



THE NATURE RESERVE
at Rancho Mission Viejo

MANAGEMENT & MONITORING REPORT 2024



The Nature Reserve at Rancho Mission Viejo (TNR) is a growing habitat reserve located in south Orange County. Over time TNR will grow to include over 20,000 acres of Rancho Mission Viejo lands, inclusive of The Richard & Donna O’Neill Conservancy. This protected open space is managed by the Rancho Mission Viejo Land Trust, a non-profit 501(c)(3) organization whose mission is to “preserve and enhance Reserve lands for ecological, educational, charitable, conservation, open space, scientific, and recreational uses.”

HABITAT RESERVE ASSEMBLAGE

The Nature Reserve (TNR) grows bigger through implementation of the Rancho Mission Viejo (RMV) Open Space Phased Dedication Program. This program requires RMV to dedicate certain open space areas as it develops its approved development areas. In addition to prior conserved lands such as the Ladera Open Space and the Richard and Donna O'Neill Conservancy, RMV has dedicated open space associated with the villages of Sendero, Esencia, and Rienda. New dedications in Verdugo Canyon associated with the Village of Rienda were finalized and will continue in 2025 as development of this village progresses. Currently, there are 8,291 acres enrolled in TNR.



SPECIES SURVEYS

In 2024, species-specific surveys were completed on TNR for arroyo toad (*Bufo californicus*), western spadefoot (*Spea hammondi*), tricolored blackbird (*Agelaius tricolor*), Riverside fairy shrimp (*Streptocephalus woottoni*), and San Diego fairy shrimp (*Branchinecta sandiegonensis*). Coastal sage scrub avian count surveys were also completed for coastal California gnatcatcher (*Poliophtila californica californica*), cactus wren (*Campylorhynchus brunneicapillus sandiegonensis*), and other coastal sage scrub species. Monitoring activities in 2024 also focused on determining current status of southwestern pond turtle (*Actinemys pallida*) in the Habitat Reserve following the lack of visual observation since 2017. Monitoring used eDNA sampling methods to confirm presence/absence of southwestern pond turtle focusing on portions of San Juan Creek downstream of Caspers Wilderness Park and other suitable habitat within Chiquita Creek. TNR was able to successfully confirm presence of southwestern pond turtle in the lower portion of San Juan Creek.

HABITAT MONITORING

Habitat monitoring activities conducted in 2024 included visual decline surveys as part of the ongoing rapid assessment of oak and riparian woodland communities and the first year of back-to-back annual surveys to monitor vegetation cover and species richness within coastal sage scrub communities on TNR. Monitoring of the Chiquita Ridge vernal pools was also conducted throughout the aquatic and drying phase. Overall, monitoring results showed that the overall health of coastal sage scrub and oak and riparian woodland communities, as well as the current population of western spadefoot, San Diego fairy shrimp, and Riverside fairy shrimp in the Chiquita Ridge vernal pools, appears to remain stable.



INVASIVE SPECIES CONTROL & MANAGEMENT

In accordance with TNR's Invasives Species Control Plan, management and monitoring efforts were completed to control the spread of artichoke thistle (*Cynara cardunculus*), Spanish sunflower (*Pulicaria paludosa*), stinkwort (*Dittrichia graveolens*), stinknet (*Oncosiphon piluliferum*), pampas grass (*Cortaderia seloana*), and various other invasive plant species. Other management efforts were also implemented to control populations of exotic/invasive wildlife species, specifically African clawed frog (*Xenopus laevis*), American bullfrog (*Lithobates catesbeianus*), and red swamp crayfish (*Procambarus clarkii*) that have increased their presence within the Habitat Reserve in recent years. Proliferation of these species is likely attributable to the extended hydroperiod within San Juan Creek over the past few years.