

Work Task E3: 'Ahakhav Tribal Preserve

FY08 Estimates	FY08 Actual	Cumulative Accomplishment Through FY08	FY09 Approved Estimate	FY10 Proposed Estimate	FY11 Proposed Estimate	FY12 Proposed Estimate
\$145,000	\$65,565.30	\$1,295,295.30	\$145,000	\$241,000	\$250,000	\$250,000

Estimates may be modified in conjunction with the terms and conditions of a Land and Water Resolution

Contact: Jed Blake, (702) 293-8165, jblake@usbr.gov

Start Date: FY04

Expected Duration: FY10 decision point

Long-term Goal: Habitat Creation

Conservation Measures: WIFL1, WRBA2, WYBA3, YBCU1, ELOW1, GIFL1, GIWO1, VEFL1, BEVI1, YWAR1, SUTA1, MNSW2, CLMB2, PTBB2

Location: Reach 4, Colorado River Indian Tribes, river miles 173-174, AZ.

Purpose: Create and manage a mosaic of native land cover types for LCR MSCP covered species.

Connections with Other Work Tasks (past and future): Vegetation and species monitoring are being addressed in F1-F4.

Project Description: In September 2004, the LCR MSCP began working at the 'Ahakhav Tribal Preserve (Preserve) through a research and development agreement. A variety of methods and techniques for the propagation and irrigation of cottonwood-willow and mesquite land cover types were used to create approximately 150 acres of habitat. Prior to habitat development the site consisted of out-of-production agricultural fields dominated by tumbleweed and sparse saltcedar. All work was done in an effort to evaluate efficient and cost-effective methods for various revegetation projects. Work is being completed between the Preserve and the LCR MSCP to finalize a land use agreement. When completed, the long-term roles and responsibility for existing habitat maintenance and future habitat creation will be finalized.

Maintenance and management of approximately 150 acres of riparian land cover types created since 2003 is ongoing. Activities include irrigation infrastructure improvements, road and site improvements and irrigation frequency and quantity analysis.

Previous Activities: Work began in 2003 by restoring CRIT 9 (154 acres) with native riparian plant species including cottonwood, willow, and mesquite. This involved site preparation (clearing, root-ripping, leveling), soil testing, installation of irrigation infrastructure, and planting. Monitoring of irrigation and maintenance of planted areas has been ongoing throughout this process.

FY08 Accomplishments:

Maintenance/Restoration/Management. Previously established cottonwood-willow and mesquite land cover types totaling 154 acres (CRIT 9) were irrigated with an average of 13 acre-feet/acre of water. Water retention features were installed and additional cottonwood, Goodding's willow, and coyote willow were planted around them. Planting also occurred adjacent to irrigation valves within gaps of previously planted areas. General maintenance of CRIT 9 included clearing canals of debris, repairing ditches and gates, and re-establishing berms between irrigated sections.

CRIT 10 (58 ac) was planted with a cover crop of Sudan grass. The cover crop is scheduled to remain for two years until fields are stabilized and ready for future planting.

A land use agreement was drafted and routed among parties, and comments were addressed. A finalized land use agreement will be routed for signatures in 2009.

Monitoring. The mature cottonwood-willow and mesquite habitat in CRIT 9 was surveyed three times for elf owls. No elf owls responded to taped recordings, but two barn owls, one screech owl, and one great horned owl were detected.

Southwestern willow flycatchers were surveyed at Deer Island and Willow Beach. At the Deer Island area, one unpaired, resident flycatcher was observed, and another flycatcher, for which residency was not confirmed, was observed from 21 May through 6 June. The resident flycatcher was banded, but pairing or nesting was not confirmed. Cowbirds were detected on all visits. Five yellow-billed cuckoos were detected at the Preserve with four individuals responding to taped recordings on 1 July and one individual responding on 22 July. Although no definitive breeding activity was observed, the length of time that birds were present (a minimum of 22 days) during the height of the breeding season suggests possible breeding activity at this site by one or more breeding pairs.

Two types of bat monitoring, acoustic surveys and capture surveys were conducted at the CRIT 9. Results of capture surveys include a total of 65 bats of 6 species (western yellow bat, California leaf-nosed bat, California *Myotis*, Yuma *Myotis*, pallid bat, and big brown bat) captured. The pallid bat had the highest capture rate. Two LCR MSCP covered species were captured: the western yellow bat and California leaf-nosed bat. One of the leaf-nosed bats captured in July was a reproductive female and the yellow bat captured in September was a reproductive male. Acoustic surveys resulted in the detection of the western red bat, yellow bat, pale Townsend's big-eared bat and the California leaf-nosed bat. A total of 69 western yellow bat minutes were recorded at the Preserve in both mature and young cottonwood habitat. This is the largest number of western yellow bat minutes recorded at any of the habitat creation areas. Of the 4 focal bat species recorded at the Preserve, the California leaf-nosed bat had the highest total bat minutes at 269.

