REVIEW OF REGIONAL
HABITAT LINKAGE MONITORING LOCATIONS

Cottonwood Creek, with SR-94 in foreground and Little Tecate Peak in background

Multiple Species Conservation Program

January 2003

CONSERVATION BIOLOGY INSTITUTE

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Prepared by

CONSERVATION BIOLOGY INSTITUTE

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Conservation Biology Institute's (CBI) mission is providing scientific expertise to support conservation and recovery of biological diversity in its natural state through applied research, education, planning, and community service.

TABLE OF CONTENTS

INTRODUCTION

Monitoring species use of habitat linkages and wildlife corridors is one component of the MSCP Biological Monitoring Plan (Ogden 1996). The monitoring plan was developed to document compliance with the MSCP, measure the effectiveness of the conservation program, and inform adaptive management decisions. The California Department of Fish and Game (CDFG) funded the Conservation Biology Institute (CBI) to review the regional habitat linkage monitoring locations identified in Table 4-1 of the MSCP Biological Monitoring Plan (Ogden 1996). The purpose of the review was to assess the general locations of regional corridor monitoring locations, mapped in Figure 4-1 of the Biological Monitoring Plan, and to refine the overall corridor monitoring locations for the MSCP. As part of this assessment, CBI identified potential barriers to wildlife movement and alternate locations that may be preferable to those mapped in Figure 4-1.

BACKGROUND

The MSCP preserve was designed to maintain connections between core habitat areas, including linkages between coastal lagoons and more inland habitats and linkages between different watersheds. In addition to allowing for demographic and genetic exchange by all species between core preserve areas, linkages were intended to allow larger predators (mountain lions, coyotes, and bobcats) to move among conserved habitat blocks and reach coastal habitats. These top predators are particularly vulnerable to extirpation from fragmented habitats (Soulé et al. 1992, Noss 1983), which can precipitate further changes to ecological communities. Dominant carnivores can suppress smaller carnivores through both competition and predation. Consequently, the decline of top predators in fragmented areas may lead to increased populations of smaller predators ("mesopredators"), such as gray foxes, raccoons, striped skunks, opossums, and house cats (i.e., mesopredator release, Soulé et al. 1988, Crooks 2000). Thus, dominant carnivores may be fundamental in maintaining the ecological integrity of natural systems.

The focus of this study was on regional habitat linkage monitoring locations for tracking corridor use by large mammals (i.e., deer, coyote, bobcat, mountain lion) as part of the MSCP biological monitoring program. For purposes of this report, habitat linkages are defined as habitat areas that provide connectivity between core habitat patches as well as year-round foraging, reproduction, and dispersal habitat for resident plants and animals (MSCP 1995). A wildlife corridor is a landscape feature, usually relatively narrow, that allows animal movement between two patches of habitat or between habitat and geographically discrete resources (Ogden 1996). There are many areas of the MSCP study area that serve as corridors for wildlife movement, and these occur both within designated habitat linkages and within core resource areas (i.e., certain topographic features in core areas may be regularly used for movement by wildlife). A "chokepoint" is a portion of a wildlife corridor that is constricted, generally due to encroachment of adjacent development, road crossings, or other land uses. Because they may serve as impediments to wildlife movement, chokepoints within habitat linkages have been the focus for defining MSCP monitoring locations and were the focus of this study.

METHODS

The MSCP Biological Monitoring Plan (Ogden 1996) identified 29 regional habitat linkage monitoring locations. Generally, monitoring locations were identified within constrained linkages, or chokepoints, where animal movement was assumed to be limited by development and human uses, at ultimate build-out of the preserve and build-out of surrounding land uses. The plan specifies that an initial site reconnaissance should be conducted to site actual transect locations in the field. In addition, the plan recommends that road-kill data be collected in the vicinity of monitored habitat linkages. A plan for recording and mapping road-kill data is discussed in a separate report (CBI 2002a).

CBI developed a form (MSCP Linkage Description Log) for recording the results of the site reconnaissance (Figure 1). The form was prepared based on input from the Scientific Advisory Group of the San Diego Tracking Team (SDTT) and forms used by the South Coast Wildlands Project. CBI completed the first part of the form (Part A) as part of the initial site reconnaissance of linkage monitoring locations. The second part of the form (Part B) will be completed as part of monitoring at actual transect locations.

The CDFG provided year-2000 color-infrared aerial photography of the study area. CBI visited proposed monitoring locations in the field, where possible, and prepared MSCP Linkage Description Logs (Appendix A). In some areas, ongoing construction activities (e.g., Gonzales Canyon, McGonigle Canyon) or access restrictions to private property (e.g., Otay River at Highway 125) prevented us from accessing the sites. The lack of a current, detailed map showing MSCP conserved areas throughout the planning area was also a limitation. In these cases, the review was based on aerial imagery and our understanding of the regional preserve system. Five monitoring locations in Los Peñasquitos Canyon and parts of Poway also were not revisited in the field because transect locations were defined by a previous study (CBI 2002b).

We identified chokepoints within linkages that serve as regional movement corridors for large mammals, both within the MSCP preserve system and to other NCCP subregions. Locations assumed to be used primarily for bird, invertebrate, herp, or small mammal movement rather than for large mammal movement (e.g., Lakeside archipelago) or that do not serve as a regional linkage (e.g., Salt Creek, Poggi Canyon) were not recommended as monitoring locations. In some cases, siting specific monitoring locations was not possible because animal movement is not currently constrained by existing development. However, these areas (e.g., Proctor Valley) may be constrained by new developments in the future. In these areas, we have not identified a specific monitoring location but have recommended that a monitoring location be reevaluated once development and conservation patterns have been established.

CBI and the SDTT established transects at Lusardi Creek, SR-67 culverts, Crestridge, Hollenbeck Canyon, Spring Canyon, and Dennery Canyon at Otay Mesa Road as part of this study. Caltrans provided a permit for monitoring culverts under SR-67. The SDTT monitored these transects quarterly in 2002. The results of those monitoring efforts will be presented in a separate report (CBI in prep.).

Figure 1. MSCP LINKAGE DESCRIPTION LOG
Part A

Linkage Name and MSCP monitoring #: _____

1. Linkage Type (check one):

- ❑ Landscape Linkage
- ❑ Connectivity Choke-Point
- ❑ Other _____

2. List the key focal species expected to use the linkage:

3. Identify the most important threats to connectivity function and score the severity of each threat (rank on a scale of 1 (no threat) to 5 (severe threat/loss imminent).

Type of Threat	Severity of Threat

4. Provide a brief description of the linkage.

Characteristic	Within linkage	Core habitat at ___ end of linkage (N,S,E,W)	Core habitat at ___ end of linkage (N,S,E,W)
Habitat types			
Size of habitat block			
Quality of habitat			
Topography			
Land use			
Type of human use			
Source of water			
Conservation status			

Habitat types: e.g., scrub, chaparral, riparian woodland, riparian scrub, oak woodland, etc.
Size of habitat block: large (>14,800 ac), medium (1000-14,800 ac), small (<1000 ac).
Quality of habitat: undisturbed or readily restorable, moderately disturbed (impacted by human activities), very disturbed (relatively little natural habitat or processes remain).
Topography: ravine, ridgetop, slope, flat, etc.
Land use: high density residential, rural residential, commercial, industrial, agriculture, park or golf course, open space, recreation, etc.
Type of human use: hiking, residential, transportation, etc.
Source of water: pond, creek, runoff, etc.
Conservation status: conserved, conserved but not managed, not conserved.

5. Provide the approximate dimensions of the corridor, including width at narrowest point.

Length:_____

Average width (or range):_____

Width at narrowest point:_____

6. Identify primary barriers that may impede wildlife movement.

Permeable = linkage consists of high quality habitat that is permeable to many species, low density agriculture, and low use roads._____
_____

Semi-permeable = linkage covers large area but habitat is degraded due to high levels of development, intensive agriculture, or disturbance._____
_____

Impermeable = linkage is highly impacted by development and is disconnected by dams, roads, and small culverts; habitat is seriously degraded_____
_____

7. Identify existing features that facilitate animal movement within the linkage (e.g., dirt road, underpass, vegetative cover, etc.).

8. What documentation is available to demonstrate use of the linkage (e.g., sign of species currently using the area, presence of game trails, data from SDTT or others, etc.)?

9. What are the logistics of surveying the area?

Type of substrate:_____
Density of vegetation:_____
Existing trail or road system?_____
Secure locations to establish a camera station?_____
Existing ownership:_____
Other:_____

10. Recommended for MSCP corridor monitoring?

❑ Recommended ❑ Not recommended

Alternative location:_____

11. For linkage stations recommended for MSCP corridor monitoring, collect Crooks Measurements for Carnivore Sampling Stations (separate data sheet, Part B).

Part B
Crooks' Measurements for Carnivore Sampling Stations

Local characteristics for each station (measured onsite)

1. Distance of station to nearest edge (specify urban or agricultural edge):_____
2. Vegetative cover classes*: estimate percent category within 20m radius circle around each station:

   a. Shrub cover:_____
   b. Grass/herbaceous cover:_____
   c. Tree cover:_____
   d. Bare ground (or rock):_____
   e. Total native cover:_____
   f. Total exotic cover:_____

Underpass dimension variables (measured onsite)

1. **length** – length of underpass (m); distance animal would travel when passing through underpass:_____
2. **width** – width of underpass (m):_____
3. **height** – height of underpass (m):_____
4. **openness** – width x height/length of underpass:_____
5. **natural cover** – average percent category* of native cover within 100 m radius of underpass entrance (measured at each underpass entrance and averaged between the two):_____
6. **landscape cover** – average percent category* of landscaping (non-native) cover within 100 m radius of underpass entrance (measured at each underpass entrance and averaged between the two):_____

Landscape variables associated with each station (can be measured from GIS layers)

1. **natural** – percent category* of natural habitat within 1 km^2 of station (station centered within 1 km^2 plot):_____
2. **landscape** – percent category* of landscaped habitat (e.g. parks, golf courses, etc) within 1 km^2 of station:_____
3. **urban** – percent category* of urban/commercial development within 1 km^2 of station:_____
4. **ag** – percent category* of agricultural development within 1 km^2 of station:_____
5. **road density** – the number of roads within 1 km^2 of station:_____
6. **corridor width** – (for stations within corridors or habitat linkages) – the width of the corridor (continuous open space) at station:_____

* A Braun-Blonquet categorical scale (Kent and Coker 1992) is used to measure percent categories of cover: 0 (<1%), 1 (1-5%), 2 (6-25%), 3 (26-50%), 4 (51-75%), and 5 (76-100%).

RESULTS AND DISCUSSION

Table 1 summarizes the monitoring locations proposed by the MSCP Monitoring Plan (Ogden 1996), along with comments relative to their use as future monitoring locations. These locations are described below. All location figures, MSCP Linkage Description Logs, and photos are included in Appendix A.

L-1 Rancho Cielo - San Dieguito River

This area is part of the coastal sage scrub linkage between Lake Hodges and the Multiple Habitat Conservation Program (MHCP) subregional planning area. It has been fragmented by the Rancho Cielo development and the roads within the development (Figure L-1). While patches of habitat remain, the terrain is steep, and large mammals are not expected to use this area as a linkage between the San Dieguito River Valley and open space in the MHCP, such as the Escondido Creek valley. CBI does not recommend this location for monitoring large mammal movement. The area may allow coastal sage scrub bird dispersal.

Alternative Location. Wildlife movement between the San Dieguito River Valley and the MHCP could be monitored on the Derbas property, which was recently purchased for conservation by the San Dieguito River Valley Conservancy and is part of the Escondido Subarea Plan of the MHCP. It is hypothesized that wildlife using the open space bordering Lake Hodges could cross Del Dios Highway and then move up the canyon on the Derbas property (Figure L-1, Location A). CBI recommends monitoring at this location.

L-2 Lake Hodges - San Pasqual Valley

The San Pasqual/San Dieguito River Valley is one of only two remaining significant east-west connections linking coastal habitat preserves west of I-15 with inland preserve areas east of I-15. The I-15 undercrossing of the bridge at Lake Hodges appears to be functional for large mammal movement only during low lake levels, such as current conditions. When the lake is full and extends east of I-15, there is no access for large mammal movement, other than the fenced pedestrian walkway (part of the Coast-to-Crest trail) along the north shore and the rip-rapped slopes at the base of the bridge abutments. Thus, at high lake levels, I-15 completely severs the wildlife movement corridor.

Caltrans has proposed widening I-15 at this location, which would include replacing the entire bridge as part of the project. CBI prepared a letter of comment on the environmental document for this project (M. White to C. Stoll, 11/9/02), urging Caltrans to consider incorporating features into the project design that would facilitate wildlife movement under the bridge, regardless of the lake level. Such a design might include dirt paths, constructed along the bases of the northern and southern bridge abutments, above the high water mark of the lake. For example, where there is currently rip-rap at the base of the existing southern bridge abutment and the paved Coast-to-Crest trail on the north side of the river valley, small retaining structures could be built and soil placed on top of this to provide level paths for wildlife movement. The grade of the paths ideally would

Table 1. Review of Original MSCP Regional Habitat Linkage Monitoring Locations (Ogden 1996)

Site	General Location	Recommended for Regional Linkage Monitoring	Proposed Alternate or Additional Locations
L-1	Rancho Cielo - San Dieguito River (linkage to MHCP)	**No**, habitat too fragmented for large mammals	Linkage through Durbas property to MHCP
L-2	Lake Hodges - San Pasqual Valley	**Yes**, chokepoint at newly configured I-15 bridge	
L-3	San Pasqual Valley - North Poway	**Yes**, existing transect along Sycamore Creek	
L-4	Santa Fe Valley via Lusardi Creek (San Dieguito River -Black Mountain)	**Yes**, SDTT transect (A) at west end near confluence with San Dieguito River (A)	(B) Future Carmel Valley Rd undercrossing and (C) Future Camino Ruiz undercrossing
L-5	Gonzales Canyon (San Dieguito Lagoon - Carmel Valley)	**Yes**, at future Black Mountain Road undercrossing (A)	(B) Future SR-56 undercrossing (C) Future El Camino Real undercrossing
L-6	McGonigle Canyon (Deer Canyon - Black Mountain)	**Yes**, at Carmel Valley Road bridge (A)	(B) North-south drainage at Camino Ruiz
L-7	Old Coach Road - Blue Sky Reserve (Green Valley Creek)	**Yes,** at Old Coach Road Bridge over Green Valley Creek, aka Butcher Property (B)	(A) Confluence of Green Valley Creek and Thompson Creek
L-8	Central Poway (Sycamore Canyon - north)	**Yes**, at Scripps-Poway Parkway undercrossing	No, residential development between Sycamore Cyn and Scripps-Poway Pkwy
L-9	Torrey Pines State Reserve - Los Peñasquitos Canyon - Miramar	**Yes**, at I-5/I-805 merge bridges (A) and Carmel Creek at I-5 (B)	No, Carroll Canyon (C) is a steppingstone linkage to Miramar
L-10	Los Peñasquitos Canyon - South Poway (Beeler Canyon)	**Yes**, Peñasquitos Creek at I-15 (A), Sabre Springs (B), and Pomerado Road and Scripps-Poway Parkway (C)	(D) Upper Beeler Canyon upstream of quarry
L-11	South Poway - Santee (Sycamore and Clark Canyons)	**No**, Sycamore Canyon (A) is not a constrained corridor.	Yes, at culverts under SR-67 (B), No at Sycamore Park Drive (C)-not constrained
L-12	Lakeside - Crest - El Cajon (CSS north-south of I-8)	**No**, primarily a bird linkage	
L-13	Harbison Canyon at I-8 (El Capitan - Sweetwater River Valley)	**No**, (A) not expected to be used frequently by large mammals	(B) Harbison Canyon connection to Crestlake through Bullard Lane
L-14	Southern Harbison Canyon (Crestridge - Sloan Canyon)	**Yes**, at Dehesa Road (A)	(B) Transmission line easement north of Dehesa Road
L-15	McGinty Mesa - Rancho San Diego (middle Sweetwater River)	**Yes**, at SR-94 bridge over Sweetwater River	Potential future chokepoint east of SR-94

Table 1. Review of Original MSCP Regional Habitat Linkage Monitoring Locations (Ogden 1996)

Site	General Location	Recommended for Regional Linkage Monitoring	Proposed Alternate or Additional Locations
L-16	Sweetwater Reservoir - Rancho Del Rey	**No**, fragmented habitat patches, primarily a bird linkage	
L-17	San Miguel Mountains - Proctor Valley - Jamul Mountains (Otay Ranch)	**Yes**, at chokepoint once development plans are finalized in Proctor Valley	
L-18	Hollenbeck Canyon	**No**, this is a core area monitoring location rather than habitat linkage.	(C) Jamul Creek, (D) Hollenbeck Canyon drainage, and (E) Dulzura Creek at SR-94
L-19	Poggi Canyon	**No**, fragmented by development, primarily a bird steppingstone linkage	
L-20	Jamul Mountains - southeast side of Lower Otay Reservoir	**Yes**, at chokepoint once development plans are finalized in this area	Road-kill surveys along Otay Lakes Rd. between SR-94 and Otay Lakes
L-21	Jamul Mountains - San Ysidro Mountains (Little Cedar and Cedar Canyons)	**Yes**, at northern mouth of Little Cedar Canyon at Otay Lakes Road (A), if this area is constrained by future development	Road-kill surveys along Otay Lakes Rd. between SR-94 and Otay Lakes
L-22	Otay River Valley - West Otay Mesa (Dennery Canyon)	**Yes**, at new road crossing Dennery Canyon mouth at Otay River Valley (A)	(B) Otay Mesa Road culvert and (C) upstream end of Dennery Canyon
L-23	Otay River Valley at Future SR-125 (Otay Lakes - Otay Mountain)	**No**, this is a core area monitoring location rather than a habitat linkage.	See L-24
L-24	O'Neal Canyon Otay River Valley - Otay Mountain)	**Yes**, at Alta Road undercrossing	
L-25	Spring Canyon (Otay River Valley - Mexico)	**No**, this is a core area monitoring location rather than habitat linkage.	
L-26	Salt Creek (to Otay River Valley)	**No**, primarily a bird linkage; developed at north end	
L-27	East Otay Mesa (Otay Mesa - Mexico)	**No**, primarily a bird linkage through fragmented CSS across border	
L-28	San Ysidro Mountains East (Otay Mountain - east of MSCP)	**Yes**, Cottonwood Creek at SR-94 bridge	
L-29	Marron Valley	**No**, this is a core area monitoring location rather than habitat linkage.	

transition into adjacent open space areas outside of the Caltrans right-of-way. The paths could be vegetated along the margins to provide cover. Such design modifications would be a very small fraction of overall project costs and would greatly improve the wildlife corridor function of this chokepoint. CBI recommends these newly created paths under the new bridge for corridor monitoring, once the bridge is completed (Figure L-2).

L-3 San Pasqual Valley - North Poway (Sycamore Creek)

CBI (2002b) established and monitored a transect in 2001 and 2002 for this landscape linkage between the Blue Sky Reserve and San Pasqual Valley along Sycamore Creek, and the SDTT has monitored this location quarterly since spring 1999 (Figure L-3). CBI recommends this location for continued monitoring.

L-4 Lusardi Creek

Lusardi Creek and associated uplands in the La Jolla Valley form a narrow connection between the San Dieguito River and Black Mountain. The area is highly constrained by ongoing construction of new residential development to the north and south as well as at the eastern end. The actual boundaries of the dedicated MSCP open space along Lusardi Creek are unclear, because of the ongoing construction. From the MSCP maps, it appears that a very narrow east-west corridor is conserved along the creek, but a wider southeast-northwest trending corridor is conserved along the south side of the canyon or along the southern mesa connecting to Black Mountain (Figure L-4). The City of San Diego Subarea Plan requires restoration of this area to a fully functional native riparian corridor to be maintained at an average 400-500 ft width along its entire length, as part of the Black Mountain Ranch project.

CBI and the SDTT established a transect location at the west end of the canyon, near the mouth of Lusardi Creek at the San Dieguito River (Figure L-4, Location A), and the SDTT monitored this location, from the mouth into the canyon, quarterly in 2002. This transect starts at the mouth of the La Jolla Valley and extends along and adjacent to Lusardi Creek, upstream to a narrowing of the canyon. CBI recommends this location for continued monitoring.

Additional Locations. In addition, CBI recommends placement of monitoring transects at the connection of the eastern Lusardi Creek open space to Black Mountain open space at the future undercrossing of Carmel Valley Road (Location B) and the future undercrossing of Camino Ruiz (Location C, Figure L-4). These sites should be reviewed once construction activities have been completed.

L-5 Gonzales Canyon

This linkage is intended to connect the San Dieguito River and San Dieguito Lagoon to Carmel Valley. The area is currently under construction for new residential development and roads, so it is difficult to visualize the final configuration of the open space in the field. SR-56 will bisect this area, which is relatively flat and contains no native habitat at present. There are two potential chokepoints for monitoring (Figure L-5): Location A - future Black Mountain Road undercrossing and Location B - future SR-56 undercrossing.

The City of San Diego Subarea Plan calls for bridges to facilitate wildlife crossing in this area, and is it unclear what the dimensions or design of the bridges will be. CBI recommends revisiting this area to site corridor monitoring transects at both these locations once construction has been completed.

Additional Location. Monitoring should be evaluated at the point where El Camino Real and Old El Camino Real cross the outlet of Gonzales Canyon, forming the connection between Gonzales Canyon and the San Dieguito River (Figure L-5, Location C), if and when a culvert or bridge is provided at these locations.

L-6 McGonigle Canyon

As proposed by the MSCP, open space in McGonigle Canyon would link Deer Canyon and Carmel Valley with Black Mountain. A north-south tributary to McGonigle Canyon also would connect with La Zanja Canyon and Lusardi Creek open space to the north. The area is currently under construction for new residential development and roads, so it is difficult to visualize the final configuration of the open space in the field. SR-56 will bisect this area, which is relatively flat and contains no native habitat at present. A new Carmel Valley Road bridge (approximately 50-ft wide) has been constructed over the north-south tributary to McGonigle Canyon, near the new Santa Luz development (Figure L-6, Location A). CBI recommends revisiting Location A, once construction has been completed, to site a corridor monitoring transect in the vicinity of this bridge

Additional Location. CBI also recommends reconnaissance of a possible additional monitoring location at the Camino Ruiz crossing of the north-south tributary (Figure L-6, Location B), once construction has been completed. This open space connection links McGonigle Canyon to the Lusardi Creek open space.

L-7 Old Coach Road - Blue Sky Reserve

CBI (2002b) established and monitored transects in 2001 and 2002 at the confluence of Green Valley Creek and Thompson Creek (Figure L-7, Location A) and along Green Valley Creek at the Old Coach Road bridge (i.e., the Butcher Property, Figure L-7, Location B). CBI recommends these two sites for continued monitoring.

L-8 Central Poway (Scripps-Poway Parkway)

CBI (2002b) established and monitored a transect for the Scripps-Poway Parkway wildlife crossing in 2001 (Figure L-8). The SDTT also monitored this site quarterly for CBI in 2002. (The SDTT has monitored this site quarterly since the spring quarter of 1999). The wildlife crossing allows wildlife movement between currently undeveloped areas north and south of Scripps-Poway Parkway. CBI recommends this location for continued monitoring.

Alternative Location. CBI does not recommend an alternative location at this time. An alternative location should be reevaluated if new residential growth south of Scripps-Poway Parkway begins to impede movement between Scripps-Poway Parkway and the Sycamore Canyon/Goodan Ranch open space preserves.

L-9 Torrey Pines State Reserve - Los Peñasquitos Canyon Preserve

CBI (2002b) established and monitored in 2001 and 2002 transects at the chokepoint between Torrey Pines State Reserve and Los Peñasquitos Canyon Preserve at the I-5/I-805 merge (Location A) and at Carmel Creek at the I-5 bridge (Location B, Figure L-9). The SDTT has monitored these locations quarterly since summer 1996. There is continued construction for new development and for widening I-5 at Location A. This undercrossing also is highly constrained by the height of the bridges, length of the undercrossing, amount of water in the creek, and dense vegetation. CBI recommends these sites for continued monitoring. CBI (2002b) recommendations regarding the need for fencing and removal of obstructions to wildlife movement have not been implemented and are critical to maintaining these corridors.

Alternative Location. The MSCP Biological Monitoring Plan (Ogden 1996) recommended a corridor monitoring location at the connection into Carroll Canyon (Figure L-9, Location C). This area represents a steppingstone corridor of coastal sage scrub connecting the Los Peñasquitos Canyon Preserve with MCAS Miramar, presumably intended primarily for California gnatcatcher dispersal. CBI does not recommend this location for monitoring movement of large mammals.

L-10 Los Peñasquitos Canyon - South Poway (Beeler Canyon)

CBI (2002b) established and monitored four transects at these chokepoints in 2001 and 2002 between Beeler Canyon and Los Peñasquitos Canyon (Figure L-10):

Location A: Los Peñasquitos Creek at I-15

Location B: Los Peñasquitos Creek at Sabre Springs

Location C: Lower Beeler Canyon at Pomerado Road and Scripps-Poway Parkway intersection

Location D: Upper Beeler Canyon above the Calmat quarry

The SDTT has monitored the first two locations quarterly since summer 1996. CBI (2002b) recommended several management measures to improve these chokepoints, particularly at Location C, for wildlife movement. CBI recommends these locations for continued monitoring once the management measures are implemented. Continued monitoring at the Upper Beeler Canyon Location D may prove helpful in assessing potential impacts of the new Rancho Encantada development on wildlife movement.

L-11 South Poway - Santee (Sycamore and Clark Canyons)

Sycamore and Clark Canyons connect the Sycamore Canyon/Goodan Ranch Open Space Preserves with MCAS Miramar, East Elliott, and Fanita Ranch. While these canyons likely do function as wildlife corridors, they are also part of a large, core block of habitat that includes MCAS Miramar. CBI recommends that transects be established in Sycamore Canyon (Location A) to inform habitat management decisions at the preserves. CBI does not recommend this location as a regional linkage monitoring location unless it becomes constrained by future development.

Alternative Locations. CBI and the SDTT established transects and cameras at culverts under SR-67, north and south of Scripps-Poway Parkway (Figure L-11, Location B). The SDTT monitored these transects quarterly in 2002. The SR-67 culverts south of Scripps-Poway Parkway connect the Sycamore Canyon/Goodan Ranch Open Space Preserves with the San Vicente Highlands open space (formerly known as the Boys and Girls Club property) east of SR-67. These culverts have been used by large mammals (e.g., bobcats) as well as humans. CBI recommends continued monitoring at these culverts as part of regional linkage monitoring.

The SDTT also established and has monitored a transect quarterly along Sycamore Park Drive, off of SR-67 since winter quarter 2000 (Figure L-11, Location C). This transect serves to monitor wildlife use within the Goodan Ranch Open Space Preserve. CBI does not recommend continued monitoring at Sycamore Park Drive as part of regional wildlife corridor monitoring, but does recommend continued monitoring at this location to inform preserve management.

L-12 Lakeside - Crest - El Cajon

This area is an archipelago of coastal sage scrub habitat fragments that link open space north and south of I-8 (Figure L-12, Location A). This area of fragmented open space, roads, and rural residential development likely supports dispersal of birds and flying invertebrates. Regular movement by large mammals through this area is unlikely. The MSCP Plan hypothesizes that these habitat islands are used by California gnatcatchers to disperse between larger, core habitat areas. The County of San Diego has initiated monitoring of dispersing birds through this area. We do not recommend establishing a corridor monitoring location for large mammals in the archipelago.

Alternative Location. The SDTT established two transects at the Crestridge Ecological Reserve in this area, just south of I-8 (one in spring 1999 and one in spring 2002) and has monitored them quarterly through 2002 (Figure L-12, Locations B and C). Data collected at Crestridge will be valuable to understanding the degree of isolation of this reserve, which is largely surrounded by residential development and roads. Crestridge likely functions more as a core resource area rather than a linkage. CBI recommends continued monitoring at Crestridge to inform habitat management decisions on the reserve, but CBI does not recommend these locations as regional habitat linkage monitoring locations for large mammals.

L-13 Harbison Canyon at Interstate-8

The MSCP Plan indicates that Harbison Canyon links the Sweetwater River Valley with City-owned lands around El Capitan Reservoir and adjacent Forest Service lands. However, there is no apparent movement corridor for large mammals between Harbison Canyon and El Capitan Reservoir. Chocolate Canyon Creek, which flows into El Capitan Reservoir, supports riparian vegetation. Large mammal movement north along the creek to undeveloped habitat around the reservoir is impeded by the intersection of Alpine Boulevard and Peutz Valley Road, which crosses under I-8 (Figure L-13, Location A). (This intersection is Duncan McFetridge's favorite pictorial example of an "MSCP wildlife corridor.") The culvert under Alpine Boulevard and Peutz Valley Road is about

15 ft in diameter and has good vegetative cover, but at the time of our field visit there was no evidence that it is used for wildlife movement. The culvert itself is approximately 650 ft long, and light at the end of the culvert is not visible from the opposite end. Large mammal movement to the south from the Peutz Valley Road intersection is impeded by Harbison Canyon Road and dense residential housing in the Galloway Valley (Figure L-13). While this area may be a linkage for birds and invertebrates, and possibly coyotes, movement under I-8 by larger animals is likely infrequent. A local resident north of I-8 at this location had not seen any large mammals using the area. For these reasons, CBI does not recommend this location for regional corridor monitoring.

Alternative Location. In a separate report, CBI evaluated potential habitat linkages to the Crestridge Ecological Reserve (CBI 2002c). The Crestlake property borders the eastern boundary of Crestridge. The westernmost portion of the Crestlake property is a fairly flat mesa and currently serves as an extension of the Crestridge habitat (primarily chaparral). A pond drains to a gently sloping, oak-riparian canyon leading down into Galloway Valley (Figure L-13, Location B). Bullard Lane, a paved road, is at the mouth of this canyon. CBI recommends that a transect(s) be established along this canyon through the Crestlake property, if all or a portion of it is conserved. This connection is potentially critical to maintaining the integrity of the Crestridge Ecological Reserve.

L-14 Southern Harbison Canyon

The unnamed creek through Harbison Canyon flows south along Harbison Canyon Road from the vicinity of Crestridge and Crestlake. The creek is densely vegetated and winds through small residential lots, and the creek corridor itself is probably of low value for wildlife movement. However, the narrow grassland and scrub areas at the toe of the slopes (between the residential lots and the steep slopes of the canyon) may provide for wildlife movement south to Dehesa and the Sweetwater River Valley. There appears to be a chokepoint for wildlife movement at Dehesa Road between Sloan Canyon Road and Dehesa Valley (Figure L-14). Specifically, there is a potential at-grade crossing of Dehesa Road just west of the elementary school and another one east of the school, at the bend in Dehesa Road (Location A, Figure L-14). CBI recommends this location for MSCP monitoring once development patterns are known and lands in the area are conserved.

Additional Location. There is the potential for wildlife movement between Crestridge and the Sweetwater River Valley (CBI 2002c) along the transmission line easement north of Dehesa Road and south of La Cresta Road (Location B, Figure L-14). Existing development and La Cresta Road probably are impediments to wildlife movement. This area is currently under private ownership but is within the acquisition boundary of the Otay-Sweetwater National Wildlife Refuge. CBI recommends placing a wildlife corridor monitoring location in the chokepoint of this area in the future, south of La Cresta Road, if development patterns and ownership allow.

L-15 McGinty Mesa - Rancho San Diego (middle Sweetwater River)

This approximately 4-mile long stretch of the Sweetwater River is a regional linkage connecting the Sweetwater Reservoir and adjacent upland habitats (e.g., San Miguel

Mountain), through Cottonwood and Singing Hills golf courses, to Sloan Canyon and adjacent upland habitats (e.g., McGinty Mountain, Sycuan Peak). The linkage supports a variety of habitats, from high quality riparian woodlands to a highly disturbed stream channel through the golf courses. SR-94 has a new bridge (20-ft high, 600 ft wide) over the river that allows wildlife movement, although the riparian corridor may be impassable during high flow periods. CBI recommends this location at the bridge for MSCP monitoring (L-15).

