

AMENDMENT 3 TO AGREEMENT BETWEEN SAN DIEGO ASSOCIATION OF
GOVERNMENTS (SANDAG) AND THE UNITED STATE FISH AND WILDLIFE
SERVICE (USFWS) FOR PROFESSIONAL SERVICES Agreement Number
5000793

**Attachment A – Scope of Work
Coastal Cactus Wren Habitat Mapping
and Estimation of Population Occupancy
Following the 2007 Wildfires**

The coastal cactus wren is a covered species under regional conservation plans. Maintaining persistent populations of this species is both a concern of land managers and a requirement of regional preserves. Given the extent and severity of the 2003 and 2007 wildfires in San Diego County there is an increase cause for concern in understanding the amount of available habitat and the percent of that habitat that is occupied.

The USFWS has developed and refined a protocol for conducting coastal cactus wren monitoring. USFWS tested the protocol by completing surveys in 2009, with the support of SANDAG. In 2009 all southwest facing slopes below 1,500 feet, within San Diego MSCP preserve lands, were mapped for the occurrence of cactus patches. Once cactus patches were mapped in GIS, these patches were segmented into plots and surveyed for cactus wrens. This pilot program was successful in accomplishing its goals and this scope of work applies the survey protocol to southeast facing slopes within the same sample frame. New plots, mapped in 2010, will be surveyed for cactus wrens, as well as plots mapped in 2009. At the end of the 2010 field season, slopes with a south facing aspect, within San Diego MSCP preserve lands, will be mapped for cactus patches. Southwest facing slopes will have been surveyed twice and southeast facing slopes surveyed once.

Task 1. Implementation of project start-up
Schedule: February 2010 through March 2010

Recruit and hire Biological Technicians to conduct cactus wren surveys. Purchase replacement equipment and new supplies. Each technician is equipped (at a minimum) with GPS, rangefinders, Tremble Juno SB, playback recorder for CACW songs, compass, SPOT Personal Locator Beacon, mobile telephone, pocket weather station, first aid kit, day pack, Camel (water) Packs, pin flags, flagging, pens and field notebook. Each pair of technicians will be supplied a leased vehicle and gasoline credit card.

Train (80 hours) 4 Biological Technicians (wildlife) to conduct field surveys for coastal cactus wrens.

Train (80 hours) 3 Biological Technician (botany) to survey plants and map cactus vegetation communities delineating coastal cactus wren habitat.

Deliverables:

- An inventory of equipment purchased to be used during gnatcatcher surveys. A list of people qualified to conduct surveys, along with training records documenting their individual qualifications. All equipment purchased under this contract for the field surveys will be the property of SANDAG, and at SANDAG's request will be provided along with the data sheets and field notes.

Task 2. Map Cactus

Schedule: April 2010 through July 2010

Map cactus patches occurring on southeast facing slopes within MSCP preserve lands following the protocol in the MSCP monitoring plan. These recently mapped patches will be combined with patches mapped during 2009 that occurred on southwest facing slopes within the MSCP preserve. Occupancy survey plots will be delineated around mapped cactus patches occurring on south aspect of slopes.

Deliverables:

- A CD with GIS ArcView 9.X layers of the mapped cactus and survey plots. A large map of the mapped cactus overlaid on MSCP preserves will also be provided.

Task 3. Data Collection

Schedule: August 2010 through September 2010

Field crews qualified pursuant to Task 1, will repeatably visit the survey plots during a two month period to determine the presence/absence of coastal cactus wrens at their respective survey plots.

Deliverables:

- A CD with raw data collected using Juno SB and copies of all written field notes.

Task 5. Data Quality Assurance and Control

Schedule: October 2010

Data will be transferred from Juno SB filed units into a database that interfaces with a spreadsheet. Once data are entered in an electronic format, all data will run through Quality Control/Quality Assurance protocols to assure that the data are accurate.

Deliverables:

- Data collected during surveys will be submitted electronically (CD) in a single relational database.

Task 6. Summary Report

Schedule: November 2010 through December 2010

The Principal Investigator will analyze data and write a summary report of the project.

Deliverables:

- The report will be a 5 page summary report outlining the goals and objectives of the project. A detailed description of the methods used so other investigators can duplicate the surveys at future time. A summary statistical analysis of the data, followed by a discussion of how the analysis could be used for management and monitoring.

Task 7. Detailed Scientific Report.

Schedule: January 2011 through March 2011

Write a briefing paper describing the results of the 2009 and 2010 surveys for coastal cactus wrens.

Deliverables:

- Create one publication directed at resource managers. The paper shall be written in a format acceptable to a peer-review journal mutually agreeable between SANDAG and the USFWS.

