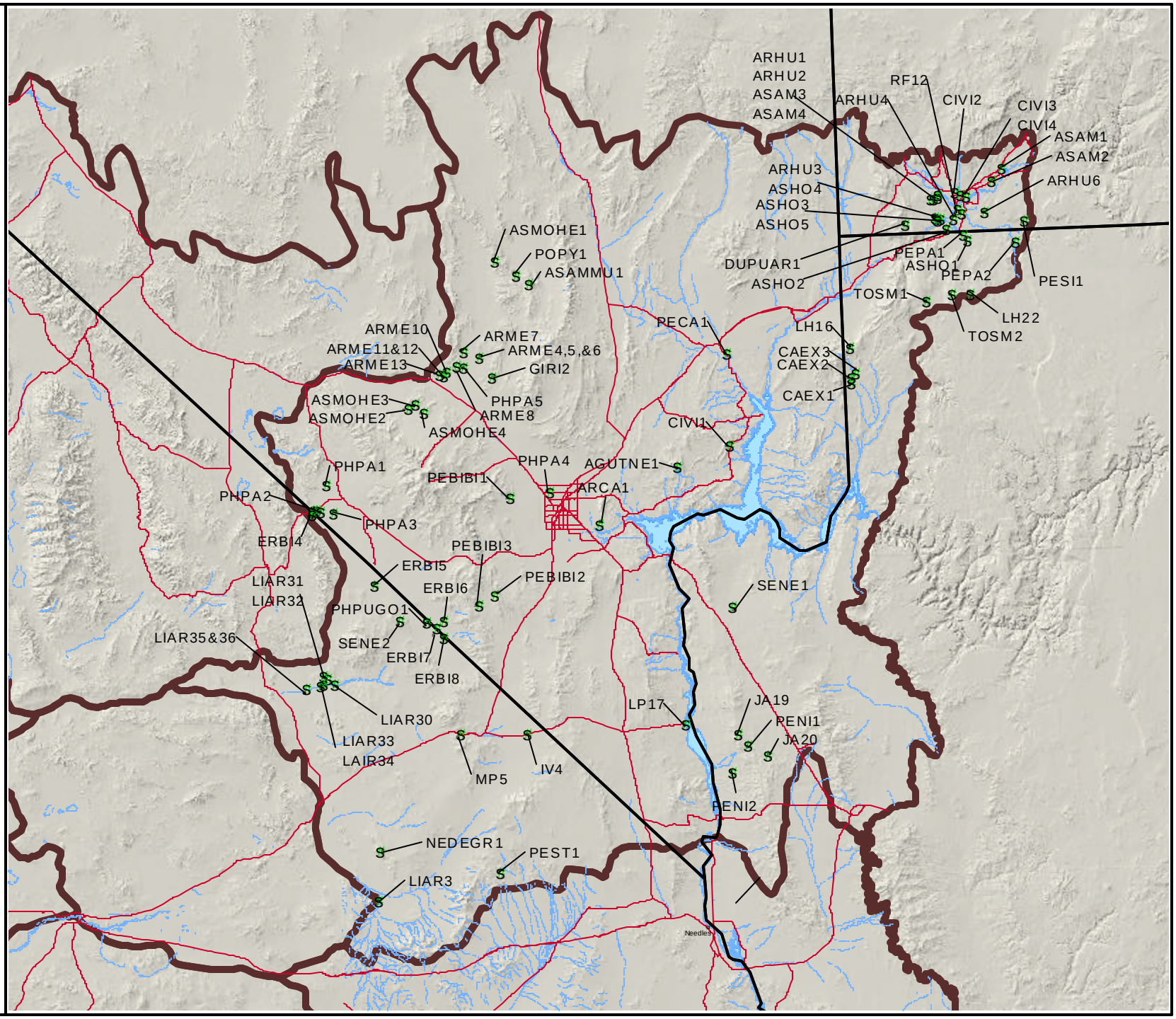
N

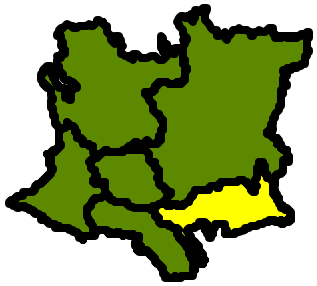
SCALE 1:1,800,000

LEGEND

- Rare Plant Site
- Subregional Boundary
- State Boundary
- Rivers and Streams
- Highways
- Lakes

The Nature Conservancy





Rare Plant Sites Mojave Desert Southeastern Subregion

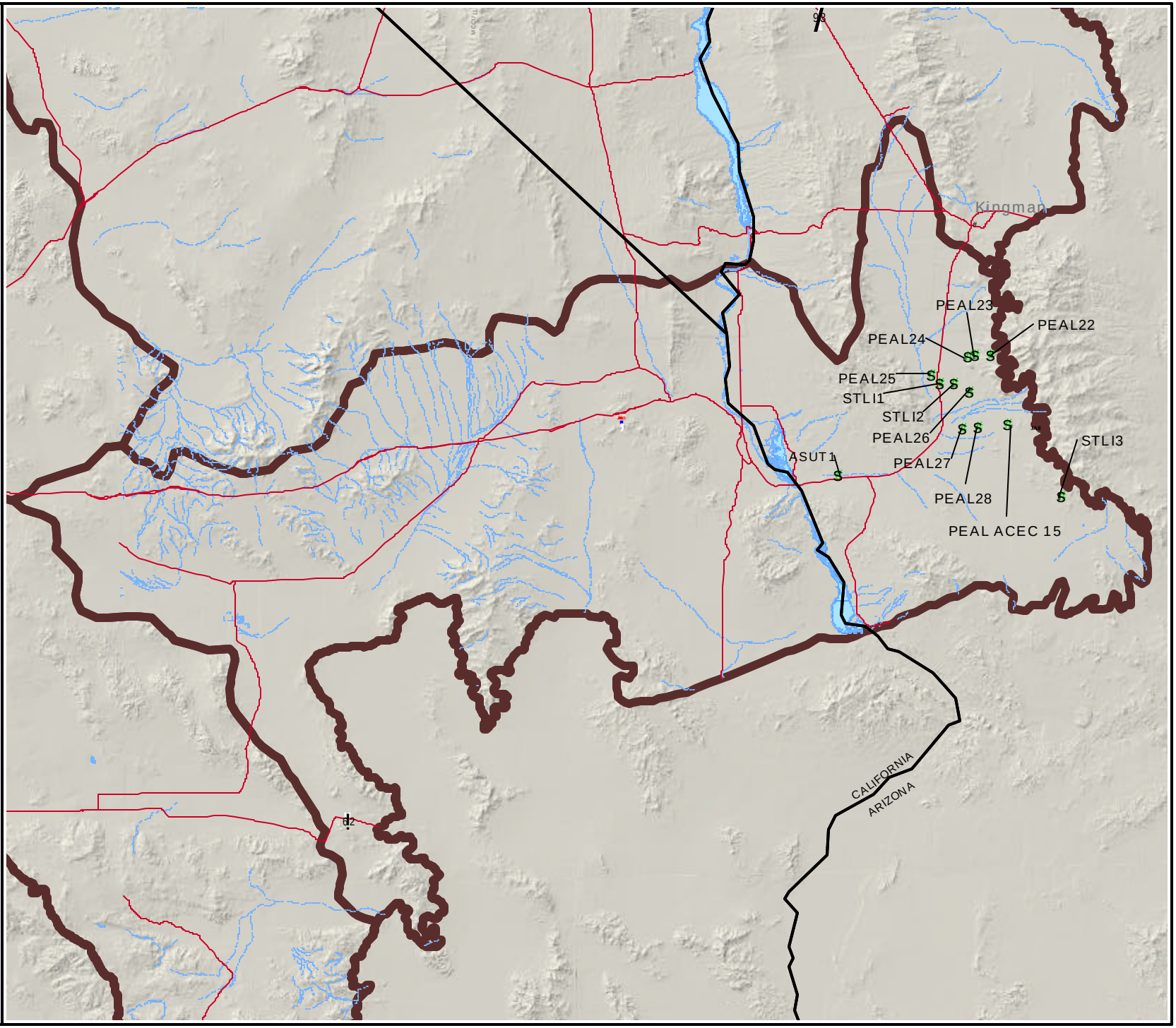
N

SCALE 1:1,100,000

LEGEND

- Rare Plant Site
- Subregional Boundary
- State Boundary
- Rivers and Streams
- Highways
- Lakes

The Nature Conservancy



Rare Plant Sites Mojave Desert South-Central Subregion

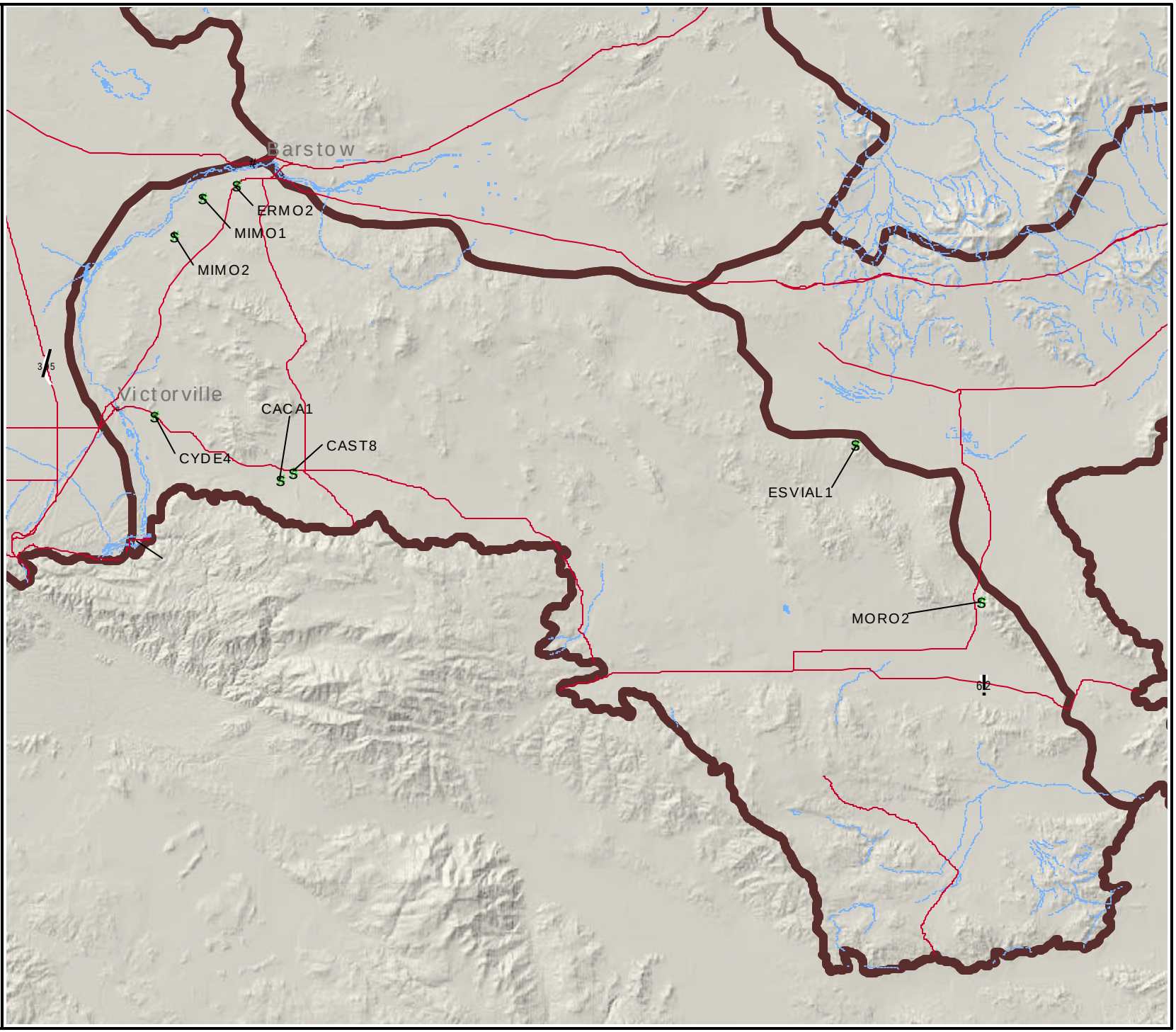
N

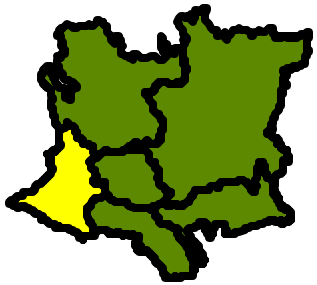
SCALE 1:900,000

LEGEND

- Rare Plant Site
- Subregional Boundary
- State Boundary
- Rivers and Streams
- Highways
- Lakes

The Nature Conservancy





Rare Plant Sites Mojave Desert Western Subregion

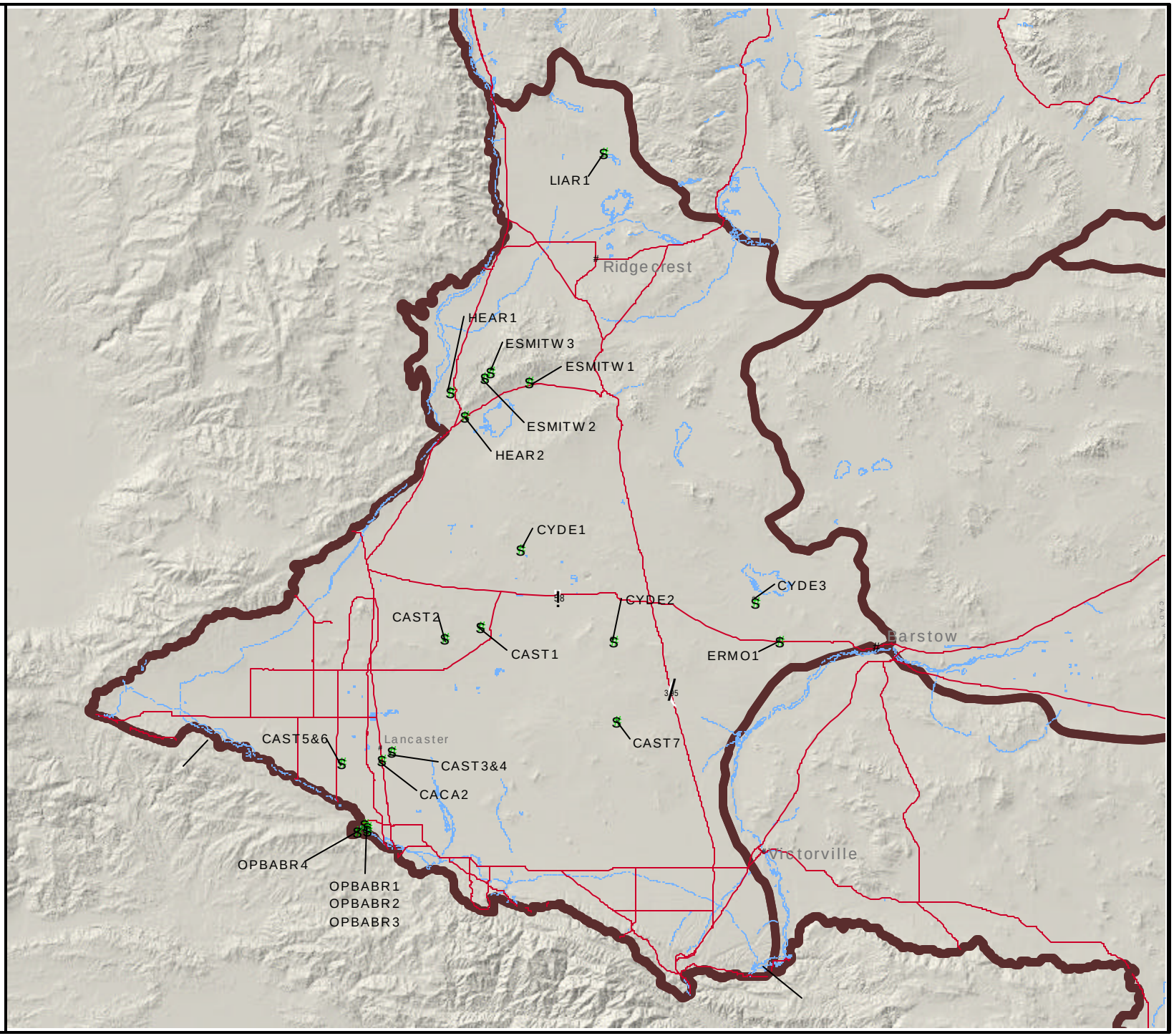
N

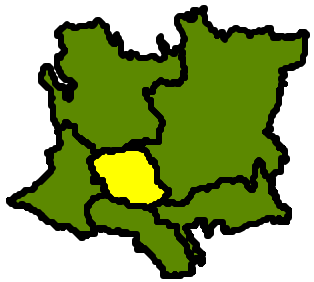
SCALE 1:1,100,000

LEGEND

- Rare Plant Site
- Subregional Boundary
- State Boundary
- Rivers and Streams
- Highways
- Lakes

The Nature Conservancy





Rare Plant Sites Mojave Desert Central Subregion

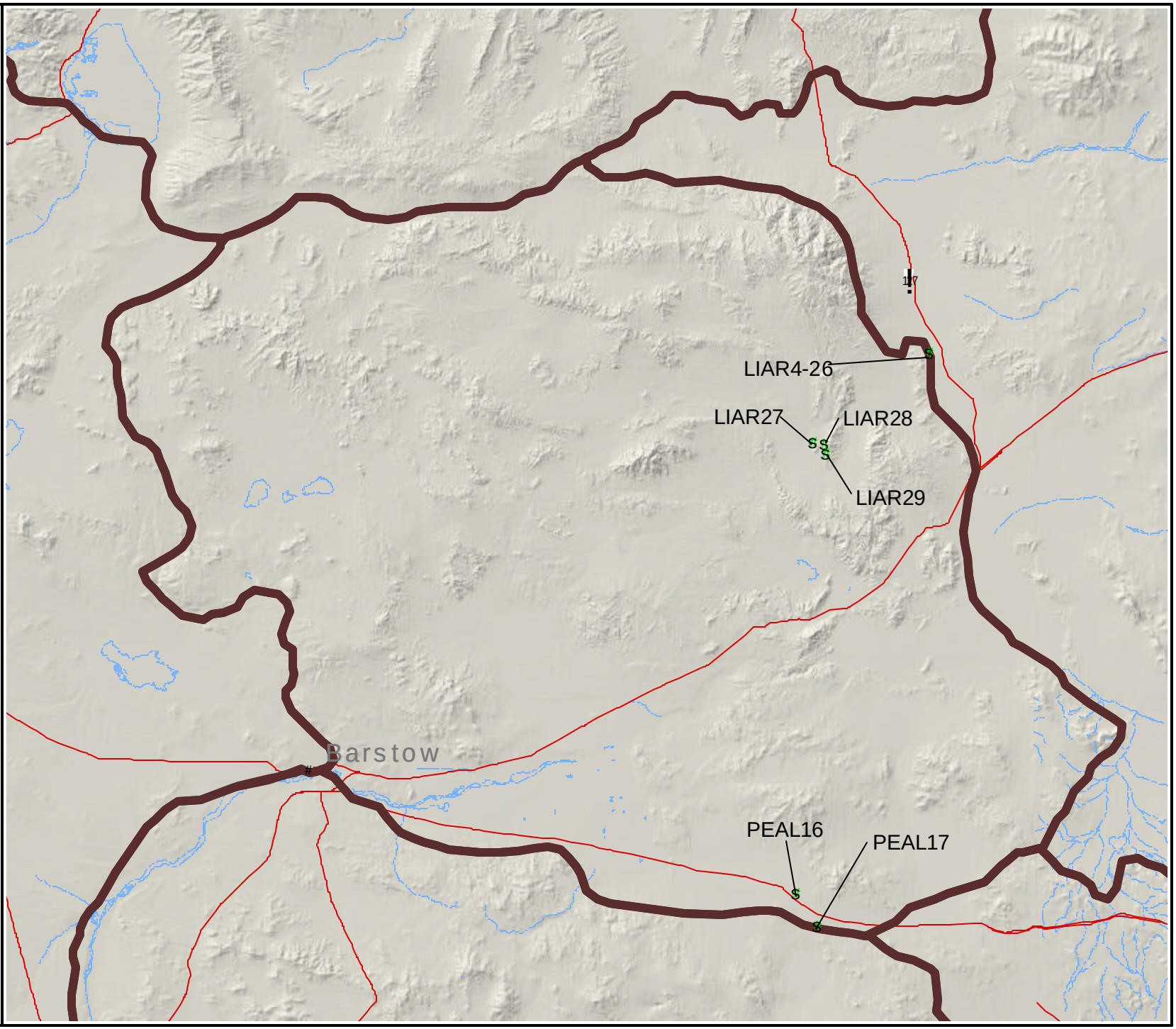
N

SCALE 1:700,000

LEGEND

- Rare Plant Site
- Subregional Boundary
- State Boundary
- Rivers and Streams
- Highways
- Lakes

The Nature Conservancy



Chapter 3:

APPENDICES

Appendix I. Species Conservation Targets for the Mojave Desert Ecoregion

APPENDIX I. Species Conservation Targets by Taxonomic Group

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK	DISTRI-BUTION	ESA STATUS
AMPHIBIANS				
Ambystoma tigrinum	Tiger salamander	?		
Batrachoseps campi	Inyo Mtn. salamander	G2	EN	
Batrachoseps stebbinsi	Tehachapi slender salamander	G2		
Bufo boreas	Western toad	G4	DJ	
Bufo cognatus	Great Plains toad	G5		
Bufo exsul	Black toad	G1	EN	
Bufo microscaphus californicus	Arroyo toad	G5?T3?		E
Bufo microscaphus microscaphus	Arizona toad	G4T3	LM	
Bufo nelsoni	Amargosa toad	G1G2	EN	
Bufo punctatus	Red spotted toad		WS	
Ensatina eschscholtzii	Ensatina	G5		
Hyla arenicolor	Canyon treefrog			
Hyla regilla	Pacific tree frog	G5	WS	
Rana aurora draytonii	California red-legged frog	G4T2T3		T
Rana muscosa	Mountain yellow-legged frog	G3		
Rana onca	Relict leopard frog	G1	EN	
Rana pipiens	Northern leopard frog	G5	WS	
Rana yavapaiensis	Lowland leopard frog	G4	EN	
Spea intermontana	Great Basin spadefoot	G5		
BIRDS				
Agelaius tricolor	Tricolored Blackbird	G3	PR	
Aquila chrysaetos	Golden Eagle	G5		
Asio flammeus	Short-eared Owl			
Asio otus	Long-eared Owl			
Athene cunicularia	Burrowing Owl	G4	WS	
Buteo regalis	Ferruginous Hawk			
Calypte costae	Costa's Hummingbird	G5		
Carduelis lawrencei	Lawrence's Goldfinch	G4G5		
Charadrius alexandrinus nivosus	Western Snowy Plover	G4T2	DJ	T
Circus cyaneus	Northern Harrier			
Coccyzus americanus occidentalis	Western Yellow-billed Cuckoo	G5T2T3	WS PR	
Dendroica petechia brewsteri	Yellow Warbler	G5T2	PR	
Dendroica petechia sonorana	Sonoran Yellow Warbler	G5T1	PR	
Empidonax traillii extimus	Southwestern Willow Flycatcher	G5T2	WS	E
Falco peregrinus	Peregrine Falcon	G3	WS	E
Guiraca caerulea	Blue Grosbeak	G5	WS	
Icteria virens	Yellow-breasted Chat	G5	WS	
Icterus parisorum	Scott's Oriole	G5	WS	
Ixobrychus exilis hesperis	Western Least Bittern	G5T1	WS	
Lanius ludovicianus	Loggerhead Shrike	G5	WS	
Laterallus jamaicensis coturniculus	California Black Rail	G4T1	PR	
Micrathene whitneyi	Elf Owl	G5	PR	
Myiarchus tyrannulus	Brown-crested Flycatcher	G5	WS	
Phainopepla nitens	Phainopepla	G5	WS	
Pipilo aberti	Abert's Towhee	G3G4	LM	
Pipilo crissalis eremophilus	Inyo California Towhee	G4G5T1	PR	T
Piranga flava	Hepatic Tanager	G5	WS	
Piranga rubra	Summer Tanager	G5	WS	
Pyrocephalus rubinus	Vermilion Flycatcher	G5	WS	
Rallus longirostris yumanensis	Yuma Clapper Rail	G5T3	LM	E
Strix occidentalis lucida	Mexican Spotted Owl	G3T3		T

APPENDIX I. Species Conservation Targets by Taxonomic Group

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK	DISTRI-BUTION	ESA STATUS
Toxostoma bendirei	Bendire's Thrasher	G5	LM	
Toxostoma crissale	Crissal Thrasher	G5	WS	
Toxostoma lecontei	Le Conte's Thrasher	G4	LM	
Vermivora luciae	Lucy's Warbler	G5	WS	
Vireo bellii arizonae	Arizona Bell's Vireo	G5T1	WS	
Vireo bellii pusillus	Least Bell's Vireo	?		E
Vireo vicinior	Gray Vireo	G5	WS	
FISHES				
Catostomus clarki	Desert sucker	G3G4	WS	
Catostomus clarki intermedius	White River desert sucker	G4T1T2	PR	
Catostomus clarki ssp. 2	Meadow Valley Wash desert sucker	G4T2	PR	
Catostomus latipinnis	Flannelmouth sucker	G3G4	WS	
Crenichthys baileyi baileyi	White River springfish	G2T1	EN	E
Crenichthys baileyi grandis	Hiko White River springfish	G2T1	EN	E
Crenichthys baileyi moapae	Moapa White River springfish	G2T2	EN	
Cyprinodon diabolis	Devils Hole pupfish	G1	EN	E
Cyprinodon nevadensis amargosae	Amargosa pupfish	G2T1	EN	
Cyprinodon nevadensis calidae	Tecopa pupfish	G2TX	EN	
Cyprinodon nevadensis mionectes	Ash Meadows amargosa pupfish	G2T2	EN	E
Cyprinodon nevadensis nevadensis	Saratoga Springs pupfish	G2T1	EN	
Cyprinodon nevadensis pectoralis	Warm Springs amargosa pupfish	G2T1	EN	E
Cyprinodon nevadensis shoshone	Shoshone pupfish	G2T1	EN	
Cyprinodon radiosus	Owens pupfish	G1		E
Cyprinodon salinus milleri	Cottonball Marsh pupfish	G1T1	EN	
Cyprinodon salinus salinus	Salt Creek pupfish	G1T1	EN	
Empetrichthys latos latos	Pahrump poolfish	G1T1	EN	E
Gila bicolor mohavensis	Mohave tui chub	G4T1	EN	E
Gila bicolor snyderi	Owens tui chub	G4T1	EN LM	E
Gila cypha	Humpback chub	G1	WS	E
Gila elegans	Bonytail	G1	WS	E
Gila robusta jordani	Pahranagat roundtail chub	G3T1	EN	E
Gila seminuda	Virgin River chub	G3	LM	E
Lepidomeda mollispinis	Virgin spinedace	G1	LM	
Moapa coriacea	Moapa dace	G1	EN	E
Plagopterus argentissimus	Woundfin	G1	LM	E
Rhinichthys osculus	Speckled dace	G5	WS	
Rhinichthys osculus nevadensis	Nevada speckled dace	G5T1	EN	E
Rhinichthys osculus ssp. 1	Amargosa Canyon speckled dace	G5T1	EN	
Rhinichthys osculus ssp. 2	Meadow Valley speckled dace	G5T2		
Rhinichthys osculus ssp. 6	Oasis Valley speckled dace	G5T1	EN	
Rhinichthys osculus velifer	White River speckled dace	G5T1	EN	
Rhinichthys sp. 3	Pahranagat dace	G1Q	EN	
Xyrauchen texanus	Razorback sucker	G1	WS	E
MAMMALS				
Chaetodipus intermedius	Rock pocket mouse	G5	LM	
Chaetodipus penicillatus	Desert pocket mouse	G5	LM	
Chaetodipus penicillatus sobrinus	Desert pocket mouse	G5	EN	
Dipodomys deserti	Desert kangaroo rat	G5	LM	
Dipodomys merriami frenatus	Merriam's kangaroo rat	G5T-UNID		
Dipodomys microps celsus	Chisel-toothed kangaroo rat	G5T4		
Dipodomys panamintinus	Panamint kangaroo rat	G5	EN	

APPENDIX I. Species Conservation Targets by Taxonomic Group

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK	DISTRI-BUTION	ESA STATUS
Dipodomys panamintinus argusensis	Argus Mountains kangaroo rat	G5T1T3		
Lutra canadensis sonora	Southwestern otter	G5T1	LM	
Microtus californicus mohavensis	Mohave river vole	G5T1	EN	
Microtus californicus scirpensis	Amargosa vole	G5T1	EN	E
Microtus californicus vallicola	Owens Valley vole	G5T1	EN	
Microtus mexicanus hualpeiensis	Hualapai mexican vole	G5T1		E
Microtus montanus fucosus	Pahranagat Valley montane vole	G5T1	EN	
Microtus montanus rivularis	Virgin River montane vole	G5T2?Q		
Mustela frenata primulina	Long-tailed weasel	G5T4	DJ	
Ovis canadensis californiana	California bighorn sheep	G4T1		
Ovis canadensis nelsoni	Nelson's bighorn sheep	G4T3		
Perognathus xanthonotus	Yellow-eared pocket mouse	?		
Peromyscus eremicus	Cactus mouse	G5	LM	
Spermophilus mohavensis	Mohave ground squirrel	G2?	EN	
Tamias palmeri	Palmer's chipmunk	G2	EN	
Tamias panamintinus	Panamint chipmunk	G4		
Tamias panamintinus acrus	Kingston Mountain chipmunk	G5T1T2		
Taxidea taxus	American badger	G5		
Thomomys umbrinus	(Amargosa) southern pocket gopher	G5T-UNID		
Vulpes macrotis	Kit fox	G4		
BATS				
Antrozous pallidus	Pallid bat	G5		
Choeronycteris mexicana	Mexican long-tongued bat	G3G4	PR LM	
Euderma maculatum	Spotted bat	G4		
Eumops perotis californicus	Greater western mastiff bat	G5T4		
Idionycteris phyllotis	Allen's big-eared bat	G4		
Lasionycteris noctivagans	Silver-haired bat	G5		
Lasiurus cinereus	Hoary bat	G5	WS	
Macrotus californicus	California leaf-nosed bat	G4		
Myotis californicus	California myotis	G5		
Myotis ciliolabrum	Western small-footed myotis	G5		
Myotis evotis	Long-eared myotis	G5		
Myotis lucifugus occultus	Occult myotis	G5T3T4		
Myotis thysanodes	Fringed myotis	G5		
Myotis volans	Long-legged myotis	G5		
Myotis yumanensis	Yuma myotis	G5		
Nyctinomops macrotis	Big free-tailed bat	G5		
Plecotus townsendii	Townsend's big-eared bat	G4		
Plecotus townsendii pallescens	Pale townsend's big eared bat	G4T4		
Tadarida brasiliensis	Mexican free-tailed bat	G5		
REPTILES				
Arizona elegans	Glossy snake	G5	LM	
Callisaurus draconoides	Zebratail lizard	G5	WS	
Charina trivirgata	Rosy boa	G5		
Charina trivirgata gracia	Desert rosy boa	G5T3	LM	
Clemmys marmorata pallida	Southwestern pond turtle	G4T2T3		
Cnemidophorus tigris			WS	
Cnemidophorus tigris multiscutatus	Coastal western whiptail	G5T3?		
Cnemidophorus velox	Plateau striped whiptail	G5		
Coleonyx variegatus	Banded gecko	G5	LM	
Coleonyx variegatus utahensis	Utah banded gecko		EN	

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SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK	DISTRI-BUTION	ESA STATUS
Crotalus cerastes	Sidewinder	G5	LM	
Crotalus mitchellii	Speckled rattlesnake	G5	LM	
Crotalus scutulatus	Mojave green rattlesnake	G5	EN	
Crotaphitus insularais bicinctores	Mojave collared lizard	G5T-UNID	LM	
Dipsosaurus dorsalis	Desert iguana	G5	LM	
Eumeces gilberti rubricaudatus	Western redtail skink	G5T4	LM?	
Gambelia wislizenii	Leopard lizard		WS	
Gerrhonotus panamintinus	Panamint alligator lizard	G1G2	EN	
Gopherus agassizii (Mojave population)	Mohave desert tortoise		EN	T
Gopherus agassizii (Sonoran population)	Sonoran desert tortoise	G4T4	LM	
Heloderma suspectum cinctum	Banded gila monster	G4T3	LM?	
Lampropeltis getula californiae	California (common) kingsnake	G5T5		
Lampropeltis pyromelana infralabialis	Utah mountain kingsnake	G5T3	EN	
Lampropeltis triangulum taylori	Utah milk snake	G5T4Q		
Leptotyphlops humilis	Western blind snake	G5	LM	
Phrynosoma coronatum blainvillei	San Diego horned lizard	G4T3T4	EN	
Phrynosoma platyrhinos calidiarum	Southern desert horned lizard	G5T5		
Phyllorhynchus decurtatus	Spotted leaf-nosed snake	G5	LM	
Rhinocheilus lecontei lecontei	Western longnosed snake	G5T-UNID		
Salvadora hexalepis mojavensis	Mojave patchnose snake	G5T-UNID	EN	
Sauromalus obesus obesus	Western chuckwalla	G5T4	LM	
Thamnophis hammondii	Two-striped garter snake	G3?	LM	
Trimorphodon biscutatus lambda	Sonoran lyre snake		LM	
Uma scoparia	Mojave fringe-toed lizard			
Xantusia vigilis	Desert night lizard	G5	LM	
INSECTS				
Aegialia knighti	Aegialian scarab beetle	G1	EN	
Agabus rumpi	Death Valley agabus diving beetle			
Ambrysus amargosus	Ash Meadows naucorid	G1	EN	T
Ambrysus funebris	Furnace Creek naucorid bug			
Ammopelmatus kelsoensis	Kelso jerusalem cricket			
Andrena balsamorhizae	Mojave gypsum bee			
Belostoma saratogae	Saratoga Springs belastoma bug			
Chlosyne acastus ssp.	Spring Mountains acastus checkerspot	G?T3	EN?	
Cicindela oregona maricopa	Maricopa tiger beetle	G5T3	WS LM?	
Danaus plexippus	Monarch butterfly	G5		
Euphilotes ancilla ssp. 1	Spring Mountains dark blue	G5T3	EN	
Euphilotes battoides	Bret's blue (Spring Mtns. phenotype)	G?	EN	
Euphilotes enoptes ssp.1	Dark blue butterfly	G5T3		
Euphydryas anicia morandi	Morand's checkerspot	G5T1	EN	
Haliplus eremicus	Warm Springs crawling water beetle	G?	EN	
Hesperia comma ssp. 1	Spring Mountains comma skipper	G5T2	EN	
Hesperopsis gracielae	Macneill sooty wing	G?		
Icaricia icarioides ssp. 2	Spring Mountains icarioides blue	G5T2	EN	
Icaricia shasta charlestonensis	Spring Mountains blue	G5T1	EN	
Lasius nevadensis	Spring Mountains ant	G1	EN	
Limenitis weidemeyerii nevadae	Nevada admiral	G5T2	EN	
Macrobaenetes kelsoensis	Kelso giant sand treader cricket	G1	EN	
Microcylloepus formicoideus	Furnace Creek riffle beetle		EN	
Microcylloepus moapus moapus	Moapa riffle beetle		EN	
Microcylloepus similis	Un-named riffle beetle			
Miloderes sp.	Big Dune miloderes weevil	G1Q	EN	
Pelocoris shoshone amargosus	Amargosa naucorid	G1G3T1	EN	

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SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK	DISTRI-BUTION	ESA STATUS
Polyphylla anteronivea	Saline Valley snow front scarab beetle			
Polyphylla erratica	Death Valley june beetle			
Pseudocotalpa giulianii	Giuliani's dune scarab	G1	EN	
Rhagovellia becki	Moapa skater/water strider		EN	
Speyeria carolae	Carole's silverspot	G5T3	EN	
Stenelmis calida calida	Devil's Hole warm spring riffle beetle	G?T1	EN	
Stenelmis occidentalis	Riffle beetle	G5		
Usingerina moapensis	Naucorid bug			
MOLLUSKS				
Assiminea infima	Badwater snail	G1	EN	
Eremarionta rowelli bakerensis	Baker desertsnail	G1T1	EN	
Fonticella sp.	Deep springs fonticella		EN	
Helminthoglypta mohaveana	Victorville shoulderband	G1	EN	
Oxyloma haydeni kanabensis	Kanab ambersnail	G3?T1	EN	E
Pyrgulopsis avernalis	Moapa pebblesnail	G1G2	EN	
Pyrgulopsis bacchus	Grand wash springsnail	G1	EN	
Pyrgulopsis carinifera	Moapa turbin snail	G1	EN	
Pyrgulopsis coloradensis	Blue point springsnail	G1	EN	
Pyrgulopsis conica	Kingman springsnail	G1	EN?	
Pyrgulopsis crystalis	Crystal spring springsnail	G1	EN	
Pyrgulopsis deaconi	Spring mountains springsnail	G1	EN	
Pyrgulopsis deserta	Desert springsnail	G2	EN?	
Pyrgulopsis erythropoma	Ash meadows pebblesnail	G1	EN	
Pyrgulopsis fairbanksensis	Fairbanks springsnail	G1	EN	
Pyrgulopsis fausta	Corn creek springsnail	G1	EN	
Pyrgulopsis hubbsi	Hubbs springsnail	G1	EN	
Pyrgulopsis isolatus	Elongate-gland springsnail	G1	EN	
Pyrgulopsis merriami	Pahranagat pebblesnail	G1	LM	
Pyrgulopsis micrococcus	Oasis valley springsnail	G3?	EN	
Pyrgulopsis nanus	Distal-gland springsnail	G1	EN	
Pyrgulopsis pisteri	Median-gland nevada springsnail	G1	EN	
Pyrgulopsis turbatrix	Southeast nevada springsnail	G2	EN	
Pyrgulopsis wongi	Wong's springsnail	G1G2	LM	
Pyrulopsis deserta	Virgin river springsnail			
Tryonia robusta	Robust tryonia			
Tryonia angulata	Sportinggoods tryonia	G1	EN	
Tryonia clathrata	Grated tryonia	G2		
Tryonia elata	Point of rocks tryonia	G1	EN	
Tryonia ericae	Minute tryonia	G1	EN	
Tryonia margae	Grapevine springs elongate tryonia		EN	
Tryonia rolandsi	Grapevine springs squat tryonia		EN	
Tryonia salina	Cottonball marsh tryonia		LM	
Tryonia sp. *Undescribed*	Dry lake bed species			
Tryonia variegata	Amargosa tryonia	G3?	EN	
OTHER INVERTEBRATES				
Aquatic invertebrates				
Fairy shrimp				
Rare invertebrates				
Trithyreus shoshonensis	Shoshone cave whip-scorpion	G1	EN	

APPENDIX I. Species Conservation Targets by Taxonomic Group

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK	DISTRI-BUTION	ESA STATUS
PLANTS				
Abronia nana ssp. *covillei*		G4T3T4	EN	
Aesculus californica	California buckeye			
Agave utahensis	Utah agave	G4		
Agave utahensis var. *Eborispina*	Ivory-spined agave	G4T3Q		
Agave utahensis var. *Nevadensis*	Clark Mountain agave	G4T3Q		
Allium nevadense	Nevada onion	G4	DJ	
Allium parishii		G3	LM	
Ammoselinum giganteum	Desert sand-parsley	G3	WS	
Androstephium brevifolium	Small-flowered androstephium	?		
Angelica scabrida	Rough angelica	G2	EN	
Antennaria soliceps	Charleston pussytoes	G1	EN	
Anulocaulis leioslenus	Sticky ringstem		LM	
Arabis dispar	Pinyon rock cress	G3	PR	
Arabis pulchra munciensis	Darwin's rock cress	?	EN	
Arabis shockleyi	Shockley's rock cress	G3	LM	
Arctomecon californica	Las Vegas bearpoppy	G3	EN	
Arctomecon humilis	Dwarf bearclaw-poppy	G1	EN	E
Arctomecon merriamii	White bear poppy	G2	EN	
Arenaria kingii ssp. *rosea*	Rosy king sandwort	G4T2	EN	
Arenaria stenomeres	Meadow Valley sandwort	G2	EN	
Argyrochosma limitanea var. *limitanea*	Cloak fern	G?T3T4		
Astephanus utahense	Utah milkweed vine	G4	EN	
Astragalus ackermanii	Ackerman milkvetch	G2	EN	
Astragalus aequalis	Clokey milkvetch	G2	EN	
Astragalus albens	Cushenbury milk-vetch	G1	LM	E
Astragalus allochrous var. *playanus*	Playa milk-vetch	G4T3?Q	LM	
Astragalus amphioxys var. *musimonum*	Sheep Mountain milkvetch	G5T2	EN	
Astragalus ampullarioides		G1Q	EN	
Astragalus atratus var. *mensanus*	Darwin Mesa milkvetch	G4T1	EN	
Astragalus calycosus var. *monophyllidius*	One-leaflet torrey milkvetch	G5T2	LM	
Astragalus cimae var. *cimae*	Cima milk-vetch	G2T2	LM	
Astragalus eurylobus	Peck Station milk-vetch	G2		
Astragalus funereus	Black milk-vetch	G2	EN	
Astragalus geyeri var. *triquetrus*	Threecorner milkvetch	G2G3		
Astragalus gilmanii	Gilman's milk-vetch		LM	
Astragalus holmgreniorum	Holmgren milkvetch	G1	EN	
Astragalus jaegerianus	Lane Mtn. Milk-vetch	G1	EN	E
Astragalus lentiginosus var. *micans*	Shining milk-vetch	G5T1Q	EN	
Astragalus lentiginosus var. *sesquimetralis*	Sodaville milk-vetch	G5T1	LM	
Astragalus mohavensis var. *hemigyrus*	Halfring milkvetch	G3T2	LM	
Astragalus mokiacensis	Mokiak milkvetch	G2G3		
Astragalus nutans	Providence Mtns. milkvetch	G3	LM	
Astragalus nyensis	Nye milkvetch	G3	EN	
Astragalus oophorus var. *clokeyanus*	Clokey eggvetch	G4T2	LM	
Astragalus phoenix	Ash Meadows milkvetch	G2	EN	T
Astragalus preussii var. *preussii*	Preuss's milk-vetch	G4T4	PR	
Astragalus remotus	Spring Mountains milkvetch	G2	EN	
Astragalus serenoi shockleyi	Naked milk-vetch		LM	
Astragalus tricarinatus	Triple-ribbed milkvetch			E
Astragulus lentiginosus var. *boreganus*				

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SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK	DISTRI-BUTION	ESA STATUS
Atriplex parishii	Parish's brittlescale	G2?	PR	
Berberis fremontii	Fremont barberry			
Botrychium crenulatum	Scalloped moonwort	G3	WS	
Calochortus striatus	Alkali mariposa lily	G2	LM	
Camissonia boothii ssp. *boothii*		G5T4	WS	
Camissonia exilis	Slender evening-primrose	G1	LM	
Camissonia gouldii	Diamond Valley suncup	G1	LM	
Camissonia megalantha	Cane Spring suncup	G3	LM	
Canbya candida	Pygmy poppy	G2	LM	
Castilleja martinii var. *clokeyi*	Clokey paintbrush	G3QT3	L	
Centaurium namophilum	Spring-loving centaury	G2	EN	T
Chorizanthe spinosa				
Chrysothamnus eremobius	Remote rabbitbrush	G1	EN	
Cirsium clokeyi	Clokey thistle	G2G3	EN	
Cirsium virginense	Virgin River thistle	G2	EN	
Cordylanthus eremicus ssp. *eremicus*	Desert bird's beak	G3?T3		
Cordylanthus tecopensis	Tecopa bird's-beak	G2	LM	
Cryptantha clokeyi	Clokey's cryptantha	G3?T1	EN	
Cryptantha tumulosa	New York Mountains catseye	G3?	EN	
Cryptantha welshii	White River catseye	G3	LM	
Cymopterus deserticola	Desert cymopterus	G2	EN	
Cymopterus gilmanii	Gilman's cymopterus	G3?	LM	
Cymopterus ripleyi	Ripley's cymopterus	G2	LM	
Cymopterus ripleyi var. *saniculoides*	Sanicle biscuitroot	G3G4T3Q		
Cynanchum utahense	Utah vine milkweed		LM	
Dedeckera eurekensis	July gold	G2	LM	
Ditaxis californica	California ditaxis	G2	PR	
Draba jaegeri	Jaeger whitlowgrass	G2	EN	
Draba paucifructa	Charleston draba	G1G2	EN	
Dudleya abramsii ssp. *affinis*	San Bernardino Mtns. dudleya	G3T2	PR	
Dudleya pulverulenta	Chalk liveforever	G3	WS	
Dudleya pulverulenta var. *arizonica*	Chalk live-forever	G3T?		
Dudleya saxosa saxosa	Panamint dudleya	G4T3	EN	
Echinocereus engelmannii var. *howei*	Howe's hedgehog cactus	G5T1	EN	
Enceliopsis argophylla	Silverleaf sunray	G3	EN	
Enceliopsis covillei	Panamint daisy	G3	LM	
Enceliopsis nudicaulis var. *corrugata*	Ash Meadows sunray	G5T2	EN	T
Enneapogon desvauxii	Nine-awned pappus grass	G5	WS	
Epilobium nevadense	Nevada willowherb	G2	LM	
Eriastrum hooveri				
Ericameria gilmanii	Gilman's goldenbush	G1	LM	
Erigeron ovinus	Sheep fleabane	G2	LM	
Erigeron parishii	Parish's daisy	G2	LM	T
Eriodictyon angustifolium		G5	WS	
Eriogonum bifurcatum	Pahrump Valley buckwheat	G1G2	EN	
Eriogonum contiguum	Reveal's buckwheat	G3G3		
Eriogonum corymbosum var. *aureum*	Golden buckwheat	G4G5T3?Q	DJ	
Eriogonum eremicola	Wild Rose Canyon buckwheat	G1	LM	
Eriogonum ericifolium var. *thornei*	Thorne's buckwheat	G3T1	EN	
Eriogonum heermanii floccosum				
Eriogonum heermannii var. *clokeyi*	Clokey buckwheat	G5T2	EN	
Eriogonum intrafractum	Jointed buckwheat	G3	EN	
Eriogonum kennedyi var. *pinicola*				
Eriogonum microthecum panamintinus	Panamint Mountains buckwheat		LM	
Eriogonum pharnaceoides var. *cervinum*	Wire-stemmed wild-buckwheat	G4G5T2		

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Eriogonum umbellatum var. *juniporinum*	Juniper buckwheat	G5T3?		
Eriogonum viscidulum	Sticky buckwheat	G2	EN	
Eriophyllum mohavense	Barstow woolly sunflower	G2	EN	
Eschscholzia minutiflora ssp. *twisselmannii*	Red rock poppy	G5T2	LM	
Escobaria vivipara var alversonii	Foxtail cactus	G4T3	LM	
Euphorbia exstipulata var. *exstipulata*	Clark Mountain spurge		PR	
Fendlerella utahensis		G5	WS	
Fimbristylis thermalis	Hot springs fimbristylis	G4	LM	
Galium bifolium				
Galium hilendiae ssp. *kingstonense*	Kingston Mtns. Bedstraw	G4T2	LM	
Galium hypotrichium ssp. *tomentellum*	Telescope Peak bedstraw	G5T1	EN	
Galium munzii		G5	LM	
Galium wrightii	Wright's bedstraw			
Gilia maculata	Little San Bernardino Mtns. gilia	G1	LM	
Gilia nyensis	Nye gilia	G3	LM	
Gilia ripleyi	Ripley's gilia	G2G3	LM EN?	
Gilmania luteola	Golden carpet	G1	EN	
Glossopetalon clokeyi	Clokey greasebush	G2	EN	
Glossopetalon pungens var. *glabrum*	Smooth dwarf greasebush	G2G3T1Q	L	
Glossopetalon pungens var. *pungens*	Pungent dwarf greasebush	G2G3T2Q		
Grindelia fraxino-pratensis	Ash Meadows gumplant	G2	EN	T
Haplopappus cervinus	Tawny turpentine bush	G2	PR	
Haplopappus crispus	Pine Valley goldenbush	G2	EN? LM?	
Haplopappus scopulorum	Grand Canyon evening daisy	G4	PR	
Helianthus niveus ssp. *tephrodes*	Algodones dunes sunflower	G4T3	LM	
Hemizonia arida	Red Rock tarplant	G1	EN	
Hemizonia mohavensis	Mojave tarplant	G1	LM	
Hesperocallis undulata	Desert lilly	G3G4		
Heterotheca jonesii	Jones golden aster	G2	PR?	
Hulsea vestita ssp. *inyoensis*	Inyo hulsea	G4T2T3Q	LM	
Ionactis caelestis	Red Rock canyon aster	G1	EN	
Ivesia arizonica var. *arizonica*	Yellow ivesia	G3G4T2T3		
Ivesia cryptocaulis	Hidden ivesia	G2	EN	
Ivesia jaegeri	Jaeger ivesia	G3	EN	
Ivesia kingii var. *eremica*	Ash Meadows ivesia	G3T1T2Q	EN	T
Ivesia patellifera	Kingston Mtns. ivesia	G1	EN	
Lathyrus hitchcockianus	Bullfrog Hills sweetpea	G2	LM	
Lesquerella hitchcockii	Hitchcock bladderpod	G3	LM	
Linanthus arenicola	Sand linanthus	G2?	LM	
Loeflingia squarrosa var. *artemisiarum*	Sagebrush loeflingia	G5T4	LM	
Lomatium graveolens var. *clarkii*	Clark parsley	G3T1Q		
Lomatium scabrum var. *tripinnatum*		G3G4T2T3		
Lotus argyraeus var. *multicaulis*	Scrub lotus	G4?T1	EN	
Lotus argyraeus var. *notitius*	Providence Mountain lotus	G4?T1	EN?	
Lupinus holmgrenianus	Holmgren lupine	G3?Q	PR	
Lupinus magnificus var. *magnificus*	Panamint Mountains lupine	G3TH	LM	
Lycurus phleoides var. *phleoides*	Wolftail	G5T4?	PR	
Matelea parvifolia	Spearleaf	G5?	WS	
Maurandya petrophila	Rock lady	G1	EN	
Mentzelia candelariae	Candelaria blazing-star	G3?Q	LM	
Mentzelia leucophylla	Ash Meadows blazingstar	G1Q	EN	T
Mimulus mohavensis	Mojave monkeyflower	G2	EN	
Mimulus shevockii	Kelso Creek monkey flower			
Mirabilis pudica	Bashful four o'clock	G3	LM	
Monardella robisonii	Robison's monardella	G2	EN	

APPENDIX I. Species Conservation Targets by Taxonomic Group

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK	DISTRI-BUTION	ESA STATUS
Mortonia scabrella var. *utahensis*	Utah sandpaper bush	G4G5Q	LM	
Muhlenbergia appressa	Appressed muhly		PR	
Muilla coronata		G3	LM	
Navarretia peninsularis	Baja navarretia	G3?	PR	
Nemacaulis denudata var. *gracilis*	Slender woolly-heads	G4T3?		
Nitrophila mohavensis	Amargosa nitrophila	G1	EN	E
Oenothera caespitosa ssp. *crinita*		G5T1	LM	E
Oenothera californica ssp. *eurekensis*	Eureka Dunes evening-primrose	G4?T1	EN	
Opuntia basilaris var. *brachyclada*	Short-joint beavertail	G5T1	PR?	
Opuntia bigelovii	Teddy bear cholla			
Opuntia curvospina	Curved-spine beavertail	G?	WS	
Opuntia whipplei var. *multigeniculata*	Blue Diamond cholla	G2?T1	EN	
Oryctes nevadensis	Nevada oryctes	G2	PR	
Oxytheca watsonii	Watson's oxytheca	G2	PR	
Pedicularis semibarbatus charlestonensis	Charleston pinewood lousewort	G4T3Q	EN	
Pediocactus sileri	Siler pincushion cactus	G3	EN	T
Pediomelum castoreum	Beaver dam breadroot	G3	EN	
Pediomelum mephiticum		G3?	LM	
Penstemon albomarginatus	White-margined beardtongue	G2	EN	
Penstemon bicolor ssp. *bicolor*	Yellow twotone beardtongue	G3T2Q	EN	
Penstemon bicolor ssp. *roseus*	Rosy twotone beardtongue	G3T3Q	EN	
Penstemon calcareus	Limestone beardtongue	G2	EN	
Penstemon fruticiformis ssp. *amargosae*	Death Valley beardtongue	G3T2T3	EN	
Penstemon leiophyllus var. *keckii*	Charleston beardtongue	G3T2	EN	
Penstemon pahutensis	Pahute Mesa beardtongue	G3	LM	
Penstemon stephensii	Stephens's beardtongue	G2	EN	
Penstemon thompsoniae ssp. *jaegeri*	Jaeger beardtongue	G4T2	EN	
Penstemon thurberi		G5	WS	
Perityle intricata	Delicate rockdaisy	G3	EN	
Perityle inyoensis	Inyo rock daisy	G1	EN? LM?	
Perityle villosa	Hanaupah rock daisy	G1	EN	
Petalonyx nitidus	Shiny-leaved sandpaper plant	G4	EN	
Petalonyx parryi	Parry sandpaper plant	G3G4	EN	
Petalonyx thurberi ssp. *gilmanii*	Death Valley sandpaper-plant	G5T2	EN	
Phacelia amabilis	Saline valley phacelia	GIQ		
Phacelia anelsonii	Aven Nelson's phacelia	G2G3	E	
Phacelia beatleyae	Beatley scorpion plant	G3	LM	
Phacelia mustelina	Death Valley round-leaved phacelia	G2	LM	
Phacelia nashiana	Charlotte's phacelia	G3	LM	
Phacelia novemillensis				
Phacelia parishii	Parish phacelia	G2G3	LM	
Phacelia pulchella var. *gooddingii*	Goodding's phacelia	G5T2T3	EN? LM?	
Phacelia sp. 1	Undescribed phacelia 1	G2	EN	
Phlox cluteana	Navajo mountain phlox	G2	DJ	
Pholisma sonorae	Sand food	G3	PR	
Pinus edulis	Two-needle pinyon pine			
Plagiobothrys salsus	Desert popcorn-flower	G3G4		
Polygala heterorhyncha	Notched-beaked milkwort	G2Q	LM	
Populus angustifolia	Narrow-leaved cottonwood			
Porophyllum pygmaeum	Pygmy poreleaf	G2	EN	
Portulaca halimoides		G4	LM	
Puccinellia parishii	Parish's alkali grass	G2	PR	
Ranunculus andersonii var. *juniperinus*	Juniper buttercup	G4T3?Q	PR	
Salvia dorrii var. *clokeyi*	Clokey mountain sage	G5T3	EN	
Salvia greatae	Orocopia sage	G2	LM	

APPENDIX I. Species Conservation Targets by Taxonomic Group

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK	DISTRI-BUTION	ESA STATUS
Sanvitalia albertii	Albert's sanvitalia	G5S1	P	
Scutellaria bolanderi ssp. *austromontana*	Southern skullcap	G4T2	PR	
Sedum niveum		G3S3.2		
Selaginella leucobryoides	Virgin Narrows spike moss	G3	LM	
Selaginella utahensis	Utah spikemoss	G2	PR?	
Selaginella watsonii	Alpine spike moss	G4	WS	
Selinocarpus nevadensis	Desert wing-fruit	G5	WS	
Senna covesii	Coves's cassia	G5?	WS	
Sidalcea covillei	Owens Valley checkerbloom	G2	LM	
Sidalcea neomexicana	Salt Spring checkerbloom	G4?	WS	
Silene clokeyi	Clokey catchfly	G2	EN	
Solidago spectabilis	Remarkable goldenrod	G4	PR	
Sphaeralcea rusbyi var. *eremicola*	Rusby's desert-mallow	G4T1	EN	
Sphaeromeria compacta	Charleston tansy	G2	EN	
Spiranthes infernalis	Ash Meadows lady's tresses	G1	EN	
Stillingia linearifolia	Linearleaf sand spurge	G4	PR?	
Swallenia alexandrae	Eureka Valley dune grass	G1	EN	E
Synthyris ranunculina	Charleston kittentails	G2G3	EN	
Tetracoccus ilicifolius	Holly-leaved tetracoccus	G1	EN	
Tetradymia argyraea	Silver felt thorn	G4?	PR? LM?	
Tetradymia stenolepis	Owens Valley cotton thorn	G4	PR	
Townsendia jonesii var. *tumulosa*	Charleston grounddaisy	G3T3	LM	
Townsendia smithii	Blackrock ground daisy	G2	EN	
Trifolium kingii ssp. *macilentum*	King clover	G4T2T4	PR	
Viola aurea	Golden violet	G3G4		
Viola purpurea var. *charlestonensis*	Charleston violet	G3Q	EN	
Woodsia plummerae	Plummer's woodsia	G5	WS	
Yucca schidigera				
NONVASCULAR PLANTS				
Didymodon nevadensis	Gold Butte moss	G2G3		
Syntrichia princeps				

SUBSTRATES

Caves
Cinder cones
Cryptobiotic soils
Granitic substrates
Gypsum substrates
Limestone substrates
Sandstone substrates
Unstabilized sand

Appendix II. Terrestrial Plant Communities of the Mojave Desert Ecoregion

APPENDIX II. PLANT COMMUNITIES OF THE MOJAVE DESERT ECOREGION

Distribution relative to ecoregion: E=endemic (>80% in ecoregion), L=limited (shared with few other ecoregions), W=widespread, P=peripheral

Patch Type: M=matrix forming, LP= Large Patch (1000+ ha), SP=Small Patch (10's-100's ha), L=Linear

"SYSTEM" (7) = Broad ecologically-based units for organizing data collection

Ecological Group (19) = aggregated units of associations defined by environment/driving ecological processes

Association (130) = associations for detailed ground mapping and habitat assessment

Target Name	NVC Alliance	NVC Association	Common Name	Grank	Ecoregion Distibution	Patch Type
BASIN AND LOWER BAJADA						
Desert Playa					L	LP
PLAYA LAKE BED	SPARSELY VEGETATED LAKE BED	SPARSE VEGETATION	SPARSE VEGETATION	G?	L	LP
ALKALI MEADOW / SEEP	DISTICHLIS SPICATA INTERMITTENTLY FLOODED HERBACEOUS ALLIANCE	Distichlis spicata Herbaceous Vegetation	SALTGRASS	G5	W	LP
	SPOROBOLUS AIROIDES INTERMITTENTLY FLOODED HERBACEOUS ALLIANCE	Sporobolus airoides - Distichlis spicata Herbaceous Vegetation	ALKALI-SACATON-COASTAL SALTGRASS	G3G5	W	SP
DESERT SINK / PLAYA MIXED SCRUB	PLUCHEA SERICEA SEASONALLY FLOODED SHRUBLAND ALLIANCE	Pluchea sericea Shrubland [Provisional]	ARROW-WEED	G3?	L	SP
	SUAEDA MOQUINII INTERMITTENTLY FLOODED SHRUBLAND ALLIANCE	Suaeda moquinii Shrubland	SHRUBBY SEEPWEED	G5	L	SP
	ALLENROLFEA OCCIDENTALIS SHRUBLAND ALLIANCE	Allenrolfea occidentalis Shrubland	IODINE BUSH	G3	W	LP
	ALLENROLFEA OCCIDENTALIS SHRUBLAND ALLIANCE	Allenrolfea occidentalis / Atriplex gardneri Shrubland	IODINE BUSH/GARDNER'S SALTBUSH	G4?	W	LP
MESQUITE BOSQUE	PROSOPIS GLANDULOSA - PROSOPIS VELUTINA WOODLAND ALLIANCE	Prosopis glandulosa var. torreyana - Prosopis velutina Woodland [Provisional]	HONEY-VELVET MESQUITE BOSQUE	G3?	L	L
Saltbush Scrub					L	LP
SALTBUSH SCRUB	ATRIPLEX (LENTIFORMIS, POLYCARPA) SHRUBLAND ALLIANCE	Atriplex (lentiformis, polycarpa) Shrubland [Provisional]	MIXED SALTBUSH	G4	L	LP
	ATRIPLEX CANESCENS SHRUBLAND ALLIANCE	Atriplex canescens - Artemisia tridentata Shrubland	FOURWING SALTBUSH-BIG SAGEBRUSH	G4	L	LP

APPENDIX II. PLANT COMMUNITIES OF THE MOJAVE DESERT ECOREGION						
	ATRIPLEX HYMENELYTRA [SPARSE] SHRUBLAND ALLIANCE	Atriplex hymenelytra Shrubland	DESERT HOLLY	G5	L	LP
	ATRIPLEX POLYCARPA SHRUBLAND ALLIANCE	Atriplex polycarpa Shrubland	ALL-SCALE	G5	L	LP
	ATRIPLEX SPINIFERA SHRUBLAND ALLIANCE	Atriplex spinifera Shrubland [Provisional]	SPINESCALE	G3?	L	LP
FOURWING SALTBUSH - WINTERFAT SCRUB	ATRIPLEX CANESCENS SHRUBLAND ALLIANCE	Atriplex canescens - Krascheninnikovia lanata Shrubland	FOURWING SALTBUSH-WINTER-FAT	G5	L	LP
SHADSCALE SCRUB	ATRIPLEX CONFERTIFOLIA SHRUBLAND ALLIANCE	Atriplex confertifolia - Lycium andersonii Shrubland	SHADSCALE-RED-BERRY DESERT-THORN	G3	L	LP
DESERT WASH						
Mojave Desert Wash					L	L
MOJAVE DESERT WASH / DESERT DRY WASH WOODLAND	ACACIA GREGGII SHRUBLAND ALLIANCE	Acacia greggii - Prunus fasciculata (Parkinsonia microphylla) Shrubland	CAT CLAW ACACIA-DESERT ALMOND	G4G5	L	L
	ENCELIA VIRGINENSIS SHRUBLAND ALLIANCE	Encelia virginensis shrubland	VIRGIN RIVER BRITTLEBUSH SHRUBLAND	G4	L	L
	PSOROTHAMNUS SPINOSUS SHRUBLAND ALLIANCE	Psorothamnus spinosus Shrubland	SMOKETREE	G4G5	L	L
	HYMENOCLEA SALSOLA SHRUBLAND ALLIANCE	Hymenoclea salsola - (Ambrosia eriocentra) Shrubland [Provisional]	CHEESEBUSH	G5	L	L
	PRUNUS FASCICULATA SHRUBLAND ALLIANCE	Prunus fasciculata Shrubland	DESERT ALMOND	G4G5	L	L
	CERCIDIUM FLORIDUM SHRUBLAND ALLIANCE	Cercidium floridum - (Hymenoclea salsola) Shrubland	BLUE PALO VERDE	G4G5	L	L
	CHILOPSIS LINEARIS INTERMITTENTLY FLOODED SHRUBLAND ALLIANCE	Chilopsis linearis Shrubland	SWEET DESERT WILLOW	G3	L	L
	ATRIPLEX (LENTIFORMIS, POLYCARPA) SHRUBLAND ALLIANCE	Atriplex (lentiformis, polycarpa) Shrubland [Provisional]	MIXED SALTBUSH	G4	L	LP
	LEPIDOSPARTUM SQUAMATUM INTERMITTENTLY FLOODED SHRUBLAND ALLIANCE	Lepidospartum squamatum Shrubland [Provisional]	SCALEBROOM	G3?	L	L

APPENDIX II. PLANT COMMUNITIES OF THE MOJAVE DESERT ECOREGION						
SPINY HOPSAGE-MIXED SCRUB	GRAYIA SPINOSA INTERMITTENTLY FLOODED SHRUBLAND ALLIANCE	Grayia spinosa - Lycium andersonii Shrubland	SPINY HOPSAGE - RED-BERRY DESERT-THORN	G5	L	L
	GRAYIA SPINOSA INTERMITTENTLY FLOODED SHRUBLAND ALLIANCE	Grayia spinosa - Lycium pallidum Shrubland	SPINY HOPSAGE - PALE DESERT-THORN	G5	L	L
GREASEWOOD - MIXED SCRUB	SARCOBATUS VERMICULATUS INTERMITTENTLY FLOODED SHRUBLAND ALLIANCE	Sarcobatus vermiculatus shrubland	GREASEWOOD SHRUBLAND	G5	W	L
	SARCOBATUS VERMICULATUS INTERMITTENTLY FLOODED SHRUBLAND ALLIANCE	Sarcobatus vermiculatus / Atriplex confertifolia / Artemisia spinescens Shrubland	GREASEWOOD/SHADSCALE/BUD SAGEBRUSH	G5Q	L	L
	SARCOBATUS VERMICULATUS INTERMITTENTLY FLOODED SHRUBLAND ALLIANCE	Sarcobatus vermiculatus / Chrysothamnus nauseosus Shrubland	GREASEWOOD/RUBBER RABBITBRUSH	G5	L	L
	SARCOBATUS VERMICULATUS INTERMITTENTLY FLOODED SHRUBLAND ALLIANCE	Sarcobatus vermiculatus / Elymus elymoides Shrubland	GREASEWOOD/WESTERN BOTTLEBRUSH GRASS	G4	L	L
RABBITBUSH SCRUB	CHRYSOTHAMNUS PANICULATUS SHRUBLAND ALLIANCE	Chrysothamnus paniculatus Shrubland	PANICULATE RABBITBUSH	G4G5	L	L
BARREN	SPARSE STREAM BED	SPARSE STREAM BED	STREAM BED/WASH		L	L
Mesquite Bosque					L	SP
MESQUITE BOSQUE	PROSOPIS GLANDULOSA - PROSOPIS VELUTINA WOODLAND ALLIANCE	Prosopis glandulosa var. torreyana - Prosopis velutina Woodland [Provisional]	HONEY-VELVET MESQUITE BOSQUE	G3?	L	SP
VELVET ASH - MESQUITE	FRAXINUS VELUTINA - PROSOPIS GLANDULOSA WOODLAND ALLIANCE	Fraxinus velutina - Prosopis glandulosa var. torretana Woodland [Provisional]	VELVET ASH - MESQUITE BOSQUE	G1?	E	SP
RIPARIAN WETLAND						
Interior Riparian Marsh and Seep					W	SP
INTERIOR RIPARIAN MARSH AND SEEP	SCIRPUS TABERNAEMONTANI SEMIPERMANENTLY FLOODED HERBACEOUS ALLIANCE	Scirpus tabernaemontani Temperate Herbaceous Vegetation	SOFT-STEM BULRUSH	G4	W	SP
	ELEOCHARIS (MONTEVIDENSIS, PALUSTRIS, QUINQUEFLORA) SEASONALLY FLOODED HERBACEOUS ALLIANCE	Eleocharis (montevidensis, palustris, quinqueflora) Herbaceous Vegetation [Provisional]	SPIKERUSH	G5?	W	SP

APPENDIX II. PLANT COMMUNITIES OF THE MOJAVE DESERT ECOREGION						
	DODECATHEON REDOLENS SATURATED OR SUBPOLAR GRASSLAND ALLIANCE	Dodecatheon redolens -Aquilegia formosa Herbaceous Vegetation [Provisional]	SCENTED SHOOTING STAR-WESTERN COLUMBINE SEEP	G?	L	SP
	SPOROBOLUS AIROIDES INTERMITTENTLY FLOODED HERBACEOUS ALLIANCE	Sporobolus airoides - Distichlis spicata Herbaceous Vegetation	ALKALI-SACATON-COASTAL SALTGRASS	G3G5	W	SP
	SCIRPUS ACUTUS - (SCIRPUS TABERNAEMONTANI) SEMIPERMANENTLY FLOODED HERBACEOUS ALLIANCE	Scirpus acutus Herbaceous Vegetation	HARD-STEM BULRUSH	G5	W	SP
	SCIRPUS AMERICANUS SEMIPERMANENTLY FLOODED HERBACEOUS ALLIANCE	Scirpus americanus - Eleocharis palustris Herbaceous Vegetation	CHAIRMAKER'S BULRUSH-PALE SPIKERUSH	G4	W	SP
	JUNCUS BALTICUS SEASONALLY FLOODED HERBACEOUS ALLIANCE	Juncus balticus Herbaceous Vegetation	BALTIC RUSH	G5	W	SP
	TYPHA (ANGUSTIFOLIA, LATIFOLIA) - (SCIRPUS SPP.) SEMIPERMANENTLY FLOODED HERBACEOUS ALLIANCE	Typha latifolia Western Herbaceous Vegetation	BROAD-LEAF CATTAIL	G5	W	SP
	PHRAGMITES AUSTRALIS SEMIPERMANENTLY FLOODED HERBACEOUS ALLIANCE	Phragmites australis Herbaceous Vegetation	COMMON REED	G5	W	SP
Interior Riparian Shrubland					L	SP
INTERIOR RIPARIAN SHRUBLAND	ROSA WOODSIA TEMPORARILY FLOODED COLD-DECIDUOUS SHRUBLAND ALLIANCE	Rosa woodsia var. ultramontana	WOOD WILD ROSE	G?	L	SP
MONTANE RIPARIAN SHRUBLAND	BETULA OCCIDENTALIS INTERMITTENTLY FLOODED COLD-DECIDUOUS SHRUBLAND ALLIANCE	Betula occidentalis / Smilacina stellata shrubland [Provisional]	WESTERN WATER BIRCH-FALSE SOLOMON SEAL	G?	L	SP
	JUNIPERUS COMMUNIS SHRUBLAND ALLIANCE	Juniperus communis var. depressa / Circium clokeyi Shrub Herbaceous Vegetation [Provisional]	CLOKEY THISTLE COMMON JUNIPER RIPARIAN DRAW	G?	L	SP
Interior Riparian Woodland					L	L
INTERIOR RIPARIAN FOREST AND WOODLAND	PLATANUS RACEMOSA TEMPORARILY FLOODED WOODLAND ALLIANCE	Platanus racemosa Woodland [Provisional]	CALIFORNIA SYCAMORE	G4?	L	L

APPENDIX II. PLANT COMMUNITIES OF THE MOJAVE DESERT ECOREGION						
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND	POPULUS FREMONTII TEMPORARILY FLOODED WOODLAND ALLIANCE	Populus fremontii / Baccharis salicifolia Woodland	FREEMONT'S COTTONWOOD/STICKY SEEPWILLOW	G2	L	L
	POPULUS ANGUSTIFOLIA TEMPORARILY FLOODED COLD-DECIDUOUS WOODLAND ALLIANCE	Populus angustifolia / Rosa woodsia var. ultramontana	NARROW-LEAF COTTONWOOD WOOD WILD ROSE	G?	L	L
	SALIX LASIOLEPIS TEMPORARILY FLOODED COLD-DECIDUOUS WOODLAND	Salix lasiolepis / Rosa woodsia var. ultramontana	ARROYO WILLOW - WOOD WILD ROSE	G3Q	L	L
	POPULUS FREMONTII SEASONALLY FLOODED WOODLAND ALLIANCE	Populus fremontii / Salix geyeriana Woodland	FREEMONT'S COTTONWOOD/GEYER'S WILLOW	G3?	L	L
California Fan Palm Oasis						
CALIFORNIA FAN PALM OASIS	WASHINGTONIA FILIFERA SEASONALLY FLOODED WOODLAND ALLIANCE	Washingtonia filifera Woodland	CALIFORNIA FAN PALM OASIS	G2G3	P	SP
SUBSTRATE DOMINANT: DUNES, PLAINS, & BADLANDS						
Interior Dunes					L	LP
PARTIALLY - STABILIZED DESERT DUNES	ABRONIA VILLOSA SPARSELY VEGETATED ALLIANCE	Abronia villosa Sparse Vegetation [Provisional]	DESERT SAND-VERBENA	G2G3	L	LP
	ERIOGONUM DESERTICOLA SPARSELY VEGETATED ALLIANCE	Eriogonum deserticola Sand Dune Sparse Vegetation	WILD BUCKWHEAT SAND DUNE BARREN	G1	L	LP
	PROSOPIS GLANDULOSA SHRUBLAND ALLIANCE	Prosopis glandulosa var. torreyana Shubland	HONEY MESQUITE	G3	L	L
	HILARIA RIGIDA HERBACEOUS ALLIANCE	Hilaria rigida Herbaceous Vegetation [Provisional]	BIG GALLETA	G3	L	LP
Desert Pavement					L	LP
DESERT PAVEMENT AND SALT FLAT	PROSOPIS GLANDULOSA SHRUBLAND ALLIANCE	Prosopis glandulosa var. torreyana Shubland	HONEY MESQUITE	G3	L	L
	ERIOGONUM FASCICULATUM SHRUBLAND ALLIANCE	Eriogonum fasciculatum - Purshia glandulosa Shrubland	EASTERN MOJAVE WILD BUCKWHEAT-ANTELOPE BRUSH	G4	L	LP
	ERIOGONUM FASCICULATUM SHRUBLAND ALLIANCE	Eriogonum fasciculatum Shrubland	EASTERN MOJAVE WILD BUCKWHEAT	G5	L	LP

APPENDIX II. PLANT COMMUNITIES OF THE MOJAVE DESERT ECOREGION						
LAVA FLOW / EXPOSED BEDROCK	DESERT PAVEMENT / LAVA FLOW	DESERT PAVEMENT / LAVA FLOW	DESERT PAVEMENT / LAVA FLOW	G?	L	LP
Badlands and Mudhills						
BARREN	BADLANDS/MUDHILLS (ANNUAL SHRUB AND FORB)	UNDESCRIBED ANNUAL SHRUB AND FORB	BADLANDS/MUDHILLS	G?	L	SP
DESERT SCRUB						
Low-Mid Elevation: Creosote Bush					L	M
CREOSOTE - MIXED SCRUB	LARREA TRIDENTATA SHRUBLAND ALLIANCE	Larrea tridentata - Atriplex confertifolia Shrubland	CREOSOTE-BUSH-SHADSCALE	G5	L	M
	LARREA TRIDENTATA SHRUBLAND ALLIANCE	Larrea tridentata - Ephedra nevadensis Shrubland	CREOSOTE-BUSH-NEVADA JOINT-FIR	G5	L	M
	LARREA TRIDENTATA SHRUBLAND ALLIANCE	Larrea tridentata - Opuntia basilaris Fouquieria splendens Shrubland	CREOSOTE-BUSH-BEAVER-TAIL CACTUS-OCOTILLO	G4	L	M
	LARREA TRIDENTATA SHRUBLAND ALLIANCE	Larrea tridentata / Lycium andersonii - Grayia spinosa Shrubland	CREOSOTE-BUSH/RED-BERRY DESERT-THORN-SPINY HOPSAGE	G5	L	M
	LARREA TRIDENTATA SHRUBLAND ALLIANCE	Larrea tridentata / Yucca spp. Shrubland	CREOSOTE-BUSH/YUCCA SPP.	G5	L	M
	LARREA TRIDENTATA SHRUBLAND ALLIANCE	Larrea tridentata - Ambrosia dumosa shrubland	CREOSOTE BUSH-WHITE BURROBUSH SHRUBLAND	G5	L	M
	LARREA TRIDENTATA SHRUBLAND ALLIANCE	Larrea tridentata - Coleogyne ramosissima shrubland	CREOSOTE BUSH-BLACKBRUSH SHRUBLAND	G?	L	LP
CREOSOTE - DESERT HOLLY SCRUB	LARREA TRIDENTATA SHRUBLAND ALLIANCE	Larrea tridentata - Atriplex hymenelytra Shrubland	CREOSOTE-BUSH-DESERT HOLLY	G5	L	M
Sonora - Mojave Mixed Desert Scrub					L	M
SONORA - MOJAVE MIXED DESERT SCRUB	AMBROSIA DUMOSA DWARF-SHRUBLAND ALLIANCE	Ambrosia dumosa / Hilaria rigida Dwarf-shrubland	WHITE BURROBUSH/BIG GALLETAGRASS	G2	L	M
SONORAN PALO VERDE- MIXED CACTI DESERT SCRUB	SIMMONDSIA CHINENSIS SHRUBLAND ALLIANCE	Simmondsia chinensis - Parkinsonia microphylla Shrubland	JOJOBA-YELLOW PALOVERDE	G4	L	M
	PARKINSONIA MICROPHYLLA SHRUBLAND ALLIANCE	Parkinsonia microphylla - Larrea tridentata Shrubland	YELLOW PALOVERDE-CREOSOTE-BUSH	G4	L	M
	OPUNTIA BIGELOVII SHRUBLAND ALLIANCE	Opuntia bigelovii Shrubland [Provisional]	TEDDY-BEAR CHOLLA	G4?	L	M

APPENDIX II. PLANT COMMUNITIES OF THE MOJAVE DESERT ECOREGION						
	FOUQUIERIA SPLENDENS SHRUBLAND	Fouqueria splendens Shrubland	OCOTILLO DESERT SCRUB	G?	P	M
SONORA MIXED DESERT SCRUB - BRITTLEBUSH	ENCELIA FARINOSA SHRUBLAND ALLIANCE	Encelia farinosa Shrubland	BRITTLEBUSH SCRUB	G5	L	M
Mid-Elevation Mixed Desert Scrub					L	M
BLACKBRUSH - MIXED SCRUB	COLEOGYNE RAMOSISSIMA SHRUBLAND ALLIANCE	Coleogyne ramosissima - Eriogonum fasciculatum Shrubland	BLACKBRUSH-EASTERN MOJAVE WILD BUCKWHEAT	G5	L	M
	COLEOGYNE RAMOSISSIMA SHRUBLAND ALLIANCE	Coleogyne ramosissima - Thamnosma montana Shrubland	BLACKBRUSH-TURPENTINE BROOM	G?	L	M
	COLEOGYNE RAMOSISSIMA SHRUBLAND ALLIANCE	Coleogyne ramosissima - Juniperus osteosperma Shrubland	BLACKBRUSH-UTAH JUNIPER	G4	L	M
	COLEOGYNE RAMOSISSIMA SHRUBLAND ALLIANCE	Coleogyne ramosissima - Purshia mexicana var stansburniana Shrubland	BLACKBRUSH-STANBURY CLIFFROSE	G?	L	M
	ATRIPLEX CONVERTIFOLIA SHRUBLAND ALLIANCE	Atriplex convertifolia - Ephedra nevadensis Shrubland	SHADSCALE	G5	L	LP
	VIQUERIA PARISHII SHRUBLAND ALLIANCE	Viqueria parishii	VIQUERIA	G4	L	LP
	PEUCEPHYLLUM SCHOTTII SHRUBLAND ALLIANCE	Peucephyllum schottii	DESERT FIR	G4	L	LP
	ERIOGONUM FASCICULATUM SHRUBLAND ALLIANCE	Eriogonum faciculatum	CALIFORNIA BUCKWHEAT	G4	L	LP
	ENCELIA ACTONI SHRUBLAND ALLIANCE	Encelia actoni Shrubland [Provisional]	ENCELIA ACTONI	G3?	L	LP
BIG SAGEBRUSH - SPINY HOPSAGE SCRUB	ARTEMESIA TRIDENTATA SHRUBLAND ALLIANCE	Artemisia tridentata - Grayia spinosa shrubland	BIG SAGEBRUSH-SPINY HOPSAGE	G5	W	M
	GRAYIA SPINOSA SHRUBLAND ALLIANCE	Grayia spinosa - Menodora spinescens Shrubland	SPINY HOPSAGE-SPINY MENODORA	G5	L	M
	EPHEDRA NEVADENSIS SHRUBLAND ALLIANCE	Ephedra nevadensis / Oryzopsis hymenoides Shrubland	NEVADA JOINT-FIR/INDIAN MOUNTAIN-RICE GRASS	G4	L	LP
	EPHEDRA VIRIDIS SHRUBLAND ALLIANCE	Ephedra viridis / Hilaria rigida Shrubland	MORMON TEA/BIG GALLETAGRASS	G3	L	LP
	EPHEDRA NEVADENSIS SHRUBLAND ALLIANCE	Ephedra nevadensis - Ericameria cooperi Shrubland	NEVADA JOINT-FIR-COOPER'S HEATH-GOLDENROD	G3G4	L	LP

