

An Employee-Owned Company

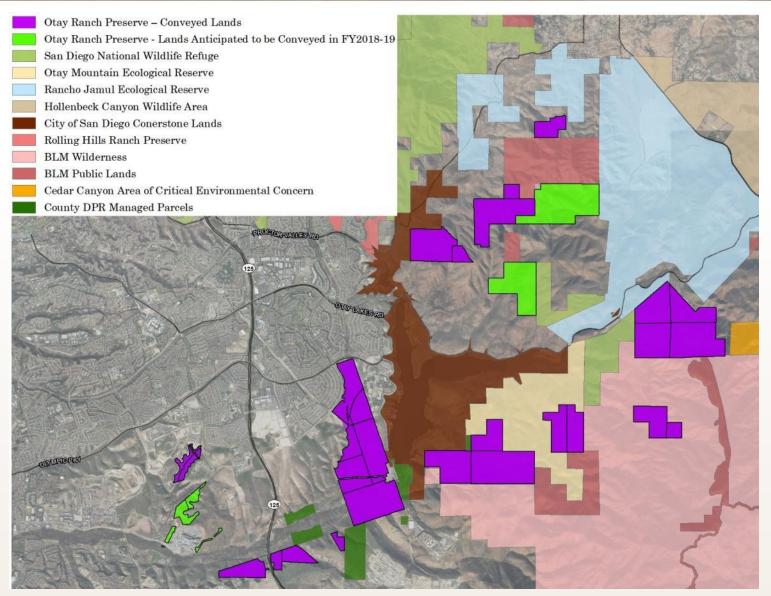


Coastal Cactus Wren

Habitat Restoration & Enhancement - Otay

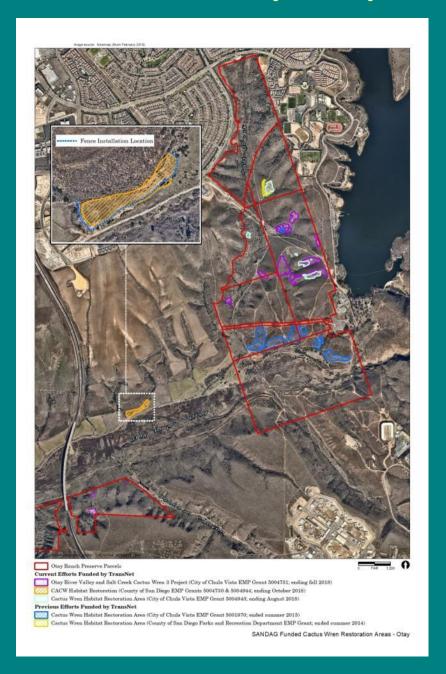
December 12, 2018

Mark Dodero





Salt Creek, Millenia and the Otay Valley County Parcel





CACW Restoration Goals

- ➤ Increase habitat quality
- ➤ Improve CACW habitat connectivity
- > Reduce shrub cover to <25%
- > Reduce risk of habitat loss due to fire
- ➤ Increase core wren populations at the Preserve
- ➤ Pursue future funding for additional shrub thinning





CACW Habitat Restoration – Salt Creek Parcels





Cactus Collection - SANDAG Grant 1





Cactus Collection







RECON Crews Planting Cactus on South Facing Slopes-Otay Valley-15 Acres





Chula Vista High Tech High-Middle School Students Grew and Planted Cholla-Also Students Went on a Nature Walk







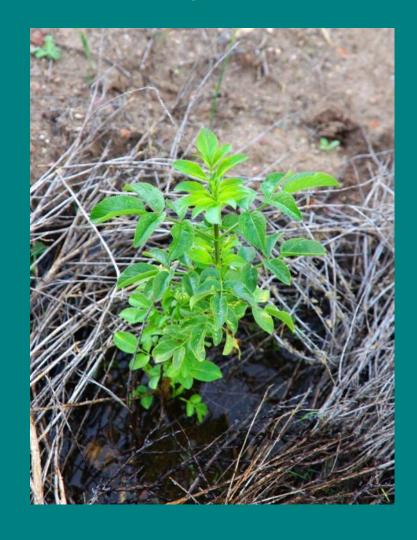
Elderberry Growing at the RECON Native Plants Nursery and Ready for Planting





Sambucus in 2015 Watered Plants and Placed Branches Around them for Protection and Mulching





Sambucus in 2018







Salt Creek Repeat Photos SANDAG Grant 1-Ended Summer 2015



2012 After Planting

December 2018



CACW Habitat Restoration – Salt Creek Parcels SANDAG Grant 2Shrub Thinned 3 Acres and Planted Cactus On 17 Acres



