

Work Task D5: Monitoring Avian Productivity and Survivorship

FY08 Estimates	FY08 Actual	Cumulative Accomplishment Through FY08	FY09 Approved Estimate	FY10 Proposed Estimate	FY11 Proposed Estimate	FY12 Proposed Estimate
\$300,000	\$254,903.38	\$1,032,638.38	\$300,000	\$250,000	\$300,000	\$300,000

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Start Date: FY05

Expected Duration: FY55

Long-term Goal: System monitoring for avian covered species by conducting intensive monitoring of habitat creation sites and sites that typify current conditions along the LCR.

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

Location: Cibola NWR and Havasu NWR.

Purpose: To collect intensive, site-specific data on avian species demographics, physical condition, species composition and diversity, and site persistence at existing and created habitat sites.

Connections with Other Work Tasks (past and future): Data from this work task is used in conjunction with data collected from the system-wide bird monitoring program (D6) to monitor overall bird use of the LCR. Data collected at MAPS stations located at habitat creation sites may also be used for post-development monitoring.

Project Description: This project intensively monitors habitat creation sites and sites that represent habitat typically found along the LCR for avian use. Banding collects more detailed information about avian species use patterns and demographics. This site-specific data can be used to characterize habitats and, along with less intensive, widespread monitoring methods, is used to monitor habitat use, population trends, and demographics of avian species along the LCR.

The MAPS program monitors avian populations, using a standardized protocol, throughout the United States, Canada, and Mexico. Long-term population trend data is collected by conducting intensive banding throughout the breeding season. Data collected are analyzed by the Institute for Bird Populations, and long-term population trends are determined on a regional and continental level. Population trends can be more readily determined by using a national database as larger databases have increased statistical power that cannot be economically duplicated at a site-specific level.

In 2002, prior to LCR MSCP implementation, Reclamation established a MAPS station at the Cibola Nature Trail Demonstration site on Cibola NWR. In 2005, an additional MAPS station was established on Havasu NWR, near South Dike, in mixed cottonwood-saltcedar habitats. These sites provide data from different reaches of the LCR and from different habitat types to allow comparisons between habitat creation sites and other areas more typically found along the LCR. The IBP recommends conducting MAPS stations a minimum of 5 years to acquire site-specific data. After 5 years, each site will be evaluated and a decision will be made to continue, discontinue, or move the MAPS station to a new location.

Data on fall migration and winter use are also being recorded using an adapted MAPS protocol similar to protocols from migration banding projects throughout the west and the MOSI protocol used in Mesoamerica. Data from these surveys will help define habitat use by birds during the non-breeding season.

Previous Activities: Winter banding was conducted from 2002 through 2005 at the Pratt restoration site, at the Cibola Nature Trail site since 2002, and at the Havasu NWR site since 2005. Summer MAPS banding has been conducted at the Cibola NWR site since 2002 and at Havasu NWR since 2005. In addition, a MAPS station was run for 5 years on Colorado River Indian Tribe lands, near Headgate Rock Dam (2000-2004), in mixed native and nonnative habitat.

FY08 Accomplishments: During the winter, banding was conducted at Cibola NWR and at Havasu NWR, for 2 days a month, from October to February. Banding was conducted for 6 hours a day, and twelve, 12-meter nets were operated at each site. During the winter banding period, 273 individuals were captured at the Cibola site and 84 individuals were captured at the Havasu site.

During the summer, banding was conducted at both sites using MAPS protocol. Banding was conducted for 5 hours a day, beginning a half-hour before sunrise. Banding was conducted once every 10-day period, at each site, for a total of 10 days of banding. During the breeding season, there were a total of 260 captures at the Cibola site and 191 total captures at the Havasu site. Three LCR MSCP listed species were captured, including willow flycatcher (undetermined subspecies; two captures at Cibola and two captures at the Havasu site), yellow warbler (two captures at Cibola, and two captures at the Havasu site), and Bell's vireo (four captures at Cibola).

FY09 Activities: Winter banding will be continued in 2009 at the Cibola Nature Trail and Havasu NWR sites. The Havasu site was moved to the Beal Restoration site due to a fire at the original MAPS site. The MAPS banding stations will be continued at both sites during the 2009 breeding season. Color banding of LCR MSCP covered species will be implemented to increase the effective recapture rate. A visual identification of a color-banded bird would qualify as a recapture for statistical purposes.

Proposed FY10 Activities: Intensive winter and breeding season monitoring will continue in 2009. Information obtained will be used for the system monitoring program and to inform habitat creation projects listed in Section E.

Pertinent Reports: *Operation of Two Monitoring Avian Productivity and Survivorship (MAPS) Stations Along the LCR, 2008, and Operation of Two Winter Banding Stations along the LCR, 2007-8* will be posted to the LCR MSCP Web site.