Land Management Plan for the San Felipe Valley Wildlife Area

Final

October 2009

Photo by Kim McKee-Lewis, CDFG

California Department of Fish and Game
South Coast Region
Wildlife, Fisheries, and Lands Program
4949 Viewridge Avenue
San Diego, CA 92123

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1. Purpose, Scope, and Organization

This Land Management Plan (LMP) is for the San Felipe Valley Wildlife Area (SFVWA) in northeastern San Diego County, California. This section presents:

- The purpose and intended uses of the LMP;
- The geographic area and types of activities covered by the LMP; and
- The organization of the document relative to the required components of LMPs.

1.1 Purpose

The California Department of Fish and Game (Department) has prepared this LMP to:

1. Guide management of the property in accordance with the Department's mission of managing California's diverse fish, wildlife, and plant resources, and the habitats upon which they depend, for their ecological values and for their use and enjoyment by the public;
2. Provide a descriptive inventory of the fish, wildlife, and plant resources in the SFVWA, including special-status species and habitats;
3. Address the impacts associated with management and public use of the SFVWA and comply with the environmental review and mitigation requirements of state and federal law; and
4. Provide the basis for planning and funding ongoing management of the SFVWA.

The Department will use the LMP to:

1. Prepare annual work programs and budgets for management of the SFVWA;
2. Determine the types and locations of public uses allowed in the SFVWA;
3. Develop long-term strategies for achieving the resource management and public use goals stated in the LMP;

4. Coordinate the planning and implementation of management activities with the Department's other programs, adjacent land owners, other public land managers, and other interested parties;

5. Provide the basis for any necessary consultations under Section 7 of the federal Endangered Species Act (ESA); and

6. Provide a framework plan for the management and public use of any lands added to the SFVWA through acquisition or other conveyance.

1.2 Scope

The area and type of activities covered by the LMP are as follows.

1.2.1 Geographic Area

The LMP applies to State lands designated as the SFVWA in San Diego County, California. Figure 1-1 shows the location and configuration of the WA as of August 2007. The Department anticipates that the boundaries of the WA may change over time as the result of acquisitions and other conveyance of lands. As currently configured, the SFVWA includes approximately 14,175 acres.

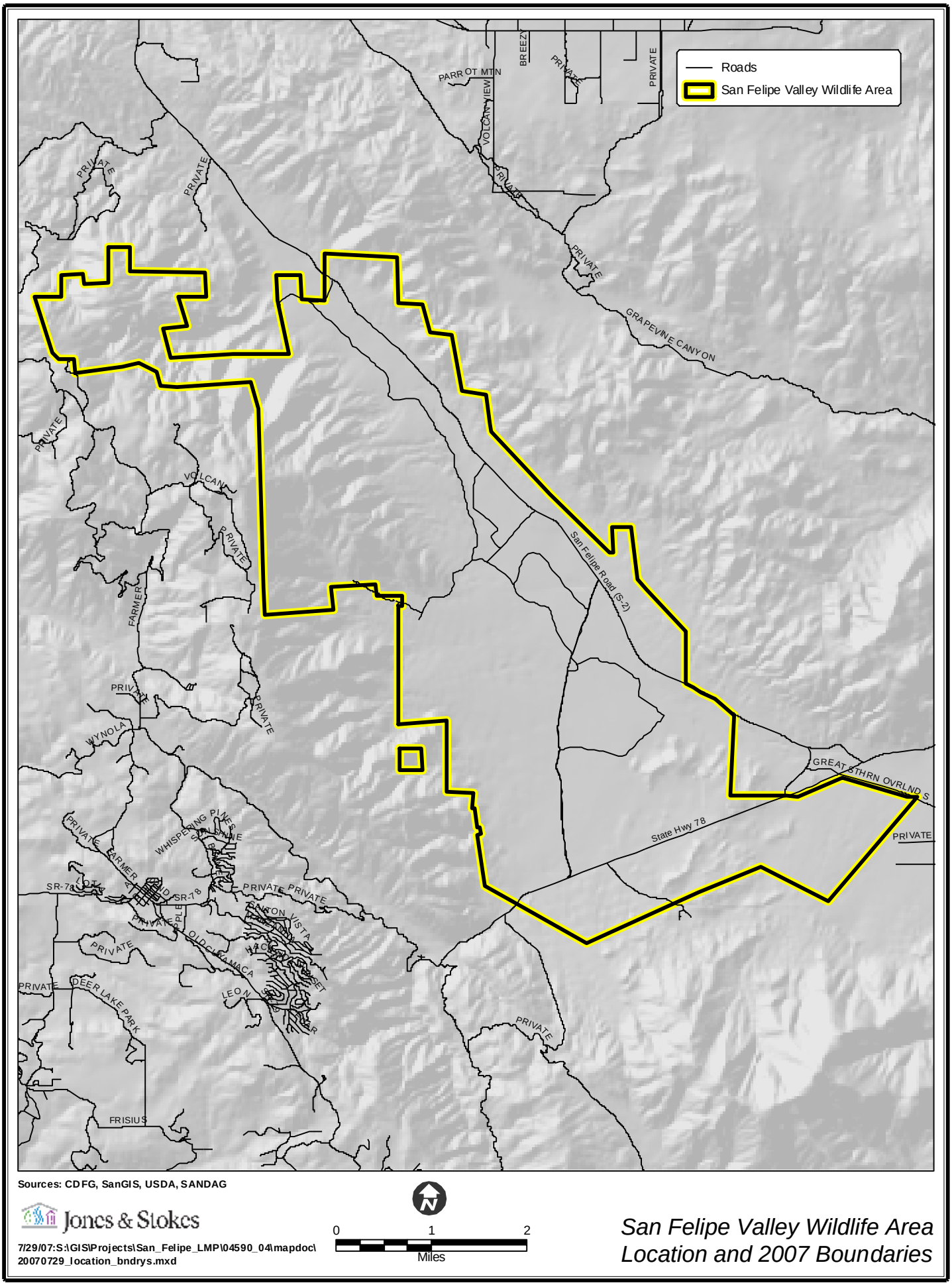
1.2.2 Activities

The LMP covers management and authorized public uses of the SFVWA.

- *Management* means activities undertaken by or with the authorization of the Department to protect, maintain, and enhance the resources in the SFVWA. Such activities include but are not limited to: wildlife management and monitoring, habitat management and monitoring, special-status resource (biological and cultural) protection and monitoring, habitat enhancement, fuel modification and fire management, maintenance and emergency repair of structures and facilities, installation and maintenance of fencing and signage, installation and maintenance of public use areas (e.g., hunting dog training areas), emergency response and public safety programs, public information programs, special projects related to resource management, and scientific studies and research related to resource management.

- *Authorized public uses* means the wildlife-dependent recreation activities allowed on State lands and specifically in WAs, as specified in Title 14 of the California Code of Regulations (CCR), the California Fish and Game Code, and policies of the California Fish and Game Commission. Such activities may include but are not limited to hunting, fishing, hunting dog training, hiking, and nature observation.

Figure 1-1. Location and 2007 Boundaries of the SFVWA



1.3 Organization

This LMP is organized to provide the information and address the issues identified in the Department's *Guide and Annotated Outline for Writing Land Management Plans* dated February 2003 (CDFG 2003). Table 1-1 provides a crosswalk of contents of this document with the outline in the Department's *Guide*. The primary differences between the organization of this document and that recommended in the *Guide* are that:

- Information has been added about applicable regulations, existing agreements, and relevant plans and programs in place at the time the LMP was prepared;
- Information about the physical setting and resources in the WA has been put in one chapter (rather than split in two separate chapters) to facilitate 1) use of the LMP for environmental review purposes under the California Environmental Quality Act (CEQA), and 2) future updates of the inventory; and
- The assessment of impacts associated with the Management Program is presented in a separate chapter (rather than interspersed with the management measures) to facilitate 1) use of the Management Program chapter as a guide during plan implementation, 2) future revisions to the Management Program, and 3) use of the LMP for CEQA compliance.

Table 1-1. Location of Required LMP Components in this Document

LMP Outline (CDFG 2003)	Location in This Document (Section)
Acknowledgements	8. Plan Preparation Team
I. Introduction	1. Purpose, Scope, and Organization
I.A. Purpose of Acquisition	3. Property Description
I.B. Acquisition History	3. Property Description
I.C. Purpose of This Management Plan	1. Purpose, Scope, and Organization
II. Property Description	3. Property Description
II.A. Geographical Setting	4. Resource Inventory
II.B. Property Boundaries and Adjacent Lands	1. Purpose, Scope, and Organization 3. Property Description
II.C. Geology, Soils, Climate, Hydrology	4. Resource Inventory
II.D. Cultural Features	4. Resource Inventory
II.D.1. Archaeology	4. Resource Inventory

LMP Outline (CDFG 2003)	Location in This Document (Section)
II.D.2. Historic Land Use	3. Property Description
II.D.3. Existing Structures	3. Property Description
III. Habitat and Species Description	4. Resource Inventory
III.A. Vegetation Communities, Habitats and Plant Species	4. Resource Inventory
III.B. Animal Species	4. Resource Inventory
III.C. Threatened, Rare or Endangered Species	4. Resource Inventory
IV. Management Goals and Environmental Impacts	5. Management Program 6. Impact Assessment CEQA Initial Study
IV.A. Definition of Terms Used in This Plan	9. Glossary
IV.B. Biological Elements: Goals & Environmental Impacts	5. Management Program 6. Impact Assessment CEQA Initial Study
IV.B.1. Operation and Maintenance Tasks	5. Management Program
IV.C. Public Use Elements: Goals & Environmental Impacts	5. Management Program 6. Impact Assessment CEQA Initial Study
IV.C.1. Operation and Maintenance Tasks	5. Management Program
IV.D. Facility Maintenance Elements: Goals & Environmental Impacts	5. Management Program 6. Impact Assessment CEQA Initial Study
IV.D.1. Operations and Maintenance Tasks	5. Management Program
IV.E. Biological Monitoring Element	5. Management Program
IV.E.1. Species and Habitat Monitoring	5. Management Program
IV.E.2. Consistency with Regional Planning Effort	5. Management Program
V. Operations and Maintenance Summary	5. Management Program
V.A. Operation and Maintenance Tasks	5. Management Program
V.B. Existing Staff and Additional Personnel Needs Summary	5. Management Program
V.C. Operations and Maintenance Summary	5. Management Program
VI. References	7. References
Appendices	Appendices

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2. Planning Context

The planning context for this LMP includes:

- State and federal regulations and policies that apply to management and public use of the SFVWA,
- Existing cooperative agreements and approved plans and programs relevant to management of the SFVWA, and
- The public scoping and review process for the LMP and its CEQA documentation.

2.1 Applicable Regulations and Policies

2.1.1 State

State regulations and policies that apply to management and public use of the WA include the conservation and hunting provisions of the California Fish and Game Code, the State land regulations stated in 14 CCR 550-551, the cultural resource provisions of the California Pubic Resource Code (CPRC), the environmental review and mitigation provisions of CEQA, and the joint policy adopted by the Department and CalFire (formerly known as the Department of Forestry and Fire Protection) regarding fire management. Table 2-1 summarizes the relevant provisions of the applicable state regulations and policies.

2.3.7.1 Fish and Game Code Section 1801

Section 1801 of the Fish and Game Code presents the key policy relevant to management and use of the SFVWA:

> It is hereby declared to be the policy of the state to encourage the preservation, conservation, and maintenance of wildlife resources under the jurisdiction and influence of the state. This policy shall include the following objectives:
>
> (a) To maintain sufficient populations of all species of wildlife and the habitat necessary to achieve the objectives stated in subdivisions (b), (c), and (d).
>
> (b) To provide for the beneficial use and enjoyment of wildlife by all citizens of the state.

Table 2-1. Summary of Applicable State Regulations and Policies

Source / Section	Key Provisions
California Fish and Game Code	
450-460	Management of Deer. Encourages the conservation, restoration, maintenance, and utilization of the State's wild deer populations. Establishes deer management units and plans. Calls for preservation and management of critical deer habitat areas. Sets process for annual consideration of deer hunting regulations and limits.
1385-1391	California Riparian Habitat Conservation Act. Establishes coordinated State program to acquire, preserve, restore, and enhance riparian habitat and coordinate activities with other resource protection activities.
1525-1530	Wildlife Management Areas and Game Farms. Authorizes the Department to accept and acquire properties for wildlife management areas or public shooting grounds. Calls for multiple recreational use of wildlife management areas, with emphasis on hunting and fishing. States that only minimal facilities to permit uses other than hunting or fishing to permit other recreational uses shall be provided.
1600-1616	Regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake in California that supports wildlife resources.
1800-1802	Conservation of Wildlife Resources. Establishes State policy regarding management of wildlife resources on State lands and public access and use of those resources.
1900-1913	Native Plant Protection. Prohibits taking of endangered and rare plants from the wild. Requires State agencies to use their programs to conserve endangered or rare native plants.
1925-1926	California Desert Native Plants. Clarifies that the Department may import, propagate, and distribute native plants covered by the California Desert Native Plants Act.
1930-1933	Significant Natural Areas. Encourages cooperative actions with other agencies to maintain the State's most significant natural areas.
2050-2105	Endangered Species. Covers the State listing and protection of endangered and threatened species. Prohibits the take of state-listed and state candidate species, except as provided under Sections 2081, 2080.1, 2081, 2835, and the Native Plant Protection Act. Establishes pilot program for recovery strategies.
2800-2835	Natural Community Conservation Planning Act. Provides for the development and implementation of Natural Community Conservation Plans (NCCPs) to sustain and restore habitats and species on an ecosystem or landscape scale.
3500-3516	Provides legal protection for almost all breeding bird species in California. Restricts the killing, taking, collecting, selling, and purchasing of native bird species or their parts, nests, or eggs. Allows certain game bird species to be hunted for specific periods. Identifies "fully protected" bird species and prohibits any take of them.

Source / Section	Key Provisions
4700	Identifies specific mammals as “fully protected” species and prohibits any take of them.
4800-4809	Identifies mountain lion as a specially protected mammal. Establishes circumstances and process for authorized take of mountain lions.
California Code of Regulations (Title 14)	
310-311	Sets shooting hours and authorized methods for hunting upland game birds.
502	Sets statewide and zone waterfowl hunting regulations.
506	Sets shooting hours for migratory game birds
507	Identifies authorized methods for hunting migratory game birds, allows use of dogs to take and retrieve migratory game birds, prohibits use of electronic or mechanically calling devices and live decoys. Requires use of nontoxic shot.
509	Incorporated federal Migratory Bird Treaty Act requirements.
550-551	Regulates public uses on all State Wildlife Areas. Identifies San Felipe Valley WA as a Type C facility and specifies allowed public uses.
753	States the Department’s policies regarding the consideration of potential environmental impacts of all actions and early consultation and coordination with affected agencies.
Fish and Game Commission Policy	
	Multiple Use of Lands Administered by the Department of Fish and Game. Lands under the administration of the Department are to be made available to the public for fishing, hunting, or other forms of compatible wildlife dependent recreational use, and for scientific studies whenever such use or uses will not unduly interfere with the primary purpose for which such lands were acquired.
California Public Resources Code	
5024	Establishes State inventory of historical resources and requirements to report sites that are or are potentially eligible for inclusion in the federal or state registry; also requires reporting of potential impacts to historical resources listed or potentially eligible for inclusion in those registries.
5024.5	Requires State agencies to notify and receive the concurrence of the State Historic Preservation Officer on proposed actions that would alter, transfer, relocate, or demolish historical resources listed in the registry; requires the agency to adopt prudent and feasible measures to eliminate or mitigate the adverse effects.
California Environmental Quality Act	
	Requires the Department to evaluate the environmental effects of its actions and to identify measures avoid, reduce, and mitigate significant impacts. Approval and implementation of the LMP qualifies as a “project” as defined in CEQA.
Joint Policy on Pre-, During, and Post-Fire Activities and Wildlife Habitat	
	Adopted by the Department and California Department of Forestry and Fire Protection in 1994; describes the measures that both agencies should undertake to protect lives and property with consideration of natural resources.

(c) To perpetuate all species of wildlife for their intrinsic and ecological values, as well as for their direct benefits to all persons.

(d) To provide for aesthetic, educational, and nonappropriative uses of the various wildlife species.

(e) To maintain diversified recreational uses of wildlife, including the sport of hunting, as proper uses of certain designated species of wildlife, subject to regulations consistent with the maintenance of healthy, viable wildlife resources, the public safety, and a quality outdoor experience.

2.3.7.2 14 CCR 550 and 551(q)

Sections 550 and 551(q) of CCR Title 14 are the key regulations regarding uses of the WA. Section 550 sets the following limitations on uses in all wildlife areas:

- The regional manager for the area has the authority to further restrict public use of the WA where such use is not specified in section 551 of Title 14.
- The Department may limit the number of persons entering the WA during any period for safety reasons.
- Any person organizing an event or gathering to be conducted in a wildlife area must obtain a use permit from the appropriate regional manager.
- Motor vehicles and trailers are prohibited except on public or established roads or designated areas.
- Vandalism and littering is prohibited. Where there are no designated receptacles, refuse resulting from a person's use of the area must be removed by that person.
- Persons using the area may not dig up, cut, damage, or remove trees, shrubs, vines, plants, or wood (except that vegetation may be cut to build blinds); dig up or remove humus, soil, sand, gravel, or rock; disturb the soil to locate bottles or artifacts; or collect and remove bottles or artifacts.
- Livestock is not allowed in the WA except under an authorized grazing permit issued by the Department.

Section 551(q), as amended in August 2004, specifies the following for the SFVWA:

- Parking allowed along San Felipe Road (S-2)
- Pedestrian access allowed from the road along the length of the wildlife area boundary
- No limit on daily hunter capacity
- Use and possession of rifles and pistols prohibited in designated areas
- Hunt days: daily from September 1 through January 31 and during spring turkey season (when only turkeys may be hunted)
- All legal species authorized for take
- No camping or trailers
- No D-16 General Deer Zone Tags west of San Felipe Road (S-2)
- Horse and bicycle use is limited to designated routes (designated routes have yet to be evaluated for suitability)
- Hunting dog training allowed only in designated areas from September 1 through February

2.1.2 Federal

Applicable federal regulations and policies primarily concern the protection of species, habitats, historic properties, and scenic highways/viewsheds. Table 2-2 summarizes the key provisions. Additional detail regarding key federal regulations follows the table, with an emphasis on provisions administered by the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS).

Table 2-2. Summary of Applicable Federal Regulations and Policies

Source/Section	Key Provisions
Endangered Species Act (16 USC 153 et seq.)	
Section 6	Allows Departments of Interior and Commerce to enter into management and cooperative agreements with States for the conservation of threatened and endangered species.
Section 9	Prohibits the taking of endangered species, except as provided under Sections 4, 7, and 10. "Taking" means "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct."
Section 4(d)	Allows for the creation of regulations necessary to conserve threatened species; allows Section 9 prohibition to apply to threatened species.
Section 7	Requires that federal agencies ensure that their activities will not likely jeopardize the continued existence of a listed species or result in the destruction or adverse modification of designated or proposed critical habitat. Also requires federal agencies to confer and consult with USFWS and NMFS, as appropriate, regarding effects of federal actions on listed species and critical habitat.
Section 10(a)	Allows USFWS and NMFS to authorize take incidental to otherwise lawful activities. Approval criteria are specified in the ESA and federal regulations. Further guidance is provided in Final Handbook for Habitat Conservation Planning and Incidental Take Permitting Process and the Five-Point Policy (an addendum to the Handbook).
Migratory Bird Treaty Act (16 USC 703-711)	
	Makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 CFR Part 10. Requires that project-related disturbance at active nesting sites be reduced or eliminated during critical phases of the nesting cycle.
Bald and Golden Eagle Protection Act (16 USC 668)	
	Prohibits, except under specified conditions, the take, possession, and commerce of bald or golden eagles. Special permit is required for take.
Clean Water Act (33 USC 1252-1376)	
Section 401	Requires an applicant to obtain certification for any activity that may result in a discharge of a pollutant into waters of the United States. In California, the Regional Water Quality Control Boards administer Section 401 and play a role in the review of water quality and wetlands issues.
Section 404	Requires permits for activities that could discharge fill or dredge materials or otherwise adversely modify wetlands or other non-isolated waters of the U.S. The U.S. Army Corps of Engineers administers the permitting process. Permit requirements typically entail impact avoidance, impact minimization, and mitigation to ensure no net loss of wetland acres or values.

Source / Section	Key Provisions
Protection of Wetlands Policy (Executive Order 11990)	
	Established a national policy to avoid adverse impacts on wetlands whenever there is a practicable alternative. On projects with federal actions or approvals, impacts must be identified in the environmental document, and impact avoidance must be considered.
National Historic Preservation Act (also see 36 CFR 800)	
Section 106	Requires federal agencies to take into account the effects of their undertakings on historic properties and comply with a specified consultation process. Also sets special requirements for protecting National Historic Landmarks.
National Scenic Byways Program	
	Provides federal recognition of highways with special scenic values and funding for the planning and management of the resources along such highways; also provides promotes maintaining public access to the viewshed.

2.3.7.1 Federal Endangered Species Act

Section 6 allows the federal Departments of Interior and Commerce to enter into management and cooperative agreements with States for the conservation of threatened and endangered species. California has several such agreements with the USFWS and NMFS.

Section 9 prohibits the taking of endangered species, except as provided under Sections 4, 7, and 10. "Taking" means "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct."

Section 4(d) allows for the creation of regulations necessary to provide for the conservation of threatened species and allows for Section 9 prohibitions to apply to threatened species.

Section 7 requires that federal agencies ensure that their activities will not likely jeopardize the continued existence of a listed species or result in the destruction or adverse modification of designated or proposed critical habitat. Section 7 also requires federal agencies to confer and consult with USFWS and NMFS, as appropriate, regarding effects of federal actions on listed species and critical habitat. As part of the consultation process, USFWS and NMFS may authorize take of listed species

Section 10(a) allows USFWS and NMFS to authorize take a listed species that is incidental to otherwise lawful activities. Approval criteria are specified in the ESA and federal regulations. Further guidance is provided in *Final Handbook for Habitat Conservation Planning and Incidental Take Permitting Process* and the *Five-Point Policy* (an addendum to the Handbook).

2.3.7.2 Migratory Bird Treaty Act

The Migratory Bird Treaty Act makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 CFR Part 10. It also requires that project-related disturbance at active nesting sites be reduced or eliminated during critical phases of the nesting cycle.

2.3.7.3 Bald and Golden Eagle Protection Act (16 USC 668)

The Bald and Golden Eagle Protection Act prohibits, except under specified conditions, the take, possession, and commerce of bald or golden eagles. A special permit is required for any authorized take.

2.3.7.4 Clean Water Act (CWA) (33 USD 1252-1376)

Section 401 requires an applicant to obtain certification for any activity that may result in a discharge of a pollutant into waters of the United States. In California, the Regional Water Quality Control Boards administer Section 401 and play a role in the review of water quality and wetlands issues.

Section 404 requires permits for activities that could discharge fill or dredge materials or otherwise adversely modify wetlands or other non-isolated waters of the U.S. The U.S. Army Corps of Engineers (ACOE) administers the permitting process. Permit requirements typically entail impact avoidance, impact minimization, and mitigation to ensure no net loss of wetland acres or values.

2.3.7.5 Protection of Wetlands Policy (Executive Order 11990)

This order established a national policy to avoid adverse impacts on wetlands whenever there is a practicable alternative. On projects with federal actions or approvals, impacts must be identified in the environmental document, and impact avoidance must be considered.

2.2 Existing Agreements

The Department has entered into agreements with federal, state, and local agencies that facilitate the planning and implementation of management activities in and adjacent to the SFVWA. Key agreements concern joint activities with CalFire and management of watershed resources.

2.2.1 CalFire Agreement

The Department has a Memorandum of Understanding (MOU) and Operating Agreement (OA) with CalFire regarding the Department's lands in San Diego County. The agreement covers fire management planning and response in wildlife areas and ecological reserves managed by the Department. CalFire and the Department also cooperatively manage the northwest portion of the SFVWA in connection with CalFire's Forest Legacy Program in San Diego County.

2.2.2 Watershed Management Agreement

In October 2004, the Department and several other parties entered in an MOU regarding the conservation and management of the San Felipe, Fish, Vallecito, and Carrizo Creek watersheds in San Diego and Imperial counties. The MOU provides for the coordination of activities to conserve biodiversity and restore habitat on public lands managed by the Department, California Department of Parks and Recreation (State Parks), and U.S. Bureau of Land Management (BLM) in the four watersheds. In addition to the Department, State Parks, and BLM, parties to the agreement include the U.S. Department of Interior's California Desert Management Project, USFWS, U.S. Geologic Survey (USGS), and University of California Davis Wildlife Health Center.

As stated in the MOU, the parties have agreed to:

1. Develop and update coordinated, interagency work plans and budgets (both long [5-year] and short [annual] term plans) for implementation activities prescribed through this agreement. The work plans will address the following goals that the parties hold in common:

    a. Natural resources inventory, monitoring, and assessment;

    b. Ecological restoration of damaged habitats, the control and eradication of invasive exotic species, and the reintroduction of native species, where feasible, within the watershed;

    c. Acquisition of private lands within the watershed from willing sellers, where practical and economically feasible; and

    d. Public education and outreach regarding the conservation of biological diversity, control of invasive exotic species, and management of the watershed. Private parties will be engaged through forms such as weed management areas, resource conservation districts, and resource conservation and development districts.

2. To share resources, to the extent possible and practical, to implement the work plan developed through this agreement.

3. To seek funding through agency budget processes and to cooperate in the development of grant requests to implement annual and long-range plans developed under this agreement.

4. To prepare an annual report on accomplishments of restoration work, grants obtained, or other activities resulting from work plans developed as a result of this Agreement. This annual report will be used to heighten awareness of, and highlight accomplishments to partners, grantors, and the public.

2.3 Plans and Programs

The following plans and programs were considered in preparing this LMP.

- The Conceptual Area Protection Plans (CAPPs) prepared by the Department when components of the WA were proposed for acquisition;

- CalFire's Forest Legacy Program, which provides for the preservation and management of forest resources on State lands;

- The California Wildlife Action Plan (CDFG 2006), which presents the Department's current strategy for addressing wildlife needs within the State's ecological units;

- Anza-Borrego Desert State Park General Plan (State Parks 2005), which guides management of adjacent State Park lands;

- Draft Resource Management Plan for BLM-administered lands in eastern San Diego County (BLM 2007), which directs management of adjacent federal lands;

- County of San Diego's General Plan, which applies to private and county-owned lands adjacent to the SFVWA (County of San Diego 2005a);

- Local conservation programs, in various stages of preparation and approval, for private properties and local agency lands in the vicinity of the SFVWA.

2.3.1 Conceptual Area Protection Plans

As part of the review and decision process by the California Wildlife Conservation Board (WCB), the Department prepared CAPPs for the lands acquired for inclusion in the SFVWA (also see "3. Property Description"). Among other things, each CAPP indicates the primary purpose of the proposed acquisition and includes preliminary management recommendations.

Table 2-3 presents the purpose statement and management recommendations in the CAPPs for the Rutherford Ranch and Rancho San Felipe acquisitions.

Table 2-3. CAPP Summary for the Rutherford Ranch and Rancho San Felipe Acquisitions

Acquisition/CAPP Component	Key Provisions
Rutherford Ranch	
Purpose and Goal	• Protect important summer and fawning habitat used by deer within the east-central desert of San Diego County. • Preserve foothill riparian and oak woodland habitat. • Assure long-term protection of movement corridor for wildlife between San Felipe Valley and adjacent public lands. • Retain and enhance the area for wildlife habitat and assure public access where it does not conflict with the maintenance of habitat values.
Preservation, Protection, and/or Enhancement of Species or Habitat	• Preserve and enhance important desert summer and fawning habitat for southern mule deer. Additional benefits for riparian non-game species and upland game species through preservation and enhancement of riparian and oak woodland habitats. Intensive management not required but significant benefits expected through implementation of various projects.
Reintroduction of Extirpated Species	• None planned at time of acquisition.
Public Use and Access	• Continued deer and upland game hunting and non-consumptive uses. No campground or day use facilities would be developed. Area has high scenic values; excellent opportunities for nature viewing, photography, scientific study, and education.
Cooperative Management Agreements	• Coordinated agreements for future exotic plant removal projects, riparian enhancement projects, and water source development.

Acquisition/CAPP Component	Key Provisions
Rancho San Felipe	
Purpose and Goal	• Protect important summer and fawning habitat for mule deer • Protect and restore unique riparian and freshwater marsh habitat • Assure long-term protection of wildlife movement corridors between Rancho San Felipe and adjacent public lands • Retain and enhance the area for wildlife habitat and assure public access where it does not conflict with the maintenance of habitat values
Preservation, Protection, and/or Enhancement of Species or Habitat	• Preserve and enhance important fawning and summer habitat for mule deer. Additional benefits expected for non-game species and upland game species preservation and enhancement of riparian, mesquite bosque, and upland habitats. Intensive management not required but significant benefits expected through implementation of projects.
Reintroduction of Extirpated Species	• None planned at time of acquisition.
Public Use and Access	• Increased public access to San Felipe Valley and surrounding public lands. Expanded opportunities for hunting, fishing, wildlife viewing, hiking, scientific study, and education.
Cooperative Management Agreements	• Continued coordination with BLM, State Parks, and San Diego County. Cooperative management agreements may be developed as additional lands placed in public ownership.

2.3.2 CalFire Forest Legacy Program in San Diego County

The Forest Legacy Program (FLP) as administered by CalFire consists of two separate but complimentary programs: the federal FLP and the California FLP. Both programs focus on:

- Environmentally important forestlands threatened by present or future conversion to non-forest uses;
- Partnerships with private landowners, other public agencies, and non-profit organizations; and
- Use of voluntary conservation easements to preserve forests on private lands.

The federal FLP was part of the 1990 Federal Farm Bill and is administered by the USDA Forest Service. It gives priority to lands that can be effectively protected and managed and that have important scenic, recreational, timber, riparian, fish and wildlife, listed species, and other cultural and environmental values.

In 1995, CalFire completed an “Assessment of Need” for an FLP in California. The assessment provided an overview of the state's forest resources, documented known and likely threats to private forests in California, described the need for California's FLP and how it would operate, and identified areas within participating counties where private landowners would be eligible to enroll in the program. Eight areas were identified in San Diego County, including two in the vicinity of the WA: Warner Springs and Pine Hills. The Warner Springs area extends east from Highway 76 near Lake Henshaw to the Los Coyotes Indian Reservation and the town of Ranchita. The Pines Hill area extends south from the eastern half of the Santa Ysabel Indian Reservation to Cleveland National Forest and Cuyamaca State Park, east to BLM lands and Anza-Borrego Desert State Parks, and west to Highways 79 and 78.

In 2000, the California FLP was enacted with the signing of SB1832. This law allows CalFire to acquire conservation easements or fee title for certain lands and for other public agencies and non-profit land trusts to hold easements acquired under the FLP. The intent of the program is to:

- Establish a cooperative effort that provides private forestland owners with new incentives to voluntarily protect their forestland; and
- Help implement ecosystem management and biodiversity conservation across California's diverse landscapes, while helping participating private forestland owners meet their management goals.

2.3.3 California Wildlife Action Plan

The California Wildlife Action Plan was developed by the Department in partnership with the University of California, Davis, in 2005 and approved in November 2006. In general, the plan addresses three primary questions:

- What are the species and habitats of greatest conservation need?
- What are the major problems and threats (“stressors”) affecting California’s native wildlife and habitats?
- What are the actions needed to restore and conserve California’s wildlife, thereby reducing the likelihood that more species will approach the condition of threatened or endangered?

The report divides the state in ecoregions and identifies conservation actions to address the various problems. Some of the proposed conservation actions are important for a few regions, while other conservations actions are needed throughout the state or are more appropriately implemented through a statewide program.

The SFVWA is at the eastern edge of the South Coast ecoregion (see "3. Property Description" for more details). Recommended conservation actions for the ecoregion include the following items relevant to management of the WA:

- Wildlife agencies and local governments should work to improve the development and implementation of regional NCCPs, which is the primary process to conserve habitat and species in the region's rapidly urbanizing areas.

- Wildlife agencies should establish regional goals for species and habitat protection and work with city, county, and state agency land-use planning processes to accomplish those goals.

- To address regional habitat fragmentation, federal, state, and local agencies, along with nongovernmental conservation organizations, should support the protection of the priority wildlife linkages identified by the South Coast Missing Linkages project.

- Public agencies and nongovernmental conservation organizations should invest in efforts to protect and restore the best remaining regional examples of ecologically intact river systems.

- Federal, state, and local agencies should provide greater resources and coordinate efforts to control existing occurrences of invasive species and to prevent new introductions.

- Federal, state, and local public agencies should sufficiently protect sensitive species and important wildlife habitats on their lands and should be adequately funded and staffed to do so.

- Federal and state agencies and nongovernmental partners should collaborate to institute appropriate fire management policies and practices to restore the ecological integrity of the region's ecosystems while minimizing loss of property and life.

- State and federal wildlife agencies, the U.S. Forest Service, state and county parks, BLM, and nongovernmental partners should collaborate to develop a comprehensive Southern California Outdoor Recreation Program to provide recreational opportunities and access that do not conflict with wildlife habitat needs.

The following recommendations in the plan for statewide actions also are relevant to management of the SFVWA:

- State and local agencies should allocate sufficient water for ecosystem uses and wildlife needs when planning for and meeting regional water supply needs.

- Federal, state, and local agencies should provide greater resources and coordinate efforts to control existing occurrences of invasive species and to prevent new introductions.

- Federal, state, and local agencies and nongovernmental conservation organizations, working with private landowners and public land managers, should expand efforts to restore and conserve riparian communities.

- In their conservation planning and ecosystem restoration work, state and federal wildlife agencies and land managers should consider the most current projections of the effects of global warming.

2.3.4 Anza-Borrego Desert State Park General Plan

The General Plan for the Anza-Borrego Desert State Park was adopted in February 2005. To supplement the General Plan, State Parks is preparing a series of management plans for trails, road, camping, and fire management. Key provisions of the adopted plan relevant to management of the WA are as follows:

- Plan with neighboring land and business owners, communities, and city, county, state, and Federal agencies to develop and maintain a buffer system outside of California State Parks ownership, along the outer edge of park boundaries.

- Protect sensitive habitats and species from visitor uses such as camping, off-highway vehicle use, equestrian activity, mountain biking, hiking, and other visitor uses not yet established in the Park.

- Concentrate exotic species removal efforts on rare and sensitive habitats and on exotic species that directly interact with sensitive species.

- Establish the We-nelsch Cultural Preserve Zone at the intersection of County Road S-2 and State Highway 78 in the San Felipe Valley.

- Promote cooperative research ventures with local educational institutions and other governmental agencies to complement site-management needs.

- Form cooperative partnerships with State and Federal agencies, and research institutions/organizations to develop scientifically sound objectives and methodology for prescribed burning.

- Maintain the Park's qualities of solitude and wildness. Management decisions will favor the desert environment, promote the health and well being of desert ecosystems, and promote those activities that are sustainable over time in providing for the health, inspiration, and education of Californians.

- Recognize that the aesthetic improvements that come with all natural resource restoration efforts, especially exotic plant removal and the removal/restoration of indiscriminant roads, contribute to a higher quality experience for all visitors.

- Actively work with local, federal, transportation, and regulatory agencies in the planning of future regional transportation and infrastructure projects.

- Discourage the fragmentation and isolation of habitat by such projects and ensure that adequate mitigation measures are incorporated into all road and infrastructure improvement and construction projects.

- Advocate measures that consider known information on wildlife use of landscape linkages, principles of conservation biology, and other professionally accepted design criteria.

2.3.5 Eastern San Diego County Resource Management Plan

BLM is in the process of adopting an updated Resource Management Plan (RMP) for the lands it administers in eastern San Diego County (including those adjacent to the SFVWA). A draft RMP and draft environmental impact statement (DRMP/DEIS) was published in April 2007. The DRMP/DEIS presents five alternatives for management of resources and public uses of approximately 103,303 acres. BLM's primary goals in developing the DRMP are to:

- address conflicts between motorized, mechanized, and non-motorized/nonmechanized recreationists;

- protect sensitive natural and cultural resources from impacts due to recreational use, livestock grazing, and other land uses; and

- provide guidance for renewable energy development.

Other stated objectives include contributing to groundwater recharge and providing additional recreational opportunities. Under BLM's preferred alternative (Alternative E), the following would apply to the BLM lands near the SFVWA (see DRMP/DEIS for additional detail):

- Wildlife habitat improvement projects would be developed and implemented in coordination with the Department and/or USFWS, as necessary.

- Fire management would be planned and implemented under an agreement with CalFire.

- All BLM-administered lands would be unavailable for livestock grazing.

- Waters would be maintained, restored, or enhanced for native game animal populations.

- The BLM-administered lands on northeast edge of the SFVWA would be identified as a Wilderness Study Area (WSA). Use of motor vehicles, motorized equipment or other forms of mechanical transport would not be allowed off boundary roads and existing ways.

- The BLM-administered lands surrounding the SFVWA would be designated as part of the Julian Destination Special Recreation Management Area (SRMA). Primary uses include 4X4 touring, equestrian use, mountain biking, target shooting, hunting, hiking and backpacking, wildflower and wildlife viewing, and rock hounding. This SRMA would be managed as a regional or national destination through collaborative partnerships in order to promote the continued use of the lands for these activities.

- Within the Julian Destination SRMA, two Wilderness Resource Management Zones would be designated: San Felipe Hills/San Ysidro and Buck Hills. The San Felipe/San Ysidro Hills Wilderness RMZ would be managed for it wilderness qualities. Primary activities would include hiking, backcountry camping, horseback riding, wildlife viewing, hunting, photography, picnicking, and wildlife and wildflower viewing. The Buck Canyon RMZ would be managed as a Limited Use Area emphasizing its historical, cultural and natural qualities while supporting recreational activities. An equestrian parking/turnaround area has been proposed for future development in Buck Canyon. Primary activities would include OHV riding, hunting, hiking, horseback riding, and wildlife viewing.

- BLM-administered lands would be designated as “closed” or “limited” areas with regard to vehicle use. In “limited” areas, restrictions would be placed on the numbers of vehicles; types and sizes of vehicles time or season of vehicle use; permitted or licensed use only; use on existing roads and trails; use on designated roads and trails; limited to administrative use only; and other restrictions. In “closed” areas, motorized vehicle use would be prohibited, with limited exceptions for OHVs.

2.3.6 County of San Diego General Plan and Community Plans

The County of San Diego is updating its General Plan, including the land use components for unincorporated lands in the County's community planning areas. The updated General Plan (GP2020) is scheduled for approval in the fall of 2007. The SFVWA and adjacent lands are located primarily within the boundaries of the Palomar Mountain/North Mountain Community Planning Area. Some of the adjacent lands on the west fall in the Julian Community Planning Area. Most of the adjacent lands on the east are in the Desert Community Planning Area and relatively close to the Borrego Springs Community Planning Area. These community plans are relevant to the LMP because they indicate the level of development and types of land uses expected in the vicinity of the WA over time, including projected increases in the local population.

2.3.7 Local Conservation Programs

Two local conservation planning efforts are relevant to the use and management of private and local agency lands adjacent to the WA: the East San Diego County Multiple Species Conservation Plan (East County MSCP) and the San Dieguito River Park Plan.

The East County MSCP is the final component of a countywide conservation program initiated by the region's local governments in coordination with the Department and USFWS under the NCCP program (see Table 2-1) and Section 10(a) of the ESA (see Table 2-2). The plan, which is still in the preliminary stages of development, will cover unincorporated private and local agency lands in the backcountry communities of Central Mountain, Cuyamaca, Descanso, Pine Valley, Desert/Borrego Springs, Julian, Mountain Empire, Boulevard, Jacumba, Lake Morena/Campo, Potrero, Tecate, portions of Dulzura, and Palomar/North Mountain. The SFVWA is part of the interconnected public lands that characterize the planning area. A draft plan is expected sometime in 2008.

The San Dieguito River Park Plan is a set of goals, guidelines, and conservation strategies adopted by the San Dieguito River Valley Regional Open Space Park Joint Powers Authority (JPA). JPA members include the County of San Diego and the Cities of Del Mar, Escondido, Poway, San Diego and Solana Beach. One of its primary goals is to create a natural open space park in the San Dieguito River Valley. The planning area for the river park extends along a 55-mile corridor that begins at the mouth of the San Dieguito River in Del Mar, and ends just east of Volcan Mountain. Lands acquired by the JPA in Arkansas Canyon are slated to be transferred to the Department and managed as part of the WA (see "3. Property Description" for more details).

2.4 Public Scoping Process

The scoping process for the LMP began in 1998 following the initial acquisition of 566 acres for the WA. At that time, the Department solicited comments on proposed uses of the WA and ideas for the LMP at a public meeting. Work on the LMP subsequently was postponed until other acquisitions were completed. A second public meeting was held in November 2005 in Ramona. Following the meeting, written comments were received from several individuals and stakeholder groups, including a petition signed by 214 people.

Both public meetings were attended by local land owners, staff from public agencies, conservation groups, outdoor user groups, and other interested parties. Recommendations made at the meetings and/or included in written statements received by the Department are summarized below by general topic area.

Topic: Resource Management

- Initiate an aggressive revegetation plan, with an emphasis on restoring riparian areas.
- Give priority to tamarisk removal and other invasive species control.
- Allow water source development so year round surface water would be available.
- Allow for species-specific management of cover and topography for mammal and game bird breeding, nesting, brood safety, roosting, escape, etc.
- Solicit habitat management recommendations from a variety of biologists and sporting-dog clubs.
- Allow agriculture in multiple areas (1-10 acres) to provide food sources for game mammals and birds, including but not limited to deer, dove, quail, pheasant, turkey, waterfowl and other species.
- Allow for the planting of native and non-native fish in ponds and wetlands.
- Include controlled burns in the management plan

Topic: Public Access

- Allow for maximum managed seasonal access to entire WA for fishing and hunting of all species by all means during their respective seasons.

- Do not open WA to vehicles; keep WA roads closed to keep cars, trucks, other vehicle/traffic out.
- Allow public access points/facilities at strategic locations on edges of WA to mitigate and manage impacts from ingress/egress and parking.
- Consider improving public access by creating parking areas along access roads and allowing vehicle access within the WA.
- Consider allowing vehicular access for the disabled, including access to hunting areas.
- Consider allowing mountain bikes and regular bikes only on designated trails; all other access by foot only.
- Consider allowing horse access.
- Consider road-crossing problems at San Felipe Road.
- Take into account any future plans to widen San Felipe Road or State Highway 78.

Topic: Hunting

- Consider allowing hunting of all legal species outside the current seasonal window.
- Consider allowing deer hunting west of San Felipe Road.
- Open southern portion of WA soon because hunting in north was changed by Pines Fire.
- Open entire WA to hunting.
- Keep the area wild.
- If possible, provide an area for access/use by disabled veterans. (This may require allowing veterans to use vehicles within parts of the WA.)

Topic: Hunting Dog Training

- Maintain and expand the dog-training area to allow for greater access and more effective ongoing training. Expand the time the area is open.

- Consider moving the dog-training area deeper into WA and enlarge; put parking inside WA.

- Consider developing dog-training area large enough to accommodate large-scale hunt tests with far-ranging dogs.

- Consider adding a dog field trial area in the old agricultural areas within the WA.

Topic: Other Facilities

- Consider improvements to entry and exit areas

- Locate parking and dog training areas at a significant distance from paved roads (at least 200 yards away from paved road)

- Consider future provision of restrooms, maintenance and storage facilities, and interpretive center/meeting area.

Topic: Other

- Consider allowing alternate landing locations for para-gliders and hang-gliders.

- Coordinate allowed uses with those on adjacent public lands.

- Coordinate management of biological and cultural resources with public agencies managing the same types of resources on adjacent lands.

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3. Property Description

This section describes:

- The location of the SFVWA;
- The acquisition history of the SFVWA, including covenants and restrictions attached to the transactions;
- Pending land transfers and acquisitions (at the time this LMP was prepared);
- Facilities (designated use areas), structures, and management roads on the property;
- Past and current uses and management of the property; and
- Adjacent ownerships and uses.

The physical characteristics, natural resources, cultural resources, visual resources, and fire history of the SFVWA are described in "4. Resource Inventory."

3.1 Location

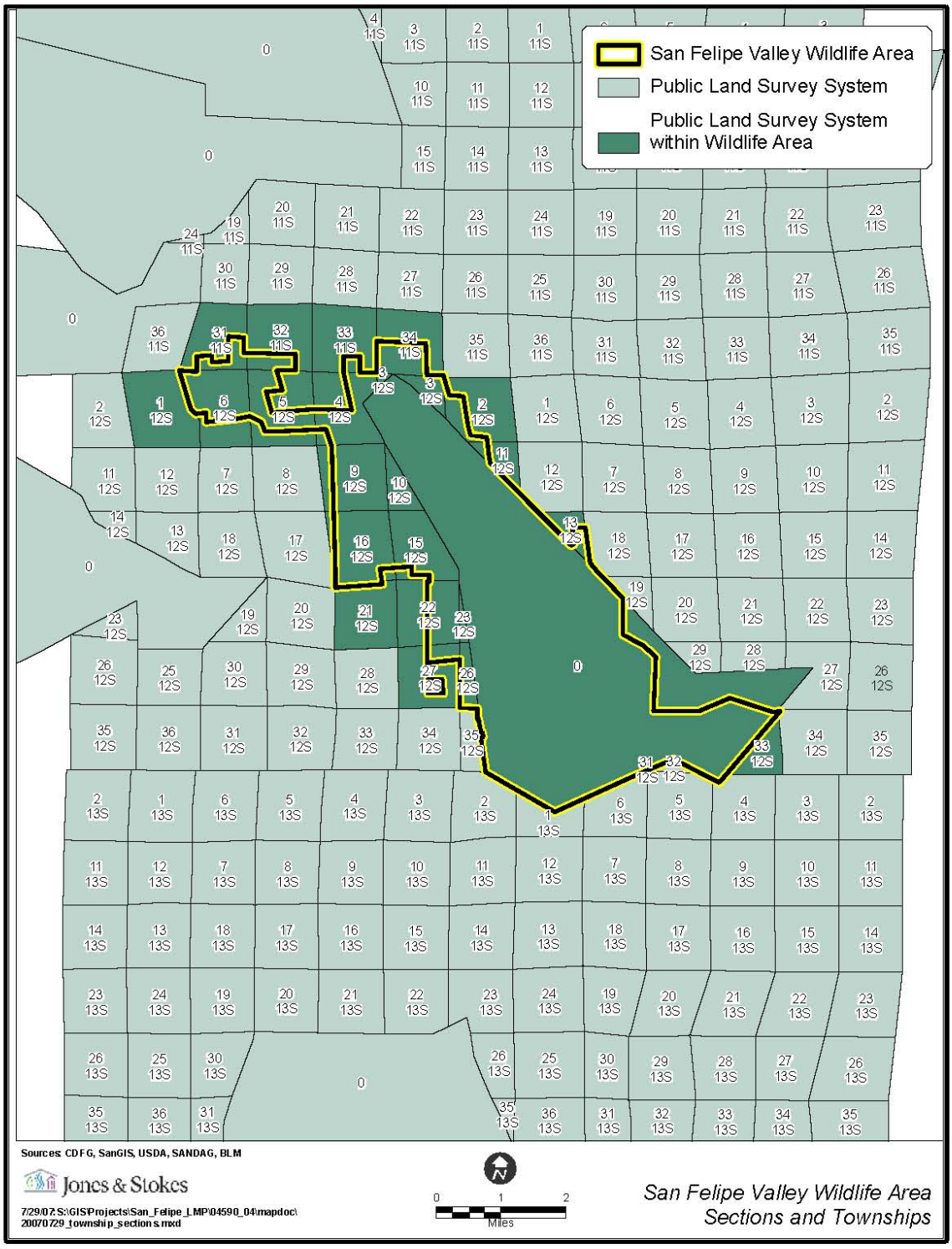
The SFVWA is located in northeastern San Diego County at the juncture of State Highway 78 and San Felipe Road (County Highway S-2). Figure 3-1 shows the location of the SFVWA in relation to existing communities and highways in northeastern San Diego County. Figure 3-2 shows the WA in terms of Township, Range, and Section numbers.

The SFVWA extends north along San Felipe Road to approximately four miles south of the juncture of San Felipe Road with County Highway S-22. Most of the WA is west of San Felipe Road and north of State Highway 78. Public access to the WA is off of San Felipe Road, approximately six miles north of the juncture with Highway 78.

As described in more detail in "4. Resource Inventory," the SFVWA is in the transition zone between the Volcan Mountains and eastern edge of the Colorado Desert. The WA also is in a transition zone between the type and levels of development in the mountain and desert communities of San Diego County.

Figure 3-1. Regional Context

Figure 3-2. Section and Township Numbers of Properties in the SFVWA



3.2 Acquisition History

The lands currently in the SFVWA previously were part of two large, contiguous, private holdings in San Felipe Valley: Rutherford Volcan Mountain Ranch (Rutherford Ranch) and Rancho de Valle San Felipe (Rancho San Felipe). The transactions, including covenants and restrictions attached to the acquired lands, are described below. Figure 3-3 indicates which lands in the SFVWA were part of Rutherford Ranch and which were part of Rancho San Felipe.

3.2.1 Rutherford Ranch

The Rutherford Ranch lands comprise the northern half of the SFVWA and include approximately 6,690 acres.

3.2.1.1 Acquisition Sequence

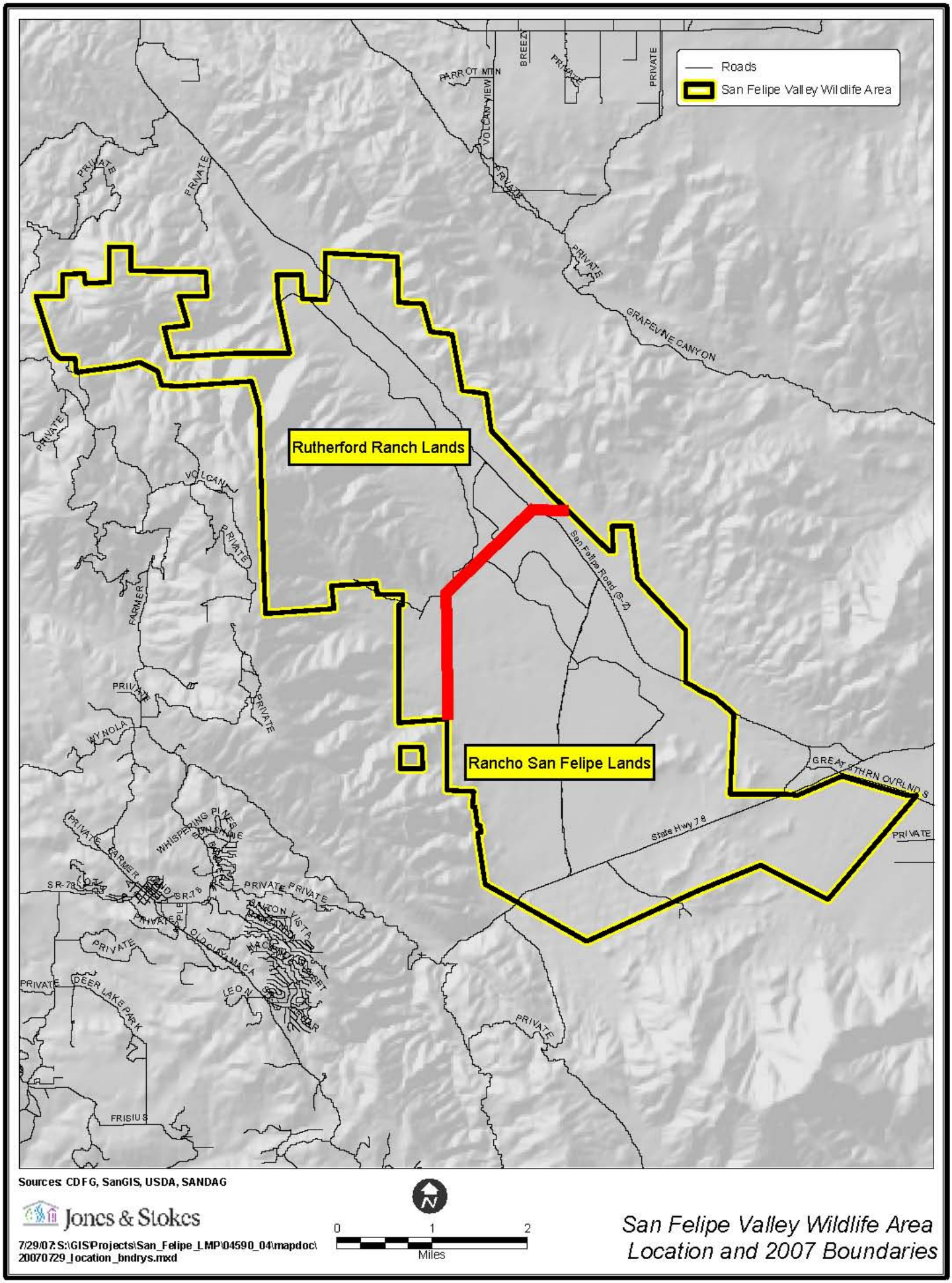
The Rutherford Ranch component of the SFVWA was acquired in phases over a ten-year period (1994-2004) through actions involving CalFire, Trust for Public Land (TPL), WCB, California Department of Transportation (Caltrans), San Dieguito River Park JPA, and the Department. In the early 1990s, TPL negotiated an innovative deal with the Rutherford family to purchase an exclusive long-term option on the ranch. TPL then arranged for public agencies and private conservancies to purchase the lands. Approximately 12,700 acres of the ranch were acquired under this arrangement, including approximately 6,690 acres in the WA and approximately 5,700 acres of parklands and preserves outside the WA. The SFVWA lands were acquired with funds from a variety of sources, including: State Propositions 70, 117, 12, and 40; grant programs administered by Caltrans, and CalFire's FLP.

3.2.1.2 Covenants and Restrictions

The following covenants and restrictions apply to the Rutherford Ranch lands:

- Easements were granted over designated roads in the WA for ingress, egress, and underground utilities to private properties outside WA.
- Easements were granted over a designated private road outside WA to allow access to northwestern corner of WA. Use of the road is limited to Department staff, CalFire staff, and parties accompanied by Department staff; advance notice to landowner is required.
- Coal and mineral patents were not conveyed with the purchase of the lands.