Additional Locations. As new lands are added to the Otay-Sweetwater National Wildlife Refuge east of SR-94, additional locations should be evaluated for large mammal monitoring.

L-16 Sweetwater Reservoir - Rancho Del Rey

This linkage, roughly along an SDG&E transmission line, was originally designated as a gnatcatcher steppingstone linkage between the Sweetwater Reservoir and Otay River Valley (L-16). Because of the degree of habitat fragmentation, it is not appropriate for monitoring large mammal movement.

L-17 San Miguel Mountains - Proctor Valley - Jamul Mountains (Otay Ranch)

CBI does not recommend this location through Proctor Valley for corridor monitoring at this time because wildlife movement is not constrained by current land use (Figure L-17). However, it is likely that this area will be important for monitoring once a conservation strategy and land use design are finalized, and this area should be reevaluated at that time.

L-18 Hollenbeck Canyon

When the MSCP Plan was finalized in 1998, Hollenbeck Canyon was designed as a linkage between Otay Ranch and undeveloped lands to the east. However, approximately 3,700 acres of this area east of SR-94 have now been conserved. Together with Rancho Jamul on the west side of SR-94, this is a major core biological resource area. At the request of CDFG, CBI and SDTT established camera stations and two transects in the Hollenbeck Canyon reserve: Location A - along the drainage (tributary to Dulzura Creek) and Location B - along the dirt road loop (Figure L-18). SDTT monitored these transects quarterly in 2002. These data will be helpful in demonstrating large mammal use of the reserve but not necessarily helpful in assessing use of the area as a movement corridor between other conserved areas. CBI recommends that monitoring at these two locations not be a requirement of the MSCP regional habitat linkage monitoring but rather be part of ongoing CDFG reserve monitoring of wildlife use on its properties.

Additional Locations. The Rancho Jamul and Hollenbeck Canyon reserves are bisected by SR-94, which is heavily used through this area. The highway is fenced along both sides by a combination of barbed wire, chain link, and mesh fencing. There are at least five locations between Jamul and Otay Lakes Road where wildlife could move under SR-94 or cross at-grade. CBI recommends establishing transects at three of these locations, in combination with collecting road-kill data along SR-94 (Figure L-18):

Location C: Where Jamul Creek crosses under SR-94, at the entrance to Rancho Jamul. There are three 12 ft x 12 ft box culverts across a wide ravine that is not densely vegetated and allows for easy movement on both sides of the highway. Wildlife use is evidenced by game trails and tracks (bobcat, coyote, and raccoon).

Location D: Where the Hollenbeck Canyon drainage crosses under SR-94. There are two large box culverts across a steeply cut channel that is rip-rapped along both sides. At-grade crossings may be more likely for large mammals at this location. The existing SDTT transect at Location A begins at the northeast side of these culverts.

Location E: At the Dulzura Creek bridge between Honey Springs Road and Otay Lakes Road. This is a broad, open drainage that facilitates animal movement under the bridge, as evidenced by game trails and tracks (bobcat, coyote, dogs, humans).

L-19 Poggi Canyon

CBI does not recommend this location for monitoring regional wildlife movement as the habitat is isolated and Olympic Parkway now bisects the canyon (Figure L-19). Poggi Canyon may be used for bird dispersal.

L-20 Jamul Mountains - Southeast Side of Lower Otay Reservoir

CBI does not recommend this location for corridor monitoring at this time because large mammal movement is not constrained by current land use (Figure L-20). However, the area along Dulzura Creek is a Major Amendment Area and, as such, future development and conservation designs are unknown at this time. Therefore, the need for a monitoring location in this area should be reevaluated after conservation plans are finalized.

Alternative Location. CBI recommends conducting road-kill surveys along Otay Lakes Road between SR-94 and Otay Lakes to identify areas of high mortality due to road-kill and high-use road-crossing areas.

L-21 Jamul Mountains - San Ysidro Mountains (Little Cedar and Cedar Canyons)

CBI does not recommend this location for corridor monitoring at this time because movement is not constrained by current land use (Figure L-21). Much of Little Cedar and Cedar Canyons is conserved as part of the MSCP and administered by the BLM. However, the mouth of Little Cedar Canyon at Dulzura Creek (Location A) is a Major Amendment Area and, as such, future development and conservation designs are unknown at this time. Therefore, the need for a monitoring location in this area should be reevaluated after conservation plans are finalized.

Alternative Location. CBI recommends conducting road-kill surveys along Otay Lakes Road between SR-94 and Otay Lakes to identify areas of high mortality due to road-kill and high-use road crossing areas.

L-22 Otay River Valley - West Otay Mesa (Dennery Canyon)

CBI and the SDTT proposed establishing a transect in Dennery Canyon at the confluence with the Otay River Valley where a new road was being constructed (Figure L-22, Location A). However, due to ongoing construction activities and concerns of the property owner, access to this location was not allowed. Subsequently, CBI and the SDTT established a transect at the north end of Dennery Canyon, where there is a culvert under Otay Mesa Road (Figure L-22, Location B). Because of the contouring, this undercrossing did not appear to facilitate wildlife use. However, SDTT monitored this location quarterly through 2002 and detected use of the culvert by mesopredators, coyotes, and a young mountain lion. CBI recommends the culvert under Otay Mesa Road for continued monitoring.

Additional Locations. CBI recommends that additional monitoring be conducted in Dennery Canyon, both at the mouth of the canyon at the Otay River Valley (Location A, at the new road) and at the upstream end of the canyon (Location C) (Figure L-22), once access is allowed.

L-23 Otay River Valley at Future Highway 125 crossing

CBI could not obtain access to this location for a field reconnaissance. However, based on the proposed MSCP preserve design, there is no apparent chokepoint for monitoring this landscape linkage between the habitat around Otay Lakes and Otay Mountain at the east and coastal habitats at the west (Figure L-23). Monitoring data collected at this location would be helpful in documenting large mammal use of the Otay River Valley but not necessarily helpful in indicating use of the area as a movement corridor between other conserved areas. We do not recommend this location as a regional corridor monitoring location, but the area should be monitored as part of habitat management efforts in the Otay River Valley to determine use by wildlife.

Alternative Location. CBI recommends that transects be established in O'Neal Canyon (see L-24).

L-24 O'Neal Canyon

This long, relatively deep canyon links the Otay River Valley to the Otay Mountain Wilderness Area and adjoining open space (Figure L-24). The State and County Prisons are located on either side of the canyon (average canyon width is approximately 1000 ft). Three 10 ft x 10 ft tunnels, approximately 200 ft long, allow movement at a constriction of the canyon under Alta Road. Although there does appear to be some off-road vehicle use and dumping, there is evidence of wildlife use (e.g., game trails, coyote scat) at this constriction. Existing ownership and conservation status are unclear. CBI recommends this location for monitoring wildlife movement.

L-25 Spring Canyon

Spring Canyon is becoming more and more isolated by surrounding development and roads in the U.S. and Mexico. At one time, this area linked the Otay River Valley south to areas in Mexico. The area is highly disturbed by off-road vehicles, and several roads

are maintained by the U.S. Border Patrol. Although much of Spring Canyon is proposed for conservation under the MSCP, only a small portion is currently conserved and available for monitoring. CBI and the SDTT established a transect on City-owned lands in Spring Canyon, and the SDTT monitored this transect quarterly through 2002. We do not recommend this location as a regional corridor monitoring location, but the area should be monitored as part of habitat management efforts in Spring Canyon to determine use by wildlife.

L-26 Salt Creek

At one time, Salt Creek linked the Otay River Valley with the mesas and grasslands to the north. Currently, it is surrounded by development on the north, west, and east sides (Figure L-26). Once it is restored, the maritime succulent scrub in Salt Creek will be an important core area for the California gnatcatcher, cactus wren, and Quino checkerspot butterfly. The upper terraces of the Otay River Valley provide dispersal habitat for these species between Salt Creek and other sage scrub areas. The MSCP preserve design does not indicate Salt Creek as a regional habitat linkage for large mammal movement. Therefore, CBI does not recommend this area for habitat linkage monitoring of large mammal movement.

L-27 East Otay Mesa

The coastal sage scrub on the western slopes of Otay Mountain is the westernmost of two remaining coastal sage scrub linkages between the U.S. and Mexico (Figure L-27) and is being studied as part of the South Coast Wildlands Missing Linkages project. The other sage scrub linkage to Mexico is through Marron Valley. The East Otay Mesa linkage is currently part of a Major Amendment Area and is extremely tenuous because of development encroaching from Tijuana and Otay Mesa and proposed construction of the new border road and fence. CBI did not have field access to this area. Although this is a critical, binational linkage for coastal sage scrub species, we do not recommend this area for regional habitat linkage monitoring for large mammals.

L-28 San Ysidro Mountains East

The specific corridor intended for monitoring is not clear from the original MSCP Biological Monitoring Plan (Ogden 1996). Based on the name, we believe it is intended to monitor movement from the San Ysidro Mountains (e.g., Otay Mountain, Little Tecate Peak, Tecate Peak) east to conserved lands outside of the MSCP. Habitat along Cottonwood Creek appears to provide a significant regional linkage from Marron Valley to Barrett Lake and the surrounding National Forest lands. This corridor is being studied as part of the South Coast Wildlands Missing Linkages project. The SR-94 bridge over Cottonwood Creek, near Barrett Junction (Figure L-28), represents a chokepoint in this linkage. CBI recommends monitoring at this bridge for wildlife movement along the creek.

L-29 Marron Valley

Marron Valley is part of core habitat associated with the San Ysidro Mountains. This linkage is the same as L-28 (Figure L-28), and we do not recommend Marron Valley as a linkage monitoring location. However, the area should be monitored as part of habitat management efforts in Marron Valley to determine use by wildlife.

L-30 Del Mar Mesa

Del Mar Mesa serves as a habitat connection between Los Peñasquitos Canyon and Carmel Valley. CBI (2002b) established and monitored three transects at chokepoints on Del Mar Mesa in 2001 and 2002: Little Shaw Valley (Location A, Figure L-30), Big Shaw Valley (Location B), and the lower Shaw Valley (culverts under Carmel Country Road, Location C). CBI recommends continued monitoring at these transects.

RECOMMENDATIONS

CBI recommends 22 locations for monitoring MSCP regional habitat linkages (Table 2, Figure 2), including new sites at Del Mar Mesa. We recommend multiple transects or monitoring sites at many of these locations. In addition, several potential monitoring locations should be reevaluated in the field once development and conservation plans are finalized, both within the MSCP area and between the MSCP area and other NCCP subregions.

Locations within MSCP needing future evaluation:

- Sycamore Canyon between Goodan Ranch and Fanita Ranch (L-11).
- Crestlake between Crestridge and Harbison Canyon (L-13).
- Transmission line easement north of Dehesa Road (L-14).
- Future chokepoints east of SR-94 in the Sweetwater River Valley (L-15).
- Proctor Valley (L-17).
- Dulzura Creek through Major Amendment Area east of Lower Otay Reservoir (L-20).
- Mouth of Little Cedar Canyon at Otay Lakes Road (L-21).
- Dennery Canyon at southern upstream end (L-22).

Locations between MSCP and other subregions needing future evaluation:

- Linkage between Lake Hodges and the Escondido Creek valley through the Derbas Property (L-1) (linkage to MHCP subregion).
- Linkage between San Pasqual Valley and Ramona through Bandy Canyon (linkage to North County MSCP subarea).
- Linkage between lands around San Vicente Reservoir and San Vicente Creek and the Ramona area (linkage to North County MSCP subarea).
- Linkage between San Pasqual Valley and Rancho Guejito, either through Rockwood Canyon or Boden Canyon (linkage to North County MSCP subarea).
- Linkage between Hollenbeck Canyon and U.S. Forest Service land through Lawson Valley.

The focus of this study has been on chokepoints between conserved core habitat areas. CBI recommends that wildlife tracking studies also be conducted within conserved core areas to document the use of these areas by large mammals and inform management decisions. Some of the originally proposed MSCP monitoring locations (Ogden 1996) now fall within core habitat areas, and the SDTT is monitoring many of these.

Table 2. Recommended MSCP Regional Habitat Linkage Monitoring Locations

Site	Location
L-1	Lake Hodges north to MHCP (via Derbas property -- requires future evaluation)
L-2	Lake Hodges - San Pasqual Valley at I-15 bridge
L-3	San Pasqual Valley - North Poway along Sycamore Creek
L-4	Lusardi Creek at (A) west end near confluence with San Dieguito River, (B) future Carmel Valley Road undercrossing near connection to Black Mountain open space, and (C) future Camino Ruiz undercrossing
L-5	Gonzales Canyon at (A) future Black Mountain Road undercrossing, (B) future SR-56 undercrossing, and (C) El Camino Real
L-6	McGonigle Canyon at (A) Carmel Valley Road bridge and (B) Camino Ruiz bridge (connection to Lusardi Creek open space)
L-7	Old Coach Road - Blue Sky Reserve at (A) confluence of Green Valley Creek and Thompson Creek and (B) Green Valley Creek at Old Coach Road (Butcher property)
L-8	Central Poway at Scripps-Poway Parkway undercrossing
L-9	Torrey Pines State Reserve - Los Peñasquitos Canyon at (A) Los Peñasquitos Creek at I-5/I-805 merge bridges and (B) Carmel Creek at I-5 bridge
L-10	Los Peñasquitos - South Poway at (A) Los Peñasquitos Creek at I-15, (B) Los Peñasquitos Creek at Sabre Springs, (C) Lower Beeler Canyon at Pomerado Road and Scripps-Poway Parkway, and (D) Upper Beeler Canyon upstream of quarry
L-11	South Poway - Santee at (B) culverts under SR-67 (requires future evaluation at potential Sycamore Canyon chokepoint)
L-13	Crestlake Canyon at Bullard Lane (requires future evaluation)
L-14	Southern Harbison Canyon at (A) Dehesa Road school and (B) transmission line easement north of Dehesa Road (requires future evaluation)
L-15	McGinty Mesa - Rancho San Diego - middle Sweetwater River at SR-94 bridge (requires future evaluation at potential chokepoints east of SR-94).
L-17	Proctor Valley at future chokepoint (requires future evaluation)
L-18	Hollenbeck Canyon - Rancho Jamul at (C) Jamul Creek at SR-94 bridge, (D) Hollenbeck Canyon drainage at SR-94, and (E) Dulzura Creek at SR-94 bridge
L-20	Dulzura Creek future chokepoint (requires future evaluation)
L-21	Little Cedar Canyon at Otay Lakes Road (requires future evaluation)
L-22	Dennery Canyon at (A) Otay River Valley (new road), (B) Otay Mesa Road, and (C) upstream end of Dennery Canyon (C requires future evaluation)
L-24	O'Neal Canyon at Alta Road
L-28	Cottonwood Creek at SR-94 bridge
L-30	Del Mar Mesa at (A) Little Shaw Valley, (B) Big Shaw Valley, and (C) lower Shaw Valley

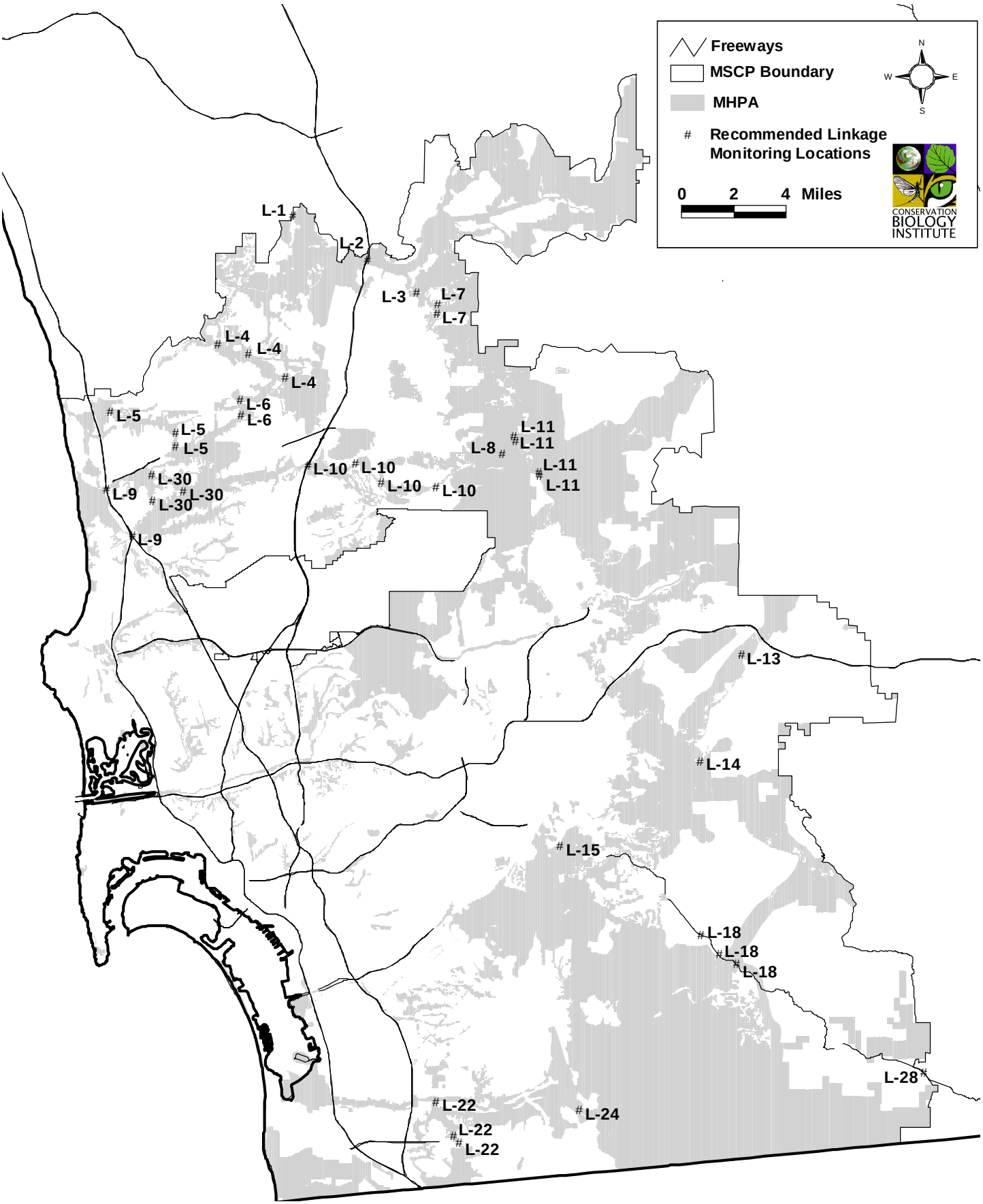

Figure 2. Recommended regional linkage monitoring locations. Note: This map does not show monitoring locations that should be considered once development and conservation plans are resolved for specific areas. See text and individual figures.

Monitoring locations within MSCP core areas:

- Los Peñasquitos Canyon (SDTT has monitored quarterly since summer 1996)
- Black Mountain (SDTT has monitored quarterly since summer 2000)
- Iron Mountain (SDTT has monitored quarterly since winter 2000)
- Sycamore Canyon (L-11) (SDTT has monitored Sycamore Park Drive quarterly since winter 2000)
- Crestridge (L-12) (SDTT has monitored quarterly since spring 1999)
- Hollenbeck Canyon (L-18) (SDTT has monitored quarterly since spring 2002)
- Otay River Valley (L-23)
- Spring Canyon (L-25) (SDTT has monitored quarterly since fall 2001)
- Marron Valley (L-29)

We recommend that these efforts continue and that wildlife monitoring become an element of preserve monitoring and management for all core habitat areas (e.g., San Vicente Highlands, Mission Trails, Rancho Jamul, Otay Mountain, San Diego National Wildlife Refuge).

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APPENDIX A

FIGURES, PHOTOS, AND MSCP LINKAGE DESCRIPTION LOGS

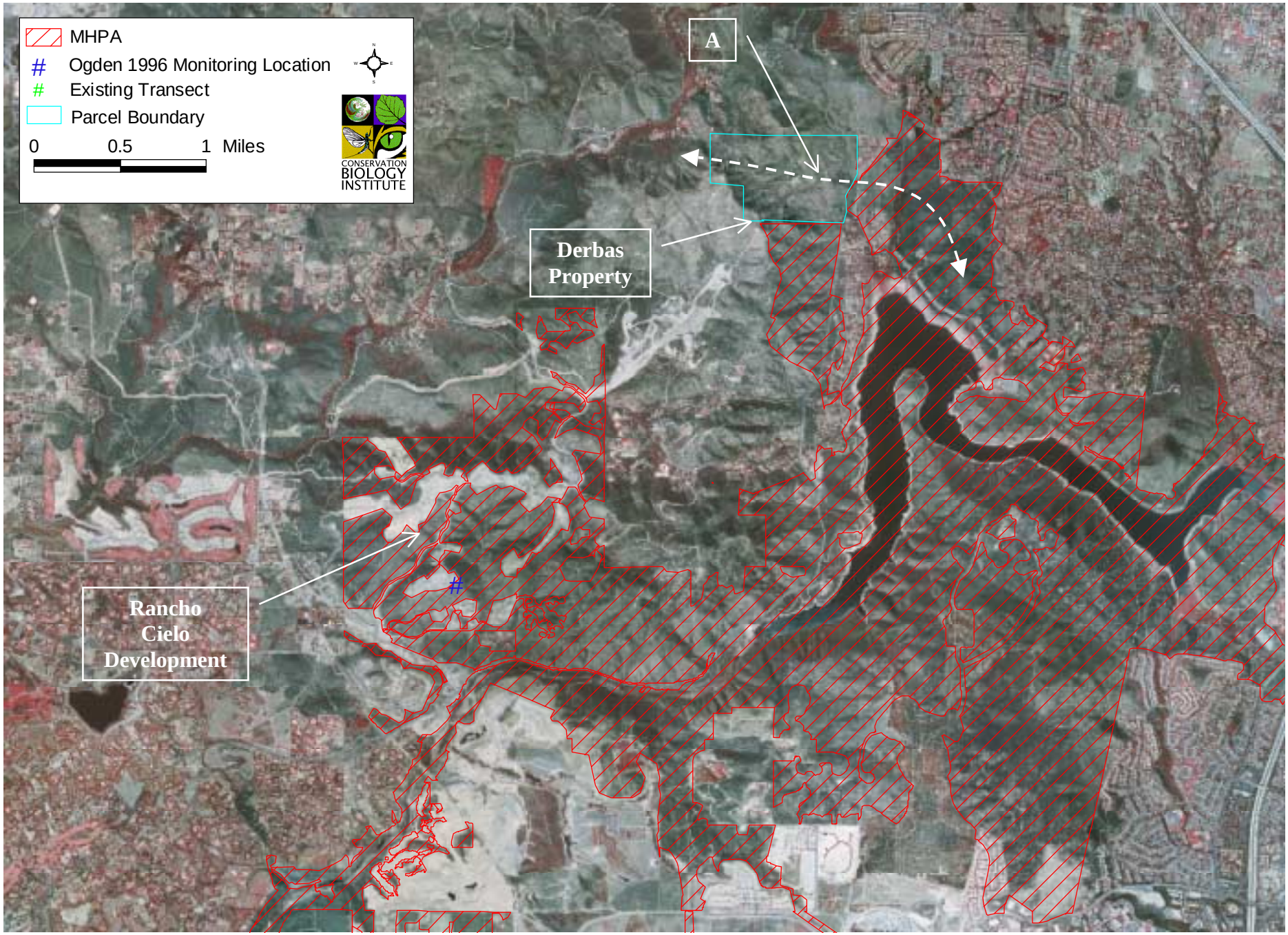


Figure L-1. Rancho Cielo - San Dieguito River. The site-specific monitoring location on the Derbas Property (**A**) has not been identified.

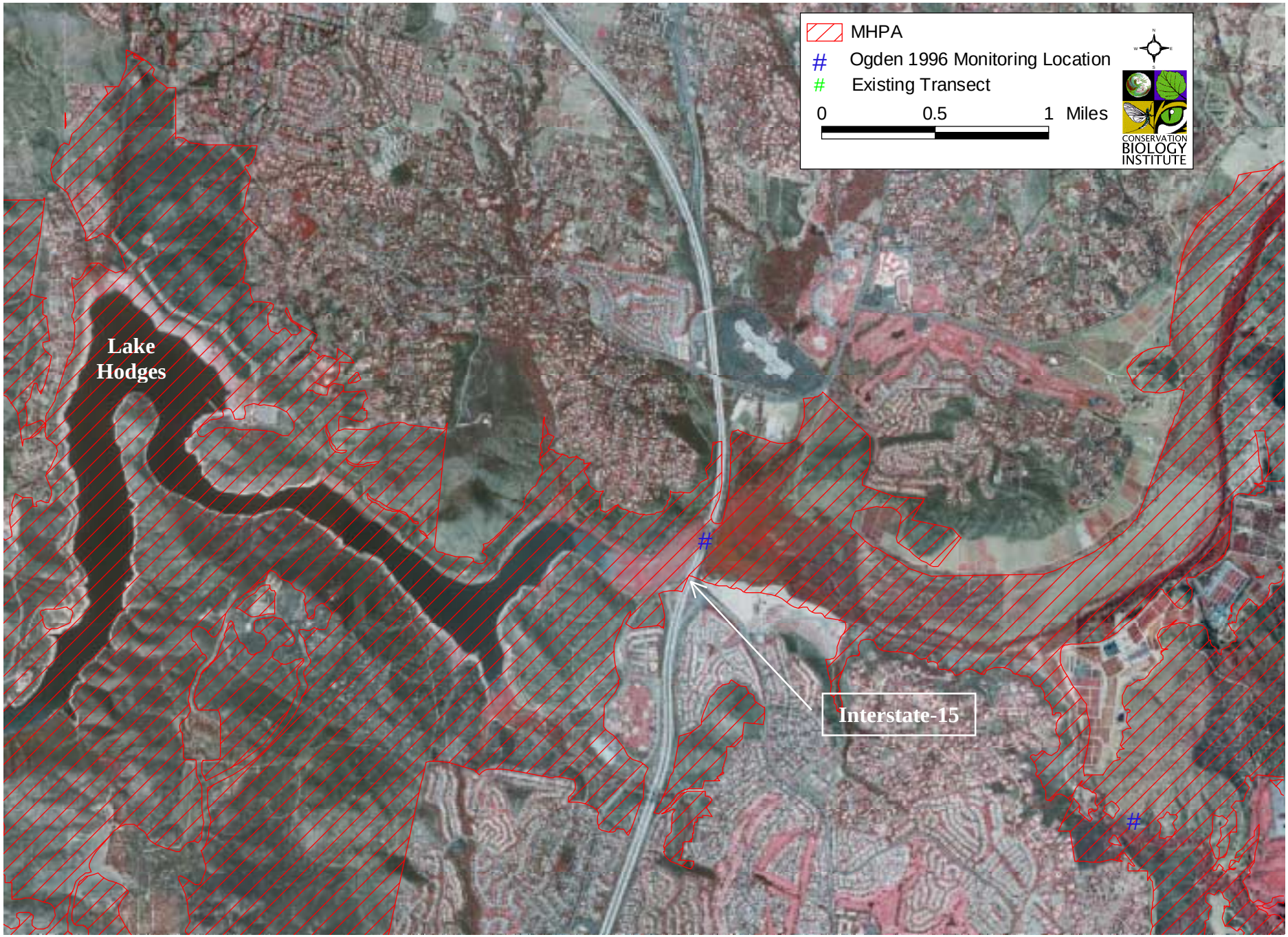


Figure L-2. Lake Hodges – San Pasqual Valley at I-15 bridge.

I-15 bridge over Lake Hodges/San Dieguito River, looking south from north side.

I-15 bridge over Lake Hodges/San Dieguito River, looking southwest from north side paved trail.

I-15 bridge over Lake Hodges/San Dieguito River, looking southwest from north side paved trail.

I-15 bridge over Lake Hodges/San Dieguito River, looking east from north side paved trail.

Photo L-2. Lake Hodges—San Pasqual Valley.

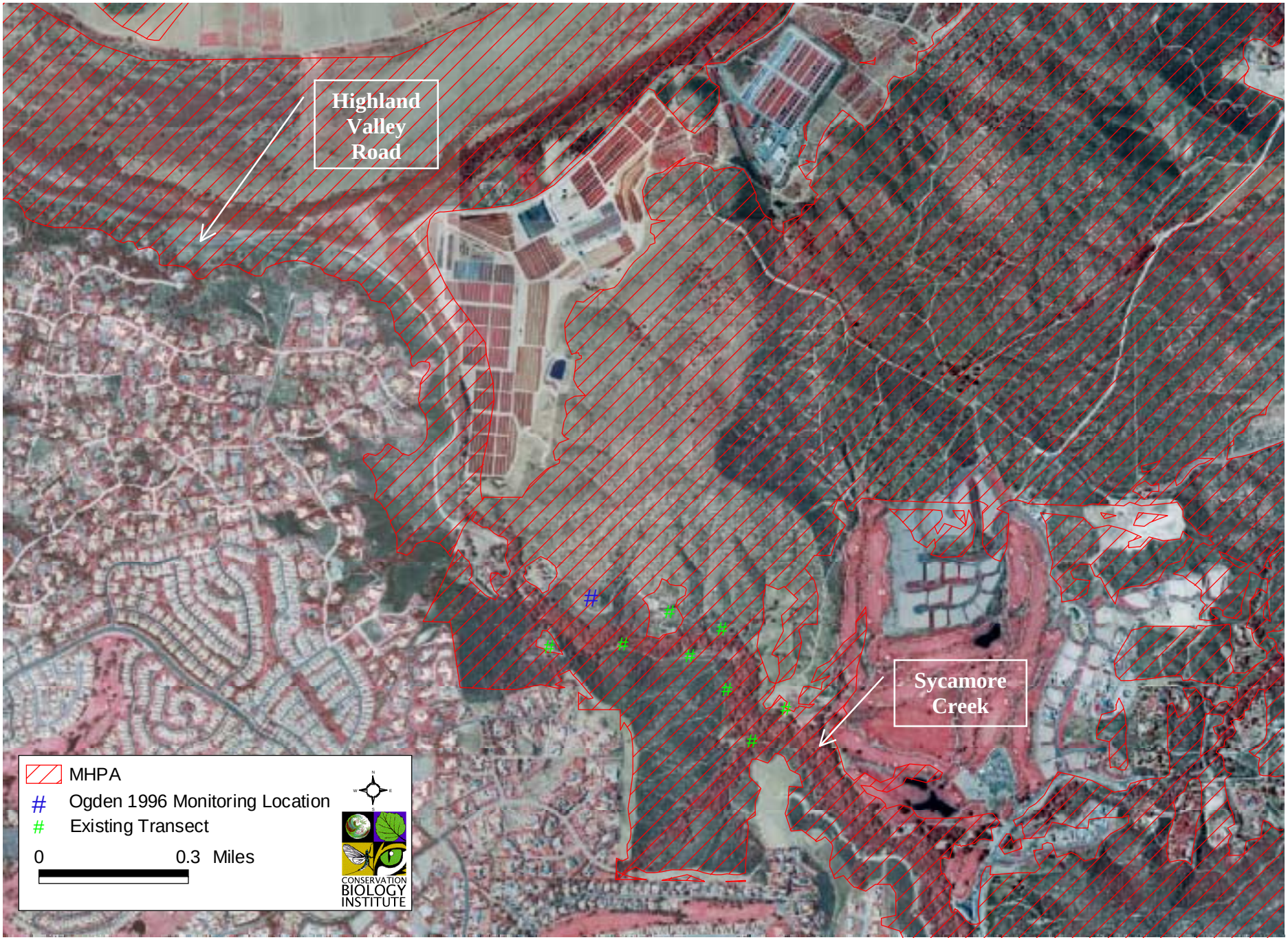


Figure L-3. San Pasqual Valley – North Poway (Sycamore Creek)

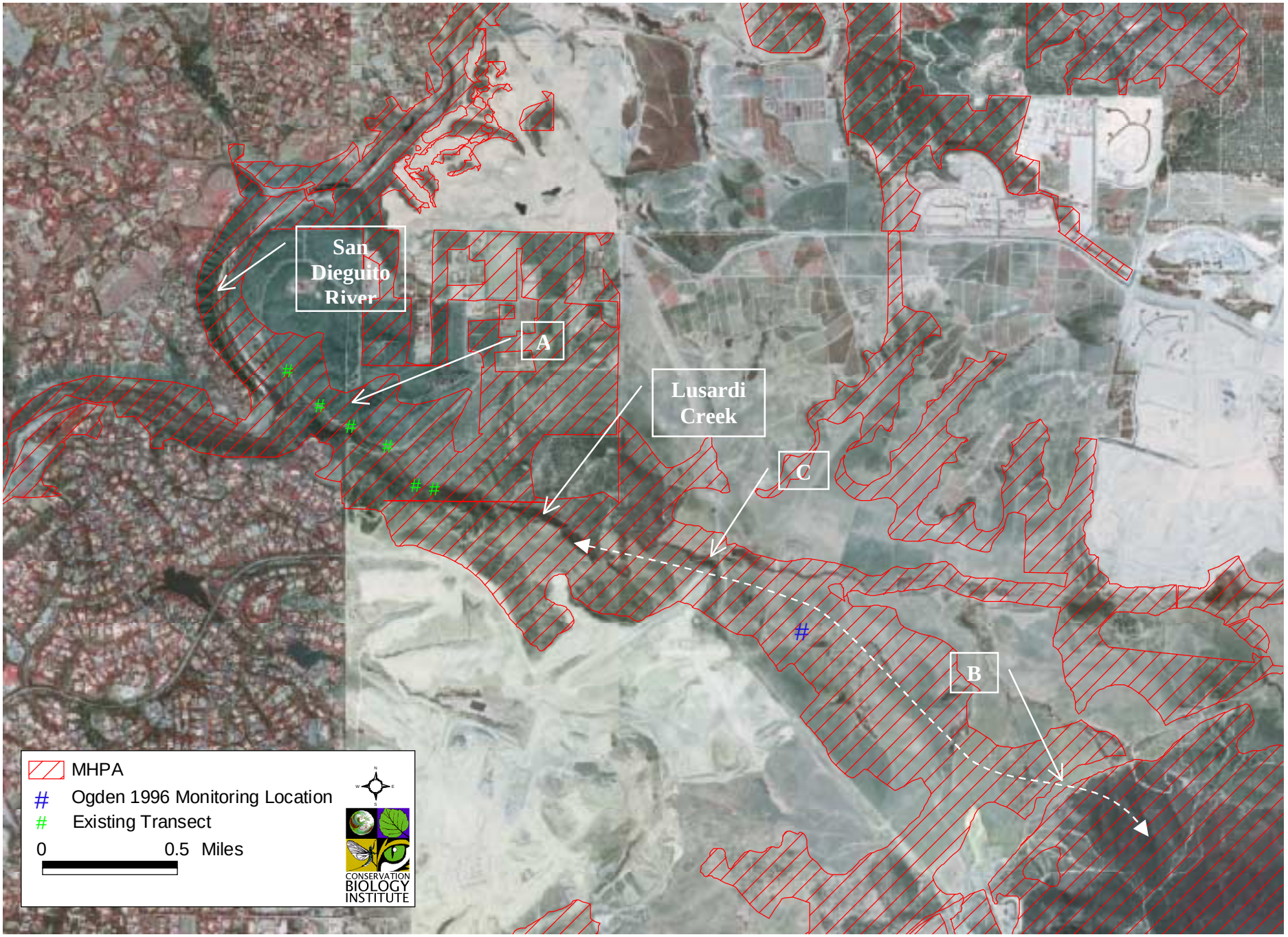


Figure L-4. Lusardi Creek. **A** – west end of Lusardi Creek at San Dieguito River, **B** – at future Carmel Valley Road, and **C** – future Camino Ruiz.