CACW Habitat Restoration – Millenia Parcels SANDAG Grant 2







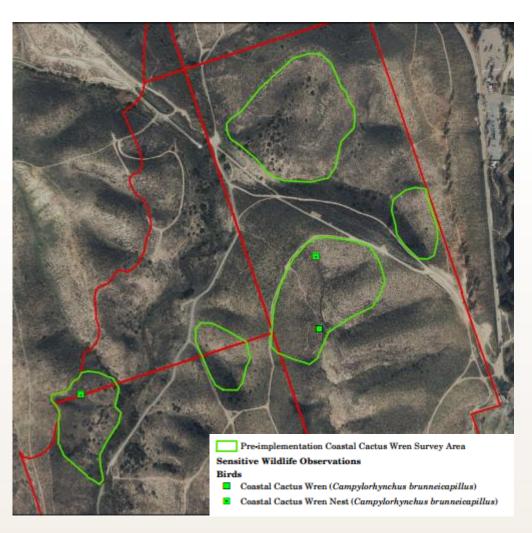
SANDAG Grant 2 at Salt Creek-Ended Fall 2018



September 2018

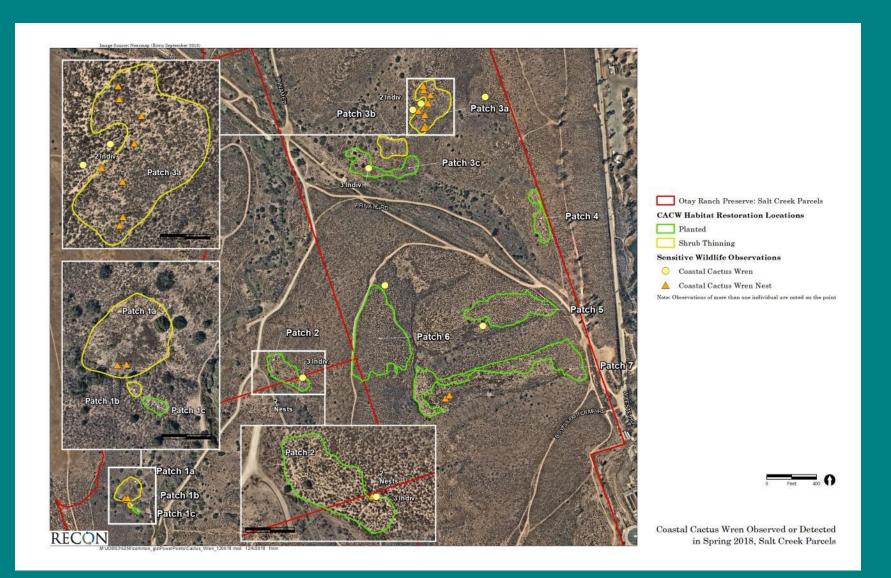
Prior to Implementation
December 2015

CACW Habitat Restoration – Salt Creek Parcels



- ➤ Otay River Valley and Salt Creek Cactus Wren 3 Project (City of Chula Vista EMP Grant 5004731; ended fall 2018)
- Pre-implementation Cactus Wren Survey Results:
 - 1 Wren
 - 2 Nests

Spring 2018 Cactus Wren Survey Results

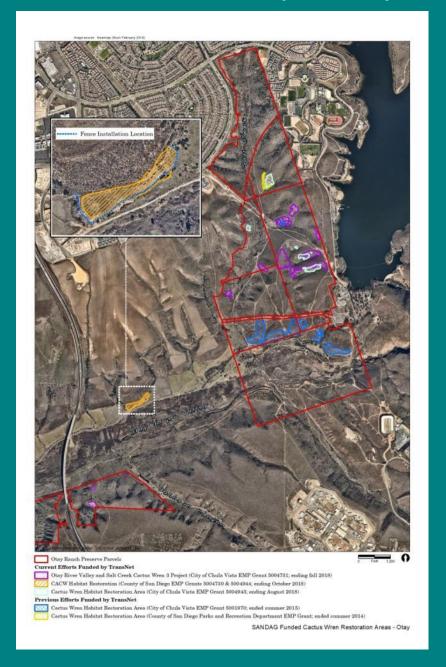


CACW Habitat Restoration Salt Creek & Millenia Parcels Survey Results

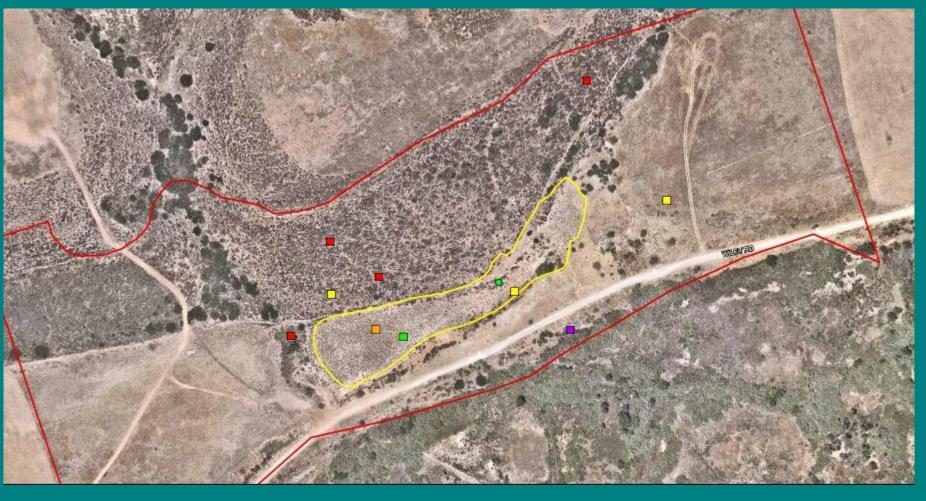
- ➤ 2015 prior to implementation
 - 1 adult cactus wren & 2 cactus wren nests
- ➤ Spring 2018
 - 11 coastal cactus wrens & 13 nests
- > CACW moved into 2 shrub-thinned and 2 planted areas since December 2016.
- > Indicates that the shrub-thinning & planting program is working



