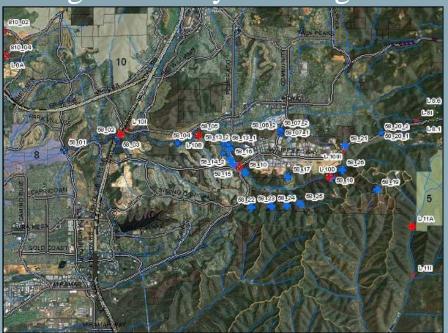
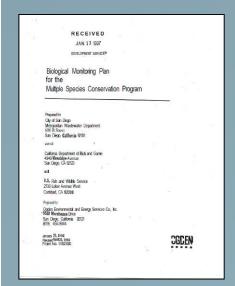
SDMMP Meeting:

U.S. Geological Survey – Linkages Evaluation



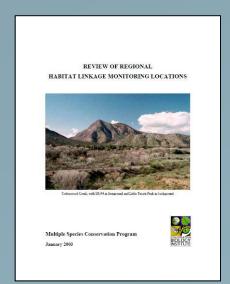


Carlton J. Rochester, Cheryl Brehme, and Robert N. Fisher U. S. Geological Survey, San Diego, CA, U.S.A.

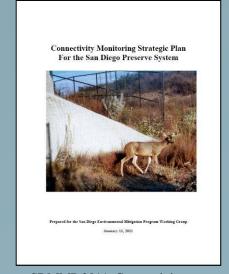


Ogden 1996. Biological Monitoring Plan for the Multiple Species Conservation Program

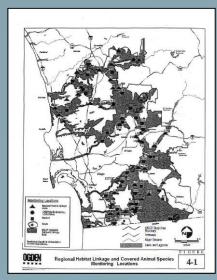




CBI 2003. Review of Regional Habitat Linkage Monitoring Locations

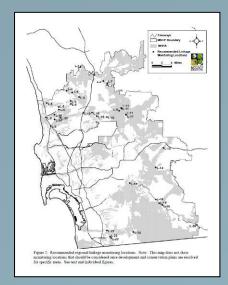


SDMMP 2011. Connectivity Monitoring Strategic Plan for the San Diego Preserve System.

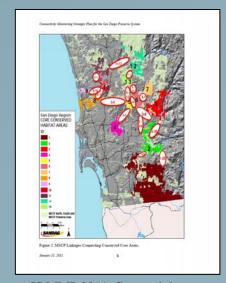


Ogden 1996. Biological Monitoring Plan for the Multiple Species Conservation Program





CBI 2003. Review of Regional Habitat Linkage Monitoring Locations

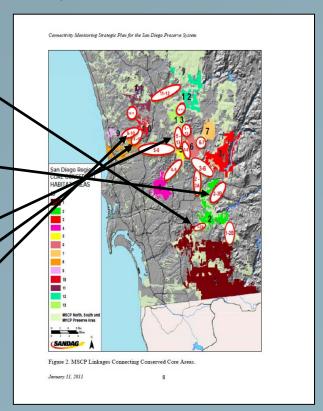


SDMMP 2011. Connectivity Monitoring Strategic Plan for the San Diego Preserve System.

Priority list:

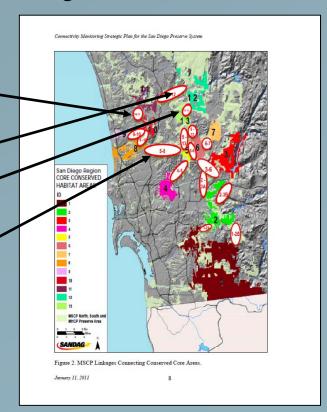
- •CA-1 to CA-2
 - Otay Mountain/RJER to SDNWR/Crestridge (north of SR-94 at Las Montañas)
- •CA-2 to CA-3
 - McGinty Mountain/Crestridge to Harbison Canyon/El Capitan Reservoir (Puetz Valley Road and I-8)
- •CA-5 to CA-13
 - •Sycamore Canyon/Goodman Ranch to Mt. Woodson (Scripps-Poway Parkway underpass)
- •CA-8 to CA-10
 - Los Peñasquitos Canyon to Black Mountain
- •CA-9 to CA-10
 - •Del Mar Lagoon to Black Mountain





