

VIA ELECTRONIC MAIL ONLY

March 6, 2020

City of San Diego Planning Department
Attn: Marlon Pangilinan, Senior Planner
9485 Aero Drive
San Diego, CA 92123
mpangilinan@sandiego.gov

Re: Clairemont Community Plan Update
Discussion Draft January 2020 and Online Community Engagement Tool

Dear Marlon:

We represent SFT Bal Gen, LLC (“SFT”) regarding real property that SFT owns at the northwest corner of Balboa Avenue and Genesee Avenue in the City of San Diego (“SFT’s Property”). SFT appreciates the opportunity to comment on the Clairemont Community Plan Update Discussion Draft January 2020 (the “Draft Update”) and the Online Community Engagement Tool (the “Engagement Tool”).

SFT’s Property is comprised of five legal lots and one, appurtenant, benefitting easement. SFT has owned SFT’s Property for 10 years. The property is improved with approximately 25,000 square feet of commercial retail uses in three structures constructed in 1999, and approximately 90,000 square feet of commercial office uses in two structures constructed in 1964 and 1972, respectively. The structures range in height from one to ten stories.

The westernmost 1.3 acres of SFT’s Property (the “Western Property Area”) is subject to an easement in favor of the San Diego Gas & Electric Company (the “SDG&E Easement”). There are 406 striped surface parking spaces on SFT’s Property, three driveways onto Balboa Avenue, and one driveway onto Genesee Avenue through the appurtenant, benefitting easement to the north of SFT’s Property.

The Clairemont Community Plan (the “Community Plan”) designates SFT’s Property as Community Centers and Community Core Area. SFT’s Property lies within the Community Plan’s 40-foot height limit zone and Community Plan Implementation Overlay Zone (“CPIOZ”) Type B. According to the City’s Parcel Information forms provided to SFT earlier this year, the Western Property Area is zoned CO-1-2 and the remaining approximately 4.48 acres of SFT’s

Marlon Pangilinan, Senior Planner

March 6, 2020

Page 2

Property (the “Principal Property”) are zoned CC-1-3. A depiction of SFT’s Property with its zones labeled is enclosed with this letter.

Properties to the east and southeast of SFT’s Property, across Genesee Avenue and Genesee Avenue and Balboa Avenue, respectively, are also designated as Community Centers and Community Core Area, zoned CC-1-3 or CN-1-2, and developed with commercial retail and commercial office uses. Properties to the south, across Balboa Avenue, are zoned for high-density residential use. Properties to the west are zoned for single-family residential use.

The property immediately to the north of SFT’s Property, burdened by SFT’s access and driveway easement, is owned by the County of San Diego (the “County”). The property owned by the County is 4.09 acres (the “County’s Property”). The County proposes to demolish the existing structures on the County’s Property and to develop it with 404 affordable housing units.

In January 2020, the County Board of Supervisors certified an Environmental Impact Report to support the County’s application to the City of San Diego (the “City”) for a community plan amendment to change the land use designation of the County’s Property from Commercial-Community Center to Residential-High 45-73 DU/AC and for a re-zone of the County’s Property from CO-1-2 with a CPIOZ-Type A overlay to RM-3-9 CPIOZ Type B to allow residential use. The City Council is scheduled to hear the amendment and re-zone on March 10, 2020.

SFT’s Property and the County’s Property together comprise all of Focus Area 6C as identified in the Engagement Tool. The tool proposes that Focus Area 6C would be designated in the Clairemont Community Plan Update (the “Plan Update”) as Community Commercial, allowing a mix of commercial and residential uses. Three density options are provided: (1) 0-44 dwelling units/acre (“DU/Acre”); (2) 0-54 DU/Acre; and (3) 0-73 DU/Acre. Option 3 is consistent with the County’s proposed Community Plan amendment and re-zone that will be before the City Council on March 10, 2020.

SFT supports Option 3 of the Engagement Tool. Please consider this letter as SFT’s selection of a preferred land use option for Focus Area 6C, in lieu of a marked selection in a “comment booklet”. The Draft Update designates SFT’s Property as Community Village (0-54 DU/Acre). The Draft Update does not include a CPIOZ map. SFT respectfully requests that the Draft Update be revised to designate SFT’s Property as Community Commercial, consistent with the options provided in the Engagement Tool, for mixed-use development at 0-73 DU/Acre, with no CPIOZ overlay.

SFT’s Property’s should be designated for mixed-use development at 0-73 DU/Acre because the property is located at one of the busiest intersections in Clairemont, within a Transit Priority Area (“TPA”). SFT’s Property is served by public transportation that qualifies the area for the TPA designation. The Draft Update contains a vision that would increase multi-modal transportation within this TPA.

SFT’s Property is located at the northwest corner of Balboa and Genesee Avenues. Draft Land Use and Economic Prosperity (“LUEP”) Policies within the Draft Update support creation of a

Marlon Pangilinan, Senior Planner

March 6, 2020

Page 3

linear park and multi-use urban path along both sides of Genesee and Balboa Avenues. Development of SFT's Property with mixed-use development at 0-73 DU/Acre would contribute segments of the linear path and multi-use urban path along both avenues and would place development in an optimum location to take advantage of those amenities.

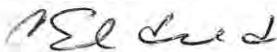
The SDG&E Easement in the Western Property Area of SFT's Property is a segment of a north/south easement that extends beyond the northern and southern boundaries of the community plan area (the "SDG&E Easement Corridor"). Draft LUEP Policies also support the establishment of pedestrian and bicycle connections along the SDG&E Easement Corridor from surrounding villages into the commercial village at the intersection of Balboa and Genesee Avenues. Mixed-use development at 0-73 DU/Acre on SFT's Property would be ideally located to promote multi-modal transportation and recreation opportunities along the SDG&E Easement Corridor.

SFT's Property is also ideally located near to public and private schools and public parks. Three public schools and one private school are within walking distance of SFT's Property, all within a six-minute to 17-minute walk. A public library is located within a 25-minute walk. The Mt. Etna Neighborhood Park is within a 14-minute walk, as is the canyon to the south across Balboa Avenue.

However, as described above, SFT's Property is currently developed with thriving commercial retail and office uses. The property will not be redeveloped into a mixed-use development that would contribute to and take full advantage of the Draft Update's vision for the Balboa/Genesee neighborhood unless and until such development would support the substantial investment that would be required. An allowable density of anything less than 0-73 DU/Acre would not provide that support. The return on investment would not justify the expenditure at any lower density than 73 DU/Acre.

Accordingly, SFT requests that the Draft Update be revised to allow SFT's Property to be developed as a mixed-use development at 0-73 DU/Acre. Again, SFT appreciates the opportunity to comment on the Draft Update the Engagement Tool.

Very truly yours,



Cynthia L. Eldred, Esq.
THE LAW OFFICE OF CYNTHIA L. ELDRED, APC
enclosure

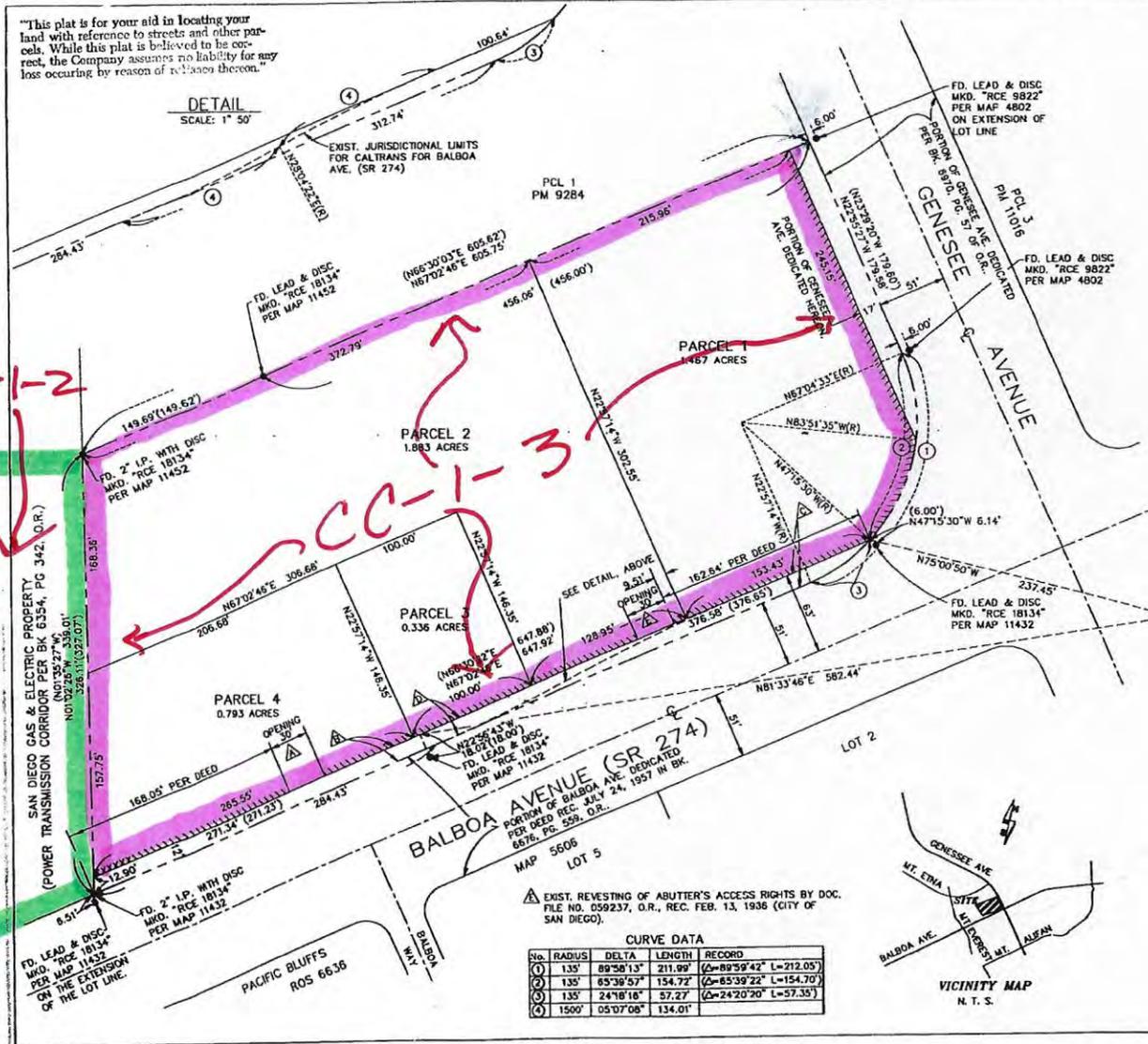
cc: SFT Bal Gen, LLC (via electronic mail only)

PARCEL MAP NO. 18116

SHEET 2 OF 2 SHEETS

"This plat is for your aid in locating your land with reference to streets and other parcels. While this plat is believed to be correct, the Company assumes no liability for any loss occurring by reason of reliance thereon."

DETAIL
SCALE: 1" = 50'



CO-1-2
CC-1-3

LEGEND

- FOUND POINT AS NOTED
 - ||||| INDICATES ABUTTER'S RIGHTS OF ACCESS RELINQUISHED PER MAP 4802
 - ||||| INDICATES ABUTTER'S RIGHTS OF ACCESS RELINQUISHED PER DOC. REC. JUL. 7, 1998AS F/P NO. 0466602, O.R.
 - () DATA PER RECORD MAP 11432
 - N.T.S. NOT TO SCALE
- UNLESS OTHERWISE SHOWN ON THIS MAP:

1. ALL LOT CORNERS EXCEPT AS DESCRIBED BELOW WILL BE MONUMENTED BY A 3/4" x 18" IRON PIPE WITH DISC STAMPED "RCE 22139".
2. LOT CORNERS ALONG THE SIDELINES OF DEDICATED STREET RIGHT-OF-WAY WILL BE MONUMENTED BY A DISC STAMPED "RCE 22139" SET ALONG AN EXTENSION OF THE LOT LINE AT AN OFFSET OF 7.00 FEET IN THE SIDEWALK. THE OFFSET SHALL BE MEASURED RADially OR AT RIGHT ANGLES TO THE RIGHT-OF-WAY LINE.
3. ALL POINTS OF CURVE OF THE SIDELINES OF DEDICATED STREETS WILL BE MONUMENTED BY A DISC STAMPED "RCE 22139" SET AT THE OFFSET OF 7.00 FEET IN THE SIDEWALK. THE OFFSET SHALL BE MEASURED RADially.

EASEMENTS LEGEND

EASEMENT FOR POLE LINES AND UNDERGROUND CONDUITS, INCLUDING RIGHTS OF INGRESS AND EGRESS GRANTED TO SDG&E PER DEED RECORDED NOVEMBER 17, 1989 AS FILE NO. 88-82828, O.R. EASEMENT DESCRIPTION IS SUCH THAT IT CANNOT BE PLOTTED.

- ▲ EXIST. REVESTING OF ABUTTER'S ACCESS RIGHTS BY DOC. FILE NO. 157804, O.R. REC. AULC. 30, 1955 (CITY OF SAN DIEGO), AND FILE NO. 108587, O.R. REC. JUNE 19, 1963, O.R.
- ▲ EXIST. EASEMENT FOR PUBLIC STREET AND INCIDENTAL PURPOSES GRANTED TO THE CITY OF SAN DIEGO PER DEED REC. FEB. 4, 1971 AS FILE NO. 22328, O.R.
- ▲ EXIST. EASEMENT FOR PUBLIC STREET AND INCIDENTAL PURPOSES PER DEED REC. JUNE 19, 1963 PER F/P NO. 106588, SERIES 4, BK. 1963, O.R.
- ▲ EXIST. EASEMENT FOR PUBLIC STREET AND INCIDENTAL PURPOSES PER DEED REC. FEB. 4, 1971 PER F/P NO. 22327, O.R.

BASIS OF BEARINGS
STATION #804
FD. MONUMENT MKD. "RCE 9647"
N=1879746.411
E=6277119.322

BASIS OF BEARINGS
STATION #206
FD. MONUMENT MKD. "RCE 9647"
N=1879112.900
E=6275446.680

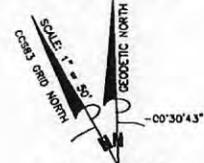
BASIS OF BEARINGS

THE BASIS OF BEARINGS FOR THIS SURVEY IS THE NAD83, ZONE 6, GRID BEARING BETWEEN STATION 206 AND STATION 804 AS SAID STATIONS ARE PUBLISHED IN RECORD OF SURVEY No. 14492 I.E. N6915'21"E.

QUOTED BEARINGS FROM REFERENCE MAPS AND DEEDS MAY OR MAY NOT BE IN TERMS OF SAID SYSTEM.

CURVE DATA

No.	RADIUS	DELTA	LENGTH	RECORD
①	135'	89°58'13"	211.99'	(Δ)=89°58'42" L=212.05'
②	135'	65°38'57"	154.72'	(Δ)=65°39'22" L=154.70'
③	135'	24°18'18"	57.27'	(Δ)=24°20'26" L=57.35'
④	1500'	05°07'08"	134.01'	



CONVERGENCE ANGLE
● STATION 206 = -0°30'43"
SCALE: 1" = 50'

THE COMBINED SCALE FACTOR AT STATION 206 IS 0.9999819.
GRID DISTANCE = GROUND DISTANCE x COMBINED SCALE FACTOR
W.O. 980031 T.M. 96-7558 NAD83C 1878-6273 L.C. 238-1713

From: [Chris Daudet](#)
To: [Pangilinan, Marlon](#)
Subject: Re: Clairemont CPU: Community Discussion Draft Comments Reminder
Date: Friday, March 6, 2020 1:41:00 PM

Hi Marlon,

I wanted to reference the community discussion draft in my email comments but when I went on the link provided below and tried to pull up the draft it couldn't be found. In fact every link on the website is coming up as not there. This makes it hard for community members to add in their comments today.

As I can't reference the draft by section or page, I will have to make my comments more general in nature. I have been to just about every meeting regarding the CPU for Clairemont. I have heard the frustration by not only the ad hoc committee, but also the residents of Clairemont. Numbers throughout the process have been skewed and they change from meeting to meeting. We were asked to place 5000 units into Clairemont at the city came back adding an additional 700+. It is things like this that make this process so difficult and what makes a community not trust the city.

When finalizing the plan for Clairemont, Clairemont as a community needs to be considered first and foremost. I completely agree that we need to be thinking into the future and recognize that the community will not be what it is today 30 years from now. However, that doesn't mean that the character and culture of the community TODAY should be ignored. Many of the language in the draft speaks to 'walls of buildings' along our major arteries such as Balboa and Genesee. This DOES NOT fit the character of our community. Clairemont was never designed to be an urban community. You can increase housing in a community without turning it into the next UTC. Clairemont was designed as a single family home master community. It is the core of who we are.

The numbers also need to add up. By changing the zoning of certain areas you leave the door open for that entire area to be developed at that increased density (dwellings per acre.) For example with the Town Square area. If you change the zoning to be X units per acre, then the entire area could eventually be high rise housing. What I have asked repeatedly in the meetings is that each zone be capped. If the intent is to add 2000 units to a particular plan area then state so in the CPU. Don't simply change the dwellings/acre zoning.

I have also asked that language be put into the CPU that speaks to the type of housing added to our community. What our community needs is a mixture of housing options. We need affordable apartments to rent, but we also need affordable condo's and town homes to purchase. We need to look out for the next generation of home OWNERS not just afford housing renters. Through this process we have focused so much on the affordable housing issue that we have completely forgotten about the missing middle. Those who won't qualify for the affordable housing apartment buildings or better yet don't want to, they want to own their home. What are their

options going to be within the community?

Fire and safety. This is a big one that again I feel continues to be ignored. We have shown time and time again that we do not have the fire support needed to handle this type of increased density within our community. It is alarming and disappointing that our city officials and fire chief would be OK with placing residents in harms way by not being able to adequately deal with emergencies when they happen. In addition to residents, our brave fire men and women are also being asked to do their job without the correct equipment. If the city is going to increase the density within our community than the infrastructure needs to come with it. Telling us that developers will pay for this is not the answer. The infrastructure needs to be in place BEFORE the development, not after. It's like putting the cart before the horse, this is never a good idea.

Infrastructure and services in our community are lacking and have been so for decades. If you are going to place more and more people into the community than the resources and services need to be enlarged and updated. Our schools are among the oldest in the district and many are substandard in terms of amenities and facilities. Our libraries are tiny and not updated at all. Our rec centers are lacking in equipment and again are old and out dated. These are all things that need to be addressed BEFORE development is approved.

I will keep trying to open the documents so that I reference specific areas of the draft, but this will hopefully serve as an overview of my concerns.

Thank you for your time over the past year or so working on this. I hope that we are all working towards a common goal of creating a better Clairemont, not simply checking off a box for Sacramento that housing units were added.

Chris Daudet
RIMBY - Reasonable in My Backyard
3842 Tiara St
San Diego, CA 92111

On Thursday, February 27, 2020, 05:32:52 PM PST, Pangilinan, Marlon <mpangilinan@sandiego.gov> wrote:

Members of the Clairemont Community,

I wanted to remind everyone to submit written comments on the Community Discussion Draft by **Friday, March 6th** when the public comment period closes. This will allow comments to be gathered, reviewed, and shared with the CPU Ad-Hoc Subcommittee at their final meeting on Tuesday, March 10th. Comments can be emailed to staff at mpangilinan@sandiego.gov. The public is also welcome to share and discuss their comments at the next meeting as well.

The Community Discussion Draft can be viewed online at the Clairemont Engaged project website documents page at <https://www.clairemontplan.org/documents>.

For news and updates on the Clairemont Community Plan Update, please visit the project website at www.clairemontplan.org.

Sincerely,

Marlon I. Pangilinan

Senior Planner

City of San Diego

Planning Department

T (619) 235-5293

mpangilinan@sandiego.gov

CONFIDENTIAL COMMUNICATION

This electronic mail message and any attachments are intended only for the use of the addressee(s) named above and may contain information that is privileged, confidential and exempt from disclosure under applicable law. If you are not the intended recipient, or the employee or agent responsible for delivering this e-mail to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you received this e-mail message in error, please immediately notify the sender by replying to this message or by telephone. Thank you. 1

From: [Pangilinan, Marlon](#)
To: [Pangilinan, Marlon](#)
Subject: RE: Clairemont CPU: Community Discussion Draft Comments Reminder
Date: Friday, March 6, 2020 3:29:05 PM

From: Chris Daudet [mailto:chrisdaudet@sbcglobal.net]
Sent: Friday, March 6, 2020 3:26 PM
To: Pangilinan, Marlon <MPangilinan@sandiego.gov>
Subject: Re: Clairemont CPU: Community Discussion Draft Comments Reminder

I want to also add that I am adamantly opposed to increasing any area to up to 109 dwelling units per acre. I feel that this completely goes against everything that Clairemont is about. It creates an environment similar to being downtown or UTC which is not in the spirit of Clairemont, a family suburban community.

Thanks
Chris

Allen Matkins

Allen Matkins Leck Gamble Mallory & Natsis LLP
Attorneys at Law
865 South Figueroa Street, Suite 2800 | Los Angeles, CA 90017-2543
Telephone: 213.622.5555 | Facsimile: 213.620.8816
www.allenmatkins.com

File Number: 375067-00446/SD895074.02

March 6, 2020

Marlon I. Pangilinan, Senior Planner
City of San Diego
9485 Aero Drive, M.S. 413
San Diego, California 92123
mpangilinan@sandiego.gov

Re: Comments on the Clairemont Community Plan Update - Community Discussion Draft (January 2020)

Dear Mr. Pangilinan:

This letter is submitted to the City of San Diego ("City") on behalf of our client, Merlone Geier Partners ("MG"). As you know, MG purchased the Clairemont Town Square, located at 4821 Clairemont Drive ("Property") in May of 2019. In light of that purchase, MG wishes to be a part of the ongoing discussion regarding the pending Clairemont Community Plan Update ("CPU"). To assist in that process, we hereby submit a number of comments on the January 2020 Community Discussion Draft and ask that we be added to any interest list the City maintains on the CPU.

As you can see from the attached Exhibit A, the majority of MG's comments directly relate to the future redevelopment of the Property. MG is very interested in maximizing the Property's residential potential, while at the same time, maintaining a significant commercial component to serve the needs of the Clairemont community. Notably, MG seeks to ensure that the proposed policies in the CPU are drafted to allow for flexibility in future design.

For instance, there are a number of locations on the Property where first floor commercial uses do not make sense for a variety of reasons. Including mandatory policies that fail to take into account existing uses, future market conditions and the practical realities of the site will not allow for the type of redevelopment that the CPU envisions. In addition, there are a number of possible architectural design measures that can be used throughout the Property, and the community as a whole, that would allow for appropriate building and usage transitions; the CPU should not limit itself to just one or two identified mechanisms.

With regard to a proposed Community Plan Implementation Overlay Zone ("CPIOZ"), MG requests that the City consider a CPIOZ Type A methodology that echoes the process included in the Uptown Community Plan. Providing certainty in the process from the outset increases the likelihood of redevelopment occurring that is in line with the vision of the CPU.

Allen Matkins Leck Gamble Mallory & Natsis LLP
Attorneys at Law

Marlon I. Pangilinan, Senior Planner

March 6, 2020

Page 2

Further, MG understands that the Clairemont Community Planning Group Community Plan Update Ad-Hoc Subcommittee has recommended that the Property be allocated a 44 dwelling unit/acre density. MG agrees with that density allocation and, to ensure that the recommended density can be achieved onsite, MG asks that it be consulted when the City moves forward with the establishment of any supplemental development regulations that will apply in the CPU, especially those that will affect the scope of the Property's redevelopment potential, *i.e.*, height limits, setbacks, stepbacks, etc.

Thank you in advance for allowing MG to be a part of the pending CPU process. If you have any questions and/or wish to discuss any of the comments provided, please do not hesitate to contact me.

Very truly yours,



Heather S. Riley

HSR

cc: Jamas Gwilliam, Merlone Geier

Marlon I. Pangilinan, Senior Planner
March 6, 2020
Page 3

Exhibit A

- Page 11: Redevelopment of the Property would help the City satisfy many of the proposed Land Use and Economic Prosperity Element goals.
- Page 16: Redevelopment of the Property must take into account the appropriate balance between pedestrians and vehicles to truly create a "pleasant and convenient shopping environment for Clairemont residents."
- Page 19: 2.8 Affordable Housing. The creation of market rate and low to moderate income housing may be incorporated as part of a mixed-use redevelopment of the Property if other factors (ground floor retail requirements, setbacks, building heights and other code provisions) incentivize and do not deter the conversion of commercial retail square footage to multifamily housing.
- Page 22: LUEP 4.8 and 4.9. These policies may be achieved with the addition of sufficient density to justify the removal or relocation of current commercial retail facilities, taking into account existing leases and the boundaries of the Property.
- LUEP 4.10. Given the depth of the Property and the lack of views surrounding the site, MG supports the CPU's recognition that redevelopment must involve taller buildings to support/incentivize residential uses replacing existing commercial uses. Allocating more density to the site now will increase the likelihood of redevelopment and help offset the cost of designing an enhanced pedestrian environment in and around the Property.
- LUEP 4.11. Opportunities exist, as part of a broader redevelopment of the Property, to enhance the pedestrian experience around the site perimeter.
- LUEP 4.12. The linear park and multi-use urban path concepts need to be better defined in this context. Consideration should be given to allow for other options that may provide a similar aesthetic or design intent.
- Page 26: LUEP 4.68 and 4.70. Offices at the Property likely will be limited to professional offices such as medical clinics, realtors, insurance agents, veterinary clinics, etc.
- LUEP-4.73. Active ground-floor uses in residential buildings fronting Clairemont Drive and in other instances on the Property do not make sense/are not viable. Therefore, MG requests that this policy be revised to encourage active ground floor uses where feasible.
- LUEP-4.78. MG supports striking this policy altogether.

Allen Matkins Leck Gamble Mallory & Natsis LLP
Attorneys at Law

Marlon I. Pangilinan, Senior Planner
March 6, 2020
Page 4

LUEP-4.83 and LUEP-4.85. These policies are essentially the same. As such, it would make sense to combine and rewrite the provisions.

Page 27: LUEP-4.91. After "upper story setbacks," MG requests the addition of "articulation and design elements, and placing taller buildings towards the center of the site."

LUEP 4.94. MG requests that this policy be revised to encourage active ground floor uses where feasible.

Page 28: LUEP 4.107. MG requests that this policy be revised to encourage the breakup of large parking areas where feasible.

Pages 41-43: Redevelopment of the Property would help the City meet many of the proposed Mobility Element goals.

Page 53: Redevelopment of the Property would help the City satisfy many of the proposed Urban Design Element goals.

Karin Zirk
4629 Cass Street #188
San Diego CA 92109

March 5, 2020

Via Email Transmission to mpangilinan@sandiego.gov.

Marlon I. Pangilinan
Senior Planner
City of San Diego
Planning Department

RE: Clairemont Community Plan Draft Comments

Dear Mr. Pangilinan:

Thank you for the opportunity to provide comments to the Clairemont Community Plan Update Community Draft.

The Friends of Rose Creek advocate for the stretch of Rose Creek from the Southern End of Marian Bear Natural Park to Mission Bay Park. This stretch of the creek straddles both the Pacific Beach and Clairemont Communities. My comments here today will focus solely on the portion of Rose Creek east of Interstate 5 in Clairemont as well as the highly valued open space areas in Clairemont such as Marian Bear Natural Park and Tecolote Canyon Park.

There are a number of alternatives in Rose Canyon that could create enhanced mobility, climate adaptation, restore riparian habitat, and increase the natural areas for our communities to enjoy nature while still achieving the City of San Diego's goal of commercial uses in the area.

I do appreciate that the Community Draft references the Rose Creek Watershed Opportunities Assessment (OA), prepared by KTU+A, in association with Merkel & Associates, Susan Hector Consulting, and the San Diego Natural History Museum. The San Diego City Council accepted the plan on October 21, 2008. A high-level summary of the plan is attached for your reference as well as Chapter 2, which contains the action items I refer to in this letter. The entire OA is available online at <http://www.rosecreekwatershed.org/projects/#oppassessment>. While the OA covers planning efforts for the entire watershed, I will call out the recommendations for portions of Clairemont since the Clairemont Draft Community Plan misses some of the key recommendations.

In the OA, section 2.1 Recommendations for Proactive Conservation in the Rose Creek Watershed beginning on Page 2-2 the creation of a mitigation bank is identified as a step that could be used to restore the habitat in Rose Creek. Most of Rose Creek east of I-5 and south of Marian Bear Natural Park contains degraded riparian habitat that could be enhanced through the use of mitigation banks to improve water quality, wildlife connectivity, and create a human friendly linkage between Mission Bay Park and Marian Bear Natural Park. Please include the

**A member of the Rose Creek Watershed Alliance*

**A Friends Group of San Diego Canyonlands, Inc.*

Visit us on-line at <http://www.saverosecreek.org>

goal of creating such a mitigation bank for impacts from future development in the Rose Canyon industrial area as a way to create a wildlife and human corridor in the area.

In the OA, section 2.2 Recommendations for Biological Resources specifically sub items 2.2.1 Recommendations for Enhancing the Connection to Mission Bay and 2.2.4 Recommendations for Protecting and Enhancing Wildlife Corridors starting on page 2-17. This critical component identifies the goal of enhancing the biological connection of the Rose Canyon to Mission Bay by protecting and enhancing wildlife corridors through elimination or improvements to existing barriers and minimizing or eliminating impacts of new barriers to allow wildlife movement between Rose Canyon Open Space Park and Marian Bear Natural Park to restored wetlands at the mouth of Rose Creek and ultimately the Northern Wildlife Preserve and Kendall-Frost Marsh. I would point out that improvements could be made to the concrete channel documented in Figure 2-11 to enhance wildlife connectivity as part of mitigation for new projects in the Clairemont portion of Rose Canyon.

In the OA, section 2.4.2 Recommendations to Reduce Landslides on page 2-41 identifies issues that put homeowner at risk as well as the native plant habitats in Marian Bear Natural Park, Tecolote Canyon, and Rose Canyon. Please include recommendations for removing ice plant from hillsides to stop landslides that undermine the human built environment and encourage ice plant replacement with fire resistance native plants that will enhance our open space areas.

In the OA, section 2.4.1.4 Recommendations to Manage Fire Risk to analyze fire risk with fire-safe native plants that hold hillsides in place when compared to ice plant that collapses during heavy rain events and invades our open space parks like Marian Bear Natural Park. Similar conditions, while not studied in the OA, exist in Tecolote Canyon and all the other canyons in the Clairemont Community planning area.

In the OA, section 2.6.4 in the Water Resources actions highlights strategies to prevent storm water from creating channels on the sides of our canyons which leads to incised creeks. Please include the proposed recommendations and elements in the plan. In terms of reducing erosion from storm water run-off, please include the recommendations made on page 2-82 item C. Storm Drain and Culvert Erosion as elements in the plan. These projects could be covered by Developer Impact Fees, grants to protect to habitat, and public works projects over the life of the Clairemont Community Plan update.

The OA, section 2.4.3 Recommendations to Reduce Illegal Activities on Open Space Land starting on page 2-4, identifies numerous strategies that can be taken to reduce the amount of illegal activity taking place in our canyons and creeks.

In the OA, section 2.5 Recommendations for Recreational Trails, identifies potential trails for public access to the portions of Rose Creek South of Marian Bear Natural Park and east of Santa Fe Street. While the Rose Creek Bikeway (currently under construction) incorporates this element into the Clairemont section of Rose Creek West of Santa Fe Street, multiple access issues still exist on the section east of Santa Fe Street. See Figure 2-30: Access Issues within lower Rose Creek, Figure 2-32: Regional Class 1 Paths in lower Rose Creek, and Figure 2-35: lower Rose Creek Class I Path – Alternative B of the OA on pages 2-65 to 2-67 as well as the alternatives identified on pages 2-72 to 2-73. Most specifically, there is no east/west connectivity from Morena Blvd to Santa Fe Street for non-motorized travel to points north and south. Also include as elements the relevant recommendation in the OA, section 2.5.3 Recommendations for Creating Regional Recreational Connections.

Before the Mid-Coast Trolley construction began, residents of the area enjoyed easy, if illegal, access across the railroad tracks at both the area just below the Interstate 5/Highway 52 interchange and in the area near Jutland and Morena Blvd. where an access road allowed people to cross under the railroad trestles through Rose Creek

during non-storm events. Both of these access points were heavily used. Please incorporate the goal of including a 3-season crossing at the Jutland location similar to the one recently constructed under Mission Bay Drive in Pacific Beach as part of SANDAG's Rose Creek Bikeway project¹. In order to meet our greenhouse gas reduction goals, we need more people to ride bikes but with railroad tracks and freeways providing barriers to free and unfettered movement throughout the area for bicyclists and pedestrians, the City of San Diego is significantly reducing coastal access for non-motorized travel. While these are the alternatives with heavy historical use, if City planners feel there are other crossing opportunities that would be easier to implement, I strongly urge you to incorporate those alternatives.

Please reference both the Marian Bear Natural Park and Tecolote Canyon Resource Management Plans as guiding documents in the Clairemont Community Plan for these critical preserves.

Please change the classification of the commercial area in Rose Canyon from "Prime Industrial" to "Industrial" zoning to incorporate existing uses as well as potential future uses. I believe "Industrial allows "Prime Industrial" but the reverse is not true.

Please identify as a goal the removal from the records of the paper street connecting Santa Fe Street to Morena Blvd. at 32.823660, -117.229888.

In addition to the above referenced sections of the Rose Creek Watershed Opportunities Assessment, that I strongly encourage incorporation of the specific recommendations below.

In regards to Section 7.0 CONSERVATION ELEMENT starting on Page 87, the CONSERVATION ELEMENT GOALS. While I love "Protection and enhancement of canyons, hillsides, riparian areas, and dedicated open space for their ecological diversity and opportunities for trails" I would like to expand the definition from "dedicated open space" to "dedicated open space as well as open space areas not currently dedicated but that provide a great potential for wildlife corridors and future park dedication." I would also specifically request a goal of including the portion of Rose Creek in the Clairemont Community Planning area as an area for which park dedication or wetlands preserve status should be pursued.

Under 7.1 SUSTAINABLE DEVELOPMENT on page 90, a focus is placed on "reducing dependence on the automobile, protecting and enhancing the community urban forest, providing storm water infiltration, water conservation, and encouraging green building practices would be met with by incorporating the recommendations for connectivity." One of the primary manners in which this section can be achieved is by incorporation a wildlife and human corridor under the trestles from the location that Rose Creek crosses under Santa Fe Street at just south of 5097 Santa Fe St, San Diego, CA 92109 to the southern terminus of Marian Bear Natural Park at approximately 4907 Morena Blvd #1401, San Diego, CA 92117. This would allow both humans and wildlife to safely and legally cross the railroad tracks to move between Clairemont, University City North, and Pacific Beach. The current railroad construction has removed the access that did exist even though it was illegal access. In other words, the Mid Coast Trolley project has reduced bicycle access (See comments above).

Under 7.1 SUSTAINABLE DEVELOPMENT on page 90, bulleted item 5. Climate resilience, please address how areas of the Rose Canyon Business Park at approximately 4907 Morena Blvd #1401, San Diego, CA 92117 can be rezoned for managed retreat as water levels rise during storm events that grow in severity over the next

¹ https://www.keepsandiegomoving.com/RegionalBikeProjects/rose_creek_bikeway.aspx

25-50 years. This land, should it no longer be needed for industrial use, should be identified for annexation to Marian Bear Natural Park. This should be a goal in the community plan.

On page 91, section COMMUNITY LAND USE AND MOBILITY CONNECTION, all of the recommendations that I have called out in the OA meet the goals and objectives indicated here in terms of expanding walking, bicycling, and transit use,

On page 93, section 7.2 NATURAL RESOURCE CONSERVATION, in reference to the Rose Creek Watershed Opportunities Assessment, please incorporate the specific recommendations listed above.

While I support CE-1.3 on page 95, I want to ensure that no paved and/or lighted trails would be put in Marian Bear Natural Park, Tecolote Canyon Park as well as in the Rose Creek Corridor that is not immediately adjacent to the already built environment. For example, the under-construction Rose Creek Bikeway abuts buildings and is acceptable provided channel constriction does not occur.

After CE-2.18 on page 97, please add a new conservation element CE-2.19 as follows “Create a linear park along Rose Creek in Clairemont to enhance the natural environment, provide wildlife corridors between Mission Bay and Marian Bear Natural Parks, and provide a low impact pedestrian and bicycle path to encourage community use of the area for mobility needs, passive recreation, and wildlife.”

Warmly,



Karin Zirk, Ph.D.
me@karinzirk.com
858-405-7503

Attachments to email: Rose Creek Watershed Opportunities Assessment: At a glance
Rose Creek Watershed Opportunities Assessment: Chapter 2, Action Recommendations

Rose Creek Watershed

OPPORTUNITIES ASSESSMENT

at a glance

San Diego, California

Visit www.rosecreekwatershed.org to view the entire report



Sponsored by:



PROJECT TEAM:

San Diego EarthWorks • KTU&A • Merkel & Associates • Susan Hector Consulting • San Diego Natural History Museum • Land Conservation Brokerage, Inc.

San Diego, California

Overview

The California Coastal Conservancy, the County of San Diego, the City of San Diego, San Diego EarthWorks, Land Conservation Brokerage and the Rose Creek Watershed Alliance joined together to create the *Rose Creek Watershed Opportunities Assessment* (Assessment). The document was completed in 2005 and adopted by the San Diego City Council in 2008. This study analyzed the conditions within the Rose Creek Watershed and created recommendations to enhance the watershed's natural, cultural, public safety, and recreational qualities.

A group of fifteen organizations known as the Rose Creek Watershed Alliance (Alliance) helped guide this study. These organizations are dedicated to planning the watershed's future. San Diego EarthWorks initiated the group to provide feedback during the study. Members of the Alliance are continuing to find funding to enact the report's recommendations.

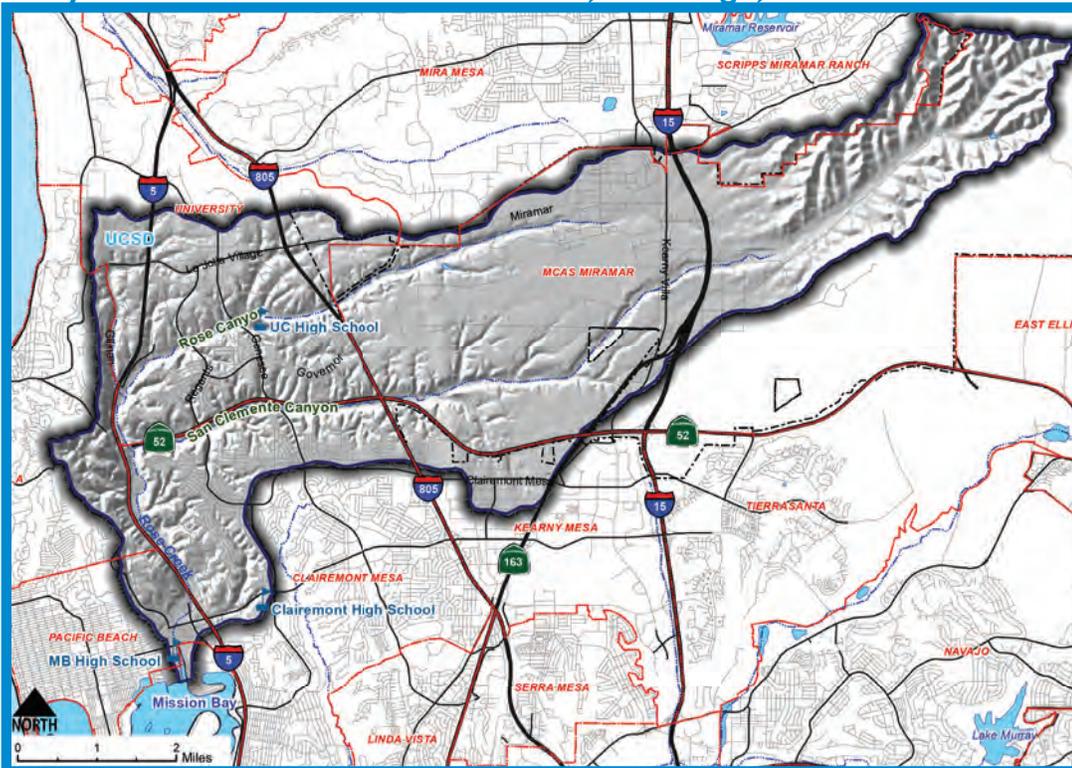
What is a Watershed?

A watershed is the geographic area where all water drains into a common body of water. A watershed carries the water "shed" by rain and urban runoff (created by activities such as people washing their cars in their driveways). Drop by drop, this water is channeled into the canyons, creeks and storm drains as it picks up pollution such as trash, oil and cigarette butts. This water that eventually flows into bays and the ocean serves as a major source of pollution that often closes beaches.

The Rose Creek Watershed is a 36-square mile area in the northern portion of San Diego, California. From the eastern boundaries (a.k.a., "headwaters"), it extends from Marine Corps Air Station Miramar for sixteen miles along San Clemente and Rose creeks through the communities of Clairemont and University City to the east end of Mount Soledad. The system ultimately drains into Mission Bay Park in Pacific Beach next to Kendall-Frost Mission Bay Marsh Reserve, the last remaining wetlands on Mission Bay. More than 100,000 people live in this watershed, and our actions on land affect the water downstream.

The watershed contains great natural beauty and many hiking and biking trails. The land within the watershed that has not been developed plays an important role in San Diego's natural environment. Many types of native plant communities here provide homes for local wildlife and support endangered and threatened animals.

Study Location: Rose Creek Watershed, San Diego, California



Current Threats and Approaches for Protection

While the overall health of the Rose Creek Watershed is better than many others in Southern California, portions of lower Rose Creek are unhealthy and unsafe. Poor water quality in the creek can lead to closed beaches along Mission Bay and the ocean and harms San Diego's economy. Management and oversight of these areas is shared among many different private and public landowners, City Councils, law enforcement districts, and community groups. Without cohesive management, these areas have become overgrown with invasive, non-native plant species and serve as hotbeds for criminal activity and vagrancy. The Assessment serves as a broad vision and presents a method to manage the watershed as a whole system in order to combat these and other issues.

History

The California Coastal Conservancy was the first agency to provide funding to kick off this visionary project. Work began in 2004 by reviewing the conditions that currently existed within the watershed, such as hiking facilities and water quality. The Alliance also developed a list of goals to be addressed in the Assessment. These goals and the findings of the Existing Conditions Report were used to develop the framework of the draft Assessment.

The Report

The Assessment provides a list of recommendations to achieve the Alliance's vision for improving the watershed in a variety of ways. The recommendations can be used alone or in combination to improve the use and function of the watershed's qualities. The steps outlined in the report are designed to adapt over time in response to unforeseen environmental changes.

Goals and Recommendations

The recommendations are mostly focused on the western third of the watershed (west of I-805) and center on these key goals:

1. The issues and solutions within the watershed are linked and should be addressed together.
2. Improving the way water moves on land to minimize the potential for flooding and erosion is critical to restoring the natural functions of the creeks.
3. The creation of a continuous recreational trail and wildlife corridor from I-805 to Mission Bay Park is a viable and necessary regional amenity.
4. Support for the recommendations will need to be developed through public outreach and education.



The Light-footed Ridgway's rail (formerly the Light-footed clapper rail), is an endangered species that relies on sensitive salt marsh habitat at the mouth of Rose Creek for its survival.



Elementary students and their parents explore Rose Canyon Open Space Park with naturalists from Friends of Rose Canyon.

THEME	NO.	RECOMMENDATION	DESCRIPTION
Recommendations for Proactive Conservation	2.1.1	Conservation banking is proactive.	A conservation bank protects natural resources like a bank protects your money. When someone plans a project that will impact endangered species or valuable habitat, they can buy “credits” in a conservation bank. The owner of the bank uses the money to protect and manage those resources with restoration projects. (Definition courtesy of www.fws.gov .)
	2.1.2	Create a Rose Creek Watershed Conservation Bank.	The City could eliminate lengthy regulatory processes and significant costs by establishing a conservation bank to implement the Assessment’s recommendations within the watershed.
Recommendations for Biological Resources	2.2.1	Enhance the biological connection to Mission Bay.	Kendall-Frost Mission Bay Marsh Reserve, the last remaining salt marsh on Mission Bay, is adjacent to the creekmouth and separated by developed land. Sensitive marsh animals could benefit from improvements to the marsh that would restore its connection to Rose Creek as outlined in the Mission Bay Park Master Plan.
	2.2.2	Control invasive species.	Invasive, non-native plant species crowd out the native plants that provide habitat for wildlife and can also lead to flooding, poor water quality and fires.
	2.2.3	Restore and enhance native habitats.	Native habitats within the watershed such as marshes, stream channels and upland areas within 200 feet of the creeks provide critical homes for local animals, many of which are considered to be sensitive or endangered.
	2.2.4	Protect and enhance wildlife corridors.	Unvegetated concrete flood channels, roads and railroad corridors can impact the ability of wildlife to move between natural areas. This movement is important for animals searching for food and for promoting genetic diversity.
	2.2.5	Establish consistent land management of the open space lands (public and private).	Consistent land management practices throughout the watershed will result in greater likelihood of long-term sustainability. Key parcels recommended for acquisition are listed in the Assessment.
	2.2.6	Protect and enhance native plants and animals.	Protecting currently available habitats from further degradation is the most important conservation strategy within the watershed. Other strategies include restoration and a long-term monitoring program.
	2.2.7	Conduct environmental education.	Promoting environmental education in watershed schools and encouraging youth service projects are two key ways to protect the watershed.
Recommendations for Cultural Resources	2.3.1	Document and promote cultural resources.	Conducting a complete cultural resource survey is critical to protecting the cultural and historic resources.
	2.3.2	Assess potential effects on cultural resources from other Assessment recommendations.	Surveys for archaeological resources should be conducted during the planning phase for habitat restoration projects.
	2.3.3	Interpret cultural resources.	A series of interpretive panels based on research could be placed throughout the watershed.