Figure 3-3. Rutherford Ranch and Rancho San Felipe Components of the SFVWA



Sources: CDFG, SanGIS, USDA, SANDAG

Jones & Stokes

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0 1 2 Miles

San Felipe Valley Wildlife Area Location and 2007 Boundaries

- Public rights-of-way along San Felipe Road were not conveyed with the purchase of the lands.

- The lands acquired under the Caltrans programs must be managed and maintained to preserve the scenic viewshed.

3.2.2 Rancho San Felipe

The Rancho San Felipe lands comprise the southern half of the SFVWA and include approximately 7,485 acres.

3.2.2.1 Acquisition Sequence

The Department initiated the Rancho San Felipe acquisition concurrent with the final phase of the Rutherford Ranch acquisitions. In 1998-99, State Parks had purchased 1,723 acres in the eastern portion of the Rancho for inclusion in Anza-Borrego Desert State Park. The Rancho San Felipe acquisition presented the unique opportunity to nearly double the size of the SFVWA while also linking the WA to the State Park and BLM lands. The transaction was completed in late 2003, with the grant deed transferred to the WCB in January 2004. Unlike the Rutherford Ranch actions, the acquisition was not phased and did not entail conveyances from or actions by other agencies.

3.2.2.2 Covenants and Restrictions

The following covenants and restrictions apply to the Rancho San Felipe lands:

- An easement and right-of-way for all coal and minerals in the lands was given in accordance with the patent recorded in 1940 (location or route of easement cannot be determined from the record).

- Public rights-of-way along Highway 78 and other public roads were not conveyed with the property.

- Easements and rights-of-way for public road purposes were granted over and across Road Survey No. 903 and 755 in accordance with records dated 1942, 1949, and 1964.

- Utility easements (pole lines and/or underground conduits and incidental purposes), together with rights of ingress and egress, were granted to San Diego Gas and Electric Company in accordance with records dated 1958, 1964, 1970, 1973, and 1996.

- An easement for ingress and egress and incidental purposes was granted to an iron works in accordance with records dated 2001.

- An easement for trail (Pacific Coast Trail) and incidental purposes in favor of the U.S. was recorded in 1984.

The grant deed also notes that a portion of the property is within the boundaries of Agricultural Preserve No. 25.

3.3 Pending Transfers and Acquisitions

Rutherford Ranch lands acquired by the San Dieguito River Park JPA are slated for conveyance to the State for inclusion in the WA. As of August 2007, there are no pending acquisitions and no other pending transfers.

3.3.1 Arkansas Canyon Transfer Lands

Concurrent with the Department's acquisitions, the San Dieguito River Park JPA acquired 390 acres of Rutherford Ranch in Arkansas Canyon, adjacent to lands owned by San Diego County and within lands targeted for future acquisition by the Department. The JPA's acquisition was funded through grant programs administered by Caltrans:

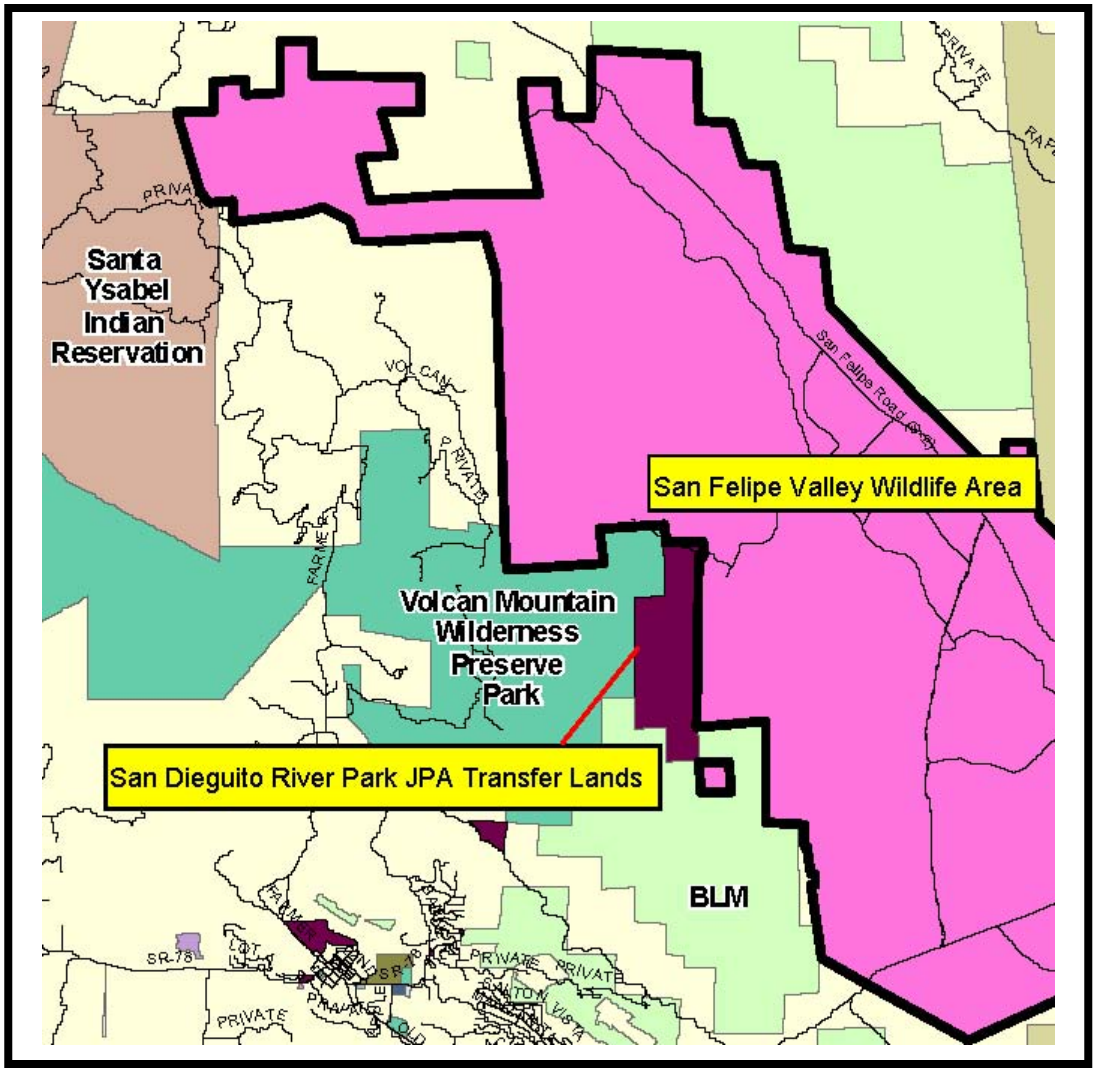
- A federal grant under the Intermodal Surface Transportation Efficiency Act (ISTEA) to acquire and preserve lands in a scenic view shed; and

- A state grant under the Environmental Enhancement Mitigation Program (EEMP) to acquire and preserve lands with Engelmann oaks.

In 1995, the JPA agreed in principle to transfer ownership of the parcels to the Department for inclusion in the SFVWA provided that management of the property included protection for sensitive resources and all other terms and conditions of the grants were met. Those terms and conditions include compliance with Section 106 of the National Historic Preservation Act and preparation of a resource management plan for the property. Section 106 compliance was initiated in connection with the preparation of the "San Felipe Valley Wildlife Area Archeological Management Plan" by Susan Hector, Ph.D., in 2002 (see "4. Resource Inventory). This LMP is the proposed management plan for the parcels.

Figure 3-4 shows the location of the JPA transfer properties in relation to the existing SFVWA and adjacent lands.

Figure 3-4. Location of the Arkansas Canyon Transfer Lands



3.4 Facilities, Structures, and Roads

Existing facilities and structures in the SFVWA include: perimeter fencing and gates; a kiosk and small parking area off of San Felipe Road; a dog-training area marked by wooden posts near the parking area; a ranch house, barn, and associated outbuildings (ranch complex); windmills; wells; water troughs; wooden and concrete enclosures inserted into natural springs; and earthen berms that were constructed to create ponds. Most of the existing structures are on the Rancho San Felipe lands. The WA also includes the remnants of past mining operations and structures that qualify as prehistoric and historic resources.

The internal access roads are unpaved and are limited by terrain in the northern portion of the WA. A north-south road runs parallel with San Felipe Road to the west of San Felipe Creek from the northeast edge of the WA to the ranch complex. An east-west road branches off from the creek road near the mid-section of the WA and extend through Arkansas Canyon. Access to the ranch complex is provided via a north-south road extending between Highway 78 and San Felipe Road. There also is a road loop near the ranch complex.

Access to the northwestern corner of the WA is via a private road on property outside the WA. Use of the road is restricted by the terms and conditions of the easement granted by the landowner. There also are private roads on the southern and northwestern edges of the WA that provide access to private property outside the WA. The Department has granted access easements over specific roads as part of the terms and conditions of the Rutherford Ranch and Rancho San Felipe acquisitions. The final details of some road easements for the Rancho San Felipe acquisition are still pending.

Figure 3-5 shows the location of the information area with kiosk, hunting dog training area, ranch complex, and internal management roads.

3.5 Use and Management Profile

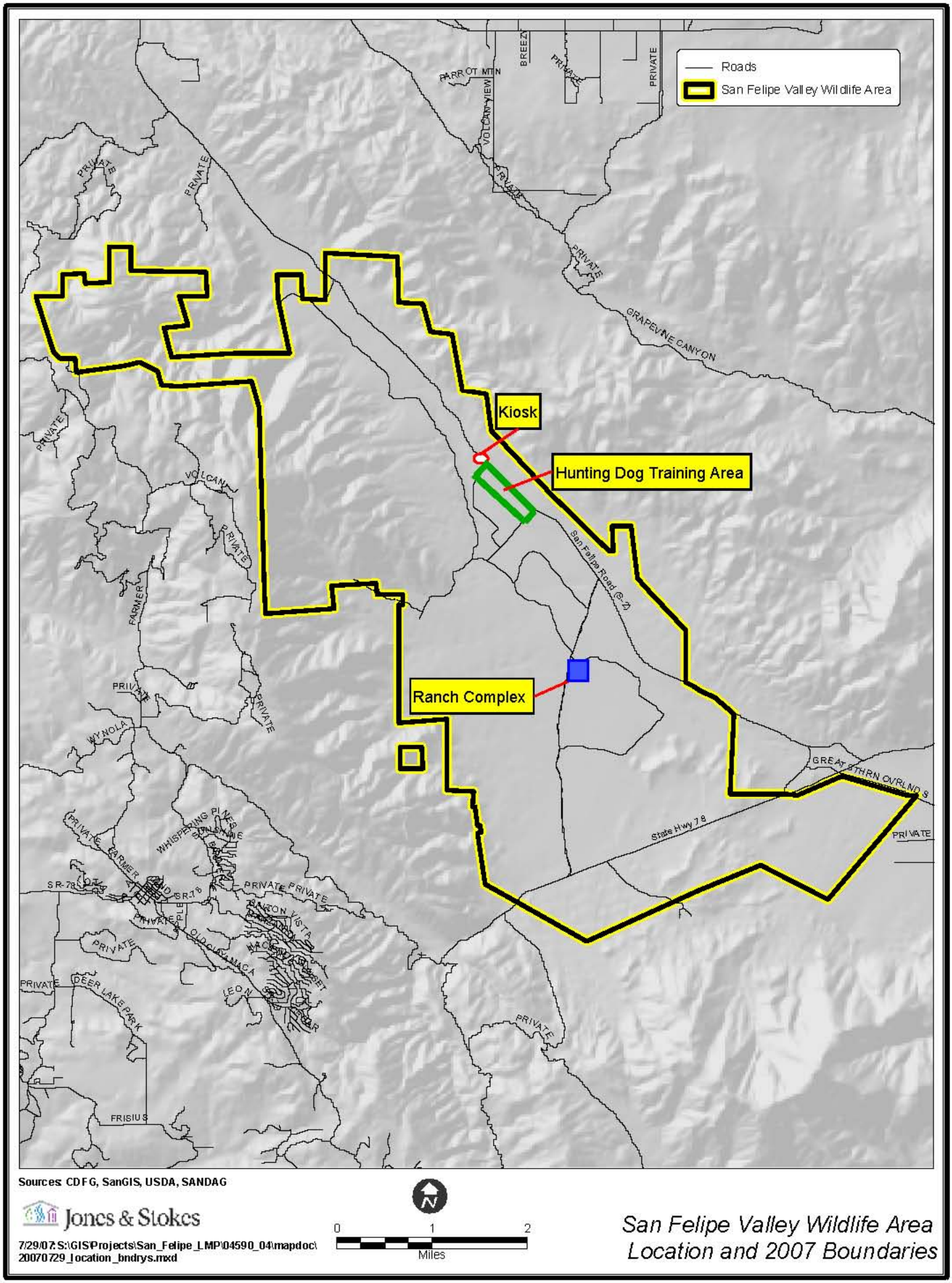
This section summarizes past and current uses of the properties in the WA, including current management of the lands. Additional information about past uses is provided in “4. Resource Inventory.”

3.5.1 Past Uses

Tax records indicate the earliest known cabins at Rutherford Ranch were built in the mid-1860s. Although the ranch supported vineyards, orchards, and agricultural crops, it was primarily used for grazing cattle and sheep. Human activity has been limited, leaving the ranch relatively undisturbed. Likewise, Rancho San Felipe was a family owned operation for nearly a century. Historically it was used for cattle grazing, limited agriculture, and private recreational uses.

At the time the acquisition was proposed, the Rutherford Ranch lands were being used primarily for light recreational use, including fishing and hunting and were zoned A-70 and A-72 (Agricultural Preserve) with a minimum lot size of 4, 8, and 20 acres, depending on the topography. The Rancho San Felipe lands were being used for cattle grazing and private recreational uses such as hunting and horseback riding and were zoned as A-72(8), (General Agriculture) with a minimum lot size of 8 acres.

Figure 3-5. Facilities, Structures, and Roads in the SFVWA



3.5.2 Current Uses

The northern portion of the WA is currently open to the public, excluding lands in Arkansas Canyon and two small buffers for adjacent private property near San Felipe Road on the northern edge of the WA. The Rancho San Felipe and Arkansas Canyon lands are temporarily closed and will be opened to the public in accordance with the actions identified in this LMP in "5. Management Program".

As indicated in section 2.1.1, the public uses currently allowed in the WA are as specified in 14 CCR 550 and 551(q). No motor vehicles are allowed in the WA. There are no limitations on the number of hunters allowed per season. All legal species may be taken, but restrictions apply to hunting dates, use of rifles and pistols in designated areas, and deer hunting west of San Felipe Road. Hunting-dog training is allowed in the designated area from September 1 through February.

3.5.3 Current Management

Current management activities include wildlife management and monitoring, habitat management and monitoring, wildlife-dependent recreation, facility management, fire management, and related activities.

Wildlife management and monitoring are focused on upland game, mule deer, and mountain lions and also include the species inventories and habitat assessments conducted for this LMP (see "4. Resource Inventory").

Habitat management and monitoring currently occur on a limited basis, primarily in connection with wildlife monitoring and facilities management. (Large-scale, ongoing management activities are proposed in this LMP as described in "5. Management Program".) Monitoring and management activities include:

- Removal of tamarisk and Russian olives in San Felipe Creek and its tributaries, undertaken with the assistance of State Parks and volunteers;
- Enhancement/maintenance of existing springs and ponds;
- Repair and maintenance of windmills and associated troughs or drinkers for wildlife watering use;
- Cowbird trapping in riparian habitat of San Felipe Creek, undertaken in cooperation with State Parks;
- Removal of debris and associated nonnative vegetation throughout the WA to allow regrowth of native vegetation;

- Elimination of non-essential road segments and use of mechanical equipment to rip/contour roadbeds to allow for regrowth of native vegetation;

- Electroshocking of ponds and sections of San Felipe Creek to remove nonnative fish species (bass and green sunfish); and

- Remediation monitoring and management by CalFire and the Department in the Pines Fire burn areas.

Facility management includes installation and maintenance of fencing, gates, and signage; maintenance of the onsite windmills; road inspection and smoothing; and protection of sensitive resources (via signage and access constraints).

Fire preparedness, fire response, and post-fire activities are planned and implemented in cooperation with CalFire. The 2002 Pines Fire has been the primary fire event in the area since formation of the WA.

3.6 Adjacent Ownerships and Uses

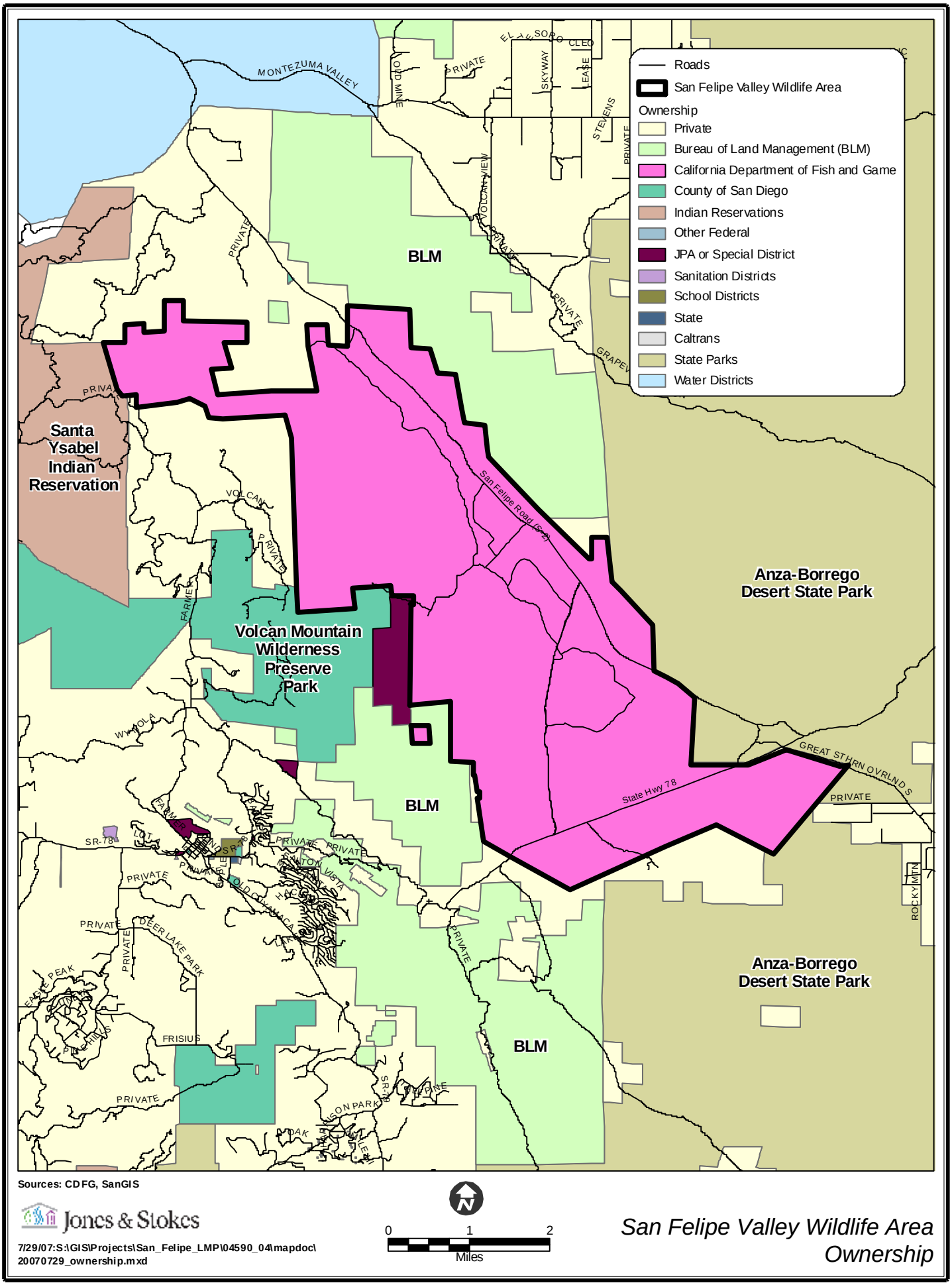
Lands adjacent to the SFVWA include a combination of private, public, and tribal lands (Figure 3-6). Private lands occur on the north, northwest, south, and southwest. The adjacent public lands include County, State, and Federal ownerships. San Diego County's Volcan Mountain Wilderness Preserve Park borders the WA on the west and is connected to lands owned by the San Dieguito River Park JPA. Anza-Borrego Desert State Park borders the WA on the east and south. Federal lands administered by BLM are located on the eastern and western edges of the WA. The Santa Ysabel Indian Reservation borders the northwestern-most edge.

3.6.1 Private Lands

The private lands immediately adjacent to the SFVWA, including the remaining parcels of Rutherford Ranch, are within the North Mountain and Julian Community Planning Areas and are classified as Rural Lands (RL) with minimum lot size of 80 or 160 acres. Other small scattered private ownerships occur along the boundary of the WA.

Table 3-1 indicates the existing and projected populations in these and the other Community Planning Areas in the vicinity of the WA. By 2020, the total population in the identified planning areas is expected to triple, with the largest increase projected for Borrego Springs. The population increases will translate into increased demands for and use of public open space, even in east County areas where there are substantially more public than private lands. The increases also will affect traffic levels on Highway 78 and San Felipe Road.

Figure 3-6. Land Ownership in the Vicinity of the SFVWA



San Felipe Valley Wildlife Area Ownership

Table 3-1. Population Estimates for Community Planning Areas near the SFVWA

Community Planning Area	Current Population	2020 Population
Julian	3,111	3,920
Palomar	245	520
North Mountain	2,619	5,280
Desert	679	1,410
Borrego Springs	2,592	14,030
Total	9,246	27,180

Source: County of San Diego GP2020 website accessed in October 2006 at http://www.sdcounty.ca.gov/cnty/cntydepts/landuse/planning/GP2020/comm.htm

3.6.2 Public Lands

The SFVWA is part of a contiguous block of public lands administered by BLM, State Parks, San Diego County Parks, and the Department. Public access and uses, primarily wildlife-dependent non-consumptive uses, are allowed on all of the public lands. The SFVWA and BLM-administered lands also provide public hunting opportunities.

3.6.3 Tribal Lands

The Santa Ysabel Indian Reservation includes approximately 15,300 acres and has a population of 250. There is not a resource management plan in place for the section of the reservation adjacent to the WA.

4. Resource Inventory

This section describes the physical features and biological resources of the WA, including unique features and special-status resources that may require special management.

4.1 Physical Setting

The physical setting of the SFVWA reflects its location in a unique transition zone between the Volcan Mountains and the western edge of the Colorado Desert.

4.1.1 Regional Setting

The Volcan Mountains are part of the Peninsular Ranges, which begin at Mount San Jacinto and continue south into Baja California. They form a prominent geological barrier in San Diego County, separating the coastal foothills to the west from the deserts to the east. Anza-Borrego is the western edge of the Colorado Desert, extending southeast from the Peninsular Ranges in Riverside and San Diego to the Salton Sea in Imperial County and south to the border with Mexico. San Felipe Valley lies between the Volcan Mountains on the west and San Felipe Hills on the east. It begins where the mountains and foothills converge, below the headwaters of San Felipe Creek at Teofulio Summit. The northernmost portion of the valley is east of Matagual Creek and south of Buena Vista Creek, where the Volcan Mountains and San Felipe Hills converge. The valley widens as it extends south along San Felipe Creek.

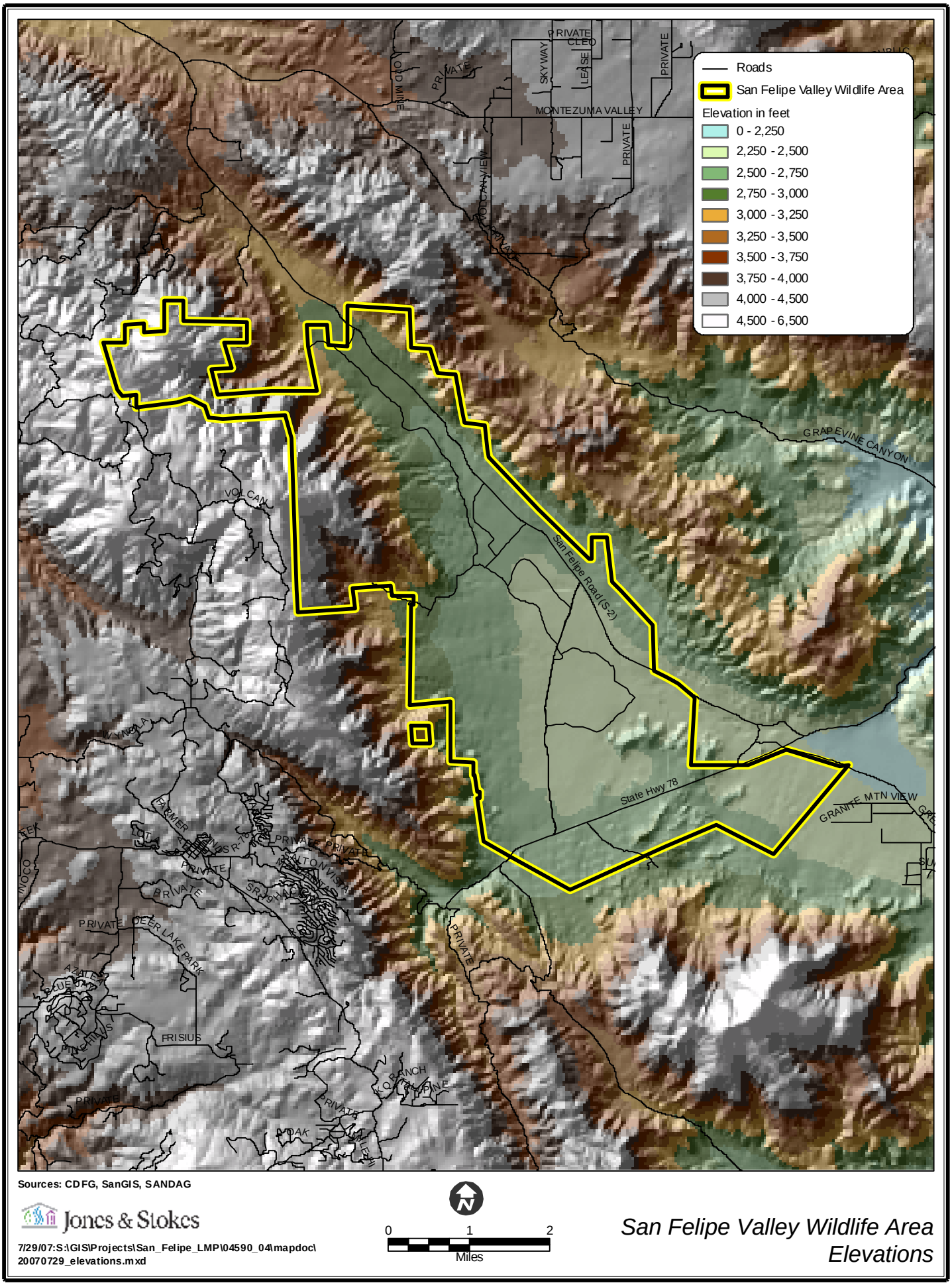
4.1.2 Topography and Elevations

The WA encompasses most of San Felipe Valley north and just below Highway 78. It extends into the Volcan Mountains on the west and northwest and into the San Felipe Foothills on the east.

The northern portion of the WA includes a combination of mountainous terrain, deep canyons, and foothill slopes. The area is characterized by steep (>25%) and moderate (10%-25%) slopes. Elevations range from 5,350 feet at the crest of Volcan Mountain to 2,500 feet in the valley (Figure 4-1).

South and east of Arkansas Canyon, where the valley widens, the terrain in the WA is flat (slopes <10%) or characterized by moderate slopes (10%-25%). Elevations in this area range from 2,100 feet along San Felipe Creek to 2,800 feet in the Cigarette Hills. Most of the lands have an elevation between 2,200 to 2,400 feet.

Figure 4-1. Elevations in the SFVWA



4.1.3 Climate

The climate in the WA is heavily influenced by the surrounding topography. Temperatures typically are mild during the winter and hot during the summer, but seasonal highs and lows within the WA vary depending on location (mountains versus valley floor). Two rainy seasons occur: during the cool months of November through March, when the Pacific front pushes rainstorms east from the coast; and between July 1 and September 30, when the west to east pattern is largely reversed.

Given its location at the north end of the valley between the Volcan Mountains and San Felipe Hills, the WA receives more rainfall than areas on the desert floor to the south and east. There also is a high flood risk along San Felipe Creek and at the valley floor.

When winter storms crest the mountains, winds accelerate through the valley. San Felipe Valley is one of several wind-funnels producing above-average and sometimes dangerous wind velocities in Anza-Borrego during winter storms. In late spring, the strong frontal winds, which spill off the western mountains, are replaced by milder down-canyon winds. Santa Ana winds occur in fall and early winter. Typically these are light winds, usually not exceeding 15 miles per hour. However, wind velocities can increase dramatically below certain canyons on the western slopes. In December of 1996, winds reached a velocity of 85 to 90 miles per hour in the vicinity of Santa Ysabel, just a few miles west of Julian.

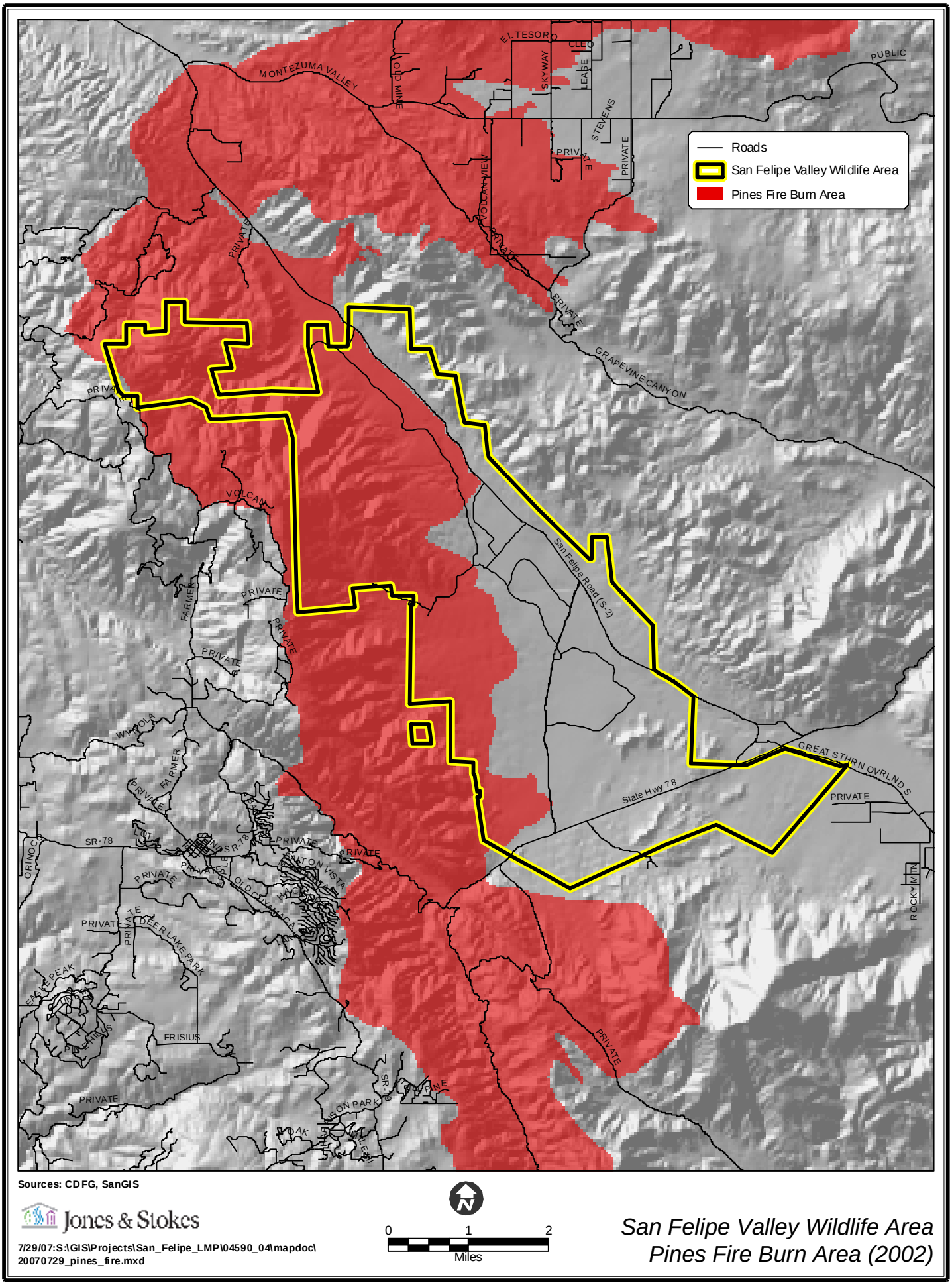
4.1.4 Fire History

The SFVWA and adjacent lands are in an area where CalFire rates the fire threats as moderate to severe. The most significant fire event in the recent past was the 2002 Pines Fire, which consumed approximately 50% of the land cover in the WA (Figure 4-2). The Cedar and other major wildfires in San Diego County in 2003 approached but did not touch the WA. Smaller-scale fires due to lightning occur in the WA infrequently – e.g., a relatively small fire was ignited by lighting on Volcan Mountain in the summer of 2006. (See section 4.4.4 for information about vegetation types burned in the 2002 Pines Fire.)

4.1.5 Air Quality

San Felipe Valley is within the San Diego Air Basin and is not currently monitored by any agency for air quality. The San Diego Air Basin is a non-attainment area under California Ambient Air Quality Standards for ozone (O_3) and particulate matter less than or equal to ten microns (PM_{10}). Because of its protected location and distance from major urban pollution sources, San Felipe Valley often has good air quality. However, air pollution in the form of smog, chemical fumes, smoke, and particulate matter occurs on occasion. Most of the pollution is wind-transported from urban sources to the west and north. Tropical storm fronts occasionally blow in fine dust and silt from the east.

Figure 4-2. Pines Fire Burn Area



4.2 Geology and Soils

The following information about the geology and soils of the WA is based on studies of the Volcan Mountains and Anza-Borrego Desert State Park and databases maintained by the U.S. Department of Agriculture and USGS.

4.2.1 Geology

Two geomorphic provinces dominate the regional geological setting of the WA: the Peninsular Ranges and the Colorado Desert.

The Peninsular Ranges geomorphic province consists of a vast complex of batholithic rocks that extends from Baja California northward to the Transverse Ranges. The Peninsular Ranges formed about 22 million years ago, when the Pacific Plate began to move northwest relative to the North American Plate and caused a renewal of volcanic activity. The stress and tension of this movement formed the San Andreas Fault. The flat plain that had been the west coastal area tipped up like a giant wedge forming the Peninsular Ranges – including the Volcan Mountains – from south of Los Angeles to the center of Baja California. From the top of Volcan Mountain, the gulf escarpment on the east face of the mountains to the Salton Trough is clearly visible. At the northern end, the San Andreas Fault truncates the Peninsular Ranges and the Transverse Ranges.

The Colorado Desert is a region bounded on the east by the Colorado River, on the west by the Peninsular Ranges, on the south by the Sea of Cortez, and on the north by the Transverse Ranges. The province has northwesterly geological structural trends exhibited by faults, mountain ranges, and the Salton Trough. In the Salton Trough, the most dominant structural features are faults. The faults trend northwest–southeast and include the San Andreas, San Jacinto, and Elsinore fault zones. Along with their regional extensions, these faults account for the current geological structure of the region.

- The San Andreas fault enters the Salton Trough at the northwest end of the Coachella Valley. Regionally, the fault is traceable from the town of Niland east of the Salton Sea northward through San Gorgonio pass. The fault zone continues southward into Mexico as the Sand Hills and Algodones Fault.

- The San Jacinto fault zone is a major strand of the San Andreas Fault system. It extends southeastward from Cajon Pass as a series of splays into the Salton Trough. It branches into the Clark Valley fault, the Coyote Creek fault, and the Superstition Hills and Superstition Mountain faults in Anza-Borrego Desert State Park. The San Jacinto fault is an extremely active system.

- The Elsinore fault zone extends from the northern Peninsular Ranges southward to the Gulf of California. The fault is parallel and west of the San Jacinto fault zone. It traverses the Volcan Mountains in a northwest-southeast direction. To date, there has been little recorded seismic activity, although the fault is capable of generating a 7.3+ earthquake.

San Felipe Valley lies between the Elsinore and San Jacinto faults zones and between Volcan Mountain and the San Felipe Hills. The geologic formations on the west reflect the forces that formed the Peninsular Ranges; the formations on the east reflect the ancient deposits of the Colorado River.

The Volcan Mountains are underlain by Jurassic/Cretaceous rocks of the Southern California Batholith, composed of undifferentiated granites and tonalites. Triassic metamorphic rock also occurs, composed of micaceous schist, gneiss, and quartzite (known as Julian schist). As erosion occurred, the Julian schist became exposed and was found to be layered with rich ore-bearing quartz with unusually high grades of gold. This discovery led to extensive mining activities in and around Julian and Anza-Borrego.

Two formations associated with the ancient Colorado River are found in the San Felipe Hills: the Yuha formation of the Imperial Group and Palm Springs, Borrego, and Brawley formations of the Colorado River Group. Yuha is an early to late Pliocene formation. It is a fossiliferous rhythmic series of fluvial and deltaic silt and mud, consisting of oyster coquina beds (the Elephant Knees) interbedded with fluvial sands of the ancestral Colorado River. The Colorado River Group consists of Pliocene–Pleistocene deposits laid down by the ancestral Colorado River. The Palm Spring Formation is a high-energy, nonmarine delta-plain deposit, characterized by massive beds containing abundant concretions with subordinate ripple-laminated overbank claystones and siltstones. The Borrego Formation is a low-energy lacustrine/estuarine deposit. Sediments include dark red-brown to light-gray claystones with subordinate siltstone and sandstone. The Brawley Formation is a lacustrine deposit that overlies the Borrego Formation.

4.2.2 Soils

Based on USDA soil maps, 21 soil types occur in the WA (Figure 4-3). Seven types predominate: acid igneous rock, Bancas stony loam, Indio silt loam, two types of Rositas loamy course sand (0-2% and 2-9% slopes), sheephead rocky fine sandy loam, and sloping gullied land.

To provide an initial measure of suitability for trail and related uses, the soil types were evaluated using USDA's Web Soil Survey 1.1. The Web Soil Survey was used to identify which soils have the potential for erosion hazards and which are suitable or not for paths or trails. Table 4-1 indicates the results for each of the soil types.

Figure 4-3. Soils in the SFVWA

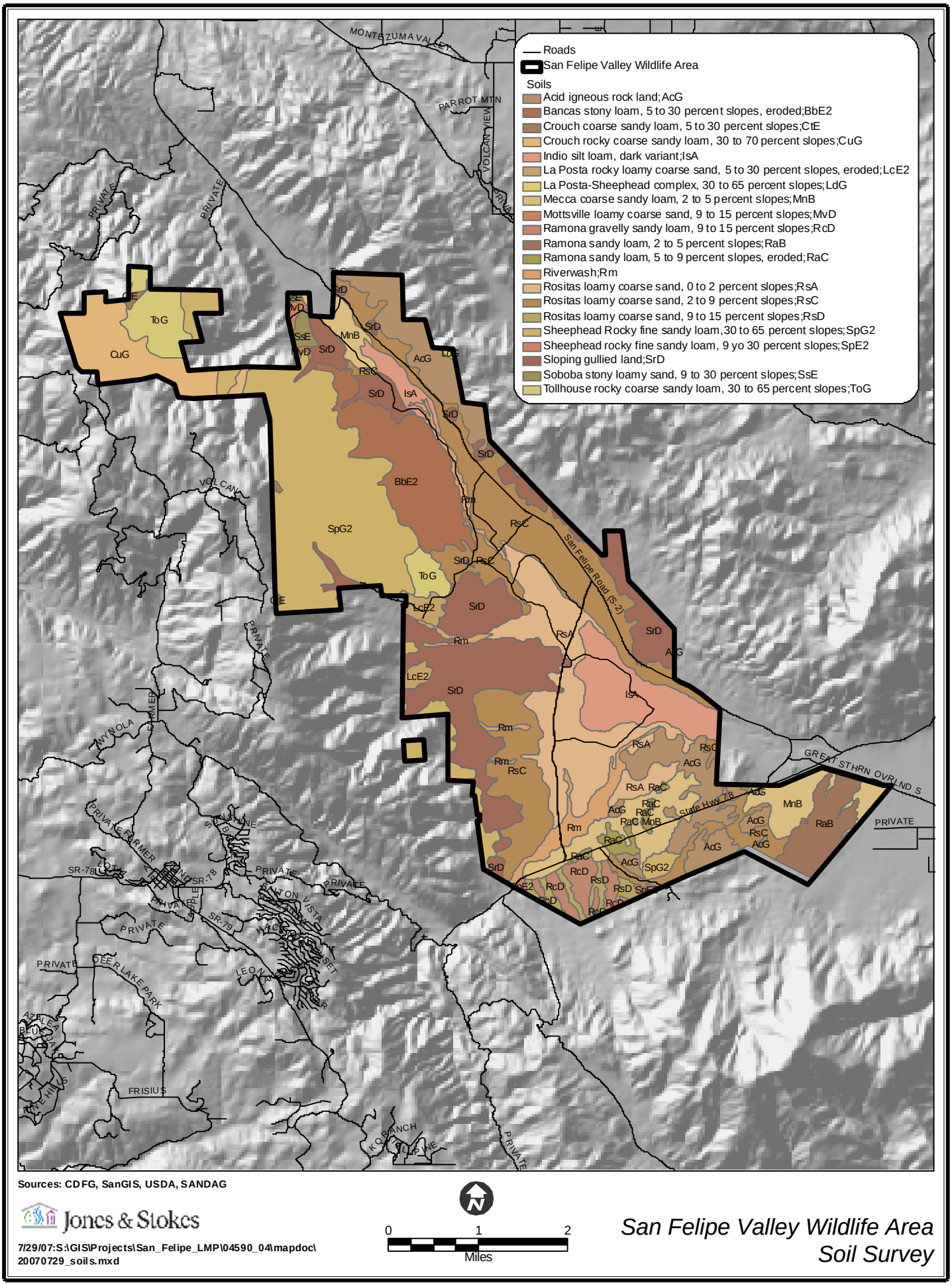


Table 4-1. Soil Types in the SFVWA and Their Path/Trail Suitability Ratings

Map Symbol	Unit Name	Erosion Hazard Rating/Reason[1]	Path and Trail Suitability Rating/Reason[2]
Primary Types in SFVWA			
AcG	Acid igneous rock land	Not Rated	Not Rated
BbE2	Bancas stony loam, 5-30% slopes, eroded	Severe Slope/erodibility	Limitations Dusty, Slopes 15-25%
IsA	Indio silt loam, dark variant	Slight	Limitations Dusty
RsA	Rositas loamy coarse sand, 0-2% slopes	Slight	Limitations Surface sand fractions 70-90% by wt.
RsC	Rositas loamy coarse sand, 2-9% lopes	Moderate Slope/erodibility	Limitations Surface sand fractions 70-90% by wt.
SpG2	Sheephead rocky fine sandy loam, 30-65% slopes, eroded	Severe Slope/erodibility	Limitations Slopes >25%
SrD	Sloping gullied land	Not Rated	Not Rated
Other Types in the SFVWA			
CtE	Crouch coarse sandy loam, 5-30% slopes	Severe Slope/erodibility	Limitations Slopes 15-25%
CuG	Crouch rocky coarse sandy loam, 30-70% slopes	Severe Slope/erodibility	Limitations Slopes >25%
LcE2	La Posta rocky loamy coarse sand, 5-30% slopes, eroded	Severe Slope/erodibility	Limitations Surface sand fractions 70-90% by wt., slopes 15-25%
LdG	La Posta-Sheephead complex, 30-65% slopes	Severe Slope/erodibility	Limitations Slopes >25%, Surface sand fractions 70-90% by wt.
MnB	Mecca coarse sandy loam, 2-5% slopes	Slight	No limitations
MvD	Mottsville loamy coarse sand, 9-15% slopes	Moderate Slope/erodibility	Limitations Surface sand fractions 70-90% by wt.

Map Symbol	Unit Name	Erosion Hazard Rating/Reason[1]	Path and Trail Suitability Rating/Reason[2]
RaB	Ramona sandy loam, 2-5% slopes	Moderate Slope/erodibility	No limitations
RaC	Ramona sandy loam, 5-9% slopes	Moderate Slope/erodibility	No limitations
RcD	Ramona gravelly sandy loam, 9-15% slopes	Severe Slope/erodibility	No limitations
RsD	Rositas loamy coarse sand, 9-15% slopes	Severe Slope/erodibility	Limitations Surface sand fractions 70-90% by wt.
Rm	Riverwash	Not Rated	Not Rated
SsE	Soboba stony loamy sand, 9-30% slopes	Severe Slope/erodibility	Limitations Surface sand fractions 70-90% by wt., slopes 15-25%
ToG	Tollhouse rocky coarse sandy loam, 30-65% slopes	Severe Slope/erodibility	Limitations Slopes >25%
SpE2	Sheephead rocky fine sandy loam, 9-30% slopes, eroded	Severe Slope/erodibility	Limitations Slopes >25%

Notes and Rating Descriptions

1 Potential erosion hazard from unsurfaced roads or trails based on soil erodibility factor Km slope, and content of rock fragments. The hazard is described as slight, moderate, severe, or very severe. *Slight* indicates that erosion is unlikely under ordinary climatic conditions. *Moderate* indicates that some erosion is likely and that erosion control measures may be needed. *Severe* indicates that erosion is very likely and that erosion-control measures, including revegetation of bare areas, are advised. *Very severe* indicates that significant erosion is expected, loss of soil productivity and off-site damage are likely, and erosion-control measures are costly and generally impractical.

2 Paths and trails for hiking and horseback riding should require little or no slope modification and can withstand heavy foot traffic. For good trafficability, the surface of the trail should remain firm under heavy foot traffic, be free of stones, and be dusty and dry. The suitability rating is based on soil properties that affect trafficability and erodibility. *No limitations* indicates that the soil has features that are very favorable for the specified use. *Limitations* indicates that the soil has features that are unfavorable for the specified use.

Source: USDA Natural Resources Conservation Service, Web Soil Survey 1.1, National Cooperative Soil Survey, accessed November 2006 off USDA website (http://websoilsurvey.nrcs.usda.gov).

4.3 Water Resources

The SFVWA is located in the San Felipe Hydrological Area (ha) of the Anza Borrego Hydrologic Subunit (hu) in the Colorado River hydrologic region. It contains a combination of permanent and intermittent surface waters.

4.3.1 Watersheds

The Anza Borrego hu, San Dieguito hu, and San Luis Rey hu converge near San Felipe Valley. The Anza Borrego hu encompasses the headwaters, mainstems, and tributaries of Coyote, San Felipe, Carrizo, and Vallecito creeks, which converge and empty into the Salton Sea and the eastern edge of the hu. San Felipe Creek originates in the San Felipe ha at Teofulio Summit and is fed by at least 35 side-canyons on its 50-mile route to the Salton Sea. The SFVWA is in the north central portion of the San Felipe ha, below the headwaters of the creek (Figure 4-4).

4.3.2 Surface and Ground Water

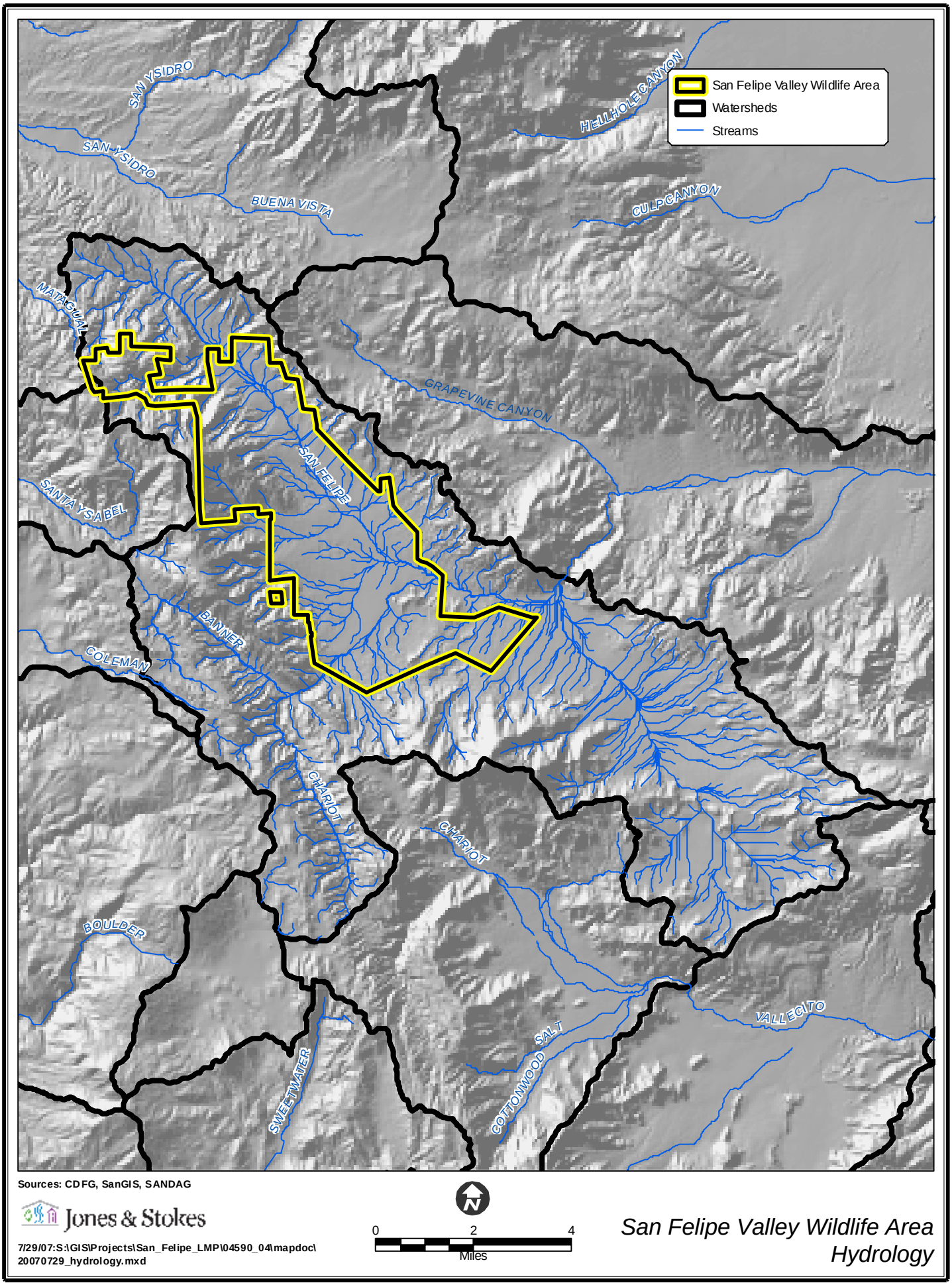
Approximately 8 miles of San Felipe Creek runs through the WA, together with a network of tributaries. Only portions of San Felipe Creek are perennial and sustain year-round flow. Banner Creek runs across the southern portion of the WA just north of Highway 78 and merges with the San Felipe near the WA's eastern edge.

In addition to the creeks and tributaries, there are natural seeps, modified or developed springs, functional wells, and three capped wells in the WA. The modified springs were dug out to enhance ponding, and the developed springs consist of wood or concrete enclosures inserted within the natural spring. Existing wells associated with windmills have active troughs. The capped wells are currently not in use. The manmade ponds are located in the northern portion of the WA, where large earthen berms were constructed by the former owners to pool water.

4.3.3 Water Quality

There are no major agricultural activities, mining operations, or extensive area of developed lands in adjacent areas that drain to the San Felipe hu. Surface runoff from Highway 78 and San Felipe Road and sedimentation from unpaved roads and eroding slopes have the potential to degrade water quality in San Felipe Creek and Banner Creek.

Figure 4-4. SFVWA in the San Felipe Hydrologic Area



4.4 Habitats

Information about habitats in the SFVWA and vicinity is available from several sources, including but not limited to:

- Habitat descriptions in the CAPPS for SFVWA acquisitions;
- Habitat assessments and vegetation mapping conducted by the Department on the Rutherford Ranch and Rancho San Felipe components of the SFVWA, Anza-Borrego Desert State Park, and San Dieguito River Valley;
- Monitoring and remedial activities in the SFVWA and region following the 2002 Pines Fire;
- Reports describing conditions on adjacent lands; and
- Incidental observations by Department staff.

This section of the LMP summarizes available information about the terrestrial and aquatic habitats in the WA, with an emphasis on floristic affiliations and associations, aquatic habitat conditions, special status habitats, and the area burned in the 2002 Pines Fire.

4.4.1 Floristic Affiliations and Associations

Vegetation communities in the WA were mapped in 2004-2005 using the Rapid Habitat Assessment methods developed by Todd Keeler-Wolf and Diana Hickson of the Department's Wildlife and Habitat Data Analysis Branch. Approximately 14,100 acres were assessed. The work was conducted as part of the Department's vegetation classification and mapping program and applied the classification system used by the California Native Plant Society (CNPS) in *A Manual of California Vegetation* (MCV) (Sawyer and Keeler-Wolf 1995). The MCV classifications provide more detail about vegetation communities than, but are compatible with, the Department's Wildlife Habitat Relationship (WHR) system and the Holland (1986) system.

Based on the 2004-2005 habitat assessment, approximately 10,800 acres of the WA are shrublands, primarily acacia and mesquite scrub, chaparral associations, and California juniper associations. The remainder of the WA is a combination of forests and woodlands and grasslands and forbs. Table 4-2 provides a crosswalk of WHR, Holland, and MCV classifications for the vegetation types in the WA. A more detailed crosswalk of the classifications is provided in Appendix A. Ninety-three types were identified and collapsed into the twenty-two categories indicated on Table 4-3 and Figure 4-5.