Dirt road at lower end of La Jolla Canyon (Lusardi Creek) looking southeast.

Looking west from south wall of La Jolla Canyon towards San Dieguito River valley.

Photo L-4. Lusardi Creek, Location A– west end near confluence with San Dieguito River.

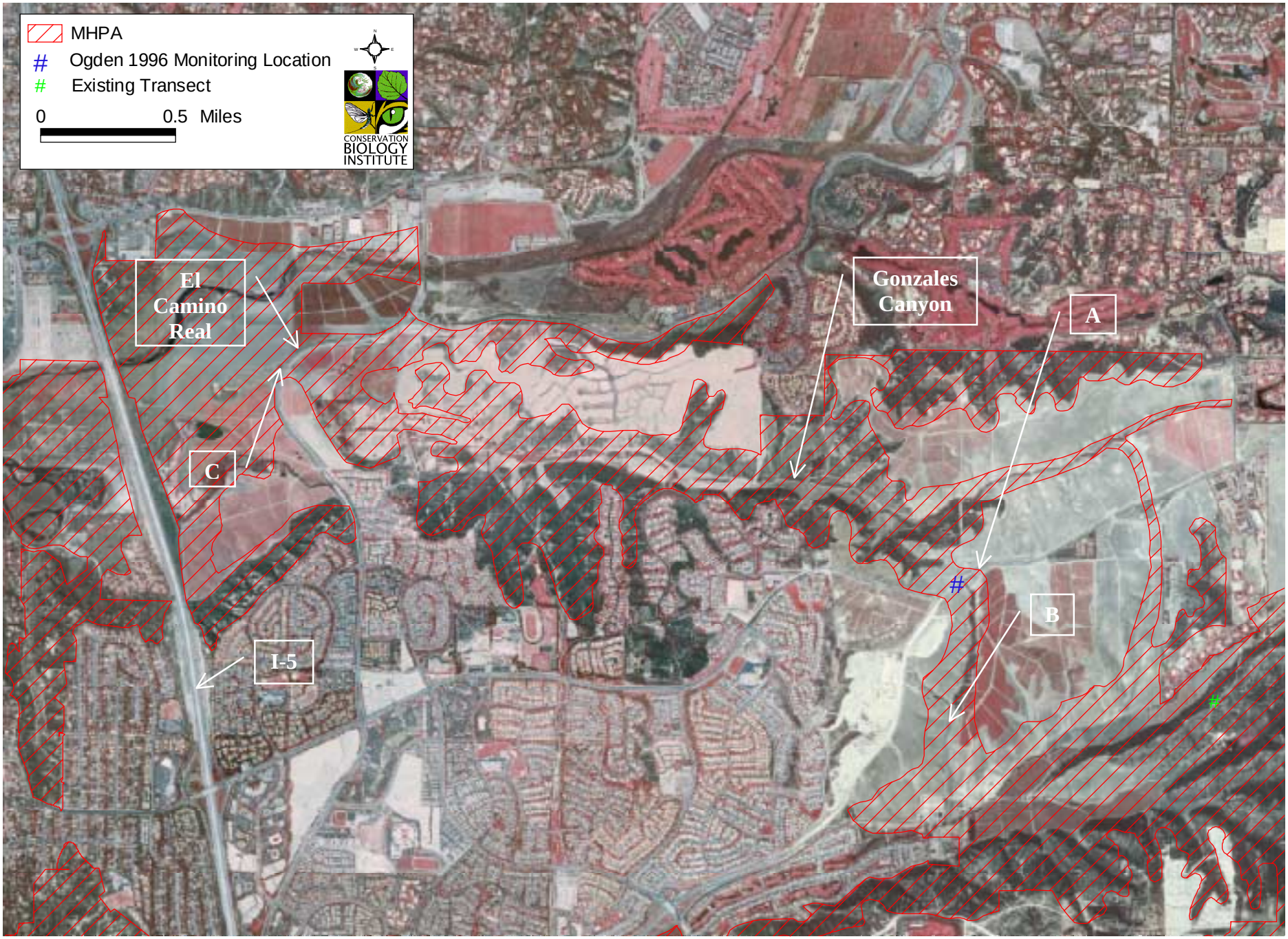


Figure L-5. Gonzales Canyon. **A** – at Black Mountain Road undercrossing, **B** – at future SR-56 undercrossing, and **C** – at future El Camino Real undercrossing.

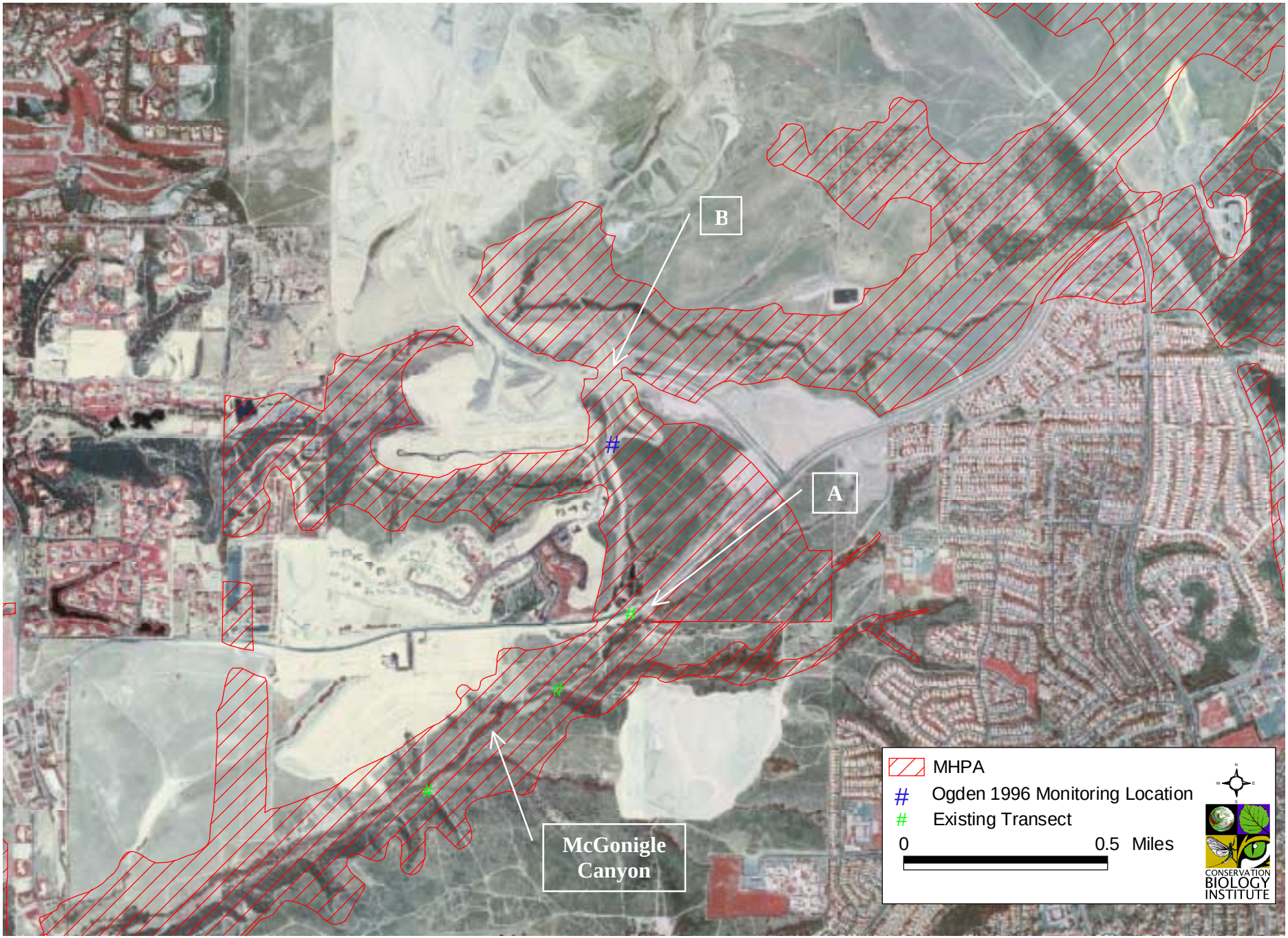


Figure L-6. McGonigle Canyon. **A** – at future Black Mountain Road bridge and **B** – at future Camino Ruiz bridge.

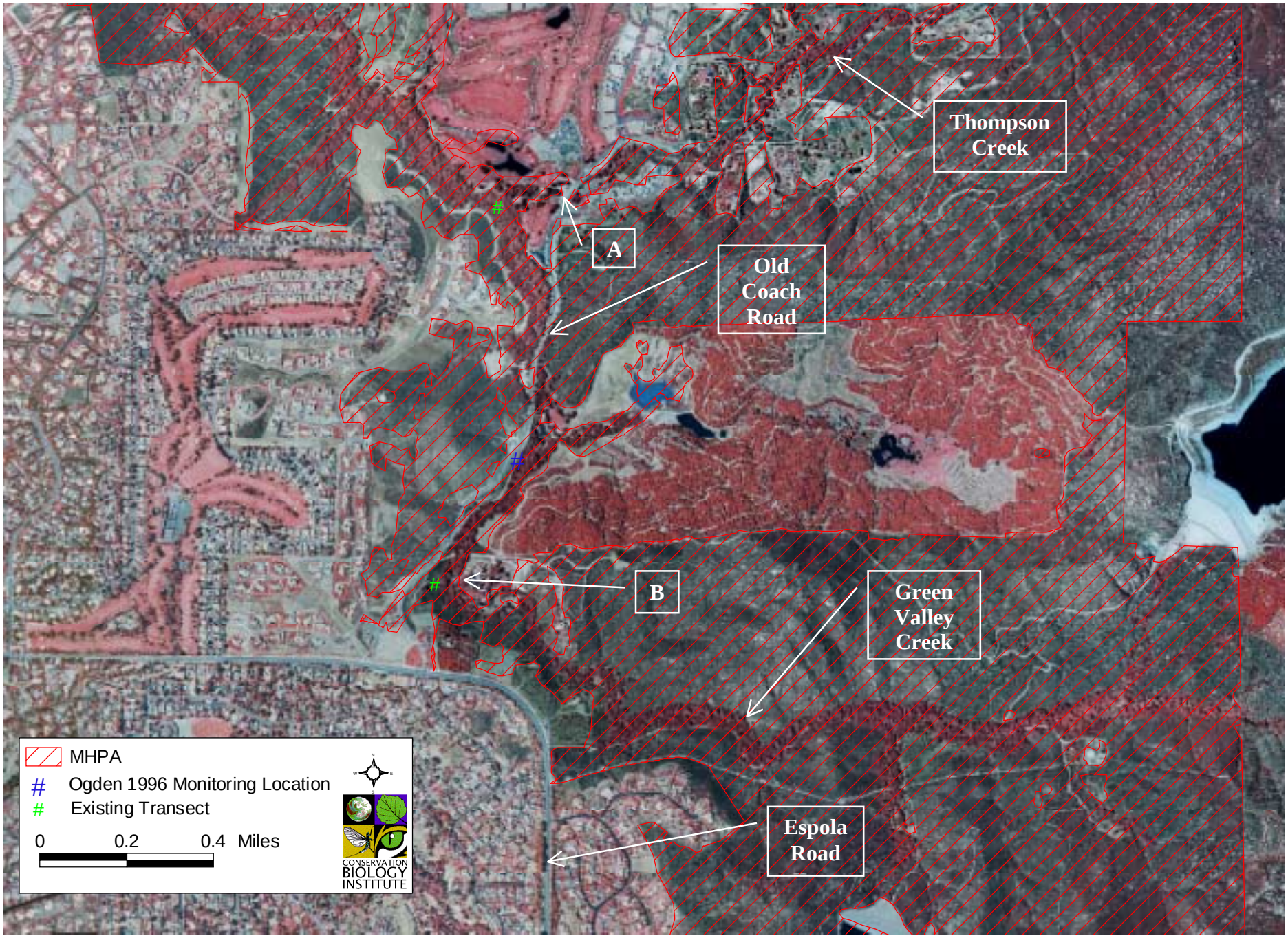
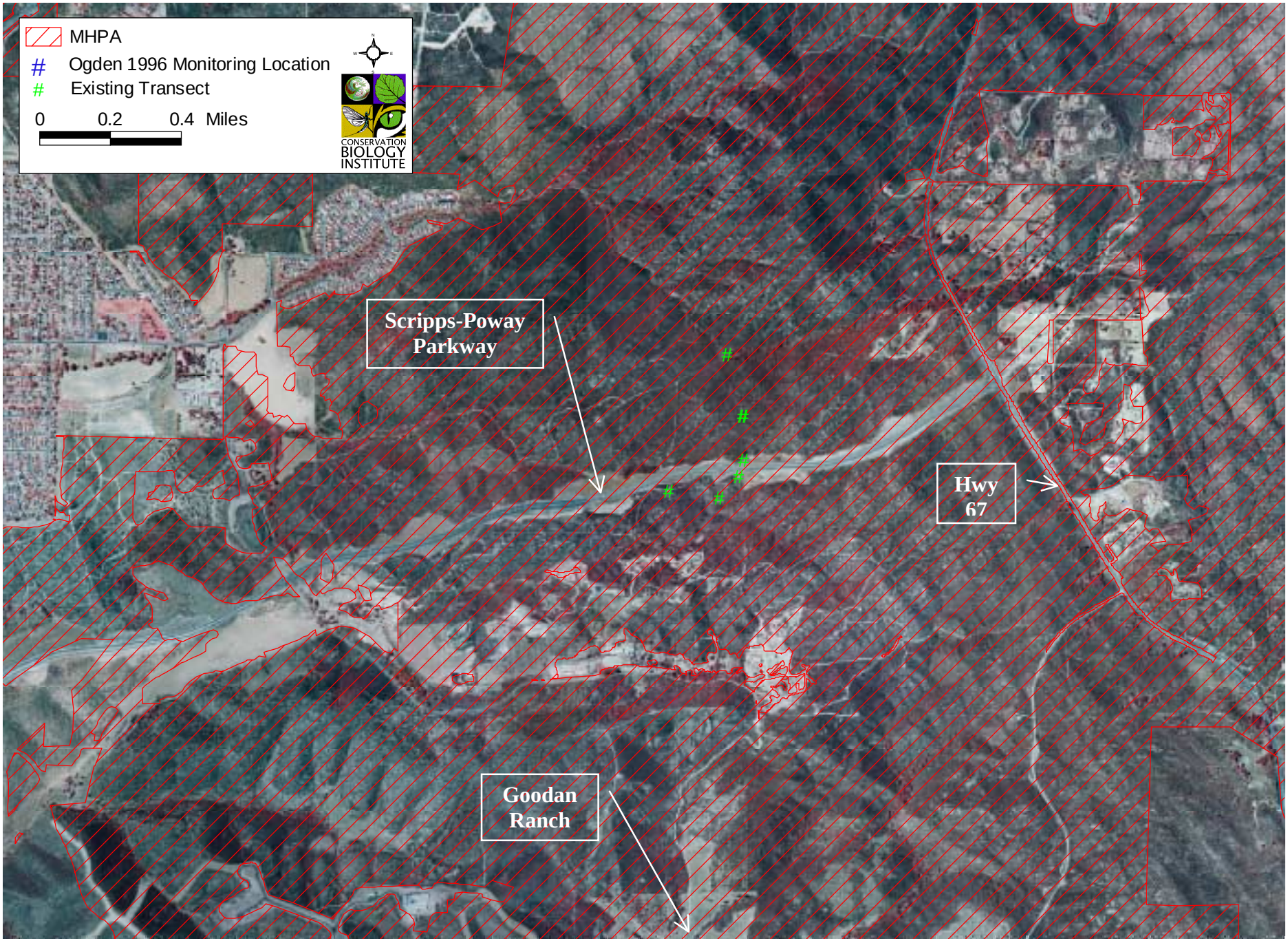


Figure L-7. Old Coach Road – Blue Sky Reserve. **A** – confluence of Green Valley and Thompson Creeks and **B** – Green Valley Creek at Old Coach Road.



L-8. Central Poway at Scripps-Poway Parkway undercrossing.

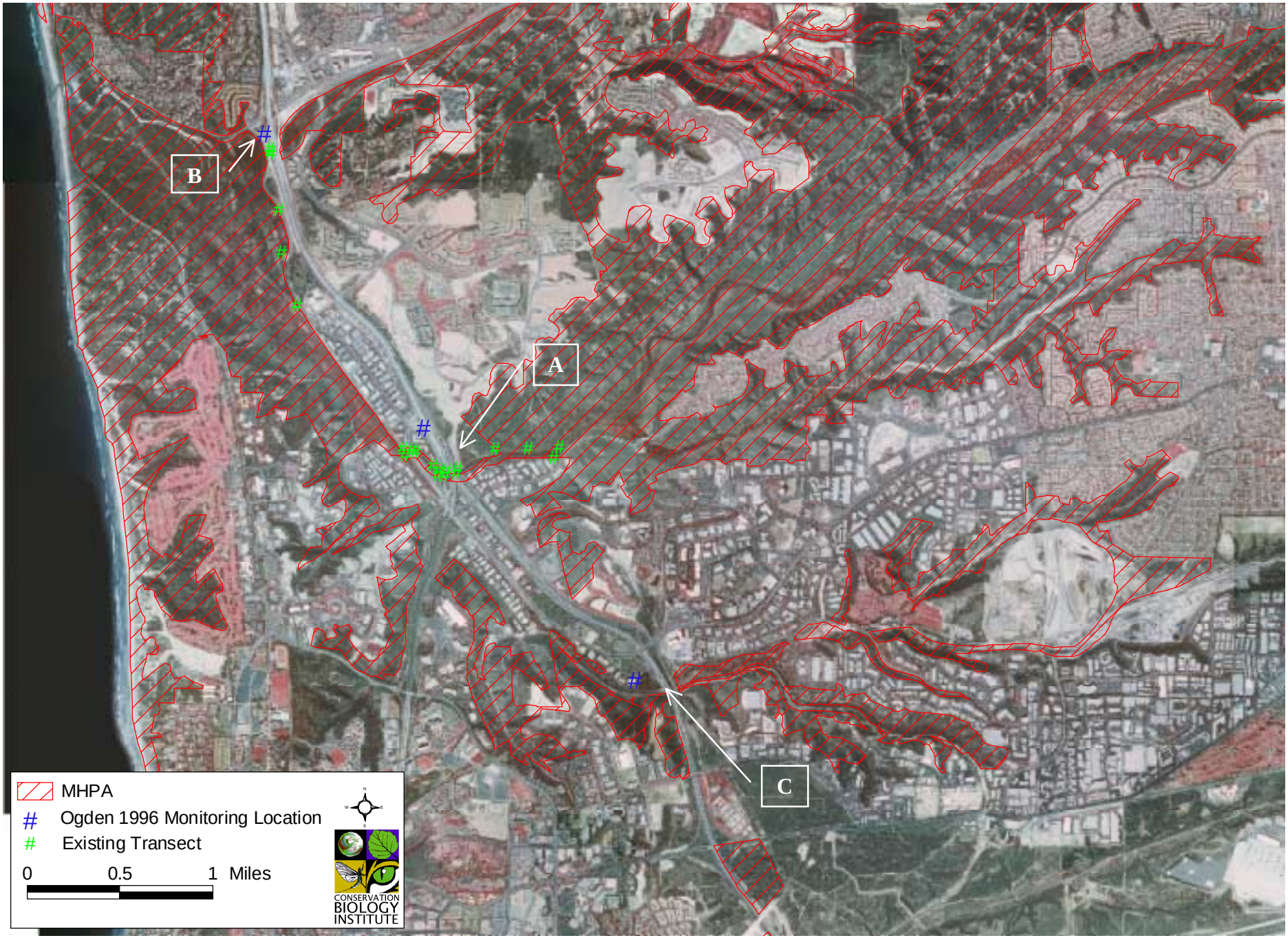


Figure L-9. Torrey Pines State Reserve – Los Peñasquitos Canyon. **A** – at I-5/805 merge, **B** – at I-5 overpass of Carmel Creek, and **C** – Carroll Canyon.

Dredging project in L-9 linkage, looking south from Sorrento Valley Rd bridge.

Sorrento Valley Rd bridge over Peñasquitos Creek looking west.

Vista Sorrento Pkwy bridge over Peñasquitos Creek looking north.

Vista Sorrento Pkwy bridge over Peñasquitos Creek looking east.

I-5/805 merge bridges, looking west from Vista Sorrento Pkwy bridge.

Photo L-9. Torrey Pines State Reserve—Los Peñasquitos Canyon—Miramar, Location A—I-5/805 merge bridges.

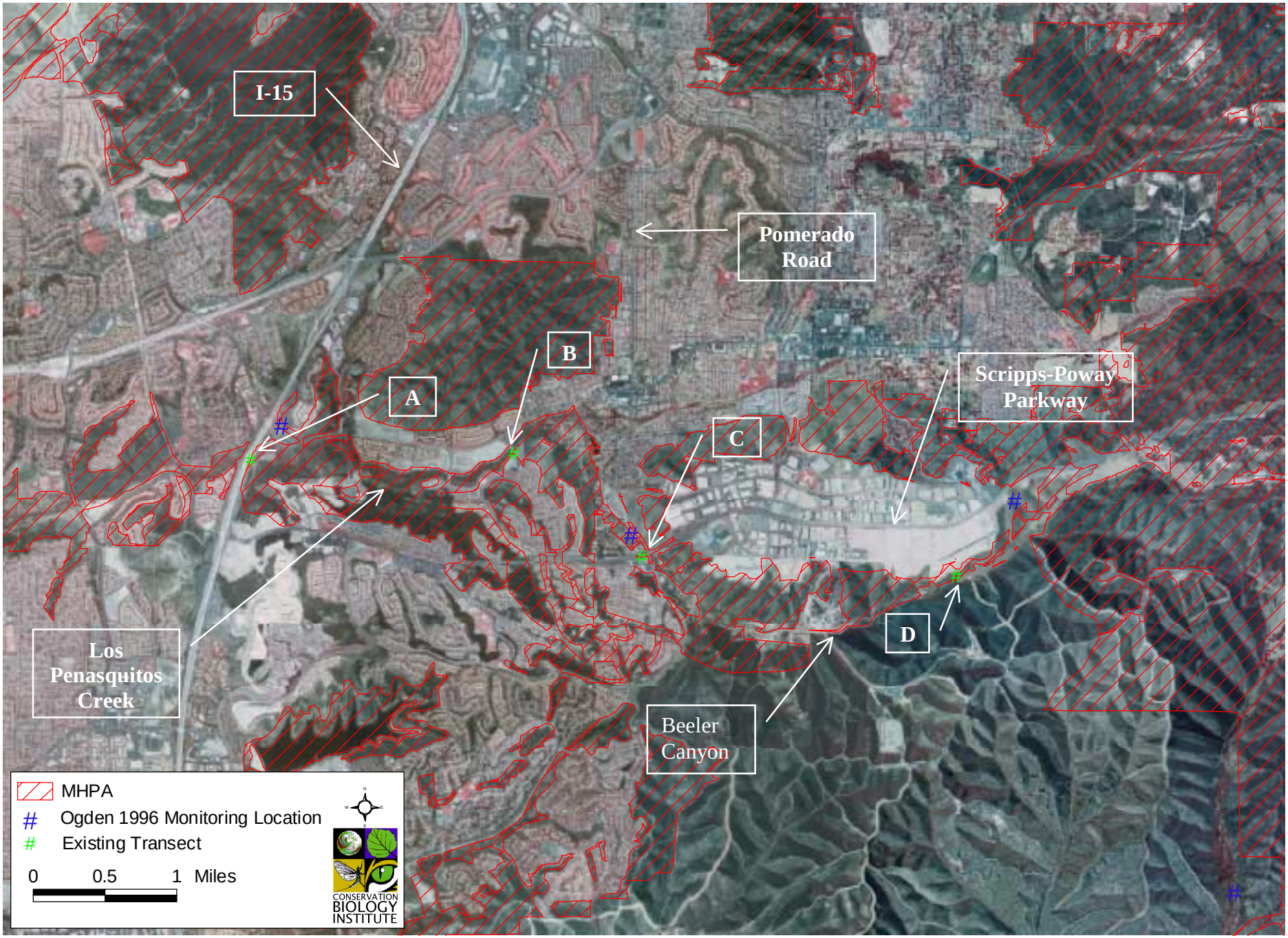


Figure L-10. Los Peñasquitos Canyon – South Poway. **A** – I-15 bridge, **B** – Peñasquitos Creek at Sabre Springs, **C** – Beeler Canyon at Scripps-Poway Parkway and Pomerado Road intersection, and **D** – upper Beeler Canyon.

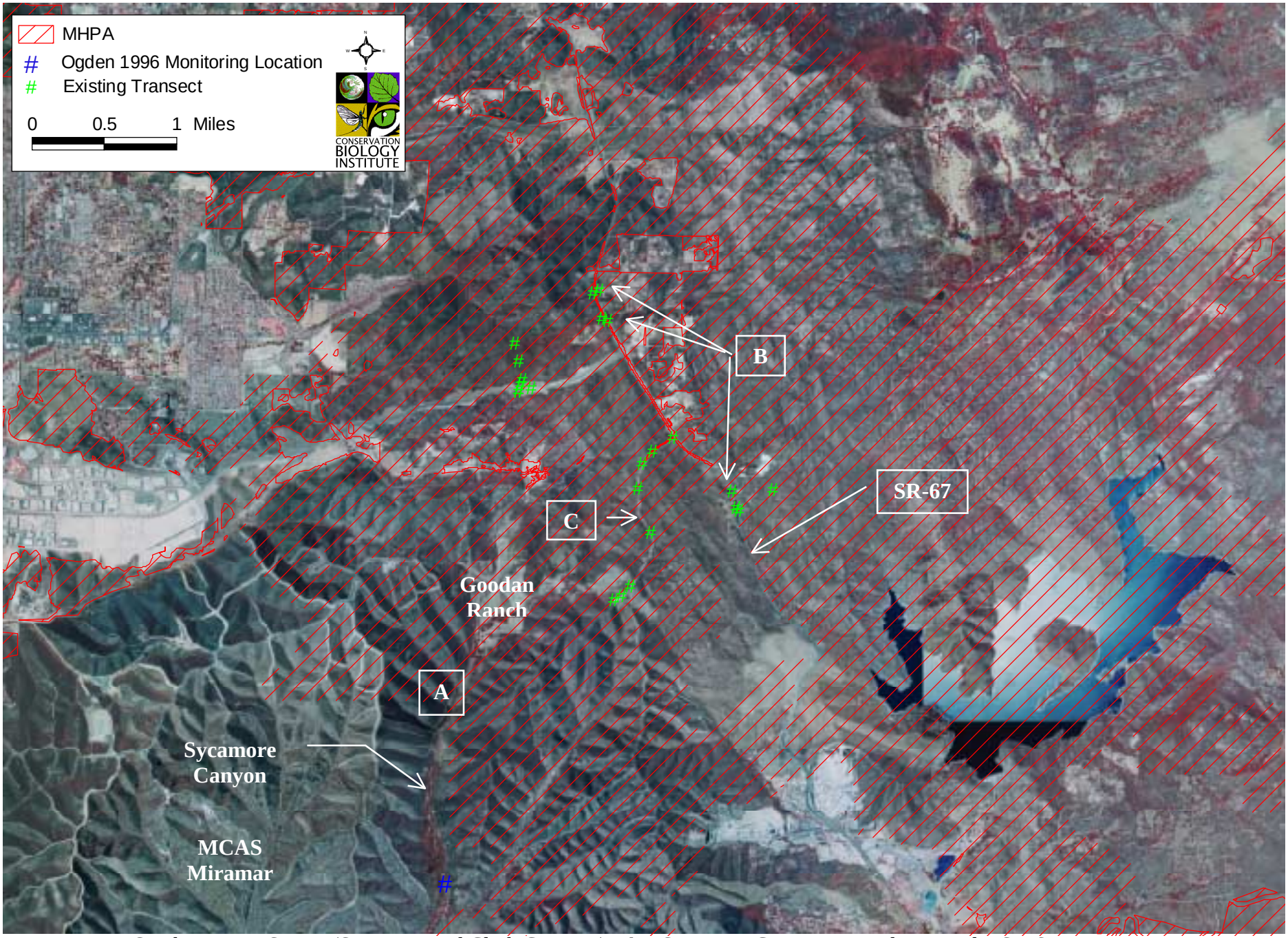


Figure L-11. South Poway - Santee (Sycamore and Clark Canyons). **A** – Sycamore Canyon, **B** – culverts under SR-67, and **C** – Sycamore Park Drive.

