SOUTHERN CALIFORNIA ASSOCIATION of GOVERNMENTS

50 YEARS

APPENDIX G

Comments

on the Draft Program Environmental Impact Report

Part 3 of 3

CERTIFIED APRIL 2016 | STATE CLEARINGHOUSE # 2015031035

2016 2040 RTPSCS

FOR THE **2016-2040** REGIONAL TRANSPORTATION PLAN/ SUSTAINABLE COMMUNITIES STRATEGY

Southern California Association of Governments

APPENDIX G:
COMMENTS ON THE DRAFT PROGRAM ENVIRONMENTAL IMPACT REPORT
PART 3 OF 3

Letter Number	Comment letter
Organizations and Individuals	
36	Albert Perdon
37	Alliance for a Regional Solution to Airport Congestion
38	Ann Tarkington
39	Banning Ranch Conservancy
40	Bolsa Chica Land Trust
41	Building Industry Association of Southern California
42	California Construction and Industrial Materials Association
43	California Cultural Resources Preservation Alliance
44	California Native Plant Society
45	Center for Demographic Research
46	Endangered Habitats League
47	Environmental Coalition
48	Eric Johnson
49	Ezequiel Gutierrez
50	Five Point Communities
51	Friends of Harbors, Beaches, and Parks
52	Hank Fung
53	Hills for Everyone
54	Irene Sandler (Letter No. 1)
55	Irene Sandler (Letter No. 2)
56	Joyce Dillard
57	Kristy Norman
58	Laguna Canyon Foundation
59	Laguna Greenbelt, Inc.
60	Los Cerritos Wetlands Land Trust
61	March Joint Planning Area
62	Mark Jolles
63	Marven Norman
64	National Trust for Historic Preservation
65	Naturalist For You
66	Orange County Business Council
67	Orange County League of Conservation Voters
68	Public Health Alliance of Southern California
69	Richard Helgeson
70	Robert Dale
71	Ronald Stein PTS Staffing
72	Rural Canyons Conservation Fund
73	Saddleback Canyons Conservancy
74	Sea and Sage Audubon Society
75	Southern California Leadership Council
76	Steve Rogers
77	Terry Goller
78	The City Project
79	Tressy Capps
80	Ventura County 350 Climate Hub
81	Ventura Hillside Conservancy

Comment Letter No. 36

Submitter	Affiliation (Submitter)	Comment
Albert Perdon	Albert Perdon @ Associates 2/1/2016 1:47:30 PM	The following input is provided in response to the invitation to submit comments on the Draft 2016-2040 Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS) and 2016 PEIR. The attached Power Point Presentation describes a transit and city development alternative that will have significant benefit in resolving growth, transportation and land development issues. SCAG needs to consider and incorporate the strategies presented in this presentation in preparing the final RTP and PEIR documents. The recommendation goes well beyond the approach that SCAG has presented in its prior and current plans. The region will not attain achievable air quality mandates unless a large majority of growth is accommodated in a manner that eliminates the need for travel by an automobile. As described in this presentation, such an approach is viable and cost-effective. The presentation centers on an integrated plan for very high-density housing and high-speed transportation along the segment of the California High Speed Train corridor from Ontario to the U.S.-Mexico border at Chula Vista and Tijuana. Development of this corridor improvement resolves a major deficiency with the State's current plan for the California High-Speed Train project. The State has not developed a viable funding plan for this corridor segment, let alone for the northerly segments to the San Francisco Bay Area or Sacramento. The presentation was prepared following extensive analysis during the period 2010 to 2013. The study results are based on the data available at that time. Events occurring since then have not changed the nature or strength of the recommendations contained in this presentation. It is expected that SCAG will include this presentation in the public hearing record for the draft and final RTP/SCS and PEIR/PEIS to be adopted by the SCAG Regional Council, and deem it to be a viable alternative for consideration.

1

An Integrated Growth and Transit Strategy for Southeast California

Creating wealth, protecting communities from unconstrained development, enabling growth in housing, enhancing the environment and quality of life

Albert H. Perdon

March 2014

Two Intersecting Interests

Growth – High Speed Trains

- 15-19 million more people in CA by 2060
  - Where will they live, how will they move about?
- Southeast California could attract millions
  - By adopting a “Beneficial Growth Strategy”
- Voters have approved a high-speed train
  - Funding committed not enough to begin building HST
- “SeCal”: $billions for HST but no benefit
  - HST is critical for SeCal growth; 5-10 million

2008 Prop 1A Ballot

800-mile HST System

$9 billion High Speed Train

$950 million feeder transit

No SeCal HST Financial Plan, Schedule, Funding Commitment

- Direction from the North

Recommendation

- Lead HST development as part of a "Beneficial Growth Strategy"
- 7-9 High-density "Sky Cities" growth centers at HST stations

What's at stake for SeCal?

- Preserving lower-density lifestyle
- Saving billions of dollars in taxes
- Reducing commute costs and time
- Creating jobs / strong economy
- Protecting the environment
- Increasing political power

After vote, lack of needed funding; scope reduced.

$9 billion High Speed Train

$950 million feeder transit

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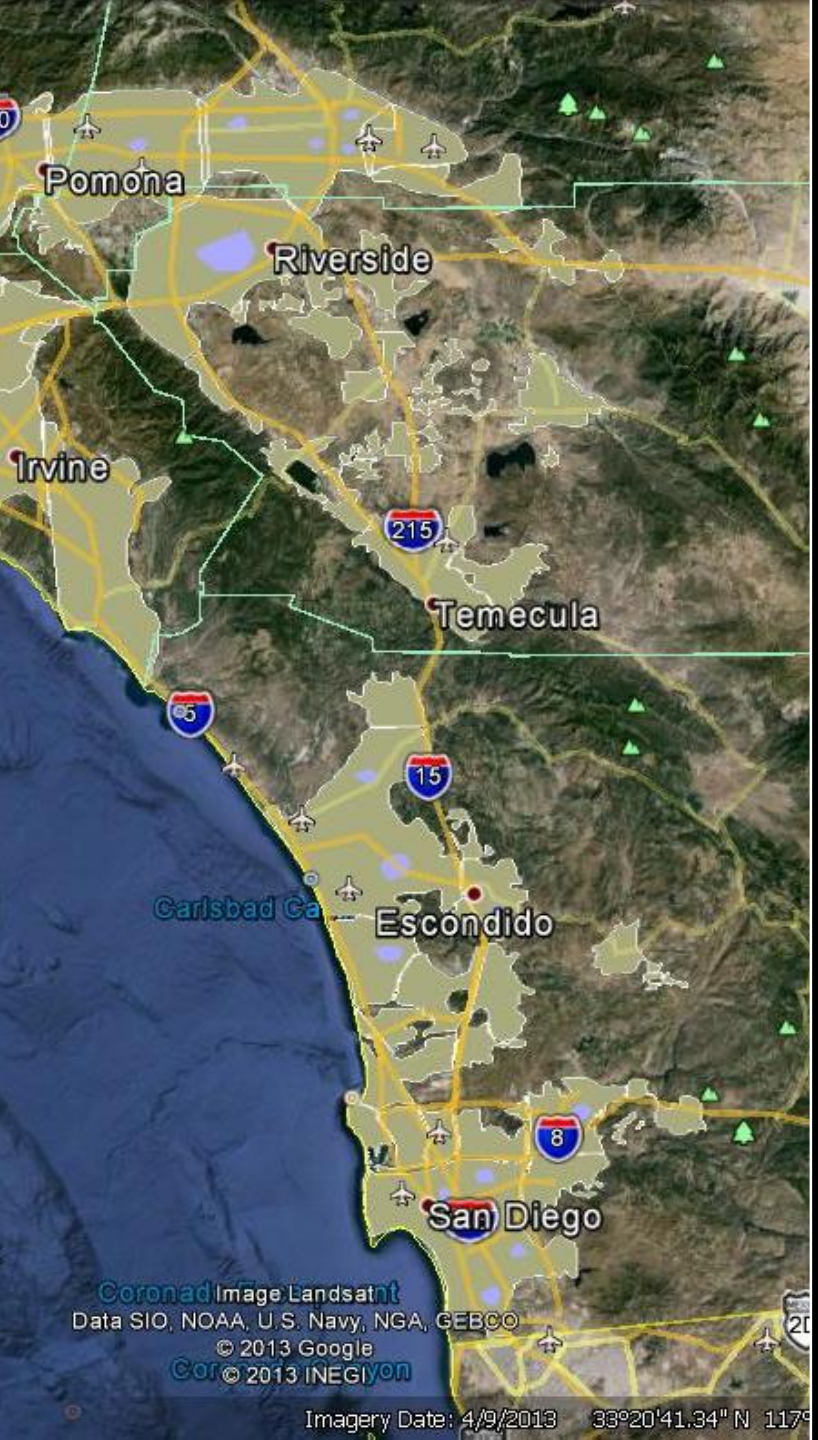


