

Work Task C62: Lowland Leopard Frog and Colorado River Toad Habitat and Ecology Study

FY15 Estimate	FY15 Actual Obligations	Cumulative Expenditures Through FY15	FY16 Approved Estimate	FY17 Proposed Estimate	FY18 Proposed Estimate	FY19 Proposed Estimate
\$180,000	\$175,622.04	\$251,387.83	\$150,000	\$25,000	\$0	\$0

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Start Date: FY14

Expected Duration: FY17

Long-Term Goal: To gather data on the ecology and habitat of the lowland leopard frog and Colorado River toad to evaluate the feasibility of implementing a pilot introduction into unoccupied habitat

Conservation Measures: LLFR1, LLFR2, LLFR3, CRT01, CRT02, and CRT03

Location: LCR MSCP planning area and the Bill Williams River, Agua Fria River, and Verde River watersheds

Purpose: The purpose of this work task is to document lowland leopard frog and Colorado River toad habitat characteristics and measurable ecological factors that may limit each species' distribution. This will inform future decisions on the feasibility of establishing lowland leopard frogs and Colorado River toads in an unoccupied habitat.

Connections with Other Work Tasks (Past and Future): Preliminary data collected under Work Task D12 will be expanded upon in this study.

Project Description: Surveys for lowland leopard frogs and Colorado River toads in the past have located very few populations in the LCR MSCP implementation area, and habitat requirements are not well documented. Surveys for both species will be conducted to find breeding areas and document egg mass locations and measurable habitat parameters at breeding sites. Habitat parameters may include presence of non-native predators, minimum and maximum water depth and temperature, substrate type (e.g., gravel and sand), water temperature, pH, turbidity, stream discharge, and vegetation composition. As the Bill Williams River is the only known occupied area for either species within the LCR MSCP implementation area, other similar river systems may be surveyed so the sample size will be statistically robust to support research findings.

Previous Activities: Field work began in July 2014 to locate occupied breeding habitat for the Colorado River toad within the Bill Williams River, Agua Fria River, and Verde River watersheds. Breeding was confirmed in all three watersheds, with the majority occurring at Adobe Dam in the Agua Fria River watershed.

FY15 Accomplishments: Lowland leopard frog breeding sites were found, and over 60 lowland leopard frog egg masses were documented. Habitat data were collected, including location, associated vegetation, water depth, water temperature, egg mass dimensions, pH, air temperature, and distance to cover and land. Sufficient lowland leopard frog egg and breeding habitat data were collected in FY15 for analyses, so additional egg mass searches will not be needed. Surveys were conducted for Colorado River toad breeding sites, but no egg masses were found in FY15.

FY16 Activities: Monitoring for the Colorado River toad was completed in the fall of 2015, and no egg masses were found. Colorado River toad habitat will be characterized with available data (19 egg masses detected in FY14). If egg masses for either species are found during work conducted under Work Task D12, habitat data may be collected opportunistically.

Proposed FY17 Activities: Data analyses and the final report will be completed.

Pertinent Reports: The *Ecology and Breeding Habitat of Colorado River Toads – 2015 Annual Report* will be posted on the LCR MSCP Web site upon completion.

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