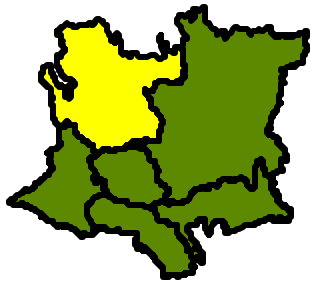
APPENDIX II. PLANT COMMUNITIES OF THE MOJAVE DESERT ECOREGION						
	EPHEDRA NEVADENSIS SHRUBLAND ALLIANCE	Ephedra nevadensis - Eriogonum fasciculatum Shrubland	NEVADA JOINT-FIR-EASTERN MOJAVE WILD BUCKWHEAT	G4	L	LP
	NOLINA BIGELOVII SHRUBLAND ALLIANCE	Nolina (bigelovii, biglovii var. parryi) Shrubland [Provisional]	BIGELOW'S BEARGRASS	G3?	L	LP
	ERIOGONUM FASCICULATUM SHRUBLAND ALLIANCE	Eriogonum fasciculatum Rock Outcrop Shrubland	EASTERN MOJAVE WILD BUCKWHEAT ROCK OUTCROP	G5Q	L	LP
JOSHUA TREE WOODLAND	YUCCA SCHIDIGERA SHRUBLAND ALLIANCE	Yucca shidigera - Yucca brevifolia - Opuntia spp. sparse limestone shrubland	MOJAVE YUCCA - JOSHUA TREE -MIXED CACTI LIMESTONE OUTCROP	G2?	L	LP
	YUCCA BREVIFOLIA WOODED SHRUBLAND ALLIANCE	Yucca brevifolia - Larrea tridentata - Ephedra nevadensis Wooded Shrubland [Provisional]	JOSHUA TREE -CREOSOTE BUSH - MORMAN TEA WOODED SHRUBLAND	G4?	L	LP
Desert Grassland and Shrub Steppe					L	LP
DESERT GRASSLAND AND SHRUB-STEPPE	HILARIA RIGIDA HERBACEOUS ALLIANCE	Hilaria rigida Herbaceous Vegetation [Provisional]	BIG GALLETA	G3G4	L	LP
	HILARIA RIGIDA SHRUB HERBACEOUS ALLIANCE	Hilaria rigida Shrub Herbaceous Vegetation [Provisional]	BIG GALLETA MIXED SCRUB	G3G4	L	LP
	GUTIERREZIA SAROTHRAE / HILARIA RIGIDA SHRUB HERBACEOUS ALLIANCE	Gutierrezia sarothrae / Hilaria rigida Shrub Herbaceous Vegetation	MATCHWEED-BIG GALLETA	G2?	L	LP
RABBIT BRUSH SCRUB	CHRYSOTHAMNUS PARRYI SHRUBLAND ALLIANCE	Chrysothamnus parryi Shrubland [Provisional]	PARRY RABBITBRUSH SHRUBLAND	G1?	L	LP
	STIPA SPECIOSA SHRUB HERBACEOUS ALLIANCE	Stipa speciosa Shrub Herbaceous Vegetation [Provisional]	DESERT NEEDLEGRASS GRASSLAND	G1?	L	LP
MONTANE MEADOW	HILARIA JAMESII HERBACEOUS ALLIANCE	Hilaria jamesii Herbaceous Vegetation	LITTLE GALLETA	G2G4	L	LP
JOSHUA TREE - BIG GALLETA SPARSE WOODLAND	YUCCA BREVIFOLIA WOODED SHRUBLAND ALLIANCE	Yucca brevifolia var. herberti Wooded Grassland [Provisional]	JOSHUA TREE - BIG GALLETA	G2?	L	LP
LOWER MONTANE CHAPARRAL AND WOODLAND						
Semi-Desert Chaparral					L	LP
SEMI-DESERT CHAPARRAL	CLEOME ISOMERIS - EPHEDRA CALIFORNICA - ERICAMERIA LINEARIFOLIA SHRUBLAND ALLIANCE	Cleome isomeris - Ephedra californica - Ericameria linearifolia Shrubland [Provisional]	BLADDERPOD-CALIFORNIA EPHEDRA-NARROWLEAF GOLDENBUSH	G1G3	L	LP

APPENDIX II. PLANT COMMUNITIES OF THE MOJAVE DESERT ECOREGION						
SEMI-DESERT CHAPARRAL - MANZANITA	ARCTOSTAPHYLOS PUNGENS SHRUBLAND	Arctostaphylos pungens Shrubland	POINTED-LEAF MANZANITA	G4	L	LP
SEMI-DESERT CHAPARRAL- CEANOTHUS	CEANOTHUS GREGGII - FREMONTODENDRON CALIFORNICUM SHRUBLAND ALLIANCE	Ceanothus greggii - Fremontodendron californicum Shrubland [Provisional]	CUPLEAF CEANOTHUS - FREMONTIA-OAK	G3?	L	LP
	CEANOTHUS LEUCODERMIS SHRUBLAND ALLIANCE	Ceanothus leucodermis Shrubland [Provisional]	CHAPARRAL WHITETHORN	G4?	L	LP
SEMI-DESERT CHAPARRAL - MIXED OAK CHAPARRAL	QUERCUS TURBINELLA SHRUBLAND ALLIANCE	Quercus turbinella - Ephedra viridis Shrubland	TURBINELLA LIVE OAK-MORMON TEA	G?	L	LP
	QUERCUS CORNELIUS-MULLERI SHRUBLAND ALLIANCE	Quercus cornelius-mulleri Shrubland	MULLER OAK SHRUBLAND	G?	L	LP
	QUERCUS JOHN-TUCKERI SHRUBLAND ALLIANCE	Quercus john-tuckeri- Juniperus californicus shrubland	JOHN TUCKER OAK-UTAH JUNIPER SHRUBLAND	G?	L	LP
SEMI-DESERT CHAPARRAL - MOUNTAIN MAHOGANY - MIXED SHRUB	CERCOCARPUS MONTANUS - ERIOGONUM FASCICULATUM SHRUBLAND ALLIANCE	Cercocarpus montanus var. glaber - Eriogonum fasciculatum Shrubland [Provisional]	BIRCHLEAF MOUNTAIN-MAHOGANY - CALIFORNIA BUCKWHEAT	G3?	L	LP
	CERCOCARPUS LEDIFOLIUS SHRUBLAND ALLIANCE	Cercocarpus ledifolius / Artemesia tridentata Woodland	CURL-LEAF MOUNTAIN MAHOGANY	G3G4	L	LP
	CERCOCARPUS INTRICATUS SPARSE SHRUBLAND ALLIANCE	Cercocarpus intricatus Sparse Shrubland [Provisional]	DWARF MOUNTAIN MAHOGANY CLIFF	G?	L	SP
SEMI-DESERT CHAPARRAL - CHAMISE CHAPARRAL	ADENOSTOMA FASCICULATUM SHRUBLAND ALLIANCE	Adenostoma fasciculatum shubland	CHAMISE CHAPARRAL	G?	P	SP
SEMI-DESERT CHAPARRAL - RIVERSIDIAN SAGE SCRUB	ARTEMESIA CALIFORNICA - ERIOGONUM FASCICULATUM SHRUBLAND ALLIANCE	Artemesia californica - eriogonum fasciculatum Shrubland [Provisional]	RIVERSIDIAN SAGE SCRUB	G3?	P	SP
DIGGER PINE- OAK WOODLAND	QUERCUS WISLIZENII WOODLAND ALLIANCE	Quercus wislizenii - (Pinus sabiniana) Woodland [Provisional]	DIGGER PINE - OAK WOODLAND	G4?	L	LP
Pinyon - Juniper Woodland					W	LP

APPENDIX II. PLANT COMMUNITIES OF THE MOJAVE DESERT ECOREGION						
CALIFORNIA JUNIPER WOODLAND	JUNIPERUS CALIFORNICA WOODLAND ALLIANCE	Juniperus californica Woodland [Provisional]	CALIFORNIA JUNIPER	G4?	L	LP
UTAH JUNIPER WOODLAND	JUNIPERUS OSTEOSPERMA WOODLAND ALLIANCE	Juniperus osteosperma Woodland	UTAH JUNIPER	G5	L	LP
	JUNIPERUS OSTEOSPERMA WOODLAND ALLIANCE	Juniperus osteosperma / Cercocarpus intricatus Woodland	UTAH JUNIPER -DWARF MOUNTAIN MAHOGANY	G?	W	LP
PINYON - JUNIPER WOODLAND	PINUS EDULIS WOODLAND ALLIANCE	Pinus edulis / Artemisia tridentata Woodland	TWO-NEEDLE PINYON/BIG SAGEBRUSH	G5	P	LP
	PINUS MONOPHYLLA WOODLAND ALLIANCE	Pinus monphylla - Juniperus osteosperma / Artemisia tridentata Woodland	SINGLE LEAF PINYON/BIG SAGEBRUSH	G5	W	LP
	PINUS MONOPHYLLA WOODLAND ALLIANCE	Pinus monophylla / Amelanchier alnifolia / Arctostaphylos patula Woodland	SINGLELEAF PINYON/SASKATOON SERVICEBERRY/GREENLEAF MANZANITA	G3G4	W	LP
	PINUS MONOPHYLLA WOODLAND ALLIANCE	Pinus monophylla / Artemisia tridentata Woodland	SINGLELEAF PINYON/BIG SAGEBRUSH	G5	W	LP
	PINUS MONOPHYLLA WOODLAND ALLIANCE	Pinus monophylla / Cercocarpus ledifolius Woodland	SINGLELEAF PINYON/CURL-LEAF MOUNTAIN MAHOGANY	G5	L	LP
	PINUS MONOPHYLLA WOODLAND ALLIANCE	Pinus monophylla Woodland	SINGLELEAF PINYON	G5	L	LP
	QUERCUS TURBINELLA SHRUBLAND ALLIANCE	Quercus turbinella - Juniperus osteosperma Shrubland	TURBINELLA LIVE OAK-UTAH JUNIPER	G?	L	LP
MOUNTAIN SAGEBRUSH	ARTEMESIA TRIDENTATA SSP. VASEYIANA SHRUBLAND ALLIANCE	Artemisia tridentata - Purchia tridentata / Pseudoregneria spicata shrubland [Provisional]	BIG SAGEBRUSH - BITTERBRUSH	G5Q	W	LP
	ARTEMISIA NOVA DWARF-SHRUBLAND ALLIANCE	Artemisia nova Dwarf-shrubland [Provisional]	BLACK SAGEBRUSH	G3G5	P	LP
BARREN	ERICAMERIA SPARSE SHRUBLAND ALLIANCE	Ericameria cuneatis Sparse Vegetation	MOCK-HEATHER	G?	E?	LP
UPPER MONTANE TO ALPINE						
Montane Forest and Woodland					W	LP
WHITE FIR - LIMBER PINE-ASPEN FOREST	PINUS FLEXILIS - WHITE FIR FOREST	Pinus flexilis - white fir forest	LIMBER PINE - WHITE FIR	G5	L	LP

APPENDIX II. PLANT COMMUNITIES OF THE MOJAVE DESERT ECOREGION						
	POPULUS TREMULOIDES FOREST ALLIANCE	Populus tremuloides / Artemisia tridentata Forest	QUAKING ASPEN/BIG SAGEBRUSH	G4	W	LP
	ABIES CONCOLOR - POPULUS TREMULOIDES FOREST ALLIANCE	Populus tremuloides - Abies concolor / Symphoricarpos oreophilus Forest	QUAKING ASPEN-WHITE FIR/MOUNTAIN SNOWBERRY	G4G5	W	SP
WHITE FIR - PONDEROSA PINE - MOUNTAIN MAHOGANY	ABIES CONCOLOR FOREST ALLIANCE	Abies concolor - Pinus ponderosa/ Cercocarpus ledifolius Forest	WHITE FIR -PONEROSA PINE-CURL-LEAF MOUNTAIN MAHOGANY	G4?	L	LP
BARREN	SPARSE MONTANE TALUS / SCREE	MONTANE TALUS/SCREE	MONTANE TALUS/SCREE	G?	W	LP
Subalpine and Alpine					L	SP
BRISTLECONE PINE WOODLAND	PINUS LONGAEVA WOODLAND ALLIANCE	Pinus longaeva Woodland	BRISTLECONE PINE	G3G4	L	LP
ALPINE - SUBALPINE MEADOW	STIPA LETTERMANII HERBACEOUS ALLIANCE	Stipa lettermanii-Oxytropis oreophila Herbaceous vegetation	LETTERMAN NEEDLEGRASS-MOUNTAIN OXYTROPE	G2?	L	SP
	IVESIA CRYPTOCAULIS HERBACEOUS ALLIANCE	Ivesia cryptocaulis	HIDDEN IVESIA	G1G2	E	SP
BARREN	SPARSELY VEGETATED BOULDER FIELD	BOULDER FIELD	BOULDER FIELD	G?	L	SP

Appendix III. Mojave Desert Ecoregional Portfolio Maps



Mojave Desert Northern Subregion

N

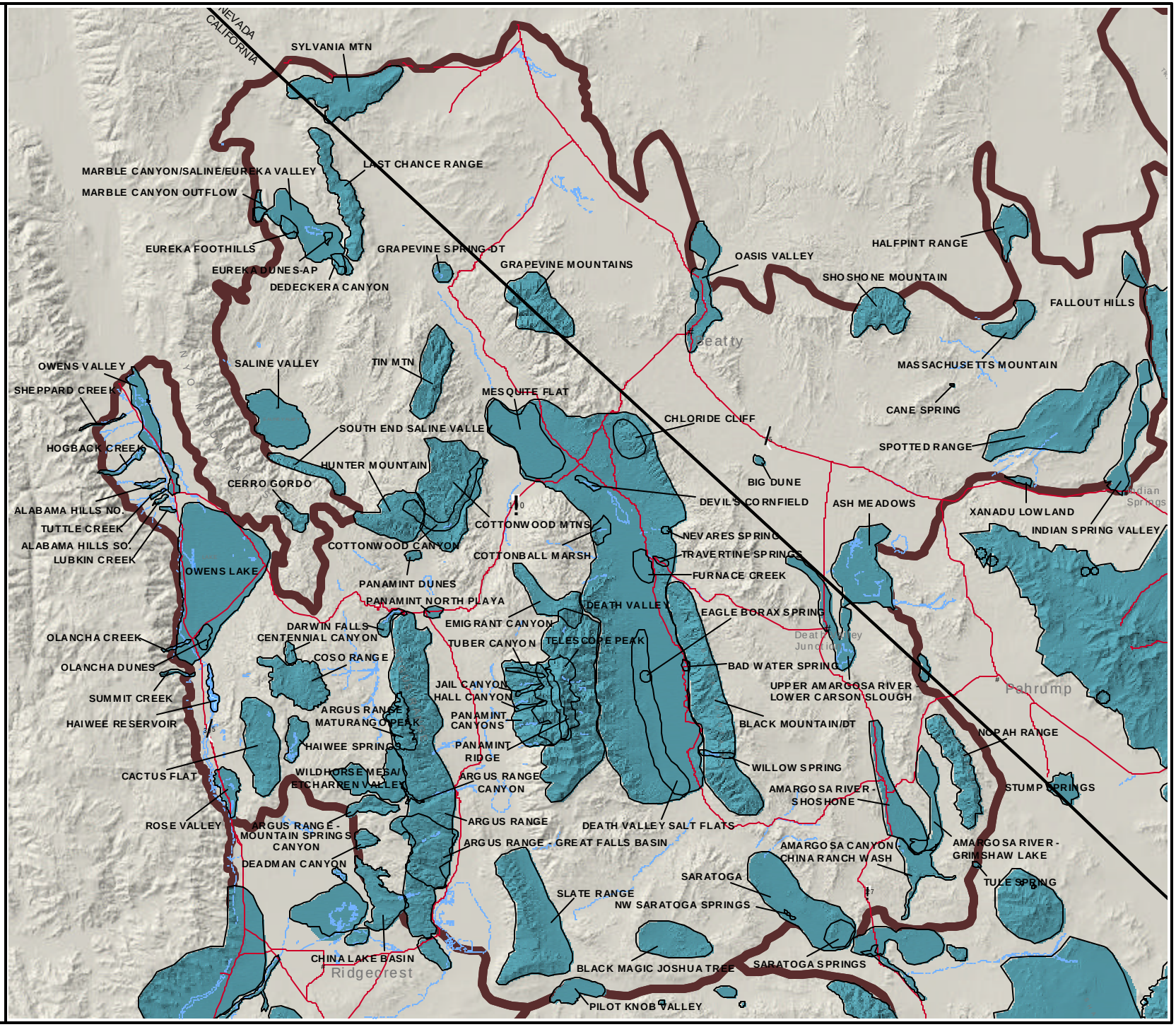
5 0 5 10 15 Miles

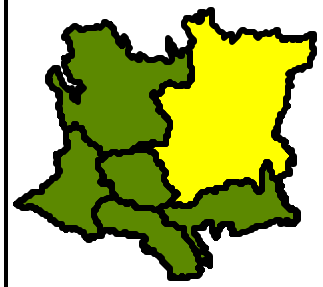
SCALE 1:1,200,000

LEGEND

- Portfolio Site
- Subregional Boundary
- State Boundary
- Rivers and Streams
- Highways
- Lakes

The Nature Conservancy





Mojave Desert Eastern Subregion

N

10 0 10 20 Miles

SCALE 1:1,800,000

LEGEND

- Portfolio Site
- Subregional Boundary
- State Boundary
- Rivers and Streams
- Highways
- Lakes

The Nature Conservancy

HIKO SPRING-PAHRANAGAT
PEDRETTI SEEPS
CRYSTAL SPRING
DEACON-BROWNIE SPRINGS ASH SPRINGS
PAHRANAGAT VALLEY
UPPER AND LOWER PAHRANAGAT LAKES
KANE SPRINGS/PAHRANAGAT WASH
RAINBOW CANYON
BEAVER DAM WASH
BEAVER DAM NORTHEAST SLOPE
RED CLIFFS DESERT RESERVE
SNOW CANYON S.P.
SANTA CLARA RIVER
QUAIL CREEK
UPPER VIRGIN RIVER
CASTLE CLIFF/ WOODBERRY HARST
MEADOW VALLEY WASH
BEAVER DAM MTS
VIRGIN RIVER CHANNEL
LYTLE RANCH
BLOOMINGTON HILL
SEGMILLERS POND
TOQUAP WASH
RIVERSIDE MARSH
WARNER VALLEY/ FORT PIERCE WASH
DESERT LAKE VALLEY
PINTWATER RANGE
DESERT LAKE VALLEY
BEAVER DAM SLOPE
MORMON MTNS
PRICE CITY HILLS
FT. PIERCE
COYOTE SPRINGS VALLEY
SAND HOLLOW WASH
VIRGIN RIVER GORGE
MORMON WELL
DOG BONE LAKE
MIDDLE VIRGIN RIVER
LITTLEFIELD
MORMON MESA - UPPER
LOWER MEADOW VALLEY WASH
BLACK ROCK MOUNTAIN
MORMON MESA - LOWER
RIVERSIDE BRIDGE
VIRGIN MOUNTAINS
SHEEP RANGE
UPPER MUDDY R.
GOLD BUTTE PAKOON
LOWER MUDDY R.
MIDDLE SPRINGS
DESERT RANGE
CALIFORNIA WASH
GRAPEVINE SPRINGS/AMARGOSA FLAT
CORN CREEK
OVERTON WMA
LOWER VIRGIN RIVER
ST. THOMAS WASH
GRAND WASH COMPLEX
COLD CREEK SPRINGS
BLUEPOINT SPRING
ECHO BAY
CORRAL SPRING
ROGERS SPRING
TASSI/SEVEN SPRINGS
HORSESHOE SPRINGS
WILLOW CREEK - SM
BITTER SPRINGS VALLEY
NELLIS AFB
SPRING MTS
PYRAMID PEAK
LOWER GOLD BUTTE
GOLD BUTTE
GOLD BUTTE PAKOON
LA MADRE SPRING
Pahrump
CALICO SPRING
SUNRISE-PABCO
STEWART VALLEY
WILLOW SPRING - SM
KIUP SPRING
RED SPRING - SM
MIDDLE POINT
LOWER GRANITE GORGE
PINE CREEK SPRING
LAS VEGAS BAY
KINGMAN WASH
RAINBOW SPRING
WHITE HILLS
SANDY POINT
PIERCE FERRY DELTA
LONE GRAPEVINE SPRING
BLUE DIAMOND HILLS
LAKE MEAD
GRAPEVINE SPRING/LP
MORMON GREEN SPRINGS
RIVER MOUNTAINS
HORSE THIEF CANYON
STUMP SPRINGS
JOSHUA TREE NNL
TULE SPRING
BECK SPRING
JEAN DRY LAKE AND FOOTHILLS
BURRO WASH
BLACK CANYON
SPRING - KR
KINGSTON MOUNTAINS
MCCULLOUGH RANGE
DUMONT SAND DUNES
FIRE MOUNTAIN
HUALAPAI VALLEY
ROACH LAKE
SARATOGA SPRINGS
CLARK MTN
RED LAKE EDGE
SALT CREEK
PIUTE/EL DORADO/ FENNER DWMA
VALJEAN HILLS
WILLOW BAY
PACHALICA SPRINGS
ARIZONA BAY
TEDDY BEAR FOREST
LAKE MOJAVE
IVANPAH DWMA
HALLORAN SUMMIT
CERBAT MOUNTAINS
PIPE SPRING
GRANITE COVE
CACTUS VALLEY
BURNS SPRING CANYON
CIMA DOME JT WOODLAND
PIUTE WASH
NEWBERRY MTS
Kingman
TYRELL WASH
SODA LAKE
NEW YORK MTN
BRIDGE CANYON
GRAPEVINE/ SACATON CANYON
LAVA BEDS
MID-HILLS
PIUTE GORGE
SOUTH BLACK MOUNTAIN
HIKO SPRINGS
HACKBERRY SPRING
DEVILS PLAYGROUND
WOODS MTNS
OATMAN BAT COMPLEX
GRANITE MTS
PROVIDENCE MTN
BUDWEISER WASH VICINITY
BULL CANYON SUCCULENTS
Needles
BULL CANYON
COVE SPRING
GRANITE MTN BAJADAS
GRANITE MTS - MESQUITE

Mojave Desert Southeastern Subregion

N

SCALE 1:1,100,000

LEGEND

- Portfolio Site
- Subregional Boundary
- State Boundary
- Rivers and Streams
- Highways
- Lakes

The Nature Conservancy

PIUTE WASH
FENNER VALLEY
PIUTE ELDORADO FENNER DWMA
CHEMEHUEVI DWMA
MARBLE MOUNTAINS
BLACK TOP FAN
LEAD MTN DUNES
BRISTOL DRY LAKE
HOMER WASH
OLD WOMAN MTN
CALUMET DUNE
JOSHUA TREE DWMA
PINTO BASIN - OCOTILLO
DRIPPINGS SPRING
BIG BEND - SOTO RANCH
OATMAN BAT COMPLEX
DEAD MTS
SACRAMENTO MTN - WESTSIDE
TOPOCK MARSH
SOUTH BLACK MOUNTAIN
GOLD ROAD WELL
WALNUT CREEK
HAULAPAI MOUNTAINS
SACRAMENTO WASH
CHEMEHUEVI MTS
MOJAVE MOUNTAINS
CHEMEHUEVI WASH
CHEMEHUEVI VALLEY
CALIFORNIA
ARIZONA
Kingman

Mojave Desert South-Central Subregion

N

5 0 5 10 Miles

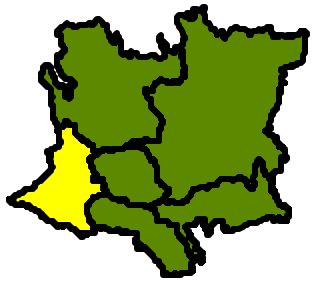
SCALE 1:900,000

LEGEND

- Portfolio Site
- Subregional Boundary
- State Boundary
- Rivers and Streams
- Highways
- Lakes

The Nature Conservancy

Barstow
Victorville
DAGGETT WASH
NEWBERRY MTN-CA
KANE WASH
MOJAVE RIVER WASH
ORD-RODMAN MTS COMPLEX
SILVER MTN
LAVIC LAKE - PISGAH CRATER
RODMAN MTS
ORD MTS
ORD MTS - CACTUS GARDEN
MOJAVE RIVER
LAVIC LAKE WASH
UPPER JOHNSON VALLEY
RABBITSPRINGS
COTTONWOOD-OLD WOMAN SPRINGS
QUACKENBUSH DUNES
CUSHIONBERRY SPRINGS
WILLOW AND HACKBERRY CANYONS
MOJAVE RIVER - FORKS
NORTH SLOPE SAN BERNARDINO MTS - CARBONATE BELT
PIPES CANYON
MESQUITE LAKE - TWENTYNINE PALMS
TWENTY NINE PALMS - WEST
DALE DRY LAKE
FORTYNINE PALMS OASIS
TWENTYNINE PALMS OASIS
RATTLESNAKE CANYON
QUEEN MTN
WONDERLAND OF ROCKS
WESTERN JOSHUA TREE
BIG MORONGO CANYON
GOLD CROWN WASH - PINTO MTN
PINTO WYE WASH
QUEEN VALLEY
CACTUS GARDEN - JTNP
SMITH WATER CANYON
PINTO BASIN
PLEASANT VALLEY PLAYA
FRIED LIVER WASH
JOSHUA TREE DWMA
COTTONWOOD SPRING
MUNSEN CANYON



Mojave Desert Western Subregion

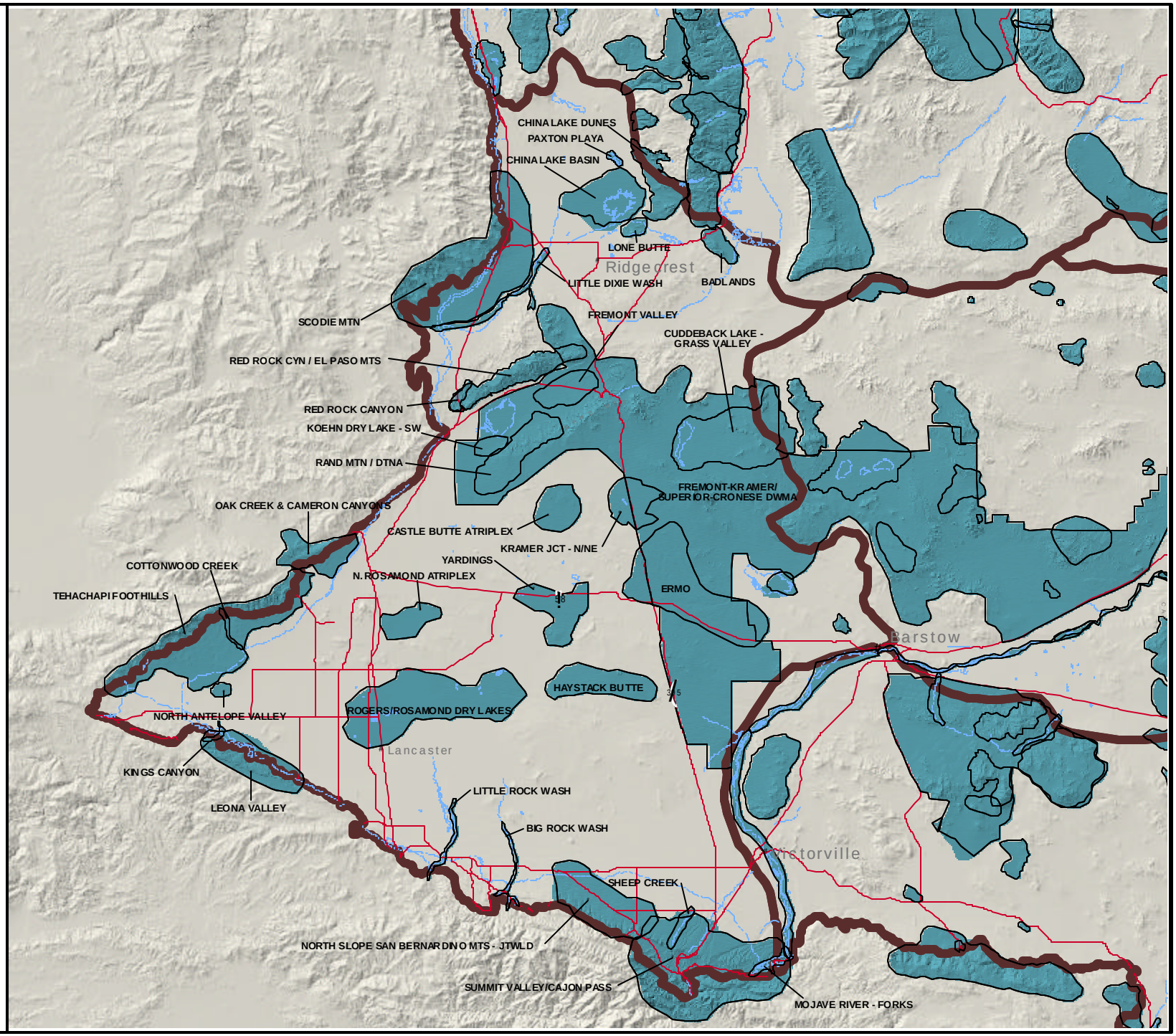
N

SCALE 1:1,100,000

LEGEND

- Portfolio Site
- Subregional Boundary
- State Boundary
- Rivers and Streams
- Highways
- Lakes

The Nature Conservancy



Mojave Desert Central Subregion

N

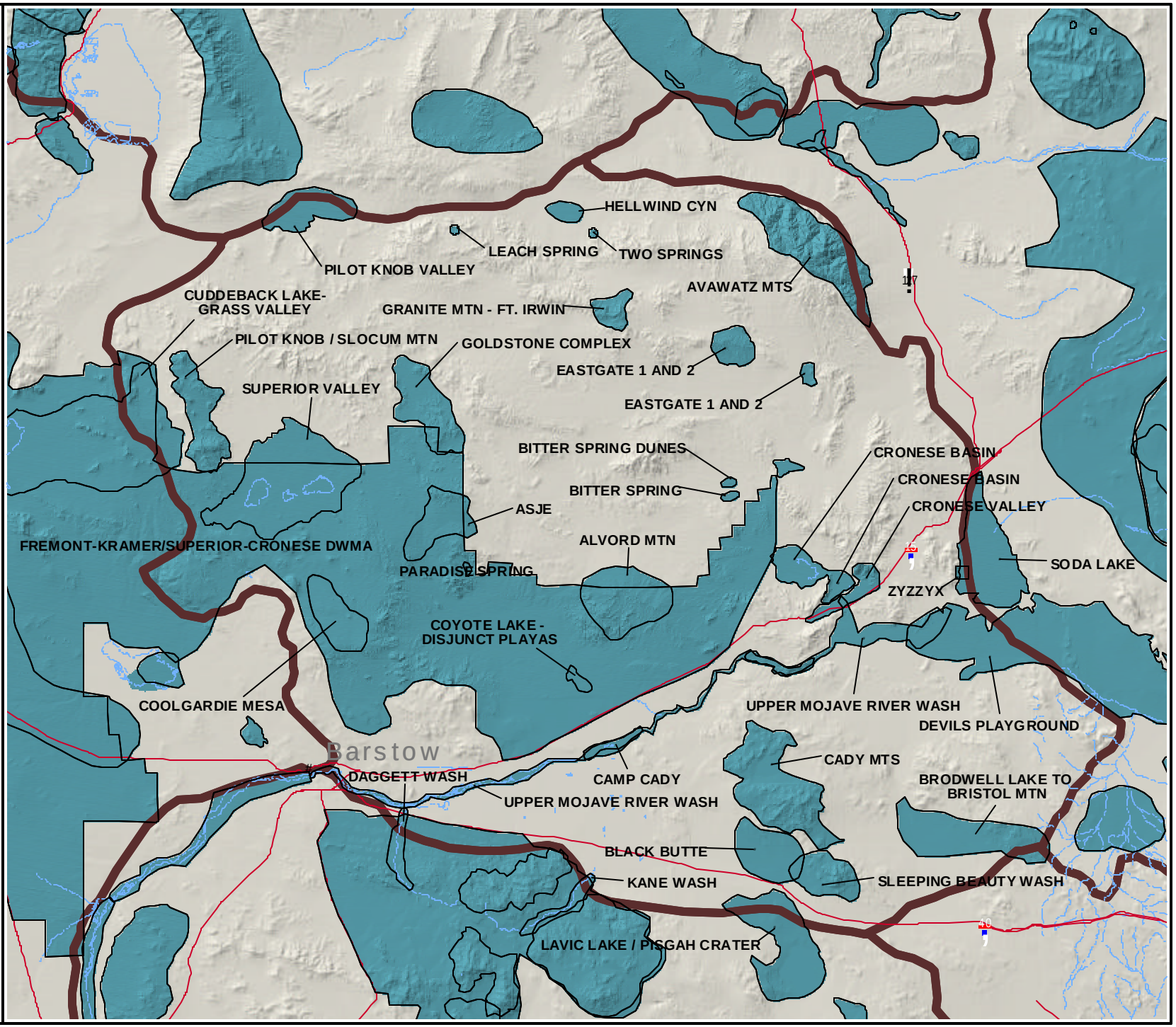
2 0 2 4 6 8 Miles

SCALE 1:700,000

LEGEND

- Portfolio Site
- Subregional Boundary
- State Boundary
- Rivers and Streams
- Highways
- Lakes

The Nature Conservancy



Appendix IV. Mojave Desert Ecoregional Portfolio - Site Attributes

CENTRAL MOJAVE

AFTON CANYON

SIZE (Acres): 2,339 % PRIVATE: 0 % CLASS I AND II: 61.6

SYSTEMS: AQ RW DW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - DESERT HOLLY SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
INTERIOR RIPARIAN MARSH AND SEEP		
MESQUITE BOSQUE-BB		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
MOJAVE DESERT WASH		
MONTANE RIPARIAN SCRUB		
ANDROSTEPHIUM BREVIFOLIUM	SMALL-FLOWERED ANDROSTEPHIUM	?
ANTROZOUS PALLIDUS	PALLID BAT	G5
BUFO MICROSCAPHUS CALIFORNICUS	ARROYO TOAD	G5?T3?
CLEMMYS MARMORATA PALLIDA	SOUTHWESTERN POND TURTLE	G4T2T3
CROTALUS MITCHELLII	SPECKLED RATTLESNAKE	G5
EMPIDONAX TRAILLII EXTIMUS	SOUTHWESTERN WILLOW FLYCATCHER	G5T2
EUDERMA MACULATUM	SPOTTED BAT	G4
GILA BICOLOR MOHAVENSIS	MOHAVE TUI CHUB	G4T1
LINANTHUS ARENICOLA	SAND LINANTHUS	G2?
OVIS CANADENSIS NELSONI	NELSON'S BIGHORN SHEEP	G4T3
PHYLLORHYNCHUS DECURTATUS	SPOTTED LEAF-NOSED SNAKE	G5
PIRANGA FLAVA	HEPATIC TANAGER	G5
PIRANGA RUBRA	SUMMER TANAGER	G5
PLECOTUS TOWNSENDII	TOWNSEND'S BIG-EARED BAT	G4
RALLUS LONGIROSTRIS YUMANENSIS	YUMA CLAPPER RAIL	G5T3
RIPARIAN BIRD HABITAT		
TAXIDEA TAXUS	AMERICAN BADGER	G5
TOXOSTOMA BENDIREI	BENDIRE'S THRASHER	G5
TOXOSTOMA CRISSALE	CRISSAL THRASHER	G5

ALVORD MTN

SIZE (Acres): 20,289 % PRIVATE: 30 % CLASS I AND II: 72.7

SYSTEMS: DW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BIG SAGEBRUSH - SPINY HOPSAGE SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
MOJAVE DESERT WASH		
SALTBUSH SCRUB		
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
LANIUS LUDOVICIANUS	LOGGERHEAD SHRIKE	G5
TOXOSTOMA LECONTEI	LE CONTE'S THRASHER	G4

ASJE

SIZE (Acres): 12,009 % PRIVATE: 7 % CLASS I AND II: 90.5

SYSTEMS: DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
JOSHUA TREE WOODLAND		
ASTRAGALUS JAEGERIANUS	LANE MTN. MILK-VETCH	G1
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
SPERMOPHILUS MOHAVENSIS	MOHAVE GROUND SQUIRREL	G2?

AVAWATZ MTS

SIZE (Acres): 28,062 % PRIVATE: 0 % CLASS I AND II: 83

SYSTEMS: RW DU LM

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
ALKALI MEADOW / SEEP		
BLACKBRUSH SCRUB - MIXED SCRUB		
CALIFORNIA JUNIPER WOODLAND		
CREOSOTE BUSH - MIXED SCRUB		
JOSHUA TREE WOODLAND		
JUNIPER WOODLAND		
MOJAVE MIXED WOODY SCRUB		
PINYON - JUNIPER WOODLAND		
SAGEBRUSH - SEMI-DESERT		
SPRINGS		
CRYPTANTHA TUMULOSA	NEW YORK MOUNTAINS CATSEYE	G3?
LANDSCAPE QUALITY		
LIMESTONE SUBSTRATES		
LUPINUS MAGNIFICUS VAR MAGNIFICUS	PANAMINT MOUNTAINS LUPINE	G3TH

MIGRATORY BIRD HABITAT		
OVIS CANADENSIS NELSONI	NELSON'S BIGHORN SHEEP	G4T3

BITTER SPRING

SYSTEMS: AQ RW DW

SIZE (Acres): 572 % PRIVATE: 0 % CLASS I AND II: 0

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
ALKALI MEADOW / SEEP		
CREOSOTE BUSH - MIXED SCRUB		
MESQUITE BOSQUE-RW		
SPRINGS		
UMA SCOPARIA	MOJAVE FRINGE-TOED LIZARD	

BITTER SPRING DUNES

SYSTEMS: DU

SIZE (Acres): 518 % PRIVATE: 0 % CLASS I AND II: 0

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
STABILIZED AND PARTIALLY-STABILIZED DESERT DUNES		
UMA SCOPARIA	MOJAVE FRINGE-TOED LIZARD	

BLACK BUTTE

SYSTEMS: DU

SIZE (Acres): 13,343 % PRIVATE: 40 % CLASS I AND II: 7.8

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
LINANTHUS ARENICOLA	SAND LINANTHUS	G2?
PENSTEMON ALBOMARGINATUS	WHITE-MARGINED BEARDTONGUE	G2

BRODWELL LAKE TO BRISTOL MTN

SYSTEMS: DS DU

SIZE (Acres): 23,449 % PRIVATE: 3 % CLASS I AND II: 90.6

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
PLAYA		
STABILIZED AND PARTIALLY-STABILIZED DESERT DUNES		
CALLISAURUS DRACONOIDES	ZEBRATAIL LIZARD	G5
UMA SCOPARIA	MOJAVE FRINGE-TOED LIZARD	

CADY MTS

SYSTEMS: RW DW DS

SIZE (Acres): 29,453 % PRIVATE: 4 % CLASS I AND II: 93.3

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
ALKALI SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
HILARIA RIGIDA HERBACEOUS ALLIANCE		
MOJAVE DESERT WASH		
MOJAVE MIXED WOODY SCRUB		
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
NEOTROPICAL MIGRATORY BIRD HABITAT		
OVIS CANADENSIS NELSONI	NELSON'S BIGHORN SHEEP	G4T3
PENSTEMON ALBOMARGINATUS	WHITE-MARGINED BEARDTONGUE	G2
RAPTOR HABITAT		
SAUROMALUS OBESUS OBESUS	WESTERN CHUCKWALLA	G5T4

CAMP CADY

SYSTEMS: AQ RW DW

SIZE (Acres): 1,998 % PRIVATE: 60 % CLASS I AND II: 0

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
DESERT PLAYA MIXED SCRUB		
INTERIOR RIPARIAN FOREST AND WOODLAND		
MESQUITE BOSQUE-RW		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
MONTANE RIPARIAN SCRUB		
SALTBUSH SCRUB		
ANTROZOUS PALLIDUS	PALLID BAT	G5
ASIO OTUS	LONG-EARED OWL	
CLEMMYS MARMORATA PALLIDA	SOUTHWESTERN POND TURTLE	G4T2T3
COCCYZUS AMERICANUS OCCIDENTALIS	WESTERN YELLOW-BILLED CUCKOO	G5T2T3
EMPIDONAX TRAILLII EXTIMUS	SOUTHWESTERN WILLOW FLYCATCHER	G5T2
GILA BICOLOR MOHAVENSIS	MOHAVE TUI CHUB	G4T1
NEOTROPICAL MIGRATORY BIRD HABITAT		
PHAINOPEPLA NITENS	PHAINOPEPLA	G5

PIRANGA RUBRA	SUMMER TANAGER	G5
RHINOCHEILUS LECONTEI LECONTEI	WESTERN LONGNOSED SNAKE	G5T-UNIDENTIFED
RIPARIAN BIRD HABITAT		
TAXIDEA TAXUS	AMERICAN BADGER	G5
VERMIVORA LUCIAE	LUCY'S WARBLER	G5
VIREO BELLII PUSILLUS	LEAST BELL'S VIREO	?

COOLGARDIE MESA

SIZE (Acres): 11,516 % PRIVATE: 30 % CLASS I AND II: 71.4 SYSTEMS: DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
JOSHUA TREE WOODLAND		
ASTRAGALUS JAEGERIANUS	LANE MTN. MILK-VETCH	G1
DIPODOMYS PANAMINTINUS	PANAMINT KANGAROO RAT	G5
ERIOPHYLLUM MOHAVENSE	BARSTOW WOOLLY SUNFLOWER	G2
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
LANIUS LUDOVICIANUS	LOGGERHEAD SHRIKE	G5
SPERMOPHILUS MOHAVENSIS	MOHAVE GROUND SQUIRREL	G2?
TOXOSTOMA BENDIREI	BENDIRE'S THRASHER	G5
TOXOSTOMA LECONTEI	LE CONTE'S THRASHER	G4

COYOTE LAKE - DISJUNCT PLAYAS

SIZE (Acres): 1,375 % PRIVATE: 0 % CLASS I AND II: 100 SYSTEMS: DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
MOJAVE DESERT WASH		
PLAYA		
SALTBUSH SCRUB		
STABILIZED AND PARTIALLY-STABILIZED DESERT DUNES		
PHACELIA PARISHII	PARISH PHACELIA	G2G3
PHAINOPEPLA NITENS	PHAINOPEPLA	G5

CRONESE BASIN

SIZE (Acres): 9,336 % PRIVATE: 0 % CLASS I AND II: 88.9 SYSTEMS: RW DW DS DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CHILOPSIS LINEARIS INTERMITTENTLY FLOODED SHRUBLAND ALL		
CREOSOTE BUSH - MIXED SCRUB		
CRUCIFIXION THORN		
MESQUITE BOSQUE		
MESQUITE BOSQUE-BB		
MOJAVE DESERT WASH		
PLAYA		
SALTBUSH SCRUB		
STABILIZED AND PARTIALLY-STABILIZED DESERT DUNES		
ANDROSTEPHIUM BREVIFOLIUM	SMALL-FLOWERED ANDROSTEPHIUM	?
AREA OF HIGH BIOLOGICAL DIVERSITY		
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
LANIUS LUDOVICIANUS	LOGGERHEAD SHRIKE	G5
LINANTHUS ARENICOLA	SAND LINANTHUS	G2?
MIGRATORY BIRD HABITAT		
OVIS CANADENSIS NELSONI	NELSON'S BIGHORN SHEEP	G4T3
PHAINOPEPLA NITENS	PHAINOPEPLA	G5
UMA SCOPARIA	MOJAVE FRINGE-TOED LIZARD	

CRONESE VALLEY

SIZE (Acres): 5,387 % PRIVATE: 30 % CLASS I AND II: 21.7 SYSTEMS: DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CHILOPSIS LINEARIS INTERMITTENTLY FLOODED SHRUBLAND ALL		
CREOSOTE BUSH - MIXED SCRUB		
HILARIA RIGIDA HERBACEOUS ALLIANCE		
MESQUITE BOSQUE-BB		
MOJAVE DESERT WASH		
ANDROSTEPHIUM BREVIFOLIUM	SMALL-FLOWERED ANDROSTEPHIUM	?
LINANTHUS ARENICOLA	SAND LINANTHUS	G2?

CUDDEBACK LAKE / GRASS VALLEY

SIZE (Acres): 66,102 % PRIVATE: 10 % CLASS I AND II: 90.2 SYSTEMS: DS DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		

CREOSOTE BUSH - MIXED SCRUB		
DESERT PLAYA MIXED SCRUB		
JOSHUA TREE WOODLAND		
PLAYA		
SALTBUSH SCRUB		
SHADSCALE SCRUB		
STABILIZED AND PARTIALLY-STABILIZED DESERT DUNES		
CYMOPTERUS DESERTICOLA	DESERT CYMOPTERUS	G2
ERIOPHYLLUM MOHAVENSE	BARSTOW WOOLLY SUNFLOWER	G2
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
RARE PLANTS		
SPERMOPHILUS MOHAVENSIS	MOHAVE GROUND SQUIRREL	G2?

DAGGETT WASH

SYSTEMS

SIZE (Acres): 4,218 % PRIVATE: 10 % CLASS I AND II: 82.4 DW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
MOJAVE DESERT WASH		
MIMULUS MOHAVENSIS	MOJAVE MONKEYFLOWER	G2
NEOTROPICAL MIGRATORY BIRD HABITAT		

DEVILS PLAYGROUND

SYSTEMS

SIZE (Acres): 114,653 % PRIVATE: 4 % CLASS I AND II: 84.7 DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
FOURWING SALTBUSH - WINTERFAT SCRUB		
MESQUITE BOSQUE		
MOJAVE DESERT WASH		
PLAYA		
SALTBUSH SCRUB		
STABILIZED AND PARTIALLY-STABILIZED DESERT DUNES		
MACROBAENETES KELSOENSIS	KELSO GIANT SAND TREADER CRICKET	G1
UMA SCOPARIA	MOJAVE FRINGE-TOED LIZARD	

EASTGATE 1 AND 2

SYSTEMS

SIZE (Acres): 1,210 % PRIVATE: 0 % CLASS I AND II: 9.3 DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
JOSHUA TREE WOODLAND		
JOSHUA TREE WOODLAND		
MOJAVE DESERT WASH		
MOJAVE DESERT WASH		
CAVES		
CAVES		
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
SANDSTONE SUBSTRATES		
SANDSTONE SUBSTRATES		

FREMONT-KRAMER/SUPERIOR-CRONESE

SYSTEMS

SIZE (Acres): 1,044,973 % PRIVATE: 30 % CLASS I AND II: 69.4 DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
AGELAIUS TRICOLOR	TRICOLORED BLACKBIRD	G3
ANDROSTEPHIUM BREVIFOLIUM	SMALL-FLOWERED ANDROSTEPHIUM	?
ANTROZOUS PALLIDUS	PALLID BAT	G5
AQUILA CHRYSAETOS	GOLDEN EAGLE	G5
ASTRAGALUS JAEGERIANUS	LANE MTN. MILK-VETCH	G1
ATHENE CUNICULARIA	BURROWING OWL	G4
CALOCHORTUS STRIATUS	ALKALI MARIPOSA LILY	G2
CIRCUS CYANEUS	NORTHERN HARRIER	
CYMOPTERUS DESERTICOLA	DESERT CYMOPTERUS	G2
DIPODOMYS PANAMINTINUS	PANAMINT KANGAROO RAT	G5
ERIOPHYLLUM MOHAVENSE	BARSTOW WOOLLY SUNFLOWER	G2
ESCHSCHOLZIA MINUTIFLORA SSP TWISSELMANNII	RED ROCK POPPY	G5T2
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
LANIUS LUDOVICIANUS	LOGGERHEAD SHRIKE	G5
LINANTHUS ARENICOLA	SAND LINANTHUS	G2?
PHACELIA PARISHII	PARISH PHACELIA	G2G3

PLECOTUS TOWNSENDII PALLESCENS	PALE TOWNSEND'S BIG EARED BAT	G4T4
REPTILE SCRUB HABITAT		
SPERMOPHILUS MOHAVENSIS	MOHAVE GROUND SQUIRREL	G2?
TOXOSTOMA LECONTEI	LE CONTE'S THRASHER	G4

GOLDSTONE COMPLEX

SIZE (Acres): 16,328 % PRIVATE: 0 % CLASS I AND II: 32.8 SYSTEMS: DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
JOSHUA TREE WOODLAND		
PLAYA		
SALTBUSH SCRUB		
ANTROZOUS PALLIDUS	PALLID BAT	G5
AQUILA CHRYSAETOS	GOLDEN EAGLE	G5
ASTRAGALUS JAEGERIANUS	LANE MTN. MILK-VETCH	G1
CALLISAURUS DRACONOIDES	ZEBRATAIL LIZARD	G5
CROTALUS SCUTULATUS	MOJAVE GREEN RATTLESNAKE	G5
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
PHRYNOSOMA PLATYRHINOS CALIDIARUM	SOUTHERN DESERT HORNED LIZARD	G5T5
PLECOTUS TOWNSENDII	TOWNSEND'S BIG-EARED BAT	G4
SAUROMALUS OBESUS OBESUS	WESTERN CHUCKWALLA	G5T4
SPERMOPHILUS MOHAVENSIS	MOHAVE GROUND SQUIRREL	G2?

GRANITE MTN - FT. IRWIN

SIZE (Acres): 4,530 % PRIVATE: 0 % CLASS I AND II: 0 SYSTEMS: AQ

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
EPHEDRA NEVADENSIS SHRUBLAND ALLIANCE		
JOSHUA TREE WOODLAND		
MOJAVE MIXED WOODY SCRUB		
SPRINGS		
STIPA SPECIOSA SHRUB HERBACEOUS ALLIANCE		

HELLWIND CYN

SIZE (Acres): 2,507 % PRIVATE: 0 % CLASS I AND II: 0 SYSTEMS: AQ RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
MESQUITE BOSQUE-RW		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
SPRINGS		

LAVIC LAKE / PISGAH CRATER

SIZE (Acres): 24,526 % PRIVATE: 10 % CLASS I AND II: 0 SYSTEMS: DS DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
JOSHUA TREE WOODLAND		
LAVA FLOW / EXPOSED BEDROCK		
MOJAVE DESERT WASH		
PLAYA		
SALTBUSH SCRUB		
ANTROZOUS PALLIDUS	PALLID BAT	G5
CALYPTE COSTAE	COSTA'S HUMMINGBIRD	G5
CNEMIDOPHORUS TIGRIS MULTISCUTATUS	COASTAL WESTERN WHIPTAIL	G5T3?
CROTALUS CERASTES	SIDEWINDER	G5
CROTALUS MITCHELLII	SPECKLED RATTLESNAKE	G5
DIPODOMYS MERRIAMI FRENATUS	MERRIAM'S KANGAROO RAT	G5T-UNIDENTIFED
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
LANDSCAPE QUALITY		
LANIUS LUDOVICIANUS	LOGGERHEAD SHRIKE	G5
LINANTHUS ARENICOLA	SAND LINANTHUS	G2?
PENSTEMON ALBOMARGINATUS	WHITE-MARGINED BEARDTONGUE	G2
PLECOTUS TOWNSENDII	TOWNSEND'S BIG-EARED BAT	G4
REPTILE SCRUB HABITAT		
SAUROMALUS OBESUS OBESUS	WESTERN CHUCKWALLA	G5T4
TOXOSTOMA CRISSALE	CRISSAL THRASHER	G5
UNSTABILIZED SAND		

LEACH SPRING

SIZE (Acres): 302 % PRIVATE: 0 % CLASS I AND II: 0 SYSTEMS: AQ

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
AQUATIC FLORA		
CREOSOTE BUSH - MIXED SCRUB		
JOSHUA TREE WOODLAND		
SPRINGS		

PARADISE SPRING

SIZE (Acres): 313 % PRIVATE: 80 % CLASS I AND II: 16.3 SYSTEMS: RW DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
ALKALI MEADOW / SEEP		
CREOSOTE BUSH - MIXED SCRUB		
CALOCHORTUS STRIATUS	ALKALI MARIPOSA LILY	G2

PILOT KNOB / SLOCUM MTN

SIZE (Acres): 15,211 % PRIVATE: 0 % CLASS I AND II: 99.9 SYSTEMS: DS DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
DESERT GRASSLAND AND SHRUB-STEPPE		
JOSHUA TREE - GRAYIA		
JOSHUA TREE WOODLAND		
LAVA FLOW / EXPOSED BEDROCK		
PSOROTHAMNUS SPINOSUS SHRUBLAND ALLIANCE		
ARIZONA ELEGANS	GLOSSY SNAKE	G5
ATHENE CUNICULARIA	BURROWING OWL	G4
CALLISAURUS DRACONOIDES	ZEBRATAIL LIZARD	G5
COLEONYX VARIEGATUS	BANDED GECKO	G5
COLEONYX VARIEGATUS UTAHENSIS	UTAH BANDED GECKO	
CROTALUS MITCHELLII	SPECKLED RATTLESNAKE	G5
CROTALUS SCUTULATUS	MOJAVE GREEN RATTLESNAKE	G5
DIPSOSAURUS DORSALIS	DESERT IGUANA	G5
GAMBELIA WISLIZENII	LEOPARD LIZARD	
LANDSCAPE QUALITY		
LANIUS LUDOVICIANUS	LOGGERHEAD SHRIKE	G5
REPTILE SCRUB HABITAT		
SAUROMALUS OBESUS OBESUS	WESTERN CHUCKWALLA	G5T4
SPERMOPHILUS MOHAVENSIS	MOHAVE GROUND SQUIRREL	G2?
TAXIDEA TAXUS	AMERICAN BADGER	G5

PILOT KNOB VALLEY

SIZE (Acres): 11,514 % PRIVATE: 0 % CLASS I AND II: 0 SYSTEMS: DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
DESERT PLAYA MIXED SCRUB		
MOJAVE DESERT WASH		
SALTBUSH SCRUB		
STABILIZED AND PARTIALLY-STABILIZED DESERT DUNES		
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
LINANTHUS ARENICOLA	SAND LINANTHUS	G2?
OVIS CANADENSIS NELSONI	NELSON'S BIGHORN SHEEP	G4T3

RED PASS LAKE

SIZE (Acres): 1,350 % PRIVATE: 0 % CLASS I AND II: 0 SYSTEMS: DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
PLAYA		
STABILIZED AND PARTIALLY-STABILIZED DESERT DUNES		
LINANTHUS ARENICOLA	SAND LINANTHUS	G2?
UMA SCOPARIA	MOJAVE FRINGE-TOED LIZARD	

SLEEPING BEAUTY WASH

SIZE (Acres): 10,273 % PRIVATE: 25 % CLASS I AND II: 0 SYSTEMS: DW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		

MOJAVE DESERT WASH		
PSOROTHAMNUS SPINOSUS SHRUBLAND ALLIANCE		
AQUILA CHRYSAETOS	GOLDEN EAGLE	G5
ASIO FLAMMEUS	SHORT-EARED OWL	
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
LANIUS LUDOVICIANUS	LOGGERHEAD SHRIKE	G5
OVIS CANADENSIS NELSONI	NELSON'S BIGHORN SHEEP	G4T3
PENSTEMON ALBOMARGINATUS	WHITE-MARGINED BEARDTONGUE	G2
RAPTOR HABITAT		
TOXOSTOMA LECONTEI	LE CONTE'S THRASHER	G4

SUPERIOR VALLEY

SIZE (Acres):	43,757	% PRIVATE:	22	% CLASS I AND II:	78	SYSTEMS
						DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
ATRIPLEX SPINIFERA SHRUBLAND ALLIANCE		
CREOSOTE BUSH - MIXED SCRUB		
DESERT GRASSLAND AND SHRUB-STEPPE		
GRAYIA SPINOSA SHRUBLAND ALLIANCE		
JOSHUA TREE - BIG GALLETA SPARSE WOODLAND		
JOSHUA TREE WOODLAND		
MOJAVE DESERT WASH		
PLAYA		
SALTBUSH SCRUB		
AQUILA CHRYSAETOS	GOLDEN EAGLE	G5
ATHENE CUNICULARIA	BURROWING OWL	G4
CYMOPTERUS DESERTICOLA	DESERT CYMOPTERUS	G2
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
RAPTOR HABITAT		
SPERMOPHILUS MOHAVENSIS	MOHAVE GROUND SQUIRREL	G2?

TWO SPRINGS

SIZE (Acres):	302	% PRIVATE:	0	% CLASS I AND II:	0	SYSTEMS
						AQ

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
AQUATIC FLORA		
CREOSOTE BUSH - MIXED SCRUB		
JOSHUA TREE WOODLAND		
SPRINGS		

UPPER MOJAVE RIVER WASH

SIZE (Acres):	25,918	% PRIVATE:	20	% CLASS I AND II:	14.2	SYSTEMS
						DW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CLEMMYS MARMORATA PALLIDA	SOUTHWESTERN POND TURTLE	G4T2T3
GILA BICOLOR MOHAVENSIS	MOHAVE TUI CHUB	G4T1
PIRANGA FLAVA	HEPATIC TANAGER	G5

ZYZZYX

SIZE (Acres):	649	% PRIVATE:	0	% CLASS I AND II:	100	SYSTEMS
						AQ

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
FOURWING SALTBUSH - WINTERFAT SCRUB		
JOSHUA TREE WOODLAND		
PLAYA		
CYPRINODON NEVADENSIS NEVADENSIS	SARATOGA SPRINGS PUPFISH	G2T1
GILA BICOLOR MOHAVENSIS	MOHAVE TUI CHUB	G4T1

EASTERN MOJAVE

ARIZONA BAY

SIZE (Acres): 347 | % PRIVATE: 20 | % CLASS I AND II: 77.8 | SYSTEMS: AQ RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
SALIX GOODINGII		
LUTRA CANADENSIS SONORA	SOUTHWESTERN OTTER	G5T1
XYRAUCHEN TEXANUS	RAZORBACK SUCKER	G1

ASH SPRINGS

SIZE (Acres): 983 | % PRIVATE: 40 | % CLASS I AND II: 0 | SYSTEMS: AQ

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CRENICHTHYS BAILEYI BAILEYI	WHITE RIVER SPRINGFISH	G2T1
GILA ROBUSTA JORDANI	PAHRANAGAT ROUNDTAIL CHUB	G3T1
PYRGULOPSIS MERRIAMI	PAHRANAGAT PEBBLESNAIL	G1
RHINICHTHYS OSCULUS VELIFER	WHITE RIVER SPECKLED DACE	G5T1
STENELMIS OCCIDENTALIS	RIFFLE BEETLE	G5
TRYONIA CLATHRATA	GRATED TRYONIA	G2

BEAVER DAM MOUNTAINS

SIZE (Acres): 57,903 | % PRIVATE: 1 | % CLASS I AND II: 2.6 | SYSTEMS: LM UM

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
FOURWING SALTBUSH - WINTERFAT SCRUB		
INTERIOR RIPARIAN FOREST AND WOODLAND		
PINYON - JUNIPER WOODLAND		
PONDEROSA PINE		
SEMI-DESERT CHAPARRAL - MIXED OAK CHAPARRAL		
SEMI-DESERT CHAPARRAL - MOUNTAIN MAHOGANY - MIXED SHRU		
UTAH JUNIPER WOODLAND		
CROTALUS MITCHELLII	SPECKLED RATTLESNAKE	G5
EPILOBIUM NEVADENSE	NEVADA WILLOWHERB	G2
FALCO PEREGRINUS	PEREGRINE FALCON	G3
LAMPROPELTIS PYROMELANA INFRALABIALIS	UTAH MOUNTAIN KINGSNAKE	G5T3
RAPTOR HABITAT		

BEAVER DAM NORTHEAST SLOPE

SIZE (Acres): 7,771 | % PRIVATE: 0 | % CLASS I AND II: 0 | SYSTEMS: LM

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
INTERIOR RIPARIAN FOREST AND WOODLAND		
JOSHUA TREE WOODLAND		
PINYON - JUNIPER WOODLAND		
UTAH JUNIPER WOODLAND		
ASTRAGALUS AMPULLARIOIDES		G1Q
ASTRAGALUS HOLMGRENIORUM	HOLMGREN MILKVETCH	G1
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
WILDLIFE CORRIDOR		

BEAVER DAM SLOPE

SIZE (Acres): 263,614 | % PRIVATE: 2 | % CLASS I AND II: 74.6 | SYSTEMS: DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
DESERT GRASSLAND AND SHRUB-STEPPE		
FOURWING SALTBUSH - WINTERFAT SCRUB		
INTERIOR RIPARIAN FOREST AND WOODLAND		
JOSHUA TREE WOODLAND		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
UTAH JUNIPER WOODLAND		
ARIZONA ELEGANS	GLOSSY SNAKE	G5
ASTRAGALUS AMPULLARIOIDES		G1Q
CALLISAURUS DRACONOIDES	ZEBRATAIL LIZARD	G5
CATOSTOMUS CLARKI	DESERT SUCKER	G3G4
CHAETODIPUS PENICILLATUS	DESERT POCKET MOUSE	G5

CNEMIDOPHORUS VELOX	PLATEAU STRIPED WHIPTAIL	G5
COLEONYX VARIEGATUS UTAHENSIS	UTAH BANDED GECKO	
CROTALUS CERASTES	SIDEWINDER	G5
CROTALUS MITCHELLII	SPECKLED RATTLESNAKE	G5
CROTALUS SCUTULATUS	MOJAVE GREEN RATTLESNAKE	G5
DIPODOMYS DESERTI	DESERT KANGAROO RAT	G5
ERIOGONUM VISCIDULUM	STICKY BUCKWHEAT	G2
GAMBELIA WISLIZENII	LEOPARD LIZARD	
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
HELODERMA SUSPECTUM CINCTUM	BANDED GILA MONSTER	G4T3
IDIONYCTERIS PHYLLOTIS	ALLEN'S BIG-EARED BAT	G4
LAMPROPELTIS GETULA CALIFORNIAE	CALIFORNIA (COMMON) KINGSNAKE	G5T5
LEPIDOMEDA MOLLISPINIS	VIRGIN SPINEDACE	G1
LEPTOTYPHLOPS HUMILIS	WESTERN BLIND SNAKE	G5
MYIARCHUS TYRANNULUS	BROWN-CRESTED FLYCATCHER	G5
MYOTIS THYSANODES	FRINGED MYOTIS	G5
PEDIOMELUM CASTOREUM	BEAVER DAM BREADROOT	G3
PEROMYSCUS EREMICUS	CACTUS MOUSE	G5
PHYLLORHYNCHUS DECURTATUS	SPOTTED LEAF-NOSED SNAKE	G5
RHINOCHEILUS LECONTEI LECONTEI	WESTERN LONGNOSED SNAKE	G5T-UNIDENTIFED
SALVADORA HEXALEPIS MOJAVENSIS	MOJAVE PATCHNOSE SNAKE	G5T-UNIDENTIFED
SAUROMALUS OBESUS OBESUS	WESTERN CHUCKWALLA	G5T4
TOXOSTOMA LECONTEI	LE CONTE'S THRASHER	G4
XANTUSIA VIGILIS	DESERT NIGHT LIZARD	G5

BEAVER DAM WASH

SYSTEMS

SIZE (Acres): 10,627 % PRIVATE: 20 % CLASS I AND II: 43.9 AQ RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
FOURWING SALTBUSH - WINTERFAT SCRUB		
INTERIOR RIPARIAN FOREST AND WOODLAND		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
SEMI-DESERT CHAPARRAL - MOUNTAIN MAHOGANY - MIXED SHRU		
UTAH JUNIPER WOODLAND		
CATOSTOMUS CLARKI	DESERT SUCKER	G3G4
GUIRACA CAERULEA	BLUE GROSBEAK	G5
LEPIDOMEDA MOLLISPINIS	VIRGIN SPINEDACE	G1
PEDIOMELUM CASTOREUM	BEAVER DAM BREADROOT	G3
RIPARIAN BIRD HABITAT		
TOXOSTOMA CRISSALE	CRISSAL THRASHER	G5

BECK SPRING

SYSTEMS

SIZE (Acres): 148 % PRIVATE: 80 % CLASS I AND II: 3.4 AQ

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CALIFORNIA JUNIPER WOODLAND		
JOSHUA TREE WOODLAND		
SPRINGS		

BITTER SPRINGS VALLEY

SYSTEMS

SIZE (Acres): 39,515 % PRIVATE: 3 % CLASS I AND II: 62.7 DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
ARCTOMECON CALIFORNICA	LAS VEGAS BEARPOPPY	G3
GYPSUM SUBSTRATES		
HELODERMA SUSPECTUM CINCTUM	BANDED GILA MONSTER	G4T3

BLACK CANYON

SYSTEMS

SIZE (Acres): 14,162 % PRIVATE: 0 % CLASS I AND II: 93.4 AQ RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
DESERT GRASSLAND AND SHRUB-STEPPE		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
RIPARIAN HABITAT		
SONORA-MOJAVE MIXED DESERT SCRUB		
SPRINGS		
CYPRINODON DIABOLIS	DEVILS HOLE PUPFISH	G1
FALCO PEREGRINUS	PEREGRINE FALCON	G3

HELODERMA SUSPECTUM CINCTUM	BANDED GILA MONSTER	G4T3
OVIS CANADENSIS NELSONI	NELSON'S BIGHORN SHEEP	G4T3
RANA ONCA	RELICT LEOPARD FROG	G1
RAPTOR HABITAT		
SAUROMALUS OBESUS OBESUS	WESTERN CHUCKWALLA	G5T4
XYRAUCHEN TEXANUS	RAZORBACK SUCKER	G1

BLACK ROCK MOUNTAIN

SIZE (Acres): 9,891 % PRIVATE: 3 % CLASS I AND II: 68.4 SYSTEMS: LM UM

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
PINYON - JUNIPER WOODLAND		
PONDEROSA PINE		
QUERCUS GAMBELII		
QUERCUS TURBINELLA SHRUBLAND ALLIANCE		
WHITE FIR		
WHITE FIR - LIMBER PINE- ASPEN FOREST		
BAT HABITAT		
CHARINA TRIVIRGATA	ROSY BOA	G5
EUDERMA MACULATUM	SPOTTED BAT	G4
EUMECES GILBERTI RUBRICAUDATUS	WESTERN REDTAIL SKINK	G5T4
FALCO PEREGRINUS	PEREGRINE FALCON	G3
HAPLOPAPPUS SCOPULORUM	GRAND CANYON EVENING DAISY	G4
LAMPROPELTIS PYROMELANA INFRALABIALIS	UTAH MOUNTAIN KINGSNAKE	G5T3
PENSTEMON BICOLOR SSP. BICOLOR	YELLOW TWOTONE BEARDTONGUE	G3T2Q
TOWNSENDIA SMITHII	BLACKROCK GROUND DAISY	G2

BLOOMINGTON HILL

SIZE (Acres): 4,853 % PRIVATE: 0 % CLASS I AND II: 58.7 SYSTEMS: DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
DESERT GRASSLAND AND SHRUB-STEPPE		
FOURWING SALTBUSH - WINTERFAT SCRUB		
ARCTOMECON HUMILIS	DWARF BEARCLAW-POPPY	G1
ARIZONA ELEGANS	GLOSSY SNAKE	G5
BAT HABITAT		
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
HELODERMA SUSPECTUM CINCTUM	BANDED GILA MONSTER	G4T3
SAUROMALUS OBESUS OBESUS	WESTERN CHUCKWALLA	G5T4
TRIMORPHODON BISCUTATUS LAMBDA	SONORAN LYRE SNAKE	

BLUE DIAMOND HILLS

SIZE (Acres): 3,750 % PRIVATE: 40 % CLASS I AND II: 50.6 SYSTEMS: DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
HILARIA RIGIDA HERBACEOUS ALLIANCE		
YUCCA BREVIFOLIA WOODED SHRUBLAND ALLIANCE		
AGAVE UTAHENSIS VAR. EBORISPINA	IVORY-SPINED AGAVE	G4T3Q
HELODERMA SUSPECTUM CINCTUM	BANDED GILA MONSTER	G4T3
OPUNTIA WHIPPLEI VAR. MULTIGENICULATA	BLUE DIAMOND CHOLLA	G2?T1
PENSTEMON BICOLOR SSP. BICOLOR	YELLOW TWOTONE BEARDTONGUE	G3T2Q
SAUROMALUS OBESUS OBESUS	WESTERN CHUCKWALLA	G5T4

BLUE POINT SPRING

SIZE (Acres): 209 % PRIVATE: 0 % CLASS I AND II: 78.5 SYSTEMS: AQ RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CIRSIUM VIRGINENSE	VIRGIN RIVER THISTLE	G2
PYRGULOPSIS COLORADENSIS	BLUE POINT SPRINGSNAIL	G1
RANA ONCA	RELICT LEOPARD FROG	G1

BRIDGE CANYON

SIZE (Acres): 911 % PRIVATE: 0 % CLASS I AND II: 100 SYSTEMS: DW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
MOJAVE DESERT WASH		
SPRINGS		
ATHENE CUNICULARIA	BURROWING OWL	G4
LANIUS LUDOVICIANUS	LOGGERHEAD SHRIKE	G5
PHAINOPEPLA NITENS	PHAINOPEPLA	G5

PIPILO ABERTI	ABERT'S TOWHEE	G3G4
TOXOSTOMA CRISSALE	CRISSAL THRASHER	G5
TOXOSTOMA LECONTEI	LE CONTE'S THRASHER	G4

BUDWEISER WASH VICINITY

SYSTEMS

SIZE (Acres): 19,292 % PRIVATE: 20 % CLASS I AND II: 76.4 DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
DESERT PAVEMENT AND SALT FLAT		
MOJAVE DESERT WASH		
STABILIZED AND PARTIALLY-STABILIZED DESERT DUNES		

BULL CANYON

SYSTEMS

SIZE (Acres): 1,481 % PRIVATE: 10 % CLASS I AND II: 89.6 RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CALIFORNIA JUNIPER WOODLAND		
CREOSOTE BUSH - MIXED SCRUB		
FOURWING SALTBUSH - WINTERFAT SCRUB		
JOSHUA TREE WOODLAND		
LAVA FLOW / EXPOSED BEDROCK		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		

BULL CANYON SUCCULENTS

SYSTEMS

SIZE (Acres): 1,048 % PRIVATE: 20 % CLASS I AND II: 76.6 DS DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
ENRICHED SUCCULENT AND WOODY SHRUB		
FOURWING SALTBUSH - WINTERFAT SCRUB		
JOSHUA TREE WOODLAND		
LAVA FLOW / EXPOSED BEDROCK		

BURNS SPRING CANYON

SYSTEMS

SIZE (Acres): 2,120 % PRIVATE: 5 % CLASS I AND II: 82.8 AQ RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
INTERIOR RIPARIAN FOREST AND WOODLAND		
INTERIOR RIPARIAN MARSH AND SEEP		
INTERIOR RIPARIAN SHRUBLAND		
SHADSCALE SCRUB		
SONORA-MOJAVE MIXED DESERT SCRUB		
PYRGULOPSIS CONICA	KINGMAN SPRINGSNAIL	G1

BURRO WASH

SYSTEMS

SIZE (Acres): 1,482 % PRIVATE: 0 % CLASS I AND II: 98.4 DW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
ACACIA GREGGII SHRUBLAND ALLIANCE		
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
MESQUITE BOSQUE-DW		
BUFO PUNCTATUS	RED SPOTTED TOAD	

CACTUS VALLEY

SYSTEMS

SIZE (Acres): 2,868 % PRIVATE: 0 % CLASS I AND II: 22.5 DS DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CACTUS GARDEN		
CREOSOTE BUSH - MIXED SCRUB		
DESERT GRASSLAND AND SHRUB-STEPPE		
ASIO OTUS	LONG-EARED OWL	
CROTALUS CERASTES	SIDEWINDER	G5
CROTALUS SCUTULATUS	MOJAVE GREEN RATTLESNAKE	G5
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	

CALICO SPRING

SYSTEMS

SIZE (Acres): 337 % PRIVATE: 10 % CLASS I AND II: 85.8 AQ RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
PSEUDACRIS REGILLA	PACIFIC CHORUS FROG	G5

CALIFORNIA WASH

SIZE (Acres): 13,013 % PRIVATE: 0.5 % CLASS I AND II: 0 SYSTEMS: DW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
ACACIA GREGGII SHRUBLAND ALLIANCE		
CREOSOTE BUSH - MIXED SCRUB		
DESERT GRASSLAND AND SHRUB-STEPPE		
MESQUITE BOSQUE-DW		
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
PHAINOPEPLA NITENS	PHAINOPEPLA	G5

CASTLE CLIFF / WOODBERRY HARDY

SIZE (Acres): 6,373 % PRIVATE: 0.5 % CLASS I AND II: 81.4 SYSTEMS: DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
FOURWING SALTBUSH - WINTERFAT SCRUB		
UTAH JUNIPER WOODLAND		
ARIZONA ELEGANS	GLOSSY SNAKE	G5
CALLISAURUS DRACONOIDES	ZEBRATAIL LIZARD	G5
CNEMIDOPHORUS VELOX	PLATEAU STRIPED WHIPTAIL	G5
CROTALUS SCUTULATUS	MOJAVE GREEN RATTLESNAKE	G5
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
HELODERMA SUSPECTUM CINCTUM	BANDED GILA MONSTER	G4T3
LEPTOTYPHLOPS HUMILIS	WESTERN BLIND SNAKE	G5
SAUROMALUS OBESUS OBESUS	WESTERN CHUCKWALLA	G5T4
XANTUSIA VIGILIS	DESERT NIGHT LIZARD	G5

CERBAT MOUNTAINS

SIZE (Acres): 132,462 % PRIVATE: 30 % CLASS I AND II: 22.5 SYSTEMS: LM UM

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
DESERT GRASSLAND AND SHRUB-STEPPE		
FOURWING SALTBUSH - WINTERFAT SCRUB		
JOSHUA TREE WOODLAND		
PINYON - JUNIPER WOODLAND		
PINYON PINE WOODLAND		
SALTBUSH SCRUB		
SEMI-DESERT CHAPARRAL		
SEMI-DESERT CHAPARRAL - MANZANITA		
SEMI-DESERT CHAPARRAL - MIXED OAK CHAPARRAL		
SHADSCALE SCRUB		
SONORA-MOJAVE MIXED DESERT SCRUB		
SONORAN MIXED DESERT SCRUB - PALO VERDE -MIXED CACTI		
WHITE FIR - LIMBER PINE- ASPEN FOREST		
BAT HABITAT		
CHARINA TRIVIRGATA GRACIA	DESERT ROSY BOA	G5T3
EUMECES GILBERTI RUBRICAUDATUS	WESTERN REDTAIL SKINK	G5T4
FALCO PEREGRINUS	PEREGRINE FALCON	G3
HELODERMA SUSPECTUM CINCTUM	BANDED GILA MONSTER	G4T3
PLECOTUS TOWNSENDII PALLESCENS	PALE TOWNSEND'S BIG EARED BAT	G4T4
SAUROMALUS OBESUS OBESUS	WESTERN CHUCKWALLA	G5T4
TETRADYMIA ARGYRAEA	SILVER FELT THORN	G4?