San Bernardino

Riverside

San Diego

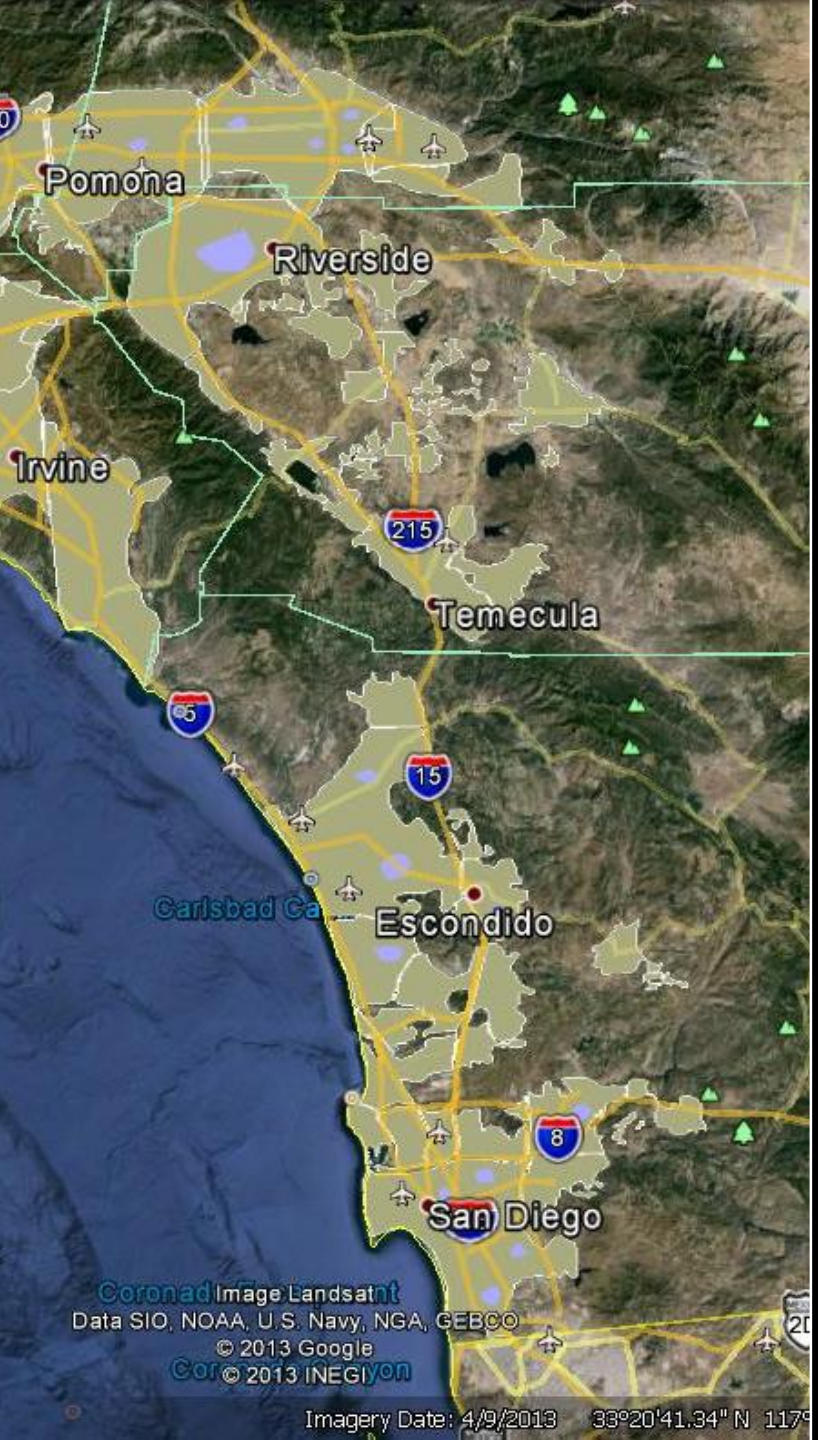
The Issue

Population Growth

- 15-19 million more people in CA by 2060
- 5-10 million in southeast counties

Mobility Decline

- Growing percent drive 90+ min to work
- San Bernardino – Riverside area ranks 2nd (tied with New York)



San Bernardino

Riverside

San Diego

The Issue*

Housing shortage

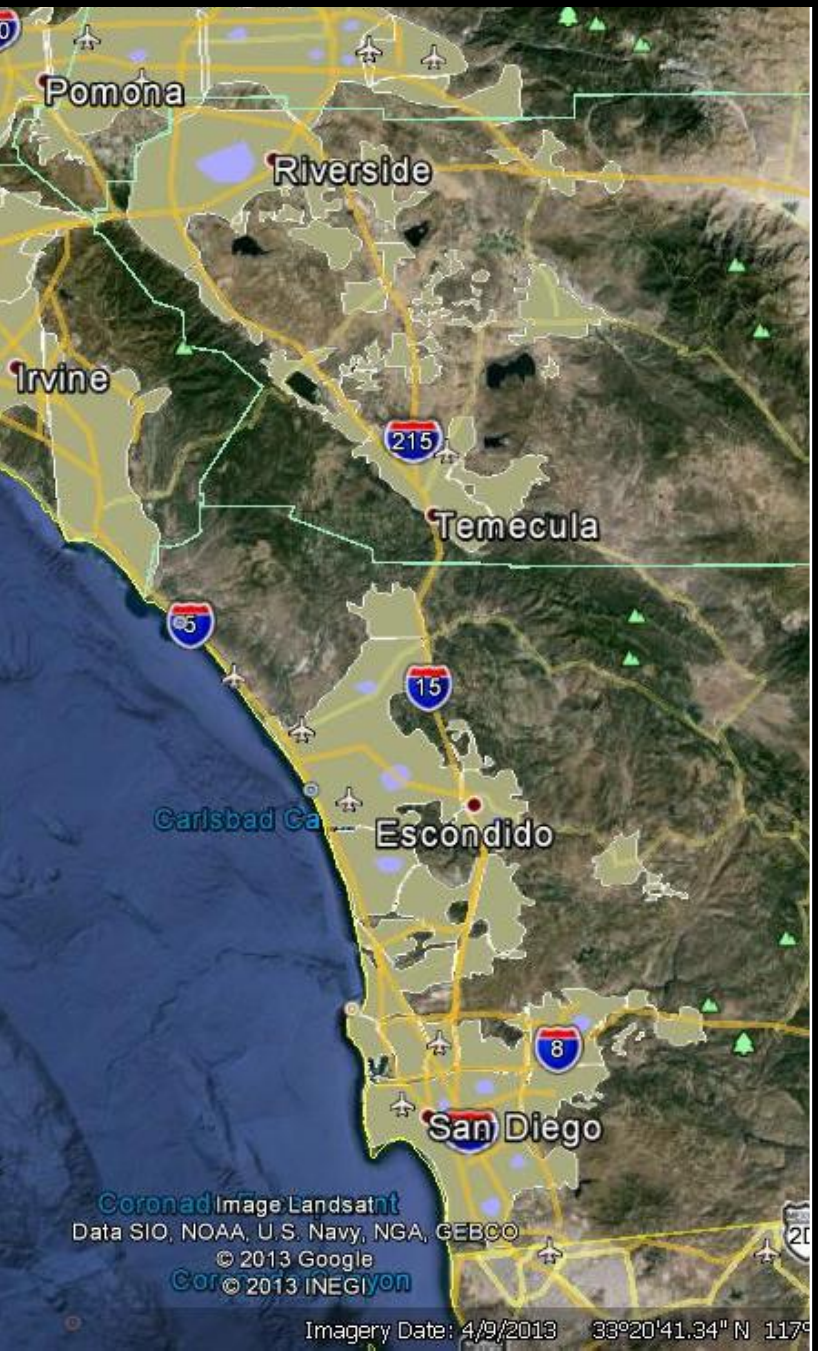
- Building permits up – 496 per month
- But, far below peak levels a decade ago

Housing needs

- Nearly 1,000 per month needed
- 1.7 million new residents by 2060

* For San Diego County; UT San Diego, Sept. 3, 2013

Where will they live?



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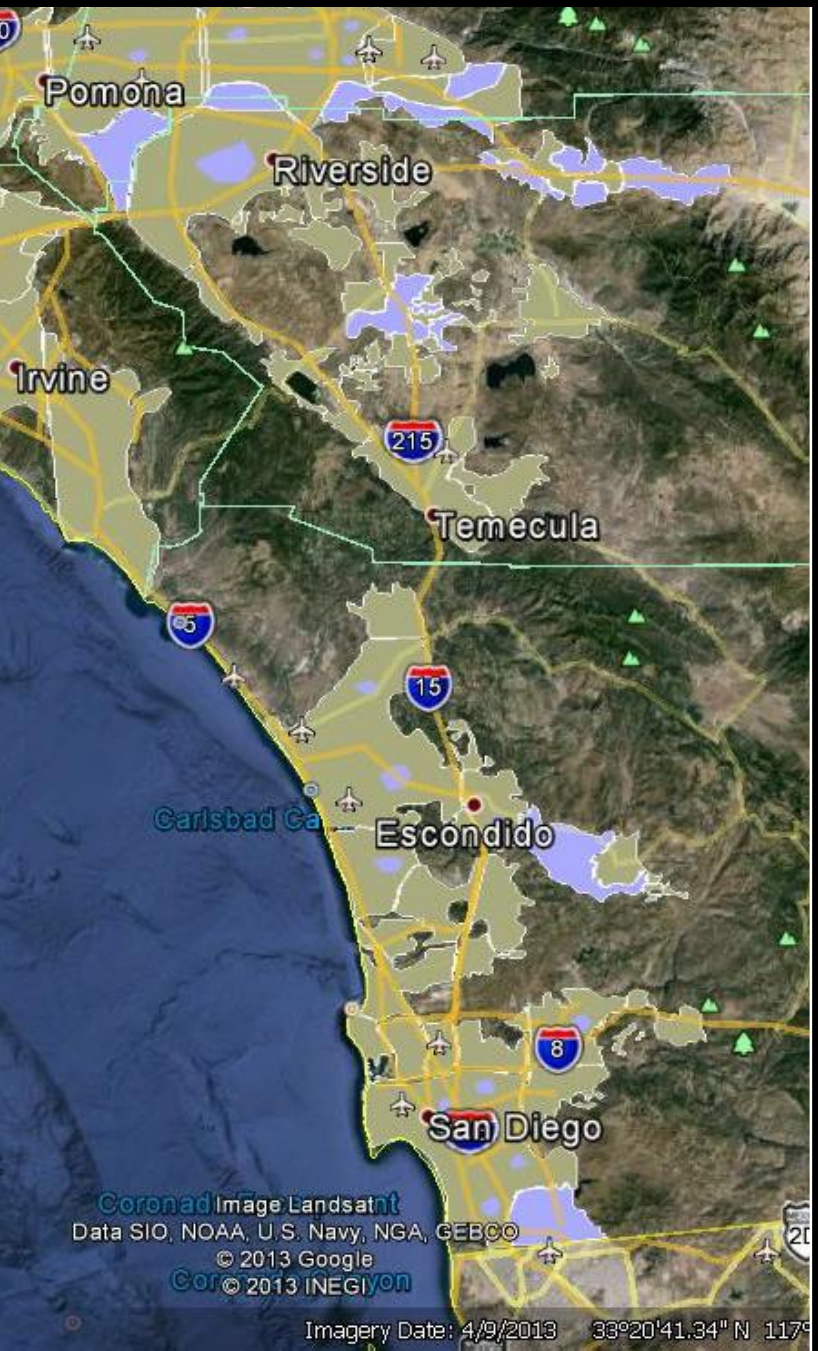
Infill Development?