THEME	NO.	RECOMMENDATION	DESCRIPTION
Recommendations for Public Safety	2.4.1	Manage fire risk.	A Fire Risk Management Study could map and model fire risk to help understand potential ignition sources. Fire Safe Neighborhood Councils could help manage the fire risk of non-native vegetation.
	2.4.2	Reduce landslides.	Canyon topography creates many areas with elevated risk for landslides. Strategies such as redirecting rain water, removing invasive ground cover and re-landscaping with native plants could be used to prevent this risk.
	2.4.3	Reduce illegal activities.	Constructing new avenues for public access and maintaining the non-native vegetation canopy are two solutions that could help prevent illegal activities in lower Rose Creek.
Recommendations for Recreational Resources	2.5.1	Improve access to the open space system.	Highlighting the current trail access points with kiosks and creating new trailheads will offer more access.
	2.5.2	Improve access within and between open space areas.	New trails, connector routes and creek crossings are suggested in the Assessment.
	2.5.3	Create regional recreational connections.	A multi-use trail connection from I-805 through Rose and San Clemente canyons to Mission Bay is an integral component of the watershed vision.
	2.5.4	Create trail linkages and loops.	A regional trail linking both canyons would provide better access and enjoyment of trail systems.
	2.5.5	Create safe and legal railroad crossings.	Upgrading existing private railroad crossings and constructing a new bicycle/pedestrian bridge will remove current barriers to trail linkages.
Recommendations for Water Resources	2.6.1	Develop data and models to improve understanding of how water moves through the watershed.	Defining the intensity of rainfall, the rate of flow in streams, and the impacts of water flowing through the watershed will help plan adaptive restoration projects.
	2.6.2	Reduce erosion.	A long-term, adaptive approach to reduce erosion that can easily be modified to specific situations or environmental changes can help stabilize conditions.
	2.6.3	Modify or remove concrete flood control channels.	The City's approach to flood control channels can be reassessed to determine whether environmentally-focused alternatives are possible.
	2.6.4	Monitor and reduce water pollution.	Focused efforts to identify the sources of pollutants listed in the Assessment will help prevent water pollution.

For further information or to find out how you can get involved, contact:

Ann Van Leer

President, Land Conservation Brokerage, Inc.

ann@landconserve.com

(858) 442 0937

Visit www.rosecreekwatershed.org for more information and to view the entire report.



Special thanks to:

Roy Little

for photography contributions

Sponsored by:



PROJECT TEAM:

San Diego EarthWorks • KTU&A • Merkel & Associates • Susan Hector Consulting • San Diego Natural History Museum • Land Conservation Brokerage, Inc.

2 Action Recommendations

The Rose Creek Watershed (RCW) suffers from many of the same ailments as many urbanized southern California coastal watersheds. However, the RCW also benefits from two key factors that provide hope and opportunities for future improvements in overall watershed health and function. These factors are: 1) much of the upper watershed is being managed by MCAS Miramar as open space with low impact training ranges; and 2) the City of San Diego owns and manages as open space the majority of Rose and San Clemente Canyons from the western boundary of MCAS Miramar to just below their confluence near the Interstate 5 and State Route 52 interchange. These two factors provide a significant land area within the RCW where natural watershed functions can be maintained, enhanced or even re-created.

The action recommendations described herein are the culmination of a year long process that focused on reviewing existing data and reports, conducting limited field work and assessments, and gaining insight from local stakeholders regarding their concerns and priorities. The actions are adaptive management tools to be used alone or in combination to systematically improve the use and function of the watershed's resources. The recommended actions fall into the following categories: biological resources; cultural resources; public safety; recreational trails; and water resources.



The recommendations center on a few key goals: 1) the issues and solutions within the RCW are linked and should be addressed concurrently; 2) hydrologic improvements (including water quality) are crucial to restoring the natural functions of the streams; 3) creation of a continuous recreational trail and wildlife corridor from Interstate 805 to Mission Bay is a viable and necessary regional amenity; and 4) support for the recommendations will need to be developed through public outreach and education.

Understanding the value of incremental changes via an adaptive management program that considers habitat restoration (Section 2.1), hydrologic improvements (Section 2.5), and public access (Section 2.4) is crucial to the long-term success of these efforts. Adaptive management is the recognition that restoration professionals and scientists as a whole still can not precisely predict the environmental responses to changes introduced by a project, and as such, an set of adaptive steps may be necessary to adjust and manage the project over time to compensate for environmental changes. Some of the recommendations in this assessment take the concept a step further and recommend that large improvement projects be broken into numerous incremental phases to allow adaptations between phases to occur to ensure the overall project meets its intended goal.

In addition, most of the recommendations focus on the western third of the RCW, which falls west of Interstate 805 and completely within the jurisdiction of the City of San Diego. Some of the recommendations due include the portions of the RCW that fall within MCAS Miramar, but are predominantly coordination and cooperation efforts and not on the ground improvement projects. The recommended ongoing coordination with MCAS Miramar may lead to opportunities for cooperative projects.

Rose Creek Watershed Opportunities Assessment

2.1 Recommendations for Proactive Conservation in the Rose Creek Watershed

- ☑ *Create the Rose Creek Watershed Conservation Bank*
- ☑ *Design the conservation bank to principally serve the broader conservation goals for the watershed outlined in this assessment*
- ☑ *Designate one City department to lead the design, development and implementation of the bank on behalf of the City*
- ☑ *Release for sale to other public or private entities, any mitigation credits created as a result of this assessment in excess of the City's anticipated mitigation needs*
- ☑ *Negotiate a comprehensive programmatic permit with the wildlife agencies for the recommended actions of this assessment*

In the State of California, conservation banking is a resource management tool created in response to the legal requirements for environmental mitigation; the State's experience with mitigation banks; the use of the marketplace to advance conservation; and the need to facilitate and promote more effective regional habitat conservation.

Environmental mitigation is a requirement that a landowner, which includes public agencies such as the City of San Diego, "minimize or mitigate" for activities that are damaging to the environment. For example, under the California Environmental Quality Act (CEQA), if a proposed project will "substantially diminish habitat for fish, wildlife or plants," mitigation is required. Mitigation is also required as a condition to "take" (kill, harm, etc.) a species under the California Endangered Species Act. Mitigation also is required under Federal statutes; for example, under the Federal Endangered Species Act, a habitat conservation plan that is designed to protect and "recover" a threatened or endangered species can require it. The Federal Clean Water Act also requires mitigation for activities that alter or harm existing wetlands.

The City of San Diego, in its role providing regular services such as roads, sewers and flood control (for example, storm drain maintenance), is often required to mitigate for its actions that harm the environment. This is true in the Rose Creek Watershed and other city watersheds. Unfortunately, in addition to mitigation requirements stemming from its day-to-day municipal activities, due to an aging infrastructure and limited maintenance budgets, in recent years the city has been fined for violations of environmental laws such as illegal sewer discharges (Section 3-8). Often those fines include requirements that the city mitigate for the impacts caused by the violations. The mitigation requirements can include permanently preserving or restoring habitat including the creation of "new" habitat. Usually the mitigation requirements are directly tied to the damage created.

For the most part, the city's current approach to a mitigation requirement is reactionary; City departments use both in-house staff and outside consultants to identify and implement possible mitigation sites in response to a particular mitigation need. Most mitigation is carried out in isolation; little if any consideration is given to the overall conservation needs of the particular watershed. Mitigation is piecemeal in reaction to an action already taken (such as a violation of environmental laws) or in anticipation of a future action that will harm the environment (such as constructing a new sewer pipe).

2.1.1 Conservation Banking is Proactive

Conservation banking has evolved from mitigation banking with the goal to take a more pro-active approach. A conservation bank is created, not in reaction to a particular harm (or anticipated harm) to the environment but to preserve, restore, enhance and create new wildlife habitat for the region. It is conservation for conservation sake but with an entrepreneurial twist; the new conserved lands, especially wetlands, can have economic value in "credits" that can later be sold. The proceeds can then be used to support the maintenance of the resource in perpetuity. One goal of conservation banks is to serve to facilitate the creation and/or restoration of wetlands -- in lieu of other degraded or non-functioning wetlands -- thus effectively increasing the net number of permanent protected wetland acres in California.

2.1.2 Conservation Banking in the Rose Creek Watershed

By creating a conservation bank in the Rose Creek Watershed available to all City departments but led by one department, the City will eliminate lengthy project by project regulatory processes and significant costs. A Rose Creek Watershed Conservation Bank will reduce individual City department's mitigation compliance to a single transaction (a purchase of credit from the bank) and create the certainty of having complied with mandated mitigation requirements. By centralizing the bank under the Park and Recreation Department, Open Space Division, the City will assure that the bank is managed by the City department with the greatest expertise concerning environmental laws and natural resource management. Under the Park and Recreation Department's direction, the bank could also be developed and managed consistent with the MSCP, strengthening the City's commitment to the regional habitat plan as new areas in the Rose Creek Watershed could be added to the plan after restoration or creation.

Another added benefit to this more comprehensive approach is by designing the bank to implement the recommendations of this assessment, including improvements to public safety and recreation as well as biology, the City's efforts to create the bank can be leveraged into multiple public improvements. Improvements will extend well beyond the mitigation secured by the current City practice to meet department by department mitigation needs. This holistic watershed approach is more efficient and cost effective as it centralizes the role of designing and implementing the conservation bank in the department with the most relevant experience delivering natural resource protection instead of scattering it across multiple departments as is now the case.

Departments within the city have been generally supportive to the concept of mitigation banking. For example, the City of San Diego has begun to investigate the feasibility of creating a mitigation bank for its ongoing storm drain maintenance needs. City policy since 1987 has been to prohibit the sale of mitigation credits from City lands to private entities, primarily because the City has wanted to retain City credits to fulfill future City mitigation requirements.

Yet, to continue this reactive approach alone is to miss a greater opportunity to stop the current decline in biological value and the deterioration in public safety underway in portions of the watershed, especially in areas of Lower Rose Creek outside the jurisdiction of the Park and Recreation Department, Open Space Division. By taking a proactive approach to create a conservation bank designed to serve the broader public resource -- the City can initiate restoration and public improvements to enhance public lands in the Rose Creek Watershed for public purposes while simultaneously creating economic value (the mitigation credits) that can be used to support and maintain the property in perpetuity.

The conservation bank should also include implementation measures proposed in the Mission Bay Plan for the mouth of Rose Creek, including creation of the proposed wetlands at De Anza Cove. Because coastal wetlands are in very short supply and in high demand, these wetland mitigation credits could be extremely valuable. Creation of the Rose Creek Watershed Conservation Bank must be done in close coordination with the wildlife agencies responsible for authorizing such actions.

1. Create the Rose Creek Watershed Conservation Bank to advance comprehensive proactive restoration of the RCW, including the area where the creek enters Mission Bay, as recommended by this assessment and in the Mission Bay Plan while creating economic value to the primary property owner, the City of San Diego.
2. Design the conservation bank to principally serve the broader conservation goals for the watershed outlined in this assessment and in the Mission Bay Plan and secondarily serve the anticipated mitigation needs of City departments.
3. Designate one City department, Park and Recreation, Open Space Division, to lead the design, development, permitting and implementation of the bank on behalf of the City. Create measurable incentives for City departments to collaborate on the development of the bank and implementation of the assessment.

Rose Creek Watershed Opportunities Assessment

4. Release for sale to other public or private entities, any mitigation credits created as a result of this assessment in excess of the City's anticipated mitigation needs. The value of those credits, once sold, should return to the bank as part of a non-wasting endowment dedicated to support the maintenance of the improvements in perpetuity. Future City mitigation needs would need to be guaranteed.

5. Negotiate a comprehensive programmatic permit and associated environmental documents with the wildlife agencies to allow for permitting of recommended actions of this assessment and associated recommendations in the Mission Bay Plan in a comprehensive and cost effective manner.

Additional background information on this recommendation is provided in Chapter 4 in Section 4.2 on page 4-2.

2.2 Recommendations for Biological Resources

- ☑ *Retain and enhance MCAS Miramar and land area to the east of the watershed as large blocks of contiguous healthy habitat*
- ☑ *Enhance the biological connection of the RCW to Mission Bay*
- ☑ *Control invasive species throughout the RCW*
- ☑ *Restore and enhance native habitats within the RCW*
- ☑ *Protect and enhance wildlife corridors by eliminating or improving existing barriers and minimizing or eliminating impacts of new barriers*
- ☑ *Establish consistent land management of the focus area lands, including private and public lands in the RCW*

The RCW has a rich collection of biological resources, including some that are typically no longer found within close proximity to the coast. The value of the undeveloped lands on MCAS Miramar and their contribution to the overall health and diversity of the biological resources within the entire watershed can not be understated. They provide large blocks of habitat that minimize adverse edge effects and provide regional connectivity for immigration and migration of plants and animals. This direct connectivity to large blocks of habitat is unique in southern California as urban development on the coast has restricted or eliminated wildlife movement and habitats. There exists a definite gradient within the RCW as to the health and diversity of the biological resources, from the headwaters that show limited signs of stress to lower Rose Creek that is highly degraded. One goal of this assessment is to halt the decline in biological value in the lower watershed, while protecting the upper watershed from further decline. As such, the action recommendations vary from protection and enhancement within the upper portions of the watershed, to complete restoration and rehabilitation in lower Rose Creek.

Invasive exotic species, especially plants, pose a serious threat to the health of the native vegetation communities, without which the rich diversity of wildlife will continue its current decline. To be effective long-term, an on-going comprehensive program of invasive species removal in the watershed, including both public and private lands, is recommended. MCAS Miramar leads the way in this stewardship role, having completed significant eradication and control efforts and managing new infestations as they arise.

The restoration of native plant communities (both uplands and wetlands) is recommended in the wake of the invasive plant infestations and stream channel erosion caused by hydrologic modifications associated with land development over the past 50 years. Previous efforts, while well intended, have been undertaken in a piece-meal fashion without full consideration of the natural dynamics associated with watershed and biological processes (e.g. stream channel stability, floodplain dynamics, sensitive animal species and the plant communities they depend upon). This assessment proposes instead a watershed-wide systematic approach more likely to be sustainable.



Relatively natural conditions in upper Rose Creek



Moderately impacted conditions in middle Rose Creek



Highly degraded conditions in lower Rose Creek

Action Recommendations

Education and outreach to individual landowners about how they can help (e.g. reducing pollutants in runoff, reducing runoff, removal of invasive plants, reducing abandonment of unwanted pets) is one of the keys to long-term success, since without changes in individual attitudes and behaviors, all of the other efforts are only temporary fixes.

2.2.1 Recommendations for Enhancing the Connection to Mission Bay

- ☑ Partner with city to design watershed improvements to benefit the bay
- ☑ Assess potential for habitat enhancements for the light-footed Clapper Rail

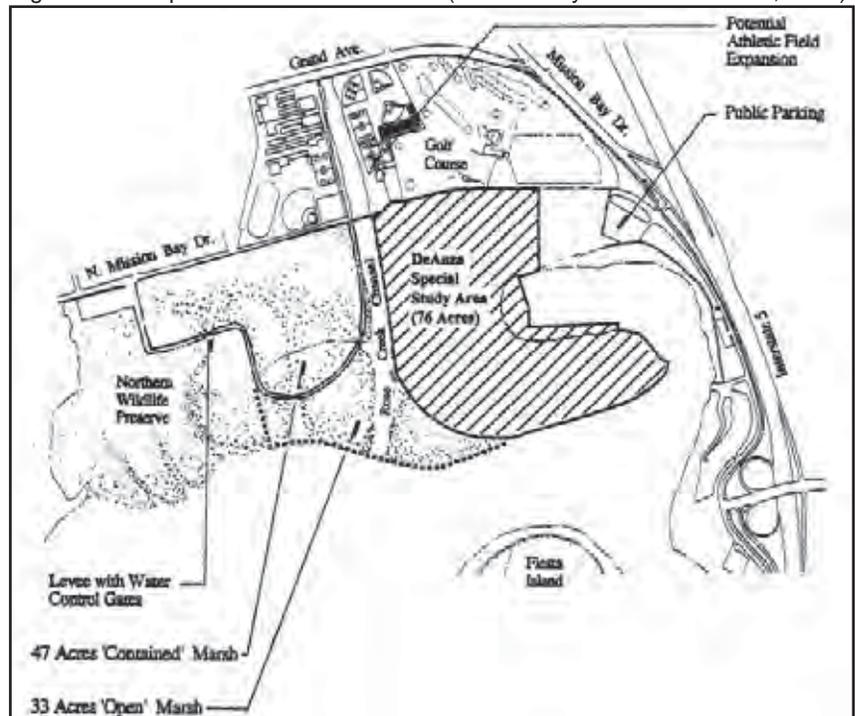
The relationship between the RCW and Mission Bay is both complex and dynamic, as resources within Mission Bay can be both enhanced and degraded by its connection with Rose Creek. Maximizing the enhancements while minimizing the degradation is a primary goal of this assessment, as this not only benefits Mission Bay, but the resources within the RCW as well.



Mission Bay is an important area for biological resources associated with coastal salt marsh, inter-tidal beach, sub-tidal sand, and other coastal fringe habitats. The bay acts as the receiving water for the Rose and Tecolote Creek (located south of Rose Creek) watersheds and is the largest most significant recreational and tourist attraction in San Diego County, with approximately 15 million visitors annually.

Species utilizing the habitats in Mission Bay range from year-round residents to annual migratory visitors. Some of these species, like the light-footed Clapper Rail, could benefit from improved habitat connectivity with the lower portions of Rose Creek where the potential to create viable habitat exists. Other biological benefits associated with improved connectivity with Rose Creek include re-directing nourishing sediments that were historically diverted from the Kendall-Frost Marsh. The Mission Bay Park Master Plan (revised 2002) recommends the development of an 80+/- acre wetland habitat contiguous with the Northern Wildlife Preserve on the west and south of the mouth of Rose Creek (Figure 2-1). The habitat is targeted to include salt marsh, salt panne, and coastal sage scrub plant communities, and would be designed to permit limited public access for hiking, jogging, resting, bird watching, rowing, and canoeing. As part of this recommendation, the Mission Bay Park Master Plan also identifies several upstream controls, including: sediment traps or basins adjacent to the creek outfalls or at suitable upstream locations that can be adequately maintained; and removal of the concrete lining in Rose Creek to slow down flood flows and allow contaminants to be adsorbed

Figure 2-1: Proposed Rose Creek Marsh (Mission Bay Park Master Plan, 2002)



Rose Creek Watershed Opportunities Assessment

by fresh water marsh and riparian vegetation. Both of these are included as recommendations within this assessment as well. Actions to enhance the connection with Mission Bay include:

1. Kick-start the implementation process for the 80-acre marsh proposed at the mouth of Rose Creek by using the information, data, and modeling tools developed as part of the hydrology assessment (Section 2.6.1) to support the planning, design and refinement of this important element of the Mission Bay Park Master Plan.
2. Assess potential habitat improvements for the benefit of the Light-footed Clapper Rail along the lower portions of Rose Creek by using the information, data, and modeling tools developed as part of the hydrology assessment (Section 2.6.1).
3. Assess the potential for sediment management traps or basins along the lower portions of Rose Creek by using the information, data, and modeling tools developed as part of the hydrology assessment (Section 2.6.1).
4. Assess the potential of removing the concrete flood control channels along the lower portions of Rose Creek by using the information, data, and modeling tools developed as part of the hydrology assessment (Section 2.6.1).

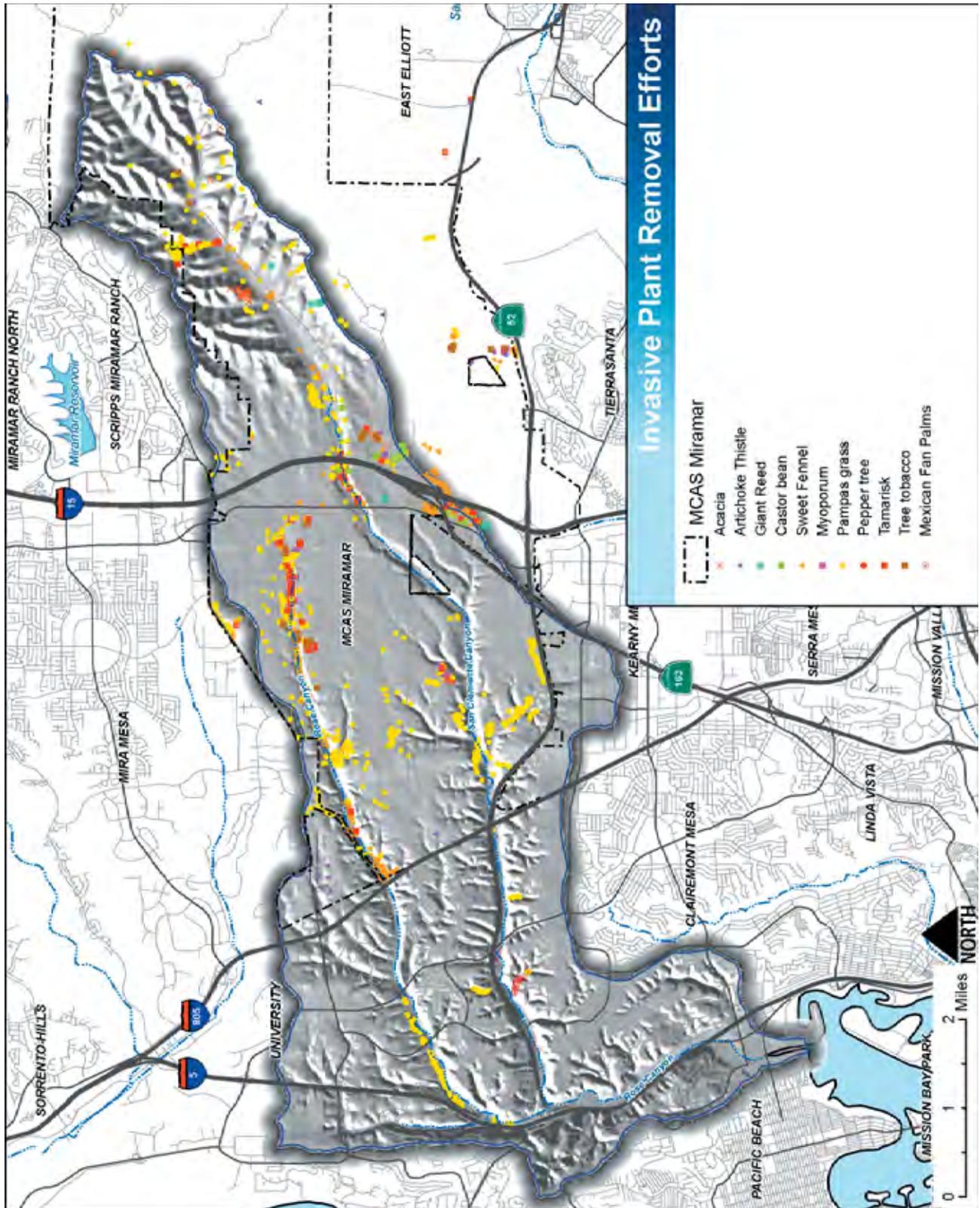
2.2.2 Recommendations for Controlling Invasive Exotic Species

- ☑ *Manage invasive exotic species via management zones*
- ☑ *Remove exotic animal species from aquatic habitats*
- ☑ *Develop and implement public outreach programs about invasive exotic species*

Invasive exotic plant species have displaced native plant communities within many of the drainages and grassland areas throughout the watershed. Efforts to control and eradicate many of these species have been initiated by MCAS Miramar, the City of San Diego Park and Recreation Department, and several non-profit groups, most notably the Tri-canyon Weed Warriors. These efforts are evidenced by the limited distribution of many targeted invasive exotic species within MCAS Miramar and the City owned Open Space and Natural Parks. MCAS Miramar has documented its removal efforts, while the other groups have not. Figure 2-2 depicts the removal efforts as mapped by MCAS Miramar and as identifiable during field investigations as part of this assessment. Several species have been mapped and targeted for control and eradication as part of this assessment's recommendation. The species of concern include: Pampas Grass (*Cortaderia* sp.); Salt Cedar (*Tamarisk* sp.); Giant Reed (*Arundo donax*); Brazilian Pepper (*Schinus terebinthifolia*); Iceplant (*Carpobrotus* sp.); Mexican Fan Palm (*Washingtonia robusta*); and Nasturtium (*Tropaeolum* sp.). Other secondary species include: Castor Bean, Olive, Canary Island Palms, Myoporum, Acacia, Shamel Ash, and Artichoke Thistle. In addition to these mapped species, several other species were not mapped, but should be considered for control and eradication whenever possible: Black Mustard, Yellow Star Thistle, Italian Thistle, Tocalote, Fennel, and Periwinkle. A more comprehensive listing of invasive exotic plants is included in Tables 3-4 and 3-5 on page 3-15.



Figure 2-2: Invasive Plant Removal Efforts



Rose Creek Watershed Opportunities Assessment

Many of the identified invasive plant species are encroaching from private lands, including backyards, tributary canyons, transportation rights-of-way, and educational campuses. Removal and management of these infestations are critical to the long-term sustainment of native habitats within the RCW. Without a comprehensive and complete program, areas within the watershed will continue to act as seed and rhizome sources for continued introduction to downstream portions of the watershed. When reviewing the extents of the mapped invasive plant species compiled as part of this assessment (Figure 3-10), a distinction can be made regarding the extents of invasive plants on private versus public lands, especially within the open space parks where focused efforts have removed nearly all of the invasive plants on public lands.



1. Development of Management Zones

The recommended management approach utilizes a tiered system to determine which portions of the watershed should be targeted first and those that should be left for last. Nine management zones (Figures 2-3 to 2-5) have been developed to guide the eradication and management of invasive plant species. Management zones were delineated based on a variety of criteria, including: 1) land areas acting as chronic sources of infestations, 2) land areas not currently chronic sources, but could become so in the future if left unmanaged, 3) land areas directly impacted by chronic sources, and 4) land ownership or management responsibility divisions. For more detailed descriptions of the nine management zones see Chapter 4, Section 4.3.1 on page 4-4.



The purpose of this top-down approach is to ensure that seed and rhizome sources will be removed and controlled first, which will help reduce the potential for downstream re-infestation after initial management efforts have occurred. This is not to say that volunteer efforts that want to target other management zones to help maintain public visibility and interest should not. However, it is unrealistic to expect to be able to maintain these downstream management areas free of invasive exotic plant species if the upstream management areas have not first been completed. An example of an overriding consideration would be the restoration of the lower portions of Rose Creek prior to completing removal efforts throughout the entire watershed, as the restoration of lower Rose Creek provides a wide variety of public benefits, including enhanced public safety.

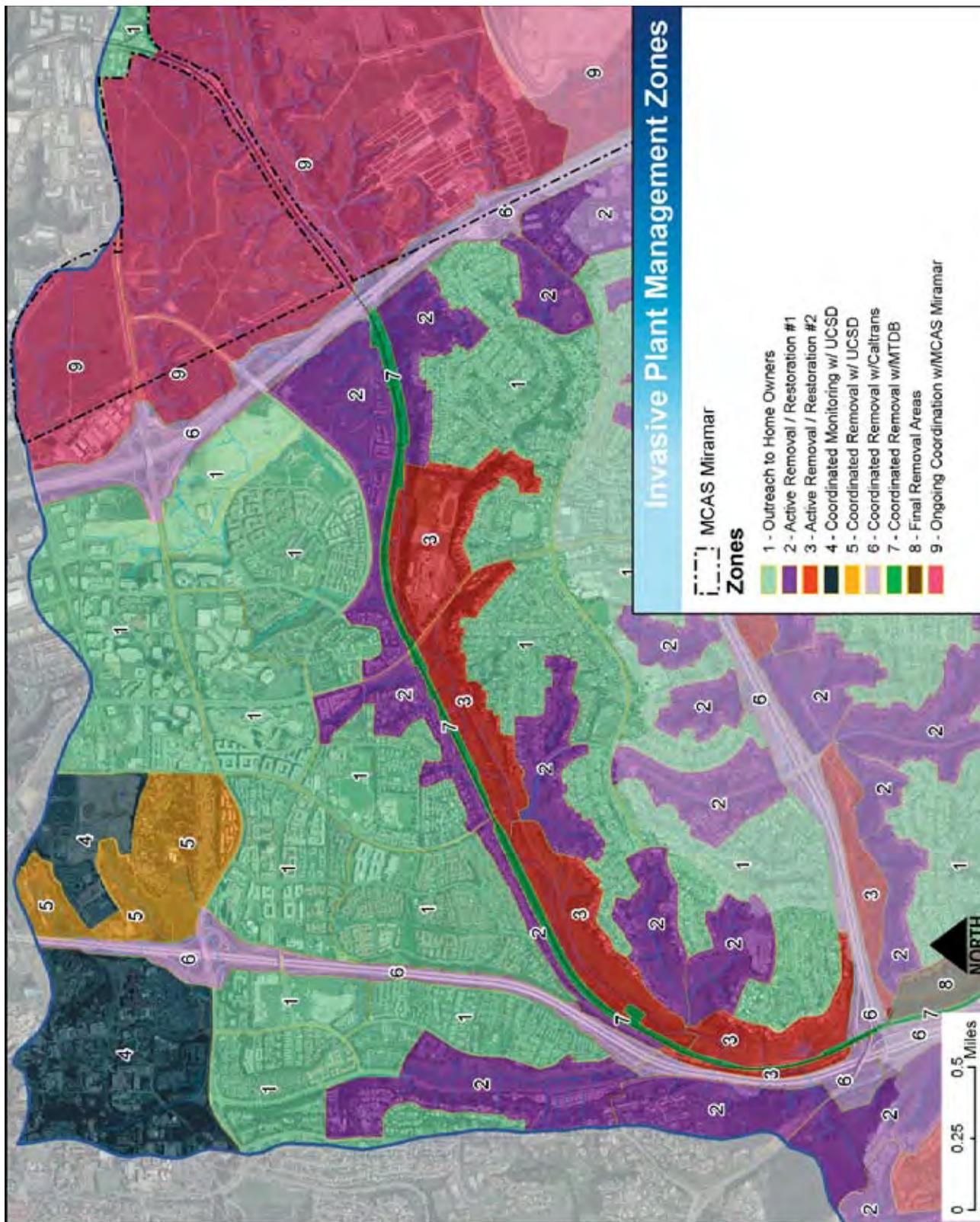
One of the key elements of this approach is that all land, even private residential land, highway and railroad rights-of-way, and UCSD land, needs to be targeted for management efforts, as these lands represent significant area within the RCW and are currently acting as chronic sources to downstream public lands.

2. Public Outreach Materials about Invasive Plants

Outreach materials describing the manner in which invasive exotic plant species degrade our native habitats and contribute to other problems, as well as their current extents within the RCW should be developed as an initial step in a source control campaign. The second step could include information about how the invasive exotic species are introduced to our natural open spaces and how a landowners' individual decisions about what plants to have in their yard and how they maintain them can affect the overall eradication and control efforts being undertaken. A third step could focus on providing alternative native, or at least non-invasive, plant species that have similar forms, textures, colors, etc. as the targeted invasive plant species; reinforce appropriate disposal options; and provide information on sources of native plant material. For more information on developing public outreach materials see Chapter 4, Section 4.1 on page 4-1.

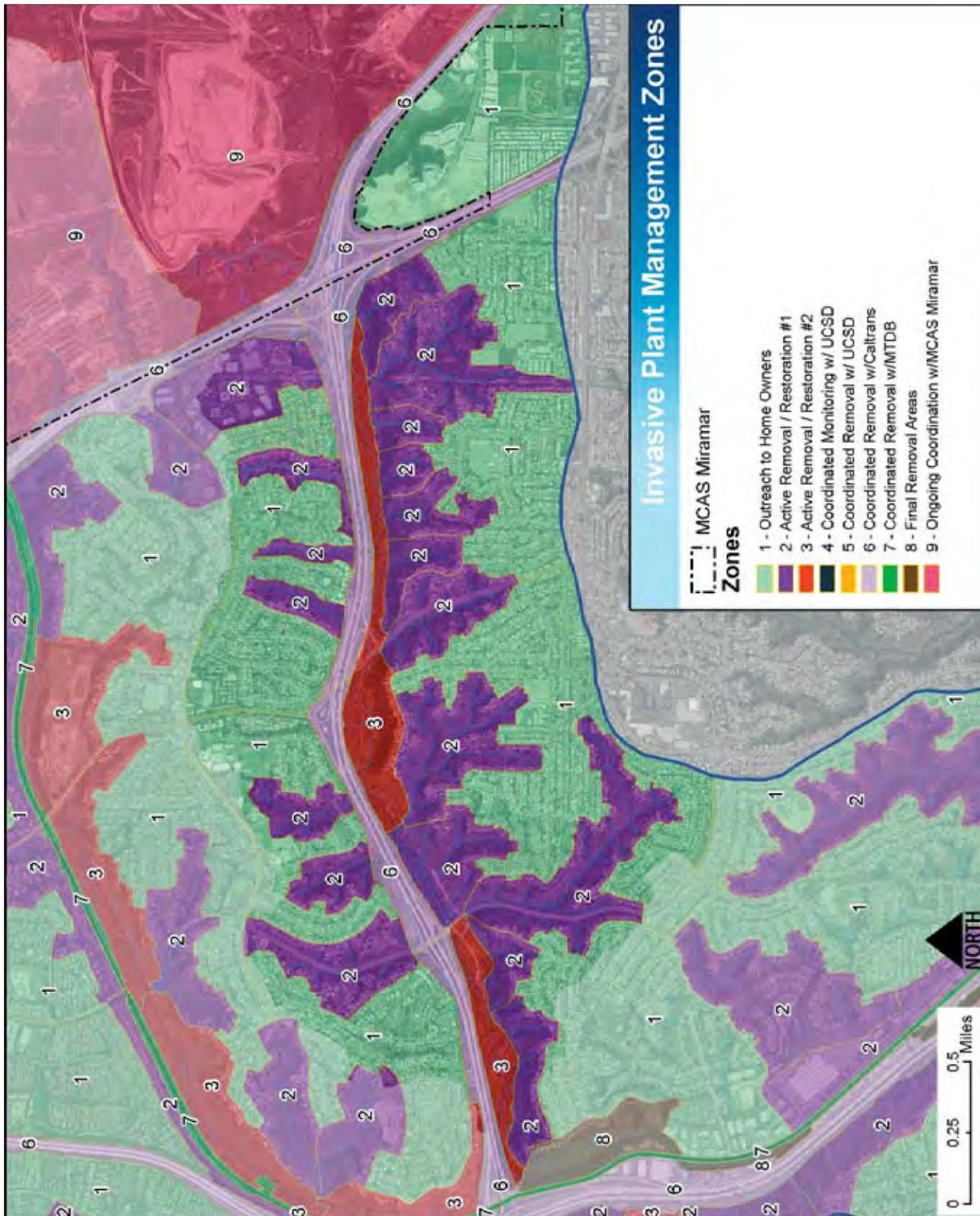


Figure 2-3: Invasive Plant Management Zones within Upper Rose Canyon



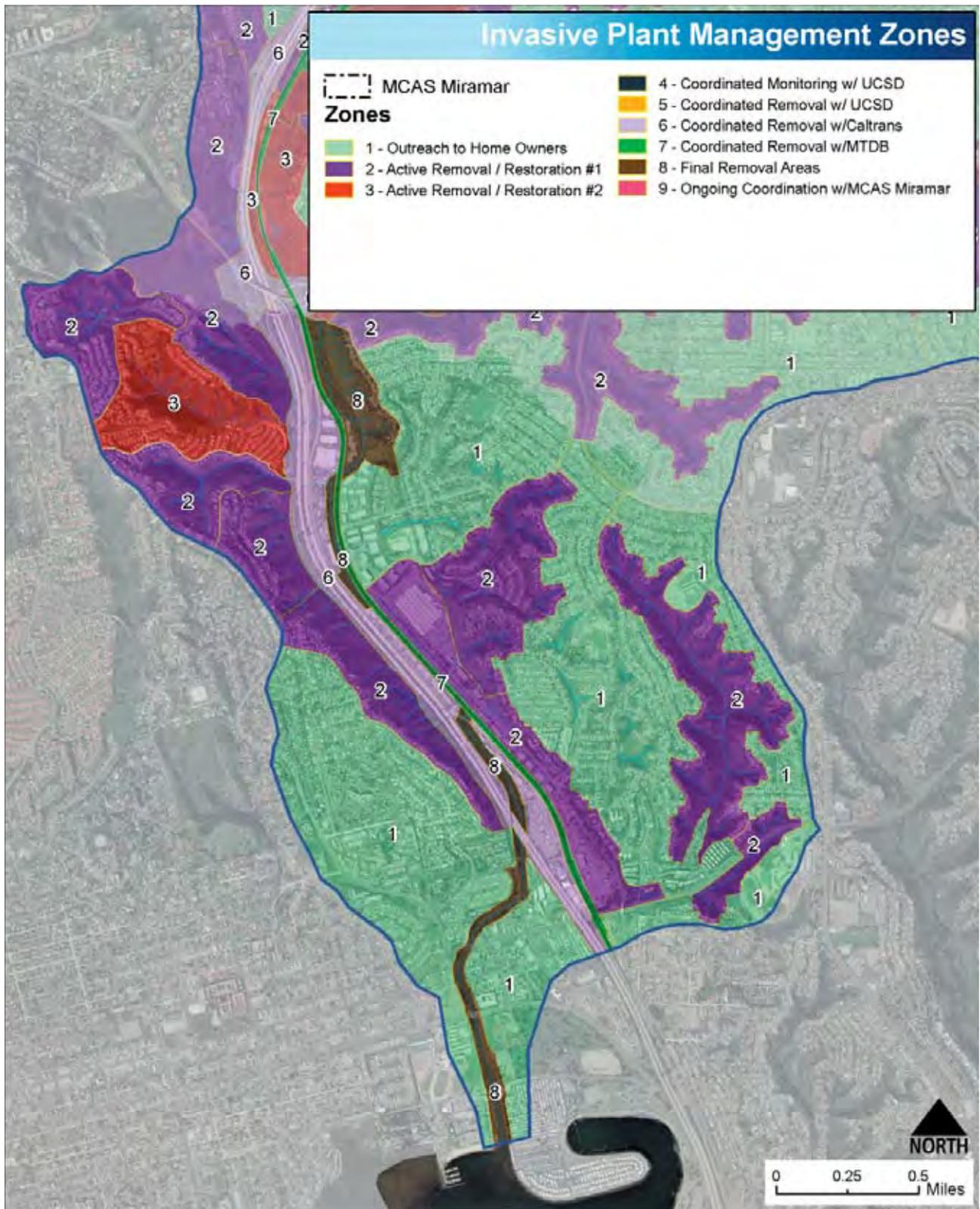
Rose Creek Watershed Opportunities Assessment

Figure 2-4: Invasive Plant Management Zones within Upper San Clemente Canyon



Action Recommendations

Figure 2-5: Invasive Plant Management Zones within lower Rose Creek



Rose Creek Watershed Opportunities Assessment

3. Remove Exotic Animal species from Aquatic Habitats

Exotic animal species (including the Bullfrog, African Clawed Frog, and Red-eared Slider) should be targeted for removal from the RCW. These efforts should start from the upstream areas in MCAS Miramar (coordinated through MCAS Miramar environmental staff), down through Rose and San Clemente Canyons, and on through lower Rose Creek to Mission Bay.



4. Public Outreach Materials about Invasive Animals

Outreach materials describing the manner in which the invasive exotic animal species listed in Table 3-6 degrade native habitats and out compete native biota, as well as the their current known extents within the RCW would be an appropriate first step. After this first step, two distinct second steps may be necessary; one to deal with feral or unsupervised pets and the other dealing with how individual land management decisions can promote the invasion of unwanted species (e.g. argentine ants or black rats). The second step addressing exotic pets could include information about how the invasive exotic species are typically introduced to our natural open spaces and why releasing unwanted pets into the natural areas is inappropriate and can affect the overall eradication and control efforts being undertaken. Another step could discuss how individual land management decisions can influence the spread of invasive exotic animals, such as how increased irrigation near natural areas promotes Argentine ant infestation or how un-pruned palm trees are prime homes for black rats. A final step could focus on providing information about what to do if you have an unwanted invasive exotic pet, an infestation of invasive exotic animals, or an interest in changing how you manage your land. For more information on developing public outreach materials see Chapter 4, Section 4.1 on page 4-1.

5. Public Outreach Material about Feral Cats

Uncontrolled populations of feral and domestic cats are common problems within open space lands surrounded by urban and residential land uses. These populations can cause significant damage to native animal species through predation and are often the top predator within the area if the open space is disconnected from larger natural areas that would support populations of bobcats and coyotes. Outreach materials should discuss how both feral and domestic cat populations can impact the native animal populations, who to contact about feral cats, and how to appropriately manage domestic cats should be developed. These materials should be distributed via pet stores, animal clinics, and the local SPCA. For more information on developing public outreach materials see Chapter 4, Section 4.1 on page 4-1.



2.2.3 Recommendations for Restoring and Enhancing Native Habitats

- Expand wetland and riparian habitats where feasible*
- Restore upland habitats wherever degraded or non-native habitats exist*
- Enhance wetland and riparian habitats along the stream channels*

The restoration and enhancement of native habitats is integral to the long-term health and stability of the biological resources within the RCW. Without a comprehensive approach to these efforts, the existing biological resources will continue to degrade, resulting in the departure or extirpation of more sensitive species and the proliferation of urban adaptable species, which are often looked upon as nuisances (rats, feral cats). This degradation of the biological resources also diminishes their value to the public, who value them for their educational, interpretive, recreational and aesthetic qualities.

The recommendations of this assessment are designed to accomplish two basic goals: 1) initially stop the current decline in biological value; and 2) enhance and maintain the biological values in sync with the other public values as outlined in the other sections of this assessment. A mix of implementation strategies and partnerships can be leveraged to restore and enhance the biological resources of the RCW. Opportunities were not identified within MCAS Miramar, although ongoing coordination on restoration and enhancement activities is recommended.

Action Recommendations

It should be noted that while restoring and enhancing the native plant communities and associated wildlife will benefit the watershed's resources, these efforts will not turn back time and return the RCW to 'natural' conditions. The fact that the RCW is an urban watershed needs to be acknowledged to ensure unrealistic expectations are not placed on these restoration and enhancement projects or that necessary management tasks (maintaining flood capacity within the lower stream channel) are not preempted by inappropriately placed biological values. Biological restoration and enhancement needs to be balanced with the practicalities of working within an urban watershed.

1. Wetland Restoration/Creation

Opportunities for wetland restoration/creation exist within the RCW and are contained primarily on City of San Diego or MCAS Miramar owned lands. Opportunities for wetland restoration as a result of proposed concrete channel removal and stream channel improvements are discussed separately in Section 2.6.3. Twenty-one potential restoration/creation sites were identified on the City of San Diego owned lands during the field assessments as shown in Figures 2-6 to 2-8 and account for 26.25 acres of land. It should be noted that these sites may not represent every opportunity within the RCW and it is the intent of this assessment to be supportive of all appropriately sited wetland restoration or creation projects. While restoration/creation sites are not proposed on MCAS Miramar at this time, on-going coordination with the station is recommended to determine their interest to conduct, or allow to be conducted, wetland restoration efforts on station lands.



The twenty-one proposed sites consist of low laying land adjacent to the main drainages of Rose and San Clemente creeks or at the bottom of tributary drainages where limited landform grading could create conditions suitable for the establishment of wetland plant communities. Targeted wetland and riparian vegetation communities should include: Southern Coast Live Oak Riparian Forest, Southern Cottonwood-Willow Riparian Forest, Southern Sycamore-Alder Riparian Woodland, Southern Willow Scrub, Freshwater Marsh, and Mule Fat Scrub. Descriptions of the twenty sites can be found in Chapter 4, Section 4.2.2 on page 4-5.

