4.2.5 Coastal Cactus Wren (*Campylorhynchus brunneicapillus couesi*)

4.2.5.1 Background

The coastal cactus wren is a CDFG species of concern and is a MSCP covered species (Unitt 2008). This subspecies ranges from southern Orange County through San Diego County into extreme northwestern Baja California (Proudfoot et al. 2000). The coastal cactus wren can be observed year-round within coastal sage scrub and maritime succulent scrub vegetation communities of coastal lowlands (Photograph 4-7; Unitt 2004). Coastal cactus wrens require thickets of cholla (*Cylindropuntia* sp.) and/or prickly pear (*Opuntia oricola*) cacti in which to build their nests. Coastal cactus wrens often build secondary nests, which are used for roosting and nesting for subsequent broods (Proudfoot et al. 2000). Nesting occurs from March through July; fledglings remain in the nest until September. The cactus wren diet consists mainly of grasshoppers, beetles, ants, wasps, butterflies, moths, spiders, and occasionally vegetation, reptiles, and amphibians (Proudfoot et al. 2000).

Coastal cactus wrens have been shown to disperse from 0.6 to 1 mile on average from home territories in Orange County (Atwood et al. 2002; Bontrager and Gorospe 1995; Preston and Kamada 2011). The coastal cactus wren observed at MTRP is within the West Sycamore area and is approximately 1.2 miles southeast of a wren observed in 1990 (although this area is now developed) and 3.25 miles northwest of a wren observed near Santee Lakes in 1990. In order to facilitate genetic exchange and population distribution expansion, management should include the restoration or enhancement of cactus patches (available cactus wren habitat) at distances relative to their ability to disperse.

Regionally, coastal cactus wren populations have declined precipitously in the last two decades due primarily to habitat loss and fragmentation (Rea 1990). Periodic drought when combined with regional habitat fragmentation can constitute an exacerbating factor for other threats (such as wildlife) to coastal cactus wren. Drought can weaken the vigor of resident birds and under extreme conditions can cause reproductive failure and/or population reduction through mortality (Bolger et al. 2005). Although most small birds have life spans of several years and many can survive to reproduce in more favorable years, unusual cases of consecutive years of drought may actually result in depressed populations over large areas, especially for resident species.

Photograph 4-7: Coastal cactus wren habitat within the West Sycamore subarea of MTRP.