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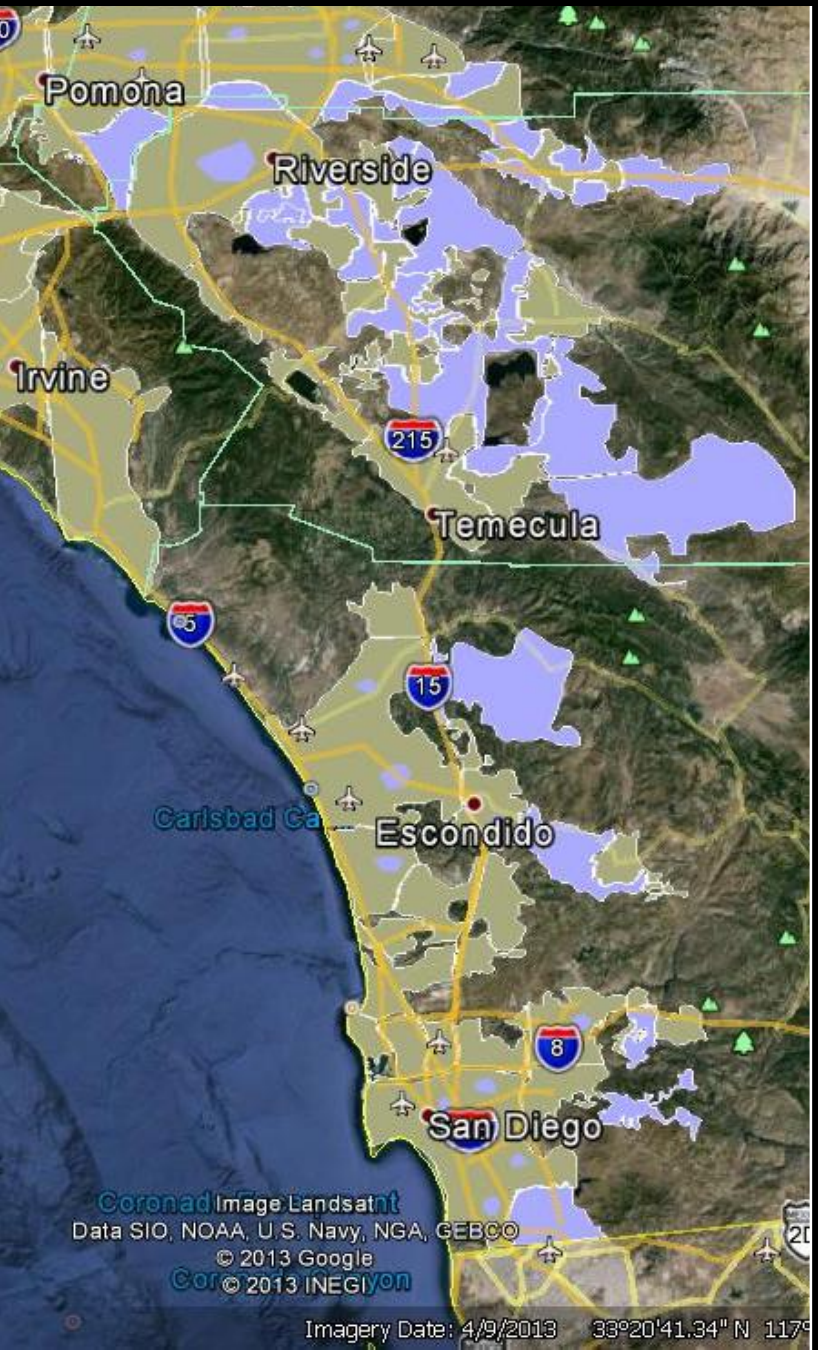
Further Sprawl?



San Bernardino

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San Diego

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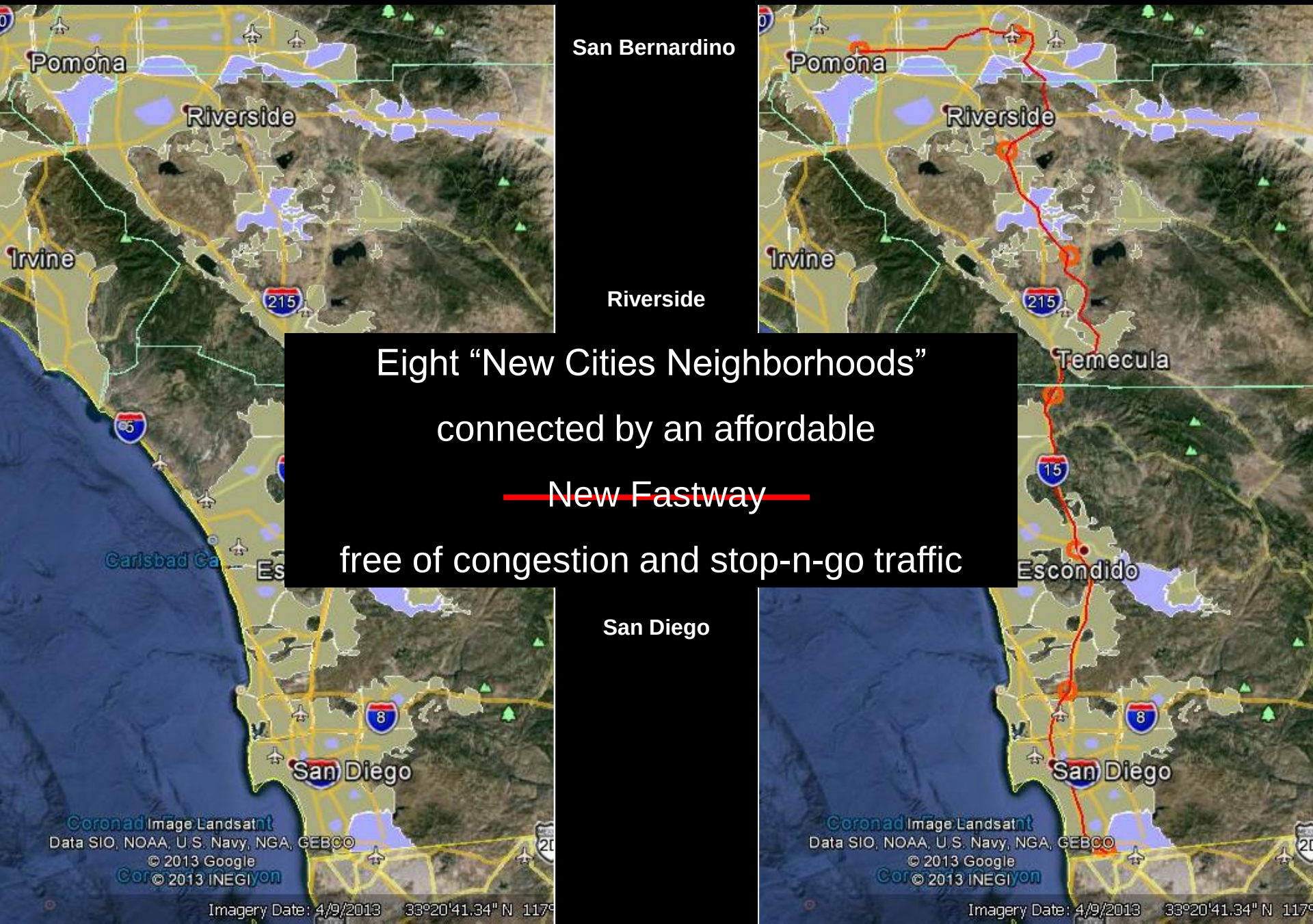
A New Option is Proposed



Eight “New Cities Neighborhoods”

connected by an affordable

~~New Fastway~~

free of congestion and stop-n-go traffic

An Integrated Housing/Transit Solution

San Bernardino

Riverside

Eight “New Cities Neighborhoods”

connected by an affordable

~~New Fastway~~

free of congestion and stop-n-go traffic

San Diego

THE HIGHEST AIR QUALITY

Indoor air is at least 20 times purer than that outdoor

100% fresh air without cross contamination, far away from sick building syndrome; fresh air with 3-stage filters and 99% of PM2.5 is eliminated, far away from air pollution ···

THE HIGHEST LIFE ENJOYMENT

The sunrise and sunset can be watched daily at much time in much space

No commuters, walk to work, leisure hours can be greatly enjoyed. Over 4,000 families share dozens of sky gardens, sky courtyards, basketball courts, tennis courts, botanic gardens, libraries, concert halls···

The living space is as much as you can imagine while the air conditioning fee and electric bills can be as lower as you like ···

THE HIGHEST LEVEL OF CONSTRUCTION TECHNOLOGY

BROAD Sustainable Building (BSB)

Modular design, factory-made product, worker-friendly construction and 1% construction waste. One - million-sqm building with 280,000 components in aircraft component management process benchmarks the hi-tech building standard ···

天空城市 SKY CITY
投资有限公司 INVESTMENT CO.,LTD

BROAD Town, Changsha, P.R. China Zip:410138
Tel:+86-731-84096688 Fax: 84610087 www.broad.com

SKY CITY - J220

THE NEW ALTITUDE IN THE WORLD

Not only the tallest building in the world,
but also ···

THE HIGHEST ENERGY EFFICIENCY

Over 5 times more energy efficient than conventional buildings

Over 20 super energy saving technologies: 20cm thermal insulation, 4-paned windows, fresh air heat recovery, cooling-heating-power system, auto power-generated lifts ···

THE HIGHEST EFFICIENCY OF LAND USE

Save the land 10 times more than average urban areas

Residence, office, elementary & secondary schools, kindergarten, old people's home, healthcare hospital, store, hotel, sports & entertainment center are all integrated. 4,000 vehicles and relevant land for roads and parking are cut, large area of green land is protected ···