Table 4-2. Crosswalk of WHR, Holland, and MCV Classifications for Vegetation Types in the WA

WHR	Holland	MCV Alliance/Association
MONTANE HARDWOOD CONIFER	Canyon Live Oak Forest	Evergreen Broadleaf Forests & Woodlands
	Bigcone Spruce-Canyon Oak Forest	Winter-Rain Sclerophyllous Forests & Woodlands
	Black Oak Forest	Canyon Live Oak Alliance
	Black Oak Woodland	Canyon Live Oak - Big Cone Douglas-Fir Association*
		Canyon Live Oak Association*
		Conical-Crown Forests (Firs, Spruces, Douglas-Firs Cedars & Hemlocks)
		Big Cone Douglas-Fir Alliance*
		Big Cone Douglas-Fir - Canyon Live Oak Association**
		Big Cone Douglas-Fir - Coast Live Oak Association**
		Deciduous Forests & Woodlands
		Cold Season Deciduous Forests & Woodlands
		Black Oak Alliance
		Black Oak - Canyon Live Oak Association*
		Black Oak - Incense Cedar Association*
		Black Oak/ Grass Association*
SIERRA MIXED CONIFER	Coulter Pine Forest	Evergreen Needle-leaf Forests & Woodlands
	Southern California White Fir Forest, Sierran Mixed Conifer Forest	Rounded Crown Forests & Woodlands (Pines & Cypress)
		Coulter Pine Alliance*
		Coulter Pine / Black Oak Association*
		Coulter Pine / Canyon Live Oak Alliance*
		Conical-Crown Forests (Firs, Spruces, Douglas-Firs Cedars & Hemlocks)
		White fir - Incense Cedar Alliance**
		White fir - Incense Cedar - Bigcone Douglas-Fir - Coulter Pine Mapping Unit - Bigcone Douglas-Fir Association**

WHR	Holland	MCV Alliance/Association
COASTAL OAK WOODLAND	Coast Live Oak Woodland Dense Engelmann Oak Woodland Southern Coast Live Oak Riparian Forest Open Engelmann Oak Woodland	Evergreen Broadleaf Forests & Woodlands Xeromorphic Sclerophyll Woodlands Coast Live Oak Alliance Coast Live Oak / Chaparral Association Coast Live Oak - Engelmann Oak / California Buckwheat / Grass Association** Coast Live Oak / Annual Grass-Herb Association Coast Live Oak - California Sycamore San Felipe Valley Mapping Unit* Deciduous Forests & Woodlands Cold Season Deciduous Forests & Woodlands Engelmann Oak Alliance** Engelmann Oak-Scrub Oak Association**
JUNIPER	Peninsular Juniper Woodland and Scrub	Evergreen Needle-Leaf Forests & Woodlands Rounded Crown Forests & Woodlands (Pines & Cypress) California Juniper Alliance Needle-Leaved Evergreen Shrubland California Juniper - Desert Agave Association California Juniper - Blackbush Association* California Juniper - Chamise Association**
VALLEY FOOTHILL RIPARIAN	Southern Sycamore-Alder Riparian Woodland Southern Cottonwood-Willow Riparian Forest Southern Willow Scrub Mule Fat Scrub	Deciduous Forests & Woodlands Temporarily Flooded Cold Season Deciduous Forests & Woodlands California Sycamore Alliance Fremont Cottonwood Alliance California Sycamore - Fremont Cottonwood Alliance** White Alder - California Sycamore - Canyon Live Oak Association* Fremont Cottonwood - Red Willow Association* Black Willow / Mulefat Association*

WHR	Holland	MCV Alliance/Association
VALLEY FOOTHILL RIPARIAN		Fremont Cottonwood - Willow Mapping Unit*
		Fremont Cottonwood / Mulefat Association*
		Fremont Cottonwood - Black Willow / Mulefat Association*
		Evergreen Shrubland
		Microphyllous Shrubland
		Baccharis spp. Mapping Unit (semi-riparian)
		Deciduous Shrubland
		Intermittently Flooded to Saturated Deciduous Shrubland
		Narrowleaf Willow Alliance
DESERT RIPARIAN	Sonoran Wash Scrub	Deciduous Forests & Woodlands
	Mesquite Bosque	Temporarily Flooded Cold Season Deciduous Forests & Woodlands
		Fremont Cottonwood-Honey Mesquite Association*
		Deciduous Shrubland
		Extremely Xeromorphic Subdesert Deciduous Shrubland
		Desert Willow Alliance*
		Honey Mesquite Alliance
		Upper Desert Mesquite Spring Association**
CHAMISE REDSHANK CHAPARRAL	Chamise Chaparral	Evergreen Shrubland
	Northern Mixed Chaparral	Sclerophyllous Shrubland
	Coastal Sage – Chaparral Scrub	Chamise Alliance
		Chamise – Eastwood Manzanita Alliance*
		Chamise - White Sage Alliance
		Chamise - Bigberry Manzanita Alliance
		Chamise (pure) Association
		Chamise - Manzanita Mapping Unit
		Chamise (disturbance) Mapping Unit
		Chamise - Cupleaf Ceanothus - Scrub Oak Association*
		Chamise - California Buckwheat Association

WHR	Holland	MCV Alliance/Association
CHAMISE REDSHANK CHAPARRAL		Chamise (- Scrub Oak - Manzanita) Mapping Unit Chamise - Eastwood Manzanita - Scrub Oak Association*
MIXED CHAPARRAL	Montane Manzanita Chaparral Deer Brush Chaparral Whitethorn Chaparral Semi-Desert Chaparral Scrub Oak Chaparral Northern Mixed Chaparral Montane Scrub Oak Chaparral	Evergreen Shrubland Sclerophyllous Shrubland Eastwood Manzanita Alliance* Hairyleaf Ceanothus Alliance Chaparral Whitethorn Alliance Chamise - Cupleaf Ceanothus Alliance Sugar Bush Alliance Scrub Oak Alliance Scrub Oak - Chamise Alliance Mixed Scrub Oak Alliance Interior Live Oak Shrub Alliance* Scrub oak - Manzanita Mapping Unit Scrub Oak - Chaparral Whitethorn Mapping Unit Scrub Oak - Birchleaf Mountain-Mahogany Mapping Unit Scrub Oak - Chamise - Eastwood Manzanita Association* Bush Poppy Alliance Interior Live Oak - Chaparral Whitethorn Alliance* Muller Oak Alliance Birchleaf Mountain-Mahogany Alliance Muller Oak-California Buckwheat - Narrow-Leaved Goldenbush Association Muller Oak-Sugar Bush Association Sugar Bush – Lotebush Association** Sugar Bush – California Buckwheat Association** Chamise – Bigberry Manzanita - Scrub Oak Association

WHR	Holland	MCV Alliance/Association
MONTANE CHAPARRAL	Deer Brush Chaparral	Evergreen Shrubland
	Montane Chaparral	Sclerophyllous Shrubland
		Deer Brush Alliance*
		Deciduous Shrubland
		Cold-season Deciduous Shrubland
		Basket Bush Alliance*
DESERT SCRUB	Sonoran Creosote Bush Scrub	Evergreen Shrubland
	Semi-Desert Chaparral Sonoran Mixed Woody and Succulent Scrub	Broad-Leaved and Microphyllous Evergreen Extremely Xeromorphic Subdesert Shrubland
	Acacia Scrub	Creosote Bush Alliance
	Sonoran Desert Mixed Scrub	Creosote Bush - Mojave Yucca Alliance
	Acacia Scrub	Deciduous Shrubland
		Facultatively-Deciduous Extremely Xeromorphic Shrubland
		Desert Apricot Alliance
		Blackbush Alliance
		Extremely Xeromorphic Subdesert Deciduous Shrubland
		Catclaw Acacia Alliance
		Cheesebush Alliance
		Desert Sunflower Alliance
		Catclaw Acacia/Annual Grass-Herb Association
		Desert Sunflower-Desert Agave Association**
		Desert Sunflower-California Buckwheat Association
COASTAL SCRUB	Flat-topped Buckwheat	Deciduous Shrubland
	Riversidian Upland Sage Scrub	Winter Rain Drought Deciduous Shrubland
	Semi-Desert Chaparral	California Buckwheat Alliance
		California Buckwheat - White Sage Alliance
		Deerweed Alliance
		California Buckwheat - Sugar Bush Association

WHR	Holland	MCV Alliance/Association
PERENNIAL GRASSLAND	Foothill/Mountain Perennial Grassland	Perennial Herbaceous Bunch-Forming Grasses Purple Three-awn Alliance**
FRESH EMERGENT WETLAND	Freshwater Seep Alkali Seep Coastal and Valley Freshwater Marsh	Perennial Herbaceous Seasonally Flooded Grasslands and Forbs Common Rush Alliance Yerba Mansa Alliance** Yerba Mansa - Mexican Rush Association** Alkali Sacaton - Creeping Wildrye - Rush Classification Unit** Hydric Short Herbaceous Mapping Unit* Semi-permanently to Permanently Flooded Grasslands & Forbs Broad-Leaved Cattail Association*
ANNUAL GRASSLAND	Non-native Grassland, Wildflower Field	Annual Herbaceous Grasslands & Forbs Upland Annual Grasslands & Forbs California Annual Grassland Alliance

Notes

* Locally rare in San Diego County

** Rare in California

Codes

MCV *Manual of California Vegetation* (Sawyer and Keeler-Wolf 1995)

Holland *Preliminary descriptions of the terrestrial natural communities of California* (Holland 1986)

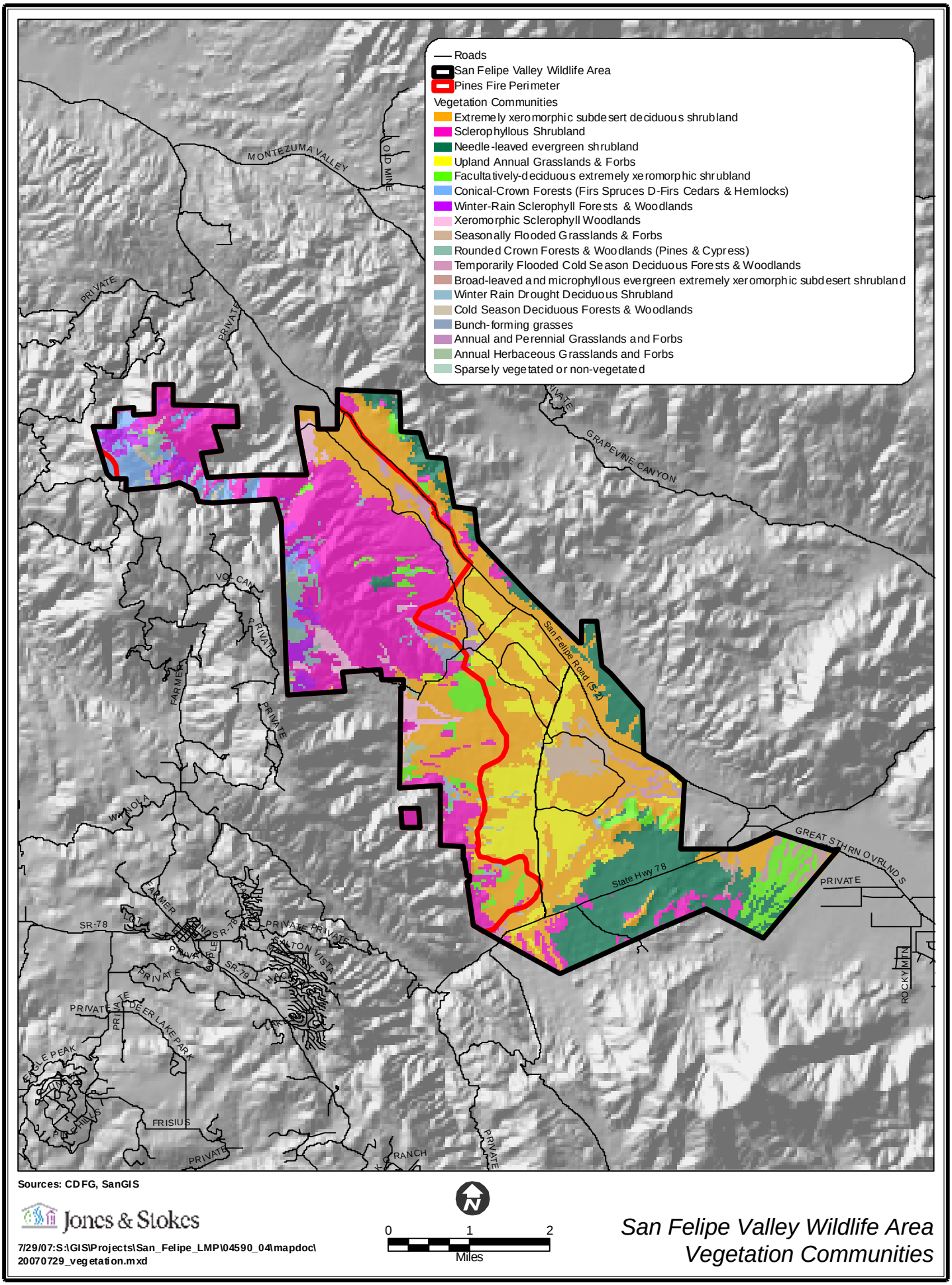
WHR California Department of Fish and Game's Wildlife Habitat Relationship system (CDFG 1988)

Table 4-3. Vegetation Types in the WA by MCV Classification

MCV Classification	Acres
Evergreen and Deciduous Forests and Woodlands	
Rounded Crown Forests & Woodlands (Pines & Cypress)	217
Temporarily Flooded Cold Season Deciduous Forests & Woodlands	194
Cold Season Deciduous Forests & Woodlands	65
Conical-Crown Forests (Firs, Spruces, Douglas-Firs, Cedars & Hemlocks)	361
Winter-Rain Sclerophyll Forests & Woodlands	345
Xeromorphic Sclerophyll Woodlands	306
Subtotal	1,488
Evergreen and Deciduous Shrublands	
Extremely Xeromorphic Subdesert Deciduous Shrubland	4,298
Sclerophyllous Shrubland	3,642
Needle-leaved Evergreen Shrubland	1,872
Facultatively-deciduous Extremely Xeromorphic Shrubland	706
Broad-leaved and Microphyllous Evergreen Extremely Xeromorphic Subdesert Shrubland	150
Winter Rain Drought Deciduous Shrubland	130
Intermittently Flooded to Saturated Deciduous Shrubland	7
Microphyllous Shrubland	2
Subtotal	10,807
Perennial and Annual Grasslands and Forbs	
Upland Annual Grasslands & Forbs	1,395
Semi-permanently to Permanently Flooded Grasslands & Forbs	2
Bunch-forming Grasses	58
Annual and Perennial Grasslands and Forbs	42
Annual Herbaceous Grasslands and Forbs	41
Seasonally Flooded Grasslands & Forbs	234
Subtotal	1,772
Other	
Sparsely Vegetated or Non-vegetated	32
Urban/Developed	3

Note
MCV *Manual of California Vegetation* (Sawyer and Keeler-Wolf 1995)

Figure 4-5. Vegetation Communities in the SFVWA (MCV Classifications)



Sources: CDFG, SanGIS

Jones & Stokes

7/29/07:S:\GIS\Projects\San_Felipe_LMP\04590_04\mapdoc\20070729_vegetation.mxd

0 1 2 Miles

San Felipe Valley Wildlife Area Vegetation Communities

4.4.1.1 Evergreen and Deciduous Forests and Woodlands

In the mountain portions of the WA, conifers and scherophyllous (hardleaved) broad-leaved trees with heights ranging from 50 to 100 feet form an open forest. This vegetation is restricted to the higher elevations of the WA (4,000 to 6,500 feet) and includes a mix of Coulter pine, big cone Douglas-fir, white alder, and incense cedar. At lower elevations in the mountains, the woodlands are characterized by California juniper and various oak associations ranging in height up to 50 feet. Oak woodlands primarily occur in the Arkansas Canyon portion of the WA as well as near the northern boundary. Oak species that occur include black, canyon live, coastal live, and Englemann.

Riparian woodlands occur along rocky streambeds at elevations between 3,000 and 6,500 feet. These areas include a tree layer of western sycamore, white alder, and occasional willows; a shrub layer of posion oak and Mexican elderberry; and a vine and herbaceous layer of wild blackberry, wild grape, stinging nettle, and California mugwort. In the moist canyons and drainage bottoms of the valley, willows, cottonwood, western sycamore, and mesquite form a dense medium height woodland or forest.

4.4.1.2 Evergreen and Deciduous Shrublands

In the transition from mountains and foothills to valley, the shrublands include California juniper in association with desert agave, blackbush, and chamise chaparral. On the outer edges of meadows and between mountain meadows and mixed chaparral, vegetation is characterized by low-growing woody shrubs and interior plants such as flat-top buckwheat, white sage, and pacific dogwood. On steep south facing and coastal mountain slopes, there are dense sclerophyllous thickets dominated by manzanita, chaparral, lilac, and wild cherry. These communities rely on snow for precipitation and have a characteristically short growing season and slow recovery after fires. Along the steep southeastern and eastern slope above San Felipe Valley, desert scrub occurs on dry rocky soils. This community is characterized by desert-restricted flora such as desert apricot, cupleaf lilac, and various desert cacti. It also is associated with acacia scrub, another unique vegetation community. Acacia scrub is characterized by widely-spaced, low-growing shrubs such as California ephedra, cat-claw, and Davison's buckwheat interspersed with red brome, ripgut brome, soft chess, other non-native annual grasses, and an occasional screwbean mesquite tree.

Deciduous shrubland (willow alliance and mesquite association) also is found in transitional areas along the riparian edges of rocky stream beds, canyons, and drainage bottoms.

4.4.1.3 Perennial and Annual Grasslands and Forbs

Dense to sparse areas of annual and perennial grasses occur in the WA, especially in years of high rainfall. This community occurs primarily in open areas that were not heavily grazed or otherwise disturbed under past ownerships of the property. Characteristic species include slender wild oat, nodding stipa, soft chess, red brome, ripgut grass, red-stem fillaree, common goldenfields, and foxtail fescue.

Along San Felipe Creek, there are a variety of perennial emerging monocots (cattails and bulrush) that can reach a height of 12 to 15 feet. These areas are permanently flooded by freshwater but lack a significant current.

4.4.1.4 Other

All other cover types in the WA are extremely limited. Based on the 2004-2005 assessment of 14,100 acres, there are only 32 acres with sparse or no vegetation and 3 acres that are developed (the ranch complex and associated structures).

4.4.2 Aquatic Habitats

For purposes of this LMP, *aquatic habitat* means open water and associated vegetation and the following water resources in the WA: seeps, springs, streams, ponds, and wells with troughs.

- Multiple seeps have been identified in the WA, below the foothills near the eastern boundary.

- The WA has numerous modified and developed springs. Both types of springs maintain pooled water and have varying degrees of chara and tule growth.

- San Felipe Creek and its east-west tributaries run the length of the WA. Only portions of San Felipe Creek are perennial and sustain year-round flow. On an annual basis, most of the creek within the SFVWA does not sustain year-round flow. Banner Creek runs across the southern portion of the WA just north of Highway 78 and merges with the San Felipe near the WA's eastern edge.

- There are four manmade ponds; two are seasonally dry. Of the two persistent ponds, one is approximately 10 meters by 10 meters; the other is smaller and more heavily overgrown with tules.

- There are five functional wells in the WA that actively supply water to troughs. Two inactive wells are slated for future repair and will be put into service in the near future.

4.4.3 Special Status Habitats

Habitats are identified as having "special status" if they are unique, have relatively limited distribution in the region, or have high wildlife value as defined by federal, state, and local government conservation programs. Many correspond to vegetation series and associations identified in the CNDDB as rare locally or statewide.

All of the naturally occurring aquatic habitats in the WA are special status resources. Fifty of the ninety-two vegetation communities types identified in the WA are rare in San Diego County or statewide (Table 4-4; also see Table 4-2). Several of the rare types occur only in the Volcan Mountains or San Felipe Valley or represent the farthest known extent of the type. These include the following:

- Canyon Live Oak - Big Cone Douglas-Fir Association, Bigcone Douglas-fir Alliance, Bigcone Douglas-fir - Canyon Live Oak Association, Bigcone Douglas-fir – Coast Live Oak Association. The southern-most occurrence of this vegetation is within one mile of Volcan Mountain. The area also has the southern-most occurrence of bigcone Douglas-fir.

- Coast Live Oak–Engelmann Oak / California Buckwheat / Grass Association, Engelmann Oak Alliance, Engelmann Oak-Scrub Oak Association. Engelmann oaks are not known further east in San Diego County than these occurrences in San Felipe Valley.

- White fir - Incense Cedar Alliance. This uncommon type is known elsewhere only from Mount Palomar.

- White fir - Incense Cedar - Bigcone Douglas Fir- Coulter Pine Mapping Unit - Bigcone Douglas-fir Association. This very rare association is only known from Volcan Mountain.

- California Sycamore Alliance. The San Felipe Valley occurrence may be the easternmost extent of this alliance.

- California Juniper - Blackbush Association. This is a rare association, particularly in the Peninsular Ranges.

- Bush Poppy Alliance. This alliance is seral, post fire, and not likely to visibly persist 10 years after fire event.

- Creosote Bush - Mojave Yucca Alliance. Stands in the SFVWA may be the western-most occurrence of this alliance in San Diego County.

Table 4-4. Special Status Vegetation Communities in the SFVWA

Rare in San Diego County	Rare Statewide
Bigcone Douglas-fir Alliance	Alkali Sacaton - Creeping Wildrye - Rush Classification Unit
Black Oak – Canyon Live Oak Association	Basket Bush Alliance
Black Oak – Incense Cedar Association	Bigcone Douglas-fir - Canyon Live Oak Association
Black Oak/ Grass Association	Bigcone Douglas-fir - Coast Live Oak Association
Black Willow / Mulefat Association	California Buckwheat - Sugar Bush Association
Blackbush Alliance	California Juniper - Chamise Association
Broad-leaved Cattail Association	California Sycamore - Fremont Cottonwood Alliance
California Juniper - Blackbush Association	Coast Live Oak -Engelmann Oak / California Buckwheat / Grass Association
Canyon Live Oak - Big Cone Douglas-Fir Association	Desert Apricot Alliance
Canyon Live Oak Association	Desert Sunflower-Desert Agave Association
Chamise – Cupleaf Ceanothus - Scrub Oak Association	Engelmann Oak Alliance
Chamise – Eastwood Manzanita - Scrub Oak Association	Engelmann Oak-Scrub Oak Association
Chamise – Eastwood Manzanita Alliance	Purple Three-awn Alliance
Coast Live Oak - California Sycamore San Felipe Valley Mapping Unit	Sugar Bush - California Buckwheat Association
Coulter Pine / Black Oak Association	Sugar Bush – Lotebush Association
Coulter Pine / Canyon Live Oak Alliance	Upper Desert Mesquite Spring Association
Coulter Pine Alliance	White fir - Incense Cedar - Bigcone Douglas Fir- Coulter Pine Mapping Unit - Bigcone Douglas-fir Association
Deer Brush Alliance	White fir - Incense Cedar Alliance
Desert Willow Alliance	Yerba Mansa - Mexican Rush Association
Eastwood Manzanita Alliance	Yerba Mansa Alliance
Fremont Cottonwood - Black Willow / Mulefat Association	
Fremont Cottonwood - Red Willow Association	
Fremont Cottonwood - Willow Mapping Unit	
Fremont Cottonwood / Mulefat Association	
Fremont Cottonwood-Honey Mesquite Association	
Hydric Short Herbaceous Mapping Unit	
Interior Live Oak - Chaparral Whitethorn Alliance	
Interior Live Oak Shrub Alliance	
Scrub Oak - Chamise - Eastwood Manzanita Association	
White Alder - California Sycamore - Canyon Live Oak Association	

- Basket Bush Alliance. This alliance is rare and spotty in the Peninsular Ranges. The SFVWA may have the western-most occurrence.

- Desert Apricot Alliance. Some of the best examples of this alliance occur in the SFVWA.

- Blackbush Alliance. This alliance is rare and spotty in the Peninsular Ranges. The SFVWA may have the western-most occurrence.

- Desert Sunflower-Desert Agave Association. The western-most and highest elevation stands of this local association are in the SFVWA.

- Purple Three-awn Alliance. This is an extremely rare alliance and the largest known stands occur in the SFVWA.

- Yerba Mansa Alliance. This is a rare and localized alliance, especially west of the desert edge.

- Alkali Sacaton - Creeping Wildrye - Rush Classification Unit. This rare type is only known from its location in the WA.

4.4.4 Pines Fire Area

As noted in section 4.1.4, the 2002 Pines Fire burned approximately 50% of the WA. The burn area encompassed most of the Rutherford Ranch component of the WA; most of Rancho San Felipe was untouched. Table 4-5 indicates the acres per primary types burned in the WA. The eastern perimeter of the Pines Fire (indicating the eastern extent of the burn area in the WA) is shown on Figure 4-5. Site monitoring indicates that the same pre-fire types are returning within the burn area. Certain seral types such as the bush poppy alliance currently are visible but will likely disappear within ten years.

Table 4-5. Vegetation Communities Burned in the WA in the 2002 Pines Fire

Vegetation Type	Acres
Sclerophyllous Shrubland	3,182
Extremely Xeromorphic Subdesert Deciduous Shrubland	1,390
Conical-Crown Forests (Firs, Spruces, Douglas-Firs, Cedars & Hemlocks)	347
Winter-Rain Sclerophyll Forests & Woodlands	345
Xeromorphic Sclerophyll Woodlands	306
Facultatively-Deciduous Extremely Xeromorphic Shrubland	291
Rounded Crown Forests & Woodlands (Pines & Cypress)	217
Winter Rain Drought Deciduous Shrubland	111
Temporarily Flooded Cold Season Deciduous Forests & Woodlands	99
Cold Season Deciduous Forests & Woodlands	61
Bunch-Forming Grasses	53
Annual Herbaceous Grasslands and Forbs	41
Upland Annual Grasslands & Forbs	33
Needle-Leaved Evergreen Shrubland	26
Intermittently Flooded to Saturated Deciduous Shrubland	7
Microphyllous Shrubland	2
Sparsely Vegetated or Non-Vegetated	2
Urban or Developed	2
Annual and Perennial Grasslands and Forbs	0
Cold-Season Deciduous Shrubland	0
Seasonally Flooded Grasslands & Forbs	0

4.5 Species

Information about the occurrence of species in the SFVWA is available from several sources, including but not limited to:

- Species information provided in the CAPPS for the WA acquisitions;
- Species inventories of the WA prepared under contract to the Department by the San Diego Natural History Museum Biodiversity Research Section (SDNHM BRS) and San Diego State University Field Station Program (SDSU FSP);
- Wildlife monitoring conducted by the Department as part of its deer management and mountain lion programs;
- Species records from the California Natural Diversity Database (CNDDB);
- Species records compiled by the SDNHM BRS in connection with *San Diego Bird Atlas;*
- Reports on species and habitats on adjacent lands; and
- Incidental observations by Department staff.

This section of the LMP focuses on the number and diversity of species observed in the WA and the occurrence of common, game, and special status species.

4.5.1 Number and Diversity of Observed Species

Both the number and type of species occurring in the SFVWA reflect the location of the WA in an ecological transition zone and the presence of “species rich” habitats such as desert riparian, valley foothill riparian, coastal oak woodland, chaparral, and fresh emergent wetlands. The SNDHM BRS inventory identified 330 species in the WA: 179 plants, 31 mammals, 97 birds, and 23 reptile and amphibian species. The SDSU FSP inventory identified 483 species: 326 plants, 34 mammals, 102 birds, and 21 reptiles and aquatic species. Appendix B provides a composite list of species observed in the SFVWA.

4.5.2 Common Wildlife Species

Mammal diversity and population dynamics in the WA are distinct and inherently interesting because the site represents an important zone of intergradation for many of the occurring species. Most species are represented by two distinct subspecies or morphs – typically one characteristic of a mountain race and the other of a desert race.

Common small mammals in the WA include several species of *Peromyscus* (cactus, deer, California, western harvest, and brush mice) and *Dipodomys* (Dulzura, Merriam, and others), with each type occurring in multiple habitats (primarily juniper woodland, chaparral, acacia, dry washes, and mixed woody scrub.) Several bat species were observed in both the SDNHM and SDSU inventories, including *Myotis*, *Eptesicus*, and *Eumops*. Common large mammals include coyote, bobcat, mountain lion, and mule deer. Other noted mammals are grayfox, long-tailed weasel, and striped skunk.

At least 80 common species of birds occur in the WA, including about 50 species that are associated with acacia, juniper woodland, desert transition chaparral, and/or mesquite (and typically additional habitat types). These include Anna's and Costa's hummingbirds, western scrub jay, cactus wren, spotted and California towhee, mourning dove, red-tailed hawk, loggerhead shrike, California thrasher, wrentit, California quail, western meadowlark, black-throated sparrow, and western kingbird. Common birds found in the WA's riparian and/or oak woodland habitats include common yellowthroat, American crow, chipping sparrow, western bluebird, house wren, northern flicker, and Nuttall's woodpecker.

Only 2 common amphibians have been identified in the WA, California toad and Pacific tree frog. At least 18 common reptiles occur onsite, including 7 lizards and 9 snakes. Common lizard species include coastal whiptail, granite and spiny lizard, western fence lizard, side-blotched lizard, granite night lizard, and alligator lizard. Common snake species include western blind, gopher, longnose, California kingsnake, coastal rosy boa, California striped and red racer, and southwestern speckled and southern Pacific rattlesnake. Arroyos, bajadas, and barren rocky hillsides, so typical of the habitat for many desert reptiles, are limited and absent from much of the SFVWA. Consequently, the WA does not appear to support reptiles that are restricted to the true desert environment. Instead, the reptiles are found in juniper and oak woodlands, mixed chaparral, grasslands, desert willow, mesquite, and catclaw acacia riparian areas. In this regard, the WA's reptile community has species that are more typical of the open habitats of the coastal slope of southern California than of the desert. Another interesting phenomenon is the distribution of the three common species of rattlesnakes in the valley. Speckled rattlesnakes appear to be more common on the west-facing slopes, red diamond rattlesnakes in cooler locations along the mountain slope, and the generally more ubiquitous western rattlesnake distributed throughout the area but more common in areas of disturbance and along the bottom of the valley.

4.5.3 Game Species

In the LMP, *game species* means all species that can be legally taken under existing Fish and Game regulations. These species are categorized as resident small game, resident upland game, migratory game, big game, furbearers, waterfowl, and non-game.

San Felipe Valley and the surrounding environs are extremely important summer and fawning areas for southern mule deer. Annual aerial composition surveys conducted by the Department indicate that San Felipe Valley and the Volcan Mountains support a relatively high density resident deer population year-round. As well as providing fawning habitat, the property provides water and quality forage during the dry summer months. Figure 4-8 provides a composite view of multiple mule deer use of the WA and vicinity based on monitoring surveys conducted over the period 2001-2003.

The WA supports populations of resident large game and bird game species. Observed game species include but are not limited to: mountain quail, California quail, band-tailed pigeon, mourning dove, common ground dove, wild turkey, cottontail rabbit, jackrabbit, and deer.

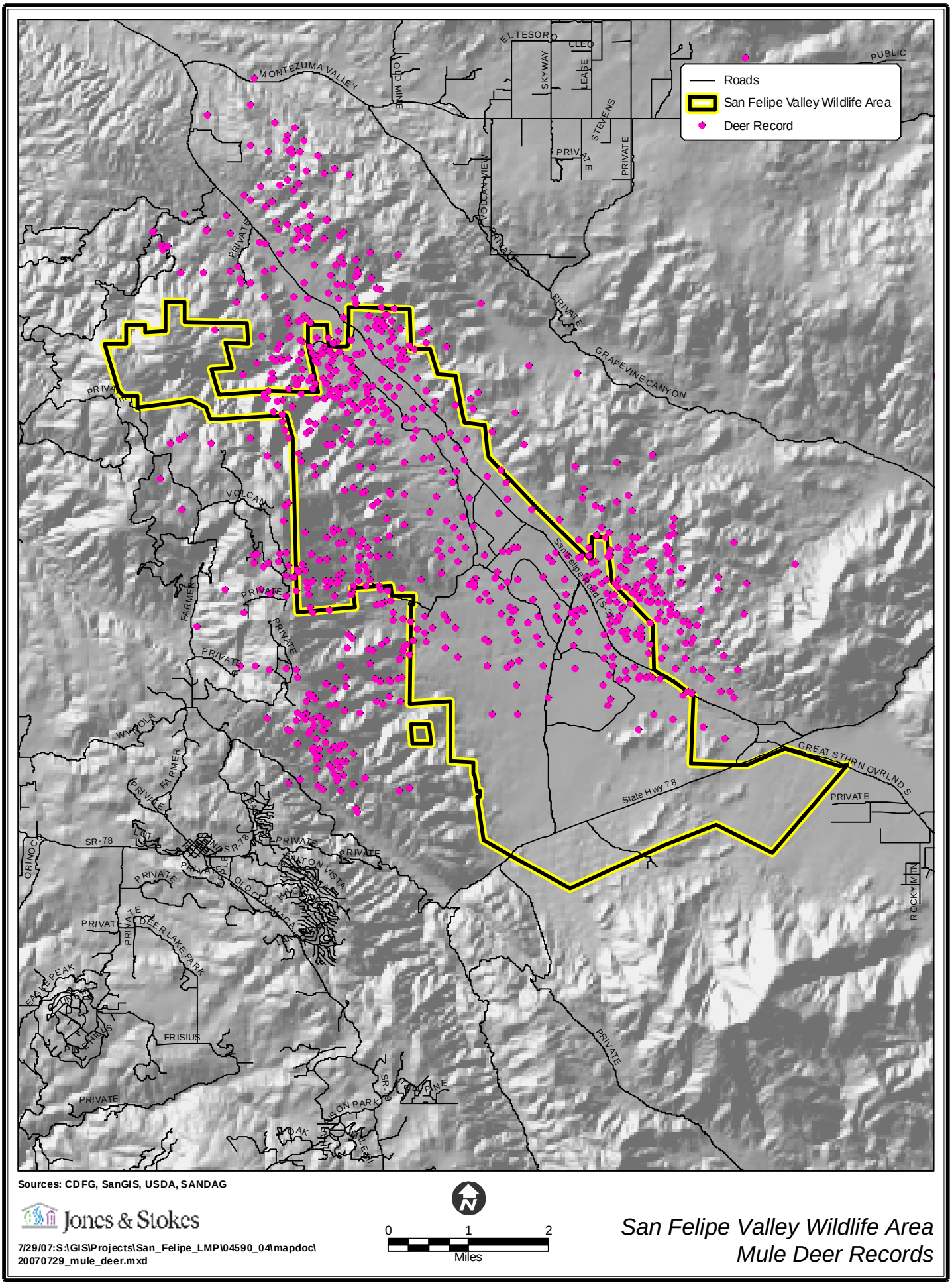
4.5.4 Special Status Species

For purposes of this LMP, the term special status species means special animals as defined by the Department and sensitive plants as identified on lists maintained by the Department or California Native Plant Society (CNPS).

The Department defines *special animals* as all taxa that the CNDDB is interested in tracking, regardless of their legal or protection status, including:

- Taxa officially listed or proposed for listing under ESA or CESA;
- Candidates for federal or state listing;
- Taxa which meet the criteria for listing, even if not currently included on any list, as described in Section 15380 of CEQA Guidelines;
- Taxa considered by the Department to be a Species of Special Concern;
- Taxa that are biologically rare, very restricted in distribution, declining throughout their range, or have a critical, vulnerable stage in their life cycle that warrants monitoring;
- Populations in California that may be on the periphery of a taxon's range, but are threatened with extirpation in California;
- Taxa closely associated with a habitat that is declining in California at an alarming rate (e.g., wetlands, riparian, old growth forests, desert aquatic systems, native grasslands, vernal pools, etc.); and
- Taxa designated as a special status, sensitive, or clining species by other state or federal agencies, or non-governmental organization (NGO).

Figure 4-6. Mule Deer Records (2001-2003)



The Department groups sensitive plants in the following categories and lists:

- Taxa officially listed or proposed for listing under ESA or CESA;
- Candidates for federal or state listing;
- Taxa which meet the criteria for listing, even if not currently included on any list, as described in Section 15380 of CEQA Guidelines;
- CNPS List 1A: Presumed extinct in California
- CNPS List 1B: Rare and endangered in California and throughout its range
- CNPS List 2: Rare and endangered in California but more common elsewhere
- CNPS List 3: More information needed
- CNPS List 4: Limited distribution

Based on the combined results of the SDNHM and SDSU inventories and incidental observations by Department staff, more than 40 special status species have been detected in the WA. For some species, the detection in the WA is subject to further evaluation and/or verification. It also is likely that additional special status species occur in the WA but were not observed in the surveys conducted to date or incidentally in connection with other activities. Table 4-6 identifies the special status species detected to date and those not detected but with a high likelihood of occurrence. A brief discussion of notable occurrences and absences follows the table, together with a description of listed and fully protected species associated with the WA and aquatic species detected in the WA's aquatic habitats.

4.5.2.1 Notable Occurrences and Absences

Plants. The quality of habitat and floristic diversity in the WA appears to be linked with grazing/disturbance history and elevation. In general, the valley floor tends to be more invaded with exotic grasses and herbs; the mountainous areas tend to be less disturbed and to support a greater number of sensitive plant species. The Pines Fire also appears to have reduced floristic diversity. In many of the burn areas, the habitat currently is dominated almost completely by deerweed.

Mammals. As noted, San Felipe Valley lies in a notable zone of intergradation between multiple subspecies of mammals and is an area of great biodiversity of native mammals. Intergrades of pocket mice are notable in the WA. Stephens' kangaroo rats are not expected to occur in the WA (the valley is outside the SKR's known range) but their persistence in the basin of nearby Lake Henshaw suggests the possibility of SKR dispersal into the WA. Fallow agricultural fields in the WA provide moderately suitable SKR habitat. The grassland burned by the Pines Fire also may provide suitable habitat since SKR tend to colonize recently burned grassland and scrub.

Table 4-6. Special Status Species Associated with the WA

Common/Scientific Name	Status	Habitat
Species Observed in Surveys or Incidentally		
Mammals		
Black-tailed jackrabbit[1] *Lepus californicus*	CSC	Grassland, chaparral
California pocket mouse[2] *Chaetodipus californicus femoralis*	CSC	Chaparral, oak woodland, mesquite, acacia
Jacumba pocket mouse[2] *Perognathus longimembris internationalis*	CSC	Chaparral, scrub
Little pocket mouse[2] *Perognathus longimembris*	CSC	Chaparral, mixed woody scrub, acacia
Los Angeles pocket mouse[2] *Perognathus longimembris brevinasus*	CSC	Chaparral, scrub
Mountain Lion *Felis concolor*	SP	Variety of habitats, including grasslands, chaparral, scrub
Northeastern (desert) San Diego pocket mouse[2] *Chaetodipas fallax pallidus*	CSC	Chaparral, scrub
San Diego (coastal) pocket mouse[2] *Chaetodipas fallax fallax*	CSC	Chaparral, scrub
Townsend's big-eared bat *Corynorhinus townsendii*	CSC	Grassland, mesquite, mixed woody scrub, chaparral, oak woodland
Western mastiff Bat *Eumops perotis*	CSC	Variety of habitats
Birds		
Cactus wren *Campylorhynchus brunneicapillus*	CSC	Scrub with cacti or thickets
Cooper's hawk *Accipiter cooperii*	CSC	Mixed woody scrub, oak woodland
Ferruginous hawk *Buteo regalis*	CSC	Grassland
Golden eagle *Aquila chrysaetos*	CSC, FPS	Shrubland, oak woodland
Horned lark *Eremophila alpestris*	CSC	Grassland
Least Bell's vireo *Vireo bellii pusillus*	FE, SE	Riparian forest
Loggerhead shrike *Lanius ludovicianus*	CSC	Acacia, juniper woodland, grassland, shrubland, mesquite, dry wash

Common/Scientific Name	Status	Habitat
Long-eared owl *Asio otus*	CSC	Riparian forest, oak woodland
Merlin *Falco columbarius*	CSC	Grassland
Northern harrier *Circus cyaneus*	CSC	Grassland
Prairie Falcon *Falco mexicanus*	CSC	Grasslands, scrub
Sharp-shinned Hawk *Accipiter striatus*	CSC	Riparian forest
Southwestern willow flycatcher *Empidonax traillii extimus*	FE, SE	Shrubland, mesquite
Vermilion flycatcher *Pyrocephalus rubinus*	CSC	Mesquite
Western burrowing owl *Athena cunicularia*	CSC	Grassland, agricultural fields
Western yellow-billed cuckoo *Coccyzus americanus occidentalis*	FE, SE	Riparian, riverine
Yellow warbler *Dendroica petechia*	CSC	Riparian forest
Yellow-breasted chat *Icteria virens*	CSC	Riparian forest
Herptofauna and Fish		
California legless lizard *Anniella pulchra* spp. *pulchra*	CSC	Riparian forest
Coast patchnose snake *Salvadora hexalepis virgultea*	CSC	Rocky scrub, chaparral
Coronado Island skink *Eumeces skiltonianus interparietalis*	CSC	Scrub, chaparral, woodlands
Red diamond rattlesnake *Crotalus exsul* (=*ruber*)	CSC	Rocky scrub, chaparral, cactus
San Diego horned lizard Phryn*oso*ma *coronatum blainvillii*	CSC	Acacia
Silvery legless lizard *Anniella pulchra pulchra*	CSC	Riparian
Unarmored threespine stickleback *Gasterosteus aculeatus williamsonii*	FE. SE	Stream reach

Common/Scientific Name	Status	Habitat
Plants		
Banner liveforever *Dudleya saxosa* ssp. *Aloides*	CNPS 3	Desert scrub, juniper woodlands, chaparral
Engelmann oak *Quercus engelmannii*	CNPS 4	Oak woodland
Intermediate larkspur Del*p*hinium *parishii* ssp. *subglobosum*	CNPS 4	Creosote bush scrub, desert scrub, juniper woodlands, chaparral
Payson's jewelflower *Caulanthus simulans*	CNPS 4	Creosote bush scrub, desert scrub
San Diego sunflower *Hulsea californica*	CNPS 1B	Acacia, mesquite, juniper woodland
San Felipe monardella *Monardella nana* ssp. *leptosiphon*	CNPS 1B	Juniper woodland, chaparral
Species Not Observed, High Likelihood of Occurrence		
Badger[3] *Taxidea taxus*	CSC	Variety of habitats
Ringtail *Bassariscus astutus*	FPS	Chaparral, rocky hillsides, riparian
Grasshopper mouse *Onychomys torridus*	CSC	Juniper woodland, mixed woody scrub

Status Codes

CNPS 1B Rare and endangered in California and throughout its range
CNPS 3 More information needed
CNPS 4 Species of limited distribution
CSC California Species of Special Concern
FE Federally listed as endangered
FPS California Fully Protected Species
FT Federally listed as threatened
LC Species of Local Concern, primarily because indicator of linkage function
SE State listed as endangered
SP Special Protection under State legislation

Notes

1 The black-tailed jackrabbit is common and widespread throughout the WA, especially in the grasslands. The jackrabbits in San Felipe Valley appear to be intergrades between the dark coastal subspecies *bennettii* and the pale desert subspecies *deserticola* (no special status), but closer to the former.

2 Most pocket mice found in the area are intergrades among three subspecies, all California species of special concern.

3 Expected in the WA, but was not directly observed. The badger is locally rare in this region. It also occurs in the basin of Lake Henshaw. Possible badger burrows have been found within the alluvial fan southwest of the ranch house.

Birds. Several riparian bird species that were the target of focused surveys by SDSU were not detected, such as Harris' hawk. It is speculated that Harris hawk was not found because its preferred habitat (riparian oak woodlands) was largely burned in the Pines Fire and/or because the WA is located just barely within the species' normal range. Notable occurrences include yellow-billed cuckoo. As noted in the San Diego County Bird Atlas (Unitt 2004), the yellow-billed cuckoo is now only a rare and sporadic summer visitor in San Diego County, not known to have nested for decades. One was observed on the desert slope of the mountains along San Felipe Creek in 2001 and 2002.

Amphibians and Reptiles. No red-legged frogs or appropriate habitat for the species were detected. It is likely that red-legged frogs were extirpated from the area during a dramatic flood event in 1968. This and other events such as fires may have contributed to increased sedimentation and loss of appropriate habitat. As noted, the reptiles identified in the WA – including the five special status species – are more typical of habitats in the coastal area than true desert areas.

Fish. Stickleback continue to persist in the southeastern portion of the WA near the State Park. This population of stickleback was introduced, taken from a donor population in Soledad Canyon in the Angeles National Forest. Soledad Canyon recently burned and has been adversely affected by heavy rains and flooding. It is possible that the stickleback population in the WA could be used to reintroduce genetically similar fish at the donor site.

4.5.2.2 Listed and Fully Protected Species

Four federally and/or state listed species are known to occur in the WA: least Bell's vireo, southwestern willow flycatcher, yellow-billed cuckoo, and unarmored threespine stickleback. One California fully protected species is known to occur in the WA (golden eagle) and another (ringtail) has a high likelihood of occurrence.

4.5.2.3 Aquatic Species

Some of the modified or developed springs are heavily overgrown with chara and tules. Although surface water is present, amphibians (Pacific tree frogs) were detected only at one site.

- Two of the wells contained enough water to support recruitment of native amphibians. The operating well was supplying water to a low concrete basin where Pacific treefrogs and western toads were successfully recruiting. The second well was not operational at the time of the survey but supported western toad recruitment until trapped rainwater in the basin evaporated.

- Two for the four manmade ponds contained enough water to support amphibian recruitment.

- Reaches of San Felipe Creek were surveyed by SDSU. In the southeastern portion of the WA on the border with Anza-Borrego Desert State Park, the creek supports the recruitment of pacific tree frogs and is the area where unarmored threespine sticklebacks were detected. Where the creek flows out of Arkansas Canyon, conditions support the recruitment of both California treefrogs and western toads. Where the creek is a shallow, swift flowing channel with heavily vegetated banks, conditions support the recruitment of Pacific treefrogs.

- No exotic fish or amphibians were detected at any of the sampled sites. All potential habitat for exotic fishes on the property supported amphibian larvae and native aquatic invertebrates, which are strong indicators that exotic fish and amphibians are absent.

4.6 Cultural Resources

The following description of the cultural resources in and near the WA is based on the San Felipe Valley Wildlife Area Archeology Management Plan prepared for the Department by Susan M. Hector, Ph.D. (Hector 2002) and record searches conducted by Jones & Stokes in connection with preparation of this LMP.

4.6.1 Prehistory

The prehistory of San Felipe Valley reflects the use of the area for thousands of years by native peoples traveling between the desert and the mountains. Then as now, the valley formed a corridor between the Colorado River and coast. Artifacts found in Arkansas Canyon attest to this active trade network.

The earliest archaeological sites in the Colorado Desert date to the Archaic Period of southern California prehistory. The Archaic Period (7000 to 2000 years ago) is characterized by expansive hunting and gathering. The climate during this period was warmer and drier than the present. Few Archaic sites have been found in the San Felipe Valley region. Studies at a buried site near the confluence of San Felipe Creek with Grapevine Creek resulted in the discovery of a quartz Elko-eared projectile point (McDonald 1992). A radiocarbon sample from the site was dated to 4,980 years ago. Another Elko-eared point, an isolated artifact, was found on the Department's property in the hills west of San Felipe Creek. This point was dated to 3200-1500 years ago (Heizer and Hester 1978). It is possible that additional buried sites from the Archaic Period are located in the WA along San Felipe Creek.

The Late Prehistoric Period (2000 years ago to the founding of the mission at San Diego in 1769) is well represented in the deserts and mountains of southern California. During this period, ceramic technology was introduced to the native population, and larger longer-term settlements were established along major drainage corridors. Each settlement established associated camps for gathering plant materials and foods, creating a network of sites. Rock art

is associated with this period, as is trade with the coast, southwest, and into what is now Mexico. Projectile points found at Late Prehistoric sites are Cottonwood Triangular and Desert Side-notched types.

4.6.2 Ethnography

At the time of Spanish contact, the southern portion of San Diego and Imperial counties was occupied by Yuman-speaking people now referred to in general as the Kumeyaay. Yuman-speaking people have lived in the region for at least 2000 years. They may have moved west from the Colorado River at that time to colonize the rich mountains and coastal lands of San Diego County.

The territory of the Kumeyaay people extends from Agua Hedionda Lagoon south into Baja California and east to the Sand Hills of Imperial County. Kroeber (1970) estimated that when the mission at San Diego was established there were 3000 or more Kumeyaay living in the region.

Prior to Spanish contact, the Kumeyaay lived in bands or groups within the larger cultural territory. The band name referred to a complex of living and activity areas, not necessarily to a single village site. A typical village site would include many residences, most likely domed structures partially excavated into the ground; sweat lodges; brush shelters and ramadas; food processing and storage areas; quarry sites to process stone needed to tool manufacturing; religious and ceremonial locations such as dancing grounds; rock art sites containing paintings; and names geographical locations such as creeks, mountains, groves, etc.

Many Kumeyaay were removed to San Diego Mission. There was much resistance on the part of the native people, who fled into the mountains, fought back, and burned Spanish settlements. Of all of the California Indians, the Kumeyaay resisted the influences of the missions with the most vigor and strength. However, eventually there was increasing settlement by Mexican and American immigrants, and the traditional lifeways of the native people were changed.

4.6.3 History

The San Felipe Valley east of Volcan Mountain was the location of the Southern Overland Trail, used by livestock traders, immigrants, the military, government and rail road surveyors, and the overland stage from the mid 1830s to the mid 1870s. In San Felipe Valley, the trail generally followed the course of San Felipe Road (S-2). It is not currently known if portions of the actual trail can be identified. The trails shows up on many 19th century maps as the “Road from Yuma to Los Angeles” (Wheeler 1872, Beasley 1898). The 1872 San Diego County map shows an Indian Village at the location currently marked as a cemetery near the southern edge of Section 33 (right on the boundary of the WA). Historian Chris Wray has stated that there were adobe buildings at this village, and the 1903 USGS Ramona Quadrangle map shows a cluster of

buildings near the location. Aerial photographs from 1928 show no habitations, although ground disturbance in Arkansas Canyon indicates the location of what is now know as the Grand Homestead Site. The homestead site consists of adobe ruins, stone building ruins, and a Basque brick oven. A late prehistoric Native American site also is located there. The 1943 USGS Santa Ysabel Quadrangle map shows a residence at Paroli Spring.

4.6.4 Archeological Studies, Field Surveys, and Record Searches

Three major archaeological studies have been undertaken in San Felipe Valley, all to inventory or evaluate cultural resources on public lands.

- Volcan Mountain Preserve Archaeological Survey. This study began in 1991 with organized volunteer surveys of Volcan Mountain and nearby lands proposed for public acquisition. Over a ten-year period, several thousand acres were surveyed and over 60 archaeological sites were recorded. These surveys included the Arkansas Canyon portion of the WA, where an important complex of sites was discovered. All of the recorded sites were associated with the Late Prehistoric Period, and many contain unique milling features and ceremonial features (Hector 1998).

- San Dieguito River Park Land Acquisition Survey. A survey of the proposed 390-acre acquisition by the River Park JPA was necessary to comply with the conditions of the funding grant. Many milling sites were found, providing evidence that the prehistoric people camping in the foothills of Volcan Mountain exploited many different types of plant foods. The study included the Grand Homestead Site, which was recommended as being eligible for inclusion on the National Register of Historic Places.

- Sentenac Canyon and Cienega Acquisition Evaluation Survey, Anza-Borrego Desert State Park. State Parks prepared an evaluation of 1,184 acres proposed for acquisition. As with the San Dieguito study, the surveys were a requirement tied to the federal funding for the acquisition. Fifty-six cultural resources were found, mostly concentrated around Sentenac Canyon.

Surveys have not been conducted in the higher elevations of Volcan Mountain, on the WA lands east of San Felipe Road, or in most of Rancho San Felipe. A records search for the Rancho San Felipe component was conducted by Jones & Stokes in November/December 2006.

4.6.5 Identified Sites and Resources

Field surveys and related studies have identified the following types of resources in and/or immediately adjacent to the SFVWA:

- A homestead site (circa 1890s)
- Buried sites
- Historic ranching remains/corral system
- Historic Rancheria site
- Prehistorice resources (mortors, slicks, flakes, milling features)
- 1880-1914 historice trash scatter

4.7 Visual Resources

As noted in connection with the Arkansas Canyon and northern Rutherford Ranch acquisitions, San Felipe Valley is part of a designated scenic viewshed along San Felipe Road. Along this stretch of the road, motorists have dramatic views of Volcan Mountain's prominent ridgeline and the rugged valley floor with very limited visual evidence of human influence or occupation. The viewshed includes oak-studded canyons and conifer-lined ridges to the west and rocky studded slopes covered with cactus and yucca immediately to the east. San Felipe Creek runs parallel with the highway, providing a scenic contrast with its riparian corridor.

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5. Management Program

This section presents the management program for the SFVWA. The management program is divided into three parts:

- Organization, Assumptions, and Terminology
- Management Goals and Tasks
- Operational Requirements

An opportunities and constraints assessment of the management program is presented in section 6 of this LMP, together with an assessment of potential environmental impacts associated with implementation. The CEQA documentation for the program is Appendix C.

5.1 Organization, Assumptions, and Terminology

The Management Program focuses on goals and tasks for managing the resources in and public uses of the WA. Goals provide broad guidance for ongoing management and use of the lands in the WA. The tasks are the actions required to meet the goals.

5.1.1 Organization

For this LMP, management goals and tasks have been grouped into twelve elements:

- Habitat Management
- Species Management
- Watershed Management
- Cultural Resource Management
- Fire Management
- Facility Maintenance
- Public Uses
- Monitoring
- Scientific Research
- Emergency Preparedness
- Information Management
- Public Information

Each element identifies:

1. The resources and activities that are the focus of the element (Focal Resource/Activity);
2. The Department's goals regarding management of the resources and activities;
3. The tasks that will be implemented to achieve the goals; and
4. Guidelines for avoiding and/or minimizing potential impacts associated with management of the identified resources and activities (Impact Guidelines).

Elements that address multiple resources or activities (e.g., Habitat Management and Public Uses) are further divided into components. Each component addresses a subset of the identified resources and activities.

