

MULTIPLE SPECIES CONSERVATION PROGRAM (MSCP) ANNUAL REPORT WORKSHOP: 2011 YEAR IN REVIEW

Tuesday, June 26th 2012, 9am - noon

Balboa Park Club Ballroom

Balboa Park, Pan American Road West, San Diego, CA 92102

A G E N D A



■ POSTER SESSION

■ WELCOME/OVERVIEW/INTRODUCTIONS

Marisa Lundstedt, City of Chula Vista

■ WILDLIFE AGENCY REPORTS

15 years of MSCP Montage

■ JURISDICTION REPORTS – MSCP Highlights

- City of Chula Vista
- City of San Diego
- County of San Diego

■ BREAK

■ U.S. GEOLOGICAL SURVEY

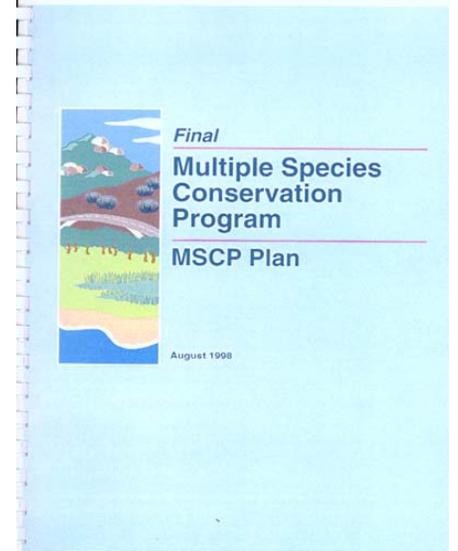
Connectivity/Wildlife Corridor Strategy

■ SAN DIEGO ASSOCIATION OF GOVERNMENTS/SAN DIEGO MANAGEMENT AND MONITORING PROGRAM

- Dahlem Conference
- Vegetation and Species Mapping
- Regional Strategic Plan for Land Management

■ QUESTIONS



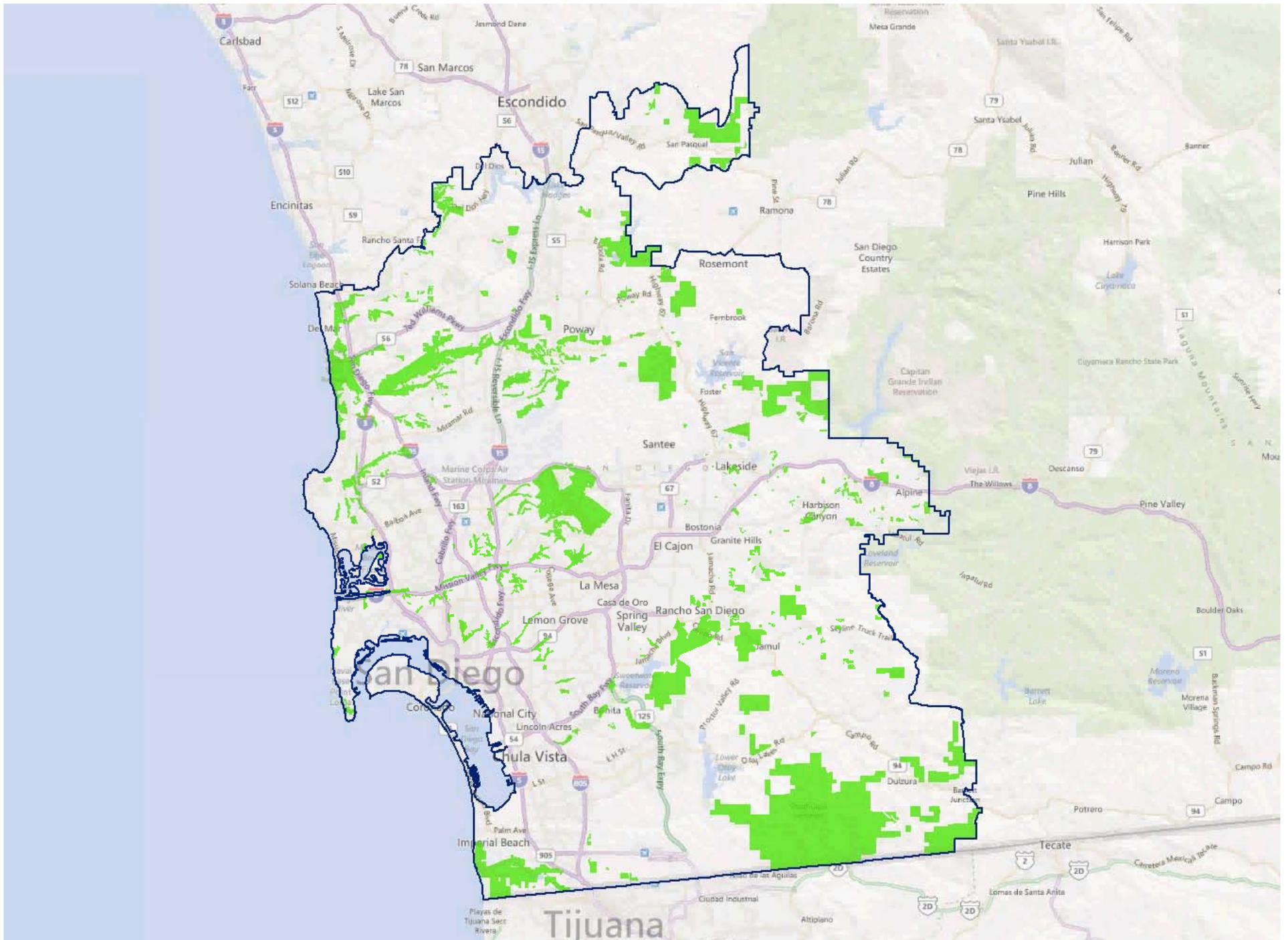


MSCP Public Workshop 2012

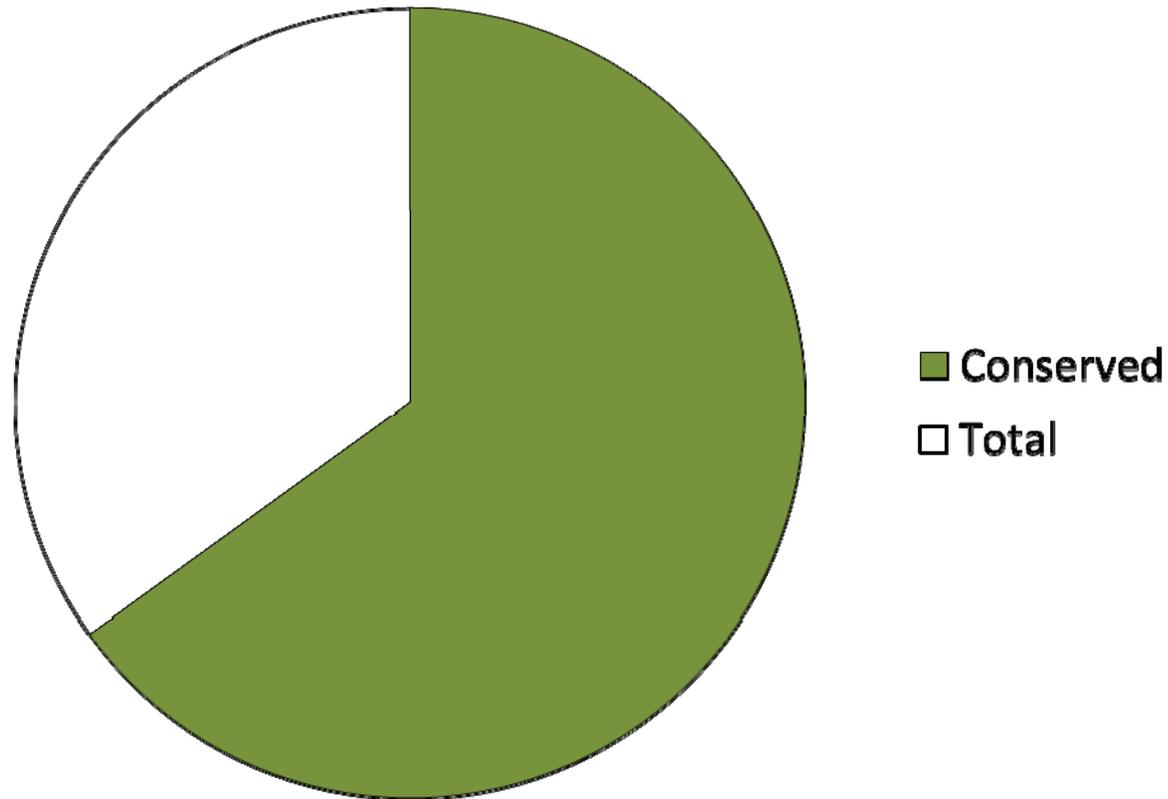


Outline

- **Preserve Assembly**
 - **Habitat Goals**
 - **Configuration**
- **Status of Species Conservation**

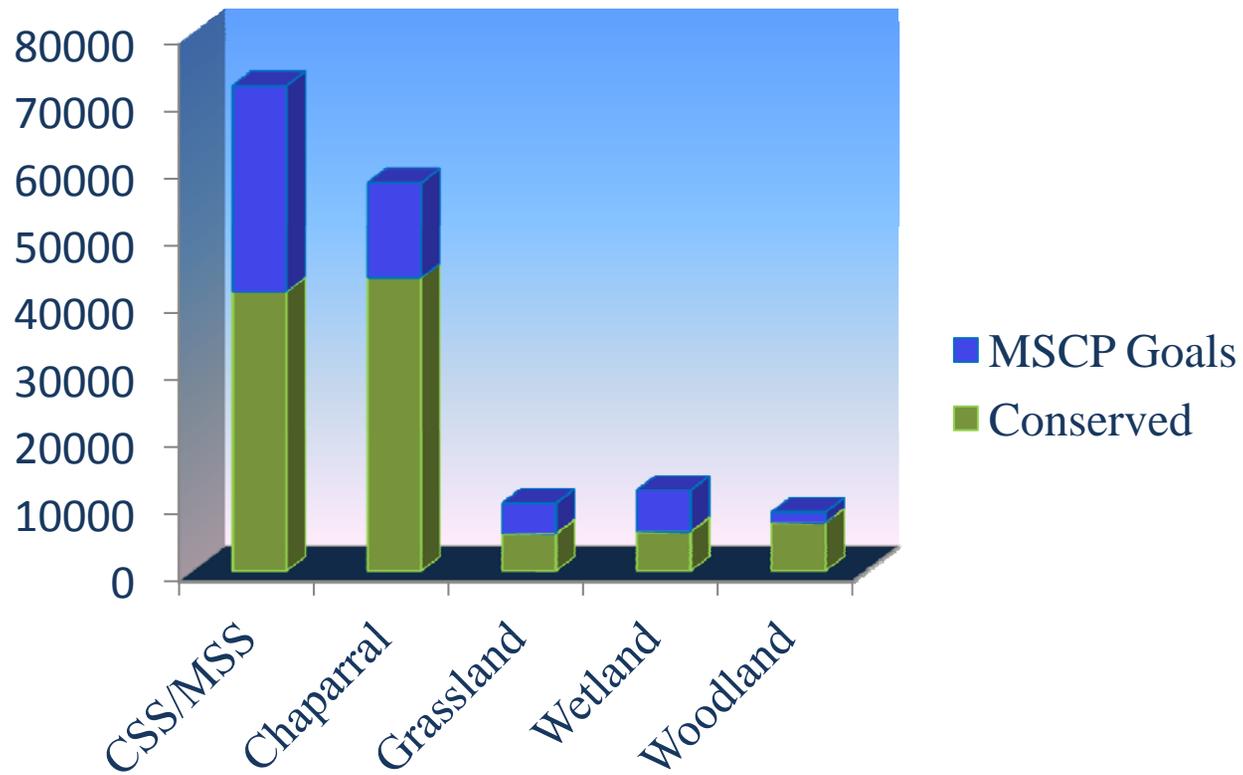


Preserve Assembly



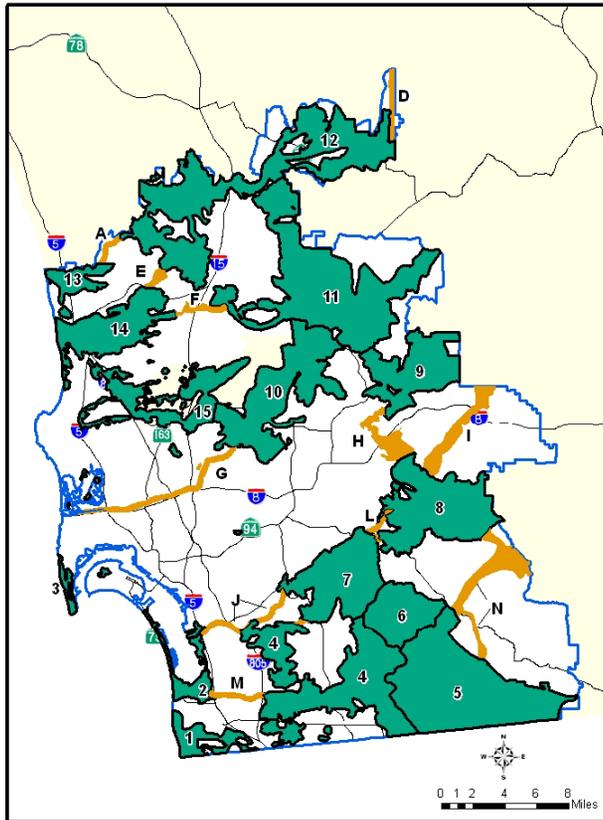
65% of the MHPA/PAMA has been conserved to date