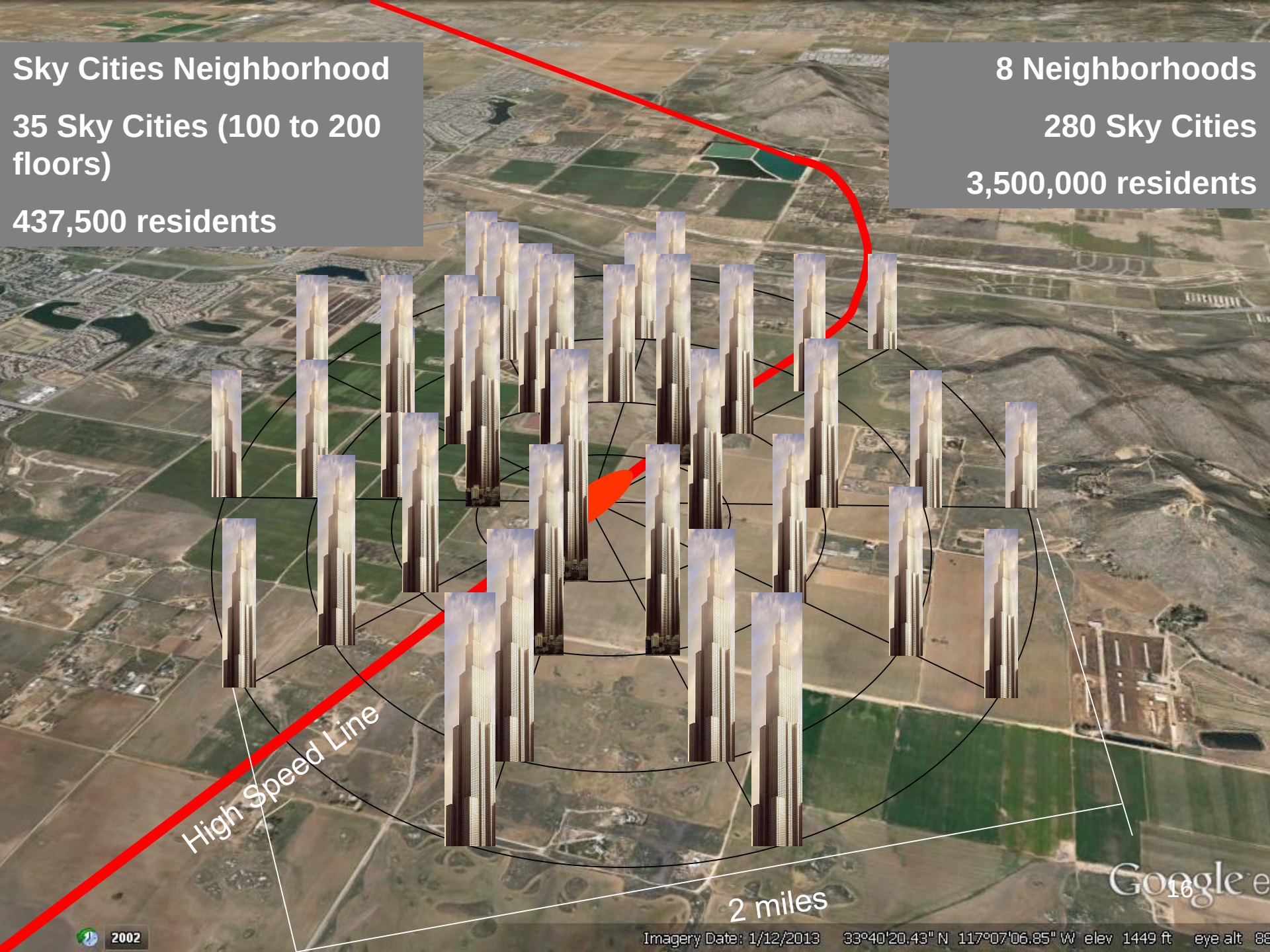
A Game Changer

Burj Kalifa: $1.5 B – 5 years

Sky City: $0.65 B – 90 days

land for roads and parking are cut, large area of green land is protected ···


High Speed Line
2 miles
Google
2002
Imagery Date: 1/12/2013 33°40'20.43" N 117°07'06.85" W elev 1449 ft eye alt


Sky Cities Neighborhood
35 Sky Cities (100 to 200 floors)
437,500 residents
8 Neighborhoods
280 Sky Cities
3,500,000 residents
High Speed Line
2 miles
16
2002
Imagery Date: 1/12/2013 33°40'20.43" N 117°07'06.85" W elev 1449 ft eye alt

The "Not LA" Alternative

Preserve Predominantly Low-Density Land Use

	City Level			Urbanized Area Level		
Location	Sq Mi	Population	Density	Sq Mi	Population	**Density**
Los Angeles (2013)	472.0	3,694,820	7,828	1,682	11,789,487	**7,009**
2013 SeCal Urban Areas population				2,500	7,693,000	**3,077**
An Integrated HST and Sky Cities Growth Strategy						
2060 SeCal urban area population outside of Sky Cities Neighborhoods				2,098	6,927,000	**3,301**
Sky Cities (280)	7.5	5,328,000	710,400			
HST + Sky Cities Neighborhoods (8)	402.0	8,771,000	21,800	2,500	15,698,000	**6,279**

HST Business Plan

Derived from CHSRA April 2011 Revised Business Plan

Projected project cash flow (YOE dollars in millions) **Medium Case -** 2013-2060 (47 years)	CHSRA Phase 1a - 410 miles	SeCal 125 miles (16%)
Operating Revenue	**$160,587**	**$85,665**
Less: O&M	($70,643)	($22,551)
Net cash flow from operations	**$89,944**	**$63,110**
Capital replacement costs	($6,611)	($2,103)
Net operating cash flow after capital replacement	**$83,333**	**$61,007**
Benefit Area Assessment Revenue @ 1.58% Base Rate		$7,741
Phase 1a Capital cost (410 miles)	($68,365)	
Phase 2 Capital cost (265 miles)		($27,139)
Public Benefit Fund		(2,000)
Net project cash flow	**$14,968**	**$40,609**
Tax-exempt Finance Rate	3%	3%
Net Finance Cost	($103,982)	($23,992)
Cumulative net project cash flow after finance cost	**($88,279)**	**$13,815**
Present Value	**($22,004)**	**$3,547**

The “Those Who Benefit Pay" Alternative

Value Capture Examples

San Joaquin Toll Road: DIF - $5.6m (2012)

Riverside County: TUMF - $8,873 per sfr

Moreno Valley: Impact Fee - $13,754 per sfr

San Diego: TIF - $11,000 per sfr

Metro Red Line: Benefit Assess.- $300m (21%)

SeCal HST: Benefit Asses. - $10,000 residence

The “Those Who Benefit Pay" Alternative

Commute Cost Savings			
YOE Costs and Savings	Capital Cost	Operating Cost	Total Cost
Auto Cost over 50 years (auto purchase each 10 years)	$398,251	$1,406,169	$1,804,420
HST Cost over 50 years (capital one-time assessment*)	$30,064	$843,702	$873,765
50-year cost savings	$368,187	$562,468	**$930,654**
*HST-People Mover Assessment per Sky Cities Residence ($16/sq ft)			

The “Those Who Benefit Pay" Alternative

Potential Value Capture Revenues from 280 Sky Cities			
	Current Dollar Revenues	Fees	% of cost
Residence Cost		$300,000	
HST Benefit Assessment	$17,619,840,000	$10,000	3.3%
PeopleMover Benefit Assess.	$16,209,604,000	$9,200	3.1%
Subtotal	$33,829,444,000	$19,200	6.4%
City Impact fee	$18,826,418,000	$10,700	3.6%
Total fees / fees per residence	$52,655,866,000	$29,900	11.9%
Total Cost of Residence	$443,482,739,412	$329,000	

Change will not be easy

Residents Oppose New Housing to Accommodate Population Growth

For many people, growth has only negative consequences

They see no personal benefit from more people in their neighborhood – just more crowding, more traffic, etc.

What's needed is a growth strategy that offers benefits to existing residents – a "beneficial growth strategy" that preserves the region's attractive qualities.

Impacts of this Growth Strategy

Perceived or actual negative impacts

- Uncertainty of effects (real and perceived) on existing population (voters)
- Visual impacts of Sky Cities growth centers/neighborhoods
- Traffic Impacts, crowding, environmental degradation
- Why not just stop growth?

Possible positive impacts

- Preserving lower-density lifestyle/increasing property value
- Reducing commute costs and time
- Creating jobs / strong economy
- Protecting the environment vs urban sprawl growth

A Beneficial Growth Strategy

- Take action to welcome and plan for growth, including high-density population centers served by high speed trains, while protecting the region's predominantly lower-density urban form.

- Organize a local-agency joint powers authority to lead the building of a high-speed train system in the region to connect high-density centers and surrounding suburbs.

- Ensure that the state high-speed rail project does not result in major transfer of wealth out of the region or suppress economic growth.

Background

Support for State HST Project is Tenuous

Proposition 1A – November 2008

$9 billion general revenue bond - $15 billion pay back

6.7 million voted yes (28.8%)

6.0 million voted no (25.9%)

10.5 million didn't vote (45.3%)

Support for State HST Project is Tenuous

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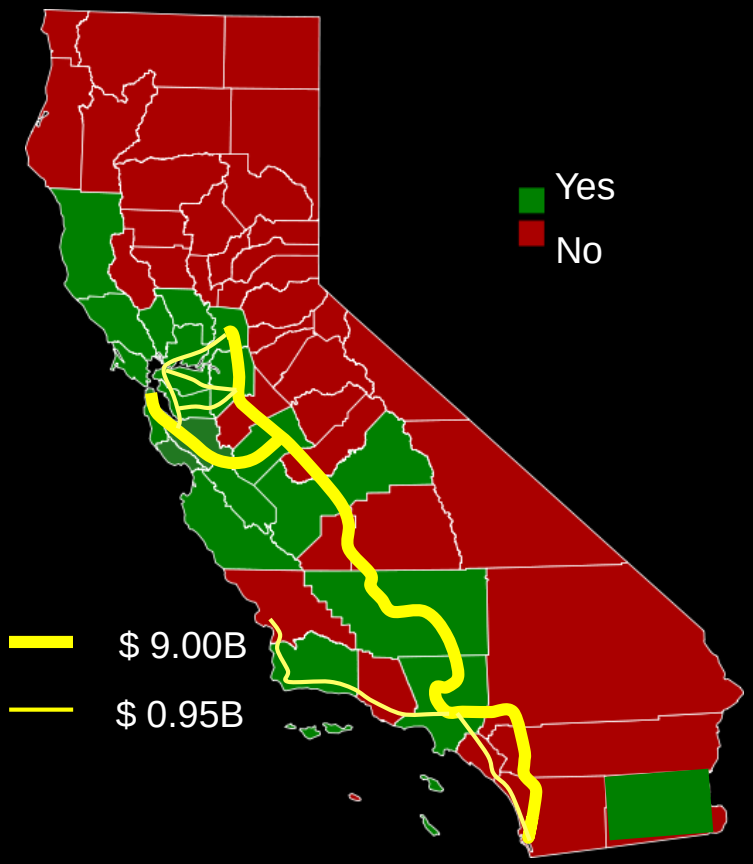
10.5 million didn't vote (45.3%)

By March 2013, according to a Public Policy Institute of California poll, only 43 percent of likely voters supported the project, a decline of 10 percent from when the measure passed in 2008.

