

2014 Carrizo Colloquium Panel

Habitat Connectivity

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The Wildlands Conservancy

WIND WOLVES PRESERVE

Est. 1996



Our Dual Mission

To preserve the beauty and biodiversity of the earth and to provide programs so that children may know the wonder and joy of nature.



THE CONSERVANCY

- Largest nonprofit system in California
- Made up of 12 magnificent landscapes



Wind Wolves Preserve

- 93,000 Acres
- 15 Employees
- 26,000 Visitors is 2013-2014
- 2,500+ Annual Volunteer Hours
- 8,000+ School Children Annually
- Open 7 Days/week
- Free Camping, Hiking, Mnt. Biking, Nature Tours, Programs



2014 Fall Horehound Removal

Corridors On WWP

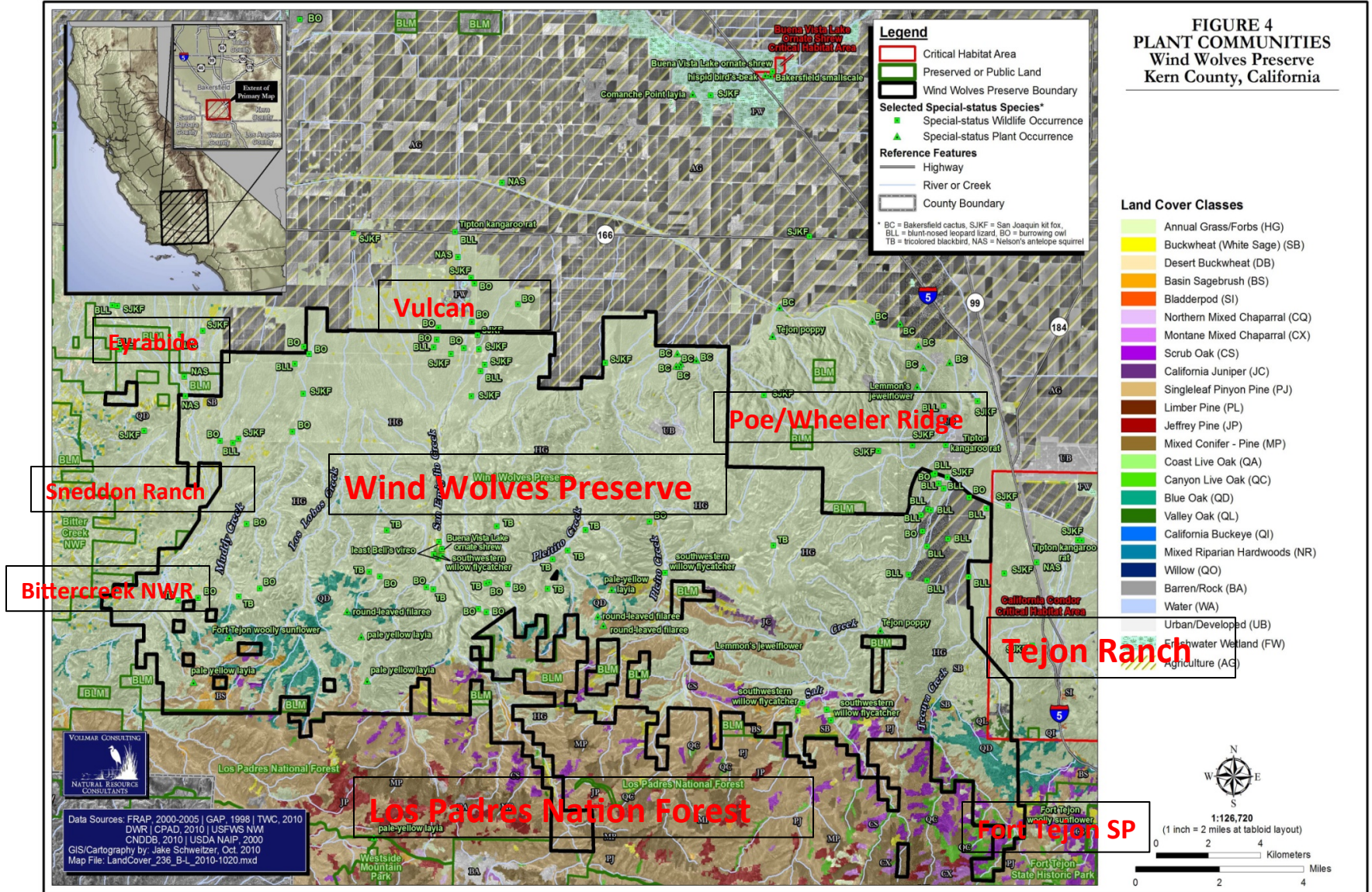
- Elevation
 - Oaks and Climate Change
 - Ungulate Migration
 - Tule Elk Moving Above 3500' in Winter 2013-2014
 - Winter Deer Migration along Tecuya Creek
- Riparian
- Valley Floor
 - Focus on Isolated Pockets of Species
 - NW Corner Focus on Connectivity and Adjacent SSC Populations