Preserve Assembly

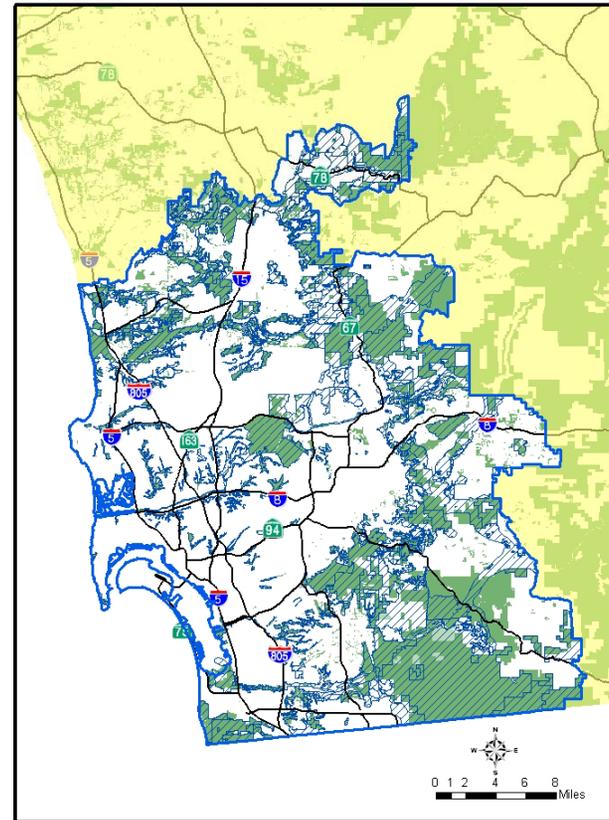


Preserve Assembly

Generalized Biological Core and Linkages



Conserved Lands





Species Conservation Analysis

Species Evaluations considered three components:

- Habitat
- Point/Polygon locales
- Major Populations

The results of the evaluations are summarized in Table 3-5



Species Conservation Analysis

46 Covered Plant Species

- 13 achieved
- 12 substantial
- 17 partial
- 4 minimal

46 Covered Plant Species

- 4 achieved
- 6 substantial
- 28 partial
- 1 minimal



California Gnatcatcher

Habitat

- 50,588 acres of coastal sage scrub has been conserved (68%)

Points

- 1258 of the 1819 regss points (69%) within the MHPA/PAMA have been conserved

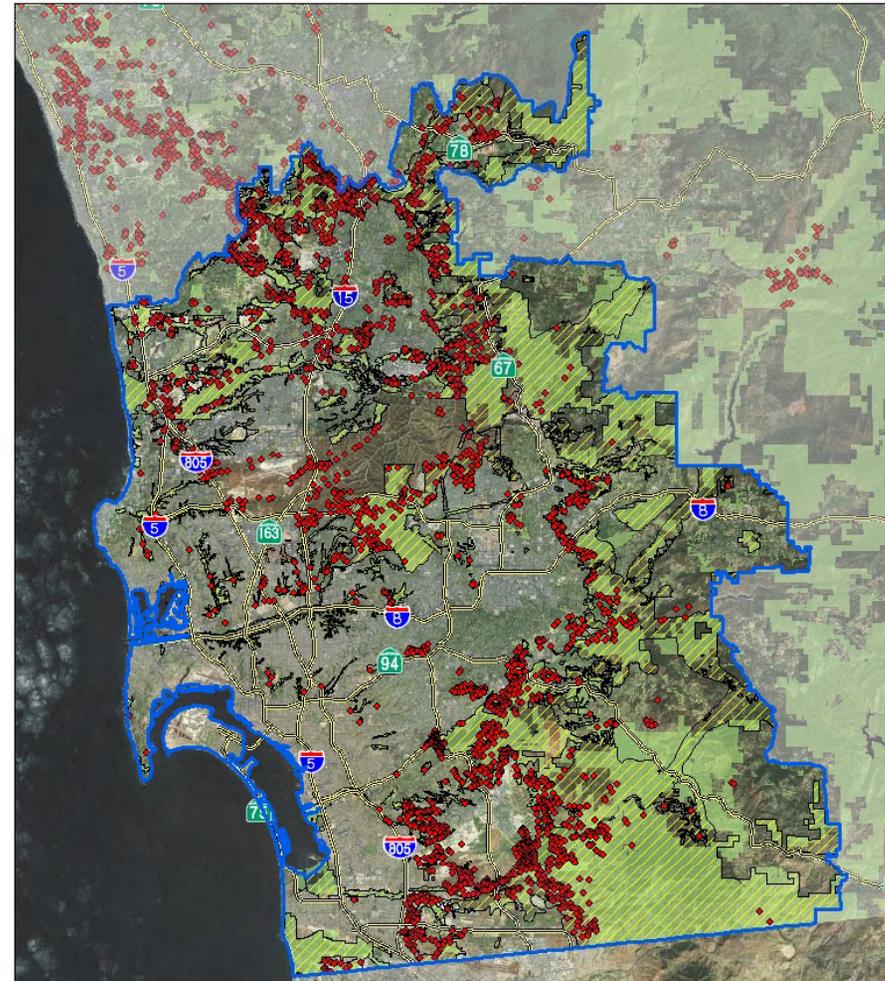
Populations

- 5 major populations identified (Otay, Sweetwater, MTRP/Santee, Poway, and Lake Hodges)

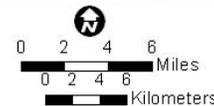


Multiple Species Conservation Program

Coastal California Gnatcatcher



ORNLAND FIELD OFFICE
© 2010 CONTRACT: 80001-1000
MAP DATE: 06/11/10
DATA SOURCE: SANDAG, CALIF. STATE PARKS
MAP SOURCE: ESRI, NAVTECH
Please help protect our Open Space and Cultural Resources



- MSCP Study Area
- ◆ Species Locale (source: regss)
- ▨ MHPA/PAMA
- Conserved Land



San Diego Ambrosia

Populations

- Mission Trails Population
- San Diego National Wildlife Refuge





Cactus Wren

Habitat

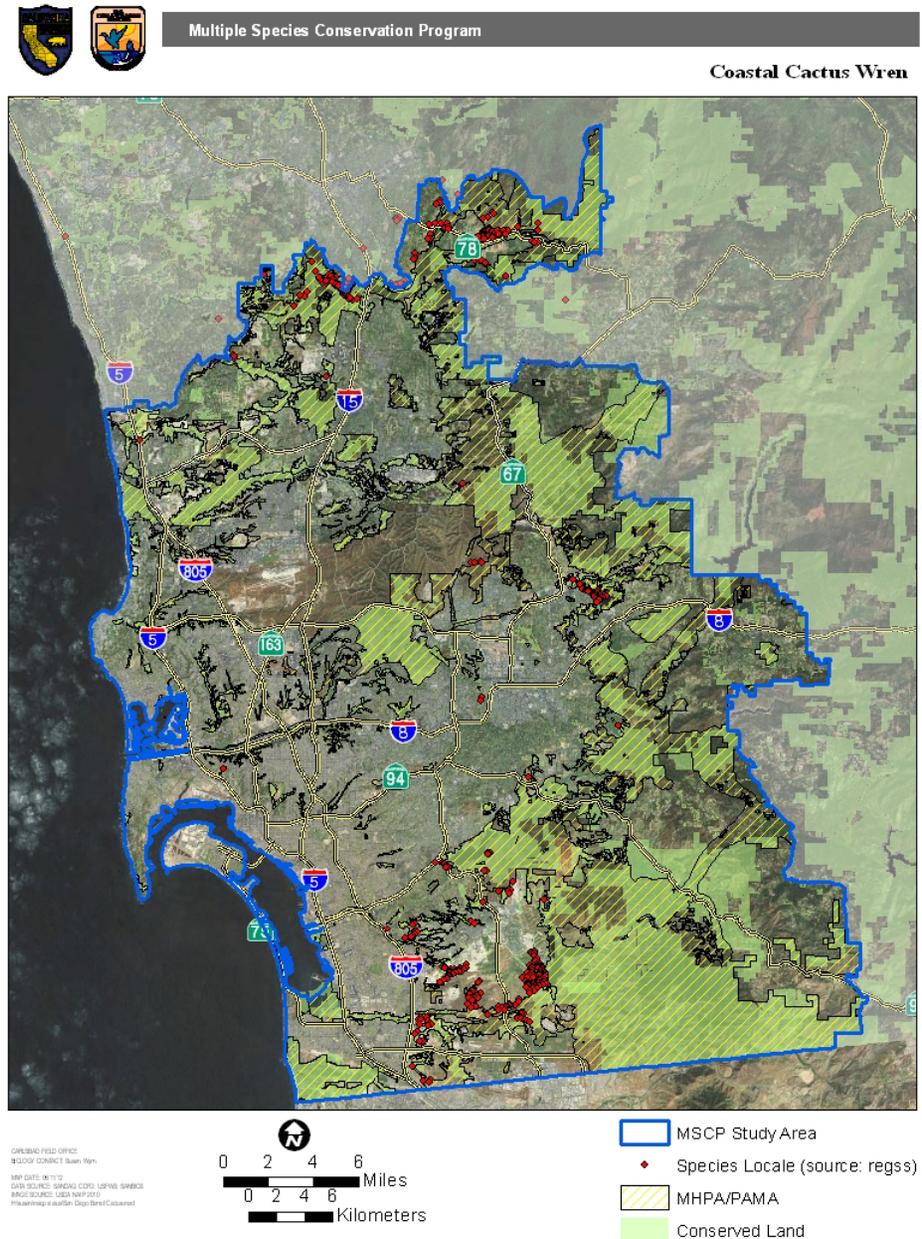
- 860 acres of maritime succulent scrub has been conserved (97%)

Points

- 194 of the 268 regss points (72%) within the MHPA/PAMA have been conserved

Populations

- 2 of 4 major populations (Salt Creek, Lake Hodges) identified for conservation conserved – remaining 2 (Lake Jennings, and Sweetwater) partially conserved





Wandering Skipper

Habitat

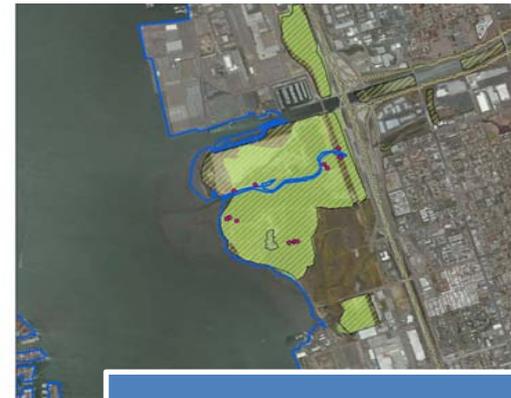
- 991 acres of coastal salt marsh habitat has been conserved (58 %)



Los Penasquitos



Famosa Slough



Sweetwater Marsh





MSCP ANNUAL REPORT WORKSHOP

June 26, 2012

City of Chula Vista



Chula Vista MSCP Subarea Plan



Presentation Overview

- Chula Vista MSCP Subarea Plan
- Otay Ranch Preserve Update
- TransNet Grant Update