2. Enhance Wetland and Riparian Habitats along Stream Channels

Opportunities to enhance wetland and riparian habitats exist in many locations along both Rose and San Clemente Creek, as well as their tributaries. However, to implement these enhancements, other streambed or bank improvements will need to be made as discussed in the recommendations in Section 2.6.2 and 2.6.3.

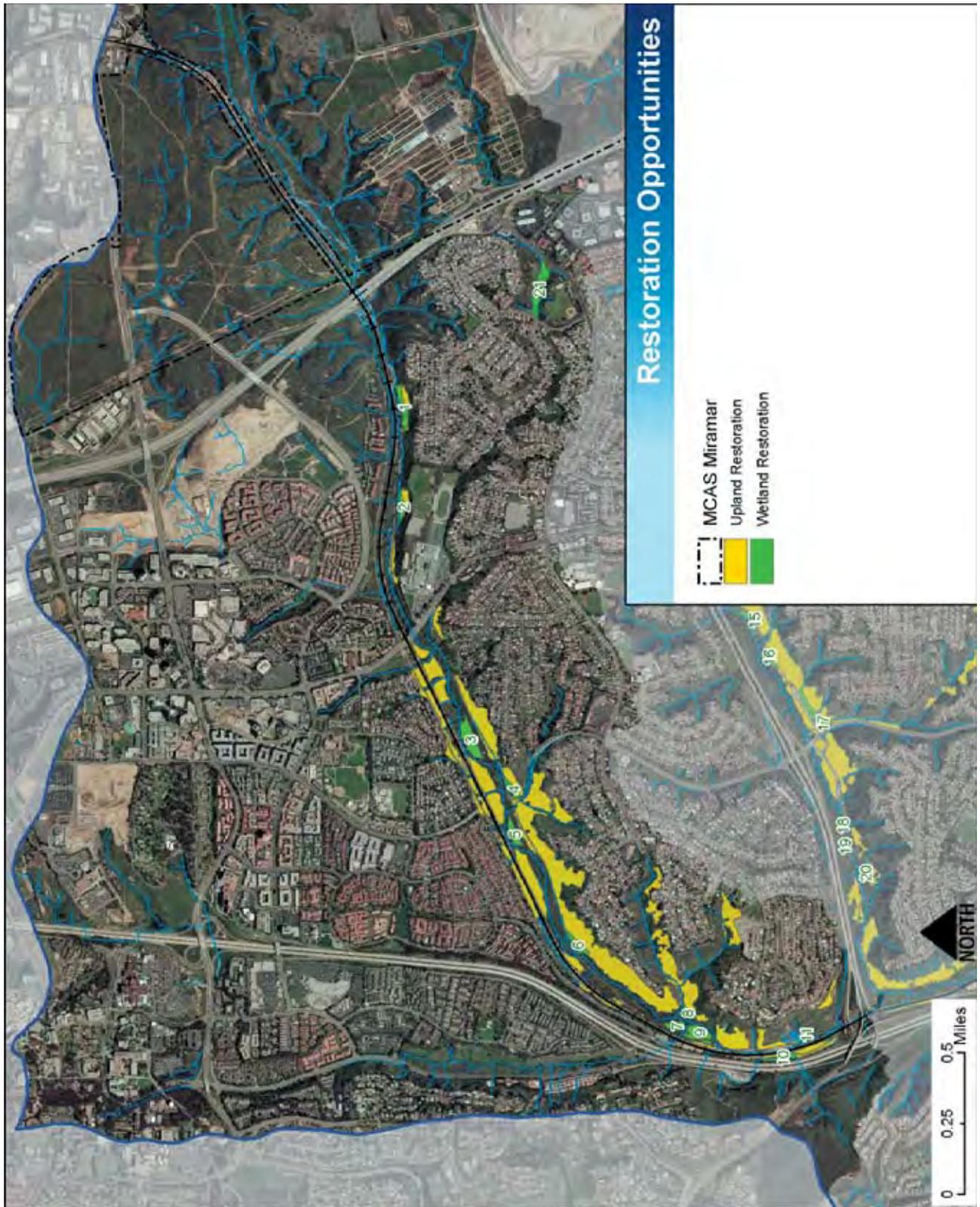
3. Upland Restoration

Opportunities for upland restoration exist throughout the RCW wherever areas of non-native grassland exist, as these areas are typically dominated not only by non-native annual grasses, but also by a variety of invasive exotic plant species as well, including: Black Mustard, Bull Thistle, Italian Thistle, Yellow Star Thistle, Tocalote, Sweet Fennel, Periwinkle, Fountain Grass, Cheeseweed, and Bristly Ox-Tongue. Approximately 182 acres are identified in Figures 2-6 to 2-8 making it impracticable to define individual sites as was done with the wetland restoration/creation opportunities. Within the identified areas targeted upland vegetation communities should include: Native Grassland, Coastal Sage Scrub, Southern Maritime Chaparral, Southern Mixed Chaparral, and Coast Live Oak Woodland.



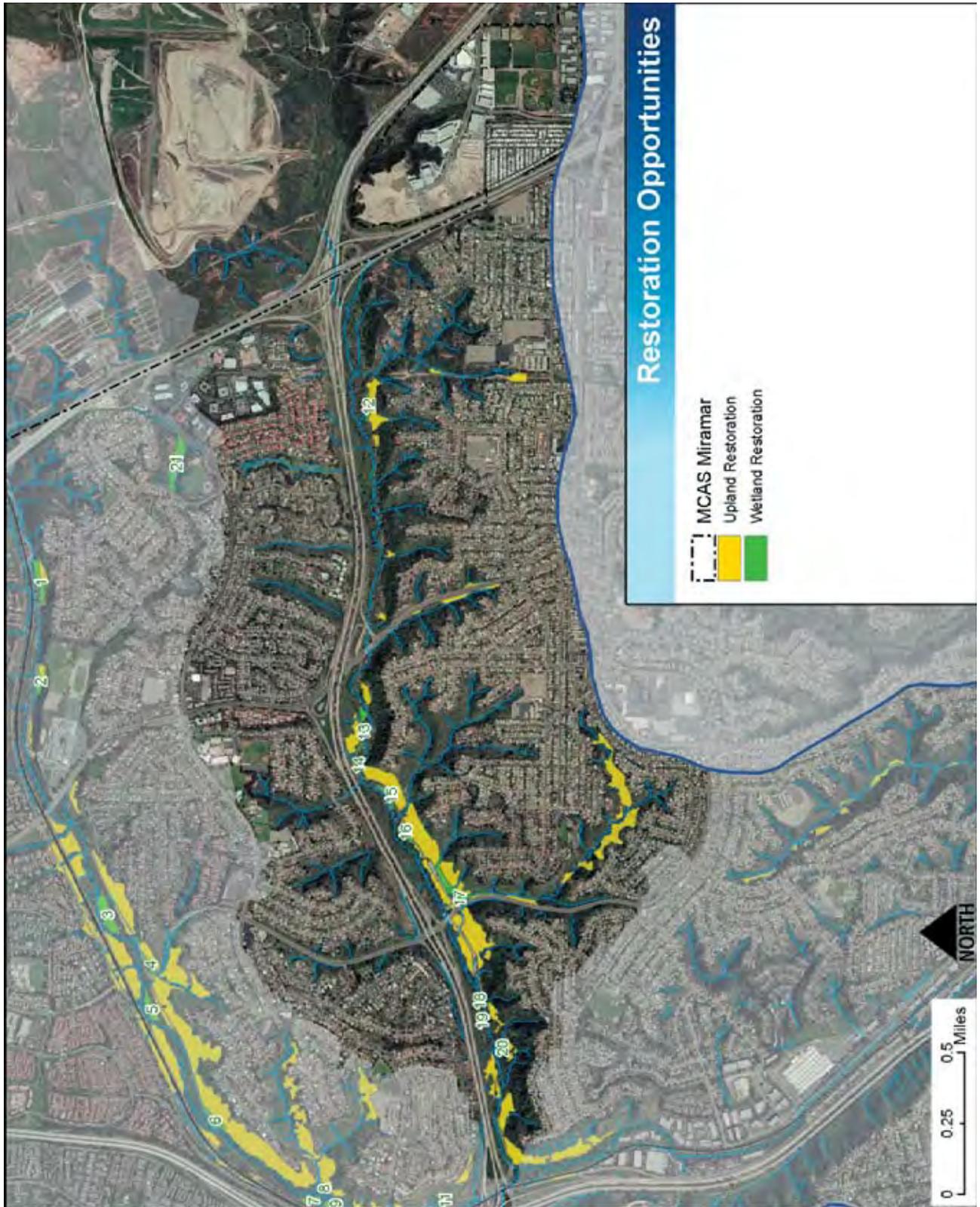
Rose Creek Watershed Opportunities Assessment

Figure 2-6: Wetland and Upland Restoration Potential within Upper Rose Canyon



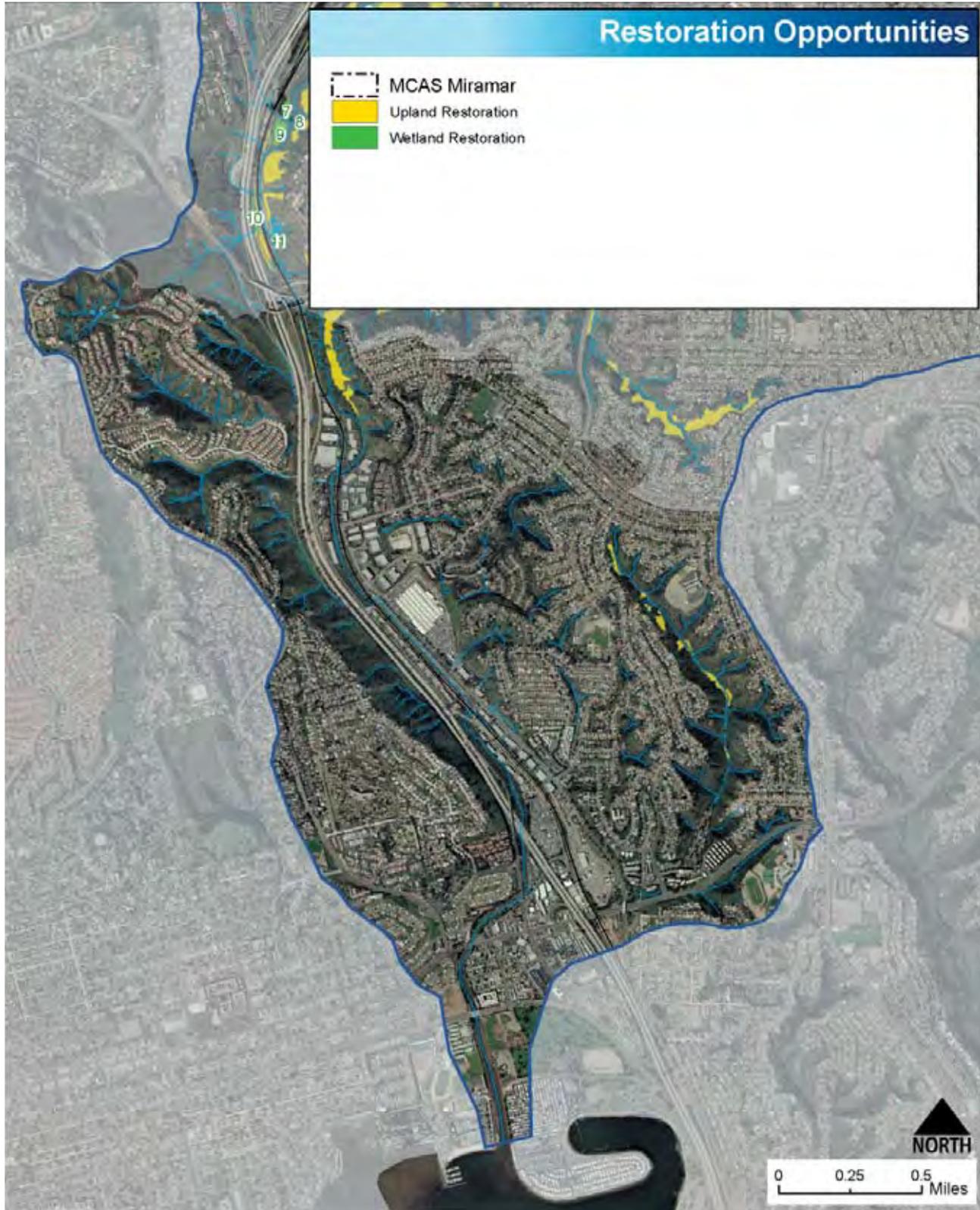
Action Recommendations

Figure 2-7: Wetland and Upland Restoration Potential within Upper San Clemente Canyon



Rose Creek Watershed Opportunities Assessment

Figure 2-8: Wetland and Upland Restoration Potential within lower Rose Creek



2.2.4 Recommendations for Protecting and Enhancing Wildlife Corridors

- ☑ *Improve vegetative cover and connectivity near current road under-crossings*
- ☑ *Restore concrete flood control channels to vegetated stream corridors*
- ☑ *Reduce wildlife mortality along Miramar Road*

The natural lands within the RCW are linked to varying degrees to each other, as well as to adjacent open space areas outside of the watershed by habitat corridors. The few inter-watershed corridors that do remain are small in size, composed of marginal habitat, contain significant hazards to wildlife, and may be lost to future development (Figures 2-9 to 2-11). The main stems of Rose and San Clemente creeks are utilized as the primary internal wildlife corridors, with some of the tributary drainages acting as connectors and temporary cover. The un-vegetated concrete flood channels and transportation corridors significantly impact the ability of wildlife to move upstream from Mission Bay or downstream from MCAS Miramar lands. Restoration of the un-vegetated concrete channels is discussed Section 2.6.3. The restored environment described within that action would transform those sections into viable wildlife corridors and enhance the ability of wildlife to utilize more of the natural resources throughout the watershed. Road-related wildlife mortality is another common problem that can become a significant source of population declines in some species. Within urban areas that have relatively poor linkages to larger habitat blocks, even the loss of individual animals may result in significant depressions in populations because of poor recruitment of animals back into the vacant territories. In some instances, mortality may be substantial and even greater than on-site recruitment or immigration of replacement individuals. If this is the case for a particular species, local extirpation from the habitat can occur. For non-flying species, functional land connections are critical in order to prevent isolation of populations.

1. Improve vegetative cover and connectivity near road under-crossings

Many of the road under-crossings have been constructed to allow some vegetation to remain along the drainage course that can be used by wildlife as cover as they move through these otherwise human impacted landscapes. Enhancements to the existing vegetative cover should be considered immediately upstream and downstream of all road under-crossings to improve cover for wildlife that may be impacted by transportation-related noise or other human activities occurring within these areas.

Three road under-crossings are significantly more restrictive to wildlife movement than the others and warrant further attention as described below as they effectively divide the RCW into four distinct regions and result in limited species interchange between them.



- A. Interstate 15 over San Clemente Creek currently consists of a large 24 foot wide culvert connection 500 feet long that limits wildlife movement to and from the headwaters of Rose and San Clemente Creeks, as well as Mission Trails Regional Park and other open space areas within the San Diego River and Penasquitos watersheds. Discussions with Caltrans are recommended to identify long-range plans for construction activities along this stretch of Interstate 15 to determine if an opportunity to modify this under-crossing could be incorporated as a project element, or if the modification should be planned and implemented as a stand alone project. Without improvement, populations of mammals, reptiles, and other ground-based species to the west in Interstate 15 will likely decline due in part to this restrictive wildlife connection.



Rose Creek Watershed Opportunities Assessment

Figure 2-9: Impaired Wildlife Corridors within Upper Rose Canyon

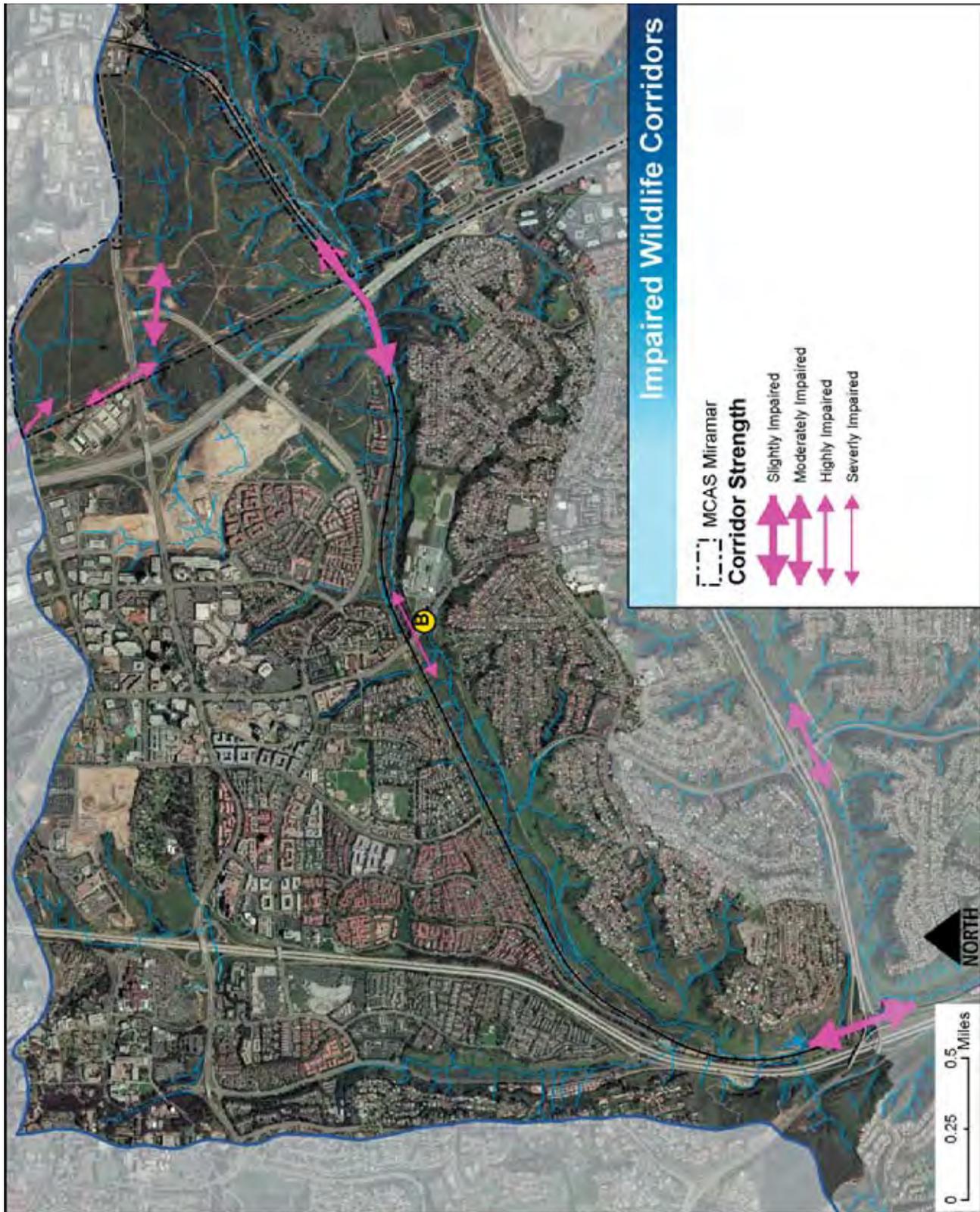
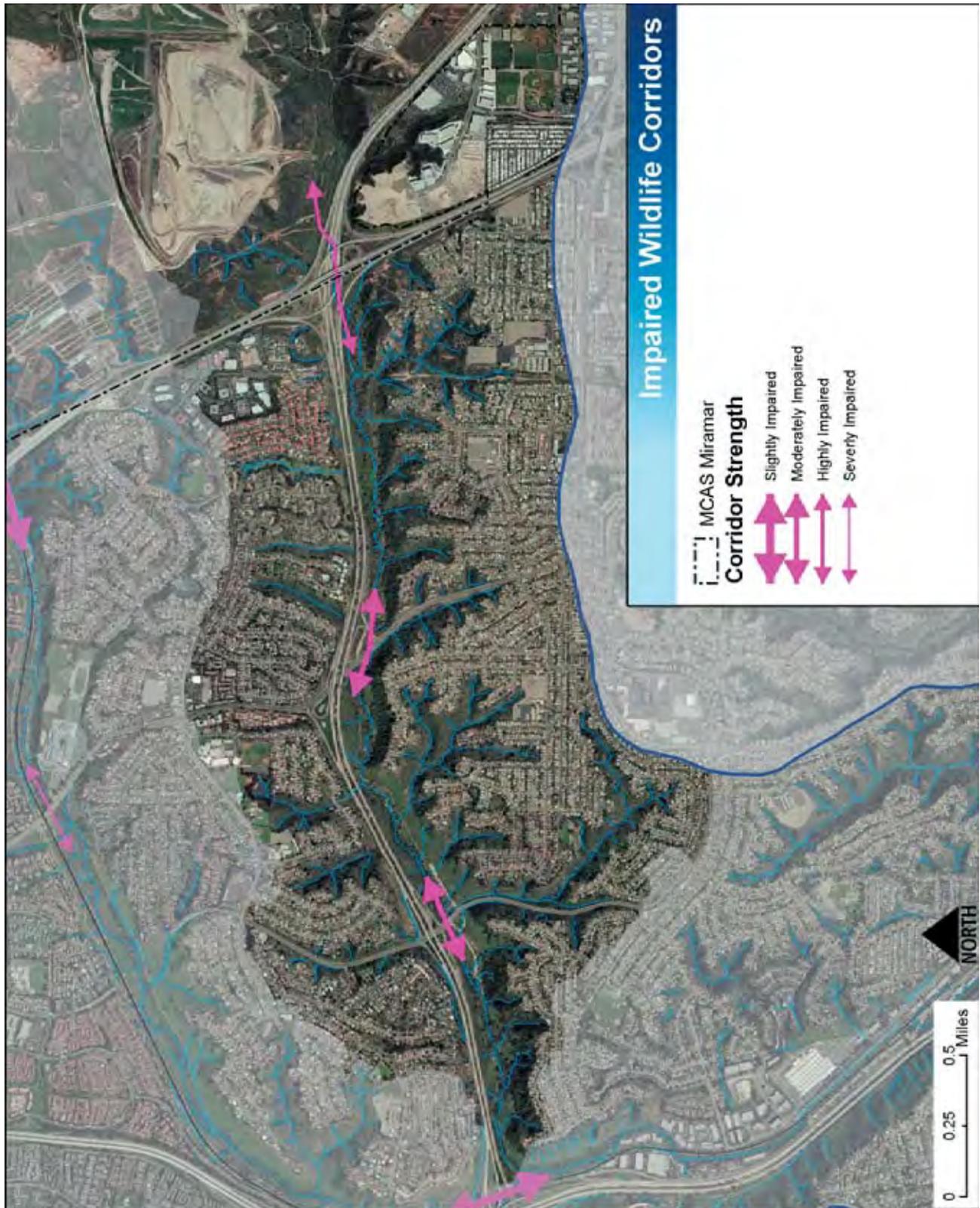
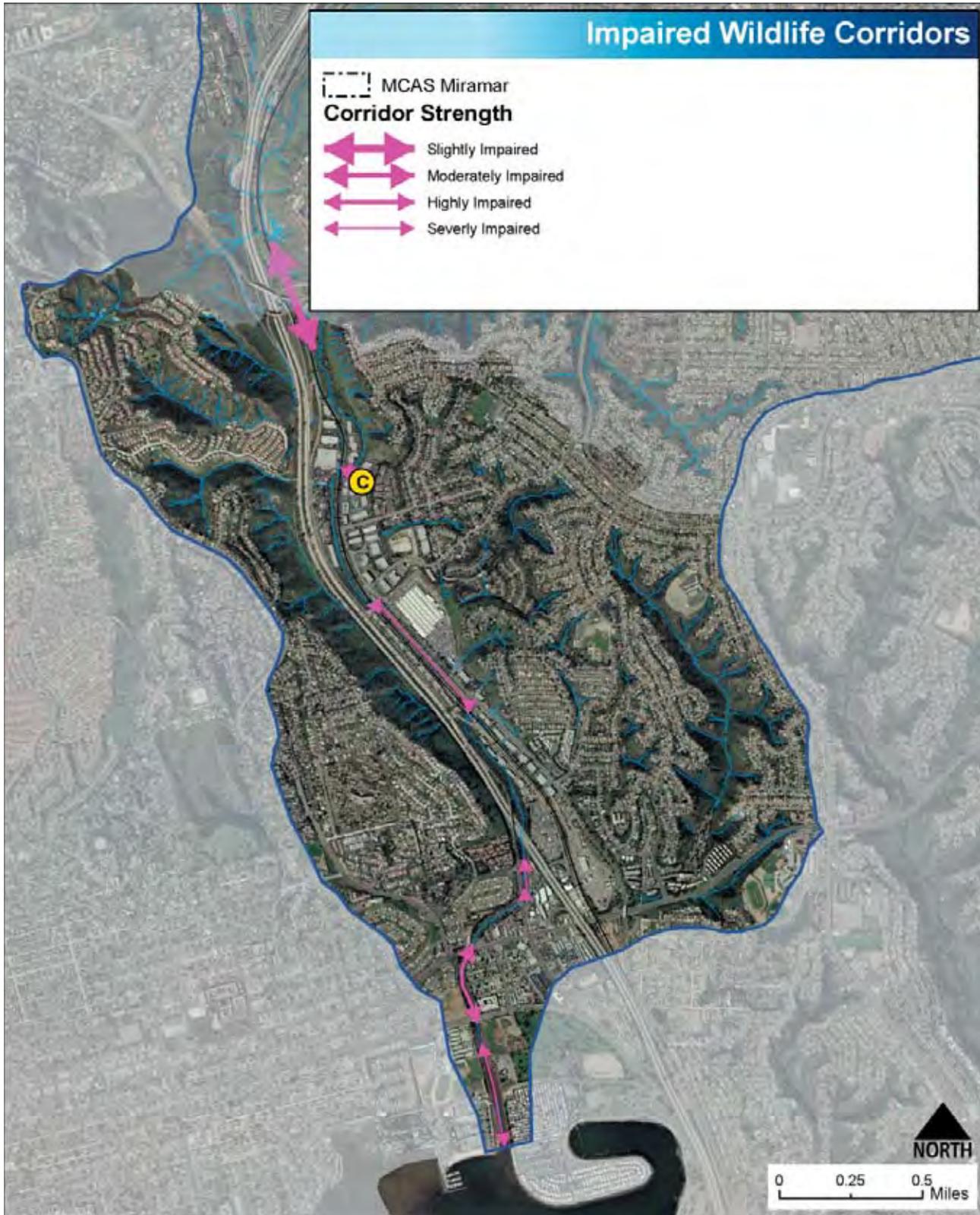


Figure 2-10: Impaired Wildlife Corridors within Upper San Clemente Canyon



Rose Creek Watershed Opportunities Assessment

Figure 2-11: Impaired Wildlife Corridors within lower Rose Creek



Action Recommendations

B. Genesee Avenue over Rose Creek currently consists of three side-by-side eight-foot box culverts that are 200 feet long. These culverts limit wildlife movement to and from the portions Rose and San Clemente Canyons on MCAS Miramar to upper Rose Canyon within the City of San Diego. As plans to widen Genesee Avenue through this area continue to be considered, alternatives that consider replacing the box culverts with a bridge structure should be considered. The bridge should be structured to allow as wide of a vegetated corridor as possible to encourage use by larger mammals, such as bobcat, coyote, and mule deer.



C. The Rose Canyon Business Park private road crossing over lower Rose Creek currently consists of a twelve-foot diameter culvert that is 80 feet long, limiting wildlife movement to and from upper Rose and San Clemente Canyons and lower Rose Creek. Discussions with the landowner should be initiated to determine a willingness to consider replacing the existing culvert with a bridge structure, which would benefit the movement of meso-predators like the bobcat and coyote. This would help keep populations of feral cats, opossums, skunks and other small mammals in check. A bridge structure in this particular location may also provide some hydraulic benefits by eliminating potential backwater conditions during larger storm events that may currently impact the adjacent upstream business development.



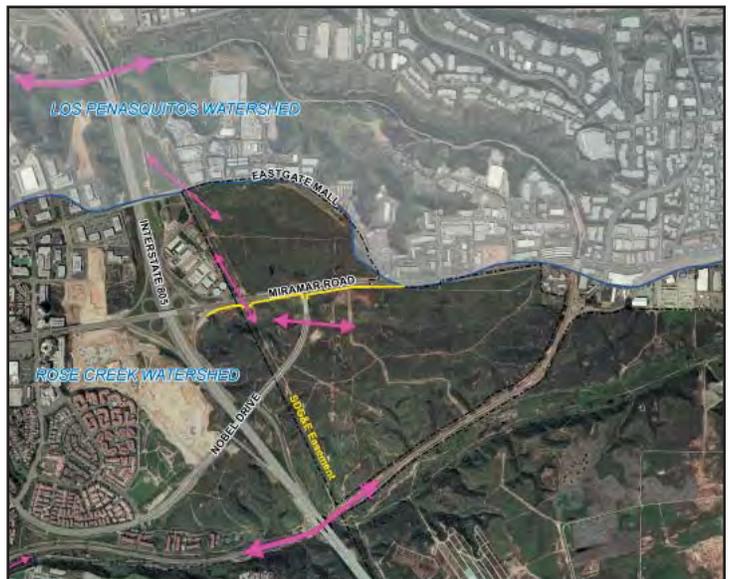
2. Restore concrete flood control channels to vegetated stream corridors

The un-vegetated concrete flood channels significantly impact the ability of wildlife to move upstream from Mission Bay or downstream from MCAS Miramar lands. Restoration of the un-vegetated concrete channels to vegetated stream corridors is essential to improving wildlife access along lower Rose Creek and is discussed in Section 2.6.3.

3. Reduce wildlife mortality along Miramar Road

All of the roadway crossings of the canyons pose some degree of danger to wildlife movement. However, one area in particular has been identified as a place of high mammal mortality due to collisions with vehicular traffic. This area is located along Miramar Road in the vicinity of the Nobel Drive intersection. This stretch of Miramar Road is bound by natural habitats to the north and south and provides a tenuous watershed habitat linkage to Carroll Canyon (Figure 2-12). To the north of Miramar Road is a disconnected area of MCAS Miramar bounded by the arch of Eastgate Mall Road and associated development on the east and north and the North City Water Reclamation Plant and I-805 on the west. To the south of Miramar Road are the larger tracts of habitat on MCAS Miramar. M&A biologists have previously noted large numbers of mammal carcasses in this area including deer, coyote, bobcat, skunk, rabbit, and fox.

Figure 2-12: Aerial diagram of Miramar Road Wildlife

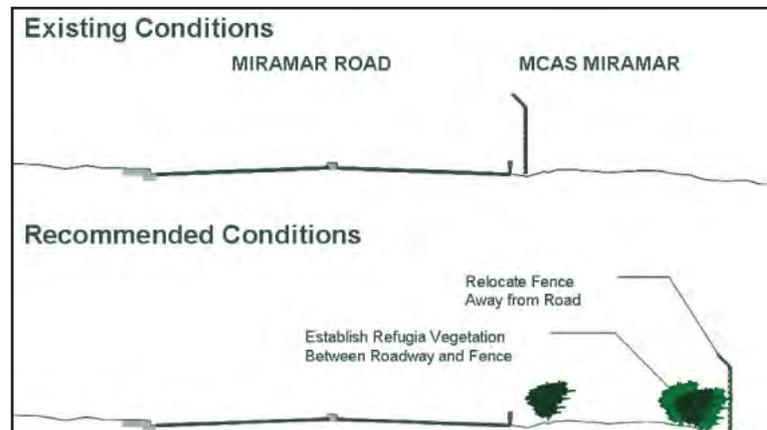


Rose Creek Watershed Opportunities Assessment

The extent of animal losses in this area appear to be out of scale for what might be expected for similar sized roadways in the region. To gain a better understanding of the potential causes of this phenomenon, an examination of the area was undertaken to explore the site conditions and habitat and barrier geometries. The review indicated that a corridor for animal movement exists between the remaining habitats north and south of Miramar Road. Despite its narrow configuration, the corridor connection to the north into Carroll Canyon extends through the MCAS Miramar/Eastgate Mall open space along the existing natural gas and electrical transmission line easement. However, for the most part, the Eastgate Mall open space is a biological cul-de-sac, natural habitat surrounded by non-habitat barriers. In its current state, the Eastgate Mall open space functions as a mortality sink for some mammals because it likely attracts individuals by providing important resources (e.g., food, dispersal opportunities), while also having many significant hazards associated with it. Once an animal is within the Eastgate Mall open space area, additional open space may be visually located immediately to the south across Miramar Road. However, a chain-link fence constructed adjacent to the road surface prevents most animals from accessing the natural lands that may be visible to them. The fence design is a formidable barrier for all animals that do not have the ability to fly (e.g., birds, bats, etc.) or pass through the mesh (e.g., snakes, small mammals). The fence design consists of an 8-foot high chain-link fence topped with three strands of barbed wire affixed to extension arms angled out.

Animals must cross Miramar Road at grade. These crossings typically happen at night. On the south side of the road, animals encounter the chain-link fence and proceed to follow the fence line either east or west in search of breaks in the fencing. As cars approach, startled animals often will run along the fence searching for a gap until the last moment when they will dart back towards the other side of Miramar Road. Because animals are trapped on the roadway surface without cover as vehicles approach, they are susceptible to panic flight behavior that frequently puts them in a collision course with the on-coming traffic.

To address this issue, coordination with MCAS Miramar is recommended to determine the feasibility of re-aligning the chain-link fence away from the edge of Miramar Road to provide a vegetated buffer for wildlife to use as cover when spooked by on-coming vehicles.



2.2.5 Recommendations for Land Management and Ownership

- Maintain consistent management of the biological resources throughout the watershed*
- Complete key land acquisitions in fee or easement*

The purpose of these recommendations for land management and ownership is to create consistent management practices throughout the watershed that will result in a greater likelihood of long-term sustainability of the resources, as current management practices are insufficient and inadequate.

As previously discussed, primary land ownership within the RCW is largely public, split between MCAS Miramar, the City of San Diego and SANDAG (which owns the rail corridor). Consistent land ownership isn't as crucial to these recommendations as is consistent land management, especially as it pertains to the biological resources.

For example, the City of San Diego currently owns and manages several open space parks within the RCW. The Open Space Division of the Park and Recreation Department manages them in a manner designed to be sensitive to the biological value of the parks and their inclusion in the MSCP. However, the Park and Recreation Department's management responsibility stops with their land ownership, which creates situations where valuable trailheads and trail connections fall into private or quasi-public areas with no defined management. This is

Action Recommendations

most acute in lower Rose Creek, which is primarily maintained by the City as a flood control channel and utility (sewer) corridor without the same consideration of its biological values (except in reaction to a flood control or sewer maintenance need) and with limited attention paid to public recreation and public safety considerations.

This disjointed management (or lack of management) of the RCW by different City departments for different purposes is separate and distinct from the City's problems associated with limited financial resources. The City's financial limitations are evident everywhere in the RCW. Park rangers and police officers are over-extended, storm drains are eroding, lack of brush management has increased the risk of wildfire, invasive species are out-competing native species, water quality is degrading, and entire sections of the creek have been lost to public use due to criminal activity. All the resources of the watershed have been affected, including the biological resources. While the City's current financial difficulties will continue to affect the ability to improve and enhance the watershed, there are still improvements that should be made to improve land management and ownership consistent with biological resource protection.

1. Maintain consistent management of the biological resources throughout the watershed.

MCAS Miramar has been actively managing their natural resources, including those within the RCW, for a number of years with good success in maintaining and enhancing sensitive resources. As a result, ongoing coordination with MCAS Miramar environmental staff to ensure existing programs remain in effect is the only recommendation for MCAS Miramar lands. In juxtaposition to MCAS Miramar's successful efforts, the public and private lands west of MCAS Miramar continue to decline, in part due to a lack of consistent coordinated management. Management entities outside of MCAS Miramar should coordinate with MCAS Miramar staff to determine how the non-military natural resource management efforts can be brought more in-line with what MCAS Miramar has successfully implemented, and opportunities for cooperative programs should be sought out.

Within the city-owned lands, the Park and Recreation Department should be empowered to manage all of the lands in a consistent manner, instead of the current piece-meal approach by Park and Recreation, Open Space Division, Streets, Real Estate Assets, and other departments. In this manner, the natural and recreational resources on city-owned land can be consistently, and more efficiently, managed and maintained while public safety is enhanced.

The city should acquire in fee or easement from willing sellers, key private tributary parcels in the RCW to maintain consistent management and public uses. If acquisition cannot be accomplished, management agreements should be negotiated with the property owners to manage these key private lands consistent with the recommendations of this assessment.

2. Complete key land acquisitions in fee or easement

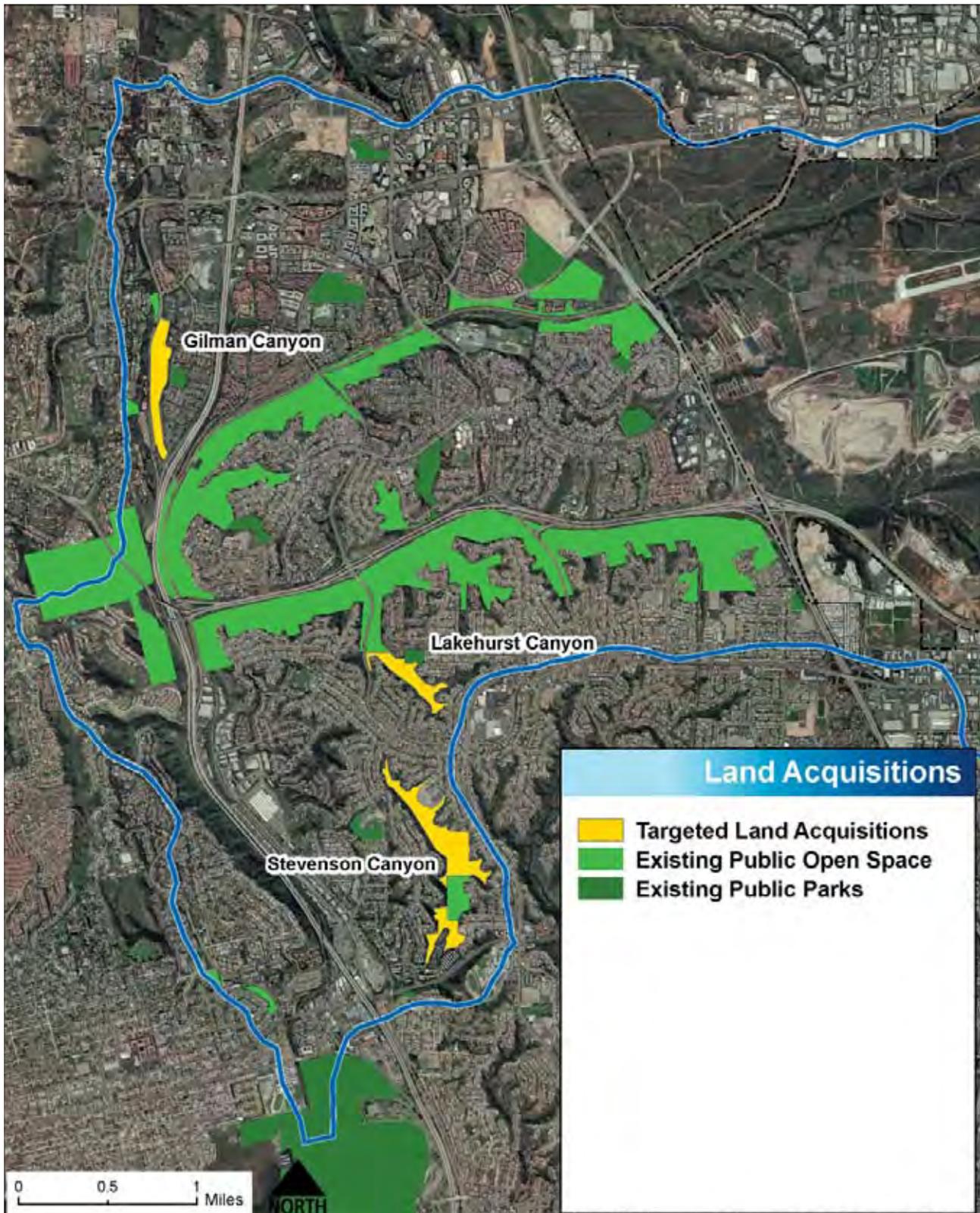
The City of San Diego currently owns and manages most of the natural open space west of MCAS Miramar. However, there are three significant privately owned areas that are recommended for acquisition in fee or easement (Figure 2-13). All three of the areas targeted in this recommendation are privately held properties currently being used to some degree for public purposes. For example, residents of Clairemont are using the trails in Lakehurst Canyon as park trails. The properties are not being managed for public purposes and all are infested with invasive exotic species, thus contributing seeds to infest public lands downstream. Under public ownership, they could be managed for public purposes including biological resources, recreation and public safety. A variety of state funding sources may be applicable to this effort. These potential acquisitions include:

- A. The first area targeted for acquisition is the vacant open space area within Stevenson Canyon. This significant natural area (72 acres) is predominantly in private ownership, with only a few owners (16 parcels).



Rose Creek Watershed Opportunities Assessment

Figure 2-13: Potential Land Acquisitions



Action Recommendations

- B. The second area is the vacant open space area within Lakehurst Canyon (24.5 acres) from the intersection of Lakehurst Avenue and Pocahontas Avenue northwest along the canyon to the boundary of Marian Bear Memorial Natural Park. Ownership is split across 13 owners, with one of the parcels (12 acres) being dedicated open space.
- C. The third area is the vacant open space area along Gilman Drive (34.4 acres). Ownership is split across two owners.



2.2.6 Recommendations to Protect and Enhance Native Plants and Animals

- Protect existing natural habitats*
- Conduct comprehensive protocol surveys for all special status species*
- Ensure restoration efforts target animal species and not just vegetative habitats*
- Establish a long-term monitoring program*

Part of the comprehensive plan for managing the biological resources of the RCW includes the identification of species-specific restoration and enhancement opportunities that should be considered either alone or in conjunction with the other recommendations of this assessment. The following sections describe opportunities for entire groups of species. Recommendations pertaining to individual species can be found in Chapter 4, Section 4.2.3 on page 4-8.

1. Protecting currently available habitats from further degradation is the most important conservation strategy within the RCW, particularly for reptiles and amphibians.
2. Surveys for all special status species are recommended within the natural lands west of Interstate 805. These surveys should follow accepted protocols to ensure their results can be used in the development and/or update of Natural Resource Management Plans, Wetland Management Plans, or Conservation Banks. The purpose of these surveys is to more accurately define where and how various species are utilizing the RCW to help guide appropriate protection or restoration efforts.
3. In areas where restoration activities are recommended, more intense and detailed surveys are recommended prior to restoration to adequately address how the restoration project could potentially impact or enhance species present in the area.
4. Restoration efforts within the stream channels should provide intermittent pools and stream flow suitable for the aquatic natives. These improvements could also allow for the establishment of the Southwestern Pond Turtle; however, colonization of this species into the watershed would have to be human-assisted.
5. Restoration of the riparian areas, grasslands, and uplands would aid the movement of both common and rare mammals throughout the watershed. Effective restoration for mammals should include an emphasis on vegetation, as well as the soils and geologic structure to ensure that appropriate habitats are also available for burrowing animals.
6. A long-term program designed to monitor the abundance and health of native plants and animals, particularly special status species, should be developed for the RCW. This program should meet the requirements of the MSCP program. This monitoring could include other measurements of watershed health including water quality and sediment transport. (Other monitoring recommendations can be found in Section 2.6.2 on page 2-86 and Section 2.6.4 on page 2-88.)

Rose Creek Watershed Opportunities Assessment

2.2.7 Recommendations for Environmental Education

- ☑ *Promote Environmental Education in watershed schools*
- ☑ *Encourage Youth Service Projects throughout the watershed*

Ensuring that today's youth are made aware of environmental issues and solutions is a key aspect to changing attitudes about environmental protection. The evolution of recycling is a great example of how focusing on youth education can have a long-term positive influence on the acceptance of and participation in an activity that benefits the environment. Many of today's youth live in urban environments and have had very little exposure to the natural landscape, and are often unaware of the connection between personal actions and environmental degradation. Developing and supporting programs that provide today's youth with environmental education and exposure is key to the long-term success of environmental stewardship initiatives.

A great example of this type of program is Aquatic Adventures, a non-profit organization whose mission is to provide educational programs that connect underserved youth to science, inspire environmental action, and increase exposure to marine habitats. Their vision is to engage youth in unique experiences that reveal new opportunities and engenders valuable skills, empowering individuals to fulfill their potential. Other resources and programs available include, but are not limited to: the CREEC Network; the San Diego County Water Authority; the San Diego County Project Clean Water; the San Diego Natural History Museum; the State Education and Environment Roundtable (SEER); California Alive; Earth Force; PORTS; and the San Diego Audubon Society.