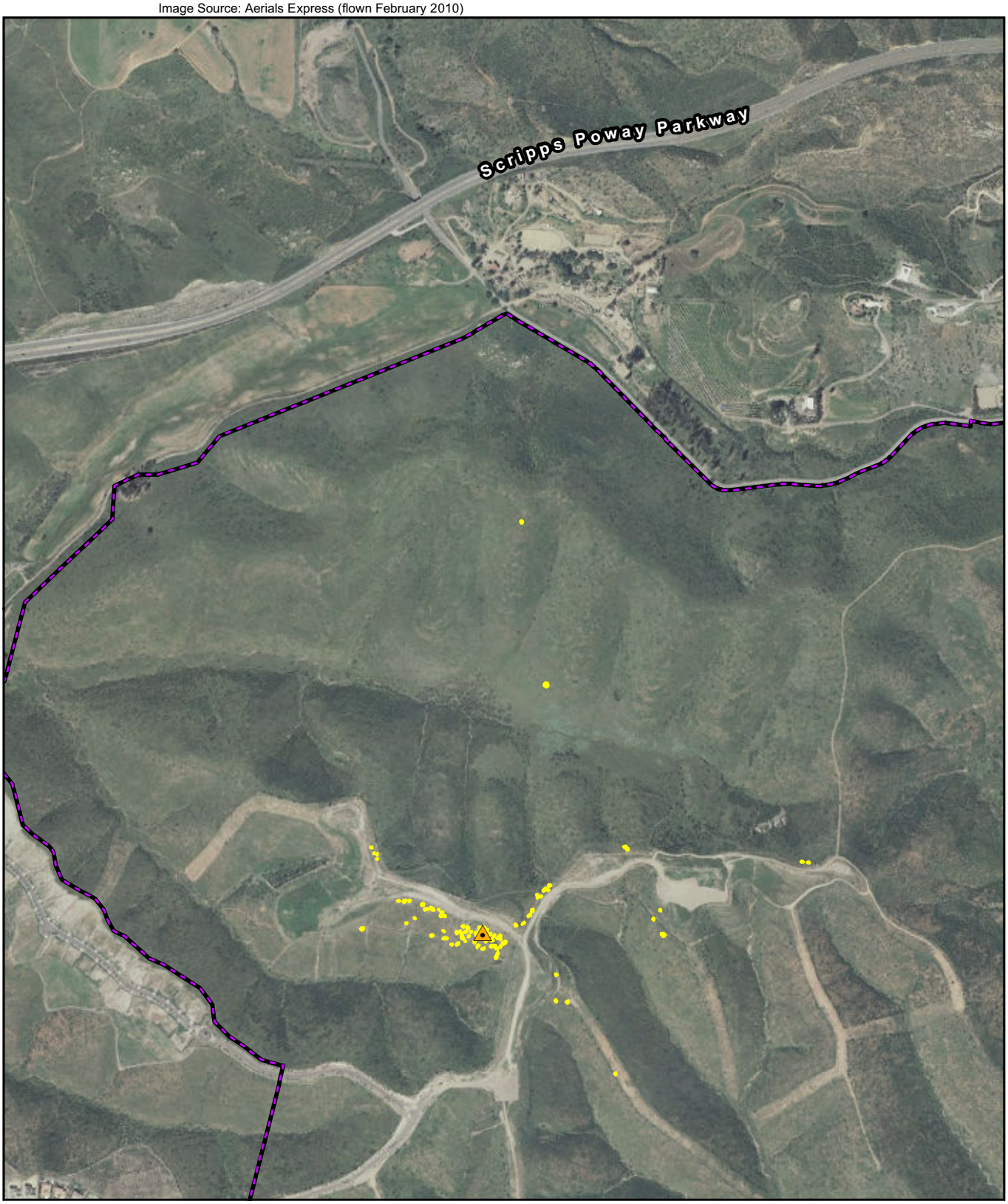
4.2.5.2 MSCP Conditions of Coverage

Area-specific management directives must include restoration of maritime succulent scrub habitat, including propagation of cactus patches, active/adaptive management of cactus wren habitat, monitoring of populations within preserves, and specific measures to reduce or eliminate detrimental edge effects. No clearing of occupied habitat may occur from the period February 15 through August 15 (MSCP 1998: Table 3-5).

4.2.5.3 Presence within the MTRP

One cactus wren was observed in a large stand of prickly pear on the West Sycamore area by RECON biologists during vegetation surveys in 2011. In general, MTRP does not contain large concentrations of dense cacti, the exception being a large patch in the West Sycamore area (Figure 4-19). Regionally, coastal cactus wren has been reported to east and southeast of the MTRP (State of California 2011b, Figure 4-20).

Image Source: Aerials Express (flown February 2010)



Project Boundary

West Sycamore Area

Cactus Patches

San Diego Cactus Wren (RECON 2011)
(*Campylorhynchus brunneicapillus couesi*)

0 Feet 1,000

FIGURE 4-19
San Diego Cactus Wren
(*Campylorhynchus brunneicapillus couesi*)
Detected Occurrences: West Sycamore

