

Work Task D12: Lowland Leopard Frog and Colorado River Toad Surveys

FY15 Estimate	FY15 Actual Obligations	Cumulative Expenditures Through FY15	FY16 Approved Estimate	FY17 Proposed Estimate	FY18 Proposed Estimate	FY19 Proposed Estimate
\$25,000	\$16,710.85	\$437,414.37	\$35,000	\$35,000	\$0	\$0

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Start Date: FY10

Expected Duration: FY17

Long-Term Goal: To document the existing populations of lowland leopard frogs and Colorado River toads along the lower Colorado River (LCR) and understand their habitat requirements

Conservation Measures: LLFR1 and CRT01

Location: Within Reaches 3–7 of the LCR MSCP boundary and the Bill Williams River

Purpose: To better define the distribution, habitat requirements, and factors limiting the distribution of lowland leopard frogs and Colorado River toads using a system-wide monitoring approach

Connections with Other Work Tasks (Past and Future): Populations that are found during system-wide surveys may be included in the habitat study conducted under Work Task C62.

Project Description: System-wide surveys for lowland leopard frogs and Colorado River toads will be conducted along the LCR and the Bill Williams River. It is unknown if any populations still exist along the LCR. Lowland leopard frogs have been observed on the Bill Williams River, and surveys will help determine the distribution of this population. Habitat characteristics will also be gathered in conjunction with surveys where the presence of either species is confirmed.

Previous Activities: In FY11, 139 locations along the LCR and the Bill Williams River were surveyed. Neither species was documented on the main stem LCR. Six Colorado River toads were found at Planet Ranch, and no lowland leopard frogs were found. Lowland leopard frogs and Colorado River toads were

found on the Bill Williams River, east of Planet Ranch, in FY12 and FY13. In FY14, a survey methodology study was implemented to evaluate five different survey methods.

FY15 Accomplishments: Presence surveys for detecting lowland leopard frogs were initiated on February 10, 2015, and ended on May 1, 2015. Five sampling methods were tested, including visual encounter surveys (VESs), call-playback surveys, minnow trap surveys, digital automated recorders (DARs), and environmental deoxyribonucleic acid (eDNA). Four survey sessions were conducted during the reporting period for the lowland leopard frog, with 50 hours of VESs and over 43,000 trap-hours. The VESs, call-playback surveys, minnow trap surveys, and DAR methods were successful in detecting lowland leopard frogs. The results of the eDNA analysis will be available in FY16. An analysis to compare the detection rates will be completed in FY16.

Surveys for the Colorado River toad were initiated on July 6, 2015, and concluded on October 6, 2015. The VESs, call-playback surveys, and DAR methods were tested; minnow traps and eDNA were not used in FY15 because the study site remained dry for the entire season. Over 150 hours of VESs with call-playback were conducted, and over 80 hours of audio were recorded. Six Colorado River toads were observed during VES surveys, but no frogs were heard on the DARs.

FY16 Activities: Monitoring continued for the Colorado River toad into the fall of 2015. Tests will continue with the five sampling methods in spring for lowland leopard frogs and summer for the Colorado River toads. An analysis of the methods and draft protocols for Colorado River toads will be prepared to inform LCR MSCP decisions regarding methods to be used for future presence monitoring.

Proposed FY17 Activities: After two spring seasons of collecting lowland leopard frog detection data, an analysis of the methods and draft protocols for lowland leopard frogs will be prepared to inform LCR MSCP decisions regarding methods to be used for future presence monitoring.

Pertinent Reports: The FY14 annual report is in the review queue and will be posted on the LCR MSCP Web site upon completion. The FY15 annual report will also be posted upon completion.