

Work Task F4: Covered Bat Species Monitoring at Conservation Areas

FY15 Estimate	FY15 Actual Obligations	Cumulative Expenditures Through FY15	FY16 Approved Estimate	FY17 Proposed Estimate	FY18 Proposed Estimate	FY19 Proposed Estimate
\$135,000	\$141,235.70	\$1,053,800.76	\$150,000	\$150,000	\$150,000	\$150,000

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Start Date: FY07

Expected Duration: FY55

Long-Term Goal: Pre- and post-development monitoring of covered bat species

Conservation Measures: MRM1, MRM2 (WRBA, WYBA, CLNB, and PTBB), WRBA1, and WYBA1

Location: Reaches 3–5; Beal Lake Conservation Area (BLCA), Havasu National Wildlife Refuge; Palo Verde Ecological Reserve (PVER), California; Cibola Valley Conservation Area (CVCA), the Cibola National Wildlife Refuge Unit #1 Conservation Area (Cibola NWR Unit #1), Cibola, Arizona; and the Imperial Ponds Conservation Area, Imperial National Wildlife Refuge, Arizona. Additional conservation areas will be surveyed to document presence as needed.

Purpose: The purpose of this work task is to assess use of the conservation areas by the two LCR MSCP covered bat species (western red bat and western yellow bat) and the two evaluation species (Townsend’s big-eared bat and California leaf-nosed bat). Pre- and post-development monitoring for the presence/absence of covered bat species will be conducted following a study design developed in 2008. Information obtained through this work task, in conjunction with Work Task D9, will provide data on the distribution of these species.

Connections with Other Work Tasks (Past and Future): Pre- and post-development avian monitoring will be conducted at habitat conservation areas listed in Conservation Area Development and Management (Section E). Information obtained through this work task, in conjunction with Work Task D9, will help determine the distribution of these species.

Project Description: Post-development monitoring for the two covered bat species (western red bat and western yellow bat) and the two evaluation species (Townsend’s big-eared bat and California leaf-nosed bat) at conservation areas

includes both acoustic and mist netting capture methods. Acoustic monitoring will be conducted at conservation areas, including the CVCA, the PVER, Cibola NWR Unit #1, the BLCA, and the Imperial Ponds Conservation Area. These surveys utilize either active or passive acoustic detection systems to record bat echolocation calls for presence. Bats will also be captured with mist nets at these sites to acquire reference acoustic calls and determine age, sex, and reproductive status of covered and evaluation bat species.

Previous Activities: Conservation areas were monitored from FY07 to FY14 using acoustic and/or capture techniques.

FY15 Accomplishments: Acoustic monitoring consisted of using long-term bat detector stations to record echolocation calls of bats every night from June – August. Data collection was reduced from all year to the peak activity period during summer, as an analysis in FY14 showed that species presence could be detected then sufficiently. The stations were used to collect data at the BLCA, the PVER, the CVCA, Cibola NWR Unit #1, Yuma East Wetlands (YEW), and Hunters Hole. At the PVER and CVCA, two stations were used to cover these large conservation areas. Data will be analyzed in FY16.

Capture surveys were conducted at five LCR MSCP conservation areas (BLCA, PVER, CVCA, Cibola NWR Unit #1, and YEW) once a month from May – September. In addition, the PVER, the CVCA, and Cibola NWR Unit #1 were each surveyed one time in February in an attempt to capture California leaf-nosed bats for the foraging distance study (D9). One western red bat was captured at Cibola NWR Unit #1 during the February survey. Western red bats were captured at the CVCA during the February, May, and June surveys. A western red bat captured at the CVCA in February 2014 was recaptured during the February 2015 survey. Western yellow bats were captured at the PVER, the CVCA, Cibola NWR Unit #1, and YEW. All western red and western yellow bats were passive integrated transponder tagged to identify individuals if recaptured. California leaf-nosed bats were captured at all five sites. Two Townsend’s big-eared bats were captured at the BLCA (one in June and one in September). This was the third year in a row that Townsend’s big-eared bats have been captured at this site.

FY16 Activities: Bat presence will continue to be monitored by using eight acoustic monitoring stations. The stations will continue to operate, and data will be analyzed, presence documented, and activity level rates calculated. Capture surveys will continue at the BLCA, the PVER, the CVCA, and Cibola NWR Unit #1. Capture surveys will be reduced in FY 16 to the peak activity period of June – August to correlate with acoustic monitoring and will be limited to Reaches 3–5 where conservation area habitat for the species is being created and maintained.

Proposed 17 Activities: Bat presence at the conservation areas will continue to be monitored with the use of acoustic stations and capture surveys from June – August. Data will be analyzed, presence documented, and activity level rates calculated.

Pertinent Reports: Annual reports will be posted on the LCR MSCP Web site.