Priority list:

- •CA-10 to CA-11
 - Black Mountain to Lake Hodges/Del Dios
- •CA-11 to CA-12
 - •Lake Hodges/Del Dios to Ramona Grasslands/Boden Canyon
- •CA-12 to CA-13
 - •Ramona Grasslands/Boden Canyon to Mt. Woodson/Blue Sky ER
- •CA-5 to CA-8
 - Sycamore Canyon/Goodman Ranch to Torrey Pines/Del Mar Mesa/Los Peñasquitos Canyon





- -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





Length: 170 meters

-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

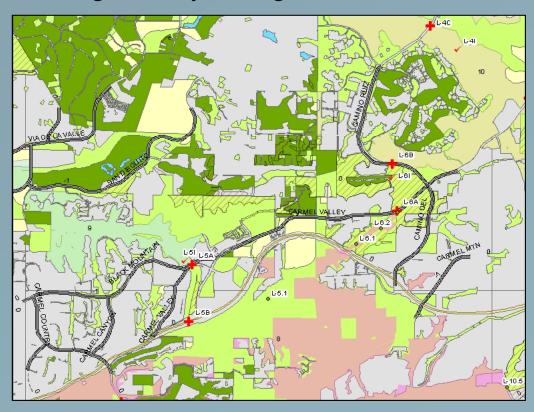




-Linkage between **CA-9 and CA-10**

- -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-

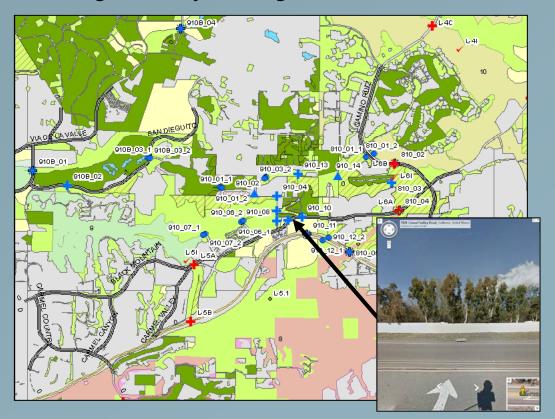




-Linkage between **CA-9 and CA-10**

- -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-



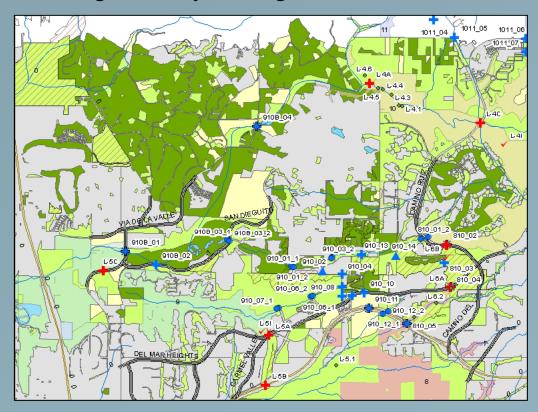


-Linkage between CA-9 and CA-10

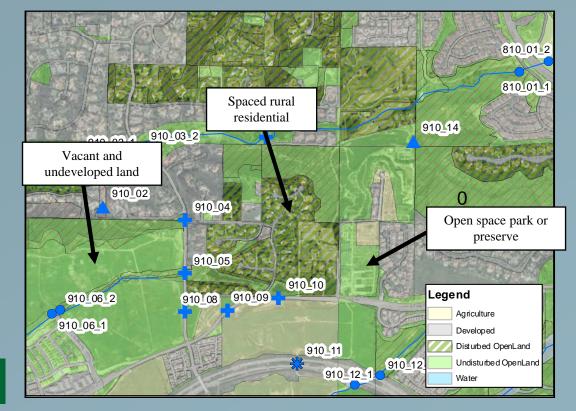
- -Conserved Lands Database
- -Ogden 1996 & CBI 2003 points
- -Land use data
- -Additional evaluation points
- -Low likelihood
- of connectivity -San Dieguito
- River Valley & south through CA-