1. Promote Environmental Education in watershed schools

Opportunities to introduce these programs into the schools within the RCW should be fostered and maintained as an ongoing high priority activity. In particular, the efforts at Spreckels Elementary School in University City to incorporate the Aquatics Adventures program should be supported and the program used as a model for the other schools in the RCW (Figure 2-14).

2. Encourage Youth Service Projects throughout the watershed

Youth service projects, such as for Eagle Scouts and local schools, should be encouraged to support the restoration and enhancement activities outlined in this assessment. Youth organizations are a great resource for implementing a variety of small and moderately sized implementation projects, and provide an opportunity to further the youth's environmental education at the same time.

2.3 Recommendations for Cultural Resources

- Document and protect cultural and historic resources
- Assess potential affects of other recommendations
- Develop interpretive panels to increase public awareness

The RCW has long been a popular place for people to live and sustain their lives through hunting, fishing, commerce and industry. The Kumeyaay people relied on the natural resources of the watershed, including Mission Bay and Rose and San Clemente creeks, to sustain their families. Later, the watershed served as the main transportation corridor between the developing city of San Diego and cities to the north. The watershed supported some of San Diego's first industries, including cattle ranching, a tannery and brick factories. In present day, the watershed continues to be a popular place for people to live, work and play. This rich history is part of the legacy of San Diego that should be preserved and protected.



photo San Diego Archaeological Society

Action Recommendations

Figure 2-14: Schools within the Rose Creek Watershed



Rose Creek Watershed Opportunities Assessment

2.3 Recommendations for Cultural and Historic Resources

As part of this assessment, a literature review was conducted to determine what portions of the RCW have been surveyed for cultural resources, which areas still need to be surveyed, and what historic resources have been identified (Hector, 2005). In addition, the Native American Heritage Commission and local tribal representatives were contacted to see if any traditional properties or sacred sites are in or near the project area.

Despite development and urban encroachment, there are many prehistoric and historic cultural resources located within the RCW. These resources range from ancient prehistoric Indian sites to evidence of the early railroad and brickyard. Actions to identify and protect these known sites are recommended. In addition, research indicates that while a portion of the project area has been surveyed, some surveys were limited in scope or duration. Additional surveys are recommended as conditions have changed greatly since the original surveys were done. New surveys will likely identify new sites that should also be protected.

Because this assessment includes recommendations that may affect cultural and historic resources, recommendations are included to protect sites during project implementation. This assessment identifies interpretive opportunities to help the residents and visitors “see” the prehistoric and historic culture and history of the watershed through a series of interpretive maps and panels located at key spots throughout the watershed.

2.3.1 Recommendations for Documentation and Protection of Cultural Resources

- Conduct cultural resource surveys in both open space parks
- Assess the condition of known cultural resources
- Implement a cultural resource protection program

Neither Rose nor San Clemente canyons have been completely inventoried for cultural and historic resources. Surveys done by professional archaeologist or historians are crucial to document sites so that they can be protected and, in some cases, restored. The following recommendations will result in better documentation and protection of the cultural and historic resources of the watershed:

1. Conduct a complete cultural resource survey of Rose Canyon, and update the San Clemente Canyon survey since the old survey is inadequate.
2. Conduct condition assessments on the known cultural resources to identify management issues such as physical deterioration (trestle, historic sites), erosion and sedimentation, vandalism, and integrity.
3. Implement a program to stabilize and protect cultural resources. The program should contain the following elements:
 - A. Treat historic wood elements with preservative (non-toxic) to slow deterioration.
 - B. Restrict public access to cultural resources unless monitored by an archaeologist or trained docent; re-route trails if needed away from resources.
 - C. Seed cultural resource site areas that are not adequately vegetated with appropriate species.
 - D. Install erosion prevention measures (without impacting the site surface), as needed.
 - E. Consider capping sensitive site areas if they cannot be avoided; this process should be conducted by an archaeologist.
4. Prepare site record forms (DPR 523 series) for the following historic features: the original railroad alignment, including the trestle, Selwyn Siding, and Ladrillo Siding; and the Union Brick Company location. Field surveys will be necessary to prepare the forms, identify the boundaries, and elements of the resources.
5. Document and retain historic features, such as any fences, fence posts, and foundations. If fences need to be removed for habitat or biological reasons, have a qualified archaeologist document them first, and retain the posts if they are historic (wire may be removed following documentation).



Action Recommendations

- A. All features associated with the historic location of the railroad should be inventoried, mapped, and recorded with SCIC (see recommendation 4 above). This includes any remaining structures or objects.
 - B. All features and objects associated with the ranching and dairy activities in Rose Canyon should be inventoried, mapped, and recorded with SCIC. This includes fencing, wire bundles, foundations, and other features or objects.
6. Provide access to interested Native Americans for traditional activities including but not limited to plant gathering.

2.3.2 Recommendations to Assess Potential Effects on Cultural Resources by other actions

- Conduct detailed surveys during the planning of restoration projects
- Conduct detailed surveys and evaluations along existing and proposed trails
- Implement measures to minimize impacts to cultural resources where unavoidable

This assessment includes recommendations to restore and enhance the watershed, including trails and other physical improvements that could potentially impact cultural and historic resources. Consequently, this section includes recommendations on protecting known and unknown resources while implementing the other recommendations. These include:

1. Conduct surveys and evaluations during the planning phase for habitat restoration projects. Habitat restoration projects are proposed in upland and wetland vegetation communities. In a few cases, there are archaeological sites located in or near the proposed habitat restoration areas. Prior to any detailed planning for these projects, the areas should be surveyed for archaeological resources, and the project should then be designed to avoid impacts. It is possible that the project can assist in protecting the sites by covering them with non-disturbing vegetation. Habitat restoration projects should not result in the removal of any historic features, such as fencing or other artifacts associated with the ranching, dairy farms, or railroad uses of the canyons. These features should be adequately documented during the planning stage for habitat restoration projects.
2. Conduct surveys and evaluations for existing and proposed trails and paths. It is not possible to determine if continued public access on existing trails within San Clemente Canyon will result in any adverse impacts since the archaeological survey conducted for this area is inadequate. In the case of Rose Canyon, public access through existing trails and paths can be classified into three categories:
 - A. Ad hoc trails. Any ad hoc trails that run through or adjacent to known cultural resources should be closed, and future trail use prohibited. Signage and fencing may be needed to prevent continued trail use into the resource areas.
 - B. Proposed trails. The proposed Coastal Rail Trail has the potential to adversely impact several known archaeological sites. Prior to completion of any trail planning efforts, a complete archaeological survey of the proposed trail alignment should be conducted. All trail routes should be designed to avoid identified cultural resources. An adequate buffer of ten to fifteen feet should be maintained between the edge of any cultural resources and the trail edge.
 - C. Existing trails and paths. It is likely that existing trails and paths go across or near cultural resources. If possible, these should be re-routed away from the sites, after the sites have been adequately mapped and boundaries determined. If it is not feasible to relocate existing trails and paths, several measures should be taken to manage impacts to the sites:
 - Stabilize the trail surface so that erosion and sedimentation does not further damage the site.
 - Revegetate the site area beyond the trail with nondestructive methods, such as seeding, to provide cover and protect against erosion.
 - Monitor the condition of the site on an annual basis to determine whether continued trail use is damaging the site. If damage is noted, mitigation measures may need to be developed, depending on the nature and extent of the damage
 - Mitigation measures could include closing the trail or conducting data recovery excavations on the portion of the site impacted by trail use

Additional Cultural Resource Management Measures can be found in Chapter 4, Section 4.3.2 on page 4-12.

Rose Creek Watershed Opportunities Assessment

2.3.3 Recommendations for Cultural Resources Interpretive Opportunities

- ☑ *Develop interpretive panels for cultural resources*
- ☑ *Identify locations for interpretive panels along recreational trails and at access points*

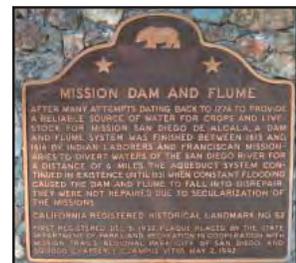
The RCW provides many opportunities to interpret the history of this region. Signage, information and maps developed for this assessment could include cultural and historic interpretation to help visitors understand the pre-historic and historic cultural history of the watershed. A professional graphics and interpretive specialist should be retained to write and design materials presented to the public. Comments and suggestions on the materials should be solicited from organizations like the San Diego Archaeological Society and the new Rose Canyon Historical Society.

1. Cultural Resource Interpretive Panels

The following suggestions for a series of interpretive panels are based on the research conducted for this assessment.

Theme- *Water and people have moved through this landscape for thousands of years.*

As trail users move through the landscape, sometimes following ancient paths and trails, they can see how use of the watershed has changed over time. By reading the panels in chronological order, visitors will experience the passage of time, water, and people through the canyons. The panels can also be visited out of order, for a snapshot of the way things were long ago in San Diego.



Each panel should be mounted in clear view of passersby. Enamel panels provide the clearest graphics and best color, but the images can be subject to vandalism. Etched metal panels are sturdier, but are best used for simple graphics and text. A third option is replaceable printed-paper or card stock panels bolted between clear plastic sheets. These can be inexpensive to reproduce, and are easily replaced and updated. If a kiosk is available for the panel, it can be located adjacent to the panels to provide further protection. Additional information on the contents of the panels can be found in Chapter 4, Section 4.3 on page 4-11.

2. Interpretive Panels Topics and Locations

While the theme is human use of the watershed, each panel should also include interpretation of the natural features of the watershed. Proposed panel contents (exact wording to be developed by an interpretive specialist) and suggested locations of the interpretive material include:

Upper Rose Canyon (Figure 2-15)

A: Ancient Settlements - 12,000 to 1,300 years ago

Proposed location: Trail access location at Genesee and Rose Canyon.

B: Late Prehistoric Travelers - 1,300 to 200 years ago

Proposed location: On the south side of Rose Canyon, near end of Regents Road, where there is a vista of the side canyon and valley bottom.

C: Spanish Travelers - 1769

Proposed location: At the west end of Rose Canyon at Interstate 5, below where the canyon turns to the east (this would have been on El Camino Real).

D: Railroad Ties - 1881 to present

Proposed location: The eastern end of Rose Canyon near Interstate 805.

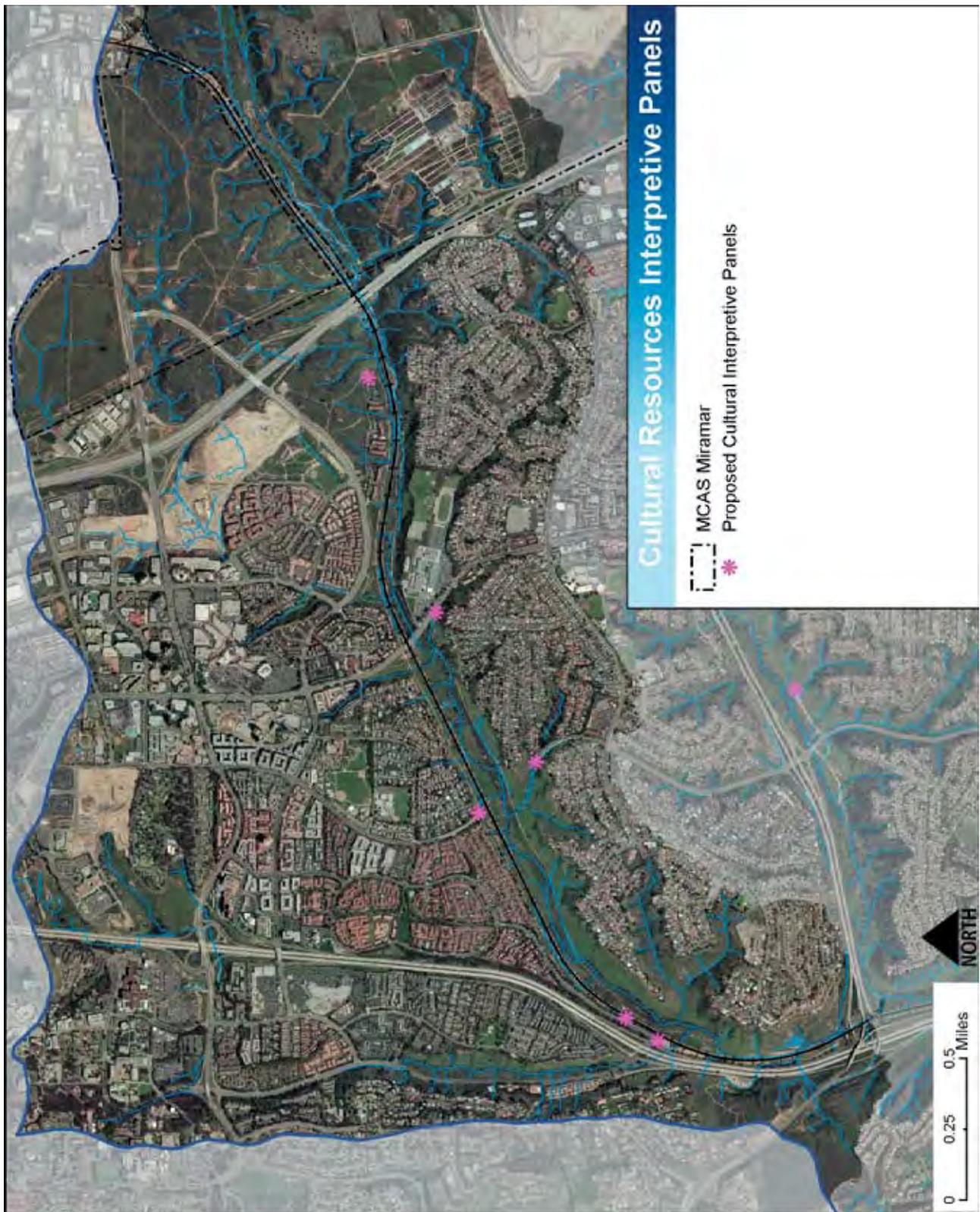
E: Louis Rose and the Dairies - 1856 to 1900

Proposed location: The western end of Rose Canyon near Interstate 5.

F: Growth in the North City 1900-present

Proposed location: On the north side of Rose Canyon, at the end of Regents Road.

Figure 2-15: Proposed Interpretive Panels within Upper Rose Canyon



Rose Creek Watershed Opportunities Assessment

Upper San Clemente Canyon (Figure 2-16)

- A: Traditional Management and Use of the Watershed - 12,000 to 200 years ago
Proposed location: In San Clemente Canyon at the parking area south of State Route 52 on Genesee.
- B: Ranching in the Canyons - 1800-1960s
Proposed location: In San Clemente Canyon at the parking area on Regents Road
- C: The Watershed Today
Proposed location: In San Clemente Canyon, at the east end at the public access location.

lower Rose Creek (Figure 2-17)

- A: The Brickyard - 1912
Proposed location: Near the Santa Fe Drive bridge over Rose Creek.
- B: The Village of La Rinconada - 200 years ago
Proposed location: Near the mouth of Rose Creek south of Grand Avenue.

2.4 Recommendations for Public Safety

While a review of public safety was not included as a project task in the original scope of work for the assessment, the project team incorporated public safety as an additional study component after identifying a variety of public safety concerns. The assessment has identified three primary public safety issues of concern in the RCW: fire, landslides and illegal activities.

2.4.1 Recommendations for Fire Prevention and Management

In light of the 2003 wildfires in San Diego, many residents, community leaders and public officials are looking for ways of preventing another round of devastating fires while preserving the natural qualities that we value. Active fire risk management is an important first step, especially in areas like the RCW where substantial areas of natural vegetation occur directly adjacent to urban development. This is especially critical when you consider that if it were not for a slight shift in the wind patterns during the October 2003 Cedar fire, the fire could have continued through MCAS Miramar, across I-805 and down San Clemente Canyon, potentially traveling all the way to the coast (Figure 2-18).

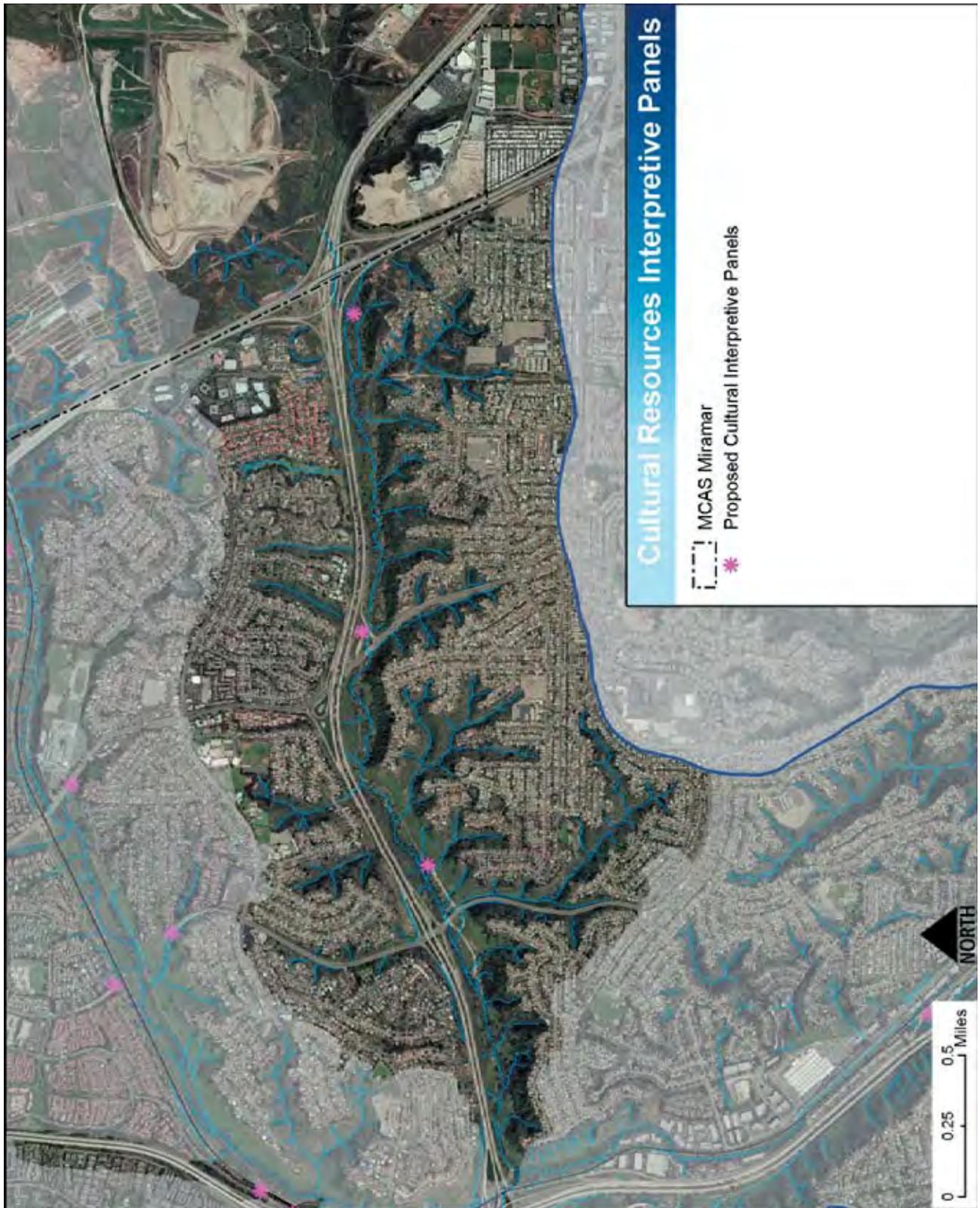
2.4.1.1 City of San Diego Fire Programs

Since the October 2003 fires, much more information is available to the public about how to manage private property for the reduction of fire risk, such as the City of San Diego's new guide to *Fire Safety and Brush Management*, which provides guidelines for brush management in canyon areas. Information on fire resistant plants is available in the city's *Landscape Technical Manual* and from other sources, including the California Native Plant Society. City documents can be found on the City's website at www.sandiego.gov. No city permits are required if you perform brush management on your own property consistent with city guidelines.

The city has also begun a new Community Emergency Response Team (CERT) program. Through CERT, the city offers free training and help setting up team-based emergency response plans staffed by community volunteers. The eight week, four hour per class program is designed to build team readiness in the case of a disaster, including fires, and is taught by fire-rescue personnel to Federal Emergency Management (FEMA) standards. The focus of the CERT program is helping the community better respond to a fire (or other emergency), not prevent fires.

The City of San Diego has a very small fire prevention staff (staffing consists of 1 supervisor, 1 fire prevention inspector, 1 code compliance officer, and 1 clerical) assigned to fire prevention activities associated with open space and natural lands. Their roles include community outreach, fire inspection and code compliance within the 331 square mile city (which comes to over 1,000 linear miles of wildland interface), which is interspersed with natural canyons, creeks and mesa tops. This limited staffing has made it difficult to get the word out to the

Figure 2-16: Proposed Interpretive Panels within Upper San Clemente Canyon



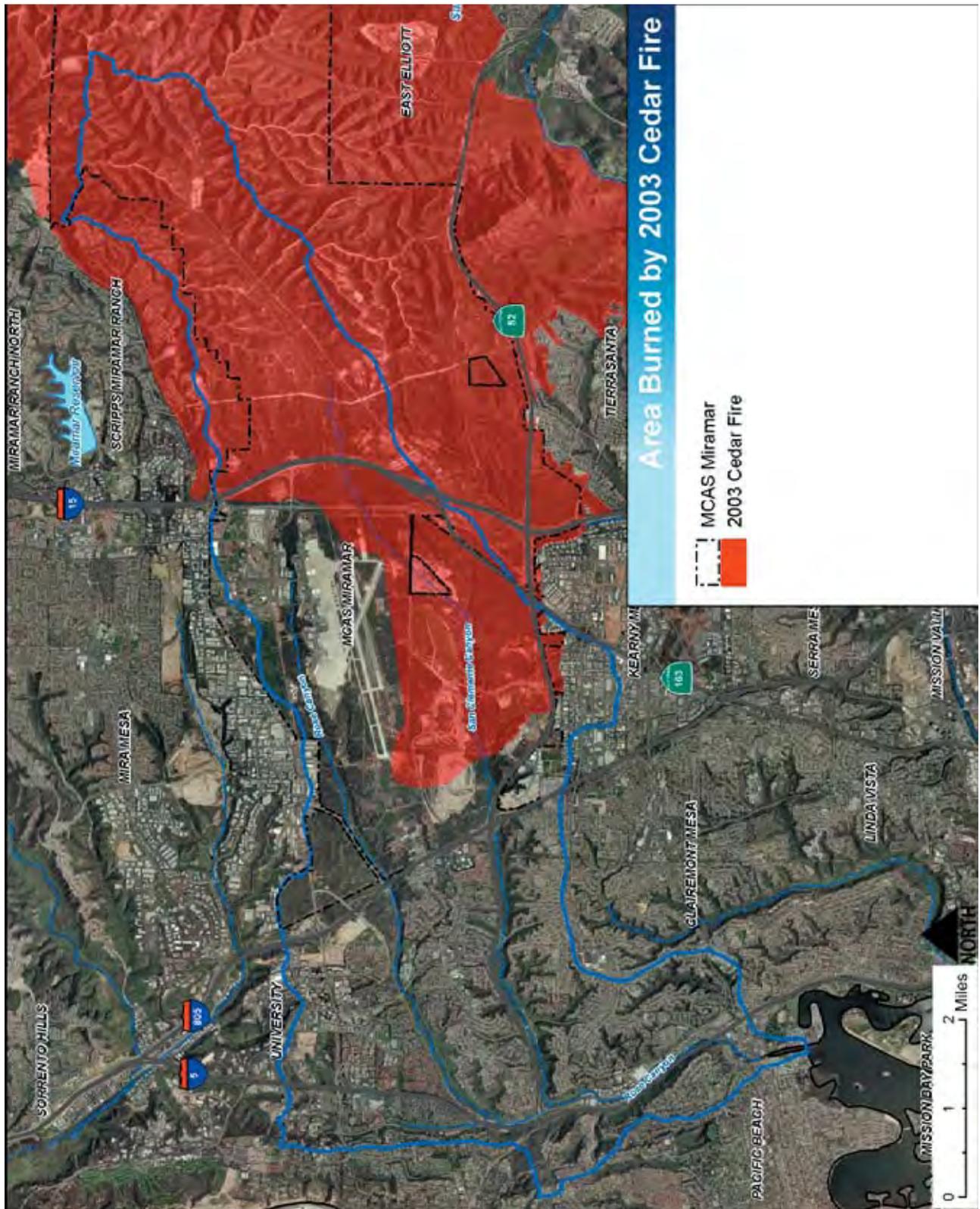
Rose Creek Watershed Opportunities Assessment

Figure 2-17: Proposed Interpretive Panels within lower Rose Creek



Action Recommendations

Figure 2-18: Aerial Map showing RC watershed fire line imposed over watershed line



Rose Creek Watershed Opportunities Assessment

public that fire prevention is everyone's responsibility. For example, the City staffing levels only allow for inspections on a complaint basis. Unfortunately, the public has grown complacent since the 2003 Cedar Fire and very little prevention activity on private land, including land in the RCW, has occurred. This is especially of concern in the RCW as many private properties occur adjacent to natural open space; most of which has not burned or been thinned in many years.

An Environmental Impact Report and Municipal Code changes were recently approved (September 19, 2005) by the City Council for the City's Brush Management Program. The revisions are designed to modify the City's practices based on knowledge gained from the 2003 Cedar Fire and other recent fires. The report included recommendations for new fire prevention activities including additional brush management on city-owned lands. Unfortunately, the City did not approve funds to implement many of the changes recommended in the report; stating "full scale implementation is not being proposed at this time, but instead could be phased in over the next several fiscal years if funding becomes available." Residents living near City-owned open space can seek a Right of Entry Permit to perform brush management on city land. More information on the brush management regulations can be found on the City's website.

2.4.1.2 MCAS Miramar Fire Programs

MCAS Miramar has a significantly different approach to fire prevention. One fire captain is assigned as the wildland fire and fuels management program manager to reduce the wildfire risk on the 25,000-acre base. This individual can assign firefighters of the 38-member fire department to help with ongoing wildland fire and fuels management activities. These projects include prescribed burns, tree and vegetation thinning, creation and maintenance of fire roads and fuel breaks, and roadside brush clearing. In 2005 alone, eight prescribed burns were conducted and another 97 acres of grass and chaparral were mechanically treated on MCAS Miramar. Fifty of these acres were community protection fuel breaks for Tierrasanta and Scripps Ranch. The base also utilizes the services of the engineering department of the Navy for fire prevention support. Fire prevention activities take place under the guidance of the Miramar Fire Departments' *Wildland Fire Management Plan* at the direction of the Department of Defense and the National Fire Plan, which includes guidelines for fire fighting and prevention in natural areas, with specific concerns for the protection of sensitive or endangered species. Public outreach and education programs are developed and coordinated by the base Fire Prevention Bureau.



2.4.1.3 Fire Risk Within the Watershed

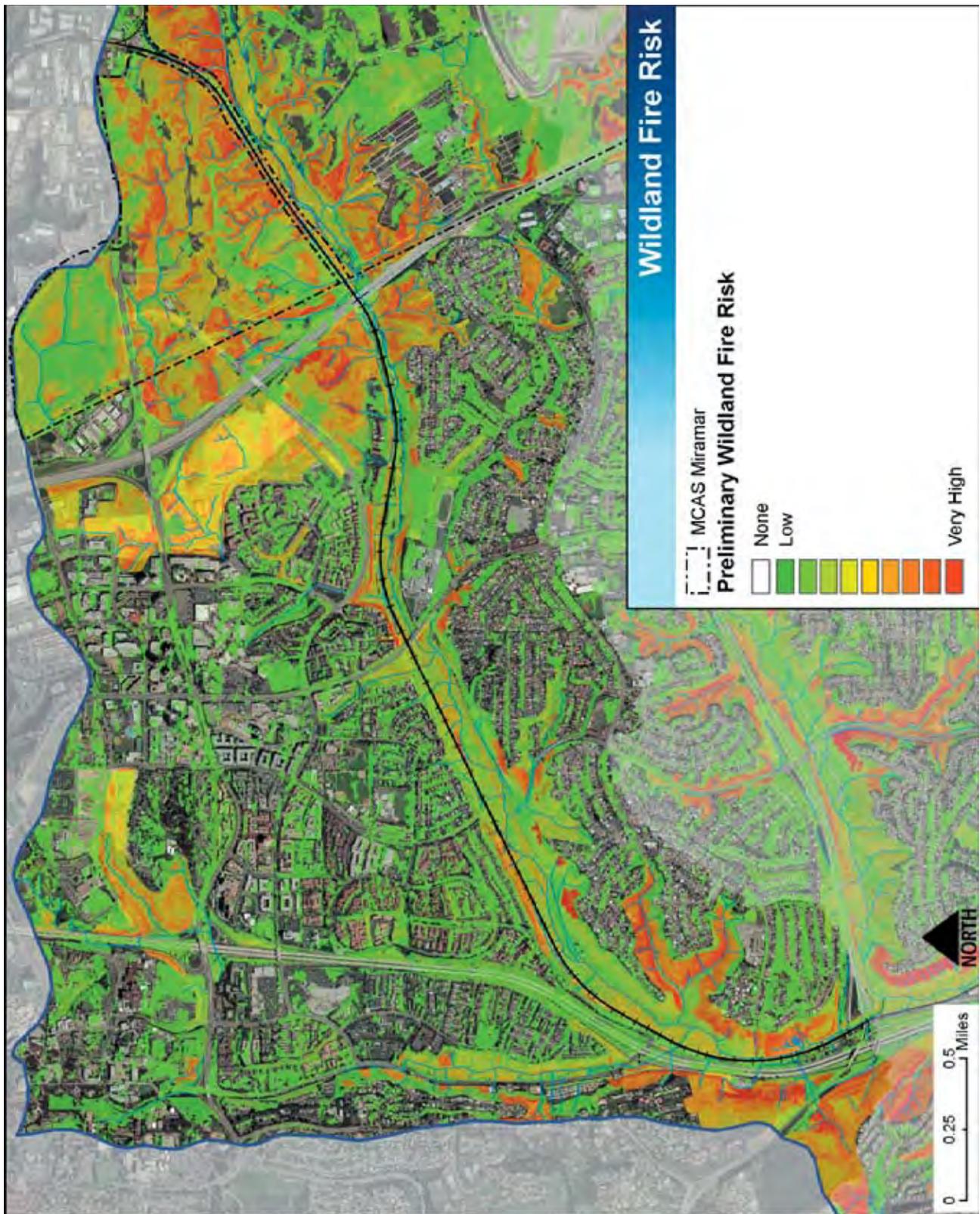
The RCW includes many small tributary canyons, as well as the two main canyons of Rose and San Clemente. During the 2003 Cedar Fire, 35% of the watershed was burned – most of that area was on MCAS Miramar. The remaining unburned area currently remains at a very high risk of wildfire (Figures 2-19 to 2-21).

2.4.1.4 Recommendations to Manage Fire Risk

- Conduct a Fire Risk Management study
- Create Fire Safe Neighborhood Councils
- Promote landscaping with fire-safe native plants
- Augment staff resources dedicated to brush management and fire prevention

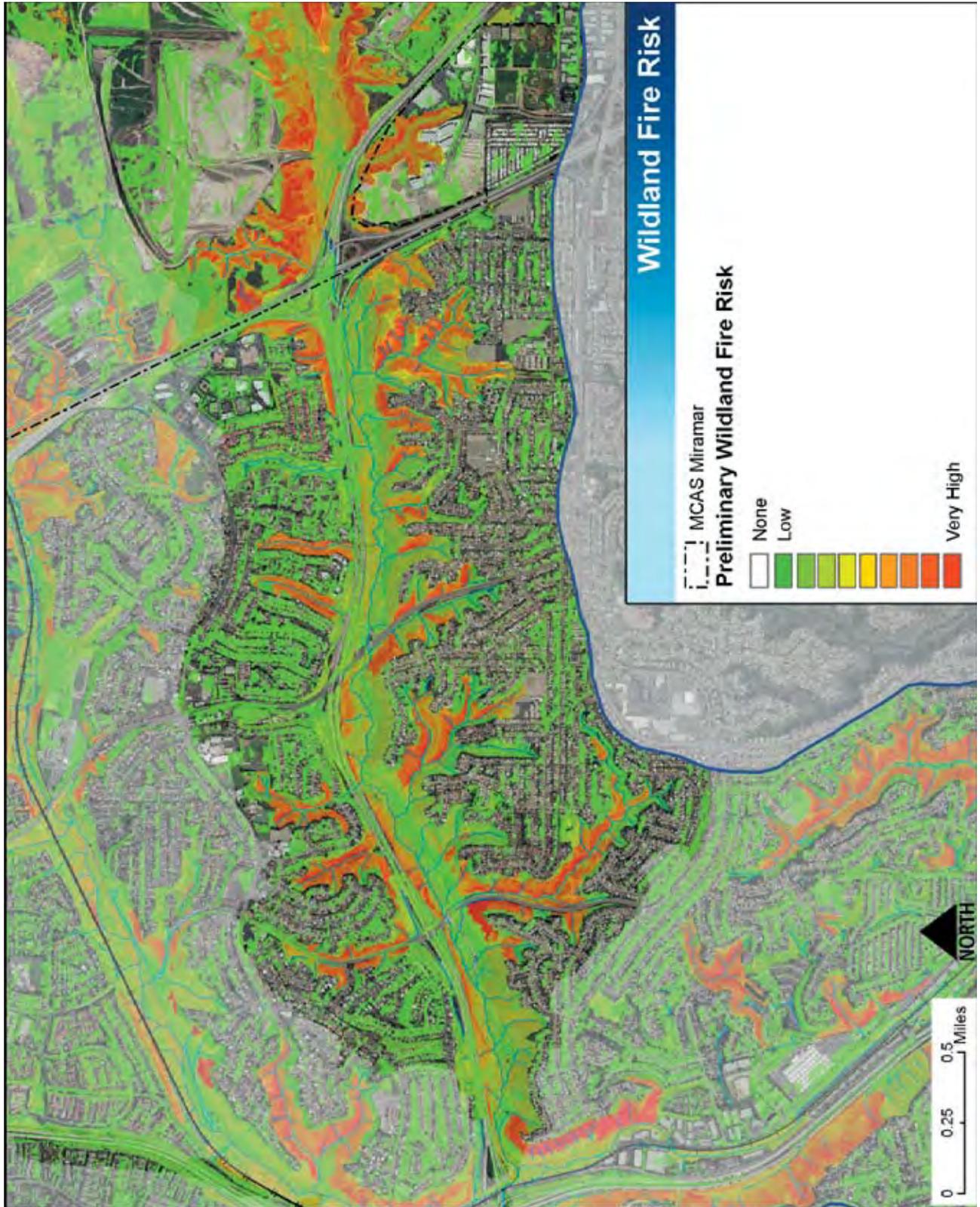
Fire will always be a concern in hot and dry southern California. Fire prevention is not a one-time event, but an ongoing activity that must be continued to be useful and effective. After the 2003 Cedar fire, common sense would tell you that residents in the unburned urban wildland interface would be taking aggressive steps to make their properties and communities more fire safe. This is especially of concern in the RCW where private property ownership makes up the second largest ownership within the watershed, the first being MCAS Miramar. Unfortunately, that has not been the case.

Figure 2-19: Preliminary Physical Fire Risk within Upper Rose Canyon



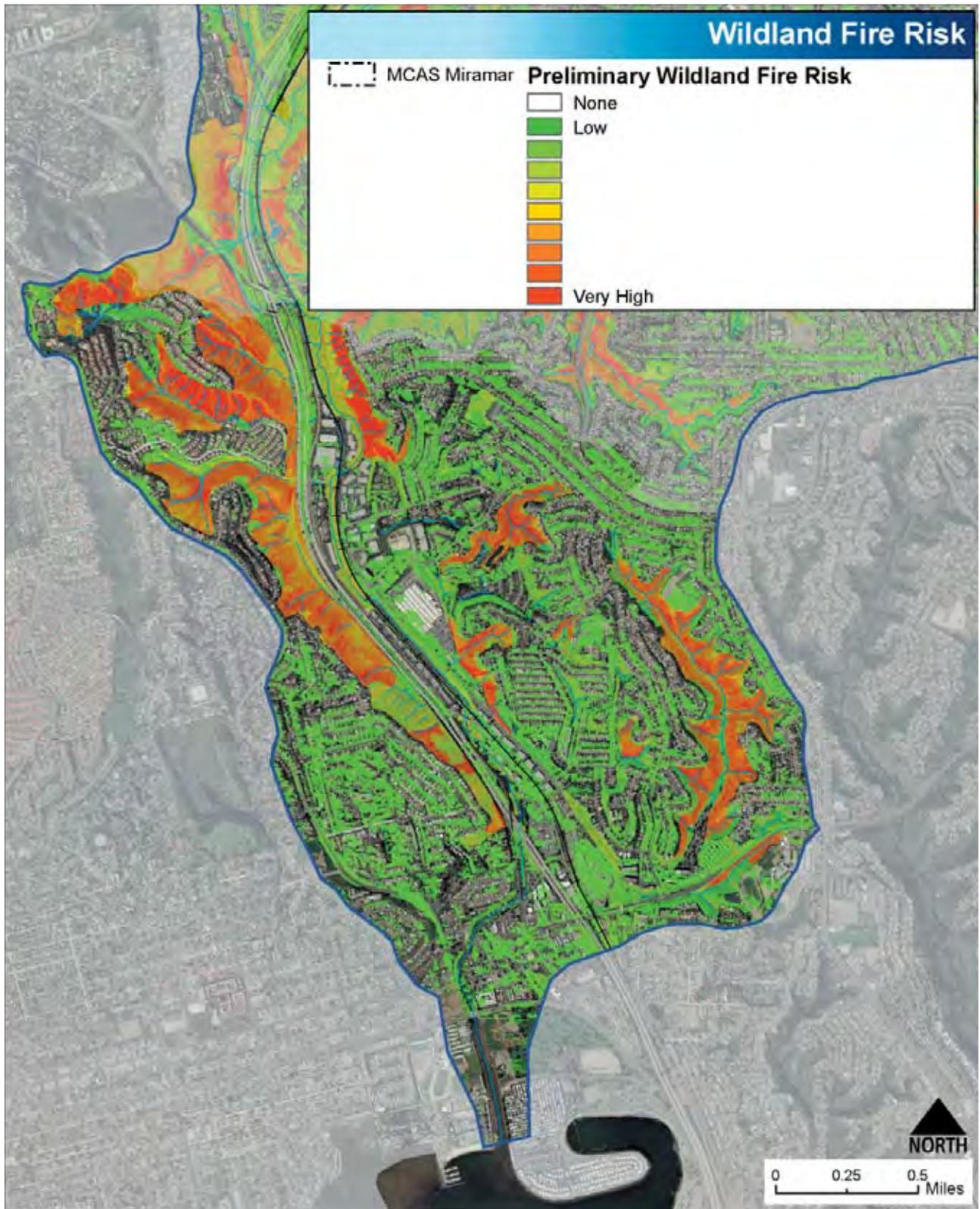
Rose Creek Watershed Opportunities Assessment

Figure 2-20: Preliminary Physical Fire Risk within Upper San Clemente Canyon



Action Recommendations

Figure 2-21: Preliminary Physical Fire Risk within lower Rose Creek



Rose Creek Watershed Opportunities Assessment

Fire prevention activities can be made consistent with protection and enhancement of natural resources, including the protection of sensitive and endangered species. Good planning and proactive steps will make San Diego as a whole more fire safe, both for people and nature. These fire safety recommendations, in addition to those recommended in the City's Fire Safety and Brush Management Guidelines and Landscape Technical Manual, if implemented, will help make the RCW more fire safe:

1. Conduct a Fire Risk Management Study for the Watershed

The proposed study should map and model fire risk within the RCW in an effort to understand potential ignition sources and likely fire behavior under a variety of weather conditions. The study should be developed in at least five integrated phases: GIS data development; Risk assessment modeling; Fire Simulation modeling; Action Plan development and Community Outreach. Much of the underlying data developed for this assessment can be used in the proposed Fire Risk Management study, thus making this a more cost-effective analysis than could have been done otherwise. The results would be available to more effectively plan fire prevention strategies in the watershed, such as targeting invasive species removal activities, including brush clearing, and to prioritize efforts in areas of the watershed with the highest fire risk.

2. Create Fire Safe Neighborhood Councils Throughout the Watershed

Residents of the RCW cherish their access and views to the wildland canyon system. As evidence of that, homes with canyon views are likely to be of much higher value than those without views. Because of the topography of the RCW, which includes many small tributary canyons adjacent to public open space, many residents live on dead-ends where streets end at a canyon edge. Many of these tributary canyons are 100% privately owned. Often residents have backyards that include steep canyons that fall behind their homes. Maintenance of these slopes can be daunting, so they are frequently left unmanaged. Vegetation (much of it non-native) has built up in these canyons over the years, the risk of fire is heightened, as is the threat to firefighters who cannot easily access the properties during a fire.

Model programs called *Fire Safety Councils* have been created to help residents band together to prevent fires and enhance emergency response in their own neighborhoods. Similar to neighborhood watch, the fire safe council model creates a way for neighbors to be proactive about fire prevention, to address brush management, to identify resources in a community that could be used to help fight a fire, and to know which neighbors might need special help in an emergency.

The data developed for this assessment and the results from recommendation 1 above could be available to help residents establish fire safety councils throughout the watershed. Implementation of other recommendations included in this assessment, such as the removal of invasive exotic species, could also be targeted in the highest fire risk areas.

3. Landscaping with Fire-safe Native Plants

In addition to thinning brush around your home, homeowners can take steps to reduce the threat of fire by replacing flammable landscape materials with plant materials shown to be fire safe. Homeowners interested in fire prevention that will enhance the natural values of the Rose Creek Watershed have many wonderful native plant varieties from which to choose.

The California Invasive Plant Council (www.calipc.org) and the California Native Plant Society have recently collaborated on a brochure entitled "Don't Plant a Pest" that provides examples of replacement plant materials for both fire hazard reduction and invasive exotics. There is additional information about fire safe natives on the Rose Creek Watershed Alliance Website, http://www.rosecreekwatershed.org/firesafe_plants.

4. Enhance Brush Management and Fire Prevention Resources

While both City Park and Recreation, Open Space Division, staff and Fire Department staff have demonstrated strong personal commitment to fire prevention, lack of financial resources have prevented City staff from undertaking a comprehensive fire prevention program in the Rose Creek Watershed, or other city watersheds. City staff respond largely on a complaint basis.

Action Recommendations

The Rose Creek Watershed is extremely vulnerable to wildfire; more so now in 2005 after the heavy rains of the 2004-2005 season. Recent fires (2005) in the Los Angeles area have shown how effective brush management can be in saving structures and lives. A relatively small upfront investment in prevention could result in significant savings in the Rose Creek Watershed as well. The City's recent action to approve changes in brush management rules resulting from the Cedar Fire is a good but incomplete first step. The City's own report (N31245) outlines the financial shortfall in the program but does not recommend full scale implementation rather, suggesting that implementation should be phased in as funds are available. To continue this approach is to risk a much large loss of structures, and potentially lives.

2.4.2 Recommendations to Reduce Landslides

- Reduce runoff on steep slopes*
- Remove slide-prone vegetation and re-vegetate*

Landslides are a naturally occurring event that can be triggered by human actions. Within the RCW, the natural geology, overlying soils and topography combine to create many areas with elevated risk for natural landslides (see Figure 3-3 in Section 3). The geologic layer-cake of marine sedimentary (ocean floor) and fluvial (stream sediment) deposits is often loosely consolidated (not hard bedrock) and highly erodible if exposed to the forces of wind and rain. The vast majority of the soils are also highly erodible when exposed and are characterized by slow infiltration rates (speed at which water soaks into the soil) that generate higher runoff volumes, which in turn increases the natural rate of erosion. Add to this the effects of the Rose Canyon Fault lifting the western edge of the watershed and the results are natural landforms that reflect the erodible nature of the geology and soils, in that Rose and San Clemente canyons start off as deeply incised canyons in the coastal mesa with high steep side slopes and graduate to shallow canyons with gentler side slopes.



Human activities can increase this risk. The conversion of natural land to impervious surfaces (roof tops, patios, driveways, streets, etc) increases the runoff from a storm. Some private lands (typically those along a canyon rim) do not drain all of the storm water runoff to the City's storm drain system, but instead direct the runoff to the natural slopes which typically results in increased erosion and can destabilize the slope causing a landslide to occur. Additionally, the way homeowners manage the natural slopes (grading and landscaping) can create conditions that can lead to landslides as well. A prime example is the use of iceplant (*Carpobrotus* sp.) as landscaping on steep slopes. This practice is widespread and often implemented for fire protection purposes. However, when heavy rains saturate the soils and engorge the iceplant stems and leaves, the added weight of the iceplant in combination with its shallow root system can cause localized landslides as were prevalent during the storms of spring 2005. Any plant that has its root zone at a shallow level with no other plants that are deeper rooted in the same area can have a similar affect. Figures 2-22 to 2-24 show those areas with steep slopes (>25%) that are currently vegetated with iceplant.