CIMA DOME JT WOODLAND

SIZE (Acres): 170,151 % PRIVATE: 4 % CLASS I AND II: 96.5 SYSTEMS: DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
FOURWING SALTBUSH - WINTERFAT SCRUB		
JOSHUA TREE WOODLAND		
LAVA FLOW / EXPOSED BEDROCK		
ASTRAGALUS CIMAE VAR CIMAE	CIMA MILK-VETCH	G2T2
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
TOXOSTOMA BENDIREI	BENDIRE'S THRASHER	G5

CLARK MTN

SIZE (Acres): 17,236 % PRIVATE: 0.5 % CLASS I AND II: 91.7

SYSTEMS: DU LM UM

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
ASH		
BLACKBRUSH SCRUB - MIXED SCRUB		
CALIFORNIA JUNIPER WOODLAND		
CREOSOTE BUSH - MIXED SCRUB		
JOSHUA TREE WOODLAND		
PINYON-WHITE FIR FOREST/WHITE FIR		
RELICT BOREAL HABITATS		
WHITE FIR		
AGAVE UTAHENSIS VAR. NEVADENSIS	CLARK MOUNTAIN AGAVE	G4T3Q
CHARINA TRIVIRGATA	ROSY BOA	G5
CYMOPTERUS GILMANII	GILMAN'S CYMOPTERUS	G3?
ENNEAPOGON DESVAUXII	NINE-AWNED PAPPUS GRASS	G5
ERIGERON UNCIALIS VAR UNCIALIS	LIMESTONE DAISY	G?T3?
ERIOGONUM HEERMANII FLOCCOSUM		
HELODERMA SUSPECTUM CINCTUM	BANDED GILA MONSTER	G4T3
HIGH PLANT DIVERSITY		
LIMESTONE SUBSTRATES		
OVIS CANADENSIS NELSONI	NELSON'S BIGHORN SHEEP	G4T3
SPHAERALCEA RUSBYI VAR EREMICOLA	RUSBY'S DESERT-MALLOW	G4T1
TOXOSTOMA BENDIREI	BENDIRE'S THRASHER	G5
VIREO VICINIOR	GRAY VIREO	G5

COLD CREEK SPRINGS

SIZE (Acres): 511 % PRIVATE: 30 % CLASS I AND II: 0

SYSTEMS: AQ

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
PYRGULOPSIS TURBATRIX	SOUTHEAST NEVADA SPRINGSNAIL	G2

CORN CREEK

SIZE (Acres): 4,231 % PRIVATE: 10 % CLASS I AND II: 71.6

SYSTEMS: AQ RW DW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
FOURWING SALTBUSH - WINTERFAT SCRUB		
MESQUITE BOSQUE		
MESQUITE BOSQUE-RW		
ATHENE CUNICULARIA	BURROWING OWL	G4
CALYPTE COSTAE	COSTA'S HUMMINGBIRD	G5
EMPETRICHTHYS LATOS LATOS	PAHRUMP POOLFISH	G1T1
GUIRACA CAERULEA	BLUE GROSBEAK	G5
LANIUS LUDOVICIANUS	LOGGERHEAD SHRIKE	G5
MIGRATORY BIRD HABITAT		
PHAINOPEPLA NITENS	PHAINOPEPLA	G5
PIPILO ABERTI	ABERT'S TOWHEE	G3G4
PIRANGA RUBRA	SUMMER TANAGER	G5
PYRGULOPSIS FAUSTA	CORN CREEK SPRINGSNAIL	G1
TOXOSTOMA CRISSALE	CRISSAL THRASHER	G5
TOXOSTOMA LECONTEI	LE CONTE'S THRASHER	G4

CORRAL SPRING

SIZE (Acres): 237 % PRIVATE: 0 % CLASS I AND II: 100

SYSTEMS: AQ RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
RANA ONCA	RELICT LEOPARD FROG	G1

COVE SPRING

SIZE (Acres): 399 % PRIVATE: 40 % CLASS I AND II: 55.9

SYSTEMS: RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
JOSHUA TREE WOODLAND		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		

COYOTE SPRINGS VALLEY

SIZE (Acres): 219,881 % PRIVATE: 20 % CLASS I AND II: 75.3

SYSTEMS: DS DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		

CREOSOTE BUSH - MIXED SCRUB		
FOURWING SALTBUSH - WINTERFAT SCRUB		
ARCTOMECON MERRIAMII	WHITE BEAR POPPY	G2
ARENARIA STENOMERES	MEADOW VALLEY SANDWORT	G2
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
HELODERMA SUSPECTUM CINCTUM	BANDED GILA MONSTER	G4T3
PENSTEMON BICOLOR SSP. BICOLOR	YELLOW TWOTONE BEARDTONGUE	G3T2Q
PENSTEMON BICOLOR SSP. ROSEUS	ROSY TWOTONE BEARDTONGUE	G3T3Q
VULPES MACROTIS	KIT FOX	G4

CRYSTAL SPRING

SYSTEMS

SIZE (Acres): 996 % PRIVATE: 70 % CLASS I AND II: 0 AQ

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CATOSTOMUS CLARKI INTERMEDIUS	WHITE RIVER DESERT SUCKER	G4T1T2
CRENICHTHYS BAILEYI GRANDIS	HIKO WHITE RIVER SPRINGFISH	G2T1
PYRGULOPSIS HUBBSI	HUBBS SPRINGSNAIL	G1
RHINICHTHYS OSCULUS VELIFER	WHITE RIVER SPECKLED DACE	G5T1

DEACON/BROWNIE SPRINGS

SYSTEMS

SIZE (Acres): 378 % PRIVATE: 40 % CLASS I AND II: 0 AQ

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
RHINICHTHYS OSCULUS VELIFER	WHITE RIVER SPECKLED DACE	G5T1

DESERT LAKE VALLEY

SYSTEMS

SIZE (Acres): 26,514 % PRIVATE: 0 % CLASS I AND II: 100 DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
FOURWING SALTBUSH - WINTERFAT SCRUB		
PLAYA		
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
PHACELIA PARISHII	PARISH PHACELIA	G2G3
REPTILE SCRUB HABITAT		

DESERT RANGE

SYSTEMS

SIZE (Acres): 87,327 % PRIVATE: 0 % CLASS I AND II: 100 DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BIG SAGEBRUSH - SPINY HOPSAGE SCRUB		
BLACKBRUSH SCRUB - MIXED SCRUB		
FOURWING SALTBUSH - WINTERFAT SCRUB		
PINYON - JUNIPER WOODLAND		
ARABIS SHOCKLEYI	SHOCKLEY'S ROCK CRESS	G3
ARCTOMECON MERRIAMII	WHITE BEAR POPPY	G2
ASTRAGALUS AMPHIOXYS VAR. MUSIMONUM	SHEEP MOUNTAIN MILKVETCH	G5T2
ASTRAGALUS MOHAVENSIS VAR. HEMIGYRUS	HALFRING MILKVETCH	G3T2
ERIOGONUM HEERMANNII VAR. CLOKEYI	CLOKEY BUCKWHEAT	G5T2
GILIA RIPLEYI	RIPLEY'S GILIA	G2G3
MIRABILIS PUDICA	BASHFUL FOUR O'CLOCK	G3
PERITYLE INTRICATA	DELICATE ROCKDAISY	G3
POROPHYLLUM PYGMAEUM	PYGMY PORELEAF	G2

DEVILS PLAYGROUND

SYSTEMS

SIZE (Acres): 114,653 % PRIVATE: 4 % CLASS I AND II: 84.7 DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
FOURWING SALTBUSH - WINTERFAT SCRUB		
MESQUITE BOSQUE		
MOJAVE DESERT WASH		
PLAYA		
SALTBUSH SCRUB		
STABILIZED AND PARTIALLY-STABILIZED DESERT DUNES		
MACROBAENETES KELSOENSIS	KELSO GIANT SAND TREADER CRICKET	G1
UMA SCOPARIA	MOJAVE FRINGE-TOED LIZARD	

DOG BONE LAKE

SYSTEMS

SIZE (Acres): 13,823 % PRIVATE: 0 % CLASS I AND II: 100 DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		

CREOSOTE BUSH - MIXED SCRUB		
FOURWING SALTBUSH - WINTERFAT SCRUB		
PLAYA		
ARCTOMECON MERRIAMII	WHITE BEAR POPPY	G2
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
REPTILE SCRUB HABITAT		

DUMONT SAND DUNES

SYSTEMS

SIZE (Acres): 28,479 % PRIVATE: 0 % CLASS I AND II: 30.6 DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
STABILIZED AND PARTIALLY-STABILIZED DESERT DUNES		
LINANTHUS ARENICOLA	SAND LINANTHUS	G2?
UMA SCOPARIA	MOJAVE FRINGE-TOED LIZARD	

ECHO BAY

SYSTEMS

SIZE (Acres): 8,327 % PRIVATE: 0 % CLASS I AND II: 28.3 AQ

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
XYRAUCHEN TEXANUS	RAZORBACK SUCKER	G1

FIRE MOUNTAIN

SYSTEMS

SIZE (Acres): 18,056 % PRIVATE: 0 % CLASS I AND II: 100 RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
SONORA-MOJAVE MIXED DESERT SCRUB		
SONORAN MIXED DESERT SCRUB - PALO VERDE -MIXED CACTI		
CIRSIUM VIRGINENSE	VIRGIN RIVER THISTLE	G2

FT. PIERCE

SYSTEMS

SIZE (Acres): 396 % PRIVATE: 0 % CLASS I AND II: 4.3 RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
RIPARIAN HABITAT		
EUDERMA MACULATUM	SPOTTED BAT	G4
NYCTINOMOPS MACROTIS	BIG FREE-TAILED BAT	G5

GOLD BUTTE

SYSTEMS

SIZE (Acres): 149,360 % PRIVATE: 0 % CLASS I AND II: 99.7 DS DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
DESERT GRASSLAND AND SHRUB-STEPPE		
SEMI-DESERT CHAPARRAL - MOUNTAIN MAHOGANY - MIXED SHRU		
UTAH JUNIPER WOODLAND		
ARCTOMECON CALIFORNICA	LAS VEGAS BEARPOPPY	G3
ASTRAGALUS MOKIACENSIS	MOKIAK MILKVETCH	G2G3
CIRSIUM VIRGINENSE	VIRGIN RIVER THISTLE	G2
DUDLEYA PULVERULENTA	CHALK LIVEFOREVER	G3
ERIOGONUM VISCIDULUM	STICKY BUCKWHEAT	G2
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
HELODERMA SUSPECTUM CINCTUM	BANDED GILA MONSTER	G4T3
OVIS CANADENSIS NELSONI	NELSON'S BIGHORN SHEEP	G4T3
PHACELIA ANELSONII	AVEN NELSON'S PHACELIA	G2G3

GOLD BUTTE PAKOON

SYSTEMS

SIZE (Acres): 420,477 % PRIVATE: 2 % CLASS I AND II: 93.6 DS DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
JOSHUA TREE WOODLAND		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
PINYON - JUNIPER WOODLAND		
SALTBUSH SCRUB		
SEMI-DESERT CHAPARRAL		
SONORA MIXED DESERT SCRUB - BRITTLEBUSH		
SONORA-MOJAVE MIXED DESERT SCRUB		

ARCTOMECON CALIFORNICA	LAS VEGAS BEARPOPPY	G3
ASTRAGALUS GEYERI VAR. TRIQUETRUS	THREECORNER MILKVETCH	G2G3
ASTRAGALUS NYENSIS	NYE MILKVETCH	G3
BUFO MICROSCAPHUS MICROSCAPHUS	ARIZONA TOAD	G4T3
CALLISAURUS DRACONOIDES	ZEBRATAIL LIZARD	G5
CICINDELA OREGONA MARICOPA	MARICOPA TIGER BEETLE	G5T3
CIRSIUM VIRGINENSE	VIRGIN RIVER THISTLE	G2
COLEONYX VARIEGATUS	BANDED GECKO	G5
CROTALUS CERASTES	SIDEWINDER	G5
CROTALUS MITCHELLII	SPECKLED RATTLESNAKE	G5
CROTALUS SCUTULATUS	MOJAVE GREEN RATTLESNAKE	G5
CROTAPHITUS INSULARAIS BICINCTORES	MOJAVE COLLARED LIZARD	G5T-UNIDENTIFED
DIDYMODON NEVADENSIS	GOLD BUTTE MOSS	G2G3
DIPSOSAURUS DORSALIS	DESERT IGUANA	G5
EMPIDONAX TRAILLII EXTIMUS	SOUTHWESTERN WILLOW FLYCATCHER	G5T2
ERIOGONUM VISCIDULUM	STICKY BUCKWHEAT	G2
GAMBELIA WISLIZENII	LEOPARD LIZARD	
GILA SEMINUDA	VIRGIN RIVER CHUB	G3
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
HELODERMA SUSPECTUM CINCTUM	BANDED GILA MONSTER	G4T3
IDIONYCTERIS PHYLLOTIS	ALLEN'S BIG-EARED BAT	G4
LASIONYCTERIS NOCTIVAGANS	SILVER-HAIRED BAT	G5
LASIURUS CINEREUS	HOARY BAT	G5
LEPIDOMEDA MOLLISPINIS	VIRGIN SPINEDACE	G1
PETALONYX PARRYI	PARRY SANDPAPER PLANT	G3G4
PLAGOPTERUS ARGENTISSIMUS	WOUNDFIN	G1
PYRGULOPSIS BACCHUS	GRAND WASH SPRINGSNAIL	G1
PYRGULOPSIS DESERTA	DESERT SPRINGSNAIL	G2
RANA YAVAPAIENSIS	LOWLAND LEOPARD FROG	G4
SAUROMALUS OBESUS OBESUS	WESTERN CHUCKWALLA	G5T4

GRAND WASH COMPLEX

SYSTEMS

SIZE (Acres): 25,204 % PRIVATE: 0 % CLASS I AND II: 91.4 DW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
JOSHUA TREE WOODLAND		
MOJAVE DESERT WASH		
PINYON - JUNIPER WOODLAND		
SEMI-DESERT CHAPARRAL		
SONORA-MOJAVE MIXED DESERT SCRUB		
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	

GRANITE COVE

SYSTEMS

SIZE (Acres): 791 % PRIVATE: 10 % CLASS I AND II: 88.9 RW DW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
MESQUITE BOSQUE-BB		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
SONORA-MOJAVE MIXED DESERT SCRUB		
PHAINOPEPLA NITENS	PHAINOPEPLA	G5

GRANITE MTN BAJADAS

SYSTEMS

SIZE (Acres): 596 % PRIVATE: 70 % CLASS I AND II: 8.9 DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
ENRICHED SUCCULENT AND WOODY SHRUB		
JOSHUA TREE WOODLAND		

GRANITE MTS

SYSTEMS

SIZE (Acres): 15,484 % PRIVATE: 20 % CLASS I AND II: 70.6 DU LM

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CALIFORNIA JUNIPER WOODLAND		
CREOSOTE BUSH - MIXED SCRUB		
FOURWING SALTBUSH - WINTERFAT SCRUB		
JOSHUA TREE WOODLAND		
LAVA FLOW / EXPOSED BEDROCK		
MESQUITE BOSQUE-DW		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
PINYON - JUNIPER WOODLAND		

SEMI-DESERT CHAPARRAL		
WHITE FIR		
ICTERUS PARISORUM	SCOTT'S ORIOLE	G5
OVIS CANADENSIS NELSONI	NELSON'S BIGHORN SHEEP	G4T3
PHAINOPEPLA NITENS	PHAINOPEPLA	G5
RAPTOR HABITAT		

GRANITE MTS - MESQUITE

SIZE (Acres): 1,217 % PRIVATE: 57 % CLASS I AND II: 42.9 SYSTEMS: DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CALIFORNIA JUNIPER WOODLAND		
CREOSOTE BUSH - MIXED SCRUB		
JOSHUA TREE WOODLAND		
LAVA FLOW / EXPOSED BEDROCK		
MESQUITE BOSQUE-DW		

GRAPEVINE SPRING/LP

SIZE (Acres): 2,603 % PRIVATE: 0 % CLASS I AND II: 100 SYSTEMS: DW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
MOJAVE DESERT WASH		
CIRSIUM VIRGINENSE	VIRGIN RIVER THISTLE	G2
HELODERMA SUSPECTUM CINCTUM	BANDED GILA MONSTER	G4T3

GRAPEVINE/SACATON CANYON

SIZE (Acres): 4,110 % PRIVATE: 0 % CLASS I AND II: 100 SYSTEMS: RW DW DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
JOSHUA TREE WOODLAND		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
MOJAVE DESERT WASH		
OAK WOODLAND		
PINYON - JUNIPER WOODLAND		
PSOROTHAMNUS SPINOSUS SHRUBLAND ALLIANCE		
SPRINGS		
ATHENE CUNICULARIA	BURROWING OWL	G4
DUDLEYA PULVERULENTA	CHALK LIVEFOREVER	G3
LANIUS LUDOVICIANUS	LOGGERHEAD SHRIKE	G5
PHAINOPEPLA NITENS	PHAINOPEPLA	G5
PIPILO ABERTI	ABERT'S TOWHEE	G3G4
TOXOSTOMA CRISSALE	CRISSAL THRASHER	G5
TOXOSTOMA LECONTEI	LE CONTE'S THRASHER	G4

HACKBERRY SPRING

SIZE (Acres): 215 % PRIVATE: 0 % CLASS I AND II: 100 SYSTEMS: DW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
DESERT HACKBERRY		
JOSHUA TREE WOODLAND		

HALLORAN SUMMIT

SIZE (Acres): 50,257 % PRIVATE: 4 % CLASS I AND II: 48.8 SYSTEMS: DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CACTUS DIVERSITY		
JOSHUA TREE WOODLAND		
MOJAVE MIXED SCRUB		
OPUNTIA BIGELOVII SHRUBLAND ALLIANCE		
YUCCA BREVIFOLIA WOODED SHRUBLAND ALLIANCE		
ASTRAGALUS CIMAE VAR CIMAE	CIMA MILK-VETCH	G2T2
OPUNTIA BASILARIS VAR BRACHYCLADA	SHORT-JOINT BEAVERTAIL	G5T1
PHACELIA ANELSONII	AVEN NELSON'S PHACELIA	G2G3
SAUROMALUS OBESUS OBESUS	WESTERN CHUCKWALLA	G5T4

HIKO SPRING-PAHRANAGAT

SIZE (Acres): 401 | % PRIVATE: 60 | % CLASS I AND II: 0 | SYSTEMS: AQ

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CRENICHTHYS BAILEYI GRANDIS	HIKO WHITE RIVER SPRINGFISH	G2T1
PYRGULOPSIS HUBBSI	HUBBS SPRINGSNAIL	G1

HIKO SPRINGS

SIZE (Acres): 1,627 | % PRIVATE: 0 | % CLASS I AND II: 43.1 | SYSTEMS: AQ RW DW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
INTERIOR RIPARIAN FOREST AND WOODLAND		
MESQUITE BOSQUE-BB		
BUFO BOREAS	WESTERN TOAD	G4
BUFO PUNCTATUS	RED SPOTTED TOAD	
LAMPROPELTIS GETULA CALIFORNIAE	CALIFORNIA (COMMON) KINGSNAKE	G5T5
PHAINOPEPLA NITENS	PHAINOPEPLA	G5
SAUROMALUS OBESUS OBESUS	WESTERN CHUCKWALLA	G5T4

HORSE THIEF CANYON

SIZE (Acres): 460 | % PRIVATE: 0 | % CLASS I AND II: 100 | SYSTEMS: RW DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
DESERT PAVEMENT / LAVA FLOW		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
SONORA-MOJAVE MIXED DESERT SCRUB		
OVIS CANADENSIS NELSONI	NELSON'S BIGHORN SHEEP	G4T3

HORSESHUTEM SPRINGS

SIZE (Acres): 1,078 | % PRIVATE: 6 | % CLASS I AND II: 35.3 | SYSTEMS: AQ

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
PYRGULOPSIS TURBATRIX	SOUTHEAST NEVADA SPRINGSNAIL	G2

HUALAPAI VALLEY

SIZE (Acres): 154,961 | % PRIVATE: 40 | % CLASS I AND II: 0 | SYSTEMS: DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BIG SAGEBRUSH - SPINY HOPSAGE SCRUB		
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
DESERT GRASSLAND AND SHRUB-STEPPE		
FOURWING SALTBUSH - WINTERFAT SCRUB		
INTERIOR RIPARIAN FOREST AND WOODLAND		
JOSHUA TREE WOODLAND		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
PINYON - JUNIPER WOODLAND		
PLAYA		
SALTBUSH SCRUB		
SEMI-DESERT CHAPARRAL		
SEMI-DESERT CHAPARRAL - MIXED OAK CHAPARRAL		
SHADSCALE SCRUB		
SONORA-MOJAVE MIXED DESERT SCRUB		
AQUILA CHRYSAETOS	GOLDEN EAGLE	G5
BUTEO REGALIS	FERRUGINOUS HAWK	
PHACELIA PARISHII	PARISH PHACELIA	G2G3
RAPTOR HABITAT		

IVANPAH DWMA

SIZE (Acres): 564,971 | % PRIVATE: 3 | % CLASS I AND II: 95.5 | SYSTEMS: DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CALIFORNIA JUNIPER WOODLAND		
CREOSOTE BUSH - MIXED SCRUB		
JOSHUA TREE WOODLAND		
MOJAVE MIXED SCRUB		
ARCTOMECON MERRIAMII	WHITE BEAR POPPY	G2
ASTRAGALUS CIMAE VAR CIMAE	CIMA MILK-VETCH	G2T2
CYMOPTERUS GILMANII	GILMAN'S CYMOPTERUS	G3?

GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
MATELEA PARVIFOLIA	SPEARLEAF	G5?
REPTILE SCRUB HABITAT		
SPHAERALCEA RUSBYI VAR EREMICOLA	RUSBY'S DESERT-MALLOW	G4T1
TOXOSTOMA BENDIREI	BENDIRE'S THRASHER	G5

JEAN DRY LAKE AND FOOTHILLS

SIZE (Acres): 12,974 % PRIVATE: 0 % CLASS I AND II: 10.5 SYSTEMS: DS DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
DESERT GRASSLAND AND SHRUB-STEPPE		
SALTBUSH SCRUB		
STABILIZED AND PARTIALLY-STABILIZED DESERT DUNES		
DIPODOMYS DESERTI	DESERT KANGAROO RAT	G5
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
PENSTEMON ALBOMARGINATUS	WHITE-MARGINED BEARDTONGUE	G2
REPTILE SCRUB HABITAT		

JOSHUA TREE NNL

SIZE (Acres): 217,647 % PRIVATE: 20 % CLASS I AND II: 50.6 SYSTEMS: DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
DESERT GRASSLAND AND SHRUB-STEPPE		
JOSHUA TREE WOODLAND		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
SALTBUSH SCRUB		
SEMI-DESERT CHAPARRAL		
SONORA-MOJAVE MIXED DESERT SCRUB		
ARCTOMECON CALIFORNICA	LAS VEGAS BEARPOPPY	G3
BAT HABITAT		
EMPIDONAX TRAILLII EXTIMUS	SOUTHWESTERN WILLOW FLYCATCHER	G5T2
ENCELIOPSIS ARGOPHYLLA	SILVERLEAF SUNRAY	G3
HELODERMA SUSPECTUM CINCTUM	BANDED GILA MONSTER	G4T3
MORTONIA SCABRELLA VAR UTAHENSIS	UTAH SANDPAPER BUSH	G4G5Q
PLECOTUS TOWNSENDII PALLESCENS	PALE TOWNSEND'S BIG EARED BAT	G4T4
XYRAUCHEN TEXANUS	RAZORBACK SUCKER	G1

KANE SPRINGS/PAHRANAGAT WASH

SIZE (Acres): 17,339 % PRIVATE: 30 % CLASS I AND II: 44.6 SYSTEMS: DW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
ACACIA GREGGII SHRUBLAND ALLIANCE		
BLACKBRUSH SCRUB - MIXED SCRUB		
CHILOPSIS LINEARIS INTERMITTENTLY FLOODED SHRUBLAND ALL		
CREOSOTE BUSH - MIXED SCRUB		
DESERT GRASSLAND AND SHRUB-STEPPE		
MOJAVE DESERT WASH		
DESERT WASH BIRD HABITAT		
HELODERMA SUSPECTUM CINCTUM	BANDED GILA MONSTER	G4T3

KINGMAN WASH

SIZE (Acres): 1,237 % PRIVATE: 0 % CLASS I AND II: 100 SYSTEMS: RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
SONORA-MOJAVE MIXED DESERT SCRUB		
ENCELIOPSIS ARGOPHYLLA	SILVERLEAF SUNRAY	G3
PENSTEMON BICOLOR SSP. BICOLOR	YELLOW TWOTONE BEARDTONGUE	G3T2Q

KINGSTON MOUNTAINS

SIZE (Acres): 46,327 % PRIVATE: 1 % CLASS I AND II: 87.1 SYSTEMS: LM UM

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CACTUS DIVERSITY		
CALIFORNIA JUNIPER WOODLAND		
CREOSOTE BUSH - MIXED SCRUB		
JOSHUA TREE WOODLAND		
NOLINA		
PINYON - JUNIPER WOODLAND		

SPRINGS		
WHITE FIR		
AGAVE UTAHENSIS VAR. NEVADENSIS	CLARK MOUNTAIN AGAVE	G4T3Q
ANTROZOUS PALLIDUS	PALLID BAT	G5
GALIUM HILENDIAE SSP KINGSTONENSE	KINGSTON MTNS. BEDSTRAW	G4T2
HELODERMA SUSPECTUM CINCTUM	BANDED GILA MONSTER	G4T3
IVESIA PATELLIFERA	KINGSTON MTNS. IVESIA	G1
LIMESTONE SUBSTRATES		
MACROTUS CALIFORNICUS	CALIFORNIA LEAF-NOSED BAT	G4
OVIS CANADENSIS NELSONI	NELSON'S BIGHORN SHEEP	G4T3
PENSTEMON FRUTICIFORMIS SSP. AMARGOSAE	DEATH VALLEY BEARDTONGUE	G3T2T3
PENSTEMON STEPHENSII	STEPHENS'S BEARDTONGUE	G2
PLECOTUS TOWNSENDII	TOWNSEND'S BIG-EARED BAT	G4
TAXIDEA TAXUS	AMERICAN BADGER	G5

KIUP SPRING

SIZE (Acres):	1,546	% PRIVATE:	0	% CLASS I AND II:	0	SYSTEMS: AQ

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
PYRGULOPSIS DEACONI	SPRING MOUNTAINS SPRINGSNAIL	G1

LA MADRE SPRING

SIZE (Acres):	1,487	% PRIVATE:	0	% CLASS I AND II:	100	SYSTEMS: AQ RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
PSEUDACRIS REGILLA	PACIFIC CHORUS FROG	G5
PYRGULOPSIS TURBATRIX	SOUTHEAST NEVADA SPRINGSNAIL	G2

LAKE MOJAVE

SIZE (Acres):	18,197	% PRIVATE:	13	% CLASS I AND II:	40.7	SYSTEMS: AQ RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
SALIX GOODINGII		
SONORA-MOJAVE MIXED DESERT SCRUB		
GILA ELEGANS	BONYTAIL	G1
XYRAUCHEN TEXANUS	RAZORBACK SUCKER	G1

LAS VEGAS BAY

SIZE (Acres):	6,114	% PRIVATE:	0	% CLASS I AND II:	1.6	SYSTEMS: AQ

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
XYRAUCHEN TEXANUS	RAZORBACK SUCKER	G1

LAVA BEDS

SIZE (Acres):	15,993	% PRIVATE:	0	% CLASS I AND II:	100	SYSTEMS: DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
JOSHUA TREE WOODLAND		
LAVA FLOW / EXPOSED BEDROCK		
SALTBUSH SCRUB		

LITTLEFIELD

SIZE (Acres):	2,191	% PRIVATE:	80	% CLASS I AND II:	8.1	SYSTEMS: AQ RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
INTERIOR RIPARIAN FOREST AND WOODLAND		
INTERIOR RIPARIAN SHRUBLAND		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
CATOSTOMUS CLARKI	DESERT SUCKER	G3G4
CATOSTOMUS LATIPINNIS	FLANNELMOUTH SUCKER	G3G4
CIRSIUM VIRGINENSE	VIRGIN RIVER THISTLE	G2
EMPIDONAX TRAILLII EXTIMUS	SOUTHWESTERN WILLOW FLYCATCHER	G5T2
GILA SEMINUDA	VIRGIN RIVER CHUB	G3
LEPIDOMEDA MOLLISPINIS	VIRGIN SPINEDACE	G1
PEDIOMELUM CASTOREUM	BEAVER DAM BREADROOT	G3
PLAGOPTERUS ARGENTISSIMUS	WOUNDFIN	G1
RANA YAVAPAIENSIS	LOWLAND LEOPARD FROG	G4

SOLIDAGO SPECTABILIS	REMARKABLE GOLDENROD	G4

LONE GRAPEVINE SPRING

SYSTEMS

SIZE (Acres): 476 % PRIVATE: 0 % CLASS I AND II: 100 AQ RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
PSEUDACRIS REGILLA	PACIFIC CHORUS FROG	G5

LOWER GOLD BUTTE

SYSTEMS

SIZE (Acres): 67,943 % PRIVATE: 0 % CLASS I AND II: 95.3 DW DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
MOJAVE DESERT WASH		
SPRINGS		
ARCTOMECON CALIFORNICA	LAS VEGAS BEARPOPPY	G3
ASTRAGALUS GEYERI VAR. TRIQUETRUS	THREECORNER MILKVETCH	G2G3
ERIOGONUM VISCIDULUM	STICKY BUCKWHEAT	G2
PEDIOMELUM CASTOREUM	BEAVER DAM BREADROOT	G3

LOWER GRANITE GORGE

SYSTEMS

SIZE (Acres): 2,255 % PRIVATE: 0 % CLASS I AND II: 100 RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
EMPIDONAX TRAILLII EXTIMUS	SOUTHWESTERN WILLOW FLYCATCHER	G5T2

LOWER MEADOW VALLEY WASH

SYSTEMS

SIZE (Acres): 2,866 % PRIVATE: 30 % CLASS I AND II: 0 RW DW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
MESQUITE BOSQUE-RW		
PEDIOMELUM CASTOREUM	BEAVER DAM BREADROOT	G3
PHAINOPEPLA NITENS	PHAINOPEPLA	G5
RIPARIAN BIRD HABITAT		

LOWER MUDDY R.

SYSTEMS

SIZE (Acres): 9,865 % PRIVATE: 70 % CLASS I AND II: 16.8 AQ RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
CIRSIUM VIRGINENSE	VIRGIN RIVER THISTLE	G2
GILA SEMINUDA	VIRGIN RIVER CHUB	G3
HESPEROPSIS GRACIELAE	MACNEILL SOOTY WING	G?
IXOBRYCHUS EXILIS HESPERIS	WESTERN LEAST BITTERN	G5T1

LOWER VIRGIN RIVER

SYSTEMS

SIZE (Acres): 4,385 % PRIVATE: 20 % CLASS I AND II: 60.5 AQ RW DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
INTERIOR RIPARIAN FOREST AND WOODLAND		
INTERIOR RIPARIAN MARSH AND SEEP		
INTERIOR RIPARIAN SHRUBLAND		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
ASTRAGALUS GEYERI VAR. TRIQUETRUS	THREECORNER MILKVETCH	G2G3
ASTRAGALUS NYENSIS	NYE MILKVETCH	G3
COCCYZUS AMERICANUS OCCIDENTALIS	WESTERN YELLOW-BILLED CUCKOO	G5T2T3
DENDROICA PETECHIA BREWSTERI	YELLOW WARBLER	G5T2
EMPIDONAX TRAILLII EXTIMUS	SOUTHWESTERN WILLOW FLYCATCHER	G5T2
ERIOGONUM VISCIDULUM	STICKY BUCKWHEAT	G2
FALCO PEREGRINUS	PEREGRINE FALCON	G3
GUIRACA CAERULEA	BLUE GROSBEAK	G5
ICTERIA VIRENS	YELLOW-BREASTED CHAT	G5
LANIUS LUDOVICIANUS	LOGGERHEAD SHRIKE	G5
LUTRA CANADENSIS SONORA	SOUTHWESTERN OTTER	G5T1
PEDIOMELUM CASTOREUM	BEAVER DAM BREADROOT	G3
PIPILO ABERTI	ABERT'S TOWHEE	G3G4
TOXOSTOMA CRISSALE	CRISSAL THRASHER	G5
VERMIVORA LUCIAE	LUCY'S WARBLER	G5
VIREO BELLII ARIZONAE	ARIZONA BELL'S VIREO	G5T1

LYTLE RANCH

SIZE (Acres): 6,379 % PRIVATE: 8 % CLASS I AND II: 87.5 SYSTEMS: AQ RW DW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
FOURWING SALTBUSH - WINTERFAT SCRUB		
INTERIOR RIPARIAN FOREST AND WOODLAND		
CALYPTE COSTAE	COSTA'S HUMMINGBIRD	G5
CATOSTOMUS CLARKI	DESERT SUCKER	G3G4
DIPODOMYS DESERTI	DESERT KANGAROO RAT	G5
LEPIDOMEDA MOLLISPINIS	VIRGIN SPINEDACE	G1
PHAINOPEPLA NITENS	PHAINOPEPLA	G5
VIREO BELLII ARIZONAE	ARIZONA BELL'S VIREO	G5T1

MCCULLOUGH RANGE

SIZE (Acres): 122,174 % PRIVATE: 7 % CLASS I AND II: 72.5 SYSTEMS: LM

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BIG SAGEBRUSH - SPINY HOPSAGE SCRUB		
BLACKBRUSH SCRUB - MIXED SCRUB		
CACTUS DIVERSITY		
CREOSOTE BUSH - MIXED SCRUB		
DESERT GRASSLAND AND SHRUB-STEPPE		
JOSHUA TREE WOODLAND		
PINYON - JUNIPER WOODLAND		
SEMI-DESERT CHAPARRAL - MOUNTAIN MAHOGANY - MIXED SHRU		
UTAH JUNIPER WOODLAND		
HELODERMA SUSPECTUM CINCTUM	BANDED GILA MONSTER	G4T3
OVIS CANADENSIS NELSONI	NELSON'S BIGHORN SHEEP	G4T3
PENSTEMON ALBOMARGINATUS	WHITE-MARGINED BEARDTONGUE	G2
PENSTEMON BICOLOR SSP. BICOLOR	YELLOW TWOTONE BEARDTONGUE	G3T2Q
PENSTEMON BICOLOR SSP. ROSEUS	ROSY TWOTONE BEARDTONGUE	G3T3Q
SAUROMALUS OBESUS OBESUS	WESTERN CHUCKWALLA	G5T4

MEADOW VALLEY WASH

SIZE (Acres): 14,603 % PRIVATE: 20 % CLASS I AND II: 56.7 SYSTEMS: AQ RW DW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
MOJAVE DESERT WASH		
CATOSTOMUS CLARKI SSP. 2	MEADOW VALLEY WASH DESERT SUCKER	G4T2
HELODERMA SUSPECTUM CINCTUM	BANDED GILA MONSTER	G4T3
RHINICHTHYS OSCULUS SSP. 2	MEADOW VALLEY SPECKLED DACE	G5T2

MID-HILLS

SIZE (Acres): 4,858 % PRIVATE: 2 % CLASS I AND II: 95.9 SYSTEMS: DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BIG SAGEBRUSH - SPINY HOPSAGE SCRUB		
CACTUS GARDEN		
CALIFORNIA JUNIPER WOODLAND		
CREOSOTE BUSH - MIXED SCRUB		
JOSHUA TREE WOODLAND		
PINYON - JUNIPER WOODLAND		
SPRINGS		
ASTRAGALUS CIMAE VAR CIMAE	CIMA MILK-VETCH	G2T2
LANDSCAPE QUALITY		
OVIS CANADENSIS NELSONI	NELSON'S BIGHORN SHEEP	G4T3
TOXOSTOMA BENDIREI	BENDIRE'S THRASHER	G5
TOXOSTOMA LECONTEI	LE CONTE'S THRASHER	G4

MIDDLE POINT

SIZE (Acres): 831 % PRIVATE: 0 % CLASS I AND II: 57 SYSTEMS: DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
ASTRAGALUS GEYERI VAR. TRIQUETRUS	THREECORNER MILKVETCH	G2G3
ERIOGONUM VISCIDULUM	STICKY BUCKWHEAT	G2

MIDDLE SPRINGS

SIZE (Acres): 2,422 % PRIVATE: 0.6 % CLASS I AND II: 64.1 SYSTEMS: AQ RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
DESERT GRASSLAND AND SHRUB-STEPPE		
PSEUDACRIS REGILLA	PACIFIC CHORUS FROG	G5
PYRGULOPSIS BACCHUS	GRAND WASH SPRINGSNAIL	G1

MIDDLE VIRGIN RIVER

SIZE (Acres): 21,741 % PRIVATE: 30 % CLASS I AND II: 32.8 SYSTEMS: AQ RW DW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
ASTRAGALUS GEYERI VAR. TRIQUETRUS	THREECORNER MILKVETCH	G2G3
ASTRAGALUS NYENSIS	NYE MILKVETCH	G3
CALYPTE COSTAE	COSTA'S HUMMINGBIRD	G5
CATOSTOMUS LATIPINNIS	FLANNELMOUTH SUCKER	G3G4
EMPIDONAX TRAILLII EXTIMUS	SOUTHWESTERN WILLOW FLYCATCHER	G5T2
ERIOGONUM VISCIDULUM	STICKY BUCKWHEAT	G2
GILA SEMINUDA	VIRGIN RIVER CHUB	G3
GUIRACA CAERULEA	BLUE GROSBEAK	G5
PEDIOMELUM CASTOREUM	BEAVER DAM BREADROOT	G3
PHAINOPEPLA NITENS	PHAINOPEPLA	G5
PLAGOPTERUS ARGENTISSIMUS	WOUNDFIN	G1
RANA ONCA	RELICT LEOPARD FROG	G1

MORMON GREEN SPRINGS

SIZE (Acres): 365 % PRIVATE: 2 % CLASS I AND II: 94.8 SYSTEMS: AQ RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
PSEUDACRIS REGILLA	PACIFIC CHORUS FROG	G5

MORMON MESA - LOWER

SIZE (Acres): 88,330 % PRIVATE: 3 % CLASS I AND II: 2.2 SYSTEMS: DS DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
ASTRAGALUS GEYERI VAR. TRIQUETRUS	THREECORNER MILKVETCH	G2G3
DIPSOSAURUS DORSALIS	DESERT IGUANA	G5
ERIOGONUM VISCIDULUM	STICKY BUCKWHEAT	G2
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
PEDIOMELUM CASTOREUM	BEAVER DAM BREADROOT	G3
REPTILE SCRUB HABITAT		

MORMON MESA - UPPER

SIZE (Acres): 240,104 % PRIVATE: 0.3 % CLASS I AND II: 85.9 SYSTEMS: DS DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
DESERT GRASSLAND AND SHRUB-STEPPE		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
ASTRAGALUS GEYERI VAR. TRIQUETRUS	THREECORNER MILKVETCH	G2G3
ASTRAGALUS NYENSIS	NYE MILKVETCH	G3
DIPSOSAURUS DORSALIS	DESERT IGUANA	G5
ERIOGONUM VISCIDULUM	STICKY BUCKWHEAT	G2
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
HELODERMA SUSPECTUM CINCTUM	BANDED GILA MONSTER	G4T3

MORMON MOUNTAINS

SIZE (Acres): 117,038 % PRIVATE: 0 % CLASS I AND II: 86.6 SYSTEMS: LM

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BIG SAGEBRUSH - SPINY HOPSAGE SCRUB		
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
DESERT GRASSLAND AND SHRUB-STEPPE		
PINYON - JUNIPER WOODLAND		

SEMI-DESERT CHAPARRAL - MOUNTAIN MAHOGANY - MIXED SHRU		
UTAH JUNIPER WOODLAND		
AGAVE UTAHENSIS VAR. NEVADENSIS	CLARK MOUNTAIN AGAVE	G4T3Q
OVIS CANADENSIS NELSONI	NELSON'S BIGHORN SHEEP	G4T3

MORMON WELL

SIZE (Acres): 462 % PRIVATE: 20 % CLASS I AND II: 79.7 SYSTEMS: AQ

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
AQUATIC HABITAT		
CREOSOTE BUSH - MIXED SCRUB		
LEPIDOMEDA MOLLISPINIS	VIRGIN SPINEDACE	G1

NELLIS AFB

SIZE (Acres): 2,825 % PRIVATE: 0 % CLASS I AND II: 0 SYSTEMS: DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
ARCTOMECON CALIFORNICA	LAS VEGAS BEARPOPPY	G3
GYPSUM SUBSTRATES		
HELODERMA SUSPECTUM CINCTUM	BANDED GILA MONSTER	G4T3

NEW YORK MTN

SIZE (Acres): 102,737 % PRIVATE: 20 % CLASS I AND II: 76.5 SYSTEMS: DU LM UM

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BIG SAGEBRUSH - SPINY HOPSAGE SCRUB		
BLACKBRUSH SCRUB - MIXED SCRUB		
CALIFORNIA JUNIPER WOODLAND		
CANYON LIVE OAK		
COASTAL CHAPARRAL		
CREOSOTE BUSH - MIXED SCRUB		
JOSHUA TREE - BIG GALLETA SPARSE WOODLAND		
JOSHUA TREE WOODLAND		
LIVE OAK WOODLAND		
OAK WOODLAND		
PINYON - JUNIPER WOODLAND		
SCRUB OAK		
SEMI-DESERT CHAPARRAL		
SPRINGS		
TWO-LEAVED PINYON		
WHITE FIR		
ARGYROCHOSMA LIMITANEA VAR LIMITANEA	CLOAK FERN	G?T3T4
ASTRAGALUS CIMAE VAR CIMAE	CIMA MILK-VETCH	G2T2
ERIODICTYON ANGUSTIFOLIUM		G5
ERIOGONUM ERICIFOLIUM VAR THORNEI	THORNE'S BUCKWHEAT	G3T1
EUMECES GILBERTI RUBRICAUDATUS	WESTERN REDTAIL SKINK	G5T4
LIMESTONE SUBSTRATES		
LOTUS ARGYRAEUS VAR MULTICAULIS	SCRUB LOTUS	G4?T1
LYCURUS PHLEOIDES VAR PHLEOIDES	WOLFTAIL	G5T4?
OVIS CANADENSIS NELSONI	NELSON'S BIGHORN SHEEP	G4T3
PIRANGA FLAVA	HEPATIC TANAGER	G5
SAUROMALUS OBESUS OBESUS	WESTERN CHUCKWALLA	G5T4
SEDUM NIVEUM		G3S3.2
TAMIAS PANAMINTINUS	PANAMINT CHIPMUNK	G4
TOXOSTOMA CRISSALE	CRISSAL THRASHER	G5
VIREO VICINIOR	GRAY VIREO	G5

NEWBERRY MOUNTAINS

SIZE (Acres): 91,119 % PRIVATE: 0 % CLASS I AND II: 91.3 SYSTEMS: DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
CHARINA TRIVIRGATA	ROSY BOA	G5
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
HELODERMA SUSPECTUM CINCTUM	BANDED GILA MONSTER	G4T3
OVIS CANADENSIS NELSONI	NELSON'S BIGHORN SHEEP	G4T3
SAUROMALUS OBESUS OBESUS	WESTERN CHUCKWALLA	G5T4

OATMAN BAT COMPLEX

SIZE (Acres): 22,141 % PRIVATE: 10 % CLASS I AND II: 8.4 SYSTEMS: DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		

SONORA MIXED DESERT SCRUB - BRITTLEBUSH		
SONORA-MOJAVE MIXED DESERT SCRUB		
BAT HABITAT		
GOPHERUS AGASSIZII (SONORAN POPULATION)	SONORAN DESERT TORTOISE	G4T4

OVERTON WILDLIFE MANAGEMENT ARE

SYSTEMS: RW

SIZE (Acres): 2,461 % PRIVATE: 9 % CLASS I AND II: 87.5

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
CIRSIUM VIRGINENSE	VIRGIN RIVER THISTLE	G2
EMPIDONAX TRAILLII EXTIMUS	SOUTHWESTERN WILLOW FLYCATCHER	G5T2
RAPTOR HABITAT		
RIPARIAN BIRD HABITAT		
VERMIVORA LUCIAE	LUCY'S WARBLER	G5

PACHALCA SPRINGS

SYSTEMS: RW

SIZE (Acres): 356 % PRIVATE: 0 % CLASS I AND II: 100

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CALIFORNIA JUNIPER WOODLAND		
RIPARIAN HABITAT		
HELODERMA SUSPECTUM CINCTUM	BANDED GILA MONSTER	G4T3
OVIS CANADENSIS NELSONI	NELSON'S BIGHORN SHEEP	G4T3
RARE PLANTS		

PAHRANAGAT VALLEY

SYSTEMS: AQ RW

SIZE (Acres): 16,850 % PRIVATE: 50 % CLASS I AND II: 21.8

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BIG SAGEBRUSH - SPINY HOPSAGE SCRUB		
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
FOURWING SALTBUSH - WINTERFAT SCRUB		
INTERIOR RIPARIAN MARSH AND SEEP		
INTERIOR RIPARIAN SHRUBLAND		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
PERENNIAL STREAM		
SPRINGS		
BUFO BOREAS	WESTERN TOAD	G4
BUFO COGNATUS	GREAT PLAINS TOAD	G5
CATOSTOMUS CLARKI INTERMEDIUS	WHITE RIVER DESERT SUCKER	G4T1T2
COCCYZUS AMERICANUS OCCIDENTALIS	WESTERN YELLOW-BILLED CUCKOO	G5T2T3
CRENICHTHYS BAILEYI BAILEYI	WHITE RIVER SPRINGFISH	G2T1
CRENICHTHYS BAILEYI GRANDIS	HIKO WHITE RIVER SPRINGFISH	G2T1
DENDROICA PETECHIA BREWSTERI	YELLOW WARBLER	G5T2
EMPIDONAX TRAILLII EXTIMUS	SOUTHWESTERN WILLOW FLYCATCHER	G5T2
FALCO PEREGRINUS	PEREGRINE FALCON	G3
GILA ROBUSTA JORDANI	PAHRANAGAT ROUNDTAIL CHUB	G3T1
GUIRACA CAERULEA	BLUE GROSBEAK	G5
HELODERMA SUSPECTUM CINCTUM	BANDED GILA MONSTER	G4T3
ICTERIA VIRENS	YELLOW-BREASTED CHAT	G5
LANIUS LUDOVICIANUS	LOGGERHEAD SHRIKE	G5
MICROTUS MONTANUS FUCOSUS	PAHRANAGAT VALLEY MONTANE VOLE	G5T1
PIRANGA RUBRA	SUMMER TANAGER	G5
PYRGULOPSIS MERRIAMI	PAHRANAGAT PEBBLESNAIL	G1
RANA PIPIENS	NORTHERN LEOPARD FROG	G5
RHINICHTHYS OSCULUS VELIFER	WHITE RIVER SPECKLED DACE	G5T1
RHINICHTHYS SP. 3	PAHRANAGAT DACE	G1Q
STENELMIS OCCIDENTALIS	RIFFLE BEETLE	G5
TRYONIA CLATHRATA	GRATED TRYONIA	G2

PEDRETTI SEEPS

SYSTEMS: AQ

SIZE (Acres): 95 % PRIVATE: 80 % CLASS I AND II: 0

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
RHINICHTHYS OSCULUS VELIFER	WHITE RIVER SPECKLED DACE	G5T1

PIERCE FERRY DELTA

SIZE (Acres): 1,135 % PRIVATE: 0 % CLASS I AND II: 100 SYSTEMS: RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
JUNCUS BALTICUS SEASONALLY FLOODED HERBACEOUS ALLIANC		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
EMPIDONAX TRAILLII EXTIMUS	SOUTHWESTERN WILLOW FLYCATCHER	G5T2

PINE CREEK SPRING

SIZE (Acres): 389 % PRIVATE: 0 % CLASS I AND II: 100 SYSTEMS: AQ

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
PSEUDACRIS REGILLA	PACIFIC CHORUS FROG	G5

PINTWATER RANGE

SIZE (Acres): 33,408 % PRIVATE: 0 % CLASS I AND II: 100 SYSTEMS: DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BIG SAGEBRUSH - SPINY HOPSAGE SCRUB		
BLACKBRUSH SCRUB - MIXED SCRUB		
FOURWING SALTBUSH - WINTERFAT SCRUB		
ARABIS SHOCKLEYI	SHOCKLEY'S ROCK CRESS	G3
ARCTOMECON MERRIAMII	WHITE BEAR POPPY	G2
ASTRAGALUS ACKERMANII	ACKERMAN MILKVETCH	G2
ASTRAGALUS MOHAVENSIS VAR. HEMIGYRUS	HALFRING MILKVETCH	G3T2
CHRYSOTHAMNUS EREMOBIUS	REMOTE RABBITBRUSH	G1
GILIA RIPLEYI	RIPLEY'S GILIA	G2G3
PERITYLE INTRICATA	DELICATE ROCKDAISY	G3

PIPE SPRING

SIZE (Acres): 367 % PRIVATE: 0 % CLASS I AND II: 100 SYSTEMS: DW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
ACACIA GREGGII SHRUBLAND ALLIANCE		
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
SPRINGS		
ANTROZOUS PALLIDUS	PALLID BAT	G5
ATHENE CUNICULARIA	BURROWING OWL	G4
LANIUS LUDOVICIANUS	LOGGERHEAD SHRIKE	G5
PHAINOPEPLA NITENS	PHAINOPEPLA	G5
PIPILO ABERTI	ABERT'S TOWHEE	G3G4
TOXOSTOMA CRISSALE	CRISSAL THRASHER	G5
TOXOSTOMA LECONTEI	LE CONTE'S THRASHER	G4

PIUTE GORGE

SIZE (Acres): 2,310 % PRIVATE: 6 % CLASS I AND II: 94.2 SYSTEMS: AQ RW DW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
ACACIA GREGGII SHRUBLAND ALLIANCE		
CHILOPSIS LINEARIS INTERMITTENTLY FLOODED SHRUBLAND ALL		
CREOSOTE BUSH - MIXED SCRUB		
INTERIOR RIPARIAN FOREST AND WOODLAND		
JOSHUA TREE WOODLAND		
MESQUITE BOSQUE-BB		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
MOJAVE DESERT WASH		
PHRAGMITES AUSTRALIS SEMIPERMANENTLY FLOODED HERBACE		
SPRINGS		
GILA BICOLOR MOHAVENSIS	MOHAVE TUI CHUB	G4T1
HELODERMA SUSPECTUM CINCTUM	BANDED GILA MONSTER	G4T3
RIPARIAN BIRD HABITAT		
VIREO BELLII ARIZONAE	ARIZONA BELL'S VIREO	G5T1

PIUTE WASH

SIZE (Acres): 13,578 % PRIVATE: 2 % CLASS I AND II: 97.7 SYSTEMS: DW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
JOSHUA TREE WOODLAND		
MOJAVE DESERT WASH		
TOXOSTOMA LECONTEI	LE CONTE'S THRASHER	G4

PIUTE/ELDORADO/FENNER DWMA

SYSTEMS

SIZE (Acres): 1,152,910 % PRIVATE: 10 % CLASS I AND II: 85.7 DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CALIFORNIA JUNIPER WOODLAND		
CREOSOTE BUSH - MIXED SCRUB		
DESERT GRASSLAND AND SHRUB-STEPPE		
FOUQUIERIA SPLENDENS SHRUBLAND		
FOURWING SALTBUSH - WINTERFAT SCRUB		
INTERIOR RIPARIAN FOREST AND WOODLAND		
JOSHUA TREE - BIG GALLETA SPARSE WOODLAND		
JOSHUA TREE WOODLAND		
MESQUITE BOSQUE-BB		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
MOJAVE DESERT WASH		
SONORA-MOJAVE MIXED DESERT SCRUB		
ARIZONA ELEGANS	GLOSSY SNAKE	G5
ASTRAGALUS ALLOCHROUS VAR PLAYANUS	PLAYA MILK-VETCH	G4T3?Q
COLEONYX VARIEGATUS	BANDED GECKO	G5
CROTALUS CERASTES	SIDEWINDER	G5
CROTALUS SCUTULATUS	MOJAVE GREEN RATTLESNAKE	G5
DIPSOSAURUS DORSALIS	DESERT IGUANA	G5
ECHINOCEREUS ENGELMANNII VAR HOWEI	HOWE'S HEDGEHOG CACTUS	G5T1
FALCO PEREGRINUS	PEREGRINE FALCON	G3
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
HELODERMA SUSPECTUM CINCTUM	BANDED GILA MONSTER	G4T3
MACROTUS CALIFORNICUS	CALIFORNIA LEAF-NOSED BAT	G4
OPUNTIA BASILARIS VAR BRACHYCLADA	SHORT-JOINT BEAVERTAIL	G5T1
OVIS CANADENSIS NELSONI	NELSON'S BIGHORN SHEEP	G4T3
PENSTEMON ALBOMARGINATUS	WHITE-MARGINED BEARDTONGUE	G2
PENSTEMON BICOLOR SSP. ROSEUS	ROSY TWOTONE BEARDTONGUE	G3T3Q
PHRYNOSOMA CORONATUM BLAINVILLEI	SAN DIEGO HORNED LIZARD	G4T3T4
RANA ONCA	RELICT LEOPARD FROG	G1
REPTILE SCRUB HABITAT		
TOXOSTOMA BENDIREI	BENDIRE'S THRASHER	G5
TOXOSTOMA CRISSALE	CRISSAL THRASHER	G5
TOXOSTOMA LECONTEI	LE CONTE'S THRASHER	G4
XANTUSIA VIGILIS	DESERT NIGHT LIZARD	G5

PRICE CITY HILLS

SYSTEMS

SIZE (Acres): 5,902 % PRIVATE: 6 % CLASS I AND II: 0 DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
DESERT GRASSLAND AND SHRUB-STEPPE		
ARCTOMECON HUMILIS	DWARF BEARCLAW-POPPY	G1
ASTRAGALUS AMPULLARIOIDES		G1Q
DIPODOMYS MERRIAMI FRENATUS	MERRIAM'S KANGAROO RAT	G5T-UNIDENTIFED
GAMBELIA WISLIZENII	LEOPARD LIZARD	
PEDIOCACTUS SILERI	SILER PINCUSHION CACTUS	G3

PROVIDENCE MTN

SYSTEMS

SIZE (Acres): 29,074 % PRIVATE: 10 % CLASS I AND II: 76.4 DU LM UM

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CACTUS GARDEN		
CALIFORNIA JUNIPER WOODLAND		
COASTAL CHAPARRAL		
CREOSOTE BUSH - MIXED SCRUB		
JOSHUA TREE WOODLAND		
PINYON - JUNIPER WOODLAND		
WHITE FIR		
CRYPTANTHA TUMULOSA	NEW YORK MOUNTAINS CATSEYE	G3?
HELODERMA SUSPECTUM CINCTUM	BANDED GILA MONSTER	G4T3
OVIS CANADENSIS NELSONI	NELSON'S BIGHORN SHEEP	G4T3
PENSTEMON CALCAREUS	LIMESTONE BEARDTONGUE	G2
PENSTEMON STEPHENSII	STEPHENS'S BEARDTONGUE	G2
TOXOSTOMA BENDIREI	BENDIRE'S THRASHER	G5
TOXOSTOMA LECONTEI	LE CONTE'S THRASHER	G4

PYRAMID PEAK

SIZE (Acres): 67,771 % PRIVATE: 0 % CLASS I AND II: 97.6 SYSTEMS: DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
ARCTOMECON CALIFORNICA	LAS VEGAS BEARPOPPY	G3
ASTRAGALUS GEYERI VAR. TRIQUETRUS	THREECORNER MILKVETCH	G2G3
ERIOGONUM VISCIDULUM	STICKY BUCKWHEAT	G2
HELODERMA SUSPECTUM CINCTUM	BANDED GILA MONSTER	G4T3

QUAIL CREEK

SIZE (Acres): 1,805 % PRIVATE: 40 % CLASS I AND II: 7.8 SYSTEMS: RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
FOURWING SALTBUSH - WINTERFAT SCRUB		
RIPARIAN HABITAT		
UTAH JUNIPER WOODLAND		
COCCYZUS AMERICANUS OCCIDENTALIS	WESTERN YELLOW-BILLED CUCKOO	G5T2T3
HELODERMA SUSPECTUM CINCTUM	BANDED GILA MONSTER	G4T3

RAINBOW CANYON

SIZE (Acres): 5,843 % PRIVATE: 20 % CLASS I AND II: 0 SYSTEMS: AQ RW DW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
ANTROZOUS PALLIDUS	PALLID BAT	G5
BUFO MICROSCAPHUS MICROSCAPHUS	ARIZONA TOAD	G4T3
CATOSTOMUS CLARKI SSP. 2	MEADOW VALLEY WASH DESERT SUCKER	G4T2
COCCYZUS AMERICANUS OCCIDENTALIS	WESTERN YELLOW-BILLED CUCKOO	G5T2T3
GUIRACA CAERULEA	BLUE GROSBEAK	G5
HELODERMA SUSPECTUM CINCTUM	BANDED GILA MONSTER	G4T3
ICTERIA VIRENS	YELLOW-BREASTED CHAT	G5
LANIUS LUDOVICIANUS	LOGGERHEAD SHRIKE	G5
MYOTIS CALIFORNICUS	CALIFORNIA MYOTIS	G5
PHAINOPEPLA NITENS	PHAINOPEPLA	G5
PIRANGA RUBRA	SUMMER TANAGER	G5
PYROCEPHALUS RUBINUS	VERMILION FLYCATCHER	G5
RAPTOR HABITAT		
RHINICHTHYS OSCULUS SSP. 2	MEADOW VALLEY SPECKLED DACE	G5T2

RAINBOW SPRING

SIZE (Acres): 490 % PRIVATE: 0 % CLASS I AND II: 100 SYSTEMS: AQ RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BUFO PUNCTATUS	RED SPOTTED TOAD	
PSEUDACRIS REGILLA	PACIFIC CHORUS FROG	G5

RED CLIFFS DESERT RESERVE

SIZE (Acres): 22,470 % PRIVATE: 31 % CLASS I AND II: 24.4 SYSTEMS: DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
DESERT GRASSLAND AND SHRUB-STEPPE		
FOURWING SALTBUSH - WINTERFAT SCRUB		
UTAH JUNIPER WOODLAND		
CAMISSONIA GOULDII	DIAMOND VALLEY SUNCUP	G1
CROTALUS CERASTES	SIDEWINDER	G5
FALCO PEREGRINUS	PEREGRINE FALCON	G3
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
HELODERMA SUSPECTUM CINCTUM	BANDED GILA MONSTER	G4T3
SAUROMALUS OBESUS OBESUS	WESTERN CHUCKWALLA	G5T4

RED LAKE EDGE

SIZE (Acres): 185 % PRIVATE: 60 % CLASS I AND II: 0 SYSTEMS: DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		

DESERT GRASSLAND AND SHRUB-STEPPE		
PLAYA		
SONORA-MOJAVE MIXED DESERT SCRUB		
PHACELIA PARISHII	PARISH PHACELIA	G2G3

RED SPRING - SM

SIZE (Acres):	% PRIVATE:	% CLASS I AND II:	SYSTEMS
721	10	82.2	AQ

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
PYRGULOPSIS DEACONI	SPRING MOUNTAINS SPRINGSNAIL	G1

RIVER MOUNTAINS

SIZE (Acres):	% PRIVATE:	% CLASS I AND II:	SYSTEMS
18,070	6	92.9	DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
DESERT GRASSLAND AND SHRUB-STEPPE		
ERIOGONUM FASCICULATUM SHRUBLAND ALLIANCE		
ATHENE CUNICULARIA	BURROWING OWL	G4
DIPSOSAURUS DORSALIS	DESERT IGUANA	G5
FALCO PEREGRINUS	PEREGRINE FALCON	G3
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
HELODERMA SUSPECTUM CINCTUM	BANDED GILA MONSTER	G4T3
OVIS CANADENSIS NELSONI	NELSON'S BIGHORN SHEEP	G4T3
SAUROMALUS OBESUS OBESUS	WESTERN CHUCKWALLA	G5T4

RIVERSIDE BRIDGE

SIZE (Acres):	% PRIVATE:	% CLASS I AND II:	SYSTEMS
2,073	0	26.7	DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
ASTRAGALUS GEYERI VAR. TRIQUETRUS	THREECORNER MILKVETCH	G2G3
ERIOGONUM VISCIDULUM	STICKY BUCKWHEAT	G2

RIVERSIDE MARSH

SIZE (Acres):	% PRIVATE:	% CLASS I AND II:	SYSTEMS
1,019	+02	0	RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
INTERIOR RIPARIAN FOREST AND WOODLAND		
INTERIOR RIPARIAN MARSH AND SEEP		
EMPIDONAX TRAILLII EXTIMUS	SOUTHWESTERN WILLOW FLYCATCHER	G5T2
SHOREBIRD HABITAT		

ROACH LAKE

SIZE (Acres):	% PRIVATE:	% CLASS I AND II:	SYSTEMS
14,730	0.8	0	DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
STABILIZED AND PARTIALLY-STABILIZED DESERT DUNES		
CHARINA TRIVIRGATA	ROSY BOA	G5
CHARINA TRIVIRGATA GRACIA	DESERT ROSY BOA	G5T3
CROTALUS CERASTES	SIDEWINDER	G5
CROTALUS MITCHELLII	SPECKLED RATTLESNAKE	G5
CROTALUS SCUTULATUS	MOJAVE GREEN RATTLESNAKE	G5
DIPSOSAURUS DORSALIS	DESERT IGUANA	G5
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
HELODERMA SUSPECTUM CINCTUM	BANDED GILA MONSTER	G4T3
PENSTEMON ALBOMARGINATUS	WHITE-MARGINED BEARDTONGUE	G2
PENSTEMON BICOLOR SSP. BICOLOR	YELLOW TWOTONE BEARDTONGUE	G3T2Q
PENSTEMON BICOLOR SSP. ROSEUS	ROSY TWOTONE BEARDTONGUE	G3T3Q

ROGERS SPRING

SIZE (Acres):	% PRIVATE:	% CLASS I AND II:	SYSTEMS
299	0	100	AQ RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
RANA ONCA	RELICT LEOPARD FROG	G1

SALT CREEK

SIZE (Acres): 4,772 % PRIVATE: 0 % CLASS I AND II: 71.4 SYSTEMS: AQ RW DW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
MESQUITE BOSQUE-RW		
PERENNIAL STREAM		
PHRAGMITES AUSTRALIS SEMIPERMANENTLY FLOODED HERBACE		
SPRINGS		
STABILIZED AND PARTIALLY-STABILIZED DESERT DUNES		
ANTROZOUS PALLIDUS	PALLID BAT	G5
BAT HABITAT		
CYPRINODON NEVADENSIS AMARGOSAE	AMARGOSA PUPFISH	G2T1
EUMOPS PEROTIS CALIFORNICUS	GREATER WESTERN MASTIFF BAT	G5T4
LINANTHUS ARENICOLA	SAND LINANTHUS	G2?
MACROTUS CALIFORNICUS	CALIFORNIA LEAF-NOSED BAT	G4
MIGRATORY BIRD HABITAT		
MYOTIS CALIFORNICUS	CALIFORNIA MYOTIS	G5
MYOTIS THYSANODES	FRINGED MYOTIS	G5
NEOTROPICAL MIGRATORY BIRD HABITAT		
OVIS CANADENSIS NELSONI	NELSON'S BIGHORN SHEEP	G4T3
PLECOTUS TOWNSENDII	TOWNSEND'S BIG-EARED BAT	G4
RHINICHTHYS OSCULUS SSP 1	AMARGOSA CANYON SPECKLED DACE	G5T1

SAND HOLLOW WASH

SIZE (Acres): 1,872 % PRIVATE: 0 % CLASS I AND II: 100 SYSTEMS: DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
ASTRAGALUS GEYERI VAR. TRIQUETRUS	THREECORNER MILKVETCH	G2G3
ERIOGONUM VISCIDULUM	STICKY BUCKWHEAT	G2
PEDIOMELUM CASTOREUM	BEAVER DAM BREADROOT	G3

SANDY POINT

SIZE (Acres): 442 % PRIVATE: 0 % CLASS I AND II: 100 SYSTEMS: DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
STABILIZED AND PARTIALLY-STABILIZED DESERT DUNES		
PEDIOMELUM CASTOREUM	BEAVER DAM BREADROOT	G3

SANTA CLARA RIVER

SIZE (Acres): 3,622 % PRIVATE: 40 % CLASS I AND II: 0 SYSTEMS: AQ RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
FOURWING SALTBUSH - WINTERFAT SCRUB		
INTERIOR RIPARIAN FOREST AND WOODLAND		
UTAH JUNIPER WOODLAND		
BUFO MICROSCAPHUS MICROSCAPHUS	ARIZONA TOAD	G4T3
BUFO PUNCTATUS	RED SPOTTED TOAD	
CATOSTOMUS CLARKI	DESERT SUCKER	G3G4
CATOSTOMUS LATIPINNIS	FLANNELMOUTH SUCKER	G3G4
COCCYZUS AMERICANUS OCCIDENTALIS	WESTERN YELLOW-BILLED CUCKOO	G5T2T3
HELODERMA SUSPECTUM CINCTUM	BANDED GILA MONSTER	G4T3
LEPIDOMEDA MOLLISPINIS	VIRGIN SPINEDACE	G1
PIRANGA RUBRA	SUMMER TANAGER	G5
RHINICHTHYS OSCULUS	SPECKLED DACE	G5

SARATOGA SPRINGS

SIZE (Acres): 7,585 % PRIVATE: 0 % CLASS I AND II: 100 SYSTEMS: AQ RW DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
ALKALI MEADOW / SEEP		
FOURWING SALTBUSH - WINTERFAT SCRUB		
JOSHUA TREE WOODLAND		
SPRINGS		
STABILIZED AND PARTIALLY-STABILIZED DESERT DUNES		
CORDYLANTHUS TECOPENSIS	TECOPA BIRD'S-BEAK	G2
CYPRINODON NEVADENSIS NEVADENSIS	SARATOGA SPRINGS PUPFISH	G2T1
MIGRATORY BIRD HABITAT		
PSEUDACRIS REGILLA	PACIFIC CHORUS FROG	G5

UMA SCOPARIA	MOJAVE FRINGE-TOED LIZARD	

SEGMILLERS POND

SIZE (Acres): 2,969 % PRIVATE: 100 % CLASS I AND II: 0 SYSTEMS: RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
INTERIOR RIPARIAN FOREST AND WOODLAND		
INTERIOR RIPARIAN MARSH AND SEEP		
ATHENE CUNICULARIA	BURROWING OWL	G4
EMPIDONAX TRAILLII EXTIMUS	SOUTHWESTERN WILLOW FLYCATCHER	G5T2
GUIRACA CAERULEA	BLUE GROSBEAK	G5
PIPILO ABERTI	ABERT'S TOWHEE	G3G4
SHOREBIRD HABITAT		
TOXOSTOMA CRISSALE	CRISSAL THRASHER	G5
VIREO BELLII ARIZONAE	ARIZONA BELL'S VIREO	G5T1

SHEEP RANGE

SIZE (Acres): 377,028 % PRIVATE: 0 % CLASS I AND II: 99.9 SYSTEMS: DS DU LM UM

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
B.PINE-WHITE FIR-LIMBER PINE WOODLAND		
BIG SAGEBRUSH - SPINY HOPSAGE SCRUB		
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
CURL-LEAF MOUNTAIN MAHOGANY- PINYON PINE WOODLAND		
DESERT GRASSLAND AND SHRUB-STEPPE		
FOURWING SALTBUSH - WINTERFAT SCRUB		
PINYON - JUNIPER WOODLAND		
SEMI-DESERT CHAPARRAL		
SEMI-DESERT CHAPARRAL - MOUNTAIN MAHOGANY - MIXED SHRU		
SPRINGS		
UTAH JUNIPER WOODLAND		
WHITE FIR - PONDEROSA PINE - MOUNTAIN MAHOGANY		
AGAVE UTAHENSIS VAR. EBORISPINA	IVORY-SPINED AGAVE	G4T3Q
ARABIS SHOCKLEYI	SHOCKLEY'S ROCK CRESS	G3
ARENARIA STENOMERES	MEADOW VALLEY SANDWORT	G2
ASTRAGALUS ACKERMANII	ACKERMAN MILKVETCH	G2
ASTRAGALUS AMPHIOXYS VAR. MUSIMONUM	SHEEP MOUNTAIN MILKVETCH	G5T2
ASTRAGALUS CALYCOSUS VAR. MONOPHYLLIDIUS	ONE-LEAFLET TORREY MILKVETCH	G5T2
ASTRAGALUS NYENSIS	NYE MILKVETCH	G3
BAT HABITAT		
CHRYSOTHAMNUS EREMOBIUS	REMOTE RABBITBRUSH	G1
ERIGERON OVINUS	SHEEP FLEABANE	G2
GILIA RIPLEYI	RIPLEY'S GILIA	G2G3
GLOSSOPETALON PUNGENS VAR. GLABRUM	SMOOTH DWARF GREASEBUSH	G2G3T1Q
GLOSSOPETALON PUNGENS VAR. PUNGENS	PUNGENT DWARF GREASEBUSH	G2G3T2Q
LESQUERELLA HITCHCOCKII	HITCHCOCK BLADDERPOD	G3
MYOTIS EVOTIS	LONG-EARED MYOTIS	G5
MYOTIS VOLANS	LONG-LEGGED MYOTIS	G5
POROPHYLLUM PYGMAEUM	PYGMY PORELEAF	G2
TOWNSENDIA JONESII VAR. TUMULOSA	CHARLESTON GROUNDDAISY	G3T3
VIREO VICINIOR	GRAY VIREO	G5

SNOW CANYON S.P.

SIZE (Acres): 2,405 % PRIVATE: 20 % CLASS I AND II: 0 SYSTEMS: DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
INTERIOR RIPARIAN FOREST AND WOODLAND		
UTAH JUNIPER WOODLAND		
ARCTOMECON HUMILIS	DWARF BEARCLAW-POPPY	G1
ECHINOCEREUS ENGELMANNII VAR HOWEI	HOWE'S HEDGEHOG CACTUS	G5T1

SODA LAKE

SIZE (Acres): 23,064 % PRIVATE: 4 % CLASS I AND II: 92.9 SYSTEMS: RW DS DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
ALKALI MEADOW / SEEP		
ALKALI PLAYA		
CREOSOTE BUSH - MIXED SCRUB		
FOURWING SALTBUSH - WINTERFAT SCRUB		

PLAYA		
SAND SOURCE		
SPRINGS		
EREMARIONTA ROWELLI BAKERENSIS	BAKER DESERTSNAIL	G1T1
GILA BICOLOR MOHAVENSIS	MOHAVE TUI CHUB	G4T1
LINANTHUS ARENICOLA	SAND LINANTHUS	G2?
NEOTROPICAL MIGRATORY BIRD HABITAT		
UNIQUE ASSOCIATION		
WATERFOWL HABITAT		

SOUTH BLACK MOUNTAIN

SIZE (Acres):	182,173	% PRIVATE:	5	% CLASS I AND II:	85.5	SYSTEMS
						DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
BAT FORAGING SITE		
BAT HABITAT		
EUMECES GILBERTI RUBRICAUDATUS	WESTERN REDTAIL SKINK	G5T4
EUMOPS PEROTIS CALIFORNICUS	GREATER WESTERN MASTIFF BAT	G5T4
GOPHERUS AGASSIZII (SONORAN POPULATION)	SONORAN DESERT TORTOISE	G4T4
HELODERMA SUSPECTUM CINCTUM	BANDED GILA MONSTER	G4T3
IDIONYCTERIS PHYLLOTIS	ALLEN'S BIG-EARED BAT	G4
OVIS CANADENSIS NELSONI	NELSON'S BIGHORN SHEEP	G4T3
PETALONYX NITIDUS	SHINY-LEAVED SANDPAPER PLANT	G4
PLECOTUS TOWNSENDII PALLESCENS	PALE TOWNSEND'S BIG EARED BAT	G4T4
PYRGULOPSIS CONICA	KINGMAN SPRINGSNAIL	G1

SPRING - KR

SIZE (Acres):	121	% PRIVATE:	0	% CLASS I AND II:	81.8	SYSTEMS
						AQ

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CALIFORNIA JUNIPER WOODLAND		
JOSHUA TREE WOODLAND		
SPRINGS		

SPRING MTS

SIZE (Acres):	551,508	% PRIVATE:	2	% CLASS I AND II:	58.9	SYSTEMS
						RW DU LM UM

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
B.PINE-WHITE FIR-LIMBER PINE FOREST		
B.PINE-WHITE FIR-LIMBER PINE WOODLAND		
BIG SAGEBRUSH - SPINY HOPSAGE SCRUB		
BLACKBRUSH SCRUB - MIXED SCRUB		
BRISTLECONE PINE WOODLAND		
CREOSOTE BUSH - MIXED SCRUB		
CURL-LEAF MOUNTAIN MAHOGANY- PINYON PINE WOODLAND		
DESERT GRASSLAND AND SHRUB-STEPPE		
FOURWING SALTBUSH - WINTERFAT SCRUB		
PINYON - JUNIPER WOODLAND		
SEMI-DESERT CHAPARRAL		
SEMI-DESERT CHAPARRAL - MOUNTAIN MAHOGANY - MIXED SHRU		
SINGLE-LEAF PINYON PINE - MIXED SHRUB WOODLAND		
UTAH JUNIPER WOODLAND		
WHITE FIR - PONDEROSA PINE - MOUNTAIN MAHOGANY		
AGAVE UTAHENSIS VAR. EBORISPINA	IVORY-SPINED AGAVE	G4T3Q
ANGELICA SCABRIDA	ROUGH ANGELICA	G2
ANTENNARIA SOLICEPS	CHARLESTON PUSSYTOES	G1
ARABIS SHOCKLEYI	SHOCKLEY'S ROCK CRESS	G3
ARENARIA KINGII SSP. ROSEA	ROSY KING SANDWORT	G4T2
ASTRAGALUS AEQUALIS	CLOKEY MILKVETCH	G2
ASTRAGALUS FUNEREUS	BLACK MILK-VETCH	G2
ASTRAGALUS MOHAVENSIS VAR. HEMIGYRUS	HALFRING MILKVETCH	G3T2
ASTRAGALUS OOPHORUS VAR. CLOKEYANUS	CLOKEY EGGVETCH	G4T2
ASTRAGALUS REMOTUS	SPRING MOUNTAINS MILKVETCH	G2
BUFO MICROSCAPHUS MICROSCAPHUS	ARIZONA TOAD	G4T3
CALOCHORTUS STRIATUS	ALKALI MARIPOSA LILY	G2
CASTILLEJA MARTINII VAR. CLOKEYI	CLOKEY PAINTBRUSH	G3QT3
CHLOSYNE ACASTUS SSP.	SPRING MOUNTAINS ACASTUS CHECKERSPOT	G?T3
CIRSIUM CLOKEYI	CLOKEY THISTLE	G2G3
CRYPTANTHA TUMULOSA	NEW YORK MOUNTAINS CATSEYE	G3?
DRABA JAEGERI	JAEGER WHITLOWGRASS	G2
DRABA PAUCIFRUCTA	CHARLESTON DRABA	G1G2
EMPETRICHTHYS LATOS LATOS	PAHRUMP POOLFISH	G1T1
EMPIDONAX TRAILLII EXTIMUS	SOUTHWESTERN WILLOW FLYCATCHER	G5T2
EPILOBIUM NEVADENSE	NEVADA WILLOWHERB	G2

ERIGERON UNCIALIS VAR. CONJUGANS	INCH HIGH FLEABANE	G3T3?
EUPHILOTES ANCILLA SSP. 1	SPRING MOUNTAINS DARK BLUE	G5T3
EUPHILOTES BATTOIDES	BRET'S BLUE (SPRING MTNS PHENOTYPE)	G?
EUPHYDRYAS ANICIA MORANDI	MORAND'S CHECKERSPOT	G5T1
GLOSSOPETALON CLOKEYI	CLOKEY GREASEBUSH	G2
HELODERMA SUSPECTUM CINCTUM	BANDED GILA MONSTER	G4T3
HESPERIA COMMA SSP. 1	SPRING MOUNTAINS COMMA SKIPPER	G5T2
ICARICIA ICARIOIDES SSP. 2	SPRING MOUNTAINS ICARIOIDES BLUE	G5T2
ICARICIA SHASTA CHARLESTONENSIS	SPRING MOUNTAINS BLUE	G5T1
IDIONYCTERIS PHYLLOTIS	ALLEN'S BIG-EARED BAT	G4
IONACTIS CAELESTIS	RED ROCK CANYON ASTER	G1
IVESIA CRYPTOCAULIS	HIDDEN IVESIA	G2
IVESIA JAEGERI	JAEGER IVESIA	G3
LESQUERELLA HITCHCOCKII	HITCHCOCK BLADDERPOD	G3
LIMENITIS WEIDEMEYERII NEVADAE	NEVADA ADMIRAL	G5T2
MYOTIS CILIOLABRUM	WESTERN SMALL-FOOTED MYOTIS	G5
MYOTIS EVOTIS	LONG-EARED MYOTIS	G5
MYOTIS LUCIFUGUS OCCULTUS	OCCULT MYOTIS	G5T3T4
MYOTIS THYSANODES	FRINGED MYOTIS	G5
MYOTIS VOLANS	LONG-LEGGED MYOTIS	G5
MYOTIS YUMANENSIS	YUMA MYOTIS	G5
OPUNTIA WHIPPLEI VAR. MULTIGENICULATA	BLUE DIAMOND CHOLLA	G2?T1
PENSTEMON ALBOMARGINATUS	WHITE-MARGINED BEARDTONGUE	G2
PENSTEMON BICOLOR SSP. BICOLOR	YELLOW TWOTONE BEARDTONGUE	G3T2Q
PENSTEMON BICOLOR SSP. ROSEUS	ROSY TWOTONE BEARDTONGUE	G3T3Q
PENSTEMON FRUTICIFORMIS SSP. AMARGOSAE	DEATH VALLEY BEARDTONGUE	G3T2T3
PENSTEMON LEIOPHYLLUS VAR. KECKII	CHARLESTON BEARDTONGUE	G3T2
PENSTEMON THOMPSONIAE SSP. JAEGERI	JAEGER BEARDTONGUE	G4T2
PERITYLE INTRICATA	DELICATE ROCKDAISY	G3
PLECOTUS TOWNSENDII	TOWNSEND'S BIG-EARED BAT	G4
PYRGULOPSIS DEACONI	SPRING MOUNTAINS SPRINGSNAIL	G1
PYRGULOPSIS TURBATRIX	SOUTHEAST NEVADA SPRINGSNAIL	G2
SALVIA DORRII VAR. CLOKEYI	CLOKEY MOUNTAIN SAGE	G5T3
SILENE CLOKEYI	CLOKEY CATCHFLY	G2
SPEYERIA CAROLAE	CAROLE'S SILVERSPOT	G5T3
SPHAEROMERIA COMPACTA	CHARLESTON TANSY	G2
SYNTHYRIS RANUNCULINA	CHARLESTON KITTENTAILS	G2G3
TAMIAS PALMERI	PALMER'S CHIPMUNK	G2
TOWNSENDIA JONESII VAR. TUMULOSA	CHARLESTON GROUNDDAISY	G3T3
VIOLA PURPUREA VAR. CHARLESTONENSIS	CHARLESTON VIOLET	G3Q

ST. THOMAS WASH

SYSTEMS

SIZE (Acres): 25,639 % PRIVATE: 20 % CLASS I AND II: 73 DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
ALKALI MEADOW / SEEP		
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
SPRINGS		
ARCTOMECON CALIFORNICA	LAS VEGAS BEARPOPPY	G3
ASTRAGALUS GEYERI VAR. TRIQUETRUS	THREECORNER MILKVETCH	G2G3
ENCELIOPSIS ARGOPHYLLA	SILVERLEAF SUNRAY	G3
ERIOGONUM VISCIDULUM	STICKY BUCKWHEAT	G2
GYPSUM SUBSTRATES		
RANA ONCA	RELICT LEOPARD FROG	G1

STUMP SPRINGS

SYSTEMS

SIZE (Acres): 8,105 % PRIVATE: 8 % CLASS I AND II: 0 DW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
MESQUITE BOSQUE		

SUNRISE-PABCO

SYSTEMS

SIZE (Acres): 68,726 % PRIVATE: 8 % CLASS I AND II: 45.2 DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
PLAYA		
ARCTOMECON CALIFORNICA	LAS VEGAS BEARPOPPY	G3
PENSTEMON BICOLOR SSP. ROSEUS	ROSY TWOTONE BEARDTONGUE	G3T3Q
XYRAUCHEN TEXANUS	RAZORBACK SUCKER	G1

TASSI/SEVEN SPRINGS

SIZE (Acres):	11,760	% PRIVATE:	1	% CLASS I AND II:	98.6	SYSTEMS: AQ RW DW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
MESQUITE BOSQUE-BB		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
BAT FORAGING SITE		
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
PHAINOPEPLA NITENS	PHAINOPEPLA	G5
PYRGULOPSIS BACCHUS	GRAND WASH SPRINGSNAIL	G1

TEDDY BEAR FOREST

SIZE (Acres):	6,771	% PRIVATE:	0	% CLASS I AND II:	100	SYSTEMS: DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
FOURWING SALTBUSH - WINTERFAT SCRUB		
OPUNTIA BIGELOVII SHRUBLAND ALLIANCE		
HELODERMA SUSPECTUM CINCTUM	BANDED GILA MONSTER	G4T3

TOQUAP WASH

SIZE (Acres):	6,697	% PRIVATE:	0	% CLASS I AND II:	43.7	SYSTEMS: DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
MOJAVE DESERT WASH		
ASTRAGALUS GEYERI VAR. TRIQUETRUS	THREECORNER MILKVETCH	G2G3
ASTRAGALUS NYENSIS	NYE MILKVETCH	G3
CALYPTE COSTAE	COSTA'S HUMMINGBIRD	G5
ERIOGONUM VISCIDULUM	STICKY BUCKWHEAT	G2
LANIUS LUDOVICIANUS	LOGGERHEAD SHRIKE	G5
PEDIOMELUM CASTOREUM	BEAVER DAM BREADROOT	G3
PHAINOPEPLA NITENS	PHAINOPEPLA	G5
TOXOSTOMA CRISSALE	CRISSAL THRASHER	G5
TOXOSTOMA LECONTEI	LE CONTE'S THRASHER	G4
VERMIVORA LUCIAE	LUCY'S WARBLER	G5

TULE SPRING

SIZE (Acres):	477	% PRIVATE:	0	% CLASS I AND II:	29.8	SYSTEMS: AQ

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
FOURWING SALTBUSH - WINTERFAT SCRUB		
JOSHUA TREE WOODLAND		
SPRINGS		

TYRELL WASH

SIZE (Acres):	785	% PRIVATE:	0	% CLASS I AND II:	100	SYSTEMS: RW DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
HESPEROCALLIS UNDULATA	DESERT LILLY	G3G4

UPPER AND LOWER PAHRANAGAT LAKE

SIZE (Acres):	6,285	% PRIVATE:	0.3	% CLASS I AND II:	64.9	SYSTEMS: AQ

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
RHINICHTHYS SP. 3	PAHRANAGAT DACE	G1Q

UPPER MUDDY R.

