SDRVC Cactus Scrub Restoration Projects - Summary

Thousands of acres of riparian and upland habitat were burned in the San Dieguito River corridor in the 2007 fires, particularly affecting coastal sage scrub and cactus scrub habitat in San Pasqual Valley and around Lake Hodges. These locations were some of the largest areas of high-quality habitat occupied by coastal cactus wren (*Campylorhynchus brunneicapillus sandiegensis)* and federally-threatened California gnatcatcher (*Polioptila californica*) in San Diego County. In the months subsequent to the fires, the San Dieguito River Valley Conservancy (SDRVC) partnered with the Conservation Biology Institute to conduct an assessment of burned and unburned cactus scrub in the San Pasqual/Lake Hodges area. This information was used to determine the best strategy for restoring cactus wren habitat in locations so severely burned they would most likely not passively recover to a state that would be able to support the species again. A permanent loss of the amount of habitat burned in the fires and affecting the cactus wren and gnatcatcher would have implications for the species’ populations on a regional scale.

As a result of the habitat assessment, two areas were chosen for restoration using After-the-Fires funding: Bernardo Mountain on the north shore of Lake Hodges and K East in San Pasqual Valley. These locations were selected due to the proximity of good quality unburned habitat of the same type and/or historical habitat value for the two bird species of focus. The Bernardo Mountain site encompasses ~ 75 acres and the San Pasqual Valley site ~15 acres. After-the-Fires funding allowed SDRVC and the San Dieguito River Park (SDRP) to begin restoration work – importantly, weed control – soon after the fire; this was exceedingly critical because of the rapid colonization of invasive, non-native plant species in disturbed burn areas, and the subsequent effect of dominant weed cover in suppressing natural re-emergence of native species. The funds were used to provide immediate benefits to wildlife and the recovering vegetation community and expand adjacent areas of unburned habitat, which continued to be occupied by gnatcatchers and cactus wrens. The funding also allowed fencing to be installed to protect a nearby archaeological site from trail users and erosion control devices to be installed in areas subject to damage from rains. For logistical reasons and the extensive experience SDRP ranger staff has with similar restoration efforts, SDRP was selected to design and implement the project on the ground, including supervising work crews and volunteers. Most of the labor was provided by Urban Corps of San Diego County and American Conservation Experience as well as SDRP volunteers.

Work began in July 2008. Overall, approximately 90 acres of land impacted by the fires received treatment, ranging from weed control to active restoration. Because SDRP was able to cover some of the labor costs associated with the project through a 6-month National Emergency Grant, there were still After-The-Fires funds left after the initial 12-month TSDF grant period. SDRVC requested and received an extension of the grant period through May 2010 so work could continue on the project, which has now concluded. A total of 11,625 container plants were installed, not including an estimated 600+ prickly pear cacti planted from cuttings gathered locally. 974 pounds of locally-collected seed were dispersed by hand, mostly in open areas adjacent to burned habitat that is recovering. The timing of plant installation and seeding took advantage of winter rains. The first year of the project benefitted from extensive hand work and monitoring and maintenance by SDRP staff and Urban Corps. The second year of the project benefitted from ideal timing and normal rainfall.

Through extensive weed control efforts, seeding and the installation of container plants the restoration project provided benefits to wildlife within the first year. Timely planting resulted in areas that have already been utilized for foraging and shelter by several species during both years of the project. Weed suppression further allowed natural fire recovery to occur without competition from invasive species. While the plants are still too small to encourage nesting by either gnatcatchers or wrens, both species have been observed visiting and foraging in the restoration areas since work began. The cacti are expected to reach a suitable height for nesting (~1 meter) in 4-5 years, while gnatcatchers may be able to use the planted coastal sage scrub shrubs for nesting within another season or two. SDRP plans to continue weed control, irrigation and maintenance in order to ensure plant establishment success over the long term.