Landslide prevention activities can be made consistent with protection and enhancement of natural resources, including the protection of sensitive and endangered species. These recommendations, if implemented, will help reduce landslides within the RCW to more natural frequencies:

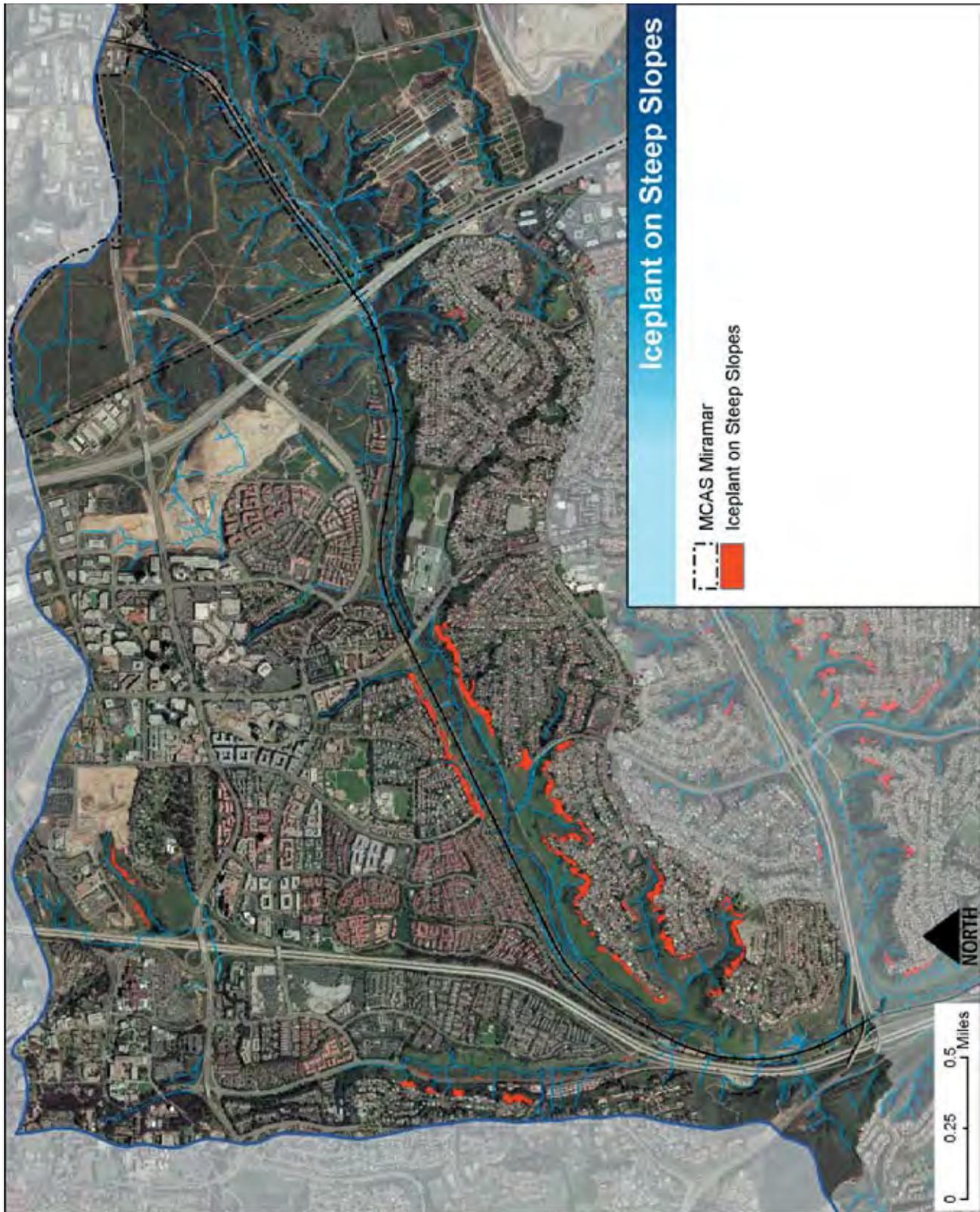
1. Reduce storm water flows down the steep slopes

Private homeowners along the canyon rims should re-direct or detain storm water, preventing it from discharging down the steep slopes in a concentrated flow. This can be accomplished through re-grading portions of the site to direct flow away from the canyon rim or through the installation of storm water infiltration Best Management Practices (BMPs) that capture storm water and allows it to soak into the soil over time. These BMPs are also discussed later within the Storm Water Reduction (Section 2.6.4) in the Water Resources actions.



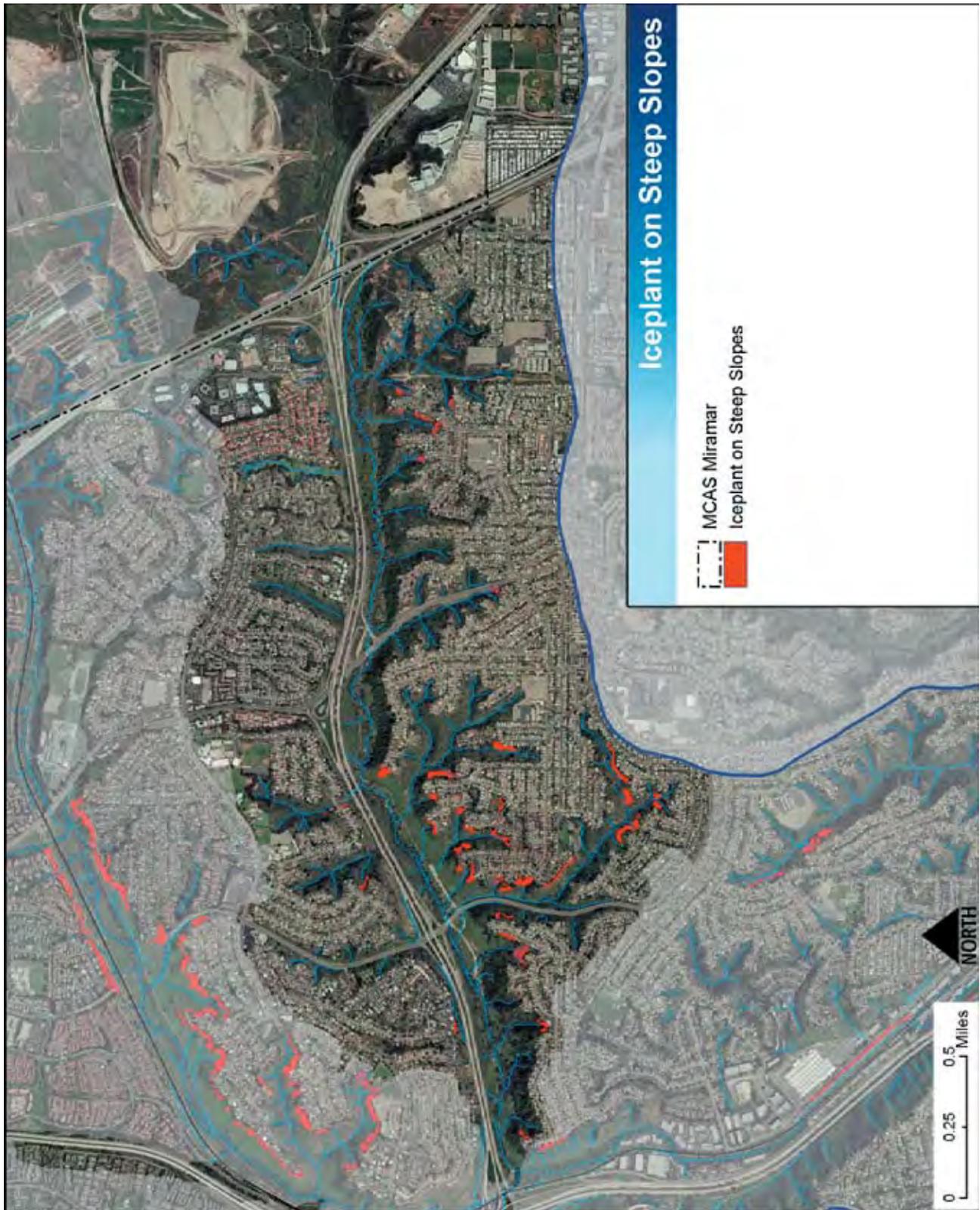
Rose Creek Watershed Opportunities Assessment

Figure 2-22: Steep slopes with Iceplant within Upper Rose Canyon



Action Recommendations

Figure 2-23: Steep slopes with Iceplant within Upper San Clemente Canyon



Rose Creek Watershed Opportunities Assessment

Figure 2-24: Steep slopes with Iceplant within lower Rose Creek



Action Recommendations

2. Remove Iceplant and revegetating with non-invasive and less slide prone plant material

Private homeowners along the canyon rims should remove iceplant from the natural slopes and revegetate with other plant materials that are fire safe, but do not pose the same risk for landslides. Native plants are recommended, but other non-invasive landscape plants could be used as well. Consultation with a landscape architect, landscape designer, or native plant specialist may be necessary to determine an appropriate solution for a given site. The California Invasive Plant Council (CallIPC) (www.calipc.org) and the California Native Plant Society have recently collaborated on a brochure entitled "Don't Plant a Pest" that provides examples of replacement plant materials for both fire hazard reduction and invasive exotics. Many of the recommended replacements would be appropriate for this purpose as well. The brochure is available through the CallIPC website (http://groups.ucanr.org/ceppc/Landscaping_Alternatives/). The website has a variety of other useful informational bulletins and brochures as well. At a minimum, the addition of some deeper rooted container plants intermixed throughout the iceplant covered slope would reduce landslide potential as well, but would not provide the added benefits of removing an invasive plant species and providing native habitat for local wildlife.

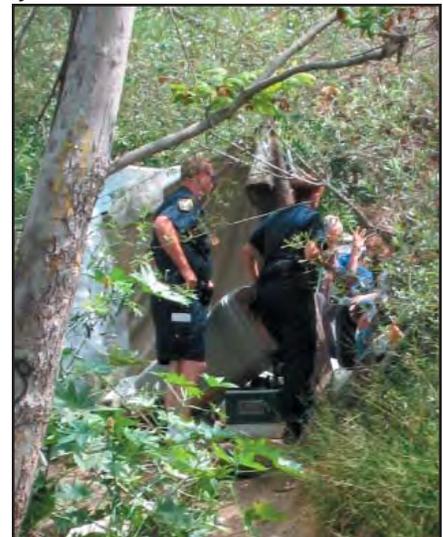


2.4.3 Recommendations to Reduce Illegal Activities on Open Space Lands

- Incorporate public safety improvements into enhancement projects
- Inform public of appropriate action when witnessing an illegal or suspicious activity
- Develop a long-term program for addressing chronic illegal activities
- Enhance Police Department staffing to better address public safety concerns.

Policing a natural area surrounded by an urban environment presents unique challenges. If the area offers isolation due to its location and/or due to an overgrowth of vegetation, and if general public access is limited, problems can arise. If minor problems are not permanently resolved, they can become more serious. Natural areas can become centers of illegal activity, to the detriment of the general public and of the plants and animals that reside there.

While public safety in the RCW is generally on par with the rest of the City of San Diego, (See 2003-2005 Crime Statistics in Chapter 4, Section 4.4 on page 4-14) lower Rose Creek in eastern Pacific Beach has unfortunately developed as a base for criminal activity due in part to dense vegetation (including exotic invasives). Dense vegetation provides concealment for illegal activity, including illegal lodging and it limits accessibility to police. While illegal activity is more frequent in lower Rose Creek, other open space areas in the watershed have also been subject to illegal activity, most of which has been addressed by the City Park Rangers who work in Rose and San Clemente canyons.



Police inspecting an illegal lodging in lower Rose Creek for suspected drug use

The creek is not a self-supporting environment- those living in the creek must come out to the surrounding community. Police officers know from their observations and experience that the main problem in the creek is centered on the illegal lodging activity; trespassers are using the creek as a base for criminal activity. Crimes and arrests range from assaults, theft, and drug violations to simple illegal lodging. Officers acknowledge that arrests and police sweeps are not providing a long-term solution to the problem. Police officers assigned to work this area know of the chronic problems that are taking place in the creek; it's just that periodic police sweeps and clean-up efforts, absent a comprehensive integrated policing strategy, result in at best, short term success.

Rose Creek Watershed Opportunities Assessment

The presence of illegal activity and dense exotic invasive plants in lower Rose Creek have combined to create the worst of all environments – it is unsafe and unhealthy for the general public and for the native plants and animals that depend on the creek, and the rest of the watershed, for their survival.

Long term, the solution may lie in addressing the inter-related core public safety issues; concealment, accessibility and location, concurrent with other recommendations in this assessment. This section includes recommendations that target public safety:

1. Incorporate Public Safety Improvements into Watershed Enhancements

This assessment includes recommendations to restore and enhance the watershed to promote its natural and recreational values. These recommendations include construction of new public access to lower Rose Creek to provide continuous public recreational trail “off road” (not shared with autos) from the upper watershed to Mission Bay. In planning and implementing all the improvements recommended in this assessment, public safety considerations should be researched and incorporated wherever possible.

Restorations and enhancements should be designed to manage the vegetative canopy to allow both visitors and public safety personnel to see through the canopy, wherever possible. In riparian enhancement areas near storm drains, an added benefit to this approach will be to allow for freer movement of storm water through the watershed, thus reducing storm drain maintenance costs.

Trails and/or trail access should be designed to support public safety patrols. Law enforcement patrol presence is required to ensure public safety and resource protection, including emergency response.

2. Public Education – Reporting Illegal or Suspicious Activity

Throughout the investigations for this assessment, members of the public raised concerns about illegal activity in the watershed, especially in lower Rose Creek. Often the public would raise a concern over an illegal activity they had witnessed but when questioned whether they had reported it to the police, they indicated they had not. This was at times based on a perception that “nothing would happen” or a fear of retaliation.



An Illegal BMX track eroding after spring rains



Same Illegal BMX track showing its adjacency to residential development

Action Recommendations

Because the City's financial resources are limited, and allocation of public safety resources is based on need -- and need is determined based primarily on reported crimes - it is critical that the public report illegal and suspicious activity in the watershed. All violence and crimes in progress should be reported at once via 911. All suspicious activity should be reported to the Police Department by calling (619)531-2000. It is important that people know that the police will take appropriate action on all reported incidents. Calls coming into the Police are categorized based on the information given by the caller. Suspicious activity would include drug use, unusual behavior and suspected stolen property. Citizens seeing what they believe to be drug use or sales should safely leave the area without confrontation and call the Police Department at (619) 531-2000 with a description of the suspects.

An education program should be developed to help the public know when the Police should be called and to better coordinate public safety activities in the watershed. Through the implementation of this assessment, there may be another method set-up to report campsites and dump sites. However, this would not take the place of calling the Police to report dangerous activity.

3. Develop a long-term program for addressing chronic illegal activities

The Police Department has periodically completed sweeps through lower Rose Creek to eliminate illegal encampments. Unfortunately, the camps often return as the issues that made the creek amenable to such activity remain. With implementation of the recommendations in this assessment, the creek will be less likely to be used as a base for criminal activity. However, to make improvements sustainable, it will require a coordinated and on-going program that includes active public participation to put "eyes on the creek", such as through reporting of suspicious activity and these recommendations:



Illegal BMX/Motorcycle track hidden in tributary canyon



Illegal dumping of construction and landscape waste

Rose Creek Watershed Opportunities Assessment

Create a consistent process for the public to report encampments in the RCW to enable the police and other members of the San Diego Police Department's Homeless Outreach Team (HOT) to eliminate the encampments while providing services and outreach to the homeless. Enforcement without camp elimination will not be effective.

Provide regular visits to the RCW by the San Diego Police Department's Homeless Outreach Team so that the team's specially trained officers and clinicians can offer services to the homeless. This effort should also include a regular census of people found living in the creek that will establish a better measure of the issues and identify problem sites.

Work with the City Attorney Neighborhood Prosecution Unit for proper follow-up to criminal activity. This would include prosecution with a focus on the needs of the community and offender-rehabilitative sentencing that may include conditions requiring substance abuse treatment for offender and geographic probation that would encourage the offender to stay away from the area.

Provide quarterly analysis of criminal activity in the watershed so that trends can be identified and addressed proactively. A preliminary crime analysis is shown in Chapter 4, Section 4.4 on page 4-14.

4. Augment Police Department Staffing

Due to staffing limitations, officers working in the Rose Creek Watershed have very little time available to concentrate on prevention. Almost all daily operations are associated with responding to illegal or suspicious activities, not preventing crime. Staffing limitations, combined with the physical constraints in the watershed (dense vegetation, no access) have combined to create a haven in lower Rose Creek for illegal activities. As the recommendations in this assessment for restoration are implemented and public access improves in the area, public safety will improve as well. However, to maintain and enhance the value of those improvements, additional officers with time to focus on prevention are recommended.

2.5 Recommendations for Recreational Trails

- Improve access to the open space system
- Improve access within and between open space areas
- Create regional recreational connections and loops
- Create safe and legal railroad crossings

The RCW offers a multitude of recreational opportunities for local residents and visitors. Two large natural open space parks and the gateway to San Diego's world-renowned Mission Bay Park are accessible to residents and visitors. There are hiking, bicycling and jogging trails, and many opportunities to observe nature including three interpretive nature trails. Active parks for soccer and other team sports are found throughout the watershed. The watershed also includes dog parks and a golf course.

Visitors to the RCW enjoy generally good automobile access to two of the City of San Diego's open space parks in Rose and San Clemente canyons. Automobile access is also readily available to Mission Bay Park.



Interpretive nature trail in San Clemente Canyon at western most end of Regents Road parking lot



Interpretive nature trail in Rose Canyon at west end of Governor Drive



Interpretive nature trail in Rose Canyon near Genesee Avenue



Interpretive nature trail in Rose Canyon at the end of Governor

Action Recommendations

What is not consistently available in the watershed is pedestrian and bicycle friendly access to the public recreation spaces within the watershed. Also lacking is pedestrian and bicycle friendly access between the public recreation spaces including the canyons, creeks and Mission Bay Park. This is consistent with 1960s and 1970s-era land use planning that gave birth to University City and Clairemont; land use planning that favored the automobile over pedestrians and cyclists and all but ignored the connectivity of natural systems. While the distances to travel within the watershed are easily walkable and were certainly walked by Native Americans, today there are obstructions that make it inconvenient in places, illegal at times, often unpleasant and potentially unsafe.

For example, today a cyclist can ride from the upper watershed, University City or Clairemont to Mission Bay – but with some difficulty. The ride within Rose Canyon Open Space Park or Marian Bear Memorial Natural Park is on a dirt path, limiting access to mountain bikes only. From the west end of Marian Bear Memorial Natural Park, a rider will make awkward and potentially unsafe creek crossings before illegally crossing the railroad tracks from either park (there are no legal crossings) to join the existing Rose Canyon Bike Path which drops onto Santa Fe Street adjacent to lower Rose Creek. From that point, the rider is on a public street directly paralleling Interstate 5 until joining the Rose Canyon Bike Path again at Mission Bay Drive.

At this point, the bike path is directly adjacent to Rose Creek through a section of Pacific Beach that suffers (according to police officers working the area) from high crime problems including drug sales, vagrancy and vandalism. That section of the trail later enters Mission Bay Park via a narrow path with a high chain link fence on both sides, turning a few times before opening back up to a section of North Mission Bay Drive that provides access to the Mission Bay Golf Course and De Anza Cove to the east. In the near future, a bicycle/pedestrian bridge will connect North Mission Bay Drive with Pacific Beach Drive that travels to Mission Bay via Campland by the Bay. If the cyclist knew that the Campland by the Bay lease requires that the public be allowed access to Mission Bay, they would enter Campland, riding through to the mouth of Rose Creek and to Mission Bay.

Historic street design in the watershed has created some unfriendly environments for pedestrians and cyclists. While there are sidewalks along Genesee Avenue and Regents Road, the main streets providing access to the canyon parks, the sidewalks are largely directly adjacent to the public streets. The streets carry high levels



of traffic at high speeds; in some cases, such as the off ramp from State Route 52 west at Genesee Avenue, a pedestrian is required to dash across the State Route 52 ramp while cars are exiting towards them downhill on a curve at freeway speeds. The cyclist is faced with the same challenge, but at that point is cycling uphill, making the crossing daunting for all but the strongest cyclists. It is frightening at best and dangerous at worst. For this reason, even though the canyon parks are directly accessible and within walking or cycling distance to residents of Clairemont and University City, many visitors still arrive by car.

For those visitors that do walk from Clairemont or University City, there is neighborhood trail access in a few places. Unfortunately, that access is not generally well marked and thus the first time trail user has no way of knowing just where the trail might lead.

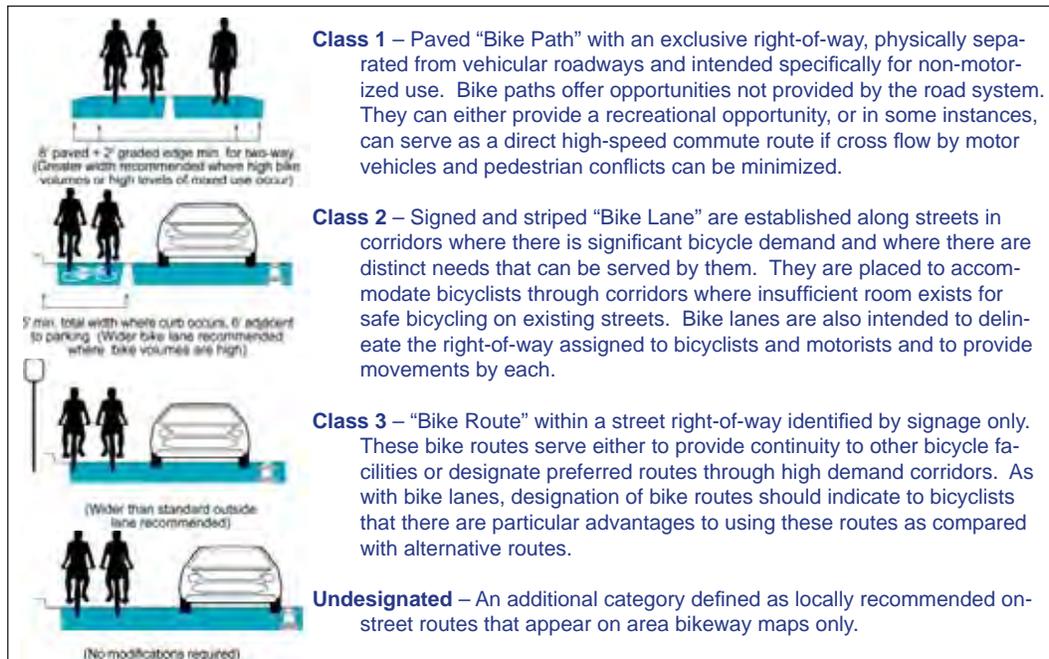
Parking is also an issue. Both Marian Bear Memorial Natural Park and the Rose Canyon Open Space Park are easily accessible by car from Regents Road and Genesee Avenue. Yet, not all parking locations are clearly defined. For example, the parking area to enter Rose Canyon Open Space Park near Genesee Avenue is located at University City High School, but there is no signage to direct potential park visitors into the lot.



Rose Creek Watershed Opportunities Assessment

Fortunately, in recent years the City of San Diego has placed a higher priority on public trails and is creating a city-wide trails master plan. While there are always general constraints that may affect implementation of new trails such as property ownership, sustainability and maintainability as well as the potential to conflict with other public utilities such as sewer lines and rail lines, the Rose Creek Watershed offers many opportunities to provide new and improved public access.

The recommendations in this assessment for recreational resources seek to enhance public access to the watershed while improving public safety and restoring natural systems. Recommended trail connections span a range of facility types that include full Class I multi-use paths to narrow single track style pedestrian and mountain bike trails. The development of continuous recreational trails from Interstate 805 to Mission Bay along Rose and San Clemente canyons and connecting the two canyons in the upper watershed is part of the long-term vision.

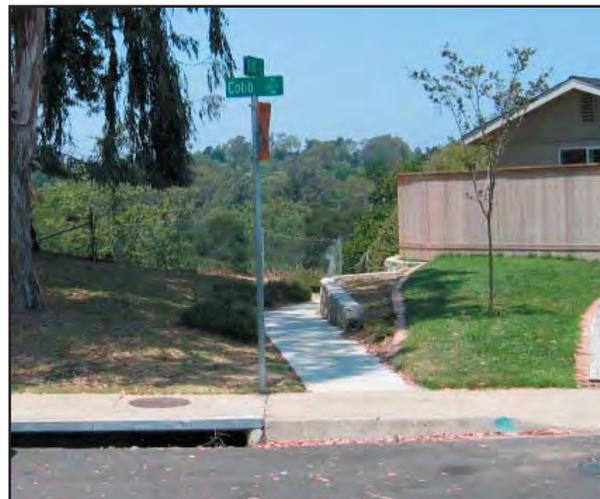


2.5.1 Recommendations for improving Access to the Open Space System

- Maintain and enhance existing access to the open space system
- Improve information and amenities provided at access points
- Provide open space and trail information to the public via a web site

How to access the recreational resources of the RCW can be an impediment to recreation usage by new users. Genesee Avenue and Regents Road provide primary access to city park lands in Rose and San Clemente canyons. Access improvement recommendations include:

1. Trail access is an important element of any recreational trail system. The trail system could be an asset, but if it is not easily accessible, it loses its value as a resource to the community. The existing recreational trail system is currently accessible through a combination of fourteen designated and undesignated entry points (Figures 2-25 to 2-27). All of these access points, as well as six others (Figures 2-25 to 2-27) are recommended to be maintained and enhanced based on the following guidelines.



Action Recommendations

- A. All trail access points should have an information kiosk that displays: a detailed map of trails within the region (e.g. Rose Canyon, San Clemente Canyon, and lower Rose Creek); a regional map showing how trails connect to adjacent communities; and information on appropriate trail usage and etiquette.
- B. All trail access points should have receptacles for trash, as well as recyclables. Arrangements with local community groups may be required to manage the proper dumping and disposal of these receptacles if the trail access point falls outside of City of San Diego land ownership.
- C. Educational information pertaining to ecosystem health; sensitive plants & animals; invasive plants & animals (Section 2.2.2); culture and history of the region (Section 2.3.3); flooding; etc. should be incorporated wherever possible.

D. Outreach information pertaining to residential responsibilities of avoiding contributions to infestations of invasive exotic species, storm water runoff and pollution should be included at those access points predominantly used by local residents.

E. assessments of sidewalk and other pedestrian friendly improvements should be conducted for each access point and be prioritized for implementation.

F. The trail access point identified at the intersection of Nobel Drive and Judicial Drive (Figure 2-28) is particularly important as it provides a direct connection from the Nobel Athletic Area and Library (currently under construction) into the Rose Canyon Open Space Park and the associated trail system. Whether or not the proposed Coastal Rail Trail is implemented, a trail connection from this intersection into Rose Canyon is critical for developing a multi-use trail connection to Mission Bay.



- 2. Additionally, digital versions of the trail maps for the Upper Rose Canyon, Upper San Clemente Canyon, and lower Rose Creek should be made available to the public via the Rose Creek Watershed website (<http://www.rosecreekwatershed.org>) and/or the City of San Diego Park and Recreation Department website to facilitate the orientation of new and existing trails users.

Rose Creek Watershed Opportunities Assessment

Figure 2-25: Trail Access Points within Upper Rose Canyon

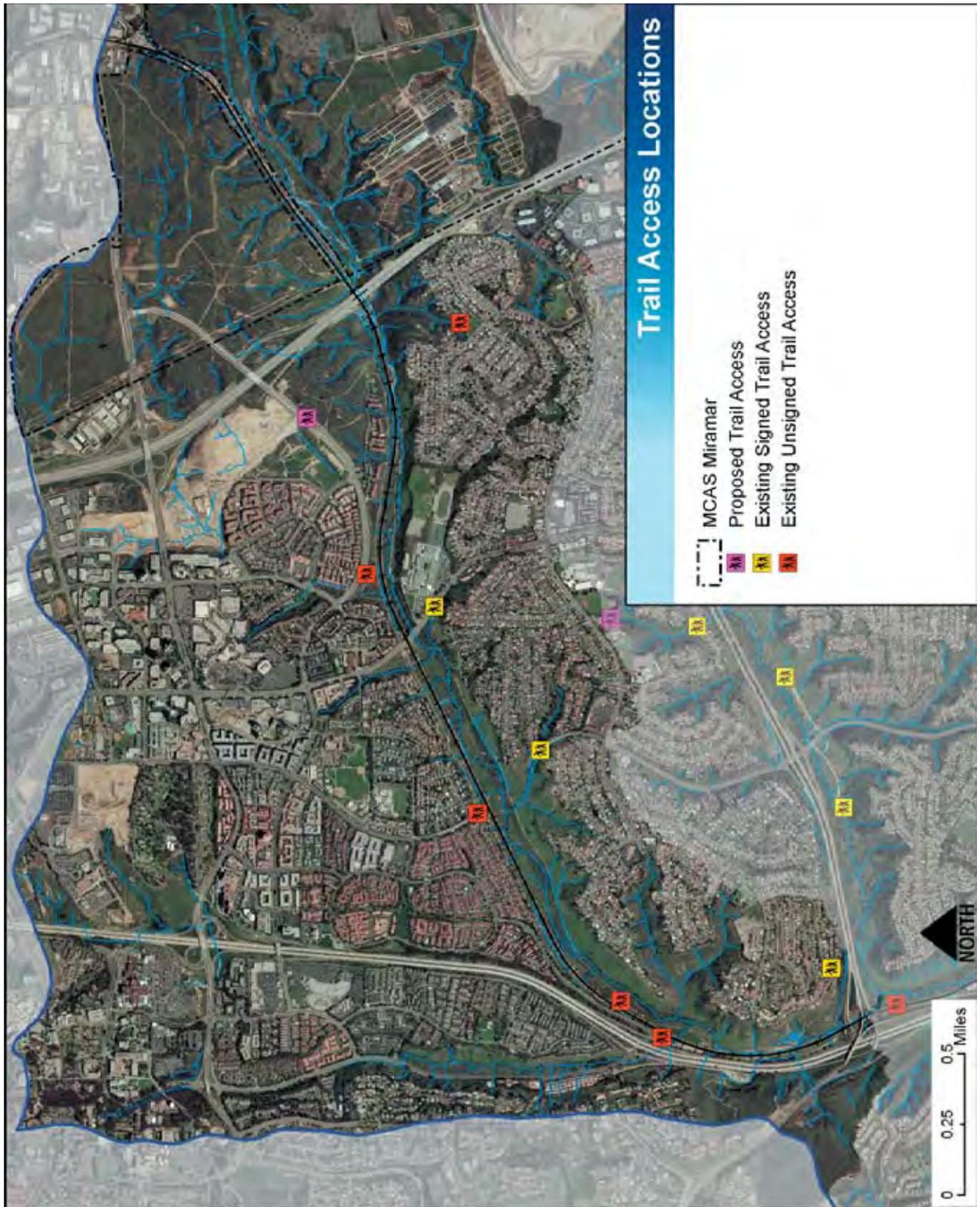
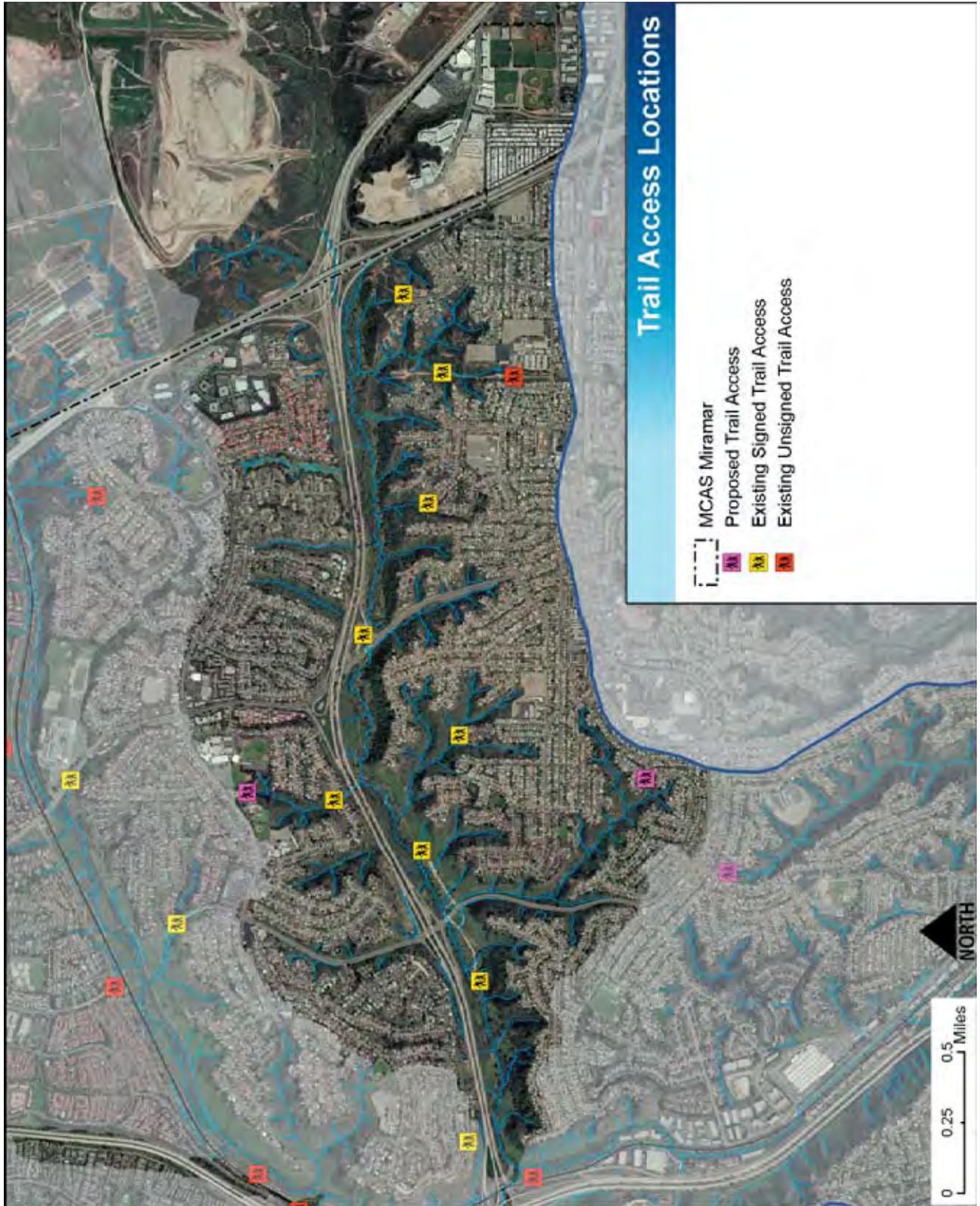


Figure 2-26: Trail Access Points within Upper San Clemente Canyon



Rose Creek Watershed Opportunities Assessment

Figure 2-27: Trail Access Points within lower Rose Creek



2.5.2 Recommendations for improving Access within the Open Space System

- ☑ *Plan and implement new trail sections to improve trail system connectivity*
- ☑ *Develop trail system connectors utilizing surface street and sidewalks*
- ☑ *Stabilize and improve creek crossing for maintenance vehicles, bicycles, and pedestrians*

Opportunities to improve the recreational access within and between the various portions of the open space system would improve connectivity with the surrounding communities; provide year-round access; enhance the trail experience by providing loop trails; open up access to new areas; and improve the usability of the existing trails. Recommendations to accomplish these improvements include: new soft surface trails, sidewalk inter-connections, stabilized creek crossings, and bicycle/pedestrian bridges.

The City is currently undertaking long-term access planning for sewer mains in Rose and San Clemente canyons. As a general rule, the best-case for the health of the watershed would be to remove sewer lines from our canyons and place them in areas more directly adjacent to urban infrastructure where regular access and monitoring can be better maintained. For those sewer lines left in the canyons, trail recommendations must consider the City's needs for access to sewer lines (and storm drains) for maintenance to encourage joint use to prevent creation of duplicative trails.

1. Proposed new trails

Ten segments of new bicycle and pedestrian trails are recommended for further assessment and potential implementation, as shown in Figures 2-28 to 2-30. They represent 4.5 miles of new trails. The trails are proposed for a variety of reasons, including by-passing problematic creek crossings, connecting isolated tributary trails, and integrating recreational trails as part of environmental improvement projects. Detailed descriptions of the trail segments are provided in Chapter 4, Section 4.5.1 on page 4-15.

2. Trail System Connectors

In addition to the new proposed trail segments, seven connector routes are proposed using existing street sidewalks to inter-connect various trail access points to one another and effectively form a series of loop trails. These connector trails should be assessed for potential pedestrian and bicycle improvements for public safety. Otherwise, all that is needed for their implementation is general agreement by the community that these are the appropriate streets to use and then include them as part of the trail maps. Detailed descriptions of the trail connectors are provided in Chapter 4, Section 4.5.2 on page 4-17.

3. Creek Crossings

Creek crossings by trails, paths, and utility roads can cause areas of streambed and bank erosion due to the increased disturbance by feet, bicycles and maintenance vehicles. There are numerous creek crossings throughout the watershed (Figures 2-28 to 2-30), many of which are only crossable by pedestrians during low flow conditions. They act as barriers during any significant stream flow. The process of stabilizing these crossings with large cobbles and boulders to prevent future erosion can also create opportunities for makeshift pedestrian crossings that are available during a larger range of stream flows. The creek crossings have been categorized into two basic groups: maintenance roads and bicycle/pedestrian crossings. A typical solution for each category has been developed as described below. Additionally, there are a four existing crossings that would benefit from the construction of a bicycle/pedestrian bridge.

- A. Maintenance road crossings should be designed to remain stable during periods of high stream discharge and stand up to usage by lighter-weight park ranger and heavy-duty utility maintenance vehicles. These crossings should be constructed at the same elevation of the existing streambed using 100 – 250 pound hand placed rock to construct a relatively even driving surface and minimize the distance between boul-



Rose Creek Watershed Opportunities Assessment

Figure 2-28: Access Issues within Upper Rose Canyon

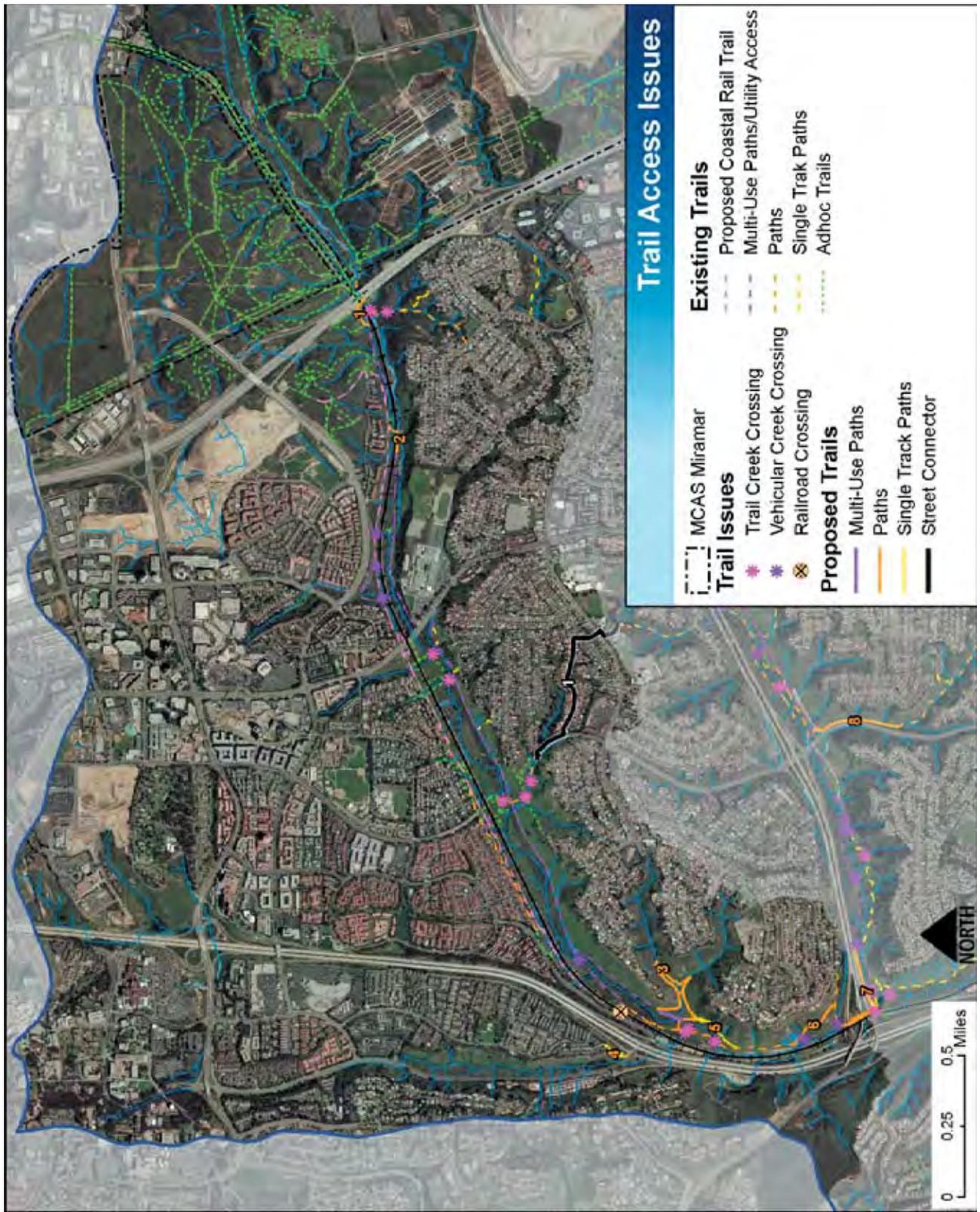
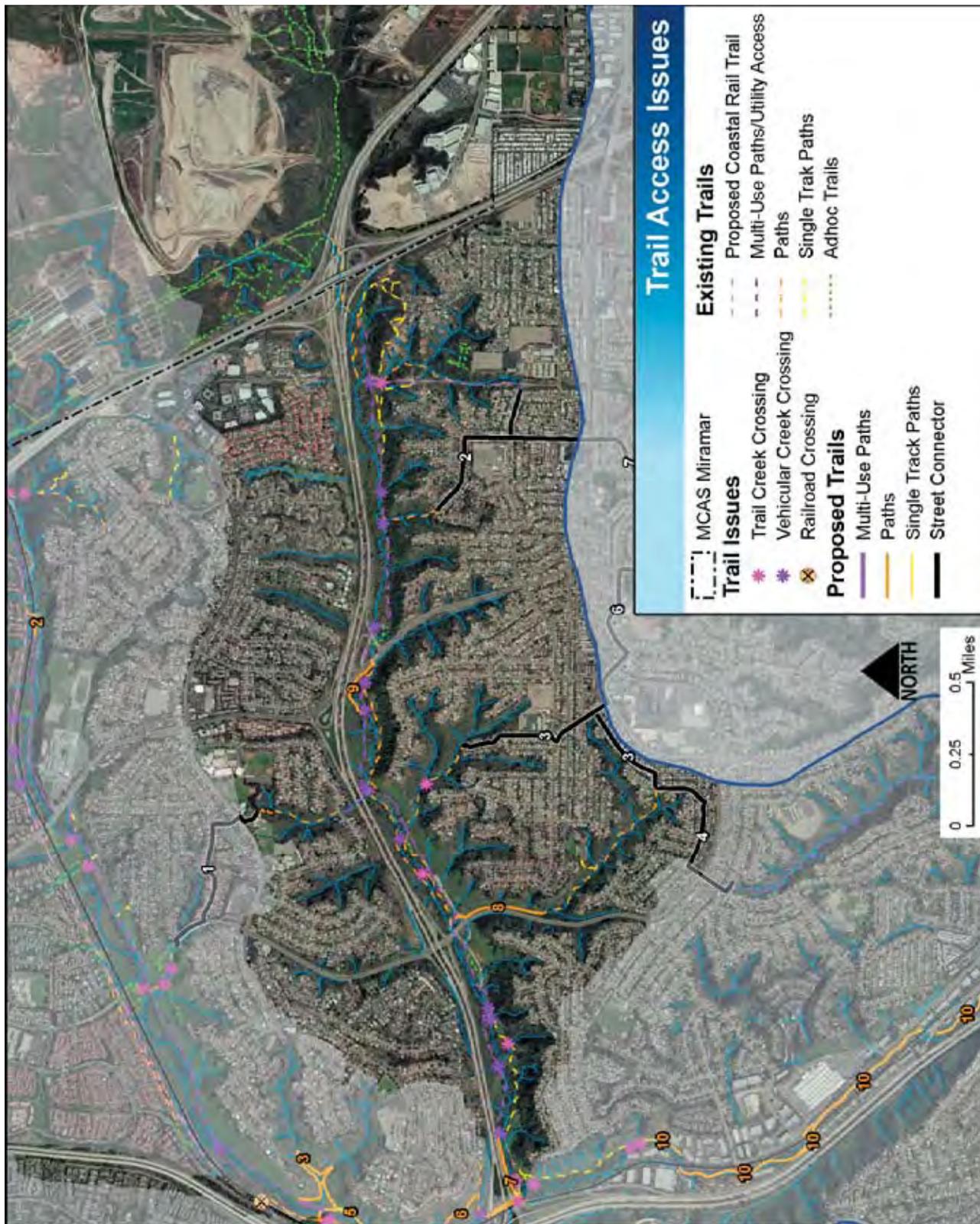
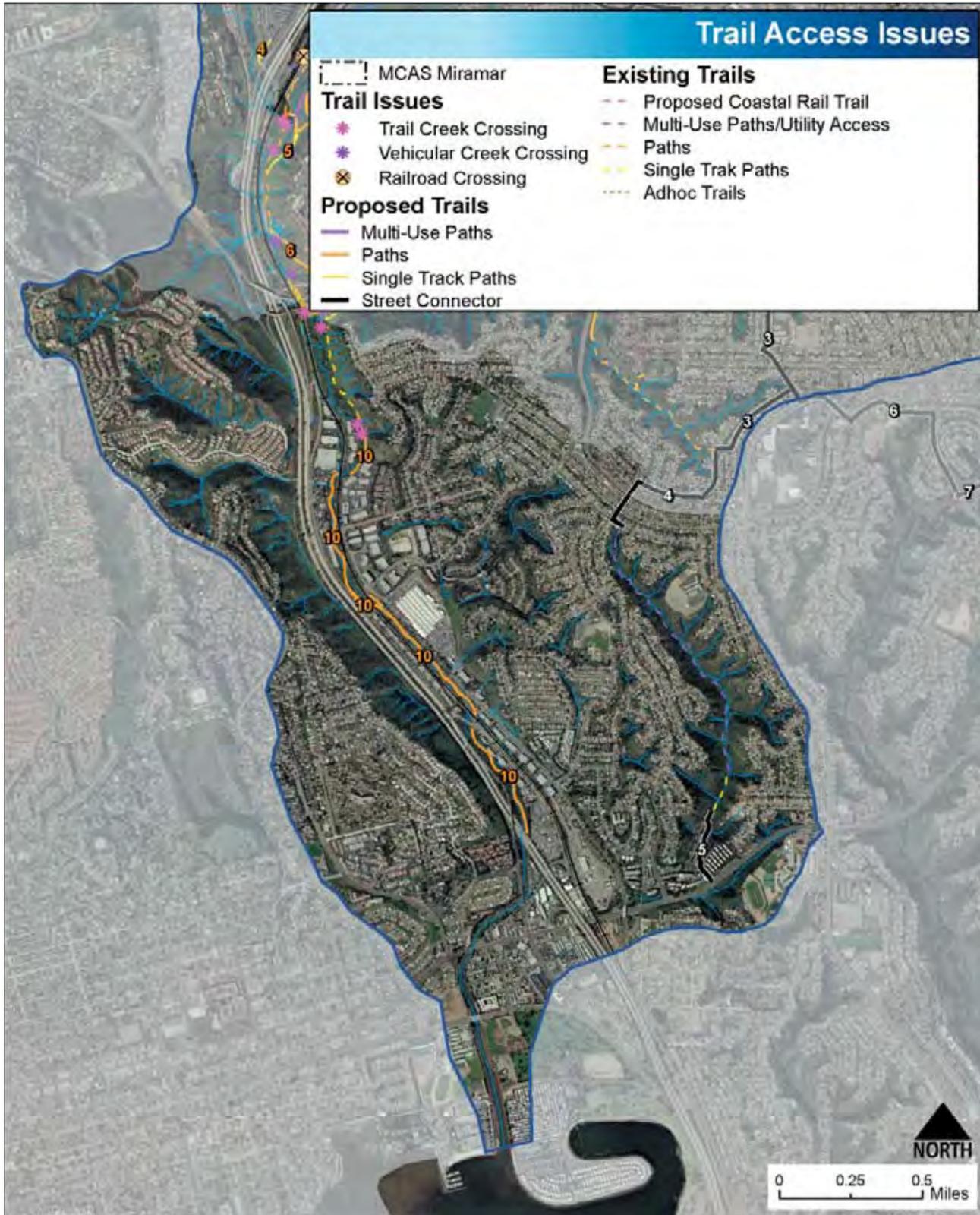


Figure 2-29: Access Issues within Upper San Clemente Canyon



Rose Creek Watershed Opportunities Assessment

Figure 2-30: Access Issues within lower Rose Creek



Action Recommendations

ders. The crossing should be between 8 and 12 feet wide and extend from above the regular high water line from bank to bank. Larger boulders (up to 400 lbs.) can also be placed on the upstream edge of the crossing to provide a makeshift pedestrian crossing. These boulders should be placed as a rock vortex weir to promote deposition of sediments upstream of the crossing.

