

Work Task F2: Avian Use of Conservation Areas

FY13 Estimate	FY13 Actual Obligations	Cumulative Expenditures Through FY13	FY14 Approved Estimate	FY15 Proposed Estimate	FY16 Proposed Estimate	FY17 Proposed Estimate
\$220,000	\$102,444.23	\$1,178,442.03	\$220,000	\$220,000	\$220,000	\$220,000

Contact: Beth Sabin, (702) 293-8435, lsabin@usbr.gov

Start Date: FY05

Expected Duration: FY55

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

Conservation Measures: MRM1, MRM2 (ELOW, GIFL, GIWO, VEFL, BEVI, YWAR, SUTA).

Location: Beal Lake, Havasu NWR, Arizona; Cibola Valley, Arizona; Cibola Unit 1, Cibola NWR, Cibola, Arizona; Hunters Hole; Arizona; Laguna Division, Arizona; Yuma East Wetlands, Arizona; Palo Verde, California; and Pretty Water, California.

Purpose: Monitor avifauna use of habitat conservation areas to provide data for the adaptive management process and develop management guidelines for created habitat conservation areas. Collect pre-development data on areas that will be converted to more favorable habitat to compare bird use between existing low quality habitat to created high quality habitat.

Connections with Other Work Tasks (past and future): Post-development and pre-development avian monitoring will be conducted at habitat conservation areas 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 (D6).

Project Description: Creation of riparian habitat will benefit LCR MSCP covered avian neo-tropical migratory species. Conservation areas will be monitored for bird activity, using the same sampling plan and field protocol as in system wide surveys: the double sampling area search method using intensive and rapid area search surveys. Data gathered will be used to guide the design of future riparian habitat conservation areas to provide covered species habitat.

Previous Activities: Pre- and post-development monitoring for avian covered species has been conducted at habitat conservation areas since FY05. Post-development monitoring for avian covered species has occurred at Beal Lake, Cibola Unit 1, Cibola Valley, Palo Verde, and the Yuma East Wetlands. Avian pre-development monitoring has

been conducted at Cibola Valley, Cibola Unit 1, Imperial Ponds, Hart Mine Marsh, Palo Verde, and Laguna Division. Avian use has been summarized and evaluated for each conservation area and compared between conservation areas.

The same sampling plan and field protocol, the rapid and intensive area search surveys that was developed for system wide monitoring in FY07 has been used in most of the pre and post development monitoring that has occurred. From FY08 to FY10 due to the small acreage of habitat in the conservation areas, all plots were surveyed using intensive area search surveys. In FY11 and FY12 all plots were surveyed with rapid area search surveys and a subset of those plots were surveyed using intensive area search surveys.

FY13 Accomplishments: Avian post-development monitoring was conducted at existing habitat conservation areas in FY13. The following conservation areas were surveyed: 1) Beal Lake, 2) Cibola Unit 1, 3) Cibola Valley, 4) Palo Verde, 5) Yuma East Wetlands, and 6) Hunter's Hole. The same sampling plan and field protocol as in system wide surveys; the double sampling area search method using intensive and rapid area search surveys was used.

Eighty area search plots were established which encompassed all existing habitat at all habitat conservation areas. Rapid area search surveys were conducted on all plots and intensive area search surveys were conducted on a random subsample of four of those plots. Three additional plots were established at Yuma East Wetlands and were surveyed with intensive area search surveys.

There were 147 pairs of territorial breeding birds comprising 21 species detected at Beal Lake. This included 20 pairs of Sonoran yellow warblers, 17 pairs of Arizona Bell's vireos, and two pairs of summer tanager. There were 150 pairs of territorial breeding birds comprising 19 species detected at Cibola Unit 1. This included one pair of the Arizona Bell's vireo. There were 150 pairs of territorial breeding birds comprising 33 species detected at Cibola Valley. No LCR MSCP covered species were detected breeding at Cibola Valley. There were 260 pairs of territorial breeding birds comprising 15 species detected at Palo Verde. This included two pairs of Sonoran yellow warblers and one summer tanager pair. There were 51 pairs of territorial breeding birds comprising 10 species detected at Yuma East Wetlands. There were three pairs of territorial birds comprising two species detected at Hunters Hole. All habitat conservation areas had numerous pairs of non-territorial breeders as well. Many species of migrants and non-breeders were detected at all habitat conservation areas.

Pre-development surveys occurred in existing habitat at the Pretty Water Conservation Area at 10 randomly selected plots.

FY13 obligations were less than approved due to pre-obligation of funds at the end of FY12.

FY14 Activities: Avian post-development monitoring will be conducted at conservation areas, including Beal Lake, Cibola Unit 1, Cibola Valley, Hunter's Hole, Palo Verde, and

Yuma East Wetlands. Surveys will be conducted using the same sampling plan and field protocol that is being used in system wide surveys. Habitat acreage has increased to the amount that surveying the entire acreage of habitat at the conservation areas will no longer be possible. Eighty plots will be randomly selected from all possible plots within the habitat conservation areas. All plots will be surveyed with rapid surveys and a subset of four plots will be randomly selected to be surveyed with intensive surveys.

Proposed FY15 Activities: Avian post-development monitoring will be conducted at conservation areas, including Beal Lake, Cibola Unit 1, Cibola Valley, Hunter's Hole, Laguna Division, Palo Verde, and Yuma East Wetlands and additional pre-development areas where needed. Surveys will be conducted using the same sampling plan and field protocol used in previous years.

Pertinent Reports: The report *Lower Colorado River Riparian Bird Surveys, 2012* is posted on the LCR MSCP website.