Salt Creek, Millenia and the Otay Valley County Parcel



County of San Diego SANDAG Cactus Wren Grant 3





Otay Valley County Parcel Cactus-Planted Three Acres



March 2016 Prior to Implementation

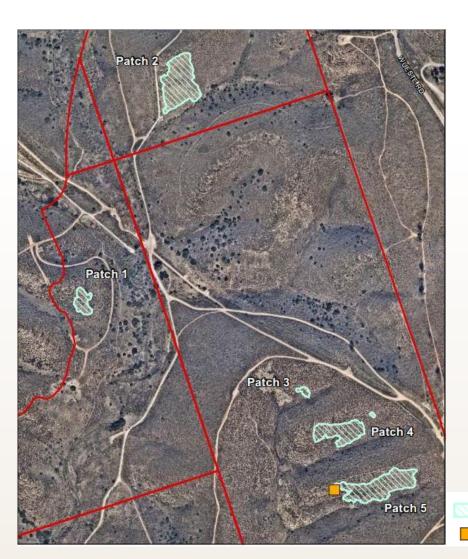


July 2016 After Planting



June 2018 End of Project

CACW Habitat Restoration – Salt Creek Parcels SANDAG Grant 4



- > SANDAG Transnet EMP Grant
- > Short-term-18 Months
- ➤ Shrub thinning-Six Acres
- > Pre-implementation

Cactus Wren Habitat Restoration Area (City of Chula Vista EMP Grant; ending July 2018) CACW Nest





CACW Habitat Restoration – Salt Creek Parcels 18 Month SANDAG Shrub Thinning Grant







CACW Habitat Restoration - Salt Creek Parcels





January 12, 2018

February 9, 2018





CACW Habitat Restoration - Salt Creek Parcels





January 12, 2018

February 9, 2018





CACW Habitat Restoration – Salt Creek Parcels



January 12, 2018



January 17, 2018



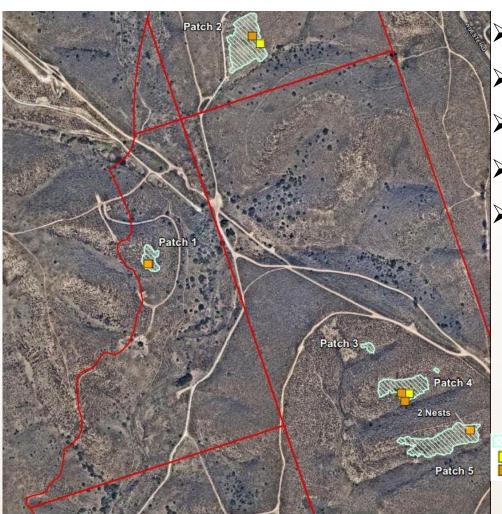


Coast Barrel Cactus and Snake Cholla also Benefit from Shrub Thinning





CACW Habitat Restoration – Salt Creek Parcels



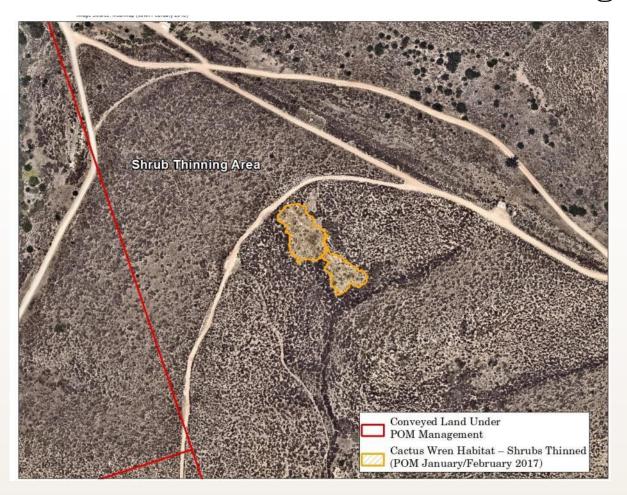
- ➤ SANDAG Transnet EMP Grant
- > Short-term
- > Shrub thinning
- ➤ Post-implementation
- > By the end of the 18 month project 2 wrens were observed and 6 nests

Cactus Wren Habitat Restoration Area (City of Chula Vista EMP Grant; ending July 2018) CACW Observation CACW Nest





Salt Creek POM Funded 1-Acre Shrub Thinning





Cactus Wren Reproduction





Repeat Photo Monitoring: Salt Creek



July 20, 2010

June 13, 2018





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THANK YOU