HST Project Has a Clear Mandate

2008 Proposition 1A General Revenue Bond Measure



Voter Expectation

- The high-speed train system will link the major population centers from Sacramento to the Inland Empire and San Diego.
- No additional state general fund tax support is required.

Yes Votes	Percentage	
6,680,485	52.6%	of valid votes
6,680,485	28.8%	of eligible voters
Population		
23,195,832		Eligible voters
38,000,000	**17.6%**	of “The People”

HST Project Has a Clear Mandate

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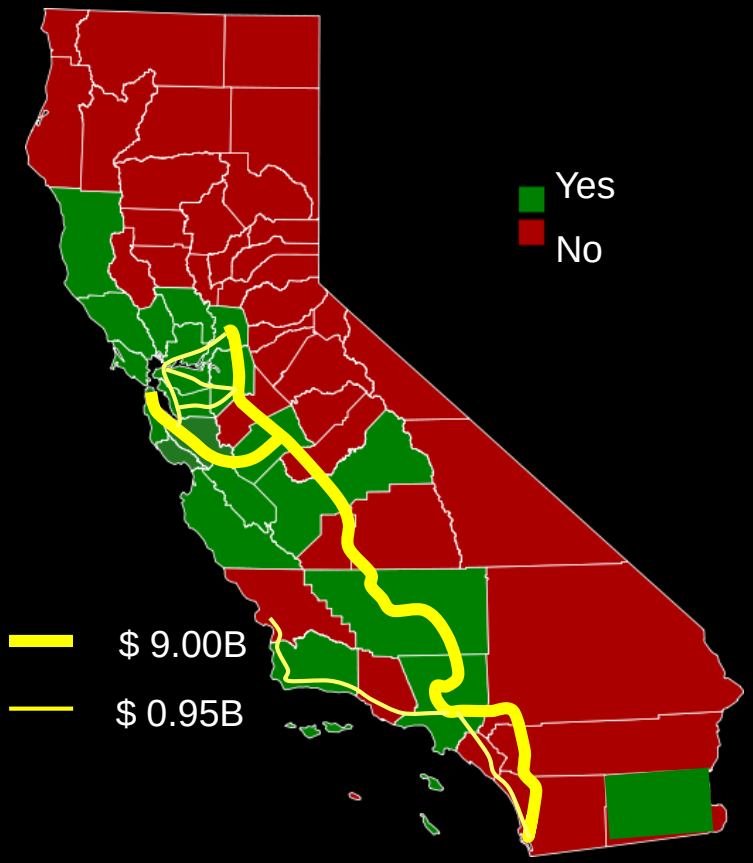

Enacted State Law (Ch 20 of S&H Code)

2704.07. The authority shall pursue and obtain other private and public funds, including, but not limited to, federal funds, funds from revenue bonds, and local funds, to augment the proceeds of this chapter.

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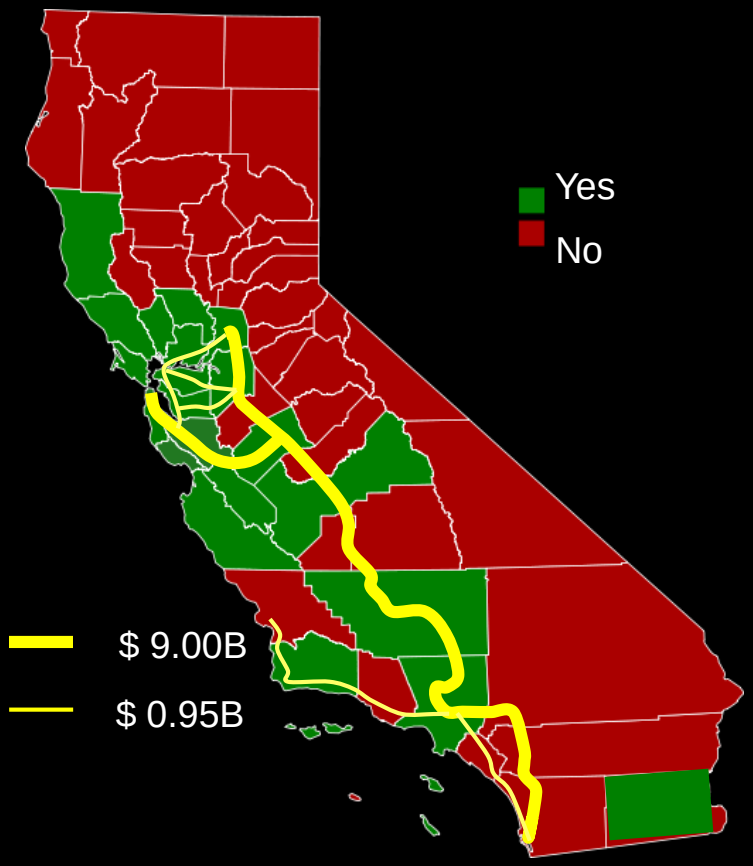

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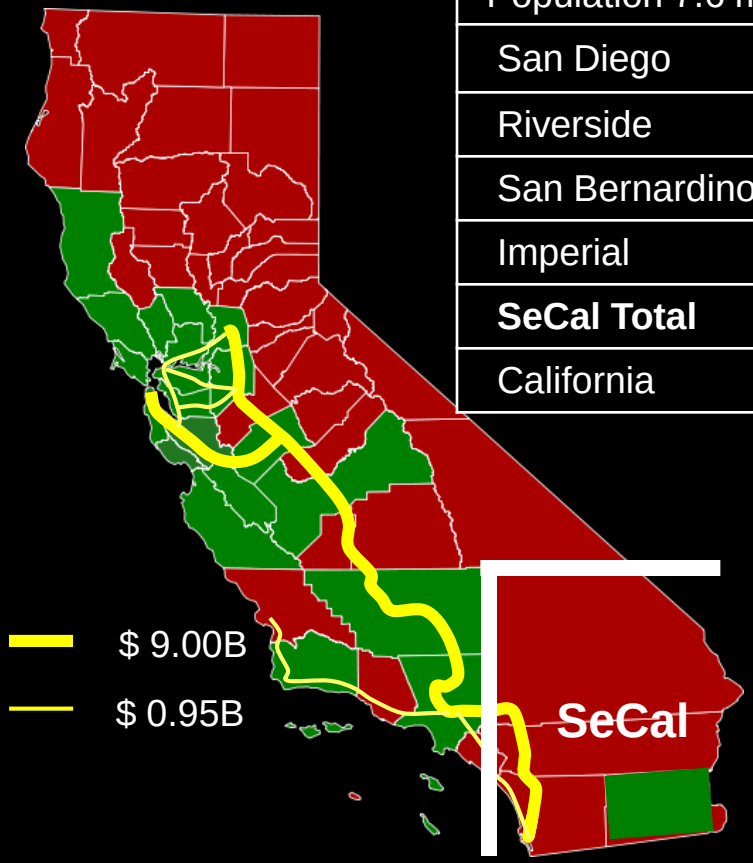
2704.08. Prior to committing any proceeds of bonds for constructing a usable segment, the authority shall have approved a report indicating (1) construction of the usable segment can be completed and upon completion, one or more ***passenger service providers can begin using the tracks or stations for passenger train service****, and (2) the planned passenger train service will* ***not require an operating subsidy****.*

HST Project Has a Clear Mandate

2008 Proposition 1A General Revenue Bond Measure



SeCal Counties	SeCal Prop 1A Voting Results			
Population 7.6 million	Yes	%	No	%
San Diego	560,342	48.4%	592,692	51.5%
Riverside	293,145	49.0%	304,909	51.0%
San Bernardino	260,348	46.2%	302,748	53.8%
Imperial	20,688	55.2%	16,840	44.8%
SeCal Total	**1,134,523**	**48.2%**	**1,217,189**	**51.8%**
California	6,680,485	52.6%	6,015,944	47.4%

Yes Votes	Percentage	
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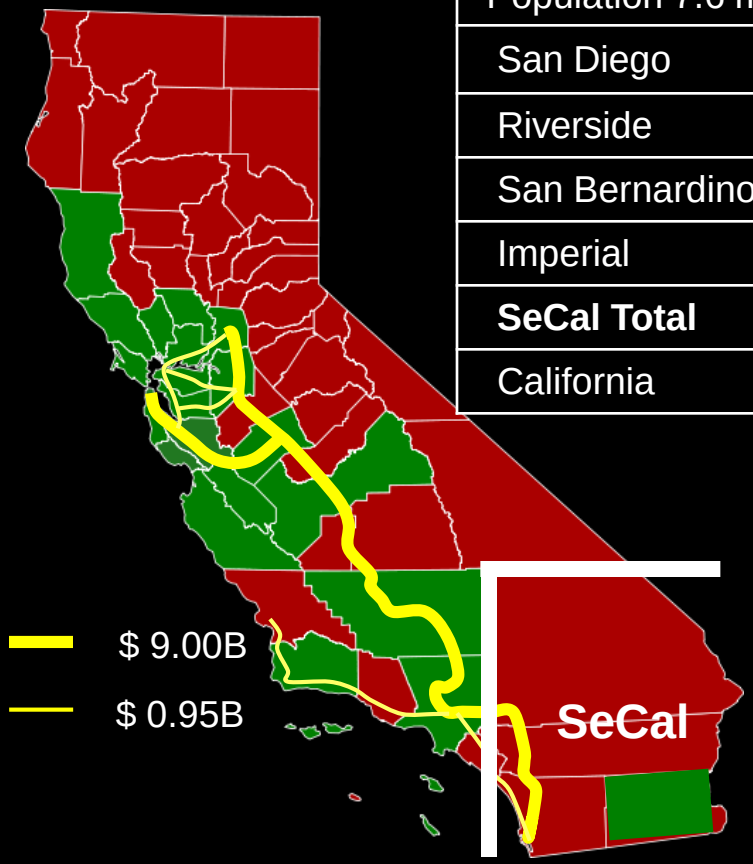