Connectivity Topics

- Species Corridors and Enhancement Projects
 - Area Overview
 - Different Species
- Corridor Management and Protection
 - Scientific Approach, Integrated Plans, Protection Tools
- Purpose
 - Biodiversity, Community, Legacy

Area Overview

**FIGURE 4
PLANT COMMUNITIES
Wind Wolves Preserve
Kern County, California**

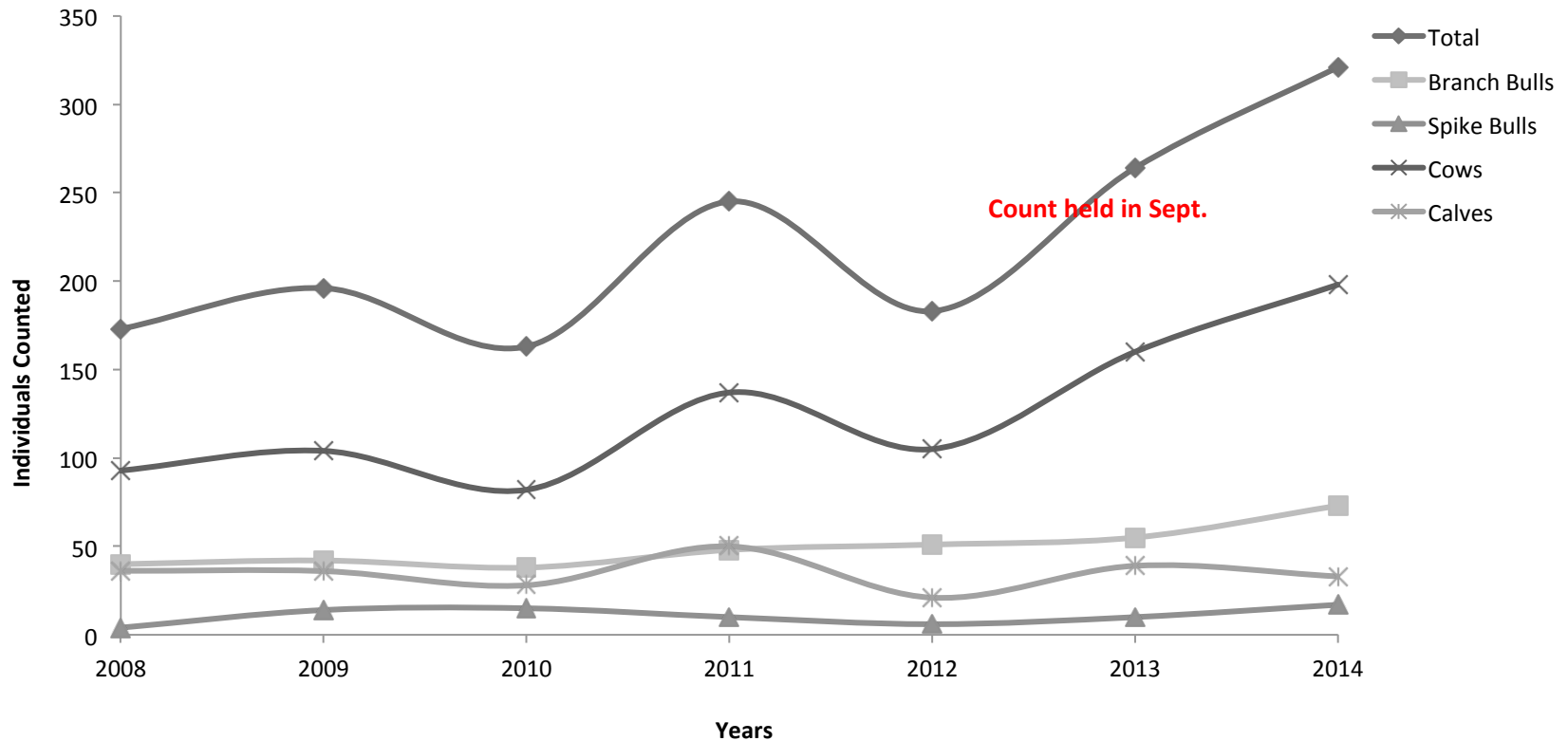


Tule Elk

- Removed >100 Miles of fence-line
 - Tall, repaired monstrosities
- Large Pastures
 - Avg. pasture about 5,000 Acres
- Added Water Systems
 - Currently 200+ troughs
 - Adding Escape Ramps
 - Old Baldy
- Installing Wildlife Friendly Fencing
 - 48" Barbwire/Smooth-Wire Bottom
 - Fence Locations on Flat Ground