Sycamore Canyon looking northeast from west wall of canyon.

Sycamore Canyon looking south from north side of Goodan Ranch. Goodan Ranch is visible in the foreground.

Photo L-11. South Poway—Santee, Location A—Sycamore Canyon.

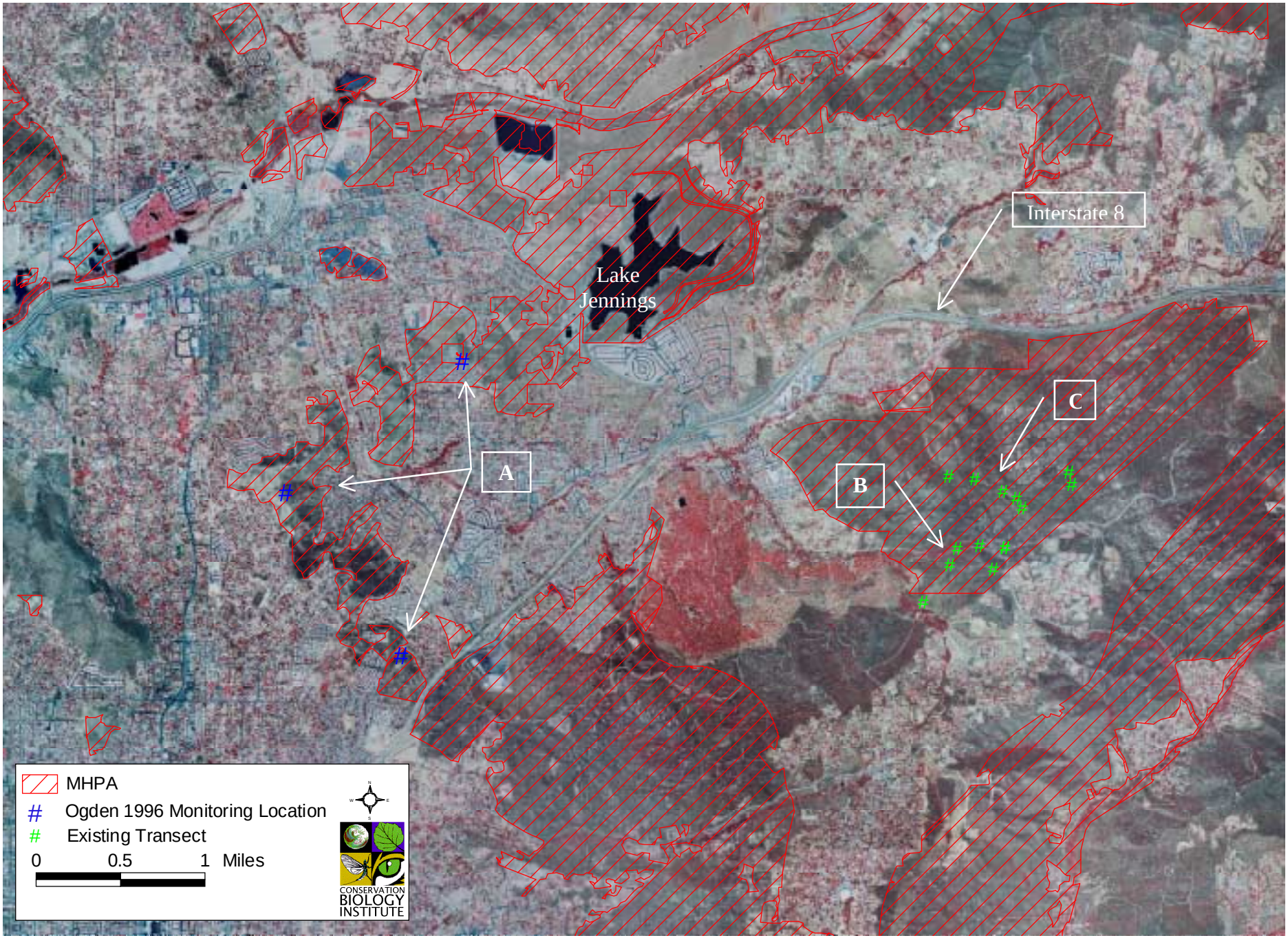


Figure L-12. Lakeside – Crest – El Cajon. **A** – Lakeside Archipelago, and **B**, **C** – SDTT transects at Crestridge Ecological Reserve.

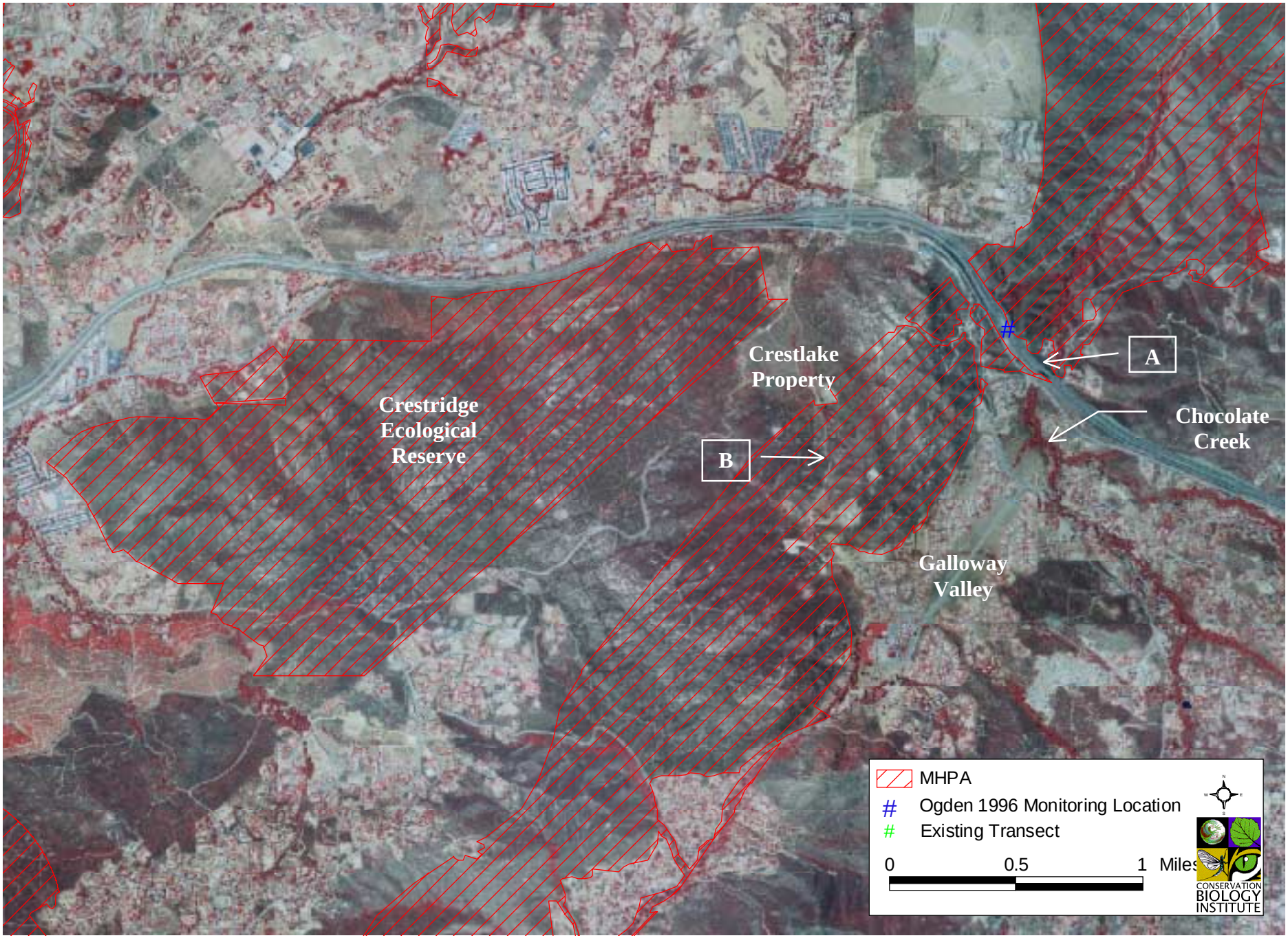


Figure L-13. Harbison Canyon at Interstate-8. **A** – Peutz Valley Road at I-8 and **B** – canyon through Crestlake.

Peutz Valley Road under I-8 overpass, looking north.

Chocolate Creek with I-8 overpass in background.

Chocolate Creek culvert under Peutz Valley Rd, looking north.

Photo L-13. Harbison Canyon at I-8, Location A—Peutz Valley Road under I-8.

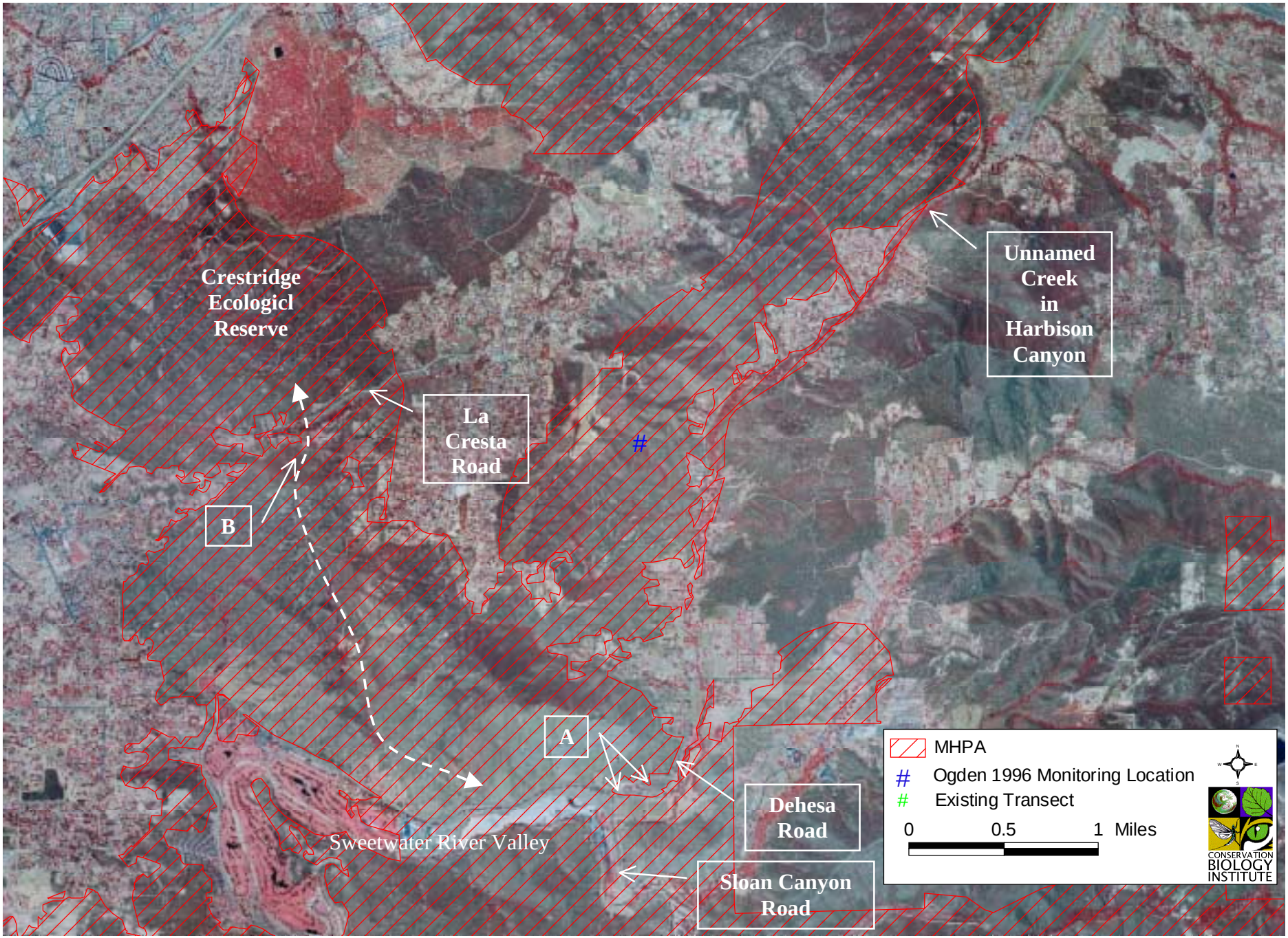


Figure L-14. Southern Harbison Canyon. **A** – Dehesa Road at Elementary School and **B** – transmission line corridor north of Dehesa Road.

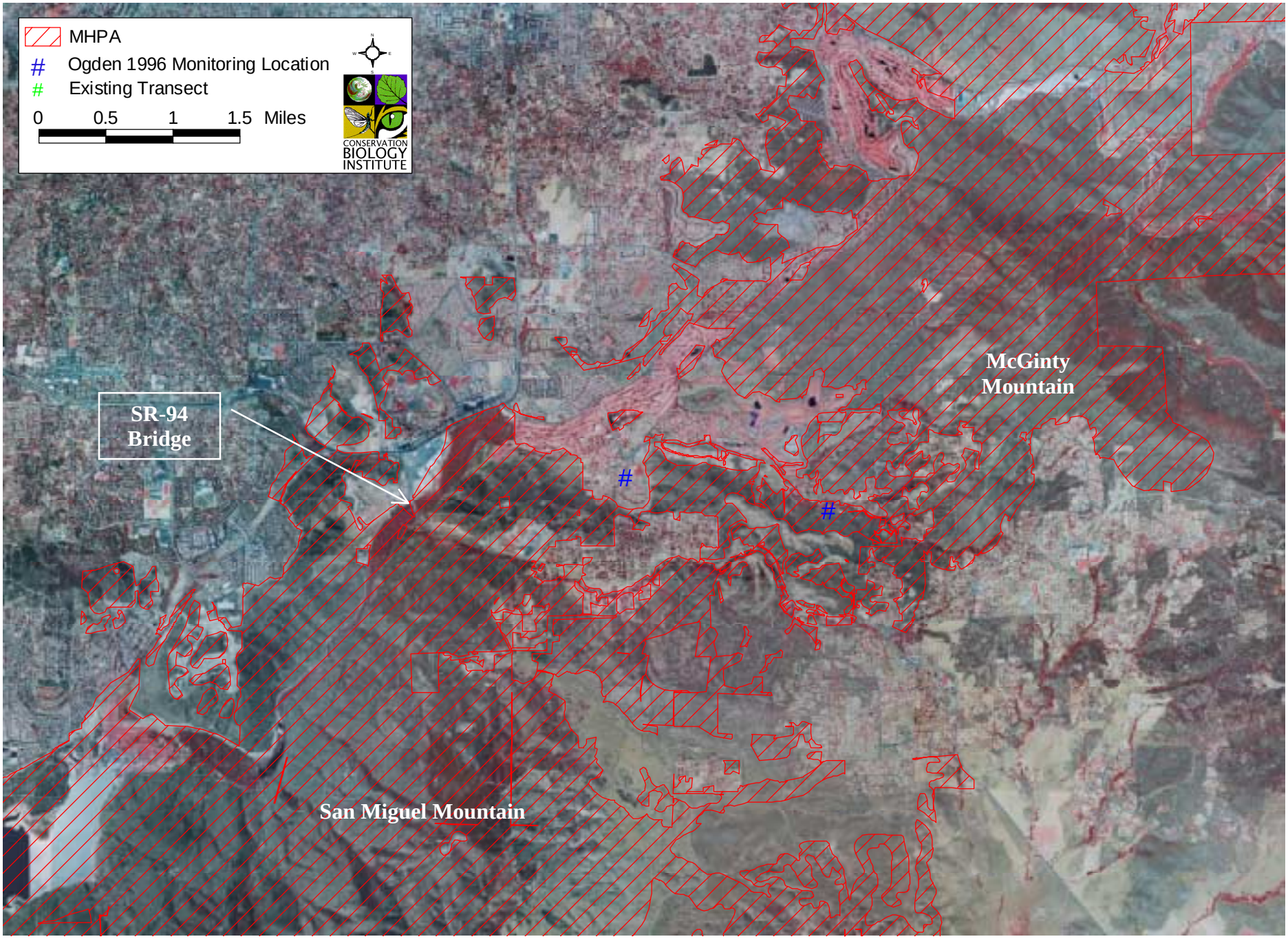


Figure L-15. McGinty Mesa - Rancho San Diego (middle Sweetwater River) at SR-94 bridge.

Figure L-16. Sweetwater Reservoir - Rancho Del Rey.

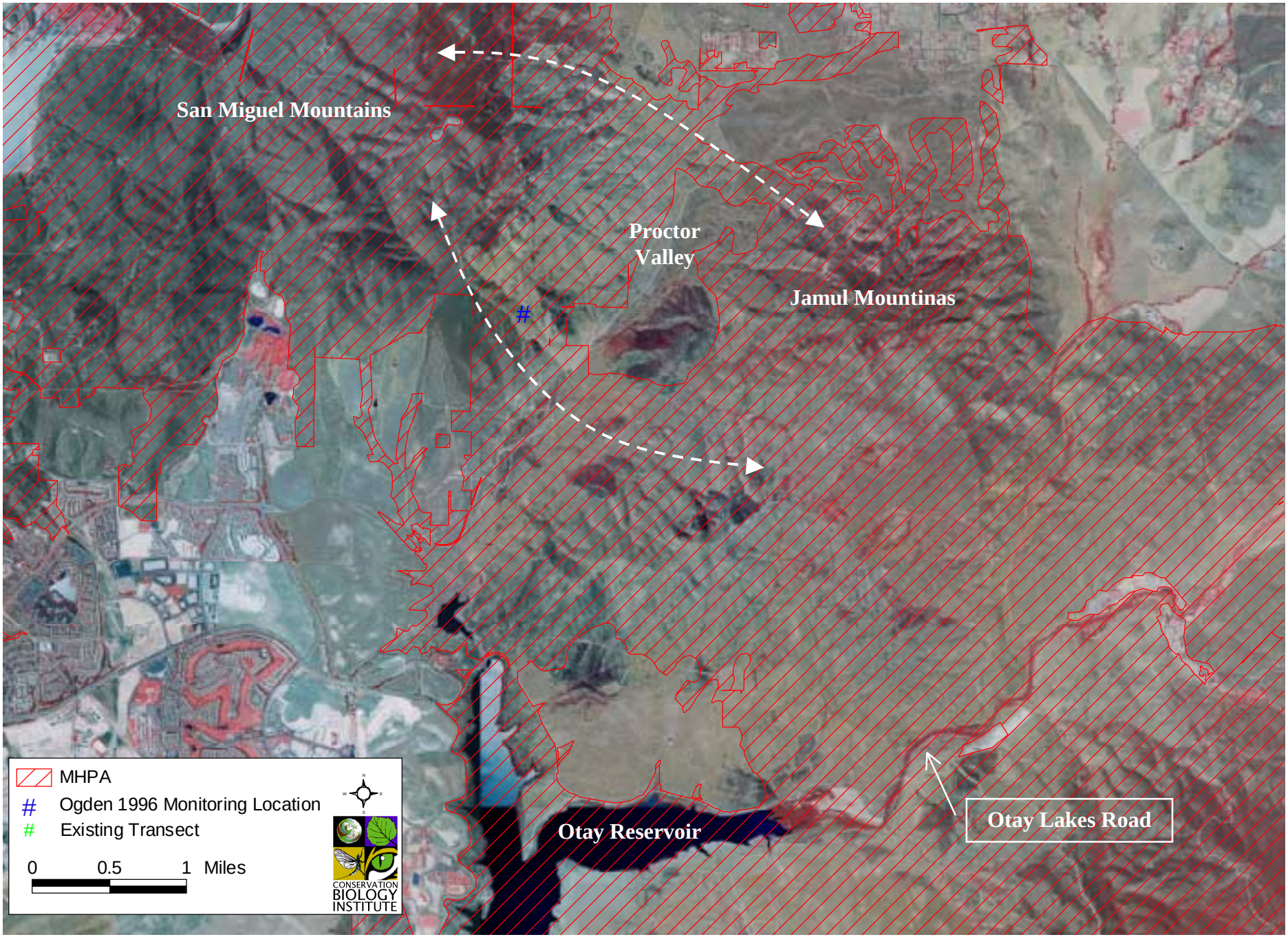


Figure L-17. San Miguel Mountains - Proctor Valley - Jamul Mountains (Otay Ranch). Reevaluate monitoring locations once development and conservation plans are approved.

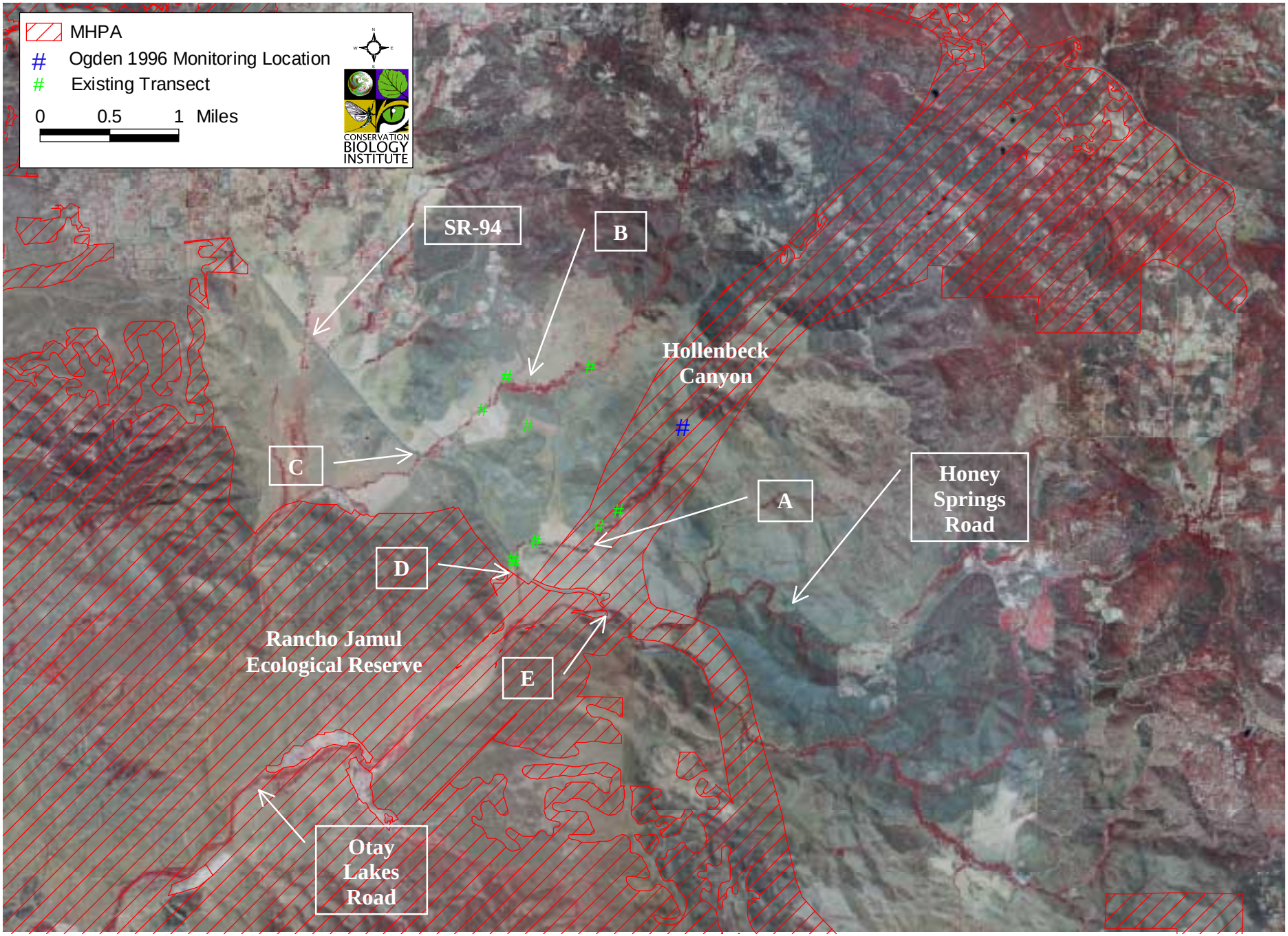
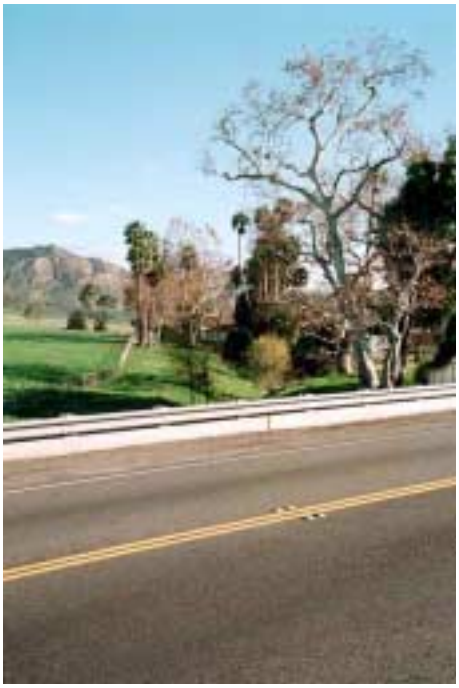


Figure L-18. Hollenbeck Canyon. **A**, **B** – SDTT transects in Hollenbeck Canyon preserve area, **C** - Jamul Creek culverts at SR-94, **D** - Hollenbeck Canyon culverts at SR-94, and **E** – SR-94 bridge at Dulzura Creek.



Looking north up Jamul Creek from SR-94 bridge.

Looking south down Jamul Creek from SR-94 bridge.

SR-94 bridge over Jamul Creek, looking north.

Photo L-18. Hollenbeck Canyon, Location A— SR-94 bridge over Jamul Creek.

Hollenbeck Canyon drainage culvert under SR-94 looking south.

Looking west from SR-94 bridge along Dulzura Creek.

SR-94 bridge over Dulzura Creek, looking east from down-stream side.

Photo L-18. Hollenbeck Canyon, Location D—Hollenbeck Canyon drainage culvert, and Location E—SR-94 bridge over Dulzura Creek.

Figure L-19. Poggi Canyon.

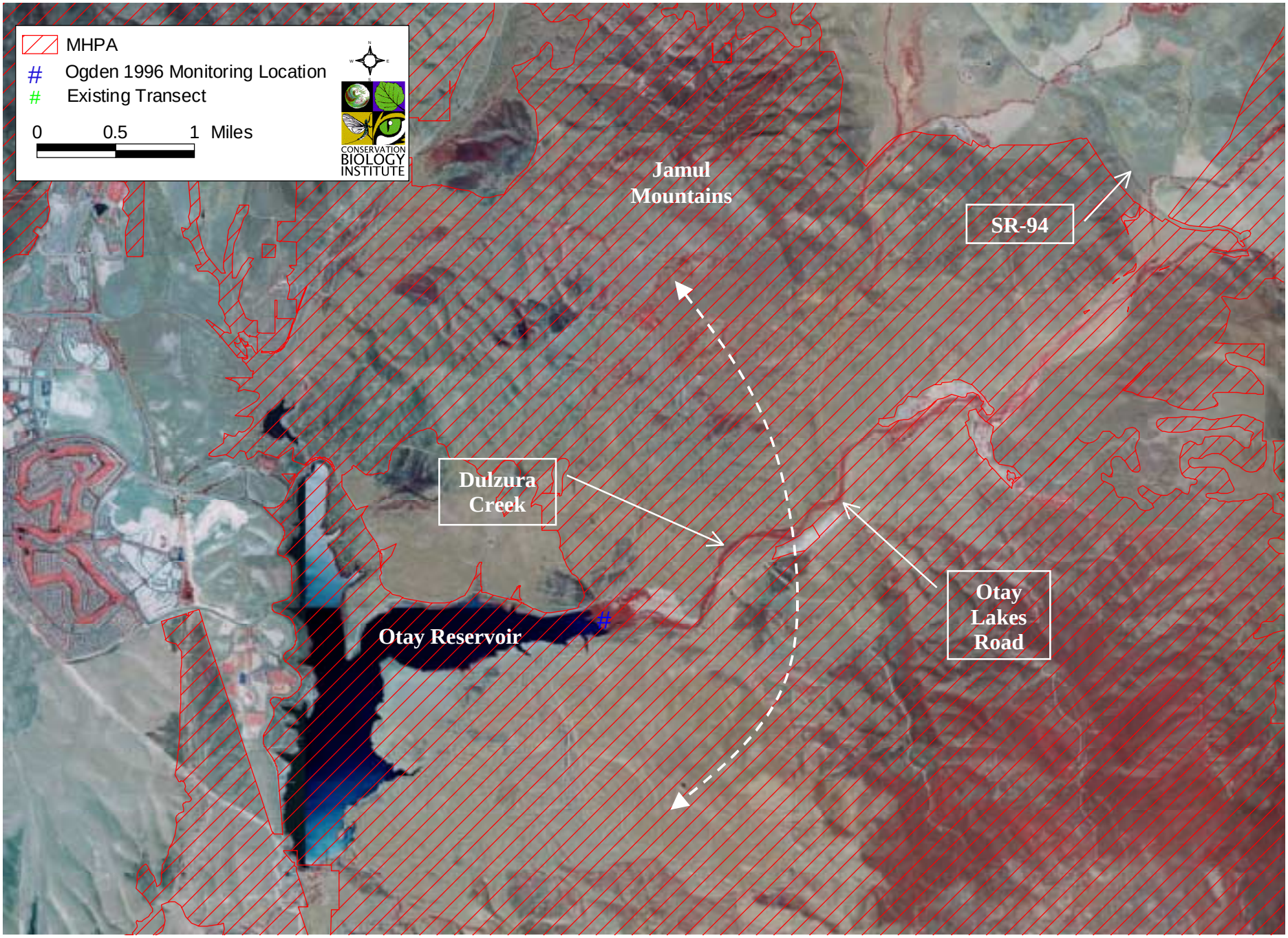


Figure L-20. Jamul Mountains - Southeast Side of Lower Otay Reservoir.