SeCal Counties	SeCal Prop 1A Voting Results			
Population 7.6 million	**Opposition is tenuous**			
San Diego				
Riverside	**1,217,189 said no**			
San Bernardino	**3,426,523 didn't say no**			
Imperial				
SeCal Total	**1,134,523**	**48.2%**	**1,217,189**	**51.8%**
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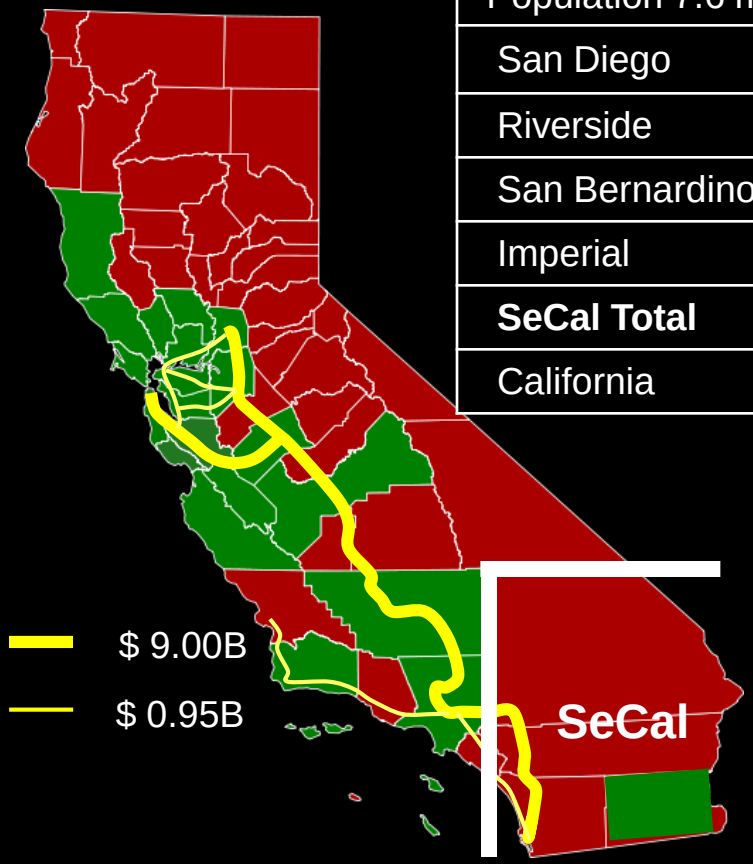

SeCal Counties	SeCal Prop 1A Voting Results			
Population 7.6 million	**A well-thought out plan would gain voter support**			
San Diego				
Riverside				
San Bernardino				
Imperial				
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Direction from the North

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Bay Area
Lawyer

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Banker

Jim Hartnett
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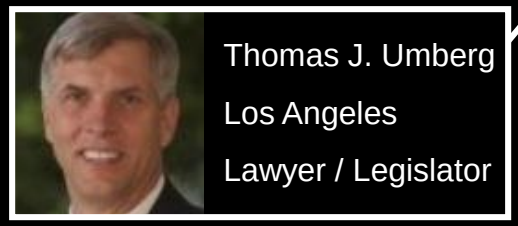
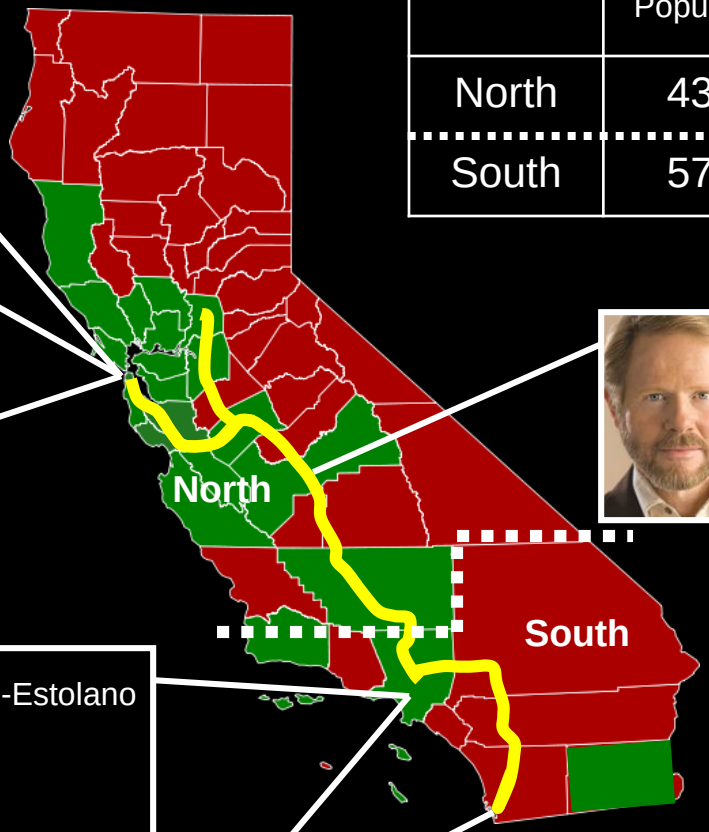
Katherine Perez-Estolano
Los Angeles
Political Advisor



Thomas J. Umberg
Los Angeles
Lawyer / Legislator

	Population	Representation
North	43%	57%
South	57%	43%



Thomas Richards
Fresno
Real Estate Developer

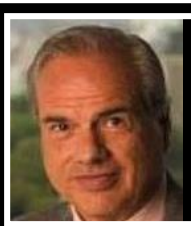
Lynn Schenk
San Diego
Lawyer

Bait and Switch

A cut in Scope - at a Cost to the South

	Population	Representation
North	43%	57%
South	57%	43%

Dan Richard
Bay Area
Lawyer



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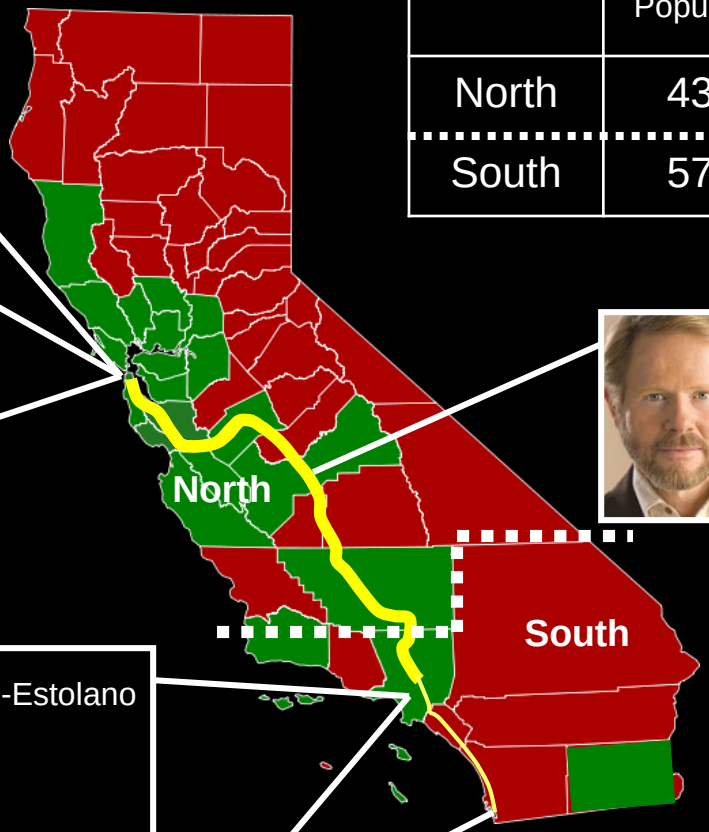


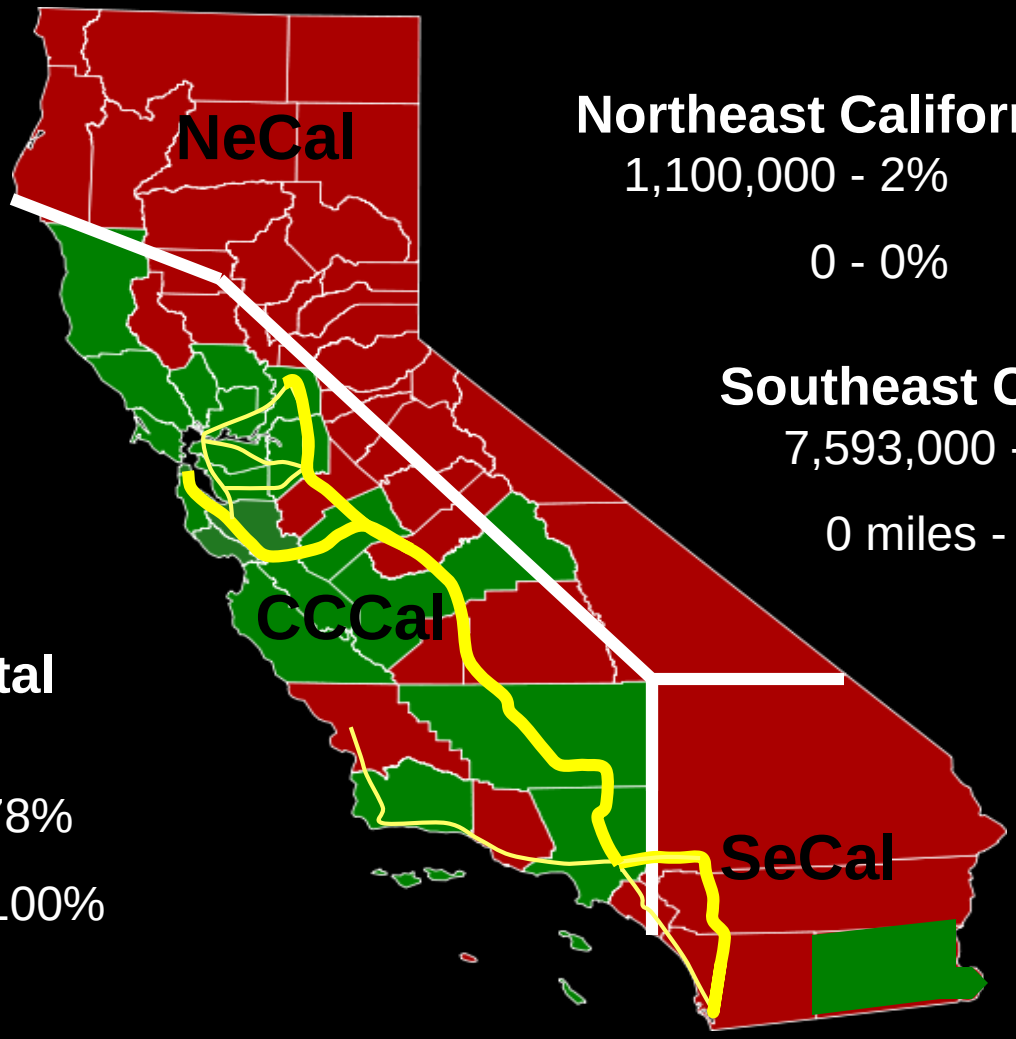
Business Plan Not Viable

CHSRA April 2011 Revised "Business Plan"