- B. Creek crossings supporting bicycle and pedestrian users only do not need to be constructed in the same manner as the maintenance road crossings. The bicycle portion of the crossing should be constructed of large cobbles that are likely to remain in place during large storm events. The crossing should be between 2 and 4 feet wide and extend from above the regular high water line from bank to bank. The pedestrian portion of the crossing should be constructed of large boulders (up to 400 lbs.) and placed on the upstream edge of the bicycle crossing. These boulders should be placed as a rock vortex weir to promote deposition of sediments upstream of the crossings.
- C. There are four existing locations within the RCW where narrow bicycle/pedestrian bridges, similar to the one in Mission Trails Regional Park (shown in the photograph below) should be considered in lieu of at-grade creek crossings: Rose Creek under Interstate 805; San Clemente Creek above Genesee Avenue; San Clemente Creek at Standley Trail; and San Clemente Creek below the west Regents Road parking lot. In siting each bridge, the results of the Hydrologic assessment (Section 2.6.1) need to be utilized to determine the appropriate elevation for the bridges to ensure moderate sized flood events can be passed under the bridges. Designs should consider whether structures could also provide maintenance access to sewer lines or storm drains to prevent duplicative structures. More detailed descriptions of these proposed bridges are included in Chapter 4, Section 4.5.3 on page 4-19. An additional bicycle/ pedestrian bridge is included in Section 2.5.5 in page 2-73.



Rose Creek Watershed Opportunities Assessment

2.5.3 Recommendations for Creating Regional Recreational Connections

- Connect the communities of Clairemont and University City to Mission Bay
- Enhance existing multi-use paths

Providing a multi-use trail connection from Interstate 805 through Rose and San Clemente canyons to Mission Bay is an integral component of the vision for the RCW. In developing this connection, many other benefits and environmental improvements will be gained along the way, such as invasive plant and animal control, wildlife corridor enhancement, stream velocity and associated erosion reduction, storm water detention, and water quality improvement.

1. Connecting Clairemont and University City to Mission Bay

This recommendation will connect existing Class 1 paths (see Section 3.5.2 for more information) in the watershed to other planned trails, plus add additional recommendations to create a continuous Class 1 path from the upper watershed to Mission Bay (Figures 2-31 to 2-33). This proposed Class 1 regional path will be accessible from University City through Rose Canyon; Clairemont residents and visitors could join the Class 1 path from the main trail in Marian Bear Memorial Natural Park. As with the other recommendations in this report, this trail should be designed to maximize other public enhancements proposed in this assessment, such as public safety, water quality, interpretive elements, and wildlife habitat.

A. Upper Rose Canyon

The northern 3 miles of this Class I path are currently being planned as part of the Coastal Rail Trail. This segment is routed from the intersection of Judicial Drive and Nobel Drive to the intersection of Gilman Drive and La Jolla Colony Drive, where it will connect with the existing Rose Canyon Bike Path as shown in Figure 2-31. The majority of this alignment relies on the use of the San Diego Northern Railroad (SDNR) maintenance road on the north side of the tracks, but does require grading the path into the slope along La Jolla Colony Drive to avoid wrong-way bicycle traffic along the Class 2 bike lane along La Jolla Colony Drive, or an un-safe mid-block crossing to reach the bike lane on the other side of La Jolla Colony Drive.



B. Upper San Clemente Canyon

There are no Class 1 paths proposed within Marian Bear Memorial Natural Park (Figure 2-32), as paved routes are not permitted according to the Parks' Natural Resources Management Plan. The existing main trail/ access road through the park will function as the regional trail connecting to the Rose Canyon Bike Path at the west end of San Clemente Canyon. The crossing of Rose and San Clemente creeks and the railroad are addressed in a separate recommendation (Section 2.5.5).

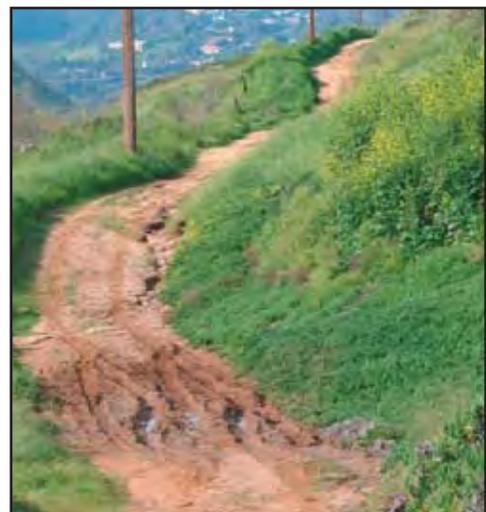
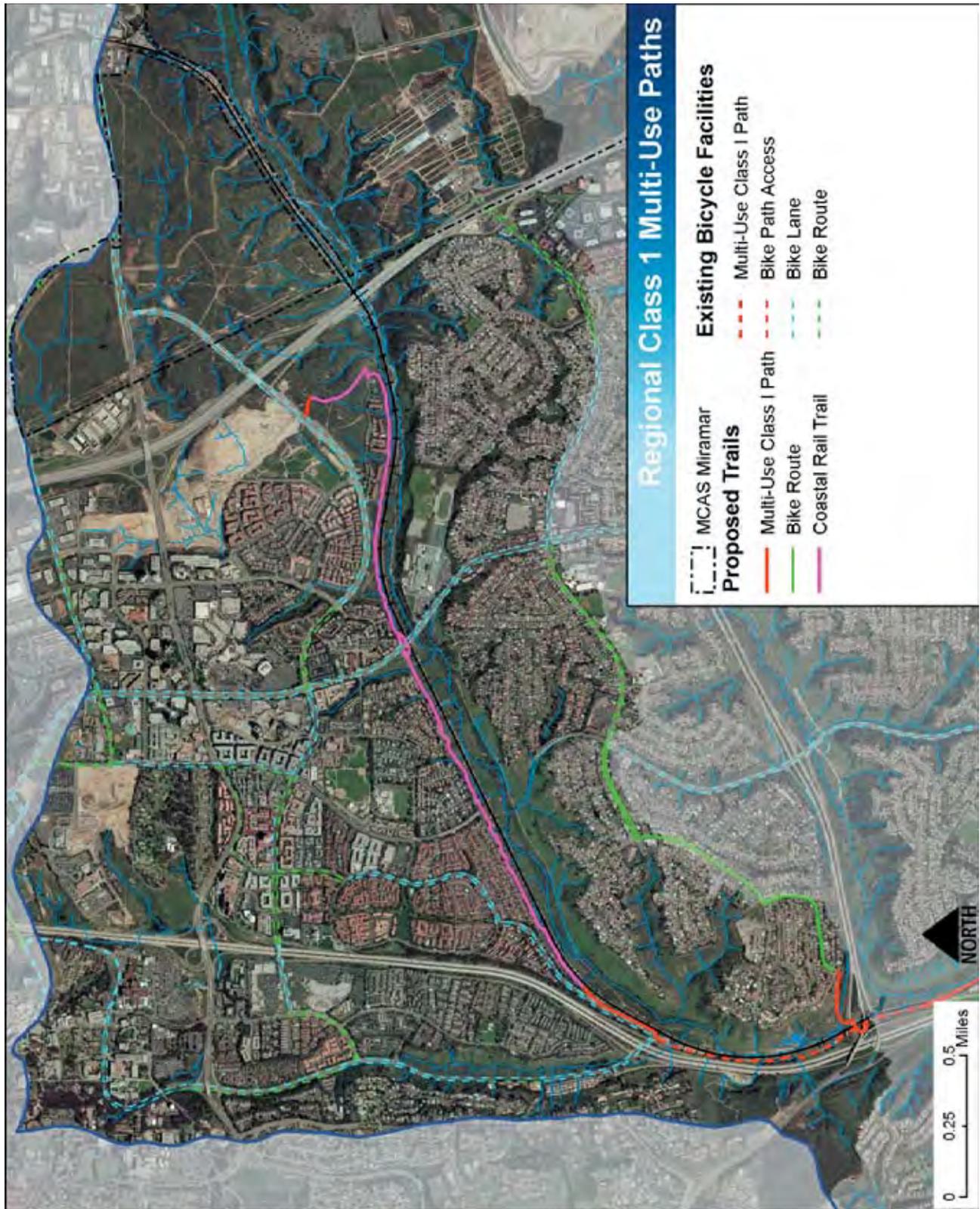


Figure 2-31: Regional Class 1 Paths in Upper Rose Canyon



Rose Creek Watershed Opportunities Assessment

Figure 2-32: Regional Class 1 Paths in Upper San Clemente Canyon

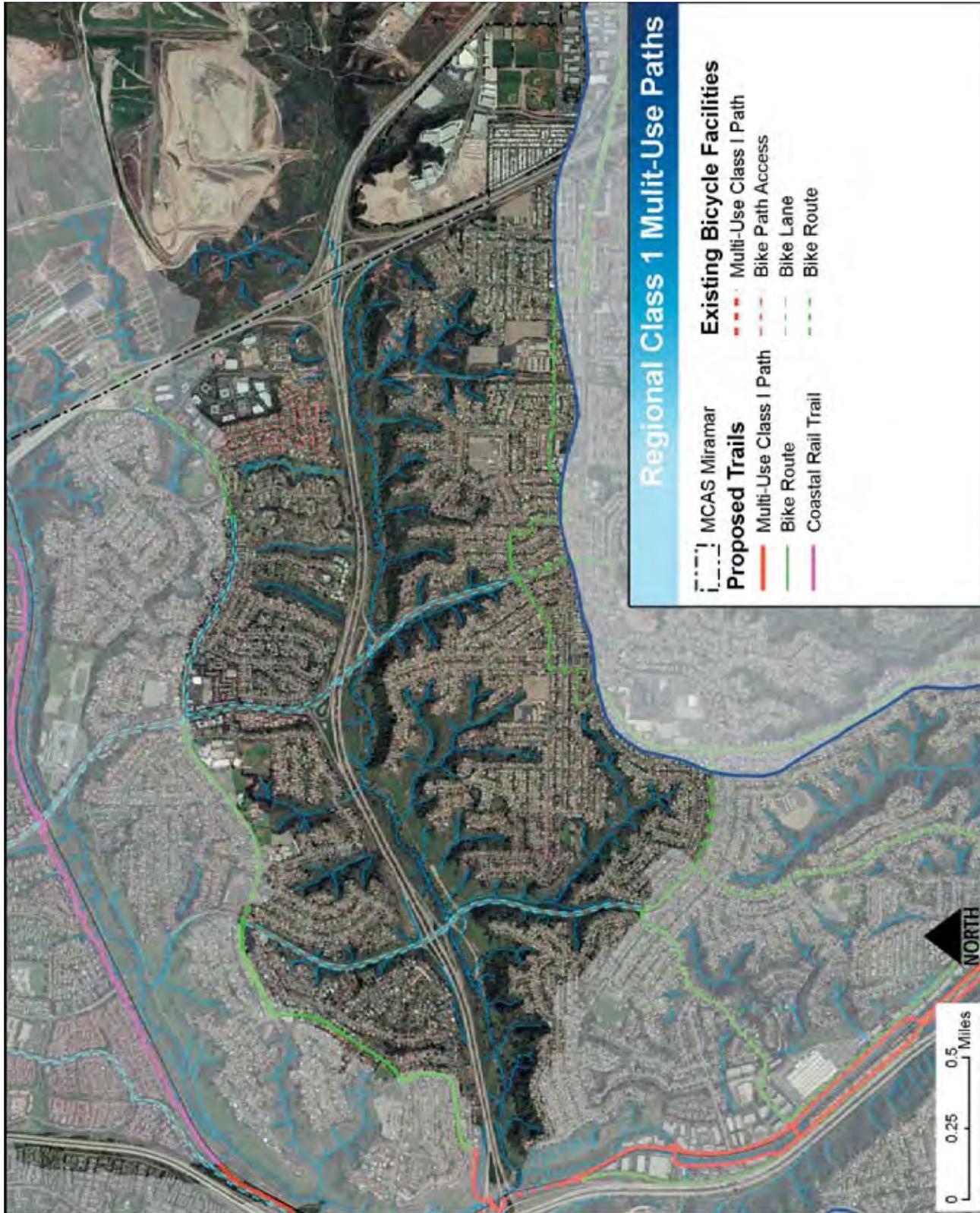
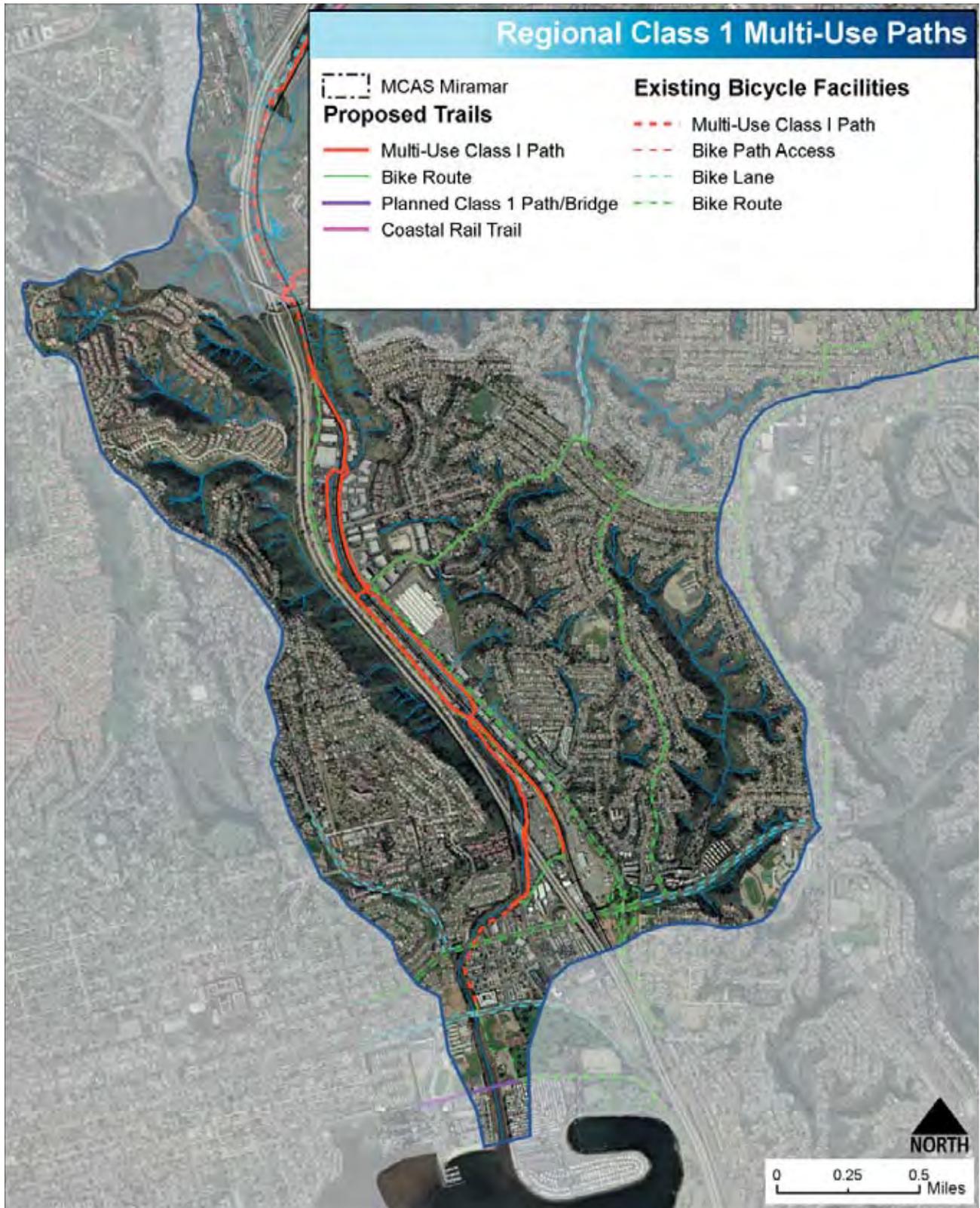


Figure 2-32: Regional Class 1 Paths in lower Rose Creek



Rose Creek Watershed Opportunities Assessment

C. Lower Rose Creek

A new Class 1 path is proposed to start at the current southern end of the Rose Canyon Bike Path. This new Class 1 path would create an approximately 2-mile long new path paralleling lower Rose Creek, connecting to the existing Class I path at North Mission Bay Drive. Two alternative alignments were developed and preliminarily reviewed, but additional analysis is recommended (Figure 2-33).

Alternative 'A' (Figure 2-34) begins at the end of the Rose Canyon Bike Path and immediately crosses over the railroad tracks via a bridge structure and then runs parallel to the railroad tracks past the business development to the east until the railroad crosses over Rose Creek via a trestle. At this point, the path departs from the railroad and utilizes the private road crossing over Rose Creek and then proceeds along the slope to come back parallel with the railroad tracks. The path follows the railroad tracks to the south until Jutland Drive, where it diverts to the east to follow along the top of the existing concrete flood control channel. At the south end of the channel, the path drops down the stream bank to cross under the railroad trestle and Santa Fe Drive. Once under Santa Fe Drive, the path comes back to the top of the stream bank and parallels the businesses along this portion of Santa Fe Drive before diverting to the west slightly to follow an existing earthen berm behind the SDG&E maintenance yard to Interstate 5, where it drops back down the stream bank to cross under Interstate 5 through one of the two eastern most openings. Once under Interstate 5, the path comes back up the stream bank and uses an existing path along the top of the concrete flood channel past the In-N-Out Burger towards North Mission Bay Drive, where a ramp is needed to allow the path to cross under North Mission Bay Drive and connect to the existing Class I path that continues down Rose Creek towards Mission Bay.

Alternative 'B' (Figure 2-35) departs from alternative 'A' prior to utilizing the private road crossing over Rose Creek and instead drops down the channel slope to cross under the railroad trestle and rises back toward top of the stream bank as it continues south on the west side of Rose Creek. It proceeds parallel to the creek as it passes behind several businesses and the Santa Fe RV Campground, before diverting further to

the west to run adjacent to Santa Fe Drive. Once the alternative reaches the next group of businesses along Santa Fe Drive (across from Jutland Drive), the alternative utilizes the existing landscaped area in front of the

businesses to route the Class I path on the east side of Santa Fe Drive. This segment is separated from traffic by a fence. At the southern end of these businesses, Santa Fe Drive crosses Rose Creek. A new bicycle/pedestrian bridge would need to be constructed over the utility crossing on the north side of Santa Fe Drive. Once across the bridge, the alternative utilizes a portion of the railroad rights-of-way to keep the path separated from Santa Fe Drive by routing above the existing retaining wall and then cuts into the slope below the railroad tracks for the quarter-mile or so north of Damon Avenue. Along Damon Avenue, the path is proposed on the north side and would be separated from traffic by a fence, which would require the loss of on-street parking along

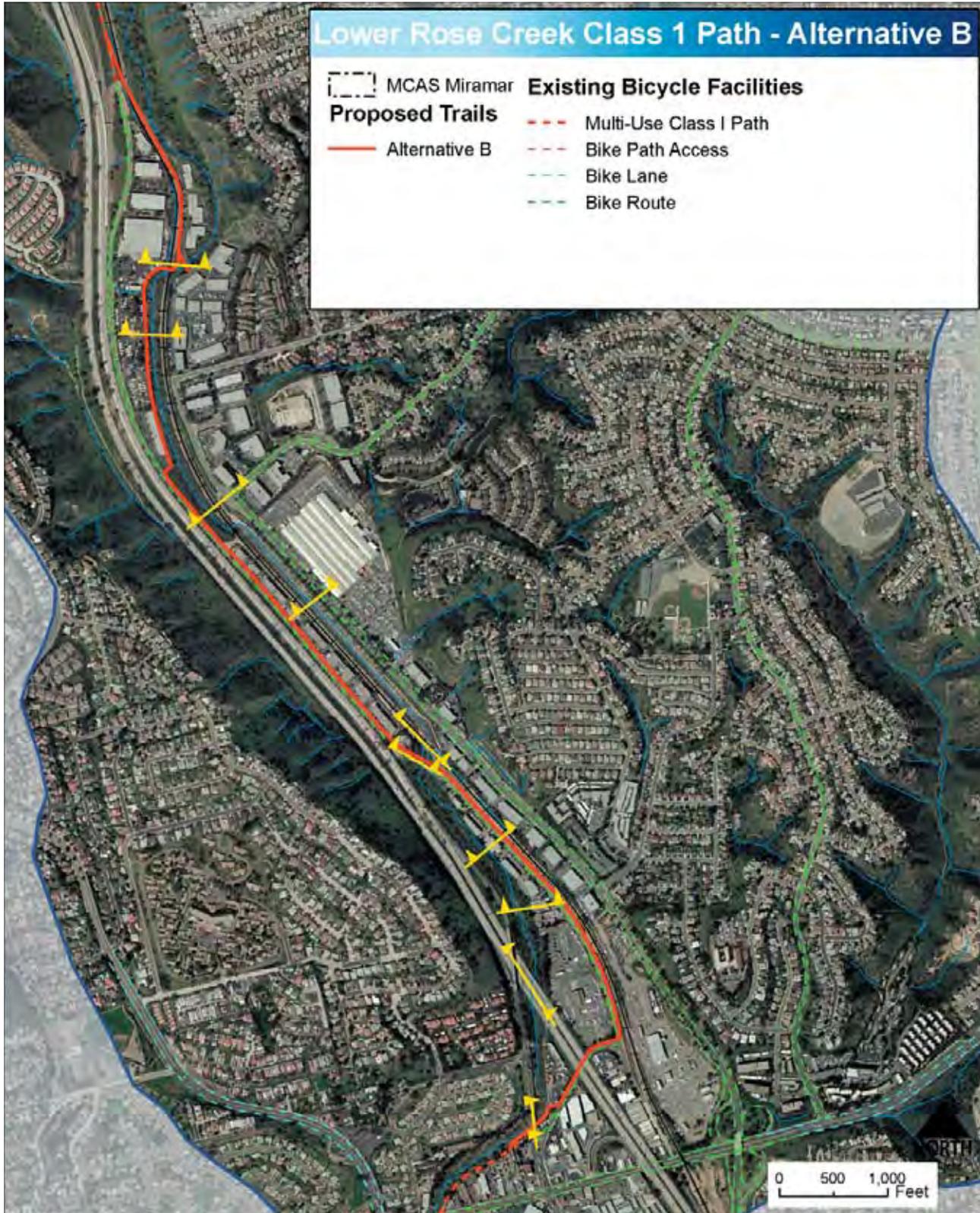


Figure 2-34: lower Rose Creek Class I Path – Alternative A



Rose Creek Watershed Opportunities Assessment

Figure 2-35: lower Rose Creek Class I Path – Alternative B



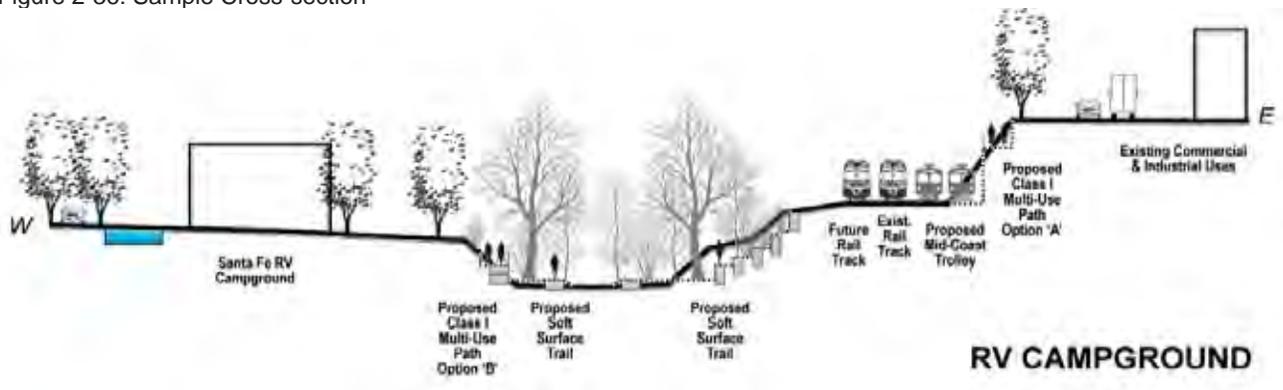
Action Recommendations

a portion of Damon Avenue to obtain the required width. The alternative would then depart from Damon Avenue just after the western most entrance to the In-and-Out Burger and re-connect with Alternative 'A' just before routing under Mission Bay Drive to connect to the existing path on the west side.

Both alternatives were assessed for preliminary feasibility through cross-sectional studies at the locations shown in Figures 2-34/35. Figure 2-36 is a sample of one of those cross-sections depicting the various elements proposed within the corridor. The remainder of the cross-sectional studies are included in Chapter 4, Section 4.5.4 on page 4-21.



Figure 2-36: Sample Cross-section



2. An additional section of a Class I path is proposed to replace and re-align the sub-standard path that currently connects from Grand Avenue to Mission Bay Drive around the Boat and Ski Club facility (Figure 2-37). The proposed alignment would route through the Boat and Ski Club lease area along lower Rose Creek and connect to Mission Bay Drive where the planned bicycle/pedestrian bridge over Rose Creek is proposed. Should the city have an opportunity to re-negotiate the Boat and Ski Club lease prior to its termination, it would be advisable to realign, redesign and widen the trail to one more fitting to its role as a gateway to Mission Bay Park. At a minimum, these improvements should be planned and designed for implementation as part of the long-range proposals described in the Mission Bay Park Master Plan for the De Anza Special Study Area.



Rose Creek Watershed Opportunities Assessment

Figure 2-37: Grand Avenue to Mission Bay Class I Improvements



As an interim measure, in addition to the re-alignment, the western 6-foot tall chain-link fence with constantine razor wire should be removed and replaced with a City of San Diego Park and Recreation Department standard lodge-pole fence. The facility would also be widened to meet Class I standards (width is as narrow as 5.5ft now, should be at least 8ft) and opportunities to create rest areas with benches to facilitate safe wildlife viewing and interpretive areas should be assessed as shown in Figure 2-37.

2.5.4 Regional Trail Linkages and Loops

- Develop a trail connecting Rose and San Clemente canyons
- Develop a surface street connection between San Clemente and Tecolote canyons

1. Connecting Rose and San Clemente Canyons

The city-owned open space parks in San Clemente and Rose canyons are currently both linear parks. Park users make their way to an end and return along the same path to their starting point. Park users are prohibited

Action Recommendations

from continuing east of Interstate 805 due to the MCAS Miramar boundary and access west beyond current park boundaries is problematic due to the need for a legal railroad crossing (Section 2.5.5).

Creating a regional trail loop to connect the two canyon systems has long been desired by the community to provide better access and enjoyment of both systems. This assessment recommends a connection be negotiated with MCAS Miramar, SDG&E and the Miramar Nursery, across a SDG&E easement that runs roughly parallel and slightly east of Interstate 805. This trail connection to the east, plus the improvements proposed in Section 2.5.5 at the west end of the parks, would create an 9-mile loop trail system through the two canyons. While security of MCAS Miramar is of utmost concern, this proposed route transects an area locked between the landfill, Interstate 805 and the Miramar Nursery. Unauthorized recreational use of MCAS Miramar has occurred for many years, so much so that neighborhood trails across the base are clearly visible on aerial maps. By channeling recreational trail users onto a proposed well-signed and monitored legal trail at the edge of the base, illegal recreational uses on other areas of the base could be reduced.



The southern portion of this alignment could also be accomplished through the implementation of the Class I path being proposed via a separate project by the City of San Diego to connect Governor Drive to Convoy Street.

2. Connecting San Clemente Canyon to Tecolote Canyon

Rose Canyon Open Space Park and Marian Bear Memorial Natural Park are both part of the Tri-Canyon Ranger District. The third canyon park is Tecolote Canyon Natural Park, which begins a short distance to the south of several access points to Marian Bear Memorial Natural Park. It is recommended that trail system interconnects be developed utilizing neighborhood streets to provide both bicycle and pedestrian access between the two canyon systems (Figure 2-38).

Figure 2-38: Connecting Marian Bear Memorial Natural Park and Tecolote Canyon



Rose Creek Watershed Opportunities Assessment

2.5.5 Creating Safe and Legal Railroad Track Crossings

- ☑ *Improve the existing At-grade crossing*
- ☑ *Create a bicycle/pedestrian bridge over the railroad tracks*

Part of the vision to create an interconnected recreational trail system within the RCW is to connect the trail systems within the Rose Canyon Open Space Park and the Marian Bear Memorial Natural Park with the existing and proposed Class 1 multi-use paths described above. One major obstacle currently prevents this: there are no legal public railroad crossings over the existing San Diego Northern Railroad (SDNR) tracks.

Most visitors to the open space parks in the watershed are unaware that it is illegal to cross the railroad tracks; volunteer trails criss-cross the tracks in many areas; those caught can be subject to fines as much as \$1,000. To address this issue, two actions are being recommended: 1) upgrade the existing private at-grade railroad crossing north of Gilman Drive to appropriate safety standards and make it available for public use; and 2) construct a bicycle/pedestrian bridge over the railroad tracks at the interchange of Interstate 5 and State Route 52.

1. Improve Existing At-Grade Crossing

The existing railroad crossing north of the Rose Canyon Bike Path currently has deficiencies that prevent the immediate opening of the crossing for trail users, even if access were approved by the railroad. The surface is an uneven mix of timber railroad ties, patches of ballast and an uneven asphalt surface between the two tracks. The northbound track is elevated 1-2 inches above the southbound track. The railroad ties are uneven and rise almost an inch over the tracks in certain spots, creating a trip hazard. There are also gaps of 3 to 4 inches between the railroad ties and the tracks. The ramps that approach the tracks are paved with asphalt and are 9 feet in length, but tend to be littered with ballast from passing trains, maintenance vehicles and trail users. There currently is no fencing that prevents trail users from illegally



crossing the railroad tracks, or warning signs that notify if a train is coming. On a positive note, sightlines are adequate and signage exists to warn trail users not to cross the tracks.

Some solutions to the at-grade railroad crossing include: leveling the traveling surface for trail users; reducing gaps caused by the railroad tracks; reducing the loose material around the crossing; incorporating signals and signage; and separating the railroad tracks and the trail. A travel surface that is flush with the railroad tracks and without large gaps can reduce the potential for tripping hazards and allow wheelchairs and bikes to safely cross. The trail surface should be hardened to reduce the debris that scatters over the tracks as users pass. Eliminating the ballast fillings can prevent loose material from accumulating across the travel surface.

Separation between the railroad tracks and the trail is another solution to limit the trespassing along the railroad corridor and improve the safety and welfare of the trail users. Examples of barriers include vegetation, fencing and vertical grade separation. Based on the physical conditions surrounding the at-grade crossing, neither a vegetative barrier nor vertical grade separation are practical. A fence 4 to 6 feet high is the most appropriate barrier at this location. The fence should be installed as shown in Figure 2-39 and run at least 100 feet in either direction to deter trail users from crossing at other locations than the improved at-grade crossing.

Action Recommendations

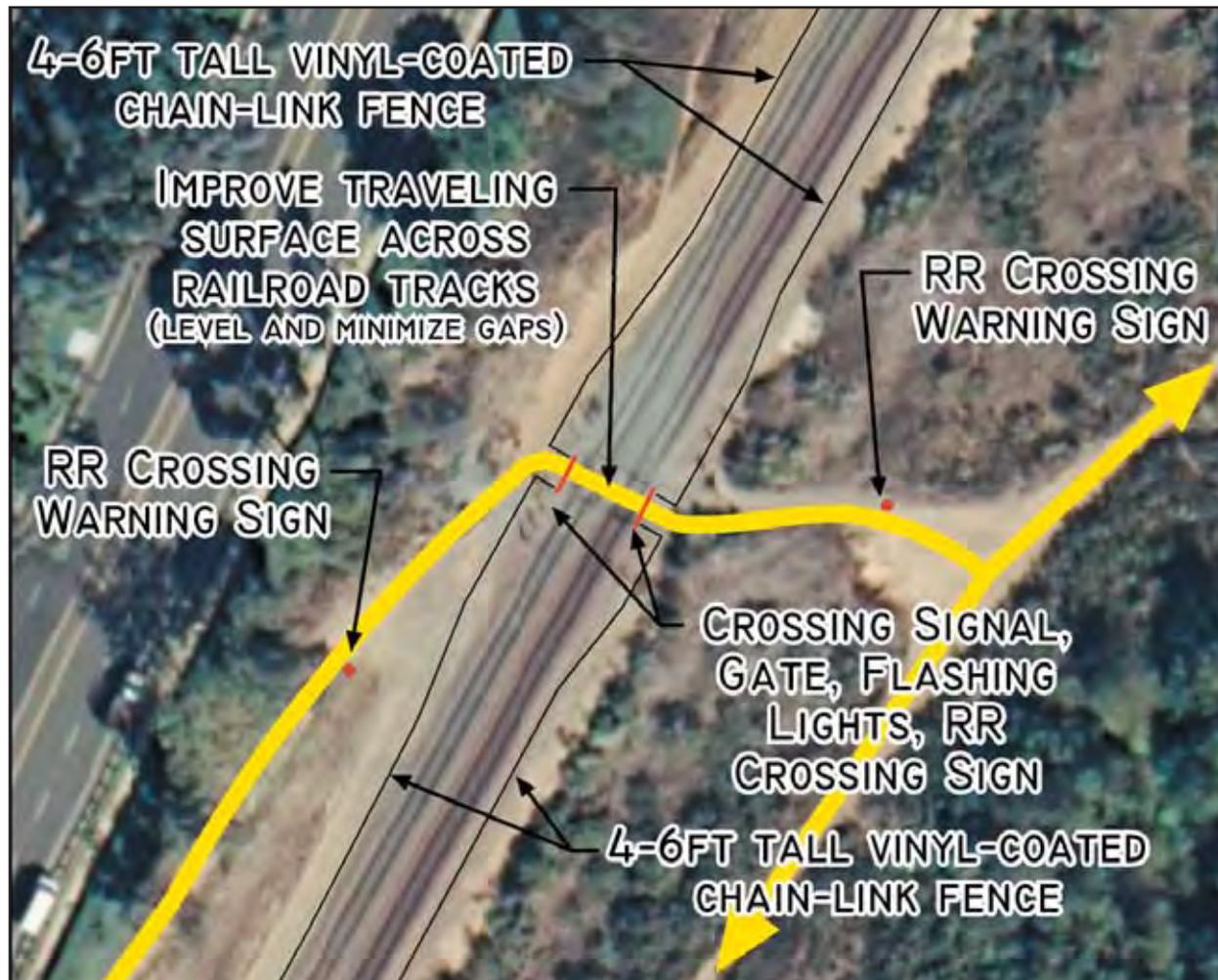
The at-grade crossing currently is roped off and incorporates a passive warning device; a sign that alerts trail users not to cross the tracks. This warning device does comply with the Manual on Uniform Traffic Control Device (MUTCD) minimum recommended treatment where each approach to the crossing has at least one Crossbuck sign. If the crossing is to be opened, an active warning device should be used at this crossing. Active warning devices include a combination of bells, flashing lights, automatic gates and other devices that are triggered by the presence of an oncoming train.

2. Create a Class I Bicycle/Pedestrian Bridge Crossing

The feasibility of constructing a Class I bicycle/pedestrian bridge over the railroad tracks (both the existing SDNR and proposed Mid-Coast Trolley) was assessed to locate potential locations for a bridge where topography and trail access would both minimize and justify to the cost of a bridge. The only location within the RCW that met these criteria was the State Route 52 and Interstate 5 interchange. The abutments for the interchange provide beneficial topography, and the adjacency of trail connections to the Rose Canyon Open Space Park, Marian Bear Memorial Natural Park, and Rose Canyon Bike Path is ideal. Within this area, three alternative bridge and access trail alignments were identified (Figure 2-40) and assessed through cross-sectional studies

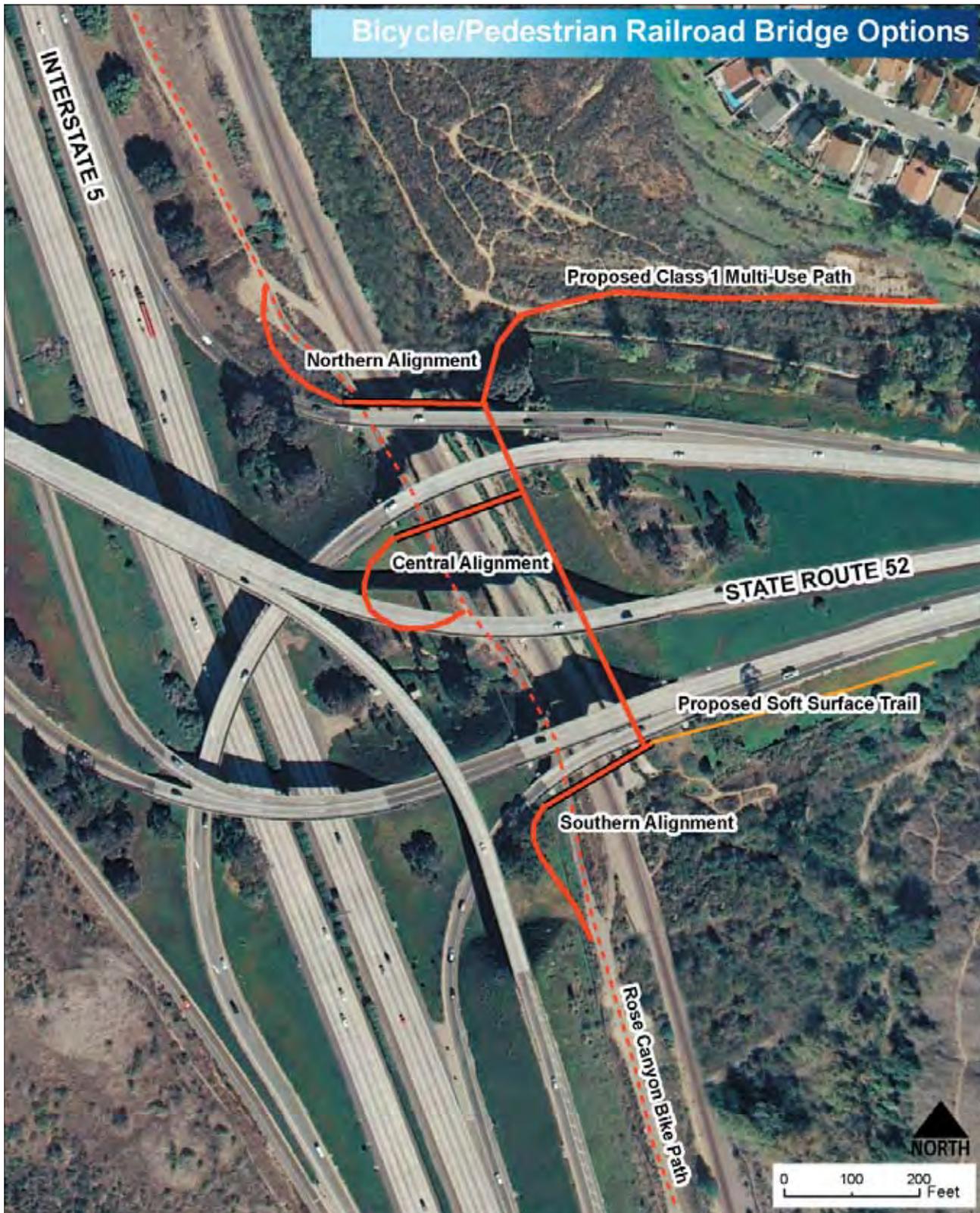


Figure 2-39: Recommended Improvements to the At-grade Railroad Crossing



Rose Creek Watershed Opportunities Assessment

Figure 2-40: Plan view of Bridge Alternatives



Action Recommendations

(Figures 2-41 to 2-43). Each of the three alignments has potential merit. However, none of them are considered a preferred alternative at this time. All three alignments are recommended for further discussion with Caltrans to determine the alternatives feasibility and Caltrans' potential support. The alternatives all share a few characteristics. All three alternatives propose the bridge to be a Class I path that will be continued to the north and east along the existing utility access road to connect to the University City community at the intersection of Bloch Street and Bothe Avenue. Bothe Avenue would then be used as a Class 3 Bike Route to connect to the intersection of Regents Road and Governor Drive via Stressman Street and Governor Drive. All three alternatives propose to develop a new 4-foot wide soft surface trail to the south and east to connect to the main trail within Marian Bear Memorial Natural Park. This new alignment would avoid two existing creek crossings that are not easily navigable by pedestrians or bicycles. This would provide access into the lower portion of the park during periods when San Clemente Creek is flowing too high to allow safe crossing.

