

Work Task F1: Habitat Monitoring

FY05 Estimate	FY05 Actual	Cumulative Accomplishment Through FY05	FY06 Approved Estimate	FY07 Proposed Estimate	FY08 Proposed Estimate	FY09 Proposed Estimate
\$250,000	\$237,214	\$237,214	\$250,000	\$275,000	\$310,000	\$350,000

Contact: John Swett, (702) 293-8574

Start Date: FY05 **Expected Duration:** FY55

Long-term Goal: Post-development monitoring

Conservation Measures: MRM2, CLRA1, WIFL1, WRBA2, WYBA3, CRCR2, YHCR2, LEBI1, BLRA1, YBCU1, ELOW1, GIFL1, GIWO1, VEFL1, BEVI1, YWAR1, SUTA1, and MNSW2

Location: Beal Lake, Havasu NWR; PVER, California; CVCA, Cibola Nature Trail, Cibola NWR, Cibola, Arizona; Imperial Ponds, Imperial NWR; Arizona, and Pratt Restoration, Yuma, Arizona.

Purpose: Habitat creation projects will be monitored for initial survivorship and successional changes over time to determine if habitat acreage goals are met. To evaluate habitat, a monitoring plan will be written prior to project implementation, pre-development monitoring may occur (if necessary), and post-development monitoring will occur through the LCR MSCP time period. These data will be used to manage the habitat creation sites and to plan future projects through the adaptive management process.

As each demonstration or habitat creation site is established, Reclamation will monitor initial survivorship for two years. Monitoring successional changes will occur on a periodic basis over time, with the interval dependent on the age of each stand.

Connections with other Work Task (past and future): Post-development habitat monitoring is being conducted at habitat creation sites detailed in Section E.

Project Description: To implement the adaptive management program, habitat creation projects must be monitored to determine if necessary habitat components have been provided to qualify as habitat as described in the LCR MSCP. Monitoring the biotic components (vegetation) and abiotic components (soil moisture, etc.) will provide data to incorporate into future restoration efforts. Prior to the development of each proposed restoration site, monitoring plans will be written, in conjunction with restoration plan development, and pre-development monitoring will be conducted, when necessary, to document baseline conditions in order to evaluate change in site conditions.

Vegetation will be monitored using two protocols. Immediately after development, each habitat creation site will be monitored to determine survivorship at the newly restored sites and to

determine if all necessary habitat components have been provided. After two years, successional changes within stands will be monitored as each habitat creation site matures. Changes in habitat quality over time, in conjunction with covered species monitoring, will guide the management of each habitat creation site.

FY05 Accomplishments: Habitat restoration demonstration sites were monitored using established protocols, including Beal Lake, Cibola Nature Trail, and Pratt Restoration. Survival and growth rates were recorded at each site. Survival and growth rates were dependent on a number of factors, including planting technique. Results were summarized and evaluated for each restoration site.

FY06 Activities: Monitoring plans are being written for habitat creation projects listed in Section E, including CVCA and PVER. Conduct pre-development monitoring at planned habitat creation sites. Conduct post-development monitoring at existing restoration sites, including Beal Lake, Cibola Nature Trail, Imperial Ponds, CVCA, and PVER.

Proposed FY07 Activities: Conduct pre-development monitoring at habitat creation sites identified in Section E, including CVCA and the PVER. Conduct post-development monitoring at existing restoration sites, including Beal Lake, Cibola Nature Trail, Imperial Ponds, CVCA, and PVER.

Pertinent Reports: *Vegetation Monitoring at Three Riparian Restoration Sites along the LCR* will be posted on the LCR MSCP website. Restoration Plans will be written for each habitat creation project listed in Section E including a monitoring section.