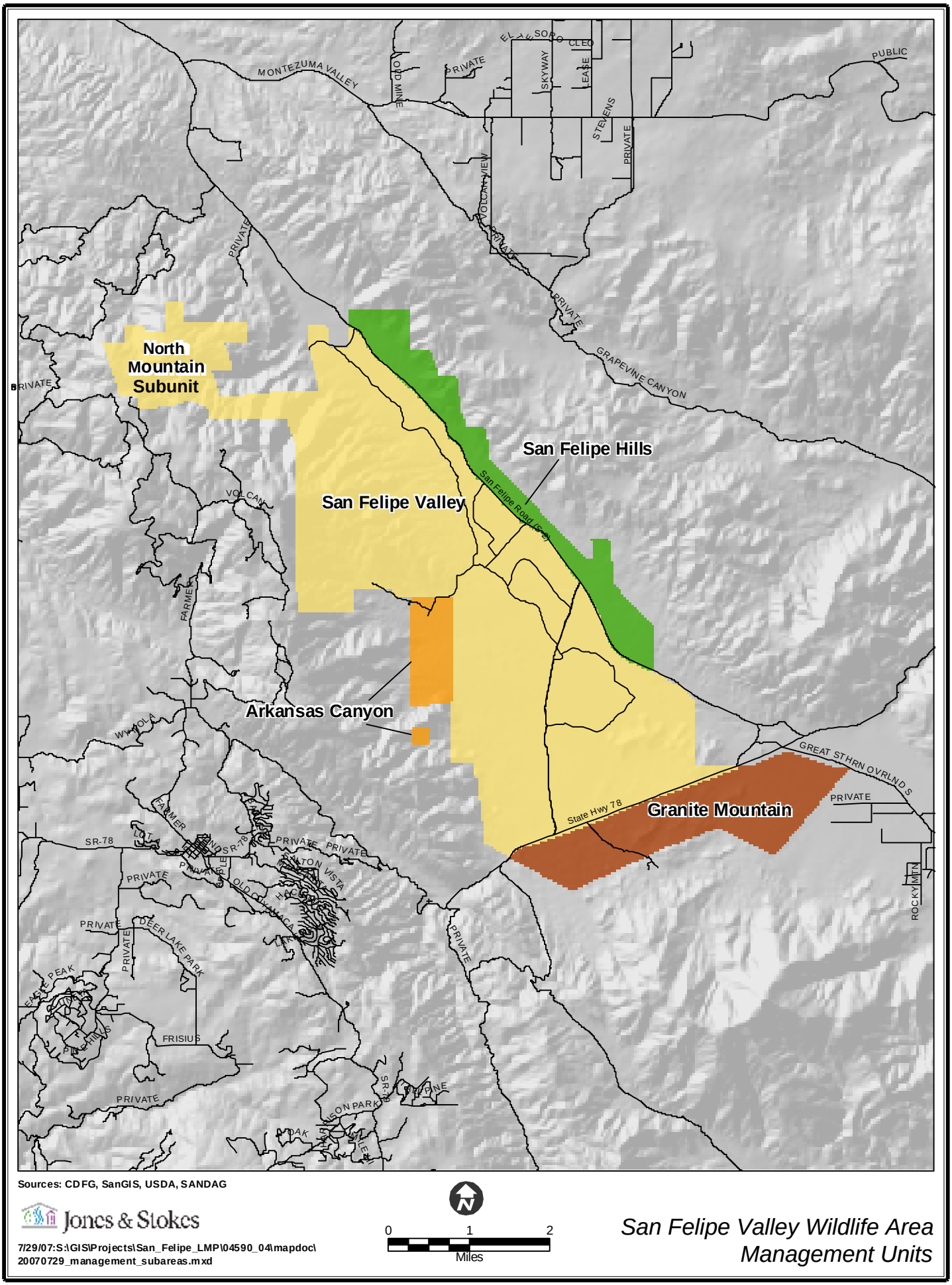
5.1.2 Assumptions

In formulating the management program, the Department has made the following assumptions:

- As stated in the CAPPs for the acquisitions, it is not anticipated that the WA will require intensive management or a full-time permanent or resident staff.
- The WA will remain a Type C site in terms of the public use regulations that apply under 14 CCR 550 and 551(q), and the Department will use the LMP to help determine the 551(q) limitations on uses of the WA.
- The covenants and restrictions attached to the property will remain in effect, including existing access easements on private roads and the right-of-ways held by Caltrans on Highway 78 and San Diego County on San Felipe Road.
- All goals must be consistent with the Department's policies and regulations.
- All tasks will be planned and implemented to minimize and mitigate environmental impacts and comply with applicable regulations.
- The tasks in the LMP will be implemented by Department staff, through cooperative agreements with other public agencies, and with the assistance of volunteers.

For task planning and implementation purposes, the Department has divided the SFVWA into four units (Figure 5-1):

Figure 5-1. Management Units and Subunits



- San Felipe Valley includes WA lands north of State Highway 78 and west of San Felipe Road, excluding Arkansas Canyon. The lands managed cooperatively with CalFire in the northwest corner of the WA are identified as a separate subunit.

- San Felipe Hills includes WA lands east of San Felipe Road.

- Arkansas Canyon includes WA lands in Section 12S, Townships 22 and 27 (see Figure 3-2). Once transferred to the Department, the JPA lands in this area will be managed as part of this unit.

- Granite Mountain includes WA lands south of Highway 78.

If other lands are added to the WA, the units will be adjusted accordingly and/or new units or subunits will be determined.

5.1.3 Terminology

Certain words and phrases are used in the management program to identify and differentiate the types of planning, fieldwork, actions, and documents entailed in managing the resources and uses in the WA. Key terms are defined below (also see Glossary).

- Access Control (or Limitation). A physical barrier or other means for precluding or limiting access to a site or resource.

- Adaptive Management. A method for examining alternative strategies for meeting measurable goals and objectives, and then, if necessary, adjusting future management actions according to what is learned.

- CEQA Review. Evaluation of the potential for a project (activity) to alter the environment and result in significant adverse impacts. The evaluation is conducted as specified in CEQA guidelines, using the CEQA checklist/Initial Study and subsequent documentation as necessary (i.e., a negative declaration, mitigated negative declaration, or environmental impacts report).

- Creek Buffer. A setback or zone extending from the creek bed into adjacent terrestrial habitat where restrictions apply to access and activities.

- Cultural Resource Buffer. A zone around a known cultural resource site where restrictions apply to access and activities.

- Fire Recovery Regime. A component of a fire management plan that identifies the techniques that will be used to restore the site to pre-fire conditions.

- Focal Resource/Activity. The resource, management activity, or public use that is the focus of a Management Program Element or Component.

- Habitat Enhancement. The improvement of an existing degraded vegetation community. Enhancement involves improving one or more ecological factors, such as species richness, species diversity, overall vegetative cover, or wildlife value. Enhancement activities typically occur on substrates that are largely intact.

- Habitat Restoration. Restoration is the establishment of a vegetation community in an area that historically supported it, but no longer supports it because of the loss of one or more required ecological factors. Restoration may involve altering the substrate to improve a site's ability to support the historic vegetation community.

- Management. For purposes of this LMP, activities undertaken by or with the authorization of the Department to protect, maintain, and enhance the resources in the WA and oversee public uses of those resources.

- Monitoring. The collection of information and observation of conditions at a specified location, about a resource, and/or about an activity.

- Protected Resources. In this LMP, protected resources are listed species, fully protected species, non-listed special status species, special status habitats (including rare types), and cultural resource sites.

- Rare Habitat Buffer. A zone around an area with a rare habitat type where restrictions apply to access and activities.

- Recovery. The process by which the decline of an endangered, threatened, or other special status species is arrested or reversed, or threats to its survival are neutralized so that the species' long-term survival in nature can be ensured.

- Remediation. The implementation of measures to correct a specific problem.

- Seasonal Limitation. An access control or impact avoidance measure tied to a time of year (e.g., the months when rain is heaviest in an area or the months when certain species breed).

- Sediment. Fragments of rock, soil, and organic material transported and deposited by wind, water, or other natural phenomena.

- Sedimentation. Deposition of material suspended in water or air, usually when the velocity of the transporting medium drops below the level at which the material can be supported.

- Special Status Species. Special animals as defined by the Department and sensitive plants as identified by the Department and on lists maintained by the CNPS.

- Subsurface Land Alterations. Grading or other activity that removes surface vegetation and disturbs or removes the topsoil layer.

- Vegetation Management Regime. A component of a fire management plan that identifies the techniques that will be used to thin or remove vegetation that pose fire risks and/or that require fire for seral succession. Techniques include but are not limited to mowing, other forms of brush clearing, and prescribed burns.

5.2 Management Goals and Tasks

This section presents the elements of the management program.

5.2.1 Habitat Management Element

The Habitat Management Element addresses:

1. Management of the many different vegetation types in the WA, including the rare types that occur only in the area or are the farthest known extent of their types (see section 4.4.3);

2. The need to monitor and remediate habitat problems identified in the resource inventory, including but not limited to occurrence of excessive dead trees, type conversion in burn areas, and the direct and indirect effects of invasive species (e.g., tamarisk) proliferation; and

3. The importance of the WA as a movement corridor for southern mule deer and mountain lions.

The primary purpose of the element is to identify ways to:

1. Preserve, enhance, and restore the terrestrial habitats found in the WA, including the rare habitats that occur within types;
2. Preserve, enhance, and restore the quality of aquatic habitats in the WA;
3. Preserve and enhance the capacity of the WA's habitats to support populations of native species; and
4. Preserve the wildlife movement function of San Felipe Valley.

The element is divided into five components:

- Riparian and Other Aquatic Habitats
- Chaparral, Scrub, and Grasslands
- Oak Woodlands
- Evergreen and Deciduous Forests
- Wildlife Movement Corridors and Migration Flyways

5.2.1.1 Riparian and Other Aquatic Habitats

Focal Resource/Activity

This component focuses on the valley foothill riparian, desert riparian, emergent wetland, streams, and manmade aquatic habitats in the WA. Riparian and aquatic types occur in all of the management units, with most of the habitat associated with San Felipe Creek and its tributaries. All of these types are special status habitats. They include many of the rarest types found in the WA, including but not limited to seasonally flooded grasslands and forbs such as the yerba mansa alliance and alkali-sacaton-creeping wildrye-rush classification unit. The riparian areas and creeks provide food, water, migration and dispersal corridors, and cover for an abundance of wildlife. Of more than 100 species of birds observed in the WA, 83 were detected in areas of riparian forest – including the federally and state listed least Bell's vireo, southwestern willow flycatcher, and yellow-billed cuckoo. In addition to vireo and flycatcher, other special status species associated with riparian or aquatic types in the WA include long-eared owl, sharp-shinned hawk, yellow warbler, yellow-breasted chat, California legless lizard, and silvery legless lizard. Game species found in the habitats include mallards, wild turkey, California quail, and doves. Most of these habitats were not directly affected by the Pines Fire. The most significant management concern is the occurrence and continued spread of tamarisk in and along creeks and the resulting changes in understory composition, creek flows, and the water table underlying adjacent scrub types. Other management concerns include the potential for gully formation and undercutting along riparian corridors due to erosion and sediment transport.

Goals

The Department's goals regarding riparian and aquatic habitats in the WA are to:

- Preserve the riparian and aquatic habitats in the WA as essential features of the watershed ecosystem;

- Evaluate and maintain man-made aquatic habitats for appropriate wildlife use;

- Maintain and enhance habitat conditions in the WA that will contribute to the recovery of the least Bell's vireo, southwestern willow flycatcher, and yellow-billed cuckoo while also benefiting the non-listed special status and game/non-game species that use these habitats; and

- Improve habitat conditions in and downstream of the WA through a cooperative comprehensive program to remove and control tamarisk and other exotic invasive plants in the watershed.

Tasks

1. Complete a comprehensive assessment of the distribution and density of tamarisk and other exotic invasive plants in riparian and aquatic habitats within the WA. This assessment will be planned in coordination with the comprehensive program for the removal and control of tamarisk and other exotic invasive plants in the watershed.

2. Complete an assessment of the condition of the aquatics habitats in the WA and update the assessment as needed as the LMP is being implemented.

    a. The assessment of riparian and wetland types will identify stand structure and species composition, dominant tree species, understory species and density, occurrence and density of tamarisk and other exotic invasive plants, snags and downed trees, wildlife occurrence and diversity, rare types that occur within this habitat, sources of erosion and sediment transport, intergrade with adjacent habitats, opportunities for habitat enhancement and restoration, and problem areas that require monitoring or remediation.

    b. The assessment of stream habitat will identify bank structure and condition, water flows, substrate composition, turbidity, in-stream vegetation, species occurrence, signs of excessive sediment loads, other stream features relevant to habitat and watershed management, sites for erosion and sediment control, sources and types of potential water quality contaminants, opportunities for habitat enhancement and restoration, and problem areas for monitoring or remediation.

    c. The seeps, ponds, and wells in the WA will be assessed for water levels, vegetation, species occurrence, signs of excessive sediment loads, sites for erosion and sediment control, opportunities for habitat enhancement and restoration, and problem areas that require monitoring or remediation.

3. Prepare and implement a comprehensive tamarisk (and other exotic invasive plant) removal and control plan for the WA. This plan will be coordinated with tamarisk removal programs for adjacent lands and will be updated as needed.

4. Prepare and implement a riparian and aquatic habitat enhancement and restoration plan. This plan will be coordinated with other enhancement and restoration programs in the watershed and implemented through a combination of Department, interagency, and volunteer projects. The plan will be updated on an as-needed basis.

5. Prepare and implement a maintenance plan for all modified/developed springs and wells and update on an as-needed basis.

Impact Guidelines

1. In planning and implementing the above tasks, the Department will give priority to management activities that avoid impacts to protected resources in the WA. Impact avoidance measures for management activities in riparian and aquatic habitats will include but not be limited to:

    a. Pre-impact surveys for nest sites and bat and raptor roost sites;

    b. Pre-impact surveys for cultural resources in and along creek beds, except in already surveyed areas;

    c. No vegetation management during the southern mule deer fawning season;

    d. No vegetation management or land disturbance in occupied habitat during the breeding seasons of least Bell's vireo, southwestern willow flycatcher, and yellow-billed cuckoo;

    e. No vegetation clearing or land disturbance within the stream channel without the requisite authorizations from the Department and ACOE;

    f. No mechanical digging equipment in cultural resource buffers and areas not surveyed for cultural resources; and

    g. Restricted use of pesticides and herbicides in riparian habitat and creek buffers (allowed uses will be as determined by Department evaluations and subsequent 880 permit for herbicide application on Department lands).

2. Site-specific plans will be prepared for management activities that entail direct impacts to protected resources and/or subsurface land alteration. Such activities will be subject to CEQA review and must comply with all applicable regulations.

5.2.1.2 Chaparral, Scrub, and Grasslands

Focal Resource/Activity

This element addresses management of the predominant vegetation types in the WA, including 1) multiple types of chaparral, juniper scrub, creosote bush and acacia scrub, and California buckwheat and 2) annual and perennial grasslands in the WA, excluding the seasonally flooded grasslands.

The chaparral and scrub habitats are indicative of the unique transition zone encompassed by the WA and include the rarest types occurring in the WA and surrounding area, such as basket bush, California juniper-blackbush, blackbush, and desert apricot. The seral stages of these habitats are largely fire-dependent, and the plants and wildlife occurring in the habitats vary depending on the seral stage. Most of the special status mammal, reptile, and plants species and several of the special status birds observed in the WA occur in these habitats. Game species that occur in these types include California and mountain quail, mourning dove, jackrabbit, cottontail, and mule deer. The types are an essential component of mule deer foraging habitat. Approximately 5,700 acres (53%) of these types burned in the 2002 Pines Fire. Management concerns regarding these habitats include the occurrence and spread of invasive exotic weeds in the areas burned and not-burned in the Pines Fire, need for a fire-management regime as part of habitat management as well as to control the spread of fires to adjacent types, and diminishing forage for mule deer.

The grasslands are concentrated in the central and southern portions of the San Felipe Valley unit, and less than 100 of the 1,500 acres of this habitat were burned in the Pines Fire. Some of the existing habitat was used as grazing land for livestock. Special status species associated with grasslands include blacktailed jackrabbit, Townsend's big-eared bat, ferruginous hawk, horned lark, loggerhead shrike, merlin, northern harrier, prairie falcon, and western burrowing owl. Game species include jackrabbit, cottontail, wild turkey, mourning dove, and mule deer. Perennial grassland in the WA includes the largest known stand of the extremely rare purple three-awn alliance. Management concerns regarding the grasslands include the occurrence and spread of exotic invasive weeds and fuel loads.

Goals

The Department's goals regarding the chaparral, scrub, and grassland habitats are to:

- Preserve the habitats as foraging, breeding, and sheltering habitat for the special status and game species that occur in the WA;

- Manage the natural succession of species composition, structure, and wildlife values of the habitats to maintain and enhance conditions that will benefit southern mule deer, special status species, and game species in the WA;

- Promote the recovery of stand structure, species composition, and wildlife habitat functions of the chaparral and scrub oak habitats burned in the Pines Fire and in any future wildfires; and

- Manage the annual and perennial grasslands to control the spread of exotic invasive weeds to other habitat types and control fire risks to the rest of the WA from fuel loads within areas with these types.

Tasks

1. Complete a comprehensive assessment of the condition of the chaparral, scrub, and grassland habitats in the WA and update the assessment as needed during implementation of the LMP. The assessment will identify seral stage, dominant species, understory species and density, occurrence of rare types within these habitats, wildlife occurrence and diversity, intergrade with adjacent habitats, condition and species composition of regrowth in burn areas, occurrence and density of exotic invasive plants, sources of erosion and sediment transport, opportunities for habitat enhancement and restoration, and problems that require monitoring or remediation.

2. Prepare and implement a nonnative invasive plant species control program that targets scrub and grassland habitats and prioritizes areas for management. This program will be coordinated with tamarisk removal program and weed removal programs for adjacent lands; it will be updated as needed.

3. Prepare and implement a vegetation management regime and fire recovery regime for the fire-dependent upland habitats in the WA. These regimes will be coordinated with those for oak woodlands in the WA.

    a. The vegetation management regime will include components for managing understory vegetation and guidelines for using prescribed burns to replicate natural succession processes. The vegetation management regime also will address the intergrade of chaparral, scrub, and grassland habitats with adjacent types.

    b. The fire recovery regime will include a component focused on the continued recovery of chaparral, scrub, and grassland habitats in the Pines Fire burn area and guidelines for recovery actions following future wildfires. The regimes will be prepared and implemented in cooperation CalFire and revised on an as-needed basis.

4. Prepare and implement a chaparral, scrub, and grassland habitat enhancement and restoration plan. This plan will be coordinated with other enhancement and restoration programs in the watershed and implemented through a combination of Department, interagency, and volunteer projects. The plan will be updated on an as-needed basis.

Impact Guidelines

1. In planning and implementing these tasks, the Department will give priority to management activities that avoid impacts to protected resources in the WA. Impact avoidance measures will include but not be limited to:

    a. Pre-impact surveys for bat roost sites and roost or nest sites of fully protected species;

    b. No vegetation management during the southern mule deer fawning season or breeding season of special status and game bird species that occur in these habitats;

    c. No mechanical vegetation clearing or land disturbance within creek buffers without the requisite authorizations from the Department and ACOE; and

    d. No mechanical digging equipment in cultural resource buffers and areas not surveyed for cultural resources.

2. Site-specific plans will be prepared for management activities that entail direct impacts to protected resources and/or subsurface land alteration. Such activities will be subject to CEQA review and must comply with all applicable regulations.

5.2.1.3 Oak Woodlands

Focal Resource/Activity

This component focuses on the oak woodlands that occur primarily in the Arkansas Canyon unit, the central-western edge of the San Felipe Valley unit (adjacent to Arkansas Canyon), and at the northern edge of the WA. These woodlands include combinations of coast live oak and Engelmann oak that are rare throughout California and/or in San Diego County. As with much of the forest habitat, the oak woodlands are part of stands that extend outside the WA and were in the area burned by the Pines Fire. Unlike the forest habitat, the oak woodland occurs as two relatively large blocks of habitat rather than as patches within a mosaic. Also, the stands of oak woodland in WA do not extend as far into adjacent lands. The oak woodlands support a broad range of bird and mammal species, including several special status species

(e.g., Cooper's hawk, golden eagle, kestrel, long-eared owl, bats, and pocket mice) and game species such as deer, quail, and wild turkeys.

The oak woodlands are a key component of the fawning and foraging habitat for the Volcan Mountain and San Felipe Valley populations of southern mule deer. Because many of the older oaks were damaged and many young oaks were destroyed in the Pines Fire, there is a management concern regarding the quality of the existing breeding, foraging, and sheltering habitat in the oak woodlands and the ability of the stands to regenerate. There also is a concern of heightened fire risk because of the prevalence of nonnative grasses in regrowth areas and the proximity of the oak woodland to chaparral and scrub habitats with high fuel loads.

Goals

The Department's goals regarding oak woodlands are to:

- Preserve the oak woodland habitat as an important component of the unique mosaic of types in the WA;
- Maintain and enhance stand conditions and features that will benefit southern mule deer, special status, and game species in the WA; and
- Promote the recovery of stand structure, canopy cover, species composition, and wildlife habitat functions of the oak woodland burned in the Pines Fire and in any future wildfires.

Tasks

1. Complete a comprehensive assessment of the condition of the oak woodlands in the WA and update the assessment as needed. The assessment will identify seral stage, canopy cover, dominant tree species, understory species and density, dead or dying trees, wildlife occurrence and diversity, sources of erosion and sediment transport, intergrade with adjacent habitats, condition of naturally-occurring and planted regrowth in burn areas, occurrence and density of exotic invasive plants, opportunities for habitat enhancement and restoration, and problems that require monitoring or remediation.
2. Prepare a oak woodland habitat enhancement and restoration plan and coordinate development and implementation of the plan with other enhancement and restoration projects in the watershed.

3. Prepare and implement a vegetation management regime and fire recovery regime for the oak woodlands in the WA. These regimes will be coordinated with those for the chaparral, scrub, and grassland habitats.

    a. The vegetation management regime will include components for managing understory vegetation in regrowth areas and stands not burned in the Pines Fire. The vegetation management regime also will address the intergrade of oak woodlands with adjacent chaparral, scrub, and grassland types and will include special regime for stands in Arkansas Canyon where cultural resource sites occur.

    b. The fire recovery regime will include a component focused on the continued recovery of oak woodlands in the Pines Fire burn area and guidelines for recovery actions following future wildfires. The regimes will be prepared and implemented in cooperation with CalFire and revised on an as-needed basis.

Impact Guidelines

In planning and implementing management activities, the Department will give priority to activities that avoid impacts to protected resources. Impact avoidance measures for management activities in oak woodland will be the same as those for chaparral, scrub, and grassland habitats and, where applicable, those for riparian and aquatic habitats. Site specific planning, environmental review, and permit requirements also will apply as appropriate.

5.2.1.4 Evergreen and Deciduous Forests

Focal Resource/Activity

This component focuses on the evergreen and deciduous forests that occur on mountain slopes at the highest elevations in the WA, primarily in the North Mountain subunit and along the western edge of the northern half of the San Felipe Valley unit. These forests include combinations of oak, Coulter pine, Douglas-fir, white-fir, and incense cedar that are rare throughout California and/or in San Diego County. The habitats occur in varying-sized patches within the WA, typically as extensions of the same types on adjacent lands in locations that are transitions zones between watersheds. The habitats typically support a broad range of bird, small mammal, and endemic plant species. Because the habitat is located in steep rugged terrain, only a limited number of species surveys have been conducted in these areas. All known locations of these types in the WA and on immediately adjacent lands were burned in the 2002 Pines Fire.

Goals

The Department's goals regarding forest types are to:

- Preserve the forest habitats as important components of the unique mosaic of types in the WA;
- Maintain and enhance stand conditions and features that will benefit native wildlife and watershed protection; and
- Promote the recovery of stand structure, canopy cover, species composition, and wildlife habitat functions of the conifer forest burned in the Pines Fire and in any future wildfires.

Tasks

1. Complete a comprehensive assessment of the condition of the forests in the WA and update the assessment every five years. The assessment will identify stand structure and age classes, species composition, canopy cover, shrub and groundcover layers, snags and downed wood, dead or dying trees, wildlife occurrence and diversity, rare types that occur within this habitat, sources of erosion and sediment transport, condition of naturally-occurring and planted regrowth in burn areas, and problem areas that require monitoring or remediation.
2. Prepare and implement a vegetation management regime and fire recovery regime for forests in the WA. The regimes will be prepared and implemented in cooperation with CalFire and revised on an as-needed basis.
    a. The vegetation management regime will include a component on understory management of young stands and guidelines for future management of mature stands.
    b. The fire recovery regime will include a component focused on the continued recovery of forests in the Pines Fire burn area and guidelines for recovery actions following future wildfires.

Impact Guidelines

In planning and implementing management activities, the Department will give priority to activities that avoid impacts to protected resources. Impact avoidance measures for management activities in evergreen and deciduous forests will be the same as those that apply to riparian, other aquatic, and woodland habitats in the WA. Site specific planning, environmental review, and permit requirements also will apply as appropriate.

5.2.1.5 Wildlife Movement Corridors and Migration Flyway

Focal Resource/Activity

This component addresses the management of habitats in the WA to preserve the function and use of wildlife movement corridors and migration flyways. The habitat type and location of these corridors varies with the wildlife species using them. In general, the valley floor, mountain and foothill canyons, creek beds, and riparian corridors in the WA function as wildlife movement routes and habitat linkages between populations. San Felipe Valley also is an important inland flyway for migratory birds.

Goals

The Department's goals regarding these aspects of the WA are to:

- Preserve wildlife movement corridors and habitat linkages within the WA, especially known movement corridors for southern mule deer and mountain lions;
- Protect bat foraging routes along canyons and foothills;
- Manage habitats in the WA to support the forage and shelter needs of migratory birds; and
- Manage habitats, facilities, and uses in the WA to provide and direct wildlife to safe crossings.

Tasks

1. Monitor wildlife movement into and out of the WA, with an emphasis on tracking mountain lions, southern mule deer, and other large mammals and monitoring road kill on Highways 78 and San Felipe Road. Coordinate this effort with Caltrans, San Diego County, State Parks, and BLM.
2. Identify bat foraging routes in relation to known bat roosting sites.
3. Include the foraging needs of migratory species in the habitat measures implemented for special status and game species.
4. Design and place fencing and other barriers to ensure wildlife movement across the WA is not impeded and, where appropriate, directed to safe crossing areas.

5. Evaluate the potential for public uses of the WA to impede wildlife movement or degrade habitat conditions in important corridors, and determine where seasonal or other access limitations are or may be needed.

Impact Guidelines

1. In the CEQA review of site-specific projects and activities, impacts to known movement and migration corridors will be considered and priority will be given to avoiding permanent impacts to and the disruption of animal uses of such areas.

2. Management activities in movement and migration corridors will be planned and conducted as specified for the habitat type in the Habitat Management Element.

5.2.2 Species Management Element

The Species Management Element addresses:

1. Management and protection of the wildlife, fish, and plant populations that are permanent or temporary residents of the WA; and

2. The habitat requirements of special status and game species that occur in the WA.

The primary purpose of the element is to identify ways to:

1. Augment the goals and tasks in the Habitat Management Element with species-specific measures;

2. Ensure that management and public uses of the WA do not result in direct or indirect harm to listed and other protected species; and

3. Plan and provide for the needs of special status and game species that occur in the same habitats.

The element is divided into two components: Special Status Species and Game Species.

5.2.2.1 Special Status Species

Focal Resource/Activity

Species-specific measures are identified for listed species and other special status wildlife species such as raptors and bats.

- Three state and federally listed species birds have been observed in the WA: least Bell's vireo, southwestern willow-flycatcher, and yellow-billed cuckoo. Threespine stickleback also is a listed species and occurs as an introduced species in the WA.

- Raptors that do or may utilize the WA in biologically meaningful numbers and which may prove vulnerable to future land-use decisions are: white-tailed kite, northern harrier, sharp-shinned hawk, Cooper's hawk, ferruginous hawk, golden eagle, merlin, prairie falcon, burrowing owl, spotted owl, long-eared owl, short-eared owl, and northern saw-whet owl. Not all of these species may be present at this time and some (e.g., spotted owl, northern saw-whet owl) only have substantial potential to occur at the uppermost elevations. Some, such as sharp-shinned hawk and short-eared owl, are very unlikely to nest, but may make valuable use of the wildlife area in winter. Very small numbers of other raptors will occasionally occur, and these may include bald eagle, zone-tailed hawk, and peregrine falcon. However, specific management for these species is not judged to be worthwhile given the limited potential for them to make meaningful use of the WA. The most abundant raptors in southern California are well adapted to human presence and human alterations of the landscape; these include red-tailed hawk and great horned owl. Unfortunately, these same species can compete with, dominate, and even prey on, the less common species such as white-tailed kite, long-eared owl, and many others. Thus abundance of raptors can be poor indicator for health of raptor populations if that abundance comes at the price of limited diversity. Optimal management will address both the common needs and individual species requirements among raptor species.

- Seven species and subspecies of bats were detected in the WA in 2005, including Townsend's big-eared bat, big brown bat, hoary bat, California myotis, long-eared myotis, little brown bat, and western pipistrelle. The bat species detected use the grassland, chaparral, scrub, and/or oak woodland habitats in the WA, together with the abandoned mines, buildings, and watering sites. Species that roost in the WA's crevices and caves also likely use the orographic winds coming off the hills as they soar down to the flats to forage at night.

Goals

The Department's goals regarding special status species in the WA are as follows:

- Protect and contribute to the recovery of the listed species;

- Preserve and enhance riparian habitat to provide optimal habitat for least Bell's vireo, southwestern willow flycatcher, and yellow-billed cuckoo;

- Preserve stream habitat to support the existing population of unarmored threespine stickleback;

- Preserve and enhance roosting, foraging, and breeding habitat for raptors and bats that are permanent or temporary residents of the WA; and

- Use management of the WA as a unique opportunity to both conserve and study listed, raptor, and bat species.

Tasks

1. As part the management, restoration, and enhancement of riparian areas, identify opportunities and enact measures to sustain and improve habitat conditions for least Bell's vireos, southwestern willow flycatcher, and yellow-billed cuckoo.

2. Conduct a baseline survey of all potential vireo, flycatcher, and cuckoo habitat in the WA and monitor the habitat for the species' occurrence as needed.

3. Evaluate the risk of impacts to the listed bird species and their habitats from public uses of the WA and determine where limitations on access are or may be needed.

4. Monitor the population of unarmored threespine stickleback in the WA and manage so it can potentially be used to reintroduce genetically similar fish if local extinctions in Soledad Canyon in the Angeles National Forest, which is the source of the donor population for the WA and is recovering from recent fires.

5. Monitor streams, springs, ponds, and wells for the occurrence amphibian larvae, aquatic invertebrates, and sign of exotic fish and amphibians. Implement control measures to eradicate exotic fish and amphibians at the first sign of occurrence.

6. Identify ways to minimize safety hazards and risks to raptors from structures and activities in the WA.

7. Conduct a baseline survey of raptor habitat and occurrence in the WA, covering both spring (breeding) and winter seasons and update the surveys results as needed.

8. Survey suitable habitat for bat species in the WA and on any new lands added to the WA for all bat species with the potential to occur in the area, with an emphasis on priority species identified by the Western Bat Working Group. The surveys should include but are not limited to: seasonal surveys to detect residents, migrants, winter visitants, maternity roosting species and possibly hibernacula; tree surveys to identify roost sites; surveys of structures and mines; and surveys of foraging routes (especially in canyon foothills below roost sites in caves and crevices).

9. Develop and implement guidelines for maintaining and improving bat access to roost sites, foraging habitat, and water sources (e.g., clearing vegetation to improve access to watering sites).

Impact Guidelines

1. All surveys, monitoring, and habitat assessments for these species will be conducted by biologists with qualifications specified by the Department (and by federal resource agencies as appropriate).

2. The management and enhancement of habitat of these species will be subject to the impact avoidance and other requirements specified in the Habitat Management Element for individual habitat types.

5.2.2.2 Game Species

Focal Resource/Activity

This components addresses the management of the WA for the benefit of game species, including but not limited to: southern mule deer populations, upland bird and small game species, and migratory game bird species.

Goals

The Department's goals for management of the WA for the benefit of game species are to:

- Preserve and enhance mule deer foraging and fawning habitats in the WA;

- Maintain mule deer access to and movement along riparian corridors, the valley floor, and higher elevation habitats in the WA;

- Manage the size and health of the mule deer population through a combination of conservation actions and authorized hunting;

- Maintain self-sustaining populations of native upland bird and small game species in the WA;

- Enhance habitat to increase carrying capacity for native upland and small game species; and

- Maintain the WA's function as foraging and sheltering habitat and a flyway for migratory bird game species.

Tasks

1. Continue annual monitoring of mule deer use of fawning areas and forage in the WA.

2. Identify and implement measures to increase the amount and maintain a stable source of high quality forage for mule deer within the WA.

3. Where needed, design and install fencing in the WA that does not impede the movement of mule deer in and out of the WA and, where appropriate, direct mule deer to safe crossing areas. Establish safe crossings based on movement data and road kill data.

4. Evaluate the need for changes in hunting strategies based on the annual monitoring data of the deer population in combination with annual deer hunt totals for the WA.

5. Conduct an assessment of upland bird and small game species populations in the WA and update the assessment as needed.

6. Establish monitoring programs for small game, upland birds, and migratory game birds with priority given to monitoring in the San Felipe Valley and San Felipe Hills units. Utilize volunteer opportunities where appropriate.

7. Identify and prioritize locations where habitat enhancement would benefit game species. Enhancement and related measures may include but are not limited to: (a) rotating hunting areas or periodically close areas if heavy use is adversely affecting the habitat that game species prefer; (b) managing for all aspects of game species' needs; food, water, cover and breeding habitat; (c) incorporating brush piles or vegetation design that will provide cover for quail and small game; (d) constructing and installing dove cones where appropriate; and (e) enhancing and maintaining water sources.

8. Establish a cooperative program with State Parks, BLM, and USFWS to monitor migratory and resident bird populations for signs of avian flu and West Nile virus.

Impact Guidelines

1. In the CEQA review of site-specific projects and activities, impacts to mule deer fawning and foraging habitat and mule deer movement corridors will be considered. Priority will be given to avoiding impacts to mule deer during the fawning season, preventing impediments to deer movement in and out of the WA, and avoiding permanent loss or degradation of fawning and forging habitat.

2. The management and enhancement of habitat for mule deer and other game species will be subject to the impact avoidance and other requirements specified in the Habitat Management Element for individual habitat types.

3. Habitat enhancement measures for game species may not entail conversion of native habitats to nonnative types or agricultural crops or result in the loss or degradation of rare habitat types or habitats for special status species.

4. In planning habitat enhancement measures for game species, priority will be given to measures that benefit special status as well as game species.

5.2.3 Watershed Management Element

The Watershed Management Element addresses the management of resources in the WA as part of the larger San Felipe Creek watershed and the coordination of plans and programs in the WA with those for other parts of the watershed. The primary purpose of the element is to facilitate the development and implementation of the following types of programs and plans in the WA and the overall watershed:

- Tamarisk and other exotic invasive plant management
- Erosion and sediment transport control
- Habitat enhancement and restoration
- Surface-water runoff monitoring and control

5.2.3.1 Tamarisk and Other Exotic Invasive Plant Control

Focal Resource/Activity

This component addresses the removal, monitoring, and control of tamarisk and other exotic invasive plants in the watershed.

Goals

The Department's goals regarding this component are to:

- Restore and maintain the ecological health and function of the riparian, stream, and upland habitats in the watershed that have been compromised by the spread of tamarisk and other exotic invasive plants;

- Ensure that management programs for exotic invasive plants in the watershed are consistent with and complementary to one another; and

- Facilitate and, where possible, provide for the early implementation of tamarisk and exotic invasive plant control within the WA.

Tasks

1. Work in coordination with the parties to the 2004 Watershed Management Agreement and experts in exotic invasive plant control to develop and implement a comprehensive strategy for the tamarisk and exotic weed control in the San Felipe Creek watershed.

    a. The strategy will be based on an assessment of the distribution and density of tamarisk and exotic weeds in and adjacent to special status habitats within the watershed.

    b. The strategy will include but not be limited to: guidelines for identifying and prioritizing areas for control and monitoring measures, guidelines for selecting and applying removal and control techniques, criteria for measuring success, adaptive management measures to address problems that arise, a funding and staffing strategy, and pilot programs to allow for early implementation and testing of techniques.

Impact Guidelines

The impact guidelines for these tasks are the same as those identified in the Habitat Management Element and Species Management Element.

5.2.3.2 Erosion and Sediment Control Component

Focal Resource/Activity

This component addresses the need for erosion and sediment transport controls in the watershed.

Goals

The Department's goals regarding watershed planning for erosion and sediment control are to:

- Restore and maintain the ecological health and function of the stream habitats in the watershed that have been or may be compromised by excessive sedimentation from erosion sources in the watershed;

- Ensure that management programs for erosion and sediment control in the watershed are consistent with and complementary to one another; and

- Facilitate and, where possible, provide for the early implementation of an erosion and sediment control plan within the WA.

Tasks

1. Identify and assess erosion and sediment transport sources in the watershed that are and may contribute to degradation of stream habitats in the watershed.

2. Develop and implement a erosion and sediment control plan that targets but is not limited to sources associated with roads, trails, burn areas, agricultural lands, and recreation uses in the watershed.

3. Develop and implement a control plan for the WA as a pilot program for the watershed plan.

Impact Guidelines

The impact guidelines for these tasks are the same as those identified in the Habitat Management Element and Species Management Element.

5.2.3.3 Habitat Enhancement and Restoration Component

Focal Resource/Activity

This component addresses the coordination of habitat enhancement and restoration activities in the watershed.

Goals

The Department's goals regarding habitat enhancement and restoration in the are to:

- Support a watershed-based approach to planning habitat enhancement and restoration;

- Ensure that enhancement and restoration projects in the watershed are consistent with and complementary to one another; and

- Facilitate and, where possible, provide for the early implementation of priority enhancement and restoration projects within the WA.

Tasks

1. Work with the public agencies managing adjacent lands to identify and prioritize opportunities for habitat enhancement and restoration on public lands in the watershed, develop guidelines for techniques used and the success criteria applied; and develop a cooperative staffing and funding strategy for priority projects.

2. Identify, seek funding for, and implement priority habitat enhancement and restoration projects in the watershed.

Impact Guidelines

The impact guidelines for these tasks are the same as those identified in the Habitat Management Element and Species Management Element.

5.2.3.4 Surface-Runoff Component

Focal Resource/Activity

The element addresses the need for water quality monitoring in watershed streams and the potential for contaminants from surface-runoff.

Tasks

1. Work with the public agencies managing adjacent lands to identify and assess the water quality threat posed to stream habitats in the watershed from surface-runoff from roads and other sources.

2. Based on the results of the assessment, develop and implement a surface-runoff control plan for designated locations in the watershed.

Impact Guidelines

The impact guidelines for these tasks are the same as those identified in the Habitat Management Element and Species Management Element.

5.2.4 Cultural Resource Management Element

This element addresses managing the known cultural resource sites in the WA, surveying potential impact areas for cultural resources, assessing the potential for cultural resources in portions of the WA not previously surveyed; and managing any new cultural resources sites that may be discovered over time.

The primary purpose of the element is to:

1. Provide for the long-term stewardship of cultural resources in the WA;

2. Ensure that management activities and public uses in the WA comply with cultural resource protection requirements; and

3. Coordinate cultural resource management with implementation of the other elements of the LMP and with resource management on adjacent public lands.

The element is divided into three components:

- Cultural Resource Inventory
- Site Management and Monitoring
- Integrated Planning

5.2.4.1 Cultural Resource Inventory Component

Focal Resource/Activity

This component addresses (1) the importance of knowing the location and significance of cultural resources in the WA when planning and implementing land management activities and determining authorized public uses of the WA, and (2) collecting additional information about cultural resources in the existing WA and on any lands added to the WA over time.

Goals

The Department's goals regarding the cultural resource inventory are to:

- Ensure that the Department, CalFire, and other parties involved in management activities within WA have accurate, update-to-date information on the location and significance of identified cultural resources; and

- Ensure that information about the cultural resources in the WA is appropriately recorded with the State of California.

Tasks

1. Create and update as-needed a GIS database indicating the location, type, and management prescription for cultural resource sites in the WA and, where the information is available, on adjacent lands.

    a. This database will be based on the records in the Archaeological Management Plan (AMP) for the northern portion of the WA (Hector 2002), records of sites found in the WA between 2003-2005, and the results of future surveys and assessments of WA lands.

    b. The database will use the State of California system for assigning numbers to archaeological sites and will identify site types using the simplified categories in the 2002 AMP or other convention consistent with professional standards.

    c. Access to and distribution of the database and/or maps will be limited in accordance with State policies regarding sensitive resources.

2. Conduct cultural resource surveys and assessments of WA lands not covered by the surveys conducted for the 2002 AMP, including the Rancho San Felipe lands west of S-2, all of the San Felipe Hills unit, and lands added to the WA over time. The surveys and assessments of the Rancho San Felipe lands will include an evaluation of the historical significance of the ranch complex and associated structures.

3. Create and update as needed maps showing the location of the cultural resource sites in relation to other sensitive resources, roads, fire staging areas, areas with high levels of public use, and areas planned for prescribed burns.

4. Coordinate cultural resource management planning and actions with the San Diego County Archeological Society, California Native American Heritage Commission, the Kumeyaay tribes, and other interested parties as appropriate.

Impact Guidelines

The compilation and updating of the database does not entail any environmental impacts. Any field studies conducted to collect additional information would be subject to the impact avoidance and other requirements that apply to archeological studies and to activities in the WA.

5.2.4.2 Site Management and Monitoring Component

Focal Resource/Activity

This component addresses the management and monitoring of known cultural resource sites in the WA.

Goals

The Department's goals regarding management and monitoring are to:

- Preserve and maintain identified cultural resources as another of the special features of the WA; and

- Integrate management and monitoring of cultural resources with implementation of tasks under the other elements of the LMP.

Tasks

1. Apply the treatment and monitoring measures identified in Table 5-1 to the cultural resources found in the WA.

2. Where additional protections are needed, designate cultural resource buffers where restrictions will be put on management activities and public uses. The determination of where buffers are needed will be based an evaluation of the sensitivity of the sites, proximity to use areas, and/or results of monitoring.

3. Apply interim protection and monitoring measures to areas identified for further evaluation and areas where treatments are proposed but not yet scheduled. The interim measures may include fencing or other access control.

4. Develop and apply guidelines for the type of vegetation used to hide or protect cultural resource sites. The guidelines will identify appropriate tree and shrub species for the type of habitat in which the site occurs.

5. Incorporate the measures developed as part of the Integrated Planning Component into the treatment and monitoring regime for individual sites.

6. Protection of cultural materials and features at vandalized sites will be in accordance with recommendations and guidelines set forth by both state and federal historic preservation regulations.

Table 5-1. Treatment and Monitoring Matrix for Cultural Resource Sites in the SFVWA

Category/Description	Treatment	Monitoring
Category 1: Resources that meet the eligibility criteria for inclusion in either the National Register of Historic Places[1] or the California Register of Historical Resources[2] or are significant under CEQA. The resources have integrity and are at risk for damage and vandalism.	1. Preserve resource in place. 2. Actively manage for preservation, through means such as: -- fencing[3] -- re-routing of access paths or roads -- stabilization and repair of historic structures and features, including providing covers for buildings or ruins -- capping with non-cultural soils[4] 3. Do not introduce incompatible elements: restoration and replacement of architectural features should be based on detailed and accurate representation of original features as substantiated by historical, physical, pictorial, or archaeological evidence. 4. Do not introduce plant materials in the site area that would undermine, damage, or modify the resource (e.g., invasive vining plants, surface roots of certain trees.	Every Year (Or more frequently if site specific issues are identified)
Category 2: Resources that may be significant under CEQA but have reduced potential for damage due to topographic isolation, inaccessibility, or limited surface artifacts.	1. Preserve resource in place. 2. Other uses allowed nearby if there will be no direct access to the resources. 3. Management may include: -- avoiding direct impacts -- adding vegetation to hide and protect the resource[5] -- limited stabilization of historic features	Every Two Years (More frequently if site specific issues are identified)
Category 3: Resources that most likely do not meet National or California Register eligibility criteria and may or may not be significant under CEQA (includes resources used in interpretive programs and for research and study).	1. Preserve resource in place. 2. Other uses and modern amenities may be nearby. 3. Management may include: -- avoiding direct impacts -- adding vegetation to hide or protect the resource -- restoration or reconstruction of a historic building for interpretive use	Every Five Years

Category / Description	Treatment	Monitoring
Category 4: Resources that do not require any additional consideration (includes isolated artifacts or objects and sites where a data recovery program has been completed).	1. Ensure that proper documentation has been completed and submitted to the appropriate agencies and organizations. 2. If artifacts were collected, provide funds for curation at an appropriate facility[6].	Not Required

Notes

1 The National Register's evaluation criteria are as follows: The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and: (a) are associated with events that have made a significant contribution to the broad patterns of our history; or (b) are associated with the lives of persons significant in our past; or (c) embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or (d) have yielded or may be likely to yield, information important in prehistory or history. Generally, the resource must be at least 50 years old to be eligible for consideration.

2 Under CEQA, a resource may be considered by the lead agency to be “historically significant” if the resource meets the criteria for listing on the California Register of Historical Resources (Pub. Res. Code SS5024.1, Title 14, Section 4852) including the following: (a) Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage; (b) Is associated with the lives of persons important in our past; (c) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or (d) Has yielded, or may be likely to yield, information important in prehistory or history.

3 The placement of fence posts should be monitored by an archaeologist and a Native American representative. In general, a split-rail or lodgepole fence is effective in blocking access to a sensitive area.

4 Capping a site or a portion of a site where there is a trail or dirt road should be undertaken with the participation of an archaeologist and a Native American monitor. Considerations should include depth of the cap and trail safety issues; potential erosion of the soil or gravel cap; disturbance of the site during the capping process; maintenance of the trail or road.

5 Adding vegetation to protect a site should not include any disturbance of the surface of the ground, even if the site has been an agricultural field.

6 Recovered materials will be properly curated in accordance with the State Historical Resources Commission’s guidelines.

Impact Guidelines

Impact avoidance and minimization are included in the treatment and monitoring measures (see Table 5-1). Implementation of the measures also will be subject to the impact avoidance measures specified for areas with other types of protected resources.

5.2.4.3 Integrated Planning Component

Focal Resource/Activity

This component addresses the coordination of cultural resource management tasks and priorities with the other elements and components of the Management Program.

Goals

The Department's goal regarding this component is to:

- Resolve potential conflicts among management goals for areas with cultural and other protected resources; and

- Facilitate the implementation of habitat management, fire management, and facility maintenance in areas with cultural resources.

Tasks

1. Prepare an assessment of Category 1-3 sites that (a) identifies habitats, special status habitats, special status species, exotic invasive plants, roads, structures, and special use areas within a 0.5-mile or larger radius of the site; and (b) examines how the prescribed treatment measures might affect other management activities in the area (and vice versa).

2. Use the results of the assessment to identify compatible management activities and ways to combine cultural resource and natural resource management tasks.

Impact Guidelines

The management activities would be subject to the impact avoidance and other requirements that apply in areas with protected resources.

5.2.5 Fire Management

This element addresses all aspects of fire management in the WA, including vegetation management regimes, fire suppression activities, post-fire cleanup and remediation activities, and fire recovery regimes. The primary purpose of the element is to:

- Identify the public safety, wildlife, and protected resource concerns that must be factored into fire management activities in the WA;
- Provide guidelines for planning vegetation management, fire suppression, post-fire clean-up and remediation, and fire recovery regimes for parts of the WA;
- Coordinate vegetation management for fuel reduction purposes with habitat enhancement, stand management, and exotic weed control plans; and
- Continue the coordinated planning and implementation of fire management activities with CalFire under existing policies, plans, and agreements.

For purposes of this LMP, the fire management program for the WA is divided into three components:

- Vegetation Management Regime
- Fire Suppression and Post-Fire Cleanup and Remediation
- Fire Recovery Regime

5.2.5.1 Vegetation Management Regime Component

Focal Resource/Activity

This component addresses vegetation clearing for fuel reduction purposes and as part of the management of fire-dependent habitats in WA. Locations in the WA where vegetation management may be required for fuel reduction and safety purposes include but are not limited to: the ranch complex structures, WA entrance and parking area, the rights-of-way along Highway 78 and San Felipe Road, and areas near private residences adjacent to the WA. Habitats targeted for vegetation management (for fuel reduction and/or habitat management purposes) include conifer forest, oak woodland, chaparral and scrub, and annual grasslands. Management regimes will include a combination of techniques to remove or thin vegetation, including hand-cutting, mechanical mowing, and prescribed burns. Because of the mosaic of habitat types in the WA, occurrence of rare types and protected resources, and recent burn history, the property does not lend itself to easily definable treatment areas or zones.

Goals

The Department's goals regarding vegetation management regimes are to:

- Establish pre-fire regimes that will reduce the potential for devastating wildfire impacts to facilities and resources in and adjacent to the WA;

- Enhance certain habitats in the WA by using vegetation management to replicate natural succession processes.

Tasks

1. Work in cooperation with CalFire to develop and implement a fuel load reduction regime and schedule for the area around the ranch complex, WA entrance and parking area, along the portions of Highway 78 and San Felipe Road that run through the WA, and areas near private residences adjacent to the WA. Vegetation management within the WA near Highways 78 and San Felipe Road will be planned in coordination with Caltrans and San Diego County where appropriate. Management techniques will be determined on a site-specific basis and may include a combination of cutting, mowing, or prescribed burns. General guidelines for the techniques to be used are provided in Table 5-2.

2. Work in cooperation with CalFire to develop and implement vegetation management regimes for conifer, oak woodland, chaparral and scrub, and grassland habitats in the WA. Treatment areas will be identified based on an analysis of habitat conditions, fuel loads, and occurrence of protected resources. Management techniques will be determined on a site-specific basis and will include a combination of cutting, mowing, and prescribed burns. General guidelines for the techniques to be used are provided in Table 5-2.

3. Designate staging areas for fuel reduction activities in each treatment area. Staging areas are locations where hand crews and equipment may be concentrated and/or where vehicles may be parked. Staging areas will be placed at locations where minimal damage to natural habitats would occur. This could include existing roads or previously disturbed sites. Caution should be taken in locating staging areas in weedy areas. Dispersal of weed seeds into the treatment areas by foot or vehicular traffic should be avoided.

Table 5-2. General Description of and Guidelines for Vegetation Management Regimes

Treatment Technique	Description and Guidelines
Clearing of dead or decadent shrubs	Hand-cutting based on site-specific prescriptions. Focus on species such as chamise, black sage, coyote brush and ceanothus.
Fuel reduction in locations dominated by annual herbaceous vegetation	Mechanical mowing using equipment dictated by site-specific conditions. No disking allowed (disturbs soil and increases weed production). Timing should take into consideration the nesting season of grassland birds and the growth patterns of that year so that mowing need only occur once. Equipment maintenance essential to prevent sparks that could ignite fires and the spread of seeds of invasive weeds.
Prescribed burns	Requires site-specific plan and must comply with air quality, ESA/CESA, and CEQA requirements. Within WA, also must take into account rare habitats, special status species, and mule deer fawning season. Entails igniting fires in specified location when weather, wind, and other conditions allow control of the burn. Will be planned in cooperation with and conducted by CalFire.
Removal of dead or dying oaks and conifers	See Fire Recovery Component.
Removal of flammable invasives	Requires site-specific prescriptions. Treatments could include hand-cutting, painting of cut individuals with herbicide, removal of seed heads to prevent dispersal, or other methods to prevent regrowth.
Roadside mowing	Mechanical mowing along roadsides; treatment width is 10 feet. Intended to cut annual herbaceous biomass to reduce potential for roadside ignitions.
Roadside uplifting of shrubs	Hand-cutting and removal of the lower branches of shrubs to reduce fuel ladder effects and facilitate mowing where annual biomass is present near roadsides; treatment width is 10 feet. Should not remove more than one-third of the individual biomass of a given shrub, unless this shrub is largely dead and decadent.
Thinning or clearing of live shrubs	Hand-cutting and removal based on site-specific prescriptions. As many of the rarer shrubs and subshrubs as feasible should be retained. The range of plant species in the treatment area should be maintained.
Understory clearing and tree thinning in conifer forests	Site-specific prescriptions only. Will be planned in coordination with and conducted by CalFire foresters. Entails cutting, chipping, and prescribed burns to reduce vegetative levels, control species composition, and/or control species that compete with conifers for water and sunlight. Control methods also include thinning dense young forest trees by cutting individual trees or mechanically sawing or chipping rows or groups of trees.

4. Identify chipping areas for each treatment area where chipping is needed. Generally, these locations need to be accessible by vehicle in order to transport and operate the chipper. There may be treatment areas with no vehicular access or access only via private roads. Where chipping occurs, the chips shall not be placed in areas supporting native herbaceous habitats. Chips will be spread thinly where feasible and placed in the most disturbed locations. If no feasible location can be found to receive chips, they will be disposed offsite.

5. Limit foot and vehicle traffic through weedy areas being treated, in order to prevent weed seeds from being dispersed.

Impact Guidelines

All activities are subject to the impact avoidance and other requirements that apply to fire management activities in general and activities in areas with protected resources (including cultural as well as natural resources).

5.2.5.2 Fire Suppression and Post-fire Cleanup and Remediation Component

Focal Resource/Activity

This component addresses responses to wildfires in the WA and clean-up and remediation activities immediately after fires.

Goals

- Ensure public safety and protect structures during wildfires; and
- Establish fire suppression, cleanup, and remediation strategies to minimize impacts to the WA's facilities and protected resources.

Tasks

1. Establish the following guidelines for fire suppression activities in the WA:

    a. Limit staging areas to designated locations on roads and already-disturbed areas.

    b. Prohibit bulldozer use within 100 feet of stream centers and in all riparian areas.

    c. Avoid dropping retardant within 200 feet of any riparian areas.

    d. Avoid bulldozer use within 100 feet of cultural resource sites and any known populations of listed plants, amphibians, reptiles, or mammals.

e. Assign a qualified archaeologist to oversee protection of important archaeological, historical, and other types of cultural resources (where such protection can be accomplished in a safe manner without delaying or hindering emergency response operations). The archaeologist will follow the guidelines identified in CalFire's "Procedures for an Archaeologist Assigned to a CDF Wildfire or Other Emergency Incident" (April 2005).

2. Establish the following guidelines for post-fire cleanup and remediation activities in the WA:

   a. Restore infrastructure and landscape contours to pre-fire conditions.

   b. Remediate any damage from mechanical firefighting equipment, including restoring dozer lines, decompacting roads, spreading cut vegetation, and installing water diversions where needed.

   c. Complete emergency watershed work as soon as possible and before the first heavy rainfall, including installation of straw waddles and other erosion protection devices.

   d. Revegetate only in critical areas that are at risk for conversion to nonnative habitats, or to reduce invasion of non-native, exotic plant species.

   e. Repair culverts and stream crossings and restore drainage and road surfaces in areas damaged by firefighting activities and post-fire storm runoff.

   f. Ensure that fire suppression equipment, materials, and trash are removed from the WA.

   g. Monitor invasion of weeds in areas disturbed by fire activities and the effectiveness of erosion control methods, and take corrective actions as needed.

   h. Repair damage to gates, fences, and other infrastructure caused by either fire or fire suppression activities.