SIZE (Acres):	5,797	% PRIVATE:	70	% CLASS I AND II:	0	SYSTEMS: AQ RW DW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
INTERIOR RIPARIAN FOREST AND WOODLAND		
INTERIOR RIPARIAN MARSH AND SEEP		
INTERIOR RIPARIAN SHRUBLAND		

SPRINGS		
CALYPTE COSTAE	COSTA'S HUMMINGBIRD	G5
COCCYZUS AMERICANUS OCCIDENTALIS	WESTERN YELLOW-BILLED CUCKOO	G5T2T3
CRENICHTHYS BAILEYI MOAPAE	MOAPA WHITE RIVER SPRINGFISH	G2T2
DENDROICA PETECHIA BREWSTERI	YELLOW WARBLER	G5T2
EMPIDONAX TRAILLII EXTIMUS	SOUTHWESTERN WILLOW FLYCATCHER	G5T2
FALCO PEREGRINUS	PEREGRINE FALCON	G3
GILA SEMINUDA	VIRGIN RIVER CHUB	G3
GUIRACA CAERULEA	BLUE GROSBEAK	G5
HALIPLUS EREMICUS	WARM SPRINGS CRAWLING WATER BEETLE	G?
ICTERIA VIRENS	YELLOW-BREASTED CHAT	G5
LANIUS LUDOVICIANUS	LOGGERHEAD SHRIKE	G5
MOAPA CORIACEA	MOAPA DACE	G1
PHAINOPEPLA NITENS	PHAINOPEPLA	G5
PIPILO ABERTI	ABERT'S TOWHEE	G3G4
PIRANGA RUBRA	SUMMER TANAGER	G5
PLAGOPTERUS ARGENTISSIMUS	WOUNDFIN	G1
PYRGULOPSIS AVERNALIS	MOAPA PEBBLESNAIL	G1G2
PYRGULOPSIS CARINIFERA	MOAPA TURBIN SNAIL	G1
PYROCEPHALUS RUBINUS	VERMILION FLYCATCHER	G5
STENELMIS OCCIDENTALIS	RIFFLE BEETLE	G5
TOXOSTOMA CRISSALE	CRISSAL THRASHER	G5
TOXOSTOMA LECONTEI	LE CONTE'S THRASHER	G4
TRYONIA CLATHRATA	GRATED TRYONIA	G2
USINGERINA MOAPENSIS	NAUCORID BUG	
VERMIVORA LUCIAE	LUCY'S WARBLER	G5
VIREO BELLII ARIZONAE	ARIZONA BELL'S VIREO	G5T1

UPPER VIRGIN RIVER

SYSTEMS

SIZE (Acres): 3,668 % PRIVATE: 70 % CLASS I AND II: 17.3 AQ RW DW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
ARUBYSTORMA TIGERONUM	TIGER SALAMANDER	?
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
DESERT GRASSLAND AND SHRUB-STEPPE		
INTERIOR RIPARIAN FOREST AND WOODLAND		
UTAH JUNIPER WOODLAND		
CALYPTE COSTAE	COSTA'S HUMMINGBIRD	G5
CATOSTOMUS CLARKI	DESERT SUCKER	G3G4
EMPIDONAX TRAILLII EXTIMUS	SOUTHWESTERN WILLOW FLYCATCHER	G5T2
GILA SEMINUDA	VIRGIN RIVER CHUB	G3
GUIRACA CAERULEA	BLUE GROSBEAK	G5
ICTERIA VIRENS	YELLOW-BREASTED CHAT	G5
PHAINOPEPLA NITENS	PHAINOPEPLA	G5
PIPILO ABERTI	ABERT'S TOWHEE	G3G4

VALJEAN HILLS

SYSTEMS

SIZE (Acres): 2,782 % PRIVATE: 0 % CLASS I AND II: 100 DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
STABILIZED AND PARTIALLY-STABILIZED DESERT DUNES		
HABITAT QUALITY		
LINANTHUS ARENICOLA	SAND LINANTHUS	G2?

VIRGIN MOUNTAINS

SYSTEMS

SIZE (Acres): 167,998 % PRIVATE: 0.2 % CLASS I AND II: 64.8 LM

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BIG SAGEBRUSH - SPINY HOPSAGE SCRUB		
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
DESERT GRASSLAND AND SHRUB-STEPPE		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
PINYON - JUNIPER WOODLAND		
SALTBUSH SCRUB		
SEMI-DESERT CHAPARRAL		
SEMI-DESERT CHAPARRAL - MOUNTAIN MAHOGANY - MIXED SHRU		
SONORA-MOJAVE MIXED DESERT SCRUB		
WHITE FIR - LIMBER PINE- ASPEN FOREST		
BAT FORAGING SITE		
BUFO BOREAS	WESTERN TOAD	G4
CATOSTOMUS CLARKI	DESERT SUCKER	G3G4
CATOSTOMUS LATIPINNIS	FLANNELMOUTH SUCKER	G3G4

EUMECES GILBERTI RUBRICAUDATUS	WESTERN REDTAIL SKINK	G5T4
FALCO PEREGRINUS	PEREGRINE FALCON	G3
GILA SEMINUDA	VIRGIN RIVER CHUB	G3
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
HAPLOPAPPUS SCOPULORUM	GRAND CANYON EVENING DAISY	G4
HELODERMA SUSPECTUM CINCTUM	BANDED GILA MONSTER	G4T3
LAMPROPELTIS PYROMELANA INFRALABIALIS	UTAH MOUNTAIN KINGSNAKE	G5T3
LASIONYCTERIS NOCTIVAGANS	SILVER-HAIRED BAT	G5
LASIURUS CINEREUS	HOARY BAT	G5
LOMATIUM GRAVEOLENS VAR. CLARKII	CLARK PARSLEY	G3T1Q
NYCTINOMOPS MACROTIS	BIG FREE-TAILED BAT	G5
PLAGOPTERUS ARGENTISSIMUS	WOUNDFIN	G1
RHINICHTHYS OSCULUS	SPECKLED DACE	G5
TOWNSENDIA SMITHII	BLACKROCK GROUND DAISY	G2
VIREO VICINIOR	GRAY VIREO	G5

VIRGIN RIVER CHANNEL

SIZE (Acres): 5,108 % PRIVATE: 60 % CLASS I AND II: 24.1 SYSTEMS: AQ RW DW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
AQUATIC HABITAT		
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
FOURWING SALTBUSH - WINTERFAT SCRUB		
INTERIOR RIPARIAN FOREST AND WOODLAND		
INTERIOR RIPARIAN MARSH AND SEEP		
ARCTOMECON HUMILIS	DWARF BEARCLAW-POPPY	G1
ASTRAGALUS AMPULLARIOIDES		G1Q
ASTRAGALUS HOLMGRENIORUM	HOLMGREN MILKVETCH	G1
ATHENE CUNICULARIA	BURROWING OWL	G4
BUFO PUNCTATUS	RED SPOTTED TOAD	
CALYPTE COSTAE	COSTA'S HUMMINGBIRD	G5
CATOSTOMUS CLARKI	DESERT SUCKER	G3G4
COCCYZUS AMERICANUS OCCIDENTALIS	WESTERN YELLOW-BILLED CUCKOO	G5T2T3
EMPIDONAX TRAILLII EXTIMUS	SOUTHWESTERN WILLOW FLYCATCHER	G5T2
GILA SEMINUDA	VIRGIN RIVER CHUB	G3
GUIRACA CAERULEA	BLUE GROSBEAK	G5
HYLA ARENICOLOR	CANYON TREEFROG	
ICTERIA VIRENS	YELLOW-BREASTED CHAT	G5
LEPIDOMEDA MOLLISPINIS	VIRGIN SPINEDACE	G1
PHAINOPEPLA NITENS	PHAINOPEPLA	G5
PIPILO ABERTI	ABERT'S TOWHEE	G3G4
PLAGOPTERUS ARGENTISSIMUS	WOUNDFIN	G1
RHINICHTHYS OSCULUS	SPECKLED DACE	G5
SHOREBIRD HABITAT		
TOXOSTOMA CRISSALE	CRISSAL THRASHER	G5
VIREO BELLII ARIZONAE	ARIZONA BELL'S VIREO	G5T1
WATERFOWL HABITAT		

VIRGIN RIVER GORGE

SIZE (Acres): 2,881 % PRIVATE: 0 % CLASS I AND II: 83.5 SYSTEMS: AQ RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
FOURWING SALTBUSH - WINTERFAT SCRUB		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
BUFO MICROSCAPHUS MICROSCAPHUS	ARIZONA TOAD	G4T3
CATOSTOMUS CLARKI	DESERT SUCKER	G3G4
CATOSTOMUS LATIPINNIS	FLANNELMOUTH SUCKER	G3G4
GILA BICOLOR MOHAVENSIS	MOHAVE TUI CHUB	G4T1
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
GUIRACA CAERULEA	BLUE GROSBEAK	G5
OVIS CANADENSIS NELSONI	NELSON'S BIGHORN SHEEP	G4T3

WARNER VALLEY/FORT PIERCE WASH

SIZE (Acres): 7,609 % PRIVATE: 20 % CLASS I AND II: 21.1 SYSTEMS: DS DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
DESERT GRASSLAND AND SHRUB-STEPPE		
DUNE INVERTEBRATES		
FOURWING SALTBUSH - WINTERFAT SCRUB		
STABILIZED AND PARTIALLY-STABILIZED DESERT DUNES		

ARCTOMECON HUMILIS	DWARF BEARCLAW-POPPY	G1
ATHENE CUNICULARIA	BURROWING OWL	G4
BUFO MICROSCAPHUS MICROSCAPHUS	ARIZONA TOAD	G4T3
BUFO PUNCTATUS	RED SPOTTED TOAD	
COLEONYX VARIEGATUS UTAHENSIS	UTAH BANDED GECKO	
CROTALUS CERASTES	SIDEWINDER	G5
DIPODOMYS MERRIAMI FRENATUS	MERRIAM'S KANGAROO RAT	G5T-UNIDENTIFED
EUDERMA MACULATUM	SPOTTED BAT	G4
HELODERMA SUSPECTUM CINCTUM	BANDED GILA MONSTER	G4T3
NYCTINOMOPS MACROTIS	BIG FREE-TAILED BAT	G5
PEDIOCACTUS SILERI	SILER PINCUSHION CACTUS	G3
PEROMYSCUS EREMICUS	CACTUS MOUSE	G5
SAUROMALUS OBESUS OBESUS	WESTERN CHUCKWALLA	G5T4
TRIMORPHODON BISCUTATUS LAMBDA	SONORAN LYRE SNAKE	
VULPES MACROTIS	KIT FOX	G4

WHITE HILLS-LAKE MEAD

SIZE (Acres): 68,104 % PRIVATE: 0 % CLASS I AND II: 99.7 SYSTEMS: RW DS DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
SONORA-MOJAVE MIXED DESERT SCRUB		
ANULOCAULIS LEIOSLENUS	STICKY RINGSTEM	
ARCTOMECON CALIFORNICA	LAS VEGAS BEARPOPPY	G3
FALCO PEREGRINUS	PEREGRINE FALCON	G3
GOPHERUS AGASSIZII (SONORAN POPULATION)	SONORAN DESERT TORTOISE	G4T4
GYPSUM SUBSTRATES		
PETALONYX PARRYI	PARRY SANDPAPER PLANT	G3G4
PHRYNOSOMA CORONATUM BLAINVILLEI	SAN DIEGO HORNED LIZARD	G4T3T4
PHRYNOSOMA PLATYRHINOS CALIDIARUM	SOUTHERN DESERT HORNED LIZARD	G5T5

WILLOW BAY

SIZE (Acres): 6,153 % PRIVATE: 10 % CLASS I AND II: 60.7 SYSTEMS: RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
SALIX GOODINGII		
EMPIDONAX TRAILLII EXTIMUS	SOUTHWESTERN WILLOW FLYCATCHER	G5T2
RAPTOR HABITAT		
XYRAUCHEN TEXANUS	RAZORBACK SUCKER	G1

WILLOW CREEK - SM

SIZE (Acres): 743 % PRIVATE: 0 % CLASS I AND II: 0 SYSTEMS: AQ RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
EMPIDONAX TRAILLII EXTIMUS	SOUTHWESTERN WILLOW FLYCATCHER	G5T2
PSEUDACRIS REGILLA	PACIFIC CHORUS FROG	G5
PYRGULOPSIS TURBATRIX	SOUTHEAST NEVADA SPRINGSNAIL	G2

WILLOW SPRING - SM

SIZE (Acres): 1,108 % PRIVATE: 0 % CLASS I AND II: 100 SYSTEMS: AQ

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
PYRGULOPSIS DEACONI	SPRING MOUNTAINS SPRINGSNAIL	G1
PYRGULOPSIS TURBATRIX	SOUTHEAST NEVADA SPRINGSNAIL	G2

WOODS MTNS

SIZE (Acres): 4,857 % PRIVATE: 10 % CLASS I AND II: 87.4 SYSTEMS: DS DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CACTUS GARDEN		
CALIFORNIA JUNIPER WOODLAND		
FOUQUIERIA SPLENDENS SHRUBLAND		
JOSHUA TREE - BIG GALLETA SPARSE WOODLAND		
JOSHUA TREE WOODLAND		
OVIS CANADENSIS NELSONI	NELSON'S BIGHORN SHEEP	G4T3

NORTHERN MOJAVE

ALABAMA HILLS NO.

SIZE (Acres):	1,823	% PRIVATE:	50	% CLASS I AND II:	0	SYSTEMS: RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
SIDALCEA COVILLEI	OWENS VALLEY CHECKERBLOOM	G2

ALABAMA HILLS SO.

SIZE (Acres):	700	% PRIVATE:	80	% CLASS I AND II:	0	SYSTEMS: RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
SIDALCEA COVILLEI	OWENS VALLEY CHECKERBLOOM	G2

AMARGOSA CANYON - CHINA RANCH WA

SIZE (Acres):	14,414	% PRIVATE:	10	% CLASS I AND II:	17.6	SYSTEMS: AQ RW DW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACK WILLOW		
CREOSOTE BUSH - MIXED SCRUB		
INTERIOR RIPARIAN FOREST AND WOODLAND		
MESQUITE BOSQUE-DW		
SALIX LASIOLEPIS TEMPORARILY FLOODED COLD-DECIDUOUS WO		
SHADSCALE SCRUB		
AQUATIC INVERTEBRATES		
BAT FORAGING HABITAT		
COCCYZUS AMERICANUS OCCIDENTALIS	WESTERN YELLOW-BILLED CUCKOO	G5T2T3
CORDYLANTHUS TECOPENSIS	TECOPA BIRD'S-BEAK	G2
CYPRINODON NEVADENSIS AMARGOSAE	AMARGOSA PUPFISH	G2T1
MICRATHENE WHITNEYI	ELF OWL	G5
MICROTUS CALIFORNICUS SCIRPENSIS	AMARGOSA VOLE	G5T1
MYIARCHUS TYRANNULUS	BROWN-CRESTED FLYCATCHER	G5
NITROPHILA MOHAVENSIS	AMARGOSA NITROPHILA	G1
OVIS CANADENSIS NELSONI	NELSON'S BIGHORN SHEEP	G4T3
PIRANGA RUBRA	SUMMER TANAGER	G5
RHINICHTHYS OSCULUS SSP 1	AMARGOSA CANYON SPECKLED DACE	G5T1
TOXOSTOMA CRISSALE	CRISSAL THRASHER	G5

AMARGOSA RIVER - GRIMSHAW LAKE

SIZE (Acres):	17,932	% PRIVATE:	10	% CLASS I AND II:	47.1	SYSTEMS: AQ RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
FOURWING SALTBUSH - WINTERFAT SCRUB		
MESQUITE BOSQUE-RW		
PHRAGMITES AUSTRALIS SEMIPERMANENTLY FLOODED HERBACE		
SHADSCALE SCRUB		
SINKHOLES		
BUFO NELSONI	AMARGOSA TOAD	G1G2
COCCYZUS AMERICANUS OCCIDENTALIS	WESTERN YELLOW-BILLED CUCKOO	G5T2T3
CYPRINODON NEVADENSIS AMARGOSAE	AMARGOSA PUPFISH	G2T1
CYPRINODON NEVADENSIS CALIDAE	TECOPA PUPFISH	G2TX
CYPRINODON NEVADENSIS SHOSHONE	SHOSHONE PUPFISH	G2T1
EMPIDONAX TRAILLII EXTIMUS	SOUTHWESTERN WILLOW FLYCATCHER	G5T2
MICROTUS CALIFORNICUS SCIRPENSIS	AMARGOSA VOLE	G5T1
NEOTROPICAL MIGRATORY BIRD HABITAT		
RHINICHTHYS OSCULUS NEVADENSIS	NEVADA SPECKLED DACE	G5T1
USINGERINA MOAPENSIS	NAUCORID BUG	
VERMIVORA LUCIAE	LUCY'S WARBLER	G5
VIREO BELLII PUSILLUS	LEAST BELL'S VIREO	?

AMARGOSA RIVER - SHOSHONE

SIZE (Acres):	32,605	% PRIVATE:	8	% CLASS I AND II:	20.9	SYSTEMS: AQ RW DW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
FOURWING SALTBUSH - WINTERFAT SCRUB		
JOSHUA TREE WOODLAND		
MESQUITE BOSQUE-RW		
PHRAGMITES AUSTRALIS SEMIPERMANENTLY FLOODED HERBACE		
AQUATIC INVERTEBRATES		
BUFO NELSONI	AMARGOSA TOAD	G1G2

COCCYZUS AMERICANUS OCCIDENTALIS	WESTERN YELLOW-BILLED CUCKOO	G5T2T3
CORDYLANTHUS TECOPENSIS	TECOPA BIRD'S-BEAK	G2
CYPRINODON NEVADENSIS AMARGOSAE	AMARGOSA PUPFISH	G2T1
CYPRINODON NEVADENSIS CALIDAE	TECOPA PUPFISH	G2TX
CYPRINODON NEVADENSIS SHOSHONE	SHOSHONE PUPFISH	G2T1
EMPIDONAX TRAILLII EXTIMUS	SOUTHWESTERN WILLOW FLYCATCHER	G5T2
HABITAT QUALITY		
MICROTUS CALIFORNICUS SCIRPENSIS	AMARGOSA VOLE	G5T1
NEOTROPICAL MIGRATORY BIRD HABITAT		
NITROPHILA MOHAVENSIS	AMARGOSA NITROPHILA	G1
PHAINOPEPLA NITENS	PHAINOPEPLA	G5
PYROCEPHALUS RUBINUS	VERMILION FLYCATCHER	G5
RHINICHTHYS OSCULUS NEVADENSIS	NEVADA SPECKLED DACE	G5T1
TAXIDEA TAXUS	AMERICAN BADGER	G5
TRITHYREUS SHOSHONENSIS	SHOSHONE CAVE WHIP-SCORPION	G1
USINGERINA MOAPENSIS	NAUCORID BUG	
VERMIVORA LUCIAE	LUCY'S WARBLER	G5
VIREO BELLII PUSILLUS	LEAST BELL'S VIREO	?

ARGUS RANGE

SYSTEMS

SIZE (Acres): 159,769 % PRIVATE: 2 % CLASS I AND II: 37.4 AQ DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BIG SAGEBRUSH SCRUB		
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - DESERT HOLLY SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
JOSHUA TREE WOODLAND		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
MOJAVE DESERT WASH		
PINYON - JUNIPER WOODLAND		
RIPARIAN HABITAT		
SALTBUSH SCRUB		
SHADSCALE SCRUB		
SINGLE-LEAF PINYON PINE - MIXED SHRUB WOODLAND		
AQUILA CHRYSAETOS	GOLDEN EAGLE	G5
ASIO OTUS	LONG-EARED OWL	
BAT HABITAT		
GERRHONOTUS PANAMINTINUS	PANAMINT ALLIGATOR LIZARD	G1G2
HYLA REGILLA	PACIFIC TREE FROG	
LIMESTONE SUBSTRATES		
OVIS CANADENSIS NELSONI	NELSON'S BIGHORN SHEEP	G4T3
PETALONYX THURBERI SSP GILMANII	DEATH VALLEY SANDPAPER-PLANT	G5T2
PIPILO CRISSALIS EREMOPHILUS	INYO CALIFORNIA TOWHEE	G4G5T1
PLECOTUS TOWNSENDII PALLESCENS	PALE TOWNSEND'S BIG EARED BAT	G4T4
SPERMOPHILUS MOHAVENSIS	MOHAVE GROUND SQUIRREL	G2?

ARGUS RANGE - GREAT FALLS BASIN

SYSTEMS

SIZE (Acres): 36,674 % PRIVATE: 4 % CLASS I AND II: 7.5 RW DW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BIG SAGEBRUSH SCRUB		
BLACKBRUSH SCRUB - MIXED SCRUB		
COTTONWOOD - ASH RIPARIAN		
CREOSOTE BUSH - DESERT HOLLY SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
DESERT GRASSLAND AND SHRUB-STEPPE		
JOSHUA TREE WOODLAND		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
MOJAVE DESERT WASH		
PINYON - JUNIPER WOODLAND		
SALTBUSH SCRUB		
SINGLE-LEAF PINYON PINE - MIXED SHRUB WOODLAND		
SPRINGS		
BIRD HABITAT		
GERRHONOTUS PANAMINTINUS	PANAMINT ALLIGATOR LIZARD	G1G2
PIPILO CRISSALIS EREMOPHILUS	INYO CALIFORNIA TOWHEE	G4G5T1
PLECOTUS TOWNSENDII	TOWNSEND'S BIG-EARED BAT	G4
RIPARIAN BIRD HABITAT		
SALAMANDER HABITAT		
TOXOSTOMA LECONTEI	LE CONTE'S THRASHER	G4

ARGUS RANGE - MATURANGO PEAK

SIZE (Acres): 11,453 % PRIVATE: 0 % CLASS I AND II: 2.6 SYSTEMS: LM

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BIG SAGEBRUSH SCRUB		
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
PINYON - JUNIPER WOODLAND		
SHADSCALE SCRUB		
SINGLE-LEAF PINYON PINE - MIXED SHRUB WOODLAND		
GERRHONOTUS PANAMINTINUS	PANAMINT ALLIGATOR LIZARD	G1G2
OVIS CANADENSIS NELSONI	NELSON'S BIGHORN SHEEP	G4T3
RAPTOR HABITAT		

ARGUS RANGE - MOUNTAIN SPRINGS CAN

SIZE (Acres): 8,200 % PRIVATE: 0 % CLASS I AND II: 0 SYSTEMS: AQ RW DW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BIG SAGEBRUSH SCRUB		
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
INTERIOR RIPARIAN FOREST AND WOODLAND		
JOSHUA TREE WOODLAND		
MOJAVE DESERT WASH		
SAGEBRUSH SCRUB		
SPRINGS		
GERRHONOTUS PANAMINTINUS	PANAMINT ALLIGATOR LIZARD	G1G2
PIPILO CRISSALIS EREMOPHILUS	INYO CALIFORNIA TOWHEE	G4G5T1
PLECOTUS TOWNSENDII PALLESCENS	PALE TOWNSEND'S BIG EARED BAT	G4T4
SALAMANDER HABITAT		

ARGUS RANGE CANYON

SIZE (Acres): 1,016 % PRIVATE: 0 % CLASS I AND II: 0.7 SYSTEMS: RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
GERRHONOTUS PANAMINTINUS	PANAMINT ALLIGATOR LIZARD	G1G2
PIPILO CRISSALIS EREMOPHILUS	INYO CALIFORNIA TOWHEE	G4G5T1

ASH MEADOWS

SIZE (Acres): 43,363 % PRIVATE: 3 % CLASS I AND II: 31.1 SYSTEMS: AQ RW DW DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
FOURWING SALTBUSH - WINTERFAT SCRUB		
MESQUITE BOSQUE		
VELVET ASH - MESQUITE		
AMBRYSUS AMARGOSUS	ASH MEADOWS NAUCORID	G1
ARCTOMECON MERRIAMII	WHITE BEAR POPPY	G2
ASTRAGALUS PHOENIX	ASH MEADOWS MILKVETCH	G2
CALOCHORTUS STRIATUS	ALKALI MARIPOSA LILY	G2
CENTAURIUM NAMOPHILUM	SPRING-LOVING CENTAURY	G2
CORDYLANTHUS TECOPENSIS	TECOPA BIRD'S-BEAK	G2
CYPRINODON DIABOLIS	DEVILS HOLE PUPFISH	G1
CYPRINODON NEVADENSIS MIONECTES	ASH MEADOWS AMARGOSA PUPFISH	G2T2
CYPRINODON NEVADENSIS PECTORALIS	WARM SPRINGS AMARGOSA PUPFISH	G2T1
ENCELIOPSIS NUDICAULIS VAR. CORRUGATA	ASH MEADOWS SUNRAY	G5T2
GRINDELIA FRAXINO-PRATENSIS	ASH MEADOWS GUMPLANT	G2
HYLA REGILLA	PACIFIC TREE FROG	
IVESIA KINGII VAR. EREMICA	ASH MEADOWS IVESIA	G3T1T2Q
MENTZELIA LEUCOPHYLLA	ASH MEADOWS BLAZINGSTAR	G1Q
NITROPHILA MOHAVENSIS	AMARGOSA NITROPHILA	G1
PELOCORIS SHOSHONE AMARGOSUS	AMARGOSA NAUCORID	G1G3T1
PYRGULOPSIS CRYSTALIS	CRYSTAL SPRING SPRINGSNAIL	G1
PYRGULOPSIS ERYTHROPOMA	ASH MEADOWS PEBBLESNAIL	G1
PYRGULOPSIS FAIRBANKSENSIS	FAIRBANKS SPRINGSNAIL	G1
PYRGULOPSIS ISOLATUS	ELONGATE-GLAND SPRINGSNAIL	G1
PYRGULOPSIS MICROCOCCUS	OASIS VALLEY SPRINGSNAIL	G3?
PYRGULOPSIS NANUS	DISTAL-GLAND SPRINGSNAIL	G1
PYRGULOPSIS PISTERI	MEDIAN-GLAND NEVADA SPRINGSNAIL	G1
RHINICHTHYS OSCULUS NEVADENSIS	NEVADA SPECKLED DACE	G5T1
SPIRANTHES INFERNALIS	ASH MEADOWS LADY'S TRESSES	G1
STENELMIS CALIDA CALIDA	DEVILS HOLE WARM SPRING RIFFLE BEETLE	G?T1

TRYONIA ANGULATA	SPORTINGGOODS TRYONIA	G1
TRYONIA ELATA	POINT OF ROCKS TRYONIA	G1
TRYONIA ERICAE	MINUTE TRYONIA	G1
TRYONIA VARIEGATA	AMARGOSA TRYONIA	G3?

BAD WATER SPRING

SYSTEMS

SIZE (Acres): 824 % PRIVATE: 0 % CLASS I AND II: 100 AQ

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
DESERT PAVEMENT AND SALT FLAT		
SHADSCALE SCRUB		
SPRINGS		
ASSIMINEA INFIMA	BADWATER SNAIL	G1

BIG DUNE

SYSTEMS

SIZE (Acres): 1,045 % PRIVATE: 0 % CLASS I AND II: 0 DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
MILODERES SP.	BIG DUNE MILODERES WEEVIL	G1Q
PSEUDOCOTALPA GIULIANII	GIULIANI'S DUNE SCARAB	G1

BLACK MAGIC JOSHUA TREE

SYSTEMS

SIZE (Acres): 27,100 % PRIVATE: 0 % CLASS I AND II: 93.7 DW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
FOURWING SALTBUSH - WINTERFAT SCRUB		
JOSHUA TREE WOODLAND		
PSOROTHAMNUS SPINOSUS SHRUBLAND ALLIANCE		
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	

BLACK MOUNTAIN/DT

SYSTEMS

SIZE (Acres): 94,153 % PRIVATE: 2 % CLASS I AND II: 97.4 LM UM

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BRISTLECONE PINE WOODLAND		
CREOSOTE BUSH - MIXED SCRUB		
JOSHUA TREE WOODLAND		
LIMBER PINE/ PINYON-JUNIPER		
SHADSCALE SCRUB		
HYLA REGILLA	PACIFIC TREE FROG	
OVIS CANADENSIS CALIFORNIANA	CALIFORNIA BIGHORN SHEEP	G4T1
OVIS CANADENSIS NELSONI	NELSON'S BIGHORN SHEEP	G4T3
PYRGULOPSIS MICROCOCCUS	OASIS VALLEY SPRINGSNAIL	G3?

CACTUS FLAT

SYSTEMS

SIZE (Acres): 35,525 % PRIVATE: 0 % CLASS I AND II: 2.7 DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BIG SAGEBRUSH - SPINY HOPSAGE SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
JOSHUA TREE WOODLAND		
SHADSCALE SCRUB		
AQUILA CHRYSAETOS	GOLDEN EAGLE	G5
SPERMOPHILUS MOHAVENSIS	MOHAVE GROUND SQUIRREL	G2?

CANE SPRING

SYSTEMS

SIZE (Acres): 146 % PRIVATE: 0 % CLASS I AND II: 0 AQ

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CAMISSONIA MEGALANTHA	CANE SPRING SUNCUP	G3
PYRGULOPSIS TURBATRIX	SOUTHEAST NEVADA SPRINGSNAIL	G2

CENTENNIAL CANYON

SYSTEMS

SIZE (Acres): 2,522 % PRIVATE: 0 % CLASS I AND II: 60.1 AQ RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BIG SAGEBRUSH SCRUB		
INTERIOR RIPARIAN FOREST AND WOODLAND		
JOSHUA TREE WOODLAND		
SHADSCALE SCRUB		

CERRO GORDO

SIZE (Acres): 6,301 % PRIVATE: % CLASS I AND II: SYSTEMS: RW DW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
GERRHONOTUS PANAMINTINUS	PANAMINT ALLIGATOR LIZARD	G1G2
RARE PLANTS		

CHINA LAKE DUNES

SIZE (Acres): 21,795 % PRIVATE: 0 % CLASS I AND II: 0 SYSTEMS: DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
DUNE INVERTEBRATES		
JOSHUA TREE WOODLAND		
MOJAVE DESERT WASH		
SALTBUSH SCRUB		
STABILIZED AND PARTIALLY-STABILIZED DESERT DUNES		
LINANTHUS ARENICOLA	SAND LINANTHUS	G2?
SPERMOPHILUS MOHAVENSIS	MOHAVE GROUND SQUIRREL	G2?

CHLORIDE CLIFF

SIZE (Acres): 11,860 % PRIVATE: 0.5 % CLASS I AND II: 99.5 SYSTEMS: AQ RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
FOURWING SALTBUSH - WINTERFAT SCRUB		
ASSIMINEA INFIMA	BADWATER SNAIL	G1
FIMBRISTYLIS THERMALIS	HOT SPRINGS FIMBRISTYLIS	G4

COSO RANGE

SIZE (Acres): 28,728 % PRIVATE: 0 % CLASS I AND II: 8.7 SYSTEMS: RW DS LM

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BIG SAGEBRUSH SCRUB		
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
EPHEDRA NEVADENSIS SHRUBLAND ALLIANCE		
JOSHUA TREE WOODLAND		
SALIX LASIOLEPIS TEMPORARILY FLOODED COLD-DECIDUOUS WO		
SINGLE-LEAF PINYON PINE - MIXED SHRUB WOODLAND		
SPINY HOPSAGE - MIXED SCRUB		
SPRINGS		
ANTROZOUS PALLIDUS	PALLID BAT	G5
BAT HABITAT		
GERRHONOTUS PANAMINTINUS	PANAMINT ALLIGATOR LIZARD	G1G2
LANDSCAPE QUALITY		
OVIS CANADENSIS NELSONI	NELSON'S BIGHORN SHEEP	G4T3
RAPTOR HABITAT		
SAUROMALUS OBESUS OBESUS	WESTERN CHUCKWALLA	G5T4
SPERMOPHILUS MOHAVENSIS	MOHAVE GROUND SQUIRREL	G2?

COTTONBALL MARSH

SIZE (Acres): 4,603 % PRIVATE: 0 % CLASS I AND II: 100 SYSTEMS: AQ RW DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
DESERT PAVEMENT AND SALT FLAT		
INTERIOR RIPARIAN MARSH AND SEEP		
JOSHUA TREE WOODLAND		
ASSIMINEA INFIMA	BADWATER SNAIL	G1
CYPRINODON SALINUS MILLERI	COTTONBALL MARSH PUPFISH	G1T1
TRYONIA SALINA	COTTONBALL MARSH TRYONIA	

COTTONWOOD CANYON

SIZE (Acres): 14,271 % PRIVATE: 0 % CLASS I AND II: 100 SYSTEMS: RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BIG SAGEBRUSH - SPINY HOPSAGE SCRUB		
CALIFORNIA JUNIPER WOODLAND		
CREOSOTE BUSH - MIXED SCRUB		
BUFO PUNCTATUS	RED SPOTTED TOAD	
HYLA REGILLA	PACIFIC TREE FROG	

PYRGULOPSIS MICROCOCCUS	OASIS VALLEY SPRINGSNAIL	G3?

COTTONWOOD MTNS

SIZE (Acres): 65,042 % PRIVATE: 0 % CLASS I AND II: 100 SYSTEMS: DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BIG SAGEBRUSH - SPINY HOPSAGE SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
OVIS CANADENSIS NELSONI	NELSON'S BIGHORN SHEEP	G4T3
PENSTEMON CALCAREUS	LIMESTONE BEARDTONGUE	G2
PETALONYX THURBERI SSP GILMANII	DEATH VALLEY SANDPAPER-PLANT	G5T2
SPHAERALCEA RUSBYI VAR EREMICOLA	RUSBY'S DESERT-MALLOW	G4T1

DARWIN FALLS

SIZE (Acres): 3,860 % PRIVATE: 0.3 % CLASS I AND II: 73.5 SYSTEMS: AQ RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
INTERIOR RIPARIAN MARSH AND SEEP		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
SHADSCALE SCRUB		
SPRINGS		
AQUILA CHRYSAETOS	GOLDEN EAGLE	G5
ASTRAGALUS MOHAVENSIS VAR. HEMIGYRUS	HALFRING MILKVETCH	G3T2
BUFO BOREAS	WESTERN TOAD	G4
BUFO PUNCTATUS	RED SPOTTED TOAD	
LANIUS LUDOVICIANUS	LOGGERHEAD SHRIKE	G5
NEOTROPICAL MIGRATORY BIRD HABITAT		

DEADMAN CANYON

SIZE (Acres): 4,069 % PRIVATE: 0 % CLASS I AND II: 0 SYSTEMS: RW DW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
JOSHUA TREE WOODLAND		
MOJAVE DESERT WASH		
GERRHONOTUS PANAMINTINUS	PANAMINT ALLIGATOR LIZARD	G1G2
PIPILO CRISSALIS EREMOPHILUS	INYO CALIFORNIA TOWHEE	G4G5T1
PLECOTUS TOWNSENDII	TOWNSEND'S BIG-EARED BAT	G4

DEATH VALLEY

SIZE (Acres): 495,815 % PRIVATE: 0.3 % CLASS I AND II: 98.7 SYSTEMS: DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
ALKALI MEADOW / SEEP		
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
PLAYA		
SALTBUSH SCRUB		
SHADSCALE SCRUB		
ASSIMINEA INFIMA	BADWATER SNAIL	G1
CYPRINODON SALINUS MILLERI	COTTONBALL MARSH PUPFISH	G1T1
CYPRINODON SALINUS SALINUS	SALT CREEK PUPFISH	G1T1
DIPSOSAURUS DORSALIS	DESERT IGUANA	G5
ERIOGONUM CONTIGUUM	REVEAL'S BUCKWHEAT	G3G3
FIMBRISTYLIS THERMALIS	HOT SPRINGS FIMBRISTYLIS	G4
GILMANIA LUTEOLA	GOLDEN CARPET	G1
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
REPTILE SCRUB HABITAT		

DEATH VALLEY SALT FLATS

SIZE (Acres): 36,315 % PRIVATE: 0 % CLASS I AND II: 97.8 SYSTEMS: DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
DESERT PAVEMENT AND SALT FLAT		
MESQUITE BOSQUE-BB		
TOXOSTOMA CRISSALE	CRISSAL THRASHER	G5
TOXOSTOMA LECONTEI	LE CONTE'S THRASHER	G4

DEDECKERA CANYON

SIZE (Acres): 2,835 % PRIVATE: 0 % CLASS I AND II: 100 SYSTEMS: RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BIG SAGEBRUSH - SPINY HOPSAGE SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
INTERIOR RIPARIAN FOREST AND WOODLAND		
JOSHUA TREE WOODLAND		
SHADSCALE SCRUB		
STABILIZED AND PARTIALLY-STABILIZED DESERT DUNES		
BUFO PUNCTATUS	RED SPOTTED TOAD	
DEDECKERA EUREKENSIS	JULY GOLD	G2
PYRGULOPSIS MICROCOCCUS	OASIS VALLEY SPRINGSNAIL	G3?

DEVIL'S CORNFIELD

SIZE (Acres): 1,866 % PRIVATE: 0 % CLASS I AND II: 100 SYSTEMS: AQ

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
STABILIZED AND PARTIALLY-STABILIZED DESERT DUNES		
CYPRINODON SALINUS SALINUS	SALT CREEK PUPFISH	G1T1

EAGLE BORAX SPRING

SIZE (Acres): 1,205 % PRIVATE: 0 % CLASS I AND II: 100 SYSTEMS: RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
DESERT PAVEMENT AND SALT FLAT		
INTERIOR RIPARIAN MARSH AND SEEP		
MIGRATORY BIRD HABITAT		

EMIGRANT CANYON

SIZE (Acres): 20,476 % PRIVATE: 0 % CLASS I AND II: 100 SYSTEMS: DW DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CALIFORNIA JUNIPER WOODLAND		
CREOSOTE BUSH - MIXED SCRUB		
JOSHUA TREE WOODLAND		
MOJAVE DESERT WASH		
MOJAVE MIXED WOODY SCRUB		
GILIA RIPLEYI	RIPLEY'S GILIA	G2G3
PLECOTUS TOWNSENDII PALLESCENS	PALE TOWNSEND'S BIG EARED BAT	G4T4
SPHAERALCEA RUSBYI VAR EREMICOLA	RUSBY'S DESERT-MALLOW	G4T1

EUREKA DUNES-AP

SIZE (Acres): 883 % PRIVATE: 0 % CLASS I AND II: 100 SYSTEMS: DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
DUNE INVERTEBRATES		
STABILIZED AND PARTIALLY-STABILIZED DESERT DUNES		
ASTRAGALUS LENTIGINOSUS VAR MICANS	SHINING MILK-VETCH	G5T1Q
BAT HABITAT		
DIPODOMYS MERRIAMI FRENATUS	MERRIAM'S KANGAROO RAT	G5T-UNIDENTIFED
OENOTHERA CALIFORNICA SSP EUREKENSIS	EUREKA DUNES EVENING-PRIMROSE	G4?T1
SWALLENIA ALEXANDRAE	EUREKA VALLEY DUNE GRASS	G1
VULPES MACROTIS	KIT FOX	G4

EUREKA FOOTHILLS

SIZE (Acres): 3,354 % PRIVATE: 0 % CLASS I AND II: 100 SYSTEMS: DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
DESERT PLAYA MIXED SCRUB		
STABILIZED AND PARTIALLY-STABILIZED DESERT DUNES		
ASTRAGALUS LENTIGINOSUS VAR MICANS	SHINING MILK-VETCH	G5T1Q
ENCELIOPSIS NUDICAULIS VAR. CORRUGATA	ASH MEADOWS SUNRAY	G5T2
OENOTHERA CALIFORNICA SSP EUREKENSIS	EUREKA DUNES EVENING-PRIMROSE	G4?T1
SWALLENIA ALEXANDRAE	EUREKA VALLEY DUNE GRASS	G1

FALLOUT HILLS

SIZE (Acres):	5,911	% PRIVATE:	0	% CLASS I AND II:	100	SYSTEMS	
							DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BIG SAGEBRUSH - SPINY HOPSAGE SCRUB		
BLACKBRUSH SCRUB - MIXED SCRUB		
DESERT GRASSLAND AND SHRUB-STEPPE		
FOURWING SALTBUSH - WINTERFAT SCRUB		

FURNACE CREEK

SIZE (Acres):	6,271	% PRIVATE:	3	% CLASS I AND II:	97.3	SYSTEMS	
						RW	DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
DESERT PAVEMENT AND SALT FLAT		
MESQUITE BOSQUE		
MESQUITE BOSQUE-BB		

GRAPEVINE MOUNTAINS

SIZE (Acres):	34,120	% PRIVATE:	0	% CLASS I AND II:	93.8	SYSTEMS	
							UM

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BIG SAGEBRUSH - SPINY HOPSAGE SCRUB		
BLACKBRUSH SCRUB - MIXED SCRUB		
CURL-LEAF MOUNTAIN MAHOGANY- PINYON PINE WOODLAND		
FOURWING SALTBUSH - WINTERFAT SCRUB		
PINYON - JUNIPER WOODLAND		
SEMI-DESERT CHAPARRAL - MOUNTAIN MAHOGANY - MIXED SHRU		
CASTILLEJA MARTINII VAR. CLOKEYI	CLOKEY PAINTBRUSH	G3QT3
CRYPTANTHA TUMULOSA	NEW YORK MOUNTAINS CATSEYE	G3?
LATHYRUS HITCHCOCKIANUS	BULLFROG HILLS SWEETPEA	G2
LUPINUS HOLMGRENIANUS	HOLMGREN LUPINE	G3?Q
MAURANDYA PETROPHILA	ROCK LADY	G1
PENSTEMON PAHUTENSIS	PAHUTE MESA BEARDTONGUE	G3
PERITYLE VILLOSA	HANAUPAH ROCK DAISY	G1
PHACELIA MUSTELINA	DEATH VALLEY ROUND-LEAVED PHACELIA	G2
PLECOTUS TOWNSENDII	TOWNSEND'S BIG-EARED BAT	G4

GRAPEVINE SPRING-DT

SIZE (Acres):	4,098	% PRIVATE:	0	% CLASS I AND II:	100	SYSTEMS	
						AQ	RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
FOURWING SALTBUSH - WINTERFAT SCRUB		
MEADOWS		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
SPRINGS		
ASSIMINEA INFIMA	BADWATER SNAIL	G1
BUFO PUNCTATUS	RED SPOTTED TOAD	
HYLA REGILLA	PACIFIC TREE FROG	
PYRGULOPSIS MICROCOCCUS	OASIS VALLEY SPRINGSNAIL	G3?
TRYONIA MARGAE	GRAPEVINE SPRINGS ELONGATE TRYONIA	
TRYONIA ROLANDSI	GRAPEVINE SPRINGS SQUAT TRYONIA	
VIREO BELLII PUSILLUS	LEAST BELL'S VIREO	?

HAIWEE RESERVOIR

SIZE (Acres):	3,410	% PRIVATE:	100	% CLASS I AND II:	0	SYSTEMS	
						RW	

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
JOSHUA TREE WOODLAND		
RIPARIAN HABITAT		
SALTBUSH SCRUB		
CHARADRIUS ALEXANDRINUS NIVOSUS	WESTERN SNOWY PLOVER	G4T2
PLECOTUS TOWNSENDII	TOWNSEND'S BIG-EARED BAT	G4
PLECOTUS TOWNSENDII PALLESCENS	PALE TOWNSEND'S BIG EARED BAT	G4T4
SHOREBIRD HABITAT		

HAIWEE SPRINGS

SIZE (Acres): 8,636 % PRIVATE: 0 % CLASS I AND II: 0 SYSTEMS: AQ RW DW DS DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
ATRIPLEX SPINIFERA SHRUBLAND ALLIANCE		
BIG SAGEBRUSH - SPINY HOPSAGE SCRUB		
BIG SAGEBRUSH SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
INTERIOR RIPARIAN SHRUBLAND		
JOSHUA TREE WOODLAND		
MOJAVE DESERT WASH		
SALIX LASIOLEPIS TEMPORARILY FLOODED COLD-DECIDUOUS WO		
SALTBUSH SCRUB		
SHADSCALE SCRUB		
SPINY HOPSAGE - MIXED SCRUB		
SPRINGS		
BAT HABITAT		
BUFO BOREAS	WESTERN TOAD	G4
CINDER CONES		
GERRHONOTUS PANAMINTINUS	PANAMINT ALLIGATOR LIZARD	G1G2
PETALONYX NITIDUS	SHINY-LEAVED SANDPAPER PLANT	G4
PHACELIA NASHIANA	CHARLOTTE'S PHACELIA	G3
RARE PLANTS		
SALAMANDER HABITAT		
SPERMOPHILUS MOHAVENSIS	MOHAVE GROUND SQUIRREL	G2?
UNIQUE ASSOCIATION		

HALFPINT RANGE

SIZE (Acres): 13,670 % PRIVATE: 0 % CLASS I AND II: 25.5 SYSTEMS: DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BIG SAGEBRUSH - SPINY HOPSAGE SCRUB		
BLACKBRUSH SCRUB - MIXED SCRUB		
FOURWING SALTBUSH - WINTERFAT SCRUB		
CAMISSONIA MEGALANTHA	CANE SPRING SUNCUP	G3
GILIA NYENSIS	NYE GILIA	G3
HULSEA VESTITA SSP. INYOENSIS	INYO HULSEA	G4T2T3Q
PERITYLE INTRICATA	DELICATE ROCKDAISY	G3
PHACELIA BEATLEYAE	BEATLEY SCORPION PLANT	G3
PHACELIA MUSTELINA	DEATH VALLEY ROUND-LEAVED PHACELIA	G2

HALL CANYON

SIZE (Acres): 1,611 % PRIVATE: 0 % CLASS I AND II: 100 SYSTEMS: AQ RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CALIFORNIA JUNIPER WOODLAND		
JOSHUA TREE WOODLAND		
SPRINGS		
BATRACHOSEPS CAMPI	INYO MTN SALAMANDER	G2
GERRHONOTUS PANAMINTINUS	PANAMINT ALLIGATOR LIZARD	G1G2
HIGH PLANT DIVERSITY		

HOGBACK CREEK

SIZE (Acres): 3,138 % PRIVATE: 41 % CLASS I AND II: 0 SYSTEMS: AQ RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
WATER BIRCH RIPARIAN SCRUB		
CIRCUS CYANEUS	NORTHERN HARRIER	
COCCYZUS AMERICANUS OCCIDENTALIS	WESTERN YELLOW-BILLED CUCKOO	G5T2T3
ICTERIA VIRENS	YELLOW-BREASTED CHAT	G5
PYRGULOPSIS WONGI	WONG'S SPRINGSNAIL	G1G2

HUNTER MOUNTAIN

SIZE (Acres): 29,632 % PRIVATE: 0 % CLASS I AND II: 100 SYSTEMS: AQ RW LM UM

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BIG SAGEBRUSH - SPINY HOPSAGE SCRUB		
CALIFORNIA JUNIPER WOODLAND		
CREOSOTE BUSH - MIXED SCRUB		
JOSHUA TREE WOODLAND		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
SHADSCALE SCRUB		
SPRINGS		

BIRD HABITAT		
OVIS CANADENSIS NELSONI	NELSON'S BIGHORN SHEEP	G4T3

INDIAN SPRING VALLEY

SYSTEMS

SIZE (Acres): 22,554 % PRIVATE: 0.9 % CLASS I AND II: 99.1 DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BIG SAGEBRUSH - SPINY HOPSAGE SCRUB		
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
DESERT GRASSLAND AND SHRUB-STEPPE		
FOURWING SALTBUSH - WINTERFAT SCRUB		
PLAYA		
ARCTOMECON MERRIAMII	WHITE BEAR POPPY	G2
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
PERITYLE INTRICATA	DELICATE ROCKDAISY	G3
PHACELIA PARISHII	PARISH PHACELIA	G2G3
PHACELIA SP. 1	UNDESCRIBED PHACELIA 1	G2
REPTILE SCRUB HABITAT		

JAIL CANYON

SYSTEMS

SIZE (Acres): 1,686 % PRIVATE: 0 % CLASS I AND II: 100 AQ

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CALIFORNIA JUNIPER WOODLAND		
JOSHUA TREE WOODLAND		
SPRINGS		
HIGH PLANT DIVERSITY		

LAST CHANCE RANGE

SYSTEMS

SIZE (Acres): 27,578 % PRIVATE: 0 % CLASS I AND II: 86.3 DS LM UM

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BIG SAGEBRUSH - SPINY HOPSAGE SCRUB		
BRISTLECONE PINE WOODLAND		
CALIFORNIA JUNIPER WOODLAND		
CREOSOTE BUSH - MIXED SCRUB		
CURL-LEAF MOUNTAIN MAHOGANY- PINYON PINE WOODLAND		
DESERT GRASSLAND AND SHRUB-STEPPE		
FOURWING SALTBUSH - WINTERFAT SCRUB		
JOSHUA TREE WOODLAND		
PINYON - JUNIPER WOODLAND		
CYMOPTERUS GILMANII	GILMAN'S CYMOPTERUS	G3?
DEDECKERA EUREKENSIS	JULY GOLD	G2
GILIA RIPLEYI	RIPLEY'S GILIA	G2G3
OVIS CANADENSIS NELSONI	NELSON'S BIGHORN SHEEP	G4T3
PENSTEMON CALCAREUS	LIMESTONE BEARDTONGUE	G2

LUBKIN CREEK

SYSTEMS

SIZE (Acres): 767 % PRIVATE: 80 % CLASS I AND II: 0 AQ RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
PYRGULOPSIS WONGI	WONG'S SPRINGSNAIL	G1G2
SIDALCEA COVILLEI	OWENS VALLEY CHECKERBLOOM	G2

MARBLE CANYON OUTFLOW

SYSTEMS

SIZE (Acres): 2,885 % PRIVATE: 0 % CLASS I AND II: 99.8 DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
DESERT PLAYA MIXED SCRUB		
STABILIZED AND PARTIALLY-STABILIZED DESERT DUNES		
MAURANDYA PETROPHILA	ROCK LADY	G1
OENOTHERA CALIFORNICA SSP EUREKENSIS	EUREKA DUNES EVENING-PRIMROSE	G4?T1
SWALLENIA ALEXANDRAE	EUREKA VALLEY DUNE GRASS	G1
TETRACOCCUS ILICIFOLIUS	HOLLY-LEAVED TETRACOCCUS	G1

MARBLE CANYON/SALINE/EUREKA VALL

SYSTEMS

SIZE (Acres): 37,327 % PRIVATE: 0 % CLASS I AND II: 100 DS DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
DESERT PLAYA MIXED SCRUB		
JOSHUA TREE WOODLAND		

SHADSCALE SCRUB		
STABILIZED AND PARTIALLY-STABILIZED DESERT DUNES		
ASTRAGALUS LENTIGINOSUS VAR MICANS	SHINING MILK-VETCH	G5T1Q
CYMOPTERUS GILMANII	GILMAN'S CYMOPTERUS	G3?
DEDECKERA EUREKENSIS	JULY GOLD	G2
OENOTHERA CALIFORNICA SSP EUREKENSIS	EUREKA DUNES EVENING-PRIMROSE	G4?T1
PENSTEMON CALCAREUS	LIMESTONE BEARDTONGUE	G2
RARE PLANTS		
SWALLENIA ALEXANDRAE	EUREKA VALLEY DUNE GRASS	G1

MASSACHUSETTS MOUNTAIN

SIZE (Acres): 11,648 % PRIVATE: 0 % CLASS I AND II: 42.2 SYSTEMS: DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
FOURWING SALTBUSH - WINTERFAT SCRUB		
PLAYA		
ANTROZOUS PALLIDUS	PALLID BAT	G5
ASTRAGALUS FUNEREUS	BLACK MILK-VETCH	G2
CAMISSONIA MEGALANTHA	CANE SPRING SUNCUP	G3
MYOTIS CILIOLABRUM	WESTERN SMALL-FOOTED MYOTIS	G5
PHACELIA BEATLEYAE	BEATLEY SCORPION PLANT	G3

MESQUITE FLAT

SIZE (Acres): 41,980 % PRIVATE: 0 % CLASS I AND II: 100 SYSTEMS: DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
MESQUITE BOSQUE-BB		
STABILIZED AND PARTIALLY-STABILIZED DESERT DUNES		

NEVARES SPRING

SIZE (Acres): 596 % PRIVATE: 0 % CLASS I AND II: 67.1 SYSTEMS: AQ

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
ASSIMINEA INFIMA	BADWATER SNAIL	G1

NOPAH RANGE

SIZE (Acres): 30,398 % PRIVATE: 0 % CLASS I AND II: 100 SYSTEMS: DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
JOSHUA TREE WOODLAND		
PINYON - JUNIPER WOODLAND		
AGAVE UTAHENSIS VAR. EBORISPINA	IVORY-SPINED AGAVE	G4T3Q
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
OVIS CANADENSIS NELSONI	NELSON'S BIGHORN SHEEP	G4T3
RARE PLANTS		

NW SARATOGA SPRINGS

SIZE (Acres): 414 % PRIVATE: 0 % CLASS I AND II: 100 SYSTEMS: AQ

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CYPRINODON NEVADENSIS AMARGOSAE	AMARGOSA PUPFISH	G2T1

OASIS VALLEY

SIZE (Acres): 29,048 % PRIVATE: 20 % CLASS I AND II: 0 SYSTEMS: AQ RW DW DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BIG SAGEBRUSH - SPINY HOPSAGE SCRUB		
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
FOURWING SALTBUSH - WINTERFAT SCRUB		
INTERIOR RIPARIAN MARSH AND SEEP		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
RABBITBRUSH SCRUB		
SALTBUSH SCRUB		
SPOROBOLUS AIROIDES INTERMITTENTLY FLOODED HERBACEOUS		
STABILIZED AND PARTIALLY-STABILIZED DESERT DUNES		
ASTRAGALUS FUNEREUS	BLACK MILK-VETCH	G2
BAT FORAGING SITE		
BUFO NELSONI	AMARGOSA TOAD	G1G2
CHAETODIPUS PENICILLATUS	DESERT POCKET MOUSE	G5
DENDROICA PETECHIA BREWSTERI	YELLOW WARBLER	G5T2

DIPODOMYS DESERTI	DESERT KANGAROO RAT	G5
DIPODOMYS MICROPS CELSUS	CHISEL-TOOTHED KANGAROO RAT	G5T4
EMPIDONAX TRAILLII EXTIMUS	SOUTHWESTERN WILLOW FLYCATCHER	G5T2
HYLA REGILLA	PACIFIC TREE FROG	
LASIURUS CINEREUS	HOARY BAT	G5
PSEUDACRIS REGILLA	PACIFIC CHORUS FROG	G5
PYRGULOPSIS MICROCOCCUS	OASIS VALLEY SPRINGSNAIL	G3?
PYROCEPHALUS RUBINUS	VERMILION FLYCATCHER	G5
RHINICHTHYS OSCULUS SSP. 6	OASIS VALLEY SPECKLED DACE	G5T1
THOMOMYS UMBRINUS	(AMARGOSA) SOUTHERN POCKET GOPHER	G5T-UNIDENTIFED

OLANCHA CREEK

SYSTEMS

SIZE (Acres): 1,014 % PRIVATE: 10 % CLASS I AND II: 0 RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BIG SAGEBRUSH - SPINY HOPSAGE SCRUB		
INTERIOR RIPARIAN FOREST AND WOODLAND		
JOSHUA TREE WOODLAND		
SALTBUSH SCRUB		
MICROTUS CALIFORNICUS VALLICOLA	OWENS VALLEY VOLE	G5T1
NEOTROPICAL MIGRATORY BIRD HABITAT		

OLANCHA DUNES

SYSTEMS

SIZE (Acres): 3,152 % PRIVATE: 50 % CLASS I AND II: 0 RW DW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
DUNE INVERTEBRATES		
GREASEWOOD - MIXED SCRUB		
SALTBUSH SCRUB		
STABILIZED AND PARTIALLY-STABILIZED DESERT DUNES		
MICROTUS CALIFORNICUS VALLICOLA	OWENS VALLEY VOLE	G5T1
RARE PLANTS		
SPERMOPHILUS MOHAVENSIS	MOHAVE GROUND SQUIRREL	G2?

OWENS LAKE

SYSTEMS

SIZE (Acres): 119,134 % PRIVATE: 70 % CLASS I AND II: 0.3 AQ RW DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CHARADRIUS ALEXANDRINUS NIVOSUS	WESTERN SNOWY PLOVER	G4T2
CYPRINODON RADIOSUS	OWENS PUPFISH	G1
GILA BICOLOR SNYDERI	OWENS TUI CHUB	G4T1
IXOBRYCHUS EXILIS HESPERIS	WESTERN LEAST BITTERN	G5T1
MICROTUS CALIFORNICUS VALLICOLA	OWENS VALLEY VOLE	G5T1
MIGRATORY BIRD HABITAT		
PYRGULOPSIS WONGI	WONG'S SPRINGSNAIL	G1G2
SHOREBIRD HABITAT		
SIDALCEA COVILLEI	OWENS VALLEY CHECKERBLOOM	G2
SPERMOPHILUS MOHAVENSIS	MOHAVE GROUND SQUIRREL	G2?
WATERFOWL HABITAT		

OWENS VALLEY

SYSTEMS

SIZE (Acres): 20,104 % PRIVATE: 90 % CLASS I AND II: 0 AQ RW DW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
ALKALI MEADOW / SEEP		
BIG SAGEBRUSH - SPINY HOPSAGE SCRUB		
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
DESERT PAVEMENT AND SALT FLAT		
DESERT PLAYA MIXED SCRUB		
FOURWING SALTBUSH - WINTERFAT SCRUB		
GREASEWOOD - MIXED SCRUB		
JOSHUA TREE WOODLAND		
LAVA FLOW / EXPOSED BEDROCK		
SALTBUSH SCRUB		
SHADSCALE SCRUB		
SINGLE-LEAF PINYON PINE - MIXED SHRUB WOODLAND		
SPRINGS		
STABILIZED AND PARTIALLY-STABILIZED DESERT DUNES		
CHARADRIUS ALEXANDRINUS NIVOSUS	WESTERN SNOWY PLOVER	G4T2
CIRCUS CYANEUS	NORTHERN HARRIER	
COCCYZUS AMERICANUS OCCIDENTALIS	WESTERN YELLOW-BILLED CUCKOO	G5T2T3
CYPRINODON RADIOSUS	OWENS PUPFISH	G1
GILA BICOLOR SNYDERI	OWENS TUI CHUB	G4T1

ICTERIA VIRENS	YELLOW-BREASTED CHAT	G5
IXOBRYCHUS EXILIS HESPERIS	WESTERN LEAST BITTERN	G5T1
MICROTUS CALIFORNICUS VALLICOLA	OWENS VALLEY VOLE	G5T1
ORYCTES NEVADENSIS	NEVADA ORYCTES	G2
PLECOTUS TOWNSENDII PALLESCENS	PALE TOWNSEND'S BIG EARED BAT	G4T4
PYRGULOPSIS WONGI	WONG'S SPRINGSNAIL	G1G2
SIDALCEA COVILLEI	OWENS VALLEY CHECKERBLOOM	G2
SPERMOPHILUS MOHAVENSIS	MOHAVE GROUND SQUIRREL	G2?

PANAMINT CANYONS

SYSTEMS

SIZE (Acres): 50,859 % PRIVATE: 0.7 % CLASS I AND II: 97.5 AQ RW DW DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
B.PINE-WHITE FIR-LIMBER PINE FOREST		
CALIFORNIA JUNIPER WOODLAND		
CREOSOTE BUSH - MIXED SCRUB		
JOSHUA TREE WOODLAND		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
MOJAVE MIXED SCRUB		
PINYON - JUNIPER WOODLAND		
BAT HABITAT		
ENCELIOPSIS COVILLEI	PANAMINT DAISY	G3
GERRHONOTUS PANAMINTINUS	PANAMINT ALLIGATOR LIZARD	G1G2
LANIUS LUDOVICIANUS	LOGGERHEAD SHRIKE	G5
LUPINUS MAGNIFICUS VAR MAGNIFICUS	PANAMINT MOUNTAINS LUPINE	G3TH
NEOTROPICAL MIGRATORY BIRD HABITAT		
OVIS CANADENSIS NELSONI	NELSON'S BIGHORN SHEEP	G4T3
PLECOTUS TOWNSENDII PALLESCENS	PALE TOWNSEND'S BIG EARED BAT	G4T4
SALAMANDER HABITAT		
SHOREBIRD HABITAT		

PANAMINT DUNES

SYSTEMS

SIZE (Acres): 1,706 % PRIVATE: 0 % CLASS I AND II: 87.3 DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
DUNE INVERTEBRATES		
STABILIZED AND PARTIALLY-STABILIZED DESERT DUNES		
PETALONYX THURBERI SSP GILMANII	DEATH VALLEY SANDPAPER-PLANT	G5T2

PANAMINT NORTH PLAYA

SYSTEMS

SIZE (Acres): 2,292 % PRIVATE: 0 % CLASS I AND II: 99.8 AQ

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
DESERT PLAYA MIXED SCRUB		
FOURWING SALTBUSH - WINTERFAT SCRUB		
PLAYA		
FAIRY SHRIMP		

PANAMINT RIDGE

SYSTEMS

SIZE (Acres): 122,353 % PRIVATE: 0.3 % CLASS I AND II: 96.5 LM UM

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CALIFORNIA JUNIPER WOODLAND		
PERITYLE VILLOSA	HANAUPAH ROCK DAISY	G1

PILOT KNOB VALLEY

SYSTEMS

SIZE (Acres): 11,514 % PRIVATE: 0 % CLASS I AND II: 0 DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
DESERT PLAYA MIXED SCRUB		
MOJAVE DESERT WASH		
SALTBUSH SCRUB		
STABILIZED AND PARTIALLY-STABILIZED DESERT DUNES		
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
LINANTHUS ARENICOLA	SAND LINANTHUS	G2?
OVIS CANADENSIS NELSONI	NELSON'S BIGHORN SHEEP	G4T3

ROSE VALLEY

SIZE (Acres):	9,650	% PRIVATE:	20	% CLASS I AND II:	0	SYSTEMS: AQ	RW	DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
ALKALI MEADOW / SEEP		
CREOSOTE BUSH - MIXED SCRUB		
INTERIOR RIPARIAN MARSH AND SEEP		
JOSHUA TREE WOODLAND		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
PLAYA		
SALTBUSH SCRUB		
SHADSCALE SCRUB		
AQUILA CHRYSAETOS	GOLDEN EAGLE	G5
BUTEO REGALIS	FERRUGINOUS HAWK	
CANBYA CANDIDA	PYGMY POPPY	G2
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
LANDSCAPE QUALITY		
PLECOTUS TOWNSENDII PALLESCENS	PALE TOWNSEND'S BIG EARED BAT	G4T4
PYRGULOPSIS WONGI	WONG'S SPRINGSNAIL	G1G2
RAPTOR HABITAT		
SPERMOPHILUS MOHAVENSIS	MOHAVE GROUND SQUIRREL	G2?

SALINE VALLEY

SIZE (Acres):	30,402	% PRIVATE:	4	% CLASS I AND II:	87.5	SYSTEMS: AQ	RW	DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
ALKALI MEADOW / SEEP		
CREOSOTE BUSH - MIXED SCRUB		
DESERT PLAYA MIXED SCRUB		
DUNE INVERTEBRATES		
FOURWING SALTBUSH - WINTERFAT SCRUB		
INTERIOR RIPARIAN MARSH AND SEEP		
JOSHUA TREE WOODLAND		
LAVA FLOW / EXPOSED BEDROCK		
MESQUITE BOSQUE-BB		
MESQUITE BOSQUE-RW		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
PINYON - JUNIPER WOODLAND		
PLAYA		
SAGEBRUSH - SEMI-DESERT		
SPRINGS		
STABILIZED AND PARTIALLY-STABILIZED DESERT DUNES		
ANDROSTEPHIUM BREVIFOLIUM	SMALL-FLOWERED ANDROSTEPHIUM	?
BUFO EXSUL	BLACK EXSUL/BLACK TOAD	G1
DEDECKERA EUREKENSIS	JULY GOLD	G2
LANDSCAPE QUALITY		
NEOTROPICAL MIGRATORY BIRD HABITAT		
PHACELIA AMABILIS	SALINE VALLEY PHACELIA	GIQ
SHOREBIRD HABITAT		
TAMIAS PALMERI	PALMER'S CHIPMUNK	G2
WATERFOWL HABITAT		

SARATOGA

SIZE (Acres):	59,700	% PRIVATE:	0	% CLASS I AND II:	96.9	SYSTEMS: DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
FOURWING SALTBUSH - WINTERFAT SCRUB		
PLAYA		
SALTBUSH SCRUB		
CORDYLANTHUS TECOPENSIS	TECOPA BIRD'S-BEAK	G2
CYPRINODON NEVADENSIS AMARGOSAE	AMARGOSA PUPFISH	G2T1
CYPRINODON NEVADENSIS NEVADENSIS	SARATOGA SPRINGS PUPFISH	G2T1

SHEPPARD CREEK

SIZE (Acres):	1,233	% PRIVATE:	0	% CLASS I AND II:	0	SYSTEMS: RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
WATER BIRCH RIPARIAN SCRUB		

SHOSHONE MOUNTAIN

SIZE (Acres): 24,846 % PRIVATE: 0 % CLASS I AND II: 0 SYSTEMS: DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BIG SAGEBRUSH - SPINY HOPSAGE SCRUB		
BLACKBRUSH SCRUB - MIXED SCRUB		
FOURWING SALTBUSH - WINTERFAT SCRUB		
PINYON - JUNIPER WOODLAND		
ASTRAGALUS OOPHORUS VAR. CLOKEYANUS	CLOKEY EGGVETCH	G4T2
PENSTEMON PAHUTENSIS	PAHUTE MESA BEARDTONGUE	G3

SLATE RANGE

SIZE (Acres): 75,138 % PRIVATE: 0 % CLASS I AND II: 0 SYSTEMS: DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - DESERT HOLLY SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
GRAYIA SPINOSA SHRUBLAND ALLIANCE		
JOSHUA TREE WOODLAND		
MOJAVE DESERT WASH		
PLAYA		
SALTBUSH SCRUB		
SPRINGS		
OVIS CANADENSIS NELSONI	NELSON'S BIGHORN SHEEP	G4T3
SPERMOPHILUS MOHAVENSIS	MOHAVE GROUND SQUIRREL	G2?

SOUTH END SALINE VALLEY

SIZE (Acres): 11,346 % PRIVATE: 0 % CLASS I AND II: 97.1 SYSTEMS: RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BIG SAGEBRUSH - SPINY HOPSAGE SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
FOURWING SALTBUSH - WINTERFAT SCRUB		
LAVA FLOW / EXPOSED BEDROCK		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
ASIO OTUS	LONG-EARED OWL	
RAPTOR HABITAT		

SPOTTED RANGE

SIZE (Acres): 77,207 % PRIVATE: 0 % CLASS I AND II: 86.5 SYSTEMS: DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BIG SAGEBRUSH - SPINY HOPSAGE SCRUB		
BLACKBRUSH SCRUB - MIXED SCRUB		
FOURWING SALTBUSH - WINTERFAT SCRUB		
AGAVE UTAHENSIS VAR. EBORISPINA	IVORY-SPINED AGAVE	G4T3Q
ARABIS SHOCKLEYI	SHOCKLEY'S ROCK CRESS	G3
ARCTOMECON MERRIAMII	WHITE BEAR POPPY	G2
ASTRAGALUS NYENSIS	NYE MILKVETCH	G3
GILIA RIPLEYI	RIPLEY'S GILIA	G2G3
PERITYLE INTRICATA	DELICATE ROCKDAISY	G3

STEWART VALLEY

SIZE (Acres): 2,779 % PRIVATE: 1 % CLASS I AND II: 33.2 SYSTEMS: DW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
FOURWING SALTBUSH - WINTERFAT SCRUB		
MESQUITE BOSQUE-DW		
PLAYA		

SYLVANIA MTN

SIZE (Acres): 41,546 % PRIVATE: 5 % CLASS I AND II: 7.9 SYSTEMS: LM

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BIG SAGEBRUSH - SPINY HOPSAGE SCRUB		
CURL-LEAF MOUNTAIN MAHOGANY- PINYON PINE WOODLAND		
DESERT GRASSLAND AND SHRUB-STEPPE		
PINYON - JUNIPER WOODLAND		
SINGLE-LEAF PINYON PINE - MIXED SHRUB WOODLAND		
OVIS CANADENSIS NELSONI	NELSON'S BIGHORN SHEEP	G4T3

TELESCOPE PEAK

SIZE (Acres):	20,299	% PRIVATE:	0	% CLASS I AND II:	100	SYSTEMS: AQ	RW	DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
ALPINE / SUBALPINE MEADOW		
B.PINE-WHITE FIR-LIMBER PINE FOREST		
BRISTLECONE PINE WOODLAND		
CALIFORNIA JUNIPER WOODLAND		
JOSHUA TREE WOODLAND		
MOUNTAIN MAHOGANY		
PINUS FLEXILIS - WHITE FIR FOREST		
PINYON - JUNIPER WOODLAND		
LANDSCAPE QUALITY		
PERITYLE VILLOSA	HANAUPAH ROCK DAISY	G1
SALAMANDER HABITAT		

TIN MTN

SIZE (Acres):	27,148	% PRIVATE:	0	% CLASS I AND II:	100	SYSTEMS: LM

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CALIFORNIA JUNIPER WOODLAND		
CREOSOTE BUSH - MIXED SCRUB		
ASTRAGALUS FUNEREUS	BLACK MILK-VETCH	G2
OVIS CANADENSIS NELSONI	NELSON'S BIGHORN SHEEP	G4T3
PENSTEMON CALCAREUS	LIMESTONE BEARDTONGUE	G2
TETRACOCCUS ILICIFOLIUS	HOLLY-LEAVED TETRACOCCUS	G1

TRAVERTINE SPRINGS

SIZE (Acres):	1,168	% PRIVATE:	2	% CLASS I AND II:	98	SYSTEMS: AQ	RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
LAVA FLOW / EXPOSED BEDROCK		
SPRINGS		
ASSIMINEA INFIMA	BADWATER SNAIL	G1
CENTAURIUM NAMOPHILUM	SPRING-LOVING CENTAURY	G2
ERIOGONUM CONTIGUUM	REVEAL'S BUCKWHEAT	G3G3
FIMBRISTYLIS THERMALIS	HOT SPRINGS FIMBRISTYLIS	G4
GILMANIA LUTEOLA	GOLDEN CARPET	G1
VIREO BELLII PUSILLUS	LEAST BELL'S VIREO	?

TUBER CANYON

SIZE (Acres):	1,888	% PRIVATE:	0	% CLASS I AND II:	100	SYSTEMS: RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CALIFORNIA JUNIPER WOODLAND		
JOSHUA TREE WOODLAND		
SPRINGS		
BATRACHOSEPS CAMPI	INYO MTN SALAMANDER	G2
GERRHONOTUS PANAMINTINUS	PANAMINT ALLIGATOR LIZARD	G1G2
HIGH PLANT DIVERSITY		

TULE SPRING

SIZE (Acres):	477	% PRIVATE:	0	% CLASS I AND II:	29.8	SYSTEMS: AQ

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
FOURWING SALTBUSH - WINTERFAT SCRUB		
JOSHUA TREE WOODLAND		
SPRINGS		

TUTTLE CREEK

SIZE (Acres):	649	% PRIVATE:	50	% CLASS I AND II:	0	SYSTEMS: AQ	RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
ALKALI MEADOW / SEEP		
PYRGULOPSIS WONGI	WONG'S SPRINGSNAIL	G1G2

UPPER AMARGOSA RIVER / LOWER CARS

SIZE (Acres): 22,627 % PRIVATE: 5 % CLASS I AND II: 3.7 SYSTEMS: DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - DESERT HOLLY SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
FOURWING SALTBUSH - WINTERFAT SCRUB		
LAVA FLOW / EXPOSED BEDROCK		
MESQUITE BOSQUE-RW		
CENTAURIUM NAMOPHILUM	SPRING-LOVING CENTAURY	G2
CORDYLANTHUS TECOPENSIS	TECOPA BIRD'S-BEAK	G2
GRINDELIA FRAXINO-PRATENSIS	ASH MEADOWS GUMPLANT	G2
NITROPHILA MOHAVENSIS	AMARGOSA NITROPHILA	G1
PHAINOPEPLA NITENS	PHAINOPEPLA	G5
PLAGIOBOTHRYS SALSUS	DESERT POPCORN-FLOWER	G3G4
RARE PLANTS		

WILDHORSE MESA/ETCHARREN VALLEY

SIZE (Acres): 24,807 % PRIVATE: 0 % CLASS I AND II: 0 SYSTEMS: RW DW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BIG SAGEBRUSH SCRUB		
BLACKBRUSH SCRUB - MIXED SCRUB		
DESERT GRASSLAND AND SHRUB-STEPPE		
JOSHUA TREE WOODLAND		
MOJAVE DESERT WASH		
PLAYA		
SAGEBRUSH SCRUB		
SALTBUSH SCRUB		
CALOCHORTUS STRIATUS	ALKALI MARIPOSA LILY	G2
ERIOGONUM KENNEDYI VAR. PINICOLA		
PIPILO CRISSALIS EREMOPHILUS	INYO CALIFORNIA TOWHEE	G4G5T1
RARE INVERTEBRATES		
SPERMOPHILUS MOHAVENSIS	MOHAVE GROUND SQUIRREL	G2?

WILLOW SPRING

SIZE (Acres): 2,050 % PRIVATE: 0 % CLASS I AND II: 80.7 SYSTEMS: AQ RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
JOSHUA TREE WOODLAND		
SHADSCALE SCRUB		
OVIS CANADENSIS NELSONI	NELSON'S BIGHORN SHEEP	G4T3
SAUROMALUS OBESUS OBESUS	WESTERN CHUCKWALLA	G5T4

XANADU LOWLAND

SIZE (Acres): 1,768 % PRIVATE: 0 % CLASS I AND II: 53.8 SYSTEMS: DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
HILARIA RIGIDA HERBACEOUS ALLIANCE		

SOUTH-CENTRAL MOJAVE

BIG MORONGO CANYON

SIZE (Acres): 28,605 % PRIVATE: % CLASS I AND II: SYSTEMS: RW DW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
MESQUITE BOSQUE-RW		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
OAK WOODLAND		
ASIO OTUS	LONG-EARED OWL	
ASTRAGALUS TRICARINATUS	TRIPLE-RIBBED MILKVETCH	
CHARINA TRIVIRGATA	ROSY BOA	G5
DENDROICA PETECHIA BREWSTERI	YELLOW WARBLER	G5T2
EMPIDONAX TRAILLII EXTIMUS	SOUTHWESTERN WILLOW FLYCATCHER	G5T2
ERIGERON PARISHII	PARISH'S DAISY	G2
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
ICTERIA VIRENS	YELLOW-BREASTED CHAT	G5
MONARDELLA ROBISONII	ROBISON'S MONARDELLA	G2
MYIARCHUS TYRANNULUS	BROWN-CRESTED FLYCATCHER	G5
NEOTROPICAL MIGRATORY BIRD HABITAT		
OVIS CANADENSIS NELSONI	NELSON'S BIGHORN SHEEP	G4T3
PIRANGA RUBRA	SUMMER TANAGER	G5
PYROCEPHALUS RUBINUS	VERMILION FLYCATCHER	G5
VIREO BELLII PUSILLUS	LEAST BELL'S VIREO	?