RECON

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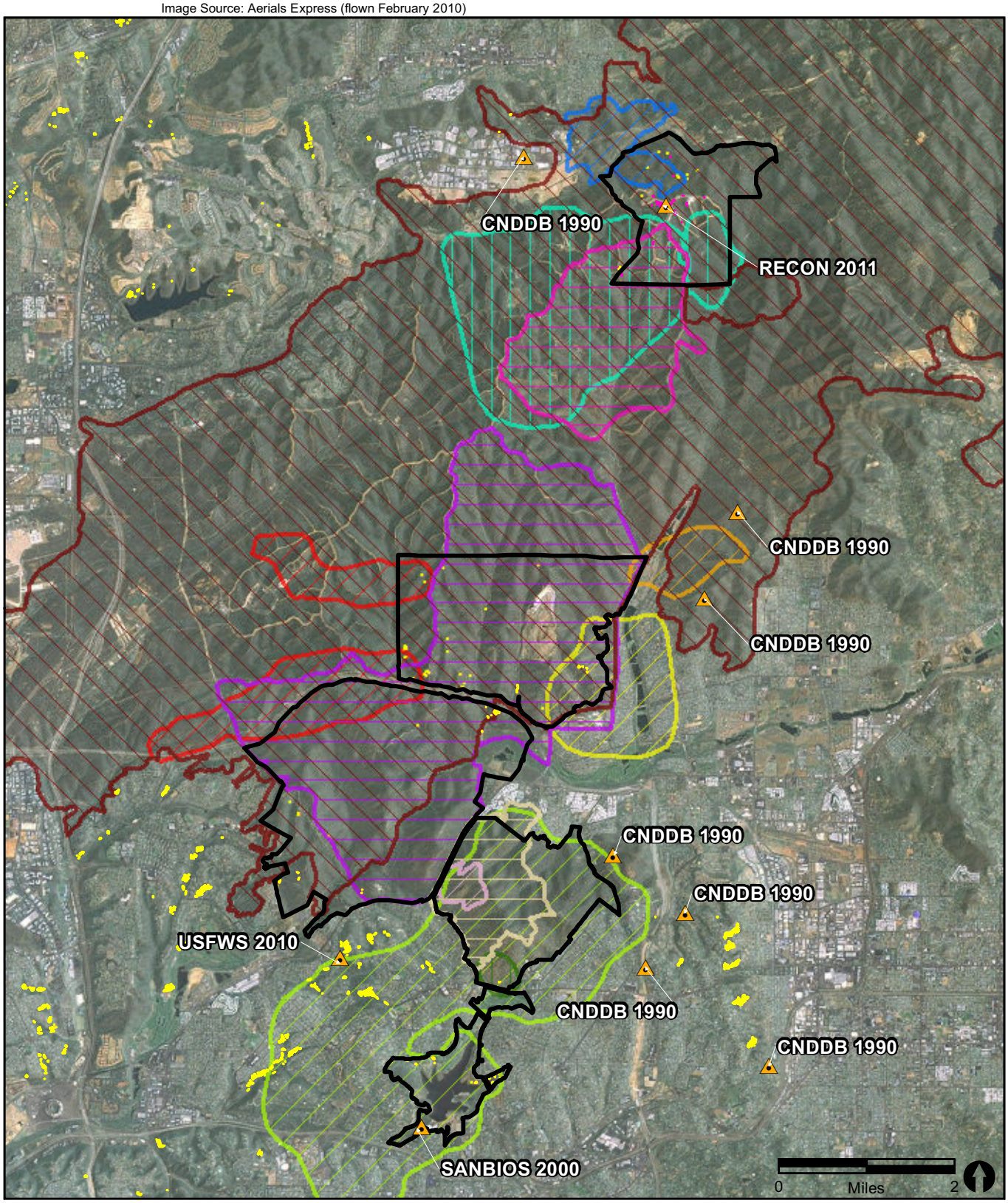
Image Source: Aerials Express (flown February 2010)



Project Boundary

Cactus Patches (RECON 2011)

Cactus Patches (MSCP Surveys 2009-2011)

San Diego Cactus Wren (*Campylorhynchus brunneicapillus couesi*)

Fire Burn History

1939
1941
1942
1944
1950
1968
1981
1983
1986
1988
1995
2003

FIGURE 4-20

San Diego Cactus Wren (*Campylorhynchus brunneicapillus couesi*) and Cacti: Regional Habitat Connectivity

RECON

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4.2.5.4 Anthropogenic Threats at MTRP

4.2.5.4.1 Fire

Wildfire has been identified as a major threat to coastal cactus wren habitat in southern California (Rea and Weaver 1990). Large cactus stands, despite their succulent growth form, are sensitive to mortality from wildfire. Vegetation loss removes habitat shelter and productivity, rendering an area unsuitable for coastal cactus wren, which, in combination with isolation through or resulting from habitat fragmentation, can cause localized extinctions. After a wildfire, it can take many years for cactus patches to recover to a sufficient size to be used by coastal cactus wren (Proudfoot et al. 2000, Solek and Szijj 2004).