Chula Vista MSCP Subarea Plan

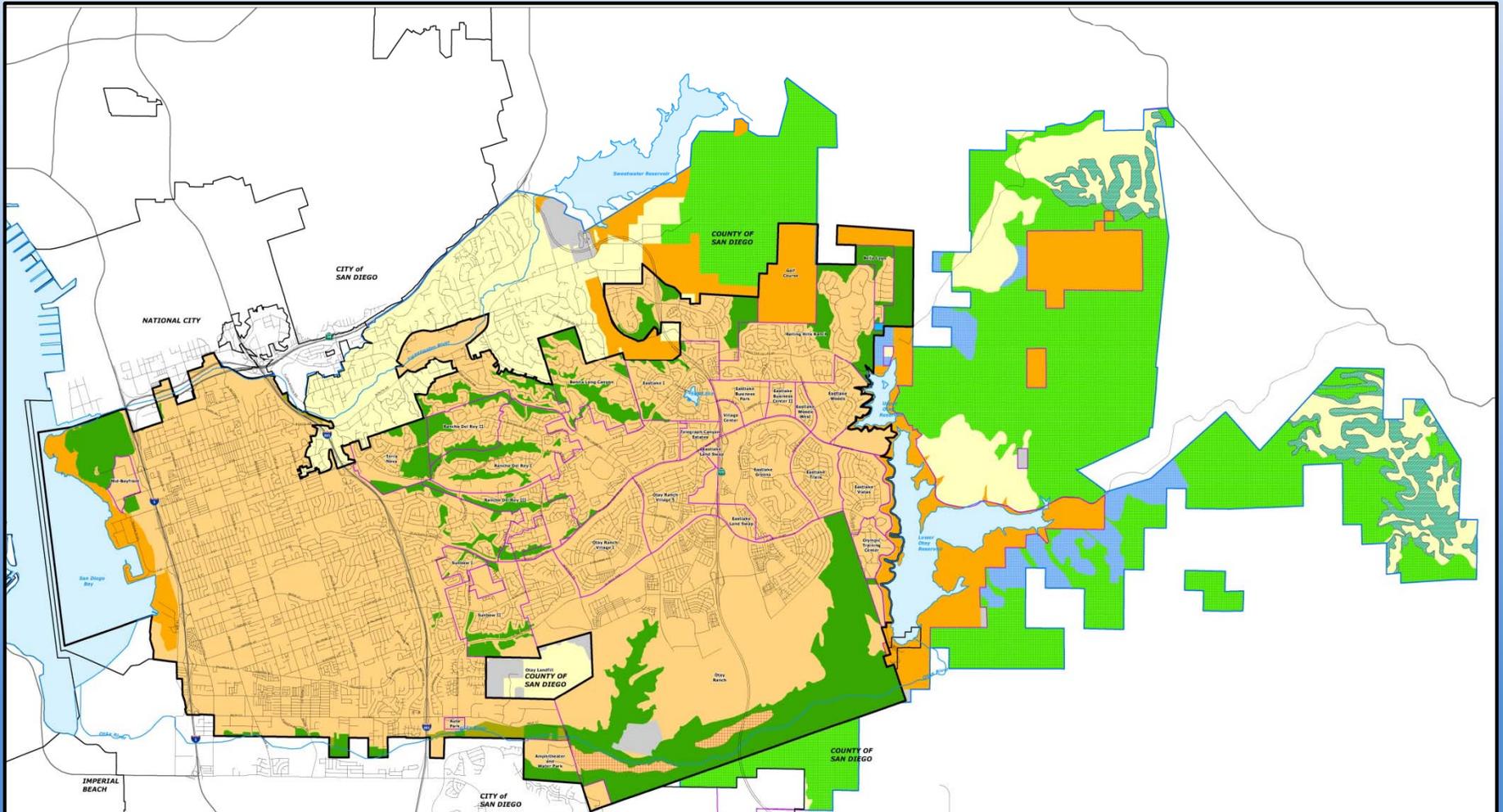


Chula Vista MSCP Subarea Plan

- Subarea Plan Approved: February 2003
- Take Permit and IA: January 2005
- Conservation Estimates: 9,243 acres
- 68% of the required 9,243 acres has been secured



Chula Vista MSCP Subarea Plan



Otay Ranch Preserve



2011-12 Management / Monitoring Activities

- Baseline Surveys
- Quino Checkerspot Butterfly Surveys
- Least Bell's Vireo Surveys and Nest Monitoring
- General Habitat Management Activities



Otay Ranch Preserve



2011-12 Management / Monitoring Activities (cont.)

Baseline Surveys

- 12 sensitive habitat communities
- 20 rare wildlife species (10 MSCP Covered)
- 33 rare plant species (8 MSCP Covered)



Regional Benefit

- Updates MSCP survey data
- Guide regional land management decisions



Otay Ranch Preserve



2011-12 Management / Monitoring Activities (cont.)

Quino Checkerspot Butterfly Surveys

- 400 acres surveyed
- 40 observations

Regional Benefit

- Above average observations
- Above average abundance of host plant



Otay Ranch Preserve



2011-12 Management / Monitoring Activities (cont.)

Least Bell's Vireo Survey Results/Nest Monitoring

- 8 pairs detected
- 11 nests monitored
 - 5 were parasitized
- Brown-headed cowbird trapping initiated



Regional Benefit

- Program will contribute to an observed increase in regional population trends

Otay Ranch Preserve



2011-12 Management / Monitoring Activities (cont.)

General Habitat Management Activities

- Exotic Species Control
- Access Control: Fence & Sign Installation
- Litter Removal



Coastal Cactus Wren Habitat Restoration



- Location: Central City MSCP Preserve Management Area
- Project Goals/Objectives:
 - Restore/enhance degraded habitat
 - Increase quality/quantity of existing cholla patches
 - Reduce weed and native shrub competition
 - Reduce uncontrolled access



Regional Benefit

- Complements several regional conservation strategies

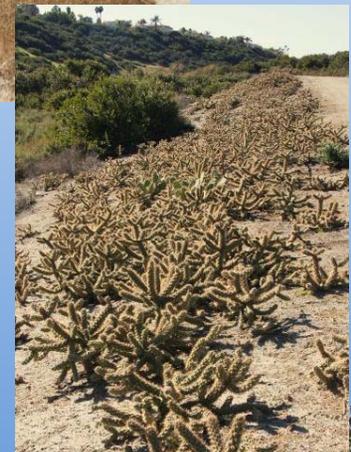
Coastal Cactus Wren Habitat Restoration



Maintenance / Monitoring Activities (cont.)

Year 2 (2011) Monitoring Results

- 2 cactus wren detected in areas with no prior detections
- 5 active cactus wren nests observed
- Relative Cholla cover and height is increasing



Regional Benefit

- Project is increasing the amount of suitable habitat in the region
- Project is facilitating the dispersal of wrens within the region



Otay Tarplant and San Diego Thornmint Restoration Grant



- Location: Central City MSCP Preserve Management Area
- Project Goals/Objectives:
 - Restore/enhance degraded habitat
 - Manage & increase grassland & clay lens habitat
 - Reduce weed and native shrub competition
 - Reduce uncontrolled access



Regional Benefit

- Otay Tarplant and SD Thornmint are unique to the region
- Protection/enhancement of a major population within the region



Thank You!



2011 MSCP Annual Workshop City of San Diego

June 26, 2012





Vernal Pool Habitat Conservation Plan (HCP)

- VP HCP Overview

- Identification of a City-wide of a Vernal Pool Preserve
- Management and Monitoring Plan and funding strategy for vernal pools within the City's jurisdiction
- Issuance of a Section 10(a) permit and “take” authorization to the City of San Diego

- VP HCP Update

- Scoping Meeting for the EIR
- Second Public Workshop
- Draft Vernal Pool Preserve Maps



Vernal Pool Habitat Conservation Plan (HCP)

- VP HCP Next Steps

- Property owners Meeting June 26, 2012
- Third Public Workshop in August 2013
- Draft VP HCP and Draft EIR/EIS for minimum 60-day public review in early 2013
- Land Use and Housing in April 2013
- Final Draft VP HCP and EIR/EIS and begin hearing process in July 2013
- www.sandiego.gov/planning/mscp/

City of San Diego Burrowing Owl Strategy

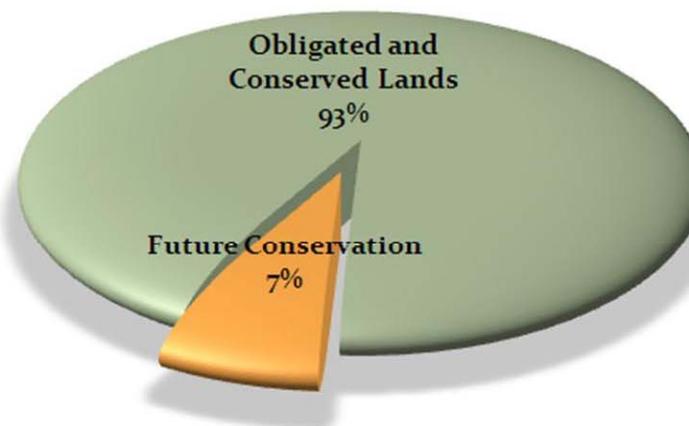


As of January 1st 2012	Acres
Obligated and Conserved Lands	48,842
Future Conservation	3,885



City of San Diego MSCP Conservation

Total Conserved and Obligated Land: 48,842 Acres, or 93% of City's 52,727 Acre MSCP Obligation



Notes: 1) Conserved Lands have been conserved via fee title or conservation easement; 2) Obligated Lands have been entitled by the City, have pending conservation easements, or have existing mitigation bank agreements in place; 3) Future Conservation are lands which are the target of current conservation efforts.



Monitoring and Management

- Monitoring
 - 53 rare plant populations (17 species) monitored
- Major Management Actions
 - 2nd year of invasive grass treatment at 12 acres of Kumeyaay Lakes *Ambrosia pumilla* site
 - Implementation of restoration plan for Mission Valley Preserve with San Diego River Park Foundation and TransNet funding



Monitoring and Management

- Management Plans
 - Carmel Mountain/Del Mar Mesa Natural Resource Management Plan – docketing for Planning Commission
 - Black Mountain Open Space Natural Resource Management Plan – processing DSD permitting for trail plan
 - Mission Trails Regional Park Natural Resource Management Plan – 2nd draft



What is a Tree?
A tree is a woody plant with a main stem called a trunk. It has branches and leaves. Some trees have flowers and fruit. They are important for many animals and people. They provide shade and oxygen.

Parts of a Tree
Leaves
Trunk
Branches

Rock Art

IT IS BELIEVED THAT THE KUMAMARTI PEOPLE WHO LIVED HERE IN THE PAST WERE VERY SKILLFUL AT DRAWING AND PAINTING ON ROCKS. THEY USED TO PAINT AND DRAW ON ROCKS TO TELL THEIR STORIES AND TO REMEMBER IMPORTANT EVENTS. THEY USED TO PAINT AND DRAW ON ROCKS TO TELL THEIR STORIES AND TO REMEMBER IMPORTANT EVENTS.

PETROGLYPHS
Petroglyphs are made by carving or scratching designs into the surface of a rock. The designs are usually pictures of animals, people, and objects. They are made by using sharp tools to remove small pieces of rock from the surface.

PICTOGRAPHS
Pictographs are made by painting or drawing designs on a rock. The designs are usually pictures of animals, people, and objects. They are made by using natural pigments and water to create the designs.

Kumamarti Arts

Resource Management Plan Implementation

Jake Enriquez



Resource Management Plan Sections

Five Elements

- Biological Resources
- **Vegetation Management**
- **Public Use, Trails, and Recreation**
- **Public Access and Facility Maintenance**
- Cultural Resources

Habitat Restoration

- Initial and Ongoing Stewardship
- Project related
- Natural occurrence



Non-Native Plant Species Removal and Control

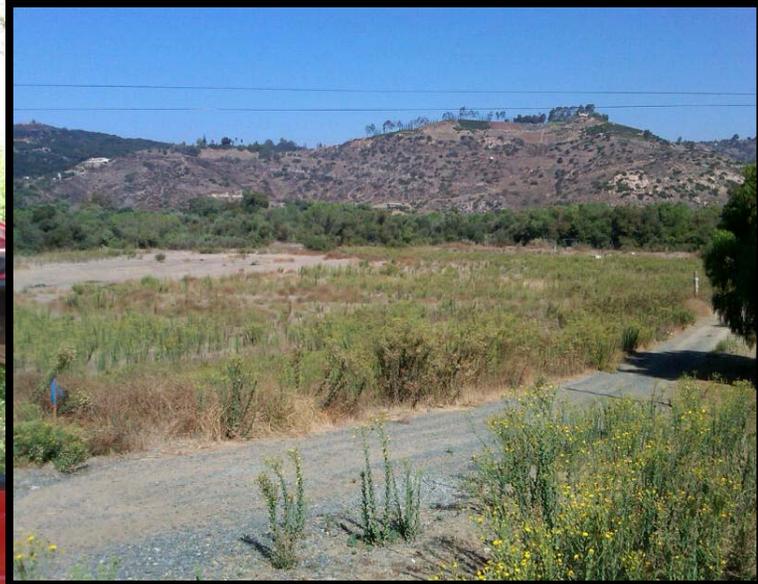


Treated artichoke thistle



Stand of Arundo

Fire Prevention, Control and Management



Public Use, Trails, and Recreation Element

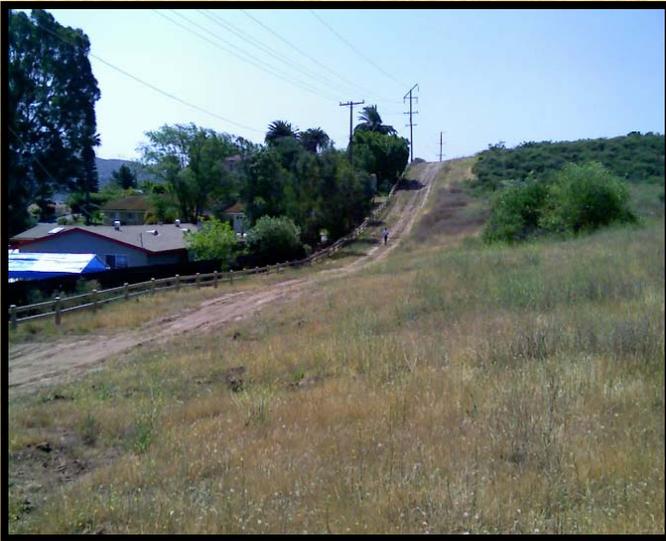
- Public Access
- Fencing and Gates
- Trail and Access Road Maintenance
- Signage and Lighting