CACTUS GARDEN - JTNP

SIZE (Acres): 1,253 % PRIVATE: 0 % CLASS I AND II: 100 SYSTEMS: DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
OPUNTIA BIGELOVII SHRUBLAND ALLIANCE		

COTTONWOOD SPRING

SIZE (Acres): 299 % PRIVATE: 0 % CLASS I AND II: 100 SYSTEMS: RW DW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CALIFORNIA FAN PALM OASIS		
CREOSOTE BUSH - MIXED SCRUB		
JOSHUA TREE WOODLAND		
MOJAVE DESERT WASH		
ANTROZOUS PALLIDUS	PALLID BAT	G5
DENDROICA PETECHIA BREWSTERI	YELLOW WARBLER	G5T2
EUMOPS PEROTIS CALIFORNICUS	GREATER WESTERN MASTIFF BAT	G5T4
MATELEA PARVIFOLIA	SPEARLEAF	G5?
SENNA COVESII	COVES'S CASSIA	G5?
TOXOSTOMA BENDIREI	BENDIRE'S THRASHER	G5

COTTONWOOD/OLD WOMAN SPRINGS

SIZE (Acres): 611 % PRIVATE: 45 % CLASS I AND II: 0 SYSTEMS: RW DW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
INTERIOR RIPARIAN FOREST AND WOODLAND		
MIMULUS MOHAVENSIS	MOJAVE MONKEYFLOWER	G2
NEOTROPICAL MIGRATORY BIRD HABITAT		

CUSHIONBERRY SPRINGS

SIZE (Acres): 848 % PRIVATE: 80 % CLASS I AND II: 0 SYSTEMS: RW DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
ALKALI MARSH		
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
JOSHUA TREE WOODLAND		
MONTANE RIPARIAN SCRUB		
PINYON PINE WOODLAND		
RIPARIAN HABITAT		
SEMI-DESERT CHAPARRAL		
ASTRAGALUS ALBENS	CUSHENBURY MILK-VETCH	G1
ATRIPLEX PARISHII	PARISH'S BRITTLESCALE	G2?
CALOCHORTUS STRIATUS	ALKALI MARIPOSA LILY	G2
DENDROICA PETECHIA BREWSTERI	YELLOW WARBLER	G5T2

ERIGERON PARISHII	PARISH'S DAISY	G2
ICTERIA VIRENS	YELLOW-BREASTED CHAT	G5
LANIUS LUDOVICIANUS	LOGGERHEAD SHRIKE	G5
LIMESTONE SUBSTRATES		
PIRANGA RUBRA	SUMMER TANAGER	G5
PUCCINELLIA PARISHII	PARISH'S ALKALI GRASS	G2
VIREO VICINIOR	GRAY VIREO	G5

DAGGETT WASH

SYSTEMS

SIZE (Acres): 4,218 % PRIVATE: 10 % CLASS I AND II: 82.4 DW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
MOJAVE DESERT WASH		
MIMULUS MOHAVENSIS	MOJAVE MONKEYFLOWER	G2
NEOTROPICAL MIGRATORY BIRD HABITAT		

DALE DRY LAKE

SYSTEMS

SIZE (Acres): 33,177 % PRIVATE: 6 % CLASS I AND II: 64.4 DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
HILARIA RIGIDA HERBACEOUS ALLIANCE		
MOJAVE DESERT WASH		
PLAYA		
PSOROTHAMNUS SPINOSUS SHRUBLAND ALLIANCE		
SALTBUSH SCRUB		
STABILIZED AND PARTIALLY-STABILIZED DESERT DUNES		
DIPSOSAURUS DORSALIS	DESERT IGUANA	G5
PHRYNOSOMA PLATYRHINOS CALIDIARUM	SOUTHERN DESERT HORNED LIZARD	G5T5
UMA SCOPARIA	MOJAVE FRINGE-TOED LIZARD	

FORTYNINE PALMS OASIS

SYSTEMS

SIZE (Acres): 209 % PRIVATE: 0 % CLASS I AND II: 100 RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CALIFORNIA FAN PALM OASIS		
CREOSOTE BUSH - MIXED SCRUB		
RIPARIAN BIRD HABITAT		

FRIED LIVER WASH

SYSTEMS

SIZE (Acres): 2,372 % PRIVATE: 10 % CLASS I AND II: 89.8 DW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CHILOPSIS LINEARIS INTERMITTENTLY FLOODED SHRUBLAND ALL		
CREOSOTE BUSH - MIXED SCRUB		
FOUQUIERIA SPLENDENS SHRUBLAND		

GOLD CROWN WASH / PINTO MTN

SYSTEMS

SIZE (Acres): 9,598 % PRIVATE: 3 % CLASS I AND II: 97.2 DW DS DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
ACACIA GREGGII SHRUBLAND ALLIANCE		
CACTUS GARDEN		
CHILOPSIS LINEARIS INTERMITTENTLY FLOODED SHRUBLAND ALL		
CREOSOTE BUSH - MIXED SCRUB		
MOJAVE MIXED WOODY SCRUB		
PSOROTHAMNUS SPINOSUS SHRUBLAND ALLIANCE		
STABILIZED AND PARTIALLY-STABILIZED DESERT DUNES		
ANTROZOUS PALLIDUS	PALLID BAT	G5
AREA OF HIGH BIOLOGICAL DIVERSITY		
BAT HABITAT		
EUMOPS PEROTIS CALIFORNICUS	GREATER WESTERN MASTIFF BAT	G5T4
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
LANDSCAPE QUALITY		
LANIUS LUDOVICIANUS	LOGGERHEAD SHRIKE	G5
MACROTUS CALIFORNICUS	CALIFORNIA LEAF-NOSED BAT	G4
MYOTIS CALIFORNICUS	CALIFORNIA MYOTIS	G5
MYOTIS THYSANODES	FRINGED MYOTIS	G5
PLECOTUS TOWNSENDII	TOWNSEND'S BIG-EARED BAT	G4
SAUROMALUS OBESUS OBESUS	WESTERN CHUCKWALLA	G5T4
TAXIDEA TAXUS	AMERICAN BADGER	G5

JOSHUA TREE DWMA

SIZE (Acres): 769,668 % PRIVATE: 5 % CLASS I AND II: 95 SYSTEMS: DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
JOSHUA TREE WOODLAND		
AMMOSELINUM GIGANTEUM	DESERT SAND-PARSLEY	G3
ANTROZOUS PALLIDUS	PALLID BAT	G5
CROTALUS CERASTES	SIDEWINDER	G5
DENDROICA PETECHIA BREWSTERI	YELLOW WARBLER	G5T2
DIPSOSAURUS DORSALIS	DESERT IGUANA	G5
DITAXIS CALIFORNICA	CALIFORNIA DITAXIS	G2
ERIGERON PARISHII	PARISH'S DAISY	G2
ESCOBARIA VIVIPARA VAR ALVERSONII	FOXTAIL CACTUS	G4T3
EUMOPS PEROTIS CALIFORNICUS	GREATER WESTERN MASTIFF BAT	G5T4
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
MACROTUS CALIFORNICUS	CALIFORNIA LEAF-NOSED BAT	G4
MATELEA PARVIFOLIA	SPEARLEAF	G5?
MONARDELLA ROBISONII	ROBISON'S MONARDELLA	G2
OVIS CANADENSIS NELSONI	NELSON'S BIGHORN SHEEP	G4T3
SENNA COVESII	COVES'S CASSIA	G5?
TOXOSTOMA BENDIREI	BENDIRE'S THRASHER	G5
TOXOSTOMA LECONTEI	LE CONTE'S THRASHER	G4

KANE WASH

SIZE (Acres): 4,636 % PRIVATE: 21 % CLASS I AND II: 72.8 SYSTEMS: DW DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
ACACIA GREGGII SHRUBLAND ALLIANCE		
CHILOPSIS LINEARIS INTERMITTENTLY FLOODED SHRUBLAND ALL		
CREOSOTE BUSH - MIXED SCRUB		
MOJAVE DESERT WASH		
PSOROTHAMNUS SPINOSUS SHRUBLAND ALLIANCE		
AQUILA CHRYSAETOS	GOLDEN EAGLE	G5
BAT HABITAT		
CROTALUS CERASTES	SIDEWINDER	G5
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
HABITAT QUALITY		
LANDSCAPE QUALITY		
LANIUS LUDOVICIANUS	LOGGERHEAD SHRIKE	G5
MIMULUS MOHAVENSIS	MOJAVE MONKEYFLOWER	G2
OVIS CANADENSIS NELSONI	NELSON'S BIGHORN SHEEP	G4T3
RAPTOR HABITAT		
SAUROMALUS OBESUS OBESUS	WESTERN CHUCKWALLA	G5T4
TAXIDEA TAXUS	AMERICAN BADGER	G5
TOXOSTOMA LECONTEI	LE CONTE'S THRASHER	G4

LAVIC LAKE / PISGAH CRATER

SIZE (Acres): 24,526 % PRIVATE: 10 % CLASS I AND II: 0 SYSTEMS: DS DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
JOSHUA TREE WOODLAND		
LAVA FLOW / EXPOSED BEDROCK		
MOJAVE DESERT WASH		
PLAYA		
SALTBUSH SCRUB		
ANTROZOUS PALLIDUS	PALLID BAT	G5
CALYPTE COSTAE	COSTA'S HUMMINGBIRD	G5
CNEMIDOPHORUS TIGRIS MULTISCUTATUS	COASTAL WESTERN WHIPTAIL	G5T3?
CROTALUS CERASTES	SIDEWINDER	G5
CROTALUS MITCHELLII	SPECKLED RATTLESNAKE	G5
DIPODOMYS MERRIAMI FRENATUS	MERRIAM'S KANGAROO RAT	G5T-UNIDENTIFED
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
LANDSCAPE QUALITY		
LANIUS LUDOVICIANUS	LOGGERHEAD SHRIKE	G5
LINANTHUS ARENICOLA	SAND LINANTHUS	G2?
PENSTEMON ALBOMARGINATUS	WHITE-MARGINED BEARDTONGUE	G2
PLECOTUS TOWNSENDII	TOWNSEND'S BIG-EARED BAT	G4
REPTILE SCRUB HABITAT		
SAUROMALUS OBESUS OBESUS	WESTERN CHUCKWALLA	G5T4
TOXOSTOMA CRISSALE	CRISSAL THRASHER	G5
UNSTABILIZED SAND		

LAVIC LAKE WASH

SYSTEMS

SIZE (Acres): 2,335 % PRIVATE: 0 % CLASS I AND II: 0 DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
MOJAVE DESERT WASH		
STABILIZED AND PARTIALLY-STABILIZED DESERT DUNES		
CALLISAURUS DRACONOIDES	ZEBRATAIL LIZARD	G5
CALYPTE COSTAE	COSTA'S HUMMINGBIRD	G5
CROTALUS CERASTES	SIDEWINDER	G5
DIPODOMYS MERRIAMI FRENATUS	MERRIAM'S KANGAROO RAT	G5T-UNIDENTIFED
DIPSOSAURUS DORSALIS	DESERT IGUANA	G5
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
LANIUS LUDOVICIANUS	LOGGERHEAD SHRIKE	G5
PHAINOPEPLA NITENS	PHAINOPEPLA	G5
PHRYNOSOMA PLATYRHINOS CALIDIARUM	SOUTHERN DESERT HORNED LIZARD	G5T5
TOXOSTOMA LECONTEI	LE CONTE'S THRASHER	G4

MESQUITE LAKE - TWENTYNINE PALMS

SYSTEMS

SIZE (Acres): 2,412 % PRIVATE: 80 % CLASS I AND II: 0 RW DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
MESQUITE BOSQUE		
MESQUITE BOSQUE-BB		
PLAYA		
SALTBUSH SCRUB		
SPRINGS		
STABILIZED AND PARTIALLY-STABILIZED DESERT DUNES		
UMA SCOPARIA	MOJAVE FRINGE-TOED LIZARD	
WATERFOWL HABITAT		

MOJAVE RIVER

SYSTEMS

SIZE (Acres): 22,518 % PRIVATE: 90 % CLASS I AND II: 0 AQ RW DW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CALIFORNIA JUNIPER WOODLAND		
CREOSOTE BUSH - MIXED SCRUB		
INTERIOR RIPARIAN FOREST AND WOODLAND		
JOSHUA TREE WOODLAND		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
MOJAVE DESERT WASH		
SALTBUSH SCRUB		
SEMI-DESERT CHAPARRAL		
BUFO MICROSCAPHUS CALIFORNICUS	ARROYO TOAD	G5?T3?
CLEMMYS MARMORATA PALLIDA	SOUTHWESTERN POND TURTLE	G4T2T3
EMPIDONAX TRAILLII EXTIMUS	SOUTHWESTERN WILLOW FLYCATCHER	G5T2
HELMINTHOGLYPTA MOHAVEANA	VICTORVILLE SHOULDERBAND	G1
HEMIZONIA MOHAVENSIS	MOJAVE TARPLANT	G1
ICTERIA VIRENS	YELLOW-BREASTED CHAT	G5
MICROTUS CALIFORNICUS MOHAVENSIS	MOHAVE RIVER VOLE	G5T1
PHRYNOSOMA CORONATUM BLAINVILLEI	SAN DIEGO HORNED LIZARD	G4T3T4
PIRANGA RUBRA	SUMMER TANAGER	G5
RANA AURORA DRAYTONII	CALIFORNIA RED-LEGGED FROG	G4T2T3
RIPARIAN BIRD HABITAT		
SCUTELLARIA BOLANDERI SSP AUSTROMONTANA	SOUTHERN SKULLCAP	G4T2
TOXOSTOMA LECONTEI	LE CONTE'S THRASHER	G4

MOJAVE RIVER - FORKS

SYSTEMS

SIZE (Acres): 4,565 % PRIVATE: 30 % CLASS I AND II: 0 AQ RW UM

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
ALPINE / SUBALPINE MEADOW		
CALIFORNIA JUNIPER WOODLAND		
INTERIOR RIPARIAN FOREST AND WOODLAND		
INTERIOR RIPARIAN MARSH AND SEEP		
JOSHUA TREE WOODLAND		
SEMI-DESERT CHAPARRAL		
SEMI-DESERT CHAPARRAL - CHAMISE CHAPARRAL		
BUFO MICROSCAPHUS CALIFORNICUS	ARROYO TOAD	G5?T3?
CANBYA CANDIDA	PYGMY POPPY	G2
HEMIZONIA MOHAVENSIS	MOJAVE TARPLANT	G1
NEOTROPICAL MIGRATORY BIRD HABITAT		

OPUNTIA BASILARIS VAR BRACHYCLADA	SHORT-JOINT BEAVERTAIL	G5T1
PHRYNOSOMA CORONATUM BLAINVILLEI	SAN DIEGO HORNED LIZARD	G4T3T4
RANA AURORA DRAYTONII	CALIFORNIA RED-LEGGED FROG	G4T2T3
SHOREBIRD HABITAT		
VIREO BELLII PUSILLUS	LEAST BELL'S VIREO	?

MOJAVE RIVER WASH

SIZE (Acres): 15,290 % PRIVATE: 90 % CLASS I AND II: 0

SYSTEMS: DW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
MOJAVE DESERT WASH		
BUTEO REGALIS	FERRUGINOUS HAWK	
COCCYZUS AMERICANUS OCCIDENTALIS	WESTERN YELLOW-BILLED CUCKOO	G5T2T3
LANIUS LUDOVICIANUS	LOGGERHEAD SHRIKE	G5
LINANTHUS ARENICOLA	SAND LINANTHUS	G2?
PIRANGA FLAVA	HEPATIC TANAGER	G5

MUNSEN CANYON

SIZE (Acres): 5,261 % PRIVATE: 0 % CLASS I AND II: 100

SYSTEMS: RW DW DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CALIFORNIA FAN PALM OASIS		
CALIFORNIA JUNIPER WOODLAND		
CREOSOTE BUSH - MIXED SCRUB		
JOSHUA TREE WOODLAND		
MOJAVE DESERT WASH		
OPUNTIA BIGELOVII SHRUBLAND ALLIANCE		
OVIS CANADENSIS NELSONI	NELSON'S BIGHORN SHEEP	G4T3

NEWBERRY MTN-CA

SIZE (Acres): 17,143 % PRIVATE: 7 % CLASS I AND II: 92.2

SYSTEMS: RW DW DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
DESERT PAVEMENT AND SALT FLAT		
MOJAVE DESERT WASH		
AQUILA CHRYSAETOS	GOLDEN EAGLE	G5
BAT HABITAT		
GRANITIC SUBSTRATES		
LANIUS LUDOVICIANUS	LOGGERHEAD SHRIKE	G5
MIMULUS MOHAVENSIS	MOJAVE MONKEYFLOWER	G2
NEOTROPICAL MIGRATORY BIRD HABITAT		
OVIS CANADENSIS NELSONI	NELSON'S BIGHORN SHEEP	G4T3
SAUROMALUS OBESUS OBESUS	WESTERN CHUCKWALLA	G5T4

NORTH SLOPE SAN BERNARDINO MTS - C

SIZE (Acres): 69,189 % PRIVATE: 50 % CLASS I AND II: 0

SYSTEMS: RW DS DU LM

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CALIFORNIA JUNIPER WOODLAND		
CREOSOTE BUSH - MIXED SCRUB		
JOSHUA TREE WOODLAND		
MOJAVE DESERT WASH		
MOJAVE MIXED WOODY SCRUB		
MONTANE RIPARIAN SCRUB		
PINYON - JUNIPER WOODLAND		
SINGLE-LEAF PINYON PINE - MIXED SHRUB WOODLAND		
SPRINGS		
ARABIS SHOCKLEYI	SHOCKLEY'S ROCK CRESS	G3
ASTRAGALUS ALBENS	CUSHENBURY MILK-VETCH	G1
ATRIPLEX PARISHII	PARISH'S BRITTLESCALE	G2?
CALOCHORTUS STRIATUS	ALKALI MARIPOSA LILY	G2
CHARINA TRIVIRGATA	ROSY BOA	G5
DUDLEYA ABRAMSII SSP AFFINIS	SAN BERNARDINO MTNS. DUDLEYA	G3T2
ERIGERON PARISHII	PARISH'S DAISY	G2
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
ICTERIA VIRENS	YELLOW-BREASTED CHAT	G5
LANDSCAPE QUALITY		
LIMESTONE SUBSTRATES		
NEOTROPICAL MIGRATORY BIRD HABITAT		
OVIS CANADENSIS NELSONI	NELSON'S BIGHORN SHEEP	G4T3
PHRYNOSOMA CORONATUM BLAINVILLEI	SAN DIEGO HORNED LIZARD	G4T3T4

PIRANGA RUBRA	SUMMER TANAGER	G5
STRIX OCCIDENTALIS LUCIDA	MEXICAN SPOTTED OWL	G3T3
VIREO VICINIOR	GRAY VIREO	G5

ORD MTS

SIZE (Acres): 13,920 % PRIVATE: 30 % CLASS I AND II: 74.1

SYSTEMS: RW DW DS DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
DESERT PAVEMENT AND SALT FLAT		
HILARIA RIGIDA HERBACEOUS ALLIANCE		
JOSHUA TREE WOODLAND		
LAVA FLOW / EXPOSED BEDROCK		
MOJAVE DESERT WASH		
RIPARIAN HABITAT		
AQUILA CHRYSAETOS	GOLDEN EAGLE	G5
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
MIMULUS MOHAVENSIS	MOJAVE MONKEYFLOWER	G2
OVIS CANADENSIS NELSONI	NELSON'S BIGHORN SHEEP	G4T3

ORD MTS - CACTUS GARDEN

SIZE (Acres): 5,617 % PRIVATE: 50 % CLASS I AND II: 52.5

SYSTEMS: DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CACTUS GARDEN		
CREOSOTE BUSH - MIXED SCRUB		
JOSHUA TREE WOODLAND		
MOJAVE DESERT WASH		
PLAYA		

ORD-RODMAN MTS COMPLEX

SIZE (Acres): 236,855 % PRIVATE: 20 % CLASS I AND II: 73.3

SYSTEMS: DW DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
JOSHUA TREE WOODLAND		
LAVA FLOW / EXPOSED BEDROCK		
MOJAVE DESERT WASH		
PLAYA		
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
LANIUS LUDOVICIANUS	LOGGERHEAD SHRIKE	G5
LINANTHUS ARENICOLA	SAND LINANTHUS	G2?
MIMULUS MOHAVENSIS	MOJAVE MONKEYFLOWER	G2
OVIS CANADENSIS NELSONI	NELSON'S BIGHORN SHEEP	G4T3

PINTO BASIN

SIZE (Acres): 52,128 % PRIVATE: 3 % CLASS I AND II: 96.6

SYSTEMS: DW DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
DESERT PAVEMENT AND SALT FLAT		
JOSHUA TREE WOODLAND		
MOJAVE DESERT WASH		
STABILIZED AND PARTIALLY-STABILIZED DESERT DUNES		
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	

PINTO WYE WASH

SIZE (Acres): 204 % PRIVATE: 0 % CLASS I AND II: 100

SYSTEMS: DW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CHILOPSIS LINEARIS INTERMITTENTLY FLOODED SHRUBLAND ALL		
CREOSOTE BUSH - MIXED SCRUB		
JOSHUA TREE WOODLAND		

PIPES CANYON

SIZE (Acres): 13,960 % PRIVATE: 80 % CLASS I AND II: 0

SYSTEMS: AQ RW DW DS LM

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CHILOPSIS LINEARIS INTERMITTENTLY FLOODED SHRUBLAND ALL		
CREOSOTE BUSH - MIXED SCRUB		

INTERIOR RIPARIAN MARSH AND SEEP		
INTERIOR RIPARIAN SHRUBLAND		
JOSHUA TREE WOODLAND		
MOJAVE DESERT WASH		
OAK WOODLAND		
PERENNIAL STREAM		
SEMI-DESERT CHAPARRAL		
SEMI-DESERT CHAPARRAL - MANZANITA		
ASTRAGALUS TRICARINATUS	TRIPLE-RIBBED MILKVETCH	
CHARINA TRIVIRGATA	ROSY BOA	G5
EMPIDONAX TRAILLII EXTIMUS	SOUTHWESTERN WILLOW FLYCATCHER	G5T2
ERIGERON PARISHII	PARISH'S DAISY	G2
GILIA MACULATA	LITTLE SAN BERNARDINO MTNS. GILIA	G1
ICTERUS PARISORUM	SCOTT'S ORIOLE	G5
LANDSCAPE QUALITY		
NEOTROPICAL MIGRATORY BIRD HABITAT		
OVIS CANADENSIS NELSONI	NELSON'S BIGHORN SHEEP	G4T3
PHRYNOSOMA PLATYRHINOS CALIDIARUM	SOUTHERN DESERT HORNED LIZARD	G5T5
RARE INVERTEBRATES		
TOXOSTOMA LECONTEI	LE CONTE'S THRASHER	G4

PLEASANT VALLEY PLAYA

SYSTEMS: DS

SIZE (Acres): 215 % PRIVATE: 0 % CLASS I AND II: 100

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
JOSHUA TREE WOODLAND		
MESQUITE BOSQUE-BB		
PLAYA		
SALTBUSH SCRUB		

QUACKENBUSH DUNES

SYSTEMS: DU

SIZE (Acres): 861 % PRIVATE: 0 % CLASS I AND II: 0

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
STABILIZED AND PARTIALLY-STABILIZED DESERT DUNES		
CROTALUS CERASTES	SIDEWINDER	G5
DIPODOMYS DESERTI	DESERT KANGAROO RAT	G5
TAXIDEA TAXUS	AMERICAN BADGER	G5
UMA SCOPARIA	MOJAVE FRINGE-TOED LIZARD	
VULPES MACROTIS	KIT FOX	G4

QUEEN MTN

SYSTEMS: LM

SIZE (Acres): 8,104 % PRIVATE: 0 % CLASS I AND II: 100

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CALIFORNIA JUNIPER WOODLAND		
CREOSOTE BUSH - MIXED SCRUB		
JOSHUA TREE - BIG GALLETA SPARSE WOODLAND		
JOSHUA TREE WOODLAND		
OVIS CANADENSIS NELSONI	NELSON'S BIGHORN SHEEP	G4T3

QUEEN VALLEY

SYSTEMS: DS

SIZE (Acres): 5,334 % PRIVATE: 0.4 % CLASS I AND II: 99.6

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BIG SAGEBRUSH - SPINY HOPSAGE SCRUB		
BLACKBRUSH SCRUB - MIXED SCRUB		
HILARIA RIGIDA HERBACEOUS ALLIANCE		
JOSHUA TREE - BIG GALLETA SPARSE WOODLAND		
JOSHUA TREE WOODLAND		

RABBITSPRINGS

SYSTEMS: AQ RW

SIZE (Acres): 1,999 % PRIVATE: +02 % CLASS I AND II: 0

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
ALKALI MEADOW / SEEP		
CREOSOTE BUSH - MIXED SCRUB		
INTERIOR RIPARIAN SHRUBLAND		
PLAYA		
SALTBUSH SCRUB		
SPRINGS		

ARABIS SHOCKLEYI	SHOCKLEY'S ROCK CRESS	G3
CALOCHORTUS STRIATUS	ALKALI MARIPOSA LILY	G2
NEOTROPICAL MIGRATORY BIRD HABITAT		
PUCCINELLIA PARISHII	PARISH'S ALKALI GRASS	G2
SIDALCEA NEOMEXICANA	SALT SPRING CHECKERBLOOM	G4?

RATTLESNAKE CANYON

SYSTEMS

SIZE (Acres): 1,248 % PRIVATE: 0 % CLASS I AND II: 100 RW LM

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CALIFORNIA JUNIPER WOODLAND		
CREOSOTE BUSH - MIXED SCRUB		
JOSHUA TREE WOODLAND		
BUFO PUNCTATUS	RED SPOTTED TOAD	
MATELEA PARVIFOLIA	SPEARLEAF	G5?
MONARDELLA ROBISONII	ROBISON'S MONARDELLA	G2

RODMAN MTS

SYSTEMS

SIZE (Acres): 45,386 % PRIVATE: 10 % CLASS I AND II: 78.1 DW DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CHILOPSIS LINEARIS INTERMITTENTLY FLOODED SHRUBLAND ALL		
CREOSOTE BUSH - MIXED SCRUB		
DESERT GRASSLAND AND SHRUB-STEPPE		
JOSHUA TREE WOODLAND		
LAVA FLOW / EXPOSED BEDROCK		
MOJAVE DESERT WASH		
PSOROTHAMNUS SPINOSUS SHRUBLAND ALLIANCE		
AQUILA CHRYSAETOS	GOLDEN EAGLE	G5
BAT HABITAT		
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
HABITAT QUALITY		
LANIUS LUDOVICIANUS	LOGGERHEAD SHRIKE	G5
MIMULUS MOHAVENSIS	MOJAVE MONKEYFLOWER	G2
NEOTROPICAL MIGRATORY BIRD HABITAT		
OVIS CANADENSIS NELSONI	NELSON'S BIGHORN SHEEP	G4T3
SAUROMALUS OBESUS OBESUS	WESTERN CHUCKWALLA	G5T4

SILVER MTN

SYSTEMS

SIZE (Acres): 33,234 % PRIVATE: 50 % CLASS I AND II: 0.1 DW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
ATHENE CUNICULARIA	BURROWING OWL	G4
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
MIMULUS MOHAVENSIS	MOJAVE MONKEYFLOWER	G2
RAPTOR HABITAT		
TOXOSTOMA LECONTEI	LE CONTE'S THRASHER	G4
VULPES MACROTIS	KIT FOX	G4

SMITH WATER CANYON

SYSTEMS

SIZE (Acres): 678 % PRIVATE: % CLASS I AND II: RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
ACACIA GREGGII SHRUBLAND ALLIANCE		
INTERIOR RIPARIAN MARSH AND SEEP		
RIPARIAN HABITAT		
SALIX LASIOLEPIS TEMPORARILY FLOODED COLD-DECIDUOUS WO		
BUFO PUNCTATUS	RED SPOTTED TOAD	
MONARDELLA ROBISONII	ROBISON'S MONARDELLA	G2

TWENTY NINE PALMS - WEST

SYSTEMS

SIZE (Acres): 4,257 % PRIVATE: 60 % CLASS I AND II: 0 RW DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
MESQUITE BOSQUE-BB		
BIRD HABITAT		
MIGRATORY BIRD HABITAT		

TWENTYNINE PALMS OASIS

SYSTEMS

SIZE (Acres): 150 % PRIVATE: +02 % CLASS I AND II: 0 RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CALIFORNIA FAN PALM OASIS		
CREOSOTE BUSH - MIXED SCRUB		

UPPER JOHNSON VALLEY

SYSTEMS

SIZE (Acres): 7,596 % PRIVATE: 0 % CLASS I AND II: 4.7 DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
CREOSOTE RINGS		
PLAYA		
SALTBUSH SCRUB		
YUCCA RINGS		

WESTERN JOSHUA TREE

SYSTEMS

SIZE (Acres): 119,259 % PRIVATE: 10 % CLASS I AND II: 88.2 LM

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
JOSHUA TREE - BIG GALLETA SPARSE WOODLAND		
JOSHUA TREE WOODLAND		
ANTROZOUS PALLIDUS	PALLID BAT	G5
ASTRAGALUS TRICARINATUS	TRIPLE-RIBBED MILKVETCH	
EUMOPS PEROTIS CALIFORNICUS	GREATER WESTERN MASTIFF BAT	G5T4
GILIA MACULATA	LITTLE SAN BERNARDINO MTNS. GILIA	G1
MATELEA PARVIFOLIA	SPEARLEAF	G5?
MONARDELLA ROBISONII	ROBISON'S MONARDELLA	G2
OVIS CANADENSIS NELSONI	NELSON'S BIGHORN SHEEP	G4T3
TOXOSTOMA BENDIREI	BENDIRE'S THRASHER	G5
VIREO BELLII PUSILLUS	LEAST BELL'S VIREO	?

WILLOW AND HACKBERRY CANYONS

SYSTEMS

SIZE (Acres): 11,555 % PRIVATE: 0 % CLASS I AND II: 0 RW DW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
DESERT GRASSLAND AND SHRUB-STEPPE		
DESERT HACKBERRY		
MOJAVE DESERT WASH		
SALIX LASIOLEPIS TEMPORARILY FLOODED COLD-DECIDUOUS WO		
SEMI-DESERT CHAPARRAL		
DENDROICA PETECHIA BREWSTERI	YELLOW WARBLER	G5T2
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
LANDSCAPE QUALITY		
LANIUS LUDOVICIANUS	LOGGERHEAD SHRIKE	G5
RAPTOR HABITAT		
SAUROMALUS OBESUS OBESUS	WESTERN CHUCKWALLA	G5T4
TOXOSTOMA LECONTEI	LE CONTE'S THRASHER	G4
VIREO VICINIOR	GRAY VIREO	G5

WONDERLAND OF ROCKS

SYSTEMS

SIZE (Acres): 4,232 % PRIVATE: 0 % CLASS I AND II: 100 LM

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CALIFORNIA JUNIPER WOODLAND		
CREOSOTE BUSH - MIXED SCRUB		
JOSHUA TREE - BIG GALLETA SPARSE WOODLAND		
MATELEA PARVIFOLIA	SPEARLEAF	G5?
MONARDELLA ROBISONII	ROBISON'S MONARDELLA	G2
VIREO BELLII PUSILLUS	LEAST BELL'S VIREO	?

SOUTH-EASTERN MOJAVE

BIG BEND / SOTO RANCH

SIZE (Acres): 16,890 % PRIVATE: 20 % CLASS I AND II: 0 SYSTEMS: AQ RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
INTERIOR RIPARIAN MARSH AND SEEP		
MESQUITE BOSQUE-RW		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
ATHENE CUNICULARIA	BURROWING OWL	G4
COCCYZUS AMERICANUS OCCIDENTALIS	WESTERN YELLOW-BILLED CUCKOO	G5T2T3
GILA ELEGANS	BONYTAIL	G1
ICTERIA VIRENS	YELLOW-BREASTED CHAT	G5
IXOBRYCHUS EXILIS HESPERIS	WESTERN LEAST BITTERN	G5T1
MICRATHENE WHITNEYI	ELF OWL	G5
MYIARCHUS TYRANNULUS	BROWN-CRESTED FLYCATCHER	G5
RALLUS LONGIROSTRIS YUMANENSIS	YUMA CLAPPER RAIL	G5T3
TOXOSTOMA CRISSALE	CRISSAL THRASHER	G5
VIREO BELLII ARIZONAE	ARIZONA BELL'S VIREO	G5T1
XYRAUCHEN TEXANUS	RAZORBACK SUCKER	G1

BLACK TOP FAN

SIZE (Acres): 6,056 % PRIVATE: 1 % CLASS I AND II: 0 SYSTEMS: DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
MOJAVE DESERT WASH		
CALLISAURUS DRACONOIDES	ZEBRATAIL LIZARD	G5
CALYPTE COSTAE	COSTA'S HUMMINGBIRD	G5
CNEMIDOPHORUS TIGRIS MULTISCUTATUS	COASTAL WESTERN WHIPTAIL	G5T3?
COLEONYX VARIEGATUS	BANDED GECKO	G5
DIPODOMYS MERRIAMI FRENATUS	MERRIAM'S KANGAROO RAT	G5T-UNIDENTIFED
DIPSOSAURUS DORSALIS	DESERT IGUANA	G5
GAMBELIA WISLIZENII	LEOPARD LIZARD	
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
LANIUS LUDOVICIANUS	LOGGERHEAD SHRIKE	G5
PEROMYSCUS EREMICUS	CACTUS MOUSE	G5
PHAINOPEPLA NITENS	PHAINOPEPLA	G5
PHRYNOSOMA PLATYRHINOS CALIDIARUM	SOUTHERN DESERT HORNED LIZARD	G5T5
SALVADORA HEXALEPIS MOJAVENSIS	MOJAVE PATCHNOSE SNAKE	G5T-UNIDENTIFED
SAUROMALUS OBESUS OBESUS	WESTERN CHUCKWALLA	G5T4

BRISTOL DRY LAKE

SIZE (Acres): 43,490 % PRIVATE: 20 % CLASS I AND II: 0 SYSTEMS: DS DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
FOURWING SALTBUSH - WINTERFAT SCRUB		
LAVA FLOW / EXPOSED BEDROCK		
PLAYA		
SALTBUSH SCRUB		
SAND SOURCE		

CADIZ DRY LAKE & DUNES

SIZE (Acres): % PRIVATE: % CLASS I AND II: SYSTEMS: DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
PLAYA		
STABILIZED AND PARTIALLY-STABILIZED DESERT DUNES		
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
UMA SCOPARIA	MOJAVE FRINGE-TOED LIZARD	

CALUMET DUNE

SIZE (Acres): 7,710 % PRIVATE: 0 % CLASS I AND II: 100 SYSTEMS: DW DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
MOJAVE DESERT WASH		
STABILIZED AND PARTIALLY-STABILIZED DESERT DUNES		
UMA SCOPARIA	MOJAVE FRINGE-TOED LIZARD	

CHEMEHUEVI DWMA

SIZE (Acres): 992,985 % PRIVATE: 20 % CLASS I AND II: 84.8 SYSTEMS: DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
JOSHUA TREE WOODLAND		
MOJAVE DESERT WASH		
SONORA-MOJAVE MIXED DESERT SCRUB		
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
OVIS CANADENSIS NELSONI	NELSON'S BIGHORN SHEEP	G4T3
PENSTEMON ALBOMARGINATUS	WHITE-MARGINED BEARDTONGUE	G2
REPTILE SCRUB HABITAT		
TOXOSTOMA LECONTEI	LE CONTE'S THRASHER	G4

CHEMEHUEVI MTS

SIZE (Acres): 55,808 % PRIVATE: 0.7 % CLASS I AND II: 99.2 SYSTEMS: AQ RW DW DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CACTUS GARDEN		
CREOSOTE BUSH - MIXED SCRUB		
MOJAVE DESERT WASH		
AREA OF HIGH BIOLOGICAL DIVERSITY		
BUFO COGNATUS	GREAT PLAINS TOAD	G5
OVIS CANADENSIS NELSONI	NELSON'S BIGHORN SHEEP	G4T3
SPEA INTERMONTANA	GREAT BASIN SPADEFOOT	G5
TRIMORPHODON BISCUTATUS LAMBDA	SONORAN LYRE SNAKE	

CHEMEHUEVI VALLEY

SIZE (Acres): 142,578 % PRIVATE: 9 % CLASS I AND II: 83.1 SYSTEMS: DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
DESERT PAVEMENT AND SALT FLAT		
MOJAVE DESERT WASH		
SONORA-MOJAVE MIXED DESERT SCRUB		
TOXOSTOMA LECONTEI	LE CONTE'S THRASHER	G4

CHEMEHUEVI WASH

SIZE (Acres): 31,423 % PRIVATE: 6 % CLASS I AND II: 80.5 SYSTEMS: DW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CERCIDIUM FLORIDUM SHRUBLAND ALLIANCE		
CREOSOTE BUSH - MIXED SCRUB		
MOJAVE DESERT WASH		
PSOROTHAMNUS SPINOSUS SHRUBLAND ALLIANCE		
SONORA-MOJAVE MIXED DESERT SCRUB		
SONORAN MIXED DESERT SCRUB - PALO VERDE -MIXED CACTI		
DESERT WASH BIRD HABITAT		
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	

DEAD MTS

SIZE (Acres): 21,124 % PRIVATE: 0 % CLASS I AND II: 90.2 SYSTEMS: DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
FOUQUIERIA SPLENDENS SHRUBLAND		
OPUNTIA BIGELOVII SHRUBLAND ALLIANCE		
PSOROTHAMNUS SPINOSUS SHRUBLAND ALLIANCE		
ASIO FLAMMEUS	SHORT-EARED OWL	
OVIS CANADENSIS NELSONI	NELSON'S BIGHORN SHEEP	G4T3
PHAINOPEPLA NITENS	PHAINOPEPLA	G5

DRIPPINGS SPRING

SIZE (Acres): 139 % PRIVATE: 0 % CLASS I AND II: 100 SYSTEMS: AQ RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
INTERIOR RIPARIAN SHRUBLAND		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
SONORA-MOJAVE MIXED DESERT SCRUB		
SPRINGS		

FENNER VALLEY

SIZE (Acres): 21,055 % PRIVATE: 30 % CLASS I AND II: 67.1 SYSTEMS: DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CACTUS GARDEN		
CREOSOTE BUSH - MIXED SCRUB		
FOUQUIERIA SPLENDENS SHRUBLAND		
PSOROTHAMNUS SPINOSUS SHRUBLAND ALLIANCE		
ECHINOCEREUS ENGELMANNII VAR HOWEI	HOWE'S HEDGEHOG CACTUS	G5T1
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	

GOLD ROAD WELL

SIZE (Acres): 346 % PRIVATE: 0 % CLASS I AND II: 100 SYSTEMS: RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
RIPARIAN HABITAT		

HOMER WASH

SIZE (Acres): 22,853 % PRIVATE: 20 % CLASS I AND II: 81.4 SYSTEMS: DW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CERCIDIUM FLORIDUM SHRUBLAND ALLIANCE		
CREOSOTE BUSH - MIXED SCRUB		
MOJAVE DESERT WASH		
PSOROTHAMNUS SPINOSUS SHRUBLAND ALLIANCE		

HUALAPAI FOOTHILLS

SIZE (Acres): 10,442 % PRIVATE: 2 % CLASS I AND II: 92.2 SYSTEMS: LM

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
PINYON - JUNIPER WOODLAND		
SEMI-DESERT CHAPARRAL - MIXED OAK CHAPARRAL		
GOPHERUS AGASSIZII (SONORAN POPULATION)	SONORAN DESERT TORTOISE	G4T4

IRONWOOD WASH

SIZE (Acres): 2,024 % PRIVATE: 0 % CLASS I AND II: 100 SYSTEMS: RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
RIPARIAN HABITAT		

LAKE HAVASU

SIZE (Acres): 8,035 % PRIVATE: 9 % CLASS I AND II: 9.3 SYSTEMS: AQ

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
GILA ELEGANS	BONYTAIL	G1
XYRAUCHEN TEXANUS	RAZORBACK SUCKER	G1

LAKE HAVASU SHORES

SIZE (Acres): 3,564 % PRIVATE: 1 % CLASS I AND II: 65.8 SYSTEMS: AQ RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
INTERIOR RIPARIAN MARSH AND SEEP		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
EMPIDONAX TRAILLII EXTIMUS	SOUTHWESTERN WILLOW FLYCATCHER	G5T2
GILA ELEGANS	BONYTAIL	G1
ICTERIA VIRENS	YELLOW-BREASTED CHAT	G5
MICRATHENE WHITNEYI	ELF OWL	G5
VIREO BELLII ARIZONAE	ARIZONA BELL'S VIREO	G5T1
XYRAUCHEN TEXANUS	RAZORBACK SUCKER	G1

LEAD MTN DUNES

SIZE (Acres): 450 % PRIVATE: 0 % CLASS I AND II: 0 SYSTEMS: DS DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
MOJAVE DESERT WASH		
STABILIZED AND PARTIALLY-STABILIZED DESERT DUNES		
BUTEO REGALIS	FERRUGINOUS HAWK	
CALLISAURUS DRACONOIDES	ZEBRATAIL LIZARD	G5

CALYPTE COSTAE	COSTA'S HUMMINGBIRD	G5
CNEMIDOPHORUS TIGRIS MULTISCUTATUS	COASTAL WESTERN WHIPTAIL	G5T3?
CROTALUS CERASTES	SIDEWINDER	G5
DIPODOMYS DESERTI	DESERT KANGAROO RAT	G5
DIPSOSAURUS DORSALIS	DESERT IGUANA	G5
LANIUS LUDOVICIANUS	LOGGERHEAD SHRIKE	G5
PHRYNOSOMA PLATYRHINOS CALIDIARUM	SOUTHERN DESERT HORNED LIZARD	G5T5
TAXIDEA TAXUS	AMERICAN BADGER	G5
TOXOSTOMA LECONTEI	LE CONTE'S THRASHER	G4
UMA SCOPARIA	MOJAVE FRINGE-TOED LIZARD	

MARBLE MOUNTAINS

SYSTEMS

SIZE (Acres): 23,087 % PRIVATE: 2 % CLASS I AND II: 88.5 DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
FOURWING SALTBUSH - WINTERFAT SCRUB		
MOJAVE DESERT WASH		
OVIS CANADENSIS NELSONI	NELSON'S BIGHORN SHEEP	G4T3
SALVIA GREATAE	OROCOPIA SAGE	G2

MOJAVE MOUNTAINS

SYSTEMS

SIZE (Acres): 73,513 % PRIVATE: 10 % CLASS I AND II: 0 LM

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
JOSHUA TREE WOODLAND		
PINYON - JUNIPER WOODLAND		
SEMI-DESERT CHAPARRAL - MANZANITA		
SEMI-DESERT CHAPARRAL - MIXED OAK CHAPARRAL		
SONORAN MIXED DESERT SCRUB - PALO VERDE -MIXED CACTI		
BAT HABITAT		
GOPHERUS AGASSIZII (SONORAN POPULATION)	SONORAN DESERT TORTOISE	G4T4
PLECOTUS TOWNSENDII PALLESCENS	PALE TOWNSEND'S BIG EARED BAT	G4T4

OATMAN BAT COMPLEX

SYSTEMS

SIZE (Acres): 22,141 % PRIVATE: 10 % CLASS I AND II: 8.4 DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
SONORA MIXED DESERT SCRUB - BRITTLEBUSH		
SONORA-MOJAVE MIXED DESERT SCRUB		
BAT HABITAT		
GOPHERUS AGASSIZII (SONORAN POPULATION)	SONORAN DESERT TORTOISE	G4T4

OLD WOMAN MTN

SYSTEMS

SIZE (Acres): 13,052 % PRIVATE: 0 % CLASS I AND II: 100 AQ

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CALIFORNIA JUNIPER WOODLAND		
CREOSOTE BUSH - MIXED SCRUB		
JOSHUA TREE WOODLAND		
MOJAVE MIXED SCRUB		
PINYON - JUNIPER WOODLAND		
SPRINGS		

PINTO BASIN - OCOTILLO

SYSTEMS

SIZE (Acres): 977 % PRIVATE: 0 % CLASS I AND II: 100 DW DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
FOUQUIERIA SPLENDENS SHRUBLAND		
JOSHUA TREE WOODLAND		
MOJAVE DESERT WASH		

PIUTE/ELDORADO/FENNER DWMA

SYSTEMS

SIZE (Acres): 1,152,910 % PRIVATE: 10 % CLASS I AND II: 85.7 DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CALIFORNIA JUNIPER WOODLAND		
CREOSOTE BUSH - MIXED SCRUB		
DESERT GRASSLAND AND SHRUB-STEPPE		
FOUQUIERIA SPLENDENS SHRUBLAND		

FOURWING SALTBUSH - WINTERFAT SCRUB		
INTERIOR RIPARIAN FOREST AND WOODLAND		
JOSHUA TREE - BIG GALLETA SPARSE WOODLAND		
JOSHUA TREE WOODLAND		
MESQUITE BOSQUE-BB		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
MOJAVE DESERT WASH		
SONORA-MOJAVE MIXED DESERT SCRUB		
ARIZONA ELEGANS	GLOSSY SNAKE	G5
ASTRAGALUS ALLOCHROUS VAR PLAYANUS	PLAYA MILK-VETCH	G4T3?Q
COLEONYX VARIEGATUS	BANDED GECKO	G5
CROTALUS CERASTES	SIDEWINDER	G5
CROTALUS SCUTULATUS	MOJAVE GREEN RATTLESNAKE	G5
DIPSOSAURUS DORSALIS	DESERT IGUANA	G5
ECHINOCEREUS ENGELMANNII VAR HOWEI	HOWE'S HEDGEHOG CACTUS	G5T1
FALCO PEREGRINUS	PEREGRINE FALCON	G3
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
HELODERMA SUSPECTUM CINCTUM	BANDED GILA MONSTER	G4T3
MACROTUS CALIFORNICUS	CALIFORNIA LEAF-NOSED BAT	G4
OPUNTIA BASILARIS VAR BRACHYCLADA	SHORT-JOINT BEAVERTAIL	G5T1
OVIS CANADENSIS NELSONI	NELSON'S BIGHORN SHEEP	G4T3
PENSTEMON ALBOMARGINATUS	WHITE-MARGINED BEARDTONGUE	G2
PENSTEMON BICOLOR SSP. ROSEUS	ROSY TWOTONE BEARDTONGUE	G3T3Q
PHRYNOSOMA CORONATUM BLAINVILLEI	SAN DIEGO HORNED LIZARD	G4T3T4
RANA ONCA	RELICT LEOPARD FROG	G1
REPTILE SCRUB HABITAT		
TOXOSTOMA BENDIREI	BENDIRE'S THRASHER	G5
TOXOSTOMA CRISSALE	CRISSAL THRASHER	G5
TOXOSTOMA LECONTEI	LE CONTE'S THRASHER	G4
XANTUSIA VIGILIS	DESERT NIGHT LIZARD	G5

SACRAMENTO MTN - WESTSIDE

SYSTEMS

SIZE (Acres): 17,008 % PRIVATE: 10 % CLASS I AND II: 61.9 DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
AMBROSIA DUMOSA DWARF-SHRUBLAND ALLIANCE		
CACTUS GARDEN		
CREOSOTE BUSH - MIXED SCRUB		
JOSHUA TREE WOODLAND		
OPUNTIA BIGELOVII SHRUBLAND ALLIANCE		
RIPARIAN HABITAT		
SALTBUSH SCRUB		
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
OVIS CANADENSIS NELSONI	NELSON'S BIGHORN SHEEP	G4T3

SACRAMENTO WASH

SYSTEMS

SIZE (Acres): 23,292 % PRIVATE: 50 % CLASS I AND II: 24.8 DW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
DESERT GRASSLAND AND SHRUB-STEPPE		
INTERIOR RIPARIAN SHRUBLAND		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
MOJAVE DESERT WASH		
SONORA MIXED DESERT SCRUB - BRITTLEBUSH		
SONORA-MOJAVE MIXED DESERT SCRUB		
GOPHERUS AGASSIZII (SONORAN POPULATION)	SONORAN DESERT TORTOISE	G4T4

SOUTH BLACK MOUNTAIN

SYSTEMS

SIZE (Acres): 182,173 % PRIVATE: 5 % CLASS I AND II: 85.5 DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
BAT FORAGING SITE		
BAT HABITAT		
EUMECES GILBERTI RUBRICAUDATUS	WESTERN REDTAIL SKINK	G5T4
EUMOPS PEROTIS CALIFORNICUS	GREATER WESTERN MASTIFF BAT	G5T4
GOPHERUS AGASSIZII (SONORAN POPULATION)	SONORAN DESERT TORTOISE	G4T4
HELODERMA SUSPECTUM CINCTUM	BANDED GILA MONSTER	G4T3
IDIONYCTERIS PHYLLOTIS	ALLEN'S BIG-EARED BAT	G4
OVIS CANADENSIS NELSONI	NELSON'S BIGHORN SHEEP	G4T3
PETALONYX NITIDUS	SHINY-LEAVED SANDPAPER PLANT	G4
PLECOTUS TOWNSENDII PALLESCENS	PALE TOWNSEND'S BIG EARED BAT	G4T4
PYRGULOPSIS CONICA	KINGMAN SPRINGSNAIL	G1

TOPOCK GORGE

SIZE (Acres):	4,000	% PRIVATE:	0.1	% CLASS I AND II:	99.8	SYSTEMS: AQ	RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
INTERIOR RIPARIAN MARSH AND SEEP		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
EMPIDONAX TRAILLII EXTIMUS	SOUTHWESTERN WILLOW FLYCATCHER	G5T2
FALCO PEREGRINUS	PEREGRINE FALCON	G3
GILA ELEGANS	BONYTAIL	G1
RALLUS LONGIROSTRIS YUMANENSIS	YUMA CLAPPER RAIL	G5T3
XYRAUCHEN TEXANUS	RAZORBACK SUCKER	G1

TOPOCK MARSH

SIZE (Acres):	17,528	% PRIVATE:	5	% CLASS I AND II:	67.4	SYSTEMS: AQ	RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
INTERIOR RIPARIAN MARSH AND SEEP		
INTERIOR RIPARIAN SHRUBLAND		
COCCYZUS AMERICANUS OCCIDENTALIS	WESTERN YELLOW-BILLED CUCKOO	G5T2T3
DENDROICA PETECHIA SONORANA	SONORAN YELLOW WARBLER	G5T1
EMPIDONAX TRAILLII EXTIMUS	SOUTHWESTERN WILLOW FLYCATCHER	G5T2
GILA ELEGANS	BONYTAIL	G1
ICTERIA VIRENS	YELLOW-BREASTED CHAT	G5
MYIARCHUS TYRANNULUS	BROWN-CRESTED FLYCATCHER	G5
PIRANGA RUBRA	SUMMER TANAGER	G5
PSEUDACRIS REGILLA	PACIFIC CHORUS FROG	G5
RALLUS LONGIROSTRIS YUMANENSIS	YUMA CLAPPER RAIL	G5T3
TOXOSTOMA CRISSALE	CRISSAL THRASHER	G5
VIREO BELLII ARIZONAE	ARIZONA BELL'S VIREO	G5T1
XYRAUCHEN TEXANUS	RAZORBACK SUCKER	G1

WALNUT CREEK

SIZE (Acres):	1,395	% PRIVATE:	50	% CLASS I AND II:	0	SYSTEMS: DW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
ACACIA GREGGII SHRUBLAND ALLIANCE		
CREOSOTE BUSH - MIXED SCRUB		
INTERIOR RIPARIAN SHRUBLAND		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
OVIS CANADENSIS NELSONI	NELSON'S BIGHORN SHEEP	G4T3
PENSTEMON ALBOMARGINATUS	WHITE-MARGINED BEARDTONGUE	G2
WILDLIFE CORRIDOR		

WESTERN MOJAVE

BADLANDS

SYSTEMS

SIZE (Acres): 7,537 % PRIVATE: 0 % CLASS I AND II: 0 DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BADLANDS/MUDHILLS (ANNUAL SHRUB AND FORB)		
CREOSOTE BUSH - DESERT HOLLY SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
PLAYA		
SALTBUSH SCRUB		
LINANTHUS ARENICOLA	SAND LINANTHUS	G2?
SPERMOPHILUS MOHAVENSIS	MOHAVE GROUND SQUIRREL	G2?

BIG ROCK WASH

SYSTEMS

SIZE (Acres): 3,671 % PRIVATE: 100 % CLASS I AND II: 0 RW DW LM

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CALIFORNIA JUNIPER WOODLAND		
CREOSOTE BUSH - MIXED SCRUB		
INTERIOR RIPARIAN FOREST AND WOODLAND		
JOSHUA TREE WOODLAND		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
RABBITBRUSH SCRUB		
SALTBUSH SCRUB		
SEMI-DESERT CHAPARRAL		
EUMECES GILBERTI RUBRICAUDATUS	WESTERN REDTAIL SKINK	G5T4
OPUNTIA BASILARIS VAR BRACHYCLADA	SHORT-JOINT BEAVERTAIL	G5T1
TOXOSTOMA LECONTEI	LE CONTE'S THRASHER	G4

CHINA LAKE BASIN

SYSTEMS

SIZE (Acres): 31,918 % PRIVATE: 0 % CLASS I AND II: 0 AQ DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
ALKALI MEADOW / SEEP		
ALKALI SAND SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
DESERT PLAYA MIXED SCRUB		
PLAYA		
SALTBUSH SCRUB		
STABILIZED AND PARTIALLY-STABILIZED DESERT DUNES		
VERNAL POOL HABITAT		
FAIRY SHRIMP		
GILA BICOLOR MOHAVENSIS	MOHAVE TUI CHUB	G4T1
LINANTHUS ARENICOLA	SAND LINANTHUS	G2?
MIGRATORY BIRD HABITAT		

CHINA LAKE DUNES

SYSTEMS

SIZE (Acres): 21,795 % PRIVATE: 0 % CLASS I AND II: 0 DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
DUNE INVERTEBRATES		
JOSHUA TREE WOODLAND		
MOJAVE DESERT WASH		
SALTBUSH SCRUB		
STABILIZED AND PARTIALLY-STABILIZED DESERT DUNES		
LINANTHUS ARENICOLA	SAND LINANTHUS	G2?
SPERMOPHILUS MOHAVENSIS	MOHAVE GROUND SQUIRREL	G2?

COTTONWOOD CREEK

SYSTEMS

SIZE (Acres): 1,603 % PRIVATE: +02 % CLASS I AND II: 0 RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CALIFORNIA JUNIPER WOODLAND		
CREOSOTE BUSH - MIXED SCRUB		
INTERIOR RIPARIAN SHRUBLAND		
JOSHUA TREE WOODLAND		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
MOJAVE MIXED SCRUB		
RABBITBRUSH SCRUB		
SEMI-DESERT CHAPARRAL		

LANDSCAPE QUALITY		
SPERMOPHILUS MOHAVENSIS	MOHAVE GROUND SQUIRREL	G2?

CUDDEBACK LAKE / GRASS VALLEY

SIZE (Acres): 66,102 % PRIVATE: 10 % CLASS I AND II: 90.2 SYSTEMS: DS DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
DESERT PLAYA MIXED SCRUB		
JOSHUA TREE WOODLAND		
PLAYA		
SALTBUSH SCRUB		
SHADSCALE SCRUB		
STABILIZED AND PARTIALLY-STABILIZED DESERT DUNES		
CYMOPTERUS DESERTICOLA	DESERT CYMOPTERUS	G2
ERIOPHYLLUM MOHAVENSE	BARSTOW WOOLLY SUNFLOWER	G2
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
RARE PLANTS		
SPERMOPHILUS MOHAVENSIS	MOHAVE GROUND SQUIRREL	G2?

ERMO

SIZE (Acres): 79,017 % PRIVATE: 50 % CLASS I AND II: 45.9 SYSTEMS: DS DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
MOJAVE MIXED SCRUB		
SALTBUSH SCRUB		
CYMOPTERUS DESERTICOLA	DESERT CYMOPTERUS	G2
ERIOPHYLLUM MOHAVENSE	BARSTOW WOOLLY SUNFLOWER	G2
LINANTHUS ARENICOLA	SAND LINANTHUS	G2?
SPERMOPHILUS MOHAVENSIS	MOHAVE GROUND SQUIRREL	G2?

FREMONT VALLEY

SIZE (Acres): 16,024 % PRIVATE: 20 % CLASS I AND II: 78.8 SYSTEMS: DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
CREOSOTE RINGS		
AQUILA CHRYSAETOS	GOLDEN EAGLE	G5
PHACELIA NASHIANA	CHARLOTTE'S PHACELIA	G3
SPERMOPHILUS MOHAVENSIS	MOHAVE GROUND SQUIRREL	G2?

FREMONT-KRAMER/SUPERIOR-CRONESE

SIZE (Acres): 1,044,973 % PRIVATE: 30 % CLASS I AND II: 69.4 SYSTEMS: DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
AGELAIUS TRICOLOR	TRICOLORED BLACKBIRD	G3
ANDROSTEPHIUM BREVIFOLIUM	SMALL-FLOWERED ANDROSTEPHIUM	?
ANTROZOUS PALLIDUS	PALLID BAT	G5
AQUILA CHRYSAETOS	GOLDEN EAGLE	G5
ASTRAGALUS JAEGERIANUS	LANE MTN. MILK-VETCH	G1
ATHENE CUNICULARIA	BURROWING OWL	G4
CALOCHORTUS STRIATUS	ALKALI MARIPOSA LILY	G2
CIRCUS CYANEUS	NORTHERN HARRIER	
CYMOPTERUS DESERTICOLA	DESERT CYMOPTERUS	G2
DIPODOMYS PANAMINTINUS	PANAMINT KANGAROO RAT	G5
ERIOPHYLLUM MOHAVENSE	BARSTOW WOOLLY SUNFLOWER	G2
ESCHSCHOLZIA MINUTIFLORA SSP TWISSELMANNII	RED ROCK POPPY	G5T2
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
LANIUS LUDOVICIANUS	LOGGERHEAD SHRIKE	G5
LINANTHUS ARENICOLA	SAND LINANTHUS	G2?
PHACELIA PARISHII	PARISH PHACELIA	G2G3
PLECOTUS TOWNSENDII PALLESCENS	PALE TOWNSEND'S BIG EARED BAT	G4T4
REPTILE SCRUB HABITAT		
SPERMOPHILUS MOHAVENSIS	MOHAVE GROUND SQUIRREL	G2?
TOXOSTOMA LECONTEI	LE CONTE'S THRASHER	G4

HARPER DRY LAKE BASIN

SIZE (Acres): 5,070 % PRIVATE: 30 % CLASS I AND II: 6.1 SYSTEMS: RW DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
ALKALI MEADOW / SEEP		

CREOSOTE BUSH - MIXED SCRUB		
DESERT PLAYA MIXED SCRUB		
HILARIA RIGIDA HERBACEOUS ALLIANCE		
JOSHUA TREE - BIG GALLETA SPARSE WOODLAND		
JOSHUA TREE WOODLAND		
MESQUITE BOSQUE-BB		
MUD FLATS		
PLAYA		
SALTBUSH SCRUB		
SPRINGS		
ASIO FLAMMEUS	SHORT-EARED OWL	
BUTEO REGALIS	FERRUGINOUS HAWK	
CHARADRIUS ALEXANDRINUS NIVOSUS	WESTERN SNOWY PLOVER	G4T2
CIRCUS CYANEUS	NORTHERN HARRIER	
ERIOPHYLLUM MOHAVENSE	BARSTOW WOOLLY SUNFLOWER	G2
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
LANDSCAPE QUALITY		
NEOTROPICAL MIGRATORY BIRD HABITAT		
RALLUS LONGIROSTRIS YUMANENSIS	YUMA CLAPPER RAIL	G5T3
RAPTOR HABITAT		
RIPARIAN BIRD HABITAT		
SHOREBIRD HABITAT		
SPERMOPHILUS MOHAVENSIS	MOHAVE GROUND SQUIRREL	G2?
WATERFOWL HABITAT		

HAYSTACK BUTTE

SIZE (Acres):	28,550	% PRIVATE:	4	% CLASS I AND II:	68.7	SYSTEMS
						DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
JOSHUA TREE WOODLAND		
SALTBUSH SCRUB		
SAND FIELDS		
ASIO OTUS	LONG-EARED OWL	
CYMOPTERUS DESERTICOLA	DESERT CYMOPTERUS	G2
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
LOEFLINGIA SQUARROSA VAR ARTEMISIARUM	SAGEBRUSH LOEFLINGIA	G5T4
SAUROMALUS OBESUS OBESUS	WESTERN CHUCKWALLA	G5T4
SPERMOPHILUS MOHAVENSIS	MOHAVE GROUND SQUIRREL	G2?

KINGS CANYON

SIZE (Acres):	1,283	% PRIVATE:	100	% CLASS I AND II:	0	SYSTEMS	
						RW DW	LM UM

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
GRAY PINES		
JOSHUA TREE WOODLAND		
RABBITBRUSH SCRUB		
VALLEY OAK WOODLAND		
AESCULUS CALIFORNICA	CALIFORNIA BUCKEYE	
EMPIDONAX TRAILLII EXTIMUS	SOUTHWESTERN WILLOW FLYCATCHER	G5T2
LANDSCAPE QUALITY		
NEOTROPICAL MIGRATORY BIRD HABITAT		
RAPTOR HABITAT		

KOEHN DRY LAKE - SW

SIZE (Acres):	5,087	% PRIVATE:	50	% CLASS I AND II:	48.9	SYSTEMS	
						RW	DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
DESERT PLAYA MIXED SCRUB		
INTERIOR RIPARIAN MARSH AND SEEP		
MEADOWS		
MESQUITE BOSQUE		
MESQUITE BOSQUE-BB		
PLAYA		
CHARADRIUS ALEXANDRINUS NIVOSUS	WESTERN SNOWY PLOVER	G4T2
WATERFOWL HABITAT		

KRAMER JCT - N/NE

SIZE (Acres):	19,138	% PRIVATE:	52	% CLASS I AND II:	22.9	SYSTEMS
						DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
PLAYA		

SALTBUSH SCRUB		
SHADSCALE SCRUB		
ERIOPHYLLUM MOHAVENSE	BARSTOW WOOLLY SUNFLOWER	G2
SPERMOPHILUS MOHAVENSIS	MOHAVE GROUND SQUIRREL	G2?

LEONA VALLEY

SIZE (Acres):	33,328	% PRIVATE:	100	% CLASS I AND II:	0	SYSTEMS: AQ	RW	DW	LM

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
DIGGER PINE- OAK WOODLAND		
JOSHUA TREE WOODLAND		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
RABBITBRUSH SCRUB		
CLEMMYS MARMORATA PALLIDA	SOUTHWESTERN POND TURTLE	G4T2T3
FROG HABITAT		
OPUNTIA BASILARIS VAR BRACHYCLADA	SHORT-JOINT BEAVERTAIL	G5T1
PHRYNOSOMA CORONATUM BLAINVILLEI	SAN DIEGO HORNED LIZARD	G4T3T4
RANA AURORA DRAYTONII	CALIFORNIA RED-LEGGED FROG	G4T2T3
VIREO BELLII PUSILLUS	LEAST BELL'S VIREO	?

LITTLE DIXIE WASH

SIZE (Acres):	8,352	% PRIVATE:	20	% CLASS I AND II:	14	SYSTEMS: DW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
JOSHUA TREE WOODLAND		
MOJAVE DESERT WASH		
SPERMOPHILUS MOHAVENSIS	MOHAVE GROUND SQUIRREL	G2?
TOXOSTOMA LECONTEI	LE CONTE'S THRASHER	G4

LITTLE ROCK WASH

SIZE (Acres):	3,626	% PRIVATE:	100	% CLASS I AND II:	0	SYSTEMS: RW	DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CALIFORNIA JUNIPER WOODLAND		
CREOSOTE BUSH - MIXED SCRUB		
INTERIOR RIPARIAN FOREST AND WOODLAND		
JOSHUA TREE WOODLAND		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
SALTBUSH SCRUB		
SEMI-DESERT CHAPARRAL		
HABITAT QUALITY		
NEOTROPICAL MIGRATORY BIRD HABITAT		
WILDLIFE CORRIDOR		

LONE BUTTE

SIZE (Acres):	3,894	% PRIVATE:	0	% CLASS I AND II:	0	SYSTEMS: DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
JOSHUA TREE WOODLAND		
SALTBUSH SCRUB		
STABILIZED AND PARTIALLY-STABILIZED DESERT DUNES		
LINANTHUS ARENICOLA	SAND LINANTHUS	G2?
SAUROMALUS OBESUS OBESUS	WESTERN CHUCKWALLA	G5T4
SPERMOPHILUS MOHAVENSIS	MOHAVE GROUND SQUIRREL	G2?

MOJAVE RIVER - FORKS

SIZE (Acres):	4,565	% PRIVATE:	30	% CLASS I AND II:	0	SYSTEMS: AQ	RW	UM

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
ALPINE / SUBALPINE MEADOW		
CALIFORNIA JUNIPER WOODLAND		
INTERIOR RIPARIAN FOREST AND WOODLAND		
INTERIOR RIPARIAN MARSH AND SEEP		
JOSHUA TREE WOODLAND		
SEMI-DESERT CHAPARRAL		
SEMI-DESERT CHAPARRAL - CHAMISE CHAPARRAL		
BUFO MICROSCAPHUS CALIFORNICUS	ARROYO TOAD	G5?T3?
CANBYA CANDIDA	PYGMY POPPY	G2
HEMIZONIA MOHAVENSIS	MOJAVE TARPLANT	G1
NEOTROPICAL MIGRATORY BIRD HABITAT		
OPUNTIA BASILARIS VAR BRACHYCLADA	SHORT-JOINT BEAVERTAIL	G5T1
PHRYNOSOMA CORONATUM BLAINVILLEI	SAN DIEGO HORNED LIZARD	G4T3T4

RANA AURORA DRAYTONII	CALIFORNIA RED-LEGGED FROG	G4T2T3
SHOREBIRD HABITAT		
VIREO BELLII PUSILLUS	LEAST BELL'S VIREO	?

MT. GENERAL

SIZE (Acres):	1,954	% PRIVATE:	20	% CLASS I AND II:	75.9	SYSTEMS
						DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
HILARIA RIGIDA HERBACEOUS ALLIANCE		
SALTBUSH SCRUB		

NORTH ANTELOPE VALLEY

SIZE (Acres):	2,370	% PRIVATE:	+02	% CLASS I AND II:	0	SYSTEMS
						DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
DESERT GRASSLAND AND SHRUB-STEPPE		
JOSHUA TREE WOODLAND		
RABBITBRUSH SCRUB		
LANDSCAPE QUALITY		
MIGRATORY BIRD HABITAT		
UNIQUE ASSOCIATION		

NORTH SLOPE SAN BERNARDINO MTS - J

SIZE (Acres):	46,824	% PRIVATE:	100	% CLASS I AND II:	0	SYSTEMS
						RW DU LM

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CALIFORNIA JUNIPER WOODLAND		
CREOSOTE BUSH - MIXED SCRUB		
JOSHUA TREE WOODLAND		
PINYON - JUNIPER WOODLAND		
PINYON PINE WOODLAND		
SEMI-DESERT CHAPARRAL		
SEMI-DESERT CHAPARRAL - MIXED OAK CHAPARRAL		
SEMI-DESERT CHAPARRAL - MOUNTAIN MAHOGANY - MIXED SHRU		
CANBYA CANDIDA	PYGMY POPPY	G2
OPUNTIA BASILARIS VAR BRACHYCLADA	SHORT-JOINT BEAVERTAIL	G5T1
PHRYNOSOMA CORONATUM BLAINVILLEI	SAN DIEGO HORNED LIZARD	G4T3T4
SPERMOPHILUS MOHAVENSIS	MOHAVE GROUND SQUIRREL	G2?
TOXOSTOMA LECONTEI	LE CONTE'S THRASHER	G4

OAK CREEK & CAMERON CANYONS

SIZE (Acres):	23,022	% PRIVATE:	80	% CLASS I AND II:	0	SYSTEMS
						AQ

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CALIFORNIA JUNIPER WOODLAND		
CREOSOTE BUSH - MIXED SCRUB		
DESERT GRASSLAND AND SHRUB-STEPPE		
GRAY PINES		
INTERIOR RIPARIAN MARSH AND SEEP		
INTERIOR RIPARIAN SHRUBLAND		
JOSHUA TREE WOODLAND		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
MOJAVE MIXED SCRUB		
PINYON PINE WOODLAND		
SEMI-DESERT CHAPARRAL		
SPRINGS		
STIPA LETTERMANII HERBACEOUS ALLIANCE		
VALLEY OAK WOODLAND		
ERIOGONUM KENNEDYI VAR. PINICOLA		
LANDSCAPE QUALITY		
NEOTROPICAL MIGRATORY BIRD HABITAT		

PAXTON PLAYA

SIZE (Acres):	1,275	% PRIVATE:	0	% CLASS I AND II:	0	SYSTEMS
						DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
ALKALI MEADOW / SEEP		
CREOSOTE BUSH - MIXED SCRUB		
DESERT PLAYA MIXED SCRUB		
PLAYA		
SALTBUSH SCRUB		
STABILIZED AND PARTIALLY-STABILIZED DESERT DUNES		

ATRIPLEX PARISHII	PARISH'S BRITTLESCALE	G2?

RAND MTN / DTNA

SIZE (Acres): 29,922 % PRIVATE: 5 % CLASS I AND II: 95.2 SYSTEMS: DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
DESERT GRASSLAND AND SHRUB-STEPPE		
JOSHUA TREE WOODLAND		
POA SECUNDA / DESERT GRASSLAND		
SALTBUSH SCRUB		
ATHENE CUNICULARIA	BURROWING OWL	G4
CHARINA TRIVIRGATA	ROSY BOA	G5
CHORIZANTHE SPINOSA		
COLEONYX VARIEGATUS	BANDED GECKO	G5
CROTALUS CERASTES	SIDEWINDER	G5
DIPODOMYS PANAMINTINUS	PANAMINT KANGAROO RAT	G5
DIPSOSAURUS DORSALIS	DESERT IGUANA	G5
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
HEMIZONIA ARIDA	RED ROCK TARPLANT	G1
REPTILE SCRUB HABITAT		
SPERMOPHILUS MOHAVENSIS	MOHAVE GROUND SQUIRREL	G2?

RED ROCK CANYON

SIZE (Acres): 3,301 % PRIVATE: 7 % CLASS I AND II: 0 SYSTEMS: AQ RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
SPRINGS		
CALOCHORTUS STRIATUS	ALKALI MARIPOSA LILY	G2
HEMIZONIA ARIDA	RED ROCK TARPLANT	G1
PHACELIA NASHIANA	CHARLOTTE'S PHACELIA	G3

RED ROCK CYN / EL PASO MTS

SIZE (Acres): 27,107 % PRIVATE: 8 % CLASS I AND II: 12.4 SYSTEMS: DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BIG SAGEBRUSH SCRUB		
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
JOSHUA TREE WOODLAND		
MOJAVE DESERT WASH		
SALTBUSH SCRUB		
SPRINGS		
AQUILA CHRYSAETOS	GOLDEN EAGLE	G5
BAT HABITAT		
CALOCHORTUS STRIATUS	ALKALI MARIPOSA LILY	G2
ESCHSCHOLZIA MINUTIFLORA SSP TWISSELMANNII	RED ROCK POPPY	G5T2
EUDERMA MACULATUM	SPOTTED BAT	G4
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
HEMIZONIA ARIDA	RED ROCK TARPLANT	G1
PHACELIA NASHIANA	CHARLOTTE'S PHACELIA	G3
PLECOTUS TOWNSENDII	TOWNSEND'S BIG-EARED BAT	G4
PLECOTUS TOWNSENDII PALLESCENS	PALE TOWNSEND'S BIG EARED BAT	G4T4
RAPTOR HABITAT		
SAUROMALUS OBESUS OBESUS	WESTERN CHUCKWALLA	G5T4
SPERMOPHILUS MOHAVENSIS	MOHAVE GROUND SQUIRREL	G2?

ROGERS/ROSAMOND DRY LAKES

SIZE (Acres): 85,997 % PRIVATE: 30 % CLASS I AND II: 2.7 SYSTEMS: AQ RW DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
ALKALI MEADOW / SEEP		
CREOSOTE BUSH - MIXED SCRUB		
DESERT SINK/PLAYA		
JOSHUA TREE WOODLAND		
MESQUITE BOSQUE		
MESQUITE BOSQUE-BB		
PLAYA		
SALTBUSH SCRUB		
VERNAL POOL HABITAT		
AGELAIUS TRICOLOR	TRICOLORED BLACKBIRD	G3
AQUILA CHRYSAETOS	GOLDEN EAGLE	G5
ASIO FLAMMEUS	SHORT-EARED OWL	
ASTRAGALUS PREUSSII VAR PREUSSII	PREUSS'S MILK-VETCH	G4T4

ATHENE CUNICULARIA	BURROWING OWL	G4
CALOCHORTUS STRIATUS	ALKALI MARIPOSA LILY	G2
CHARADRIUS ALEXANDRINUS NIVOSUS	WESTERN SNOWY PLOVER	G4T2
CIRCUS CYANEUS	NORTHERN HARRIER	
CLEMMYS MARMORATA PALLIDA	SOUTHWESTERN POND TURTLE	G4T2T3
CYMOPTERUS DESERTICOLA	DESERT CYMOPTERUS	G2
ERIASTRUM HOOVERI		
FAIRY SHRIMP		
FROG HABITAT		
LOEFLINGIA SQUARROSA VAR ARTEMISIARUM	SAGEBRUSH LOEFLINGIA	G5T4
PUCCINELLIA PARISHII	PARISH'S ALKALI GRASS	G2
SHOREBIRD HABITAT		
WATERFOWL HABITAT		

SCODIE MTN

SIZE (Acres): 114,789 % PRIVATE: 32 % CLASS I AND II: 3.1 SYSTEMS: DS

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BLACKBRUSH SCRUB - MIXED SCRUB		
CREOSOTE BUSH - MIXED SCRUB		
JOSHUA TREE WOODLAND		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
MOJAVE DESERT WASH		
AQUILA CHRYSAETOS	GOLDEN EAGLE	G5
LANIUS LUDOVICIANUS	LOGGERHEAD SHRIKE	G5
SPERMOPHILUS MOHAVENSIS	MOHAVE GROUND SQUIRREL	G2?

SHEEP CREEK

SIZE (Acres): 3,883 % PRIVATE: 80 % CLASS I AND II: 0 SYSTEMS: LM

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CALIFORNIA JUNIPER WOODLAND		
JOSHUA TREE WOODLAND		
OAK HILLS		
SEMI-DESERT CHAPARRAL		
SEMI-DESERT CHAPARRAL - MIXED OAK CHAPARRAL		
PHRYNOSOMA CORONATUM BLAINVILLEI	SAN DIEGO HORNED LIZARD	G4T3T4

SUMMIT CREEK

SIZE (Acres): 1,522 % PRIVATE: 40 % CLASS I AND II: 0 SYSTEMS: RW

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
INTERIOR RIPARIAN FOREST AND WOODLAND		
NEOTROPICAL MIGRATORY BIRD HABITAT		
PYRGULOPSIS WONGI	WONG'S SPRINGSNAIL	G1G2

SUMMIT VALLEY/CAJON PASS

SIZE (Acres): 123,178 % PRIVATE: 60 % CLASS I AND II: 0 SYSTEMS: RW LM

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
BIG SAGEBRUSH - SPINY HOPSAGE SCRUB		
INTERIOR RIPARIAN FOREST AND WOODLAND		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
SCRUB OAK		
SEMI-DESERT CHAPARRAL		
SEMI-DESERT CHAPARRAL - CHAMISE CHAPARRAL		
SEMI-DESERT CHAPARRAL - MANZANITA		
SEMI-DESERT CHAPARRAL - MIXED OAK CHAPARRAL		
SEMI-DESERT CHAPARRAL - RIVERSIDIAN SAGE SCRUB		
BUFO MICROSCAPHUS CALIFORNICUS	ARROYO TOAD	G5?T3?
CANBYA CANDIDA	PYGMY POPPY	G2
CNEMIDOPHORUS TIGRIS MULTISCUTATUS	COASTAL WESTERN WHIPTAIL	G5T3?
EMPIDONAX TRAILLII EXTIMUS	SOUTHWESTERN WILLOW FLYCATCHER	G5T2
HEMIZONIA MOHAVENSIS	MOJAVE TARPLANT	G1
OPUNTIA BASILARIS VAR BRACHYCLADA	SHORT-JOINT BEAVERTAIL	G5T1
PHRYNOSOMA CORONATUM BLAINVILLEI	SAN DIEGO HORNED LIZARD	G4T3T4
RANA AURORA DRAYTONII	CALIFORNIA RED-LEGGED FROG	G4T2T3
THAMNOPHIS HAMMONDII	TWO-STRIPED GARTER SNAKE	G3?
VIOLA AUREA	GOLDEN VIOLET	G3G4
VIREO BELLII PUSILLUS	LEAST BELL'S VIREO	?

TEHACHAPI FOOTHILLS

SIZE (Acres):	95,153	% PRIVATE:	90	% CLASS I AND II:	0	SYSTEMS	
						DS	LM

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CALIFORNIA JUNIPER WOODLAND		
CREOSOTE BUSH - MIXED SCRUB		
DESERT GRASSLAND AND SHRUB-STEPPE		
JOSHUA TREE WOODLAND		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		
RABBITBRUSH SCRUB		
SALTBUSH SCRUB		
SEMI-DESERT CHAPARRAL		

YARDINGS

SIZE (Acres):	26,006	% PRIVATE:	30	% CLASS I AND II:	0	SYSTEMS	
						DS	DU

SCIENTIFIC NAME	COMMON NAME	GLOBAL RANK
CREOSOTE BUSH - MIXED SCRUB		
PLAYA		
SALTBUSH SCRUB		
STABILIZED AND PARTIALLY-STABILIZED DESERT DUNES		
CYMOPTERUS DESERTICOLA	DESERT CYMOPTERUS	G2
DIPODOMYS PANAMINTINUS	PANAMINT KANGAROO RAT	G5
ERIOPHYLLUM MOHAVENSE	BARSTOW WOOLLY SUNFLOWER	G2
GOPHERUS AGASSIZII (MOJAVE POPULATION)	MOHAVE DESERT TORTOISE	
SPERMOPHILUS MOHAVENSIS	MOHAVE GROUND SQUIRREL	G2?
VULPES MACROTIS	KIT FOX	G4

Appendix V. Decision Matrices for Portfolio Sites in the Mojave Desert Ecoregion

(grouped by Ecological System Type and Subregion)

Appendix V. Decision Matrices for Portfolio Sites in the Mojave Desert Ecoregion by ecological system type and subregion.

