

## Work Task F2: Avian Use of Habitat Creation Sites

FY07 Estimates	FY07 Actual	Cumulative Accomplishment Through FY07	FY08 Approved Estimate	FY09 Proposed Estimate	FY10 Proposed Estimate	FY11 Proposed Estimate
\$150,000	\$143,493	\$249,588	\$150,000	\$150,000	\$150,000	\$150,000

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**Start Date:** FY05

**Expected Duration:** FY55

**Long-term Goal:** Conduct pre- and post-development monitoring for avian species.

**Conservation Measures:** AMM1, AMM3, MRM1, MRM2, CLRA1, WIFL1, LEB11, BLRA1, YBCU1, ELOW1, GIFL1, GIWO1, VEFL1, BEVI, YWAR1, SUTA1, and CMM2.

**Location:** Beal Lake, Havasu NWR, AZ; 'Ahakav Tribal Preserve, AZ; PVER, CA; CVCA, Cibola Unit #1, Hart Mine Marsh, Cibola NWR, Cibola, AZ; Imperial Ponds, Imperial NWR, AZ.

**Purpose:** Monitor avifauna use of habitat creation sites to provide data for the adaptive management process and develop management guidelines for created habitat sites.

**Connections with Other Work Tasks (past and future):** Post-development avian monitoring will be conducted at habitat creation sites listed in section E. In addition, information obtained from this work task may be used to provide data to avian system monitoring by using the same protocols established in the system monitoring program (D1, D2, D5, D6, and D7).

**Project Description:** Riparian habitat creation will benefit nine LCR MSCP covered avian species, including SWFL and YBCU. Habitat creation and restoration demonstration sites will be monitored for bird activity, using a variety of techniques including point counts, area searches, and species-specific survey protocols. Data gathered will be used to guide the design of future riparian habitat creation projects to provide covered species habitat.

**Previous Activities:** During FY06, post-development monitoring for avian covered species occurred at four restoration demonstration or habitat creation sites: Cibola NWR Unit #1, 'Ahakav Tribal Preserve, Beal Lake, and CVCA Phase 1. Avian pre-development monitoring was conducted at three restoration sites: CVCA Phase 2 and Control, PVER, and Hart Mine Marsh. Avian use was summarized and evaluated for each site and compared between sites.

When possible, pre- and post-development avian monitoring was conducted in conjunction with other monitoring activities, including system monitoring, small mammal monitoring, and bat monitoring. In the future, habitat suitability models may reduce pre-development monitoring in non-riparian areas, such as agricultural fields.

**FY07 Accomplishments:** Pre-development monitoring was conducted at habitat creation sites identified in Section E, including CVCA, PVER, and Hart Mine Marsh. Post-development monitoring was conducted at existing restoration demonstration and habitat creation sites, including Beal Lake, Cibola NWR Unit #1, CVCA, PVER, and 'Ahakav Tribal Preserve. Surveys for SWFL were conducted under D2 at 'Ahakav Tribal Preserve, Beal Lake, and Cibola NWR Unit #1. Surveys for YBCU were conducted under D7 at 'Ahakav Tribal Preserve and Beal Lake. Marsh bird presence/absence surveys were conducted at Imperial Ponds, Butler Lake, McAllister Lake, and Hart Mine Marsh.

Post-development surveys at Beal Lake detected two pairs of yellow warblers and one pair of Bell's vireos, both LCR MSCP covered species. One yellow warbler nest and one Bell's vireo nest were located. Two willow flycatchers were detected during surveys conducted in June; however, subsequent surveys did not detect these birds. One yellow-billed cuckoo was observed during area searches conducted in late June. Habitat generalists, including great-tailed grackle, house finch, red-winged blackbird, and Gambel's quail, were the most abundant species detected during 2007.

Surveys conducted at 'Ahakav Tribal Preserve detected summer tanagers and vermilion flycatchers in low densities during the breeding season. One willow flycatcher and one yellow-billed cuckoo were detected in early surveys but not during subsequent surveys. Approximately 70 birds per acre (mean density), comprising 23 species, were detected during area searches conducted during May-June. Surveys at the Cibola Nature Trail site detected similar species richness but at lower densities. Bell's vireos and willow flycatchers were detected in low densities during May-June surveys.

Pre- and post-development surveys were conducted on various phases at CVCA and PVER. Habitat generalists, especially red-winged blackbirds, were the predominant species detected at each site.

**FY08 Activities:** Pre-development monitoring will be conducted at habitat creation sites identified in Section E, including CVCA, PVER, and Hart Mine Marsh. Post-development monitoring will be conducted at existing restoration demonstration and habitat creation sites, including Beal Lake, Cibola NWR Unit #1, CVCA, PVER, and 'Ahakav Tribal Preserve. Surveys for SWFL will be conducted under D2 at 'Ahakav Tribal Preserve, Beal Lake, and Cibola NWR Unit #1. Surveys for YBCU will be conducted under D7 at 'Ahakav Tribal Preserve and Beal Lake. Marsh bird presence/absence surveys will be conducted for Imperial Ponds and Hart Mine Marsh.

**Proposed FY09 Activities:** Pre-development monitoring will be conducted at habitat creation sites identified in Section E, including CVCA, PVER, and Hart Mine Marsh. Post-development monitoring will be conducted at existing restoration demonstration and habitat creation sites, including Beal Lake, Cibola NWR Unit #1, Imperial Ponds, CVCA, PVER, and 'Ahakav Tribal

Preserve. Surveys for SWFL will be conducted under D2 at 'Ahakav Tribal Preserve, Beal Lake and Cibola NWR Unit #1. Surveys for YBCU will be conducted under D7 at 'Ahakav Tribal Preserve and Beal Lake. Marsh bird presence/absence surveys will be conducted for Imperial Ponds and Hart Mine Marsh.

**Pertinent Reports:** The following reports will be posted on the LCR MSCP Web site: *Beal Lake Riparian and Marsh 2007 Annual Report; Palo Verde Ecological Reserve 2007 Annual Report; Cibola Valley Conservation Area 2007 Annual Report; Hart Mine Marsh 2006-07 Summary Report; 'Ahakav Preserve 2007 Annual Report; Cibola Nature Trail 2007 Annual Report; Monitoring Avian Productivity and Survivorship 2007 Annual Report; Imperial Ponds 2007 Annual Report; Marsh bird 2007 Annual Report; Southwestern Willow Flycatcher Surveys, Demography, and Ecology Along the Lower Colorado River and Tributaries 2007; and Yellow-Billed Cuckoo Distribution, Abundance, and Habitat Use Along The Lower Colorado and Gila Rivers 2007 Annual Report.* The monitoring plans are included in the restoration development plans and have been drafted for each habitat creation project listed in Section E.