

## Work Task C24: Avian Species Habitat Requirements

FY07 Estimates	FY07 Actual	Cumulative Accomplishment Through FY07	FY08 Approved Estimate	FY09 Proposed Estimate	FY10 Proposed Estimate	FY11 Proposed Estimate
\$0	\$0	\$0	\$150,000	\$375,000	\$375,000	\$375,000

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**Start Date:** FY08

**Expected Duration:** FY12

**Long-term Goal:** Develop habitat suitability index models for covered avian species.

**Conservation Measures:** AMM1, AMM3, MRM1, MRM2, CLRA1, CLRA2, LEBI1, BLRA1, BLRA2, ELOW1, GIFL1, GIWO1, VEFL1, BEVI1, YWAR1, SUTA1.

**Location:** System-wide.

**Purpose:** Determine habitat requirements for covered marsh and riparian bird species, including Yuma clapper rail (CLRA), western least bittern (LEBI), California black rail (BLRA), elf owl (ELOW), gilded flicker (GIFL), Gila woodpecker (GIWO), vermilion flycatcher (VEFL), Arizona Bell's vireo (BEVI), yellow warbler (YWAR), and summer tanager (SUTA).

**Connections with Other Work Tasks (past and future):** Information gained from this work task will be used to design, create, and maintain marsh and cottonwood-willow habitat described in Section E that targets covered bird species. Information will also be used to maintain existing habitat as described in H1. Data collected in D2, D3, D5, D6, D7, and F2 will be used to help define habitat requirements.

**Project Description:** The HCP requires the creation of 512 acres of marsh habitat for three covered marsh bird species. All 512 marsh acres should provide habitat for CLRA and LEBI, while 130 acres will provide habitat for BLRA. Created habitat must be designed in a mosaic to provide the characteristics required by each species. In addition, potential limiting factors such as water fluctuation, percent cover by plant species, minimum patch size, and selenium bio-accumulation need to be determined.

The HCP also requires the creation of 5,940 acres of cottonwood-willow habitat for nine covered riparian obligate bird species. Habitat requirements for these covered species are not fully understood. Habitat creation projects must provide habitat requirements for multiple covered species to effectively and efficiently complete these conservation measures.

**Previous Activities:** N/A

**FY07 Accomplishments:** This is a new start in FY08.

**FY08 Activities:** Data is being collected during avian system monitoring, pre-development monitoring, and post-development monitoring under D6 and F2. These data will be analyzed and evaluated, in conjunction with habitat data collected at each monitoring site and information gathered during the formulation of species accounts (C3), to begin defining required habitat characteristics for covered avian species that utilize riparian habitats.

In FY08, two additional studies are anticipated to occur under Work Task G3 to further define habitat requirements for covered avian species. A 3-year study will be initiated to determine marsh habitat characteristics to provide a habitat mosaic design for three covered marsh bird species. In addition, a 3-year study will be initiated to determine water requirements and habitat response to varying irrigation regimes designed to provide habitat characteristics for covered riparian obligate avian species.

**Proposed FY09 Activities:** Data collected during avian system monitoring, pre-development monitoring, and post-development monitoring will be used, in conjunction with existing information gathered during the formulation of species accounts (C3), to define required habitat characteristics. These data will be used to develop habitat suitability index models for covered avian species. Habitat suitability index models will help define limiting factors and required habitat characteristics. Information will be used to develop habitat mosaics for habitat creation and to direct future research. Models will be validated through monitoring accomplished under D6 and F2. Further monitoring and research will refine these models through the adaptive management process.

Studies on the interrelationship between habitat requirements of covered marsh bird species and water requirements necessary to provide habitat requirements for riparian obligate avian covered species, begun in FY08 under Work Task G3, will continue in FY09.

**Pertinent Reports:** Study plans are available upon request.