Public Access



Fencing and Gates



Fencing to prevent off-road vehicle impacts



Fencing to protect sensitive resources



Trail and Access Road Maintenance

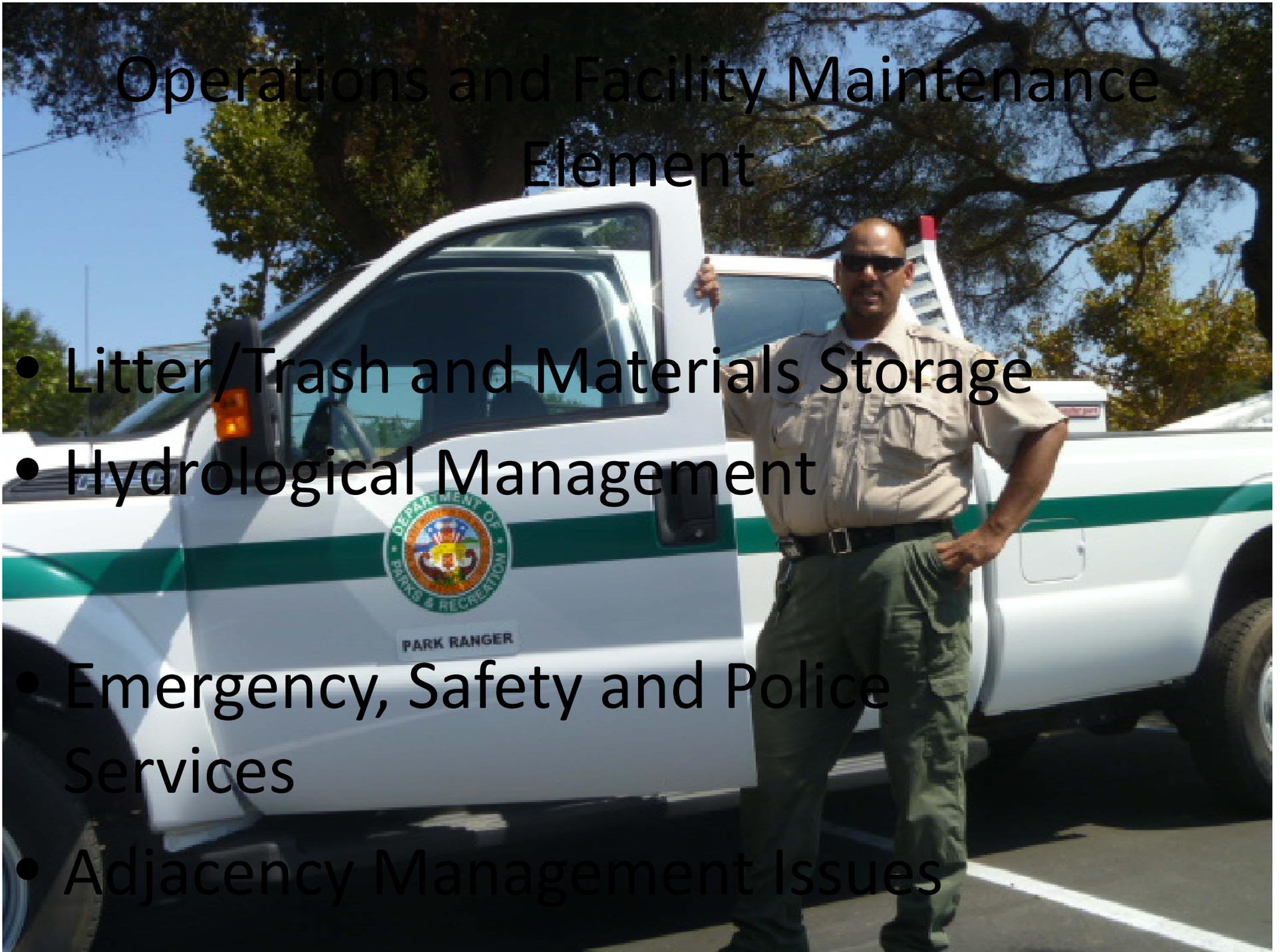


Signage

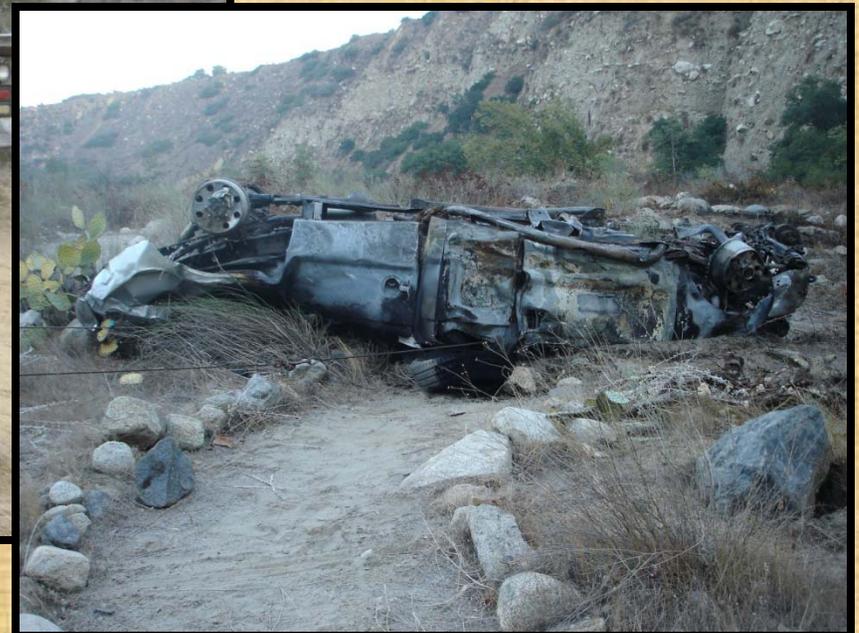
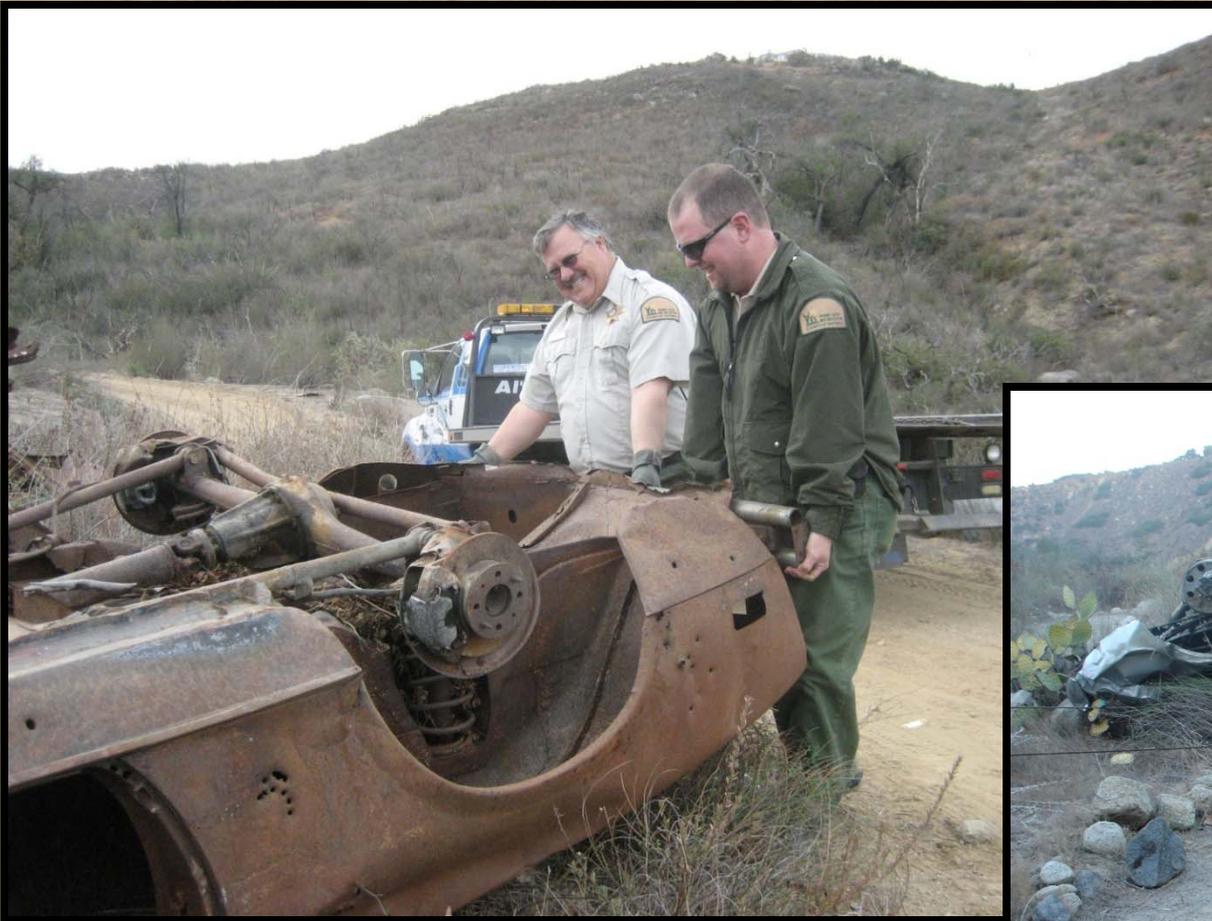


Operations and Facility Maintenance Element

- Litter/Trash and Materials Storage
- Hydrological Management
- Emergency, Safety and Police Services
- Adjacency Management Issues



Litter/Trash and Materials Storage



Hydrological Management

- Facility Pollution Prevention Plan
- RWQCB
- Preserves with rivers, creeks and streams are “High” priority.

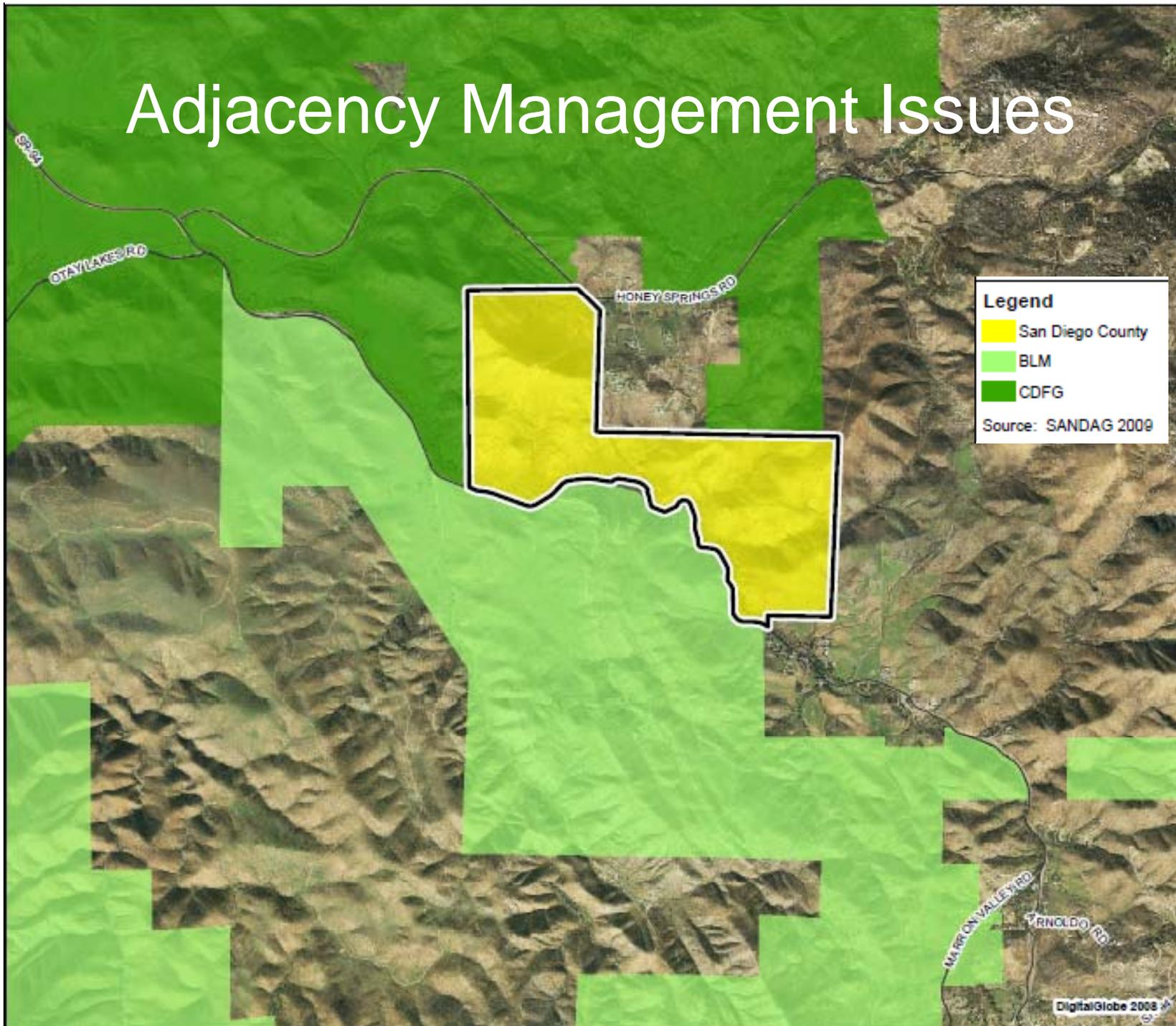


Emergency, Safety and Police Services

- Establish working relations with local offices
- Site Emergency Response Plan
- County Office of Emergency Service