4.2.5.4.2 Invasive Non-native Species

Cactus wren habitat within the West Sycamore area is currently invaded by a population of purple fountain grass, an exotic perennial grass. The fountain grass has invaded the ridgeline along an access road and historically developed areas. Exotic grasses pose a threat to coastal cactus wren by providing an easily ignitable fuel source, contributing to the intensity of wildfires and the destruction of cactus wren habitat. In addition, as coastal cactus wrens feed on insects in interstitial spaces between shrubs, non-native grasses in the area occupy and degrade potential foraging habitat.

4.2.5.5 Management Goals

Goal: Establish and sustain a persistent population of coastal cactus wren within the West Sycamore area at MTRP (Figure 4-21).

Objective 1: **Reduce combustible fuels within Cactus Wren Management Area**

- Woody and herbaceous vegetation should be brushed within the cactus wren management area (CWMA) if it is determined that the density of these species is threat to the cactus patch(es) (Figure 4-22). Native shrubs should be the last to be thinned (see steps 4 and 5) after non-natives and dead biomass are removed. California gnatcatcher, an MSCP covered species which uses native shrubs as habitat, has not been observed within or near the CWMA (nearest CNDDB location is 0.5 mile north). Vegetative debris from thinning can be aggregated and left on-site (if native) or removed and disposed within a landfill (exotic species). Fuel removal from within the CWMA should be prioritized as follows:

    1) Treat and remove exotic species: The CWMA is infested with purple fountain grass (*Pennisetum setaceum*). Purple fountain grass should be cut and sprayed with an appropriate herbicide.

