

Management & Monitoring Report | 2025



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."



THE NATURE RESERVE
at Rancho Mission Viejo

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HABITAT RESERVE ASSEMBLAGE

The Nature Reserve (TNR) grows bigger every year through implementation of the Rancho Mission Viejo (RMV) Open Space Phased Dedication Program. This program requires that RMV dedicate specific open space lands as development occurs within its approved development areas. In addition to lands previously conserved such as the Richard and Donna O'Neill Conservancy and Ladera Open Space, RMV has dedicated open space areas associated with the villages of Sendero, Esencia, and Rienda. With the continuation of phased development in the Village of Rienda, one new irrevocable covenant was recorded in 2025 dedicating an additional 426.01 acres in Verdugo Canyon as permanent open space. Currently, there are 8,704 acres enrolled in TNR.



Image: Enrolled lands in Verdugo Canyon



Image: Cactus wren near Chiquita Canyon

SPECIES SURVEYS

Species-specific survey efforts completed on TNR in 2025 included reconnaissance-level surveys for arroyo toad (*Bufo californicus*), coastal sage scrub avian point counts, eDNA sampling for southwestern pond turtle (*Actinemys pallida*), and a census of southern tarplant (*Centromadia parryi* ssp. *australis*) populations. Completion of the coastal sage scrub avian count surveys concluded the third cycle of back-to-back annual surveys across 79 permanent monitoring sites and provided valuable data as it relates to California gnatcatcher (*Poliophtila californica californica*) and cactus wren (*Campylorhynchus brunneicapillus sandiegonensis*) occupancy of coastal sage scrub habitat. Although California gnatcatcher occupancy estimates were down in 2025, cactus wren occupancy has exceeded the established 3-year baseline threshold and continues to show an upward trend in recent years.

HABITAT MONITORING

Monitoring of riparian and wetland resources using the California Rapid Assessment Method (CRAM) was completed in 2025 at 22 locations along Arroyo Trabuco Creek, Bell Creek, Chiquita Creek, San Juan Creek, and Verdugo Creek. As part of the monitoring requirements, each creek segment or assessment area is evaluated every three years and scored on four attributes used to determine overall health and identify any stressors: buffer and landscape context, hydrology, physical structure, and biotic structure. Monitoring efforts showed that riparian and wetland conditions have remained relatively consistent since 2022 with some locations showing minor variations in buffer condition, hydrology, or physical structure.

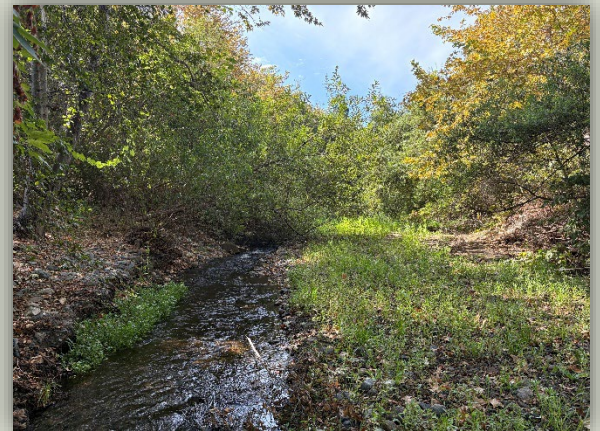


Image: Assessment area in Arroyo Trabuco Creek



Image: Tree tobacco stockpiles in San Juan Creek corridor

INVASIVE SPECIES CONTROL & MANAGEMENT

In 2025, management efforts were completed to remove and control the spread of non-native plant species in upland and riparian habitats in Chiquita Canyon, San Juan Creek, and other open space areas surrounding the villages of Esencia and Rienda. Target non-native species removed during these efforts included tree tobacco (*Nicotiana glauca*), fennel (*Foeniculum vulgare*), castor bean (*Ricinus communis*), artichoke thistle (*Cynara cardunculus*), stinkwort (*Dittrichia graveolens*), stinknet (*Oncosiphon piluliferum*), pampas grass (*Cortaderia selloana*), and fountain grass (*Pennisetum setaceum*). In addition, annual monitoring & trapping surveys for African clawed frog (*Xenopus laevis*), American bullfrog (*Lithobates catesbeianus*), and red swamp crayfish (*Procambarus clarkii*) occurred in Chiquita Creek and lower San Juan Creek and showed a continued downward population trend and lowest number of individuals recorded in the past four years of monitoring.