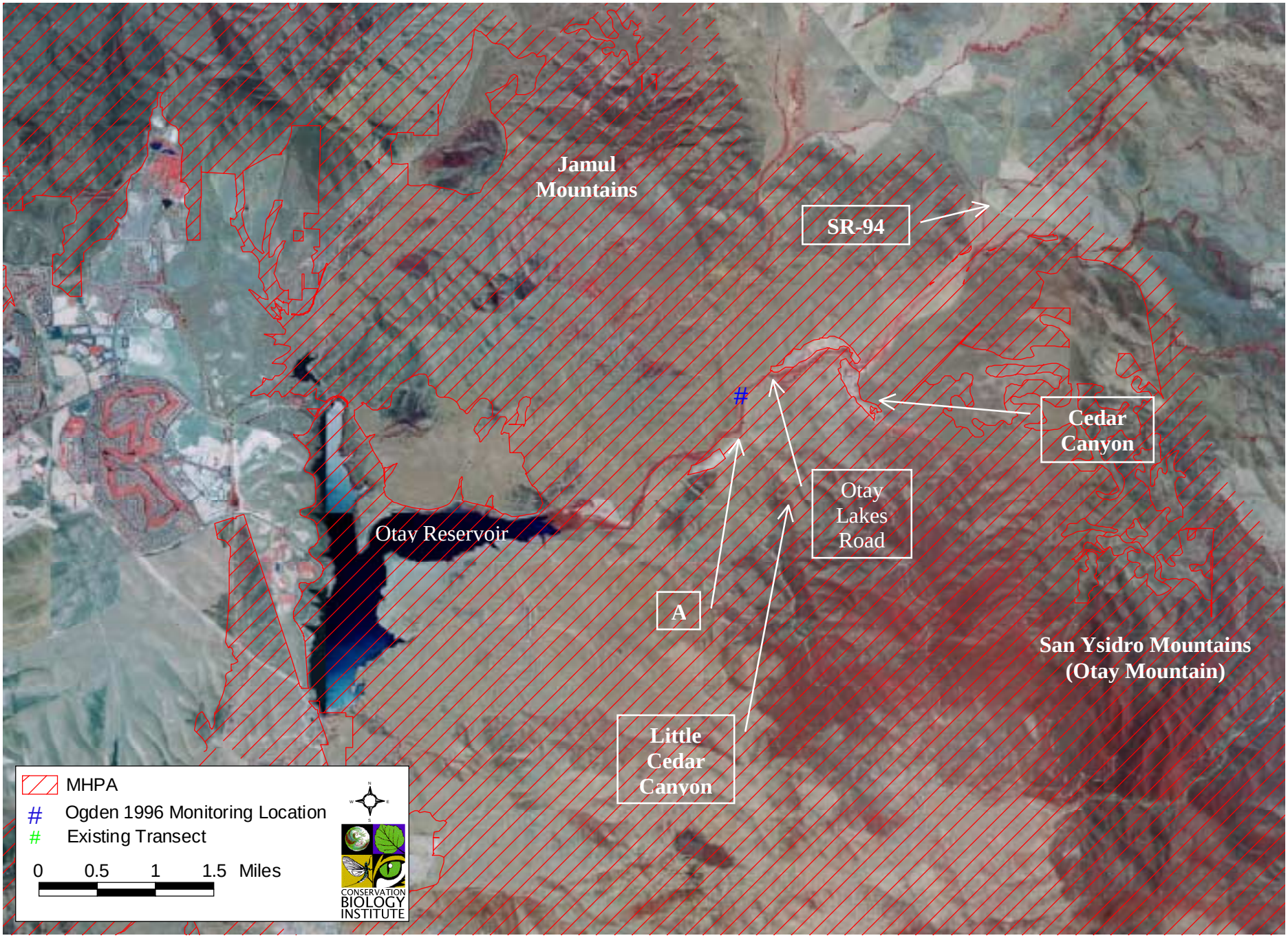


Figure L-21. Jamul Mountains - San Ysidro Mountains (Little Cedar and Cedar Canyons). **A** – mouth of Little Cedar Canyon at Otay Lakes Road.

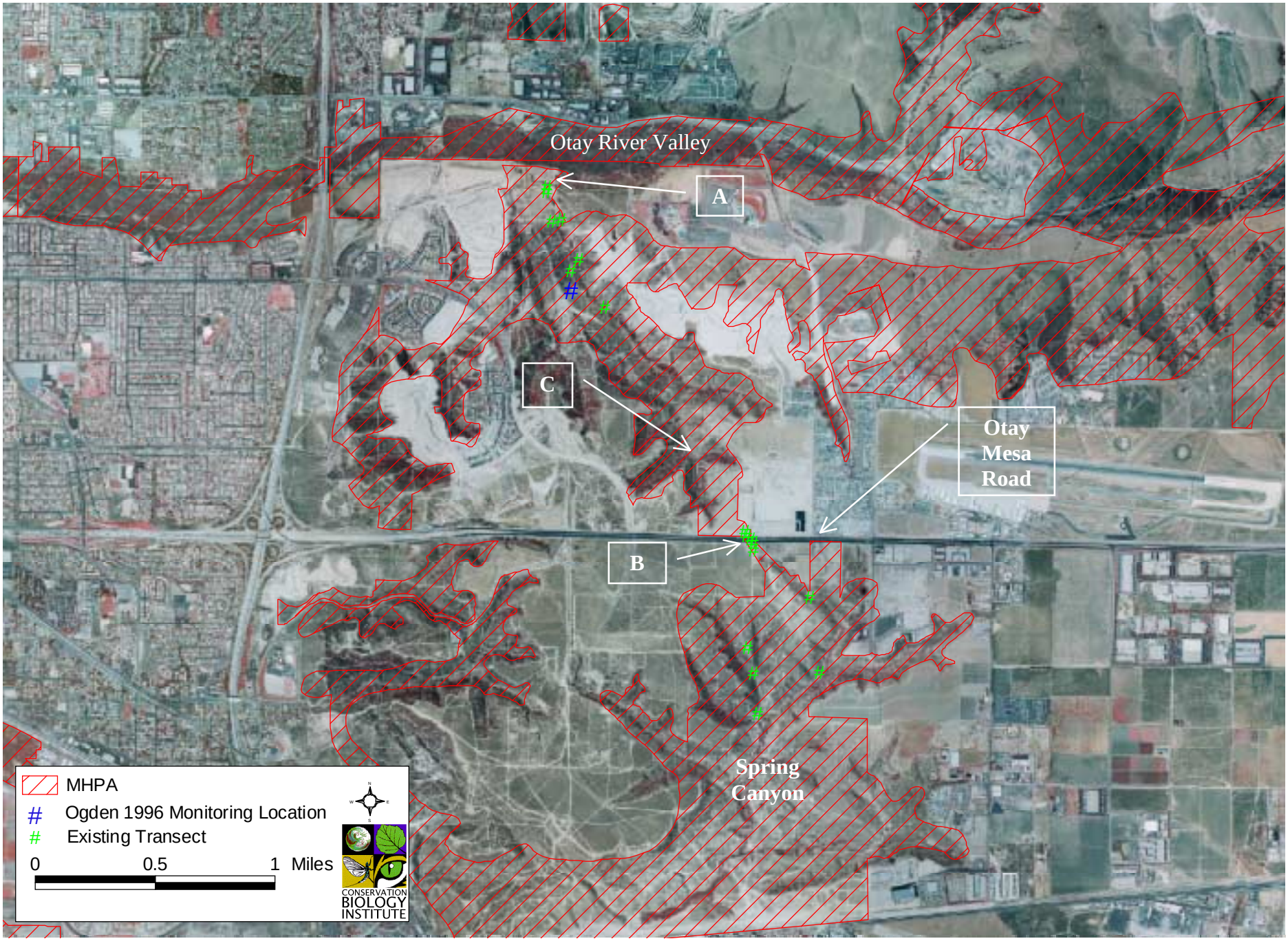


Figure L-22. Otay River Valley - West Otay Mesa (Dennery Canyon). **A** – mouth of Dennery Canyon at new road, **B** – culvert under Otay Mesa Road, and **C** – upper Dennery Canyon.

Culvert under Otay Mesa Rd. from the north side of the culvert, looking east.

Culvert under Otay Mesa Rd from the south side looking north.

Culvert under Otay Mesa Rd from the south side looking north.

Photo L-22. Otay River Valley—West Otay Mesa, Location B—Otay Mesa Road culvert.

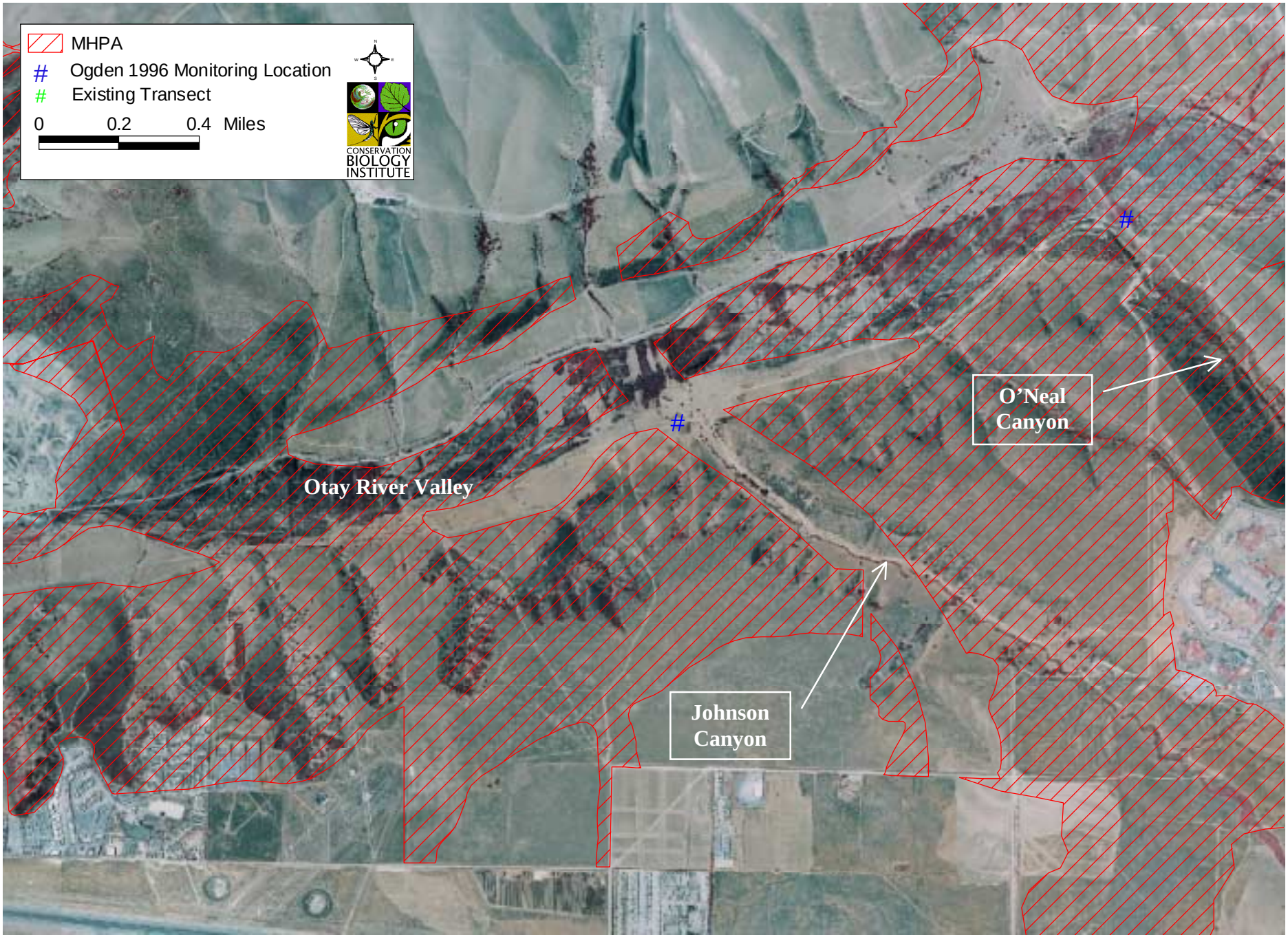


Figure L-23. Otay River Valley at Future Highway 125 crossing.

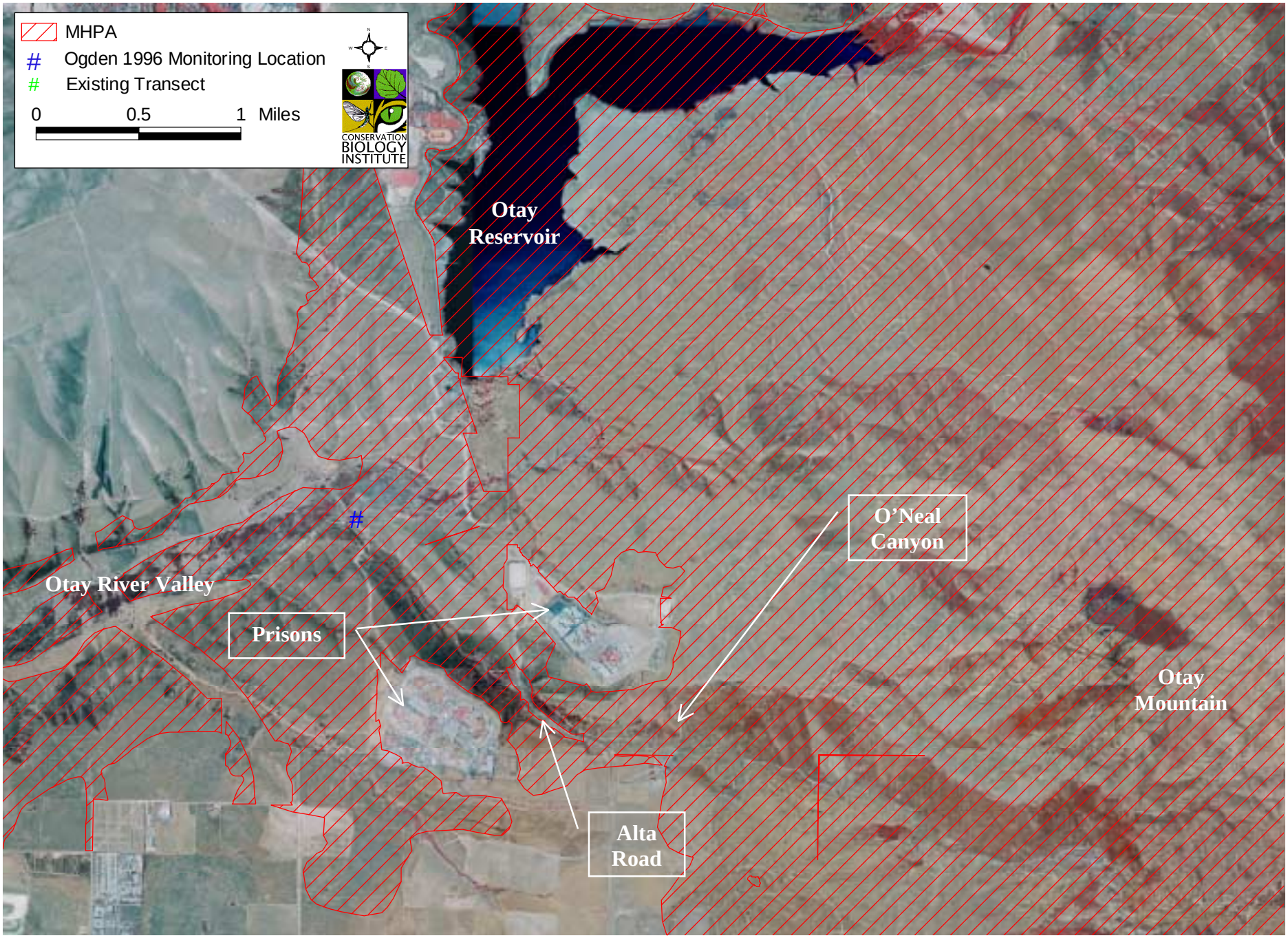


Figure L-24. O'Neal Canyon at Alta Road.

O'Neal Canyon culverts under Alta Rd looking northwest (downstream).

O'Neal Canyon west of Alta Rd looking northwest (downstream) towards Otay River Valley.

O'Neal Canyon looking northwest towards Otay River Valley. Alta Rd in the right side of photo.

Photo L-24. O'Neal Canyon, Otay River Valley to Otay Mountain.

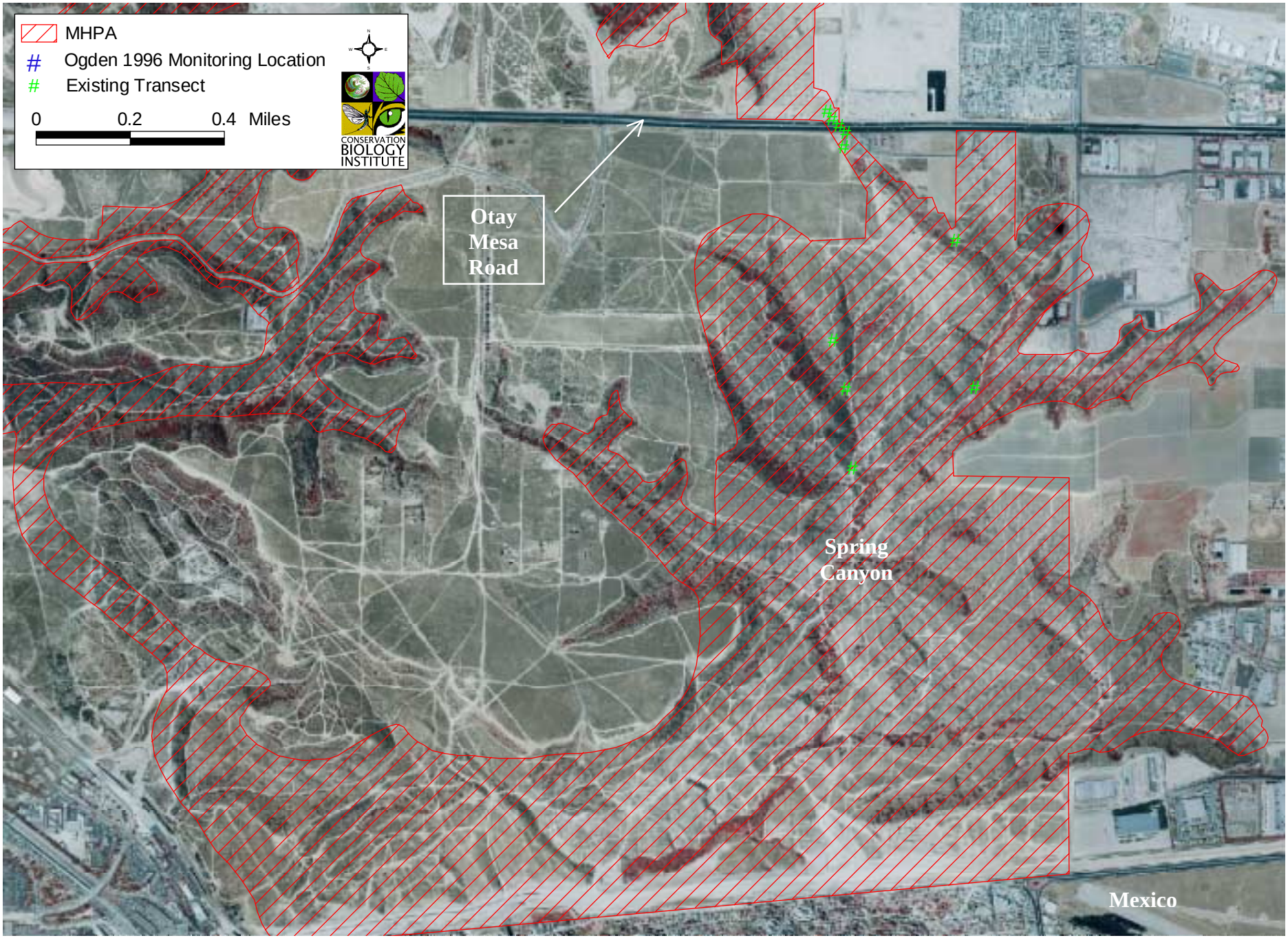


Figure L-25. Spring Canyon.

Finger canyon of Spring Canyon system looking south.

Finger canyon of Spring Canyon system looking east.

Photo L-25. Spring Canyon.

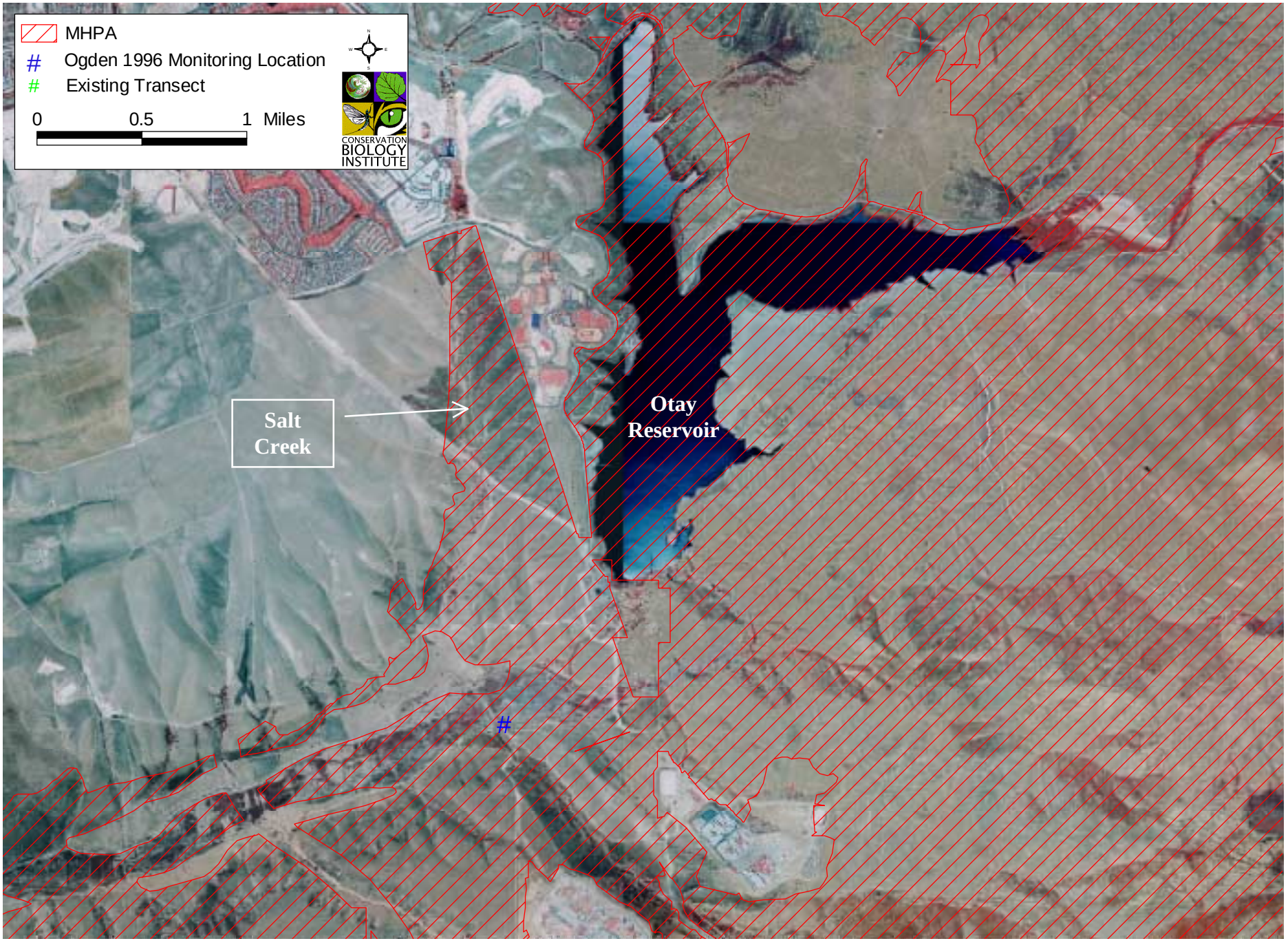


Figure L-26. Salt Creek.

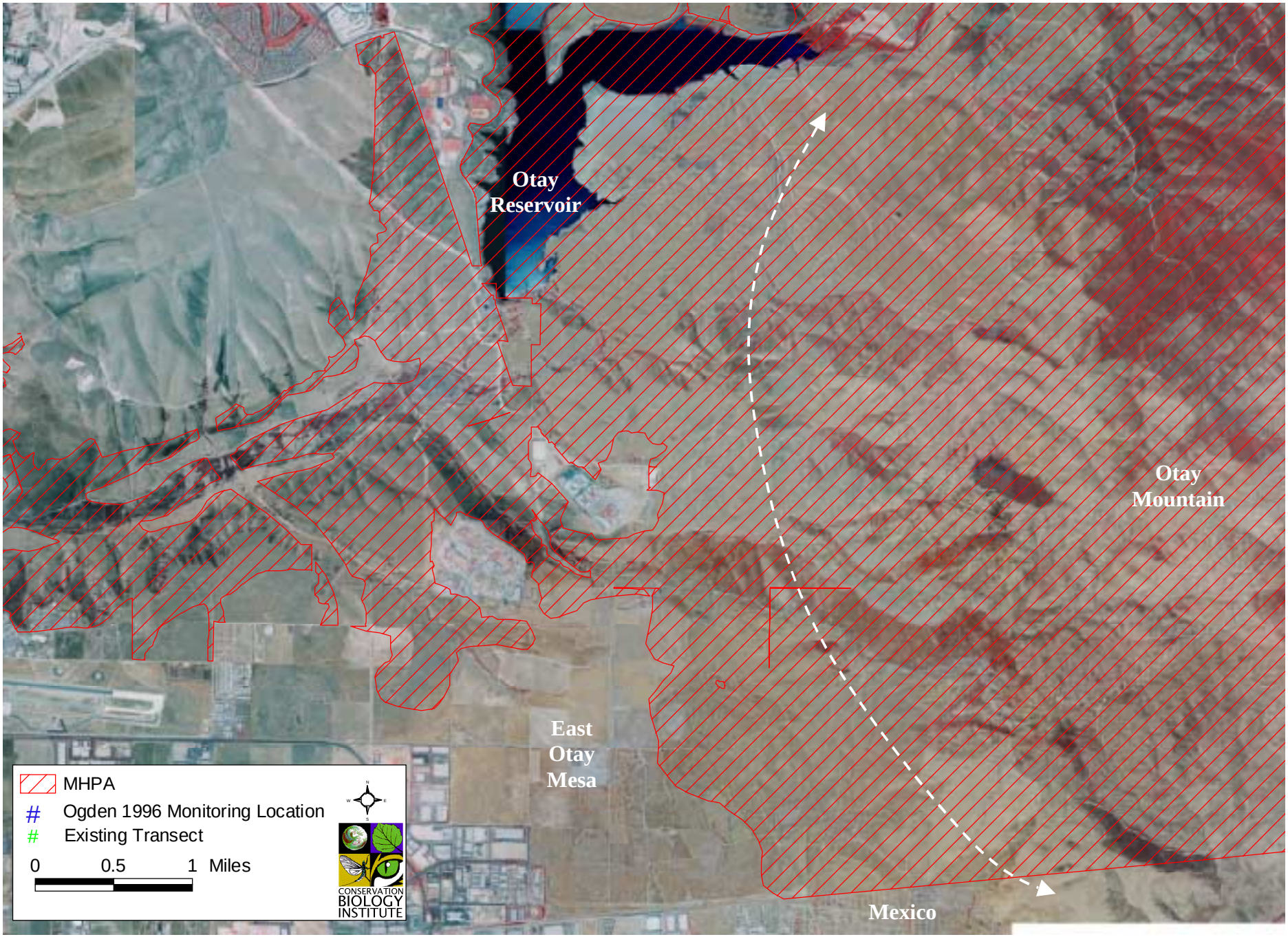


Figure L-27. East Otay Mesa.

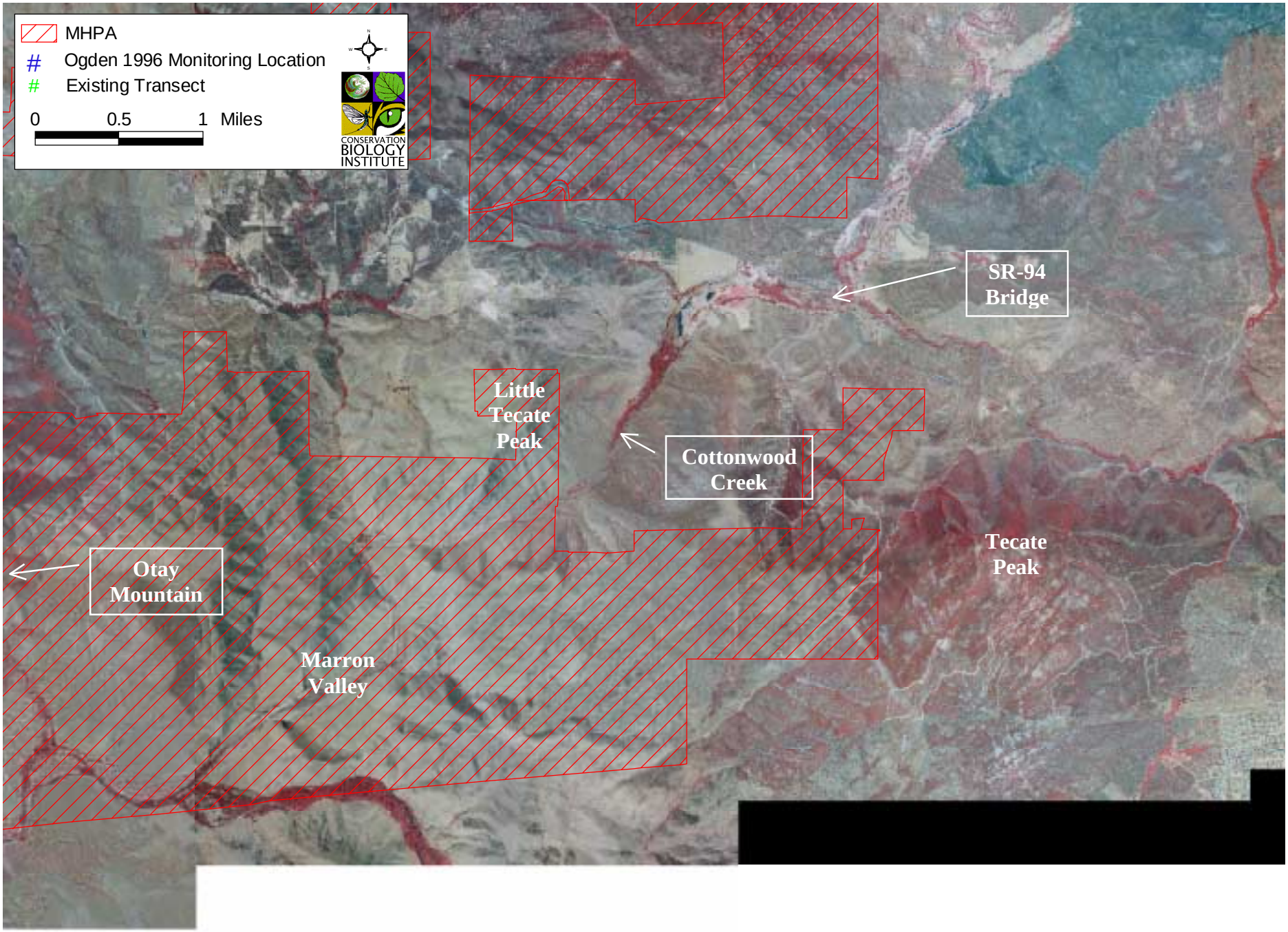


Figure L-28. San Ysidro Mountains East (same as L-29 Marron Valley).

SR-94 bridge over Cottonwood Creek looking north from south and west side of bridge.

SR-94 bridge over Cottonwood Creek looking south from north and east side of bridge.

Photo L-28. San Ysidro Mountains East, SR-94 bridge over Cottonwood Creek.