Avian species were surveyed using an intensive area search method to document all breeding birds within predetermined plots of established cottonwood-willow and mesquite habitat in CRIT 9. There were 40 pairs of birds comprising 18 species detected breeding at CRIT 9. Two LCR MSCP covered species, the vermilion flycatcher (*Pyrocephalus rubinus*) and the summer tanager

(*Piranga rubra*) were confirmed breeding. The mourning dove (*Zenaida macroura*) and Abert's towhee (*Pipilo aberti*) were the most abundant species detected.

In 2008, revised vegetation/habitat monitoring protocols were implemented. Plots were monitored at CRIT 9 to characterize the overstory, shrub and intermediate trees, ground cover, crown closure and total vegetation volume. Analysis of the data is in progress.

FY09 Activities:

Maintenance/Restoration/Management. A restoration development plan will be drafted and posted to the LCR MSCP website when completed. The plan will document the planting activities for CRIT 9, maintenance activities to be conducted on CRIT 10 or 11, plant species to be planted, and irrigation frequency.

The Preserve management and LCR MSCP staff will determine a revised irrigation schedule and types of fertilizer to be used on the site. Past irrigation efforts have resulted in disproportionate amounts of water reaching the portions of the fields farthest from the irrigation canal gates. Irrigation alternatives for reaching these drier areas will be discussed. Minimal funding has been budgeted for irrigation improvements for the dry areas.

Funding has been budgeted to make improvements to the irrigation canal roads. Due to extremely sandy soils at the site, vehicle traffic and maintenance activities continually degrade the canal roads.

Originally planned for research and development, CRIT 10 and 11 have been excluded from the cooperative agreement. CRIT 10 and 11 may be developed for LCR MSCP covered species habitat development in the future.

Monitoring. Pre-development monitoring will be implemented in CRIT 11. Post-development monitoring of abiotic and biotic habitat characteristics will continue in CRIT 9.

Proposed FY10 Activities: A report detailing the results of wildlife and vegetation monitoring, evaluation of habitat potential, recommendations for existing land cover modifications or management approach, and anticipated credit towards species-specific conservation measures is anticipated to be presented to the SC with the FY11 Workplan in April of 2010. The report will also discuss commitments of the land use agreement and the process for suggesting and implementing adaptive management actions.

Maintenance/Restoration/Management. If CRIT 9 is included in the program, it will be continually maintained as LCR MSCP covered species habitat throughout the life of the program. Maintenance will be limited to infrastructure repair, irrigation scheduling and frequency, and general site maintenance. Commencing in FY10, a farm consultant will be utilized on the site.

CRIT 10, a 58 acre parcel adjacent to CRIT 9, is scheduled to remain in Sudan grass throughout FY10. Pending signing of a Land Use Agreement, as documented in the Restoration and Development Plan CRIT 10 will be planted with dry upland native plant species in spring 2011.

Planting material may be ordered through existing contracts and operations and maintenance activities will be coordinated by the preserve staff.

Also in FY10, a site selection assessment may be conducted on CRIT 11, a 30-60 acre site. The site maintains a terraced landscape consisting of marsh, riparian, and dry upland. Originally planned as a research and design site, the Preserve has chosen to have the site evaluated for habitat creation. The site consists of sandy soils and has been cleared in past years. No irrigation and electrical infrastructure are available on the site. However, two adjacent fields have irrigation canals that are fed via gravity diversion. Further site analysis will evaluate extending the highest capacity canal from adjacent fields, expanding the existing 30 acres proposed to optimize cost per acre of habitat developed, and field contouring to utilize flooded management cells.

Monitoring. Post-development monitoring of habitat characteristics and avian use will continue for CRIT 9 and 10. Data will be obtained, analyzed, and utilized to make on-site management decisions.

Pertinent Reports: *'Ahakhav Tribal Preserve, CRIT 9 Restoration, June 2006; 'Ahakhav Tribal Preserve Restoration Development and Monitoring Plan, 2006; and 'Ahakhav Tribal Preserve Re-vegetation Research and Development Project: Annual Report, 2006 and 2007* will be posted to the LCR MSCP Web site.