Adjacency Management Issues





**PARKS AND
RECREATION**
COUNTY OF SAN DIEGO

ENVIRONMENTAL EDUCATION MSCP

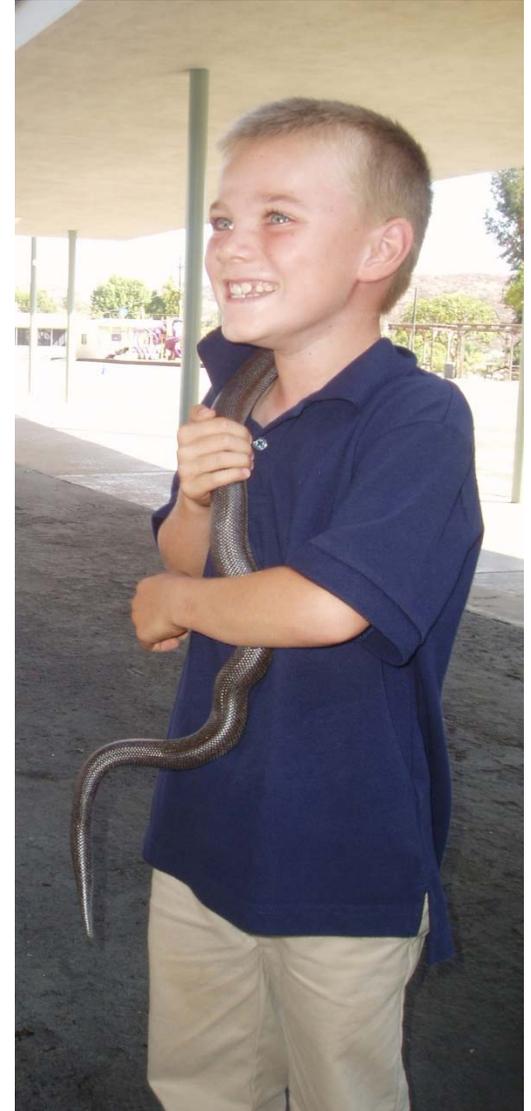
WHY IS THERE SUCH A NEED FOR EDUCATION?

- No more 'Free Range Kids'
- Nature Deprivation
- Limited Curriculum in the Classrooms
- Inner City Children



DISCOVERY KIT PROGRAMS

- **Classroom Visits and Ranger Led Hikes**
- **Outdoor Classroom Settings**
- **Curriculum Developed That Meets The State Standards**
- **Currently Implemented at Three Parks and Expanding**
- **Nearly 20,000 Children Yearly Participate**
- **Plans For Adding LNT/GU Principles**



LOUIS A. STELZER COUNTY PARK



- **Funded Through a Trust Fund That Pays For the Buses**
- **Developed to Ensure Students Were Benefitting From Program**
- **Five Topics Specific to Stelzer Park**
 - * **Nature Awareness and General Ecology**
 - * **Native Americans**
 - * **Plants of Stelzer Park**
 - * **Geology of Stelzer Park**
 - * **Birds of San Diego County**



- Implemented in 1992
- Won the National Counties Achievement Award
- MSCP Information Added 2003



DOS PICOS COUNTY PARK

- Programs for Campers, Schools and Scouts
- Trees and Forest Ecology, Geology, Plants with Lego – photosynthesis, Insects with Build – A- Bug
- Junior Ranger Program



LINDO LAKE COUNTY PARK

- **Three Schools Within Walking Distance**
- **Aquatics, Birds, Native Americans**
- **SDSU Students Helped Develop Curriculum**
- **Urban Setting**
- **Pre-Schoolers**
- **Work In Progress**

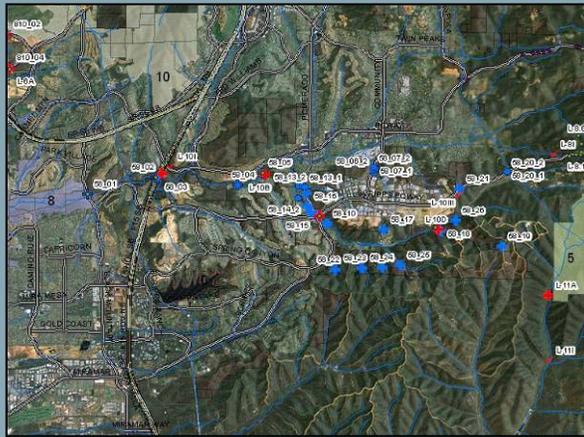


“How the young respond to Nature and how they raise their own children will shape the configurations and conditions of our cities, homes and daily lives.”

Richard Louv, ‘Last Child in the Woods’



2011 MSCP Annual Report Workshop: U.S. Geological Survey – Connectivity/ Wildlife Corridors and Badger Surveys



Carlton J. Rochester, Cheryl Brehme, and Robert N. Fisher
U. S. Geological Survey, San Diego, CA, U.S.A.

2011 San Diego County Badger Survey

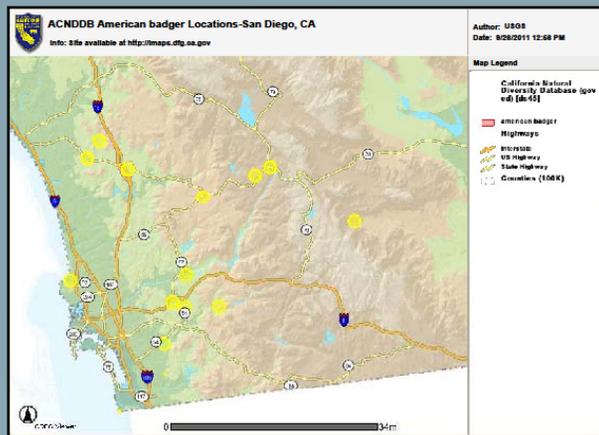


Santa Ysabel Open
Space Preserve-2007

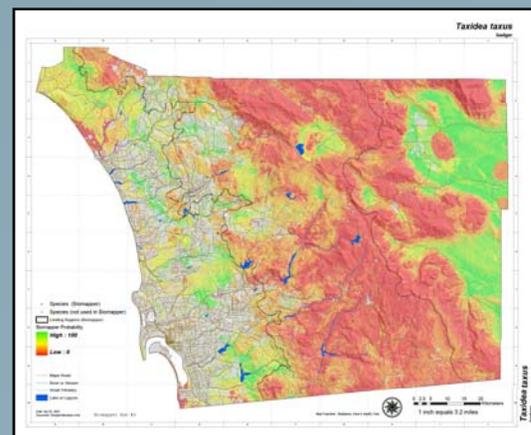


Tenaja Corridor-2000

2011 San Diego County Badger Survey



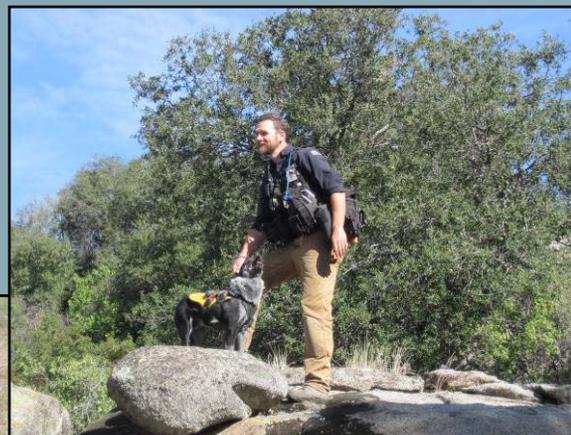
California Natural Diversity
Database – San Diego
County Badger Records



San Diego Natural
History Museum-Badger
Habitat Model



2011 San Diego County Badger Survey



CENTER FOR
CONSERVATION BIOLOGY
UNIVERSITY OF WASHINGTON

Conservation
Canines

<http://conservationbiology.net/>

2011 San Diego County Badger Survey



Badger
Scat!!!

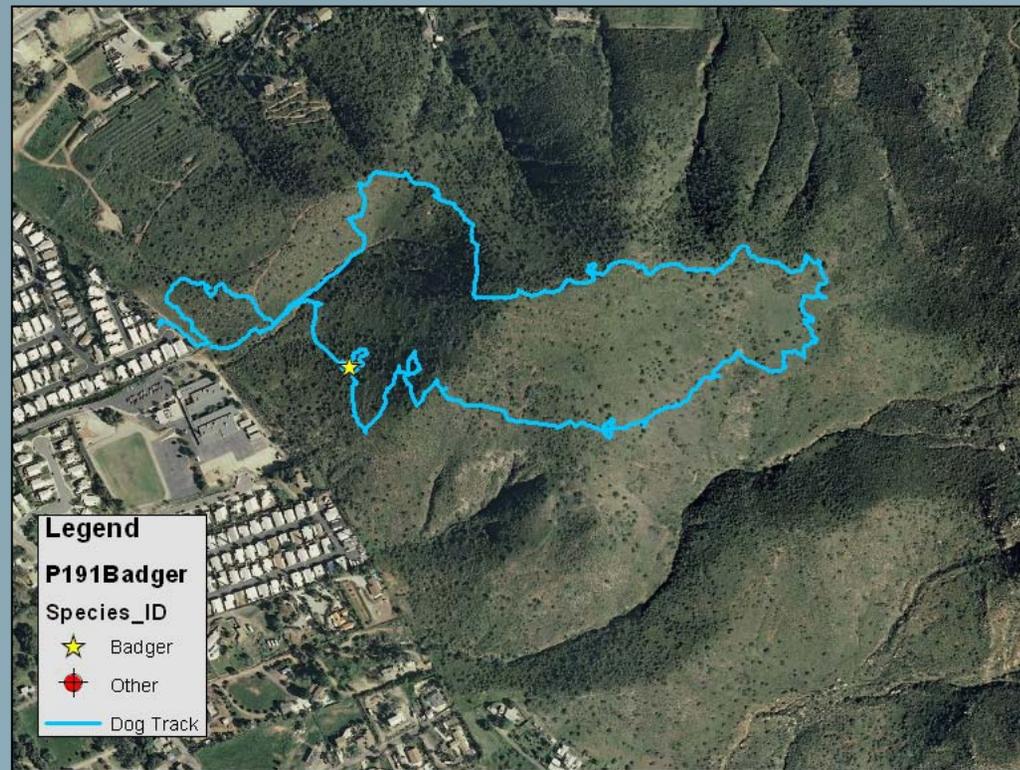


Date	Site
11/15/2011	Camp Pendleton: Juliett
11/16/2011	Pamo Valley
11/17/2011	Fallbrook NWS
11/18/2011	Santa Ysabel OSP-East
11/20/2011	Santa Ysabel OSP-West/Santa Ysabel Gorge
11/21/2011	Santa Rosa Plateau
11/22/2011	Ramona Grasslands
11/23/2011	Daley Ranch/Lake Wolford/Dixon
11/25/2011	Penasquitos Canyon
11/26/2011	Camp Pendleton: Range 116, 117
11/28/2011	Sycamore Canyon
11/29/2011	Oceanside
11/30/2011	Warner Springs
12/2/2011	Mission Trails
12/4/2011	Crestridge ER
12/5/2011	Rancho Jamul ER
12/6/2011	Hollenbeck WA
12/8/2011	Otay Valley/Furby
12/9/2011	Sweetwater/Proctor Valley
12/11/2011	Lake Morena/Robert Ranch
12/12/2011	Marron Valley

