The Analysis of Management Strategies to Restore and Enhance Nelson’s Checker-mallow 
(*Sidalcea nelsoniana*) Habitat at William L. Finley National Wildlife Refuge

**Response to two years of restoration techniques in an existing *Sidalcea nelsoniana* habitat**

Submitted to

**U. S. Fish and Wildlife Service**

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**Summary**

Because of extreme habitat loss and encroachment by woody and weedy pest plants, *Sidalcea nelsoniana* is threatened with extinction. This study tested the effectiveness of two years of prescribed burning and mowing as restoration techniques for existing *S. nelsoniana* populations and habitat. Vegetation and four measures of *S. nelsoniana* vigor were measured before (1998) and after (2000) experimental applications of burning and mowing in the Burned Swale population within the W. L. Finley National Wildlife Refuge. Treatments had the intended effect of reducing competitive vegetation only for canopy cover and tall woody cover. Burning significantly stimulated the growth of herbaceous cover, which would increase competition with *S. nelsoniana*. Some treatment effects on vegetation varied with hydrologic conditions.

After two years of treatments, there was no evidence of increased vigor of *S. nelsoniana*. In fact, *S. nelsoniana* cover and flowering declined with burning. Longer-term control of woody plants might eventually lead to increased vigor of this perennial plant, of course.

Based on the results from this study, burning in similar habitats with *S. nelsoniana* should be approached with caution. Mowing, the alternative examined in this study, can be as beneficial in controlling woody vegetation without harming *S. nelsoniana* plants.