Impact Guidelines

All activities are subject to the impact avoidance and other requirements that apply to fire management activities in general and activities in areas with protected resources (including cultural as well as natural resources).

5.2.5.3 Fire Recovery Regime Component

Focal Resource/Activity

This component focuses on the recovery of burn areas after post-fire cleanup and remediation is completed.

Goals

The Department's goals regarding fire recovery regimes are to:

- Establish post-fire regimes that will enhance the natural recovery of vegetation communities and species populations affected by the fire;
- Manage the regrowth areas in ways to restore habitat quality to levels that equal or exceed pre-fire conditions.

Tasks

1. Develop an assessment protocol for burn areas to identify and prioritize treatment areas for recovery regimes, including guidelines for retaining damaged or dead trees for their wildlife values.
2. In areas with burned conifers, apply the following general guidelines to mark trees for removal:
    a. Conifers will be marked for removal if they:
        i. They have less than a 20% live crown ratio;
        ii. They have the potential to fall on roadways (i.e., leaning toward the roadway and having the length to reach the road if they fell, large limbs overhanging the road, obvious defects such as large scars, or swelling in the main tree stem); or
        iii. Their needles are either absent (i.e., burned off or have fallen off) or have turned brown or off-green within a period of 2-3 years.

b. The live crown ratio of a conifer will be determined based on the length of the live branches (i.e., green needles) divided by the total height of the tree. The live crown must include the top of the tree. Table 5-3 estimates the 20% live crown ratios for conifers of different heights (20-140 feet).

c. Where there is a question as to whether a tree meets the 20% live crown ratio, it will be marked for retention provided it can be safely left standing.

Table 5-3. Live Crown Ratios for Conifers

Tree Height (feet)	20% Live Crown (feet)	Tree Height (feet)	20% Live Crown (feet)
20	4	90	18
30	6	100	20
40	8	110	22
50	10	120	24
60	12	130	26
70	14	140	28
80	16		

3. In areas with burned oaks, apply the following general guidelines to mark trees for removal. The guidelines reflect the fact that, unlike conifers, oaks have the ability to regenerate after fires. The success of the regeneration depends on the intensity of the burn that took place around the oak stems. The species of oak also plays an important role in the ability of the species to respond to a wildfire.

   a. Burned oaks will be marked for removal if they have a diameter of breast height (dbh) of 6 inches or less and show the following signs of intense fire damage: no leaves left on the tree, the majority of the branches have been burned off, there is only a main stem and a few branches remaining, and 100% of tree surface has been charred. Exceptions include coast live oak with slight charring and black oak with light or medium charring as defined in Table 5-4.

   b. Burned oaks with a dbh greater than 6 inches will retained or felled depending on the level of surface charring and the species type, as shown in Table 5-4, and provided that their retention does not pose a safety threat.

Table 5-4. Recommended Guide to Harvesting Fire-Damaged Oaks[1]

	Less than 6 Inches dbh			6–12 Inches dbh			More than 12 Inches dbh		
Species	Light Char	Medium Char	Heavy Char	Light Char	Medium Char	Heavy Char	Light Char	Medium Char	Heavy Char
Coast live oak	Lv	Lv	Cut	Lv	Lv	Lv	Lv	Lv	Lv
California black oak	Lv	Cut	Cut	Lv	Cut	Cut	Lv	Lv	Cut
Canyon live oak	Cut	Cut	Cut	Lv	Cut	Cut	Lv	Cut	Cut
Interior live oak	Cut	Cut	Cut	Lv	Cut	Cut	Lv	Cut	Cut
Scrub oak	Cut	Cut	Cut	Lv	Cut	Cut	[2]—	—	—

Notes

Lv means that the tree should be left uncut for 3 years; Cut means that the tree can be cut immediately.

[1]Assumes that 100% of the trunk circumference is affected, as follows: Light—spotty char or scorch, scattered pitting; Medium—continuous charring, scattered areas of minor reduction in bark thickness; Heavy—continuous charring and pronounced reduction in bark thickness, with wood sometimes exposed.

[2]Scrub oak does not reach 12 inches dbh.

Source: Plumb, Tim R. 1979. Response of oaks to fire. Presented at the Symposium on the Ecology, Management, and Utilization of California Oaks, Claremont, CA, June 16–28, 1979.

4. When trees in a burn area are felled,

    a. Dispose of the slash (limbs and tops) either by chipping and redistributing it on the site or through another approved method.

    b. Position larger felled trees so they lay horizontal to the slope to assist with erosion control and provide future wildlife habitat.

    c. Remove logs on the uphill of a road to prevent them from rolling onto the roadway.

5. Working in cooperation with restoration experts and managers of adjacent public lands, develop habitat-specific recovery strategies. Each strategy will include criteria for determining appropriate methods for site restoration and monitoring, guidelines for techniques and materials to be used, monitoring protocols, and success criteria. Opportunities for pilot projects within the existing burn areas should be identified to allow methods and approaches to be tested. The habitat-specific strategies and proposed pilot projects will be coordinated with the watershed habitat enhancement and restoration plan.

6. Implement pilot recovery projects and refine the recovery strategies as needed based on the results.

7. Identify and implement interim recovery and monitoring measures in burn areas following post-fire cleanup and remediation, including but not limited to erosion and sediment control, wildlife monitoring, monitoring for occurrence of exotic invasive species in regrowth areas, and monitoring of species composition and structure in regrowth areas.

Impact Guidelines

The impact guidelines for these tasks are the same as those identified in the Habitat Management Element and Species Management Element.

5.2.6 Facility Maintenance

Focal Resource/Activity

This element addresses the maintenance of roads, structures, and other facilities in the WA.

Goals

The Department's goals regarding facility maintenance are to:

- Maintain the roads, structures, and other facilities in the WA to ensure public safety; and

- Minimize the potential for adverse impacts to the resources in the WA from the condition and use of facilities.

Tasks

1. Conduct an assessment of the conditions of roads, structures, and facilities in the WA and update the assessment as needed;

2. Identify safety hazards and sources of potential impacts to WA resources; and

3. Establish a prioritized list of maintenance projects.

4. Establish a regular cycle of inspections and maintenance for management roads, fencing, signage, and other structures/facilities in the WA.

5. Establish a protocol for inspecting facilities and conducting repairs during emergency circumstances.

6. Develop a strategy for the ultimate disposition of structures that do not qualify as significant cultural resource sites and equipment or ranch materials needing disposal.

7. Identify roads in the WA that could be eliminated and restored with vegetation and prepare restoration plans for those areas.

8. Involve volunteers in the area maintenance when and where appropriate.

Impact Guidelines

Maintenance activities are subject to the same impact avoidance and other requirements that apply to other land management activities, including seasonal restrictions (no road maintenance during rainy season) and avoidance of impacts to protected resources. None of the maintenance road activities entails habitat removal.

5.2.7 Public Uses of the WA

This element addresses compatible wildlife-dependent public uses of the SFVWA. The primary purpose of the element is to:

- Identify the types and locations of public uses authorized in the WA upon approval of the LMP;
- Identify the management activities required to support those uses; and
- Establish a framework for evaluating other proposed public uses of the WA.

The element has four components:

- Public Access
- Hunting
- Hunting Dog Training
- Education and Outreach

5.2.7.1 Public Access

Focal Resource/Activity

This component addresses public access to the WA, including the use of existing roads in the WA and controls on public access to areas with sensitive resources.

Goals

The Department's goals regarding public access to the WA and its resources are to:

- Ensure public access to the WA while preserving its undisturbed landscape;
- Ensure public safety at access points and within the WA;
- Minimize the potential for adverse impacts to habitats, species, and cultural resources from authorized public use of the WA; and
- Minimize instances of trespassing, unauthorized uses, and damage to WA resources from such access and uses;
- Allow use of existing roads in the WA for pedestrian access; and
- Establish a framework for considering broader uses of the WA's roads for hiking and riding, including a possible through-trail to trails systems outside the WA.

Tasks

1. Continue existing restrictions that prohibit motor vehicles within the WA.
2. Evaluate the physical characteristics of the existing roads for suitability as:
    a. Hiking and horseback riding trails; and
    b. A potential through-trail to existing and/or proposed trails on adjacent public lands.
3. Develop guidelines for determining where a through-trail in the WA would link to trail systems outside the WA.
4. Establish a monitoring program to track levels and routes of use in the WA and use the results to determine maintenance needs and schedules.
5. Conduct the tasks required to open currently closed portions of the WA to the public, including but not limited to:
    a. Determining legal boundaries of the WA in areas adjacent to State Parks;
    b. Resolving conflicts regarding easements restrictions and authorizations;

c. Remediating public safety hazards on the property (e.g., mine shafts, ranching debris);

d. Dismantling and removing structures not proposed for use or preservation;

e. Installing fencing and signage;

f. Designating any permanently closed zones or buffers, including such areas near adjacent private property and areas around protected biological resource, cultural resources, or WA structures;

g. Completing water source refurbishment and protection projects;

h. Completing cultural resource surveys and implementation of appropriate management measures in areas not previously surveyed for cultural resources;

i. Completing biological resources surveys and implementing appropriate resource management measures in areas with sensitive resources; and

j. Completing proposed, intended land transfers.

6. Evaluate the potential to expand the information area along San Felipe Road and to potentially provide additional information areas and pedestrian access points at other locations.

7. Monitor the number of people and vehicles coming to the WA and use the information to determine the amount and location of additional parking that may be needed in the future.

8. Work in coordination with Caltrans and County of San Diego to monitor traffic levels on Highway 78 and San Felipe Road and use the information to address public safety and highway maintenance and improvement issues in the design and location of informational areas (e.g., potential need for turning lanes) and for the parking available along Highways S-2 and 78.

9. Conduct a cooperative study with interested parties to identify areas of the WA that are or could be made accessible for disabled persons and what uses would be possible in those locations.

10. Clearly identify areas of the WA closed to the public on maps of the WA and with signage in the WA.

11. Evaluate the suitability of roads in the WA for potential future designation use as hiking and horseback riding trails. (Note: There currently are no designated hiking or riding trails in the WA or specific proposals to connect roads in the WA to trails on adjacent public lands.)

12. Establish a monitoring program to deter trespassing and authorized uses, with an emphasis on deterring poaching, vehicle use, trash dumping, vandalism, and arson.

13. Following approval of the LMP, and annually thereafter, assess rules and regulations and, if warranted, propose modifications to CCR, Title 14, Section 550 and 551(a).

Impact Guidelines

Public use of the WA is expected to increase with improved access and with the growth of the region over time. Impacts associated with increased access and increased occurrence of currently allowed uses in the WA will be avoided, minimized, and mitigated by the seasonal and locational limitations that apply to activities in the WA and the increased protection and monitoring of resources that will occur under this LMP.

No new uses are proposed that would vary substantially from the type and levels of public use currently allowed in the WA. It is anticipated that hiking and/or horseback-riding may be allowed in the WA, but such activities would be limited to existing roads. No trails are proposed for construction in the WA. Recreational hiking in the WA is likely to increase with improved access to the WA, the growth of the region over time, and if a through-trail is established. Horseback riding occurred on the lands when they were in private ownership but is not currently an allowed use of the WA (no riding trails have been designated). As with the effects of existing uses, the impacts of these anticipated uses would be avoided, minimized, and mitigated through seasonal and locational limitations and the increased protection and monitoring of resources that would occur under the LMP. In addition, site-specific plans will be required for through-trail connections to trails outside the WA. Those plans will be subject to CEQA review and all other applicable requirements.

5.2.7.2 Hunting

Focal Resource/Activity

This component addresses use of the WA for hunting and management of the WA to sustain that use. As noted in the CAPPs and recommended several times during the scoping process, the special nature of the hunting experience at San Felipe is another unique feature of the WA and one that should be preserved. The WA and adjacent BLM lands provide a significant contribution to the region's "huntable lands."

Goals

The Department's goals regarding hunting in the WA are as follows:

- Preserve the undisturbed nature of the landscape in the WA and the high quality hunting experience associated with that environment.

- Provide appropriate hunting opportunities throughout the WA while also addressing the public safety and resource protection issues in specific areas.

Tasks

To achieve these goals, the Department will:

1. Continue to allow regulated hunting in designated areas and expand hunting to other areas as appropriate over time.

2. Continue to provide hunting regulations for the WA as they are approved by the California Fish and Game Commission.

3. Establish a process for tracking the number of persons hunting in the WA, their methods of hunting, and where they hunted in the WA and how frequently; use the collected information in connection with the game management component and access improvements to the WA.

4. Conduct a cooperative study with interested parties to identify areas of the WA that are or could be made suitable for hunting by disabled persons and evaluate the feasibility of the options.

5. Develop a coordinated schedule of habitat management, facility maintenance, and related activities in the units so that temporary closures of portions of the WA can be planned and posted well in advance of the hunting season.

6. Establish a reporting system for hunters and other users of the WA to notify the Department of instances of trespassing, poaching, use of illegal hunting methods, vehicle use, trash dumping, and related problems.

Impact Guidelines

Hunting in the WA occurs under a regulated program in California that factors in necessary limitations as part of annual regulations. The amount of hunting occurring in the WA will be greater than occurred prior to acquisition of the lands by the State and may increase over time. Impacts associated with increased hunting in the WA will be avoided, minimized, and mitigated through the seasonal and locational limitations that apply to the activities and the increased protection and monitoring of the resources that will occur under the LMP. In addition, the measures that apply to hunting in the WA may be modified and/or adapted annually, depending on results of scientific and safety studies, management factors, and Department priorities.

5.2.7.3 Hunting Dog Training

Focal Resource/Activity

This component addresses managing the WA to allow for the training of hunting dogs as a hunting-related use. The Fish and Game Commission's policies recognize use of trained hunting dogs as a conservation tool that increases recovery of downed game and contributes to the enjoyment of the hunting experience. In this case, the WA offers a unique opportunity to train hunting dogs in an accessible but essentially undisturbed natural landscape. In addition, management of the training area provides an opportunity to directly involve interested volunteers in conservation of the WA's resources. The existing area occupies approximately 81 acres of mixed annual grassland and deciduous shrubland adjacent to the Highway S-2 information area. The area is bounded on the north by Highway S-2, and dirt access roads on the south, east, and west, and delineated by wooden corner markers.

Goals

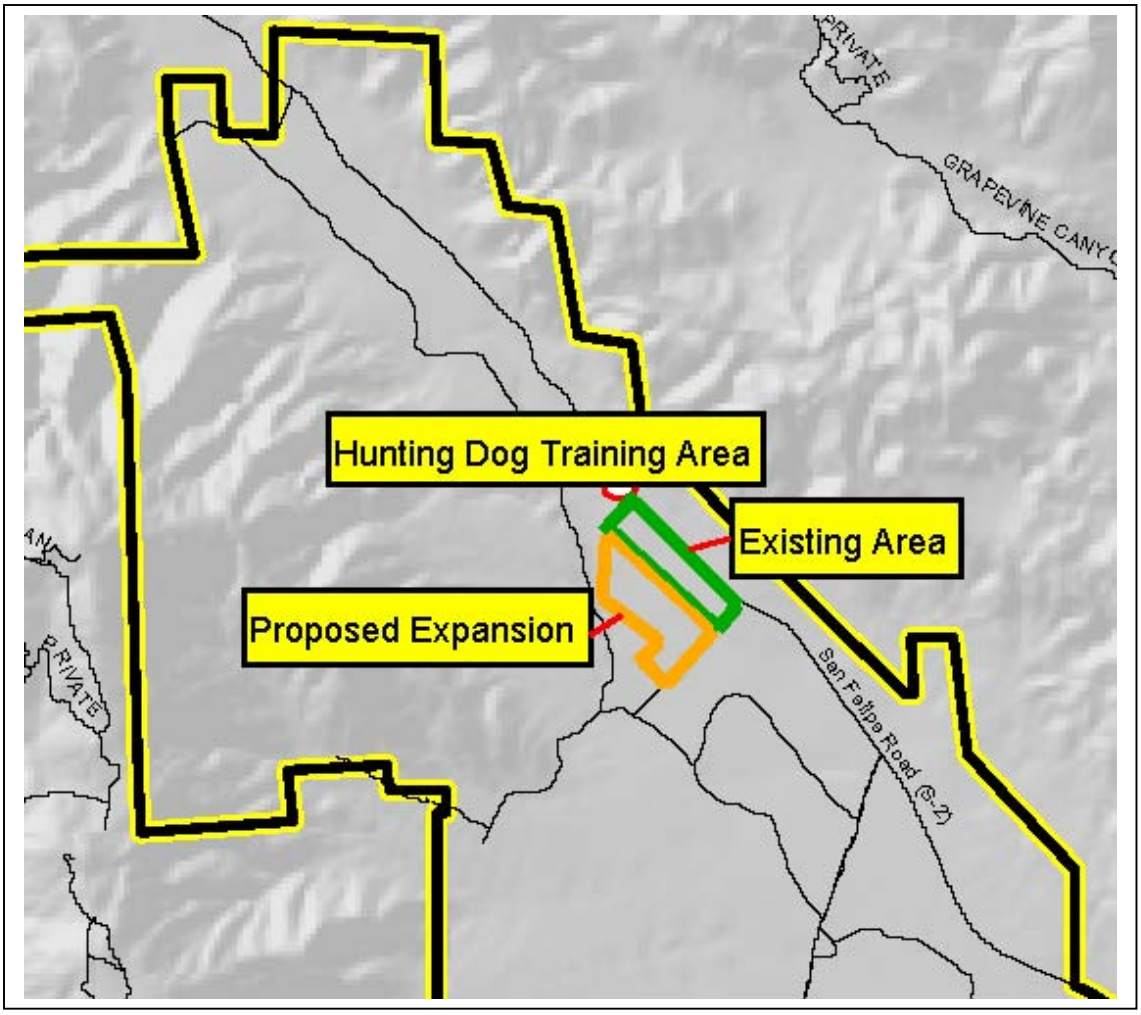
The Department's goals regarding hunting dog training in the WA are to:

- Provide space where dogs can be trained for the type of hunting that occurs in the WA.
- Ensure safe access to and use of the training area.
- Involve volunteers in the area maintenance and habitat management programs for the WA.

Tasks

1. Continue to allow hunting dog training in the WA.
2. Expand the existing training area to the south and west as preliminarily proposed in Figure 5-2. This expansion would add approximately 80 acres of mixed annual grassland and forbs to the training area. The exact boundaries of the expansion will be determined during future site evaluations. The proposed expansion, together with the possible expansion of the existing informational area, would provide better and safer access to the training area.

Figure 5-2. Proposed Expansion of Hunting Dog Training Area



3. Track use of the training area to determine the number of people and hunting dogs using the site and frequency of use.

4. Provide volunteer possibilities for site maintenance and habitat management projects (e.g., invasive plant removal) when needed.

Impact Guidelines

As proposed, expansion of the training area would not entail grading or habitat removal, would occur in an area already surveyed for protected resources, and would be subject to the impact avoidance and other requirements that apply to comparable management activities. Public use of the hunting dog training area is expected to increase with improved access and with the growth of the region over time. Impacts associated with increased use will be avoided,

minimized, and mitigated through the seasonal and locational limitations that apply to the activity and the increased protection and monitoring of resources that will occur under this LMP.

5.2.7.4 Education and Outreach

Focal Resource/Activity

This component addresses opportunities for wildlife observation and education in the WA.

Goals

The Department's goals for these uses of the WA are to:

- Provide opportunities for the public to enjoy the natural setting of the WA;
- Provide opportunities for individuals to study the area's flora and fauna, history, and other features; and
- Foster public awareness and appreciation of the unique features of the WA.

Tasks

1. Maintain access to scenic vistas from existing vantage points in the WA.
2. Develop educational materials for authorized nature walks, bird counts, site studies, and related activities in the WA.
3. Work with local conservancies, community groups, hunting and sporting dog groups, and other interested parties to develop focused educational opportunities.

Impact Guidelines

Any areas designated for education and outreach activities would be subject to the same impact avoidance and related requirements that apply to public access and use.

5.2.8 Monitoring

Focal Resource/Activity

This element addresses the coordination and implementation of monitoring activities as part of the management of the WA.

Goals

The Department's goals regarding monitoring and adaptive management are to:

- Coordinate the monitoring tasks required to implement the LMP; and
- Monitor the effectiveness of the measures identified in the LMP.

Tasks

1. Oversee all species and habitat monitoring in the WA and maintain a master schedule of current and future field work.
2. Secure the services of a qualified archeologist or cultural anthropologist to oversee the assessment and monitoring of cultural resource sites.
3. Require and review annual reports on all authorized projects being conducted in the WA.
4. Coordinate monitoring of special status resources in the WA with similar monitoring being conducted on adjacent public lands.

Impact Guidelines

Monitoring activities are subject to the same impact avoidance and minimization measures that apply to habitat and species management activities.

5.2.9 Scientific Research

Focal Resource/Activity

This element addresses scientific research as part of resource management and as a public use allowed in the WA.

Goals

The Department's goals regarding scientific research are to:

- Coordinate any scientific research required to implement the LMP;
- Focus relevant scientific research on issues that will benefit management of the WA.

Tasks

To achieve these goals, the Department will:

1. Establish research consistent with LMP goals for scientific research in the WA and develop guidelines for submitting proposals for such research to the Department.

2. Require submission of field data and final report of all authorized research conducted on the WA to the Department.

3. Enter into cooperative agreements with the University of California and other institutions and agencies such as the San Diego Natural History Museum Biodiversity Research Center to conduct research when needed data is not available through other means.

Impact Guidelines

Professional standards and best management practices will guide research in the WA. Research involving listed species or Category 1 and 2 historical sites will require appropriate authorization from the overseeing agencies. All activities conducted as part of research also will be required to comply with the impact avoidance and other requirements that apply to management activities and public uses in the WA.

5.2.10 Emergency Preparedness

Focal Resource/Activity

This element addresses managing the WA in the event of natural disasters (other than fire) such as flooding, wind storms, dust storms; earthquakes; terrorism attacks; and other emergencies.

Goals

The Department's goal is to ensure public safety, prompt response, and coordinated efforts with managers of adjacent lands in the event of major non-fire emergencies.

Tasks

1. Work in cooperation with adjacent land managers, public agencies, and emergency preparedness experts to develop a comprehensive strategy for responding to major emergencies. The fire management program will be incorporated into the strategy.

Impact Guidelines

Impact avoidance measures will be incorporated into the strategy in accordance with State policies and law.

5.2.11 Information Management

Focal Resource/Activity

This element addresses maintenance and expansion of the vegetation, cultural resource, and other GIS databases for the WA.

Goals

The Department's goals regarding this element are to:

- Maintain and expand the databases available for LMP planning and implementation; and
- Make the information available to other agencies and the public when appropriate.

Tasks

To achieve these goals, the Department will:

1. Prepare and maintain a catalogue of WA databases.
2. Oversee the management of the database.
3. Set guidelines for the collection of data as part of LMP programs and inclusion of the information in the WA databases.
4. Set guidelines for the use and sharing of the information in the WA databases.

Impact Guidelines

There are no impacts associated with database management.

5.2.12 Public Information

Focal Resource/Activity

This element addresses public information as part of LMP implementation.

Goals

The Department's goals regarding this element are to:

- Involve the public in LMP implementation; and
- Increase public awareness and understanding of the resources and programs at the WA.

Tasks

To achieve these goals the Department will:

1. Continue efforts with interested groups on volunteer opportunities and a public information program concerning the WA.
2. Maintain and expand the contact list developed during preparation of the LMP.
3. Hold public meetings as needed to solicit recommendations and provide a public forum on activities in the WA.
4. Post announcements, appropriate reports, and maps on the webpage for the WA on the Department website and distribute hardcopies as appropriate.

Impact Guidelines

There are no impacts associated with efforts to increase public involvement and awareness.

5.3 Operational Requirements

This part of the Management Program addresses staffing, funding, and related requirements for implementation of management tasks. It is divided into three components:

- Priority Tasks
- Staffing Requirements
- Costs and Funding

Each component is based on the following assumptions:

- The Department will prepare annual work programs for the WA that will identify the management tasks to be implemented that year. The number and type of tasks will depend on the availability of funds and staff.

- Some tasks will be implemented through a coordinated effort involving managers of adjacent public lands, outside experts, and volunteers. All tasks will be overseen by the Department, which has lead responsibility for managing the WA and for enforcing the regulations that apply to protected resources and all activities in the WA.

5.3.1 Priority Tasks

Although all tasks in the Management Program are recommended for implementation, not all can be initiated in the same time frame and some are more essential to management of the WA than others. To help establish priorities for staffing assignments, use of available funds, and project planning, tasks recommended for the first five years of implementation have been identified and divided into the three tiers indicated on Table 5-5:

- Tier 1 includes tasks that (a) are essential to public safety, maintenance of facilities, protection of known special status resources, and continued use of the WA by the public, (b) are not labor or capital intensive, and (c) could be implemented primarily by Department staff.

- Tier 2 includes tasks that are important to the long-term health of the ecosystem, conservation of resources, and continued public use of the WA. These tasks would be the focus of cooperative staffing and funding efforts in the first five years, with the goal of initiating implementation of as many Tier 2 tasks as possible.

- Tier 3 includes tasks that require substantial amounts of additional planning and/or funding or are less essential to management of the WA in the first five years than Tier 1 or 2 tasks.

Tasks are listed in each tier in alphabetical order; the order does not reflect a prioritization of tasks within tiers.

In preparing annual work programs during the first five years, the Department would give priority to Tier 1 tasks and to any Tier 2 (or Tier 3) task with confirmed funding and staffing commitments.

Table 5-5. Tier 1, 2, and 3 Priorities for Management Tasks*

Tier 1	Tier 2	Tier 3
14 CCR 551(q) amendment	Bat surveys and foraging studies	Integrated planning
Bat site protection	Cultural resource assessment of unsurveyed areas	Interpretive uses
Coordination with adjacent public lands	Deer foraging habitat studies and measures	Non-listed special status species measures
Cultural resource site management	Detailed assessment of habitat conditions	Plan for ultimate disposition of structures
Evaluation of ranch complex	Emergency preparedness plan	Recreational hiking measures
Expand parking and hunting dog training area	Exotic plant removal, comprehensive	Road kill surveys
Fencing, signage	Fire recovery regimes for habitat types	Riding trail planning/designation
Fire suppression guidelines for protected resource areas	Habitat enhancement and restoration plans	Special dog training events
Fuel load reduction around structures, roads, etc.	Raptor measures	Stickleback measures
Game assessment	Rare habitat monitoring and protection plan	Traffic counts on 78 and S-2
GIS database maintenance	Restoration and erosion control pilot projects	Through-route trail planning
Grant solicitation	Restoration/enhancement in burn areas	Watershed assessment and program
Habitat-based fire suppression plans	Scientific research	
Mule deer and mountain lion movement monitoring	Sediment and erosion control plan	
Pre-opening tasks (required to open closed sections)	Surface run off and sediment monitoring	
Reporting system for trespassing, etc.	Vireo and flycatcher measures	
Road inspections and maintenance		
Tamarisk removal		
Upland bird and small game measures		
Use monitoring		
Vegetation management regimes		
Volunteer opportunities		

* Tasks are listed in each tier in alphabetical order; the order does not reflect a prioritization of tasks within tiers.

5.3.2 Staffing Requirements

At the time the LMP was prepared, maintenance and monitoring of the WA was conducted primarily by two Department staff biologists – each allocating less than 20% of their work time to the tasks. Based on the type of tasks in the Management Program, the number and time allocation of staff biologists would need to increase and additional staff assigned for GIS tasks, volunteer coordination, and grant solicitation. It is possible that volunteer coordination and grant solicitation tasks could be handled by volunteers. However, the importance of the work in the first five years of implementation qualifies the tasks as "Tier 1" priorities, and it is recommended that staff or a contract employee be assigned. Equipment operators also will be needed. However, because no significant grading or major construction is proposed as part of WA management, staff assignments would be on an as-needed basis only.

Table 5-6 identifies the level of staffing and recommended minimum time allocation for LMP implementation during years 1-3 and years 4-5 for Tier 1, Tier 2, and Tier 2 tasks. The staffing levels and time allocations assume that Department staff will have lead responsibility for all Tier 1 tasks and that some Tier 1 and most Tier 2 tasks will be implemented in cooperation with others. It is important to note that the time allocation in Table 5-6 is only for Department staff and does not represent the total level of effort required to implement the LMP. The Department's assumptions about cooperative efforts on key start-up staffs are presented in Table 5-7. The level of participation of others on cooperative tasks would be determined as part of the detailed planning for those efforts.

Table 5-6. Estimated Staffing Requirements and Recommended Time Allocations (%)

	Tier 1		**Tier 2**		**Tier 3**	
Department Staff	Yr 1-3	Yr 4-5	Yr 1-3	Yr 4-5	Yr 1-3	Yr 4-5
Senior Biologist, Supervisor	15%	15%	15%	15%	0%	5%
Associate Wildlife Biologist	25%	25%	20%	20%	0%	5%
Wildlife Habitat Assistant	25%	25%	20%	20%	0%	5%
Fish and Wildlife Technician	30%	30%	20%	20%	0%	0%
GIS Specialist	20%	10%	10%	20%	0%	0%
Volunteer Coordinator	20%	10%	10%	20%	0%	5%
Grant Specialist	5%	10%	20%	20%	0%	5%
Equipment Operators	As needed	As needed	As needed	As needed	---	As needed

Table 5-7. Assumptions regarding Cooperative Staffing of Tasks

LMP Task	Department	Cooperatively with Other Public Agencies	With UC/Other Experts	Cooperatively with Volunteers
14 CCR amendment	X			
AMP implementation and monitoring	X	X	X	X
Annual reports	X			
Annual work programs and budgets	X			
Assessment for use by disabled	X	X	X	X
Bat surveys and habitat management	X	X	X	
Cultural site assessments	X	X	X	
Database management	X		X	
Dog training area expansion	X			X
Dog training area management	X			X
Educational programs	X	X	X	X
EEP preparation	X	X	X	
Effectiveness monitoring	X	X	X	
Environmental review/impact measure planning	X	X	X	
Exotic fish and amphibian monitoring	X	X	X	X
Facility inspections and maintenance	X	X		
Fire suppression	X	CalFire		
FMP preparation	X	CalFire		
Forest management (North Mountain)	X	CalFire		
Fuel reduction	X	X		
Game inventory and habitat assessment	X	X	X	X
Game monitoring	X	X		X
Habitat assessments and species inventories	X	X	X	X
Hunting regulations and Type C area limitations	X			
Informational area expansion/additions	X			
Monitoring of public uses of the WA	X	X		X
Mule deer and mountain lion, linkage monitoring	X	X	X	
Monitoring coordination	X	X	X	
Post Fire monitoring	X	X	X	X
Post fire remediation	X	CalFire		

LMP Task	Department	Cooperatively with Other Public Agencies	With UC/Other Experts	Cooperatively with Volunteers
Public outreach	X	X	X	X
Ranch complex fencing, cultural site protection	X		X	
Regional trail system planning	X	X		X
Riparian/stream habitat enhancement (tamarisk removal)	X	X	X	X
Road kill monitoring	X	X		X
Road maintenance and erosion control	X	X		
Scientific research program	X	X	X	
Seasonal/location use limitations	X			
Special status species updates	X	X	X	
Subarea guidelines	X			
Through-trail planning, if needed	X	X	X	X
Trail suitability assessment	X	X	X	
Upland habitat enhancement (exotic grass/forbs control)	X	X	X	X
Volunteer Program	X	X		X
Watershed assessment	X	X	X	

Notes

AMP	Archeological Management Plan
CCR	Code of California Regulations
CalFire	California Department of Forestry and Fire Protection
EPP	Emergency Preparedness Plan
FMP	Fire Management Plan
LMP	Land Management Plan
WA	Wildlife Area

5.3.3 Costs and Funding

This LMP does not include a preliminary cost estimate for task implementation. Implementation costs will be estimated as part of the preparation of annual work programs, and actual expenditures will be subject to State guidelines.

Capital costs for operations and maintenance at the WA will vary from year to year and will likely be higher in the first five years due to fencing and signage needs. The cost of site-specific activities (e.g., habitat enhancement of burned oak woodland, fencing around Category 1 cultural resource sites, tamarisk removal) will be calculated as part of the detailed planning for each activity. Minor capital improvements are currently proposed for the ranch complex, including building and fence repair and installation. No construction or major capital improvements are proposed for the WA at this time, and therefore overall capital costs are expected to remain low (compared with other sites).

Tier 1 tasks would be funded primarily through the Department's operating budget for the South Coast region, deferred maintenance fund, and minor/major capital outlay fund. Potential sources of additional funding include but are not limited to:

- California Endangered Species Tax Check-Off Fund
- Department of Water Resources grants available for water conservation, groundwater management, and studies and activities to enhance local water supply reliability
- Environmental License Plate Fund
- Federal Aid in Wildlife Restoration Act (Pittman-Robertson Act)
- Federal ESA Section 6 Conservation Grants
- Neotropical Migratory Bird Conservation Act Grants Program
- Riparian Joint Venture
- Upland Game Stamp Program
- USDA Natural Resources Conservation Service Farm Bill
- USFWS State Wildlife Grant Program, Federal Aid in Wildlife Restoration Program
- Wetlands Conservation Fund
- Other grant programs administered by U.S. Environmental Protection Agency, National Fish and Wildlife Foundation, US Bureau of Reclamation.

6. Opportunities, Constraints, and Potential Impacts

This section of the LMP describes the opportunities and constraints and identifies potential impacts associated with implementation of the management program.

6.1 Opportunities and Constraints

6.1.1 Habitat Management

The overall goal of the habitat management element is to ensure that the diverse, unique, and transitional habitats of San Felipe Valley persist and that the valley remains a major wildlife movement corridor. With some exceptions, the existing habitats are largely undisturbed and connected to other large tracts of habitat on adjacent public lands. In addition, the public uses that will occur in SFVWA do not involve or require any substantial change to existing conditions: no vehicle use, no new roads, and no new facilities. As a result, intensive management will not be required to ensure that the habitats and wildlife functions of the WA persist. However, there are internal and external factors that can affect the success of the management program. These factors include: 1) the extent and rate at which exotic invasive plants have spread in the WA, 2) occurrence of excessive dead trees and type conversion in the Pines Fire burn areas, and 3) potential changes in wildlife movement patterns due to projected increases in development in the region and increased traffic on Highway 78 and San Felipe Road.

6.1.2 Species Management

The overall goal of the species management element is to ensure that the SFVWA continues to support diverse species of fish, wildlife, and plants and that the specific needs of special status and game species are addressed.

Species Diversity. The goal of maintaining the WA's biodiversity is closely aligned with the goal of maintaining the quality and function of the WA's habitats. Because of its unique location in a transition zone and the many types of habitats on it, the WA supports a broad array and unique combination of common and rare species. As with the WA's habitats, it is not anticipated that intensive management will be needed to maintain species diversity. However, intensive management may be needed to conserve specific species. In addition, external factors may affect the distribution of species in ways that alters the biodiversity of the WA.

Special Status Species. Past inventories and surveys and the detailed mapping of vegetation communities in the WA have facilitated the identification and protection of areas known to be occupied by listed species. This is essential to management and public use of the WA. Both ESA and CESA prohibit take of listed species, and the Department must comply with and enforce this requirement. Through management of the WA, the Department also has the opportunity to conserve and recover the listed and other special status species in a key area linking large blocks of habitat on other protected public lands. This level of conservation has regional as well as local benefits and is an effective use of public lands for both conservation and recreation purposes. The primary constraints on achieving the goals are staffing and funding limitations that limit the extent and type of enforcement monitoring, conservation, and recovery efforts that can occur in any given year.

Game Species. The Department has been monitoring southern mule deer in San Felipe Valley and surrounding areas for many years and continuation of the monitoring will allow the Department to track and respond to changes in how the deer are using the WA. In addition, the tasks proposed in the LMP provide multiple opportunities for monitoring the status of other game populations in the WA on a regular basis. The primary constraints on achieving the goals are limitations on staffing for monitoring and coordination of volunteer efforts.

6.1.3 Watershed Management

The overall goal of the watershed management element is to manage resources in the WA as part as part of the larger San Felipe Creek watershed, with a focus on tamarisk removal and water quality control. Because the WA includes the upper reaches of San Felipe Creek and encompasses many of the creek's tributaries above Scissor's Crossing, a comprehensive tamarisk control program in the WA has a relatively good chance of being effective over the long-term and of enhancing riparian habitat conditions in the WA. It also provides an opportunity to examine possible relationships between the spread of salt cedar and depletion of mesquite bosque. The location of the WA near the headwaters of San Felipe Creek and the limited amount of developed land in and near the WA also provide an opportunity to maintain water quality in the upper reaches of the creek. The primary constraints on achieving these goals include: 1) the extent and rate at which tamarisk has spread in the WA and 2) potential increases in surface runoff and pollutants associated with increased traffic on Highway 78 and San Felipe Road.

6.1.4 Cultural Resource Management

The San Felipe Valley is rich with cultural resources from several eras and traditions, and significant sites have been discovered and preserved on adjacent lands as well as in the WA. These resources are another unique feature of the WA and surrounding lands and present a unique opportunity for the Department to preserve significant natural and manmade resources in one location. The primary constraints on achieving the cultural resource goals are the limited

funding sources available for ongoing monitoring and additional fieldwork, complications presented by wild fires and flooding, and potential conflicts with the biological and public use goals for the WA.

6.1.5 Facility Maintenance

The limited number and types of facilities in the WA increase the feasibility and practicality of maintaining the facilities over time. In addition, the structures that require maintenance are concentrated near existing internal roads. However, the age and potential historic status of some structures, the location of protected resources in relation to roads and fencing, and seasonal flooding of the access roads complicate the implementation of routine and long-term maintenance measures.

6.1.6 Fire Management

Existing agreements with CalFire and coordination of activities in the WA with those on adjacent lands increase the likelihood that fire management will be effective in the WA. However, given the relative remoteness of the area and fire history of the region, fire suppression decisions often will be depend on factors not directly related to the WA and its resources.

6.1.7 Public Access and Uses

The acquisitions that substantially expanded the WA also substantially expanded opportunities for public access to and use of the lands.

Access. The WA is easily accessed from existing regional highways, and the addition of the Rancho San Felipe lands provides opportunities to improve and increase the amount of parking space available. However, there is lack of data on actual use of the WA, which complicates the process of planning and providing adequate and safe parking. This issue is further complicated by the level of growth projected for Borrego Springs and elsewhere in the region. If there are substantial increases in traffic on Highway 78 and San Felipe Road, the feasibility and safety of expanding parking for the WA along those routes will need to be re-evaluated. Inside the WA, the existing network of unpaved roads provides access to all parts of the WA and can accommodate the foot-traffic of hunters and others who will be using the WA. No new roads are required to provide access. In some portions of the WA, there are existing conditions that constrain access (e.g., steep terrain or the use conditions on the private access road in North Mountain). There also are areas where access constraints are imposed under the LMP on a permanent or temporary basis. These include areas with protected cultural or biological resources, areas with public safety hazards, and areas where issues regarding property boundaries or access easements need to be resolved.

Hunting. As noted in the CAPPs and recommended several times during the scoping process, the special nature of the hunting experience at San Felipe is another unique feature of the WA and one that should be maintained. However, achieving this goal is somewhat constrained by the very factors that make the area unique. The number of hunters using the WA is expected to increase with both the opening of the currently closed sections of the WA and the growth of desert communities over the next several years. On one hand, these changes will make the undisturbed landscape and hunting experience at San Felipe all the more valued. On the other hand, competing demands for recreation uses of the WA also will increase.

Hunting Dog Training. As noted in the Fish and Game Commission's policies, use of trained hunting dogs is recognized as a conservation tool that increases recovery of downed game and contributes to the enjoyment of the hunting experience. In this case, the WA offers a unique opportunity to train hunting dogs in an accessible but essentially undisturbed natural landscape. The primary constraints on achieving the goals are essentially the same as those concerning the hunting goals.

Other Uses. There currently are no designated trails in the WA, but hiking and horseback riding trails may be proposed in the future. The existing road network could accommodate hikers and potentially horses. However, there are potential conflicts between trail use and multiple users on the WA at one time during several months of the year. In addition, parts of the road system have potential erosion problems that complicate and potentially preclude their future use as riding trails. The WA also lends itself to educational uses. The existing road network would provide access; no new structures or roads would be required. Constraints include conflicts with hunting.

6.1.8 Monitoring

The overall goal of the monitoring element is to ensure effective management of the WA and to facilitate quick responses to changed conditions. Monitoring can be effectively integrated with the land management tasks in the LMP, including existing programs and cooperative efforts with other agencies and volunteers. Constraints include staff time limitations and remoteness of the site.

6.1.9 Scientific Research

The overall goal of the research element is to further scientific knowledge of the resources in the WA and promote work that will benefit management of the WA. There are extensive opportunities for scientific research in the WA and of specific resources. Constraints include conflicts with other public uses.

6.1.10 Emergency Preparedness

The overall goal is to ensure prompt effective responses to the effects of natural disasters and other catastrophic events on the resources in the WA. Existing agreements with other agencies provide a framework for planning and implementing emergency response actions. Constraints include staffing and equipment limitations and the remoteness of the site.

6.1.11 Information Management

The GIS database for the LMP will facilitate implementation planning and monitoring but will require periodic updating. The primary constraint is the limited amount of funding available for GIS database maintenance.

6.1.12 Public Information

There has been extensive, continued public interest in the San Felipe Valley WA since the initial acquisitions in the mid 1990s. The interested parties reside in many different locations, which complicates the traditional use of public meetings as discussion forums. However, this problem is largely solved by improvements to and use of the Department's webpage as a place to post information.

6.1.13 Staffing and Operations

The Department's existing programs provide a range of options for staffing implementation of essential O&M. Existing cooperative agreements also establish a framework for interagency cooperation and joint funding proposals. Public interest in the WA also provides a strong basis for establishing a volunteer network. The primary constraints are limitations on the use of Department funds, the availability of staff, and funding from various federal and state programs.

6.2 Potential Impacts

A key goal of the LMP is to conserve the undisturbed landscape of the WA by, among other things, minimizing any disturbance associated with stewardship of the property. Likewise, priority is given to low-impact public uses – pedestrian access for hunting (no motor vehicles), existing roads used as trails, no camping, etc. This focus on no or low impacts also reflects the fact that the property does not require and will not receive intensive management. Applying impact avoidance, minimization, and mitigation standards to activities in the WA is necessary to ensure that the landscape remains undisturbed and that intensive management is not required. In addition, the management programs identified in several tasks are intended to have beneficial effects and require environmental review as part of the planning and approval process. However, the planning and approval process for several programs is tied to

interagency and other cooperative efforts. The larger context of those programs potentially complicates the environmental review of activities proposed specifically for the WA.

Regarding the environmental review of the LMP, adoption of the plan by the Department would not result in environmental impacts. However, implementation of the LMP entails actions (e.g., habitat enhancement and vegetation management) that would physically alter the environment. The potential effects were considered on a programmatic level as part of the planning process. Activities and uses with the highest potential for adverse impacts are those that entail some form of habitat disturbance or direct species impact. These include:

- Installation and maintenance of access controls;
- Identification and management of cultural resources;
- Fire management
- Habitat enhancement
- Habitat restoration
- Informational area expansion/additions and the associated maintenance
- Current and future public uses
- Road maintenance and use
- Scientific research
- Species surveys and monitoring

These same activities and uses also have the highest potential for affecting cultural resource sites in the WA.

To ensure that these activities and uses would not result in significant impacts, the management program includes measures and guidelines for avoiding impacts to protected resources. In addition, activities that would entail subsurface land alteration or would impact protected resources are subject to site-specific planning requirements and further CEQA review. Resources and activities would be monitored, and management activities and public uses would be adjusted as needed in response to monitoring. As an example, Table 6-1 identifies the management activities and public uses with the potential to impact to biological resources and the impact avoidance and minimization measures built into the activities and uses under the LMP. A similar approach is taken in planning avoidance of impacts to cultural resource (see Table 5-1).

Because of the types of management and uses planned, implementation of the LMP is expected to have overall beneficial effects or no or low adverse impacts to protected resources. Potential effects are examined in more detail in the CEQA Initial Study and Proposed Negative Declaration prepared by the Department for its action on the draft LMP.

Table 6-1. Avoidance/Minimization Measures for Potential Impacts to Biological Resources

Activity/Use	Potential Biological Impacts	Impact Avoidance and Minimization Identified in LMP
Access controls: installation and maintenance of fencing, barriers (including vegetation), and signage	Direct disturbance from post installation and replacement Temporary displacement of sensitive species at site or in habitat crossed to reach the site Possible habitat alteration, depending on plant species used for barriers Stream habitat degradation from erosion/sediment associated with installation and use of vehicles on and off roads. Potential impediments to deer and mountain lion (and other species) movement	Activity planned using database showing location of sensitive biological resources Time of year restrictions to avoid bird breeding season and vehicle use on roads during rainy season Guidelines for materials and methods used for fencing and signage Guidelines for selection of plant barriers Guidelines for wildlife-friendly barriers and crossings
Cultural resource sites: identification and protection	Temporary and permanent removal of surface vegetation and displacement of species at archeological sites Changes in vegetation at protected sites (plant species used as barriers or removed because of effects on structures) Alteration of habitat and species' access to it, including but not limited to use of caves and structures by bats	Activity planned using database showing location of sensitive biological resources Excavation subject to site-specific planning Guidelines for selection of plant barriers and vegetation management Bat-friendly access control measures for mines, structures that may qualify as historic sites
Fire management: suppression and post-fire clean up and remediation	Direct impacts to special status habitats and species Degradation of habitats from post-fire clean-up	Activity subject to site-specific planning with CalFire, will be planned using database showing location of sensitive resources Activity conducted in accordance with CalFire and Department regulations and policies
Fire Management: vegetation management regimes (fuel reduction)	Direct impacts to special status habitats and species from vegetation thinning, cutting, clearing, and prescribed burns Temporary displacement of species and habitat alteration in treatment sites Degradation of habitat from disposal of cuttings, slash	Activity subject to site-specific planning with CalFire, will be planned using database showing location of sensitive resources Same time of year, location, and methods restrictions that apply to other activities in areas with protected resources Activity to be conducted in accordance with CalFire and Department regulations and policies

Activity/Use	Potential Biological Impacts	Impact Avoidance and Minimization Identified in LMP
Habitat enhancement, including tamarisk removal and exotic invasive plant control	Direct impacts to special status habitats and species from methods used to remove and add plant species and/or alter other physical conditions Temporary displacement of species and habitat alteration in treatment sites and adjacent areas (especially in habitat intergrade areas)	Activity subject to site-specific planning, will be planned using database showing location of sensitive resources Same time of year, location, and methods restrictions that apply to other activities in areas with protected resources Monitoring and success criteria requirements Activity to be conducted in accordance with Department and other applicable regulations and policies
Habitat restoration, including fire recovery regimes	Same as habitat enhancement, with more land manipulation where planting occurs and in connection with management of new growth	Same as habitat enhancement, with additional requirement for erosion/sediment control in treatment areas (especially burn recovery areas)
Parking area: expansion and maintenance	Displacement of species and removal of vegetation in expansion area Habitat degradation from surface runoff and sediment from parking area Increased potential for fires (sparks from vehicles)	No substantial grading or paving of parking area (scraping and compaction allowed) Erosion and surface run-off monitoring Vegetation management to control fuel load near parking area and entry
Public use: hunting	Direct impacts to southern mule deer and other hunted species Indirect or incidental impacts to special status species Change in species diversity and population size Degradation and damage to special status habitats, including spread of exotic invasive weeds (seed dispersal), from pedestrian traffic	Limitations on time of year, location, type of game taken, and methods used; avoids most bird breeding seasons; deer hunting restricted to area outside of main fawning habitat and time period outside of fawning season. Pedestrian access only (avoids damage from vehicles, indirectly limits number of hunters) Access controls and monitoring of areas with highly sensitive species and habitats. Species and habitat management to maintain species diversity and population size Monitoring of hunting uses in WA (number of hunters, methods, frequency, game)
Public use: expansion and maintenance of hunting dog training area	Direct disturbance from moving signage posts to new locations Temporary displacement of sensitive species at site or in habitat crossed to reach the site	Same as for fencing, signage installation

Activity/Use	Potential Biological Impacts	Impact Avoidance and Minimization Identified in LMP
Public use: hunting dog training and use of expanded area	Direct impacts to special status grassland and scrub species Degradation of existing habitat from use and potential spread of exotic weeds	Activity planned using database showing location of sensitive biological resources Use confined to designated area Time of year restrictions to avoid bird breeding season Weed control program Use monitoring
Public use: future use of hiking and equestrian trails	Disturbance of species in adjacent habitats Habitat disturbance due to off-trail excursions Degradation of habitat from use-related erosion sources Spread of exotic weeds (dispersal of seeds) Disruption of foraging and movement patterns	Limit all trail use to non-mechanical means (no motor vehicles, bicycles, or mountain bikes) Limit trail use to recreational hiking and nature walks on existing roads until a possible through-route has been determined Establish guidelines for trail use to direct traffic away from sensitive resources and daytime foraging and movement corridors Require site-specific plans for proposed links to trail systems outside the WA
Road maintenance and road use (for management purposes)	Habitat degradation from surface runoff and erosion associated with unpaved roads and use of vehicles on roads	Maintenance scheduled and conducted to avoid rainy season and multiple trips Vehicle use of roads limited to land managers and emergency response Monitor and control surface runoff and erosion
Scientific research	Direct species and habitat impacts from surveys, studies, and experiments that entail land disturbance or take of specimens; impacts similar to those from cultural resource site identification, habitat enhancement, and habitat restoration.	Activity subject to approval by Department. Researcher responsible for compliance with applicable regulations. Activity to be conducted in accordance with Department policies and professional standards.
Species surveys and monitoring	Direct species impacts from activities that entail capture of specimens.	Activity must conform to the Department's guidelines and, if applicable, those of US Fish and Wildlife Service. All surveys and monitoring will be overseen by the Department.

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8. Plan Preparation Team

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9. Glossary

9.1 Abbreviations

ac	acres
BLM	U.S. Bureau of Land Management
CalFire	Formerly known as California Department of Forestry and Fire Protection
Caltrans	California Department of Transportation
CAPP	Conceptual Area Conservation Plan
CCR	California Code of Regulations
CDFG	California Department of Fish and Game
CEQA	California Environmental Quality Acr
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
Corps	U.S. Army Corps of Engineers
CPRC	California Public Resource Code
CSC	California Species of Special Concern
Department	California Department of Fish and Game
EEMP	Environmental Enhancement Mitigation Program
ESA	Federal Endangered Species Act
FE	Federal endangered species
FLP	Forest Legacy Program
FPA	Focused Planning Area
FPS	California Fully Protected Species
FT	Federal threatened species
GP2020	County of San Diego General Plan 2020
ha	hydrologic area
hu	hydrologic unit

IS-TEA	Intermodal Surface Transportation Efficiency Act
JPA	Joint Powers Authority
LC	Species of local concern
LMP	Land Management Plan
MCV	A Manual of California Vegetation
MOU	Memorandum of Understanding
MSCP	Multiple Species Conservation Program [Plan]
NCCP	Natural Community Conservation Plan
NCCPA	Natural Communities Conservation Planning Act
NMFS	National Marine Fisheries Service
NPS	National Park Service
O_3	Ozone
PM_{10}	particulate matter less than or equal to ten microns
SDNHM	San Diego Natural History Museum
SDSU	San Diego State University
SE	State endangered species
SKR	Stephens' kangaroo rat
Spp.	Subspecies
State Parks	California Department of Parks and Recreation
SFVWA	San Felipe Valley Wildlife Area
TPL	Trust for Public Land
USDA	U.S. Department of Agriculture
USFS	U.S. Department of Agriculture Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Service
Var.	Variation
WA	Wildlife Area
WCB	California Wildlife Conservation Board
WHR	Wildlife Habitat Relationship
WSA	Wilderness Study Area

9.2 Definitions

Access Control (or Limitation). A physical barrier or other means for precluding or limiting access to a site or resource.

Adaptive Management. A method for examining alternative strategies for meeting measurable goals and objectives, and then, if necessary, adjusting future management actions according to what is learned.

Alliance. The basic, generic unit of floristic classification, usually by the dominant and characteristic plant species in the upper layer of vegetation.

Alluvial (alluvium). Referring to the process of sediment transport and depositions resulting from flowing water (sediments laid down in river beds, flood plains, lakes, fans at the foot of mountain slopes, and estuaries).

Association. The smallest, most fundamental unit of floristic classification, analogous to the species in organism taxonomy. Associations are subdivisions of alliances based on constant patterns of subordinate species within an overall pattern of alliance dominance. These patterns are typically geographically more specific than alliances. Thus, associations tend to be locally distributed and indicative of a certain environment or ecosystem in a local setting.

Authorized public use. The wildlife-dependent recreation activities allowed on State lands and specifically in Wildlife Areas, as specified in Title 14 of the California Code of Regulations, the California Fish and Game Code, and the policies of the California Fish and Game Commission Such activities typically include but are not limited to hunting, fishing, hunting dog training, hiking, trail use, and nature observation.

Best Management Practice (BMP). Any program, technology, process, siting criterion, operating method, measure, or device that controls, prevents, removes, or reduces pollution.

Biodiversity. The variety of organisms considered at all levels, from genetic variants of a single species through arrays of species to arrays of genera, families, and higher taxonomic levels; includes the variety of ecosystems.

California Environmental Quality Act (CEQA): The Act was passed in 1970 to: (1) inform government decision makers and the public about the potential environmental effects of proposed activities; (2) identify the ways that environmental damage can be avoided or significantly reduced; (3) prevent significant, avoidable environmental damage by requiring changes in projects, whether by the adoption of alternatives or imposition of mitigation measures; and (4) disclose to the public why a project was approved if that project will have significant environmental effects.

Canopy closure. The ground area covered by the crowns of trees or woody vegetation as delimited by the vertical projection of crown perimeters and commonly expressed as a percent of total ground area.

Canopy cover. The proportion of ground or water covered by a vertical projection of the outermost perimeter of the natural spread of foliage or plants, including small openings within the canopy.

CEQA Review. Evaluation of the potential for a project (activity) to alter the environment and result in significant adverse impacts. The evaluation is conducted as specified in CEQA guidelines, using the CEQA checklist/Initial Study and subsequent documentation as necessary (i.e., a negative declaration, mitigated negative declaration, or environmental impacts report).

