

Habitat Restoration and Enhancement for Otay tarplant and San Diego thornmint in the City of Chula Vista-

Presenter Mark Doderio

Funded by an EMP Grant

Otay tarplant (*Deinandra conjugens*) and San Diego thornmint (*Acanthomintha ilicifolia*) are federally listed threatened and state listed endangered annual species. Both species are clay soil endemics with a limited range in San Diego County and northern Baja California. Populations of both species are declining throughout San Diego County due to urban development, habitat disturbance, and invasion of non-native species. Our goals for this grant funded restoration and enhancement project, located in the City of Chula Vista included: intensive control of non-native annuals and perennial weeds that are invading the native grassland and clay lens habitat, planting native grasses in areas of low native cover, collecting and distributing seeds of the target species to increase the size of Otay tarplant and San Diego thornmint populations and other plants species. Restoration methods for the project included the use of weed whips to cut and then remove dried weedy thatch and follow up herbicide spraying during the growing season to reduce the dominance of non-natives. Our monitoring program included annual relevé vegetation sampling to assess changes in non-native and native cover, detailed mapping and conducting population estimates of tarplant and thornmint and photographing potential pollinators. Through the end of three-year project, populations of Otay tarplant and San Diego thornmint have increased over the baseline condition in the first two years, but severe drought in 2014 limited the population numbers in the third year. Control of non-native plants has benefitted the rare plant populations due to reduced competition for water and light.