

Work Task C55: Techniques to Increase Leaf Litter Decomposition Rates

FY13 Estimate	FY13 Actual Obligations	Cumulative Expenditures Through FY13	FY14 Approved Estimate	FY15 Proposed Estimate	FY16 Proposed Estimate	FY17 Proposed Estimate
\$125,000	\$0	\$0	\$75,000	\$0	\$0	\$0

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Start Date: FY13

Expected Duration: FY14

Long-term Goal: Develop techniques to reduce litter biomass.

Conservation Measures: MRM2, CMM1 (WIFL, YBCU, ELOW, GIFL, GIWO, VEFL, BEVI, YWAR, SUTA).

Location: Palo Verde Ecological Reserve.

Purpose: To evaluate if a reduction in accumulated leaf litter and fuel load is needed, and to develop tools to reduce the accumulated litter. In many of the LCR MSCP habitat creation sites, there is a buildup of dead vegetation and leaf litter that contributes to fuel loads at LCR MSCP habitat creation sites, which could eventually become a fire hazard.

Connections with Other Work Tasks (past and future): Post-development habitat monitoring will be conducted at habitat creation sites detailed in work tasks F1-F5; fire management plan under E18; create and manage a mosaic of native land cover types under E4.

Project Description: In many of the LCR MSCP habitat creation sites, there is a buildup of dead vegetation and leaf litter that contributes to fuel loads at LCR MSCP habitat creation sites, which could eventually become a fire hazard. Determining an effective method to reduce the accumulated litter is needed. Additionally, the accumulation of litter may impede the movement of irrigation water across the site, thus, another objective of this research is to determine if a reduction in litter improves irrigation efficiency.

At habitat creation sites, cottonwood-willow habitat type is planted in high densities. The canopy closure varies as well as the density and cover of understory shrubs, forbs and grasses. These shrubs, forbs, and grasses have the potential to create a substantial wildfire hazard under certain conditions at LCR MSCP habitat creation sites, reduction of fuel loads, including the accumulation of litter, may be a necessary management action. It is also necessary to determine whether excess litter hinders water movement across the field, which is important for managing irrigation at habitat creation sites.

The objectives of this study are to 1) determine the effectiveness of adding a biological compost tea to habitat creation areas with excess accumulation of litter, and 2) determine whether a reduction in litter improves irrigation water distribution across the gradient of the field.

Previous Activities: New start in FY13.

FY13 Accomplishments: The work plan for FY13 was canceled due to sequestration.

FY14 Activities: The project was evaluated. It is not known whether leaf litter decomposition rates are a problem; therefore, decomposition in the conservation areas will be monitored under Work Task F1. This project was defunded and closed with no expenditures and no accomplishments.

Proposed FY15 Activities: Closed in FY14.

Pertinent Reports: N/A