Channel. Natural or artificial waterway of perceptible extent that periodically or continuously contains moving water.

Creek Buffer. A setback or zone extending from the creek bed into adjacent terrestrial habitat where restrictions apply to access and activities.

Cultural Resource Buffer. A zone around a known cultural resource site where restrictions apply to access and activities.

Drainage. An area (basin) mostly bounded by ridges or other similar topographic features, encompassing part, most, or all of a watershed.

Endangered. The classification given to an animal or plant in danger of extinction within the foreseeable future throughout all or a significant portion of its range.

Ephemeral stream. Stream that flows only in response to rain events and receives no groundwater input.

Extirpated species. A species no longer surviving in regions that were once part of its range.

Feasible. Capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.

Fire Recovery Regime. A component of a fire management plan that identifies the techniques that will be used to restore the site to pre-fire conditions.

Floodplain. The area adjacent to the stream constructed by the river in the present climate and inundated during periods of high flow.

Fluvial. Describes a condition that is produced by the action of a stream. Also describes a fish or plant species living in a stream or river.

Focal Resource/Activity. The resource, management activity, or public use that is the focus of a Management Program Element or Component.

Geographic Information System (GIS). Computer-based mapping technology that manipulates geographic data in digital layers and enables one to conduct a wide array of environmental analyses.

Gradient. Average change in vertical elevation per unit of horizontal distance.

Habitat. In general, the environmental conditions that support occupancy of a given organism in a specified area (Hall et al. 1997). In scientific and lay publications, habitat is defined in many different ways and for many different purposes.

Habitat Conservation Plan (HCP). As defined in the USFWS' HCP Handbook, a planning document that is a mandatory component of an application for an incidental take permit under ESA Section 10(a)(1)(B); also known as a conservation plan. The document that, among other things, identifies the operating conservation program that will be implemented to minimize, mitigate, and monitor the effects of incidental take on the species covered by a Section 10(a)(1)(B) permit.

Habitat creation. The establishment of a vegetation community in an area that did not previously support it. For example, stock ponds can be created in areas that previously did not support them by grading and installing a check dam.

Habitat enhancement. The improvement of an existing degraded vegetation community. Enhancement involves improving one or more ecological factors, such as species richness, species diversity, overall vegetative cover, or wildlife value. Enhancement activities typically occur on substrates that are largely intact.

Habitat restoration. Restoration is the establishment of a vegetation community in an area that historically supported it, but no longer supports it because of the loss of one or more required ecological factors. Restoration may involve altering the substrate to improve a site's ability to support the historic vegetation community.

Hydrology. The movement of surface and subsurface water flows in a given area. The hydrology of an area is intimately connected with its precipitation, soils, and topography.

Incidental Take Permit (ITP). A permit issued by USFWS (or NMFS) pursuant to ESA Section 10(a)(1)(B) authorizing incidental take of federally listed species named on the permit.

Incidental take. The taking of a federally listed species, if such taking is incidental to, and not the purpose of, carrying out otherwise lawful activities.

Intermittent stream. Stream that is supplied by both rainfall runoff and groundwater; intermittent streams tend to be seasonal, flowing during the rainy season and into the late spring or early summer.

Land use designation. The designation, by parcel, in an adopted city or county General Plan of the allowable uses.

Linkage: A linear landscape feature that provides connectivity between natural communities within a region or between populations of a species.

Listed species. A species, subspecies, or qualifying distinct population segment of a vertebrate species on the lists of threatened and endangered wildlife and plants in 50 CFR 17.11 and 17.12. Also, a species, subspecies, or variety of plant or animal on the lists of the endangered, threatened, and rare species maintained by the California Fish and Game Commission.

Management. In connection with the WA, activities undertaken by or with the authorization of the Department to protect, maintain, and enhance the resources in the WA. Such activities include but are not limited to: wildlife management and monitoring, habitat management and monitoring, special-status resource (biological and cultural) protection and monitoring, habitat enhancement, fuel modification and fire management, maintenance and emergency repair of structures and facilities, installation and maintenance of fencing and signage, installation and maintenance of public use areas (e.g., dog training areas), emergency response and public safety programs, public information programs, special projects related to resource management, and scientific studies and research related to resource management.

Metapopulation. A group of partially isolated populations belonging to the same species that are connected by pathways of immigration and emigration. Exchange of individuals occurs between such populations, enabling recolonization of sites from which the species has recently become extirpated.

Microphyllous Small-leaved.

Mitigation: Measures undertaken to diminish or compensate for the negative impacts of a project or activity on the environment, including: (a) avoiding the impact altogether by not taking a certain action or parts of an action; (b) minimizing impacts by limiting the degree or magnitude of the action and its implementation; (c) rectifying the impact by repairing, rehabilitating, or restoring the affected environment; (d) reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; or (e) compensating for the impact by replacing or providing substitute resources or environments.

Monitoring. The collection of information and observation of conditions at a specified location, about a resource, and/or about an activity.

Monitoring program. A program that provides for the collection of information and assessment of the implementation and efficacy of mitigation measures, conservation strategies, and/or other activities.

Narrow endemic species: Native species with restricted geographic distributions, soil affinities.

Perennial stream. Year-round stream that is supplied by both rainfall runoff and groundwater, as well as by substantial dry-season inputs.

Pond. A body of water smaller than a lake, sometimes artificially formed.

Pools. Pools are impoundments of flowing water in streams which are formed by structures such as bedrock, boulders, or woody debris in or adjacent to the stream channel. Velocity conditions within pools generally result in the deposition of finer sediment types.

Population. A collection of individuals that share a common gene pool.

Protected resources. In this LMP, protected resources are listed species, fully protected species, non-listed special status species, special status habitats (including rare types), and cultural resource sites.

Range. The geographic area a species is known or believed to occupy.

Rare habitat buffer. A zone around an area with a rare habitat type where restrictions apply to access and activities.

Recovery. The process by which the decline of an endangered, threatened, or other special status species is arrested or reversed, or threats to its survival are neutralized so that the species' long-term survival in nature can be ensured.

Remediation. The implementation of measures to correct a specific problem.

Sclerophyllous: Hard-leaved.

Seasonal Limitation. An access control or impact avoidance measure tied to a time of year (e.g., the months when rain is heaviest in an area or the months when certain species breed).

Sediment. Fragments of rock, soil, and organic material transported and deposited by wind, water, or other natural phenomena.

Sedimentation. Deposition of material suspended in water or air, usually when the velocity of the transporting medium drops below the level at which the material can be supported.

Seep. An area of minor ground water outflow onto the land surface or into a stream channel; flows that are too small to be a spring.

Sensitive species. Generally, a species that is sensitive to impacts from human activities and/or natural events and may be in decline due to such impacts. Also, A species designated by the California Board of Forestry pursuant to 14 CCR 898.2(d).

Special animals. All taxa that the CNDDB is interested in tracking, regardless of their legal or protection status, including: taxa officially listed or proposed for listing under ESA or CESA; candidates for federal or state listing; taxa which meet the criteria for listing, even if not currently included on any list, as described in Section 15380 of CEQA Guidelines; taxa considered by the Department to be a Species of Special Concern; taxa that are biologically rare, very restricted in distribution, declining throughout their range, or have a critical, vulnerable stage in their life cycle that warrants monitoring; populations in California that may be on the periphery of a taxon's range, but are threatened with extirpation in California; taxa closely associated with a habitat that is declining in California at an alarming rate (e.g., wetlands, riparian, old growth forests, desert aquatic systems, native grasslands, vernal pools, etc.); and taxa designated as a special status, sensitive, or declining species by other state or federal agencies, or non-governmental organization.

Special status habitat. A habitat or vegetation community that is unique, has relatively limited distribution in the region, or has high wildlife value as defined by federal, state, and local government conservation programs. Many correspond to vegetation series and associations identified in the CNDDB as rare locally or statewide.

Special status species. Special animals as defined by the Department and sensitive plants as identified by the Department and on lists maintained by the California Native Plant Society.

Species of concern. A term used by USFWS and the Department for species that are considered sensitive to impacts and may be in decline but which currently are not listed or proposed for listing.

Spring. An area of ground water outflow onto the land surface or into a stream channel; flows are greater than a seep.

Stand. A group of trees that possesses sufficient uniformity in composition, structure, age, spatial arrangement, or condition to distinguish it from adjacent groups.

Status. The classification of a species regarding its position in the listing process under the ESA or California Fish and Game Code.

Stream. A natural watercourse with a well-defined channel with distinguishable bed and bank showing evidence of having contained flowing water indicated by deposit of rock, sand, gravel, or soil.

Subsurface Land Alterations. Grading or other activity that removes surface vegetation and disturbs or removes the topsoil layer.

Succession. The change in the composition and structure of a biological community over time. Successional patterns often shift dramatically following a major disturbance (e.g., fire, flood, anthropogenic clearing of land).

Suitable habitat. Habitat that exhibits the characteristics necessary to support a given species.

Surface erosion. Movement of soil particles down or across a slope, as a result of gravity and a moving medium such as rain or wind. The transport of sediment depends on the steepness of the slope, the texture and cohesion of the soil particles, the activity of rainsplash, sheetwash, gullying, and dry ravel processes, and the presence of vegetation.

Threatened. The classification given to a plant or animal species likely to become endangered within the foreseeable future throughout all or a significant portion of its range.

Vegetation community. A natural or artificial terrestrial community defined by the dominant vegetation and the vegetation structure.

Watercourse. Any well-defined channel with distinguishable bed and bank showing evidence of having contained flowing water indicated by deposit of rock, sand, gravel, or soil. Watercourse also includes manmade watercourses.

Waters of the United State. Term used in the Clean Water Act to define all waters that may be susceptible to use in interstate or foreign commerce and all interstate waters.

Watershed. The catchment area of land draining into a river, river system, or body of water; the drainage basin contributing water, organic matter, dissolved nutrients, and sediments to a stream or lake.

Wetland. A transitional area between aquatic and terrestrial ecosystems that is inundated or saturated for periods long enough to produce hydric soils and support hydrophytic vegetation.

Wildlife corridor/linkage. A linear landscape feature that allows animal movement between two patches of habitat or between habitat and sources of essential resources. Often cited as a wildlife or habitat linkage.

Vegetation management regime. A component of a fire management plan that identifies the techniques that will be used to thin or remove vegetation that pose fire risks and/or that require fire for seral succession. Techniques include but are not limited to mowing, other forms of brush clearing, and prescribed burns.

Appendices

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Appendix A: Vegetation Types Identified in the San Felipe Valley Wildlife Area

Common Name	Scientific Name	WHR Name	Holland Name	Notes
Evergreen Broadleaf Forests & Woodlands				
Winter-Rain Sclerophyllus Forests & Woodlands				
Canyon Live Oak Alliance	Quercus chrysolepis Alliance	MONTANE HARDWOOD CONIFER	Canyon Live Oak Forest	
Canyon Live Oak - Big Cone Douglas-Fir Association	Quercus chrysolepis-Pseudotsuga macrocarpa Association	MONTANE HARDWOOD CONIFER	Bigcone Spruce-Canyon Oak Forest	Southern-most occurrence of this vegetation in the world is within 1 mile of Volcan Mtn. Also southern-most occurrence of bigcone Douglas-fir.
Canyon Live Oak Association	Quercus chrysolepis Association	MONTANE HARDWOOD CONIFER	Canyon Live Oak Forest	
Xeromorphic Sclerophyll Woodlands				
Coast Live Oak Alliance	Quercus agrifolia Alliance	COASTAL OAK WOODLAND	Coast Live Oak Woodland	
Coast Live Oak / Chaparral Association	Quercus agrifolia- Chaparral Association	COASTAL OAK WOODLAND	Coast Live Oak Woodland	
Coast Live Oak -Engelmann Oak / California Buckwheat / Grass Association	Quercus agrifolia -Q. engelmannii / Eriogonum fasciculatum / Grass Association	COASTAL OAK WOODLAND	Dense Engelmann Oak Woodland	Engelman oak not known further east in San Diego Co. than these occurrences in San Felipe Valley.
Coast Live Oak / Annual grass-herb Association	Quercus agrifolia / Annual Grass-Herb Association	COASTAL OAK WOODLAND	Coast Live Oak Woodland	

Common Name	Scientific Name	WHR Name	Holland Name	Notes
Coast Live Oak - California Sycamore San Felipe Valley Mapping Unit	Quercus agrifolia-Platanus racemosa San Felipe Valley Mapping Unit	COASTAL OAK WOODLAND	Southern Coast Live Oak Riparian Forest	
Evergreen Needle-leaf Forests & Woodlands				
Rounded Crown Forests & Woodlands (Pines & Cypress)				
California Juniper Alliance	Juniperus californica Alliance	JUNIPER	Peninsular Juniper Woodland and Scrub	
Coulter Pine Alliance	Pinus coulteri Alliance	SIERRA MIXED CONIFER	Coulter Pine Forest	
Coulter Pine / Black Oak Association	Pinus coulteri /Quercus kelloggii Association	SIERRA MIXED CONIFER	Coulter Pine Forest	
Coulter pine / Canyon live oak Alliance	Pinus coulteri-Quercus chrysolepis Alliance	SIERRA MIXED CONIFER	Coulter Pine Forest	
Conical-Crown Forests (Firs, Spruces, D-Firs Cedars & Hemlocks)				
Bigcone Douglas-fir Alliance	Pseudotsuga macrocarpa Alliance	MONTANE HARDWOOD CONIFER	Bigcone Spruce-Canyon Oak Forest	Southern-most occurrence of this vegetation in the world is within 1 mile of Volcan Mtn. Also southern-most occurrence of bigcone douglas fir
White fir - Incense Cedar Alliance	Abies concolor-Calocedrus decurrens Alliance	SIERRA MIXED CONIFER	Southern California White Fir Forest, Sierran Mixed Conifer Forest	Uncommon association, known elsewhere only from Mt Palomar.
White fir - Incense Cedar - Bigcone Douglas Fir- Coulter Pine Mapping Unit - Bigcone Douglas-fir Association	Abies concolor-Calocedrus decurrens-Pseudotsuga macrocarpa-Pinus coulteri Mapping Unit/ Pseudotsuga macrocarpa Association	SIERRA MIXED CONIFER	Sierran Mixed Conifer Forest	Very rare association only known from Volcan Mountain.

Common Name	Scientific Name	WHR Name	Holland Name	Notes
Bigcone Douglas-fir - Canyon Live Oak Association	Pseudotsuga macrocarpa-Quercus chrysolepis Association	MONTANE HARDWOOD CONIFER	Bigcone Spruce-Canyon Oak Forest	Southern-most occurrence of this vegetation in the world is within 1 mile of Volcan Mtn. Also southern-most occurrence of bigcone Douglas-fir
Bigcone Douglas-fir - Coast Live Oak Association	Pseudotsuga macrocarpa-Quercus agrifolia Association	MONTANE HARDWOOD CONIFER	Bigcone Spruce-Canyon Oak Forest	Southern-most occurrence of this vegetation in the world is within 1 mile of Volcan Mtn. Also southern-most occurrence of bigcone Douglas-fir
Deciduous Forests & Woodlands				
Cold Season Deciduous Forests & Woodlands				
Engelmann Oak Alliance	Quercus engelmannii Alliance	COASTAL OAK WOODLAND	Open Engelmann Oak Woodland	May be some of the easternmost occurrences of this alliance and this species in San Felipe Valley
Black Oak Alliance	Quercus kelloggii Alliance	MONTANE HARDWOOD CONIFER	Black Oak Woodland, Black Oak Forest	
Engelmann Oak-Scrub Oak Association	Quercus engelmannii/Quercus berberidifolia Association	COASTAL OAK WOODLAND	Open Engelmann Oak Woodland	San Felipe Valley may contain some of the easternmost occurrences of this association and Engelmann oak.
Black Oak - Canyon Live Oak Association	Quercus kelloggii-Quercus chrysolepis Association	MONTANE HARDWOOD CONIFER	Black Oak Forest	
Black Oak - Incense Cedar Association	Quercus kelloggii-Calocedrus decurrens Association	MONTANE HARDWOOD CONIFER	Black Oak Forest	
Black Oak/ Grass Association	Quercus kelloggii/Annual Grass-Herb Association	MONTANE HARDWOOD CONIFER	Black Oak Woodland	

Common Name	Scientific Name	WHR Name	Holland Name	Notes
Temporarily Flooded Cold Season Deciduous Forests & Woodlands				
California Sycamore Alliance	Platanus racemosa Alliance	VALLEY FOOTHILL RIPARIAN	Southern Sycamore-Alder Riparian Woodland	Some of the most eastern-most (desert edge) locations of this alliance occur in San Felipe Valley
Fremont Cottonwood Alliance	Populus fremontii Alliance	VALLEY FOOTHILL RIPARIAN	Southern Cottonwood-Willow Riparian Forest	
California Sycamore - Fremont Cottonwood Alliance	Platanus racemosa – Populus fremontii Alliance	VALLEY FOOTHILL RIPARIAN	Southern Cottonwood-Willow Riparian Forest	
White Alder - California Sycamore - Canyon Live Oak Association	Alnus rhombifolia-Platanus racemosa-Quercus chrysolepis Association	VALLEY FOOTHILL RIPARIAN	Southern Sycamore-Alder Riparian Woodland	
Fremont Cottonwood - Red Willow Association	Populus fremontii -Salix laevigata Alliance	VALLEY FOOTHILL RIPARIAN	Southern Cottonwood-Willow Riparian Forest	
Black Willow / Mulefat Association	Salix gooddingii /Baccharis salicifolia Association	VALLEY FOOTHILL RIPARIAN	Southern Willow Scrub	
Fremont Cottonwood - Willow Mapping Unit	Populus fremontii -Salix laevigata-Salix gooddingii Mapping Unit	VALLEY FOOTHILL RIPARIAN	Southern Cottonwood-Willow Riparian Forest	
Fremont Cottonwood / Mulefat Association	Populus fremontii /Baccharis salicifolia Association	VALLEY FOOTHILL RIPARIAN	Southern Cottonwood-Willow Riparian Forest	
Fremont Cottonwood-Honey Mesquite Association	Populus fremontii-Prosopis glandulosa Association	DESERT RIPARIAN	Sonoran Cottonwood-Willow Riparian	
Fremont Cottonwood - Black Willow / Mulefat Association	Populus fremontii-Salix gooddingii/Baccharis salicifolia Association	VALLEY FOOTHILL RIPARIAN	Southern Cottonwood-Willow Riparian Forest	

Common Name	Scientific Name	WHR Name	Holland Name	Notes
Needle-leaved Evergreen Shrubland				
California Juniper - Desert Agave Association	Juniperus californica-Agave deserti Association	JUNIPER	Peninsular Juniper Woodland and Scrub	
California Juniper - Blackbush Association	Juniperus californica-Coleogyne ramosissima Association	JUNIPER	Peninsular Juniper Woodland and Scrub	Rare association particularly in the Peninsular Range
California Juniper - Chamise Association	Juniperus californica-Adenostoma fasciculatum Association	JUNIPER	Peninsular Juniper Woodland and Scrub	
Evergreen Shrubland				
Sclerophyllous Shrubland				
Chamise Alliance	Adenostoma fasciculatum Alliance	CHAMISE REDSHANK CHAPARRAL	Chamise Chaparral	
Chamise – Eastwood Manzanita Alliance	Adenostoma fasciculatum - Arctostaphylos glandulosa Alliance	CHAMISE REDSHANK CHAPARRAL	Northern Mixed Chaparral	
Chamise - White Sage Alliance	Adenostoma fasciculatum-Salvia apiana Alliance	CHAMISE REDSHANK CHAPARRAL	Coastal Sage - Chaparral Scrub	
Eastwood Manzanita Alliance	Arctostaphylos glandulosa Alliance	MIXED CHAPARRAL	Montane Manzanita Chaparral	
Hairyleaf Ceanothus Alliance	Ceanothus oliganthus Alliance	MIXED CHAPARRAL	Deer Brush Chaparral	This behaves like c integerrimus, montane only, but is obviously not the same. Could be called upper sonoran ceanothus chaparral, but that is not as descriptive, post fire in montane zone, occupies former stands of canyon oak and bigcone Douglas-fir
Chaparral Whitethorn Alliance	Ceanothus leucodermis Alliance	MIXED CHAPARRAL	Whitethorn Chaparral	

Common Name	Scientific Name	WHR Name	Holland Name	Notes
Chamise - Cupleaf Ceanothus Alliance	Adenostoma fasciculatum-Ceanothus greggii Alliance	MIXED CHAPARRAL	Semi-Desert Chaparral	
Sugar Bush Alliance	Rhus ovata Alliance	MIXED CHAPARRAL	Semi-Desert Chaparral	
Scrub Oak Alliance	Quercus berberidifolia Alliance	MIXED CHAPARRAL	Scrub Oak Chaparral	
Scrub Oak - Chamise Alliance	Quercus berberidifolia-Adenostoma fasciculatum Alliance	MIXED CHAPARRAL	Northern Mixed Chaparral	
Mixed Scrub Oak Alliance	Quercus Mixed spp. Alliance (e.g. Quercus wislizeni-Quercus berberidifolia)	MIXED CHAPARRAL	Scrub Oak Chaparral	
Interior Live Oak Shrub Alliance	Quercus wislizeni Alliance	MIXED CHAPARRAL	Montane Scrub Oak Chaparral	
Chamise - Bigberry Manzanita Alliance	Adenostoma fasciculatum-Arctostaphylos glauca Alliance	CHAMISE REDSHANK CHAPARRAL	Northern Mixed Chaparral	
Chamise (pure) Association	Adenostoma fasciculatum (pure) Association	CHAMISE REDSHANK CHAPARRAL	Chamise Chaparral	
Chamise - Manzanita Mapping Unit	Adenostoma fasciculatum - Arctostaphylos spp. Mapping Unit	CHAMISE REDSHANK CHAPARRAL	Northern Mixed Chaparral	
Chamise (disturbance) Mapping Unit	Adenostoma fasciculatum (disturbance) Mapping Unit	CHAMISE REDSHANK CHAPARRAL	Chamise Chaparral	
Chamise - Cupleaf Ceanothus – Scrub Oak Association	Adenostoma fasciculatum-Ceanothus greggii-Quercus berberidifolia Association	CHAMISE REDSHANK CHAPARRAL	Semi-Desert Chaparral	
Scrub oak - Manzanita Mapping Unit	Quercus berberidifolia-(Arctostaphylos glandulosa-A. pringlei) Mapping Unit	MIXED CHAPARRAL	Northern Mixed Chaparral	
Scrub Oak - Chaparral Whitethorn Mapping Unit	Quercus berberidifolia-Ceanothus leucodermis Mapping Unit	MIXED CHAPARRAL	Northern Mixed Chaparral	

Common Name	Scientific Name	WHR Name	Holland Name	Notes
Scrub Oak - Birchleaf Mountain-mahogany Mapping Unit	Quercus berberidifolia-Cercocarpus betuloides Mapping Unit	MIXED CHAPARRAL	Northern Mixed Chaparral	
Chamise - California Buckwheat Association	Adenostoma fasciculatum-Eriogonum fasciculatum Association	CHAMISE REDSHANK CHAPARRAL	Coastal Sage - Chaparral Scrub	
Chamise (- Scrub Oak - Manzanita) Mapping Unit	Adenostoma fasciculatum (-Quercus berberidifolia-Arctostaphylos glauca-A.glandulosa, A. pringlei) Mapping Unit	CHAMISE REDSHANK CHAPARRAL	Northern Mixed Chaparral	
Scrub Oak - Chamise - Eastwood Manzanita Association	Quercus berberidifolia-Adenostoma fasciculatum-Arctostaphylos glandulosa Association	MIXED CHAPARRAL	Northern Mixed Chaparral	
Chamise - Eastwood Manzanita – Scrub Oak Association	Adenostoma fasciculatum-Arctostaphylos glandulosa-Quercus berberidifolia Association	CHAMISE REDSHANK CHAPARRAL	Northern Mixed Chaparral	
Bush Poppy Alliance	Dendromecon rigida Alliance	MIXED CHAPARRAL	Northern Mixed Chaparral	Seral, post fire, not likely to visibly persist after 10 years post-fire
Deer Brush Alliance	Ceanothus integerrimus Alliance	MONTANE CHAPARRAL	Deer Brush Chaparral	
Interior Live Oak - Chaparral Whitethorn Alliance	Quercus wislizeni-Ceanothus leucodermis Alliance	MIXED CHAPARRAL	Northern Mixed Chaparral	
Muller Oak Alliance	Quercus cornelius-mulleri Alliance	MIXED CHAPARRAL	Semi-Desert Chaparral	
Birchleaf Mountain-mahogany Alliance	Cercocarpus betuloides Alliance	MIXED CHAPARRAL	Northern Mixed Chaparral	
Muller Oak-California Buckwheat-Narrow-leaved Goldenbush Association	Quercus cornelius-mulleri-Eriogonum fasciculatum-Ericameria linearifolia Association	MIXED CHAPARRAL	Semi-Desert Chaparral	

Common Name	Scientific Name	WHR Name	Holland Name	Notes
Muller Oak-Sugar Bush Association	Quercus cornelius-mulleri-Rhus Ovata Association	MIXED CHAPARRAL	Semi-Desert Chaparral	
Sugar Bush – Lotebush Association	Rhus ovata-Ziziphus parryi Association	MIXED CHAPARRAL	Semi-Desert Chaparral	
Sugar Bush – California Buckwheat Association	Rhus ovata-Eriogonum fasciculatum Association	MIXED CHAPARRAL	Semi-Desert Chaparral	
Chamise – Bigberry Manzanita - Scrub Oak Association	Adenostoma fasciculatum-Arctostaphylos glauca-Quercus berberidifolia Association	MIXED CHAPARRAL	Northern Mixed Chaparral	
Microphyllous Shrubland				
Baccharis spp. Mapping Unit (semi-riparian)	Baccharis spp. Mapping Unit (semi-riparian)	VALLEY FOOTHILL RIPARIAN	Mule Fat Scrub	
Broad-leaved and microphyllous evergreen extremely xeromorphic subdesert shrubland				
Creosote Bush Alliance	Larrea tridentata Alliance	DESERT SCRUB	Sonoran Creosote Bush Scrub	
Creosote Bush - Mojave Yucca Alliance	Larrea tridentata-Yucca schidigera Alliance	DESERT SCRUB	Sonoran Creosote Bush Scrub	Stands in the SFVWA may be the western- most occurrence of this alliance in San Diego Co.
Deciduous shrubland				
Cold-season deciduous shrubland				
Basket Bush Alliance	Rhus trilobata Alliance	MONTANE CHAPARRAL	Montane Chaparral	This alliance is rare and spotty in Peninsular range, may be the western-most occurrence in SFVWA on Volcan Mtn
Intermittently Flooded to Saturated Deciduous Shrubland				
Narrowleaf Willow Alliance	Salix exigua Alliance	VALLEY FOOTHILL RIPARIAN	Southern Willow Scrub	

Common Name	Scientific Name	WHR Name	Holland Name	Notes
Intermittently flooded microphyllous shrubland				
Winter Rain Drought Deciduous Shrubland				
California Buckwheat Alliance	Eriogonum fasciculatum Alliance	COASTAL SCRUB	Flat-topped Buckwheat	
California Buckwheat - White Sage Alliance	Eriogonum fasciculatum-Salvia apiana Alliance	COASTAL SCRUB	Riversidian Upland Sage Scrub	
Deerweed Alliance	Lotus scoparius Alliance	COASTAL SCRUB	Riversidian Upland Sage Scrub	
California Buckwheat - Sugar bush Association	Eriogonum fasciculatum-Rhus ovata Association	COASTAL SCRUB	Semi-Desert Chaparral	
Facultatively-deciduous extremely xeromorphic shrubland				
Desert Apricot Alliance	Prunus fremontii Alliance	DESERT SCRUB	Semi-Desert Chaparral	Some of the best examples of this alliance known only from the CA Pensular range (desert margin) occur in the SFVWA
Blackbush Alliance	Coleogyne ramosissima Alliance	DESERT SCRUB	Sonoran Mixed Woody and Succulent Scrub	This alliance is rare and spotty in Peninsular range, may be the western-most occurrence in SFVWA on Volcan Mtn
Extremely xeromorphic subdesert deciduous shrubland				
Catclaw Acacia Alliance	Acacia greggii Alliance	DESERT SCRUB	Acacia Scrub	
Desert Willow Alliance	Chilopsis linearis Alliance	DESERT RIPARIAN	Sonoran Wash Scrub	
Honey Mesquite Alliance	Prosopis glandulosa Alliance	DESERT RIPARIAN	Mesquite Bosque	
Cheesebush Alliance	Hymenoclea salsola Alliance	DESERT SCRUB	Sonoran Desert Mixed Scrub	
Desert Sunflower Alliance	Viguiera parishii Alliance	DESERT SCRUB	Sonoran Mixed Woody and Succulent Scrub	

Common Name	Scientific Name	WHR Name	Holland Name	Notes
Catclaw Acacia/Annual Grass-Herb Association	Acacia greggii/Annual Grass-Herb Association	DESERT SCRUB	Acacia Scrub	
Upper Desert Mesquite Spring Association	Upper Desert Mesquite (Prosopis glandulosa) Spring Association	DESERT RIPARIAN	Mesquite Bosque	
Desert Sunflower-Desert Agave Association	Viguiera parishii-Agave deserti Association	Desert SCRUB	Sonoran Mixed Woody and Succulent Scrub	Western-most and highest elevation stands of this local association are in the SFVWA.
Desert Sunflower-California Buckwheat Association	Viguiera parishii-Eriogonum fasciculatum Association	Desert SCRUB	Sonoran Desert Mixed Scrub	
Perennial Herbaceous				
Bunch-forming grasses				
Purple Three-awn Alliance	Aristida purpurea Alliance	PERENNIAL GRASSLAND	Foothill/Mountain Perennial Grassland	Extremely rare alliance with largest known stands in the SFVWA.
Seasonally Flooded Grasslands and Forbs				
Common Rush Alliance	Juncus effusus Alliance	FRESH EMERGENT WETLAND	Freshwater Seep	
Yerba Mansa Alliance	Anemopsis californica Alliance	FRESH EMERGENT WETLAND	Alkali Seep	Rare and localized alliance. especially west of the true desert edge, as is true here in San Felipe Valley.
Yerba Mansa - Mexican Rush Association	Anemopsis californicus-Juncus mexicanus Association	FRESH EMERGENT WETLAND	Alkali Seep	
Alkali Sacaton - Creeping Wildrye - Rush Classification Unit	Sporobolus-Leymus-Juncus Classification unit	FRESH EMERGENT WETLAND	Alkali Seep	Rare type; only known location is at SFVWA.
Hydric Short Herbaceous Mapping Unit		FRESH EMERGENT WETLAND	Freshwater Seep	
Semi-permanently to Permanently Flooded Grasslands & Forbs		FRESH EMERGENT WETLAND	Freshwater Seep	

Common Name	Scientific Name	WHR Name	Holland Name	Notes
Broad-leaved Cattail Association	Typha latifolia Association	FRESH EMERGENT WETLAND	Coastal and Valley Freshwater Marsh	
Annual Herbaceous Grasslands & Forbs				
Upland Annual Grasslands & Forbs				
California Annual Grassland Alliance		ANNUAL GRASSLAND	Non-native grassland, Wildflower Field	
Sparsely Vegetated or Non-vegetated				
Sandy to Cobbly Wash Bottom				
Other				
Urban or Development				
Miscellaneous Mapping Units				
Post-fire non-classifiable mapping unit				

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Appendix B: Species Detected in the San Felipe Valley Wildlife Area

This appendix provides a composite list of species detected in the San Felipe Valley Wildlife Area. It is based primarily on surveys conducted by the San Diego Natural History Museum Biodiversity Research Section and San Diego State University Field Station Program.

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Plants

Agavaceae

Desert agave *Agave deserti*

Our-lord's-candle *Hesperoyucca (=Yucca) whipplei*

Mohave yucca *Yucca schidigera*

Alliaceae (Onion Family)

Onion *Allium sp.*

Anacardiaceae (Sumac or Cashew Family)

Pacific poison oak *Toxicodendron diversilobum*

Skunkbush sumac *Rhus trilobata*

Sugar bush *Rhus ovata*

Apiaceae (Carrot Family)

American wild carrot, Rattlesnake weed *Daucus pusillus*

California hedge parsley *Yabea microcarpa*

California sweet-cicely *Osmorhiza brachypoda*

Marsh pennywort *Hydrocotyle ranunculoise*

Mojave biscuitroot, Mojave desertparsley *Lomatium mohavense*

Purple sanicle *Sanicula bipinnatifida*

Southern tauschia *Tauschia arguta*

Wild celery *Apium graveolens*

Wild celery, Mock parsley *Apiastrum angustifolium*

Asclepiadaceae (Milkweed Family)

California milkweed *Asclepias californica*

Desert milkwee *Asclepias erosa*

Fringed milkvine *Sarcostemma cynanchoides ssp. Hartwegii*

Asteraceae (Sunflower Family)

Annual sow thistle *Sonchus oleraceus*

Arizona cottonrose, Arizona filago *Filago arizonica*

Boundary goldenbush *Ericameria brachylepis*

Brickelbush *Brickellia* sp.

Broomweed, Matchweed *Gutierrez sarothrae*

California black walnut fruit *Coreopsis californica var. californica*

California chicory *Rafinesquia californica*

California cottonrose, California filago *Filago californica*

California dandelion *Malacothrix clevelandii*

California groundsel *Senecio californicus*

Cheesebush, Burrobrush *Hymenoclea salsola var. salsola*

Common dandelion *Taraxacum officinale*

Common groundsel, Ragwort *Senecio vulgaris*

Common yarrow, Soldier's friend *Achillea millefolium*

Coville Erigeron *Erigeron breweri var. covillei*

Crete hedypnois *Hedypnois cretia*

Cudweed, Two-color cudweed *Gnaphalium bicolor*

Cuman ragweed *Ambrosia psilostachya*

Dean's stephanomeria *Stephanomeria exigua ssp. exigua*

Desert goldenhead *Acamptopappus sphaerocephalus var. sphaerocephalus*

Desert straw, Desert wire-lettuce *Stephanomeria pauciflora*

Dyssodia *Adenophyllum porophylloides*

Emory baccharis *Baccharis emoryi*

Encelia, Virgin River brittlebush *Encelia virginensis*

False neststraw, Woolly fishhooks *Ancistrocarphus filagineus*

Golden yarrow *Eriophyllum confertiflorum var. confertiflorum*

Goldfields *Lasthenia californica*

Interior goldenbush *Ericameria linearifolia*

Italian thistle, Compact-headed thistle *Carduus pyncocephalus*

Leafy Daisy, Leafy fleabane *Erigeron foliosus var. foliosus*

Malacothrix *Malacothrix californica*

Mono butterweed *Senecio flaccidus* var*. monoensis*

Mule Fat, Seep Willow *Baccharis salicifolia*

Nest-straw *Stylocline gnaphalioides*

Parish's golden-eye *Viguiera parishii*

Pincushion flower *Chaenactis fremontii*

Pineapple weed *Chamomilla suaveolens*

Prickly lettuce *Lactuca serriola*

Q tips, Slender cottonweed *Micropus californicus var. californicus*

Red thistle *Cirsium occidentale*

Rough cockleburr *Xanthium strumarium*

Sacapellote *Acourtia microcephala*

Sagewort, Mugwort *Artemisia douglasiana*

San Diego sunflower *Hulsea californica*

Saw-toothed goldenbush *Hazardia squarrosa*

Shrubby brickellbush , *Brickellia frutescens*

Silver puffs *Microseris lindleyi*

Slender poreleaf, Odora flower *Porophyllum gracile*

Smooth cats-ear *Hypochaeris glabra*

Spearleaf mountain dandelion *Agoseris retrorsa*

Sticky madia *Madia gracilis*

Tarragon *Artemisia dracunculus*

Telegraph weed *Heterotheca grandiflora*

Tocalote *Centuarea melitnsis*

Uropappus, Silver puffs *Uropappus lindleyi*

White burrobush *Hymenociea salsola* var. *salsola*

White chaenactis *Chaenactis artemisiifolia*

White easter bonnets *Eriophyllum lanosum*

White layia, White tidy tips *Layia glandulosa*

Woolly sunflower *Eriophyllum wallacei*

Woollyhead neststraw *Stylocline micropoides*

Yellow tack-stem *Calycoseris parryi*

Blechanaceae (Deer Fern Family)

Giant chain fern *Woodwardia fimbriata*

Bignoniaceae (Bigononia Family)

Desert willow *Chilopsis linearis*

Boraginaceae (Borage Family)

Ganders common fiddleneck *Amsinckia menziesii var. intermedia*

Rigid fiddleneck *Amsinckia menziesii var. menziesii*

Cryptantha *Cryptantha sp.*

Granel forget-me-not, gravel cryptantha *Cryptantha decipiens*

Redroot cryptantha *Cryptantha micrantha*

Prickly popcorn flower *Cryptantha muricata*

Wide-nutted combseed *Pectocarya platycarpa*

Sleeping combseed, Winged comb-seed *Pectocarya penicillata*

Curvenut combseed *Pectocarya recurvata*

Stiff - stemmed comb-bur *Pectocarya setosa*

Arizona popcorn flower *Plagiobothrys arizonicus*

Brassicaceae (Mustard Family)

Alkali western *Descurainia pinnata ssp. halictorum*

California mustard *Guillenia lasiophylla*

Desert pepper-grass *Lepidium lasiocarpum var. lasiocarpum*

Dwarf athysanus *Athysanus pusillus*

Fine-leaf tansy-mustard *Descurainia sophia*

Fringe pod *Thysanocarpus curvipes*

Hall's bush lupine *Caulanthus hallii*

Hedge mustard, Indian hedge mustard *Sisymbrium orientale*

Lepidium sp.

London rocket *Sisymbrium irio*

Nevada rock-cress *Arabis perennans*

Payson's jewelflower *Caulanthus simulans*

Peppergrass *Lepidum virginicum*

Slender keel *Tropidocarpum gracile*

Slender-pod jewelflower *Caulanthus heterophyllus var. heterophyllus*

Tansy mustard *Descurainea pinnata* ssp. *glabra*

Water cress *Rorippa nasturtium-aquaticum*

Wedgeleaf draba, Wedge-leaf draba *Draba cuneifolia*

Cactaceae (Cactus Family)

Beavertail cactus, Beavertail pricklypear *Opuntia basilaris var. basilaris*

Buckhorn cholla *Cylindropuntia acanthocarpa var. coloradensis*

Engelmann's hedgehog cactus *Echinocereus engelmannii*

Prickly-pear *Opuntia littoralis*

Prickly-pear *Opuntia phaeacantha*

Strawberry cactus, California fishhook cactus *Mammillaria dioica*

Valley cholla *Opuntia* aff. *Californica* var. *parkei*

Campanulaceae (Bellflower family)

Comb-leaved threadplant *Nemacladus pinnatifidus*

Caprifoliaceae (Honeysuckle Family)

Johnston's honeysuckle *Lonicera subspicata var. denudata*

Tapiro, Blue elderberry *Sambucus mexicana*

Caryophyllaceae (Pink Family)

Chickweed, Starweed, Star chickweed,

Hairy rupturewort, Desert lantern *Herniaria hirsuta ssp. Cinerea*

Loeflingia. *Loeflingia squarrosa var. squarrosa*

Mouse-ear chickweed *Cerastium glomeratum*

Passerina *Stellaria media*

Sandwort. *Minuartia douglasii*

Small-flowered catchfly *Silene gallica*

Chenopodiaceae (Goosefoot Family)

Alkali saltbush *Atriplex polycarpa*

California goosefoot Pigweed *Chenopodium californicum*

Five-horn bassia, Fivehook bassia *Bassia hyssopifolia*

Grey sage brush, Four-winged saltbush *Atriplex canescens*

Cistaceae (Rock-rose Family)

Arizona popcorn flower *Plagiobothrys arizonicus*

Cryptantha *Cryptantha* sp.

Curvenut combseed *Pectocarya recurvata*

Granel forget-me-not, gravel cryptantha *Cryptantha decipiens*

Prickly popcorn flower *Cryptantha muricata*

Redroot cryptantha *Cryptantha micrantha*

Sleeping combseed, Winged comb-seed *Pectocarya penicillata*

Stiff - stemmed comb-bur *Pectocarya setosa*

Sun Rose, Rush-rose *Helianthemum scoparium*

Wide-nutted combseed *Pectocarya platycarpa*

Crassulaceae (Stonecrop Family)

Banner liveforever *Dudleya saxosa* ssp. *aloides*

Lady fingers *Dudleya edulis*

Pygmy stonecrop *Crassula connata*

Cucurbitaceae (Gourd Family)

Calabazilla, Coyote melon, Fetid gourd origin, *Cucurbita foetidissima*

Coyote melon *Cucurbita palmata*

Cucamonga manroot, Southern wildcucumber *Marah macrocarpus var. macrocarpus*

Cupressaceae (Cypress Family)

California juniper *Juniperus californica*

Incense cedar *Calocedrus decurrens*

Cyperaceae (Sedge Family)

Clustered field sedge *Carex praegracilis*

Spike rush *Eleocharis montevidensis*

Three-square bulrush, Olney's bulrush *Scirpus americanus*

Dennstaedtiaceae (Bracken Family)

Brake, Fiddlehead, Burning bush *Pteridium aquilinum*

Equisetaceae (Horsetail Family)

Great horsetail *Equisetum telmateia ssp. braunii*

Ericaceae (Heath Family)

Adams' manzanita *Arctostaphylos glandulosa ssp. adamsii*

Euphorbiaceae (Spurge Family)

Bernardiam, Mouse ears *Bernardia myricifolia*

Desert spurge *Chamaesyce micromera*

Doveweed *Eremocarpus setigerus*

Lance-leaved ditaxis, Narrowleaf ditaxis *Ditaxis lanceolata*

Narrow-leaved stillingia *Stillingia linearifolia*

Small-seed sandmat *Chamaesyce polycarpa*

Squaw spurge *Chamaesyce melanadenia*

Fabaceae (Legume Family)

American licorice *Glycyrrhiza lepidota*

American vetch *Vicia americana var. americana*

Bajada lupine *Lupinus concinnus*

Blushing Bride *Lathyrus latiflorus ssp. latiflorus*

California broom, Deerweed *Lotus scoparius*

California burclover *Medicago polymorpha*

Catclaw, catclaw acacia, devilsclaw *Acacia greggii*

Coulter lupine *Lupinus sparsiflorus*

Deerweed *Lotus scoarius var. brevialatus*

Desert deerweed *Lotus rigidus*

Hillside pea, Wild sweetpea *Lathyrus vestitus var. vestitus*

Honey mesquite *Prosopis glandulosa var. torreyana*

Indian clover *Trifolium albopurpureum*

Nuttall's lupine, Collar lupine *Lupinus truncatus*

Pigmy-leaved lupine *Lupinus bicolor*

Small-flowered lotus *Lotus hamatus*

Stinging lupine *Lupinus hirsutissimus*

Strigose lotus *Lotus strigosus*

Tomcat clover *Trifolium willdenovii*

Velvet mesquite *Prosopis velutina*

Fagaceae (Oak Family)

California black oak *Quercus kelloggii*

Canyon oak, Maul oak, Goldcup oak *Quercus chrysolepis*

Coast live oak *Quercus agrifolia*

Engelmann oak *Quercus engelmannii*

Muller's oak *Quercus cornelius-mulleri*

Scrub oak *Quercus berberidifolia*

Geraniaceae (Geranium Family)

Long-beak filaree *Erodium botrys*

Red-stem stork's bill *Erodium cicutarium*

White-stem filaree *Erodium moschatum*

Grossulariaceae (Gooseberry Family)

Rock gooseberry *Ribes quercetorum*

Winter current *Ribea oindecorim*

Hydrophyllaceae (Waterleaf Family)

Baby blue eyes *Nemophila menziesii ssp. integrifolia*

Canterbury bells *Phacelia minor*

Caterpillar phacelia *Phacelia cicutaria var. hispida*

Common phacelia *Phacelia distans*

Desert bells *Phacelia campanularia*

Littlefoot nemophila, Meadow nemophila *Nemophila pedunculata*

Parry's phacelia *Phacelia parryi*

Pine bee flower *Phacelia imbricata*

Small-flowered eucrypta *Eucrypta micrantha*

Sticky phacelia *Phacelia glandulifera*

Torrey eucrypta *Eucrypta chrysanthemifolia*

Whispering bells *Emmenanthe penduliflora*

White fiesta flower *Pholistoma membranaceum*

Yellow-throated phacelia *Phacelia brachyloba*

Yerba santa *Eriodictyon trichocalyx*

Juncaceae (Rush Family)

Iris-leaved rush *Juncus xiphioides*

Mexican rush *Juncus mexicanus*

Toad rush *Juncus bufonius*

Lamiaceae (Mint Family)

Chia *Salvia columbariae*

Henbit *Lamium amplexicaule*

Horehound *Marrubium vulgare*

Mint, Summer Azure *Mentha sp*

Parish's bluecurls *Trichostema parishii*

San Felipe monardella *Monardella nana ssp. leptosiphon*

Thistle Sage *Salvia carduacea*

White Sage *Salvia apiana*

Lemnaceae (Duckweed Family)

Least duckweed *Memna minuscula*

Liliaceae (Lily Family)

Blue dicks *Dichelostemma capitatum* ssp. *capitatum*

Golden bowl mariposa lily *Calochortus concolor*

Mariposa lily *Calochortus* sp.

Small-flowered soap plant *Chlorogalum parviflorum*

Loasceae (Loasa Family)

Blazingstar *Mentzelia veatchiana*

Thurber's sandpaper plant *Petalonyx thurberi ssp. thurberi*

Veatch's blazing star, Veatch's

Malvaceae (Mallow Family)

Apricot globemallow *Sphaeralcea ambigua ssp. ambigua*

Cheeseweed, Little mallow *Malva parviflora*

Checker-bloom *Sidalcea malvaeflora ssp. sparsifolia*

Yellow-stem bush mallow *Malacothamnus densiflorus*

Nolinaceae

Bear grass *Nolina sp*

Nyctaginaceae (Four O'Clock Family)

Giant four o'clock *Mirabilis multiflora var. pubescens*

Sand verbena *Abronia* sp

Scarlet spiderling *Boerhavia coccinea*

Soapwort *Mirabilis* sp.

Wishbone bush *Mirabilis laevis var. retrorsa*

Onagraceae (Evening Primrose Family)

Clarkia *Clarkia rhomboidea*
Four-spot clarkia *Clarkia quadrivulnera*

Fringed willowherb *Epilobium ciliatum ssp. ciliatum*

Henrickson *Clarkia* cf.

Jurupa Hills sun-cups *Camissonia ignota*

Mustard primrose *Camissonia californica*

Pale sun-cup, Paleyellow suncup *Camissonia pallida ssp. pallida*

Purple clarkia *Clarkia purpurea ssp. quadrivulnera*

Ramona clarkia *Clarkia similis*

Strigose suncup *Camissonia strigulosa*

White clarkia *Clarkia epilobioides*

Orobanchaceae (Broom-rape Family)

Chaparral broomrape *Orobanche bulbosa*

Parish broomrape *Orobanche parishii ssp. parishii*

Paeoniaceae (Peony Family)

California peony *Paeonia californica*

Papaveraceae (Poppy Family)

Bush poppy *Dendromecon rigida*

California creamcups *Platystemon californicus*

Golden ear-drops *Dicentra chrysantha*

Prickly poppy *Argemone munita*

Pgymy gold-poppy *Eschscholzia minutiflora*

Pinaceae (Pine Family)

Bigcone Douglas-fir *Pseudotsuga macrocarpa*

Coulter pine *Pinus coulteri*

Single-leaf piñon *Pinus monophylla*

Plantaginaceae (Plantain Family)

Buck's-horn plantain *Plantago coronopus*

Woolly plantain *Plantago patagonica*

Common plantain; Broadleaf plantain *Plantago major*

Desert plantain *Plantago purshii*

Platanaceae (Sycamore Family)

California sycamore *Platanus racemosa*

Poaceae (Grass Family)

Barley *Hordeum sp*

Blue wild, Blue wildrye *Elymus glaucus ssp.glaucus*

Cheatgrass *Bromus tectorum*

Chilean rabbitsfoot grass *Polypogon australis*

Coast range melic *Melica imperfecta*

Common Mediterranean grass *Schismus barbatus*

Deergrass *Muhlenbergia rigens*

Desert needlegrass *Achnatherum speciosum*

Eastwood fescue *Vulpia microstachys var ciliata*

False foxtail fescue *Vulpia myuros var. myuros*

Foxtail fescue *Vulpia myuros var. myuros*

Giant stipa *Achnatherum coronatum*

Goldentop grass *Lamarckia aurea*

Hare barley *Hordeum murinum* ssp. *leporinum*

Inland saltgrass *Distichlis spicata*

Italian rye-grass *Lolium multiflorum*

Nodding needlegrass *Nassella cernua*

Parish three-awn *Aristida purpurea var. parishii*

Red brome, Foxtail chess *Bromus madritensis spp. rubens*

Ripgut brome *Bromus diandrus*

Rush blue grass *Poa secunda ssp. secunda*

Slender wild oats *Avena barbata*

Soft brome, Soft chess *Bromus hordeaceus*

Tall brome *Bromus grandis*

Valley wild-rye *Leymus triticoides*

Polemoneaceae (Phlox Family)

Chaparral gilia *Gilia angelensis*

Coastal gilia *Gilia diegensis*

Common broom flower *Allophyllum gilioides*

Large-flowered collomia *Collomia grandiflora*

Lavender eriastrum *Eriastrum filifolium*

Leptosiphon (=Linanthus) aureus ssp. decorus

Miniature gilia *Gilia capillaris*

Pygmy linanthus *Leptosiphon (=Linanthus) pygmaeus ssp. continentalis*

Sapphire eriastrum, Sapphire woollystar *Eriastrum sapphirinum*

Schott gilia *Loeseliastrum schottii*

Splendid gilia *Gilia australis*

Sticky false-gilia *Allophyllum glutinosum*

Polygonaceae (Buckwheat Family)

California buckwheat *Eriogonum fasciculatum var. fasciculatum*

Desert wild buckwheat *Eriogonum fasciculatum var. polifolium*

Fringed spineflower *Chorizanthe fimbriata var. fimbriata*

Granny's hairnet *Pterostegia drymarioides*

Knotweed *Polygonum sp.*

Lace-fringed spineflower *Chorizanthe fimbriata var. laciniata*

Spineflower *Chorizanthe sp.*

Threelobe oxytheca *Oxytheca trilobata*

Thurber spiny herb *Centrostegia thurberi*

Turkish rugging *Chorizanthe staticoides*

Watson's spineflower *Chorizanthe watsonii*

Portulacaceae (Purselane Family)

Green miner's lettuce *Claytonia parviflora ssp. viridis*

Red maids *Calandrinia ciliata*

Sand cress *Calyptridium monandrum*

Utah miner's lettuce, Miner's lettuce *Claytonia parviflora ssp. parviflora*

Pteridaceae (Brake Family)

Bird's foor cliff-brake *Pellaea mucronata* var. *mucronata*

Coffee fern *Pellaea andromedifolia*

Coville's lipfern *Cheilanthes covillei*

Pale gold-back fern *Pentagramma triangularis ssp. triangularis*

Ranunculaceae (Buttercup Family)

Golden Clematis *Clematis pauciflora*

Intermediate larkspur *Delphinium parishii ssp. subglobosum*

Rhamnaceae (Buckthorne Family)

Big Sur lilac *Ceanothus palmeri*

California crucillo, Parry abrojo *Ziziphus parryi var. parryi*

Chaparral coffee berry, Hoary coffeeberry *Rhamnus tomentella ssp. tomentella*

Cup-leaf lilac *Ceanothus greggii var. perplexans*

Evergreen buckthorn, Hollyleaf redberry *Rhamnus ilicifolia*

Mesa Greggia, Velvety Greggia *Ceanothus greggii*

San Diego hairy ceanothus *Ceanothus oliganthus var. oliganthus*

White bark californialilac *Ceanothus leucodermis*

Rosaceae (Rose Family)

Blackbrush *Coleogyne ramosissima*

Chamise *Adenostoma fasciculatum*

Chokecherry *Prunus virginiana*

Desert almond *Prunus fasciculata*

Desert apricot *Prunus fremontii*

Hollyleaf cherry *Prunus ilicifolia*

Pennsylvannia blackberry *Rubus pensilvanicus*

Rubiaceae (Madder Family)

Andrew's bedstraw *Galium andrewsii ssp. andrewsii*

Bedstraw *Galium porrigens var. porrigens*

Stickywilly *Galium aparine*

Rutaceae (Rue Family)

Turpentine broom *Thamnosma montana*

Salicaceae (Willow Family)

Arroyo willow *Salix lasiolepis*

Fremont cottonwood *Populus fremontii var. fremontii*

Narrowleaf willow *Salix exigua*

Western cottonwood *Populus fremontii*

Saururaceae (Lizard's-tail Family)

Yerba mansa *Anemopsis californica*

Scrophulariaceae (Figwort Family)

Bee-plant, California bee-plant *Scrophularia californica ssp. californica*

Bigelow's monkeyflower *Mimulus bigelovii var. bigelovii*

Blue-stemmed keckiella *Keckiella ternata var. ternata*

Chaparral beard-tongue *Keckiella antirrhinoides var. microphylla*

Chinese houses *Collinsia concolor*

Coulters snapdragon *Antirrhinum coulterianum*

Foothill penstemon *Penstemon heterophyllus*

Fremont monkey flower *Mimulus fremontii*

Hairy monkey-flower *Mimulus pilosus*

Owl's clover, Purple owl's-clover *Castilleja exserta*

Scarlet bugler *Penstemon centranthifolius*

Scarlet monkey flower *Mimulus cardinalis*

Showy penstemon *Penstemon spectabilis var. spectabilis*

Woolly indian panitbrush *Castilleja foliolosa*

Yellow monkey flower *Mimulus guttatus*

Simmondsiaceae (Jojoba Family)

Jojoba, Goat-nut *Simmondsia chinensis*

Solanaceae (Nightshade Family)

American black nightshade *Solanum americanum*

Cooper's boxthorn *Lycium cooperi*

Datura sp.