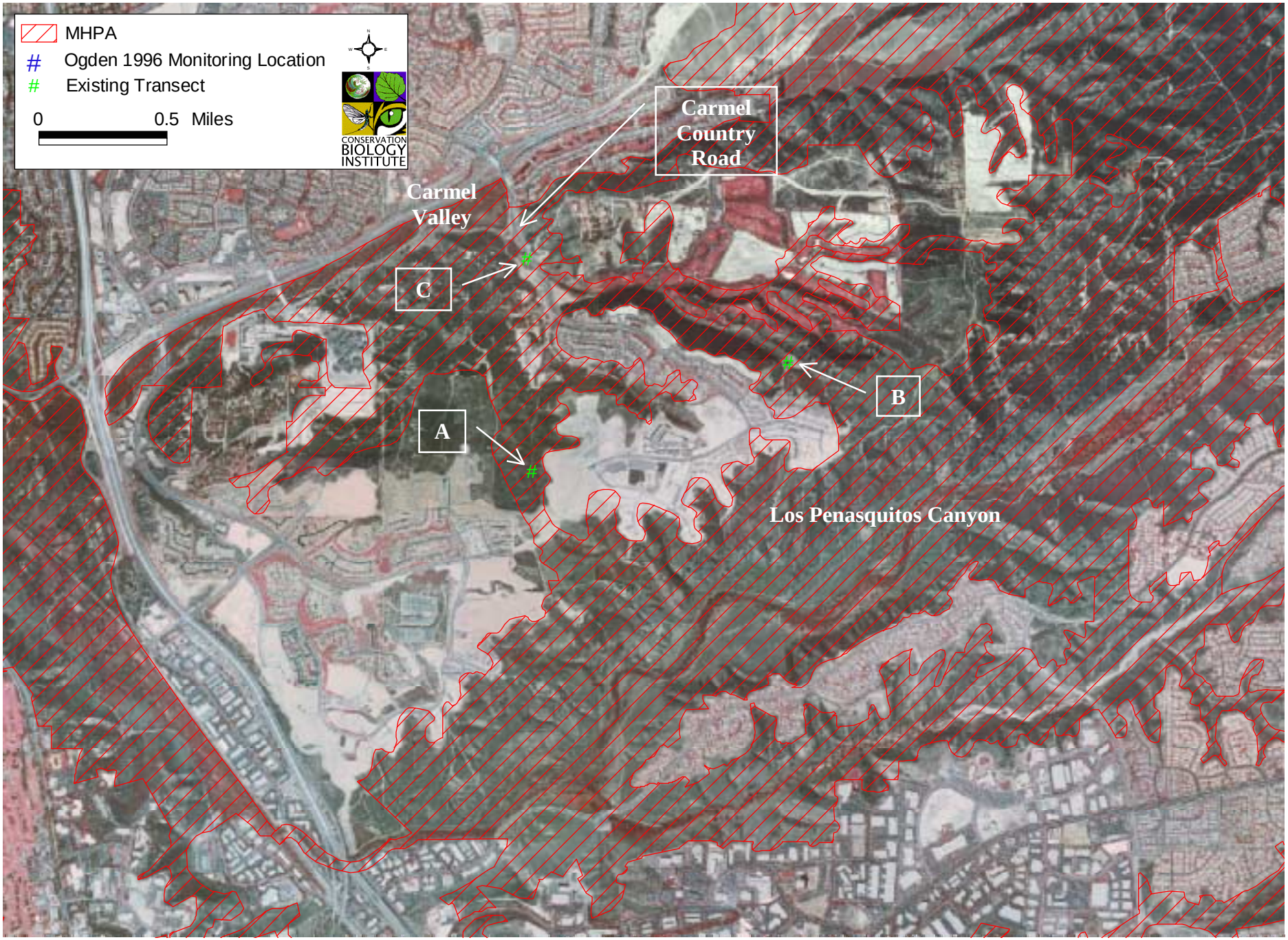


Figure L-30. Del Mar Mesa. **A** – Little Shaw Valley, **B** – Big Shaw Valley, and **C** – lower Shaw Valley (culverts under Carmel Country Road).

Culverts under Carmel Country Rd in lower Shaw Valley looking west.

Photo L-30. Del Mar Mesa, Location C—Lower Shaw Valley.

MSCP LINKAGE DESCRIPTION LOG
Part A

Linkage Name and MSCP monitoring #: L-1 Rancho Cielo-San Dieguito

1. Linkage Type (check one):

- ❑ Landscape Linkage **X** Connectivity Choke-Point
- ❑ Other _____

2. List the key focal species expected to use the linkage:

birds --This area is fragmented by the Rancho Cielo development and the roads within the development. While patches of habitat remain, large mammals are not expected to use this area as a linkage to the San Dieguito River valley or to the Escondido Creek valley.

3. Identify the most important threats to connectivity function and score the severity of each threat (rank on a scale of 1 (no threat) to 5 (severe threat/loss imminent).

Type of Threat	Severity of Threat
Residential housing	3
Roads	3

4. Provide a brief description of the linkage.

Characteristic	Within linkage	Core habitat at E end of linkage (N,S,E,W)	Core habitat at W end of linkage (N,S,E,W)
Habitat types	Coastal sage scrub	Coastal sage scrub	Coastal sage scrub
Size of habitat block	Small	Medium	Medium
Quality of habitat	Moderately disturbed	Moderately disturbed	Moderately disturbed
Topography	Steep slopes	Steep slopes, ridgetop	Slopes
Land use	Residential	Residential	Residential
Type of human use	Residential	Residential	Residential
Source of water	Escondido Creek	Lake Hodges	Escondido Creek
Conservation status	MSCP part is conserved	Conserved open space	Not conserved

Habitat types: e.g., scrub, chaparral, riparian woodland, riparian scrub, oak woodland, etc.
Size of habitat block: large (>14,800 ac), medium (1000-14,800 ac), small (<1000 ac).
Quality of habitat: undisturbed or readily restorable, moderately disturbed (impacted by human activities), very disturbed (relatively little natural habitat or processes remain).
Topography: ravine, ridgetop, slope, flat, etc.
Land use: high density residential, rural residential, commercial, industrial, agriculture, park or golf course, open space, recreation, etc.
Type of human use: hiking, residential, transportation, etc.
Source of water: pond, creek, runoff, etc.
Conservation status: conserved, conserved but not managed, not conserved.

5. Provide the approximate dimensions of the corridor, including width at narrowest point.

Length: unknown -- linkage extends through CSS to southeast Carlsbad

Average width (or range): unknown -- chokepoints at roads

Width at narrowest point: unknown

6. Identify primary barriers that may impede wildlife movement.

Permeable = linkage consists of high quality habitat that is permeable to many species, low density agriculture, and low use roads.

Semi-permeable = linkage covers large area but habitat is degraded due to high levels of development, intensive agriculture, or disturbance. for birds

Impermeable = linkage is highly impacted by development and is disconnected by dams, roads, and small culverts; habitat is seriously degraded for mammals and herps

7. Identify existing features that facilitate animal movement within the linkage (e.g., dirt road, underpass, vegetative cover, etc.).

good habitat, but fragmented by housing and roads

8. What documentation is available to demonstrate use of the linkage (e.g., sign of species currently using the area, presence of game trails, data from SDTT or others, etc.)?

none

9. What are the logistics of surveying the area?

Type of substrate: unknown
Density of vegetation: dense
Existing trail or road system? No
Secure locations to establish a camera station? No
Existing ownership Rancho Cielo

10. Recommended for MSCP corridor monitoring?

☐ Recommended **X** Not recommended

Alternate Location: Derbas property (could not arrange access)

MSCP LINKAGE DESCRIPTION LOG
Part A

Linkage Name and MSCP monitoring #: L-2 Lake Hodges @ I-15

1. Linkage Type (check one):

- ❑ Landscape Linkage **X** Connectivity Choke-Point
- ❑ Other _____

2. List the key focal species expected to use the linkage:

birds
deer and carnivores during low lake levels

3. Identify the most important threats to connectivity function and score the severity of each threat (rank on a scale of 1 (no threat) to 5 (severe threat/loss imminent).

Type of Threat	Severity of Threat
Obstruction by high water	5
I-15	3
Noise from I-15	2

4. Provide a brief description of the linkage.

Characteristic	Within linkage	Core habitat at W end of linkage (N,S,E,W)	Core habitat at E end of linkage (N,S,E,W)
Habitat types	Willow scrub/woodland FW marsh	Lake Hodges	Willow woodland bordered by CSS
Size of habitat block	Small	Medium	Medium
Quality of habitat	Undisturbed (some nonnatives)	Undisturbed	Moderately disturbed
Topography	Floodplain	Lake Hodges, surrounded by steep rocky slopes and CSS	San Pasqual Valley -- relatively flat
Land use	Freeway underpass	Reservoir/recreation	Agriculture, open space park
Type of human use	none	Reservoir/recreation	Agriculture, open space park
Source of water	San Dieguito River	Lake Hodges	San Dieguito River
Conservation status	Conserved	Conserved	Partially conserved

Habitat types: e.g., scrub, chaparral, riparian woodland, riparian scrub, oak woodland, etc.
Size of habitat block: large (>14,800 ac), medium (1000-14,800 ac), small (<1000 ac).
Quality of habitat: undisturbed or readily restorable, moderately disturbed (impacted by human activities), very disturbed (relatively little natural habitat or processes remain).
Topography: ravine, ridgetop, slope, flat, etc.
Land use: high density residential, rural residential, commercial, industrial, agriculture, park or golf course, open space, recreation, etc.
Type of human use: hiking, residential, transportation, etc.
Source of water: pond, creek, runoff, etc.
Conservation status: conserved, conserved but not managed, not conserved.

5. Provide the approximate dimensions of the corridor, including width at narrowest point.

Length: depends on lake level

Average width (or range): varies depending on land use/ag; 300-1000 ft.

Width at narrowest point: 0 habitat at high lake level; approx. 600 ft if no water present

6. Identify primary barriers that may impede wildlife movement.

Permeable = linkage consists of high quality habitat that is permeable to many species, low density agriculture, and low use roads. permeable when no water present or at very low water levels

Semi-permeable = linkage covers large area but habitat is degraded due to high levels of development, intensive agriculture, or disturbance.

Impermeable = linkage is highly impacted by development and is disconnected by dams, roads, and small culverts; habitat is seriously degraded impermeable at high water

7. Identify existing features that facilitate animal movement within the linkage (e.g., dirt road, underpass, vegetative cover, etc.).

- Underpass and good vegetative cover

8. What documentation is available to demonstrate use of the linkage (e.g., sign of species currently using the area, presence of game trails, data from SDTT or others, etc.)?

- Deer seen under bridge at low water

9. What are the logistics of surveying the area?

Type of substrate: silty sand
Density of vegetation: dense to moderately dense vegetation; sparse vegetation under bridge
Existing trail or road system? No
Secure locations to establish a camera station? Yes, but area is very wide for a camera to pick up movement
Existing ownership City of San Diego

10. Recommended for MSCP corridor monitoring?

X Recommended ☐ Not recommended

MSCP LINKAGE DESCRIPTION LOG
Part A

Linkage Name and MSCP monitoring #: L-3 San Pasqual Valley/North Poway (Highland Valley)

1. Linkage Type (check one):

X Landscape Linkage ❑ Connectivity Choke-Point
❑ Other _____

2. List the key focal species expected to use the linkage:

coyotes, bobcats, fox, deer, small mammals
mountain lion?

3. Identify the most important threats to connectivity function and score the severity of each threat (rank on a scale of 1 (no threat) to 5 (severe threat/loss imminent).

Type of Threat	Severity of Threat
Dirt road and Highland Valley Road	2
Residential development	2

4. Provide a brief description of the linkage.

Characteristic	Within linkage	Core habitat at N end of linkage (N,S,E,W)	Core habitat at S end of linkage (N,S,E,W)
Habitat types	Riparian woodland	Riparian woodland	Riparian/coastal sage scrub
Size of habitat block	Medium	Medium	Small
Quality of habitat	Undisturbed	Moderately disturbed	Moderately disturbed
Topography	Relatively flat	Relatively flat	Relatively flat
Land use	Open space	Open space	Zoned residential; currently undeveloped
Type of human use	Residential/dirt road	Open space/ag	Residential/roads
Source of water	Sycamore Creek	San Dieguito River	Green Valley Creek
Conservation status	Partially conserved	Not conserved?	Conserved at Blue Sky Reserve

Habitat types: e.g., scrub, chaparral, riparian woodland, riparian scrub, oak woodland, etc.
Size of habitat block: large (>14,800 ac), medium (1000-14,800 ac), small (<1000 ac).
Quality of habitat: undisturbed or readily restorable, moderately disturbed (impacted by human activities), very disturbed (relatively little natural habitat or processes remain).
Topography: ravine, ridgetop, slope, flat, etc.
Land use: high density residential, rural residential, commercial, industrial, agriculture, park or golf course, open space, recreation, etc.
Type of human use: hiking, residential, transportation, etc.
Source of water: pond, creek, runoff, etc.
Conservation status: conserved, conserved but not managed, not conserved.

5. Provide the approximate dimensions of the corridor, including width at narrowest point.

Length: 4 miles between San Pasqual Valley and Blue Sky Reserve

Average width (or range): 0.25 mile

Width at narrowest point: 12 ft along dirt road

6. Identify primary barriers that may impede wildlife movement.

Permeable = linkage consists of high quality habitat that is permeable to many species, low density agriculture, and low use roads. Low density residential housing; Highland Valley Road

Semi-permeable = linkage covers large area but habitat is degraded due to high levels of development, intensive agriculture, or disturbance.

Impermeable = linkage is highly impacted by development and is disconnected by dams, roads, and small culverts; habitat is seriously degraded

7. Identify existing features that facilitate animal movement within the linkage (e.g., dirt road, underpass, vegetative cover, etc.).

- Dirt road
- Riparian woodland

8. What documentation is available to demonstrate use of the linkage (e.g., sign of species currently using the area, presence of game trails, data from SDTT or others, etc.)?

- Hayden and San Diego Tracking Team surveys

9. What are the logistics of surveying the area?

Type of substrate: clayey sand/Poway riolite
Density of vegetation: none
Existing trail or road system? No
Secure locations to establish a camera station? no
Existing ownership not clear
Other:

10. Recommended for MSCP corridor monitoring?

X Recommended ☐ Not recommended

MSCP LINKAGE DESCRIPTION LOG
Part A

Linkage Name and MSCP monitoring #: L-4 Lusardi Creek

1. Linkage Type (check one):

- ❑ Landscape Linkage X Connectivity Choke-Point
- ❑ Other _____

2. List the key focal species expected to use the linkage:

coyotes, bobcats, small mammals, birds

3. Identify the most important threats to connectivity function and score the severity of each threat (rank on a scale of 1 (no threat) to 5 (severe threat/loss imminent).

Type of Threat	Severity of Threat
Residential development	5

4. Provide a brief description of the linkage.

Characteristic	Within linkage	Core habitat at W end of linkage (N,S,E,W)	Core habitat at E end of linkage (N,S,E,W)
Habitat types	Riparian scrub	Riparian scrub, San Dieguito River	Chaparral, CSS, Black Mtn
Size of habitat block	Small	Small	Small
Quality of habitat	Moderately disturbed	Moderately disturbed	Very disturbed
Topography	Canyon	Canyon	Relatively flat
Land use	Open space	Open space	Open space
Type of human use	Residential/dirt road	San Dieguito River	Residential/roads
Source of water	Lusardi Creek	San Dieguito River	Ponds on Lusardi Creek
Conservation status	Partially conserved	Conserved?	Conserved at Black Mtn, but residential barriers

Habitat types: e.g., scrub, chaparral, riparian woodland, riparian scrub, oak woodland, etc.
Size of habitat block: large (>14,800 ac), medium (1000-14,800 ac), small (<1000 ac).
Quality of habitat: undisturbed or readily restorable, moderately disturbed (impacted by human activities), very disturbed (relatively little natural habitat or processes remain).
Topography: ravine, ridgetop, slope, flat, etc.
Land use: high density residential, rural residential, commercial, industrial, agriculture, park or golf course, open space, recreation, etc.
Type of human use: hiking, residential, transportation, etc.
Source of water: pond, creek, runoff, etc.
Conservation status: conserved, conserved but not managed, not conserved.

5. Provide the approximate dimensions of the corridor, including width at narrowest point.

Length: 3.6 miles between San Dieguito River and Black Mountain

Average width (or range): 10-100 ft

Width at narrowest point: 10 ft at east end through 4S Ranch residential area

6. Identify primary barriers that may impede wildlife movement.

Permeable = linkage consists of high quality habitat that is permeable to many species, low density agriculture, and low use roads. _____

_____

Semi-permeable = linkage covers large area but habitat is degraded due to high levels of development, intensive agriculture, or disturbance._____

_____

Impermeable = linkage is highly impacted by development and is disconnected by dams, roads, and small culverts; habitat is seriously degraded eastern end is currently under construction

_____

7. Identify existing features that facilitate animal movement within the linkage (e.g., dirt road, underpass, vegetative cover, etc.).

- Dirt utility road at western end
- Dense riparian scrub

8. What documentation is available to demonstrate use of the linkage (e.g., sign of species currently using the area, presence of game trails, data from SDTT or others, etc.)?

- San Diego Tracking Team surveys

9. What are the logistics of surveying the area?

Type of substrate: loose soil on road (good surveying); poor surveying through vegetation
Density of vegetation: dense
Existing trail or road system? At western end
Secure locations to establish a camera station? no
Existing ownership not clear
Other: area is currently under construction

10. Recommended for MSCP corridor monitoring?

X Recommended ☐ Not recommended

Alternate location: Eastern end also recommended for MSCP monitoring once construction has been completed. Depends on connection onto Black Mountain and future roads through the area.

MSCP LINKAGE DESCRIPTION LOG
Part A

Linkage Name and MSCP monitoring #: L-5 Gonzales Canyon east

1. Linkage Type (check one):

- ❑ Landscape Linkage **X** Connectivity Choke-Point
- ❑ Other Area is currently under construction, so difficult to visualize final configuration of linkage

2. List the key focal species expected to use the linkage:

small mammals, coyotes, birds

3. Identify the most important threats to connectivity function and score the severity of each threat (rank on a scale of 1 (no threat) to 5 (severe threat/loss imminent).

Type of Threat	Severity of Threat
Roads (including SR 56)	5
Residential development	5

4. Provide a brief description of the linkage.

Characteristic	Within linkage	Core habitat at N end of linkage (N,S,E,W)	Core habitat at S end of linkage (N,S,E,W)
Habitat types	Nonnative grassland Agriculture	agriculture	McGonigle Canyon (disturbed)
Size of habitat block	Small	Small	Small (ultimately to Del Mar Mesa)
Quality of habitat	Very disturbed	Very disturbed	Very disturbed/ag
Topography	Arroyo	Flat	Flat
Land use	agriculture	agriculture	agriculture
Type of human use	Residential/roads (some proposed open space)	Residential/roads	Residential/roads
Source of water	None at present	None at present	Carmel Creek
Conservation status	Not conserved yet	Not conserved yet	Not conserved yet

Habitat types: e.g., scrub, chaparral, riparian woodland, riparian scrub, oak woodland, etc.
Size of habitat block: large (>14,800 ac), medium (1000-14,800 ac), small (<1000 ac).
Quality of habitat: undisturbed or readily restorable, moderately disturbed (impacted by human activities), very disturbed (relatively little natural habitat or processes remain).
Topography: ravine, ridgetop, slope, flat, etc.
Land use: high density residential, rural residential, commercial, industrial, agriculture, park or golf course, open space, recreation, etc.
Type of human use: hiking, residential, transportation, etc.
Source of water: pond, creek, runoff, etc.
Conservation status: conserved, conserved but not managed, not conserved.

5. Provide the approximate dimensions of the corridor, including width at narrowest point.

Length: not clear due to construction

Average width (or range): not clear due to construction

Width at narrowest point: 50 ft

6. Identify primary barriers that may impede wildlife movement.

Permeable = linkage consists of high quality habitat that is permeable to many species, low density agriculture, and low use roads.

Semi-permeable = linkage covers large area but habitat is degraded due to high levels of development, intensive agriculture, or disturbance.

Impermeable = linkage is highly impacted by development and is disconnected by dams, roads, and small culverts; habitat is seriously degraded Currently impermeable; ultimate linkage not clear, due to construction.

7. Identify existing features that facilitate animal movement within the linkage (e.g., dirt road, underpass, vegetative cover, etc.).

- Arroyo
- No cover, no native habitat

8. What documentation is available to demonstrate use of the linkage (e.g., sign of species currently using the area, presence of game trails, data from SDTT or others, etc.)?

- none

9. What are the logistics of surveying the area?

Type of substrate: clayey sand/Poway riolite
Density of vegetation: none
Existing trail or road system? No
Secure locations to establish a camera station? no
Existing ownership not clear
Other:

10. Recommended for MSCP corridor monitoring?

☐ Recommended **X** Not recommended

Note:____recommended for MSCP monitoring once construction has been completed.
Alternative location: western linkage to Gonzales.

MSCP LINKAGE DESCRIPTION LOG
Part A

Linkage Name and MSCP monitoring #: L-5 Gonzales Canyon west at Black Mountain Road

1. Linkage Type (check one):

- ❑ Landscape Linkage **X** Connectivity Choke-Point
- ❑ Other Area is currently under construction, so difficult to visualize final configuration of linkage

2. List the key focal species expected to use the linkage:

small mammals, coyotes, birds

3. Identify the most important threats to connectivity function and score the severity of each threat (rank on a scale of 1 (no threat) to 5 (severe threat/loss imminent).

Type of Threat	Severity of Threat
Roads (including SR 56)	5
Residential development	5

4. Provide a brief description of the linkage.

Characteristic	Within linkage	Core habitat at N end of linkage (N,S,E,W)	Core habitat at S end of linkage (N,S,E,W)
Habitat types	Nonnative grassland, CHP, scrub oak	CHP/CSS	McGonigle Canyon (disturbed)
Size of habitat block	Small	Small	Small (ultimately to Del Mar Mesa)
Quality of habitat	Very disturbed	Very disturbed	Very disturbed/ag
Topography	Finger canyon	Gonzales Canyon	Del Mar Mesa
Land use	residential	residential	residential
Type of human use	Residential/roads (some proposed open space)	Residential/roads	Residential/roads
Source of water	None	None	None
Conservation status	Not conserved yet	Not conserved yet	Not conserved yet

Habitat types: e.g., scrub, chaparral, riparian woodland, riparian scrub, oak woodland, etc.
Size of habitat block: large (>14,800 ac), medium (1000-14,800 ac), small (<1000 ac).
Quality of habitat: undisturbed or readily restorable, moderately disturbed (impacted by human activities), very disturbed (relatively little natural habitat or processes remain).
Topography: ravine, ridgetop, slope, flat, etc.
Land use: high density residential, rural residential, commercial, industrial, agriculture, park or golf course, open space, recreation, etc.
Type of human use: hiking, residential, transportation, etc.
Source of water: pond, creek, runoff, etc.
Conservation status: conserved, conserved but not managed, not conserved.

5. Provide the approximate dimensions of the corridor, including width at narrowest point.

Length: not clear due to construction

Average width (or range): not clear due to construction

Width at narrowest point: 50 ft

6. Identify primary barriers that may impede wildlife movement.

Permeable = linkage consists of high quality habitat that is permeable to many species, low density agriculture, and low use roads.

Semi-permeable = linkage covers large area but habitat is degraded due to high levels of development, intensive agriculture, or disturbance.

Impermeable = linkage is highly impacted by development and is disconnected by dams, roads, and small culverts; habitat is seriously degraded Currently impermeable; ultimate linkage not clear, due to construction.

7. Identify existing features that facilitate animal movement within the linkage (e.g., dirt road, underpass, vegetative cover, etc.).

- none

8. What documentation is available to demonstrate use of the linkage (e.g., sign of species currently using the area, presence of game trails, data from SDTT or others, etc.)?

- none

9. What are the logistics of surveying the area?

Type of substrate: sandstone, some sand
Density of vegetation: dense in ravine, none along sides (disturbed grassland
Existing trail or road system? No -- construction roads
Secure locations to establish a camera station? no
Existing ownership not clear
Other:

10. Recommended for MSCP corridor monitoring?

X Recommended ☐ Not recommended

Note: recommended for MSCP monitoring once construction has been completed. Depends on Santa Luz connection onto Black Mountain and future roads through the area.
Alternative location: where El Camino Real crosses the outlet of Gonzales into the San Dieguito River, once a culvert or bridge is installed.

MSCP LINKAGE DESCRIPTION LOG
Part A

Linkage Name and MSCP monitoring #: L-6 McGonigle Canyon

1. Linkage Type (check one):

- ❑ Landscape Linkage **X** Connectivity Choke-Point
- ❑ Other Area is currently under construction, so difficult to visualize final configuration of linkage

2. List the key focal species expected to use the linkage:

small mammals, coyotes, birds
bobcat, deer?

3. Identify the most important threats to connectivity function and score the severity of each threat (rank on a scale of 1 (no threat) to 5 (severe threat/loss imminent).

Type of Threat	Severity of Threat
Roads (including SR 56)	5
Residential development	5

4. Provide a brief description of the linkage.

Characteristic	Within linkage	Core habitat at N end of linkage (N,S,E,W)	Core habitat at S end of linkage (N,S,E,W)
Habitat types	Eucalyptus, hydroseeded CSS	agriculture	McGonigle Canyon (disturbed)
Size of habitat block	Small	Small	Small
Quality of habitat	Very disturbed	Very disturbed	Very disturbed
Topography	Flat	Flat	flat
Land use	Residential/roads (some proposed open space)	Residential/roads (some proposed open space)	Residential/roads (some proposed open space)
Type of human use	Residential/roads	Residential/roads	Residential/roads
Source of water	None at present	None at present	Carmel Creek
Conservation status	Not conserved yet	Not conserved yet	Not conserved yet

Habitat types: e.g., scrub, chaparral, riparian woodland, riparian scrub, oak woodland, etc.
Size of habitat block: large (>14,800 ac), medium (1000-14,800 ac), small (<1000 ac).
Quality of habitat: undisturbed or readily restorable, moderately disturbed (impacted by human activities), very disturbed (relatively little natural habitat or processes remain).
Topography: ravine, ridgetop, slope, flat, etc.
Land use: high density residential, rural residential, commercial, industrial, agriculture, park or golf course, open space, recreation, etc.
Type of human use: hiking, residential, transportation, etc.
Source of water: pond, creek, runoff, etc.
Conservation status: conserved, conserved but not managed, not conserved.

5. Provide the approximate dimensions of the corridor, including width at narrowest point.

Length: not clear due to construction

Average width (or range): not clear due to construction

Width at narrowest point: 50 ft wide bridge

6. Identify primary barriers that may impede wildlife movement.

Permeable = linkage consists of high quality habitat that is permeable to many species, low density agriculture, and low use roads._____
_____

Semi-permeable = linkage covers large area but habitat is degraded due to high levels of development, intensive agriculture, or disturbance. Not clear, due to construction; bridge allows movement under road _____ .
Impermeable = linkage is highly impacted by development and is disconnected by dams, roads, and small culverts; habitat is seriously degraded _____

7. Identify existing features that facilitate animal movement within the linkage (e.g., dirt road, underpass, vegetative cover, etc.).

- bridge

8. What documentation is available to demonstrate use of the linkage (e.g., sign of species currently using the area, presence of game trails, data from SDTT or others, etc.)?

- raccoon and skunk tracks (these probably live under or near the bridge)

9. What are the logistics of surveying the area?

Type of substrate: sandy loam
Density of vegetation: none
Existing trail or road system? No
Secure locations to establish a camera station? no
Existing ownership not clear
Other:_____

10. Recommended for MSCP corridor monitoring?

X Recommended ☐ Not recommended

Note:____recommended for MSCP monitoring once construction has been completed. Depends on Santa Luz connection onto Black Mountain and future roads through the area.

MSCP LINKAGE DESCRIPTION LOG

Linkage Name and MSCP monitoring #: L-7 Green Valley and Thompson Creeks Confluence

1. Linkage Type (check one):

- ❑ Landscape Linkage **X** Connectivity Choke-Point
- ❑ Other _____

2. List the key focal species expected to use the linkage:

coyotes, bobcats, small mammals, birds

3. Identify the most important threats to connectivity function and score the severity of each threat (rank on a scale of 1 (no threat) to 5 (severe threat/loss imminent).

Type of Threat	Severity of Threat
Roads (Old Coach Road)	5
Residential development	5
Golf course	2

4. Provide a brief description of the linkage.

Characteristic	Within linkage	Core habitat at N end of linkage (N,S,E,W)	Core habitat at S end of linkage (N,S,E,W)
Habitat types	Oak woodland, riparian scrub	Coastal sage scrub	Coastal sage scrub (Blue Sky Reserve)
Size of habitat block	Small	Small	Small
Quality of habitat	Moderately disturbed	Moderately disturbed	Undisturbed (Blue Sky Reserve)
Topography	Flat	Flat	Flat
Land use	Residential/roads/golf course	Residential/roads	Blue Sky Reserve
Type of human use	Residential/roads/golf course	Residential/roads	Blue Sky Reserve
Source of water	Green Valley Creek	Sycamore Creek	Green Valley Creek
Conservation status	Not conserved	Conserved	Conserved

Habitat types: e.g., scrub, chaparral, riparian woodland, riparian scrub, oak woodland, etc.
Size of habitat block: large (>14,800 ac), medium (1000-14,800 ac), small (<1000 ac).
Quality of habitat: undisturbed or readily restorable, moderately disturbed (impacted by human activities), very disturbed (relatively little natural habitat or processes remain).
Topography: ravine, ridgetop, slope, flat, etc.
Land use: high density residential, rural residential, commercial, industrial, agriculture, park or golf course, open space, recreation, etc.
Type of human use: hiking, residential, transportation, etc.
Source of water: pond, creek, runoff, etc.
Conservation status: conserved, conserved but not managed, not conserved.

5. Provide the approximate dimensions of the corridor, including width at narrowest point.

Length: 1.5 miles between Blue Sky Reserve and confluence of Green Valley and Thompson Creeks

Average width (or range): 50 ft - 300 ft.

Width at narrowest point: 50 ft.

6. Identify primary barriers that may impede wildlife movement.

Permeable = linkage consists of high quality habitat that is permeable to many species, low density agriculture, and low use roads._____

_____

Semi-permeable = linkage covers large area but habitat is degraded due to high levels of development, intensive agriculture, or disturbance. Road, residential housing, golf course

Impermeable = linkage is highly impacted by development and is disconnected by dams, roads, and small culverts; habitat is seriously degraded _____

7. Identify existing features that facilitate animal movement within the linkage (e.g., dirt road, underpass, vegetative cover, etc.).

- culverts

8. What documentation is available to demonstrate use of the linkage (e.g., sign of species currently using the area, presence of game trails, data from SDTT or others, etc.)?

- MSCP monitoring data (S.Hayden)

9. What are the logistics of surveying the area?

Type of substrate: good
Density of vegetation: moderate
Existing trail or road system? Game trail
Secure locations to establish a camera station? yes
Existing ownership not clear
Other:_____

10. Recommended for MSCP corridor monitoring?

X Recommended ☐ Not recommended

MSCP LINKAGE DESCRIPTION LOG
Part A

Linkage Name and MSCP monitoring #: L-7 Old Coach Road/Blue Sky Reserve

1. Linkage Type (check one):

- ❑ Landscape Linkage **X** Connectivity Choke-Point
- ❑ Other _____

2. List the key focal species expected to use the linkage:

coyotes, bobcats, small mammals, birds

3. Identify the most important threats to connectivity function and score the severity of each threat (rank on a scale of 1 (no threat) to 5 (severe threat/loss imminent).

Type of Threat	Severity of Threat
Roads (Old Coach Road)	5
Residential development	5

4. Provide a brief description of the linkage.

Characteristic	Within linkage	Core habitat at N end of linkage (N,S,E,W)	Core habitat at S end of linkage (N,S,E,W)
Habitat types	Oak woodland, riparian scrub	Coastal sage scrub	Coastal sage scrub (Blue Sky Reserve)
Size of habitat block	Small	Small	Small
Quality of habitat	Moderately disturbed	Moderately disturbed	Undisturbed (Blue Sky Reserve)
Topography	Flat	Flat	Flat
Land use	Residential/roads (some open space--Butcher prop.)	Residential/roads	Blue Sky Reserve
Type of human use	Residential/roads	Residential/roads	Blue Sky Reserve
Source of water	Green Valley Creek	Sycamore Creek	Green Valley Creek
Conservation status	Conserved	Conserved	Conserved

Habitat types: e.g., scrub, chaparral, riparian woodland, riparian scrub, oak woodland, etc.
Size of habitat block: large (>14,800 ac), medium (1000-14,800 ac), small (<1000 ac).
Quality of habitat: undisturbed or readily restorable, moderately disturbed (impacted by human activities), very disturbed (relatively little natural habitat or processes remain).
Topography: ravine, ridgetop, slope, flat, etc.
Land use: high density residential, rural residential, commercial, industrial, agriculture, park or golf course, open space, recreation, etc.
Type of human use: hiking, residential, transportation, etc.
Source of water: pond, creek, runoff, etc.
Conservation status: conserved, conserved but not managed, not conserved.

5. Provide the approximate dimensions of the corridor, including width at narrowest point.

Length: 1.5 miles between Blue Sky Reserve and confluence of Green Valley and Thompson Creeks

Average width (or range): 50 ft - 300 ft.

Width at narrowest point: 50 ft.

6. Identify primary barriers that may impede wildlife movement.

Permeable = linkage consists of high quality habitat that is permeable to many species, low density agriculture, and low use roads._____

_____

Semi-permeable = linkage covers large area but habitat is degraded due to high levels of development, intensive agriculture, or disturbance. Road, residential housing

Impermeable = linkage is highly impacted by development and is disconnected by dams, roads, and small culverts; habitat is seriously degraded _____

7. Identify existing features that facilitate animal movement within the linkage (e.g., dirt road, underpass, vegetative cover, etc.).