2011 San Diego County Badger Survey



2011 San Diego County Badger Survey



2011 San Diego County Badger Survey



Camp Pendleton



Santa Ysabel Gorge



Credstridge



Daley Ranch-Escondido

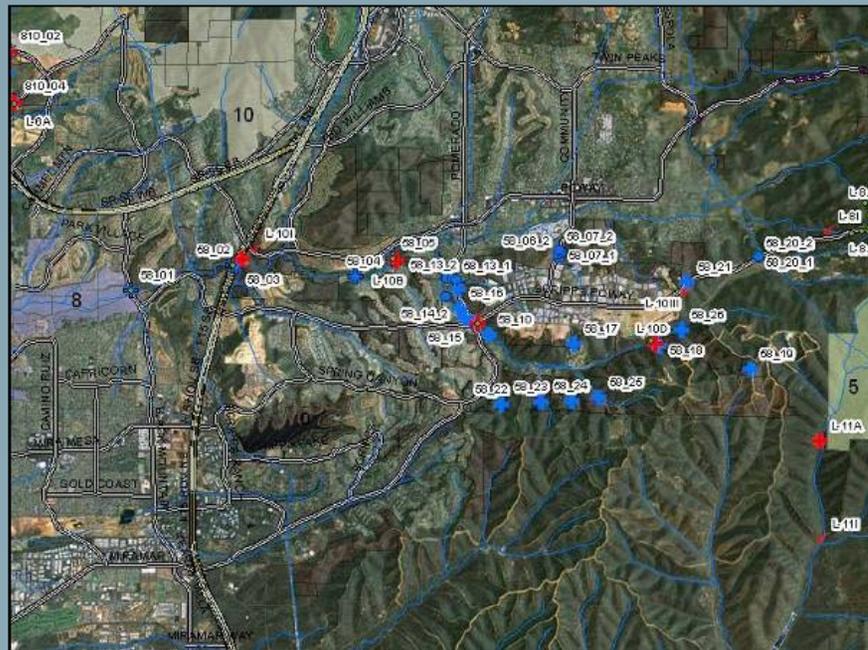


2011 San Diego County Badger Survey

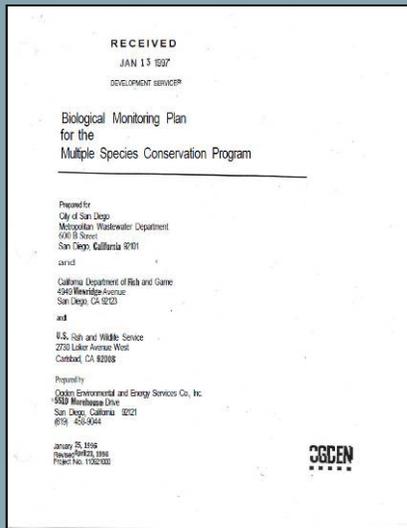
Date	Site	Badger	Date	Site	Badger
11/15/2011	Camp Pendleton: Juliett	Y	11/29/2011	Oceanside	Y
11/16/2011	Pamo Valley	-	11/30/2011	Warner Springs	Y
11/17/2011	Fallbrook NWS	Y	12/2/2011	Mission Trails	-
11/18/2011	Santa Ysabel OSP-East	-	12/4/2011	Crestridge ER	Y
11/20/2012	Santa Ysabel OSP-West/Santa Ysabel Gorge	Y	12/5/2011	Rancho Jamul ER	-
11/21/2011	Santa Rosa Plateau	Y	12/6/2011	Hollenbeck WA	Y
11/22/2011	Ramona Grasslands	Y	12/8/2011	Otay Valley/Furby	-
11/23/2011	Daley Ranch/Lake Wolford/Dixon	Y	12/9/2011	Sweetwater/Proctor Valley	-
11/25/2011	Penasquitos Canyon	-	12/11/2011	Lake Morena/Robert's Ranch	-
11/26/2011	Camp Pendleton: Range 116, 117	-	12/12/2011	Marron Valley	Y
11/28/2011	Sycamore Canyon	-			



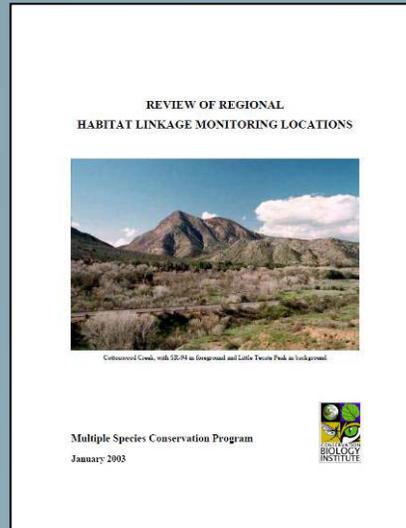
2011 San Diego County Linkages Evaluation



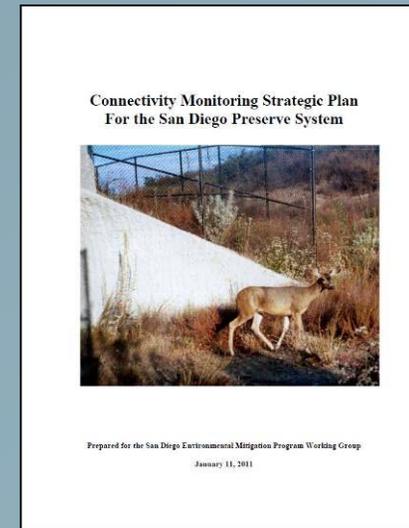
2011 San Diego County Linkages Evaluation



Ogden 1996. Biological Monitoring Plan for the Multiple Species Conservation Program



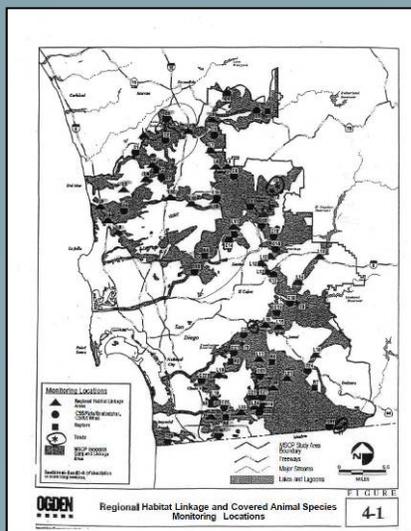
CBI 2003. Review of Regional Habitat Linkage Monitoring Locations



SDMMP 2011. Connectivity Monitoring Strategic Plan for the San Diego Preserve System.



2011 San Diego County Linkages Evaluation



Ogden 1996. Biological Monitoring Plan for the Multiple Species Conservation Program

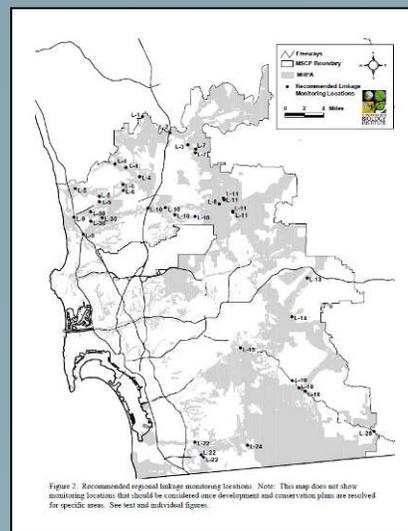


Figure 3. Recommended regional linkage monitoring locations. Note: This map does not show monitoring locations that should be considered once development and conservation plans are resolved for specific areas. See text and individual figures.

CBI 2003. Review of Regional Habitat Linkage Monitoring Locations

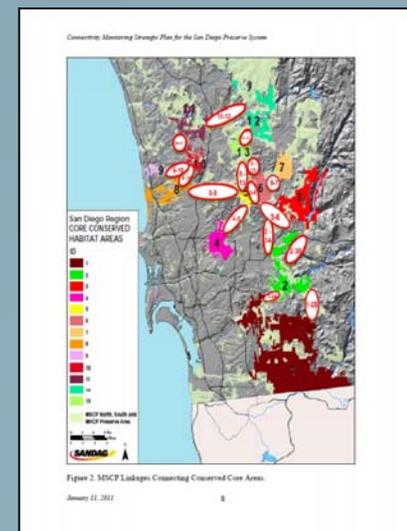


Figure 2. MSCP Linkages Connecting Conserved Core Areas.

January 21, 2011

SDMMP 2011. Connectivity Monitoring Strategic Plan for the San Diego Preserve System.

2011 San Diego County Linkages Evaluation

**-Linkage between
CA-8 and CA-10**

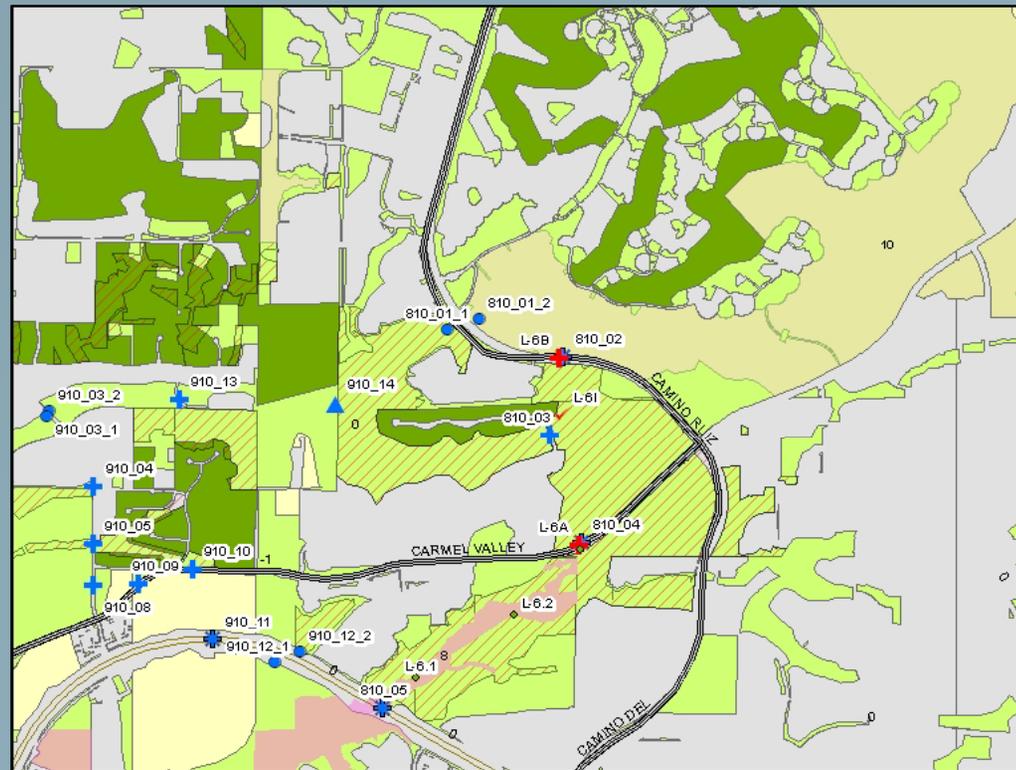
-Conserved
Lands Database

-Ogden 1996 &
CBI 2003 points

-Land use data

-Additional
evaluation points

-High likelihood
of connectivity



2011 San Diego County Linkages Evaluation

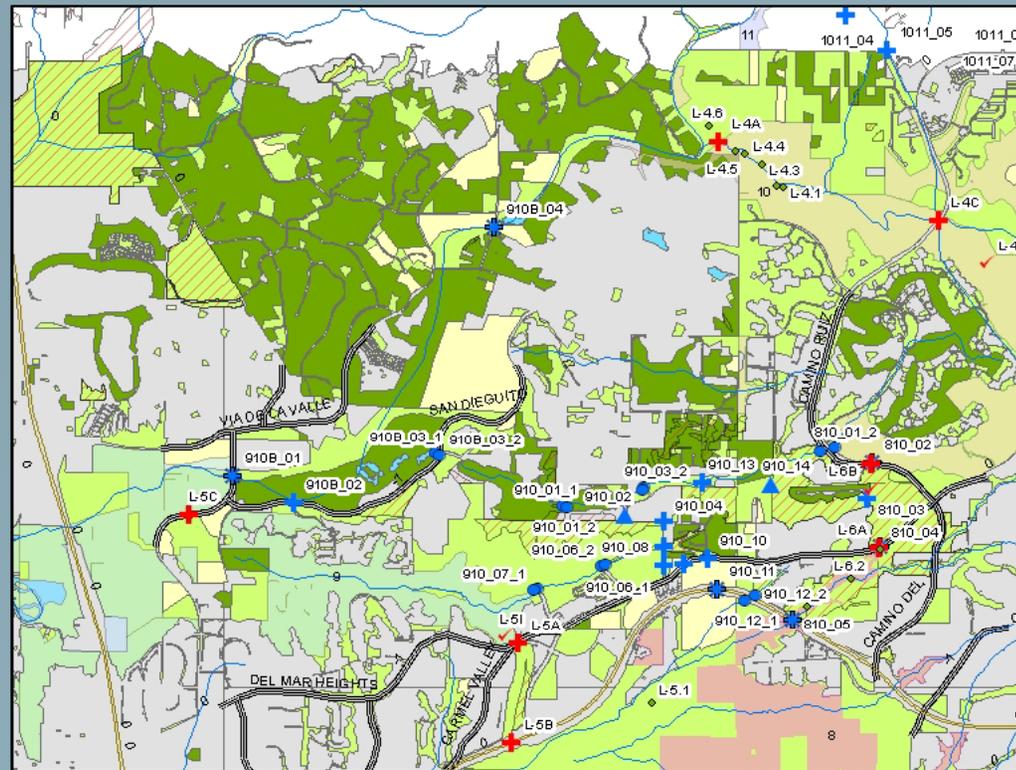
-Linkage between
CA-9 and CA-10

-Conserved
Lands Database

-Ogden 1996 &
CBI 2003 points

-Land use data
-Additional
evaluation points

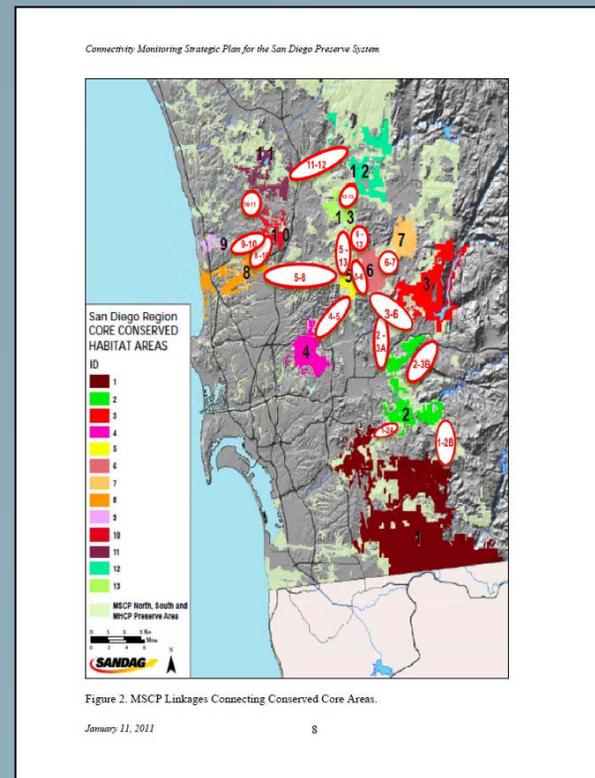
-Low likelihood
of connectivity
-San Dieguito
River Valley &
south through CA-
8