Aquatics
- Central…… 1
- Eastern ……2
- Northern ……..11
- Southcentral ……14
- Southeastern ……..15
- Western ……..…16

Riparian Wetland
- Central ……17
- Eastern ……18
- Northern ……..26
- Southcentral ……30
- Southeastern ……..34
- Western ……36

Desert Wash
- Central ……39
- Eastern ……41
- Northern ……..45
- Southcentral ……47
- Southeastern ……..50
- Western ……52

Dunes and Substrates
- Central ……53
- Eastern ……55
- Northern ……..61
- Southcentral ……66
- Southeastern ……..69
- Western ……71

Desert Scrub
- Central ……73
- Eastern ……75
- Northern ……..80
- Southcentral ……82
- Southeastern ……..85
- Western ……87

Lower Montane
- Eastern ……89
- Southeastern ……..93
- Western ……94

Upper Montane
- Eastern ……95
- Northern ……..96
- Western ……97

AQUATICS-CENTRAL	AFTON CANYON	AVAWATZ MTS	BITTER SPRING	CAMP CADY	EAGLE CRAGS	FT. IRWIN SPRINGS	GARLIC SPRING	GRANITE MTN FT. IRWIN	HELLWIND CANYON	LEACH SPRING	TWO SPRINGS	ZYZZYX
TARGETS												
BUFO MICROSCAPHUS CALIFORNICUS	X											
CYPRINODON NEVADENSIS NEVADENSIS												X
AQUATIC FLORA										X	X	
GILA BICOLOR MOHAVENSIS				X								X
SPRINGS		X	1		X	X	X	1	1	1	X	
PROTECTED STATUS	o	o	o	o	o	o	o	o	o	o	o	+
OUTSTANDING	o	o	o	o	o	o	o	o	o	o	o	o
GOAL/REPRESENTATION	+	o	+	+	o	o	o	+	+	+	+	+
PORTFOLIO	YES	NO	YES	YES	NO	NO	NO	YES	YES	YES	YES	YES

AQUATICS-EASTERN	ARIZONA BAY	ASH SPRINGS	BEAVER DAM WASH	BECK SPRING	BLACK CANYON	BLUE POINT SPRING	BRIDGE CANYON	BURNS SPRING CANYON	BURRO WASH	CALICO SPRING
TARGETS										
AQUATIC HABITAT										
BUFO BOREAS										
BUFO COGNATUS										
BUFO MICROSCAPHUS MICROSCAPHUS										
BUFO PUNCTATUS									X	
CATOSTOMUS CLARKI			X							
CATOSTOMUS CLARKI INTERMEDIUS										
CATOSTOMUS CLARKI SSP. 2										
CATOSTOMUS LATIPINNIS										
CRENICHTHYS BAILEYI BAILEYI		X								
CRENICHTHYS BAILEYI GRANDIS										
CRENICHTHYS BAILEYI MOAPAE										
CYPRINODON NEVADENSIS AMARGOSAE										
CYPRINODON NEVADENSIS NEVADENSIS										
EMPETRICHTHYS LATOS LATOS										
GILA BICOLOR MOHAVENSIS										
GILA ELEGANS										
GILA ROBUSTA JORDANI		X								
GILA SEMINUDA										
GILA SEMINUDA POP 2										
HALIPLUS EREMICUS										
HYLA ARENICOLOR										
HYLA REGILLA										X
LEPIDOMEDA MOLLISPINIS			X							
LUTRA CANADENSIS SONORA	X									
MOAPA CORIACEA										
PERENNIAL STREAM										
PLAGOPTERUS ARGENTISSIMUS										
PYRGULOPSIS AVERNALIS										
PYRGULOPSIS BACCHUS										
PYRGULOPSIS CARINIFERA										
PYRGULOPSIS COLORADENSIS						X				
PYRGULOPSIS CONICA								X		
PYRGULOPSIS DEACONI										
PYRGULOPSIS FAUSTA										
PYRGULOPSIS HUBBSI										
PYRGULOPSIS MERRIAMI		X								
PYRGULOPSIS TURBATRIX										
RANA ONCA					X	X				
RANA PIPIENS										
RHINICHTHYS OSCULUS										
RHINICHTHYS OSCULUS SSP. 2										
RHINICHTHYS OSCULUS VELIFER		X								
RHINICHTHYS SP. 3										
SPRINGS				X	X		X			
STENELMIS OCCIDENTALIS		X								
TRYONIA CLATHRATA		X								
USINGERINA MOAPENSIS										
XYRAUCHEN TEXANUS	X									
PROTECTED STATUS	o	o	o	o	+	+	+	+	+	o
OUTSTANDING	o	o	o	o	o	o	o	o	o	o
GOAL/REPRESENTATION	+	+	+	+	+	+	o	+	o	+
PORTFOLIO	YES	YES	YES	YES	YES	YES	NO	YES	NO	YES

AQUATICS-EASTERN	COLD CREEK SPRINGS	CORN CREEK	CORNFIELD SPRINGS	CORRAL SPRING	COYOTE SPRINGS	CRYSTAL SPRING	DEACON/BROWNIE SPRINGS	ECHO BAY	EMPIRE WASH
TARGETS									
AQUATIC HABITAT									
BUFO BOREAS									
BUFO COGNATUS									
BUFO MICROSCAPHUS MICROSCAPHUS									
BUFO PUNCTATUS									
CATOSTOMUS CLARKI									
CATOSTOMUS CLARKI INTERMEDIUS						X			
CATOSTOMUS CLARKI SSP. 2									
CATOSTOMUS LATIPINNIS									
CRENICHTHYS BAILEYI BAILEYI									
CRENICHTHYS BAILEYI GRANDIS						X			
CRENICHTHYS BAILEYI MOAPAE									
CYPRINODON NEVADENSIS AMARGOSAE									
CYPRINODON NEVADENSIS NEVADENSIS									
EMPETRICHTHYS LATOS LATOS		X							
GILA BICOLOR MOHAVENSIS									
GILA ELEGANS									
GILA ROBUSTA JORDANI									
GILA SEMINUDA									
GILA SEMINUDA POP 2									
HALIPLUS EREMICUS									
HYLA ARENICOLOR									
HYLA REGILLA									
LEPIDOMEDA MOLLISPINIS									
LUTRA CANADENSIS SONORA									
MOAPA CORIACEA									
PERENNIAL STREAM			X						
PLAGOPTERUS ARGENTISSIMUS									
PYRGULOPSIS AVERNALIS									
PYRGULOPSIS BACCHUS									
PYRGULOPSIS CARINIFERA									
PYRGULOPSIS COLORADENSIS									
PYRGULOPSIS CONICA									
PYRGULOPSIS DEACONI									
PYRGULOPSIS FAUSTA		X							
PYRGULOPSIS HUBBSI						X			
PYRGULOPSIS MERRIAMI									
PYRGULOPSIS TURBATRIX	X								
RANA ONCA				X					
RANA PIPIENS									
RHINICHTHYS OSCULUS									
RHINICHTHYS OSCULUS SSP. 2									
RHINICHTHYS OSCULUS VELIFER						X	X		
RHINICHTHYS SP. 3									
SPRINGS			1		X				X
STENELMIS OCCIDENTALIS									
TRYONIA CLATHRATA									
USINGERINA MOAPENSIS									
XYRAUCHEN TEXANUS								1	
PROTECTED STATUS	o	o	+	+	o	o	o	+	o
OUTSTANDING	o	o	o	o	o	o	o	o	o
GOAL/REPRESENTATION	+	+	o	+		+	+	+	o
PORTFOLIO	YES	YES	NO	YES	NO	YES	YES	YES	NO

AQUATICS-EASTERN	GASS SPRING	GRAPEVINE SPRING	GRAPEVINE SPRINGS-AMARGOSA FLAT	GRAPEVINE/ SACATON CANYON	HIKO SPRING-PAHRANAGAT	HIKO SPRINGS	HORSESHUTEM SPRINGS	HORSETHIEF SPRING	JOHNSTON CANYON
TARGETS									
AQUATIC HABITAT									
BUFO BOREAS						X			
BUFO COGNATUS									
BUFO MICROSCAPHUS MICROSCAPHUS									
BUFO PUNCTATUS						X			
CATOSTOMUS CLARKI									
CATOSTOMUS CLARKI INTERMEDIUS									
CATOSTOMUS CLARKI SSP. 2									
CATOSTOMUS LATIPINNIS									
CRENICHTHYS BAILEYI BAILEYI									
CRENICHTHYS BAILEYI GRANDIS					X				
CRENICHTHYS BAILEYI MOAPAE									
CYPRINODON NEVADENSIS AMARGOSAE									
CYPRINODON NEVADENSIS NEVADENSIS									
EMPETRICHTHYS LATOS LATOS									
GILA BICOLOR MOHAVENSIS									
GILA ELEGANS									
GILA ROBUSTA JORDANI									
GILA SEMINUDA									
GILA SEMINUDA POP 2									
HALIPLUS EREMICUS									
HYLA ARENICOLOR									
HYLA REGILLA									
LEPIDOMEDA MOLLISPINIS									
LUTRA CANADENSIS SONORA									
MOAPA CORIACEA									
PERENNIAL STREAM									
PLAGOPTERUS ARGENTISSIMUS									
PYRGULOPSIS AVERNALIS									
PYRGULOPSIS BACCHUS									
PYRGULOPSIS CARINIFERA									
PYRGULOPSIS COLORADENSIS									
PYRGULOPSIS CONICA									
PYRGULOPSIS DEACONI									
PYRGULOPSIS FAUSTA									
PYRGULOPSIS HUBBSI					X				
PYRGULOPSIS MERRIAMI									
PYRGULOPSIS TURBATRIX			X				X		
RANA ONCA									
RANA PIPIENS									
RHINICHTHYS OSCULUS									
RHINICHTHYS OSCULUS SSP. 2									
RHINICHTHYS OSCULUS VELIFER									
RHINICHTHYS SP. 3									
SPRINGS	X	X		X				1	1
STENELMIS OCCIDENTALIS									
TRYONIA CLATHRATA									
USINGERINA MOAPENSIS									
XYRAUCHEN TEXANUS									
PROTECTED STATUS	+	o	o	+	o	o	o	o	o
OUTSTANDING	o	o	o	o	o	o	o	o	o
GOAL/REPRESENTATION	o	o	+	o	+	+	+	o	o
PORTFOLIO	NO	NO	NO	NO	YES	YES	YES	NO	NO

AQUATICS-EASTERN	KINGSTON MOUNTAINS	KINGSTON SPRING	KINGSTON WASH	KIUP SPRING	LA MADRE SPRING	LAKE MOJAVE	LAS VEGAS BAY	LITTLEFIELD	LONE GRAPEVINE SPRING
TARGETS									
AQUATIC HABITAT									
BUFO BOREAS									
BUFO COGNATUS									
BUFO MICROSCAPHUS MICROSCAPHUS									
BUFO PUNCTATUS									
CATOSTOMUS CLARKI								X	
CATOSTOMUS CLARKI INTERMEDIUS									
CATOSTOMUS CLARKI SSP. 2									
CATOSTOMUS LATIPINNIS								X	
CRENICHTHYS BAILEYI BAILEYI									
CRENICHTHYS BAILEYI GRANDIS									
CRENICHTHYS BAILEYI MOAPAE									
CYPRINODON NEVADENSIS AMARGOSAE									
CYPRINODON NEVADENSIS NEVADENSIS									
EMPETRICHTHYS LATOS LATOS					X				
GILA BICOLOR MOHAVENSIS									
GILA ELEGANS						X			
GILA ROBUSTA JORDANI									
GILA SEMINUDA								X	
GILA SEMINUDA POP 2									
HALIPLUS EREMICUS									
HYLA ARENICOLOR									
HYLA REGILLA					X				X
LEPIDOMEDA MOLLISPINIS								X	
LUTRA CANADENSIS SONORA									
MOAPA CORIACEA									
PERENNIAL STREAM									
PLAGOPTERUS ARGENTISSIMUS								X	
PYRGULOPSIS AVERNALIS									
PYRGULOPSIS BACCHUS									
PYRGULOPSIS CARINIFERA									
PYRGULOPSIS COLORADENSIS									
PYRGULOPSIS CONICA									
PYRGULOPSIS DEACONI				X					
PYRGULOPSIS FAUSTA									
PYRGULOPSIS HUBBSI									
PYRGULOPSIS MERRIAMI									
PYRGULOPSIS TURBATRIX					X				
RANA ONCA									
RANA PIPIENS									
RHINICHTHYS OSCULUS									
RHINICHTHYS OSCULUS SSP. 2									
RHINICHTHYS OSCULUS VELIFER									
RHINICHTHYS SP. 3									
SPRINGS	1	1	1						
STENELMIS OCCIDENTALIS									
TRYONIA CLATHRATA									
USINGERINA MOAPENSIS									
XYRAUCHEN TEXANUS						X	1		
PROTECTED STATUS	+	+	+	o	+	o	+	o	+
OUTSTANDING	o	o	o	o	o	o	o	o	o
GOAL/REPRESENTATION	o	o	o	+	+	+	+	+	+
PORTFOLIO	NO	NO	NO	YES	YES	YES	YES	YES	YES

AQUATICS-EASTERN	LOWER GOLD BUTTE	LOWER MUDDY RIVER	LOWER VIRGIN RIVER	LYTLE RANCH	MEADOW VALLEY WASH	MID-HILLS	MIDDLE SPRINGS	MIDDLE VIRGIN RIVER	MORMON GREEN SPRINGS
TARGETS									
AQUATIC HABITAT									
BUFO BOREAS									
BUFO COGNATUS									
BUFO MICROSCAPHUS MICROSCAPHUS									
BUFO PUNCTATUS									
CATOSTOMUS CLARKI				X					
CATOSTOMUS CLARKI INTERMEDIUS									
CATOSTOMUS CLARKI SSP. 2					X				
CATOSTOMUS LATIPINNIS								X	
CRENICHTHYS BAILEYI BAILEYI									
CRENICHTHYS BAILEYI GRANDIS									
CRENICHTHYS BAILEYI MOAPAE									
CYPRINODON NEVADENSIS AMARGOSAE									
CYPRINODON NEVADENSIS NEVADENSIS									
EMPETRICHTHYS LATOS LATOS									
GILA BICOLOR MOHAVENSIS									
GILA ELEGANS									
GILA ROBUSTA JORDANI									
GILA SEMINUDA								X	
GILA SEMINUDA POP 2		X							
HALIPLUS EREMICUS									
HYLA ARENICOLOR									
HYLA REGILLA							X		X
LEPIDOMEDA MOLLISPINIS				X					
LUTRA CANADENSIS SONORA			X						
MOAPA CORIACEA									
PERENNIAL STREAM									
PLAGOPTERUS ARGENTISSIMUS									
PYRGULOPSIS AVERNALIS									
PYRGULOPSIS BACCHUS							1		
PYRGULOPSIS CARINIFERA									
PYRGULOPSIS COLORADENSIS									
PYRGULOPSIS CONICA									
PYRGULOPSIS DEACONI									
PYRGULOPSIS FAUSTA									
PYRGULOPSIS HUBBSI									
PYRGULOPSIS MERRIAMI									
PYRGULOPSIS TURBATRIX									
RANA ONCA								X	
RANA PIPIENS									
RHINICHTHYS OSCULUS									
RHINICHTHYS OSCULUS SSP. 2					1				
RHINICHTHYS OSCULUS VELIFER									
RHINICHTHYS SP. 3									
SPRINGS	X					X			
STENELMIS OCCIDENTALIS									
TRYONIA CLATHRATA									
USINGERINA MOAPENSIS									
XYRAUCHEN TEXANUS									
PROTECTED STATUS	+	o	o	o	o	+	o	o	+
OUTSTANDING	o	o	o	o	o	o	o	o	o
GOAL/REPRESENTATION	o	+	+	+	+	o	+	+	+
PORTFOLIO	NO	YES	YES	YES	YES	NO	YES	YES	YES

AQUATICS-EASTERN	MORMON WELL	NEW YORK MTN	PAHRANAGAT VALLEY	PEDRETTI SEEPS	PINE CREEK SPRING	PIPE SPRING	PIUTE GORGE	QUAIL SPRING-CT	RAINBOW CANYON
TARGETS									
AQUATIC HABITAT	X								
BUFO BOREAS			X						
BUFO COGNATUS			X						
BUFO MICROSCAPHUS MICROSCAPHUS									1
BUFO PUNCTATUS									
CATOSTOMUS CLARKI									
CATOSTOMUS CLARKI INTERMEDIUS									
CATOSTOMUS CLARKI SSP. 2									1
CATOSTOMUS LATIPINNIS									
CRENICHTHYS BAILEYI BAILEYI			X						
CRENICHTHYS BAILEYI GRANDIS			1						
CRENICHTHYS BAILEYI MOAPAE									
CYPRINODON NEVADENSIS AMARGOSAE									
CYPRINODON NEVADENSIS NEVADENSIS									
EMPETRICHTHYS LATOS LATOS									
GILA BICOLOR MOHAVENSIS							X		
GILA ELEGANS									
GILA ROBUSTA JORDANI			1						
GILA SEMINUDA									
GILA SEMINUDA POP 2									
HALIPLUS EREMICUS									
HYLA ARENICOLOR									
HYLA REGILLA					X				
LEPIDOMEDA MOLLISPINIS									
LUTRA CANADENSIS SONORA									
MOAPA CORIACEA									
PERENNIAL STREAM			X						
PLAGOPTERUS ARGENTISSIMUS									
PYRGULOPSIS AVERNALIS									
PYRGULOPSIS BACCHUS									
PYRGULOPSIS CARINIFERA									
PYRGULOPSIS COLORADENSIS									
PYRGULOPSIS CONICA									
PYRGULOPSIS DEACONI									
PYRGULOPSIS FAUSTA									
PYRGULOPSIS HUBBSI									
PYRGULOPSIS MERRIAMI			X						
PYRGULOPSIS TURBATRIX									
RANA ONCA									
RANA PIPIENS			X						
RHINICHTHYS OSCULUS									
RHINICHTHYS OSCULUS SSP. 2									1
RHINICHTHYS OSCULUS VELIFER			1	X					
RHINICHTHYS SP. 3			X						
SPRINGS		X	X			X	1	X	
STENELMIS OCCIDENTALIS			X						
TRYONIA CLATHRATA			X						
USINGERINA MOAPENSIS									
XYRAUCHEN TEXANUS									
PROTECTED STATUS	o	+	o	o	+	+	+	+	o
OUTSTANDING	o	o	o	o	o	o	+	o	+
GOAL/REPRESENTATION	+	o	+	+	+	o	+	o	+
PORTFOLIO	YES	NO	YES	YES	YES	NO	YES	NO	YES

AQUATICS-EASTERN	RAINBOW SPRING	RED ROCK SPRINGS	RED ROCK SPRINGS (ET AL)	RED SPRING - SM	ROGERS SPRING	SALT CREEK	SANTA CLARA RIVER	SARATOGA SPRINGS	SHEEP RANGE
TARGETS									
AQUATIC HABITAT									
BUFO BOREAS									
BUFO COGNATUS									
BUFO MICROSCAPHUS MICROSCAPHUS							X		
BUFO PUNCTATUS	X		1	X			X		
CATOSTOMUS CLARKI							1		
CATOSTOMUS CLARKI INTERMEDIUS									
CATOSTOMUS CLARKI SSP. 2									
CATOSTOMUS LATIPINNIS							1		
CRENICHTHYS BAILEYI BAILEYI									
CRENICHTHYS BAILEYI GRANDIS									
CRENICHTHYS BAILEYI MOAPAE									
CYPRINODON NEVADENSIS AMARGOSAE						X			
CYPRINODON NEVADENSIS NEVADENSIS								1	
EMPETRICHTHYS LATOS LATOS									
GILA BICOLOR MOHAVENSIS									
GILA ELEGANS									
GILA ROBUSTA JORDANI									
GILA SEMINUDA									
GILA SEMINUDA POP 2									
HALIPLUS EREMICUS									
HYLA ARENICOLOR									
HYLA REGILLA	X							1	
LEPIDOMEDA MOLLISPINIS							1		
LUTRA CANADENSIS SONORA									
MOAPA CORIACEA									
PERENNIAL STREAM						1			
PLAGOPTERUS ARGENTISSIMUS									
PYRGULOPSIS AVERNALIS									
PYRGULOPSIS BACCHUS									
PYRGULOPSIS CARINIFERA									
PYRGULOPSIS COLORADENSIS									
PYRGULOPSIS CONICA									
PYRGULOPSIS DEACONI				X					
PYRGULOPSIS FAUSTA									
PYRGULOPSIS HUBBSI									
PYRGULOPSIS MERRIAMI									
PYRGULOPSIS TURBATRIX									
RANA ONCA					X				
RANA PIPIENS									
RHINICHTHYS OSCULUS							1		
RHINICHTHYS OSCULUS SSP. 2									
RHINICHTHYS OSCULUS VELIFER									
RHINICHTHYS SP. 3									
SPRINGS		1	X			1		1	X
STENELMIS OCCIDENTALIS									
TRYONIA CLATHRATA									
USINGERINA MOAPENSIS									
XYRAUCHEN TEXANUS									
PROTECTED STATUS	+	o	o	o	+	o	o	+	+
OUTSTANDING	o	o	o	o	o	o	o	+	o
GOAL/REPRESENTATION	+	o	o	+	+	+	+	+	o
PORTFOLIO	YES	NO	NO	YES	YES	YES	YES	YES	NO

AQUATICS-EASTERN	SODA LAKE	SPRING - KR	TASSI/SEVEN SPRINGS	TULE SPRING	UPPER AND LOWER PAHRANAGAT LAKES	UPPER MUDDY RIVER	UPPER VIRGIN RIVER	VIRGIN RIVER CHANNEL	VIRGIN RIVER GORGE
TARGETS									
AQUATIC HABITAT								X	
BUFO BOREAS									
BUFO COGNATUS									
BUFO MICROSCAPHUS MICROSCAPHUS									
BUFO PUNCTATUS								X	
CATOSTOMUS CLARKI							X	X	X
CATOSTOMUS CLARKI INTERMEDIUS									
CATOSTOMUS CLARKI SSP. 2									
CATOSTOMUS LATIPINNIS									X
CRENICHTHYS BAILEYI BAILEYI									
CRENICHTHYS BAILEYI GRANDIS									
CRENICHTHYS BAILEYI MOAPAE						1			
CYPRINODON NEVADENSIS AMARGOSAE									
CYPRINODON NEVADENSIS NEVADENSIS									
EMPETRICHTHYS LATOS LATOS									
GILA BICOLOR MOHAVENSIS	X								X
GILA ELEGANS									
GILA ROBUSTA JORDANI									
GILA SEMINUDA							X	1	
GILA SEMINUDA POP 2						1			
HALIPLUS EREMICUS						X			
HYLA ARENICOLOR								X	
HYLA REGILLA									
LEPIDOMEDA MOLLISPINIS								X	
LUTRA CANADENSIS SONORA									
MOAPA CORIACEA						1			
PERENNIAL STREAM									
PLAGOPTERUS ARGENTISSIMUS								1	
PYRGULOPSIS AVERNALIS						X			
PYRGULOPSIS BACCHUS			X						
PYRGULOPSIS CARINIFERA						X			
PYRGULOPSIS COLORADENSIS									
PYRGULOPSIS CONICA									
PYRGULOPSIS DEACONI									
PYRGULOPSIS FAUSTA									
PYRGULOPSIS HUBBSI									
PYRGULOPSIS MERRIAMI									
PYRGULOPSIS TURBATRIX									
RANA ONCA									
RANA PIPIENS									
RHINICHTHYS OSCULUS								X	
RHINICHTHYS OSCULUS SSP. 2									
RHINICHTHYS OSCULUS VELIFER									
RHINICHTHYS SP. 3					X				
SPRINGS	X	X		1		X			
STENELMIS OCCIDENTALIS						X			
TRYONIA CLATHRATA						X			
USINGERINA MOAPENSIS						X			
XYRAUCHEN TEXANUS									
PROTECTED STATUS	+	+	o	o	+	o	o	o	o
OUTSTANDING	o	o	o	+	o	+	o	o	o
GOAL/REPRESENTATION	o	o	+	o	+	+	+	+	+
PORTFOLIO	NO	NO	YES	YES	YES	YES	YES	YES	YES

AQUATICS-EASTERN	WARNER VALLEY/FORT PIERCE WASH	WHITE SPOT SPRING	WILLOW CREEK - SM	WILLOW SPRING - SM
TARGETS				
AQUATIC HABITAT				
BUFO BOREAS				
BUFO COGNATUS				
BUFO MICROSCAPHUS MICROSCAPHUS	X			
BUFO PUNCTATUS	X			
CATOSTOMUS CLARKI				
CATOSTOMUS CLARKI INTERMEDIUS				
CATOSTOMUS CLARKI SSP. 2				
CATOSTOMUS LATIPINNIS				
CRENICHTHYS BAILEYI BAILEYI				
CRENICHTHYS BAILEYI GRANDIS				
CRENICHTHYS BAILEYI MOAPAE				
CYPRINODON NEVADENSIS AMARGOSAE				
CYPRINODON NEVADENSIS NEVADENSIS				
EMPETRICHTHYS LATOS LATOS				
GILA BICOLOR MOHAVENSIS				
GILA ELEGANS				
GILA ROBUSTA JORDANI				
GILA SEMINUDA				
GILA SEMINUDA POP 2				
HALIPLUS EREMICUS				
HYLA ARENICOLOR				
HYLA REGILLA			X	
LEPIDOMEDA MOLLISPINIS				
LUTRA CANADENSIS SONORA				
MOAPA CORIACEA				
PERENNIAL STREAM				
PLAGOPTERUS ARGENTISSIMUS				
PYRGULOPSIS AVERNALIS				
PYRGULOPSIS BACCHUS				
PYRGULOPSIS CARINIFERA				
PYRGULOPSIS COLORADENSIS				
PYRGULOPSIS CONICA				
PYRGULOPSIS DEACONI			X	
PYRGULOPSIS FAUSTA				
PYRGULOPSIS HUBBSI				
PYRGULOPSIS MERRIAMI				
PYRGULOPSIS TURBATRIX			X	
RANA ONCA				
RANA PIPIENS				
RHINICHTHYS OSCULUS				
RHINICHTHYS OSCULUS SSP. 2				
RHINICHTHYS OSCULUS VELIFER				
RHINICHTHYS SP. 3				
SPRINGS		X		
STENELMIS OCCIDENTALIS				
TRYONIA CLATHRATA				
USINGERINA MOAPENSIS				
XYRAUCHEN TEXANUS				X
PROTECTED STATUS	o	+	o	+
OUTSTANDING	o	o	o	o
GOAL/REPRESENTATION	o	o	+	+
PORTFOLIO	**NO**	**NO**	**YES**	**YES**

AQUATICS-NORTHERN	AMARGOSA CANYON - CHINA RANCH WASH	AMARGOSA RIVER - GRIMSHAW LAKE	AMARGOSA RIVER - SHOSHONE	ARGUS RANGE	ARGUS RANGE MOUNTAIN SPRINGS CANYON	ASH MEADOWS	BAD WATER SPRING	CANE SPRING	CENTENNIAL CANYON	CHLORIDE CLIFF	COSO RANGE	COTTONBALL MARSH	COTTONWOOD CANYON	DARWIN FALLS	DEVIL'S CORNFIELD	GRAPEVINE SPRING-DT	HAIWEE SPRINGS
TARGETS																	
AMBRYSUS AMARGOSUS						X											
AQUATIC INVERTEBRATES	X		X														
ASSIMINEA INFIMA							X			1		X				X	
BUFO BOREAS														X			X
BUFO EXSUL																	
BUFO NELSONI		X	X														
BUFO PUNCTATUS													X	X		X	
CYPRINODON DIABOLSIS						1											
CYPRINODON NEVADENSIS AMARGOSAE	1	X	X														
CYPRINODON NEVADENSIS CALIDAE		X	X														
CYPRINODON NEVADENSIS MIONECTES						X											
CYPRINODON NEVADENSIS PECTORALIS						X											
CYPRINODON NEVADENSIS SHOSHONE		X	1														
CYPRINODON RADIOSUS																	
CYPRINODON SALINUS MILLERI												1					
CYPRINODON SALINUS SALINUS															1		
FAIRY SHRIMP																	
GILA BICOLOR SNYDERI																	
HYLA REGILLA				X		X										1	
PELOCORIS SHOSHONE AMARGOSUS						X											
PYRGULOSPSI CRYSTALIS						X											
PYRGULOPSIS DEACONI																	
PRYGULOPSIS ERYTHROPOMA						X											
PRYGULOPSIS FAIRBANKSENSIS						X											
PYRGULOPSIS ISOLATUS						X											
PYRGULOPSIS MICROCOCCUS						X							X			X	
PRYGULOPSIS NANUS						X											
PRYGULOPSIS PISTERI						X											
PYRGULOPSIS TURBATRIX	X																
PYRGULOPSIS WONGI																	
RHINICHTHYS OSCULUS NEVADENSIS		X	X			1											
RHINICHTHYS OSCULUS SSP 1	1																
RHINICHTHYS OSCULUS SSP. 6																	
SALAMANDER HABITAT					X												X
SPRINGS					1		X	X	1		X			1		1	1
STENELMIS CALIDA CALIDA						X											
TRYONIA ANGULATA						X											
TRYONIA ELATA						X											
TRYONIA ERICAE						X											
TRYONIA MARGAE																X	
TRYONIA ROLANDSI																X	
TRYONIA SALINA												1					
TRYONIA VARIEGATA						X											
USINGERINA MOAPENSIS		X	X														
PROTECTED STATUS	o	o	o	o	o	o	+	o	o	+	o	+	o	+	+	+	o
OUTSTANDING OCCURRENCE	o	o	o	o	+	+	o	o	+	o	o	+	o	o	o	+	o
GOAL/REPRESENTATION	+	+	+	+	o	+	+	+	o	+	o	+	o	+	+	+	+
PORTFOLIO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	YES	NO	YES	YES	YES	YES

AQUATICS-NORTHERN	HALL CANYON	HOGBACK CREEK	HUNTER MOUNTAIN	JAIL CANYON	LUBKIN CREEK	NEVARES SPRING	NW SARATOGA SPRINGS	OASIS VALLEY	OWENS LAKE	OWENS VALLEY	PANAMINT CANYONS	PANAMINT NORTH PLAYA	ROSE VALLEY	SALINE VALLEY	SALINE VALLEY HOT SPRINGS	SLATE RANGE	TELESCOPE PEAK
TARGETS																	
AMBRYSUS AMARGOSUS																	
AQUATIC INVERTEBRATES																	
ASSIMINEA INFIMA						X											
BUFO BOREAS																	
BUFO EXSUL														X			
BUFO NELSONI								1									
BUFO PUNCTATUS																	
CYPRINODON DIABOLSIS																	
CYPRINODON NEVADENSIS AMARGOSAE							X										
CYPRINODON NEVADENSIS CALIDAE																	
CYPRINODON NEVADENSIS MIONECTES																	
CYPRINODON NEVADENSIS PECTORALIS																	
CYPRINODON NEVADENSIS SHOSHONE																	
CYPRINODON RADIOSUS									X	X							
CYPRINODON SALINUS MILLERI																	
CYPRINODON SALINUS SALINUS																	
FAIRY SHRIMP												X					
GILA BICOLOR SNYDERI									X	1							
HYLA REGILLA								X									
PELOCORIS SHOSHONE AMARGOSUS																	
PYRGULOSPSI CRYSTALIS																	
PYRGULOPSIS DEACONI																	
PRYGULOPSIS ERYTHROPOMA																	
PRYGULOPSIS FAIRBANKSENSIS																	
PYRGULOPSIS ISOLATUS																	
PYRGULOPSIS MICROCOCCUS								X									
PRYGULOPSIS NANUS																	
PRYGULOPSIS PISTERI																	
PYRGULOPSIS TURBATRIX																	
PYRGULOPSIS WONGI		X			X					1			X				
RHINICHTHYS OSCULUS NEVADENSIS																	
RHINICHTHYS OSCULUS SSP 1																	
RHINICHTHYS OSCULUS SSP. 6								X									
SALAMANDER HABITAT											X						X
SPRINGS	1		1	1					1	X				X	X	X	
STENELMIS CALIDA CALIDA																	
TRYONIA ANGULATA																	
TRYONIA ELATA																	
TRYONIA ERICAE																	
TRYONIA MARGAE																	
TRYONIA ROLANDSI																	
TRYONIA SALINA																	
TRYONIA VARIEGATA																	
USINGERINA MOAPENSIS																	
PROTECTED STATUS	+	o	+	+	o	o	+	o	o	o	+	+	o	+	o	o	+
OUTSTANDING OCCURRENCE	+	o	o	+	o	o	o	o	o	o	o	o	o	o	o	o	o
GOAL/REPRESENTATION	o	+	o	o	+	+	+	+	+	+	+	+	+	+	o	o	+
PORTFOLIO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO	YES

AQUATICS-NORTHERN	TRAVERTINE SPRINGS	TUBER CANYON	TULE SPRING	TUTTLE CREEK	WELL 368	WILLOW SPRING
TARGETS						
AMBRYSUS AMARGOSUS						
AQUATIC INVERTEBRATES						
ASSIMINEA INFIMA	X					
BUFO BOREAS						
BUFO EXSUL						
BUFO NELSONI						
BUFO PUNCTATUS						
CYPRINODON DIABOLSIS						
CYPRINODON NEVADENSIS AMARGOSAE						
CYPRINODON NEVADENSIS CALIDAE						
CYPRINODON NEVADENSIS MIONECTES						
CYPRINODON NEVADENSIS PECTORALIS						
CYPRINODON NEVADENSIS SHOSHONE						
CYPRINODON RADIOSUS					X	
CYPRINODON SALINUS MILLERI						
CYPRINODON SALINUS SALINUS						
FAIRY SHRIMP						
GILA BICOLOR SNYDERI					X	
HYLA REGILLA						
PELOCORIS SHOSHONE AMARGOSUS						
PYRGULOSPSI CRYSTALIS						
PYRGULOPSIS DEACONI						X
PRYGULOPSIS ERYTHROPOMA						
PRYGULOPSIS FAIRBANKSENSIS						
PYRGULOPSIS ISOLATUS						
PYRGULOPSIS MICROCOCCUS						
PRYGULOPSIS NANUS						
PRYGULOPSIS PISTERI						
PYRGULOPSIS TURBATRIX						
PYRGULOPSIS WONGI				X		
RHINICHTHYS OSCULUS NEVADENSIS						
RHINICHTHYS OSCULUS SSP 1						
RHINICHTHYS OSCULUS SSP. 6						
SALAMANDER HABITAT						
SPRINGS	X	X	1			
STENELMIS CALIDA CALIDA						
TRYONIA ANGULATA						
TRYONIA ELATA						
TRYONIA ERICAE						
TRYONIA MARGAE						
TRYONIA ROLANDSI						
TRYONIA SALINA						
TRYONIA VARIEGATA						
USINGERINA MOAPENSIS						
PROTECTED STATUS	+	+	o	o	o	o
OUTSTANDING OCCURRENCE	o	o	+	o	o	o
GOAL/REPRESENTATION	+	o	o	+	+	+
PORTFOLIO	YES	NO	YES	YES	NO	NO

AQUATICS-SOUTHCENTRAL	MOJAVE RIVER	MOJAVE RIVER - FORKS	PIPES CANYON	RABBIT SPRINGS
TARGETS				
BUFO MICROSCAPHUS CALIFORNICUS	X			
RANA AURORA DRAYTONII	X	X		
PERENNIAL STREAM			X	
SPRINGS				1
PROTECTED STATUS	o	o	o	o
OCCURRENCE	o	o	o	+
GOAL/REPRESENTATION	+	+	+	+
PORTFOLIO	YES	YES	YES	YES

AQUATICS-SOUTHEASTERN	BIG BEND / SOTO RANCH	CHEMEHUEVI MTS	DRIPPING SPRING	LAKE HAVASU	LAKE HAVASU SHORES	OLD WOMAN MTN	TOPOC GORGE	TOPOC MARSH
TARGETS								
GILA ELEGANS	X			X	X		X	X
BUFO COGNATUS		X						
XYRAUCHEN TEXANUS	X			X	X			X
SPEA INTERMONTANA		X						
SPRINGS			X			X		
PROTECTED STATUS	o	+	+	o	o	+	+	o
OUTSTANDING OCCURRENCE	o	o	o	o	o	o	o	o
GOAL/REPRESENTATION	+	+	+	+	+	+	+	+
PORTFOLIO	YES	YES	YES	YES	YES	YES	YES	YES

AQUATICS-WESTERN	CHINA LAKE BASIN	FT. IRWIN SPRINGS	HARPER DRY LAKE BASIN	LEONA VALLEY	MOJAVE RIVER - FORKS	OAK CREEK & CAMERON CANYONS	RED ROCK CANYON	ROGERS/ ROSAMOND DRY LAKES
TARGETS								
BUFO MICROSCAPHUS CALIFORNICUS								
FAIRY SHRIMP	X							X
GILA BICOLOR MOHAVENSIS	X							
HYLA REGILLA								
RANA AURORA DRAYTONII				X	X			
AMPHIBIAN HABITAT				X				X
SALAMANDER HABITAT								
VERNAL POOL HABITAT	X							X
SPRINGS		X	X			1	1	
PROTECTED STATUS	o	o	o	o	o	o	o	o
OUTSTANDING	o	o	o	o	o	+	+	o
GOAL/REPRESENTATION	+	o	o	+	+	+	+	+
PORTFOLIO	YES	NO	NO	YES	YES	YES	YES	YES

RIPARIAN WETLAND-CENTRAL	AFTON CANYON	AVAWATZ MTS	BITTER SPRING	CADY MTS	CAMP CADY	CRONESE BASIN	DAGGETT WASH	EAGLE CRAGS	GARLIC SPRING	HELLWIND CYN	LAVIC LAKE / PISGAH CRATER	PARADISE SPRING
COMMUNITY TARGETS												
INTERIOR RIPARIAN FOREST AND WOODLAND					X							
INTERIOR RIPARIAN MARSH AND SEEP	1											
ALKALI MEADOW/SEEP												
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND										1		
MONTANE RIPARIAN SCRUB	X				X							
MESQUITE BOSQUE			1		1	X		X	X	X		
SPECIES TARGETS AND HABITATS												
RIPARIAN BIRD HABITAT	X				1							
NEOTROPICAL MIGRATORY BIRD HABITAT		1		1	X	1	X					
WATERFOWL HABITAT												
EMPIDONAX TRAILLII EXTIMUS	1				X							
PIRANGA FLAVA	X											
PIRANGA RUBRA	X				X							
RALLUS LONGIROSTRIS YUMANENSIS	X											
VERMIVORA LUCIAE					X							
VIREO BELLII PUSILLUS					X							
CALOCHORTUS STRIATUS												1
PROTECTED STATUS	o	o	o	+	o	+	o	o	o	o	o	o
OUTSTANDING OCCURRENCE	+	+	+	o	o	o	o	o	o	+	o	+
GOAL/REPRESENTATION	o	o	o	o	o	o	o	o	o	o	o	o
AQUATIC SITE	+	o	+	o	+	o	o	o	o	+	o	o
PORTFOLIO	YES	NO	YES	YES	YES	YES	NO	NO	NO	YES	NO	YES

RIPARIAN WETLAND-EASTERN	ARIZONA BAY	BEAVER DAM WASH	BLACK CANYON	BLUE POINT SPRING	BOULDER CANYON	BULL CANYON	BURNS SPRINGS CANYON	BURRO SPRING	CALICO SPRING	CORN CREEK	CORRAL SPRING	COVE SPRING	COYOTE SPRINGS
TARGET COMMUNITIES													
ALKALI MEADOW / SEEP													
RIPARIAN HABITAT			X										
INTERIOR RIPARIAN FOREST AND WOODLAND		X					X						
INTERIOR RIPARIAN MARSH AND SEEP							X						
INTERIOR RIPARIAN SHRUBLAND							X						
MESQUITE BOSQUE										X			
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND	X	X	X		X	X		X				1	
JUNCUS BALTICUS SEASONALLY FLOODED HERBACEOUS ALLIANCE													
PHRAGMITES AUSTRALIS SEMIPERMANENT FLOODED HERB. ALL.													
SALIX GOODINGII	X												
SPECIES TARGETS AND HABITATS													
BUFO PUNCTATUS													
RIPARIAN BIRD HABITAT		1								X			1
NEOTROPICAL MIGRATORY BIRD HABITAT													
SHOREBIRD HABITAT													
WATERFOWL HABITAT													
CALYPTE COSTAE										X			
COCCYZUS AMERICANUS OCCIDENTALIS													
DENDROICA PETECHIA BREWSTERI													
EMPIDONAX TRAILLII EXTIMUS													
GUIRACA CAERULEA		X								X			
IXOBRYCHUS EXILIS HESPERIS													
ICTERIA VIRENS													
PIPILO ABERTI										X			
PIRANGA RUBRA										X			
PSEUDACRIS REGILLA									X				
PYROCEPHALUS RUBINUS													
VERMIVORA LUCIAE													
VIREO BELLII ARIZONAE													
HYLA ARENICOLOR													
HYLA REGILLA													
RANA ONCA			X	X							X		
RANA PIPIENS													
RANA YAVAPAIENSIS													
PHRYNOSOMA CORONATUM BLAINVILLEI													
LUTRA CANADENSIS SONORA	X												
MICROTUS MONTANUS FUCOSUS													
CALOCHORTUS STRIATUS													
PROTECTED STATUS	o	o	+	o	+	+	o	+	o	o	+	o	o
OUTSTANDING OCCURRENCE	o	o	o	o	o	o	o	o	o	o	o	+	o
GOAL/REPRESENTATION	o	o	o	o	o	o	o	o	+	o	o	o	o
AQUATIC SITES	+	+	+	+	o	o	+	o	+	+	+	o	o
PORTFOLIO	YES	YES	YES	YES	NO	YES	YES	NO	YES	YES	YES	YES	NO

RIPARIAN WETLAND-EASTERN	CT12	CURLY HOLLOW WASH	DEVILS PLAYGROUND	ELBOW CANYON	FIRE MOUNTAIN	FT. PIERCE	GOLDEN GATE	GRAND WASH CLIFFS-NORTH	GRAND WASH CLIFFS-SOUTH	GRANITE COVE	GRANITE MTS	GRAPEVINE SPRING	GRAPEVINE SPRING/LP
TARGET COMMUNITIES													
ALKALI MEADOW / SEEP													
RIPARIAN HABITAT		X				1							
INTERIOR RIPARIAN FOREST AND WOODLAND		X							X			X	
INTERIOR RIPARIAN MARSH AND SEEP													
INTERIOR RIPARIAN SHRUBLAND													
MESQUITE BOSQUE	X		X										
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND				X	X		X	X	X	X	X		X
JUNCUS BALTICUS SEASONALLY FLOODED HERBACEOUS ALLIANCE													
PHRAGMITES AUSTRALIS SEMIPERMANENT FLOODED HERB. ALL.													
SALIX GOODINGII													
SPECIES TARGETS AND HABITATS													
BUFO PUNCTATUS													
RIPARIAN BIRD HABITAT													
NEOTROPICAL MIGRATORY BIRD HABITAT													
SHOREBIRD HABITAT													
WATERFOWL HABITAT													
CALYPTE COSTAE													
COCCYZUS AMERICANUS OCCIDENTALIS													
DENDROICA PETECHIA BREWSTERI													
EMPIDONAX TRAILLII EXTIMUS								X					
GUIRACA CAERULEA													
IXOBRYCHUS EXILIS HESPERIS													
ICTERIA VIRENS													
PIPILO ABERTI													
PIRANGA RUBRA													
PSEUDACRIS REGILLA													
PYROCEPHALUS RUBINUS													
VERMIVORA LUCIAE													
VIREO BELLII ARIZONAE													
HYLA ARENICOLOR													
HYLA REGILLA													
RANA ONCA													
RANA PIPIENS													
RANA YAVAPAIENSIS													
PHRYNOSOMA CORONATUM BLAINVILLEI													
LUTRA CANADENSIS SONORA													
MICROTUS MONTANUS FUCOSUS													
CALOCHORTUS STRIATUS													
PROTECTED STATUS	o	o	o	o	+	o	o	o	o	+	o	+	+
OUTSTANDING OCCURRENCE	o	o	o	o	o	+	o	o	o	o	o	o	o
GOAL/REPRESENTATION	o	o	o	o	o	o	o	o	o	o	o	o	o
AQUATIC SITES	o	o	o	o	o	o	o	o	o	o	o	o	o
PORTFOLIO	NO	NO	NO	NO	YES	YES	NO	NO	NO	YES	NO	NO	NO

RIPARIAN WETLAND-EASTERN	GRAPEVINE/ SACATON CANYON	HIKO SPRINGS	HILLER MOUNTAINS	HORSE THIEF CANYON	HORSETHIEF SPRING	HUALAPAI VALLEY	ICEBERG CANYON	IVANPAH LAKE	JOHNSTON CANYON	KINGMAN WASH	KINGSTON WASH	LA MADRE SPRING	LAKE MOJAVE
TARGET COMMUNITIES													
ALKALI MEADOW / SEEP								1					
RIPARIAN HABITAT					1								
INTERIOR RIPARIAN FOREST AND WOODLAND		1				X			X				
INTERIOR RIPARIAN MARSH AND SEEP													
INTERIOR RIPARIAN SHRUBLAND													
MESQUITE BOSQUE													
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND	X		X	1		X	X		X	X			X
JUNCUS BALTICUS SEASONALLY FLOODED HERBACEOUS ALLIANCE													
PHRAGMITES AUSTRALIS SEMIPERMANENT FLOODED HERB. ALL.													
SALIX GOODINGII													X
SPECIES TARGETS AND HABITATS													
BUFO PUNCTATUS													
RIPARIAN BIRD HABITAT											X		
NEOTROPICAL MIGRATORY BIRD HABITAT													
SHOREBIRD HABITAT													
WATERFOWL HABITAT													
CALYPTE COSTAE													
COCCYZUS AMERICANUS OCCIDENTALIS													
DENDROICA PETECHIA BREWSTERI													
EMPIDONAX TRAILLII EXTIMUS													
GUIRACA CAERULEA													
IXOBRYCHUS EXILIS HESPERIS													
ICTERIA VIRENS													
PIPILO ABERTI	X												
PIRANGA RUBRA													
PSEUDACRIS REGILLA												X	
PYROCEPHALUS RUBINUS													
VERMIVORA LUCIAE													
VIREO BELLII ARIZONAE													
HYLA ARENICOLOR													
HYLA REGILLA													
RANA ONCA													
RANA PIPIENS													
RANA YAVAPAIENSIS													
PHRYNOSOMA CORONATUM BLAINVILLEI													
LUTRA CANADENSIS SONORA													
MICROTUS MONTANUS FUCOSUS													
CALOCHORTUS STRIATUS													
PROTECTED STATUS	+	o	+	+	+	o	+	o	o	+	o	+	o
OUTSTANDING OCCURRENCE	o	+	o	o	o	o	o	o	o	o	o	o	o
GOAL/REPRESENTATION	o	o	o	o	o	o	o	o	o	o	o	o	o
AQUATIC SITES	o	+	o	o	o	o	o	o	o	o	o	+	+
PORTFOLIO	YES	YES	NO	YES	NO	NO	NO	NO	NO	YES	NO	YES	YES

RIPARIAN WETLAND-EASTERN	LITTLEFIELD	LONE GRAPEVINE SPRING	LOST CABIN SPRINGS	LOWER GRANITE GORGE	LOWER MEADOW VALLEY WASH	LOWER MUDDY RIVER	LOWER VIRGIN RIVER	LP17	LP18	LP19	LP5	LYTLE RANCH	MEADOW VALLEY WASH
TARGET COMMUNITIES													
ALKALI MEADOW / SEEP													
RIPARIAN HABITAT													
INTERIOR RIPARIAN FOREST AND WOODLAND	1						X					1	
INTERIOR RIPARIAN MARSH AND SEEP							X						
INTERIOR RIPARIAN SHRUBLAND	1						X						
MESQUITE BOSQUE					X								
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND	X		X			X	X		X	X	X		X
JUNCUS BALTICUS SEASONALLY FLOODED HERBACEOUS ALLIANCE													
PHRAGMITES AUSTRALIS SEMIPERMANENT FLOODED HERB. ALL.													
SALIX GOODINGII								X					
SPECIES TARGETS AND HABITATS													
BUFO PUNCTATUS													
RIPARIAN BIRD HABITAT					X								
NEOTROPICAL MIGRATORY BIRD HABITAT													
SHOREBIRD HABITAT													
WATERFOWL HABITAT													
CALYPTE COSTAE												1	
COCCYZUS AMERICANUS OCCIDENTALIS							X						
DENDROICA PETECHIA BREWSTERI							1						
EMPIDONAX TRAILLII EXTIMUS	X			X			X						
GUIRACA CAERULEA							X						
IXOBRYCHUS EXILIS HESPERIS						X							
ICTERIA VIRENS							X						
PIPILO ABERTI							X						
PIRANGA RUBRA													
PSEUDACRIS REGILLA		X											
PYROCEPHALUS RUBINUS													
VERMIVORA LUCIAE							X						
VIREO BELLII ARIZONAE							X					1	
HYLA ARENICOLOR													
HYLA REGILLA													
RANA ONCA													
RANA PIPIENS													
RANA YAVAPAIENSIS													
PHRYNOSOMA CORONATUM BLAINVILLEI													
LUTRA CANADENSIS SONORA							X						
MICROTUS MONTANUS FUCOSUS													
CALOCHORTUS STRIATUS													
PROTECTED STATUS	o	+	o	+	o	o	o	+	o	o	o	o	o
OUTSTANDING OCCURRENCE	o	o	o	o	o	o	o	o	o	o	o	o	o
GOAL/REPRESENTATION	o	+	o	o	o	o	o	o	o	o	o	o	o
AQUATIC SITES	+	+	o	o	+	+	+	o	o	o	o	+	+
PORTFOLIO	YES	YES	NO	YES	YES	YES	YES	NO	NO	NO	NO	YES	YES

RIPARIAN WETLAND-EASTERN	MESQUITE LAKE	MH31	MIDDLE SPRINGS	MIDDLE VIRGIN RIVER	MILL CREEK	MORMON GREEN SPRING	MORMON MESA - UPPER	MOUNTAIN VALLEY WASH	OVERTON WILDLIFE MANAGEMENT AREA	PACHALCA SPRINGS	PAHRANAGAT VALLEY	PIERCE FERRY DELTA	PINE CREEK SPRING
TARGET COMMUNITIES													
ALKALI MEADOW / SEEP													
RIPARIAN HABITAT					X			X		1			
INTERIOR RIPARIAN FOREST AND WOODLAND					X								
INTERIOR RIPARIAN MARSH AND SEEP											X		
INTERIOR RIPARIAN SHRUBLAND											X		
MESQUITE BOSQUE	X												
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND		X		X			X		X		X	X	
JUNCUS BALTICUS SEASONALLY FLOODED HERBACEOUS ALLIANCE												X	
PHRAGMITES AUSTRALIS SEMIPERMANENT FLOODED HERB. ALL.													
SALIX GOODINGII													
SPECIES TARGETS AND HABITATS													
BUFO PUNCTATUS													
RIPARIAN BIRD HABITAT									X				
NEOTROPICAL MIGRATORY BIRD HABITAT													
SHOREBIRD HABITAT													
WATERFOWL HABITAT													
CALYPTE COSTAE				1									
COCCYZUS AMERICANUS OCCIDENTALIS											X		
DENDROICA PETECHIA BREWSTERI											X		
EMPIDONAX TRAILLII EXTIMUS									X		1	X	
GUIRACA CAERULEA				1							X		
IXOBRYCHUS EXILIS HESPERIS													
ICTERIA VIRENS											X		
PIPILO ABERTI													
PIRANGA RUBRA											X		
PSEUDACRIS REGILLA						X							X
PYROCEPHALUS RUBINUS													
VERMIVORA LUCIAE									X				
VIREO BELLII ARIZONAE													
HYLA ARENICOLOR													
HYLA REGILLA			X										
RANA ONCA				X									
RANA PIPIENS											X		
RANA YAVAPAIENSIS													
PHRYNOSOMA CORONATUM BLAINVILLEI													
LUTRA CANADENSIS SONORA													
MICROTUS MONTANUS FUCOSUS											X		
CALOCHORTUS STRIATUS													
PROTECTED STATUS	o	o	o	o	o	+	o	o	+	+	o	+	o
OUTSTANDING OCCURRENCE	o	o	o	o	o	o	o	o	o	+	o	o	o
GOAL/REPRESENTATION	o	o	o	o	o	+	o	o	o	o	o	o	o
AQUATIC SITES	o	o	+	+	o	+	o	o	o	o	+	o	o
PORTFOLIO	NO	NO	YES	YES	NO	YES	NO	NO	YES	YES	YES	YES	NO

RIPARIAN WETLAND-EASTERN	PIUTE GORGE	PIUTE VALLEY	QUAIL CREEK	RAINBOW CANYON	RAINBOW SPRING	RED ROCK SPRINGS (ET AL)	RIVERSIDE BRIDGE	RIVERSIDE MARSH	ROGERS SPRING	SACRAMENTO WASH	SALT CREEK	SALT SPRING	SANTA CLARA RIVER
TARGET COMMUNITIES													
ALKALI MEADOW / SEEP													
RIPARIAN HABITAT			X										
INTERIOR RIPARIAN FOREST AND WOODLAND	X	X						X					X
INTERIOR RIPARIAN MARSH AND SEEP						1		X					
INTERIOR RIPARIAN SHRUBLAND										X			
MESQUITE BOSQUE											X		
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND	X			X			X			X		X	
JUNCUS BALTICUS SEASONALLY FLOODED HERBACEOUS ALLIANCE													
PHRAGMITES AUSTRALIS SEMIPERMANENT FLOODED HERB. ALL.	X										X		
SALIX GOODINGII													
SPECIES TARGETS AND HABITATS													
BUFO PUNCTATUS					X								
RIPARIAN BIRD HABITAT	1										X		
NEOTROPICAL MIGRATORY BIRD HABITAT											1		
SHOREBIRD HABITAT								X					
WATERFOWL HABITAT													
CALYPTE COSTAE						X							
COCCYZUS AMERICANUS OCCIDENTALIS				X									
DENDROICA PETECHIA BREWSTERI													
EMPIDONAX TRAILLII EXTIMUS								X					
GUIRACA CAERULEA				X									
IXOBRYCHUS EXILIS HESPERIS													
ICTERIA VIRENS				X									
PIPILO ABERTI													
PIRANGA RUBRA				X									
PSEUDACRIS REGILLA					X								
PYROCEPHALUS RUBINUS				X									
VERMIVORA LUCIAE													
VIREO BELLII ARIZONAE													
HYLA ARENICOLOR													
HYLA REGILLA													
RANA ONCA									X				
RANA PIPIENS													
RANA YAVAPAIENSIS													
PHRYNOSOMA CORONATUM BLAINVILLEI		X											
LUTRA CANADENSIS SONORA													
MICROTUS MONTANUS FUCOSUS													
CALOCHORTUS STRIATUS													
PROTECTED STATUS	+	o	o	o	+	o	o	o	+	o	o	+	o
OUTSTANDING OCCURRENCE	+	o	o	o	o	o	o	o	o	o	o	o	o
GOAL/REPRESENTATION	o	o	+	o	+	o	o	+	o	o	o	o	o
AQUATIC SITES	+	o	o	+	+	o	o	o	+	o	+	o	+
PORTFOLIO	YES	NO	YES	YES	YES	NO	NO	YES	YES	NO	YES	NO	YES

RIPARIAN WETLAND-EASTERN	SARATOGA SPRINGS	SEGMILLERS POND	SILVER REEF MINE	SITGAMS PASS	SODA LAKE	SPRING MOUNTAINS	ST. THOMAS WASH	TASSI/SEVEN SPRINGS	TOQUAP WASH	TYRELL WASH	UNION PASS	UPPER MUDDY RIVER	UPPER VIRGIN RIVER
TARGET COMMUNITIES													
ALKALI MEADOW / SEEP													
RIPARIAN HABITAT													
INTERIOR RIPARIAN FOREST AND WOODLAND		X	X									X	X
INTERIOR RIPARIAN MARSH AND SEEP		1										X	
INTERIOR RIPARIAN SHRUBLAND				X								X	
MESQUITE BOSQUE													
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND				X				X	X	X	X		
JUNCUS BALTICUS SEASONALLY FLOODED HERBACEOUS ALLIANCE													
PHRAGMITES AUSTRALIS SEMIPERMANENT FLOODED HERB. ALL.													
SALIX GOODINGII													
SPECIES TARGETS AND HABITATS													
BUFO PUNCTATUS													
RIPARIAN BIRD HABITAT	X												
NEOTROPICAL MIGRATORY BIRD HABITAT					1								
SHOREBIRD HABITAT		1											
WATERFOWL HABITAT					X								
CALYPTE COSTAE									X			X	1
COCCYZUS AMERICANUS OCCIDENTALIS												X	
DENDROICA PETECHIA BREWSTERI												X	
EMPIDONAX TRAILLII EXTIMUS		X				X						X	X
GUIRACA CAERULEA												X	1
IXOBRYCHUS EXILIS HESPERIS													
ICTERIA VIRENS												X	1
PIPILO ABERTI												X	1
PIRANGA RUBRA												X	
PSEUDACRIS REGILLA													
PYROCEPHALUS RUBINUS												X	
VERMIVORA LUCIAE									X			X	
VIREO BELLII ARIZONAE												X	
HYLA ARENICOLOR													
HYLA REGILLA	X												
RANA ONCA							X						
RANA PIPIENS													
RANA YAVAPAIENSIS													
PHRYNOSOMA CORONATUM BLAINVILLEI													
LUTRA CANADENSIS SONORA													
MICROTUS MONTANUS FUCOSUS													
CALOCHORTUS STRIATUS						X							
PROTECTED STATUS	+	o	o	o	+	o	o	+	o	+	o	o	o
OUTSTANDING OCCURRENCE	o	o	o	o	+	o	o	o	o	o	o	o	o
GOAL/REPRESENTATION	o	+	o	o	o	+	o	o	o	o	o	o	o
AQUATIC SITES	+	o	o	o	o	o	o	+	o	o	o	+	+
PORTFOLIO	YES	YES	NO	NO	YES	YES	NO	YES	NO	YES	NO	YES	YES

RIPARIAN WETLAND-EASTERN	VIRGIN MOUNTAINS	VIRGIN NARROWS	VIRGIN RIVER CHANNEL	VIRGIN RIVER GORGE	VIRGIN RIVER NARROWS	WARNER VALLEY/FORT PIERCE WASH	WHITE HILLS-LAKE MEAD	WILLOW BAY	WILLOW CREEK - SM
TARGET COMMUNITIES									
ALKALI MEADOW / SEEP									
RIPARIAN HABITAT									
INTERIOR RIPARIAN FOREST AND WOODLAND			X						
INTERIOR RIPARIAN MARSH AND SEEP			1						
INTERIOR RIPARIAN SHRUBLAND									
MESQUITE BOSQUE									
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND	X	X		X	X		X	X	
JUNCUS BALTICUS SEASONALLY FLOODED HERBACEOUS ALLIANCE									
PHRAGMITES AUSTRALIS SEMIPERMANENT FLOODED HERB. ALL.									
SALIX GOODINGII								X	
SPECIES TARGETS AND HABITATS									
BUFO PUNCTATUS						X			
RIPARIAN BIRD HABITAT									
NEOTROPICAL MIGRATORY BIRD HABITAT									
SHOREBIRD HABITAT			X						
WATERFOWL HABITAT			X						
CALYPTE COSTAE			1						
COCCYZUS AMERICANUS OCCIDENTALIS									
DENDROICA PETECHIA BREWSTERI									
EMPIDONAX TRAILLII EXTIMUS			X					X	X
GUIRACA CAERULEA			1	X					
IXOBRYCHUS EXILIS HESPERIS									
ICTERIA VIRENS			1						
PIPILO ABERTI									
PIRANGA RUBRA									
PSEUDACRIS REGILLA									
PYROCEPHALUS RUBINUS									
VERMIVORA LUCIAE									
VIREO BELLII ARIZONAE									
HYLA ARENICOLOR			X						
HYLA REGILLA									X
RANA ONCA									
RANA PIPIENS									
RANA YAVAPAIENSIS									
PHRYNOSOMA CORONATUM BLAINVILLEI							X		
LUTRA CANADENSIS SONORA									
MICROTUS MONTANUS FUCOSUS									
CALOCHORTUS STRIATUS									
PROTECTED STATUS	o	o	o	o	o	o	+	o	o
OUTSTANDING OCCURRENCE	o	o	o	o	o	o	o	o	o
GOAL/REPRESENTATION	o	o	o	o	o	o	o	o	o
AQUATIC SITES	o	o	+	+	o	o	o	+	+
PORTFOLIO	NO	NO	YES	YES	NO	NO	YES	YES	YES

RIPARIAN WETLAND-NORTHERN	ALABAMA HILLS NO.	ALABAMA HILLS SO.	AMARGOSA CANYON - CHINA RANCH WASH	AMARGOSA RIVER - GRIMSHAW LAKE	AMARGOSA RIVER - SHOSHONE	ARGUS RANGE - GREAT FALLS BASIN	ARGUS RANGE - MOUNTAIN SPRINGS CANYON	ARGUS RANGE CANYON	ASH MEADOWS	BLACK MOUNTAIN/DT	CENTENNIAL CANYON	CHICAGO VALLEY	CHLORIDE CLIFF	COSO RANGE
COMMUNITY TARGETS														
RIPARIAN HABITAT														
ALKALI MEADOW / SEEP														
INTERIOR RIPARIAN MARSH AND SEEP														
INTERIOR RIPARIAN FOREST AND WOODLAND			X				1				X			
INTERIOR RIPARIAN SHRUBLAND														
WOODLAND						X								
MESQUITE BOSQUE				X	X				X			X		
SINKHOLES				1										
FLOODED HERBACEOUS ALLIANCE				X	X									
COLD-DECIDUOUS WOODLAND			X											X
FLOODED HERBACEOUS ALLIANCE														
COTTONWOOD - ASH RIPARIAN						X								
WATER BIRCH RIPARIAN SCRUB														
BLACK WILLOW			X											
SPECIES TARGETS AND HABITATS														
RIPARIAN BIRD HABITAT						X								
NEOTROPICAL MIGRATORY BIRD HABITAT				1	1									
MIGRATORY BIRD HABITAT														
SHOREBIRD HABITAT														
WATERFOWL HABITAT														
COCCYZUS AMERICANUS OCCIDENTALIS				X	X									
CHARADRIUS ALEXANDRINUS NIVOSUS														
DENDROICA PETECHIA BREWSTERI														
EMPIDONAX TRAILLII EXTIMUS				X	X									
IXOBRYCHUS EXILIS HESPERIS														
ICTERIA VIRENS														
FIMBRISTYLIS THERMALIS													X	
MYIARCHUS TYRANNULUS			X											
PIPILO CRISSALIS EREMOPHILUS						1	1	X						
PSEUDACRIS REGILLA														
PYROCEPHALUS RUBINUS														
VIREO BELLII PUSILLUS				X	X									
BUFO BOREAS														
BUFO EXSUL														
BUFO NELSONI				X	X									
BUFO PUNCTATUS														
HYLA REGILLA									X	X				
SALAMANDER HABITAT						X	X							
GERRHONOTUS PANAMINTINUS						X		X						
BAT FORAGING HABITAT			X											
MICROTUS CALIFORNICUS SCIRPENSIS			X	X	X									
MICROTUS CALIFORNICUS VALLICOLA														
SIDALCEA COVILLEI	X	1												
CALOCHORTUS STRIATUS									X					
PROTECTED STATUS	o	o	o	o	o	o	o	o	o	o	o	o	+	o
OUTSTANDING OCCURRENCE	o	+	o	+	o	+	+	o	o	o	o	o	o	o
GOAL/REPRESENTATION	+	o	o	o	o	+	+	+	o	o	o	o	o	+
AQUATIC SITE	o	o	+	+	+	o	+	o	+	o	+	o	+	o
PORTFOLIO	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	YES	NO	YES	YES

RIPARIAN WETLAND-NORTHERN	COTTONBALL MARSH	COTTONWOOD CANYON	DARWIN FALLS	DEADMAN CANYON	DEDECKERA CANYON	DT16	EAGLE BORAX SPRING	FURNACE CREEK	GEORGE CREEK	GRAPEVINE SPRING-DT	HAIWEE RESERVOIR	HAIWEE SPRINGS	HALL CANYON	HOGBACK CREEK
COMMUNITY TARGETS														
RIPARIAN HABITAT											X			
ALKALI MEADOW / SEEP														
INTERIOR RIPARIAN MARSH AND SEEP	1		X				X							
INTERIOR RIPARIAN FOREST AND WOODLAND		X			X									
INTERIOR RIPARIAN SHRUBLAND												X		
WOODLAND			X							X				
MESQUITE BOSQUE								X						
SINKHOLES														
FLOODED HERBACEOUS ALLIANCE														
COLD-DECIDUOUS WOODLAND												X		
FLOODED HERBACEOUS ALLIANCE														
COTTONWOOD - ASH RIPARIAN														
WATER BIRCH RIPARIAN SCRUB									1					X
BLACK WILLOW														
SPECIES TARGETS AND HABIT														
RIPARIAN BIRD HABITAT							X							
NEOTROPICAL MIGRATORY BIRD HABITAT			X											
MIGRATORY BIRD HABITAT														
SHOREBIRD HABITAT											X			
WATERFOWL HABITAT														
COCCYZUS AMERICANUS OCCIDENTALIS														X
CHARADRIUS ALEXANDRINUS NIVOSUS														
DENDROICA PETECHIA BREWSTERI														
EMPIDONAX TRAILLII EXTIMUS														
IXOBRYCHUS EXILIS HESPERIS														
ICTERIA VIRENS														X
FIMBRISTYLIS THERMALIS						X								
MYIARCHUS TYRANNULUS														
PIPILO CRISSALIS EREMOPHILUS				X										
PSEUDACRIS REGILLA														
PYROCEPHALUS RUBINUS														
VIREO BELLII PUSILLUS						X				X				
BUFO BOREAS			X									X		
BUFO EXSUL														
BUFO NELSONI														
BUFO PUNCTATUS		X	X		X					X				
HYLA REGILLA		X								1				
SALAMANDER HABITAT												X		
GERRHONOTUS PANAMINTINUS													X	
BAT FORAGING HABITAT														
MICROTUS CALIFORNICUS SCIRPENSIS														
MICROTUS CALIFORNICUS VALLICOLA														
SIDALCEA COVILLEI														
CALOCHORTUS STRIATUS														
PROTECTED STATUS	+	+	+	+	+	+	+	+	o	+	o	o	+	o
OUTSTANDING OCCURRENCE	+	o	o	o	o	o	o	o	o	o	o	o	o	o
GOAL/REPRESENTATION	o	o	o	+	o	o	o	o	o	o	+	+	+	o
AQUATIC SITE	+	o	o	o	o	+	o	o	o	+	o	+	+	+
PORTFOLIO	YES	YES	YES	YES	YES	NO	YES	YES	NO	YES	YES	YES	YES	YES

RIPARIAN WETLAND-NORTHERN	HUNTER MOUNTAIN	LUBKIN CREEK	OASIS VALLEY	OLANCHA CREEK	OLANCHA DUNES	OWENS LAKE	OWENS VALLEY	PANAMINT CANYONS	ROSE VALLEY	SALINE VALLEY	SAND SPRING	SARATOGA SPRINGS	SHEPPARD CREEK	SOUTH END SALINE VALLEY
COMMUNITY TARGETS														
RIPARIAN HABITAT														
ALKALI MEADOW / SEEP											1			
INTERIOR RIPARIAN MARSH AND SEEP			X						X					
INTERIOR RIPARIAN FOREST AND WOODLAND				X										
INTERIOR RIPARIAN SHRUBLAND														
WOODLAND	X		X					X	X					1
MESQUITE BOSQUE														
SINKHOLES														
FLOODED HERBACEOUS ALLIANCE														
COLD-DECIDUOUS WOODLAND														
FLOODED HERBACEOUS ALLIANCE			X											
COTTONWOOD - ASH RIPARIAN														
WATER BIRCH RIPARIAN SCRUB													X	
BLACK WILLOW														
SPECIES TARGETS AND HABIT														
RIPARIAN BIRD HABITAT	X											X		
NEOTROPICAL MIGRATORY BIRD HABITAT				X				X		X				
MIGRATORY BIRD HABITAT						X								
SHOREBIRD HABITAT						X		X		X				
WATERFOWL HABITAT						X				X				
COCCYZUS AMERICANUS OCCIDENTALIS														
CHARADRIUS ALEXANDRINUS NIVOSUS						X								
DENDROICA PETECHIA BREWSTERI			X											
EMPIDONAX TRAILLII EXTIMUS			X											
IXOBRYCHUS EXILIS HESPERIS						X	1							
ICTERIA VIRENS														
FIMBRISTYLIS THERMALIS														
MYIARCHUS TYRANNULUS														
PIPILO CRISSALIS EREMOPHILUS														
PSEUDACRIS REGILLA														
PYROCEPHALUS RUBINUS			X											
VIREO BELLII PUSILLUS														
BUFO BOREAS														
BUFO EXSUL										X				
BUFO NELSONI			1											
BUFO PUNCTATUS														
HYLA REGILLA			X									1		
SALAMANDER HABITAT								X						
GERRHONOTUS PANAMINTINUS														
BAT FORAGING HABITAT														
MICROTUS CALIFORNICUS SCIRPENSIS														
MICROTUS CALIFORNICUS VALLICOLA				X	X	X	1							
SIDALCEA COVILLEI		X				X	1							
CALOCHORTUS STRIATUS														
PROTECTED STATUS	+	o	o	o	o	o	o	+	o	+	o	+	o	+
OUTSTANDING OCCURRENCE	o	o	o	o	o	o	+	o	o	o	o	o	o	o
GOAL/REPRESENTATION	o	o	o	+	+	o	o	+	o	o	o	o	+	o
AQUATIC SITE	+	+	+	o	o	+	+	+	+	+	o	+	o	o
PORTFOLIO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO	YES	YES

RIPARIAN WETLAND-NORTHERN	TELESCOPE PEAK	TUBER CANYON	TUTTLE CREEK	UPPER AMARGOSA RIVER / LOWER CARSON	WILDHORSE MESA/ETCHAREN VALLEY	WILLOW SPRING
COMMUNITY TARGETS						
RIPARIAN HABITAT						
ALKALI MEADOW / SEEP			X			
INTERIOR RIPARIAN MARSH AND SEEP						
INTERIOR RIPARIAN FOREST AND WOODLAND						
INTERIOR RIPARIAN SHRUBLAND						
WOODLAND						
MESQUITE BOSQUE				X		
SINKHOLES						
FLOODED HERBACEOUS ALLIANCE						
COLD-DECIDUOUS WOODLAND						
FLOODED HERBACEOUS ALLIANCE						
COTTONWOOD - ASH RIPARIAN						
WATER BIRCH RIPARIAN SCRUB						
BLACK WILLOW						
SPECIES TARGETS AND HABIT						
RIPARIAN BIRD HABITAT						
NEOTROPICAL MIGRATORY BIRD HABITAT						
MIGRATORY BIRD HABITAT						
SHOREBIRD HABITAT						
WATERFOWL HABITAT						
COCCYZUS AMERICANUS OCCIDENTALIS						
CHARADRIUS ALEXANDRINUS NIVOSUS						
DENDROICA PETECHIA BREWSTERI						
EMPIDONAX TRAILLII EXTIMUS						
IXOBRYCHUS EXILIS HESPERIS						
ICTERIA VIRENS						
FIMBRISTYLIS THERMALIS						
MYIARCHUS TYRANNULUS						
PIPILO CRISSALIS EREMOPHILUS					1	
PSEUDACRIS REGILLA						X
PYROCEPHALUS RUBINUS						
VIREO BELLII PUSILLUS						
BUFO BOREAS						
BUFO EXSUL						
BUFO NELSONI						
BUFO PUNCTATUS						
HYLA REGILLA						
SALAMANDER HABITAT	X					
GERRHONOTUS PANAMINTINUS		X				
BAT FORAGING HABITAT						
MICROTUS CALIFORNICUS SCIRPENSIS						
MICROTUS CALIFORNICUS VALLICOLA						
SIDALCEA COVILLEI						
CALOCHORTUS STRIATUS					X	
PROTECTED STATUS	+	+	o	o	o	o
OUTSTANDING OCCURRENCE	o	o	o	o	+	o
GOAL/REPRESENTATION	o	+	o	o	+	o
AQUATIC SITE	+	o	+	o	o	+
PORTFOLIO	YES	YES	YES	NO	YES	YES

RIPARIAN WETLAND-SOUTHCENTRAL	ACORN FLATS	BULLION GUZZLER	BULLION MTS	BULLION MTS - WILLOW	COTTONWOOD SPRING	COTTONWOOD /OLD WOMAN SPRINGS	CUSHIONBERRY SPRINGS	DAGGETT WASH	FORTYNINE PALMS OASIS	GRANITE MTS - RAPTOR	GRAPEVINE CYN - SBD MTN	JOSHUA TREE FLAT	JOSHUA TREE NATIONAL PARK
COMMUNITY TARGETS													
RIPARIAN HABITAT							X						
CALIFORNIA FAN PALM OASIS					X				1				
INTERIOR RIPARIAN FOREST AND WOODLAND						X							
INTERIOR RIPARIAN MARSH AND SEEP													
INTERIOR RIPARIAN SHRUBLAND													
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND													
MESQUITE BOSQUE													
MESQUITE BOSQUE-RW													
MONTANE RIPARIAN SCRUB							X				X		
DECIDUOUS WOODLAND				X									
ALKALI MARSH							X						
SPECIES TARGETS AND													
RIPARIAN BIRD HABITAT									X				
NEOTROPICAL MIGRATORY BIRD HABITAT						X		X					
SHOREBIRD HABITAT													
WATERFOWL HABITAT													
CALYPTE COSTAE			X									X	
CARDUELIS LAWRENCEI	X	X											
DENDROICA PETECHIA BREWSTERI							X						
EMPIDONAX TRAILLII EXTIMUS													
ICTERIA VIRENS							X						
MYIARCHUS TYRANNULUS													
PIRANGA RUBRA							X						
PYROCEPHALUS RUBINUS													
VIREO BELLII PUSILLUS													
RALLUS LONGIROSTRIS YUMANENSIS													
BUFO MICROSCAPHUS CALIFORNICUS													
BUFO PUNCTATUS													
RANA AURORA DRAYTONII													
RANA MUSCOSA													
CLEMMYS MARMORATA PALLIDA													
PHRYNOSOMA CORONATUM BLAINVILLEI													
MICROTUS CALIFORNICUS MOHAVENSIS													
CALOCHORTUS STRIATUS							X						
PUCCINELLIA PARISHII							X						
TOXOSTOMA BENDIREI										X			X
CALOCHORTUS STRIATUS							X						
PROTECTED STATUS	o	o	o	o	+	o	o	o	+	o	o	o	o
OUTSTANDING OCCURRENCE	o	o	o	o	o	o	o	o	+	o	o	o	o
GOAL/REPRESENTATION	o	o	o	+	o	+	+	o	o	o	o	o	o
AQUATIC SITE	o	o	o	o	o	o	o	o	o	o	o	o	o
PORTFOLIO	NO	NO	NO	NO	YES	YES	YES	NO	YES	NO	NO	NO	NO

RIPARIAN WETLAND-SOUTHCENTRAL	LAVA BED MTS	LAVIC LAKE / PISGAH CRATER	LAVIC LAKE WASH	LEAD MTN CANYON	LUCERNE VALLEY	MESQUITE LAKE - TWENTYNINE PALMS	MOJAVE RIVER	MOJAVE RIVER - FORKS	MUNSEN CANYON	NEWBERRY MTN-CA	NORTH SLOPE SAN BERNARDINO MTS - CARBONATE	NORTH SLOPE SAN BERNARDINO MTS - JTWL	ORD MTS
COMMUNITY TARGETS													
RIPARIAN HABITAT													X
CALIFORNIA FAN PALM OASIS									X				
INTERIOR RIPARIAN FOREST AND WOODLAND							X	X					
INTERIOR RIPARIAN MARSH AND SEEP								X					
INTERIOR RIPARIAN SHRUBLAND													
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND							X						
MESQUITE BOSQUE						X							
MESQUITE BOSQUE-RW													
MONTANE RIPARIAN SCRUB											X		
DECIDUOUS WOODLAND													
ALKALI MARSH													
SPECIES TARGETS AND													
RIPARIAN BIRD HABITAT							X						
NEOTROPICAL MIGRATORY BIRD HABITAT								X		X	1		
SHOREBIRD HABITAT								X					
WATERFOWL HABITAT						1							
CALYPTE COSTAE	X	X	X	X									
CARDUELIS LAWRENCEI													
DENDROICA PETECHIA BREWSTERI													
EMPIDONAX TRAILLII EXTIMUS													
ICTERIA VIRENS													
MYIARCHUS TYRANNULUS													
PIRANGA RUBRA													
PYROCEPHALUS RUBINUS													
VIREO BELLII PUSILLUS								X					
RALLUS LONGIROSTRIS YUMANENSIS													
BUFO MICROSCAPHUS CALIFORNICUS							X						
BUFO PUNCTATUS													
RANA AURORA DRAYTONII							X	X					
RANA MUSCOSA													
CLEMMYS MARMORATA PALLIDA							1						
PHRYNOSOMA CORONATUM BLAINVILLEI							X	1			X		
MICROTUS CALIFORNICUS MOHAVENSIS							X						
CALOCHORTUS STRIATUS											X		
PUCCINELLIA PARISHII													
TOXOSTOMA BENDIREI													
CALOCHORTUS STRIATUS											X		
PROTECTED STATUS	o	o	o	o	o	o	o	o	+	+	o	o	+
OUTSTANDING OCCURRENCE	o	o	o	o	o	+	o	o	o	o	+	+	o
GOAL/REPRESENTATION	o	o	o	o	o	o	o	o	o	o	o	o	o
AQUATIC SITE	o	o	o	o	o	o	+	+	o	o	o	o	o
PORTFOLIO	NO	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES	NO	YES

RIPARIAN WETLAND-SOUTHCENTRAL	PETROGLYPH FLOW	PETROGLYPH WASH	PIONEER TOWN	PIPES CANYON	QUACKENBRUSH DUNES	QUACKENBRUSH LAKE	RABBITSPRINGS	RAINBOW-MESA CANYON	RATTLESNAKE CANYON	RODMAN MTS	SMITH WATER CANYON	STUBBE SPRING	SUNSHINE PEAK
COMMUNITY TARGETS													
RIPARIAN HABITAT											1	X	
CALIFORNIA FAN PALM OASIS													
INTERIOR RIPARIAN FOREST AND WOODLAND													
INTERIOR RIPARIAN MARSH AND SEEP				X							X		
INTERIOR RIPARIAN SHRUBLAND				1			X						
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND													
MESQUITE BOSQUE													
MESQUITE BOSQUE-RW													
MONTANE RIPARIAN SCRUB													
DECIDUOUS WOODLAND											X		
ALKALI MARSH													
SPECIES TARGETS AND													
RIPARIAN BIRD HABITAT													
NEOTROPICAL MIGRATORY BIRD HABITAT				X			X			X			
SHOREBIRD HABITAT													
WATERFOWL HABITAT													
CALYPTE COSTAE	X	X						X					X
CARDUELIS LAWRENCEI													
DENDROICA PETECHIA BREWSTERI													
EMPIDONAX TRAILLII EXTIMUS				X									
ICTERIA VIRENS													
MYIARCHUS TYRANNULUS													
PIRANGA RUBRA													
PYROCEPHALUS RUBINUS													
VIREO BELLII PUSILLUS													
RALLUS LONGIROSTRIS YUMANENSIS													
BUFO MICROSCAPHUS CALIFORNICUS													
BUFO PUNCTATUS									X		X		
RANA AURORA DRAYTONII													
RANA MUSCOSA													
CLEMMYS MARMORATA PALLIDA													
PHRYNOSOMA CORONATUM BLAINVILLEI			X										
MICROTUS CALIFORNICUS MOHAVENSIS													
CALOCHORTUS STRIATUS							1						
PUCCINELLIA PARISHII							X						
TOXOSTOMA BENDIREI													
CALOCHORTUS STRIATUS							X						
PROTECTED STATUS	o	o	o	o	o	o	o	o	+	o	o	o	o
OUTSTANDING OCCURRENCE	o	o	o	o	o	o	o	o	o	o	o	o	o
GOAL/REPRESENTATION	o	o	o	+	o	o	+	o	o	o	+	o	o
AQUATIC SITE	o	o	o	+	o	o	+	o	o	o	o	o	o
PORTFOLIO	NO	NO	NO	YES	NO	NO	YES	NO	YES	NO	NO	NO	NO

RIPARIAN WETLAND-SOUTHCENTRAL	TINAJA	TWENTY NINE PALMS - WEST	TWENTYNINE PALMS OASIS	WILLOW AND HACKBERRY CANYONS	WOOD CANYON
COMMUNITY TARGETS					
RIPARIAN HABITAT					X
CALIFORNIA FAN PALM OASIS			X		
INTERIOR RIPARIAN FOREST AND WOODLAND					
INTERIOR RIPARIAN MARSH AND SEEP					
INTERIOR RIPARIAN SHRUBLAND					
MIXED COTTONWOOD-WILLOW RIPARIAN WOODLAND					
MESQUITE BOSQUE					
MESQUITE BOSQUE-RW					
MONTANE RIPARIAN SCRUB					
DECIDUOUS WOODLAND				X	
ALKALI MARSH					
SPECIES TARGETS AND					
RIPARIAN BIRD HABITAT		1			
NEOTROPICAL MIGRATORY BIRD HABITAT					
SHOREBIRD HABITAT					
WATERFOWL HABITAT					
CALYPTE COSTAE					
CARDUELIS LAWRENCEI					
DENDROICA PETECHIA BREWSTERI				X	
EMPIDONAX TRAILLII EXTIMUS					
ICTERIA VIRENS					
MYIARCHUS TYRANNULUS					
PIRANGA RUBRA					
PYROCEPHALUS RUBINUS					
VIREO BELLII PUSILLUS					
RALLUS LONGIROSTRIS YUMANENSIS					
BUFO MICROSCAPHUS CALIFORNICUS					
BUFO PUNCTATUS	X				
RANA AURORA DRAYTONII					
RANA MUSCOSA					
CLEMMYS MARMORATA PALLIDA					
PHRYNOSOMA CORONATUM BLAINVILLEI					
MICROTUS CALIFORNICUS MOHAVENSIS					
CALOCHORTUS STRIATUS					
PUCCINELLIA PARISHII					
TOXOSTOMA BENDIREI					
CALOCHORTUS STRIATUS					
PROTECTED STATUS	o	o	o	o	o
OUTSTANDING OCCURRENCE	o	+	o	o	o
GOAL/REPRESENTATION	o	o	+	+	o
AQUATIC SITE	o	o	o	o	o
PORTFOLIO	NO	YES	NO	YES	NO