Figure 2-41: Cross Section of Northern Bridge Alternative

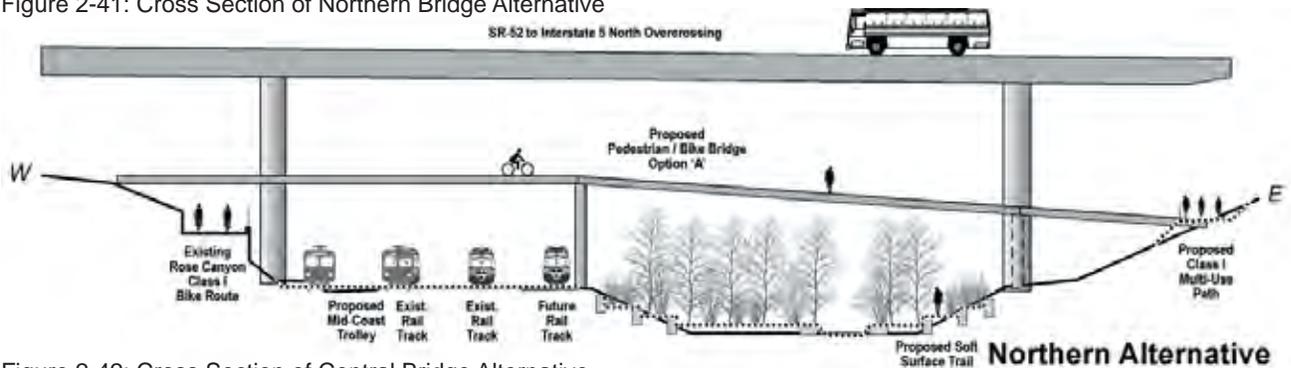


Figure 2-42: Cross Section of Central Bridge Alternative

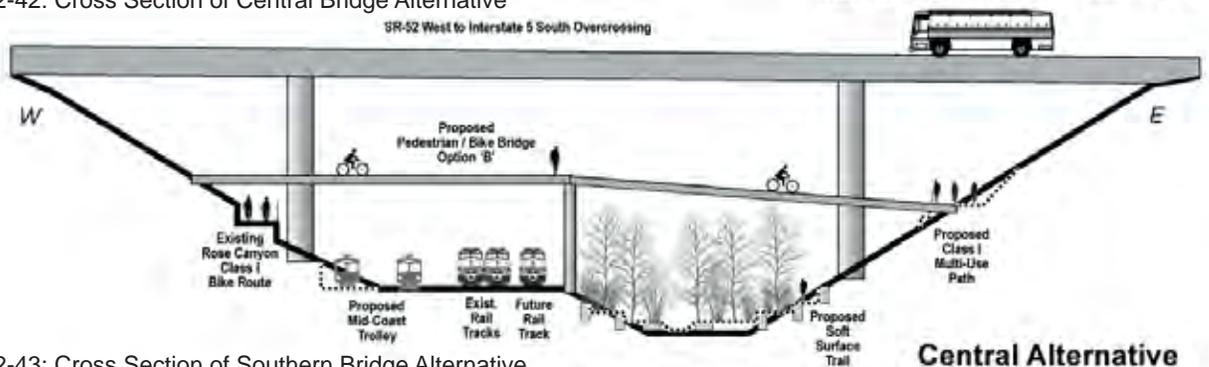
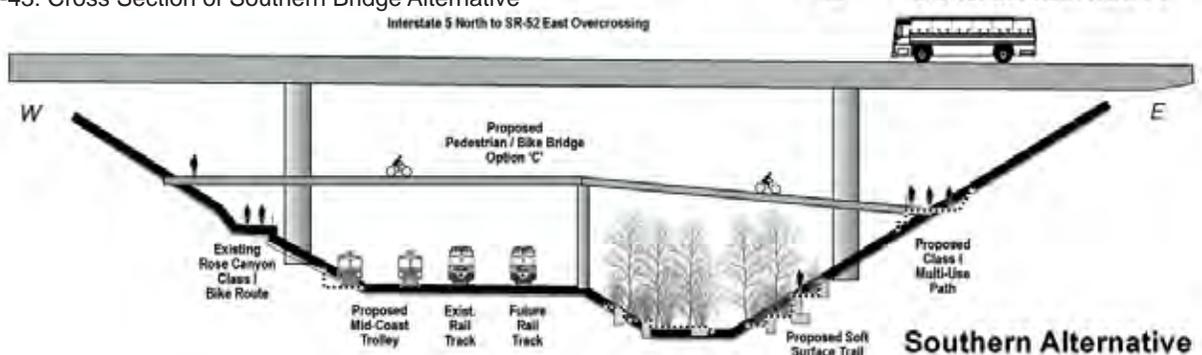


Figure 2-43: Cross Section of Southern Bridge Alternative



Rose Creek Watershed Opportunities Assessment

2.6 Recommendations for Water Resources

- ☑ *Develop data and models to improve understanding of hydrology and hydraulics*
- ☑ *Reduce erosion from multiple sources*
- ☑ *Modify or remove concrete flood control channels*
- ☑ *Monitor and reduce water pollution*

Water is the lifeblood of a watershed. Its drainages and streams are the circulation system that not only transports water, but also nutrients, sediments, and pollutants that can both enrich and degrade natural resources as they are transported downstream.

Water enters the Rose Creek Watershed in two primary ways: from the sky as the watershed captures rain after a storm; and through the storm drain system, which directs storm water and dry weather runoff from the city's streets through a system of pipes to the creeks and eventually to Mission Bay. In carrying water from the upper reaches of MCAS Miramar to Mission Bay, San Clemente and Rose creeks support the plants and animals that the public enjoys in Marian Bear Memorial Natural Park, Rose Canyon Open Space Park and Mission Bay Park, creating an oasis of nature adjacent to urban development. Water in this manner moves native seeds through the watershed, allowing more urbanized areas downstream to benefit from the rich biodiversity upstream on MCAS Miramar.

That same enriching water can degrade natural resources and threaten public safety if it moves too fast through the watershed or at a volume greater than the creeks and storm drain system can support. Problems include erosion that can undermine the natural flow of a stream, "down-cutting" the banks to destroy trails and natural features and create public safety concerns for hikers and cyclists. In addition, when a stream is down-cut, the water is often transported in a much narrower channel, no longer spreading across the land to nurture adjacent riparian plants and animals.

Water can also transport matter detrimental to the health of the watershed, including invasive and exotic seeds such as Pampas Grass that can take over entire canyons and out-compete native plants. Water also transports pollutants, causing unhealthy creeks and closed beaches. Approximately 60 percent of San Diego's pollutants are transported on sediments, small particles of soil or other elements that are carried downstream by water, often due to erosion. The remaining 40 percent of pollutants are carried directly in the water column.

During the review of water resources matters for this assessment, the project team focused on the impacts of water moving through the watershed. The following recommendations seek to minimize the negative impacts of moving water while maximizing the positive aspects. Like the other recommendations in this assessment, these recommendations are designed to complement recommendations in other sections.

2.6.1 Recommendations for Hydrology and Hydraulics

- ☑ *Collect field data for stream flow*
- ☑ *Collect field data for precipitation*
- ☑ *Develop modeling tools for hydrology, hydraulics, and sediment transport*



Action Recommendations

Accurate hydrologic information (hydrology and hydraulics) is essential for planning, designing and implementing watershed restoration and enhancement projects. Hydrologic information helps to define the amount and intensity of rainfall, the rate of flow in streams, and the balance in the stream between soil and water. Hydraulic information helps to further define how water moves through a stream and the potential impacts of that movement such as erosion. This information is essential both when designing improvements to a stream system or resolving pre-existing problems as alterations to a stream will have implications downstream.

Based on the review of the existing data and reports pertaining to hydrology and hydraulics within the RCW, two conditions become evident: 1) All of the reports appear to rely on the 1970s-era U.S. Army Corps of Engineers developed 100-year floodplain and associated flow volumes and rates. This is an issue because the watershed has experienced significant development since then (Figures 2-44 and 2-45) and is most likely subject to potentially significant increases in flow volumes and rates (over and above what was then indicated) caused by the additional hydrologic modifications that have occurred since the 1970s; 2) All of the more recent assessments have focused on the hydrologic change caused by a land conversion on a case-by-case basis, with little or no consideration of cumulative downstream impacts.

To correct these deficiencies, several actions need to occur: field data needs to be collected for stream flow; precipitation data needs to be augmented with field data; a hydrology model that converts rainfall into stream flow needs to be developed; a hydraulics model that assess stream volumes, flow rates, and floodplain elevations needs to be developed; sediment transport needs to be assessed where the hydraulics model suggests erosion or deposition based on flow rates; and geomorphology (the study of landforms, including their origin and evolution, and the processes that shape them) needs to be assessed to guide where, and in what form, improvements for hydrology or hydraulics should be made.

1. Collect field data for stream flow

There is currently a lack of monitoring data related to the hydrology and hydraulics of the stream flows throughout the RCW. Having current field data for hydrology and hydraulics would be extremely beneficial to provide calibration and validation data for the models to ensure they accurately predict the stream flow environment under varied conditions. The number of monitoring locations could vary from a minimum of three to as many as seven, depending on the funding available. At a minimum, monitoring locations should include below the confluence and within each of the natural parks. A preferred scenario would be to have monitoring locations below Mission Bay Drive; along the mid-section of Santa Fe Drive; below the confluence; just upstream of the confluence along both Rose and San Clemente creeks; and just to the east of Interstate 805 along both Rose and San Clemente creeks. The monitoring parameters should include at a minimum stream flow volume and rate, but should also consider collecting various water quality parameters to allow development of flow-weighted concentrations. One wet season of monitoring data is needed at a minimum, and at least two seasons are preferred. One of the monitoring locations below the confluence should be considered as a permanent stream gage.



2. Collect field data for precipitation

Augmenting the existing precipitation data collected on MCAS Miramar at the golf course by collecting data from other areas of the watershed would provide information about variations in rainfall intensity and volumes as a storm moves over the watershed. This information allows for better simulation of the conversion of rainfall to stream flow by computer models, which is used to generate floodplain elevations for various storm events. Without precipitation data from various locations throughout the watershed, assumptions have to be made about the variance or uniformity of rainfall over the watershed that can result in the delineation of higher or lower floodplain elevations. Similar to the stream flow monitoring, there are options pertaining to the number of moni-

Rose Creek Watershed Opportunities Assessment

Figure 2-44: Impervious Surfaces in 1966

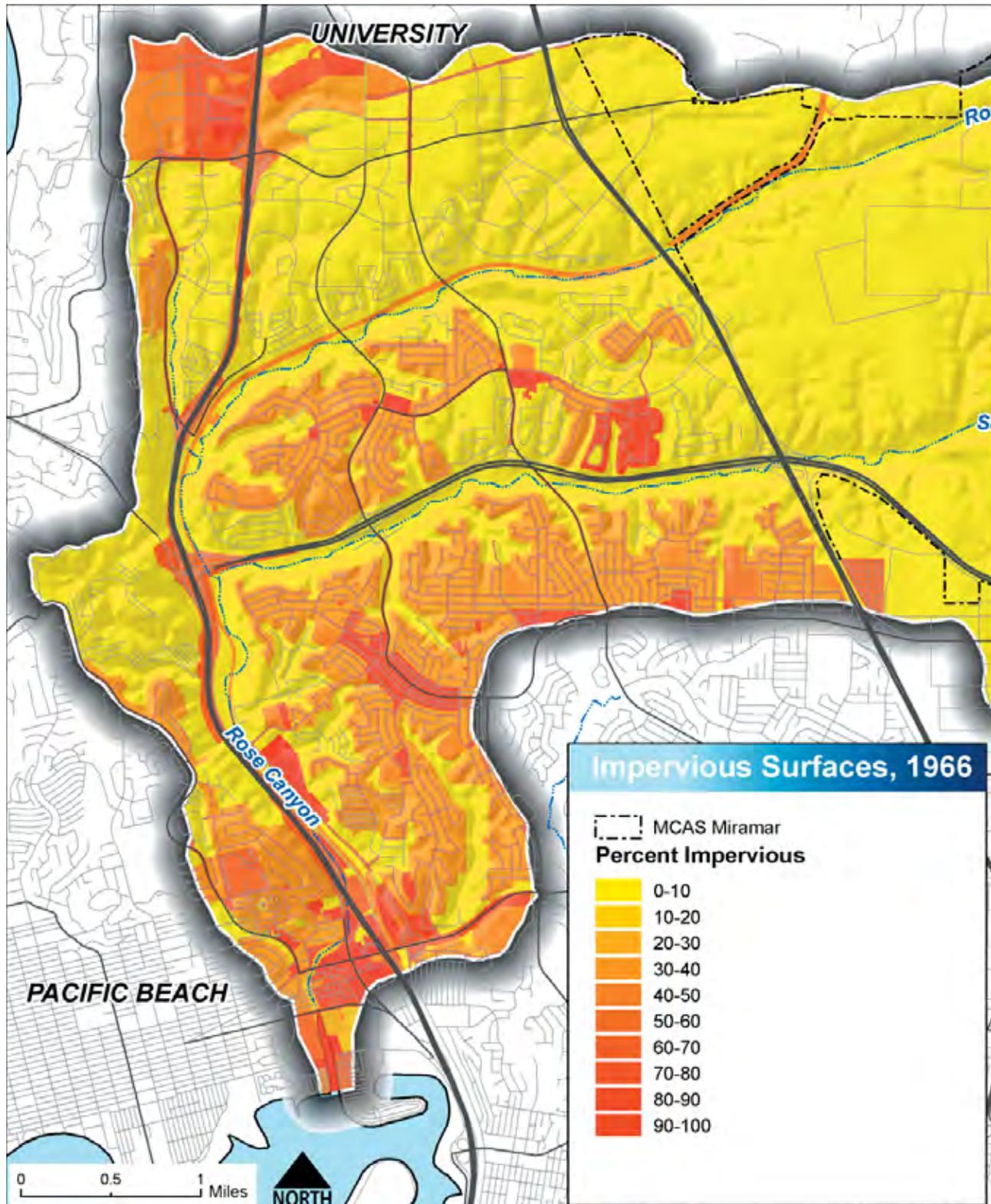
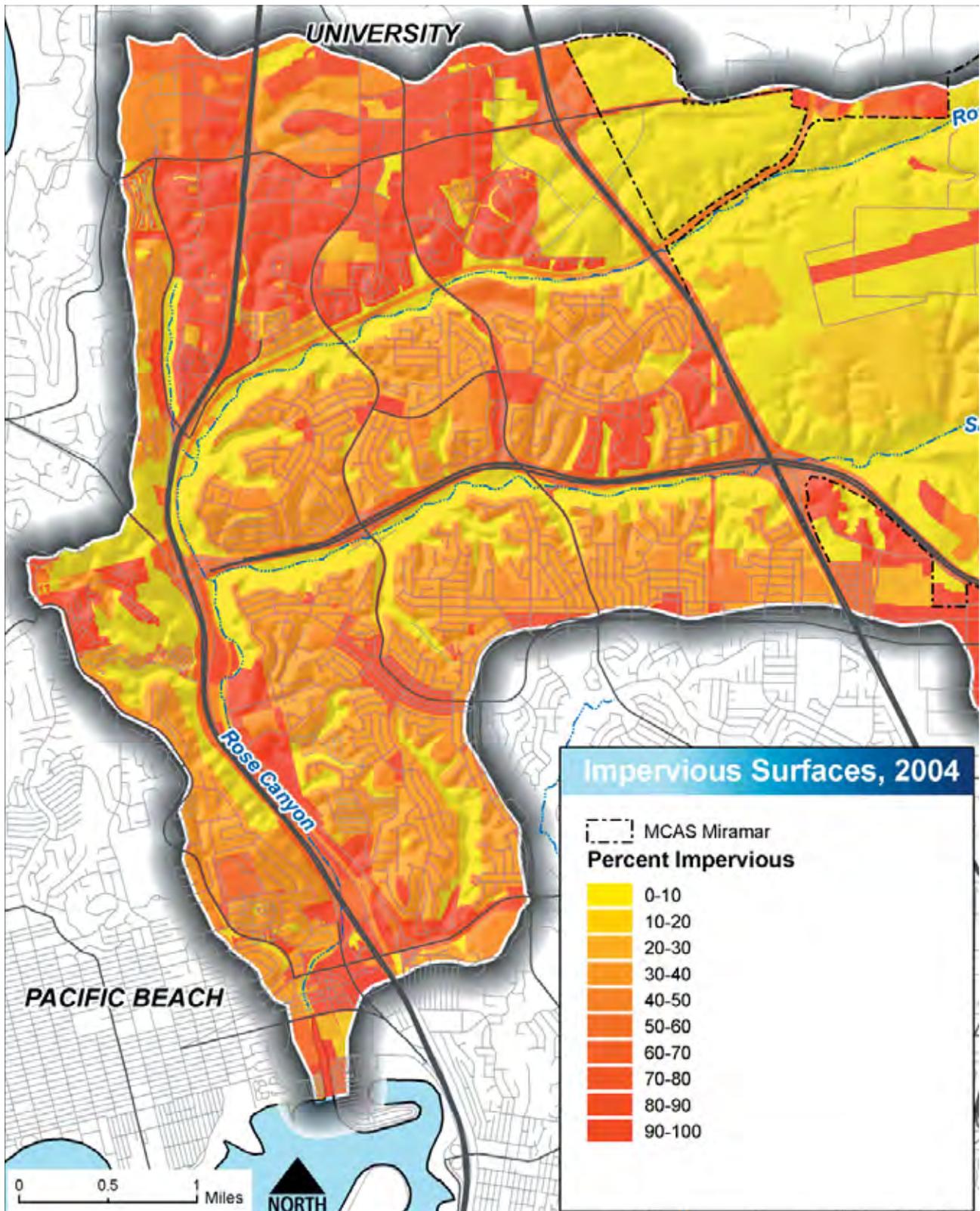


Figure 2-45: Impervious Surfaces in 2004



Rose Creek Watershed Opportunities Assessment

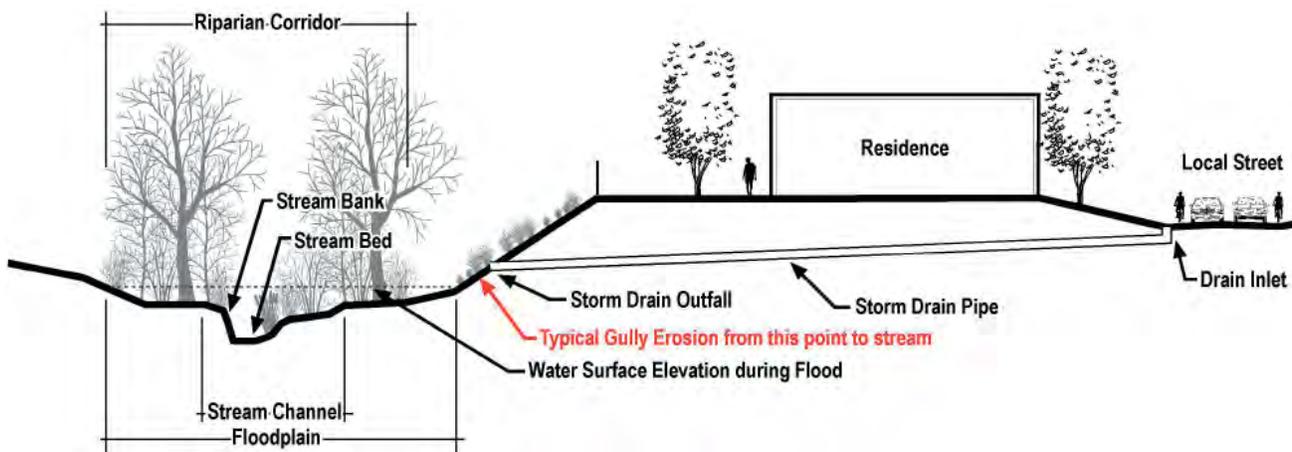
toring locations. The minimum would include two additional locations, one in the headwaters of San Clemente Creek and the other near the confluence. Additional locations could include near the recycling center on Convoy Street, on the UCSD campus, within Stevenson Canyon, on Mount Soledad, and at the Mission Bay golf course. One wet season of monitoring data is needed at a minimum, and at least two seasons are preferred.

3. Develop modeling tools for hydrology, hydraulics, and sediment transport

It is recommended that a watershed-wide hydrology and hydraulic assessment (computer model development), that also considers sediment transport and geomorphology be conducted. This study should provide accurate information pertaining to the limits of various flood flows (5-, 10-, 25-, 50-, and 100-year) and the flow rates that associate with them. The results of this assessment will provide much needed information to help determine the feasibility and appropriate siting of many of the other recommendations in this assessment. The model results will also help determine if urban development within the watershed since the 1970s era floodplain study has significantly altered the 100-year floodplains throughout the watershed, and if additional flood protection improvements are needed.

2.6.2 Recommendations to Reduce Erosion

- ☑ *Develop an adaptive management plan for erosion control*
- ☑ *Implement stream bank and bed erosion control projects*
- ☑ *Restore gully erosion along tributaries*
- ☑ *Improve storm drain and culvert outfalls to minimize downstream erosion*
- ☑ *Re-grade problematic trail sections to eliminate erosion*
- ☑ *Monitor the streams to determine long-term erosion or deposition rates*



Many of the stream banks and streambeds within the RCW are experiencing varying degrees of erosion (Figures 2-48 to 2-50). In addition to the erosion that is occurring within the main drainages of Rose and San Clemente creeks, most of the tributary canyons have been impacted by erosion associated with storm drain discharges and are currently characterized by moderate to severe erosion and gully formation. Some of these gullies are deep, as much as 15-20 feet, and could pose a hazard to the public.

The causes of the erosion are likely complex and interconnected, with the primary ones being the degree of imperviousness (amount of concrete and asphalt) and the amount of hydrologic modifications (culverts, gutters, storm drain channels). Storm drains that discharge into the upper portions of tributary canyons, and culverts that have been improperly designed and



installed are responsible for slope and down stream gully erosion in many areas throughout the watershed, with most of the occurrence happening west of I-805 (Figure 3-27). The combination of these and other factors is currently delivering more runoff from a storm faster than what occurred naturally before the watershed was developed (see Section 3.3.5).



The increased volume of runoff means the stream channels fill to capacity during a smaller rainfall event than during pre-development, which in turn places added stress to the stream banks and bed to enlarge to accommodate increased flow volume until a new equilibrium is reached. Erosion is undermining the health and safety of the watershed and, if left unchecked, it will continue, resulting in a loss of public and wildlife values and threats to public safety and health. Addressing erosion will require a focus on three primary elements: stream discharge, channel slope and vegetative cover.

2.6.2.1 Factors in Erosion Control

Stream Discharge: As the stream discharge (volume and velocity) of runoff within the stream channel increases, so does its potential energy. This increase in potential energy enables the runoff to erode and transport a greater volume of sediment, as well as a larger sediment size (gravel and cobble instead of silt and sand). If the volume of sediment entering the stream system from natural erosion processes is not sufficient to balance out the potential energy of the increased stream discharge, the remaining energy will be exerted on the stream banks and bed, which may result in un-natural rates of erosion. In order to reduce this un-natural rate of erosion, actions need to be taken to reduce the volume and velocity of the runoff within the stream channels.



Channel Slope: A typical result of a sediment imbalance within the stream channel is a change in channel slope. If an imbalance between stream discharge and transportable sediment exists as described above, and the stream discharge is greater, then one of the typical results is for the slope of the channel to steepen as the streambed erodes. If the streambed is less erodible than the banks, the stream banks may erode as the stream widens until a new equilibrium is reached. If a stream channel has more transportable sediment within it than the flow rates of the runoff can transport, the slope of the channel typically decreases as sediment deposits on the streambed. Most reaches within the RCW currently exhibit characteristics of a sediment-deprived system, with the channel slopes continually increasing as evidenced by the lack of deposition of sands or other fine sediments and the dominance of cobble bars. Actions to reduce the channel slopes and prevent further streambed erosion need to be implemented.



Vegetative Cover: Vegetative cover is an important characteristic to help gauge the health and stability of the stream channel. Under natural conditions, the streambeds of the Rose Creek Watershed are part of a highly dynamic environment with a cobble substrate and mobile sands and fine sediments being constantly introduced and transported through the stream channels by natural erosion. Vegetative cover was likely comprised of minimal riparian vegetation stabilizing the stream banks and quickly transition to upland communities (Figure 2-46).



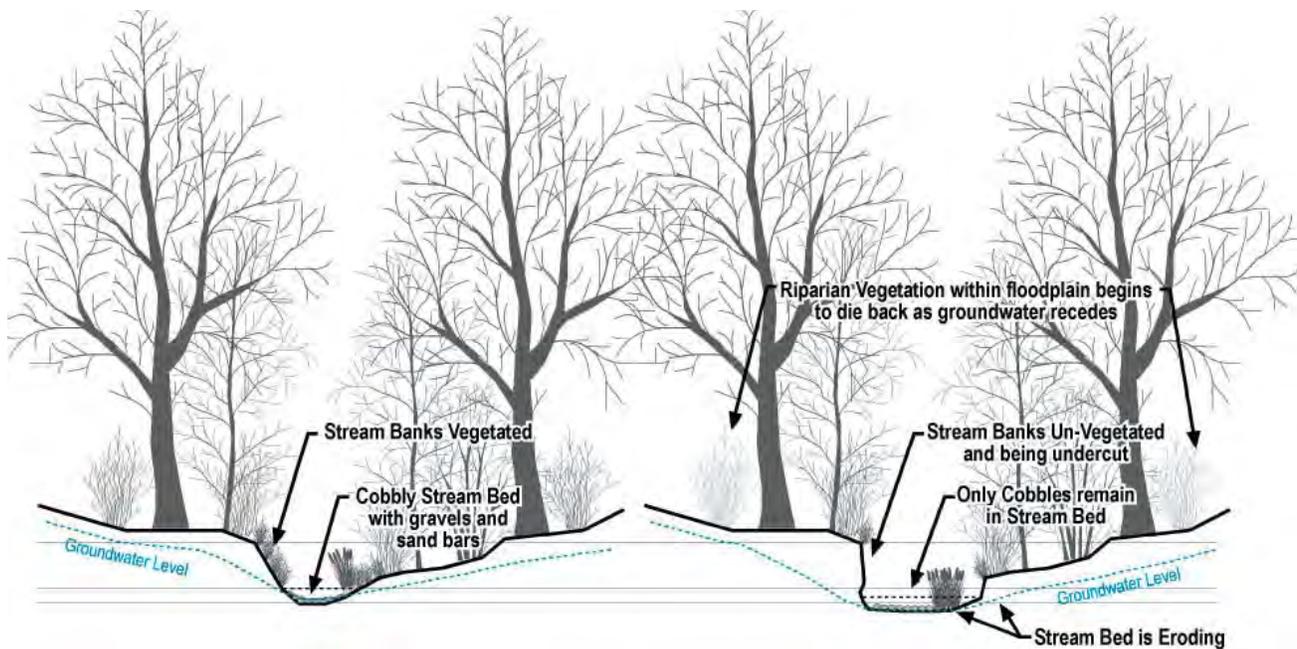
Rose Creek Watershed Opportunities Assessment

Under pre-development conditions, the highly erosive native soils maintained a sufficient supply of transportable sediment within the stream channels, and vegetative cover kept stream bank erosion at natural rates, with significant stream channel changes only occurring during episodic flood events. As the watershed has developed, the natural erosion processes have been interrupted as land has been covered with impervious surfaces, which has not only reduced the amount of natural sediment supply, but has also increased the runoff volume and velocity associated with a given storm event. The increased runoff volume and velocity from larger storm events generates enough energy to move the protective cobble substrate and expose the underlying streambed to these erosive stream discharges. As the streambed gradually erodes, the stream banks become undercut and often collapse, thereby displacing the vegetative cover that was stabilizing the stream bank under natural conditions (Figure 2-47). The new un-vegetated stream banks are highly susceptible to continued erosion and may continue to recede until the stream discharges reach a new equilibrium with the sediment transport, or new vegetation becomes established and stabilizes the bank. Re-introducing native vegetative cover on stream banks needs to be a component of any stream restoration action.



Figure 2-46: Cross-section depicting a more natural stream channel environment

Figure 2-47: Cross-section depicting an eroded stream channel environment



Action Recommendations

The following actions are recommended to correct and keep in check stream-related erosion throughout the RCW:

1. Adaptive Management to Control Erosion

A long-term adaptive management approach is recommended to remedy the conditions that led to and continue to contribute to erosion throughout the watershed, as well as restore the watercourses to more stable conditions. The goal of this approach is to incrementally modify the physical environment to more stable conditions and then establish appropriate native vegetation communities to help reduce future erosion potential and provide wildlife habitat.

A variety of restoration techniques can be used to reduce the energy associated with the existing stream discharges and develop a more stable stream channel environment. A key aspect of the approach is to consider the problems on a watershed scale and not try to fix the issues at a given site without understanding how that site is affected by upstream activities and affects downstream activities. To accomplish this, combinations of the structural and non-structural restoration techniques described in Section 4.6 should be implemented throughout the watershed.

In addition, there are characteristics unique to the different types of erosion that are discussed below:

A. Stream Bank and Streambed Erosion

The stream banks and streambeds of Rose and San Clemente creeks have been steadily eroding in many areas for the past 40 or 50 years as the stream channels attempt to find a new equilibrium with the increased storm flows associated with the increased developed area throughout the watershed. Some areas may have attained a new state of equilibrium, while other areas are still actively adjusting through the down-cutting of streambeds or the erosion of stream banks (Figures 2-48 to 2-50). The results of the hydrologic assessment previously recommended will help determine the likely characteristics of a stream channel in equilibrium with current storm discharges (e.g. width, depth, bed sediment size, bank vegetative cover), which can be used to assess which areas are likely stable and will remain so, versus those areas that are actively adjusting and should be targeted for stabilization and restoration efforts. Additional information about streambed and bank restoration practices can be found in Chapter 4, Section 4.6.1 on page 4-25.



B. Tributary and Gully Erosion

In addition to the erosion that is occurring within Rose and San Clemente creeks, most of the tributary canyons have been impacted by storm drain discharges and are currently characterized by moderate to severe erosion and gully formation (Figures 2-48 to 2-50). Due to the severity (15-20 feet deep) and length (>0.5 mile) of some of these gullies, a long-term adaptive management approach (e.g. incremental improvements starting at the downstream extents of the gully to raise the streambed and stabilize the stream banks) may be necessary to correct the conditions that led to and continue to contribute to the erosion, as well as restore the gullies to more stable vegetated conditions. Before or while the gully erosion is addressed, the storm drain and culvert outfalls need to be altered to correct, or at least alleviate, the physical characteristics that led to the erosion problems initially.



In addition to addressing the physical characteristics associated with the tributary erosion and gully formation, efforts to reduce the amount of runoff draining through these drainages should be undertaken at the site and neighborhood scale as discussed further within the Storm Water Runoff Reduction section that follows. Without these reductions of storm water runoff, all of the solutions described in Chapter 4, Section 4.6.2 on page 4-28 will have an elevated potential for failure.

Rose Creek Watershed Opportunities Assessment

C. Storm Drain and Culvert Erosion

Storm drains that discharge into the upper portions of tributary canyons and culverts that have been improperly designed and installed are responsible for localized erosion around their outfalls, as well as slope and down stream gully erosion in many areas, with most of the occurrence happening west of I-805 (Figures 2-48 to 2-50). Most of the existing storm drains and culvert outfalls were constructed without energy dissipaters or concern for downstream erosion. Concerns about erosion only occurred when it threatened public or private infrastructure (e.g. railroad embankments or sewer mains), or as the maintenance costs for dredging the mouth of Rose Creek in Mission Bay escalated annually. The outfalls that occur at the top of the major gullies are priorities for corrective actions.



The City of San Diego first looked into addressing erosion issues in 1986 when they hired Woodward Clyde Consultants to assess the RCW and define improvement projects to reduce the sediment load to Mission Bay. Unfortunately, most of the recommendations of that report were never implemented. The issue areas identified in 1986 have continued to degrade and others have manifested. Addressing the degraded and improperly designed outfalls is the first step in restoring many of the eroded tributaries, and is therefore of a higher priority for implementation. Phased project implementation should be considered wherever possible to address the outfalls first and the downstream gully erosion second. As mentioned before, efforts to reduce the amount of runoff draining through these outfalls should be undertaken at the site and neighborhood scale as discussed further within the Storm Water Runoff Reduction section that follows. Without these reductions of storm water runoff, all of the solutions described in Chapter 4, Section 4.6.3 on page 4-30 will have an elevated potential for failure.

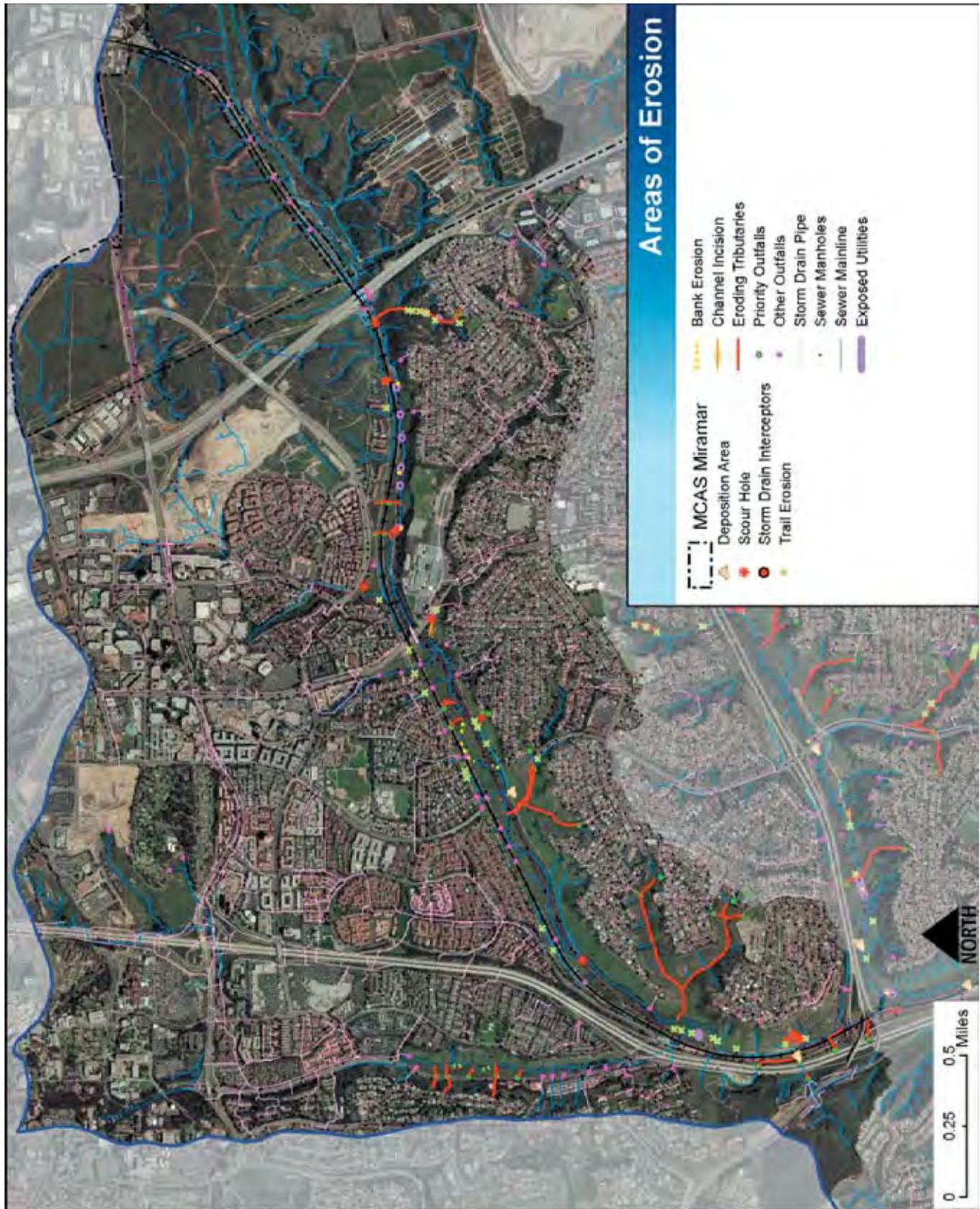


2. Trail Erosion

Trail related erosion occurs in a variety of forms throughout the watershed west of Interstate 805. Most of the eroding areas are relatively small in scale and act as a minor sediment source to down stream areas, but can result in significant degradation of the recreational trail system. Figures 2-48 to 2-50 show the locations of identified trail erosion issues. The vast majority of these erosion issues relate to improper handling of storm water runoff that has led to the erosion and degradation of the recreational trails. Many of these problem areas can be fairly easily fixed through the use of knicks or rolling grade dips to help stabilize the trails and create a self sustaining drainage system to minimize future trail erosion. See Chapter 4, Section 4.6.5 on page 4-33 for more information.



Figure 2-48: Areas of Erosion within Upper Rose Canyon



Rose Creek Watershed Opportunities Assessment

Figure 2-49: Areas of Erosion within Upper San Clemente Canyon

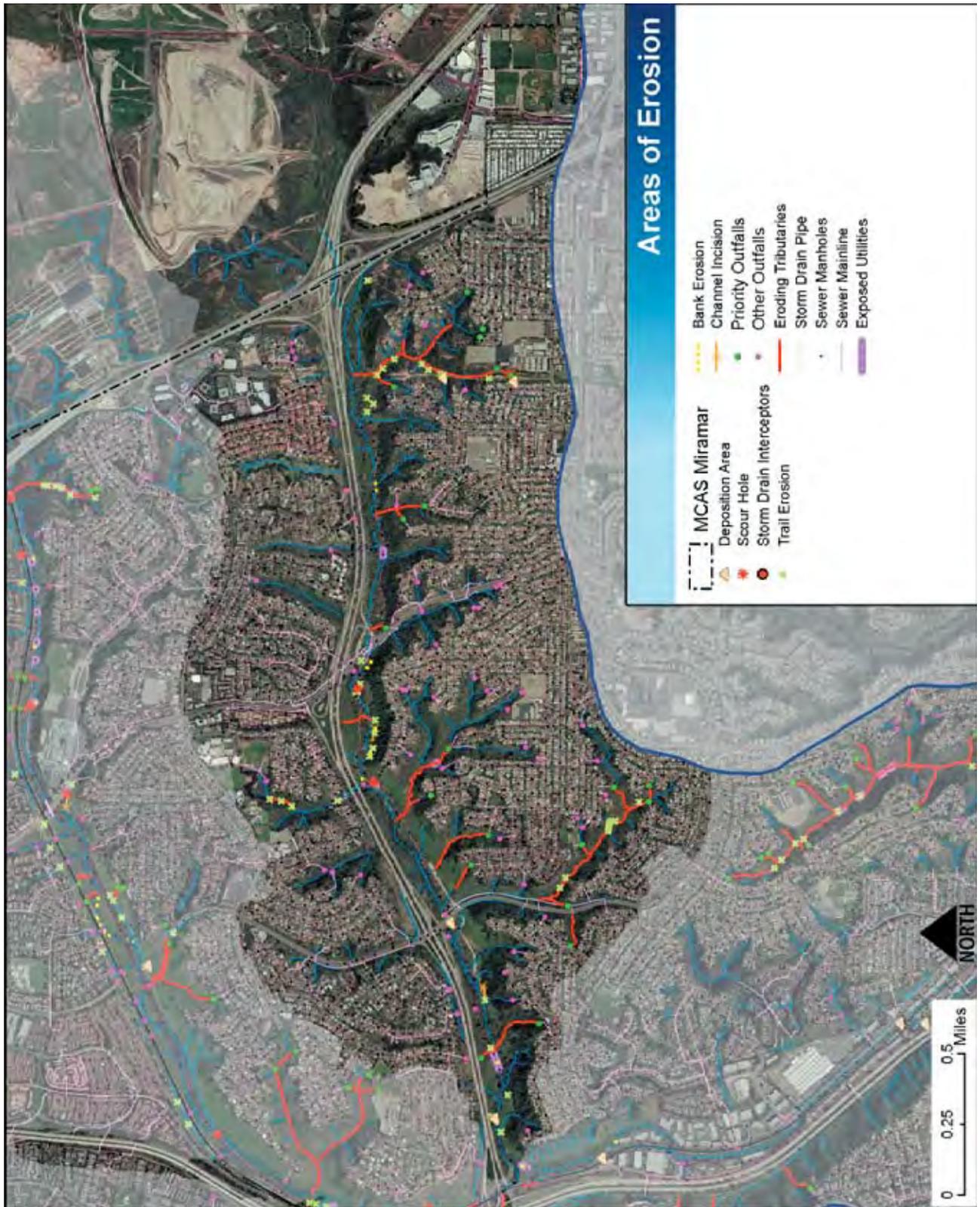
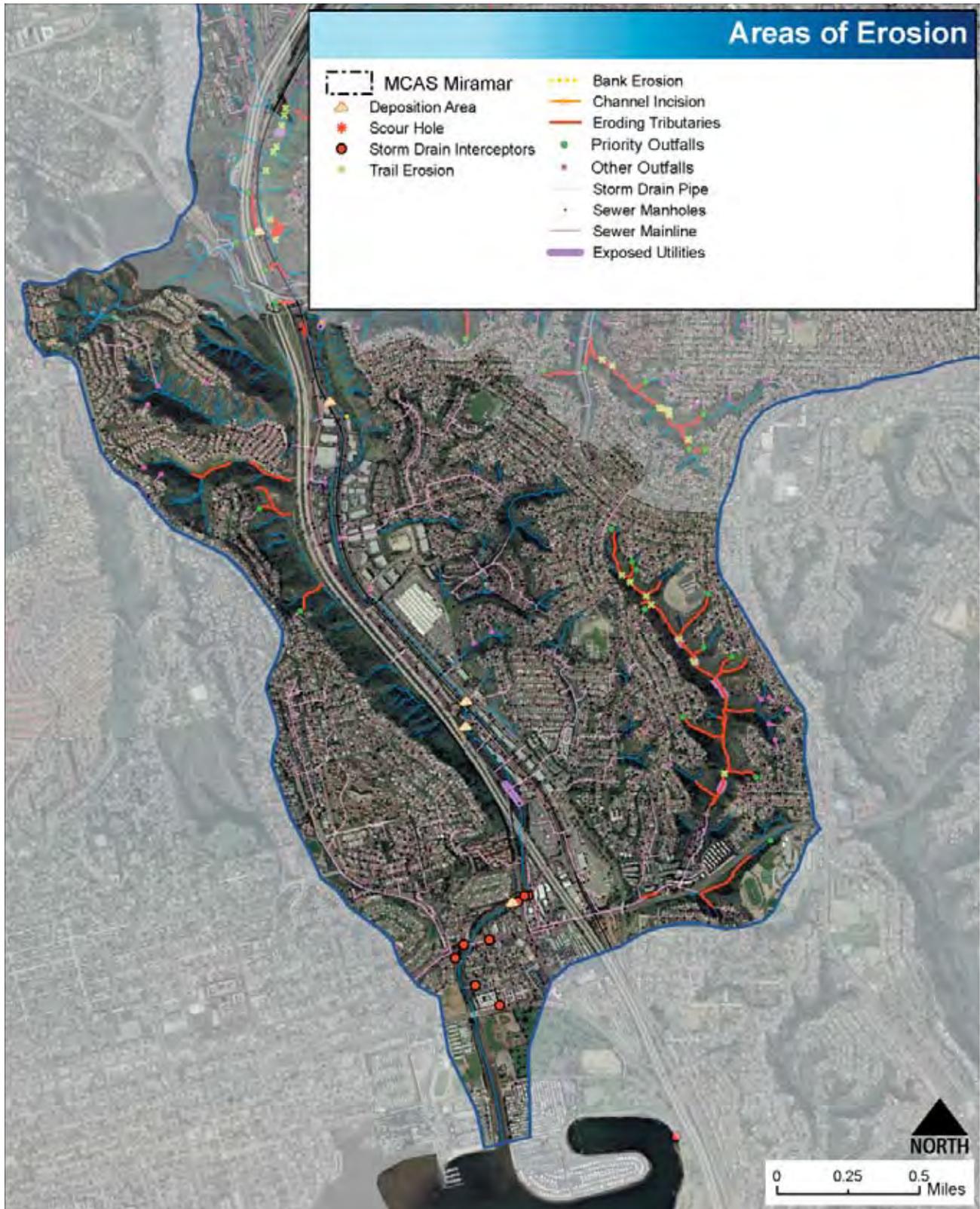


Figure 2-50: Areas of Erosion within lower Rose Creek



Rose Creek Watershed Opportunities Assessment

3. Determining Sediment Balance

Understanding the sediment balance within the RCW is important to determining the feasibility of many of the stream channel restoration techniques previously discussed. Is there enough sediment moving through the system to re-build the streambed? Is active channel down cutting and widening still occurring and at what rates? What does the sediment profile of the transported sediment look like? Is it made of mainly sands, gravels, and cobble? Or are there significant proportions of silt and clay? Answers to these questions and others will influence the restoration techniques chosen for a given



location within the watershed. Components of monitoring include measuring Total Suspended Solids (TSS) and bed-load sediments; defining long-term transects for cross-sectional and longitudinal profiles of a stream reach to compare changes over time to determine erosion and deposition rates. The TSS monitoring should be done as part of the hydrologic monitoring. The physical monitoring (transect and profile) is recommended at five locations: below the confluence, within the open space parks, and upstream of the open space parks within the edge of MCAS Miramar, and should be collected on an annual basis at a minimum, with the optimum including after major storm events as well.