8





- -Multi-image approach
- -land use layer
- -aerial imagery layer
- -oblique view
- -bird's eye view
- -street view





Summary Evaluation:

- •CA-1 to CA-2: Otay Mountain/RJER to SDNWR/Crestridge (north of SR-94 at Las Montañas)
 - •Non-functional
 - •Highway 94 minimal barriers and insufficient structure
 - •**Recommendation** when SR-94 is re-developed, include wildlife barriers and crossing structures
 - •Mexican Canyon/Jamul Drive rural sprawl
 - •Cottonwood Golf Course barriers and removal of riparian cover
 - •**Recommendation** work with golf course owners/management to restore riparian habitat along Sweetwater River
- •CA-2 to CA-3: McGinty Mountain/Crestridge to Harbison Canyon/El Capitan Reservoir (Peutz Valley Road and I-8)
 - Non-functional
 - •Harbison Canyon/Galloway Valley Rural sprawl
 - •Recommendation provide safe routes around human development
 - Instersate-8/Alpine Blvd/Peutz Valley Road Choke point
 - •**Recommendation** extensive rebuilt of entire intersection?!\$?!\$







Summary Evaluation:

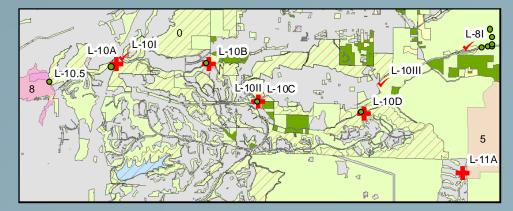
- •CA-5 to CA-13: Sycamore Canyon/Goodman Ranch to Mt. Woodson (Scripps-Poway Parkway underpass)
 - •Functional but needs improvement
 - •Scripps-Poway Parkway wildlife tunnel supports diverse wildlife
 - •Poway Road barrier to wildlife movement
- •CA-8 to CA-10: Los Peñasquitos Canyon to Black Mountain
 - Functional but needs improvement
 - •Camino Ruiz over McGonigle Canyon sparse vegetation
- •CA-9 to CA-10: Del Mar Lagoon to Black Mountain
 - •Non-functional
 - •Urban and rural sprawl focus on alternate conservation
- •CA-10 to CA-11: Black Mountain to Lake Hodges/Del Dios
 - Functional but needs improvement
 - •San Dieguito River at the west end of these areas is the best option
- •CA-11 to CA-12: Lake Hodges/Del Dios to Ramona Grasslands/Boden Canyon
 - •Non-functional
 - •I-15 bridge over Lake Hodges water level precludes any terrestrial wildlife movement under the bridge





Summary Evaluation:

- •CA-12 to CA-13: Ramona Grasslands/Boden Canyon to Mt. Woodson/Blue Sky ER
 - •Functional but need improvement
 - •Rural sprawl between Ramona and Mt. Woodson throughout Archie Moore Road
 - •Starvation Mountain
- •CA-5 to CA-8: Sycamore Canyon/Goodman Ranch to Torrey Pines/Del Mar Mesa/Los Peñasquitos Canyon
 - Non-functional
 - •Urban/Rural/Industrial sprawl creates a complicated maze that may be too difficult for wildlife to navigate





Recommendations:

- •Roadway reconstruction –when freeways and major roads are redeveloped, suitable wildlife structures must be included
 - •SR-94 near Las Montañas, Interstate-8, and Poway Road
- •Barrier and wildlife exclusion structures fencing with wildlife escape options and self-closing gates for human usage
 - •Scripps-Poway Parkway, SR-94, and SR-67
- •Cooperation for conservation working with public and private land owners and agencies to conserve habitat and connectivity
 - Golf course owners/management, water districts, and reserve owners
- •Habitat acquisition and establishment acquire new properties where appropriate and work to restore vegetation at critical points
 - San Dieguito River, Sweetwater River, and Camino Ruiz over McGonigle Canyon