RIPARIAN WETLAND-SOUTHEASTERN	AMERICAN MINE FAN	BIG BEND / SOTO RANCH	BLACK TOP FAN	BUCK MOUNTAIN WASH	CHEMEHUEVI MTS	DRIPPING SPRING	DUTCH FLATS	FRANCONIA SIDING	GOLD ROAD WELL	IRONWOOD WASH	LAKE HAVASU SHORES	LEAD MTN DUNES	SACRAMENTO MTN - WESTSIDE	TOPOC GORGE
COMMUNITY TARGETS														
RIPARIAN HABITAT									X	X			X	
MIXED COTTONWOOD-WILLOW											X			X
INTERIOR RIPARIAN FOREST AND WOODLAND														
INTERIOR RIPARIAN MARSH AND SEEP		X												X
INTERIOR RIPARIAN SHRUBLAND				X		X	X	X						
WOODLAND		X		X		X	X		X					
SPECIES TARGETS AND														
CALYPTE COSTAE	X		X									X		
IXOBRYCHUS EXILIS HESPERIS		X												
RALLUS LONGIROSTRIS YUMANENSIS		X												X
ICTERIA VIRENS											X			
COCCYZUS AMERICANUS OCCIDENTALIS														
PIRANGA RUBRA														
VIREO BELLII ARIZONAE											X			
SPEA INTERMONTANA					X									
PHRYNOSOMA CORONATUM BLAINVILLEI														
PROTECTED STATUS	o	o	o	o	+	+	o	o	+	+	o	o	o	o
OUTSTANDING	o	o	o	o	o	o	o	o	o	o	o	o	o	o
GOAL/REPRESENTATION	o	o	o	o	o	o	o	o	o	o	o	o	o	o
AQUATIC SITE	o	+	o	o	+	+	o	o	o	o	+	o	o	+
PORTFOLIO	NO	YES	NO	NO	YES	YES	NO	NO	YES	YES	YES	NO	NO	YES

RIPARIAN WETLAND-SOUTHEASTERN	TOPOC MARSH	WALNUT CREEK
COMMUNITY TARGETS		
RIPARIAN HABITAT		
MIXED COTTONWOOD-WILLOW		
INTERIOR RIPARIAN FOREST AND WOODLAN		
INTERIOR RIPARIAN MARSH AND SEEP	X	
INTERIOR RIPARIAN SHRUBLAND	X	X
WOODLAND		X
SPECIES TARGETS AND		
CALYPTE COSTAE		
IXOBRYCHUS EXILIS HESPERIS		
RALLUS LONGIROSTRIS YUMANENSIS		
ICTERIA VIRENS	X	
COCCYZUS AMERICANUS OCCIDENTALIS	X	
PIRANGA RUBRA	X	
VIREO BELLII ARIZONAE	X	
SPEA INTERMONTANA		
PHRYNOSOMA CORONATUM BLAINVILLEI		
PROTECTED STATUS	o	o
OUTSTANDING	o	o
GOAL/REPRESENTATION	o	o
AQUATIC SITE	+	o
PORTFOLIO	YES	NO

RIPARIAN WETLAND-WESTERN	BIG ROCK WASH	BOULDER/COW HEAVEN CANYONS	CHINA LAKE BASIN	COTTONWOOD CREEK	DEADMAN CANYON	DOVE SPRING CANYON	FIVEMILE CANYON	FREEMAN CANYON	GRAPEVINE CYN - SN MTN	HARPER DRY LAKE BASIN	HOFFMAN CANYON	INDIAN WELLS CANYON	KELSO VALLEY	KINGS CANYON
COMMUNITY TARGETS														
RIPARIAN HABITAT														
ALKALI MEADOW / SEEP			X											
INTERIOR RIPARIAN FOREST AND WOODLAND	1	X				X	X		X		X	X		
INTERIOR RIPARIAN MARSH AND SEEP														
INTERIOR RIPARIAN SHRUBLAND				1										
MIXED COTTONWOOD-WILLOW RIPARIAN WOOD	X			X				X						
WILLOW RIPARIAN WOODLAND														
MESQUITE BOSQUE														
COLD-DECIDUOUS WOODLAND														
SPECIES TARGETS AND														
RIPARIAN BIRD HABITAT										X				
NEOTROPICAL MIGRATORY BIRD HABITAT		X	X			X	X		X	X	X	X		X
SHOREBIRD HABITAT										X				
WATERFOWL HABITAT										1				
COCCYZUS AMERICANUS OCCIDENTALIS													X	
EMPIDONAX TRAILLII EXTIMUS													X	X
PIPILO CRISSALIS EREMOPHILUS					X									
RALLUS LONGIROSTRIS YUMANENSIS										X				
GERRHONOTUS PANAMINTINUS					X									
VIREO BELLII PUSILLUS														
AMPHIBIAN HABITAT														
SALAMANDER HABITAT														
BUFO MICROSCAPHUS CALIFORNICUS														
HEMIZONIA ARIDA														
HYLA REGILLA														
RANA AURORA DRAYTONII														
SALAMANDER HABITAT														
CLEMMYS MARMORATA PALLIDA														
PHYRNOSOMA CORONATUM BLAINVILLEI														
CALOCHORTUS STRIATUS														
PROTECTED STATUS	o	o	o	+	o	o	o	o	o	o	o	o	o	+
OUTSTANDING OCCURRENCE	+	o	o	+	o	o	o	o	o	+	o	o	o	o
GOAL/REPRESENTATION	o	o	+	o	+	o	o	o	o	o	o	o	o	o
AQUATIC SITE	o	o	o	o	o	o	o	o	o	o	o	o	o	o
PORTFOLIO	YES	NO	NO	YES	NO	NO	NO	NO	NO	YES	NO	NO	NO	YES

RIPARIAN WETLAND-WESTERN	KOEHN DRY LAKE - SW	LEONA VALLEY	LITTLE ROCK WASH	MOJAVE RIVER - FORKS	NINEMILE CANYON	NONAME CANYON	NORTH ANTELOPE VALLEY	NORTH SLOPE SAN BERNARDINO MTS-JTWLD	OAK CREEK & CAMERON CANYONS	PAXTON PLAYA	PINE TREE CANYON	RED ROCK CANYON	ROGERS/ ROSAMOND DRY LAKES	SADDLEBACK BUTTE STATE PARK
COMMUNITY TARGETS														
RIPARIAN HABITAT														
ALKALI MEADOW / SEEP										X				
INTERIOR RIPARIAN FOREST AND WOODLAND			1	X		X					X			
INTERIOR RIPARIAN MARSH AND SEEP	X			X					X					
INTERIOR RIPARIAN SHRUBLAND									X					
MIXED COTTONWOOD-WILLOW RIPARIAN WOOD		X	X		X				X					
WILLOW RIPARIAN WOODLAND					X									
MESQUITE BOSQUE	X												X	
COLD-DECIDUOUS WOODLAND														
SPECIES TARGETS AND														
RIPARIAN BIRD HABITAT							X							X
NEOTROPICAL MIGRATORY BIRD HABITAT			X	X	X	X			X		X			
SHOREBIRD HABITAT				X									X	
WATERFOWL HABITAT	1												X	
COCCYZUS AMERICANUS OCCIDENTALIS														
EMPIDONAX TRAILLII EXTIMUS														
PIPILO CRISSALIS EREMOPHILUS														
RALLUS LONGIROSTRIS YUMANENSIS														
GERRHONOTUS PANAMINTINUS														
VIREO BELLII PUSILLUS		X		X										
AMPHIBIAN HABITAT		X											X	
SALAMANDER HABITAT														
BUFO MICROSCAPHUS CALIFORNICUS														
HEMIZONIA ARIDA												X		
HYLA REGILLA														
RANA AURORA DRAYTONII		X		X										
SALAMANDER HABITAT														
CLEMMYS MARMORATA PALLIDA		X											X	
PHYRNOSOMA CORONATUM BLAINVILLEI								X						
CALOCHORTUS STRIATUS												X	1	
PROTECTED STATUS	o	o	o	o	o	o	o	o	o	o	o	o	o	o
OUTSTANDING OCCURRENCE	o	o	+	o	o	o	o	o	o	o	o	o	+	o
GOAL/REPRESENTATION	+	o	o	o	o	o	o	+	o	o	o	+	+	o
AQUATIC SITE	o	+	o	+	o	o	o	o	o	o	o	+	o	o
PORTFOLIO	YES	YES	YES	YES	NO	NO	NO	YES	NO	NO	NO	YES	YES	NO

RIPARIAN WETLAND-WESTERN	SAGE CANYON	SUMMIT CREEK	SUMMIT VALLEY/ CAJON PASS
COMMUNITY TARGETS			
RIPARIAN HABITAT			
ALKALI MEADOW / SEEP			
INTERIOR RIPARIAN FOREST AND WOODLAND		X	X
INTERIOR RIPARIAN MARSH AND SEEP			
INTERIOR RIPARIAN SHRUBLAND	X		
MIXED COTTONWOOD-WILLOW RIPARIAN WOOD			X
WILLOW RIPARIAN WOODLAND			
MESQUITE BOSQUE			
COLD-DECIDUOUS WOODLAND			
SPECIES TARGETS AND			
RIPARIAN BIRD HABITAT			
NEOTROPICAL MIGRATORY BIRD HABITAT		X	
SHOREBIRD HABITAT			
WATERFOWL HABITAT			
COCCYZUS AMERICANUS OCCIDENTALIS			
EMPIDONAX TRAILLII EXTIMUS			X
PIPILO CRISSALIS EREMOPHILUS			
RALLUS LONGIROSTRIS YUMANENSIS			
GERRHONOTUS PANAMINTINUS			
VIREO BELLII PUSILLUS			
AMPHIBIAN HABITAT	X		
SALAMANDER HABITAT			
BUFO MICROSCAPHUS CALIFORNICUS			X
HEMIZONIA ARIDA			
HYLA REGILLA			
RANA AURORA DRAYTONII			
SALAMANDER HABITAT			
CLEMMYS MARMORATA PALLIDA			
PHYRNOSOMA CORONATUM BLAINVILLEI			
CALOCHORTUS STRIATUS			
PROTECTED STATUS	o	o	o
OUTSTANDING OCCURRENCE	o	o	o
GOAL/REPRESENTATION	o	+	+
AQUATIC SITE	o	o	o
PORTFOLIO	NO	YES	YES

DESERT WASH-CENTRAL	AFTON CANYON	ALVORD MTN	ARROWHEAD TRAIL	BIG ROCK WASH	BITTER SPRING	BLACK HILLS	CADY MTS	CAMP CADY	COYOTE LAKE DISJUNCT PLAYAS	CRONESE BASIN	CRONESE MTS	CRONESE VALLEY	DAGGETT WASH	DEVILS PLAYGROUND
COMMUNITY TARGETS														
RABBITBRUSH SCRUB				X										
GREASEWOOD-MIXED SCRUB														
MESQUITE BOSQUE-DW										X				X
MOJAVE DESERT WASH	X	1				X	X		X	X		X	1	X
CATCLAW ACACIA SHRUBLAND														
CRUCIFIXION THORN SHRUBLAND ALLIANCE			X				X							
ALLIANCE										X	X	X		
SMOKETREE SHRUBLAND ALLIANCE														
BLUE PALO VERDE SHRUBLAND ALLIANCE														
DESERT HACKBERRY SHRUBLAND ALLIANCE														
DESERT IRONWOOD SHRUBLAND ALLIANCE														
SPINY HOPSAGE SHRUBLAND ALLIANCE														
TARGET SPECIES														
DESERT WASH BIRD HABITAT														
PHAINOPEPLA NITENS								X	X	X				
SENNA COVESSII														
MIMULUS MOHAVENSIS													X	
UMA SCOPARIA					X									
PROTECTED STATUS	o	o	o	o	o	o	+	o	o	+	o	o	o	o
OUTSTANDING	o	+	o	o	o	o	o	o	o	o	o	o	+	o
GOAL/REPRESENTATION	o	o	o	o	o	o	o	o	o	o	o	o	+	o
AQUATIC SITE	+	o	o	o	+	o	o	+	o	o	o	o	o	o
RIPARIAN SITE	+	o	o	o	+	o	+	+	o	+	o	o	o	o
PORTFOLIO	YES	YES	NO	NO	YES	NO	YES	YES	NO	YES	NO	NO	YES	NO

DESERT WASH-CENTRAL	EAGLE CRAGS	EASTGATE 1 AND 2	GOLDSTONE COMPLEX	LANGFORD WELL LAKE	LAVIC LAKE / PISGAH CRATER	MOJAVE RIVER WASH - NE	PILOT KNOB / SLOCUM MTN	PILOT KNOB VALLEY	RANDSBURG WASH	RAZOR OHV FREE-PLAY AREA	SLEEPING BEAUTY WASH	SUPERIOR VALLEY	UPPER MOJAVE RIVER WASH
COMMUNITY TARGETS													
RABBITBRUSH SCRUB				1									
GREASEWOOD-MIXED SCRUB													
MESQUITE BOSQUE-DW													
MOJAVE DESERT WASH	X	X			1	X		X	X	X	1	X	
CATCLAW ACACIA SHRUBLAND													
CRUCIFIXION THORN SHRUBLAND ALLIANCE					X								
ALLIANCE													
SMOKETREE SHRUBLAND ALLIANCE			1				X				1		
BLUE PALO VERDE SHRUBLAND ALLIANCE													
DESERT HACKBERRY SHRUBLAND ALLIANCE													
DESERT IRONWOOD SHRUBLAND ALLIANCE													
SPINY HOPSAGE SHRUBLAND ALLIANCE													
TARGET SPECIES													
DESERT WASH BIRD HABITAT													
PHAINOPEPLA NITENS													
SENNA COVESSII													
MIMULUS MOHAVENSIS													
UMA SCOPARIA													
PROTECTED STATUS	o	o	o	o	o	o	o	o	o	o	o	o	o
OUTSTANDING	o	o	o	o	o	o	o	o	o	o	+	o	o
GOAL/REPRESENTATION	o	o	o	o	o	o	o	o	o	o	o	o	+
AQUATIC SITE	o	o	o	o	o	o	o	o	o	o	o	o	o
RIPARIAN SITE	o	o	o	o	o	o	o	o	o	o	o	o	o
PORTFOLIO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO	YES

DESERT WASH-EASTERN	BRIDGE CANYON	BUDWEISER WASH VICINITY	BURRO WASH	CACTUS SPRINGS	CALIFORNIA WASH	CORN CREEK	COYOTE SPRINGS	CT12	DEAD MTS	DEVILS PLAYGROUND	ELDORADO CANYON	EMPIRE WASH	GOLD BUTTE PAKOON	GRAND WASH COMPLEX
COMMUNITY TARGETS														
RABBITBRUSH SCRUB														
GREASEWOOD-MIXED SCRUB														
MESQUITE BOSQUE-DW			X		X									
MOJAVE DESERT WASH	X	X								X	X	X		1
CATCLAW ACACIA SHRUBLAND			X		1									
CRUCIFIXION THORN SHRUBLAND ALLIANCE														
ALLIANCE														
SMOKETREE SHRUBLAND ALLIANCE									X					
BLUE PALO VERDE SHRUBLAND ALLIANCE														
DESERT HACKBERRY SHRUBLAND ALLIANCE														
DESERT IRONWOOD SHRUBLAND ALLIANCE														
SPINY HOPSAGE SHRUBLAND ALLIANCE														
TARGET SPECIES														
DESERT WASH BIRD HABITAT														
PHAINOPEPLA NITENS	X			1	X	X	X	X	X		X	X		
SENNA COVESII														
MIMULUS MOHAVENSIS														
PROTECTED STATUS	+	o	+	o	o	o	o	o	o	o	o	o	o	+
OUTSTANDING	o	o	o	o	+	o	o	o	o	o	o	o	o	+
GOAL/REPRESENTATION	o	o	o	o	o	o	o	o	o	o	o	o	o	o
AQUATIC SITE	o	o	o	o	o	+	o	o	o	o	o	o	o	o
RIPARIAN SITE	o	o	o	o	o	+	o	o	o	o	o	o	o	+
PORTFOLIO	YES	NO	YES	NO	YES	YES	NO	NO	NO	NO	NO	NO	NO	YES

DESERT WASH-EASTERN	GRANITE COVE	GRANITE MTS	GRANITE MTS - MESQUITE	GRAPEVINE SPRING/LP	GRAPEVINE/ SACATON CANYON	HACKBERRY SPRING	HIKO SPRINGS	JOHNSTON CANYON	KANE SPRINGS/ PAHRANAGAT WASH	KINGSTON WASH	LOWER GOLD BUTTE	LOWER MEADOW VALLEY WASH	LP5	LYTLE RANCH
COMMUNITY TARGETS														
RABBITBRUSH SCRUB														
GREASEWOOD-MIXED SCRUB														
MESQUITE BOSQUE-DW		X	X											
MOJAVE DESERT WASH				X	X			X	X	X	X			
CATCLAW ACACIA SHRUBLAND									1					
CRUCIFIXION THORN SHRUBLAND ALLIANCE														
ALLIANCE									1	X				
SMOKETREE SHRUBLAND ALLIANCE					X									
BLUE PALO VERDE SHRUBLAND ALLIANCE														
DESERT HACKBERRY SHRUBLAND ALLIANCE						1								
DESERT IRONWOOD SHRUBLAND ALLIANCE														
SPINY HOPSAGE SHRUBLAND ALLIANCE														
TARGET SPECIES														
DESERT WASH BIRD HABITAT									X					
PHAINOPEPLA NITENS	1	1			X		1					X		1
SENNA COVESII													X	
MIMULUS MOHAVENSIS														
PROTECTED STATUS	+	o	o	+	+	+	o	o	o	o	+	o	o	+
OUTSTANDING	o	o	o	o	o	o	o	o	+	o	o	o	o	o
GOAL/REPRESENTATION	o	o	o	o	o	o	o	o	o	o	o	o	o	o
AQUATIC SITE	o	o	o	o	o	o	+	o	o	o	o	o	o	+
RIPARIAN SITE	+	o	o	o	+	o	+	o	o	o	o	+	o	+
PORTFOLIO	YES	NO	NO	YES	YES	YES	YES	NO	YES	NO	YES	YES	NO	YES

DESERT WASH-EASTERN	MEADOW VALLEY WASH	MIDDLE VIRGIN RIVER	PIPE SPRING	PIUTE GORGE	PIUTE VALLEY	PIUTE WASH	RAINBOW CANYON	RED ROCK SPRINGS (ET AL)	RIVERSIDE BRIDGE	ROACH LAKE	SALT CREEK	STUMP SPRINGS	TASSI/SEVEN SPRINGS	TOQUAP WASH
COMMUNITY TARGETS														
RABBITBRUSH SCRUB														
GREASEWOOD-MIXED SCRUB														
MESQUITE BOSQUE-DW												X		
MOJAVE DESERT WASH	X			X	X	1								X
CATCLAW ACACIA SHRUBLAND			X	X										
CRUCIFIXION THORN SHRUBLAND ALLIANCE														
ALLIANCE				1										
SMOKETREE SHRUBLAND ALLIANCE														
BLUE PALO VERDE SHRUBLAND ALLIANCE														
DESERT HACKBERRY SHRUBLAND ALLIANCE														
DESERT IRONWOOD SHRUBLAND ALLIANCE														
SPINY HOPSAGE SHRUBLAND ALLIANCE														
TARGET SPECIES														
DESERT WASH BIRD HABITAT														
PHAINOPEPLA NITENS		1	X				X	X					1	X
SENNA COVESII														
MIMULUS MOHAVENSIS														
PROTECTED STATUS	o	o	+	+	o	+	o	o	o	o	o	o	+	o
OUTSTANDING	o	o	o	o	o	+	o	o	o	o	o	o	o	o
GOAL/REPRESENTATION	o	o	o	o	o	o	o	o	o	o	o	+	o	o
AQUATIC SITE	+	+	o	+	o	o	+	o	o	o	+	o	+	o
RIPARIAN SITE	+	+	o	+	o	o	+	o	o	o	+	o	+	o
PORTFOLIO	YES	YES	YES	YES	NO	YES	YES	NO	NO	NO	YES	YES	YES	NO

DESERT WASH-EASTERN	UPPER MUDDY RIVER	UPPER VIRGIN RIVER	VIRGIN RIVER CHANNEL	WEISER WASH
COMMUNITY TARGETS				
RABBITBRUSH SCRUB				
GREASEWOOD-MIXED SCRUB				
MESQUITE BOSQUE-DW				
MOJAVE DESERT WASH				X
CATCLAW ACACIA SHRUBLAND				
CRUCIFIXION THORN SHRUBLAND ALLIANCE				
ALLIANCE				
SMOKETREE SHRUBLAND ALLIANCE				
BLUE PALO VERDE SHRUBLAND ALLIANCE				
DESERT HACKBERRY SHRUBLAND ALLIANCE				
DESERT IRONWOOD SHRUBLAND ALLIANCE				
SPINY HOPSAGE SHRUBLAND ALLIANCE				
TARGET SPECIES				
DESERT WASH BIRD HABITAT				
PHAINOPEPLA NITENS	X	1	1	
SENNA COVESII				
MIMULUS MOHAVENSIS				
PROTECTED STATUS	o	o	o	o
OUTSTANDING	o	o	o	o
GOAL/REPRESENTATION	o	o	o	o
AQUATIC SITE	+	+	+	o
RIPARIAN SITE	+	+	+	o
PORTFOLIO	YES	YES	YES	NO

DESERT WASH-NORTHERN	AMARGOSA CANYON - CHINA RANCH WASH	AMARGOSA RIVER - SHOSHONE	ARGUS RANGE	ARGUS RANGE - GREAT FALLS BASIN	ARGUS RANGE - MOUNTAIN SPRINGS CANYON	ASH MEADOWS	BLACK MAGIC JOSHUA TREE	CHINA LAKE DUNES	DARWIN WASH	DEADMAN CANYON	EMIGRANT CANYON	HAIWEE SPRINGS	JOSHUA FLATS	LOWER CENTENNIAL FLAT
COMMUNITY TARGETS														
RABBITBRUSH SCRUB														
GREASEWOOD - MIXED SCRUB														
MESQUITE BOSQUE-DW	X					X								
MOJAVE DESERT WASH			X	X	X			X	X	X	X	X	X	X
CATCLAW ACACIA SHRUBLAND														
CROOFIXION THORN SHRUBLAND ALLIANCE														
SWEET DESERT WILLOW SHRUBLAND ALLIANCE														
SMOKETREE SHRUBLAND ALLIANCE							X							
BLUE PALO VERDE SHRUBLAND ALLIANCE														
DESERT HACKBERRY SHRUBLAND ALLIANCE														
DESERT IRONWOOD SHRUBLAND ALLIANCE														
SPINY HOPSAGE SHRUBLAND ALLIANCE														
TARGET SPECIES														
PHAINOPEPLA NITENS		X												
DESERT WASH BIRD HABITAT														
SENNA COVESSII														
MIMULUS MOHAVENSIS														
NEOTROPICAL MIGRATORY BIRD HABITAT														
PROTECTED STATUS	o	o	o	o	o	o	+	o	o	o	+	o	o	o
OUTSTANDING	o	o	o	o	o	o	o	o	o	o	o	o	o	o
GOAL/REPRESENTATION	o	o	o	o	o	o	o	o	o	o	o	o	o	o
AQUATIC SITE	+	+	o	o	+	+	o	o	o	o	o	+	o	o
RIPARIAN SITE	+	+	o	+	+	+	o	o	o	+	o	+	o	o
PORTFOLIO	YES	YES	NO	YES	YES	YES	YES	NO	NO	YES	YES	YES	NO	NO

DESERT WASH-NORTHERN	OASIS VALLEY	OLANCHA DUNES	OWENS VALLEY	PANAMINT CANYONS	PILOT KNOB VALLEY	RANDSBURG WASH	SLATE RANGE	STEWART VALLEY	UPPER AMARGOSA RIVER / LOWER CARSON	WILDHORSE MESA/ETCHAREN VALLEY	WINGATE WASH
COMMUNITY TARGETS											
RABBITBRUSH SCRUB	X										
GREASEWOOD - MIXED SCRUB		1	X								
MESQUITE BOSQUE-DW								1			
MOJAVE DESERT WASH					X	X	X			X	X
CATCLAW ACACIA SHRUBLAND											
CRUCIFIXION THORN SHRUBLAND ALLIANCE											
SWEET DESERT WILLOW SHRUBLAND ALLIANCE											
SMOKETREE SHRUBLAND ALLIANCE											
BLUE PALO VERDE SHRUBLAND ALLIANCE											
DESERT HACKBERRY SHRUBLAND ALLIANCE											
DESERT IRONWOOD SHRUBLAND ALLIANCE											
SPINY HOPSAGE SHRUBLAND ALLIANCE											
TARGET SPECIES											
PHAINOPEPLA NITENS									X		
DESERT WASH BIRD HABITAT											
SENNA COVESSII											
MIMULUS MOHAVENSIS											
NEOTROPICAL MIGRATORY BIRD HABITAT				X							
PROTECTED STATUS	o	o	o	+	o	o	o	o	o	o	o
OUTSTANDING	o	+	o	o	o	o	o	+	o	o	o
GOAL/REPRESENTATION	o	o	o	o	o	o	o	o	o	o	o
AQUATIC SITE	+	o	+	+	o	o	o	o	o	o	o
RIPARIAN SITE	+	+	+	+	o	o	o	o	o	+	o
PORTFOLIO	YES	YES	YES	YES	NO	NO	NO	YES	NO	YES	NO

DESERT WASH-SOUTHCENTRAL	BULLION MTS	BULLION MTS - DS	BULLION MTS - DT	COTTONWOOD FAN	COTTONWOOD SPRING	COTTONWOOD /OLD WOMAN SPRINGS	DAGGETT WASH	DALE DRY LAKE	EAGLE MTS - BHS	FRIED LIVER WASH	GOLD CROWN WASH / PINTO MTN	JOHNSON VALLEY	KANE WASH	LAVA BED MTS
COMMUNITY TARGETS														
RABBITBRUSH SCRUB														
GREASEWOOD-MIXED SCRUB														
MESQUITE BOSQUE-DW														
MOJAVE DESERT WASH	X	X	X	X	X		1	X	X			X	X	X
CATCLAW ACACIA SHRUBLAND											1		X	
CRUCIFIXION THORN SHRUBLAND ALLIANCE														
ALLIANCE										X	X		1	
SMOKETREE SHRUBLAND ALLIANCE								X			X		1	
BLUE PALO VERDE SHRUBLAND ALLIANCE														
DESERT HACKBERRY SHRUBLAND ALLIANCE														
DESERT IRONWOOD SHRUBLAND ALLIANCE														
SPINY HOPSAGE SHRUBLAND ALLIANCE														
TARGET SPECIES														
MIMULUS MOHAVENSIS						X	X						X	
PHAINOPEPLA NITENS														
SENNA COVESII				X	X									
DESERT WASH BIRD HABITAT														
PROTECTED STATUS	o	o	o	o	+	o	o	o	o	+	+	o	o	o
OUTSTANDING	o	o	o	o	o	o	+	o	o	o	+	o	+	o
GOAL/REPRESENTATION	o	o	o	o	o	+	+	o	o	o	o	o	o	o
AQUATIC SITE	o	o	o	o	o	o	o	o	o	o	o	o	o	o
RIPARIAN SITE	o	o	o	o	+	+	o	o	o	o	o	o	o	o
PORTFOLIO	NO	NO	NO	NO	YES	YES	YES	NO	NO	YES	YES	NO	YES	NO

DESERT WASH-SOUTHCENTRAL	LAVA BED MTS - DESERT WILLOW	LAVIC LAKE / PISGAH CRATER	LAVIC LAKE WASH	LEAD MTN CANYON	MESQUITE LAKE - TWENTYNINE PALMS	MOJAVE RIVER	MOJAVE RIVER WASH	MUNSEN CANYON	NEWBERRY MTN-CA	NORTH SLOPE SAN BERNARDINO MTS - CARBONATE	ORD MTS	ORD MTS - CACTUS GARDEN	ORD-RODMAN MTS COMPLEX	PEAL (29PALMS)
COMMUNITY TARGETS														
RABBITBRUSH SCRUB														
GREASEWOOD-MIXED SCRUB														
MESQUITE BOSQUE-DW														
MOJAVE DESERT WASH	X	1	X	X		X	X	X	X	X	X	X	X	X
CATCLAW ACACIA SHRUBLAND														
CRUCIFIXION THORN SHRUBLAND ALLIANCE		X												
ALLIANCE	X													
SMOKETREE SHRUBLAND ALLIANCE														
BLUE PALO VERDE SHRUBLAND ALLIANCE														
DESERT HACKBERRY SHRUBLAND ALLIANCE														
DESERT IRONWOOD SHRUBLAND ALLIANCE														
SPINY HOPSAGE SHRUBLAND ALLIANCE														
TARGET SPECIES														
MIMULUS MOHAVENSIS									1		1		1	
PHAINOPEPLA NITENS			X	X										
SENNA COVESII														
DESERT WASH BIRD HABITAT														
PROTECTED STATUS	o	o	o	o	o	o	o	+	+	o	o	o	o	o
OUTSTANDING	o	o	o	o	o	o	+	o	o	o	+	o	o	o
GOAL/REPRESENTATION	o	o	o	o	o	o	o	o	o	o	o	o	+	o
AQUATIC SITE	o	o	o	o	o	+	o	o	o	o	o	o	o	o
RIPARIAN SITE	o	o	o	o	o	+	o	+	+	o	+	o	o	o
PORTFOLIO	NO	NO	NO	NO	NO	YES	YES	YES	YES	NO	YES	NO	YES	NO

DESERT WASH-SOUTHCENTRAL	PETROGLYPH FLOW	PETROGLYPH WASH	PINKHAM WASH	PINTO BASIN	PINTO WYE WASH	PIPES CANYON	RAINBOW-MESA CANYON	RODMAN MTS	SILVER MTN	SMITH WATER CANYON	TINAJA	WILLOW AND HACKBERRY CANYONS	WOOD CANYON
COMMUNITY TARGETS													
RABBITBRUSH SCRUB													
GREASEWOOD-MIXED SCRUB													
MESQUITE BOSQUE-DW													
MOJAVE DESERT WASH	X	X	X	X		X	X	X			X	X	X
CATCLAW ACACIA SHRUBLAND										X			
CRUCIFIXION THORN SHRUBLAND ALLIANCE													
ALLIANCE					X	1		X					
SMOKETREE SHRUBLAND ALLIANCE								X					
BLUE PALO VERDE SHRUBLAND ALLIANCE													
DESERT HACKBERRY SHRUBLAND ALLIANCE												1	
DESERT IRONWOOD SHRUBLAND ALLIANCE													
SPINY HOPSAGE SHRUBLAND ALLIANCE													
TARGET SPECIES													
MIMULUS MOHAVENSIS								X	X				
PHAINOPEPLA NITENS		X					X						
SENNA COVESII													
DESERT WASH BIRD HABITAT													
PROTECTED STATUS	o	o	o	+	+	o	o	o	o	o	o	o	o
OUTSTANDING	o	o	o	o	o	o	o	o	o	o	o	o	o
GOAL/REPRESENTATION	o	o	o	o	o	o	o	+	+	o	o	o	o
AQUATIC SITE	o	o	o	o	o	+	o	o	o	o	o	o	o
RIPARIAN SITE	o	o	o	o	o	+	o	o	o	o	o	+	o
PORTFOLIO	NO	NO	NO	YES	YES	YES	NO	YES	YES	NO	NO	YES	NO

DESERT WASH-SOUTHEASTERN	AMERICAN MINE FAN	BLACK TOP FAN	CALUMET DUNE	CHEMEHUEVI MTS	CHEMEHUEVI WASH	DEAD MTS	FENNER VALLEY	GRANITE MTS	GRANITE MTS - MESQUITE	HOMER WASH	LEAD MTN DUNES	MARBLE MOUNTAINS	PINTO BASIN - OCOTILLO
COMMUNITY TARGETS													
RABBITBRUSH SCRUB													
GREASEWOOD-MIXED SCRUB													
MESQUITE BOSQUE-DW								X	X				
MOJAVE DESERT WASH	X	X	X	X	X					X	X	X	X
CATCLAW ACACIA SHRUBLAND													
CRUCIFIXION THORN SHRUBLAND ALLIANCE					X								
SWEET DESERT WILLOW SHRUBLAND ALLIANCE													
SMOKETREE SHRUBLAND ALLIANCE					1	X	X			X			
BLUE PALO VERDE SHRUBLAND ALLIANCE					1					X			
DESERT HACKBERRY SHRUBLAND ALLIANCE													
DESERT IRONWOOD SHRUBLAND ALLIANCE													
SPINY HOPSAGE SHRUBLAND ALLIANCE													
TARGET SPECIES													
DESERT WASH BIRD HABITAT					1								
PHAINOPEPLA NITENS		X				X		1					
SENNA COVESII													
MIMULUS MOHAVENSIS													
PROTECTED STATUS	o	o	+	+	o	+	o	o	o	o	o	o	+
OUTSTANDING OCCURRENCE	o	o	o	o	+	o	o	o	o	o	o	o	o
GOAL/REPRESENTATION	o	o	o	o	o	o	o	o	o	+	o	o	o
AQUATIC SITE	o	o	o	+	o	o	o	o	o	o	o	o	o
RIPARIAN SITE	o	o	o	+	o	o	o	o	o	o	o	o	o
PORTFOLIO	NO	NO	YES	YES	YES	NO	NO	NO	NO	YES	NO	NO	YES

DESERT WASH-SOUTHEASTERN	PIUTE VALLEY	SACRAMENTO WASH	STEPLADDER MTS - NORTH	WALNUT CREEK	WARD VALLEY
COMMUNITY TARGETS					
RABBITBRUSH SCRUB					
GREASEWOOD-MIXED SCRUB					
MESQUITE BOSQUE-DW					
MOJAVE DESERT WASH	X	1	X		X
CATCLAW ACACIA SHRUBLAND				X	
CRUCIFIXION THORN SHRUBLAND ALLIANCE					
SWEET DESERT WILLOW SHRUBLAND ALLIANCE					
SMOKETREE SHRUBLAND ALLIANCE					
BLUE PALO VERDE SHRUBLAND ALLIANCE					
DESERT HACKBERRY SHRUBLAND ALLIANCE					
DESERT IRONWOOD SHRUBLAND ALLIANCE					
SPINY HOPSAGE SHRUBLAND ALLIANCE					
TARGET SPECIES					
DESERT WASH BIRD HABITAT					
PHAINOPEPLA NITENS					
SENNA COVESII					
MIMULUS MOHAVENSIS					
PROTECTED STATUS	o	o	o	o	o
OUTSTANDING OCCURRENCE	o	+	o	o	o
GOAL/REPRESENTATION	o	o	o	o	o
AQUATIC SITE	o	o	o	o	o
RIPARIAN SITE	o	o	o	+	o
PORTFOLIO	NO	YES	NO	YES	NO

DESERT WASH-WESTERN	ARGUS RANGE	BIG ROCK WASH	BLACK HILLS	BLACK MTN	CANYON DEL GATO-MONTES	CHINA LAKE DUNES	COTTONWOOD CREEK	KINGS CANYON	LEONA VALLEY	LITTLE DIXIE WASH	LITTLE DIXIE WASH - BLACK MTN	RANDSBURG WASH	RED ROCK CYN / EL PASO MTS
COMMUNITY TARGETS													
RABBITBRUSH SCRUB		X			X		X	X	X				
GREASEWOOD-MIXED SCRUB													
MESQUITE BOSQUE-DW													
MOJAVE DESERT WASH	X		X	X		X				1	X	X	X
CATCLAW ACACIA SHRUBLAND													
CRUCIFIXION THORN SHRUBLAND													
SWEET DESERT WILLOW SHRUBLAND ALLIANCE													
SMOKETREE SHRUBLAND ALLIANCE													
BLUE PALO VERDE SHRUBLAND ALLIANCE													
DESERT HACKBERRY SHRUBLAND ALLIANCE													
DESERT IRONWOOD SHRUBLAND ALLIANCE													
SPINY HOPSAGE SHRUBLAND ALLIANCE													
TARGET SPECIES													
DESERT WASH BIRD HABITAT													
PHAINOPEPLA NITENS													
SENNA COVESSII													
MIMULUS MOHAVENSIS													
PROTECTED STATUS	o	o	o	o	o	o	o	o	o	o	o	o	o
OUTSTANDING	o	o	o	o	o	o	o	o	o	+	o	o	o
GOAL/REPRESENTATION	o	o	o	o	o	o	o	o	o	o	o	o	o
AQUATIC SITE	o	o	o	o	o	o	o	o	+	o	o	o	o
RIPARIAN SITE	o	+	o	o	o	o	o	+	+	o	o	o	o
PORTFOLIO	NO	YES	NO	NO	NO	NO	NO	YES	YES	YES	NO	NO	NO

DUNES & SUBSTRATES - CENTRAL SUBREGION	AFTON CANYON	ARROW-HEAD TR.	ASJE	AVAWATZ MTS	BITTER SPRING	BITTER SPRING DUNES	BRODWELL LAKE TO BRISTOL MTN	CADY MTS	CAMP CADY	COOLGARDIE MESA	COYOTE LAKE	COYOTE LAKE - DISJUNCT PLAYAS	CRONESE BASIN
COMMUNITY TARGETS													
CAVES													
CLIFFS													
LAVA FLOW / EXPOSED BEDROCK													
LIMESTONE SUBSTRATES				1									
SAND SOURCE													
SANDSTONE SUBSTRATES													
STABILIZED AND PARTIALLY-STABILIZED DESERT DUNES						1	1				1	1	1
TARGET SPECIES													
SIDEWINDER											1		
MOJAVE GREEN RATTLESNAKE													
PANAMINT KANGAROO RAT										1			
KELSO GIANT SAND TREADER CRICKET													
MOJAVE GROUND SQUIRREL			1							1			
MOJAVE FRINGE-TOED LIZARD		1			1	1	1						1
BAKER DESERT SNAIL													
BADGER	1								1				
LINANTHUS ARENICOLA	1												1
PENSTEMON ALBOMARGINATUS								1					
LANDSCAPE ATTRIBUTES													
CLASS 1-2	YES	?		YES			YES	YES					YES
ROADEDNESS	0.35	0.34	0.00	0.01	2.43	0.00	0.77	0.30	0.99	1.90	0.32	1.40	0.90
COMMENTS			A rank			Good					Good		Good
PORTFOLIO ?	**NO**	**NO**	**NO**	**YES**	**NO**	**YES**	**YES**	**NO**	**NO**	**NO**	**NO**	**NO**	**YES**

DUNES & SUBSTRATES - CENTRAL SUBREGION	CRONESE VALLEY	DEVILS PLAYGROUND	EAGLE CRAGS	EASTGATE 1 AND 2	GOLDSTONE COMPLEX	JAD-13	KANE WASH	NO. MIDWAY	PILOT KNOB / SLOCUM MTN	PILOT KNOB VALLEY	RAZOR OHV FREE-PLAY AREA	RED PASS LAKE	SLEEPING BEAUTY WASH
COMMUNITY TARGETS													
CAVES				1									
CLIFFS				1									
LAVA FLOW / EXPOSED BEDROCK									1				
LIMESTONE SUBSTRATES													
SAND SOURCE													
SANDSTONE SUBSTRATES				1									
STABILIZED AND PARTIALLY-STABILIZED DESERT DUNES	1	1								1	1	1	
TARGET SPECIES													
SIDEWINDER							1						
MOJAVE GREEN RATTLESNAKE					1				1				
PANAMINT KANGAROO RAT													
KELSO GIANT SAND TREADER CRICKET		1											
MOJAVE GROUND SQUIRREL					1				1				
MOJAVE FRINGE-TOED LIZARD	1	1										1	
BAKER DESERT SNAIL													
BADGER							1		1				
LINANTHUS ARENICOLA	1	1	1			1		1		1	1	1	
PENSTEMON ALBOMARGINATUS						1							1
LANDSCAPE ATTRIBUTES													
CLASS 1-2													
ROADEDNESS	6.86	0.28	0.36	0.00	1.37	1.20	1.28	0.46	0.81	0.80	0.47	0.00	0.12
COMMENTS												Good	
PORTFOLIO ?	**NO**	**YES**	**NO**	**YES**	**NO**	**YES**	**NO**	**NO**	**YES**	**YES**	**NO**	**YES**	**NO**

DUNES & SUBSTRATES - EASTERN SUBREGION	BEAVER DAM MOUNTAINS	BEAVER DAM NORTHEAST SLOPE	BEAVER DAM SLOPE	BITTER RIDGE/LIME RIDGE	BITTER SPRINGS VALLEY	BLOOMINGTON HILL	BUDWEISER WASH VICINITY	BULL CANYON	CACTUS VALLEY	CALIFORNIA VALLEY	CASTLE CLIFF / WOODBERRY HARDY	CEDAR WASH	CLARK MTN	COYOTE SPRINGS	COYOTE SPRINGS VALLEY	DOG BONE LAKE	DUMONT SAND DUNES
COMMUNITY TARGETS																	
CACTUS GARDEN									1								
DESERT PAVEMENT / LAVA FLOW																	
DESERT PAVEMENT AND SALT FLAT							1										
GYPSUM SUBSTRATES					1												
LAVA FLOW / EXPOSED BEDROCK								1									
LIMESTONE SUBSTRATES													1				
SAND FIELDS										1							
STABILIZED AND PARTIALLY-STABILIZED DESERT DUNES							1										1
ERIOGONUM FASCICULATUM SHRUBLAND ALLIANCE																	
PROSOPIS GLANDULOSA SHRUBLAND ALLIANCE														1			
TARGET SPECIES																	
SIDEWINDER			1						1								
MOJAVE GREEN RATTLESNAKE			1						1		1						
DESERT KANGAROO RAT																	
MERRIAMS KANGAROO RAT																	
DUNE INVERTEBRATES																	
BEARPOPPY BEE (PERDITA MECONIS)						1											
UTAH MOUNTAIN KINGSNAKE	1																
MOJAVE GROUND SQUIRREL																	
BADGER																	
SONORAN LYRE SNAKE						1											
MOJAVE FRINGE-TOED LIZARD																	1
KIT FOX															1		
DESERT NIGHT LIZARD			1								1						
AGAVE UTAHENSIS VAR. NEVADENSIS													1				
ANTENNARIA SOLICEPS																	
ANULOCAULIS LEIOSLENUS																	
ARCTOMECON CALIFORNICA				1	1												
ARCTOMECON HUMILIS						1											
ARCTOMECON MERRIAMII															1	1	
ARENARIA KINGII SSP. ROSEA																	
ARENARIA STENOMERES															1		
ASTRAGALUS ACKERMANII																	
ASTRAGALUS AEQUALIS																	
ASTRAGALUS AMPULLARIOIDES																	
ASTRAGALUS FUNEREUS																	
ASTRAGALUS GEYERI VAR. TRIQUETRUS																	
ASTRAGALUS HOLMGRENIORUM		1															
ASTRAGALUS MOKIACENSIS																	
ASTRAGALUS NYENSIS																	
ASTRAGALUS PREUSSII VAR PREUSSII																	
ASTRAGALUS REMOTUS																	
CAMISSONIA EXILIS												1					
CHRYSOTHAMNUS EREMOBIUS																	
CIRSIUM VIRGINENSE																	
CORDYLANTHUS TECOPENSIS																	
ERIOGONUM VISCIDULUM			1														
HESPEROCALLIS UNDULATA																	
LINANTHUS ARENICOLA																	
PENSTEMON ALBOMARGINATUS																	
HIGH PLANT DIVERSITY/ENDEMICS													1				
LANDSCAPE ATTRIBUTES																	
CLASS 1-2			YES	YES	YES	YES	YES				YES		YES	YES	YES	YES	
ROADEDNESS	0.0086	0.0125	0.0087	0.0012	0.0104	0.0070	0.0005	0.0212	0.0324	0.0131	0.0100	0.0115	0.0083	0.0123	0.0112	0.0030	0.0138
COMMENTS	fair		very good		good		very good		very good		good			fair			
PORTFOLIO ?	**NO**	**NO**	**NO**	**NO**	**YES**	**YES**	**YES**	**NO**	**YES**	**NO**	**NO**	**NO**	**YES**	**NO**	**YES**	**NO**	**NO**

DUNES & SUBSTRATES - EASTERN SUBREGION	ELDORADO VALLEY	FIRE MOUNTAIN	GOLD BUTTE	GOLD BUTTE PAKOON	GRANITE MTS	GRANITE MTS - MESQUITE	GRAPEVINE SPRING/LP	HORSE THIEF CANYON	HUNGRY VALLEY	HUNGRY VALLEY / WHITE SADDLE SPRING	INDIAN SPRING VALLEY	JAD10	JAD28	JEAN DRY LAKE VALLEY	JOSHUA TREE NNL	KERNY PASS	KINGSTON MOUNTAINS
COMMUNITY TARGETS																	
CACTUS GARDEN																	
DESERT PAVEMENT / LAVA FLOW								1									
DESERT PAVEMENT AND SALT FLAT																	
GYPSUM SUBSTRATES																	
LAVA FLOW / EXPOSED BEDROCK					1	1						1	1				
LIMESTONE SUBSTRATES																	1
SAND FIELDS																	
STABILIZED AND PARTIALLY-STABILIZED DESERT DUNES														1			
ERIOGONUM FASCICULATUM SHRUBLAND ALLIANCE																	
PROSOPIS GLANDULOSA SHRUBLAND ALLIANCE																	
TARGET SPECIES																	
SIDEWINDER	1			1													
MOJAVE GREEN RATTLESNAKE	1			1													
DESERT KANGAROO RAT																	
MERRIAMS KANGAROO RAT																	
DUNE INVERTEBRATES																	
BEARPOPPY BEE (PERDITA MECONIS)																	
UTAH MOUNTAIN KINGSNAKE																	
MOJAVE GROUND SQUIRREL																	
BADGER																	1
SONORAN LYRE SNAKE																	
MOJAVE FRINGE-TOED LIZARD																	
KIT FOX																	
DESERT NIGHT LIZARD	1																
AGAVE UTAHENSIS VAR. NEVADENSIS																	1
ANTENNARIA SOLICEPS																	
ANULOCAULIS LEIOSLENUS																	
ARCTOMECON CALIFORNICA			1	1											1		
ARCTOMECON HUMILIS																	
ARCTOMECON MERRIAMII											1					1	
ARENARIA KINGII SSP. ROSEA																	
ARENARIA STENOMERES																	
ASTRAGALUS ACKERMANII																	
ASTRAGALUS AEQUALIS																	
ASTRAGALUS AMPULLARIOIDES																	
ASTRAGALUS FUNEREUS																	
ASTRAGALUS GEYERI VAR. TRIQUETRUS				1													
ASTRAGALUS HOLMGRENIORUM																	
ASTRAGALUS MOKIACENSIS			1														
ASTRAGALUS NYENSIS				1													
ASTRAGALUS PREUSSII VAR PREUSSII																	
ASTRAGALUS REMOTUS																	
CAMISSONIA EXILIS									1	1							
CHRYSOTHAMNUS EREMOBIUS																	
CIRSIUM VIRGINENSE		1	**X**	1			1										
CORDYLANTHUS TECOPENSIS																	
ERIOGONUM VISCIDULUM			1	1													
HESPEROCALLIS UNDULATA																	
LINANTHUS ARENICOLA																	
PENSTEMON ALBOMARGINATUS														1			
HIGH PLANT DIVERSITY/ENDEMICS																1	1
LANDSCAPE ATTRIBUTES																	
CLASS 1-2	YES	YES	YES	YES	YES	YES	YES	YES			YES	YES	YES		YES	YES	YES
ROADEDNESS	0.0176	0.0024	0.0057	0.0077	0.0036	0.0136	0.0012	0.0000	0.0255	0.0202	0.0044	0.0315	0.0144	0.0044	0.0138	0.0202	0.0026
COMMENTS														fair			
PORTFOLIO ?	**NO**	**NO**	**YES**	**YES**	**YES**	**YES**	**NO**	**YES**	**NO**	**NO**	**NO**	**YES**	**NO**	**YES**	**NO**	**NO**	**YES**

DUNES & SUBSTRATES - EASTERN SUBREGION	KINGSTON WASH	KNOB HILL	LA MADRE MTS/RED ROCK	LAVA BEDS	LITTLEFIELD	LOWER GOLD BUTTE	LOWER VIRGIN RIVER	LP11	LP14	LP17	LP18	LP19	LP21	LP8	LYTLE RANCH	MESQUITE LAKE	MIDDLE VIRGIN RIVER
COMMUNITY TARGETS																	
CACTUS GARDEN																	
DESERT PAVEMENT / LAVA FLOW																	
DESERT PAVEMENT AND SALT FLAT																	
GYPSUM SUBSTRATES									1								
LAVA FLOW / EXPOSED BEDROCK		1		1													
LIMESTONE SUBSTRATES					X												
SAND FIELDS																	
STABILIZED AND PARTIALLY-STABILIZED DESERT DUNES																	
ERIOGONUM FASCICULATUM SHRUBLAND ALLIANCE																	
PROSOPIS GLANDULOSA SHRUBLAND ALLIANCE																	
TARGET SPECIES																	
SIDEWINDER																	
MOJAVE GREEN RATTLESNAKE																	
DESERT KANGAROO RAT															1		
MERRIAMS KANGAROO RAT																	
DUNE INVERTEBRATES																	
BEARPOPPY BEE (PERDITA MECONIS)																	
UTAH MOUNTAIN KINGSNAKE																	
MOJAVE GROUND SQUIRREL																	
BADGER																	
SONORAN LYRE SNAKE																	
MOJAVE FRINGE-TOED LIZARD																	
KIT FOX																	
DESERT NIGHT LIZARD																	
AGAVE UTAHENSIS VAR. NEVADENSIS	1																
ANTENNARIA SOLICEPS																	
ANULOCAULIS LEIOSLENUS																	
ARCTOMECON CALIFORNICA						1											
ARCTOMECON HUMILIS																	
ARCTOMECON MERRIAMII																	
ARENARIA KINGII SSP. ROSEA																	
ARENARIA STENOMERES																	
ASTRAGALUS ACKERMANII																	
ASTRAGALUS AEQUALIS																	
ASTRAGALUS AMPULLARIOIDES																	
ASTRAGALUS FUNEREUS																	
ASTRAGALUS GEYERI VAR. TRIQUETRUS						1	1							1			1
ASTRAGALUS HOLMGRENIORUM																	
ASTRAGALUS MOKIACENSIS																	
ASTRAGALUS NYENSIS							1										
ASTRAGALUS PREUSSII VAR PREUSSII																1	
ASTRAGALUS REMOTUS			1														
CAMISSONIA EXILIS																	
CHRYSOTHAMNUS EREMOBIUS																	
CIRSIUM VIRGINENSE					1												
CORDYLANTHUS TECOPENSIS																	
ERIOGONUM VISCIDULUM						1	1	1						1			
HESPEROCALLIS UNDULATA										1	1	1	1				
LINANTHUS ARENICOLA	1																
PENSTEMON ALBOMARGINATUS																	
HIGH PLANT DIVERSITY/ENDEMICS																	
LANDSCAPE ATTRIBUTES																	
CLASS 1-2	YES		YES	YES	YES	YES	YES	YES	YES	YES	YES	YES		YES	YES		YES
ROADEDNESS	0.0086	0.0000	0.0051	0.0049	0.0947	0.0033	0.0000	0.0000	0.0099	0.0222	0.0089	0.0468	0.0543	0.0000	0.0033	0.0076	0.0524
COMMENTS		very good							outstanding						good		
PORTFOLIO ?	**NO**	**NO**	**NO**	**YES**	**NO**	**YES**	**YES**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**YES**	**NO**	**NO**	**NO**

DUNES & SUBSTRATES - EASTERN SUBREGION	MID-HILLS	MID-HILLS - WESTSLOPE	MOHAWK MINE	MOKAAC WASH	MORMON MESA - LOWER	MORMON MESA - UPPER	MORMON MOUNTAINS	MOUNTAIN PASS	MS52	MUDDY MOUNTAINS	NELLIS GROUND GUNNERY RANGE	NEW YORK MTN	OVERTON ARM-VIRGIN RIVER	OVERTON WILDLIFE MANAGEMENT AREA	PAHRUMP VALLEY - SO END	PROVIDENCE MTN	RED ROCK SPRING
COMMUNITY TARGETS																	
CACTUS GARDEN	1	1														1	
DESERT PAVEMENT / LAVA FLOW																	
DESERT PAVEMENT AND SALT FLAT																	
GYPSUM SUBSTRATES										1							
LAVA FLOW / EXPOSED BEDROCK																	
LIMESTONE SUBSTRATES												1					
SAND FIELDS																	
STABILIZED AND PARTIALLY-STABILIZED DESERT DUNES																	
ERIOGONUM FASCICULATUM SHRUBLAND ALLIANCE										1							
PROSOPIS GLANDULOSA SHRUBLAND ALLIANCE																	
TARGET SPECIES																	
SIDEWINDER									1								
MOJAVE GREEN RATTLESNAKE																	
DESERT KANGAROO RAT																	
MERRIAMS KANGAROO RAT																	
DUNE INVERTEBRATES																	
BEARPOPPY BEE (PERDITA MECONIS)																	
UTAH MOUNTAIN KINGSNAKE																	
MOJAVE GROUND SQUIRREL																	
BADGER																	
SONORAN LYRE SNAKE																	
MOJAVE FRINGE-TOED LIZARD																	
KIT FOX																	
DESERT NIGHT LIZARD																	
AGAVE UTAHENSIS VAR. NEVADENSIS			1				1	1		1					1		
ANTENNARIA SOLICEPS																	
ANULOCAULIS LEIOSLENUS																	
ARCTOMECON CALIFORNICA										1	1						
ARCTOMECON HUMILIS																	
ARCTOMECON MERRIAMII																	
ARENARIA KINGII SSP. ROSEA																	
ARENARIA STENOMERES																	
ASTRAGALUS ACKERMANII																	
ASTRAGALUS AEQUALIS																	
ASTRAGALUS AMPULLARIOIDES																	
ASTRAGALUS FUNEREUS																	
ASTRAGALUS GEYERI VAR. TRIQUETRUS					1	1				1			1				
ASTRAGALUS HOLMGRENIORUM																	
ASTRAGALUS MOKIACENSIS				1													
ASTRAGALUS NYENSIS					1												
ASTRAGALUS PREUSSII VAR PREUSSII																	
ASTRAGALUS REMOTUS																	
CAMISSONIA EXILIS																	1
CHRYSOTHAMNUS EREMOBIUS																	
CIRSIUM VIRGINENSE										1				1			
CORDYLANTHUS TECOPENSIS																	
ERIOGONUM VISCIDULUM					1	1							1				
HESPEROCALLIS UNDULATA																	
LINANTHUS ARENICOLA																	
PENSTEMON ALBOMARGINATUS																	
HIGH PLANT DIVERSITY/ENDEMICS																	
LANDSCAPE ATTRIBUTES																	
CLASS 1-2	YES	YES			YES		YES		YES	YES	YES	YES		YES	YES	YES	
ROADEDNESS	0.0037	0.0209	0.0045	0.0206	0.0065	0.0041	0.0042	0.0766	0.0171	0.0060	0.0136	0.0151	0.0000	0.0161	0.0056	0.0029	0.0366
COMMENTS																	
PORTFOLIO ?	**YES**	**NO**	**NO**	**NO**	**YES**	**YES**	**NO**	**NO**	**NO**	**YES**	**NO**	**YES**	**NO**	**NO**	**NO**	**YES**	**NO**

DUNES & SUBSTRATES - EASTERN SUBREGION	RF15	RIVER MOUNTAINS	RIVERSIDE BRIDGE	ROACH LAKE	SALT CREEK	SAND HOLLOW WASH	SANDY COVE	SANDY POINT	SARATOGA SPRINGS	SHADOW MOUNTAIN	SHEEP RANGE	SILURIAN VALLEY/HILLS	SPRING MTS	ST. THOMAS WASH	STATELINE PASS	STATELINE SECTION 32	TOQUAP WASH
COMMUNITY TARGETS																	
CACTUS GARDEN																	
DESERT PAVEMENT / LAVA FLOW																	
DESERT PAVEMENT AND SALT FLAT																	
GYPSUM SUBSTRATES														1			
LAVA FLOW / EXPOSED BEDROCK																	
LIMESTONE SUBSTRATES																	
SAND FIELDS																	
STABILIZED AND PARTIALLY-STABILIZED DESERT DUNES					1			1	1								
ERIOGONUM FASCICULATUM SHRUBLAND ALLIANCE		1															
PROSOPIS GLANDULOSA SHRUBLAND ALLIANCE																	
TARGET SPECIES																	
SIDEWINDER				1													
MOJAVE GREEN RATTLESNAKE				1													
DESERT KANGAROO RAT																	
MERRIAMS KANGAROO RAT	1																
DUNE INVERTEBRATES																	
BEARPOPPY BEE (PERDITA MECONIS)																	
UTAH MOUNTAIN KINGSNAKE																	
MOJAVE GROUND SQUIRREL										1							
BADGER																	
SONORAN LYRE SNAKE																	
MOJAVE FRINGE-TOED LIZARD									1								
KIT FOX																	
DESERT NIGHT LIZARD																	
AGAVE UTAHENSIS VAR. NEVADENSIS																	
ANTENNARIA SOLICEPS													1				
ANULOCAULIS LEIOSLENUS																	
ARCTOMECON CALIFORNICA														1			
ARCTOMECON HUMILIS	1																
ARCTOMECON MERRIAMII															1		
ARENARIA KINGII SSP. ROSEA													1				
ARENARIA STENOMERES																	
ASTRAGALUS ACKERMANII											1						
ASTRAGALUS AEQUALIS													1				
ASTRAGALUS AMPULLARIOIDES	1																
ASTRAGALUS FUNEREUS													1				
ASTRAGALUS GEYERI VAR. TRIQUETRUS			1			1	1							1			1
ASTRAGALUS HOLMGRENIORUM																1	
ASTRAGALUS MOKIACENSIS																	
ASTRAGALUS NYENSIS											1						1
ASTRAGALUS PREUSSII VAR PREUSSII																	
ASTRAGALUS REMOTUS																	
CAMISSONIA EXILIS																	
CHRYSOTHAMNUS EREMOBIUS											1						
CIRSIUM VIRGINENSE																	
CORDYLANTHUS TECOPENSIS									1								
ERIOGONUM VISCIDULUM			1			1								1			1
HESPEROCALLIS UNDULATA																	
LINANTHUS ARENICOLA					1							1					
PENSTEMON ALBOMARGINATUS																	
HIGH PLANT DIVERSITY/ENDEMICS																	
LANDSCAPE ATTRIBUTES																	
CLASS 1-2		YES				YES	YES	YES	YES		YES		YES				YES
ROADEDNESS	0.0314	0.0137	0.0516	0.0166	0.0132	0.0083	0.0000	0.0000	0.0241	0.0135	0.0023	0.0078	0.0061	0.0134	0.0134	0.0971	0.0333
COMMENTS																poor	
PORTFOLIO ?	**YES**	**NO**	**YES**	**NO**	**NO**	**YES**	**NO**	**YES**	**YES**	**NO**	**YES**	**NO**	**YES**	**YES**	**NO**	**NO**	**YES**

DUNES & SUBSTRATES - EASTERN SUBREGION	TYRELL WASH	VALJEAN HILLS	VICEROY MINE	VIRGIN MOUNTAINS	WARNER VALLEY/FORT PIERCE WASH	WEISER WASH	WELCOME WASH	WHITE HILLS-LAKE MEAD	WOODS MTNS	TARGET COUNT	CAPTURED IN PORTFOLIO
COMMUNITY TARGETS											
CACTUS GARDEN			1						1	6	4
DESERT PAVEMENT / LAVA FLOW										1	1
DESERT PAVEMENT AND SALT FLAT										1	1
GYPSUM SUBSTRATES								1		5	4
LAVA FLOW / EXPOSED BEDROCK										7	4
LIMESTONE SUBSTRATES										3	3
SAND FIELDS										1	0
STABILIZED AND PARTIALLY-STABILIZED DESERT DUNES	1	X			1					8	7
ERIOGONUM FASCICULATUM SHRUBLAND ALLIANCE										2	1
PROSOPIS GLANDULOSA SHRUBLAND ALLIANCE										1	1
TARGET SPECIES											
SIDEWINDER					1					7	3
MOJAVE GREEN RATTLESNAKE										6	2
DESERT KANGAROO RAT										1	0
MERRIAMS KANGAROO RAT					1					2	2
DUNE INVERTEBRATES					1					1	1
BEARPOPPY BEE (PERDITA MECONIS)										1	1
UTAH MOUNTAIN KINGSNAKE				1						2	0
MOJAVE GROUND SQUIRREL										1	0
BADGER							1			2	1
SONORAN LYRE SNAKE					1					2	2
MOJAVE FRINGE-TOED LIZARD										2	1
KIT FOX					1		1			3	2
DESERT NIGHT LIZARD										3	0
AGAVE UTAHENSIS VAR. NEVADENSIS										8	3
ANTENNARIA SOLICEPS										1	1
ANULOCAULIS LEIOSLENUS								1		1	1
ARCTOMECON CALIFORNICA								1		10	7
ARCTOMECON HUMILIS					1					3	3
ARCTOMECON MERRIAMII										5	1
ARENARIA KINGII SSP. ROSEA										1	1
ARENARIA STENOMERES										1	1
ASTRAGALUS ACKERMANII										1	1
ASTRAGALUS AEQUALIS										1	1
ASTRAGALUS AMPULLARIOIDES										1	1
ASTRAGALUS FUNEREUS										1	1
ASTRAGALUS GEYERI VAR. TRIQUETRUS										14	11
ASTRAGALUS HOLMGRENIORUM										2	0
ASTRAGALUS MOKIACENSIS										2	1
ASTRAGALUS NYENSIS										5	5
ASTRAGALUS PREUSSII VAR PREUSSII										1	0
ASTRAGALUS REMOTUS										1	0
CAMISSONIA EXILIS										4	0
CHRYSOTHAMNUS EREMOBIUS										1	1
CIRSIUM VIRGINENSE										6	3
CORDYLANTHUS TECOPENSIS										1	1
ERIOGONUM VISCIDULUM						1				15	11
HESPEROCALLIS UNDULATA	1									5	1
LINANTHUS ARENICOLA		1								4	1
PENSTEMON ALBOMARGINATUS										1	1
HIGH PLANT DIVERSITY/ENDEMICS										3	2
LANDSCAPE ATTRIBUTES											
CLASS 1-2	YES	YES		YES			YES	YES	YES		
ROADEDNESS	0.0257	0.0000	0.0188	0.0053	0.0077	0.0116	0.0182	0.0066	0.0000		
COMMENTS			very good					very good	very good		
PORTFOLIO ?	**YES**	**YES**	**NO**	**NO**	**YES**	**NO**	**NO**	**YES**	**YES**		

DUNES & SUBSTRATES - NORTHERN SUBREGION	AMARGOSA RIVER - SHOSHONE	AP6	AP7	ARGUS RANGE	ARGUS RANGE - GREAT FALLS BASIN	ARGUS RANGE - MATURANGO PEAK	ARGUS RANGE - MOUNTAIN SPRINGS CANYON	ASH MEADOWS	BAD WATER SPRING	BARE MOUNTAIN	BIG DUNE	CACTUS FLAT	CERRO GORDO
COMMUNITY TARGETS													
CINDER CONES													
CRYPTOBIOTIC SOILS													
DESERT PAVEMENT AND SALT FLAT									1				
LAVA FLOW / EXPOSED BEDROCK													
LIMESTONE SUBSTRATES				1									
STABILIZED AND PARTIALLY-STABILIZED DUNES		1	1										
TARGET SPECIES													
BIG DUNE MILODERES WEEVIL											1		
DESERT KANGAROO RAT													
MERRIAM'S KANGAROO RAT													
CHISEL-TOOTHED KANGAROO RAT													
GIULIANI'S DUNE SCARAB											1		
CHAETODIPUS PENICILLATUS													
DUNE INVERTEBRATES													
PANAMINT ALLIGATOR LIZARD				1									1
MOJAVE GROUND SQUIRREL					1	1	1					1	
BADGER	1												
KIT FOX													
ARCTOMECON MERRIAMII								1					
ASTRAGALUS FUNEREUS										1			
ASTRAGALUS LENTIGINOSUS VAR MICANS		1											
ASTRAGALUS LENTIGINOSUS VAR SESQUIMETRALIS													
ASTRAGALUS MOHAVENSIS VAR. HEMIGYRUS													
ASTRAGALUS PHOENIX								1					
CANBYA CANDIDA													
CORDYLANTHUS TECOPENSIS	1							1					
CYMOPTERUS RIPLEYI													
OENOTHERA CALIFORNICA SSP EUREKENSIS		1	1										
PETALONYX THURBERI SSP GILMANII				1									
SWALLENIA ALEXANDRAE			1										
HIGH PLANT DIVERSITY													
LANDSCAPE ATTRIBUTES													
PERCENT CLASS 1-2	34	100	100	37	8	2	0	34	100	0	0	46	0
ROADEDNESS	0.0237	0.0000	0.0000	0.0061	0.0074	0.0036	0.0094	0.0187	0.0318	0.0113	0.0000	0.0257	0.0133
COMMENTS										G		VG	
PORTFOLIO ?	**NO**	**YES**	**YES**	**YES**	**NO**	**NO**	**NO**	**YES**	**NO**	**NO**	**YES**	**NO**	**NO**

DUNES & SUBSTRATES - NORTHERN SUBREGION	CHICAGO VALLEY	COSO RANGE	COTTONBALL MARSH	COTTONWOOD CANYON	COTTONWOOD MOUNTAINS	CYRI - SO OF OLANCHA	DARWIN FALLS	DARWIN HILLS	DARWIN WASH	DEADMAN CANYON	DT10	DT13	DT16
COMMUNITY TARGETS													
CINDER CONES													
CRYPTOBIOTIC SOILS													
DESERT PAVEMENT AND SALT FLAT			1										
LAVA FLOW / EXPOSED BEDROCK													1
LIMESTONE SUBSTRATES					1								
STABILIZED AND PARTIALLY-STABILIZED DUNES	1			1								1	
TARGET SPECIES													
BIG DUNE MILODERES WEEVIL													
DESERT KANGAROO RAT													
MERRIAM'S KANGAROO RAT													
CHISEL-TOOTHED KANGAROO RAT													
GIULIANI'S DUNE SCARAB													
CHAETODIPUS PENICILLATUS													
DUNE INVERTEBRATES													
PANAMINT ALLIGATOR LIZARD		1								1			
MOJAVE GROUND SQUIRREL									1		1		
BADGER													
KIT FOX													
ARCTOMECON MERRIAMII													
ASTRAGALUS FUNEREUS													
ASTRAGALUS LENTIGINOSUS VAR MICANS													
ASTRAGALUS LENTIGINOSUS VAR SESQUIMETRALIS													
ASTRAGALUS MOHAVENSIS VAR. HEMIGYRUS							1						
ASTRAGALUS PHOENIX													
CANBYA CANDIDA													
CORDYLANTHUS TECOPENSIS													
CYMOPTERUS RIPLEYI						1							
OENOTHERA CALIFORNICA SSP EUREKENSIS													
PETALONYX THURBERI SSP GILMANII													
SWALLENIA ALEXANDRAE													
HIGH PLANT DIVERSITY								1					
LANDSCAPE ATTRIBUTES													
PERCENT CLASS 1-2	63	8	100	100	100	0	74	0	0	0	94	100	100
ROADEDNESS	0.0117	0.0108	0.0051	0.0000	0.0046	0.0211	0.0279	0.0315	0.0118	0.0051	0.0139	0.0200	0.0046
COMMENTS		G											
PORTFOLIO ?	**NO**	**NO**	**YES**	**NO**	**YES**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

DUNES & SUBSTRATES - NORTHERN SUBREGION	DT23	EAGLE BORAX SPRING	EUREKA DUNES-AP	EUREKA VALLEY	EW4	FURNACE CREEK	HAIWEE SPRINGS	HALL CANYON	HARRISBURG FLATS	JAIL CANYON	LEE FLAT AND SANTA ROSA	MARBLE CANYON/ SALINE/ EUREKA VALLEY	MARBLE/ COTTONWOOD CYN
COMMUNITY TARGETS													
CINDER CONES							1						
CRYPTOBIOTIC SOILS									1				
DESERT PAVEMENT AND SALT FLAT	1	1				1							
LAVA FLOW / EXPOSED BEDROCK													
LIMESTONE SUBSTRATES													1
STABILIZED AND PARTIALLY-STABILIZED DUNES			1	1								1	
TARGET SPECIES													
BIG DUNE MILODERES WEEVIL													
DESERT KANGAROO RAT													
MERRIAM'S KANGAROO RAT			1										
CHISEL-TOOTHED KANGAROO RAT													
GIULIANI'S DUNE SCARAB													
CHAETODIPUS PENICILLATUS													
DUNE INVERTEBRATES			1										
PANAMINT ALLIGATOR LIZARD							1	1					
MOJAVE GROUND SQUIRREL							1						
BADGER													
KIT FOX			1										
ARCTOMECON MERRIAMII					1								
ASTRAGALUS FUNEREUS													
ASTRAGALUS LENTIGINOSUS VAR MICANS			1									1	
ASTRAGALUS LENTIGINOSUS VAR SESQUIMETRALIS													
ASTRAGALUS MOHAVENSIS VAR. HEMIGYRUS													
ASTRAGALUS PHOENIX													
CANBYA CANDIDA													
CORDYLANTHUS TECOPENSIS													
CYMOPTERUS RIPLEYI											1		
OENOTHERA CALIFORNICA SSP EUREKENSIS			1									1	
PETALONYX THURBERI SSP GILMANII													
SWALLENIA ALEXANDRAE			1									1	
HIGH PLANT DIVERSITY								1		1			
LANDSCAPE ATTRIBUTES													
PERCENT CLASS 1-2	98	100	100	100	100	97	0	100	100	100	63	100	100
ROADEDNESS	0.0074	0.0145	0.0000	0.0000	0.0101	0.0071	0.0123	0.0000	0.0192	0.0000	0.0121	0.0032	0.0046
COMMENTS			VG				G					VG	
PORTFOLIO ?	**YES**	**NO**	**YES**	**NO**	**NO**	**YES**	**YES**	**NO**	**NO**	**NO**	**NO**	**YES**	**NO**

DUNES & SUBSTRATES - NORTHERN SUBREGION	MESQUITE FLAT	NOPAH RANGE	OASIS VALLEY	OWENS LAKE	PANAMINT CANYONS	PANAMINT DUNES	ROSE VALLEY	SALINE VALLEY	SAND SPRING	SEARLES DUNES	SLATE RANGE	SOUTH END SALINE VALLEY	TELESCOPE PEAK
COMMUNITY TARGETS													
CINDER CONES													
CRYPTOBIOTIC SOILS													
DESERT PAVEMENT AND SALT FLAT				1									
LAVA FLOW / EXPOSED BEDROCK								1				1	
LIMESTONE SUBSTRATES		1											1
STABILIZED AND PARTIALLY-STABILIZED DUNES	1		1	1		1		1		1			
TARGET SPECIES													
BIG DUNE MILODERES WEEVIL													
DESERT KANGAROO RAT			1										
MERRIAM'S KANGAROO RAT													
CHISEL-TOOTHED KANGAROO RAT			1										
GIULIANI'S DUNE SCARAB													
CHAETODIPUS PENICILLATUS			1										
DUNE INVERTEBRATES				1		1		1					
PANAMINT ALLIGATOR LIZARD					1								
MOJAVE GROUND SQUIRREL				1			1				1		
BADGER													
KIT FOX													
ARCTOMECON MERRIAMII													
ASTRAGALUS FUNEREUS			1										
ASTRAGALUS LENTIGINOSUS VAR MICANS													
ASTRAGALUS LENTIGINOSUS VAR SESQUIMETRALIS									1				
ASTRAGALUS MOHAVENSIS VAR. HEMIGYRUS													
ASTRAGALUS PHOENIX													
CANBYA CANDIDA							1						
CORDYLANTHUS TECOPENSIS													
CYMOPTERUS RIPLEYI													
OENOTHERA CALIFORNICA SSP EUREKENSIS													
PETALONYX THURBERI SSP GILMANII						1							
SWALLENIA ALEXANDRAE													
HIGH PLANT DIVERSITY													
LANDSCAPE ATTRIBUTES													
PERCENT CLASS 1-2	100	0	1	0	97	87	0	88	99	0	0	97	?
ROADEDNESS	0.0021	0.0000	0.0267	0.0189	0.0051	0.0000	0.0375	0.0063	0.0183	0.0092	0.0044	0.0036	?
COMMENTS						G			G				
PORTFOLIO ?	**YES**	**YES**	**YES**	**YES**	**NO**	**YES**	**NO**	**YES**	**NO**	**NO**	**NO**	**NO**	**YES**

DUNES & SUBSTRATES - NORTHERN SUBREGION	TITUS CANYON	TUBER CANYON	UPPER AMARGOSA RIVER / LOWER CARSON SLOUGH	WILDHORSE MESA/ ETCHARREN VALLEY	WINGATE WASH	TARGET COUNT	CAPTURED IN PORTFOLIO
COMMUNITY TARGETS							
CINDER CONES						1	1
CRYPTOBIOTIC SOILS						1	0
DESERT PAVEMENT AND SALT FLAT						6	4
LAVA FLOW / EXPOSED BEDROCK			1			4	2
LIMESTONE SUBSTRATES						5	4
STABILIZED AND PARTIALLY-STABILIZED DUNES						14	9
TARGET SPECIES							
BIG DUNE MILODERES WEEVIL						1	1
DESERT KANGAROO RAT						1	1
MERRIAM'S KANGAROO RAT						1	1
CHISEL-TOOTHED KANGAROO RAT						1	1
GIULIANI'S DUNE SCARAB						1	1
CHAETODIPUS PENICILLATUS						1	1
DUNE INVERTEBRATES						4	4
PANAMINT ALLIGATOR LIZARD		1				8	3
MOJAVE GROUND SQUIRREL				1	1	12	2
BADGER						1	0
KIT FOX						1	1
ARCTOMECON MERRIAMII	1					3	1
ASTRAGALUS FUNEREUS						2	1
ASTRAGALUS LENTIGINOSUS VAR MICANS						3	3
ASTRAGALUS LENTIGINOSUS VAR SESQUIMETRALIS						1	0
ASTRAGALUS MOHAVENSIS VAR. HEMIGYRUS						1	0
ASTRAGALUS PHOENIX						1	1
CANBYA CANDIDA						1	0
CORDYLANTHUS TECOPENSIS			1			3	2
CYMOPTERUS RIPLEYI						2	0
OENOTHERA CALIFORNICA SSP EUREKENSIS						4	4
PETALONYX THURBERI SSP GILMANII						2	2
SWALLENIA ALEXANDRAE						3	3
HIGH PLANT DIVERSITY		1				4	0
LANDSCAPE ATTRIBUTES							
PERCENT CLASS 1-2	99	100	4	0	0		
ROADEDNESS	0.0018	0.0164	0.0206	0.0135	0.0156		
COMMENTS		VG					
PORTFOLIO ?	**NO**	**NO**	**YES**	**NO**	**NO**		

DUNES & SUBSTRATES - SOUTHCENTRAL SUBREGION	ACORN FLATS	BOX CANYON LAVA FLOW	BULLION MTS	COTTONWOOD FAN	CUSHION-BERRY SPRINGS	DALE DRY LAKE	EAGLE MTS DP	GIMA	GOLD CROWN WASH / PINTO MTN	JOSHUA TREE FLAT	KANE WASH
COMMUNITY TARGETS											
CACTUS GARDEN									1		
DESERT PAVEMENT AND SALT FLAT							1				
GRANITIC SUBSTRATES											
LAVA FLOW / EXPOSED BEDROCK		1									
LIMESTONE SUBSTRATES					1						
STABILIZED AND PARTIALLY-STABILIZED DUNES						1			1		
UNSTABILIZED SAND DUNES											
TARGET SPECIES											
SIDEWINDER	1										1
DESERT KANGAROO RAT											
MERRIAM'S KANGAROO RAT	1		1							1	
CACTUS MOUSE			1								
BADGER									1		1
MOJAVE FRINGE-TOED LIZARD	1					1					
KIT FOX	1										
DESERT NIGHT LIZARD			1							1	
ASTRAGALUS ALBENS					1						
DITAXIS CALIFORNICA				1							
GILIA MACULATA								1			
HELMINTHOGLYPTA MOHAVEANA											
LINANTHUS ARENICOLA											
PENSTEMON ALBOMARGINATUS											
LANDSCAPE ATTRIBUTES											
PERCENT CLASS 1-2	0	100	0	57	0	9	65	70	0	0	13
ROADEDNESS	0.0000	0.0000	0.0000	0.0071	0.0738	0.0055	0.0115	0.0154	0.0154	0.0281	0.0128
COMMENTS											
PORTFOLIO	**NO**	**NO**	**NO**	**NO**	**YES**	**YES**	**NO**	**NO**	**YES**	**NO**	**NO**

DUNES & SUBSTRATES - SOUTHCENTRAL SUBREGION	LAVA BED MTS	LAVIC LAKE / PISGAH CRATER	LAVIC LAKE WASH	LEAD MTN CANYON	MALAPAI HILL	MESQUITE LAKE - TWENTYNINE PALMS	MOJAVE RIVER	NEWBERRY MTN-CA	NORTH SLOPE SAN BERNARDINO MTS - CARBONATE BELT	ORD MTS	ORD MTS - CACTUS GARDEN
COMMUNITY TARGETS											
CACTUS GARDEN											1
DESERT PAVEMENT AND SALT FLAT								1		1	
GRANITIC SUBSTRATES								1			
LAVA FLOW / EXPOSED BEDROCK		1			1					1	
LIMESTONE SUBSTRATES									1		
STABILIZED AND PARTIALLY-STABILIZED DUNES			1			1					
UNSTABILIZED SAND DUNES		1									
TARGET SPECIES											
SIDEWINDER		1	1								
DESERT KANGAROO RAT											
MERRIAM'S KANGAROO RAT	1	1	1								
CACTUS MOUSE				1							
BADGER											
MOJAVE FRINGE-TOED LIZARD						1					
KIT FOX											
DESERT NIGHT LIZARD	1										
ASTRAGALUS ALBENS									1		
DITAXIS CALIFORNICA											
GILIA MACULATA											
HELMINTHOGLYPTA MOHAVEANA							1				
LINANTHUS ARENICOLA		1									
PENSTEMON ALBOMARGINATUS		1									
LANDSCAPE ATTRIBUTES											
PERCENT CLASS 1-2	0	0	0	0	100	0	0	88	0	0	0
ROADEDNESS	0.0000	0.0074	0.0000	0.0032	0.0000	0.0325	0.0611	0.0009	0.0212	0.0025	0.0075
COMMENTS											
PORTFOLIO	**NO**	**YES**	**YES**	**NO**	**NO**	**NO**	**NO**	**YES**	**YES**	**YES**	**NO**

