

Work Task F6: Post-Development Monitoring of MacNeill’s Sootywings at Conservation Areas

FY15 Estimate	FY15 Actual Obligations	Cumulative Expenditures Through FY15	FY16 Approved Estimate	FY17 Proposed Estimate	FY18 Proposed Estimate	FY19 Proposed Estimate
\$80,000	\$71,572.40	\$447,717.42	\$80,000	\$80,000	\$80,000	\$80,000

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Start Date: FY09

Expected Duration: FY55

Long-Term Goal: Post-development monitoring for MacNeill’s sootywings (hereafter, sootywing)

Conservation Measures: MNSW2

Location: Habitat conservation areas, Reaches 3–5

Purpose: To monitor vegetation, plant quality, and populations of MacNeill’s sootywings in habitat created for this species

Connections with Other Work Tasks (Past and Future): Habitat requirements were studied under Work Task C7 (closed)

Project Description: To monitor the presence and habitat use of MacNeill’s sootywings in conservation areas that have the appropriate land cover type available

Previous Activities: Habitat created for MacNeill’s sootywings at the Cibola Valley Conservation Area (CVCA) and the Palo Verde Ecological Reserve (PVER) was surveyed for adults from FY09 to FY11. In FY09 and FY10, sootywings were most abundant at CVCA Phase 4W along the road edge, (> 200 adults counted) and at a separate patch in the same phase. Sootywings were rare (< 5 adults per date) or absent at other CVCA plots and at all of the PVER plots. In FY11, most observations were at PVER Phase 4 (< 5 adults per date), and none were observed in CVCA Phase 4W. Sootywing populations at the remaining CVCA and PVER plots were low or absent.

Monitoring methods were modified in FY12 and FY13. One random transect was walked in each check monthly in FY12 from April through August at CVCA Phases 2 and 3, CVCA Phase 4, CVCA Phase 5, and PVER Phases 4 and 5. In

FY13, planted quailbush (*Atriplex lentiformis*) (sootywing larval host plant) habitat was surveyed for adult sootywings during June – September in plots at the CVCA and PVER. Sootywings were detected at the CVCA (7 in FY12 and 6 in FY13) and the PVER (13 in FY12 and 98 in FY13). They were not detected consistently throughout the season. Vegetation was monitored in FY13 to document the characteristics of host and nectar plants, including species, plant height, and width.

Methods were refined further for surveys in FY14 and provided potential habitat measurements and estimated survey time length to be considered in future protocols. Sootywing presence surveys were conducted at PVER Phases 4 and 6, the CVCA, and Hart Mine Marsh, and sootywings were detected at all sites. Habitat measurements included those of quailbush, nectar plant metrics, information on soil moisture, and air temperature and relative humidity. Data indicated that 1 hour of survey time at the appropriate time of day could be used to detect adult sootywings in 90 percent of sampled intervals.

FY15 Accomplishments: Conservation areas were surveyed for sootywing presence in April, June and July using the same methods as in FY14. Surveys occurred at the Big Bend Conservation Area, the Beal Lake Conservation Area, the CVCA, the PVER (Phases 1, 4, and 6), Hart Mine Marsh, and Hunter’s Hole. Sootywings were detected at the Beal Lake Conservation Area, the CVCA, the PVER (Phases 1, 4, and 6), Hart Mine Marsh, and Hunter’s Hole. The detection of sootywings in Reach 7 at Hunter’s Hole indicates that the species’ current occupied range is greater than that known in FY05, when the LCR MSCP was initiated.

FY16 Activities: Conservation areas where no sootywings have been detected (the Big Bend Conservation Area, Cibola National Wildlife Refuge Unit #1 Conservation Area and the Imperial Ponds Conservation Area) will be surveyed for presence of quailbush to identify if there is potential habitat. Presence surveys for sootywings will be conducted in April, June, and July in each of these conservation areas in potential habitat. If sootywings are detected before the July survey, surveys in the remaining months will not be conducted.

Proposed FY17 Activities: Conservation areas where no sootywings have been detected will be surveyed for presence of quailbush to locate potential habitat. Presence surveys for sootywings will be conducted in potential habitat during April, June, and July. If sootywings are detected before the July survey, surveys in the remaining months will not be conducted. In addition, in FY17, LCR MSCP legacy data for sootywings will be migrated into the LCR MSCP database.

Pertinent Reports: Annual reports will be posted on the LCR MSCP Web site.