7 Years of “Elk Count” Data



- 2014 cow to calf ratio 17%, 7-year average is 29%
- 2014 calf cohort count of 33, 7- year average is 35
- 2014 cows counted 198, 7-year average is 125

California Condor



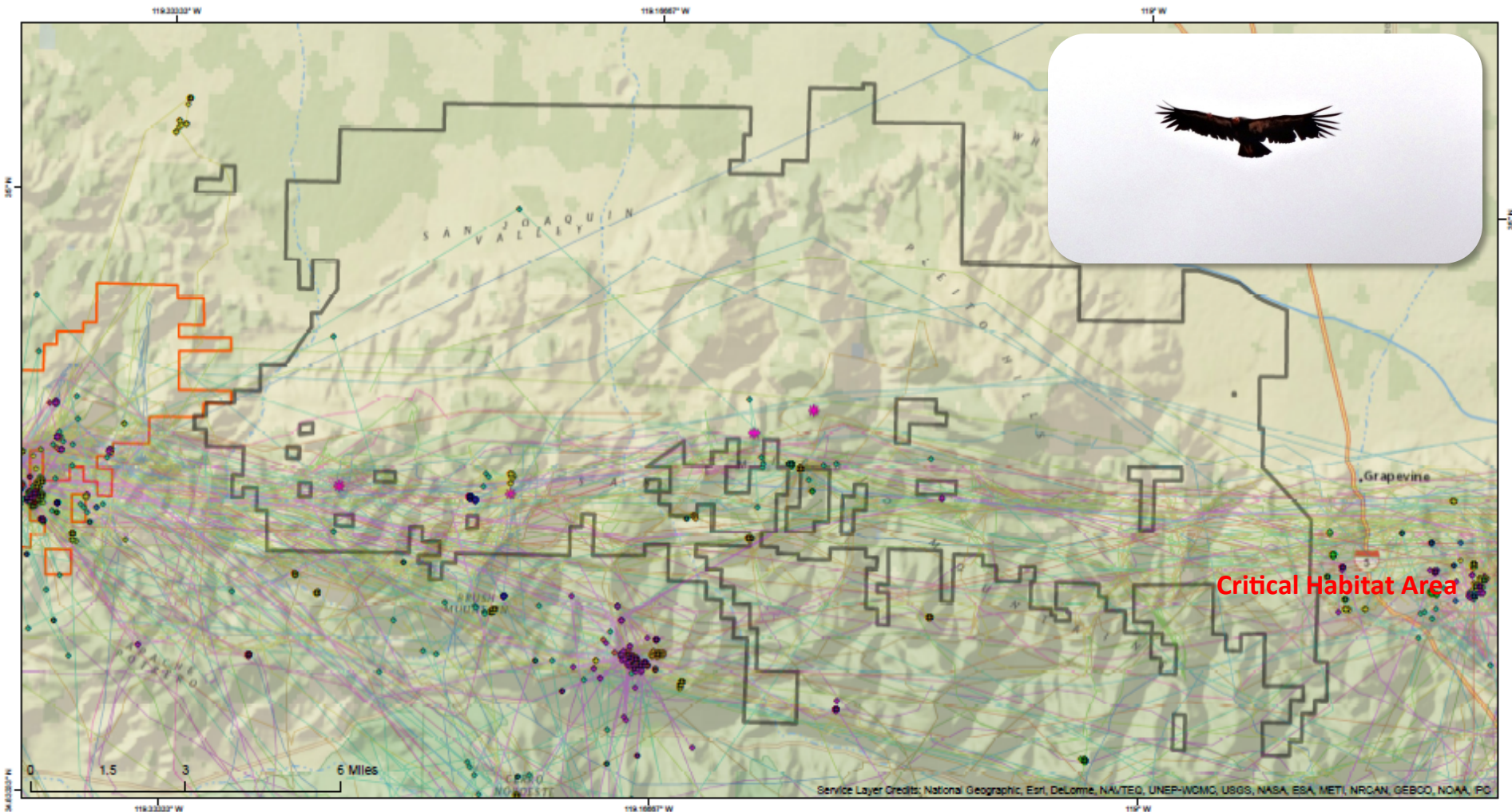
U.S. Fish and Wildlife Service

Hopper Mountain National Wildlife Refuge Complex

California Condor Recovery Program

California Condor GPS Locations

Wind Wolves Preserve 01 SEP 2014 - 30 SEP 2014



Critical Habitat Area

Service Layer Credits: National Geographic, Esri, DeLorme, NAVTEQ, UNEP-WCMO, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, IC