San Jose to SF Valley (410-mile portion of 535-mile Phase 1)		
Funding Sources: Taxpayers, Fares (Billions YOE $)		
$68.3-$79.7 Construction Cost (35-Year Debt Payoff Period)		
1A, Fed, State, Local	Fares	Private (Fares)
$18 secured; $48.3 short	$.2	$13.1
$66.3	$13.4	
$79.7 Billion		
Southeast Counties will be taxed heavily		

SeCal Will Pay

2013 Population Split



Northeast California
1,100,000 - 2%

0 - 0%

Southeast California
7,593,000 - 20%

0 miles - 0%

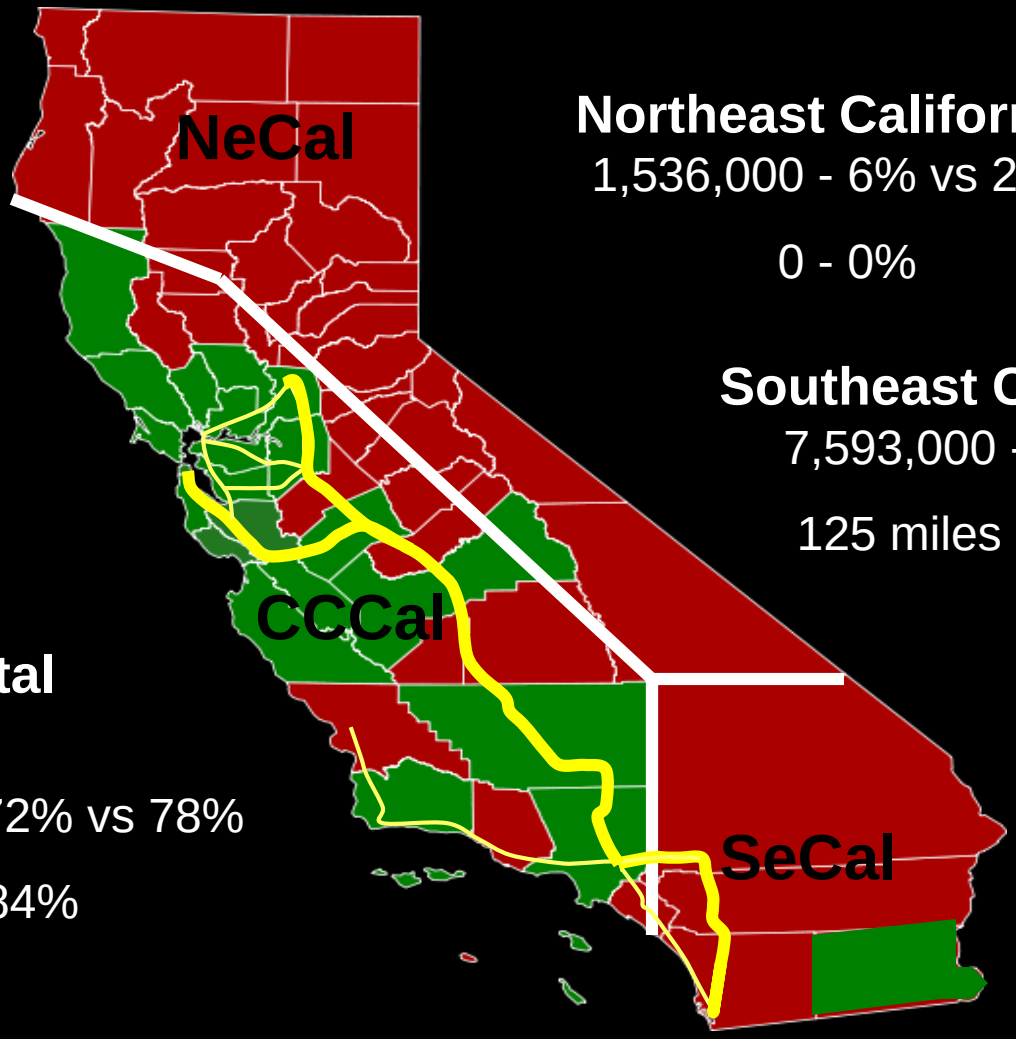
Central/Coastal California

29,300,000 - 78%

675 miles - 100%

SeCal Will Pay

2060 Population Split - DOF Projection - .066



Northeast California
1,536,000 - 6% vs 2%

0 - 0%

Southeast California
7,593,000 - 20%

125 miles - 16%

Central/Coastal California

37,753,000 - 72% vs 78%

675 miles - 84%

SeCal Will Pay

SeCal Could Pay

$10B - $20 B

for the Reduced Project

Northeast California

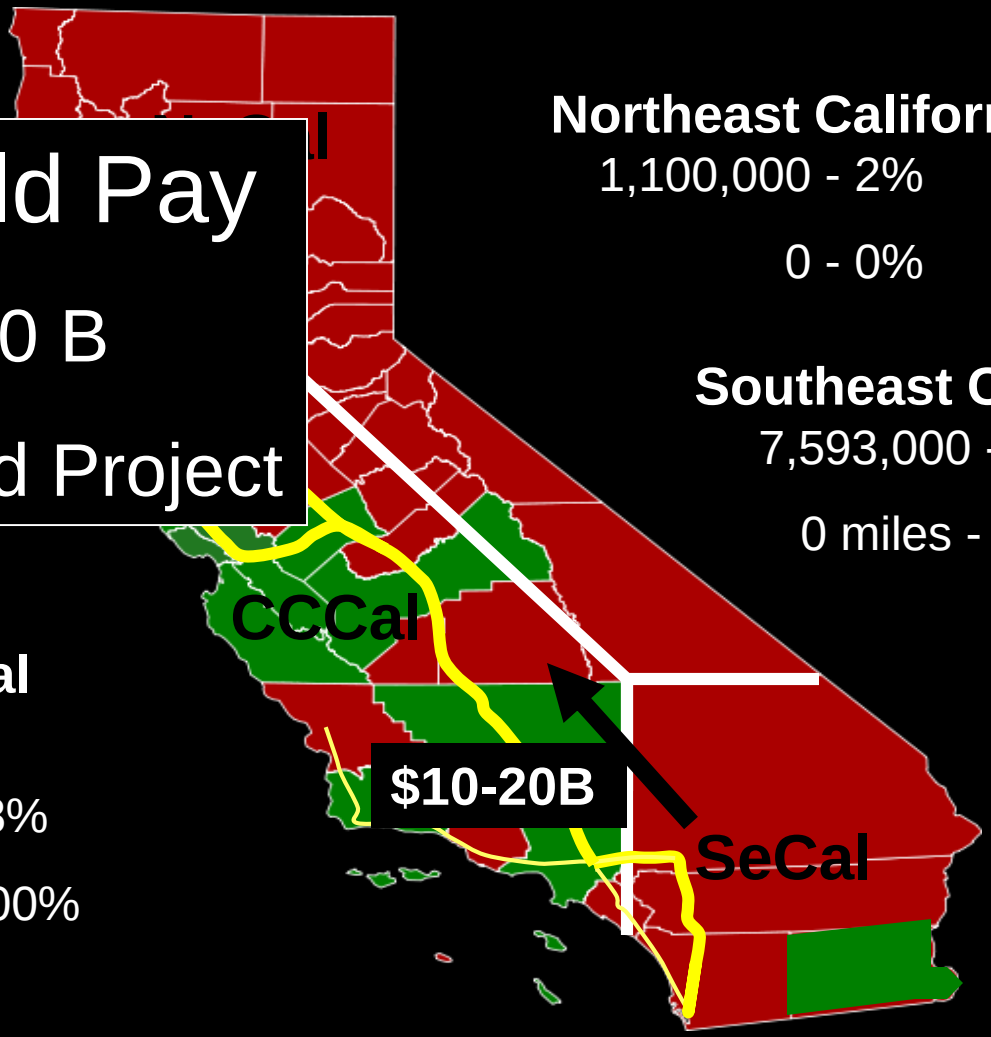
1,100,000 - 2%

0 - 0%

Southeast California

7,593,000 - 20%

0 miles - 0%



Central/Coastal California

29,300,000 - 78%

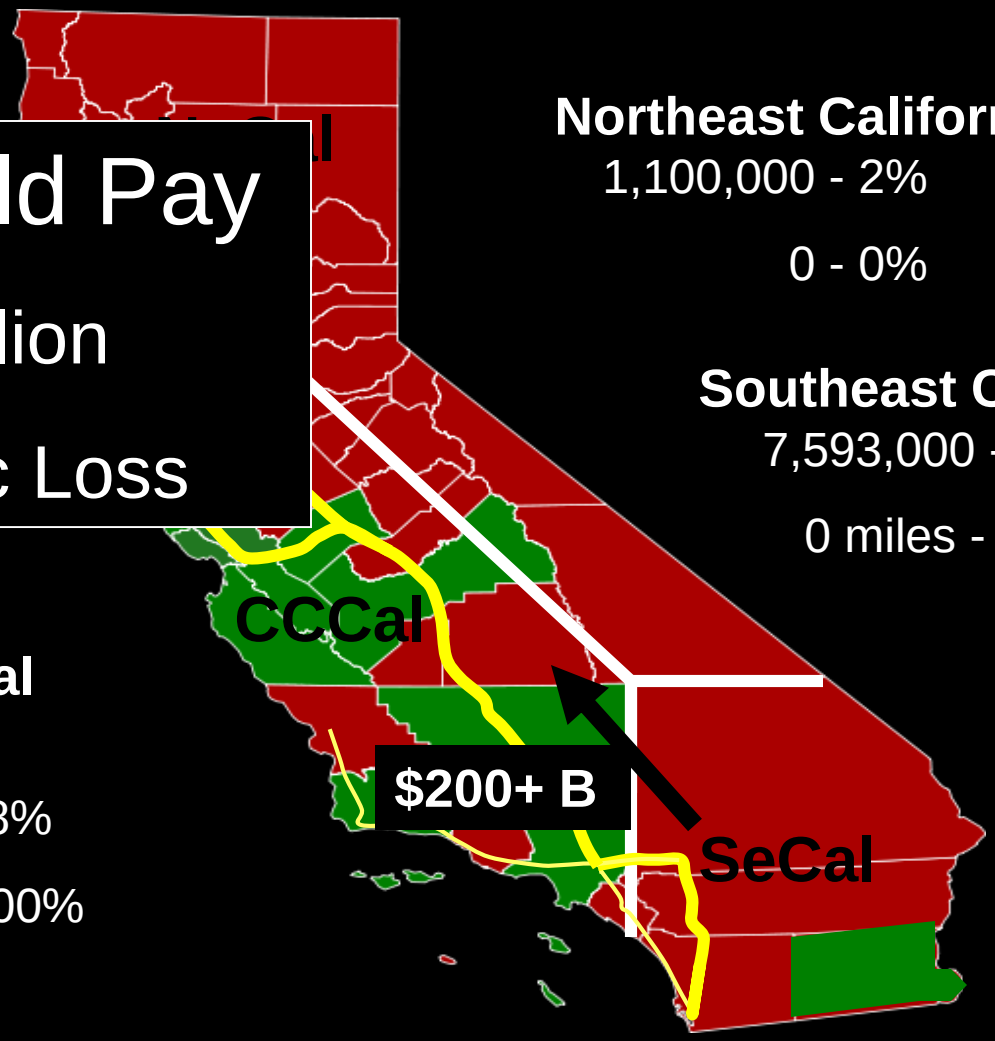
675 miles - 100%

SeCal Could Pay

SeCal Could Pay

$200+ Billion

In Economic Loss



Northeast California

1,100,000 - 2%

0 - 0%

Southeast California

7,593,000 - 20%

0 miles - 0%

Central/Coastal California

29,300,000 - 78%

675 miles - 100%

HST Business Plan

Derived from CHSRA April 2011 Revised Business Plan

Legislature/Governor Approve

Budget Bill for HST

SB 1029 – July 18, 2012

- $713M for local “connectivity improvements”
- $5.8B for “acquisition and build” – SF to ANA
- $1.1B for “bookend/early improvements”
- Final approval of each expenditure is conditioned upon final approval of all expenditures

Higher Population and Density

Cost Effectiveness Indicator - 2013				
Corridor Counties	Miles	Population	Percent	Population Per Mile
California (2012 growth rate .79%)		37,966,000		
Los Angeles to San Diego	265	20,502,000	54%	77,365
SeCal (San Bernardino to San Diego)	125	7,693,000	20%	60,746
San Francisco to Los Angeles	535	23,159,000	61%	43,288

Higher Population and Density

Cost Effectiveness Indicator - 2013				
Corridor Counties	Miles	Population	Percent	Population Per Mile
California (2012 growth rate .79%)		37,966,000		
Los Angeles to San Diego	265	20,502,000	54%	77,365
SeCal (San Bernardino to San Diego)	125	7,693,000	20%	60,746
San Francisco to Los Angeles	535	23,159,000	61%	43,288

Cost Effectiveness Indicator – 2060 (DOF Est.)				
Corridor Counties	Miles	Population	Percent	Population Per Mile
California (projected growth rate .66%)		52,694,000		
Los Angeles to San Diego	265	26,874,000	51%	101,000