2.6.3 Recommendations to Modify Flood Control Channels

- Remove concrete flood control channels wherever feasible and restore native plants*

Many communities nationwide are reassessing flood control and floodplain management approaches to determine whether more environmentally friendly solutions exist. Restrictive zoning, the development of river parkways (e.g. floodplains that double as recreational and open space areas), and the modification of concrete channels to incorporate vegetation and recreational opportunities are happening more frequently. Many of these efforts are occurring in much larger and more developed watersheds such as the Los Angeles River. Within the RCW, the City of San Diego has effectively addressed the first two options with the acquisition and dedication of the Rose Canyon Open Space Park and Marian Bear Memorial Park. Having these parks in place potentially allows for a dynamic floodplain environment to be re-introduced through the implementation of the streambed and stream bank improvements previously discussed. All three methods, or any combination of them, need to be assessed for implementation in the lower Rose Creek portion of the watershed.

The results of the recommended hydrologic assessment will provide crucial information that will aid in the determination of whether the existing concrete channels can be modified or removed while still maintaining flood protection to the developments along the creek. The results of the hydrologic assessment could suggest that zoning restrictions and floodplain dedications may be needed to prevent future recurrent flood damage from larger storm events. There are many questions to be answered before any concrete flood channel can be removed. The potential for erosion, slope damage or channel scouring must be analyzed along with the results of the recommended hydrologic assessment. Also to be considered is whether changes in the flood carrying capacity could occur and how they could be addressed. Ongoing maintenance of a newly restored channel must also be addressed. Any restoration design must consider the potential to support disease vectors, such as mosquitoes, so that the newly restored channel creates a positive net benefit to both humans and wildlife. Removal of the channel should be implemented only if the results of the hydrologic assessment indicate it will create a net positive benefit to the public in terms of public safety, public health, recreation and wildlife enhancement.

1. Concrete Channel Removal

There are four significant reaches of concrete channel (Figure 2-51) from Gilman Drive to Mission Bay that have been targeted for potential removal and conversion to alternative materials and designs that would allow the establishment of native vegetation communities and public access.

Figure 2-51: Concrete flood control channels



Rose Creek Watershed Opportunities Assessment



The first is a 1,500-foot long concrete trapezoidal channel located about 0.25 miles above the State Route 52/ Interstate 5 interchange along the railroad tracks. The second is a 700-foot long concrete trapezoidal channel occurring underneath the State Route 5 /Interstate 5 interchange along the railroad tracks. The third is a 3,000-foot long concrete trapezoidal that occurs between Morena Boulevard and Santa Fe Street and is terminated at either end by railroad bridges. The fourth is a 800-foot long concrete box channel with flow direction fins that occurs between Interstate 5 and Mission Bay Drive.

The conversion of these concrete channels to native plant communities would provide for a number of potential benefits: 1) improve public safety in lower Rose Creek; 2) provide missing habitat linkages for various species; 3) provide structurally varied vegetation communities (canopy trees, understory trees/shrub, groundcover) that can help improve overall bio-diversity of the watershed; 4) improve water quality through bio-filtering and stream shading; 5) improve storm water detention through increases in channel roughness and the introduction of pervious substrates; and 6) provide new public recreation benefits.

To determine the feasibility of these efforts, the updated hydrology and hydraulic information discussed in the previous action will be needed to: 1) compare the current 100-yr floodplain with the 1970s U.S. Army Corps of Engineers floodplain to assess potential increases in flood risk to developments and public infrastructure adjacent to or within the lower reaches of Rose Creek; 2) identify current flow volumes and rates associated with various flood flows to determine if alternate construction materials and techniques would remain stable or become an ongoing management problem; 3) based on the flow volume (cfs) and rate (fps), determine the cross-sectional volumes needed to convey various flood flows and use this information to design benches at appropriate elevations to support various wetland and riparian communities and re-establish a more dynamic floodplain environment. Detailed techniques are discussed in Chapter 4, Section 4.6.4 on page 4-31.

Removing the concrete channels, incorporating native riparian vegetation, and constructing recreational trails are integral to the vision defined for lower Rose Creek. This comprehensive approach ensures that the varied issues (illegal activities, wildlife corridor, habitat diversity, water quality, flood management, etc) within lower Rose Creek are addressed and as many multiple benefits are gained as possible.

2.6.4 Recommendations related to Water Pollution

- Monitor dry weather runoff to determine pollution sources and potential solutions*
- Collect storm water quality data coincident with hydrology and hydraulics data*
- Reduce storm water runoff through capture and infiltration*
- Inform land-owners of storm water reduction measures through outreach materials*
- Develop a long-term stream monitoring program to monitor trends in stream health*

Reducing storm water runoff and the pollutants it transports has become a major focus of water quality improvement efforts nation-wide. Within the San Diego region, the San Diego Regional Water Quality Control Board adopted the Municipal Storm Water Permit (Order No. 2001-01) in 2001 that established progressive storm water pollution reduction targets and program requirements that all copermitees (the cities within San Diego County and the County) had to meet. The copermitees established Project Clean Water (<http://www.projectcleanwater.org/>) as a forum to collectively discuss and address these new storm water requirements in a consistent manner. As part of the Storm Water Permit, all jurisdictions are required to organize along watershed boundaries and cooperatively identify priority watershed issues and develop solutions. The RCW is part of the Mission Bay Watershed Management Area and the City of San Diego has sole responsibility for complying with the Storm Water Permit and other water quality standards identified within the federal Clean Water Act or the state Porter-Cologne Act.

Action Recommendations

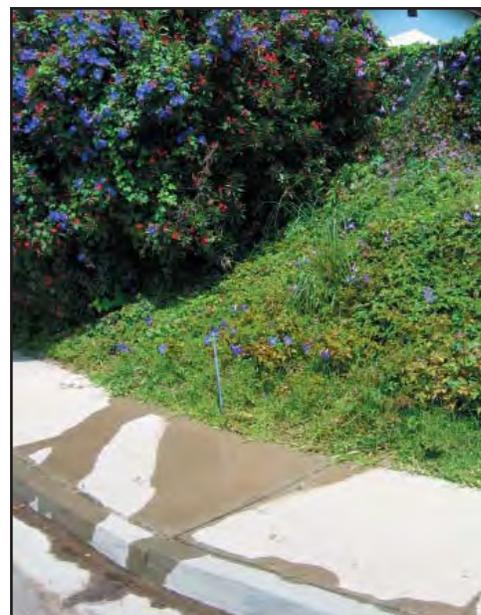
Bacterial contamination in Mission Bay has been the focus of investigations by various entities since the early 1980s. These investigations resulted in the construction of a low-flow interceptor system that diverts dry weather urban runoff out of the storm drain system into the sanitary sewer system at a cost of approximately \$10 million over 3 phases. Due to continued bacterial contaminations, the City of San Diego also undertook a bacterial source identification study in 2004 (Mission Bay Epidemiology Study, MEC 2004) to determine, via DNA, the origin of the bacteria (human, canine, avian, etc). The results indicated that 67 percent of the bacteria originated from birds (avian species), 10 percent from dogs (canine species), and 5 percent each from humans and other land mammals, and a final 4 percent from marine mammals.

Since 1996, the mouth of Rose Creek has been on the 303(d) list (See Section 3.8.2) as being impaired by lead and eutrophic conditions, and all of Mission Bay with bacterial contamination. In addition to these 303(d) listed pollutants, other pollutants of concern (See Section 3.8.2) include: sediment, nutrients, other heavy metals, organic compounds, trash and debris, oxygen demanding substances, oil and grease, and pesticides.

In addition to the ongoing monitoring efforts within Mission Bay, various City of San Diego departments have been monitoring locations (14-24 locations) within the RCW (Figure 3-31) since 2001 in an effort to better understand the sources and distribution of bacterial contaminants. As part of the MOU with the City of San Diego for this assessment, the City has continued to collect dry weather monitoring data, with the purpose of the monitoring to detect and eliminate illicit connections and illegal discharges into the storm drain system. The results of these efforts have indicated sporadic exceedances of water quality standards for ammonia, pH, and total coliform, but to-date has provided little guidance as to the sources of the pollutants. As more data is collected, the City's goal is to track the pollutants upstream to identify the source and remedy the discharge. If pollutants can't be tracked to a specific source(s), but are found throughout the watershed, watershed-wide programs for pollutant reduction should be implemented.

1. Dry Weather Pollution Monitoring

The City monitoring program has established that dry weather runoff from urban areas is contributing to water quality pollution, but has yet to identify the sources or potential solutions to this ongoing problem. It is recommended that more focused water quality monitoring be undertaken within the urban areas contributing to the existing monitoring stations that have shown consistently higher concentrations of pollutants relative to the other stations. The purpose is to determine the sources contributing to the dry weather flow and their contributions to the pollutant load (e.g. is lawn over watering the primary contributor of nutrients). Scheduling issues (e.g. time of day, day of week, week of month) can become important aspects to consider when undertaking this detective work style of monitoring as businesses and homeowners alike typically maintain a routine schedule for watering and maintaining their landscapes, washing cars, hosing off sidewalks, etc. so that the monitoring results conducted on a given day may be markedly different the next day due to when these types of activities are scheduled. Time of day can also be important, especially during the summer months when temperatures are high enough to evaporate significant volumes of dry weather runoff; temporarily stranding pollutants in the street gutters until the next runoff event flushes them down the storm drain system.



2. Storm Water Runoff Monitoring

Collecting water quality data coincident with hydrologic data will allow for the development of flow-weighted concentrations. These can be important when trying to determine if periods of critical pollution concentrations exist that are missed during typical grab sample monitoring (e.g. are there periods of elevated toxicity from

Rose Creek Watershed Opportunities Assessment

pesticides during the first flush in upstream locations that does not show up at the receiving water due to dilution?). Other appropriate storm water runoff monitoring would be associated with measuring the effectiveness of installed management practices. This determination would be most effective by collecting pre-practice data, as well as post installation, and could be designed to capture the effectiveness of a single practice or a series of practices that flow to a particular storm drain.



3. Storm Water Runoff Reduction

The reduction of storm water runoff is a necessary component of the successful restoration of the storm drain and culvert outfalls, the eroded tributaries, and the main stream channels of Rose and San Clemente creeks. Reduction efforts can be undertaken at a variety of scales using a variety of best management practices. The goal of this action is the actual reduction of storm water runoff through the use of best management practices (BMPs) that utilize infiltration techniques to capture and allow storm water to soak into the soil for storage and more natural release into the stream channels. A description of recommended BMPs (dry well, trench drain, rain garden, rain barrel) for storm water reduction can be found in Chapter 4, Section 4.6.6 on page 4-34. Due to the low infiltration rates that naturally occur throughout most of the RCW; infiltration tests done by a professional geotechnical engineer are highly recommended to ensure the BMP will properly drain and not create a nuisance with standing subsurface water. To account for the natural limitations of the native soils, the BMPs are recommended for installation in series (rain barrel to trench drain to rain garden to dry well to storm drain system) to ensure the least amount of runoff reaches the dry well as possible, thus minimizing the potential for standing subsurface water.

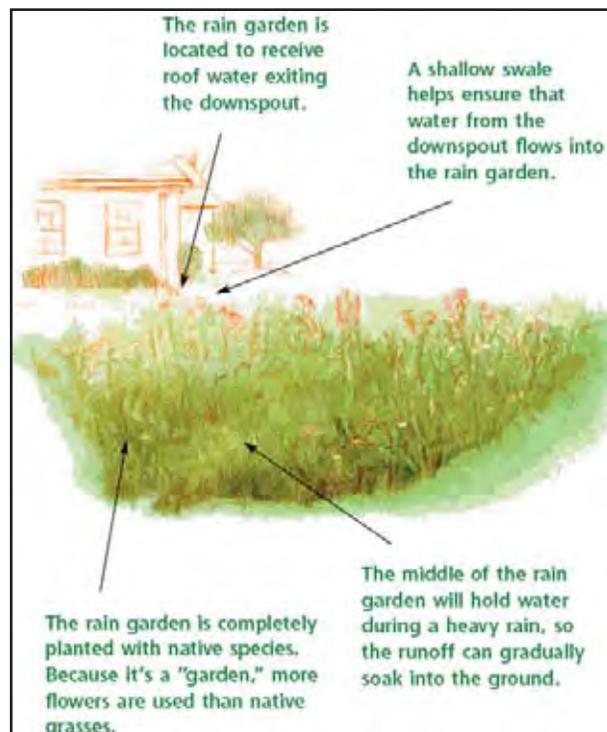


The purpose of these BMPs is not to capture 100 percent of the runoff from all storm events, but to capture the runoff from the first one-half to one inch of rainfall, which represents the most frequent storms within the San Diego region. A typical volume of rainfall targeted for capture (retention or re-use) from a 2,000 square foot home with a two car garage and 20 foot long driveway is as follows:

2,000 sq.ft. roof X 0.5 in. of rain = 83.3 cubic feet of runoff (~623 gallons)

40 x 20 ft. driveway X 0.5 in. of rain = 3.3 cubic feet of runoff (~25 gallons)

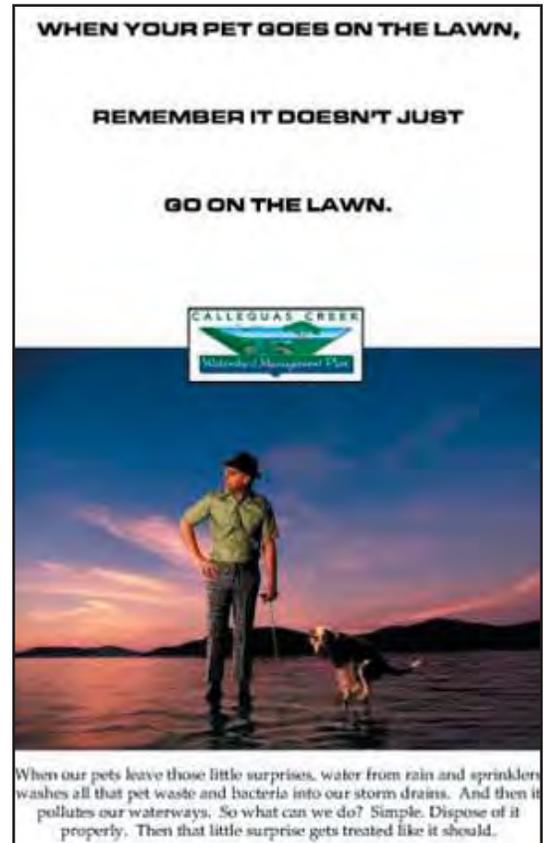
These volumes would be used to size one or more of the recommended BMPs for installation on a given property. When each property is calculated by itself, it is hard to understand the value of storm water retention on a single property. Many of the storm drain outfalls may only have twenty properties contributing to the erosion problem. However, if five properties were to implement these BMPs within that drainage area, the volume of runoff flowing through that outfall could be substantially reduced, thereby making downstream improvements and restoration efforts easier to undertake.



Action Recommendations

4. Outreach Materials for Storm Water Runoff

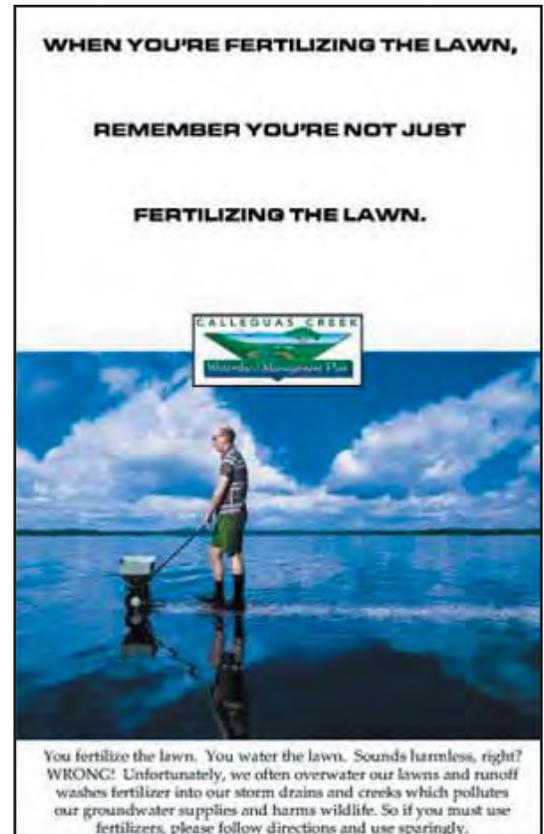
The first step could be to develop outreach materials that describe the proportion of storm water runoff generated from rooftops, patios, walkways, and driveways and the associated downstream issues of erosion, flooding, and pollution. These efforts should build on those of the City of San Diego Storm Water Pollution Prevention Division as described on their website www.sdthinkblue.gov. The second step could then focus on the types of improvement projects that individual landowners could implement (see the techniques described in the Section 4.6.4). Associated with this second step could be the development of demonstration sites that showcase the individual techniques at a minimum and could even show how they can work in series. The demonstration site(s) could be on public lands, but could also utilize residential or business properties if the owners are willing to allow visitors during specific timeframes. For more information on developing public outreach materials see Chapter 4, Section 4.1 on page 4-1.



Sample Public Outreach Flyer about Pollution from Pet Waste



Sample Public Outreach Flyer about Pollution from Detergents



Sample Public Outreach Flyer about Pollution from Fertilizers

Rose Creek Watershed Opportunities Assessment

5. Stream Monitoring



Establishing a long-term monitoring protocol to track trends in the health of the watershed is an important aspect of watershed management. Current water quality monitoring only provides a snapshot of what pollutants are in the water or sediments at that moment in time. It does not provide information about whether or not a highly concentrated discharge of pollutants occurred a week prior or if it had significant effects on the in-stream biota. It is recommended that stream bioassessments utilizing the "California Stream Bioassessment Procedure" be conducted at a minimum of three (preferably five) locations within the RCW. The San Diego Stream Team already monitors one site along San Clemente Creek within Marian Bear Memorial Natural Park. Additional sites are recommended at the following locations:

1) Upper Rose Canyon near Interstate 805, 2) Upper Rose Canyon above the confluence with San Clemente Creek, 3) Upper San Clemente Canyon above the confluence with Rose Creek, and 4) lower Rose Creek downstream of North Mission Bay Drive. These sites would provide a gradient of data from areas least impacted by urban runoff to those most impacted, and could provide valuable insights to the types of improvement projects needed to improve the in-stream habitat conditions. Coordination with MCAS Miramar regarding additional sites within the Station is also recommended. Bioassessments are standardized protocols for assessing biological and physical/habitat conditions within wadeable streams in California and are adaptations of the national Rapid Bioassessment Protocols outlined by the U.S. Environmental Protection Agency in "Rapid Bioassessment Protocols for use in Streams and Rivers" (EPA/841-B99-002). Full information on the California implementation can be found on the California Department of Fish and Game's Aquatic Bioassessment Laboratory website at www.dfg.ca.gov/cabw/cabwhome.htm.



Caddis Fly Larvae



Mayfly Larvae



Freshwater Snail



Hellgrammite



Black Fly Larvae



Damselfly Larvae



Dragonfly Larvae



Stonefly Larvae

From: [Lyn Booth](#)
To: [Pangilinan, Marlon](#)
Subject: comments on Clairemont Plan
Date: Friday, March 6, 2020 4:36:41 PM

Re: Clairemont Community Discussion Draft dated January 2020

March 5, 2020

To: Marlon Pangilinan, Senior Planner,
City of San Diego Planning Department

Dear Marlon,

After reading much of the Clairemont Community Plan, we feel it can be improved by making it more family-friendly and practical regarding cars. It is a given that our cars are essential to take kids to school and activities, carry sports equipment, pets, pick up groceries and large items, to save time, go to work, and so on. Those who are handicapped, elderly or injured cannot easily walk, bike, or travel by transit, which requires waiting, getting up and down stairs, and walking to the access points. Yet notably missing are references to acknowledge the rights of drivers who choose to drive by preference or necessity.

The vision that is championed in this Plan due to its desired goals to reduce carbon emissions and meet arbitrary targets by 2020, 2035, and 2050 shows a bias against motorists, who comprise the vast majority of Clairemont residents in any transportation analysis. The Plan does not adequately support the realistic, continued need for people to use cars to traverse the area and accomplish tasks! This need will not change overnight, nor is the great majority of people willing or able to convert to using bikes, trolleys or buses to get around, especially during inclement weather or when time is a key factor. Our quality of life is dependent on this Plan to be more inclusive of people's needs and freedom of choice!

At present the buses running through Clairemont are typically very empty, with under 5 riders most of the time (from personal observation). Biking has its limits, such as extra time needed to commute, clothing worn not appropriate for work, weather conditions prohibitive, too physically demanding, etc. Biking is unfeasible for many people. Getting to transit hubs from most homes is not easy, either. Who can tote a surfboard by bus to the beach, or carry heavy bags of groceries by bus, or pick up construction materials at a store without a car or truck?

These limitations are realistic and easily explained, yet they seem to be ignored in the Plan. It sounds condescending to read (pg. 42) that Transportation Demand Management (TDM) will seemingly act as a bureaucratic bully to use "marketing and incentive programs...to reduce dependence on automobiles." It is already so expensive for MTS to run empty buses and much has been spent on running infomercials trying to convince the public to up their ridership. Tax dollars can be better put to use going forward.

Perhaps the Plan could use some additions such as the following:

Pg. 11, Introduction's first paragraph: Add to "envision a mix of land uses...connected through an interconnected mobility network **emphasizing** walkability, bicycling, and public transit use...(add) while maintaining efficient and convenient use of the road system by cars. Can the word "**emphasizing**" be changed to "**encouraging**"? It would sound less demanding of a change of behavior. This is the opening paragraph and sets the tone for the entire Plan.

"Multi-modal enhancements", mentioned in the same paragraph, are said to "advance a strategy for **congestion relief**"—however, it should be recognized that certain measures such as reduced lanes, bulb outs, roundabouts and traffic calming will usually cause more congestion, especially during rush

hours. Some additional wording could be used to emphasize the need to allow for the flow of cars to remain unimpeded in areas of heavy traffic (e.g. on Balboa, Genesee, and other key arteries). ME-3.5 mentions roundabouts need to be

Pg. 3: Again, in the box titled "Vision", the word "**emphasizes** walking, biking, and transit use," could be replaced with "encourages" to sound more friendly toward motorists who share the roadways and should be acknowledged as co-equals in traversing Clairemont.

Other areas of the Plan with similar wording could be improved to acknowledge the rights of motorists to share the roads without sacrificing decent traffic flow.

Pg. 47 has wording in ME-3.1 and 3.2 that mentions "vehicular priority corridors" that "enhance mobility for all modes while providing adequate capacity and maintaining vehicle throughput on the street system." Do the words "vehicular" and "vehicle" always pertain specifically to cars in this Plan? Can that specificity be clarified in the draft?

It is impossible to assess how many of these vehicular priority areas will be maintained until a chart is released. Without the "Roadway Network" and "Layered Modal Hierarchy" maps, how can we judge what will happen in our community?

Regarding the planned bicycle network, of which this draft evidently does not contain, a concern regarding traffic flow arises when a lane is taken away from cars or on-street parking is taken away. This can cause problems such as has been seen around the 30th St. area, where business owners lose business due to a reduction in convenient, nearby parking. Potential customers who tire of looking for a parking spot often give up, or extra congestion results when they circle the streets continuing to search.

Hopefully the Plan will not propose locating the dedicated bikeways within busy shopping districts. Unfortunately, the Bicycle Network Map has yet to be provided so we cannot see what is planned.

It would be more user-friendly in reading the Plan to have a page of definitions of words and phrases for those not familiar with planning terms, e.g.:

- Closed loop systems
- Transit priority treatments (such as...)
- Internal transit service
- Queue jumpers
- Placemaking opportunities
- Lead pedestrian intervals (LPI)

This draft needs to be completed with all charts and understandable terms before it can be properly evaluated within an adequate timeframe. It also needs to be fair in its provisions for continued Clairemont character and consideration for all residents without bias.

The above comments are main points we have been concerned about throughout the process of many community meetings and we hope City planners will honor the residents' rights to the quality of life we expect to continue to enjoy. Driving cars will still be a necessity to do what we do. Density should be limited to what the streets can handle with the certainty of added traffic. Commercial development, parks and recreational facilities, police and fire services must keep up with added residential development. Clairemont is a large area separate from downtown and residents do not desire to become like another downtown.

Thank you for your consideration of our comments in refining the draft,

Lyn and Don Booth
North Clairemont

Thank you for considering community input in regards to the future development in Clairemont. I appreciate the thought, time and effort that went into creating each aspect of this plan update.

(Per the initial review by the Ad Hoc Subcommittee and resident input, collected at the January 2020 CPU Ad Hoc meeting, of pages 1-20, my comments refer to page 21 and beyond.)

P. 21

Under “Business Improvement, Attraction, Retention, and Expansion”

Many of the LUs encourage business specifically in the Rose Creek area. However, encouraging more business in all of the city village core areas would further the city’s concept of live-work centers/City of Villages strategy and help reduce CAP. All business improvement should include all of Clairemont’s core centers.

Under “Community Core”

This segment adds language about high density/intensity along Balboa & Genesee, but those streets front in many places w single story, single fam residential. Is there a way to create transitional design? Can taller building be closer to center of retail areas? (Like LUEP-4.10 and PUEP-4.22)

For example, “Establish a village gateway with taller buildings, higher intensity/density of uses, and predominantly mixed-use office and commercial uses at Balboa and Genesee Avenues,” doesn’t encourage transition height or density and zoning types.

I would like to see the addition of aesthetic plan elements/language to all the core centers, as it has been added to the Morena area.

Like LUEP-4.33 “Incorporate public space feature such as plazas, promenades, mini-parks, and squares as focal aspects of the village to encourage public interaction, gatherings, outdoor markets, and events...” And “attempt to reduce building mass” and like languaging.

P. 22

In all the villages areas, pedestrian usage is emphasized. Does this need wording that does not exclude parking/auto and other alternative modes of transportation as well as ped.

Clairemont Community Village - East Village Area

This area is very dense right now w very limited parking. If stoops and front porches are mentioned, perhaps ample parking can also be included? (like LUEP-4.20)

There have been multiple requests for a ped/cycle bridge over the I-5, from Mission Bay to Morena. Can that be incorporated into the LUEPs here?

P. 24 Neighborhood Villages

LUEP 4.41 “Establish multiple pedestrian and bicycle connections into the village from surrounding neighborhoods, especially from Conrad Ave.”

Can safety elements be incorporated into this? Like a green striped stripe across Genesee or ?

P. 25

LUEP-4.62 “Establish multiple pedestrian and bicycle connections from surrounding neighborhoods into the village and toward the transit station, especially along adjacent neighborhood streets, such as Knoxville St., Lehigh St., Nashville St., and Savannah St.”

How? Can we have protected bike/ped throughways w barriers?

P. 26 Site Design

LUEP-4.78 “Locate buildings to the street to create a consistent street wall.”

Can there be stepped back or limited height along street walls so we don't look like UTC area?

LUEP-4.83 “Designate areas on-site for circulator, rideshare, and other micro transit (i.e. shared bicycles and scooters) to allow for safe pick-up and drop-off of passengers, and set aside reserved spaces for electric vehicle charging.”

Will this help to eliminate or reduce regular parking? Can we include adequate parking for regular vehicles?

Does there need to be more added about trees and landscape?—I noticed it mentioned twice.

P. 27 Mobility

Can we add more here? Only a rapid bus is listed. (E.g. an east to west aerial skyway/Gondola system, from KM to PB)

P. 29

LUEP-5.4 Can we say “at appropriate densities” (per u/ac or zoning) instead of med-high? OR incorporate language that is location-appropriate?

P. 30

LUEP-7.3 “Consider supporting higher density multifamily uses along corridors with a community plan amendment.”

I have an issue w that if it encourages higher density units along single fam corridors...Eg. The sf houses along Balboa the back up to or face major artery could be high density mixed use? And then be right next door, wo transition to single story sf?

LUEP-9.2 “Revert the underlying land use of institutional uses to that of the adjacent land use designation when public properties cease to operate and are proposed for development.”

Marlon, what does this mean?

P. 44

Pedestrian & Bike Safety:

Safer bicycle & pedestrian lanes are paramount. What can those look like? Is the bike lane on Balboa, from Genesee to Clmt drive the highest level of cycle safety (Class IV)?

This CPU needs to upgrade TPA mobility corridor bike and pedestrian designations to the highest possible safety levels—as in Class IV with concrete barriers for ped and cycle life safety. Particularly, there is a need to prioritize East Clairemont to Morena trolley station bike, micro transport and ped safety, thru canyons and mesas.

P. 48 Parking mgmt.

ME-6.3 “Encourage the repurposing of on-street parking for alternative uses (i.e., placemaking opportunities, corrals for micro-mobility, etc.)”

Is this plan area-wide? If so, how will that work for multi-fam unit areas that are currently spilling into the street are then up-zoned to allow more density? (e.g. along Genesee, Balboa Arms and Cowley way)

“Encourage” is perhaps the wrong word...maybe “allow” is more appropriate.

(P. 56 I appreciate 4.6 on creating smooth transitions, appropriate scale, and connect-ability of old and new building—hard to do.)

P. 58 Canyons & Open Space

UD-3.1 Development

This aspect needs to include fire safety building restrictions for Very High Fire Hazard Severity Zones VHFHSZ as the majority of Clairemont is designated by CAL Fire and SDFD. (e.g.: Dense multifamily housing should not be allowed on canyon rims/VHFHSZs)

Notation should be added that speak to minimizing fire hazard risk by all means necessary (landscape, design, density, etc.), like UD-4.11 but in regards to fire reduction.

Even state bills are respecting the fire risks by not allowing higher densities in VHFHSZs.

P. 59

UD-4.13 Please amend to incorporate parking for all modes of transportation (future modalities as well as current) not just scooters and bikes.

Public Facilities & Safety

P. 65

POLICE AND FIRE-RESCUE

1. *“The public facilities serving Clairemont, as identified in Table 6-1 and Figure 6-1, are sufficient to meet the community’s police, fire, and rescue service needs.”*

This statement is inaccurate per the previous facilities financing plan (see B. below), the lack of wildfire fighting equipment, and the age of the two fire stations in Clairemont. Station 36 was built in 1969. Station 27 was built in 1959. Beyond a ventilation improvement at 27, these stations have not been renovated or improved in 51 and 61 years.

Current service level is not adequate due to the following:

A. Fire Code 1710 that states that 1 firefighter should be provided for every 1,000 residents. Clairemont has over 100,000 residents (City-data.com; populations was 83,117 in 2002 per city records), and with the addition of multi-family unit numbers exceeding 11,000 units per the new CPU, and possibly higher unit numbers with “affordable housing” designation, the population could increase by 30% or more in the next 20-30 years.

B. Facilities Finance Plan 2002

The previous CPU and Clairemont Mesa Planning Group outlined priorities for the Clairemont area in 1990 clarifies that our fire stations are/were not adequate (as was noted 30 years ago, and again 18 years ago).

March 19, 2002

Cheryl M. Robinson
Project Manager
Planning and Development Review
CITY OF SAN DIEGO
202 C Street, MS 4A
San Diego, CA 92101

Subject: The Clairemont Mesa Public Facilities Financing Plan

Dear Ms. Robinson:

Thank you for the opportunity to submit the facilities financing priorities for the area represented by the Clairemont Mesa Planning Committee. These projects cover the many improvements needed by Clairemont Mesa as reflected in the 1990 Clairemont Mesa Community Plan. As former Chairman of the Clairemont Mesa Planning Committee, Tim Graves said in his submittal on July 18, 1989, " The Community of Clairemont is in need of many improvements for its people." While some progress has been made since 1989, much more is still required to properly support the needs of our residents.

The following is a general description of the projects by specific category. Two detailed lists are attached as Appendix A (Priorities by Category) and Appendix B (Priorities Combined).

General Description

FIRE STATION PROJECTS

- In the Clairemont Mesa planning area there is an unfunded need of \$3.9 million for fire station projects to adequately serve the population based on the buildout of the currently adopted community plan.
- The three existing fire stations on Clairemont Drive (27), Chateau Drive (36), and Chicago Street (25) all require substantial improvements before initiating the design and construction of a new site near Garnet Avenue and Mission Bay Drive. Station 27 requires renovation, while stations 36 and 25 require reconstruction. All projects are required in order to provide adequate coverage of their service areas. See A and B.

Appendix A - Rough Final 2/26/02
 Clairemont Mesa Public Facilities and Financing Plan

Overall Priority #	New Project #	<u>Fire Station Projects</u>	Draft 3 Page	Estimated Cost
28	CM-F2	Fire Station 27 - Clairemont Dr.	70	1,700,000
29	CM-F3	Fire Station 36 - Chateau	71	800,000
30	CM-F1	Fire Station 25 - Chicago	69	850,000
31	CM-F4	Fire Station 45 - Design & construct Garnet & Mission Bay Dr. 10%	72	560,000
TOTAL:				\$ 3,910,000

Library Projects

C. City of San Diego Fire-Rescue Department, Executive Summary by Citygate Standards of Response Cover Review, February 22, 2017, an independent audit commissioned by the City shows that our fire services are inadequate citywide.

“The City’s fire and emergency medical services have not kept pace with growth, partially due to the long recession, and are unable still to meet best practice outcome response times to all neighborhoods.”

“Citygate’s analysis of prior response statistics and use of geographic mapping tools reveals that the city does not have an adequate number of stations to serve it’s diverse topography and population densities.”

As noted in the City of San Diego Fire-Rescue Standards of Response, Technical Report (2017):

*“General Plan PF-D.2 Determine fire station needs, location, crew size and timing implementation as the community grows...(b.) Reflect needed fire-rescue facilities in community plans and associated facilities financing plans **as a part of community plan updates** and amendments.”*

“General Plan PF-D.4(a.) Consider the inclusion of fire station facilities in villages or development projects . . . (c.) Acquire adjacent sites that would allow for station expansion as opportunities allow and (d.) gain greater utility of fire facilities by pursuing joint use opportunities such as meeting rooms or collocation with police, libraries or parks where appropriate.”

D. As the majority of Clairemont is designated Very High Fire Hazard Severity Zone (VHFHSZ) by CAL Fire and SDFD, the highest levels of wildfire firefighting equipment and staffing should be put into service in this plan area. Clairemont’s existing density is over 7,500 ppl. per sq mi (considering the 2.14 mi of designated open space), is one of the denser VHFHSZ areas in San Diego. (link for map ref)

<https://www.sandiego.gov/fire/services/brush/severityzones>

2. *“Fire engines in each station are outfitted with wildland equipment to effectively fight brushfires.”*

Which equipment? No such trucks are listed on SD City/fire website.

Neither Station 36 or 27 has brush rigs (trucks)(SD City/fire, 2020). A mid-canyon fire can only be reached on foot. As homeless live and cook in the canyons, this is a major concern for residents.

Multiple other stations are listed as units able to respond, including helicopters, however current response time averages for Helicopters are 38 and 52 minutes respectively (SD City/Fire, 2020). This is not an adequate response time for brush fires in areas with dense populations.

All station response times are subpar (mostly due to traffic), only meeting the 8-10 minute response times 75% of the time (ref Mt. Etna Rezone EIR, 2019). This is also far below standards as set forth by National Fire Protection Agency and City of SD’s General Plan.

As noted in the City of San Diego Fire-Rescue Standards of Response, Technical Report (2017):

“As a starting point, 74% of the city’s public streets are within 5 minutes travel time of an active fire station. Of the active stations, their travel coverage at commute hours is negatively impacted down to 51% of the road miles. More importantly, the multiple-unit coverage at commute hours is much more severely impacted from 26% down to 6% of the road miles, as multiple units must travel across large sections of the city.”

“Finding #5: Only some of the City’s core areas are within 8 minutes travel time of an Effective Response Force assignment of four engines, one ladder truck, one ambulance, and two battalion Chiefs, with no traffic congestion. During traffic congestions this coverage only occurs in sections of downtown and Mission Valley.”

By the City’s own commission, the evidence is clear that multiple unit will be unable to reach wildfire areas with appropriate equipment in a reasonable amount of time as not to incur property damage, injury or death.

3. (P. 65) *“Over the life of the of the Community Plan, the Fire-Rescue Department will continue to evaluate potential upgrades, expansions, and new facilities to maintain adequate service to the community”*

The Planning Commission and City Council have both said, on more than one occasion, that fire is a big concern for this area because of our canyons; it needs and will be addressed in the CPU.

P. 66 Table 5.1 Community Serving Facilities

Police—Clairemont is under the jurisdiction of Northern Division, that station is located 4.8 miles away in UC area. This chart lists Western Division as the serving division. The Clairemont community needs a sub-station in the heart of the community.

Fire & Rescue—Stations 36 & 27 are considered to cover Clairemont per SD City website, and where we have 100% facilities financial responsibility. Station 25 we have 50% and Station 45 we have 10% fiscal responsibility. Though all stations work together if need be, stations 23 & 28 are not considered to be shared responsibility in the eyes of SDFD or the City, therefore they should be removed from Table 5.1. (snip below from Facilities Finance Plan '02)

FIRE STATION PROJECTS							
F-1	Fire Station No. 25- Reconstruction (50% participation)	68	\$850,000			\$850,000	A,E-K, M-O, Q, S-U,W
F-2	Fire Station No. 27 - Renovation	69	1,700,000			1,700,000	A,E-K, M-O, Q, S-U,W
F-3	Fire Station No. 36 - Renovation (80% participation)	70	800,000			800,000	A,E-K, M-O, Q, S-U,W
F-4	Fire Station No. 45 - Design and construct (10% participation)	71	360,000			360,000	A, E-K, M-O, Q, S-U,W
F-5	Fire Station No. 27 - Provided for vehicle exhaust of apparatus areas	72	13,256	\$13,256	COMPLETED	13,256	
TOTAL FIRE STATION PROJECTS			\$3,723,256	\$13,256		\$3,723,256	
GRAND TOTALS			\$160,373,141	\$4,935,443		\$140,613,141	

Per city’s facilities financing plan (2002): *“There are currently three (3) fire stations located within the Clairemont Mesa Planning Area: Station 25 on Chicago Street, Station 27 on Clairemont Drive, and Station 36 on Chateau Drive.”*

Schools—Assuming charter and magnet schools are excluded from this list? Yet Clairemont serves those schools in terms of infrastructure and mobility, parks and emergency services, etc., so they should be included in the CPU, evacuation plans, etc. And those schools, families, students, and staff impact Clairemont by their presence.

Some admin expressed concern about increased automobile traffic w increasing population and suggested a local bus route connecting mesas/harder to walk and bike.
(On p. 71 more schools, private as well, are marked on the map)

Schools to be added:

High Tech High

Mt. Everest Academy

John Muir

Longfellow

Riley

Innovation middle (not sure it is w/in the plan area)

P. 69

PF-1.1 should be moved to library section

PF-1.3 “Modernize and/or replace facilities and equipment to meet the needs of the community as firefighting and police technology improves.”

Can we add “as the community grows” instead of “technology improves”? (Software aside, we’ll still need water if there’s a fire.)

PF-1.4 & 1.5 Good. Thank you for including this.

PF-1.6 Incomplete sentence (ends in “to_____”)

P. 75

Chart of planned parks to be provided...donde esta?

P. 95

CE-1.2 Land Use & Mobility

Is there anything about another trolley, running east to west?

I would like to request a commuter gondola system be incorporated into things “encouraged”.
(**Light** rails systems run about \$36 million per mile. But the aerial ropeways required to run **gondolas cost** just \$3 million to \$12 million to install per mile.)

Thank you for taking these comments, changes and citations into serious consideration. I appreciate the opportunity to provide feedback.

Lisa Johnson

From: [Scott McColl](#)
To: [Pangilinan, Marlon](#)
Subject: Re: Clairemont CPU: Community Discussion Draft Comments Reminder
Date: Thursday, March 5, 2020 8:29:13 PM

Hi Marlon,

My comments below, thanks.

Page 36: Balboa and Clairemont intersection has up to 44 DU/acre. and it is directly adjacent to low density areas. It should be medium density, or there should be medium density to help the transition to the existing low density.

Page 44 Biking: Parking should not be eliminated for bike lanes. Especially not in areas that are impacted with higher DU/acre and parking spillover.

Page 85: Tecolote Canyon Trails: Future usable acreage: 0 is shown. Can there be opportunity for more trails in the actual tree-shaded parts of the path? And tunnels or crosswalks to connect the trails that are divided by busy roads?

Scott McColl

On Feb 27, 2020, at 5:31 PM, Pangilinan, Marlon <MPangilinan@sandiego.gov> wrote:

Members of the Clairemont Community,

I wanted to remind everyone to submit written comments on the Community Discussion Draft by **Friday, March 6th** when the public comment period closes. This will allow comments to be gathered, reviewed, and shared with the CPU Ad-Hoc Subcommittee at their final meeting on Tuesday, March 10th. Comments can be emailed to staff at mpangilinan@sandiego.gov. The public is also welcome to share and discuss their comments at next the meeting as well.

The Community Discussion Draft can be viewed online at the Clairemont Engaged project website documents page at <https://www.clairemontplan.org/documents>.

For news and updates on the Clairemont Community Plan Update, please visit the project website at www.clairemontplan.org.

Sincerely,

Marlon I. Pangilinan
Senior Planner
City of San Diego
Planning Department

T (619) 235-5293
mpangilinan@sandiego.gov

CONFIDENTIAL COMMUNICATION

This electronic mail message and any attachments are intended only for the use of the addressee(s) named above and may contain information that is privileged, confidential and exempt from disclosure under applicable law. If you are not the intended recipient, or the employee or agent responsible for delivering this e-mail to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you received this e-mail message in error, please immediately notify the sender by replying to this message or by telephone. Thank you.2



402 West Broadway, Suite 1000
San Diego, CA 92101-3585
p: 619.544.1300

www.sdchamber.org

March 3, 2020

Mr. Mike Hansen
Director, City of San Diego Planning Department
9485 Aero Drive, M.S. 413
San Diego, CA 92123

Subject: Clairemont Community Plan Update

Dear Mr. Hansen,

On behalf of the San Diego Regional Chamber of Commerce (Chamber), I am pleased to provide this letter of support for the Clairemont Community Plan Update. As the largest local Chamber on the West Coast, representing approximately 2,500 businesses and an estimated 300,000 jobs, the Chamber is committed to ensuring that our region has a thriving local economy, including an adequate supply of housing and jobs.

The Clairemont Community Plan has not been updated since 1989. In the last 20+ years, the neighborhood has changed dramatically. We believe that your department and staff worked closely with the public and community members to update the plan with new solutions that will both enhance the neighborhood and respect the unique character and quality of the community.

The Chamber supports this plan and believes additional considerations should be included in this plan and future community plan updates to include more density in areas adjacent to trolley stops and within Transportation Priority Areas (TPAs). The State of California is currently experiencing well-documented, much discussed housing crisis that requires significant leadership and action. Changing community plans to allow high-density housing in transit-rich neighborhoods will ease the burden of our region's housing shortage while lowering vehicle miles traveled and encouraging more sustainable transportation options.

Thank you for your consideration. Should you have any questions, please do not hesitate to contact Rebecca Lieberman, Policy Advisor, at (619) 544-1352 or rlieberman@sdchamber.org.

Sincerely,

A handwritten signature in black ink, appearing to read 'J. Sanders', written over a light blue horizontal line.

Jerry Sanders
President & CEO
San Diego Regional Chamber of Commerce