2011 San Diego County Linkages Evaluation

Linkages evaluated to date:

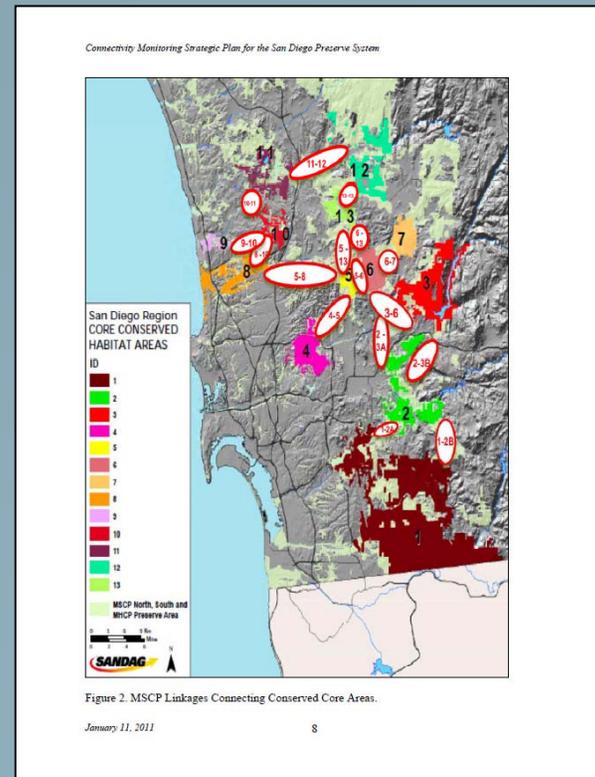
- CA-8 to CA-10
 - Los Peñasquitos Canyon to Black Mountain
- CA-9 to CA-10
 - Del Mar Lagoon to Black Mountain
- CA-10 to CA-11
 - Black Mountain to Lake Hodges
- CA-11 to CA-12
 - Lake Hodges to Ramona Grasslands/Boden Canyon
- CA-12 to CA-13
 - Ramona Grasslands/Boden Canyon to Mt. Woodson
- CA-5 to CA-8
 - Goodman Ranch to Los Peñasquitos Canyon



2011 San Diego County Linkages Evaluation

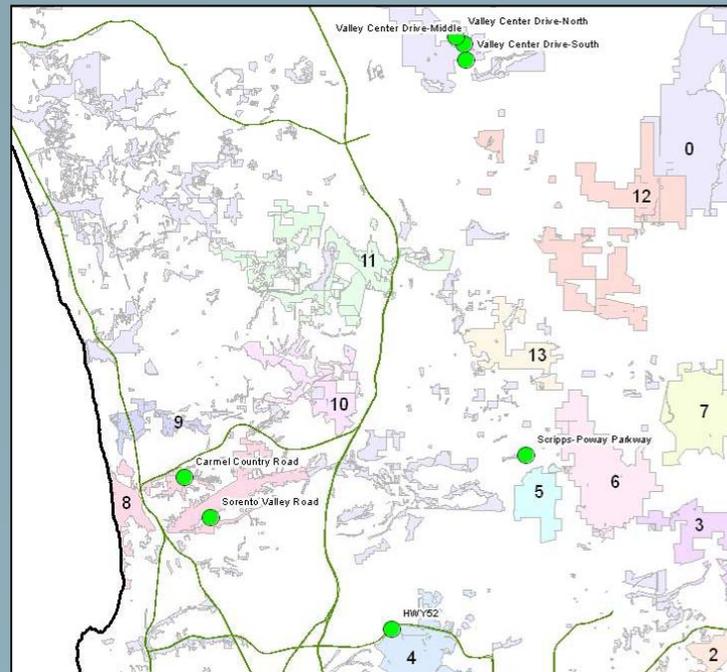
Priority list:

- CA-1 to CA-2
 - Otay Mountain/RJER to SDNWR/Crestridge (north of SR-94 at Las Montañas)
- CA-2 to CA-3
 - McGinty Mountain/Crestridge to Harbison Canyon/El Capitan Reservoir (Puetz Valley Road and I-8)
- CA-5 to CA-13
 - Sycamore Canyon/Goodman Ranch to Mt. Woodson (Scripps-Poway Parkway underpass)



Sneak peak: 2012 Underpass Evaluation and Enhancement

- Small vertebrate use of wildlife tunnels
- 8 tunnels with cameras
 - SR-52 at Mission Trails
 - Sorento Valley
 - Carmel Country Road x2
 - Scripps-Poway Parkway
 - Valley Center Road x3



Sneak peak: 2012 Underpass Evaluation and Enhancement



2011 San Diego County Linkages Evaluation



Mule deer



Coyote



Raccoon



Brush rabbit



Grey fox



Road runner



Thanks:

- **Funding:**

- California Department of Fish and Game – Local Assistance Grant
- San Diego Association of Governments
- U. S. Geological Survey



- **Site access:**

- California Department of Fish and Game
- County of San Diego Parks & Recreation
- U.S. Fish and Wildlife Service
- And many others





MSCP ANNUAL REPORT 2012



TransNet

ENVIRONMENTAL MITIGATION PROGRAM

- Land Acquisitions
 - KeepSanDiegoMoving.com
 - 22 properties
 - 2,376 acres
 - \$89.3 million



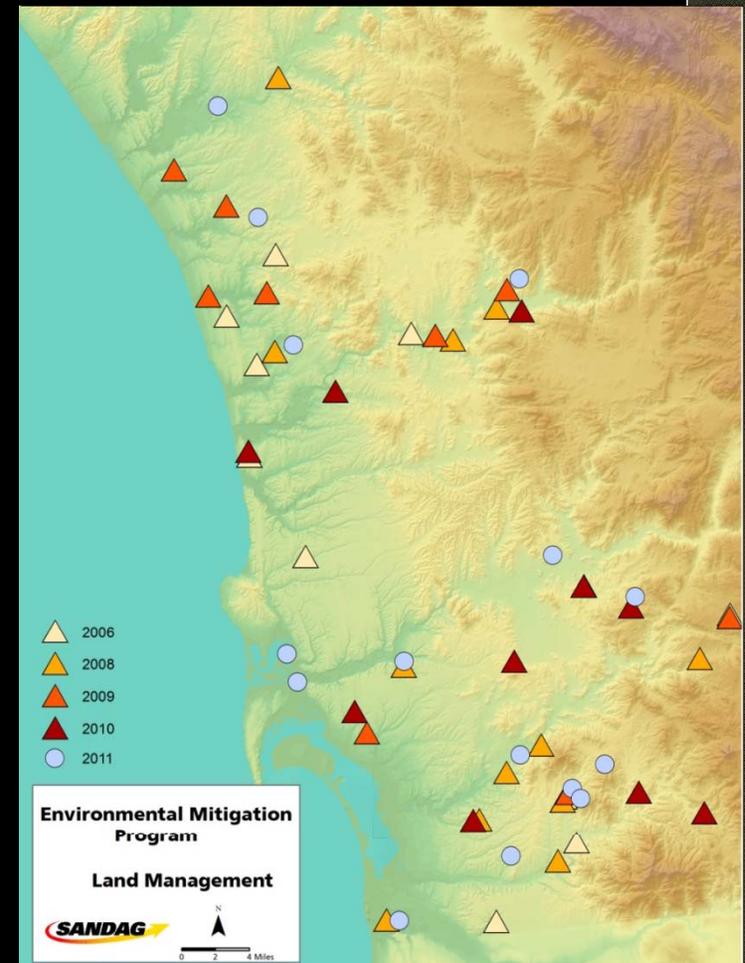
TransNet Environmental Mitigation Program Land Acquisitions

As of April 2012

- 1 **Groves**
268 acres acquired in 2008
- 2 **Morrison**
136.7 acres acquired in 2008
- 3 **Anderprizes**
43.5 acres acquired in 2008
- 4 **Dean Family Trust**
23.1 acres acquired in 2008
- 5 **Zwesteria**
19.4 acres acquired in 2009
- 6 **Sage Hill**
170.8 acres acquired in 2009
- 7 **Hallmark**
19.3 acres acquired in 2009
- 8 **Leung/Lowe**
21.8 acres acquired in 2009
- 9 **Ayoub**
21.7 acres acquired in 2009
- 10 **San Dieguito Lagoon**
107 acres acquired in 2009
- 11 **Lonestar Ranch**
175.3 acres acquired in 2009
- 12 **Tabata**
23.7 acres acquired in 2010
- 13 **Zamudio**
32.5 acres acquired in 2010
- 14 **Mendocino**
19.7 acres acquired in 2010
- 15 **Vessels**
162 acres acquired in 2010
- 16 **Jeffries Ranch**
80.3 acres acquired in 2011
- 17 **Rincon**
37.3 acres acquired in 2011
- 18 **Deer Canyon**
31.4 acres acquired in 2011
- 19 **Rancho Lilac**
90.2 acres acquired in 2011
- 20 **Laser**
5.81 acres acquired in 2012
- 21 **Otay Mesa Parcel A**
6.71 acres acquired in 2012
- 22 **Time Out Holdings /Stacco**
68.18 acres acquired in 2012



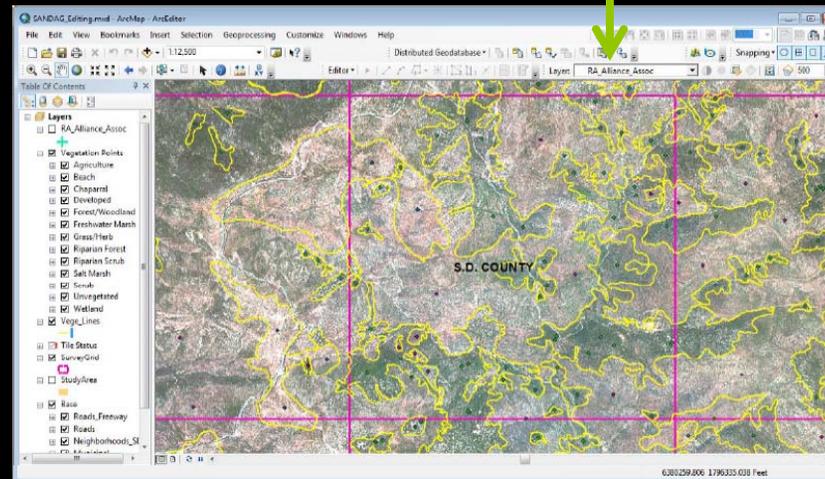
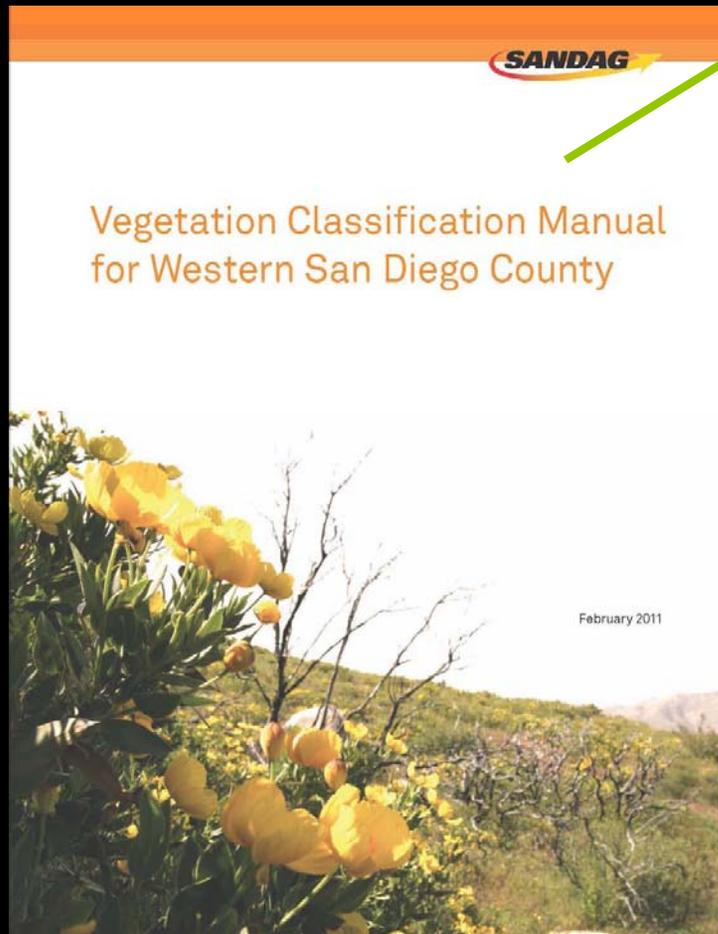
- Supporting Regional Management
 - KeepSanDiegoMoving.com
 - 55 grants
 - \$11.3 million



