

Work Task D10: System Monitoring of Rodent Populations

FY13 Estimate	FY13 Actual Obligations	Cumulative Expenditures Through FY13	FY14 Approved Estimate	FY15 Proposed Estimate	FY16 Proposed Estimate	FY17 Proposed Estimate
\$40,000	\$28,675.73	\$134,270.09	\$40,000	\$40,000	\$40,000	\$40,000

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Start Date: FY11

Expected Duration: FY55

Long-term Goal: System monitoring to document presence of possible source populations of LCR MSCP covered rodents along the LCR.

Conservation Measures: AMM1, AMM6, MRM2, DPMO1, CRCR1, CRCR2, YHCR1, and YHCR2.

Location: System-wide along the lower Colorado River, including the Bill Williams River.

Purpose: Implement presence/absence sampling for system monitoring of LCR MSCP covered and evaluation rodent species. This survey is being conducted to determine the extent of the geographic range limits of the covered and evaluation rodent species: Yuma hispid cotton rat, the Colorado River cotton rat, and the desert pocket mouse. Another goal of this survey is to document all possible source populations of immigrants to restoration sites, to the extent practicable. Surveys under this work task are only at non MSCP habitat creation areas. Surveys at MSCP habitat creation areas are conducted under work task F3.

Connections with Other Work Tasks (past and future): System monitoring will be used in conjunction with post-development monitoring (F3) and small mammal research (C27) to determine habitat needs and likely source populations for covered rodent species. Data will be used in future habitat creation project design under Section E.

Project Description: This survey is designed to detect the presence the Colorado River cotton rat and the Yuma hispid cotton rat in an attempt to document populations on or near the LCR. Furthermore, LCR MSCP will conduct surveys to locate desert pocket mouse habitat that could be affected by habitat creation-related activities to determine whether the habitat is occupied by this species.

Surveys will also be conducted in the extreme edges of each species' range in an attempt to document the outer limits of their respective distributions within the LCR MSCP planning area. Because cotton rat populations are known to experience extreme cycles, multiple sampling occasions across different years and seasons will be conducted before

determining that a species is absent from a particular site. Potential genetic analyses is being investigated to clarify the distribution of desert pocket mouse.

Previous Activities: Surveys have been conducted in potential Colorado River and Yuma hispid cotton rat habitat within the LCR MSCP program area to determine each species range and collect genetic samples.

FY13 Accomplishments: Surveys were conducted within previously known locations to determine presence/absence of the species. Areas surveyed included potential habitat near Yuma, Needles, Laughlin, and in the Imperial Valley. Colorado River cotton rats were captured at Big Bend Conservation Area and Pintail Slough and Yuma hispid cotton rats were captured at the Yuma East Wetlands and in the Imperial Valley near Holtville. Habitat where Colorado River cotton rat were captured included mixed grassy/shrubby areas and habitat where Yuma hispid cotton rat were captured was either a dense mix of phragmites and baccharis or areas dominated by sacaton grass with some baccharis. Under work task F3 cotton rats were also captured at the following conservation areas: PVER, CVCA, and Cibola NWR Unit 1.

FY13 obligations were less than approved because less system-wide trapping was conducted than anticipated in FY13.

FY14 Activities: System-wide rodent surveys for covered species will continue. Emphasis will be on surveys for Yuma hispid cotton rat habitat including areas south of Yuma near the Mexico border to try and find a stable population that can be used for a more detailed habitat study similar to what is being done for the Colorado River cotton rat under work task C27.

Proposed FY15 Activities: Surveying areas throughout the LCR system to determine the extent of each species' range will continue and potential source populations for colonization of habitat creation areas will be evaluated. Most trapping will occur where cotton rats have been found in the past in order to keep track of those populations. More work with the desert pocket mouse may begin in order to satisfy conservation measure DPMO1. The *sobrinus* subspecies of desert pocket mouse is assumed to only occur within Clark County, primarily within the Las Vegas valley. Desert pocket mouse has been captured near Laughlin at Big Bend Conservation Area. Genetic samples may be taken to confirm what subspecies occurs on the river within Clark County. If any MSCP related projects occur within Clark County that could affect desert pocket mouse habitat, trapping will be conducted to determine if they are present and genetic samples may be taken to determine subspecies.

Pertinent Reports: A combined D10/F3 annual report for 2013 will be posted on the LCR MSCP website.