Data is derived from two models of GSM GPS unit that collect up to either every one or 15 minutes during peak daylight hours and down to hourly overnight (depending on unit). These units are located on a subset of free-flying condors. Minimum flight paths connect consecutive points with a straight line and do not necessarily represent actual flight paths. Absence of plotted data does not confirm a lack of presence. The condor population is currently in recovery and continually expanding their territorial range. Twenty-five condors wore GSM units in September of 2014. Data have not been proofed.

Color-coded by individual condor (25 total condors wearing GPS units)

- Minimum flight path
- Stationary daytime GPS location*
- Stationary nighttime GPS location*

* Layer can be toggled on/off in a geoPDF

Wind Wolves Preserve

Bitter Creek NWR

Wind Wolves Feeding Sites

Monday, October 06, 2014
Map created by Laura Mendenhall
Coordinate System: NAD 1983 UTM Zone 11N
Projection: Transverse Mercator

San Joaquin Kit Fox

- Focus on Detection
 - Camera Stations
 - Scat Observation
 - Kangaroo Rat Precincts
- Artificial Den Installation
 - Concrete openings, Pipe
 - Over 2 dozen Installed



Blunt-nosed Leopard Lizard

- Detection Surveys

- Protocol Level Surveys
- CNDB Records and Alluvial Shrub Habitats



- Shrub Restoration

- Peritoma, Atriplex Sp., Astragalus
- Direct Seeding, Transplants, Translocations

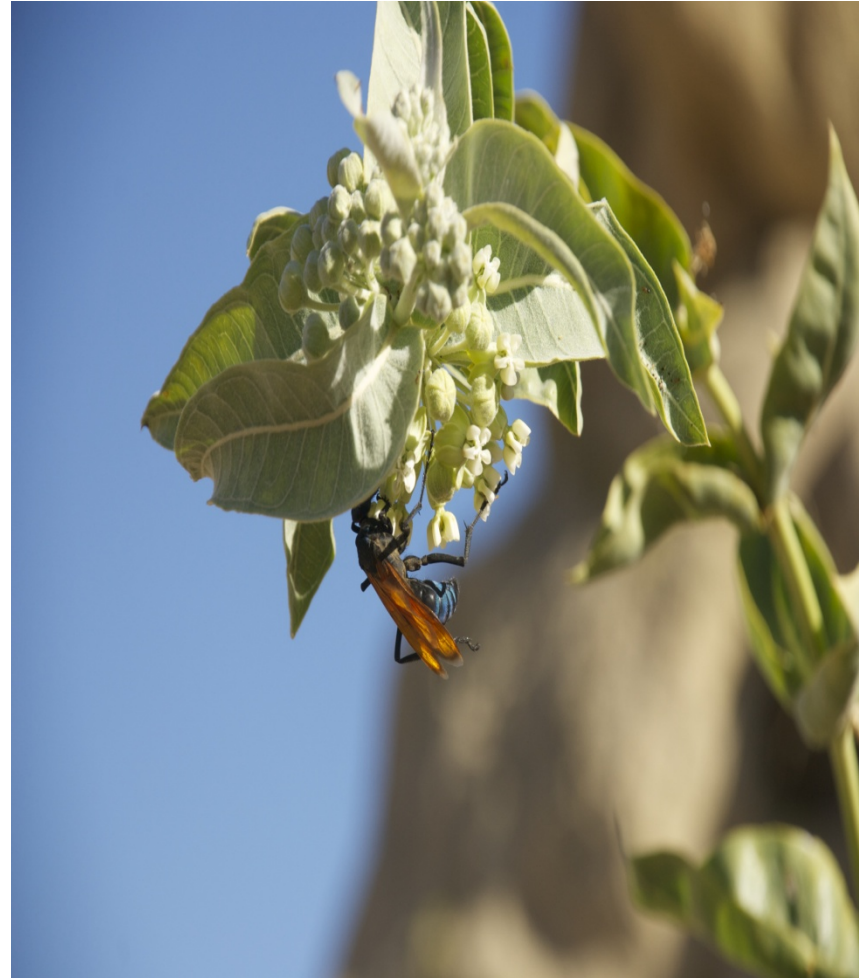
Tricolored Blackbirds

- Riparian Enclosures
 - Late Fall/winter grazing in uplands
 - Sheep grazing
- Restoration/Invasive Management
 - Perennial Pepperweed Treatment
 - Herbicide (Telar)
 - Sheep Grazing (Winter 2015)
 - Alkali Rye/Stinging Nettle