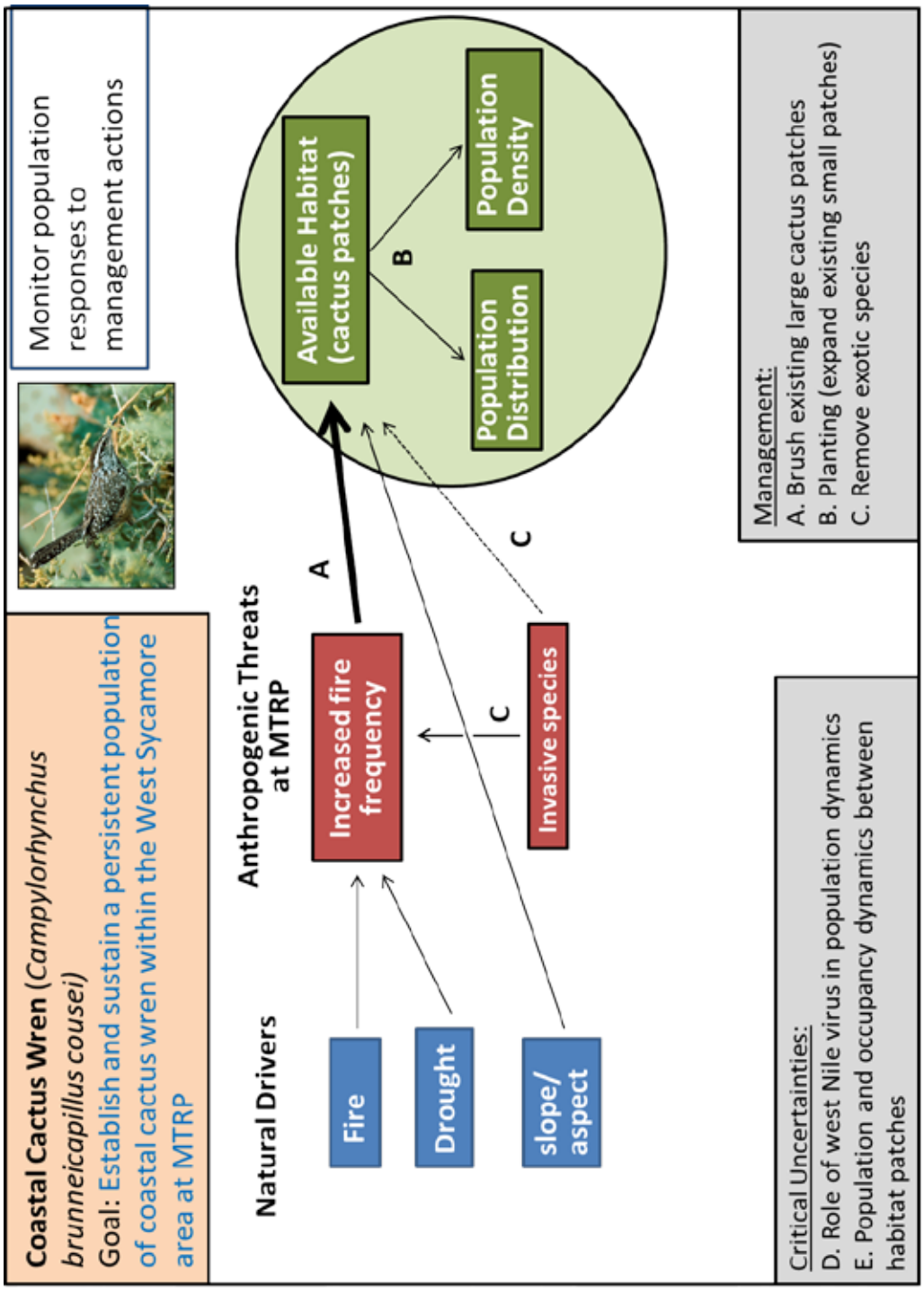
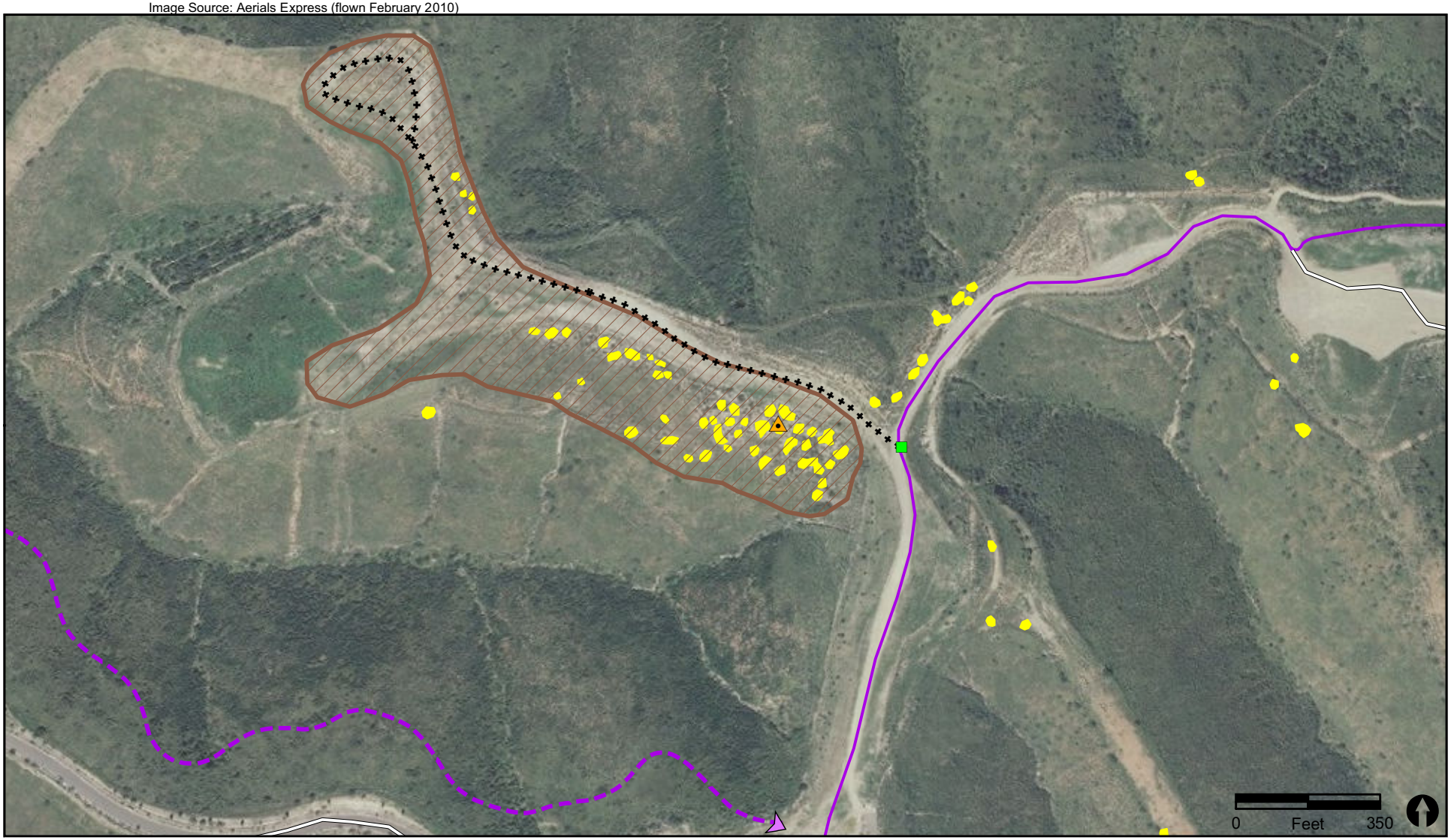