- Old Coach Rd. bridge

8. What documentation is available to demonstrate use of the linkage (e.g., sign of species currently using the area, presence of game trails, data from SDTT or others, etc.)?

- MSCP monitoring data (S.Hayden)

9. What are the logistics of surveying the area?

Type of substrate: good
Density of vegetation: moderate
Existing trail or road system? Game trail
Secure locations to establish a camera station? yes
Existing ownership not clear
Other:_____

10. Recommended for MSCP corridor monitoring?

X Recommended ☐ Not recommended

MSCP LINKAGE DESCRIPTION LOG
Part A

Linkage Name and MSCP monitoring #: L-8 Central Poway (Scripps-Poway Pkwy)

1. Linkage Type (check one):

- ❑ Landscape Linkage **X** Connectivity Choke-Point
- ❑ Other _____

2. List the key focal species expected to use the linkage:

coyotes, small mammals, deer

3. Identify the most important threats to connectivity function and score the severity of each threat (rank on a scale of 1 (no threat) to 5 (severe threat/loss imminent).

Type of Threat	Severity of Threat
Scripps-Poway Parkway	5
Residential development	3

4. Provide a brief description of the linkage.

Characteristic	Within linkage	Core habitat at N end of linkage (N,S,E,W)	Core habitat at S end of linkage (N,S,E,W)
Habitat types	Coastal sage scrub	Coastal sage scrub	Coastal sage scrub
Size of habitat block	Small	Small	Small
Quality of habitat	Moderately disturbed	Moderately disturbed	Undisturbed
Topography	Gently sloping	Rugged	Canyons
Land use	Scripps-Poway Pkwy	Residential/roads	Open space
Type of human use	Scripps-Poway Pkwy	Residential/roads	Open space
Source of water	None	None	None?
Conservation status	Conserved	Not conserved	Partially conserved (Syc. Cyn, Gooden Ranch)

Habitat types: e.g., scrub, chaparral, riparian woodland, riparian scrub, oak woodland, etc.
Size of habitat block: large (>14,800 ac), medium (1000-14,800 ac), small (<1000 ac).
Quality of habitat: undisturbed or readily restorable, moderately disturbed (impacted by human activities), very disturbed (relatively little natural habitat or processes remain).
Topography: ravine, ridgetop, slope, flat, etc.
Land use: high density residential, rural residential, commercial, industrial, agriculture, park or golf course, open space, recreation, etc.
Type of human use: hiking, residential, transportation, etc.
Source of water: pond, creek, runoff, etc.
Conservation status: conserved, conserved but not managed, not conserved.

5. Provide the approximate dimensions of the corridor, including width at narrowest point.

Length:

Average width (or range):

Width at narrowest point:

6. Identify primary barriers that may impede wildlife movement.

Permeable = linkage consists of high quality habitat that is permeable to many species, low density agriculture, and low use roads._____
_____

Semi-permeable = linkage covers large area but habitat is degraded due to high levels of development, intensive agriculture, or disturbance. Underpass, but poorly placed; fencing of Scripps-Poway Pkwy should be extended to keep wildlife off the road

Impermeable = linkage is highly impacted by development and is disconnected by dams, roads, and small culverts; habitat is seriously degraded _____

7. Identify existing features that facilitate animal movement within the linkage (e.g., dirt road, underpass, vegetative cover, etc.).

- underpass

8. What documentation is available to demonstrate use of the linkage (e.g., sign of species currently using the area, presence of game trails, data from SDTT or others, etc.)?

- MSCP monitoring data (S.Hayden); SDTT data

9. What are the logistics of surveying the area?

Type of substrate: good
Density of vegetation: open
Existing trail or road system? Game trail
Secure locations to establish a camera station? No-- equestrians don't want it there
Existing ownership City of Poway
Other:_____

10. Recommended for MSCP corridor monitoring?

X Recommended ☐ Not recommended

MSCP LINKAGE DESCRIPTION LOG
Part A

Linkage Name and MSCP monitoring #: L-9 Torrey Pines/Los Peñasquitos Canyon (I-5/805 Merge)

1. Linkage Type (check one):

- ❑ Landscape Linkage **X** Connectivity Choke-Point
- ❑ Other _____

2. List the key focal species expected to use the linkage:

coyotes, small mammals, fox, bobcat, deer

3. Identify the most important threats to connectivity function and score the severity of each threat (rank on a scale of 1 (no threat) to 5 (severe threat/loss imminent).

Type of Threat	Severity of Threat
Roads	5

4. Provide a brief description of the linkage.

Characteristic	Within linkage	Core habitat at W end of linkage (N,S,E,W)	Core habitat at E end of linkage (N,S,E,W)
Habitat types	Creek	Lagoon, coastal sage scrub	Riparian, disturbed
Size of habitat block	Small	Small	Small
Quality of habitat	Very disturbed	Moderately disturbed	Moderately disturbed
Topography	Relatively flat	Relatively flat	Relatively flat
Land use	Transportation	Torrey Pines Reserve	Los Peñasquitos Preserve
Type of human use	Transportation	Open space	Open space
Source of water	Los Peñasquitos Creek	Los Peñasquitos Lagoon	Los Peñasquitos Creek
Conservation status	Conserved	Conserved	Conserved

Habitat types: e.g., scrub, chaparral, riparian woodland, riparian scrub, oak woodland, etc.
Size of habitat block: large (>14,800 ac), medium (1000-14,800 ac), small (<1000 ac).
Quality of habitat: undisturbed or readily restorable, moderately disturbed (impacted by human activities), very disturbed (relatively little natural habitat or processes remain).
Topography: ravine, ridgetop, slope, flat, etc.
Land use: high density residential, rural residential, commercial, industrial, agriculture, park or golf course, open space, recreation, etc.
Type of human use: hiking, residential, transportation, etc.
Source of water: pond, creek, runoff, etc.
Conservation status: conserved, conserved but not managed, not conserved.

5. Provide the approximate dimensions of the corridor, including width at narrowest point.

Length:

Average width (or range):

Width at narrowest point:

6. Identify primary barriers that may impede wildlife movement.

Permeable = linkage consists of high quality habitat that is permeable to many species, low density agriculture, and low use roads._____
_____

Semi-permeable = linkage covers large area but habitat is degraded due to high levels of development, intensive agriculture, or disturbance. _____
_____

Impermeable = linkage is highly impacted by development and is disconnected by dams, roads, and small culverts; habitat is seriously degraded ____undercrossing is highly constrained by height of bridges, amount of water in creek, and dense vegetation and length of undercrossing

7. Identify existing features that facilitate animal movement within the linkage (e.g., dirt road, underpass, vegetative cover, etc.).

- underpass

8. What documentation is available to demonstrate use of the linkage (e.g., sign of species currently using the area, presence of game trails, data from SDTT or others, etc.)?

- MSCP monitoring data (S.Hayden); SDTT data

9. What are the logistics of surveying the area?

Type of substrate: good
Density of vegetation: dense along creek, bare under underpass
Existing trail or road system? Game trail
Secure locations to establish a camera station? Yes
Existing ownership CalTrans
Other:_____

10. Recommended for MSCP corridor monitoring?

X Recommended ☐ Not recommended

MSCP LINKAGE DESCRIPTION LOG
Part A

Linkage Name and MSCP monitoring #: L-10 Los Peñasquitos/South Poway (Lower Beeler Canyon)

1. Linkage Type (check one):

- ❑ Landscape Linkage **X** Connectivity Choke-Point
- ❑ Other _____

2. List the key focal species expected to use the linkage:

coyotes, small mammals, bobcat

3. Identify the most important threats to connectivity function and score the severity of each threat (rank on a scale of 1 (no threat) to 5 (severe threat/loss imminent).

Type of Threat	Severity of Threat
Roads -- Pomerado and Scripps-Poway Pkwy	5
Residential development	5

4. Provide a brief description of the linkage.

Characteristic	Within linkage	Core habitat at W end of linkage (N,S,E,W)	Core habitat at E end of linkage (N,S,E,W)
Habitat types	Riparian scrub, disturbed	Riparian scrub, disturbed	Riparian scrub, disturbed
Size of habitat block	Small	Small	Small
Quality of habitat	Very disturbed	Very disturbed	Very disturbed
Topography	Relatively flat	Relatively flat	Relatively flat
Land use	Transportation/residential	Transportation/residential	Transportation/residential
Type of human use	Transportation/residential	Transportation/residential	Transportation/residential
Source of water	Beeler Creek	Los Peñasquitos Creek	Beeler Creek
Conservation status	Unclear	Conserved	Unclear

Habitat types: e.g., scrub, chaparral, riparian woodland, riparian scrub, oak woodland, etc.
Size of habitat block: large (>14,800 ac), medium (1000-14,800 ac), small (<1000 ac).
Quality of habitat: undisturbed or readily restorable, moderately disturbed (impacted by human activities), very disturbed (relatively little natural habitat or processes remain).
Topography: ravine, ridgetop, slope, flat, etc.
Land use: high density residential, rural residential, commercial, industrial, agriculture, park or golf course, open space, recreation, etc.
Type of human use: hiking, residential, transportation, etc.
Source of water: pond, creek, runoff, etc.
Conservation status: conserved, conserved but not managed, not conserved.

5. Provide the approximate dimensions of the corridor, including width at narrowest point.

Length:

Average width (or range):

Width at narrowest point:

6. Identify primary barriers that may impede wildlife movement.

Permeable = linkage consists of high quality habitat that is permeable to many species, low density agriculture, and low use roads._____
_____

Semi-permeable = linkage covers large area but habitat is degraded due to high levels of development, intensive agriculture, or disturbance. _____
_____

Impermeable = linkage is highly impacted by development and is disconnected by dams, roads, and small culverts; habitat is seriously degraded ____undercrossing is highly constrained by deposition of sediment under Scripps-Poway bridge, water standing in culverts under Pomerado

7. Identify existing features that facilitate animal movement within the linkage (e.g., dirt road, underpass, vegetative cover, etc.).

- Underpass, culverts (both with impediments)

8. What documentation is available to demonstrate use of the linkage (e.g., sign of species currently using the area, presence of game trails, data from SDTT or others, etc.)?

- MSCP monitoring data (S.Hayden)

9. What are the logistics of surveying the area?

Type of substrate: good
Density of vegetation: open
Existing trail or road system? Game trail
Secure locations to establish a camera station? Yes
Existing ownership unclear
Other:_____

10. Recommended for MSCP corridor monitoring?

X Recommended ☐ Not recommended

Monitoring is recommended if management measures are implemented to improve conditions.

MSCP LINKAGE DESCRIPTION LOG
Part A

Linkage Name and MSCP monitoring #: L-10 Upper Beeler Canyon

1. Linkage Type (check one):

- ❑ Landscape Linkage **X** Connectivity Choke-Point
- ❑ Other _____

2. List the key focal species expected to use the linkage:

coyotes, small mammals, bobcat, deer

3. Identify the most important threats to connectivity function and score the severity of each threat (rank on a scale of 1 (no threat) to 5 (severe threat/loss imminent).

Type of Threat	Severity of Threat
Roads -- Beeler Canyon Road	5
Residential development	5

4. Provide a brief description of the linkage.

Characteristic	Within linkage	Core habitat at W end of linkage (N,S,E,W)	Core habitat at E end of linkage (N,S,E,W)
Habitat types	Riparian scrub, disturbed	Riparian scrub, disturbed	Riparian scrub, CSS
Size of habitat block	Small	Small	Small
Quality of habitat	Very disturbed	Very disturbed	Undisturbed
Topography	Relatively flat	Relatively flat	Relatively flat
Land use	Transportation/residential	Transportation/residential	Transportation/residential
Type of human use	Transportation/residential	Transportation/residential	Transportation/residential
Source of water	Beeler Creek	Beeler Creek	Beeler Creek
Conservation status	Private	Unclear	Private, Sycamore Cyn Park

Habitat types: e.g., scrub, chaparral, riparian woodland, riparian scrub, oak woodland, etc.
Size of habitat block: large (>14,800 ac), medium (1000-14,800 ac), small (<1000 ac).
Quality of habitat: undisturbed or readily restorable, moderately disturbed (impacted by human activities), very disturbed (relatively little natural habitat or processes remain).
Topography: ravine, ridgetop, slope, flat, etc.
Land use: high density residential, rural residential, commercial, industrial, agriculture, park or golf course, open space, recreation, etc.
Type of human use: hiking, residential, transportation, etc.
Source of water: pond, creek, runoff, etc.
Conservation status: conserved, conserved but not managed, not conserved.

5. Provide the approximate dimensions of the corridor, including width at narrowest point.

Length:

Average width (or range):

Width at narrowest point:

6. Identify primary barriers that may impede wildlife movement.

Permeable = linkage consists of high quality habitat that is permeable to many species, low density agriculture, and low use roads._____
_____

Semi-permeable = linkage covers large area but habitat is degraded due to high levels of development, intensive agriculture, or disturbance. _____
_____

Impermeable = linkage is highly impacted by development and is disconnected by dams, roads, and small culverts; habitat is seriously degraded _____
_____

7. Identify existing features that facilitate animal movement within the linkage (e.g., dirt road, underpass, vegetative cover, etc.).

- Dirt road

8. What documentation is available to demonstrate use of the linkage (e.g., sign of species currently using the area, presence of game trails, data from SDTT or others, etc.)?

- MSCP monitoring data (S.Hayden)

9. What are the logistics of surveying the area?

Type of substrate: good
Density of vegetation: open
Existing trail or road system? Game trail
Secure locations to establish a camera station? Yes
Existing ownership private
Other:_____

10. Recommended for MSCP corridor monitoring?

X Recommended ☐ Not recommended

MSCP LINKAGE DESCRIPTION LOG
Part A

Linkage Name and MSCP monitoring #: L-11 Sycamore Canyon

1. Linkage Type (check one):

X Landscape Linkage ❑ Connectivity Choke-Point
❑ Other _____

2. List the key focal species expected to use the linkage:

mountain lion, coyotes, small mammals, bobcat, deer

3. Identify the most important threats to connectivity function and score the severity of each threat (rank on a scale of 1 (no threat) to 5 (severe threat/loss imminent).

Type of Threat	Severity of Threat
Off-road vehicles, bikers	2-3
Potential CWA tunnel	4

4. Provide a brief description of the linkage.

Characteristic	Within linkage	Core habitat at N end of linkage (N,S,E,W)	Core habitat at S end of linkage (N,S,E,W)
Habitat types	Oak, sycamore woodland	Grassland, CHP	Grassland, CHP/CSS
Size of habitat block	Large (incl. Miramar)	Medium	Small
Quality of habitat	Undisturbed	Moderately disturbed	Moderately disturbed
Topography	Broad canyon	Relatively flat	Relatively flat, steep hills
Land use	Military	Park	Planned for residential
Type of human use	Biking, hiking, horses	Biking, hiking, horses	ORVs
Source of water	Runoff/intermittent stream	runoff	runoff
Conservation status	Military	Conserved	Private

Habitat types: e.g., scrub, chaparral, riparian woodland, riparian scrub, oak woodland, etc.
Size of habitat block: large (>14,800 ac), medium (1000-14,800 ac), small (<1000 ac).
Quality of habitat: undisturbed or readily restorable, moderately disturbed (impacted by human activities), very disturbed (relatively little natural habitat or processes remain).
Topography: ravine, ridgetop, slope, flat, etc.
Land use: high density residential, rural residential, commercial, industrial, agriculture, park or golf course, open space, recreation, etc.
Type of human use: hiking, residential, transportation, etc.
Source of water: pond, creek, runoff, etc.
Conservation status: conserved, conserved but not managed, not conserved.

5. Provide the approximate dimensions of the corridor, including width at narrowest point.

Length: 2.3 mi between Sycamore County Park and Santee Lakes

Average width (or range): Two 8 ft wide roads/trails; approx. 1000 ft wide canyon, rim to rim

Width at narrowest point:

6. Identify primary barriers that may impede wildlife movement.

Permeable = linkage consists of high quality habitat that is permeable to many species, low density agriculture, and low use roads._____X_____

Semi-permeable = linkage covers large area but habitat is degraded due to high levels of development, intensive agriculture, or disturbance. _____

Impermeable = linkage is highly impacted by development and is disconnected by dams, roads, and small culverts; habitat is seriously degraded _____

7. Identify existing features that facilitate animal movement within the linkage (e.g., dirt road, underpass, vegetative cover, etc.).

- Dirt road, trails, good vegetative cover (chaparral along slopes of canyon)

8. What documentation is available to demonstrate use of the linkage (e.g., sign of species currently using the area, presence of game trails, data from SDTT or others, etc.)?

- Lion scat, deer tracks, deer scat, bobcat scat

9. What are the logistics of surveying the area?

Type of substrate: good - sand and cobble
Density of vegetation: open along road/trail; dense off road
Existing trail or road system? Yes
Secure locations to establish a camera station? no
Existing ownership Miramar
Other:_____

10. Recommended for MSCP corridor monitoring?

X Recommended ☐ Not recommended

Recommended for preserve monitoring, pending status of Fanita Ranch or other land use

MSCP LINKAGE DESCRIPTION LOG
Part A

Linkage Name and MSCP monitoring #: L-13 Harbison Canyon at I-8

1. Linkage Type (check one):

- ❑ Landscape Linkage **X** Connectivity Choke-Point
- ❑ Other _____

2. List the key focal species expected to use the linkage:

coyote, birds

3. Identify the most important threats to connectivity function and score the severity of each threat (rank on a scale of 1 (no threat) to 5 (severe threat/loss imminent).

Type of Threat	Severity of Threat
Harbison Canyon Road and Arnold Way	5
Residential development	5

4. Provide a brief description of the linkage.

Characteristic	Within linkage	Core habitat at N end of linkage (N,S,E,W)	Core habitat at S end of linkage (N,S,E,W)
Habitat types	Rocky CSS/CHP Oak/willow	El Capitan (CSS and CHP)	Sweetwater River valley
Size of habitat block	Small	Medium Crestridge = 2500 acres	Medium Refuge = ? acres
Quality of habitat	Moderately disturbed, Arundo in creek	Undisturbed	Undisturbed
Topography	Steep rocky slopes	Choc. Canyon (El Capitan)	Dehesa Valley
Land use	Residential roads	Conserved (El Capitan)	Conserved/residential
Type of human use	Trash dumping in creek	Conserved	Conserved/residential
Source of water	Chocolate Canyon creek	Chocolate Canyon creek	Sweetwater River
Conservation status	Not conserved	Conserved (Crestridge)	Refuge = conserved

Habitat types: e.g., scrub, chaparral, riparian woodland, riparian scrub, oak woodland, etc.
Size of habitat block: large (>14,800 ac), medium (1000-14,800 ac), small (<1000 ac).
Quality of habitat: undisturbed or readily restorable, moderately disturbed (impacted by human activities), very disturbed (relatively little natural habitat or processes remain).
Topography: ravine, ridgetop, slope, flat, etc.
Land use: high density residential, rural residential, commercial, industrial, agriculture, park or golf course, open space, recreation, etc.
Type of human use: hiking, residential, transportation, etc.
Source of water: pond, creek, runoff, etc.
Conservation status: conserved, conserved but not managed, not conserved.

5. Provide the approximate dimensions of the corridor, including width at narrowest point.

Length: approx. 1 mile from Crestridge to north side of I-8

Average width (or range): 25 - 50 ft, along the north or east slope from Crestridge

Width at narrowest point: 0 habitat at road crossing (culvert = 15 ft)

6. Identify primary barriers that may impede wildlife movement.

Permeable = linkage consists of high quality habitat that is permeable to many species, low density agriculture, and low use roads._____

_____

Semi-permeable = linkage covers large area but habitat is degraded due to high levels of development, intensive agriculture, or disturbance._____

_____

Impermeable = linkage is highly impacted by development and is disconnected by dams, roads, and small culverts; habitat is seriously degraded may be occasional movement by mammals

7. Identify existing features that facilitate animal movement within the linkage (e.g., dirt road, underpass, vegetative cover, etc.).

- vegetation in creek leading to culvert

8. What documentation is available to demonstrate use of the linkage (e.g., sign of species currently using the area, presence of game trails, data from SDTT or others, etc.)?

- none (no tracks in sand in front of culvert)

9. What are the logistics of surveying the area?

Type of substrate: coarse sand
Density of vegetation: dense and steep, except within streambed
Existing trail or road system? No, creek bed allows for some movement
Secure locations to establish a camera station? Inside culvert
Existing ownership private or Caltrans right-of-way
Other:_____

10. Recommended for MSCP corridor monitoring?

☐ Recommended **X** Not recommended

Alternative location:_____

photos taken:

- CSS/CHP slopes to the east
- culvert
- top of ravine looking down

MSCP LINKAGE DESCRIPTION LOG
Part A

Linkage Name and MSCP monitoring #: L-13 Peutz Valley Rd. underpass

1. Linkage Type (check one):

- ❑ Landscape Linkage **X** Connectivity Choke-Point
- ❑ Other _____

2. List the key focal species expected to use the linkage:

coyote, birds
Local resident has not seen any large mammals using the area.

3. Identify the most important threats to connectivity function and score the severity of each threat (rank on a scale of 1 (no threat) to 5 (severe threat/loss imminent).

Type of Threat	Severity of Threat
Alpine Blvd	5
Residential development	5

4. Provide a brief description of the linkage.

Characteristic	Within linkage	Core habitat at N end of linkage (N,S,E,W)	Core habitat at S end of linkage (N,S,E,W)
Habitat types	Oak woodland, *Malosma* Landscaping	El Capitan (CSS and CHP)	Crestridge (CSS and CHP)
Size of habitat block	Small	Medium El Capitan	Medium Crestridge = 2500 acres
Quality of habitat	Moderately disturbed, trash	Undisturbed	Undisturbed
Topography	Steep rocky slopes	Choc. Canyon (El Capitan)	Crestridge
Land use	Residential roads	Conserved (El Capitan)	Conserved/residential
Type of human use	Trash dumping in creek	Conserved	Conserved/residential
Source of water	Chocolate Canyon creek	Chocolate Canyon creek	
Conservation status	Not conserved	Conserved (El Capitan)/residential	Conserved (Crestridge)/residential

Habitat types: e.g., scrub, chaparral, riparian woodland, riparian scrub, oak woodland, etc.
Size of habitat block: large (>14,800 ac), medium (1000-14,800 ac), small (<1000 ac).
Quality of habitat: undisturbed or readily restorable, moderately disturbed (impacted by human activities), very disturbed (relatively little natural habitat or processes remain).
Topography: ravine, ridgetop, slope, flat, etc.
Land use: high density residential, rural residential, commercial, industrial, agriculture, park or golf course, open space, recreation, etc.
Type of human use: hiking, residential, transportation, etc.
Source of water: pond, creek, runoff, etc.
Conservation status: conserved, conserved but not managed, not conserved.

5. Provide the approximate dimensions of the corridor, including width at narrowest point.

Length: approx. 1 mile from Crestridge to north side of I-8

Average width (or range): 25 - 50 ft, along the north or east slope from Crestridge

Width at narrowest point: 0 habitat 24 ft road width (Peutz Valley Road)

6. Identify primary barriers that may impede wildlife movement.

Permeable = linkage consists of high quality habitat that is permeable to many species, low density agriculture, and low use roads._____

_____

Semi-permeable = linkage covers large area but habitat is degraded due to high levels of development, intensive agriculture, or disturbance._____

_____

Impermeable = linkage is highly impacted by development and is disconnected by dams, roads, and small culverts; habitat is seriously degraded may be occasional movement by mammals

7. Identify existing features that facilitate animal movement within the linkage (e.g., dirt road, underpass, vegetative cover, etc.).

- none

8. What documentation is available to demonstrate use of the linkage (e.g., sign of species currently using the area, presence of game trails, data from SDTT or others, etc.)?

- none -- local resident has dogs; says she has never seen large mammals in area

9. What are the logistics of surveying the area?

Type of substrate: coarse sand
Density of vegetation: dense along creek bed
Existing trail or road system? No
Secure locations to establish a camera station? no
Existing ownership private until water district property around El Capitan
Other:_____

10. Recommended for MSCP corridor monitoring?

☐ Recommended **X** Not recommended

Alternative location:_____

MSCP LINKAGE DESCRIPTION LOG
Part A

Linkage Name and MSCP monitoring #: L-14 Southern Harbison Canyon

1. Linkage Type (check one):

- ❑ Landscape Linkage **X** Connectivity Choke-Point
- ❑ Other _____

2. List the key focal species expected to use the linkage:

deer, coyote, bobcat, fox, mountain lion

3. Identify the most important threats to connectivity function and score the severity of each threat (rank on a scale of 1 (no threat) to 5 (severe threat/loss imminent).

Type of Threat	Severity of Threat
Harbison Canyon Road and Dehesa Road	3
Residential development along roads	3

4. Provide a brief description of the linkage.

Characteristic	Within linkage	Core habitat at N end of linkage (N,S,E,W)	Core habitat at S end of linkage (N,S,E,W)
Habitat types	Burned CSS north of Dehesa Rd.	Crestridge and El Capitan (CSS and CHP)	Sloane Canyon (CSS, riparian)
Size of habitat block	Small	Medium Crestridge = 2500 acres	Medium Refuge = ? acres
Quality of habitat	Burned north of Dehesa Rd.	Moderately disturbed	Moderately disturbed
Topography	Slopes	Rugged/ridgetop (Crestridge) Choc. Canyon (El Capitan)	Slopes/flat
Land use	Residential	Conserved/residential	Conserved/residential
Type of human use	Transportation/residential	Conserved/residential	Conserved/residential
Source of water	Unnamed creek	Chocolate Canyon creek	Sweetwater River
Conservation status	Not conserved	Conserved	Refuge = conserved

Habitat types: e.g., scrub, chaparral, riparian woodland, riparian scrub, oak woodland, etc.
Size of habitat block: large (>14,800 ac), medium (1000-14,800 ac), small (<1000 ac).
Quality of habitat: undisturbed or readily restorable, moderately disturbed (impacted by human activities), very disturbed (relatively little natural habitat or processes remain).
Topography: ravine, ridgetop, slope, flat, etc.
Land use: high density residential, rural residential, commercial, industrial, agriculture, park or golf course, open space, recreation, etc.
Type of human use: hiking, residential, transportation, etc.
Source of water: pond, creek, runoff, etc.
Conservation status: conserved, conserved but not managed, not conserved.

5. Provide the approximate dimensions of the corridor, including width at narrowest point.

Length: approx. 5 miles

Average width (or range): 25 - 50 ft, along the base of the slopes through Harbison Cyn

Width at narrowest point: 25 ft

6. Identify primary barriers that may impede wildlife movement.

Permeable = linkage consists of high quality habitat that is permeable to many species, low density agriculture, and low use roads.

Semi-permeable = linkage covers large area but habitat is degraded due to high levels of development, intensive agriculture, or disturbance. residences and roads

Impermeable = linkage is highly impacted by development and is disconnected by dams, roads, and small culverts; habitat is seriously degraded

7. Identify existing features that facilitate animal movement within the linkage (e.g., dirt road, underpass, vegetative cover, etc.).

- vegetation along slopes of Harbison Canyon
- powerline easement over ridge north of Dehesa Road

8. What documentation is available to demonstrate use of the linkage (e.g., sign of species currently using the area, presence of game trails, data from SDTT or others, etc.)?

- none
- deer crossing sign at Dehesa Road

9. What are the logistics of surveying the area?

Type of substrate: coarse sand/finer dirt
Density of vegetation: open, except along stream
Existing trail or road system? Trails along the ridge north of Dehesa Road; foot trails along slopes of Harbison Canyon
Secure locations to establish a camera station? no
Existing ownership private
Other:

10. Recommended for MSCP corridor monitoring?

X Recommended ❑ Not recommended

Note: recommended once ownership allows and once development patterns are known

MSCP LINKAGE DESCRIPTION LOG
Part A

Linkage Name and MSCP monitoring #: L-15 McGinty Mesa/Rancho San Diego (middle Sweetwater River @ Hwy 94)

1. Linkage Type (check one):

- ❑ Landscape Linkage **X** Connectivity Choke-Point
- ❑ Other _____

2. List the key focal species expected to use the linkage:

Coyote, bobcat, small mammals, birds

3. Identify the most important threats to connectivity function and score the severity of each threat (rank on a scale of 1 (no threat) to 5 (severe threat/loss imminent).

Type of Threat	Severity of Threat
SR-94	3
Commercial development along Hwy 94	3

4. Provide a brief description of the linkage.

Characteristic	Within linkage	Core habitat at NE end of linkage (N,S,E,W)	Core habitat at SW end of linkage (N,S,E,W)
Habitat types	Rip. woodland (sycamore, oak, willow, cottonwood)	Riparian woodland/scrub	Riparian woodland
Size of habitat block	Small	Small	Medium Refuge = ? acres
Quality of habitat	Moderately disturbed	Moderately disturbed	Very disturbed
Topography	Relatively flat	Flat	Relatively flat
Land use	Refuge	Conserved/commercial	Refuge
Type of human use	Transportation/commercial	Conserved/commercial	Conserved/commercial
Source of water	Sweetwater River	Sweetwater River	Sweetwater River
Conservation status	Conserved	Conserved	Refuge = conserved

Habitat types: e.g., scrub, chaparral, riparian woodland, riparian scrub, oak woodland, etc.
Size of habitat block: large (>14,800 ac), medium (1000-14,800 ac), small (<1000 ac).
Quality of habitat: undisturbed or readily restorable, moderately disturbed (impacted by human activities), very disturbed (relatively little natural habitat or processes remain).
Topography: ravine, ridgetop, slope, flat, etc.
Land use: high density residential, rural residential, commercial, industrial, agriculture, park or golf course, open space, recreation, etc.
Type of human use: hiking, residential, transportation, etc.
Source of water: pond, creek, runoff, etc.
Conservation status: conserved, conserved but not managed, not conserved.

5. Provide the approximate dimensions of the corridor, including width at narrowest point.

Length: approx. 4 miles Sweetwater Reservoic to Singing Hills golf course

Average width (or range): approx. 600 ft at bridge

Width at narrowest point: 100 ft

6. Identify primary barriers that may impede wildlife movement.

Permeable = linkage consists of high quality habitat that is permeable to many species, low density agriculture, and low use roads. relatively permeable as a result of bridges and habitat

Semi-permeable = linkage covers large area but habitat is degraded due to high levels of development, intensive agriculture, or disturbance.

Impermeable = linkage is highly impacted by development and is disconnected by dams, roads, and small culverts; habitat is seriously degraded

7. Identify existing features that facilitate animal movement within the linkage (e.g., dirt road, underpass, vegetative cover, etc.).

- Old bridge is approx. 12 ft high
- New bridge is approx. 20 ft high

8. What documentation is available to demonstrate use of the linkage (e.g., sign of species currently using the area, presence of game trails, data from SDTT or others, etc.)?

- Game trails, coyote scat, raccoon scat

9. What are the logistics of surveying the area?

Type of substrate: coarse sand/sandy clay
Density of vegetation: dense, except along narrow game trail
Existing trail or road system? Trail and dirt road
Secure locations to establish a camera station? No, considerable human use
Existing ownership USFWS refuge
Other: may be impassable during high flow periods

10. Recommended for MSCP corridor monitoring?

X Recommended ❑ Not recommended

Alternative locations: reevaluate once more land is acquired

MSCP LINKAGE DESCRIPTION LOG
Part A

Linkage Name and MSCP monitoring #: L-17 San Miguel Mtns/Proctor Valley/Jamul Mtns (Otay Ranch)

1. Linkage Type (check one):

- ❑ Landscape Linkage
- ❑ Connectivity Choke-Point
- ❑ Other don't know until development and conservation plans are finalized

2. List the key focal species expected to use the linkage:

Coyote, bobcat, deer, small mammals, birds

3. Identify the most important threats to connectivity function and score the severity of each threat (rank on a scale of 1 (no threat) to 5 (severe threat/loss imminent).