DUNES & SUBSTRATES - SOUTHCENTRAL SUBREGION	ORD-RODMAN MTS COMPLEX	PEAL (29PALMS)	PETROGLYPH FLOW	PETROGLYPH WASH	PINTO BASIN - DP	PINTO BASIN - SD	PIONEER TOWN	PIPES CANYON	QUACKENBUSH DUNES	QUAIL FLAT	RAINBOW-MESA CANYON
COMMUNITY TARGETS											
CACTUS GARDEN											
DESERT PAVEMENT AND SALT FLAT					1						
GRANITIC SUBSTRATES											
LAVA FLOW / EXPOSED BEDROCK	1										
LIMESTONE SUBSTRATES							1				
STABILIZED AND PARTIALLY-STABILIZED DUNES						1			1		
UNSTABILIZED SAND DUNES											
TARGET SPECIES											
SIDEWINDER									1		
DESERT KANGAROO RAT									1		
MERRIAM'S KANGAROO RAT			1								
CACTUS MOUSE				1							1
BADGER				1					1		
MOJAVE FRINGE-TOED LIZARD									1		
KIT FOX									1		
DESERT NIGHT LIZARD											
ASTRAGALUS ALBENS											
DITAXIS CALIFORNICA											
GILIA MACULATA								1		1	
HELMINTHOGLYPTA MOHAVEANA											
LINANTHUS ARENICOLA	1										
PENSTEMON ALBOMARGINATUS		1									
LANDSCAPE ATTRIBUTES											
PERCENT CLASS 1-2	28	0	0	0	100	98	0	0	0	28	0
ROADEDNESS	0.0073	0.0000	0.0000	0.0214	0.0265	0.0000	0.0281	0.0152	0.0020	0.0468	0.0132
COMMENTS											
PORTFOLIO	**YES**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**YES**	**NO**	**NO**

DUNES & SUBSTRATES - SOUTHEAST SUBREGION	BLACK TOP FAN	BRISTOL DRY LAKE	CADIZ DRY LAKE & DUNES	CALUMET DUNE	CHEMEHUEVI MTS	CHEMEHUEVI VALLEY	DUTCH FLATS	FENNER VALLEY	GRANITE MTS - MESQUITE	LEAD MTN DRY LAKE	LEAD MTN DUNES	MARBLE MOUNTAINS
COMMUNITY TARGETS												
CACTUS GARDEN					1			1				
DESERT PAVEMENT AND SALT FLAT						1						
LAVA FLOW / EXPOSED BEDROCK		1							1	1		
LIMESTONE SUBSTRATES												1
SAND SOURCE		1										
STABILIZED AND PARTIALLY-STABILIZED DESERT DUNES			1	1							1	
TARGET SPECIES												
SIDEWINDER											1	
DESERT KANGAROO RAT											1	
MERRIAM'S KANGAROO RAT	1											
CACTUS MOUSE	1											
BADGER											1	
SONORAN LYRE SNAKE					1							
MOJAVE FRINGE-TOED LIZARD			1	1							1	
DESERT NIGHT LIZARD												
PENSTEMON ALBOMARGINATUS							1					
STILLINGIA LINEARIFOLIA							1					
LANDSCAPE ATTRIBUTES												
PERCENT CLASS 1-2	0	0	0	100	99	22	44	63	42	0	0	?
ROADEDNESS	0.0000	0.0125	0.0017	0.0000	0.0031	0.0083	0.0334	0.0113	0.0136	0.0069	0.0000	?
COMMENTS		sand source	good dunes, no source		dense		very good, some grazing	good			best at 29 palms	
PORTFOLIO	**NO**	**YES**	**NO**	**YES**	**YES**	**YES**	**NO**	**YES**	**NO**	**NO**	**YES**	**YES**

DUNES & SUBSTRATES - SOUTHEAST SUBREGION	PIUTE VALLEY	SACRAMENTO MTN - WESTSIDE	VICEROY MINE	WALNUT CREEK	TARGET COUNT	CAPTURED IN PORTFOLIO
COMMUNITY TARGETS						
CACTUS GARDEN		1	1		4	2
DESERT PAVEMENT AND SALT FLAT					1	1
LAVA FLOW / EXPOSED BEDROCK					3	1
LIMESTONE SUBSTRATES					1	1
SAND SOURCE					1	1
STABILIZED AND PARTIALLY-STABILIZED DESERT DUNES					3	2
TARGET SPECIES						
SIDEWINDER					1	1
DESERT KANGAROO RAT					1	1
MERRIAM'S KANGAROO RAT					1	0
CACTUS MOUSE					1	0
BADGER					1	1
SONORAN LYRE SNAKE					1	1
MOJAVE FRINGE-TOED LIZARD					3	2
DESERT NIGHT LIZARD	1				1	0
PENSTEMON ALBOMARGINATUS	1			1	3	0
STILLINGIA LINEARIFOLIA					1	0
LANDSCAPE ATTRIBUTES						
PERCENT CLASS 1-2	47	53	57	0		
ROADEDNESS	0.0148	0.0251	0.0188	0.0742		
COMMENTS			very good			
PORTFOLIO	**YES**	**NO**	**YES**	**NO**		

DUNES & SUBSTRATES - WESTERN SUBREGION	BADLANDS	BLACK HILLS	CHINA LAKE BASIN	CHINA LAKE DUNES	COTTON-WOOD CREEK	CUDDEBACK LAKE / GRASS VALLEY	ERMO	FREEMONT VALLEY	HARPER DRY LAKE BASIN	HAYSTACK BUTTE	KRAMER HILLS	KRAMER JCT - N/NE	LONE BUTTE	MOJAVE RIVER - FORKS	NORTH ROGERS LAKE
COMMUNITY TARGETS															
BADLANDS/MUDHILLS (ANNUAL SHRUB AND FORB)	1														
SAND FIELDS										1					
STABILIZED AND PARTIALLY-STABILIZED DESERT DUNES			1	1		1							1		
TARGET SPECIES															
SIDEWINDER															
MOJAVE GREEN RATTLESNAKE															
PANAMINT KANGAROO RAT															
DUNE INVERTEBRATES				1											
MOJAVE GROUND SQUIRREL	1	1		1	1	1	1	1	1	1	1	1	1		1
KIT FOX															
ASTRAGALUS PREUSSII VAR PREUSSII															
ATRIPLEX PARISHII															
CANBYA CANDIDA														1	
LINANTHUS ARENICOLA	1		1	1			1						1		
LANDSCAPE ATTRIBUTES															
PERCENT CLASS 1 OR 2						50									
ROADEDNESS	0.0153	0.0119	0.0237	0.0075	0.0179	0.0103	0.0219	0.0195	0.0225	0.0210	0.0330	0.0294	0.0163	0.0479	0.0072
COMMENTS			sand source			good									
PORTFOLIO	**YES**	**NO**	**YES**	**YES**	**NO**	**YES**	**YES**	**NO**	**NO**	**NO**	**NO**	**NO**	**YES**	**NO**	**NO**

DUNES & SUBSTRATES - WESTERN SUBREGION	NORTH SLOPE SAN BERNARDINO MTS - JTWLD	PAXTON PLAYA	PIUTE BUTTE	RAND MTN / DTNA	RED ROCK CYN / EL PASO MTS	ROGERS/ ROSAMOND DRY LAKES	SADDLEBACK BUTTE STATE PARK	YARDINGS	TARGET COUNT	CAPTURED IN PORTFOLIO
COMMUNITY TARGETS										
BADLANDS/MUDHILLS (ANNUAL SHRUB AND FORB)									1	1
SAND FIELDS									1	0
STABILIZED AND PARTIALLY-STABILIZED DESERT DUNES		1						1	6	6
TARGET SPECIES										
SIDEWINDER				1			1		2	0
MOJAVE GREEN RATTLESNAKE							1		1	0
PANAMINT KANGAROO RAT				1				1	2	1
DUNE INVERTEBRATES									1	1
MOJAVE GROUND SQUIRREL	1		1	1	1		1	1	19	7
KIT FOX							1	1	2	1
ASTRAGALUS PREUSSII VAR PREUSSII						1			1	0
ATRIPLEX PARISHII		1							1	1
CANBYA CANDIDA	1								2	1
LINANTHUS ARENICOLA									5	5
LANDSCAPE ATTRIBUTES										
PERCENT CLASS 1 OR 2										
ROADEDNESS	0.0549	0.0098	0.0205	0.0181	0.0155	0.0244	0.0141	0.0236		
COMMENTS				good						
PORTFOLIO	**YES**	**YES**	**NO**	**NO**	**NO**	**NO**	**NO**	**YES**		

DESERT SCRUB-CENTRAL	AFTON CANYON	ALVORD MTN	ASJE	AVAWATZ MTS	CADY MTS	CAMP CADY	COOLGAR DIE MESA	COYOTE LAKE - DISJUNCT PLAYAS	CRONESE BASIN	CRONESE VALLEY	CUDDEBACK LAKE / GRASS VALLEY	DRINKWATER LAKE	EAGLE CRAGS	EASTGATE 1 AND 2	FREMONT-KRAMER/ SUPERIOR VALLEY	GOLDSTONE COMPLEX
COMMUNITY TARGETS																
FOURWING SALTBUSH											X	X				
JOSHUA TREE - GRAYIA																
MOJAVE MIXED WOODY SCRUB				X	X											
CREOSOTE BUSH - DESERT HOLLY SCRUB	X															
CREOSOTE BUSH - MIXED SCRUB	X	X	X	X	X	X	X	X	X	X	X	X	X	1	X	1
DESERT GRASSLAND AND SHRUB-STEPPE													X			
JOSHUA TREE - BIG GALLETA SPARSE WOODLAND																
RABBITBRUSH SCRUB																
CRUCIFIXION THORN									1							
EPHEDRA NEVADENSIS SHRUBLAND ALLIANCE																
GRAYIA SPINOSA SHRUBLAND ALLIANCE																
HILARIA RIGIDA HERBACEOUS ALLIANCE					X					1						
STIPA SPECIOSA SHRUB HERBACEOUS ALLIANCE																
BIG SAGEBRUSH - SPINY HOPSAGE SCRUB		1														
BLACKBRUSH SCRUB - MIXED SCRUB				X							X					1
JOSHUA TREE WOODLAND			X	X			X				X		X	X		X
TARGET SPECIES																
ATHENE CUNICULARIA																
TOXOSTOMA LECONTEI		X					1									
DIPODOMYS PANAMINTINUS							X									
SPERMOPHILUS MOHAVENSIS			1				1				1					1
CROTALUS CERASTES																
CROTALUS SCUTULATUS																X
DIPSOSAURUS DORSALIS																
EUMECES GILBERTI RUBRICAUDATUS																
GAMBELIA WISLIZENII																
GOPHERUS AGASSIZII (MOJAVE POPULATION)		1			X		X		X		X			X	X	X
PHRYNOSOMA PLATYRHINOS CALIDIARUM																1
PHYLLORHYNCHUS DECURTATUS	X															
REPTILE SCRUB HABITAT															X	
RHINOCHEILUS LECONTEI LECONTEI						X										
SAUROMALUS OBESUS OBESUS					1											X
SELECTION CRITERIA																
SPECIES RICHNESS	o	-	+	o	o	-	+	o	o	o	+	-	-	-	+	+
ROAD DENSITY	-	o	o	-	-	-	o	o	o	o	o	-	-	o	o	o
SYSTEM DIVERSITY	o	o	o	o	o	o	o	o	+	o	o	-	+	o	+	o
OUTSTANDING OCCURRENCE	o	-	+	o	+	o	+	+	+	+	+	-	-	o	+	+
PORTFOLIO ?	NO	NO	YES	NO	YES	NO	YES	YES	YES	YES	YES	NO	NO	NO	YES	YES

DESERT SCRUB-CENTRAL	GRANITE MTN - FT. IRWIN	KANE WASH	LANGFORD WELL LAKE	LAVIC LAKE / PISGAH CRATER	MCCLEAN LAKE	MOJAVE RIVER WASH -NE	NELSON LAKE	NORTH MIDWAY	ORD-RODMAN MTS COMPLEX	PILOT KNOB / SLOCUM MTN	PILOT KNOB VALLEY	RAZOR OHV FREE-PLAY AREA	SUPERIOR VALLEY	TIEFORT MTS
COMMUNITY TARGETS														
FOURWING SALTBUSH			1	X	X		X							
JOSHUA TREE - GRAYIA										X				
MOJAVE MIXED WOODY SCRUB	X													
CREOSOTE BUSH - DESERT HOLLY SCRUB														
CREOSOTE BUSH - MIXED SCRUB	X	X	X	X		X	X	X	X	X	X	X	1	X
DESERT GRASSLAND AND SHRUB-STEPPE										X		X	1	
JOSHUA TREE - BIG GALLETA SPARSE WOODL													X	
RABBITBRUSH SCRUB			1											
CRUCIFIXION THORN														
EPHEDRA NEVADENSIS SHRUBLAND ALLIANCE	X													
GRAYIA SPINOSA SHRUBLAND ALLIANCE													X	
HILARIA RIGIDA HERBACEOUS ALLIANCE						X		X				X		
STIPA SPECIOSA SHRUB HERBACEOUS ALLIA	X													
BIG SAGEBRUSH - SPINY HOPSAGE SCRUB														
BLACKBRUSH SCRUB - MIXED SCRUB	X								X	X	X			
JOSHUA TREE WOODLAND	X			X	X				X	1			X	1
TARGET SPECIES														
ATHENE CUNICULARIA										X			1	
TOXOSTOMA LECONTEI		X												
DIPODOMYS PANAMINTINUS														
SPERMOPHILUS MOHAVENSIS										X			X	
CROTALUS CERASTES		X		X										
CROTALUS SCUTULATUS										X				
DIPSOSAURUS DORSALIS										X				
EUMECES GILBERTI RUBRICAUDATUS														
GAMBELIA WISLIZENII										X				
GOPHERUS AGASSIZII (MOJAVE POPULATION)		X		X							X		X	
PHRYNOSOMA PLATYRHINOS CALIDIARUM														
PHYLLORHYNCHUS DECURTATUS														
REPTILE SCRUB HABITAT				X						1				
RHINOCHEILUS LECONTEI LECONTEI														
SAUROMALUS OBESUS OBESUS		X		X						X				
SELECTION CRITERIA														
SPECIES RICHNESS	o	o	-	+	-	-	-	-	o	+	-	-	+	-
ROAD DENSITY	-	o	-	-	+	+	-	-	-	o	-	-	o	+
SYSTEM DIVERSITY	-	-	o	+	-	-	-	-	+	o	o	o	o	-
OUTSTANDING OCCURRENCE	o	o	+	+	-	-	-	-	+	+	-	-	+	o
PORTFOLIO ?	NO	NO	NO	YES	NO	NO	NO	NO	YES	YES	NO	NO	YES	NO

DESERT SCRUB-EAST	AVAWATZ MTS	BEAVER DAM NORTHEAST SLOPE	BEAVER DAM SLOPE	CACTUS VALLEY	CALIFORNIA WASH	CASTLE CLIFF / WOODBURY HARPY	CASTLE MTN	CEDAR POCKETS WASH	CIMA DOME JOSHUA TREE WOODLAND	CLARK MTN	COYOTE SPRINGS VALLEY	CRESCENT	DEAD MTS
COMMUNITY TARGETS													
CACTUS DIVERSITY				1				X					
ENRICHED SUCCULENT AND WOODY SHRUB													
MOJAVE MIXED WOODY SCRUB	X			X									
CREOSOTE BUSH - DESERT HOLLY SCRUB													
CREOSOTE BUSH - MIXED SCRUB	X		X	X	X	X	1	X	X	X	1	X	X
DESERT GRASSLAND AND SHRUB-STEPPE			X	1	X								
JOSHUA TREE - BIG GALLETA SPARSE WOODLAND													
FOUQUIERIA SPLENDENS SHRUBLAND													X
HILARIA JAMESII HERBACEOUS ALLIANCE													
HILARIA RIGIDA HERBACEOUS ALLIANCE													
OPUNTIA BIGELOVII SHRUBLAND ALLIANCE													X
BIG SAGEBRUSH - SPINY HOPSAGE SCRUB													
BLACKBRUSH SCRUB - MIXED SCRUB	X	X	X	X		X	X	X	X	X	X	X	X
JOSHUA TREE WOODLAND	X	X	X				X	1	1	X		X	
CREOSOTE RINGS													
MOJAVE MIXED SCRUB									X				
SONORA MIXED DESERT SCRUB - BRITTLEBUSH													
SONORA-MOJAVE MIXED DESERT SCRUB													
SONORAN MIXED DESERT SCRUB - PALO VERDE - MIXED CACTI													
TARGET SPECIES													
ATHENE CUNICULARIA													
ICTERUS PARISORUM													
TOXOSTOMA LECONTEI													
DIPODOMYS DESERTI													
VULPES MACROTIS											X		
CROTALUS CERASTES			X	X									
DIPSOSAURUS DORSALIS													
EUMECES GILBERTI RUBRICAUDATUS													
GAMBELIA WISLIZENII			X										
GOPHERUS AGASSIZII (MOHAVE POPULATION)		X	1	1	X	1					X		
HELODERMA SUSPECTUM CINCTUM			X			X				X	X		
PHYLLORHYNCHUS DECURTATUS			1										
REPTILE SCRUB HABITAT													
RHINOCHEILUS LECONTEI LECONTEI			X										
SALVADORA HEXALEPIS MOJAVENSIS			X										
SAUROMALUS OBESUS OBESUS			X			X							
XANTUSIA VIGILIS			X			X			X				
SELECTION CRITERIA													
SPECIES RICHNESS	o	-	+	+	-	+	-	-	o	+	+	-	-
ROAD DENSITY	-	o	o	o	o	o	o	o	+	-	o	o	-
SYSTEM DIVERSITY	+	-	+	-	-	+	-	-	o	+	o	-	-
OUTSTANDING OCCURRENCE	-	-	+	+	-	+	+	+	+	-	+	-	-
PORTFOLIO ?	NO	NO	YES	YES	NO	YES	NO	NO	YES	NO	YES	NO	NO

DESERT SCRUB-EAST	GOLD BUTTE	GOLD BUTTE PAKOON	GRAND WASH CLIFFS/LH23	GRANITE MTN BAJADAS	GRAPEVINE SACATON CANYON	HOLLOW HILLS	HUALAPAI VALLEY	HUNGRY VALLEY	IVANPAH VALLEY - SOUTH I-64	IVANPAH VALLEY - SOUTH END	JAD10	JAD28	JOSHUA TREE NNL
COMMUNITY TARGETS													
CACTUS DIVERSITY													
ENRICHED SUCCULENT AND WOODY SHRUB				1							1		
MOJAVE MIXED WOODY SCRUB	X	X											
CREOSOTE BUSH - DESERT HOLLY SCRUB						X							
CREOSOTE BUSH - MIXED SCRUB	X	1	X	X	X	X	X		X	X	X	X	X
DESERT GRASSLAND AND SHRUB-STEPPE	X						X	X					X
JOSHUA TREE - BIG GALLETA SPARSE WOODLAND	X	X											
FOUQUIERIA SPLENDENS SHRUBLAND													
HILARIA JAMESII HERBACEOUS ALLIANCE													
HILARIA RIGIDA HERBACEOUS ALLIANCE		X							X				
OPUNTIA BIGELOVII SHRUBLAND ALLIANCE													
BIG SAGEBRUSH - SPINY HOPSAGE SCRUB													
BLACKBRUSH SCRUB - MIXED SCRUB	X	X	X		X		X	X		X		X	X
JOSHUA TREE WOODLAND	X	X		X	X			X		1	X	1	1
CREOSOTE RINGS													
MOJAVE MIXED SCRUB	X	X											
SONORA MIXED DESERT SCRUB - BRITTLEBUSH		X											
SONORA-MOJAVE MIXED DESERT SCRUB		X	X				X						X
SONORAN MIXED DESERT SCRUB - PALO VERDE - MIXED CACTI													
TARGET SPECIES													
ATHENE CUNICULARIA		X			X								
ICTERUS PARISORUM													
TOXOSTOMA LECONTEI	X	X			X								
DIPODOMYS DESERTI	X	X											
VULPES MACROTIS	X	X											
CROTALUS CERASTES	X	X											
DIPSOSAURUS DORSALIS	X	X											
EUMECES GILBERTI RUBRICAUDATUS													
GAMBELIA WISLIZENII	X	1											
GOPHERUS AGASSIZII (MOHAVE POPULATION)	X	1				X							
HELODERMA SUSPECTUM CINCTUM	1	X											X
PHYLLORHYNCHUS DECURTATUS													
REPTILE SCRUB HABITAT	X	1											
RHINOCHEILUS LECONTEI LECONTEI													
SALVADORA HEXALEPIS MOJAVENSIS													
SAUROMALUS OBESUS OBESUS	X	X											
XANTUSIA VIGILIS	X	X											
SELECTION CRITERIA													
SPECIES RICHNESS	+	+	-	-	o	-	o	-	-	o	o	-	+
ROAD DENSITY	o	o	-	o	-	+	o	o	+	+	o	o	o
SYSTEM DIVERSITY	o	+	-	-	+	o	+	-	-	-	+	+	+
OUTSTANDING OCCURRENCE	+	+	-	+	-	-	-	-	-	+	+	+	+
PORTFOLIO ?	YES	YES	NO	YES	YES	NO	YES	NO	NO	YES	YES	YES	YES

DESERT SCRUB-EAST	KERNY PASS	LANFAIR VALLEY	LAVA BEDS	LH27	LH28	LH30	LH32	LP5
COMMUNITY TARGETS								
CACTUS DIVERSITY							X	1
ENRICHED SUCCULENT AND WOODY SHRUB								
MOJAVE MIXED WOODY SCRUB								
CREOSOTE BUSH - DESERT HOLLY SCRUB								
CREOSOTE BUSH - MIXED SCRUB	X	X	X		X		X	X
DESERT GRASSLAND AND SHRUB-STEPPE								
JOSHUA TREE - BIG GALLETA SPARSE WOODLAND		X						
FOUQUIERIA SPLENDENS SHRUBLAND								
HILARIA JAMESII HERBACEOUS ALLIANCE		X						
HILARIA RIGIDA HERBACEOUS ALLIANCE		1						
OPUNTIA BIGELOVII SHRUBLAND ALLIANCE								
BIG SAGEBRUSH - SPINY HOPSAGE SCRUB								
BLACKBRUSH SCRUB - MIXED SCRUB	X	X		X	X	X	X	
JOSHUA TREE WOODLAND		X	X	X	X	X		
CREOSOTE RINGS								
MOJAVE MIXED SCRUB	X							
SONORA MIXED DESERT SCRUB - BRITTLEBUSH								
SONORA-MOJAVE MIXED DESERT SCRUB					X			
SONORAN MIXED DESERT SCRUB - PALO VERDE - MIXED CACTI								
TARGET SPECIES								
ATHENE CUNICULARIA								
ICTERUS PARISORUM								
TOXOSTOMA LECONTEI								
DIPODOMYS DESERTI								
VULPES MACROTIS								
CROTALUS CERASTES								
DIPSOSAURUS DORSALIS								
EUMECES GILBERTI RUBRICAUDATUS								
GAMBELIA WISLIZENII								
GOPHERUS AGASSIZII (MOHAVE POPULATION)								
HELODERMA SUSPECTUM CINCTUM								
PHYLLORHYNCHUS DECURTATUS								
REPTILE SCRUB HABITAT								
RHINOCHEILUS LECONTEI LECONTEI								
SALVADORA HEXALEPIS MOJAVENSIS								
SAUROMALUS OBESUS OBESUS								
XANTUSIA VIGILIS								
SELECTION CRITERIA								
SPECIES RICHNESS	o	+	-	-	-	-	-	-
ROAD DENSITY	o	o	-	o	o	-	o	o
SYSTEM DIVERSITY	-	o	o	-	o	-	-	-
OUTSTANDING OCCURRENCE	+	+	-	-	-	-	-	+
PORTFOLIO ?	NO	NO	NO	NO	NO	NO	NO	NO

DESERT SCRUB-EAST	MID-HILLS	MOKAAC WASH	MORMON MESA - UPPER	MORMON MESA - LOWER	NELLIS AFB	NEWBERRY MOUNTAINS	OATMAN BAT COMPLEX	PAHRUMP VALLEY - SO. END	PINTO VALLEY	PIUTE, ELDORADO, FENNER DWMA	RIVER MOUNTAINS	ROACH LAKE	SHADOW MOUNTAIN	SHEEP RANGE
COMMUNITY TARGETS														
CREOSOTE BUSH - MIXED SCRUB	X	X	X	X	X	X	X	X		X	X	X		X
DESERT GRASSLAND AND SHRUB-STEPPE			X	X							X	X	X	X
WOODLAND									X	X				
ERIOGONUM FASCICULATUM SHRUBLAND ALLIANCE											X			
FOUQUIERIA SPLENDENS SHRUBLAND														
HILARIA JAMESII HERBACEOUS ALLIANCE									X					
HILARIA RIGIDA HERBACEOUS ALLIANCE								X		X				
OPUNTIA BIGELOVII SHRUBLAND ALLIANCE														
BIG SAGEBRUSH - SPINY HOPSAGE SCRUB	X								X					X
BLACKBRUSH SCRUB - MIXED SCRUB		X	X		X	X		X		X	X	X		X
JOSHUA TREE WOODLAND	X							X		X			1	
SPINY HOPSAGE - MIXED SCRUB														
MOJAVE MIXED SCRUB										X				
BRITTLEBUSH							X							
SONORA-MOJAVE MIXED DESERT SCRUB							X							
SONORAN MIXED DESERT SCRUB-PV-MIXED CACTI														
TARGET SPECIES														
ATHENE CUNICULARIA										X	X			
TOXOSTOMA LECONTEI	X									X			X	
DIPODOMYS MERRIAMI FRENATUS														
SPERMOPHILUS MOHAVENSIS													X	
VULPES MACROTIS										X				
CROTALUS CERASTES										X		X		
CROTALUS SCUTULATUS										X		X		
DIPSOSAURUS DORSALIS			X	X						X	1	X		
EUMECES GILBERTI RUBRICAUDATUS														
GAMBELIA WISLIZENII										X				
POPULATION)			1	X	X	X		X		1	1	1	X	
HELODERMA SUSPECTUM CINCTUM						X				X	1			
PHRYNOSOMA PLATYRHINOS CALIDIARUM										X				
PHYLLORHYNCHUS DECURTATUS														
REPTILE SCRUB HABITAT				X						X				
SAUROMALUS OBESUS OBESUS						1				X	1			
XANTUSIA VIGILIS										X				
ANULOCAULIS LEIOSLENUS														
SELECTION CRITERIA														
SPECIES RICHNESS	-	-	+	+	o	o	-	+	-	+	+	+	+	+
ROAD DENSITY	-	o	-	-	o	o	o	-	o	o	o	o	o	-
SYSTEM DIVERSITY	o	-	-	-	o	-	-	-	-	o	o	-	-	+
OUTSTANDING OCCURRENCE	-	-	+	+	+	-	-	-	+	+	+	+	+	-
PORTFOLIO ?	**NO**	**NO**	**YES**	**YES**	**YES**	**YES**	**YES**	**NO**	**NO**	**YES**	**YES**	**YES**	**NO**	**YES**

DESERT SCRUB-EAST	STATELINE PASS	TEDDY BEAR FOREST	WARNER VALLEY, FT. PIERCE WASH	WHEELER RIDGE	WHITE HILLS-LAKE MEAD	WOODS MTNS
COMMUNITY TARGETS						
CREOSOTE BUSH - MIXED SCRUB	X	X	X	X	X	
DESERT GRASSLAND AND SHRUB-STEPPE			X			
WOODLAND						X
ERIOGONUM FASCICULATUM SHRUBLAND ALLIANCE						
FOUQUIERIA SPLENDENS SHRUBLAND				X		1
HILARIA JAMESII HERBACEOUS ALLIANCE						
HILARIA RIGIDA HERBACEOUS ALLIANCE						
OPUNTIA BIGELOVII SHRUBLAND ALLIANCE		1				
BIG SAGEBRUSH - SPINY HOPSAGE SCRUB						
BLACKBRUSH SCRUB - MIXED SCRUB	X	X	X			
JOSHUA TREE WOODLAND						X
SPINY HOPSAGE - MIXED SCRUB						
MOJAVE MIXED SCRUB	X					
BRITTLEBUSH						
SONORA-MOJAVE MIXED DESERT SCRUB					X	
SONORAN MIXED DESERT SCRUB-PV-MIXED CACTI						
TARGET SPECIES						
ATHENE CUNICULARIA			X			
TOXOSTOMA LECONTEI						
DIPODOMYS MERRIAMI FRENATUS			X			
SPERMOPHILUS MOHAVENSIS						
VULPES MACROTIS			X			
CROTALUS CERASTES			X			
CROTALUS SCUTULATUS						
DIPSOSAURUS DORSALIS						
EUMECES GILBERTI RUBRICAUDATUS						
GAMBELIA WISLIZENII						
POPULATION)						
HELODERMA SUSPECTUM CINCTUM		X	X			
PHRYNOSOMA PLATYRHINOS CALIDIARUM					X	
PHYLLORHYNCHUS DECURTATUS						
REPTILE SCRUB HABITAT						
SAUROMALUS OBESUS OBESUS			X			
XANTUSIA VIGILIS						
ANULOCAULIS LEIOSLENUS					1	
SELECTION CRITERIA						
SPECIES RICHNESS	o	o	+	-	+	+
ROAD DENSITY	o	o	o	-	o	+
SYSTEM DIVERSITY	-	o	+	-	o	o
OUTSTANDING OCCURRENCE	-	+	-	-	+	+
PORTFOLIO ?	NO	YES	YES	NO	YES	YES

DESERT SCRUB-NORTH	ARGUS RANGE - GREAT FALLS BASIN	ARGUS RANGE - MOUNTAIN SPRINGS CANYON	CACTUS FLAT	COSO RANGE	COTTONWOOD CANYON - MB	DAGGETT	DARWIN WASH	EMIGRANT CANYON	EUREKA VALLEY	FISH LAKE VALLEY	HAIWEE SPRINGS	HARRISBURG FLATS	INDIAN SPRING VALLEY	JOSHUA FLATS
COMMUNITY TARGETS														
FOURWING SALTBUSH														
MOJAVE MIXED WOODY SCRUB								1						
SAGEBRUSH SCRUB		X												
CREOSOTE BUSH - DESERT HOLLY SCRUB	X													
DESERT GRASSLAND & SHRUB STEPPE	X								1				X	
CREOSOTE BUSH - MIXED SCRUB	X	X	X	X	X	X	X	1	X	1	X		X	X
JOSHUA TREE - BIG GALLETA SPARSE WOODLAND														
RABBITBRUSH SCRUB														
EPHEDRA NEVADENSIS SHRUBLAND ALLIANCE				1										
GRAYIA SPINOSA SHRUBLAND ALLIANCE														
BIG SAGEBRUSH - SPINY HOPSAGE SCRUB			X		X		1			X	X		X	
BLACKBRUSH SCRUB - MIXED SCRUB	X	X		X			X					1	X	
JOSHUA TREE WOODLAND	X	X	X	X		1	X	X			X	X		X
SPINY HOPSAGE - MIXED SCRUB				X			X				X			
BIG SAGEBRUSH SCRUB	X	X		X			X				X			
MOJAVE MIXED SCRUB							X							
SONORA-MOJAVE MIXED DESERT SCRUB														
TARGET SPECIES														
LANIUS LUDOVICIANUS														
TOXOSTOMA LECONTEI	X													
CHAETODIPUS PENICILLATUS														
DIPODOMYS DESERTI														
DIPODOMYS MICROPS CELSUS														
SPERMOPHILUS MOHAVENSIS			1	1			X				X			
VULPES MACROTIS														
EUMECES GILBERTI RUBRICAUDATUS														
GERRHONOTUS PANAMINTINUS	X	X		X							X			
GOPHERUS AGASSIZII (MOHAVE POPULATION)													X	
REPTILE SCRUB HABITAT													1	
SAUROMALUS OBESUS OBESUS				X										
SELECTION CRITERIA														
SPECIES RICHNESS	+	o	o	+	-	-	+	+	-	-	+	-	+	-
ROAD DENSITY	-	-	o	o	-	-	o	-	+	o	o	o	-	-
SYSTEM DIVERSITY	+	+	-	+	o	-	+	o	o	-	+	-	o	o
OUTSTANDING OCCURRENCE	-	-	+	+	-	+	+	+	+	+	-	+	+	-
PORTFOLIO ?	**NO**	**NO**	**NO**	**YES**	**NO**	**NO**	**NO**	**YES**	**NO**	**NO**	**YES**	**NO**	**YES**	**NO**

DESERT SCRUB-NORTH	LAST CHANCE CANYON-AP	LAST CHANCE RANGE	LEE FLAT & SANTA ROSA	MARBLE CANYON, SALINE, EUREKA VALLEY	MARBLE/ COTTONWOOD CANYON	OASIS VALLEY	PANAMINT CANYONS	PILOT KNOB VALLEY	ROSE VALLEY	SALINE VALLEY DT	SEEP SPRINGS VALLEY	SLATE RANGE	WILDHORSE MESA/ ETCHARREN VALLEY	XANADU LOWLAND
COMMUNITY TARGETS														
FOURWING SALTBUSH									X					
MOJAVE MIXED WOODY SCRUB														
SAGEBRUSH SCRUB													X	
CREOSOTE BUSH - DESERT HOLLY SCRUB														
DESERT GRASSLAND & SHRUB STEPPE		1											X	X
CREOSOTE BUSH - MIXED SCRUB		X	X	X	X	X	X	X	X	X	1	X		X
JOSHUA TREE - BIG GALLETA SPARSE WOODLAND	X													
RABBITBRUSH SCRUB						X								
EPHEDRA NEVADENSIS SHRUBLAND ALLIANCE														X
GRAYIA SPINOSA SHRUBLAND ALLIANCE												X		
BIG SAGEBRUSH - SPINY HOPSAGE SCRUB	X	X			X	X								
BLACKBRUSH SCRUB - MIXED SCRUB						X		X				X	X	
JOSHUA TREE WOODLAND	X	X	X	X			X		X	X		X	X	
SPINY HOPSAGE - MIXED SCRUB														
BIG SAGEBRUSH SCRUB	X												X	
MOJAVE MIXED SCRUB					X		1							
SONORA-MOJAVE MIXED DESERT SCRUB														
TARGET SPECIES														
LANIUS LUDOVICIANUS														
TOXOSTOMA LECONTEI														
CHAETODIPUS PENICILLATUS						X								
DIPODOMYS DESERTI						X								
DIPODOMYS MICROPS CELSUS						X								
SPERMOPHILUS MOHAVENSIS									X			X	X	
VULPES MACROTIS														
EUMECES GILBERTI RUBRICAUDATUS														
GERRHONOTUS PANAMINTINUS							X							
GOPHERUS AGASSIZII (MOHAVE POPULATION)								X	X					
REPTILE SCRUB HABITAT														X
SAUROMALUS OBESUS OBESUS														
SELECTION CRITERIA														
SPECIES RICHNESS	-	+	o	+	-	+	+	-	o	-	-	o	o	o
ROAD DENSITY	-	-	o	-	-	-	-	-	o	-	-	-	o	+
SYSTEM DIVERSITY	o	+	-	o	-	+	+	+	+	+	-	o	+	o
OUTSTANDING OCCURRENCE	-	+	+	+	-	+	+	-	-	-	+	-	-	+
PORTFOLIO ?	**NO**	**YES**	**NO**	**YES**	**NO**	**NO**	**YES**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**YES**

DESERT SCRUB-SOUTHCENTRAL	ACORN FLATS	BULLION MTS - DS	BURNS CANYON	CACTUS GARDEN - JTNP	COTTONWOOD FAN	CUSHIONBERRY SPRINGS	DALE DRY LAKE	DEADMAN LAKE	EMERSON LAKE	FRIED LIVER WASH	GOLD CROWN WASH / PINTO MTN	IRON MTN AREA	JOHNSON VALLEY
COMMUNITY TARGETS													
FOURWING SALTBUSH								X	X				
MOJAVE MIXED WOODY SCRUB											X		
CREOSOTE BUSH - MIXED SCRUB	X	X		X	X	X	X	X	X	X	X	X	X
DESERT GRASSLAND AND SHRUB-STEPPE													
JOSHUA TREE - BIG GALLETA SPARSE WOODLAND													
FOUQUIERIA SPLENDENS SHRUBLAND					X					X			
HILARIA RIGIDA HERBACEOUS ALLIANCE							X						
OPUNTIA BIGELOVII SHRUBLAND ALLIANCE				1									
BIG SAGEBRUSH - SPINY HOPSAGE SCRUB													
BLACKBRUSH SCRUB - MIXED SCRUB		X				X							
JOSHUA TREE WOODLAND			1		X	X							X
CREOSOTE RINGS													
YUCCA RINGS													
TARGET SPECIES													
ATHENE CUNICULARIA													
ICTERUS PARISORUM													
TOXOSTOMA LECONTEI	X												
DIPODOMYS DESERTI													
SPERMOPHILUS MOHAVENSIS													
VULPES MACROTIS	X												
CROTALUS CERASTES	X												
DIPSOSAURUS DORSALIS							X						
GOPHERUS AGASSIZII (MOHAVE POPULATION)											X	X	
PHRYNOSOMA CORONATUM BLAINVILLEI													
PHRYNOSOMA PLATYRHINOS CALIDIARUM							X						
REPTILE SCRUB HABITAT													
SAUROMALUS OBESUS OBESUS											X		
XANTUSIA VIGILIS													
MIMULUS MOHAVENSIS													
PENSTEMON ALBOMARGINATUS													
SELECTION CRITERIA													
SPECIES RICHNESS	+	-	-	-	o	o	-	-	-	-	+	-	-
ROAD DENSITY	+	+	o	o	-	o	-	o	o	o	o	o	o
SYSTEM DIVERSITY	-	o	o	-	-	+	+	-	-	-	+	-	-
OUTSTANDING OCCURRENCE	-	-	+	+	-	+	-	-	-	-	-	-	-
PORTFOLIO ?	NO	NO	NO	YES	NO	NO	NO	NO	NO	NO	YES	NO	NO

DESERT SCRUB-SOUTHCENTRAL	JOSHUA TREE DWMA	JUNIPER FLATS - JTNP	KANE WASH	LAVIC LAKE / PISGAH CRATER	LOST HORSE VALLEY	LUCERNE VALLEY	MUNSEN CANYON	N.SLOPE SAN BERNARDINO MTS -	NORTH SLOPE SAN BERNARDINO MTS -	OCOTILLO - PINTO MTN	ORD MTS	ORD MTS - CACTUS GARDEN	ORD-RODMAN MTS COMPLEX
COMMUNITY TARGETS													
FOURWING SALTBUSH				X									
MOJAVE MIXED WOODY SCRUB												X	
CREOSOTE BUSH - MIXED SCRUB	X		X	X	X	X	X	1	X	X	X	X	X
DESERT GRASSLAND AND SHRUB-STEPPE		1						1					
JOSHUA TREE - BIG GALLETA SPARSE WOODLAND					X								
FOUQUIERIA SPLENDENS SHRUBLAND										X			
HILARIA RIGIDA HERBACEOUS ALLIANCE											X		
OPUNTIA BIGELOVII SHRUBLAND ALLIANCE							X						
BIG SAGEBRUSH - SPINY HOPSAGE SCRUB													
BLACKBRUSH SCRUB - MIXED SCRUB					X		X	X			X		X
JOSHUA TREE WOODLAND	1			X	1		X	X	X	X	X	X	X
CREOSOTE RINGS						X							
YUCCA RINGS													
TARGET SPECIES													
ATHENE CUNICULARIA													
ICTERUS PARISORUM													
TOXOSTOMA LECONTEI	X		X						X				
DIPODOMYS DESERTI													
SPERMOPHILUS MOHAVENSIS									X				
VULPES MACROTIS													
CROTALUS CERASTES	X		X	X									
DIPSOSAURUS DORSALIS	X												
GOPHERUS AGASSIZII (MOHAVE POPULATION)	X		X	X		X		X			X		
PHRYNOSOMA CORONATUM BLAINVILLEI								X	X				
PHRYNOSOMA PLATYRHINOS CALIDIARUM													
REPTILE SCRUB HABITAT				X									
SAUROMALUS OBESUS OBESUS			X	X									
XANTUSIA VIGILIS													
MIMULUS MOHAVENSIS			X								1		X
PENSTEMON ALBOMARGINATUS				1									
SELECTION CRITERIA													
SPECIES RICHNESS	+	-	+	+	o	-	o	+	o	-	+	o	+
ROAD DENSITY	o	o	o	-	o	o	-	o	o	+	-	-	-
SYSTEM DIVERSITY	+	-	o	+	-	o	+	+	-	-	+	o	+
OUTSTANDING OCCURRENCE	+	+	o	+	+	-	-	+	-	-	+	+	+
PORTFOLIO ?	YES	NO	YES	YES	YES	NO	YES	YES	NO	NO	YES	YES	YES

DESERT SCRUB-SOUTHCENTRAL	PETROGLYPH FLOW	PETROGLYPH WASH	PINTO BASIN - DP	PINTO BASIN - DT	PINTO BASIN - DW	PINTO BASIN - OCOTILLO	PIPES CANYON	QUACKENBUSH LAKE	QUEEN VALLEY	RODMAN MTS	SOGGY LAKE - SE	UPPER JOHNSON VALLEY	WILLOW & HACKBERRY CANYONS
COMMUNITY TARGETS													
FOURWING SALTBUSH								X					
MOJAVE MIXED WOODY SCRUB													
CREOSOTE BUSH - MIXED SCRUB	X	X	X	X	X	X	X	X		X	X	X	X
DESERT GRASSLAND AND SHRUB-STEPPE										X			X
JOSHUA TREE - BIG GALLETA SPARSE WOODLAND									X				
FOUQUIERIA SPLENDENS SHRUBLAND						X							
HILARIA RIGIDA HERBACEOUS ALLIANCE									X				
OPUNTIA BIGELOVII SHRUBLAND ALLIANCE													
BIG SAGEBRUSH - SPINY HOPSAGE SCRUB									X				
BLACKBRUSH SCRUB - MIXED SCRUB							X		X				
JOSHUA TREE WOODLAND	X	X		X	X	X	1		1	X			
CREOSOTE RINGS											X	X	
YUCCA RINGS												1	
TARGET SPECIES													
ATHENE CUNICULARIA													
ICTERUS PARISORUM							X						
TOXOSTOMA LECONTEI		X					1						X
DIPODOMYS DESERTI													
SPERMOPHILUS MOHAVENSIS													
VULPES MACROTIS													
CROTALUS CERASTES													
DIPSOSAURUS DORSALIS													
GOPHERUS AGASSIZII (MOHAVE POPULATION)				1						1			X
PHRYNOSOMA CORONATUM BLAINVILLEI													
PHRYNOSOMA PLATYRHINOS CALIDIARUM	X						X						
REPTILE SCRUB HABITAT													
SAUROMALUS OBESUS OBESUS	X									X			X
XANTUSIA VIGILIS													
MIMULUS MOHAVENSIS										X			
PENSTEMON ALBOMARGINATUS													
SELECTION CRITERIA													
SPECIES RICHNESS	+	o	-	-	-	-	+	-	+	+	-	-	o
ROAD DENSITY	+	o	o	+	-	-	o	o	o	-	o	o	o
SYSTEM DIVERSITY	-	-	o	-	-	o	+	-	-	o	-	o	+
OUTSTANDING OCCURRENCE	-	-	-	+	-	+	+	-	+	+	-	+	-
PORTFOLIO ?	NO	NO	YES	YES	YES	YES	YES	NO	YES	YES	NO	YES	NO

DESERT SCRUB-SOUTHEAST	BLACK TOP FAN	BRISTOL DRY LAKE	CADIZ DRY LAKE & DUNES	CHEMEHUEVI DWMA	DEAD MTS	DUTCH FLATS	JM5	LEAD MTN DRY LAKE	LEAD MTN DUNES	OATMAN BAT COMPLEX	OLD WOMAN MTN	PINTO BASIN - OCOTILLO	PIUTE, ELDORADO FENNER DWMA
COMMUNITY TARGETS													
ALKALI PLAYA		X	X					X					
ALKALI MEADOW / SEEP													
MESQUITE BOSQUE - BB													
SALTBUSH SCRUB		X						X					
FOURWING SALTBUSH								X					
FOURWING SALTBUSH - WINTERFAT SCRUB		X											
CREOSOTE BUSH - MIXED SCRUB	X			X	X	X	X	X		X	X	X	X
MOJAVE MIXED SCRUB											X		
DESERT GRASSLAND AND SHRUB-STEPPE						X							X
DESERT PLAYA MIXED SCRUB													
ENRICHED SUCCULENT AND WOODY SHRUB													
JOSHUA TREE - BIG GALLETA SPARSE WOODLAND													
JOSHUA TREE WOODLAND						X					X	X	X
FOUQUIERIA SPLENDENS SHRUBLAND					X		X					X	
BLACKBRUSH SCRUB - MIXED SCRUB					X								X
AMBROSIA DUMOSA DWARF-SHRUBLAND ALLIANCE													
OPUNTIA BIGELOVII SHRUBLAND ALLIANCE					X								
SONORA MIXED DESERT SCRUB - BRITTLEBUSH						X				X			
SONORA-MOJAVE MIXED DESERT SCRUB				X		X				X			
MIXED CACTI						X							
TARGET SPECIES													
CALLISAURUS DRACONOIDES									X				
LANIUS LUDOVICIANUS									X				
TOXOSTOMA LECONTEI				X									X
UMA SCOPARIA			X						X				
DIPODOMYS MERRIAMI FRENATUS	X												
DIPSOSAURUS DORSALIS	X												X
GAMBELIA WISLIZENII	X												
GOPHERUS AGASSIZII (MOHAVE POPULATION)	X			1			X						1
HELODERMA SUSPECTUM CINCTUM													
PHRYNOSOMA CORONATUM BLAINVILLEI													X
PHRYNOSOMA PLATYRHINOS CALIDIARUM	X												
SALVADORA HEXALEPIS MOJAVENSIS	X												
SAUROMALUS OBESUS OBESUS	X												
XANTUSIA VIGILIS													X
SELECTION CRITERIA													
SPECIES RICHNESS	+	o	o	o	-	+	-	-	o	o	-	o	+
ROAD DENSITY	+	o	o	+	o	-	o	o	o	o	o	o	o
SYSTEM DIVERSITY	o	o	o	o	o	o	-	o	o	o	o	+	+
OUTSTANDING OCCURRENCE	o	o	o	+	+	+	-	o	o	+	-	+	+
GOAL/REPRESENTATION	o	+	+	o	o	o	o	+	+	o	o	o	o
PORTFOLIO ?	YES	YES	YES	YES	YES	NO	NO	NO	YES	YES	NO	YES	YES

DESERT SCRUB-SOUTHEAST	SACRAMENTO MOUNTAIN - WESTSIDE	SOUTH BLACK MOUNTAIN	STEPLADDER MTS - NORTH	SUNFLOWER SPRING
COMMUNITY TARGETS				
ALKALI PLAYA				
ALKALI MEADOW / SEEP				
MESQUITE BOSQUE - BB				
SALTBUSH SCRUB				
FOURWING SALTBUSH				
FOURWING SALTBUSH - WINTERFAT SCRUB				
CREOSOTE BUSH - MIXED SCRUB	X	X	X	X
MOJAVE MIXED SCRUB				1
DESERT GRASSLAND AND SHRUB-STEPPE				
DESERT PLAYA MIXED SCRUB				
ENRICHED SUCCULENT AND WOODY SHRUB				
JOSHUA TREE - BIG GALLETA SPARSE WOODLAND				
JOSHUA TREE WOODLAND	X			X
FOUQUIERIA SPLENDENS SHRUBLAND				
BLACKBRUSH SCRUB - MIXED SCRUB				
AMBROSIA DUMOSA DWARF-SHRUBLAND ALLIANCE	X			
OPUNTIA BIGELOVII SHRUBLAND ALLIANCE	1		X	
SONORA MIXED DESERT SCRUB - BRITTLEBUSH				
SONORA-MOJAVE MIXED DESERT SCRUB		X		
MIXED CACTI				
TARGET SPECIES				
CALLISAURUS DRACONOIDES				
LANIUS LUDOVICIANUS				
TOXOSTOMA LECONTEI				
UMA SCOPARIA				
DIPODOMYS MERRIAMI FRENATUS				
DIPSOSAURUS DORSALIS				
GAMBELIA WISLIZENII				
GOPHERUS AGASSIZII (MOHAVE POPULATION)	X			
HELODERMA SUSPECTUM CINCTUM				
PHRYNOSOMA CORONATUM BLAINVILLEI				
PHRYNOSOMA PLATYRHINOS CALIDIARUM				
SALVADORA HEXALEPIS MOJAVENSIS				
SAUROMALUS OBESUS OBESUS				
XANTUSIA VIGILIS				
SELECTION CRITERIA				
SPECIES RICHNESS	o	+	-	-
ROAD DENSITY	-	+	o	o
SYSTEM DIVERSITY	o	o	-	-
OUTSTANDING OCCURRENCE	+	+	-	o
GOAL/REPRESENTATION	o	o	o	o
PORTFOLIO ?	**YES**	**YES**	**NO**	**NO**

DESERT SCRUB-WEST	ARGUS RANGE - MOUNTAIN SPRINGS CANYON	BLACK MTN	BORON	CANYON DEL GATO-MONTES	COTTONWOOD CREEK	CUDDEBACK LAKE / GRASS VALLEY	ERMO	FREEMAN CANYON	FREMONT-KRAMER/ SUPERIOR-CRONESE DWMA	FREMONT PEAK	FREMONT VALLEY	HARPER DRY LAKE BASIN	HAYSTACK BUTTE	IRON MTN AREA
COMMUNITY TARGETS														
FOURWING SALTBUSH						X								
POA SECUNDA / DESERT GRASSLAND														
SAGEBRUSH SCRUB	X													
CREOSOTE BUSH - DESERT HOLLY SCRUB														
CREOSOTE BUSH - MIXED SCRUB	X	X	X	X	X	X	1	X	X	X	X	X	X	X
DESERT GRASSLAND AND SHRUB-STEPPE				1										
JOSHUA TREE - BIG GALLETA SPARSE WOODLAND												1		
RABBITBRUSH SCRUB				X	X									
HILARIA RIGIDA HERBACEOUS ALLIANCE												1		
BIG SAGEBRUSH - SPINY HOPSAGE SCRUB														
BLACKBRUSH SCRUB - MIXED SCRUB	X	X				X								
JOSHUA TREE WOODLAND	X	X	X	1	1	X		X				X	1	
BIG SAGEBRUSH SCRUB	X	X												
CREOSOTE RINGS											1			
MOJAVE MIXED SCRUB					X		1							
TARGET SPECIES														
TOXOSTOMA LECONTEI														
CHAETODIPUS PENICILLATUS														
SPERMOPHILUS MOHAVENSIS					X	1	1				X	X	1	
CROTALUS CERASTES														
DIPSOSAURUS DORSALIS														
EUMECES GILBERTI RUBRICAUDATUS														
GERRHONOTUS PANAMINTINUS	X													
GOPHERUS AGASSIZII (MOHAVE POPULATION)						X			X			X	X	X
PHRYNOSOMA CORONATUM BLAINVILLEI														
REPTILE SCRUB HABITAT									X					
SAUROMALUS OBESUS OBESUS													X	
SELECTION CRITERIA														
SPECIES RICHNESS	o	o	-	o	o	+	+	-	+	-	o	+	+	-
ROAD DENSITY	-	-	o	o	o	o	o	o	-	-	o	o	o	o
SYSTEM DIVERSITY	+	-	-	o	+	o	o	-	+	-	-	o	o	-
OCCURRENCE	-	-	+	+	+	+	+	-	+	-	+	+	+	-
PORTFOLIO ?	NO	NO	NO	NO	NO	YES	YES	NO	YES	NO	YES	YES	YES	NO

DESERT SCRUB-WEST	KINGS CANYON	KRAMER HILLS	LITTLE DIXIE WASH	LITTLE DIXIE WASH - BLACK MTN	LITTLE ROCK WASH	MT. GENERAL	NINEMILE CANYON	NORTH ANTELOPE VALLEY	NORTH SLOPE SAN BERNARDINO MTS - JTWLD	OAK CREEK & CAMERON CANYONS	RAND MTN / DTNA	RED ROCK CYN / EL PASO MTS	ROGERS & ROSAMOND DRY LAKES	SOLEDAD MTN
COMMUNITY TARGETS														
FOURWING SALTBUSH														
POA SECUNDA / DESERT GRASSLAND											X			
SAGEBRUSH SCRUB														
CREOSOTE BUSH - DESERT HOLLY SCRUB														
CREOSOTE BUSH - MIXED SCRUB		X	X	X	X	X	X	X	X	X	X	X	X	X
DESERT GRASSLAND AND SHRUB-STEPPE								X		1	X			1
JOSHUA TREE - BIG GALLETA SPARSE WOODL														
RABBITBRUSH SCRUB	X							X						
HILARIA RIGIDA HERBACEOUS ALLIANCE						1								
BIG SAGEBRUSH - SPINY HOPSAGE SCRUB														
BLACKBRUSH SCRUB - MIXED SCRUB												X		
JOSHUA TREE WOODLAND	X		X	X	1		X	1	X	X	X	X	X	X
BIG SAGEBRUSH SCRUB												X		
CREOSOTE RINGS		X												
MOJAVE MIXED SCRUB										X				
TARGET SPECIES														
TOXOSTOMA LECONTEI									X					
CHAETODIPUS PENICILLATUS														
SPERMOPHILUS MOHAVENSIS		X							X		1	X		
CROTALUS CERASTES											X			
DIPSOSAURUS DORSALIS											X			
EUMECES GILBERTI RUBRICAUDATUS														
GERRHONOTUS PANAMINTINUS														
GOPHERUS AGASSIZII (MOHAVE POPULATION)											X	X		
PHRYNOSOMA CORONATUM BLAINVILLEI									X					
REPTILE SCRUB HABITAT											1			
SAUROMALUS OBESUS OBESUS												X		
SELECTION CRITERIA														
SPECIES RICHNESS	-	-	-	-	o	o	-	o	o	o	+	+	+	-
ROAD DENSITY	o	o	o	o	o	o	o	o	o	o	o	o	o	o
SYSTEM DIVERSITY	+	-	-	-	+	o	o	o	o	+	o	+	+	-
OCCURRENCE	-	-	-	-	+	+	-	+	-	+	+	+	+	+
PORTFOLIO ?	NO	NO	NO	NO	YES	YES	NO	YES	NO	NO	YES	YES	YES	NO

LOWER MONTANE-EASTERN	BADGER MOUNTAIN	BEAVER DAM PEAK	BEAVER DAM MOUNTAINS	BEAVER DAM NE SLOPE	BECK SPRING	BLACK ROCK MOUNTAIN	BP12	BULL CANYON	BULL VALLEY FOOTHILLS	CEDAR WASH
COMMUNITY TARGETS										
CHAPPARRAL										
COASTAL CHAPPARRAL										
SEMI-DESERT CHAPPARRAL										
SEMI-DESERT CHAPPARRAL - CHAMISE CHAPPARRAL										
SEMI -DESERT CHAPPARRAL - MANZANITA										
SEMI-DESERT CHAPPARRAL - MIXED OAK CHAPPARRAL		X	X							
SEMI -DESERT CHAPPARRAL - MOUNTAIN MAHOGANY - MIXED SHRUB	X		X						X	X
SEMI-DESERT CHAPPARRAL - RIVERSIDIAN SAGE SCRUB										
SEMI-DESERT CHAPPARRAL - CEANOTHUS										
PINYON-JUNIPER WOODLAND	X	X	X	X		X	X			
CALIFORNIA JUNIPER WOODLAND					X			X		
UTAH JUNIPER WOODLAND			X	X					X	
SINGLE LEAF PINYON PINE - MIXED SCRUB WOODLAND										
CURL-LEAF MOUNTAIN MAHOGANY - PINYON PINE WOODLAND	X									
DIGGER PINE - OAK WOODLAND										
OAK WOODLAND						X				
NOLINA										
TARGET SPECIES										
ICTERUS PARISORUM										
VIREO VICINIOR										
OVIS CANADENSIS CALIFORNIANA										
OVIS CANADENSIS NELSONI										
EUMECES GILBERTI RUBRICAUDATUS						X				
RARE PLANTS	0	0	1	1	0	1	0	0	0	0
ASTRAGALUS AMPULLARIOIDES				X						
IVESIA PATELLIFERA										
PENSTEMON CALCAREUS										
PENSTEMON ALBOMARGINATUS										
EPILOBIUM NEVADENSE		X	X							
TOWNSENDII SMITHII						X				
PENSTEMON STEPHENSII										
PHACELIA ANELSONII										
ASTRAGALUS CIMAE VAR CIMAE										
ARGYROCHOSMA LIMITANEA										
ERICAMERIA CERVINA										
CASTILLEJA MARTINII VAR. CLOKEYI										
CYMOPTERUS GILMANII										
PENSTEMON BICOLOR SSP BICOLOR										
PENSTEMON BICOLOR SSP ROSEUS										
ESCOBARIA VIVIPARA VAR ROSEA										
TETRADYMIA ARGYRAEA										
LANDSCAPE SELECTION CRITERIA										
LAND CLASS	+	-	-	-		+			o	
ROADEDNESS	+	+	+	+		+			+	
HETEROGENEITY	1	1	5	3		2			5	
UPPER MONTANE CONNECTIVITY	-	-	-	-		+			-	
REPRESENTATION	+	+	+	+		+			+	
PORTFOLIO?	NO	NO	YES	YES	NO	YES	NO	NO	NO	NO

LOWER MONTANE-EASTERN	CERBAT MOUNTAINS	CLARK MOUNTAIN	ELBOW CANYON	GOLD BUTTE	GRAND WASH CLIFFS-SOUTH	GRANITE MOUNTAINS	GRAPEVINE SPRINGS	HUNGRY VALLEY & WHITE SADDLE	JOHNSTON CANYON
COMMUNITY TARGETS									
CHAPPARRAL									
COASTAL CHAPPARRAL									
SEMI-DESERT CHAPPARRAL	X				X	X			
SEMI-DESERT CHAPPARRAL - CHAMISE CHAPPARRAL									
SEMI -DESERT CHAPPARRAL - MANZANITA	X								X
SEMI-DESERT CHAPPARRAL - MIXED OAK CHAPPARRAL	X				X		X		
SEMI -DESERT CHAPPARRAL - MOUNTAIN MAHOGANY - MIXED SHRUB				X				X	
SEMI-DESERT CHAPPARRAL - RIVERSIDIAN SAGE SCRUB									
SEMI-DESERT CHAPPARRAL - CEANOTHUS									
PINYON-JUNIPER WOODLAND	E		X		X	E			
CALIFORNIA JUNIPER WOODLAND		X				X			
UTAH JUNIPER WOODLAND				X					
SINGLE LEAF PINYON PINE - MIXED SCRUB WOODLAND									
CURL-LEAF MOUNTAIN MAHOGANY - PINYON PINE WOODLAND									
DIGGER PINE - OAK WOODLAND									
OAK WOODLAND									
NOLINA									
TARGET SPECIES									
ICTERUS PARISORUM						X			
VIREO VICINIOR		X							
OVIS CANADENSIS CALIFORNIANA									
OVIS CANADENSIS NELSONI				X		X			
EUMECES GILBERTI RUBRICAUDATUS	X	X							
RARE PLANTS	1	2	0	0	0	0	1	0	0
ASTRAGALUS AMPULLARIOIDES									
IVESIA PATELLIFERA									
PENSTEMON CALCAREUS									
PENSTEMON ALBOMARGINATUS									
EPILOBIUM NEVADENSE									
TOWNSENDII SMITHII									
PENSTEMON STEPHENSII									
PHACELIA ANELSONII							X		
ASTRAGALUS CIMAE VAR CIMAE									
ARGYROCHOSMA LIMITANEA									
ERICAMERIA CERVINA									
CASTILLEJA MARTINII VAR. CLOKEYI									
CYMOPTERUS GILMANII		X							
PENSTEMON BICOLOR SSP BICOLOR									
PENSTEMON BICOLOR SSP ROSEUS									
ESCOBARIA VIVIPARA VAR ROSEA		X							
TETRADYMIA ARGYRAEA	X								
LANDSCAPE SELECTION CRITERIA									
LAND CLASS	-	-			+	+			
ROADEDNESS	-	+			+	+			
HETEROGENEITY	4	3			4	7			
UPPER MONTANE CONNECTIVITY	+	-			o	-			
REPRESENTATION	+	+			+	+			
PORTFOLIO?	YES	YES	NO	NO	NO	YES	NO	NO	NO

LOWER MONTANE-EASTERN	KINGSTON MOUNTAINS	LIME KILN CANYON	MCCULLOUGH MOUNTAINS	MID-HILLS	MORMON MOUNTAINS	NEW YORK MOUNTAIN	OLD PINTO ROAD	PACHALCA SPRINGS	PINTO VALLEY
COMMUNITY TARGETS									
CHAPPARRAL									
COASTAL CHAPPARRAL						E			
SEMI-DESERT CHAPPARRAL						X			
SEMI-DESERT CHAPPARRAL - CHAMISE CHAPPARRAL									
SEMI -DESERT CHAPPARRAL - MANZANITA									
SEMI-DESERT CHAPPARRAL - MIXED OAK CHAPPARRAL			X						
SEMI -DESERT CHAPPARRAL - MOUNTAIN MAHOGANY - MIXED SHRUB		X	X		X				
SEMI-DESERT CHAPPARRAL - RIVERSIDIAN SAGE SCRUB									
SEMI-DESERT CHAPPARRAL - CEANOTHUS									
PINYON-JUNIPER WOODLAND	E		X	X	X	E			
CALIFORNIA JUNIPER WOODLAND	X			X		E	X	X	X
UTAH JUNIPER WOODLAND			X		X				
SINGLE LEAF PINYON PINE - MIXED SCRUB WOODLAND									
CURL-LEAF MOUNTAIN MAHOGANY - PINYON PINE WOODLAND									
DIGGER PINE - OAK WOODLAND									
OAK WOODLAND						E			X
NOLINA	1								
TARGET SPECIES									
ICTERUS PARISORUM									
VIREO VICINIOR						X			
OVIS CANADENSIS CALIFORNIANA	X								
OVIS CANADENSIS NELSONI			X	X	X	X		X	
EUMECES GILBERTI RUBRICAUDATUS						X			
RARE PLANTS	2	0	4	1	0	2	0	0	1
ASTRAGALUS AMPULLARIOIDES									
IVESIA PATELLIFERA	X								
PENSTEMON CALCAREUS									
PENSTEMON ALBOMARGINATUS			X						
EPILOBIUM NEVADENSE									
TOWNSENDII SMITHII									
PENSTEMON STEPHENSII	X								
PHACELIA ANELSONII			X						
ASTRAGALUS CIMAE VAR CIMAE				X		X			X
ARGYROCHOSMA LIMITANEA						X			
ERICAMERIA CERVINA									
CASTILLEJA MARTINII VAR. CLOKEYI									
CYMOPTERUS GILMANII									
PENSTEMON BICOLOR SSP BICOLOR			X						
PENSTEMON BICOLOR SSP ROSEUS			X						
ESCOBARIA VIVIPARA VAR ROSEA									
TETRADYMIA ARGYRAEA									
LANDSCAPE SELECTION CRITERIA									
LAND CLASS	-		+		+	+			
ROADEDNESS	+		+		+	o			
HETEROGENEITY	2		+		2	+			
UPPER MONTANE CONNECTIVITY	-		-		-	-			
REPRESENTATION	+		+		+	+			
PORTFOLIO?	YES	NO	YES	NO	YES	YES	NO	NO	NO

LOWER MONTANE-EASTERN	PROVIDENCE MOUNTAIN	QUAIL CREEK	RED ROCK SPRINGS	ROUND VALLEY	SHEEP RANGE	SPRING MOUNTAINS	VIRGIN MOUNTAINS
COMMUNITY TARGETS							
CHAPPARRAL							
COASTAL CHAPPARRAL	X						
SEMI-DESERT CHAPPARRAL			X		X	X	X
SEMI-DESERT CHAPPARRAL - CHAMISE CHAPPARRAL							
SEMI -DESERT CHAPPARRAL - MANZANITA					X		
SEMI-DESERT CHAPPARRAL - MIXED OAK CHAPPARRAL							
SEMI -DESERT CHAPPARRAL - MOUNTAIN MAHOGANY - MIXED SHRUB					X	X	X
SEMI-DESERT CHAPPARRAL - RIVERSIDIAN SAGE SCRUB							
SEMI-DESERT CHAPPARRAL - CEANOTHUS							
PINYON-JUNIPER WOODLAND	X		X		X	X	X
CALIFORNIA JUNIPER WOODLAND	E			X			
UTAH JUNIPER WOODLAND		X			X	X	
SINGLE LEAF PINYON PINE - MIXED SCRUB WOODLAND						X	
CURL-LEAF MOUNTAIN MAHOGANY - PINYON PINE WOODLAND					X	X	
DIGGER PINE - OAK WOODLAND							
OAK WOODLAND							
NOLINA							
TARGET SPECIES							
ICTERUS PARISORUM							
VIREO VICINIOR					X		X
OVIS CANADENSIS CALIFORNIANA					X		
OVIS CANADENSIS NELSONI	X						
EUMECES GILBERTI RUBRICAUDATUS							X
RARE PLANTS	2	0	0	1	0	1	0
ASTRAGALUS AMPULLARIOIDES							
IVESIA PATELLIFERA							
PENSTEMON CALCAREUS	X						
PENSTEMON ALBOMARGINATUS							
EPILOBIUM NEVADENSE							
TOWNSENDII SMITHII							
PENSTEMON STEPHENSII	X						
PHACELIA ANELSONII							
ASTRAGALUS CIMAE VAR CIMAE				X			
ARGYROCHOSMA LIMITANEA							
ERICAMERIA CERVINA							
CASTILLEJA MARTINII VAR. CLOKEYI						X	
CYMOPTERUS GILMANII							
PENSTEMON BICOLOR SSP BICOLOR							
PENSTEMON BICOLOR SSP ROSEUS							
ESCOBARIA VIVIPARA VAR ROSEA							
TETRADYMIA ARGYRAEA							
LANDSCAPE SELECTION CRITERIA							
LAND CLASS	+				+	+	+
ROADEDNESS	+				+	+	+
HETEROGENEITY	+				+	+	+
UPPER MONTANE CONNECTIVITY	-				+	+	o
REPRESENTATION	+				+	+	+
PORTFOLIO?	YES	NO	NO	NO	YES	YES	YES

LOWER MONTANE-SOUTHEASTERN	HUALAPAI MOUNTAINS	JA8	MCCRACKEN MOUNTAIN	MOJAVE MOUNTAINS	OLD WOMAN MOUNTAIN	SOUTH DUTCH FLAT
COMMUNITY TARGETS						
CHAPPARRAL						
COASTAL CHAPPARRAL						
SEMI-DESERT CHAPPARRAL						
SEMI-DESERT CHAPPARRAL - CHAMISE CHAPPARRAL						
SEMI -DESERT CHAPPARRAL - MANZANITA				X		
SEMI-DESERT CHAPPARRAL - MIXED OAK CHAPPARRAL	X	X		X		X
SEMI -DESERT CHAPPARRAL - MOUNTAIN MAHOGANY - MIXED SHRUB						
SEMI-DESERT CHAPPARRAL - RIVERSIDIAN SAGE SCRUB						
SEMI-DESERT CHAPPARRAL - CEANOTHUS						
PINYON-JUNIPER WOODLAND	X		X	X	X	
CALIFORNIA JUNIPER WOODLAND					X	
UTAH JUNIPER WOODLAND						
SINGLE LEAF PINYON PINE - MIXED SCRUB WOODLAND						
CURL-LEAF MOUNTAIN MAHOGANY - PINYON PINE WOODLAND						
DIGGER PINE - OAK WOODLAND						
OAK WOODLAND						
TARGET SPECIES						
MAMMALS						
OVIS CANADENSIS NELSONI					X	
REPTILES						
GOPHERUS AGASSIZII (SONORAN POPULATION)						
LANDSCAPE SELECTION CRITERIA						
LAND CLASS	+	-		-	+	+
ROADEDNESS	+	+		o	+	+
HETEROGENEITY	2	2		2	3	3
UPPER MONTANE CONNECTIVITY	+	-		-	-	-
REPRESENTATION	+	+		+	+	+
PORTFOLIO?	**YES**	**NO**	**NO**	**YES**	**NO**	**NO**

LOWER MONTANE-WESTERN	BIG ROCK WASH	KINGS CANYON	LEONA VALLEY	NORTH SLOPE SAN BERNARDINO MTS - JTWL	OAK CREEK & CAMERON CANYON	SHEEP CREEK	SUMMIT VALLEY/ CAJON PASS	TEHACHAPI FOOTHILLS
COMMUNITY TARGETS								
CHAPPARRAL								
COASTAL CHAPPARRAL								
SEMI-DESERT CHAPPARRAL	X			X	X	X	X	X
SEMI-DESERT CHAPPARRAL - CHAMISE CHAPPARRAL			X				X	
SEMI -DESERT CHAPPARRAL - MANZANITA							X	
SEMI-DESERT CHAPPARRAL - MIXED OAK CHAPPARRAL			X	X		X	X	
SEMI -DESERT CHAPPARRAL - MOUNTAIN MAHOGANY - MIXED SHRUB				X				
SEMI-DESERT CHAPPARRAL - RIVERSIDIAN SAGE SCRUB							X	
SEMI-DESERT CHAPPARRAL - CEANOTHUS							X	
PINYON-JUNIPER WOODLAND				E				
CALIFORNIA JUNIPER WOODLAND	X			X	X	X		X
UTAH JUNIPER WOODLAND								
SINGLE LEAF PINYON PINE - MIXED SCRUB WOODLAND				X	X			
CURL-LEAF MOUNTAIN MAHOGANY - PINYON PINE WOODLAND								
DIGGER PINE - OAK WOODLAND			X					
OAK HILLS						X		
OAK WOODLAND		E				E	X	
TARGET SPECIES								
REPTILES								
EUMECES GILBERTI RUBRICAUDATUS	X							
PHRYNOSOMA CORONATUM BLAINVILLEI			X	X		X	X	
AMPHIBIANS								
RANA AURORA DRAYTONII							X	
PLANTS								
HEMIZONIA MOHAVENSIS							X	
CANBYA CANDIDA				X				
CALOCHORTUS PLUMMERAE							X	
VIOLA AUREA							X	
OPUNTIA BASILARIS VAR BRACHYCLADA							X	
LANDSCAPE SELECTION CRITERIA								
LAND CLASS	-	-	-	-	-	-	-	-
ROADEDNESS	-	-	-	-	-	-	-	o
HETEROGENEITY	6	4	4	2	5	+	+	+
UPPER MONTANE CONNECTIVITY	-	-	+		+	-	+	+
REPRESENTATION	+	+	+	+	+	+	+	+
PORTFOLIO?	YES	YES	YES	YES	NO	YES	YES	YES

UPPER MONTANE- EASTERN SUBREGION	BEAVER DAM MTS.	BLACK ROCK MT.	CERBAT MOUNTAINS	CLARK MOUNTAIN	GRANITE MOUNTAINS	KINGSTON RANGE	NEW YORK MOUNTAIN	PROVIDENCE MOUNTAIN	SHEEP RANGE	SPRING MOUNTAINS
COMMUNITY TARGETS										
PONDEROSA PINE	1	1								
GRAY PINE										
ASH				1						
WHITE FIR		1		1		1	1	1		1
LIMBER PINE										
WHITE FIR - LIMBER PINE- ASPEN FOREST		1	X							
WHITE FIR - PONDEROSA PINE - MOUNTAIN MAHOGANY									X	X
BRISTLECONE PINE WOODLAND										X
BRISTLECONE PINE - WHITE FIR - LIMBER PINE FOREST									X	X
ALPINE - SUBALPINE MEADOW										
TARGET SPECIES										
OVIS CANADENSIS NELSONI					X	X	X		X	
PALMERS CHIPMUNK										1
KINGSTON MOUNTAIN CHIPMUNK						1	X			
LONG-LEGGED MYOTIS									X	
LONG-EARED MYOTIS									X	
UTAH MOUNTAIN KINGSNAKE	X	X							X	
WESTERN REDTAIL SKINK		X	X				X			
CALIFORNIA TREEFROG					X					
SPRING MTS ACASTUS CHECKERSPOT										1
MORAND'S CHECKERSPOT										1
SPRING MTS COMMA SKIPPER										1
SPRING MTS ICARIOIDES BLUE										1
SPRING MTS. BLUE										1
SPRING MOUNTAINS ANT										1
NEVADA ADMIRAL										X
CAROLE'S SILVERSPOT										X
DRABA PAUCIFRUCTA										X
ANGELICA SCABRIDA										1
DRABA JAEGERI										X
EPILOBIUM NEVADENSE	X									
ERIGERON OVINUS									X	
IVESIA CRYPTOCAULIS										1
SILENE CLOKEYI										1
SPHAEROMERIA COMPACTA										1
CIRSIUM CLOKEYI										X
SYNTHYRIS RANUNCULINA										1
ASTRAGALUS OOPHORUS VAR. CLOKEYANUS										1
PENSTEMON THOMPSONIAE SSP. JAEGERI										X
ANTENNARIA SOLICEPS										1
IVESIA JAEGERI										X
LESQUERELLA HITCHCOCKII									X	X
VIOLA PURPUREA VAR. CHARLESTONENSIS										X
SEDUM NIVEUM							X			
TOWNSENDIA JONESII VAR. TUMULOSA									X	1
ERIGERON UNCIALIS VAR. CONJUGANS										X
ERIGERON UNCIALIS VAR. UNCIALIS				X						
SALVIA DORRII VAR. CLOKEYI										1
LUPINUS MAGNIFICUS VAR. MAGNIFICUS										
LANDSCAPE SELECTION CRITERIA										
PERCENT CLASS 1-2	3%	69%	23%	92%	7%	87%	88-100%	76%	100%	49%
ROADEDNESS	2.07	1.89	1.87	2.08	2.45	2.59	0-1.82	2.54	2.03	2.03
HETEROGENEITY	5	2	4	3	7	5	4	3	5	4
LOWER MONTANE CONNECTIVITY										
EXPERT COMMENTS					POSSIBLE WHITE FIR AT THIS LOCATION	GOOD DIVERSITY, HIGH QUALITY WHITE FIR	GOOD DIVERSITY, HIGH QUALITY WHITE FIR		RARE PLANTS AT THIS SITE	DIVERSE, HIGH QUALITY WHITE FIR, BRISTLECONE PINE, LIMBER PINE WDLND, RARE PLANTS ABUNDANT
PORTFOLIO?	YES	YES	?	YES	NO	YES	YES	YES	YES	YES

UPPER MONTANE- NORTHERN SUBREGION	BLACK MOUNTAIN - DT	GRAPEVINE MOUNTAIN	HUNTER MOUNTAIN	LAST CHANCE RANGE - RC	PANAMINT RIDGE
COMMUNITY TARGETS					
MOUNTAIN SAGEBRUSH		X			
PONDEROSA PINE					
GRAY PINE					
ASH					
WHITE FIR					
LIMBER PINE	1				1
WHITE FIR - LIMBER PINE- ASPEN FOREST					
WHITE FIR - PONDEROSA PINE - MOUNTAIN MAHOGANY					
BRISTLECONE PINE WOODLAND	1			1	1
BRISTLECONE PINE - WHITE FIR - LIMBER PINE FOREST					X
ALPINE - SUBALPINE MEADOW					1
MIXED CONIFERS		1	1		
TARGET SPECIES					
OVIS CANADENSIS NELSONI				X	X
WESTERN REDTAIL SKINK					1
CALIFORNIA TREEFROG					
PACIFIC TREEFROG	X				
LUPINUS MAGNIFICUS VAR. MAGNIFICUS					1
LANDSCAPE SELECTION CRITERIA					
PERCENT CLASS 1-2	97%	94%	100%	86%	97-100%
ROADEDNESS	2.56	2.95	2.33	2.83	2.35
HETEROGENEITY	3	3	5	4	4
LOWER MONTANE CONNECTIVITY	X	X	X	X	X
PORTFOLIO?	YES	YES	YES	YES	YES

UPPER MONTANE- WESTERN SUBREGION	KINGS CANYON	OAK CREEK & CAMERON CANYONS	MOJAVE RIVER - FORKS
COMMUNITY TARGETS			
MOUNTAIN SAGEBRUSH			
PONDEROSA PINE			
GRAY PINE	1	1	
ASH			
WHITE FIR			
LIMBER PINE			
WHITE FIR - LIMBER PINE- ASPEN FOREST			
WHITE FIR - PONDEROSA PINE - MOUNTAIN MAHOGANY			
BRISTLECONE PINE WOODLAND			
BRISTLECONE PINE - WHITE FIR - LIMBER PINE FOREST			
ALPINE - SUBALPINE MEADOW			X
MIXED CONIFERS			
TARGET SPECIES			
OVIS CANADENSIS NELSONI			
WESTERN REDTAIL SKINK			
CALIFORNIA TREEFROG			
PACIFIC TREEFROG			
LUPINUS MAGNIFICUS VAR. MAGNIFICUS			
LANDSCAPE SELECTION CRITERIA			
PERCENT CLASS 1-2	0%	0%	0%
ROADEDNESS	1.38	1.56	1.33
HETEROGENEITY	4	5	4
LOWER MONTANE CONNECTIVITY	X	X	X
PORTFOLIO?	YES	NO	YES

Appendix VI. Expert Interview Participants

APPENDIX VI. Expert Interview Participants

Anderson, Dick
National Park Service
Death Valley National Park, California

Anderson, John
Bureau Of Land Management
Phoenix, Arizona

Andre, Jim
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California Sweeney Granite Mountains
Desert Research Center, California

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Bureau Of Land Management
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Cummings, Pat
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Bureau Of Land Management
Barstow, California

Douglass, Bob
Bureau Of Land Management
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Duck, Tim
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Egan, Tom
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APPENDIX VI. Expert Interview Participants

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California Sweeney Granite Mountains Desert Research Center, California

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Kingman, Arizona

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National Park Service
Death Valley National Park, California

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National Park Service
Lake Mead National Recreation Area, Nevada

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APPENDIX VI. Expert Interview Participants

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Flagstaff, Arizona

Threloff, Doug
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Death Valley, California

Tomlinson, Chris
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Las Vegas, Nevada

Turner, Kent
National Park Service
Lake Mead National Recreation Area, Nevada

Watkins, Eric
Department Of Defense/U.S. Air Force
Nellis AFB, Nevada

Yumiko, Willow
Bureau Of Land Management
Needles, California

Appendix VII. References

APPENDIX VII. References

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