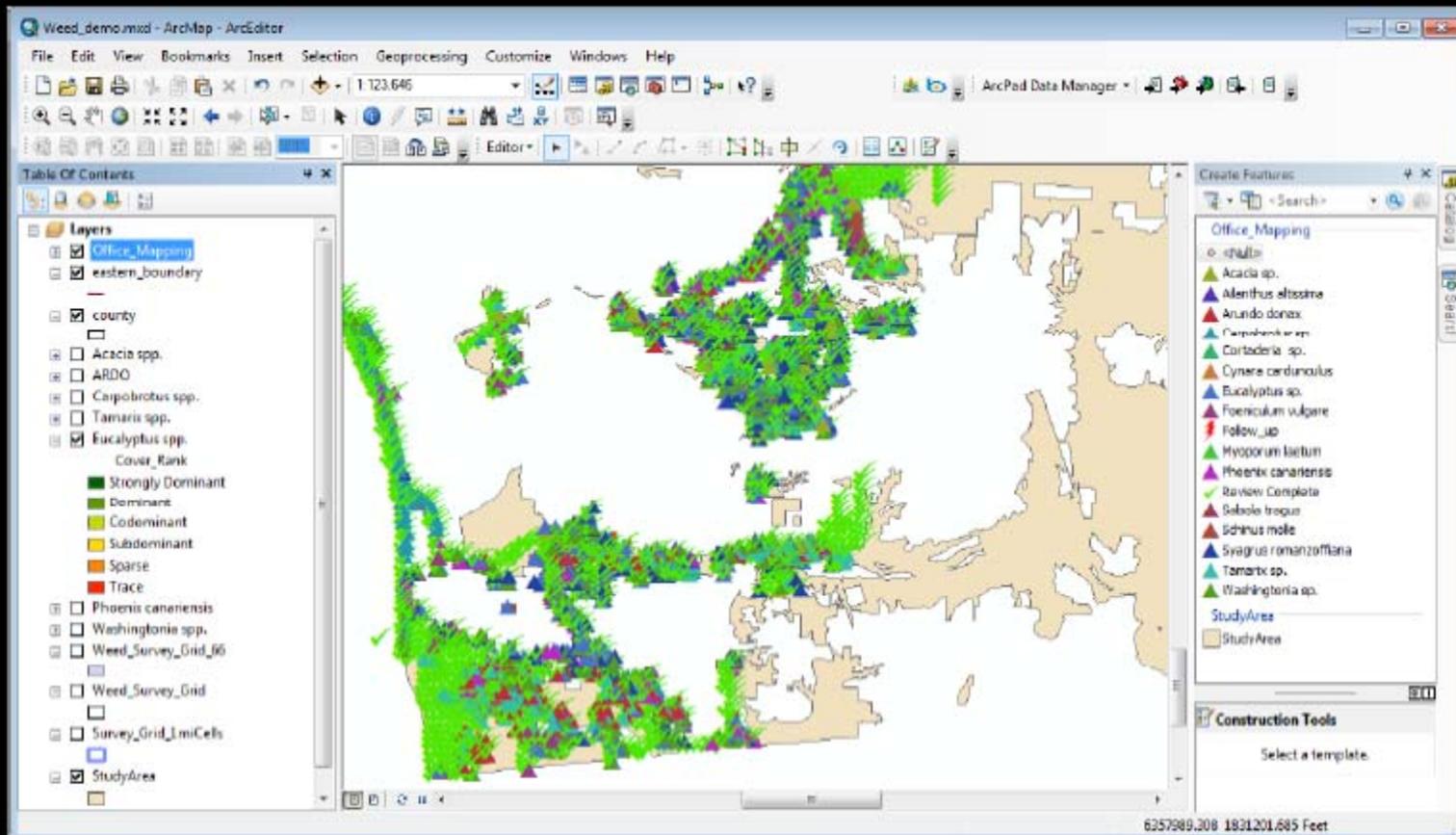
- Supporting Regional Monitoring
 - KeepSanDiegoMoving.com
 - 35 contracts
 - \$9.2 million



Regional Vegetation Mapping



Regional Invasive Species Mapping



Regional Management and Monitoring Strategy

" There currently is no broadly recognized formal mechanisms for research coordination and communication of existing and new information to managers."

Peter Stine et al. 1997

NCCP Guidance to Address Needs of Land Managers

Regional Management and Monitoring Strategy

The Dahlem Conference:

This workshop provided a collaborative forum to address some of the key scientific and organizational challenges facing regional preserve implementation.



Regional Management and Monitoring Strategy

“A comprehensive strategic monitoring and adaptive management plan, informed by sound science, is essential to monitoring and management in and of itself, and is also essential for clearing other impediments to successful implementation of the MSCP. ”

Deutschman and Strahm 2012

“Continue efforts to develop comprehensive and coordinated strategic plans and measurable program objectives “

TransNet Triennial Audit Recommendation

Development of the Management Strategic Plan MSCP Annual Report Workshop

Yvonne C. Moore, Coordinator
San Diego Management and Monitoring Program
www.sdmmp.com



Management Strategic Plan

- Purpose: to prioritize funding and guide management of species, vegetation communities, and stressors across the San Diego region
- Not a preserve-level plan
- Step-down structure:
 - Regional level
 - Management Unit level
 - Preserve complex level
 - Individual preserve level



Management Strategic Plan Approach

1. Define species list, management focus (species specific vs habitat), core pop locations, species life-history, niche models, plan info, etc.
2. Divide County into Management Units (MUs) and characterize - species, vegetation, core reserves, linkages, fire history, stressors, land owners and managers, etc.
3. Develop goals and objectives for species and vegetation communities
4. Prioritize implementation



Management Strategic Plan Review Teams

- **Landscape Group** – DFG, FWS, SANDAG, SDSU, EHL/EHC, City Carlsbad, County San Diego, City San Diego
 - Input on MUs, species, goals and objectives, structure and content of document
- **Land Manager Groups**
 - On the ground implementation – what can be done and where specifically

MSP Species

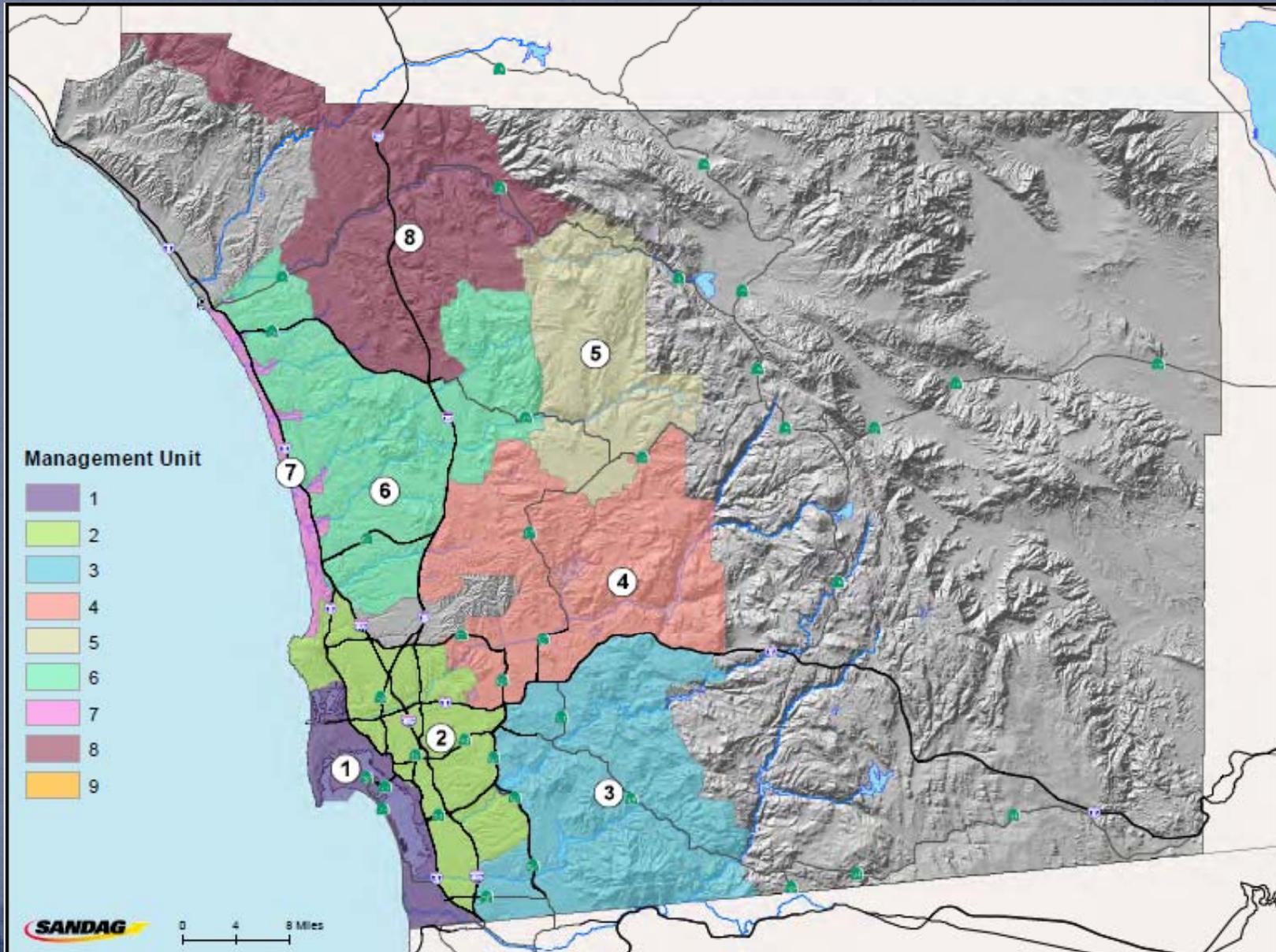
❖ 120 Covered Species in 3 plans (MSCP, MHCP, North County Plan)

- 63 plants
- 30 birds
- 9 mammals
- 7 invertebrates
- 5 amphibians
- 5 reptiles
- 1 fish



Approximately 65 species can be managed at the habitat level

Proposed Management Units



MSP Example: Southwestern Pond Turtle



- SWPT – managed at the species specific and site-specific level
- Stressors: altered hydrology, urban development, major roads, and exotic plant and animal species
- Low human access and high naturalness = presence of SWPT (Madden-Smith et al 2005)
- On average, in SD County, adult female SWPT have 3 young per year, do not breed every year, and take 8 years to grow to breeding size (pers. comm. Chris Brown, USGS)

Southwestern Pond Turtle – Known Core Populations in Plan Areas

MU	Location	Est. Pop Size	Survey Year	Data Source
3	Sycuan Peak Ecological Reserve – Sweetwater River (MSCP)	38	2002-2003	Madden-Smith et al 2005
6	Lusardi Creek – 4S Ranch (MSCP)	15	2002-2003	Madden-Smith et al 2005

* SWPT presence known in other areas but population size not known. Additional surveys underway to assess pop. size in these areas.

Overall and MU3 Goals for SWPT

➤ Overall Goal:

- Protect and enhance existing populations of SWPT to self-sustaining* levels in areas that meet the conditions for long-term management** in MUs 3, 4, 5, and 8 and create at least x new self-sustaining populations.

➤ MU3 Goal:

- Within 5 years create conditions that put three populations of SWPT in MU3 on a trajectory to becoming self-sustaining* populations requiring minimal yearly management.

* 200+ individuals, even sex ratio, evidence of recruitment

**Low human access, high naturalness

MU3 Priority 1 Objectives for SWPT

- Over the next 5 years, eliminate/reduce aquatic predators and exotic species at Sycuan Peak ER to support the expansion of the SWPT population to self-sustaining levels
- Over the next 5 years, establish two additional SWPT sites which (1) could be utilized as source populations for SWPT translocations to other natural sites and (2) are capable of becoming self-sustaining populations

MSP Implementation

- Transnet Land Management Grant Program
 - Future funding of proposals based on implementation of priorities in MSP
- Coordination with preserve managers
 - Efficiencies gained by prioritizing management of species and habitats based on core populations and across preserve complexes
- Leverage other funding opportunities

Questions?

Contact:

Ron Rempel
rrempel@usgs.gov

Yvonne Moore
ymoore@usgs.gov

SDMMP website
<http://sdmmp.com>