Desert tobacco *Nicotiana obtusifolia*

Parish's nightshade *Solanum parishii*

Purple nightshade *Solanum xanti*

Waterjacket *Lycium andersonii*

Tamaricaceae (Tamarisk Family)

Saltcedar *Tamarix ramosissima*

Urticaceae (Nettle Family)

Hoary nettle *Urtica dioica ssp. holosericea*

Valerianaceae (Valerian Family)

Longspur seablush *Plectritis ciliosa ssp. insignis*

Viscaceae (Mistletoe Family)

Desert mistletoe *Phoradendron caliofrnicum*

Incense cedar mistletoe *Phoradendron libocedri*

Oak mistletoe *Phoradendron villosum*

Vitaceae (Grape Family)

Desert wild grape *Vitis girdiana*

Zygophyllaceae (Caltrop Family)

Creosote bush *Larrea tridentata*

Mammals

Antelope ground squirrel *Ammospermophilus leucurus*

Audubon cottontail *Sylvilagus audubonii*

Badger *Taxidea taxus*

Big brown bat *Eptesicus fuscus*

Big brown bat *Eptesicus fuscus*

Black-tailed jackrabbit *Lepus californicus*

Bobcat *Lynx rufus*

Botta's pocket gopher *Thomomys bottae*

Brush mouse *Peromyscus boylii*

Cactus Mouse *Peromyscus eremicus fraterculus*

California ground squirrel *Spermophilus beecheyi nudipes*

California mouse *Peromyscus californicus insignis*

California myotis *Myotis californicus* e

California pocket mouse *Chaetodipus californicus femoralis*

California vole *Microtus californicus sanctidiegi*

Coastal deer mouse *Peromyscus maniculatus gambelii*

Coyote *Canis latrans*

Desert deer mouse *Peromyscus maniculatus sonoriensis*

Desert pocket mouse *Chaetodipus penecillatus*

Desert shrew *Notiosorex crawfordi*

Desert woodrat *Neotoma lepida gilva*

Dulzura kangaroo rat *Dipodomys simulans*

Grasshopper mouse *Onychomys torridus*

Gray fox *Urocyon cinereoargenteus*

Hoary bat *Lasiurus cinereus*

Jacumba pocket mouse *Perognathus longimembris internationalis*

Large-eared wood rat *Neotoma macrotis*

Little brown bat *Myotis lucifugus*

Little pocket mouse *Perognathus longimembris,*

Long-eared myotis *Myotis evotis*

Long-tailed pocket mouse *Chaetodipus formosus*

Long-tailed weasel *Mustela frenata*

Los Angeles pocket mouse *Perognathus longimembris brevinasus*

Merriam's kangaroo rat *Dipodomys merriami*

Mexican free-tailed bat *Tadarida brasilensis*

Mountain lion *Felis concolor*

Northeastern (desert) San Diego pocket mouse *Chaetodipas fallax pallidus*

Ornate shrew *Sorex ornatus*

Pacific kangaroo rat *Dipodomys simulans*

San Diego (coastal) Pocket Mouse *Chaetodipas fallax fallax*

Southern mule deer *Odocoileus hemionus*

Southern pocket gopher *Thomomys bottae puertae*

Spiny pocket mouse *Chaetodipas spinatus rufescens*

Striped skunk *Mephitis mephitis*

Townsend's big-eared bat *Corynorhinus townsendii*

Western harvest mouse *Reithrodontomys megalotis*

Western mastiff bat *Eumops perotis*

Western pipistrelle *Pipistrellus hesperus*

Yuma bat *Myotis yumanensis*

Birds

American crow *Corvus brachyrhynchos*

American kestrel *Falco sparverius*

American pipit *Anthus rubescens*

Anna's hummingbird *Calypte anna*

Ash-throated flycatcher *Myiarchus cinerascens*

Barn owl *Tyto alba pratincola*

Belted kingfisher *Ceryle alcyon*

Black phoebe *Sayornis nigricans*

Black-chinned hummingbird *Archilochus alexandri*

Black-tailed gnatcatcher *Polioptila melanura*

Brant *Branta bernicla*

Brewer's blackbird *Euphagus cyanocephalus*

California quail *Callipepla californica*

Canada goose *Branta canadensis*

Cassin's vireo *Vireo cassinii*

Common poor-will *Phalaenoptilus nuttallii*

Common raven *Corvus corax*

Cooper's hawk *Accipiter cooperii*

Costa's hummingbird *Calypte costae*

European starling *Sturnus vulgaris*

Ferruginous hawk *Buteo regalis*

Golden eagle *Aquila chrysaetos*

Grasshopper sparrow *Ammodramus savannarum*

Gray flycatcher *Empidonax wrightii*

Great blue heron *Ardea herodias*

Great egret *Ardea alba*

Great horned owl *Bubo virginianus*

Greater roadrunner *Geococcyx californianus*

Hairy woodpecker *Picoides villosus*

House wren *Troglodytes aedon*

Killdeer *Charadrius vociferus*

Ladder-backed woodpecker *Picoides scalaris*

Lawrence goldfinch *Carduelis lawrencei*

Least Bell's vireo *Vireo bellii pusillus*

Lesser nighthawk *Chordeiles acutipennis*

Lincoln's sparrow *Melospiza lincolnii*

Loggerhead shrike *Lanius ludovicianus*

Long-eared owl *Asio otus*

Mallard *Anas platyrhynchos*

Merlin *Falco columbarius*

Mountain quail *Oreortyx pictus*

Mourning Dove *Zenaida macroura*

Northern flicker *Colaptes auratus*

Northern harrier *Circus cyaneus*

Nuttall's woodpecker *Picoides nuttallii*

Oak titmouse *baeolophus inomatus*

Pacific slope flycatcher *Empidonax difficilis*

Phainopepla *Phainopepla nitens*

Prairie falcon *Falco mexicanus*

Red-tailed hawk *Buteo jamaicenis*

Ring-necked pheasant *Phasianus colchicus*

Say's phoebe *Sayornis saya*

Scott's oriole *Icterus parisorum*

Sharp-shinned hawk *Accipiter striatus*

Sora *Porzana carolina*

Southwestern willow flycatcher *Empidonax traillii extimus*

Summer tanager *Piranga rubra*

Tree swallow *Tachycineta bicolor*

Turkey vulture *Cathartes aura*

Vaux's swift *Chaetura vauxi*

Verdin *Auriparus flaviceps*

Violet-green swallow *Tachycineta thalassina*

Warbling vireo *Vireo gilvus swainsoni*

Western bluebird *Sialia Mexicana*

Western flycatcher *Empidonax difficilis*

Western kingbird *Tyrannus verticalis*

Western screech owl *Otus kennicottii*

Western scrub jay *Aphelocoma californica*

Western wood pewee *Contopus sordidulus*

White-breasted nuthatch *Sitta carolinensis*

White-tailed kite *Elanus leucurus*

White-throated swift *Aeronautes saxatalis saxatalis*

White-winged dove *Zenaida asiatica*

Wild turkey *Meleagris gallopavo*

Yellow-billed cuckoo *Coccyzus americanus*

Yellow-breasted chat *Icteria virens*

Amphibians and Reptiles

Amphibians

California treefrog *Pseudacris (=Hyla) cadaverina*

Pacific treefrog *Hyla regilla*

Western toad *Bufo boreas spp. halophilus*

Reptiles

California kingsnake *Lampropeltis getula californiae*

California legless lizard *Anniella pulchra* spp. *pulchra*

California side-blotched lizard *Uta stansburiana elegans*

California striped racer *Masticophis lateralis lateralis*

Coachwhip *Masticophis flagellum*

Coast patchnose snake *Salvadora hexalepis virgultea*

Coastal rosy boa *Lichanura trivirgata roseofusca*

Coastal whiptail *Cnemidophorus tigris multiscutatus*

Coronado Island skink *Eumeces skiltonianus interparietalis*

Desert spiny lizard *Sceloporus magister*

Glossy snake *Arizona elegans*

Gopher snake *Pituophis catenifer*

Granite night lizard *Xantusia henshawi henshawi*

Granite spiny lizard *Sceloporus orcutti*

Granite spiny lizard *Sceloporus orcutti*

Horned lizard *Phrynosoma coronatum*

Long tailed brush lizard *Urosaurus graciosus*

Longnose snake *Rhinocheilus lecontei*

Red diamond rattlesnake *Crotalus exsul (=ruber)*

Red racer *Masticophis flagellum piceus*

Ring neck snake *Diadophis punctatus*

San Diego alligator lizard *Elgaria multicarinata webbi*

San Diego horned lizard *Phrynosoma coronatum blainvillii*

San Joaquin fence lizard *Sceloporus occidentalis biseriatus*

Side-blotched lizard *Uta stansburiana*

Silvery legless lizard *Anniella pulchra pulchra*

Southern pacific rattlesnake *Crotalus viridis helleri*

Southwestern Speckled Rattlesnake *Crotalus mitchellii Pyrrhus*

Western blind snake *Leptotyphlops dulcis*

Western fence lizard *Sceloporus occidentalis*

Western skink *Eumeces skiltonianus*

Appendix C: Initial Study and Negative Declaration

Initial Study and Negative Declaration
for the
Land Management Plan for the San Felipe Valley Wildlife Area

Prepared by:

Jones & Stokes
17310 Red Hill Avenue, Suite 320
Irvine, CA 92614-5600

For:

California Department of Fish and Game
South Coast Region
Wildlife, Fisheries, and Lands Program
4949 Viewridge Avenue
San Diego, CA 92123
Contact: Theresa Stewart
858-467-4209

October 2007

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Availability of Documents

Copies of this Initial Study and proposed Negative Declaration (IS/ND), together with copies of the Land Management Plan for the San Felipe Valley WA, are available for public review at:

California Department of Fish and Game
4949 Viewridge Avenue
San Diego, CA 92123

San Diego County Library
Ramona Branch
1406 Montecito Road
Ramona, CA 91963

San Diego County Library
Poway Branch
13137 Poway Road
Poway, CA 92064

San Diego County Library
Borrego Springs Branch
571-A Palm Canyon Drive
Borrego Springs, CA 92004

California Department of Fish and Game Website
http://www.dfg.ca.gov

The Department of Fish and Game is soliciting public comments on this IS/ND and the Draft Land Management Plan through December 12, 2007. Written comments should be transmitted to the Department on or before December 12, 2007. Comments should be addressed to:

Theresa Stewart
California Department of Fish and Game
4949 Viewridge Avenue
San Diego, CA 92123

Summary

This initial study and proposed negative declaration (IS/ND) evaluates the potential environmental consequences associated with the adoption and implementation of the Land Management Plan (LMP) for the San Felipe Valley Wildlife Area (SFVWA).

The SFVWA is located in northeastern San Diego County at the juncture of State Highway 78 and County Highway S-2 (San Felipe Road). It includes approximately 14,175 acres of largely undisturbed land acquired through a series of transactions by the California Wildlife Conservation Board and California Department of Fish and Game (Department). The WA is managed by the Department for its natural resources and for the public's use and enjoyment of those resources. The primary purpose of the LMP is to establish goals and guidelines for the operation, maintenance, and public use of the SFVWA. The Department will use the LMP to help guide the specific tasks for managing the habitats, species, cultural resources, facilities, public uses, and various other activities that occur in the WA.

Because the management and uses of the WA identified in the LMP entail activities that have the potential to alter the environment, the Department's implementation of the LMP is a "project" as defined in the California Environmental Quality Act (CEQA). This IS/ND has been prepared in accordance with CEQA (Public Resources Code Section 21000, et seq.) and Sections 15063 and 15070-15075 of State CEQA Guidelines.

The Department finds that adoption and implementation of the LMP would result in less-than-significant impacts and proposes to adopt the negative declaration.

Negative Declaration

Pursuant to Sections 15070 and 15071 of the California Environmental Quality Act (CEQA) Guidelines, the California Department of Fish and Game (Department) proposes to adopt this Negative Declaration.

1. Title and Short Description of Project

Land Management Plan (LMP) for the San Felipe Valley WA (SFVWA).

The Department proposes to adopt and implement the LMP for the SFVWA. The SFVWA has a unique combination of important resources that reflect its location in the transition zone between the Peninsular Mountain Ranges and the Colorado Desert in northeastern San Diego County. The unique and special features of the SFVWA include: rare habitats that occur only in the Volcan Mountains or San Felipe Valley or represent the farthest known extent of their type; important fawning and summer foraging habitat for a large population of southern mule deer; a regionally important movement corridor for deer and mountain lions; special status plants and animals; significant cultural resources, including prehistoric Native American sites and historic structures from the late nineteenth century; and a designated scenic viewshed and scenic highway along San Felipe Road (County Highway S-2).

The primary purpose of the LMP is to guide the operation, maintenance, and public use of the SFVWA in accordance with the Department's mission to manage California's diverse fish, wildlife, and plant resources, and the habitats upon which they depend, for their ecological values and for their use and enjoyment by the public. The Department will use the LMP to prepare annual work programs and budgets for management of the WA, determine the types and locations of public uses allowed in the WA, develop long-term strategies for achieving the goals stated in the LMP, coordinate management activities with adjacent land owners and land managers, and provide a framework plan for management and public use of any lands added to the WA over time.

Under the LMP, the property would be maintained in its current undisturbed state and the wildlife-dependent public uses currently allowed in the WA would continue. Current public uses include hunting and hunting dog training. Hiking and horseback riding on existing roads also potentially would be allowed, but currently there are no designated hiking or riding trails in the SFVWA. All public access to the WA would be on foot. No motor vehicles, bicycles, or mountain bikes would be allowed. Special provisions for access by the disabled would be considered but are not yet proposed. Fencing and signage would be installed and maintained, an existing unpaved parking area would be expanded, the boundaries of the existing hunting dog training area would be expanded, existing unpaved roads and existing structures would be maintained. No construction of roads, trails, structures, or other facilities is proposed. Links to hiking and equestrian trails outside the WA would be considered; but there currently are no specific proposals for trail connections. Programs to restore and enhance habitats for special status, game, and common species would be implemented, together with programs for tamarisk and exotic weed removal, fire management, erosion control, stream monitoring, and scientific research. Public access to areas with sensitive resources (e.g., listed species, special status habitats, and cultural resource sites) would be restricted, and the resources would be managed to preserve their values. Resources and activities would be monitored, and management activities and public uses would be adjusted as needed in response to monitoring results. In addition, each component of the LMP includes guidelines for avoiding, minimizing, and mitigating environmental impacts. Activities that would entail subsurface land alteration or direct impacts to sensitive resources would be subject to site-specific planning requirements and further CEQA review.

2. Location of Project: The SFVWA is located in the incorporated area of northeastern San Diego County, where State Highway 78 and San Felipe Road (County Highway S-2) intersect. Most of the 14,175 acres are west of S-2 and north of 78. Public access to the SFVWA is currently off of San Felipe Road, approximately six miles north of the juncture with Highway 78.

3. Project Proponent:

California Department of Fish and Game

4. Said project will not have a significant effect on the environment for the following reasons:

As an action, adoption of the LMP by the Department would not result in environmental impacts. However, implementation of the LMP entails actions (e.g., habitat enhancement and vegetation management) that would physically alter the environment. Because of the types of management and uses planned, most actions would be expected to have beneficial effects or no or low adverse impacts. The potential effects were considered on a programmatic level as part of the planning process, and the proposed activities and uses include provisions to avoid and minimize impacts. In addition, actions entailing subsurface land alteration or impacts to protected resources would be subject to site-specific planning requirements and further CEQA review. Consequently, less-than-significant environmental impacts would be anticipated as a result of the adoption and implementation of the LMP.

5. As a result thereof, the preparation of an Environmental Impact Report pursuant to CEQA (Division 13 of the Public Resources Code of the State of California) is not required.

In accordance with Section 21082.1 of the California Environmental Quality Act, the California Department of Fish and Game has independently reviewed and analyzed the Initial Study and Negative Declaration for the proposed project and finds that the Initial Study and Negative Declaration reflect the independent judgment of the Department.

I hereby approve this project:

_____

Kevin Hunting, Acting Regional Manager
South Coast Region
California Department of Fish and Game

Environmental Checklist and Analysis

1. Project Title
Land Management Plan for the San Felipe Valley WA

2. Lead Agency Name and Address
California Department of Fish and Game
4949 Viewridge Avenue
San Diego, CA 92123

3. Contact Person and Phone Number
Theresa Stewart, Supervising Biologist
Wildlife, Fisheries, and Lands Program
858-467-4209

4. Project Location
The project is located in the State of California's San Felipe Valley Wildlife Area (SFVWA) in northeastern San Diego County. The SFVWA includes approximately 14,175 acres north, south, and west of juncture of State Highway 78 and San Felipe Road (Figure 1). The property extends north along San Felipe Road to approximately four miles south of the juncture with County Highway S-22. Public access to the area currently is off of San Felipe Road, approximately six miles north of the juncture with Highway 78.

5. Project Sponsor's Name and Address:
California Department of Fish and Game
4949 Viewridge Avenue
San Diego, CA 92123

6. General Plan Designation
County of San Diego General Plan, General Agriculture
(Draft General Plan 2020: Rural Lands and Open Space)

7. Zoning
County of San Diego, GA (1du/10, 40 ac)
(Draft General Plan 2020: RL-80, RL-160, OS Recreation, OS Conservation)

8. Description of Project
The Department proposes to adopt and implement a LMP for the SFVWA. The LMP has two primary components: an inventory of natural and cultural resources on the property and a management program that identifies goals and tasks for managing those resources.

As proposed by the Department, the property would be maintained in its current undisturbed state and the wildlife-dependent public uses currently allowed in the WA would continue. Current public uses include hunting and hunting dog training. Hiking and horseback riding on existing roads also potentially would be allowed, but currently there are no designated hiking or riding trails in the SFVWA. All public access to the WA would be on foot. No motor vehicles, bicycles, or mountain bikes would be allowed. Special provisions for access by the disabled would be considered but are not yet proposed. Fencing and signage would be installed and maintained, an existing unpaved parking area would be expanded, the boundaries of the existing hunting dog training area would be expanded, existing unpaved roads and existing structures would be maintained. No construction of roads, trails, structures, or other facilities is proposed. Links to hiking and equestrian trails outside the WA would be considered; but there currently are no specific proposals for trail

connections. Programs to restore and enhance habitats for special status, game, and common species would be implemented, together with programs for tamarisk and exotic weed removal, fire management, erosion control, stream monitoring, and scientific research. Public access to areas with sensitive resources (e.g., listed species, special status habitats, and cultural resource sites) would be restricted, and the resources would be managed to preserve their values. Resources and activities would be monitored, and management activities and public uses would be adjusted as needed in response to monitoring results. In addition, each component of the LMP includes guidelines for avoiding, minimizing, and mitigating environmental impacts. Activities that would entail subsurface land alteration or direct impacts to sensitive resources would be subject to site-specific planning requirements and further CEQA review.

9. Surrounding Land Uses and Setting

The WA is in unique transition zone between the Peninsular Mountain Ranges and the Colorado Desert. It encompasses most of San Felipe Valley, extending into the Volcan Mountains on the west and northwest and into the San Felipe Foothills on the northeast. The area provides dramatic views of Volcan Mountain's prominent ridgeline and the rugged valley floor valley and is part of a designated scenic viewshed along San Felipe Road (a designated Scenic Highway). All of the WA was part of two ranches (Rutherford and Rancho San Felipe) that were used mainly for grazing and remain largely undisturbed.

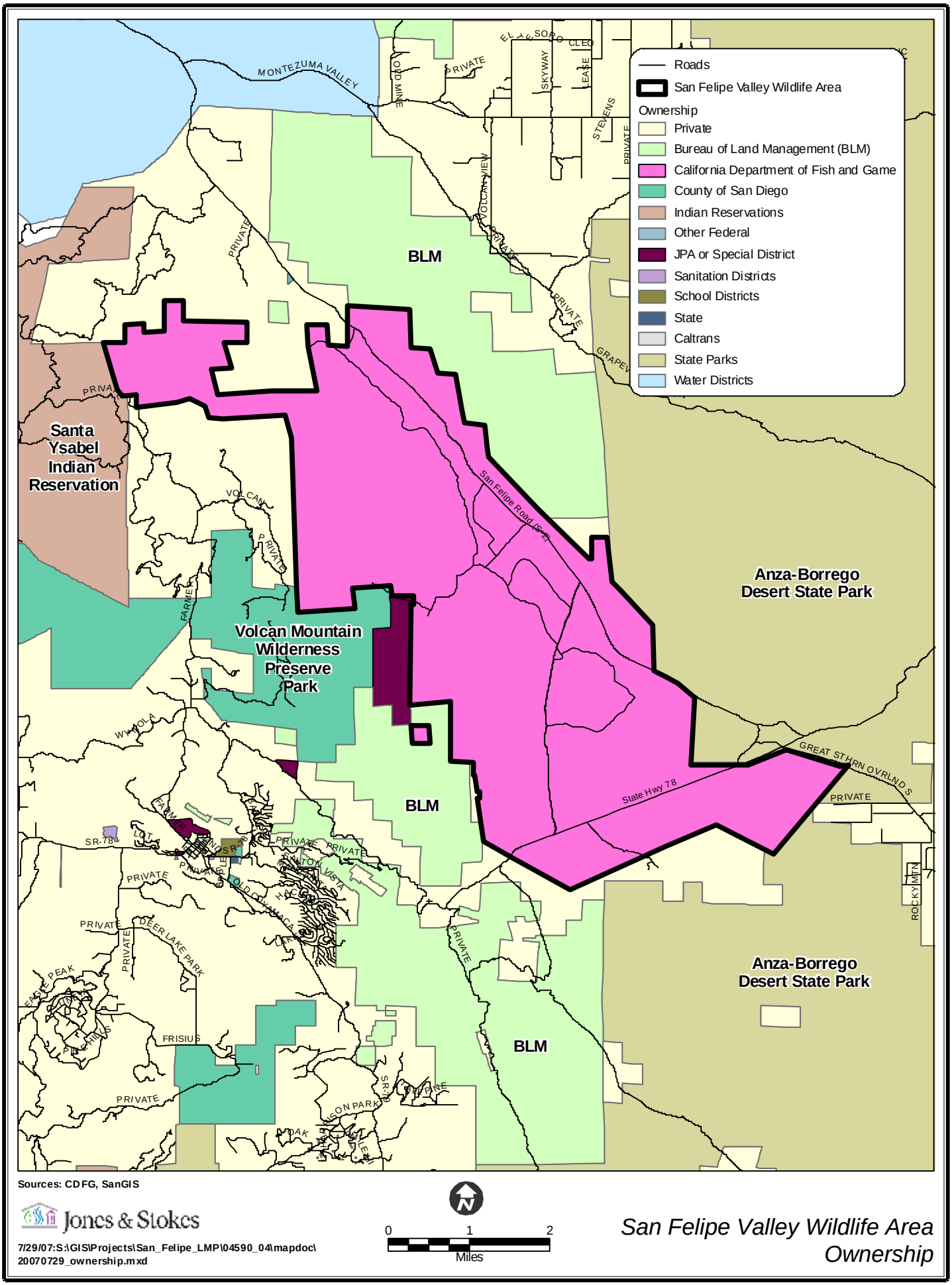
Most of the adjacent lands are public lands maintained in their natural state. As shown in Figure 2, these include San Diego County's Volcan Mountain Wilderness Preserve Park, Anza-Borrego Desert State Park, and land managed by the U.S. Bureau of Land Management. These public lands are used for conservation, resource management, and public recreation purposes. The Santa Ysabel Indian Reservation is located to the northwest. Private lands occur on the north, south, west, and east. These lands include the remaining portions of the Rutherford and Rancho San Felipe ownerships, other private ranches, and small parcels on the fringe of public lands.

10. Other Public Agencies whose Approval is Required

None

Figure 1. Location and Configuration of the SFVWA

Figure 2. Land Ownership Adjacent to the SFVWA



Environmental Factors Potentially Affected:

The environmental factors checked below would potentially be affected by this project (i.e., the project would involve at least one impact that is a "Potentially Significant Impact"), as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agricultural Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Geology/Soils
☐ Hazards and Hazardous Materials	☐ Hydrology/Water Quality	☐ Land Use/Planning
☐ Mineral Resources	☐ Noise	☐ Population/Housing
☐ Public Services	☐ Recreation	☐ Transportation/Traffic
☐ Utilities/Service Systems	☐ Mandatory Findings of Significance	

Determination:

On the basis of this initial evaluation:

☒ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions to the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have an impact on the environment that is "potentially significant" or "potentially significant unless mitigated" but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards and (2) has been addressed by mitigation measures based on the earlier analysis, as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the project, nothing further is required.

Signature	Date
Kevin Hunting, Acting Regional Manager	
Printed Name	For

Evaluation of Environmental Impacts

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained if it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants based on a project-specific screening analysis).

2. All answers must take account of the whole action involved, including off site as well as on site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3. Once the lead agency has determined that a particular physical impact may occur, the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an Environmental Impact Report (EIR) is required.

4. "Negative Declaration: Less than Significant with Mitigation Incorporated" applies when the incorporation of mitigation measures has reduced an effect from a "Potentially Significant Impact" to a "Less-than-Significant Impact". The lead agency must describe the mitigation measures and briefly explain how they reduce the effect to a less-than-significant level.

5. Earlier analyses may be used if, pursuant to tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration (Section 15063[c][3][D]). In this case, a brief discussion should identify the following:

   (a) Earlier Analysis Used. Identify and state where earlier analyses are available for review.

   (b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards and state whether such effects were addressed by mitigation measures based on the earlier analysis.

   (c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Incorporated," describe the mitigation measures that were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, when appropriate, include a reference to the page or pages where the statement is substantiated.

7. Supporting Information Sources. A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9. The explanation of each issue should identify:

   (a) the significance criteria or threshold, if any, used to evaluate each question; and

   (b) the mitigation measure identified, if any, to reduce the impact to a less-than-significant level.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
I.	**AESTHETICS.** Would the project:				
a.	Have a substantial adverse effect on a scenic vista?	❑	❑	❑	■
b.	Substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings along a scenic highway?	❑	❑	❑	■
c.	Substantially degrade the existing visual character or quality of the site and its surroundings?	❑	❑	❑	■
d.	Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?	❑	❑	❑	■
II.	**AGRICULTURAL RESOURCES.** In determining whether impacts on agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation. Would the project:				
a.	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	❑	❑	❑	■
b.	Conflict with existing zoning for agricultural use or conflict with a Williamson Act contract?	❑	❑	❑	■
c.	Involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to non-agricultural use?	❑	❑	❑	■
III.	**AIR QUALITY.** When available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a.	Conflict with or obstruct implementation of the applicable air quality plan?	❑	❑	❑	■
b.	Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	❑	❑	❑	■
c.	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a nonattainment area for an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	❑	❑	❑	■

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
d.	Expose sensitive receptors to substantial pollutant concentrations?	❑	❑	❑	■
e.	Create objectionable odors affecting a substantial number of people?	❑	❑	❑	■
IV.	**BIOLOGICAL RESOURCES.** Would the project:				
a.	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	❑	❑	■	❑
b.	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	❑	❑	■	❑
c.	Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means?	❑	❑	■	❑
d.	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	❑	❑	■	❑
e.	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	❑	❑	❑	■
f.	Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?	❑	❑	❑	■
V.	**CULTURAL RESOURCES.** Would the project:				
a.	Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	❑	❑	■	❑
b.	Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	❑	❑	■	❑
c.	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	❑	❑	■	❑
d.	Disturb any human remains, including those interred outside of formal cemeteries?	❑	❑	■	❑

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
VI.	**GEOLOGY AND SOILS.** Would the project:				
a.	Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
	1. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to Division of Mines and Geology Special Publication 42.)	❑	❑	❑	■
	2. Strong seismic ground shaking?	❑	❑	❑	■
	3. Seismic-related ground failure, including liquefaction?	❑	❑	❑	■
	4. Landslides?	❑	❑	❑	■
b.	Result in substantial soil erosion or the loss of topsoil?	❑	❑	❑	■
c.	Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project and potentially result in an onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?	❑	❑	❑	■
d.	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	❑	❑	❑	■
e.	Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater?	❑	❑	❑	■
VII.	**HAZARDS AND HAZARDOUS MATERIALS.** Would the project:				
a.	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	❑	❑	❑	■
b.	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	❑	❑	❑	■
c.	Emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	❑	❑	❑	■

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
d.	Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	❑	❑	❑	■
e.	Be located within an airport land use plan area or, where such a plan has not been adopted, be within two miles of a public airport or public use airport, and result in a safety hazard for people residing or working in the project area?	❑	❑	❑	■
f.	Be located within the vicinity of a private airstrip and result in a safety hazard for people residing or working in the project area?	❑	❑	❑	■
g.	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	❑	❑	❑	■
h.	Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	❑	❑	■	❑
VIII.	**HYDROLOGY AND WATER QUALITY.** Would the project:				
a.	Violate any water quality standards or waste discharge requirements?	❑	❑	❑	■
b.	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge, resulting in a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?	❑	❑	❑	■
c.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on site or off site?	❑	❑	❑	■
d.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding onsite or offsite?	❑	❑	❑	■
e.	Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	❑	❑	❑	■

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
f.	Otherwise substantially degrade water quality?	❑	❑	❑	■
g.	Place housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	❑	❑	❑	■
h.	Place within a 100-year flood hazard area structures that would impede or redirect floodflows?	❑	❑	❑	■
i.	Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?	❑	❑	❑	■
j.	Contribute to inundation by seiche, tsunami, or mudflow?	❑	❑	❑	■
IX.	**LAND USE AND PLANNING.** Would the project:				
a.	Physically divide an established community?	❑	❑	❑	■
b.	Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	❑	❑	❑	■
c.	Conflict with any applicable habitat conservation plan or natural community conservation plan?	❑	❑	❑	■
X.	**MINERAL RESOURCES.** Would the project:				
a.	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	❑	❑	❑	■
b.	Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	❑	❑	❑	■
XI.	**NOISE.** Would the project:				
a.	Expose persons to or generate noise levels in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies?	❑	❑	❑	■
b.	Expose persons to or generate excessive groundborne vibration or groundborne noise levels?	❑	❑	❑	■
c.	Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	❑	❑	❑	■
d.	Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	❑	❑	❑	■

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
e.	Be located within an airport land use plan area, or, where such a plan has not been adopted, within two miles of a public airport or public use airport and expose people residing or working in the project area to excessive noise levels?	❑	❑	❑	■
f.	Be located in the vicinity of a private airstrip and expose people residing or working in the project area to excessive noise levels?	❑	❑	❑	■
XII.	**POPULATION AND HOUSING.** Would the project:				
a.	Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	❑	❑	❑	■
b.	Displace a substantial number of existing housing units, necessitating the construction of replacement housing elsewhere?	❑	❑	❑	■
c.	Displace a substantial number of people, necessitating the construction of replacement housing elsewhere?	❑	❑	❑	■
XIII.	**PUBLIC SERVICES.** Would the project:				
a.	Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or a need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:				
	1. Fire protection?	❑	❑	❑	■
	2. Police protection?	❑	❑	❑	■
	3. Schools?	❑	❑	❑	■
	4. Parks?	❑	❑	❑	■
	5. Other public facilities?	❑	❑	❑	■
XIV.	**RECREATION.** Would the project:				
a.	Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	❑	❑	❑	■
b.	Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	❑	❑	❑	■

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
XV. TRANSPORTATION AND TRAFFIC. Would the project:				
a. Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)?	❑	❑	❑	■
b. Cause, either individually or cumulatively, exceedance of a level-of-service standard established by the county congestion management agency for designated roads or highways?	❑	❑	❑	■
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	❑	❑	❑	■
d. Substantially increase hazards because of a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	❑	❑	❑	■
e. Result in inadequate emergency access?	❑	❑	❑	■
f. Result in inadequate parking capacity?	❑	❑	❑	■
g. Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	❑	❑	❑	■
XVI. UTILITIES AND SERVICE SYSTEMS. Would the project:				
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	❑	❑	❑	■
b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	❑	❑	❑	■
c. Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	❑	❑	❑	■
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or would new or expanded entitlements be needed?	❑	❑	❑	■
e. Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	❑	❑	❑	■

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
f.	Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	❑	❑	❑	■
g.	Comply with federal, state, and local statutes and regulations related to solid waste?	❑	❑	❑	■
XVII.	**MANDATORY FINDINGS OF SIGNIFICANCE.**				
a.	Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	❑	❑	■	❑
b.	Does the project have impacts that are individually limited but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	❑	❑	❑	■
c.	Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	❑	❑	❑	■

Explanation of Checklist Answers

I. Aesthetics
a., b., c., d. No Impact.

The proposed project is on lands that are part of scenic viewshed and a portion of a designated scenic highway (County Highway S-2) runs through the WA.

The project would not have adverse impacts on the viewshed or historic resources along the scenic highway because no structures or changes to the landscape are proposed that would alter existing natural visual resources in the viewshed or remove designated historic structures. The project would preserve the natural landscape in its current configuration and would not add structures or lighting that would obscure the view. Public access to viewpoints would not be impeded, and existing vantage points within the WA would provide the public with additional opportunities to enjoy the scenic vista.

II. Agriculture
a., b., c. No Impact.

Cattle grazing and a limited amount of farming occurred in the past on the lands within the WA. However, there are no active agricultural uses on the lands currently, and none of the lands are under a Williamson Act contract. Portions of the WA have soils that are mapped as Farmland of Statewide Importance (Rositas loamy coarse sand, Mottsville loamy coarse sand, and Ramona sandy loam), but these areas are not in production. Agriculture uses are not proposed in the LMP but are not precluded. Some areas used for farming in the past potentially would be enhanced and restored to native habitat; however, this would not entail converting existing farmland to non-farmland uses. The proposed project would not adversely impact farmlands.

III. Air Quality
a., b., c., d., e. No Impact.

San Diego County is in non-attainment for the 1-hour concentrations under the California Ambient Air Quality Standard (CAAQS) for Ozone (O_3). San Diego County is also in non-attainment for the annual geometric mean and for the 24-hour concentrations of particulate matter less than or equal to 10 microns (PM_{10}) under the CAAQS. VOC sources include any source that burns fuels (e.g., gasoline, natural gas, wood, oil); solvents; petroleum processing and storage; and pesticides. Sources of PM_{10} in both urban and rural areas include: motor vehicles, wood burning stoves and fireplaces, dust from construction, landfills, agriculture, wildfires, brush/waste burning, and industrial sources of windblown dust from open lands.

Management and public use of the WA would not result in emissions of significant quantities of criteria pollutants listed in the CAAQS or toxic air contaminants as identified by the California Air Resources Board. Increases in vehicular trips would be minimal because the LMP does not propose new activities or uses that would attract a substantial number of additional visitors and thereby vehicle trips to the site. Management would not entail any substantial land disturbance or odor-producing activities and would not occur near a sensitive receptor. Potential air quality impacts associated with wildfires would be the same or reduced compared with existing condition. Any prescribed burns in the WA would be planned and conducted by the California Department of Forestry and Fire Protection under the State Vegetation Management Program. The project would not result in a cumulatively considerable net increase of PM_{10}, or any O_3 precursors and would not conflict or obstruct with the implementation of the RAQS nor the SIP on a project or cumulative level.

IV. Biological Resources

a., b., c., d. Less-than-Significant Impact

e., f. No Impact

Based on the 2004-2005 habitat assessment, approximately 10,800 acres in the WA are shrub and scrub habitats, primarily acacia and mesquite scrub, chaparral, and California juniper. The remainder is a combination of forests and woodlands and grasslands and forbs (Table 1 and Figure 3). Approximately 8 miles of San Felipe Creek runs through the WA, together with a network of tributaries. San Felipe Creek is a perennial stream; however, only portions of the creek within the SFWVA have year-round flow. Banner Creek runs across the southern portion of the WA just north of Highway 78 and merges with the San Felipe near the eastern edge of the area. In addition to the creeks and tributaries, there are various seeps, springs, man-made ponds, and man-made wells with troughs that provide habitat for aquatic species. All of the naturally occurring aquatic habitats in the area are special status habitats. Fifty of ninety-two vegetation communities types identified in the area are considered rare in San Diego County or statewide. Several of the rare types occur only in the Volcan Mountains or San Felipe Valley or represent the farthest known extent of the type.

Three state and federally listed bird species have been observed in the WA: least Bell's vireo, southwestern willow-flycatcher, and yellow-billed cuckoo – all associated with riparian habitats. The listed unarmored threespine stickleback also occurs in the WA, as an introduced species planted in a stream in the southeastern portion on the WA on the border with Anza-Borrego Desert State Park. Non-listed special status species known to occur include: badger, black-tailed jackrabbit, California pocket mouse, grasshopper mouse, Jacumba pocket mouse, little pocket mouse, Los Angeles pocket mouse, mountain lion, northeastern (desert) San Diego pocket mouse, San Diego (coastal) pocket mouse, Townsend's big-eared bat, western mastiff bat, cactus wren, Cooper's hawk, ferruginous hawk, golden eagle, horned lark, loggerhead shrike, long-eared owl, merlin, northern harrier, northwestern willow flycatcher, prairie falcon, sharp-shinned hawk, vermilion flycatcher, western burrowing owl, yellow warber, yellow-breasted chat, California legless lizard, coast patchnose snake, Coronado Island skink, red diamond rattlesnake, San Diego horned lizard, silvery legless lizard, banner liveforever, Engelmann oak, intermediate larkspur, Payson's jewelflower, San Diego sunflower, and San Felipe monardella. The WA also supports populations of game species, including southern mule deer, quail, doves, wild turkey, and rabbits. A large population of southern mule deer moves in and out of the WA seasonally, using the area as fawning habitat and for summer forage and shelter. The valley also is a regionally significant movement corridor for deer and mountain lions. Preliminary studies also suggest that the canyons in the WA may be important foraging routes for bat species in the area.

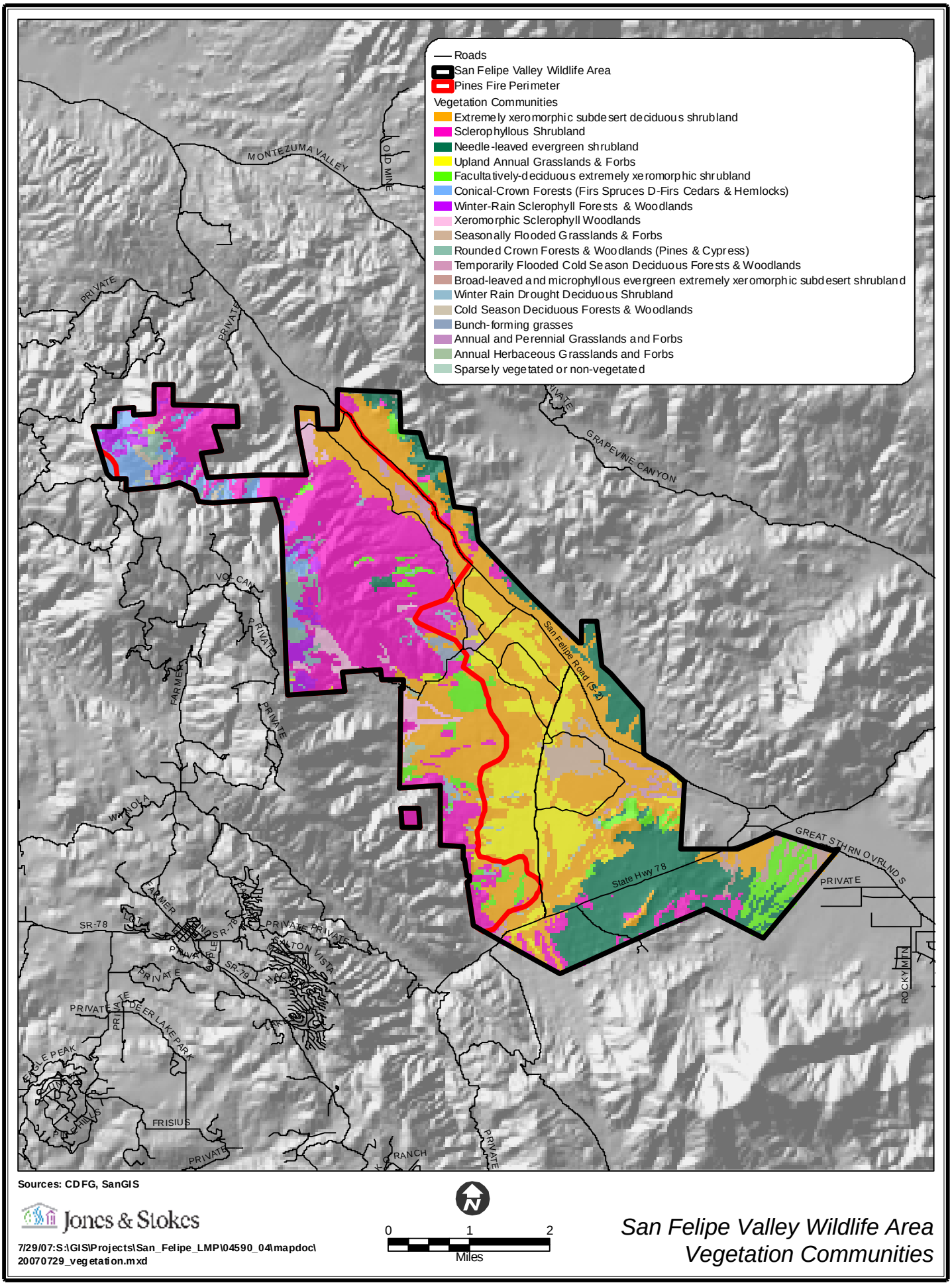
As part of the planning process for the LMP, the Department considered the potential for management activities and public uses to have adverse impacts on the WA's biological resources. Activities and uses that entail some level of land or stream disturbance include:

- Installation and maintenance of access controls;
- Identification and management of cultural resources;
- Fire management
- Habitat enhancement
- Habitat restoration
- Parking area expansion and maintenance
- Current and future public uses
- Road maintenance and use
- Scientific research
- Species surveys and monitoring

Table 1. Vegetation Types in the SFVWA by MCV Classification

MCV Classification	Acres
Evergreen and Deciduous Forests and Woodlands	
Rounded Crown Forests & Woodlands (Pines & Cypress)	217
Temporarily Flooded Cold Season Deciduous Forests & Woodlands	194
Cold Season Deciduous Forests & Woodlands	65
Conical-Crown Forests (Firs, Spruces, Douglas-Firs, Cedars & Hemlocks)	361
Winter-Rain Sclerophyll Forests & Woodlands	345
Xeromorphic Sclerophyll Woodlands	306
Subtotal	1,488
Evergreen and Deciduous Shrublands	
Extremely Xeromorphic Subdesert Deciduous Shrubland	4,298
Sclerophyllous Shrubland	3,642
Needle-leaved Evergreen Shrubland	1,872
Facultatively-deciduous Extremely Xeromorphic Shrubland	706
Broad-leaved and Microphyllous Evergreen Extremely Xeromorphic Subdesert Shrubland	150
Winter Rain Drought Deciduous Shrubland	130
Intermittently Flooded to Saturated Deciduous Shrubland	7
Microphyllous Shrubland	2
Subtotals	10,807
Perennial and Annual Grasslands and Forbs	
Upland Annual Grasslands & Forbs	1,395
Semi-permanently to Permanently Flooded Grasslands & Forbs	2
Bunch-forming Grasses	58
Annual and Perennial Grasslands and Forbs	42
Annual Herbaceous Grasslands and Forbs	41
Seasonally Flooded Grasslands & Forbs	234
Subtotal	1,772
Other	
Sparsely Vegetated or Non-vegetated	32
Urban/Developed	3
Note MCV Manual of California Vegetation (Sawyer and Keeler-Wolf 1995)	

Figure 3. Vegetation Communities in the SFVWA (MCV Classifications)



Sources: CDFG, SanGIS

Jones & Stokes

7/29/07:S:\GIS\Projects\San_Felipe_LMP\04590_04\mapdoc\20070729_vegetation.mxd

0 1 2 Miles

San Felipe Valley Wildlife Area Vegetation Communities

To ensure that activities would not result in significant impacts, the management program includes measures and guidelines for avoiding impacts to protected resources. In addition, activities that would entail subsurface land alteration or would impact protected resources are subject to site-specific planning requirements and further CEQA review. Table 2 identifies the management activities and public uses with the potential to impact to biological resources, the impact avoidance and minimization measures built into the activities and uses under the LMP, and the basis for the determination that impacts would be less-than-significant.

There are no conflicts with the management program and the County of San Diego's Resource Protection Ordinance (San Diego County Code; Division 6, Title 8, Section 86.601) or with the East County Multiple Species Conservation Program being prepared by the County for unincorporated lands in eastern San Diego County. While the County ordinance does not apply to State lands, conservation of resources in the WA is consistent with the intent of the Resource Protection Ordinance to prevent degradation and loss of sensitive resources including, but not limited to, wetlands, floodplains, sensitive biological habitats, and prehistoric and historic sites. The East County Multiple Species Conservation Program is the final component of a countywide conservation program being developed by the County in coordination with the Department of Fish and Game under the Natural Communities Conservation Planning Program.

Table 2. Analysis and Explanation of "Less-than-Significant" Impacts to Biological Resources from Management Activities and Public Uses in the WA

Activity/Use	Potential Biological Impacts	Impact Avoidance and Minimization Identified in LMP	Basis for "Less-than-Significant Impact" Determination
Access controls: installation and maintenance of fencing, barriers (including vegetation), and signage	Direct disturbance from post installation and replacement Temporary displacement of sensitive species at site or in habitat crossed to reach the site Possible habitat alteration, depending on plant species used for barriers Stream habitat degradation from erosion/sediment associated with installation and use of vehicles on and off roads. Potential impediments to deer and mountain lion (and other species) movement	Activity planned using database showing location of sensitive biological resources Time of year restrictions to avoid bird breeding season and vehicle use on roads during rainy season Guidelines for materials and methods used for fencing and signage Guidelines for selection of plant barriers Guidelines for wildlife-friendly barriers and crossings	Small amount of habitat disturbed, low potential for habitat degradation Potential for direct impacts to special status species minimized Barriers designed to be wildlife-friendly
Cultural resource sites: identification and protection	Temporary and permanent removal of surface vegetation and displacement of species at archeological sites Changes in vegetation at protected sites (plant species used as barriers or removed because of effects on structures) Alteration of habitat and species' access to it, including but not limited to use of caves and structures by bats	Activity planned using database showing location of sensitive biological resources Excavation subject to site-specific planning Guidelines for selection of plant barriers and vegetation management Bat-friendly access control measures for mines, structures that may qualify as historic sites	Land disturbing activities subject to same impact avoidance requirements as other activities in protected habitats Site-specific excavation plans subject to CEQA review and other regulatory requirements LMP provides opportunity to coordinate biological and cultural resource preservation
Fire management: suppression and post-fire clean up and remediation	Direct impacts to special status habitats and species Degradation of habitats from post-fire clean-up	Activity subject to site-specific planning with CalFire, will be planned using database showing location of sensitive resources Activity conducted in accordance with CalFire and Department regulations and policies	Fire management activities subject to CEQA review, either as part of CalFire programs or as site-specific plan for WA Plan provides opportunity to reduce impacts that would occur in absence of a plan

Activity/Use	Potential Biological Impacts	Impact Avoidance and Minimization Identified in LMP	Basis for "Less-than-Significant Impact" Determination
Fire Management: vegetation management regimes (fuel reduction)	Direct impacts to special status habitats and species from vegetation thinning, cutting, clearing, and prescribed burns Temporary displacement of species and habitat alteration in treatment sites Degradation of habitat from disposal of cuttings, slash	Activity subject to site-specific planning with CalFire, will be planned using database showing location of sensitive resources Same time of year, location, and methods restrictions that apply to other activities in areas with protected resources Activity to be conducted in accordance with CalFire and Department regulations and policies	Fire management activities subject to CEQA review, either as part of CalFire programs or as site-specific plan for WA Plan provides opportunity to reduce potential for devastating impacts from wildfires and improve habitat conditions by replicating natural succession.
Habitat enhancement, including tamarisk removal and exotic invasive plant control	Direct impacts to special status habitats and species from methods used to remove and add plant species and/or alter other physical conditions Temporary displacement of species and habitat alteration in treatment sites and adjacent areas (especially in habitat intergrade areas)	Activity subject to site-specific planning, will be planned using database showing location of sensitive resources Same time of year, location, and methods restrictions that apply to other activities in areas with protected resources Monitoring and success criteria requirements Activity to be conducted in accordance with Department and other applicable regulations and policies	Habitat enhancement activities in rare habitats, riparian habitats, aquatic habitats, and habitats with listed species subject to CEQA review and other regulatory requirements Expected to have direct and cumulative beneficial effects on habitats and species
Habitat restoration, including fire recovery regimes	Same as habitat enhancement, with more land manipulation where planting occurs and in connection with management of new growth	Same as habitat enhancement, with additional requirement for erosion/sediment control in treatment areas (especially burn recovery areas)	Habitat restoration activities subject to CEQA review and other regulatory requirements. Review of fire recovery regimes can occur as part of CalFire fire management program or for site-specific plan for WA
Parking area: expansion and maintenance	Displacement of species and removal of vegetation in expansion area Habitat degradation from surface runoff and sediment from parking area Increased potential for fires (sparks from vehicles)	No grading or paving of parking area (scraping and compaction allowed) Erosion and surface run-off monitoring Vegetation management to control fuel load near parking area and entry	Location for expanded parking is disturbed habitat, near entrance. No special status species or habitats. Methods used do not preclude restoration of area in future

Activity/Use	Potential Biological Impacts	Impact Avoidance and Minimization Identified in LMP	Basis for "Less-than-Significant Impact" Determination
Public use: Hunting	Direct impacts to southern mule deer and other hunted species Indirect or incidental impacts to special status species Change in species diversity and population size Degradation and damage to special status habitats, including spread of exotic invasive weeds (seed dispersal), from pedestrian traffic	Limitations on time of year, location, type of game taken, and methods used; avoids most bird breeding seasons; deer hunting restricted to area outside of main fawning habitat. Pedestrian access only (avoids damage from vehicles, indirectly limits number of hunters) Access controls and monitoring of areas with highly sensitive species and habitats. Species and habitat management to maintain species diversity and population size Monitoring of hunting uses in WA (number of hunters, methods, frequency, game)	Hunting is a regulated activity and subject to statewide and WA-specific conditions, also recognized as part of game management. Potential impacts of more hunting in WA offset by increased management and protection of sensitive resources under the LMP
Public use: Expansion and maintenance of hunting dog training area	Direct disturbance from moving signage posts to new locations Temporary displacement of sensitive species at site or in habitat crossed to reach the site	Same as for fencing, signage installation	Small amount of habitat disturbed from repositioning of posts Potential for direct impacts to special status species minimized
Public use: Use of expanded training area	Direct impacts to special status grassland and scrub species Degradation of existing habitat from use and potential spread of exotic weeds	Activity planned using database showing location of sensitive biological resources Use confined to designated area Time of year restrictions to avoid bird breeding season Weed control program Use monitoring	No expansion of allowed uses (same uses in larger area) Use recognized as part of hunting an game management (trained dogs effectively retrieve downed game) Monitoring and weed control program effective means for averting potential problems
Public use: future use of hiking and equestrian trails	Disturbance of species in adjacent habitats Habitat disturbance due to off-trail excursions Degradation of habitat from use-related erosion sources Spread of exotic weeds (dispersal of seeds) Disruption of foraging and movement patterns	Limit all trail use to non-mechanical means (no motor vehicles, bicycles, or mountain bikes) Limit trail use to recreational hiking and nature walks on existing roads until through-routes are determined Establish guidelines for trail use to direct traffic away from sensitive resources and daytime foraging and movement corridors Require site-specific plans for proposed links to trail systems outside the WA	Recreational hiking and nature walks currently are allowed but are not a major use in the WA. This activity is not expected to substantially increase in the WA, and horseback-riding trails would not be designated, until through-routes to trail systems outside the WA are proposed and established. Establishing trail links to trail systems will be subject to further CEQA review.

Activity/Use	Potential Biological Impacts	Impact Avoidance and Minimization Identified in LMP	Basis for "Less-than-Significant Impact" Determination
Road maintenance and road use (for management purposes)	Habitat degradation from surface runoff and erosion associated with unpaved roads and use of vehicles on roads Road kill	Maintenance scheduled and conducted to avoid rainy season and multiple trips Vehicle use of roads limited to land managers and emergency response Monitor and control surface runoff and erosion	Low potential for direct habitat and species impacts Regular maintenance will reduce habitat impacts from pre-existing road-related erosion sources.
Scientific research	Direct species and habitat impacts from surveys, studies, and experiments that entail land disturbance or take of specimens; impacts similar to those from cultural resource site identification, habitat enhancement, and habitat restoration.	Activity subject to approval by Department. Researcher responsible for compliance with applicable regulations. Activity to be conducted in accordance with Department policies and professional standards.	No research conducted without Department authorization. Authorization conditioned on compliance with Department policies and applicable regulations.
Species surveys and monitoring	Direct species impacts from activities that entail capture of specimens.	Activity must conform with the Department's guidelines and, if applicable, those of US Fish and Wildlife Service. All surveys and monitoring will be overseen by the Department.	Guidelines specify measures and methods to avoid and minimize impacts.

V. Cultural Resources
a., b., c., d. Less-than-Significant Impact

San Felipe Valley is exceptionally rich in cultural resources, reflecting both its location at the crossroads between mountains and the desert and the history of the region. Artifacts, structures, and other cultural resources have been found in the valley that can be traced to the Kumeyaay native peoples who have lived in the region to at least 2000 years, Spanish settlements, the Southern Overland Trail, and the remains of historic occupation.

The northern half of the WA, excluding lands east of San Felipe Road, has been surveyed for cultural resources and found to contain multiple sites recommended for inclusion in the National Registry of Historic Places. The identified sites are being managed under an approved Archaeological Management Plan (AMP) prepared for the Department by Susan Hector, Ph.D. Identified resources include:

- A homestead site (circa 1890s)
- Buried sites
- Historic ranching remains/corral system
- Historic Rancheria site
- Prehistoric resources (mortars, slicks, flakes, milling features)
- 1880-1914 historic trash scatter

The southern half of the WA and the lands east of San Felipe Road are known to have medium to high potential (depending on location) for cultural resources but have not been surveyed. A records search covering these lands was conducted as part of the preparation of the LMP. Results of the records search indicate that:

1. There are no listed or recorded historic resources for Rancho San Felipe. There are several historic places of interest and historic sites adjacent to the project, or in the case of a roadway, that traverses the project. San Felipe Valley Road is a known historic travel corridor and early pioneer route. Scissors Crossing on the southeastern corner near the intersection of Highway 78 and San Felipe Valley Road is a historic place name adjacent to the San Felipe-Butterfield Stage Station site. The San Felipe Ranch complex within the project site may be of historical significance but has not been formally evaluated.

