

Work Task F3: Small Mammal Colonization of Restoration Sites

| FY09 Estimates | FY09 Actual | Cumulative Accomplishment Through FY09 | FY10 Approved Estimate | FY11 Proposed Estimate | FY12 Proposed Estimate | FY13 Proposed Estimate |
|----------------|-------------|--|------------------------|------------------------|------------------------|------------------------|
| \$55,000 | \$55,782.13 | \$156,690.61 | \$55,000 | \$60,000 | \$65,000 | \$65,000 |

Contact: Sean Neiswenter, (702) 293-8221, sneiswenter@usbr.gov

Start Date: FY05

Expected Duration: FY55

Long-term Goal: Conduct pre- and post-development monitoring for small mammal species.

Conservation Measures: YHCR1, CRCR1, DPMO1, MRM2 (DPMO, CRCR, YHCR)

Location: Beal Lake, Havasu NWR; PVER, California; CVCA, Cibola Nature Trail, Hart Mine Marsh.

Purpose: Monitor small mammal populations within habitat creation sites. Data will be used in the adaptive management process to guide the design of future habitat creation projects targeting covered small mammal species.

Connections with Other Work Tasks (past and future): Post-development small mammal monitoring will be conducted at habitat creation sites listed in Section E. In addition, information obtained from this work task, in conjunction with C27, will be used to define habitat requirements for future habitat creation projects. Data from C27 research will aid in design of population monitoring protocol.

Project Description: Reclamation will conduct presence/absence surveys in restoration demonstration and habitat creation sites to determine small mammal occurrence. These efforts will be focused on detecting the presence of Yuma hispid cotton rats and Colorado River cotton rats at these sites. Once presence is established at a restoration site, population monitoring will be conducted with a protocol developed under C27.

Previous Activities: In previous years, small mammal surveys have been conducted at the Cibola Nature Trail site and at the Pratt Agricultural site. Several animals from the genus *Sigmodon* have been captured at each site. At the Pratt Agricultural site, *Sigmodon* spp. were captured in dense *Baccharis* spp., and at the Cibola Nature Trail site, they were captured in dense Johnsongrass. No *Sigmodon* spp. have been captured at Pratt Agricultural since 2005. Presence/absence live trapping surveys were conducted at

several habitat creation sites during FY06, but only one *Sigmodon* spp. was captured at the Beal Lake Riparian Restoration site.

FY09 Accomplishments: *Sigmodon* have been detected at seven areas along the LCR that are either restoration sites or very near restoration efforts (see C27). Cibola Nature Trail and Palo Verde Ecological Reserve site have relatively large populations of Colorado River cotton rats and a smaller population has been identified near Beal. Yuma hispid cotton rats were documented near Pratt, Mittry Lake, and in the Imperial Valley.

FY10 Activities: Presence/absence live trapping surveys will continue as part of the post-development monitoring efforts at LCR MSCP habitat creation sites. At the Cibola Nature Trail site and Palo Verde Ecological Restoration site we will conduct trapping in arrays designed to quantify habitat characteristics and establish a monitoring protocol (C27).

Proposed FY11 Activities: Post-development monitoring activities for small mammals will continue at habitat creation sites and once presence is detected, the population monitoring protocol will begin.

Pertinent Reports: A summary of mammal trapping results at LCR MSCP restoration sites in 2009 will be posted on the LCR MSCP Web site. The population monitoring protocol is available upon request.