

Work Task F4: Covered Bat Species Monitoring at Conservation Areas

FY14 Estimate	FY14 Actual Obligations	Cumulative Expenditures Through FY14	FY15 Approved Estimate	FY16 Proposed Estimate	FY17 Proposed Estimate	FY18 Proposed Estimate
\$135,000	\$165,161.31	\$848,899.39	\$135,000	\$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: BLCA, Havasu NWR; PVER, California; CVCA, Cibola NWR Unit #1, Cibola, Arizona; IPCA, Imperial NWR, Arizona; and LDCA, Yuma East Wetlands, and Hunters Hole, Arizona

Purpose: Assess use of the conservation areas by 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). 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, PVER, Cibola NWR Unit #1, BLCA, and IPCA. 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 FY13 using acoustic and/or capture techniques.

FY14 Accomplishments: Acoustic monitoring consisted of long-term bat detector stations that were used to record echolocation calls of bats every night. The stations were used to collect data at the BLCA, PVER, CVCA, Cibola NWR Unit #1, Yuma East Wetlands, Hunters Hole, and the 'Ahakhav Tribal Preserve. At the PVER and CVCA, two stations were used to cover these large conservation areas. All four LCR MSCP species were detected at all sites except Hunters Hole. At Hunters Hole, all LCR MSCP species, except for the California leaf-nosed bat, were detected in FY14.

Capture surveys were conducted at five LCR MSCP conservation areas (BLCA, PVER, CVCA, Cibola NWR, and Yuma East Wetlands) and at the 'Ahakhav Tribal Preserve. Western red bats were captured at the PVER and CVCA. Western yellow bats were captured at the 'Ahakhav Tribal Preserve, PVER, CVCA, Cibola NWR, and Yuma East Wetlands. California leaf-nosed bats were captured at all five sites. Townsend's big-eared bats were captured at the BLCA. This was the second year in a row that Townsend's big-eared bats have been captured at this site. All red and yellow bats were PIT tagged, but none were recaptured.

In addition, MEFFs were finalized, and all capture data collected in 2014 were recorded on these forms by using a handheld GPS unit.

Projects costs increased in FY14 due to field testing and refinement of the bat capture MEFFs as well as analyses of an additional acoustic station data.

FY15 Activities: Bat presence will continue to be monitored by using eight acoustic monitoring stations. The station at the 'Ahakhav Tribal Preserve will be reassigned to the system-wide monitoring work task (D9), as the site is not a LCR MSCP conservation area. The station will continue to operate, and data will be analyzed, presence documented, and activity level rates calculated. Capture surveys will continue at the BLCA, PVER, CVCA, Cibola NWR, and Yuma East Wetlands.

Proposed 16 Activities: Bat presence at the conservation areas will continue to be monitored with the use of acoustic stations and capture surveys. Data will be analyzed, presence documented, and activity level rates calculated.

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