2. There are five recorded prehistoric sites in or near the area. These include sites with several bedrock mortars, obsidian flakes, quartz flakes and ceramics; a Kumeyaay/Tipai Rancheria or village; bedrock milling features with mortars and slicks; an isolated milling feature and shreds of Tizon Brown Ware, possibly from a single vessel (possibly offsite or onsite); and a circa 1880-1914 historic trash scatter possibly associated with the James Lowe homestead.

Under the LMP, the known sites would be managed and monitored as indicated in the AMP, surveys and appropriate follow-up actions would be required prior to land disturbing activities and public access to unsurveyed areas; and site-specific surveys and impact avoidance measures would be required for various management activities. Activities and uses that potentially would impact cultural resources in the WA are the same as those that potentially would impact biological resources (see above).

To minimize and mitigate impacts from activities and uses, the Department would implement the following measures identified in the LMP:

1. Conduct a field reconnaissance of the unsurveyed portions of the existing WA to assess the potential for cultural resource occurrence and prioritize areas for surveys and assessments.
2. Initiate the evaluation of the historic significance of the ranch complex and associated structures in the southern portion of the WA.
3. Confer with the San Diego County Archeological Society, California Native American Heritage Commission, the Kumeyaay tribes, and other interested parties on the accuracy of the database and focus areas for future updates.

4. Apply the treatment and monitoring measures identified in the LMP to the cultural resources found in the WA. The measures are based on the recommendations in the 2002 AMP and will be reviewed every five years and upon any changes in applicable regulations. Table 3 identifies those measures.
5. Where additional protections are needed, designate cultural resource buffers where restrictions will be put on management activities and public uses. The determination of where buffers are needed will be based an evaluation of the sensitivity of the sites, proximity to use areas, and/or results of monitoring. Apply interim protection and monitoring measures to areas identified for further evaluation and areas where treatments are proposed but not yet scheduled. The interim measures may include fencing or other access control.
6. Develop and apply guidelines for the type of vegetation used to hide or protect cultural resource sites. The guidelines will identify appropriate tree and shrub species for the type of habitat in which the site occurs.
7. Incorporate the measures developed as part of the Integrated Planning Component into the treatment and monitoring regime for individual sites.
8. Continue the treatment and monitoring measures for Category 1-3 sites on the JPA transfer lands and the sites on Department lands covered by the 2002 AMP (see Table 3).
9. Apply the treatment and monitoring measures for other Category 1-3 sites identified in the WA (see table 3).
10. Implement interim protection and monitoring measures for the ranch complex, associated structures, and other areas designated for evaluation or future treatment.
11. Evaluate the need for cultural resource buffers in areas of the WA with multiple and/or highly sensitive sites, including but not limited to resources in the Arkansas Canyon unit.
12. Prepare an assessment of Category 1-3 sites that (a) identifies habitats, rare types, special status species, exotic invasive plants, roads, structures, and special use areas within a 0.5-mile or larger radius of the site; and (b) examines how the prescribed treatment measures might affect other management activities in the area (and vice versa). Use the results of the assessment to identify compatible management activities and ways to combine cultural resource and natural resource management tasks.

In addition to the above measures, the LMP requires site-specific plans for activities that would impact identified sites or would entail land disturbances in areas where additional sites might be found. The site-specific plans would be subject further CEQA review.

Implementation of the LMP would result in less-than-significant impacts to historical, archaeological, or paleontological resources or to human remains because management activities and public uses include measures to avoid known resources and look for other resources in advance of land disturbances. In addition, implementation of the LMP will facilitate protection of identified resources by integrating cultural and natural resource management into one program.

Table 3. Treatment and Monitoring Matrix for Cultural Resource Sites

Category/Description	Treatment	Monitoring
Category 1: Resources that meet the eligibility criteria for inclusion in the National Register of Historic Places[1] or are significant under CEQA[2]. The resources have integrity and are at risk for damage and vandalism.	1. Preserve resource in place. 2. Actively manage for preservation, through means such as: -- fencing[3] -- re-routing of trails -- stabilization and repair of historic structures and features, including providing covers for buildings or ruins -- capping with non-cultural soils[4] 3. Do not introduce incompatible elements: restoration and replacement of architectural features should be based on detailed and accurate representation of original features as substantiated by historical, physical, pictorial, or archaeological evidence. 4. Do not introduce plant materials in the site area that would undermine, damage, or modify the resource (e.g., invasive vining plants, surface roots of certain trees.	Every Year
Category 2: Resources that may be significant under CEQA but have reduced potential for damage due to topographic isolation, inaccessibility, or limited surface artifacts,	1. Preserve resource in place. 2. Other uses allowed nearby if there will be no direct access to the resources. 3. Avoid impacts through means such as: -- re-locating trails and activity areas -- adding vegetation to hide and protect the resource[5] -- limited stabilization of historic features	Every Two Years
Category 3: Resources that most likely do not meet National Register eligibility criteria and may or may not be significant under CEQA (includes resources used in interpretive programs and for research and study).	1. Preserve in place. 2. Other uses and modern amenities may be nearby. 3. Management may include: -- avoiding direct impacts -- adding vegetation to hide or protect the resource -- restoration or reconstruction of a historic building for interpretive use	Every Five Years
Category 4: Resources that do not require any additional consideration (includes sites where a data recovery program has been completed and isolated artifacts or objects).	1. Ensure that proper documentation has been completed and submitted to the appropriate agencies and organizations 2. If artifacts were collected, provide funds for curation at an appropriate facility.	Not Required

Notes

1. The National Register's evaluation criteria are as follows: The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and: (a) are associated with events that have made a significant contribution to the broad patterns of our history; or (b) are associated with the lives of persons significant in our past; or (c) embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or (d) have yielded or may be likely to yield, information important in prehistory or history. Generally, the resource must be at least 50 years old to be eligible for consideration.
2. Under CEQA, a resource may considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources (Pub. Res. Code SS5024.1, Title 14, Section 4852) including the following: (a) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage; (b) Is associated with the lives of persons important in our past; (c) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or (d) Has yielded, or may be likely to yield, information important in prehistory or history.
3. The placement of fence posts should be monitored by an archaeologist. In general, a split-rail or lodgepole fence is effective is blocking access to a sensitive area.
4. Capping a site or a portion of a site where there is a trail or dirt road should be undertaken with the participation of an archaeologist. Considerations should include depth of the cap and trail safety issues; potential erosion of the soil or gravel cap; disturbance of the site during the capping process; maintenance of the trail or road.
5. Adding vegetation to protect a site should not include any disturbance of the surface of the ground, even if the site has been an agricultural field.

VI. Geology and Soils
a., b., c., d., e. No Impact

Two geomorphic provinces dominate the regional geological setting of the WA: the Peninsular Ranges and the Colorado Desert. The Peninsular Ranges formed when the Pacific Plate began to move northwest relative to the North American Plate and caused a renewal of volcanic activity. The stress and tension of this movement formed the San Andreas Fault, which truncates the Peninsular Ranges and the Transverse Ranges. The Colorado Desert province has northwesterly geological structural trends exhibited by faults, mountain ranges, and the Salton Trough. In the Salton Trough, the most dominant structural features are faults. These trend northwest–southeast, and include the San Andreas, San Jacinto, and Elsinore fault zones. Along with their regional extensions, these faults account for the current geological structure of the region. San Felipe Valley lies between the Elsinore and San Jacinto faults zones and between Volcan Mountain and the San Felipe Hills. The geologic formations on the west reflect the forces that formed the Peninsular Ranges; those on the east reflect the ancient deposits of the Colorado River.

Based on USDA soil maps, 21 soil types occur in the WA. Seven types predominate: acid igneous rock, Bancas stony loam, Indio silt loam, Rositas loamy course sand (0-2% and 2-9% slopes), sheephead rocky fine sandy loam, and sloping gullied land. Table 4 identifies the types and their suitability rating for paths and trails.

Under the LMP, no construction or other activity is proposed that would require landform alterations or result in soil erosion or loss of topsoil. No septic systems or wastewater disposal systems are proposed. An erosion and sediment control program would be implemented, with a focus on the WA's unpaved roads and the gullies along creeks. The proposed project would not expose people or property to geologic hazards.

Table 4. Soils Types in the SFVWA and Their Path/Trail Suitability Ratings

Map Symbol	Unit Name	Erosion Hazard Rating/Reason[1]	Path and Trail Suitability Rating/Reason[2]
Primary Types in SFVWA			
AcG	Acid igneous rock land	Not Rated	Not Rated
BbE2	Bancas stony loam, 5-30% slopes, eroded	Severe Slope/erodibility	Limitations Dusty, Slopes 15-25%
IsA	Indio silt loam, dark variant	Slight	Limitations Dusty
RsA	Rositas loamy coarse sand, 0-2% slopes	Slight	Limitations Surface sand fractions 70-90% by wt.
RsC	Rositas loamy coarse sand, 2-9% lopes	Moderate Slope/erodibility	Limitations Surface sand fractions 70-90% by wt.
SpG2	Sheephead rocky fine sandy loam, 30-65% slopes, eroded	Severe Slope/erodibility	Limitations Slopes >25%
SrD	Sloping gullied land	Not Rated	Not Rated
Other Types in the SFVWA			
CtE	Crouch coarse sandy loam, 5-30% slopes	Severe Slope/erodibility	Limitations Slopes 15-25%
CuG	Crouch rocky coarse sandy loam, 30-70% slopes	Severe Slope/erodibility	Limitations Slopes >25%
LcE2	La Posta rocky loamy coarse sand, 5-30% slopes, eroded	Severe Slope/erodibility	Limitations Surface sand fractions 70-90% by wt., slopes 15-25%

Map Symbol	Unit Name	Erosion Hazard Rating/Reason[1]	Path and Trail Suitability Rating/Reason[2]
LdG	La Posta-Sheephead complex, 30-65% slopes	Severe Slope/erodibility	Limitations Slopes >25%, Surface sand fractions 70-90% by wt.
MnB	Mecca coarse sandy loam, 2-5% slopes	Slight	No limitations
MvD	Mottsville loamy coarse sand, 9-15% slopes	Moderate Slope/erodibility	Limitations Surface sand fractions 70-90% by wt.
RaB	Ramona sandy loam, 2-5% slopes	Moderate Slope/erodibility	No limitations
RaC	Ramona sandy loam, 5-9% slopes	Moderate Slope/erodibility	No limitations
RcD	Ramona gravelly sandy loam, 9-15% slopes	Severe Slope/erodibility	No limitations
RsD	Rositas loamy coarse sand, 9-15% slopes	Severe Slope/erodibility	Limitations Surface sand fractions 70-90% by wt.
Rm	Riverwash	Not Rated	Not Rated
SsE	Soboba stony loamy sand, 9-30% slopes	Severe Slope/erodibility	Limitations Surface sand fractions 70-90% by wt., slopes 15-25%
ToG	Tollhouse rocky coarse sandy loam, 30-65% slopes	Severe Slope/erodibility	Limitations Slopes >25%
SpE2	Sheephead rocky fine sandy loam, 9-30% slopes, eroded	Severe Slope/erodibility	Limitations Slopes >25%

Notes and Rating Descriptions

1 Potential erosion hazard from unsurfaced roads or trails based on soil erodibility factor Km slope, and content of rock fragments. The hazard is described as slight, moderate, severe, or very severe. Slight indicates that erosion is unlikely under ordinary climatic conditions. Moderate indicates that some erosion is likely and that erosion control measures may be needed. Severe indicates that erosion is very likely and that erosion-control measures, including revegetation of bare areas, are advised. Very severe indicates that significant erosion is expected, loss of soil productivity and off-site damage are likely, and erosion-control measures are costly and generally impractical.

2 Paths and trails for hiking and horseback riding should require little or no slope modification and can withstand heavy foot traffic. For good trafficability, the surface of the trail should remain firm under heavy foot traffic, be free of stones, and be dusty and dry. The suitability rating is based on soil properties that affect trafficability and erodibility. No limitations indicate that the soil has features that are very favorable for the specified use. Limitations indicate that the soil has features that are unfavorable for the specified use.

Source: USDA Natural Resources Conservation Service, Web Soil Survey 1.1, National Cooperative Soil Survey, accessed November 2006 off USDA website (http://websoilsurvey.nrcs.usda.gov).

VII. Hazards and Hazardous Materials
a., b., c., d., e., f., and g. No Impact.
h. Less-than-Significant Impact.

The WA does not contain any known or suspected hazardous materials, and management of the WA would not require the use or storage of any hazardous materials on-site. The site is not located within an airport land plan area and is not within two miles of a public airport or private airstrip. Implementation of the LMP would not physically interfere with the County's adopted emergency response plan or evacuation plan because the amount of traffic generated by the WA would not have a noticeable effect of traffic volumes on designated routes and the total population in the area is small. The LMP would not increase the potential for wildfire hazards because the intensity of human use at the site would be very low.

Fire management activities in the WA have the potential to pose risks to people and structures in the WA and on adjacent lands. These risks would be less-than-significant because the LMP includes the following measures to avoid and minimize hazards to people and structures:

1. Working in cooperation with CalFire, develop and implement a fuel load reduction regime and schedule for the area around the ranch complex, WA entrance and parking area, along private roads that cross the WA, and along the portions of Highways 78 and S-2 that run through the WA.
2. Working in cooperation with CalFire, identify and prioritize treatment areas for habitat-focused vegetation management regimes.
3. Working in cooperation with CalFire, identify the management activities to be included in the annual pre-fire management plans for CalFire's San Diego Unit.
4. Coordinate vegetation management regimes in the WA with management of adjacent lands by State Parks, BLM, County of San Diego, Caltrans, Santa Ysabel Indian Reservation, and private landowners.
5. Prepare maps for CalFire use identifying roads, structures, staging areas, water resources, fences and gates, priority areas for impact avoidance, priority suppression areas, and post-burn recovery areas.
6. Work cooperatively with CalFire to develop and implement fire suppression, cleanup regimes, and remediation plans for the WA, with an emphasis on areas with adjacent residences and areas with protected resources.
7. Coordinate fire suppression, cleanup, and remediation plans for the WA with the those for the management of adjacent public lands.

In addition, the LMP requires site-specific plans for fuel reduction regimes. The impacts of those plans would be subject to further CEQA review, either as part of the CalFire's fire management program or as a site-specific plan for the WA.

VIII. Hydrology and Water Quality
a., b., c., d., e., f., g., h., i. No Impact.

The WA is located in a subunit of the Colorado River hydrologic region and includes a combination of permanent and intermittent surface waters. The Anza Borrego hydrologic unit (hu) of the Colorado River region and the San Dieguito hu and San Luis Rey hu of the South Coast region converge near San Felipe Valley. The Anza Borrego hu encompasses the headwaters, mainstems, and tributaries of Coyote, San Felipe, Carrizo, and Vallecito creeks, which converge and empty into the Salton Sea and the eastern edge of the hu. San Felipe Creek originates in the San Felipe hydrologic area (ha) at Teofulio Summit and is fed by at least 35 side-canyons on its 50-mile route to the Salton Sea. The WA is in the north central portion of the San Felipe ha, below the headwaters of the creek. Water quality in the WA has not been monitored since acquisition of the property by the Department. There are no major agricultural activities, mining operations, or extensive area of developed lands in adjacent areas that drain to the San Felipe hu. However, past agricultural and mining activities have contributed pollutants to the aquifer. In terms of existing sources within the WA, surface runoff from Highways 78 and San Felipe Road and sedimentation from unpaved roads and eroding slopes have the potential to degrade water quality in San Felipe Creek and Banner Creek. Neither creek is on the Clean Water Act Section 303(d) List of Impaired Water Bodies.

Implementation of the LMP would not violate any water quality standard or waste discharge permit because the project would not result in the discharge of water or wastewater. The project would not deplete or affect groundwater because groundwater would not be utilized for any of its activities except refilling the wildlife watering devices and the existing ranch complex facilities. The LMP would not alter any of the existing drainage courses by grading, construction of new buildings or paved areas. The drainage pattern of the on-site creeks would not be altered, and the project would not increase the rate or amount of surface runoff. No housing units or other facilities would be constructed within a 100-year flood hazard area. The project site does not expose people or structure to flood risks in the event of dam or levee failure and is not subject to seiche, tsunami, or mudflow.

IX. Planning and Land Use
a., b., c. No Impact.

The established communities in northeastern San Diego County are located to the northeast, south, and southwest of the WA and would not be divided by implementation of the LMP or future expansion of the WA. The goals and proposed activities identified in the LMP are consistent with the North Mountain Community Plan in the existing County of San Diego General Plan and in the draft General Plan 2020. Except for the easement included in the Rancho San Felipe grant deed for federal trails, there are no trail easements on the property in question. Under the LMP, no new roads or trails are proposed for construction. However, the LMP does provide for the consideration of links to trail systems outside the WA, provided that the links are through-trails. As discussed in section IV, the Department is participating in the preparation of an NCCP that covers unincorporated lands in eastern San Diego County and another NCCP for unincorporated lands in northern San Diego County. Implementation of the LMP would be consistent with the goals identified for both NCCPs. There are no approved conservation plans that cover San Felipe Valley.

X. Mineral Resources
a. and b. No Impact.

The WA includes coal and mineral mines that were operated in the late 19th and early 20th Century. The mines are not locally-important mineral resources, and no other mineral resources are known to occur onsite. Activities proposed within the WA would not involve the extraction of minerals or preclude future access to the mine sites. The proposed project would not conflict with mineral resource protection plans or result in the loss of a known mineral resource.

XI. Noise
a., b., c., d., e., and f. No Impact.

Implementation of the LMP and operation of the WA would not result in any construction or human activity that would cause an increase noise levels that exceed the standards established in the County of San Diego General Plan Noise Element and Noise Ordinance. None of the activities proposed by the LMP would result in groundborne vibration or noise levels. Consequently there would be no short-term or long-term increase in ambient noise levels. Aircraft noise is not a factor at the WA because there are no airports or private airstrips within a 2-mile radius of the site.

XII. Population and Housing
a., b., and c. No Impact.

Table 5 indicates the current and project populations of the County Community Planning Areas in the vicinity of the WA. The WA itself is within the North Mountain planning area, which has a current population of approximately 2,600 and is expected to grow to 5,300 by 2020. By 2020, the combined population in the identified planning areas is expected to triple, with the largest increase projected for the Borrego Springs.

Implementation of the proposed project would not induce growth to the area because no housing or commercial activities would be constructed and public services would not be extended to the area. No existing housing units would be removed nor would people be displaced.

Table 5. Current and Projected Population of Community Planning Areas in Vicinity of WA

Community Planning Area	Current Population	2020 Population
Julian	3,111	3,920
Palomar	245	520
North Mountain	2,619	5,280
Desert	679	1,410
Borrego Springs	2,592	14,030
Total	9,246	27,180
Source: County of San Diego GP2020 website accessed in October 2006 at http://www.sdcounty.ca.gov/cnty/cntydepts/landuse/planning/GP2020/comm.htm		

XIII. Public Services
a. and b. No Impact.

The intensity and frequency of public use in the WA is expected to remain low, even with population growth in the region, because of the limitations put on access to and public uses of the WA. Implementation of the LMP would not require any fire, police, or other public services beyond those currently available. No new housing will be provided and no additional school or park services will be required. Proposed uses of the WA would not increase the potential for wildfire hazards because the LMP provides for increased management of fire risks from public uses and other sources. (Also see explanation in section VII.)

XIV. Recreation
a. and b. No Impact.

Implementation of the LMP would not increase the usage of existing parks or recreational facilities and would provide recreation opportunities (hunting) not offered on most adjacent public lands. The number of recreational users will be managed, as needed, to ensure that use does not exceed the carrying capacity of the natural resources or degrade existing natural features or recreational facilities. No new construction of active recreational facilities or other structures is proposed.

XV. Transportation/Traffic
a., b., c., d., e., f., and g. No Impact.

The number of people using the WA is expected to remain low, and the proposed project would not build any new structures or introduce uses that would generate a substantial number of new automobile trips. Traffic levels of Highways 78 and S-2 are expected to increase with growth in region, but the activities at the WA would contribute only minimally to added trips. The only traffic related improvement proposed is the expansion of the existing unpaved parking area near the entrance of the WA. No roadway improvements are proposed and the current emergency access to the site would not be affected. No vehicular use is permitted on the dirt access roads through the site (except for Department maintenance and emergency access). No alternative transportation systems exist at the site and none are proposed. Air traffic patterns would not be affected by the project.

XVII. Utilities and Service Systems
a., b., c., d., e., f., and g. No Impact.

A small number of people would use the WA, and the proposed project would not generate any new demand for public utilities or services. No new septic or wastewater systems are proposed. No storm drain facilities exist and none are proposed; the project would not result in an increase of storm water runoff. Potable water in currently provided by on-site wells and no new water facilities are required. A minimal amount of solid waste is currently generated at the site and no increase is anticipated as a result of implementing the LMP.

XVII. Mandatory Findings of Significance
a. Less-than-Significant Impact
b. and c. No Impact

As discussed in sections IV and V, implementation of the LMP entail activities and uses that potentially would result in adverse effects to habitats, wildlife species, and cultural resources. As minimized by the measures and guidelines in the LMP, the effects would not be expected to substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory.

The LMP does not authorize any substantive physical changes; and future projects, if any, will require subsequent environmental analysis when the specifics of a project are established. There are no impacts that are individually limited, but cumulatively considerable.

Implementation of the LMP would not have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly.

INFORMATION SOURCES:

California Department of Fish and Game. 2007. Land Management Plan for the San Felipe Valley Wildlife Area. Public Review Draft. October.

County of San Diego. 2005a. Draft General Plan Update (GP2020). Accessed electronically in October 2006 at http://www.sdcounty.ca.gov/cnty/cntydepts/landuse/planning/GP2020/comm.htm

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Hector, Ph.D., Susan M. 2002. San Felipe Valley Wildlife Area Archeological Management Plan.

Sawyer, John and Todd Keeler-Wolf. 1995. *A Manual of California Vegetation.*

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Appendix D: List of Written Public Comments Received with Responses

Written Comments received for the San Felipe Valley Wildlife Area Draft Management Plan			
Comments from:	ID*	Type	Dated
Dave Singleton Program Analyst Native American Heritage Commission 915 Capitol Mall, Room 364 Sacramento, CA 95814	S-NAHC	Letter	11-14-07
Frank Huneck(?) - No Address	C-1	Letter	11-15-07
Paul Osuna 4032 Vista Grande Drive San Diego, CA 92115	C-2	Email	11-25-07
James W. Royle, Jr. Chairperson Environmental Review Committee San Diego County Archaeological Society, Inc. P O Box 81106 San Diego, CA 92138-1106	NGO-1	Letter	12-3-07
Terry Roberts, Director State Clearinghouse 1499 10th Street Sacramento, CA 95812-3044	S-OPR	Letter	12-06-07
Maeve Hanley Group Program Manager County of San Diego Department of Parks and Recreation 9150 Chesapeake Drive, Suite 200 San Diego, CA 92123	L-SDC	Letter	12-07-07
Michael L. Wells, Ph.D. District Supervisor Department of Parks and Recreation 200 Palm Canyon Drive Borrego Springs, CA 92004	S-DPR	Letter (faxed)	12-11-07
Michael C. Thometz 32062 Highway 94 Campo Ca 91906-3106	C-3	Email	12-12-07
Daniel Greenstadt No address 619-889-9736	C-4	Email	12-17-07

Vicki L Wood Field manager Bureau of Land Management 1661 South 4th Street El Centro	F-BLM	Letter	12-19-07
42 Individuals (see list below)	C-5	Form Letter	11-19-07 -- 12-21-07

1. Christine L. Brailsford, P O Box 2429, Rancho Santa Fe, CA 92067
2. Julie K. Brailsford, P O Box 2429, Rancho Santa Fe, CA 92067
3. Philip S. Brailsford, P O Box 2429, Rancho Santa Fe, CA 92067
4. David Kainer, 39-360 Peterson Rd, #12, Rancho Mirage, CA 92270
5. Susan G. Church, 1269 Paseo Dorado, San Dimas, CA 91773
6. Jeff Church, 1269 Paseo Dorado, San Dimas, CA 91773
7. Miriam Alvarez, 18402 Renwick Avenue, Azusa, CA 91702
8. Laura Briney
9. Debra Huett
10. Bruce Tilley, 1161 Camino Aliso, Fallbrook, CA 92028
11. Evita Tilley, 1161 Camino Aliso, Fallbrook, CA 92028
12. Hallie Tilley, 1161 Camino Aliso, Fallbrook, CA 92028
13. Rocky Tilley, 1161 Camino Aliso, Fallbrook, CA 92028
14. Kim Walls, 2320 Ronda Drive, Los Angeles, CA 90027
15. John Treese
16. Valerie Treese
17. Stacy and Stephen Bond, 6975 Bixbie Place, Carlsbad, CA 92009
18. Linda Paine, 43750 Los Caballos, Temecula, CA 92592
19. Terrel Paine, 43750 Los Caballos, Temecula, CA 92592
20. Lindsay Cox, 43750 Los Caballos, Temecula, CA 92592
21. Lucca Walls, 2320 Ronda Drive, Los Angeles, CA 90027
22. Linda Fisler, 1531 Coast Walk, La Jolla, CA
23. Cheryl Reynolds, 118 S. Poinsettia Avenue, Manhattan Beach, CA 90266
24. Tom and Suzanne Hoffman, 5 Plumtree Road, Rancho Palso Verdes, CA 90275
25. Ann McGowan-Tuskes and Paul Tuskes, 3808 Sioux Avenue, San Diego, CA 92117
26. Clare Todisco Williams, PO Box 131615, Carlsbad, CA 92013-1615
27. Phyllis J. Dominguez, 6125 Las Tunas Dr., Oceanside, CA 92057
28. Jeff Uhlik and Julie Beer, Dreamplace Farm, 38083 De Luz Road, Fallbrook, CA 92028
29. Karen and James Cunningham, Columbia Fathers, PO Box 10, St. Columban, NE 68056
30. Philip
31. Dan Smelz (?)
32. P. Davies
33. Victoria Hogmaier(?)
34. Stephanie Olsen and (?)
35. Bruno Perron

36. Chares Foster (?)
37. Mrs. J. Slater
38. Rosemary Cawood
39. Lindsay Douglas
40. Carol Leberlal(?)
41. Nikki Mack
42. Beverley Daley

*ID Codes

C-X	Citizen-Letter Number
NGO-X	Non-governmental Organization – Organization Abbreviation
L-X	Local Agency – Agency Abbreviation
S-X	State Agency – Agency Abbreviation
F-X	Federal Agency – Agency Abbreviation

Source and Comment ID	Topic	Key Issues Raised	Response
S-OPR-1	CEQA review requirements	Transmits letter from NAHC; notes DFG has complied with the Clearinghouse review requirements.	No response required.
L-SDC-1	East County MSCP	Request information sharing.	The Department concurs and has provided the County with the requested information.
L-SDC-12	County General Plan	Add reference to existing County General Plan and its Public Facilities Element to page 7-1.	Change will be made.
C-3-4	County MSCP	Description in IS (page 27) is not as clear as in LMP; may be confusing for some reviewers. Also clarify which ordinances are referenced in IS.	Comment noted and IS clarification will be made.
C-3-16	County General Plan update	Update not likely to be completed until 2010. DFG should take proactive role when development proposal come forward and work to eliminate or minimize impacts.	Comment noted.
C-3-14	Management goals/Cooperative agreements	Indicate how cooperative efforts will occur, how that will affect management of the WA, and how the efforts will be monitored.	Comment noted.
S-DPR-7	WA boundaries	Clarify task 5a on pages 5-42. Not aware of any instances where boundaries with Anza Borrego are in question.	The Department is in the process of completing a review of the deeds and related materials for the transactions that expanded the WA, especially the Rancho San Felipe acquisition. Determination of the exact location of shared boundaries will assist in installing boundary signage.
C-3-2	Air quality	Concurs that increased visitors not likely to have a significant air quality impact (CEQA context) but evaluation should be reconsidered on substantial additional visitors.	Comment noted.

Source and Comment ID	Topic	Key Issues Raised	Response
C-3 -15,18	Global warming/Climate change	LMP needs to address (issue also noted in Wildlife Action Plan). LMP also should include information on rainfall patterns.	The Department concurs that climate change is an increasingly important management consideration. The LMP includes provisions for addressing the issue in connection with adaptive management and monitoring regimes. In addition, the issue can be addressed in more detail in the first update of the LMP.
F-BLM-8	Tamarisk/Other invasives control	Control or eradication of tamarisk and other invasive species needs to be primary habitat objective	The Department concurs that tamarisk removal is perhaps the highest management priority (Tasks 1, 3 and 4, page 5-7, 8; Section 5.2.3.1, goals and task on page 5-22 and Section 5.2.3.3, goals 2 and 3, page 5-24).
C-3-3	Tamarisk removal/San Felipe Creek restoration	Conduct tamarisk removal, planting, and streambed alterations to restore perennial flow to creek.	Comment noted.
S-DPR-4	Tamarisk removal	LMP and IS should include detailed discussion of the distribution of tamarisk in the WA and the proposed removal program; this would allow the program to move forward without additional CEQA review. State Parks is anxious for the program to begin.	The Department considered this approach in preparing the LMP and IS/ND. However, the LMP is a program-level document by design and is meant to provide a framework for subsequent actions. As noted in both the LMP and IS/ND, some (but not all) subsequent actions will require additional environmental review under CEQA. The tamarisk removal program falls in this category because of the regulations that apply to riparian resources and because of the likely occurrence of cultural resources along San Felipe Creek.
C-3-13	Restoration of San Felipe Creek	Draft Eastern San Diego County RMP is now final. A key relevant provision concerns restoration of San Felipe Creek.	Comment noted. Riparian restoration is a top management priority for the WA (Section 5.2.1.1, goals and tasks, pages 5-7, 8; Section 5.2.3.1, goals and tasks, pages 5-22, 23 and Section 5.2.3.3, goals and tasks, pages 5-24, 25).

Source and Comment ID	Topic	Key Issues Raised	Response
C-3-19	WA management/Water sources	Management should include enhancement of water sources.	The habitat management measures in the LMP include actions on water sources. The Department is maintaining and restoring existing water sources for wildlife benefit and use (Task 2c, page 5-8). A clarifying sentence will be added to this section to include the maintenance of existing man-made aquatic habitats that benefit wildlife.
C-2-4	WA maintenance/Watershed protection	Upgrade facilities to mitigate impacts of increased use; focus on watershed protection when mitigating impacts of increased use.	Commented noted.
F-BLM-9	Timber management	Consider leaving large dead trees standing unless there is a safety risk.	The LMP includes this consideration as part of the recovery regime for burn areas and forest management (Task 1, page 5-37).
F-BLM-4	Livestock grazing	Clarify statement on page 2-4 regarding livestock grazing permit; provide criteria used to approve permit. No grazing allowed on BLM lands under preferred alternative in new RMP.	Title 14 includes a general prohibition on livestock grazing within all wildlife areas but provides an exception where permits may be authorized by the Department. No grazing permits have been issued for the WA, and the LMP does not anticipate livestock grazing as an allowed use or management tool but may be considered in a future update to the LMP. In some WAs, however, grazing is used selectively for fuel reduction and nonnative grass control. Regulations relating to grazing and issuance of grazing permits are contained in California Code of Regulations, Title 14, Section 550(b)(16).
C-3-1	Cattle grazing	IS/ND does not consider use of cattle grazing to control non-native species; recommend that it be an allowed use.	See response above. Comment noted.
S-DPR-5	Cultural resource management	Include State Parks in WA's cultural resource management planning.	The Department concurs, especially in planning for areas along shared boundaries.

Source and Comment ID	Topic	Key Issues Raised	Response
S-NAHC-1	Native American cultural resources	Follow the NAHC guidelines (included in letter) when assessing a substantial adverse change in the significance of an historical resource.	Comment noted. The Department concurs and will incorporate.
L-SDC-4,5	Cultural resources	In LMP, add that maps of cultural sites also will have limited distribution as per State policies (page 5-27), add a description of how cultural sites will be managed in the event of vandalism (page 5-28).	Consistent language regarding the limited access and distribution of maps will be added to table 5-1. A sixth task will be added to section 5.2.4.2 (page 5-28) regarding management of vandalized sites.
L-SDC-8	Cultural resources/Outreach	Add cultural resource component to the outreach program (page 5-48)	Comment noted.
L-SDC-14	Cultural resources	Add Los Coyotes Band of Cahuilla Indians to list on page 31.	Change will be made.
L-SDC-16	Cultural resources	Add education and outreach programs to the guidelines in Table 3 of the IS/ND.	Comment noted.
NGO-1-1	Treatment and monitoring of cultural resources (Table 5-1)	Cite the California Register as well as the National Register in describing Category 1 and 3 resources.	The appropriate changes will be made to Table 5-1 on pages 5-29, 30.
NGO-1-2	Treatment and monitoring of cultural resources (Table 5-1)	Clarify difference and intent of wording regarding resources that may or may not be significant under CEQA.	The purpose of the categories is to distinguish among the level and types of risks to known resources so that actions can be prioritized. The wording in question is not meant to imply that resources will be not examined for their significance.
NGO-1-4	Treatment and monitoring of cultural resources (Table 5-1)	Consider actually nominating resources believed to meet National and California register criteria.	Comment noted.
NGO-1-5	Treatment and monitoring of cultural resources (Table 5-1)	Monitoring frequency should be increased if problems are identified at Category 2 or 3 sites.	This is consistent with the management goals for cultural resources and will be added as a note to Table 5-1 on pages 5-29, 30.
NGO-1-6	Treatment and monitoring of cultural resources (Table 5-1)	Correct notes 3 and 4 to add that a Native American monitor also is required.	The appropriate changes will be made to Table 5-1 on pages 5-29, 30.

Source and Comment ID	Topic	Key Issues Raised	Response
NGO-1-7	Treatment and monitoring of cultural resources (Table 5-1)	Add note that recovered materials should be properly curated in accordance with the State Historic Resources Commission's guidelines.	This note will be added to Table 5-1 on pages 5-29, 30.
S-DPR-6	Fire management	Include adjacent land owners, including State Parks, in planning and implementing Fire Management on the WA when appropriate.	The Department concurs.
C-3-17,19	WA management and maintenance/Use of Volunteers	There is a large cadre of volunteers available and should be tapped for tasks.	Comment noted. The Department concurs that volunteers do play an important role in land management and habitat conservation and will utilize volunteer groups as opportunities arise (Task 6, page 5-21 and Task 1, page 5-52). A task will be added to Section 5.2.6 to include the use of volunteers for facilities maintenance when appropriate.
C-1	Public Access	Do not add more roads and access points; leave area natural. The entire area needs to be opened immediately.	Commented noted. The sequence in which the closed sections of the WA will be opened will be identified by the Department and posted for the public as openings occur. That sequence will depend on multiple factors (funding, site preparation, etc) that the Department cannot determine with certainty at this time (Task 5, pages 5-44, 43). It is also the Department's intent to continue to maintain a map of open and closed areas and areas subject to restrictions at the onsite kiosk, in information leaflets and on the DFG website.
F-BLM-2,3	Public access/Maps	Clarify which areas are currently open to public and which will be open when LMP is adopted; add map showing rifle/pistol exclusion areas.	See response above. Comment noted regarding rifle/pistol exclusion areas.
F-BLM-6	Access	By foot and horseback only. Consider adding additional access at northern and southern ends of the areas open to the public.	Comment noted regarding mode of access. Additional access points at the northern and southern ends of the WA are planned and will be developed in the future. Task 6, page 5-43 will be clarified to provide for any additional access anticipated.

Source and Comment ID	Topic	Key Issues Raised	Response
L-SDC-13	Safety Related Impacts	Address public safety related impacts of parking along County Highway S-2 in IS/ND.	Although the format of the IS/ND does not contain the specific category for this particular situation, the LMP does acknowledge the potential for public safety risk and addresses it in Tasks 6-8, page 5-43. The LMP includes tasks to collect the data and conduct the planning necessary to plan for future parking and WA access. This issue also will be taken into consider in planning the phased opening of the currently closed sections of the WA.

Source and Comment ID	Topic	Key Issues Raised	Response
L-SDC-6,9	Public Uses	Add more discussion on hiking, horseback riding, and mountain bike opportunities in the WA, especially in response to projected population growth and future recreational demands. LMP currently focuses on hunting and dog training.	Wildlife dependent recreational activities are the primary uses proposed for the WA and they are discussed in the LMP. All other proposed public use activities, will be evaluated for consistency with the Fish and Game Commission policy related to "Multiple Use of Lands Administered by the Department of Fish and Game" which states that public use of Department lands include hunting, fishing and other compatible wildlife dependant activities. Any proposed use will be allowed only if found to be compatible with the primary purpose of acquisition and conservation objectives established for the WA. The Department is aware of the competing needs and increased demands for recreation in the region and is committed to providing compatible public use opportunities within the WA while fulfilling its primary responsibility for wildlife conservation and management. The details regarding opportunities for horseback riding will be presented in any subsequent planning for a riding through-trail and is further described in response to comments C-5. The Department proposes to prohibit public access by all mechanical vehicles (including bicycles) as discussed below in response to comments L-SDC-3 and C-4-2. The Fish and Game Commission policy on "Multiple Use of Lands Administered by the Department of Fish and Game will be added to Table 2.1, page 2-3 for reference.
C-3-20,21	Public Access	Hiking opportunities should be primary objective of plan. Expedite tasks required to open closed sections, use volunteers.	Comments noted.
C-2-3	Public access/trails	Restrict trail use to foot traffic with some areas allowing equestrian use.	Comment noted. Further discuss of equestrian issues can be found in responses to comments L-SDC-6, 9 and C-5.

Source and Comment ID	Topic	Key Issues Raised	Response
L-SDC-11	Trails/Planning	Future trails in WA should be based on County's Community Trails Master Plan. Recommend adding a reference that plan's design guidelines to the LMP and ND.	The Department recognizes the value of the design guidelines in the County's Community Trails Master Plan. The LMP is subject to the requirements that apply to management of State lands.
L-SDC-9a	California Riding and Hiking Trail	County maps show it running the length of the WA; still considered a trail of regional significance. Concerned about continued public access and maintenance. Include information about trail and future management options in the LMP.	As confirmed by Wildlife Conservation Board records and review of the original right-of-way agreement conditions there is no easement for the California Riding and Hiking Trail on lands within the WA. The LMP includes provisions for identifying and developing a through-trail with connections to a regional trail outside the WA. Details of any plans for a through-trail, including maintenance and management will be developed as part of LMP implementation and will be subject to additional CEQA review at that time.
C-4-1	California Riding and Hiking Trail	What documentation is there regarding status of easements for the trail?	Review of the Wildlife Conservation Board's title records for all WA parcels, the Right of Way Agreement dated March 24, 1949, and results from the County of San Diego Parks and Recreation review of original tract file documents with field assessment confirms there is no easement for the California Riding and Hiking Trail within the WA.
L-SDC-10	Public Access/California Riding and Hiking Trail	Add to page 5-42 "Ensure public access for pedestrian, bicycle and equestrian users to the existing California Riding and Hiking Trail historic route within the WA. Access will not be subject to seasonal/temporary closures other than for hazardous conditions pending repair/maintenance."	Comment noted. See previous responses to comments on equestrian and bicycle use as well as the California Riding and Hiking Trail (L-SDC-6, 9, L-SDC-9a, C-4-1, C-5, L-SDC-3, and C-4-2). Seasonal/temporary closures of all or part of the WA, including trail use, are necessary for a variety of public safety and resource protection purposes.

Source and Comment ID	Topic	Key Issues Raised	Response
L-SDC-9b	San Dieguito River Park – Coast to Crest Trail	The regional trail has a proposed connection through the WA, connecting to the California Riding and Hiking Trail and Pacific Crest Trail. A route for the connector should be identified and analyzed in the environmental document.	The LMP includes provisions for identifying and developing a through-trail with connections to a regional trail outside the WA. There currently are no designated trails in the WA. Details of any plans for a through-trail, including maintenance and management will be developed as part of LMP implementation and will be subject to additional CEQA review at that time.
L-SDC-9c	Pacific Crest Trail	Does not pass through but comes close. LMP should consider providing a connection from the Pacific Coast Trail (PCT) to a viable water source in the WA. Water source should also include access for livestock.	A legal easement exists for the PCT that crosses through the WA within the Granite Mountain Unit. Providing a viable water source is not feasible given the lack of an accessible water source on the WA near the trail segment. Title 14 precludes livestock within WAs, except where authorized under a grazing permit from the Department.
C-3-7,8,9,10,11	Public recreation/trails	Concur with conclusion in IS but public use and demand likely to increase significantly over time. LMP should include more on connecting with trail systems – other programs in County do. IS and LMP are confusing regarding trails in and outside the WA, existing and proposed, hiking versus riding, biking versus equestrian.	The LMP includes provisions for evaluating existing roads on the WA as well as developing guidelines for a future hiking and riding through-trail connecting to an established regional trail system (Section 5.2.7.1, pages 5-42, 43). Clarification to existing trail designation status at the WA will be made in Section2.3.7.2, page 2-5.

Source and Comment ID	Topic	Key Issues Raised	Response
C-5	Equestrian uses in WA	Opposed to exclusion because use is consistent with conservation.	The LMP does not permanently prohibit equestrian use and does allow for the evaluation of the physical characteristics of existing roads for suitability as riding trails and provides for the development of guidelines for determining where a through-trail could be placed within the WA (Task 2-3 on page 5-42). Equestrian use, along with all other proposed public use activities, will be evaluated for consistency with the Fish and Game Commission policy provided previously (response to comment L-SDC-6,9), related to "Multiple Use of Lands Administered by the Department of Fish and Game". This proposed use will be allowed only if found to be compatible with the primary purpose of acquisition and conservation objectives established for the WA.
L-SDC-3	Bike Use/Trails	Are bikes allowed in the WA or not? If not, why?	Within the WA, Title 14 general regulations allows bicycles on designated trails only; however, there are no designated trails in the WA at this time pending LMP adoption. The need for a clarifying statement regarding current WA trail designation status has been previously acknowledged in response to comment C-3-7, 8, 9, 10, 11. The LMP proposes a prohibition on all mechanical vehicle use (which includes bicycles) by the public for reasons described in more detail below in comment C-4-2.

Source and Comment ID	Topic	Key Issues Raised	Response
C-4-2	Bicycle access	What science, analysis, documentation led to determination that bicycle use of trails is associated with the impacts identified in the LMP?	The LMP proposes a prohibition on all mechanical vehicle use (which includes bicycles) by the public (page 6-9) because these vehicles create more wear on dirt roads, pose greater public safety risks within the WA, and have the potential to create greater damage to natural lands if conducted off designated routes than would foot traffic. This prohibition is consistent with the California Fish and Game Commission policy regarding "Multiple Use of Lands Administered by the Department of Fish and Game" described in response to comment L-SDC-6,9 above. Mechanical vehicle use on SFVWA is deemed inconsistent with the primary purpose of acquisition and is not considered a compatible wildlife dependent recreation.
F-BLM-7	Hunting	Consider giving priority to hunting in all recreation decisions.	This recommendation is consistent with California Fish and Game Commission and Department policies and has been expressed in many comments on the LMP.
C-3-5,21	Hunting	All hunting allowed under State laws and regulations should be permitted in the WA unless there is some scientifically verifiable reason not to do so. Entire WA should be opened for hunting immediately.	Comment noted. The Department has discretion over management actions implemented on the WA, including the use of hunting to achieve interim and long-term species and habitat conservation objectives. Not all of these management considerations involve scientific investigation such as adjacent land use, hunt quality, etc. The management approach taken will none the less be designed such that results can be measured, efficacy can be evaluated and tested, and alternative or modified actions can be formulated and tested again to assure management objectives are being met. The LMP includes provisions for the opening of currently closed areas.

Source and Comment ID	Topic	Key Issues Raised	Response
S-DPR-1	Hunting/Buffer zones	Concerned about incursions into Anza Borrego State Park; recommends cooperative effort to determine buffer within the WA adjacent to State Park lands.	The Department will work cooperatively to address potential hunter incursion consistent with actions taken by other public land management agencies allowing hunting on lands sharing common boundaries with State Parks.
L-SDC-2	Hunting impacts to adjacent lands	Requests a more detailed analysis of potential impacts to adjacent lands caused by trespassing, domestic animal intrusion, and species disturbances related to hunting. Specifically concerned about impacts on Volcan Mountain Wilderness Preserve Park.	The LMP and IS/ND identify the potential for impacts to adjacent land from the different public uses of the WA, including hunting and identifies avoidance, mitigation, and monitoring measures to ensure that significant impacts do not result. Both the LMP and IS/ND address the issue on a program level; analysis of specific impacts to specific locations would occur when the tasks are implemented. In this instance, consideration of effects on the Wilderness Preserve Park will occur as access restrictions are lifted.
S-DPR-3	Hunting /Riparian enhancement	Supports riparian enhancement goals and efforts; concerned about effects of spring hunts on riparian species; recommends seasonal buffers where hunting would be precluded.	The Department is charged with the responsibility to determine if hunting will impact native species and habitats, including those listed as threatened and endangered (Section 5.2.2.1, Task 3, Page 5-19). It complies with this mandate by consulting internally, with the California Fish and Game Commission and the United States Fish and Wildlife Service when establishing hunting season regulations and through subsequent analysis under CEQA (Public Resources Code Section 21000 et. seq.). Further, the Department conducts area specific species, habitat, and public use monitoring to prevent conflict between public use activities and native species. If warranted, the Department will develop and implement measures as indicated in Chapter 5 of the LMP to safeguard riparian species.
C-2-1	Hunting	Coordinate WA area management with adjacent BLM lands to provide consistent use regulations for hunters.	Comment noted. Land use and ownership of adjacent properties have been taken into account when formulating current regulations.

Source and Comment ID	Topic	Key Issues Raised	Response
C-2-2	Hunting	Adjust the G-13 deer tag quota or establish a new antlerless deer hunt for SFV towards a more scientific management of buck-doe ratios; consider establishing a permit system with designated dates that are reserved in advance; apply the same rules for methods of take that are applied for the A-22, G-13, and D-16 deer tags.	The current deer hunting strategy for the WA using existing additional antlerless and either-sex deer hunts and tag quotas in conjunction with general deer season restrictions is adequate to achieve desired buck:doe ratios. If determined to be necessary, the Department will consider establishing an area-specific additional hunt in order to achieve and/or maintain the desired buck:doe ratio.
F-BLM-5	Dog training	Expansion of training area appropriate, but dog trainers should not be granted special access above other users; special restrictions may be needed to address dog training on horseback (cannot be conducted staying on trails).	The Department concurs.
L-SDC-7	Dog training area	Add specific information about the size and location of the existing and expanded areas.	Additional detail about the existing and expanded training area will be provided in an addendum to the LMP.
L-SDC-15	Dog training area expansion	Include details on amount and types of habitats potentially disturbed by expansion in IS/ND.	The expansion of the training area does not entail any habitat removal, alteration, or grading. It would be larger version of the existing site, which essentially is an area marked by posts where dogs can be trained in natural conditions. The seasonal nature of the area's use would not produce significant long-term effects to the habitat which is predominately non-native grassland. In addition, the use is outside of spring breeding season.
S-DPR-8	Scientific research	LMP should include some research topics of interest to DFG in managing the WA	Comment noted.
C-3-23	Operational requirements	Not enough staff time allocated for program. Another reason to use volunteers. Assess and set near term priorities with volunteer work force as a given	Comment noted. Budgetary constraints preclude optimal staffing for LMP implementation.
C-3-6	Minor edits	Page 34 of the Initial Study; replace IV with VI.	Correction will be made as noted.

Source and Comment ID	Topic	Key Issues Raised	Response
S-DPR-9	Minor edits	Make corrections as identified in item 9a-f in letter: a. Page 2-2, Table 2-1. Under section "2050-2105" the text includes Section 2835. This should be placed in the next box down the table. b. Page 2-17, 3rd bullet point, should read "…restored, enhanced for native game…". c. Page 2-17, 5th bullet point, should read "…SFVWA would be designated as part of the Julian…". d. Page 2-21, Topic: Other Facilities, 2nd bullet point, should read "…at least 200 yards away from paved road…". e. Page 3-6, section 3.2.2.2, 1st sentence should read "…restrictions apply to the Ranch San Felipe lands…". f. Page 5-7, section 5.2.1.1, Focal Resource/Activity. The 7th sentence is incomplete.	Corrections will be made as noted with the exception of 9a. Section 2835 provides for the take of listed species whose conservation and management is provided for in a natural community conservation plan approved by the Department and therefore appropriate for inclusion in the Endangered Species section of Table 2-1.
F-BLM-1,10	Minor edits.	Makes changes in items 1 and 10 in letter. 1. P.2 change "wildlife study area" to "wilderness study area" after the 4th bullet. 10. Add WSA to the glossary. It is an acronym for Wilderness Study Area.	Corrections will be made as noted. Note: The referenced correction for the first comment is located on page 2-17.

Appendix E: List of Incorporated LMP Edits in Response to Comments

Addendum to the Initial Study and the Public Review Draft of the Land Management Plan for the San Felipe Valley Wildlife Area, (October 2007)

NUMBER	LOCATION	CHANGE TO DOCUMENT
Initial Study		
1	Title Page	Reverse order of California Department of Fish and Game (CDFG) and Jones & Stokes to reflect that Jones & Stokes prepared the document. Replace "with the assistance of" with "for" to reflect that CDFG was the recipient of the document.
2	Page 27; 2nd paragraph	Replace 2nd paragraph with the following: "There are no conflicts with the management program and the County of San Diego's Resource Protection Ordinance (San Diego County Code; Division 6, Title 8, Section 86.601) or with the East County Multiple Species Conservation Program being prepared by the County for unincorporated lands in eastern San Diego County. While the County ordinance does not apply to State lands, conservation of resources in the WA is consistent with the intent of the Resource Protection Ordinance to prevent degradation and loss of sensitive resources including, but not limited to, wetlands, floodplains, sensitive biological habitats, and prehistoric and historic sites. The East County Multiple Species Conservation Program is the final component of a countywide conservation program being developed by the County in coordination with the Department of Fish and Game under the Natural Communities Conservation Planning program."
2	Page 34, 1st line	Replace "IV" with "VI".
Land Management Plan		
1	Title page	Reverse order of California Department of Fish and Game (CDFG) and Jones & Stokes to reflect that Jones & Stokes prepared the document. Replace "with the assistance of" with "for" to reflect that CDFG was the recipient of the document.
2	Page 2-3	Insert a category for "Fish and Game Commission Policy" after California Code of Regulations (Title 14) and insert the following in the Key Provisions section "Multiple Use of Lands Administered by the Department of Fish and Game. Lands under the administration of the Department are to be made available to the public for fishing, hunting or other forms of compatible wildlife dependent recreational use, and for scientific studies whenever such use or uses will not unduly interfere with the primary purpose for which such lands were acquired."
3	Page 2-5; 9th bullet	Insert "(Designated routes have yet to be evaluated for suitability)" at the end of the sentence.
4	Page 2-17; 3rd bullet	Replace "or" with "for".
5	Page 2-17; 4th bullet	Replace "Wildlife" with "Wilderness".

6	Page 2-17; 5th bullet; 1st sentence	Insert “of” after “part”.
7	Page 2-21; 5th bullet	Replace “years” with “yards”.
8	Page 3-6; Section 3.2.2.2 Covenants and Restrictions; 1st sentence	Replace “Rutherford Ranch” with “Rancho San Felipe”.
9	Page 3-9; 3rd paragraph	Replace “kiosk/parking area” with “information area with kiosk”.
10	Page 5-7; Focal Resource/Activity Section; 7th sentence	Modify end of sentence to read “…California legless lizard and silvery legless lizard.”
11	Page 5-8; after 2nd bullet	Add a 3rd bullet to read “ • Evaluate and maintain man-made aquatic habitats for appropriate wildlife use.”
12	Page 5-9; after Task 4	Add a Task 5. to read “Prepare and implement a maintenance plan for all modified/developed springs and wells and update on an as-needed basis”
13	Page 5-27; Task 1c	Add “and/or maps” after “database”.
14	Page 5-28; after Task 5	Add a 6th bullet to address cultural site vandalism to read “6. Protection of cultural materials and features at vandalized sites will be in accordance with recommendations and guidelines set forth by both state and federal historic preservation regulations.”
15	Page 5-29; Category 1 Description	Modify first sentence to read "Resources that meet the eligibility criteria for inclusion in either the National Register of Historic Places[1] or the California Register of Historical Resources[2] or are significant under CEQA.”
16	Page 5-29; Category 3 Description	Insert “or California” after National in the first sentence.
17	Page 5-29; Category 1 Monitoring	Add “(Or more frequent if site specific issues are identified) underneath “Every Year”.
18	Page 5-29; Category 2 Monitoring	Add “(More frequent if site specific issues are identified) underneath “Every Two Years”.
19	Page 5-30; Notes; 3	Insert “and a Native American representative” after “archaeologist” in the first sentence.
20	Page 5-30; Notes; 4	Insert “and a Native American monitor” after “archaeologist” in the first sentence.
21	Page 5-30; Category 4 Treatment; 2	Add superscript 6 to “facility” at the end of the sentence.

22	Page 5-30; Notes; after 5	Add note 6 to read "6 Recovered materials will be properly curated in accordance with the State Historical Resources Commission's guidelines."
23	Page 5-41; after Task 7	Add Task 8 to read "8. Involve volunteers in the area maintenance when and where appropriate."
24	Page 5-43; Task 6	Modify sentence to read "Evaluate the potential to expand the information area along San Felipe Road and to potentially provide additional information areas and pedestrian access points at other locations."
25	Page 5-43; Task 8	Modify sentence to read "….design and location of informational areas (e.g., potential need for turning lanes) and for the parking available along Highways S-2 and 78."
26	Page 5-46; Focal Resource/Activity Section	Add the following sentences at the end of the paragraph "The existing area occupies approximately 81 acres of mixed annual grassland and deciduous shrubland adjacent to the Highway S-2 information area. The area is bounded on the north by Highway S-2 and dirt access roads on the south, east and west and delineated by wooden corner markers."
27	Page 5-46; Task 2	Insert the following after the first sentence "This expansion would add approximately 80 acres of mixed annual grassland and forbs to the training area. The exact boundaries of the expansion will be determined during future site evaluations."; Replace "parking" with "informational" in the second sentence.
28	Page 5-56; 28th LMP Task	Modify to read "Informational area expansion/additions"
29	Page 6-6; 6th bullet	Modify to read "Informational area expansion/additions and the associated maintenance"
30	Page 6-9; 2nd Activity/Use; 2nd Impact Avoidance and Minimization Identified in LMP	Modify sentence to read "Limit trail use to recreational hiking and nature walks on existing roads until a possible through-route has been determined."
31	Page 9-2; end of list	Add the acronym "WSA" for "Wilderness Study Area"