Pollinator Species

- Water Availability
 - Trough Systems
- Restoration of Perennial Pollinator Plants
 - Greenhouse Transplants
 - Bladderpod, Mesquite, Asclepias, Flannelbush, Coffee Berry
- Funding Opportunities



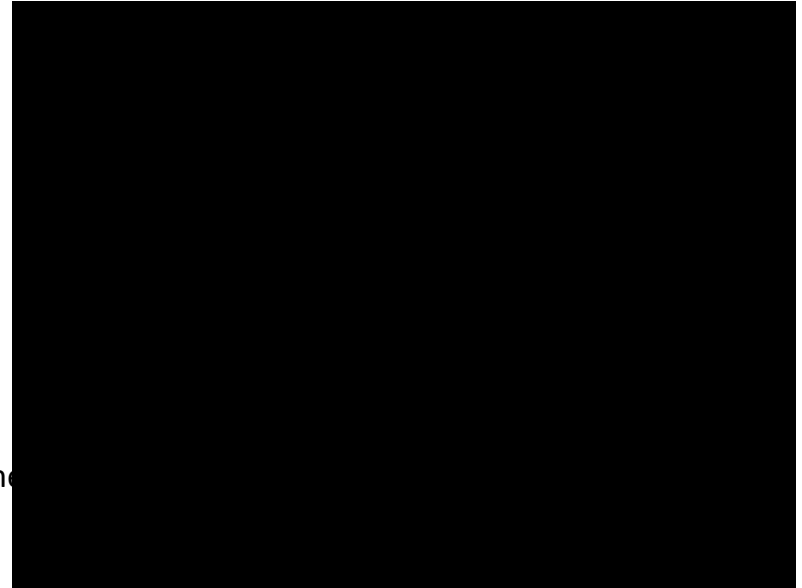
Corridor Management and Protection

- Scientific Approach
 - Using best available knowledge
 - Collaborating with local experts
 - Using an Advisory Board
 - Management Plan
- Integrated Projects
 - Volunteerism, Service Learning, and Internships
 - Partnerships
 - Adjacent Landowners
 - Santiago Creek Project
 - USFS, Berkeson, and NRVs Hunting Patrols
- Mineral Owners
- Public Access
- Protection Tools
 - Mitigation Banking
 - Conservation Easements



Partnership Approaches

- Invasive/Restoration Corps Crew
- Equipment
 - Rangeland Drill, Hyrdo-seeder, Spraying Equipment
- Supplies
 - Native Plants
 - Seed Collection Equip.
- Data and Info Sharing
 - Seasonal Calendars for Restoration/Invasive Species Treatments
 - Native Species Reports
 - i.e. propagation time, medium, seed info, planting time
- Projects
 - Regional restoration and habitat projects
 - Acquisitions, Grants
- Research (ESRP, CSUB, U of A, Ohio State U)
- Funding (NRCS, PG&E, California Wildlife Foundation, WCB)



Adaptive Management

Wind Wolves Preserve's Quercus Nursery

- Local Genotypes
- 800' Sq.
- 5-8k plants annually
- Focus
 - Valley Oaks, B. Cactus, Atriplex, Pollinator Sp., Salix, Populus
- Partnerships



Purpose: Dedication To A Cause

- **Diversity**

- Hotspot of endangered species, biodiversity
- Geological

- **Community**

- Ecological Services (water, erosion, aesthetic, carbon seq.)
- Cultural Sites and Historical Context

- **Legacy**

- A future for tomorrows generation
- Message of hope and collaborative causation that extends beyond any individual organization

Volunteer Opportunities at Wind Wolves



Dates:

Sunday, Nov 9th, 9am-2pm: Planting seeds in Nursery with Megan

Thursday, Nov 13th, 8am-3pm: Removing Fence with Nick

Tuesday, Nov 18th, 9am-2pm: Oak tree site prep with Matt

- Scenic driving tour with great views and photo opportunity stops included
 - Pastries & Coffee included

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