Figure 4-21. Conceptual Model for Coastal Cactus Wren (*Campylorhynchus brunneicapillus cousei*) at MTRP

Image Source: Aerials Express (flown February 2010)



San Diego Cactus Wren Management Area
- •Brush Management
- •Exotic Species Removal
- •Cacti Transplantation

Cactus Patches

San Diego Cactus Wren (*Campylorhynchus brunneicapillus couesi*)

Proposed Exclusionary Signage

Trail Re-Routes/Closures

Planned Closure

Proposed New Trails

Multi

Existing Trails-Proposed Use

Other Circulation

Multi-use Trail

RECON

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FIGURE 4-22

San Diego Cactus Wren (*Campylorhynchus brunneicapillus couesi*) Management Actions: West Sycamore

2) Remove dead biomass/accumulated thatch.

3) Prune large, woody native shrubs: Prune large native shrubs (laurel sumac [*Malosma laurina*]) up from ground to reduce fire ladder effects and total available fuel load of individuals.

4) Selectively thin remaining coastal sage scrub vegetation around a 15-foot perimeter of existing cactus patches: Cut sagebrush mechanically at their base, leaving roots in place. As coastal sagebrush in considered a primary component of MSCP-covered costal California gnatcatcher habitat, it should be selectively brushed only when priorities 1–3 have been completed.

- Vegetation thinning should occur outside of bird nesting season after the end of both the growing season and bird nesting season (August 15-February 15).

Objective 2: Enhance and expand cacti distribution and density within Wren Management Area

- Cactus pads harvested from local prickly pear and cholla stock should be planted within the coastal cactus wren management area to increase the density of cacti and the quality of cactus wren habitat (see Figure 4-22).

Objective 3: Trail Reroute

- Proposed trail use in West Sycamore area will avoid the CWMA (see Figure 4-22). In addition, an existing access road along the ridge line within the CWMA will be closed.

4.2.5.6 Monitoring/Surveys

- Conduct presence/absence coastal cactus wren surveys annually. As coastal cactus wrens are year-round residents, surveys should be conducted twice per year (once during breeding season, once in winter).

- Establish photo points within and facing vegetation management areas using a handheld GPS. Photo monitoring should be conducted in conjunction with vegetation monitoring every three years. Photos will be used to qualitatively track the expansion of cactus distribution and density within the CWMA.

- Use relevé vegetation sampling to monitor vegetation within cactus wren management area. Relevé vegetation monitoring will track the relative cover of cactus species in comparison of woody and herbaceous fuels within the CWMA. Relevé monitoring will also be used to identify exotic species densities and inform adaptive management actions. In addition to typical relevé monitoring,

cacti coverage estimates should be grouped in to height classes to track growth and development of cacti transplantations (Table 4-11).

TABLE 4-11
CWMA CACTI HEIGHT CLASSES
(feet)

Low	>1
Intermediate	1-3
Mature	>3