Type of Threat	Severity of Threat
Off-road vehicles	2
Dumping	1

4. Provide a brief description of the linkage.

Characteristic	Within linkage	Core habitat at N end of linkage (N,S,E,W)	Core habitat at S end of linkage (N,S,E,W)
Habitat types	Coastal sage scrub, CHP	Dulzura Ck - CSS, riparian	Otay Mtn - CSS/CHP
Size of habitat block	Large	Large	Large
Quality of habitat	Undisturbed	Moderately disturbed	Undisturbed
Topography	Canyon	Relatively flat	Slopes of Otay Mtn
Land use	Partially Conserved	Daley Quarry	Conserved-BLM
Type of human use	Recreation	Daley Quarry	Recreation
Source of water	runoff	Dulzura Creek	runoff
Conservation status	Conserved	Private	Conserved

Habitat types: e.g., scrub, chaparral, riparian woodland, riparian scrub, oak woodland, etc.
Size of habitat block: large (>14,800 ac), medium (1000-14,800 ac), small (<1000 ac).
Quality of habitat: undisturbed or readily restorable, moderately disturbed (impacted by human activities), very disturbed (relatively little natural habitat or processes remain).
Topography: ravine, ridgetop, slope, flat, etc.
Land use: high density residential, rural residential, commercial, industrial, agriculture, park or golf course, open space, recreation, etc.
Type of human use: hiking, residential, transportation, etc.
Source of water: pond, creek, runoff, etc.
Conservation status: conserved, conserved but not managed, not conserved.

5. Provide the approximate dimensions of the corridor, including width at narrowest point.

Length: NA

Average width (or range): NA

Width at narrowest point: NA

6. Identify primary barriers that may impede wildlife movement.

Permeable = linkage consists of high quality habitat that is permeable to many species, low density agriculture, and low use roads._____X_____

Semi-permeable = linkage covers large area but habitat is degraded due to high levels of development, intensive agriculture, or disturbance. _____

Impermeable = linkage is highly impacted by development and is disconnected by dams, roads, and small culverts; habitat is seriously degraded_____

7. Identify existing features that facilitate animal movement within the linkage (e.g., dirt road, underpass, vegetative cover, etc.).

- dirt roads

8. What documentation is available to demonstrate use of the linkage (e.g., sign of species currently using the area, presence of game trails, data from SDTT or others, etc.)?

- none

9. What are the logistics of surveying the area?

Type of substrate: coarse sand
Density of vegetation: open
Existing trail or road system? Trail and dirt road
Secure locations to establish a camera station? Inside tunnels
Existing ownership State/County

10. Recommended for MSCP corridor monitoring?

☐ Recommended X Not recommended

Not recommended for corridor monitoring at this time because movement is not constrained by current land use.

MSCP LINKAGE DESCRIPTION LOG
Part A

Linkage Name and MSCP monitoring #: L-18 Hollenbeck Canyon

1. Linkage Type (check one):

X Landscape Linkage **X** Connectivity Choke-Point
❑ Other _____

2. List the key focal species expected to use the linkage:

Coyote, bobcat, mountain lion, deer, small mammals, birds

3. Identify the most important threats to connectivity function and score the severity of each threat (rank on a scale of 1 (no threat) to 5 (severe threat/loss imminent).

Type of Threat	Severity of Threat
SR 94 at-grade crossing	5

4. Provide a brief description of the linkage.

Characteristic	Within linkage	Core habitat at W end of linkage (N,S,E,W)	Core habitat at E end of linkage (N,S,E,W)
Habitat types	Sycamore/willow/mulefat	Coastal sage scrub, pasture	Coastal sage scrub, pasture
Size of habitat block	Small	Medium	Medium
Quality of habitat	Moderately disturbed	Moderately disturbed	Moderately disturbed
Topography	Flat, except for incised channel	Hills	Hills
Land use	Conserved/old ag	Conserved/old ag	Conserved/old ag
Type of human use	Migrants	Hunting	Hunting
Source of water	Hollenbeck Cyn creek	Dulzura Creek	Hollenbeck Cyn creek
Conservation status	Conserved	Conserved	Conserved

Habitat types: e.g., scrub, chaparral, riparian woodland, riparian scrub, oak woodland, etc.
Size of habitat block: large (>14,800 ac), medium (1000-14,800 ac), small (<1000 ac).
Quality of habitat: undisturbed or readily restorable, moderately disturbed (impacted by human activities), very disturbed (relatively little natural habitat or processes remain).
Topography: ravine, ridgetop, slope, flat, etc.
Land use: high density residential, rural residential, commercial, industrial, agriculture, park or golf course, open space, recreation, etc.
Type of human use: hiking, residential, transportation, etc.
Source of water: pond, creek, runoff, etc.
Conservation status: conserved, conserved but not managed, not conserved.

5. Provide the approximate dimensions of the corridor, including width at narrowest point.

Length: N/A

Average width (or range): N/A

Width at narrowest point: 6 ft wide culverts under SR 94

6. Identify primary barriers that may impede wildlife movement.

Permeable = linkage consists of high quality habitat that is permeable to many species, low density agriculture, and low use roads

Semi-permeable = linkage covers large area but habitat is degraded due to high levels of development, intensive agriculture, or disturbance. Barbed wire on both sides of SR 94; riprap along slopes

Impermeable = linkage is highly impacted by development and is disconnected by dams, roads, and small culverts; habitat is seriously degraded

7. Identify existing features that facilitate animal movement within the linkage (e.g., dirt road, underpass, vegetative cover, etc.).

- 2 box culverts, 4 ft tall X 6 ft wide

8. What documentation is available to demonstrate use of the linkage (e.g., sign of species currently using the area, presence of game trails, data from SDTT or others, etc.)?

- bobcat, coyote, raccoon tracks

9. What are the logistics of surveying the area?

Type of substrate: sandy
Density of vegetation: dense willow at culvert
Existing trail or road system? No
Secure locations to establish a camera station? Yes
Existing ownership State

10. Recommended for MSCP corridor monitoring?

X Recommended ❑ Not recommended

MSCP LINKAGE DESCRIPTION LOG
Part A

Linkage Name and MSCP monitoring #: L-18 Dulzura Creek

1. Linkage Type (check one):

- ❑ Landscape Linkage **X** Connectivity Choke-Point
- ❑ Other _____

2. List the key focal species expected to use the linkage:

Coyote, bobcat, small mammals, birds; deer?

3. Identify the most important threats to connectivity function and score the severity of each threat (rank on a scale of 1 (no threat) to 5 (severe threat/loss imminent).

Type of Threat	Severity of Threat
SR-94	3
migrants	2

4. Provide a brief description of the linkage.

Characteristic	Within linkage	Core habitat at E end of linkage (N,S,E,W)	Core habitat at W end of linkage (N,S,E,W)
Habitat types	Sycamore-willow-dist.veg.	Pasture	pasture
Size of habitat block	Small	Medium	Medium
Quality of habitat	Moderately disturbed	Moderately disturbed	Moderately disturbed
Topography	Ravine	Hilly, rocky	Hilly, rocky
Land use	Transportation (SR 94)	CDFG reserve	CDFG reserve
Type of human use	Migrants, Caltrans easement	Pasture	Pasture
Source of water	Dulzura Creek	Dulzura Creek	Dulzura Creek
Conservation status	Conserved	Conserved	Conserved

Habitat types: e.g., scrub, chaparral, riparian woodland, riparian scrub, oak woodland, etc.
Size of habitat block: large (>14,800 ac), medium (1000-14,800 ac), small (<1000 ac).
Quality of habitat: undisturbed or readily restorable, moderately disturbed (impacted by human activities), very disturbed (relatively little natural habitat or processes remain).
Topography: ravine, ridgetop, slope, flat, etc.
Land use: high density residential, rural residential, commercial, industrial, agriculture, park or golf course, open space, recreation, etc.
Type of human use: hiking, residential, transportation, etc.
Source of water: pond, creek, runoff, etc.
Conservation status: conserved, conserved but not managed, not conserved.

5. Provide the approximate dimensions of the corridor, including width at narrowest point.

Length: N/A

Average width (or range): approx. 250 ft

Width at narrowest point: approx. 250 ft bridge at SR 94

6. Identify primary barriers that may impede wildlife movement.

Permeable = linkage consists of high quality habitat that is permeable to many species, low density agriculture, and low use roads

Semi-permeable = linkage covers large area but habitat is degraded due to high levels of development, intensive agriculture, or disturbance. rip-rapped slopes

Impermeable = linkage is highly impacted by development and is disconnected by dams, roads, and small culverts; habitat is seriously degraded

7. Identify existing features that facilitate animal movement within the linkage (e.g., dirt road, underpass, vegetative cover, etc.).

- SR 94 bridge

8. What documentation is available to demonstrate use of the linkage (e.g., sign of species currently using the area, presence of game trails, data from SDTT or others, etc.)?

- Bobcat and coyote tracks, game trails

9. What are the logistics of surveying the area?

Type of substrate: coarse sand, gravel
Density of vegetation: open
Existing trail or road system? yes
Secure locations to establish a camera station? Yes, depending on migrant use
Existing ownership CDFG, except for Caltrans easement

10. Recommended for MSCP corridor monitoring?

X Recommended ❑ Not recommended

MSCP LINKAGE DESCRIPTION LOG
Part A

Linkage Name and MSCP monitoring #: L-18 Jamul Creek

1. Linkage Type (check one):

- ❑ Landscape Linkage **X** Connectivity Choke-Point
- ❑ Other _____

2. List the key focal species expected to use the linkage:

Coyote, bobcat, small mammals, birds

3. Identify the most important threats to connectivity function and score the severity of each threat (rank on a scale of 1 (no threat) to 5 (severe threat/loss imminent).

Type of Threat	Severity of Threat
SR 94 -- heavily used	4
Migrants	2

4. Provide a brief description of the linkage.

Characteristic	Within linkage	Core habitat at W end of linkage (N,S,E,W)	Core habitat at E end of linkage (N,S,E,W)
Habitat types	Sycamore-willow-dist.veg.	Pasture/CSS	Pasture/CSS
Size of habitat block	Small	Medium	Medium
Quality of habitat	Moderately disturbed	Moderately disturbed	Moderately disturbed
Topography	Swale	Hilly	Hilly
Land use	Transportation (SR 94)	CDFG reserve	Daley Ranch/CDFG reserve
Type of human use	Caltrans easement, migrants	CDFG reserve	Pasture, residential, CDFG
Source of water	Jamul Creek	Jamul Creek	Jamul Creek
Conservation status	Caltrans easement	Conserved	Not conserved/Conserved

Habitat types: e.g., scrub, chaparral, riparian woodland, riparian scrub, oak woodland, etc.
Size of habitat block: large (>14,800 ac), medium (1000-14,800 ac), small (<1000 ac).
Quality of habitat: undisturbed or readily restorable, moderately disturbed (impacted by human activities), very disturbed (relatively little natural habitat or processes remain).
Topography: ravine, ridgetop, slope, flat, etc.
Land use: high density residential, rural residential, commercial, industrial, agriculture, park or golf course, open space, recreation, etc.
Type of human use: hiking, residential, transportation, etc.
Source of water: pond, creek, runoff, etc.
Conservation status: conserved, conserved but not managed, not conserved.

5. Provide the approximate dimensions of the corridor, including width at narrowest point.

Length: N/A

Average width (or range): approx. 50-100 ft

Width at narrowest point: approx. 50 ft at SR 94

6. Identify primary barriers that may impede wildlife movement.

Permeable = linkage consists of high quality habitat that is permeable to many species, low density agriculture, and low use roads

Semi-permeable = linkage covers large area but habitat is degraded due to high levels of development, intensive agriculture, or disturbance. X

Impermeable = linkage is highly impacted by development and is disconnected by dams, roads, and small culverts; habitat is seriously degraded

7. Identify existing features that facilitate animal movement within the linkage (e.g., dirt road, underpass, vegetative cover, etc.).

- 3-12 ft x 12 ft box culverts

8. What documentation is available to demonstrate use of the linkage (e.g., sign of species currently using the area, presence of game trails, data from SDTT or others, etc.)?

- Bobcat and coyote tracks, game trails

9. What are the logistics of surveying the area?

Type of substrate: silty clay
Density of vegetation: open
Existing trail or road system? yes
Secure locations to establish a camera station? Yes, depending on migrant use
Existing ownership CDFG, except for Caltrans easement

10. Recommended for MSCP corridor monitoring?

X Recommended ❑ Not recommended

MSCP LINKAGE DESCRIPTION LOG
Part A

Linkage Name and MSCP monitoring #: L-21 Jamul Mtns/San Ysidro Mtns (Little Cedar and Cedar Canyons)

1. Linkage Type (check one):

X Landscape Linkage ❑ Connectivity Choke-Point
❑ Other _____

2. List the key focal species expected to use the linkage:

Coyote, bobcat, mtn. lions, deer, small mammals, birds

3. Identify the most important threats to connectivity function and score the severity of each threat (rank on a scale of 1 (no threat) to 5 (severe threat/loss imminent).

Type of Threat	Severity of Threat
Off-road vehicles	2
Dumping	1

4. Provide a brief description of the linkage.

Characteristic	Within linkage	Core habitat at N end of linkage (N,S,E,W)	Core habitat at S end of linkage (N,S,E,W)
Habitat types	Coastal sage scrub, CHP	Dulzura Ck - CSS, riparian	Otay Mtn - CSS/CHP
Size of habitat block	Large	Large	Large
Quality of habitat	Undisturbed	Moderately disturbed	Undisturbed
Topography	Canyon	Relatively flat	Slopes of Otay Mtn
Land use	Partially Conserved	Daley Quarry	Conserved-BLM
Type of human use	Recreation	Daley Quarry	Recreation
Source of water	runoff	Dulzura Creek	runoff
Conservation status	Conserved	Private	Conserved

Habitat types: e.g., scrub, chaparral, riparian woodland, riparian scrub, oak woodland, etc.
Size of habitat block: large (>14,800 ac), medium (1000-14,800 ac), small (<1000 ac).
Quality of habitat: undisturbed or readily restorable, moderately disturbed (impacted by human activities), very disturbed (relatively little natural habitat or processes remain).
Topography: ravine, ridgetop, slope, flat, etc.
Land use: high density residential, rural residential, commercial, industrial, agriculture, park or golf course, open space, recreation, etc.
Type of human use: hiking, residential, transportation, etc.
Source of water: pond, creek, runoff, etc.
Conservation status: conserved, conserved but not managed, not conserved.

5. Provide the approximate dimensions of the corridor, including width at narrowest point.

Length: NA

Average width (or range): NA

Width at narrowest point: NA

6. Identify primary barriers that may impede wildlife movement.

Permeable = linkage consists of high quality habitat that is permeable to many species, low density agriculture, and low use roads._____X_____

Semi-permeable = linkage covers large area but habitat is degraded due to high levels of development, intensive agriculture, or disturbance. _____

Impermeable = linkage is highly impacted by development and is disconnected by dams, roads, and small culverts; habitat is seriously degraded_____

7. Identify existing features that facilitate animal movement within the linkage (e.g., dirt road, underpass, vegetative cover, etc.).

- dirt roads

8. What documentation is available to demonstrate use of the linkage (e.g., sign of species currently using the area, presence of game trails, data from SDTT or others, etc.)?

- none

9. What are the logistics of surveying the area?

Type of substrate: coarse sand
Density of vegetation: open
Existing trail or road system? Trail and dirt road
Secure locations to establish a camera station? Inside tunnels
Existing ownership State/County

10. Recommended for MSCP corridor monitoring?

☐ Recommended **X** Not recommended

Not recommended for corridor monitoring at this time because movement is not constrained by current land use. Suggest doing road surveys of Otay Lakes Road between Hwy 94 and Otay Lakes to identify high mortality areas.

MSCP LINKAGE DESCRIPTION LOG
Part A

Linkage Name and MSCP monitoring #: L-22 Dennery Canyon (and culvert under Otay Mesa Road)

1. Linkage Type (check one):

- ❑ Landscape Linkage
- **X** Connectivity Choke-Point
- ❑ Other

2. List the key focal species expected to use the linkage:

Coyote, bobcat, small mammals

3. Identify the most important threats to connectivity function and score the severity of each threat (rank on a scale of 1 (no threat) to 5 (severe threat/loss imminent).

Type of Threat	Severity of Threat
Migrants	3
ORVs in canyon	3
Poor placement of culvert under Otay Mesa Road	3

4. Provide a brief description of the linkage.

Characteristic	Within linkage	Core habitat at N end of linkage (N,S,E,W)	Core habitat at S end of linkage (N,S,E,W)
Habitat types	Disturbed, coastal sage	Coastal sage scrub	Coastal sage scrub, some wetland species
Size of habitat block	Small	Small	Small
Quality of habitat	Very disturbed	Very disturbed	Very disturbed
Topography	Detention basin	Canyon	Relatively flat
Land use	Road easement, detention basin	Conserved?	Industrial park
Type of human use	Migrants, ORV	Conserved?	Industrial park
Source of water	runoff	runoff	runoff
Conservation status	Not conserved	Proposed for conservation	Not conserved

Habitat types: e.g., scrub, chaparral, riparian woodland, riparian scrub, oak woodland, etc.
Size of habitat block: large (>14,800 ac), medium (1000-14,800 ac), small (<1000 ac).
Quality of habitat: undisturbed or readily restorable, moderately disturbed (impacted by human activities), very disturbed (relatively little natural habitat or processes remain).
Topography: ravine, ridgetop, slope, flat, etc.
Land use: high density residential, rural residential, commercial, industrial, agriculture, park or golf course, open space, recreation, etc.
Type of human use: hiking, residential, transportation, etc.
Source of water: pond, creek, runoff, etc.
Conservation status: conserved, conserved but not managed, not conserved.

5. Provide the approximate dimensions of the corridor, including width at narrowest point.

Length: approx. 1.5 mi between Otay Mesa Rd. and Otay River

Average width (or range): 500 - 1000 ft

Width at narrowest point: Otay Mesa Rd. culvert

6. Identify primary barriers that may impede wildlife movement.

Permeable = linkage consists of high quality habitat that is permeable to many species, low density agriculture, and low use roads

Semi-permeable = linkage covers large area but habitat is degraded due to high levels of development, intensive agriculture, or disturbance. X

Impermeable = linkage is highly impacted by development and is disconnected by dams, roads, and small culverts; habitat is seriously degraded

7. Identify existing features that facilitate animal movement within the linkage (e.g., dirt road, underpass, vegetative cover, etc.).

- ORV trails in Dennery Canyon

8. What documentation is available to demonstrate use of the linkage (e.g., sign of species currently using the area, presence of game trails, data from SDTT or others, etc.)?

- SDTT data

9. What are the logistics of surveying the area?

Type of substrate: coarse sand
Density of vegetation: open
Existing trail or road system? Trails and dirt roads
Secure locations to establish a camera station? No
Existing ownership City

10. Recommended for MSCP corridor monitoring?

X Recommended ❑ Not recommended

Recommend monitoring at mouth of Dennery Canyon, upstream end of Dennery Canyon, and Otay Mesa Rd. culvert

MSCP LINKAGE DESCRIPTION LOG
Part A

Linkage Name and MSCP monitoring #: L-24 O'Neal Canyon (Alta Road crossing)

1. Linkage Type (check one):

- ❑ Landscape Linkage **X** Connectivity Choke-Point
- ❑ Other _____

2. List the key focal species expected to use the linkage:

Coyote, bobcat, , small mammals, birds; mountain lion? deer?

3. Identify the most important threats to connectivity function and score the severity of each threat (rank on a scale of 1 (no threat) to 5 (severe threat/loss imminent).

Type of Threat	Severity of Threat
Off-road vehicles	2
Dumping	1

4. Provide a brief description of the linkage.

Characteristic	Within linkage	Core habitat at NW end of linkage (N,S,E,W)	Core habitat at SE end of linkage (N,S,E,W)
Habitat types	Coastal sage scrub, riparian scrub (tamarisk)	Otay River --CSS, riparian	Otay Mtn. CSS
Size of habitat block	Small	Small	Medium-Large
Quality of habitat	Moderately disturbed	Moderately disturbed	Moderately disturbed
Topography	Canyon	Otay River Valley	Slopes of Otay Mtn
Land use	Partially conserved	Conserved?	Conserved
Type of human use	Recreation	Recreation	Recreation
Source of water	runoff	Otay River	runoff
Conservation status	Partially conserved, but not managed	Private	Conserved but not managed

Habitat types: e.g., scrub, chaparral, riparian woodland, riparian scrub, oak woodland, etc.
Size of habitat block: large (>14,800 ac), medium (1000-14,800 ac), small (<1000 ac).
Quality of habitat: undisturbed or readily restorable, moderately disturbed (impacted by human activities), very disturbed (relatively little natural habitat or processes remain).
Topography: ravine, ridgetop, slope, flat, etc.
Land use: high density residential, rural residential, commercial, industrial, agriculture, park or golf course, open space, recreation, etc.
Type of human use: hiking, residential, transportation, etc.
Source of water: pond, creek, runoff, etc.
Conservation status: conserved, conserved but not managed, not conserved.

5. Provide the approximate dimensions of the corridor, including width at narrowest point.

Length: approx. 2 miles from Otay River to the bend in Alta Road

Average width (or range): 1000 ft rim to rim

Width at narrowest point: 100 ft (or 10 ft tunnels?)

6. Identify primary barriers that may impede wildlife movement.

Permeable = linkage consists of high quality habitat that is permeable to many species, low density agriculture, and low use roads. relatively permeable as a result of Alta Rd. bridge, canyon, and habitat

Semi-permeable = linkage covers large area but habitat is degraded due to high levels of development, intensive agriculture, or disturbance.

Impermeable = linkage is highly impacted by development and is disconnected by dams, roads, and small culverts; habitat is seriously degraded

7. Identify existing features that facilitate animal movement within the linkage (e.g., dirt road, underpass, vegetative cover, etc.).

- 3 10x10 tunnels under Alta Rd, approx. 200' long; 1 is concrete-lined, 1 is sandy, 1 is gravel
- dirt road above canyon bottom on west side

8. What documentation is available to demonstrate use of the linkage (e.g., sign of species currently using the area, presence of game trails, data from SDTT or others, etc.)?

- Coyote scat
- Browse?

9. What are the logistics of surveying the area?

Type of substrate: coarse sand
Density of vegetation: open
Existing trail or road system? Trail and dirt road
Secure locations to establish a camera station? Inside tunnels
Existing ownership State/County

10. Recommended for MSCP corridor monitoring?

X Recommended ❑ Not recommended

MSCP LINKAGE DESCRIPTION LOG
Part A

Linkage Name and MSCP monitoring #: L-25 Spring Canyon

1. Linkage Type (check one):

X Landscape Linkage ❑ Connectivity Choke-Point
❑ Other _____

2. List the key focal species expected to use the linkage:

Coyote, bobcat, mountain lion, small mammals, birds

3. Identify the most important threats to connectivity function and score the severity of each threat (rank on a scale of 1 (no threat) to 5 (severe threat/loss imminent).

Type of Threat	Severity of Threat
Off-road vehicles	5
New development and roads	5

4. Provide a brief description of the linkage.

Characteristic	Within linkage	Core habitat at N end of linkage (N,S,E,W)	Core habitat at S end of linkage (N,S,E,W)
Habitat types	Coastal sage scrub	Coastal sage scrub	none
Size of habitat block	Small	Small	none
Quality of habitat	Very disturbed	Very disturbed	none
Topography	Canyon	Canyon	Relatively flat
Land use	Partially conserved	Conserved	Urban
Type of human use	Off-road vehicles	Recreation	Residential
Source of water	runoff	runoff	none
Conservation status	Partially conserved, but not managed	Proposed for conservation	Not conserved

Habitat types: e.g., scrub, chaparral, riparian woodland, riparian scrub, oak woodland, etc.
Size of habitat block: large (>14,800 ac), medium (1000-14,800 ac), small (<1000 ac).
Quality of habitat: undisturbed or readily restorable, moderately disturbed (impacted by human activities), very disturbed (relatively little natural habitat or processes remain).
Topography: ravine, ridgetop, slope, flat, etc.
Land use: high density residential, rural residential, commercial, industrial, agriculture, park or golf course, open space, recreation, etc.
Type of human use: hiking, residential, transportation, etc.
Source of water: pond, creek, runoff, etc.
Conservation status: conserved, conserved but not managed, not conserved.

5. Provide the approximate dimensions of the corridor, including width at narrowest point.

Length: approx. 3.5 miles from Otay Mesa Road to the U.S.-Mexico border

Average width (or range): N/A

Width at narrowest point: 100 ft undercrossing at Otay Mesa Road

6. Identify primary barriers that may impede wildlife movement.

Permeable = linkage consists of high quality habitat that is permeable to many species, low density agriculture, and low use roads

Semi-permeable = linkage covers large area but habitat is degraded due to high levels of development, intensive agriculture, or disturbance. X

Impermeable = linkage is highly impacted by development and is disconnected by dams, roads, and small culverts; habitat is seriously degraded

7. Identify existing features that facilitate animal movement within the linkage (e.g., dirt road, underpass, vegetative cover, etc.).

- dirt roads maintained by Border Patrol

8. What documentation is available to demonstrate use of the linkage (e.g., sign of species currently using the area, presence of game trails, data from SDTT or others, etc.)?

- 2002 SDTT data

9. What are the logistics of surveying the area?

Type of substrate: coarse sand
Density of vegetation: open
Existing trail or road system? Trails and dirt roads
Secure locations to establish a camera station? No
Existing ownership City

10. Recommended for MSCP corridor monitoring?

X Recommended ❑ Not recommended

Not recommended for regional linkage monitoring, but recommended to inform habitat management in Spring Canyon.

MSCP LINKAGE DESCRIPTION LOG
Part A

Linkage Name and MSCP monitoring #: L-28 Cottonwood Creek

1. Linkage Type (check one):

X Landscape Linkage **X** Connectivity Choke-Point
❑ Other _____

2. List the key focal species expected to use the linkage:

Coyote, bobcat, mountain lion, small mammals, birds

3. Identify the most important threats to connectivity function and score the severity of each threat (rank on a scale of 1 (no threat) to 5 (severe threat/loss imminent).

Type of Threat	Severity of Threat
SR-94	3
Ranchette development-fragmentation	3
Mining west of SR-94?	3
Farming west of SR-94	3

4. Provide a brief description of the linkage.

Characteristic	Within linkage	Core habitat at E end of linkage (N,S,E,W)	Core habitat at W end of linkage (N,S,E,W)
Habitat types	Cottonwood-willow	Pasture/CSS	Coastal sage scrub
Size of habitat block	Small	Medium	Medium
Quality of habitat	Moderately disturbed	Moderately disturbed	Moderately disturbed
Topography	Broad valley/floodplain	Hilly, rocky	Hilly, rocky
Land use	Transportation (SR 94)	Feed store, residential	Ag, residential
Type of human use	Migrants	Pasture	Ag
Source of water	Cottonwood Creek	Cottonwood Creek	Cottonwood Creek
Conservation status	Not conserved	Not conserved	Not conserved

Habitat types: e.g., scrub, chaparral, riparian woodland, riparian scrub, oak woodland, etc.
Size of habitat block: large (>14,800 ac), medium (1000-14,800 ac), small (<1000 ac).
Quality of habitat: undisturbed or readily restorable, moderately disturbed (impacted by human activities), very disturbed (relatively little natural habitat or processes remain).
Topography: ravine, ridgetop, slope, flat, etc.
Land use: high density residential, rural residential, commercial, industrial, agriculture, park or golf course, open space, recreation, etc.
Type of human use: hiking, residential, transportation, etc.
Source of water: pond, creek, runoff, etc.
Conservation status: conserved, conserved but not managed, not conserved.

5. Provide the approximate dimensions of the corridor, including width at narrowest point.

Length: approx. 2 miles from Marron Valley boundary to SR 94 bridge

Average width (or range): approx. 500-1000 ft

Width at narrowest point: approx. 400 ft bridge at SR 94

6. Identify primary barriers that may impede wildlife movement.

Permeable = linkage consists of high quality habitat that is permeable to many species, low density agriculture, and low use roads_____X_____

Semi-permeable = linkage covers large area but habitat is degraded due to high levels of development, intensive agriculture, or disturbance. _____

Impermeable = linkage is highly impacted by development and is disconnected by dams, roads, and small culverts; habitat is seriously degraded_____

7. Identify existing features that facilitate animal movement within the linkage (e.g., dirt road, underpass, vegetative cover, etc.).

- SR-94 bridge

8. What documentation is available to demonstrate use of the linkage (e.g., sign of species currently using the area, presence of game trails, data from SDTT or others, etc.)?

- Bobcat and coyote tracks

9. What are the logistics of surveying the area?

Type of substrate: coarse sand, gravel
Density of vegetation: open in floodplain but dense in incised channel
Existing trail or road system? Dirt road/trail along south side
Secure locations to establish a camera station? No, appears heavily used by migrants
Existing ownership private, except for Caltrans easement

10. Recommended for MSCP corridor monitoring?

X Recommended ❑ Not recommended

MSCP LINKAGE DESCRIPTION LOG
Part A

Linkage Name and MSCP monitoring #: L-30 Del Mar Mesa (Big Shaw and Little Shaw valleys)

1. Linkage Type (check one):

- ❑ Landscape Linkage **X** Connectivity Choke-Point
- ❑ Other difficult to evaluate due to construction activities

2. List the key focal species expected to use the linkage:

Coyote, bobcat, deer, small mammals

3. Identify the most important threats to connectivity function and score the severity of each threat (rank on a scale of 1 (no threat) to 5 (severe threat/loss imminent).

Type of Threat	Severity of Threat
Roads and residential	5
ORV	3
Dumping	3
Dogs off-leash	3

4. Provide a brief description of the linkage.

Characteristic	Within linkage	Core habitat at N end of linkage (N,S,E,W)	Core habitat at S end of linkage (N,S,E,W)
Habitat types	Disturbed, coastal sage	Disturbed, coastal sage	Disturbed, coastal sage
Size of habitat block	Small	Small	Small
Quality of habitat	Very disturbed	Very disturbed	Very disturbed
Topography	Shallow canyon	Relatively flat	Relatively flat
Land use	Recreation	Recreation	Open space
Type of human use	Hiking, biking	Golf course	Hiking, biking
Source of water	runoff	runoff	runoff
Conservation status	Conserved	Conserved	Conserved

Habitat types: e.g., scrub, chaparral, riparian woodland, riparian scrub, oak woodland, etc.
Size of habitat block: large (>14,800 ac), medium (1000-14,800 ac), small (<1000 ac).
Quality of habitat: undisturbed or readily restorable, moderately disturbed (impacted by human activities), very disturbed (relatively little natural habitat or processes remain).
Topography: ravine, ridgetop, slope, flat, etc.
Land use: high density residential, rural residential, commercial, industrial, agriculture, park or golf course, open space, recreation, etc.
Type of human use: hiking, residential, transportation, etc.
Source of water: pond, creek, runoff, etc.
Conservation status: conserved, conserved but not managed, not conserved.

5. Provide the approximate dimensions of the corridor, including width at narrowest point.

Length: approx. 1.5 mi between Carmel Valley and rim of Penasquitos Canyon

Average width (or range): 500 - 1000 ft

Width at narrowest point: 400 ft undercrossing at new road over Little Shaw

6. Identify primary barriers that may impede wildlife movement.

Permeable = linkage consists of high quality habitat that is permeable to many species, low density agriculture, and low use roads

Semi-permeable = linkage covers large area but habitat is degraded due to high levels of development, intensive agriculture, or disturbance. X

Impermeable = linkage is highly impacted by development and is disconnected by dams, roads, and small culverts; habitat is seriously degraded

7. Identify existing features that facilitate animal movement within the linkage (e.g., dirt road, underpass, vegetative cover, etc.).

- Trails, some cover (very disturbed due to construction)

8. What documentation is available to demonstrate use of the linkage (e.g., sign of species currently using the area, presence of game trails, data from SDTT or others, etc.)?

- Hayden data 2001-2002

9. What are the logistics of surveying the area?

Type of substrate: coarse sand
Density of vegetation: open
Existing trail or road system? Trails
Secure locations to establish a camera station? Yes, at culverts
Existing ownership City

10. Recommended for MSCP corridor monitoring?

X Recommended ❑ Not recommended