SeCal (San Bernardino to San Diego)	125	11,593,000	22%	93,000
San Francisco to Los Angeles	535	25,820,000	49%	48,000

Higher Population and Density

Cost Effectiveness Indicator - 2013				
Corridor Counties	Miles	Population	Percent	Population Per Mile
California (2012 growth rate .79%)		37,966,000		
Los Angeles to San Diego	265	20,502,000	54%	77,365
SeCal (San Bernardino to San Diego)	125	7,693,000	20%	60,746
San Francisco to Los Angeles	535	23,159,000	61%	43,288

Cost Effectiveness Indicator – 2063 (with HST)				
Corridor Counties	Miles	Population	Percent	Population Per Mile
California (projected growth rate .82%)		57,179,000		
Los Angeles to San Diego	265	38,500,000	67%	145,000
SeCal (San Bernardino to San Diego)	125	17,000,000	30%	137,000
San Francisco to Los Angeles	535	36,600,000	64%	68,000

Preserve Existing Low Density
Steer Growth into High Density Centers

Sky Cities Neighborhood

- 35 Sky Cities
- 437,500 residents
- 1,113 people per acre

8 neighborhoods

- 3.5 million residents
- 280 Sky Cities (20,480 ac)
- 1,863,000 acres preserved ..(2,900 square miles)

1 year to construct

Connections

- 125-mile High Speed Line
- 70 miles of people movers
- local transit, car sharing

Benefits

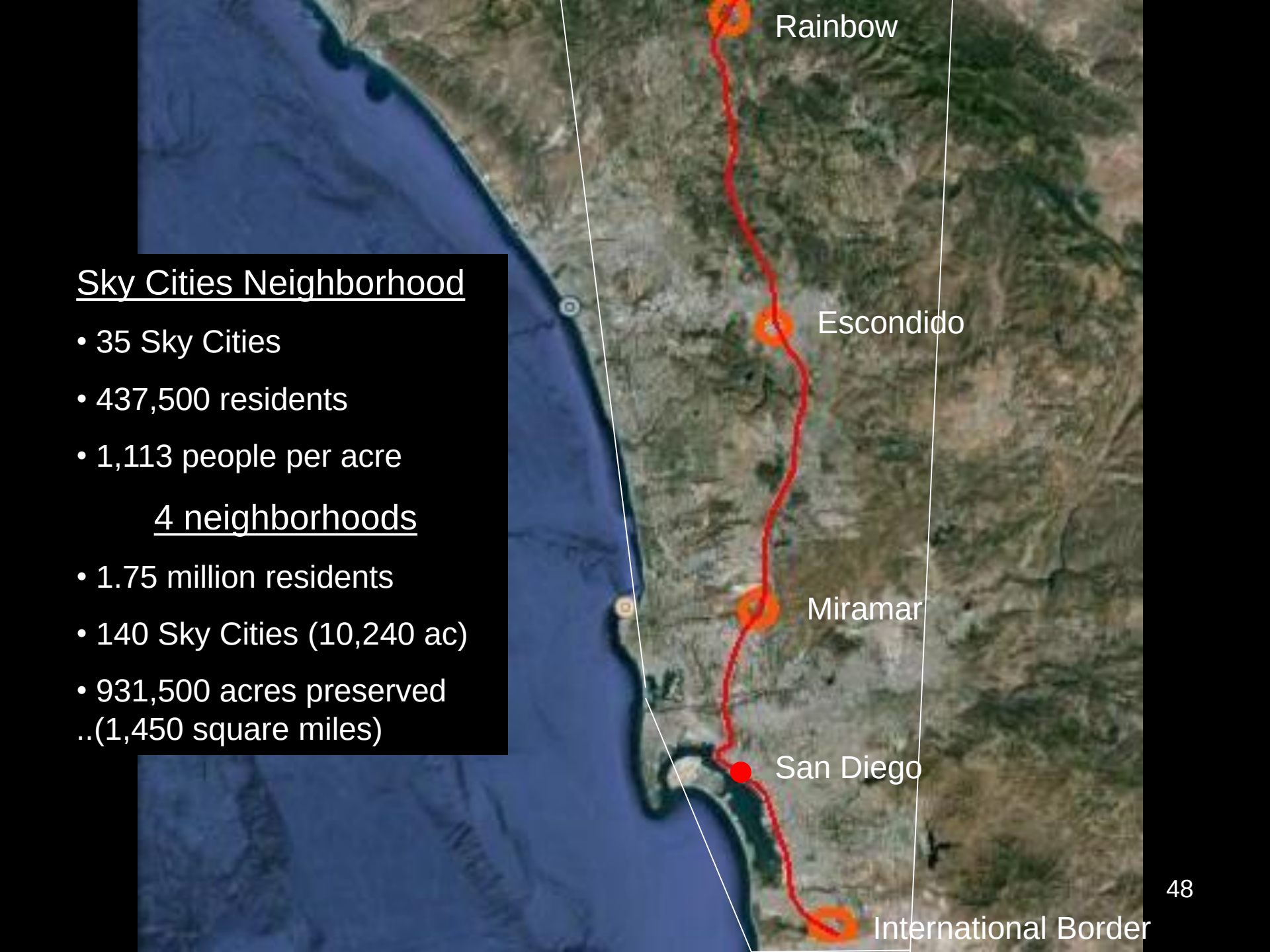
- 30-60 minutes San Diego-San Bernardino (vs 2 hrs)
- $200B 50-yr cost savings

Sky Cities Neighborhood

- 35 Sky Cities
- 437,500 residents
- 1,113 people per acre

4 neighborhoods

- 1.75 million residents
- 140 Sky Cities (10,240 ac)
- 931,500 acres preserved ..(1,450 square miles)



Sky Cities Neighborhood

- 35 Sky Cities
- 437,500 residents
- 1,113 people per acre

4 neighborhoods

- 1.75 million residents
- 140 Sky Cities (10,240 ac)
- 931,500 acres preserved ..(1,450 square miles)

Call it the "Not Auto-Dependent" Alternative

Commute Cost Savings

YOE Costs and Savings	Capital Cost	Operating Cost	Total Cost
Auto Cost over 50 years (auto purchase each 10 years)	$398,251	$1,406,169	$1,804,420
HST Cost over 50 years (capital one-time assessment*)	$30,064	$843,702	$873,765
50-year cost savings	$368,187	$562,468	**$930,654**

*HST-People Mover Assessment per Sky Cities Residence ($16/sq ft)

Call it the "Those Who Benefit Will Pay" Alternative

Value Capture Revenues			
	YOE Dollar Revenues	Fees	% of cost
Residence Construction Cost		$713,471	
HST Assessment	$50,308,248,598	$28,456	4.0%
PeopleMover Assess.	$46,438,383,321	$26,267	3.7%
Subtotal	$96,746,631,920	$54,724	7.7%
City Impact fee	$53,935,210,169	$30,508	4.3%
Total fees / fees per residence	$150,681,842,089	$85,232	11.9%
Total Cost of Residence	$1,266,233,967,134	$798,703	

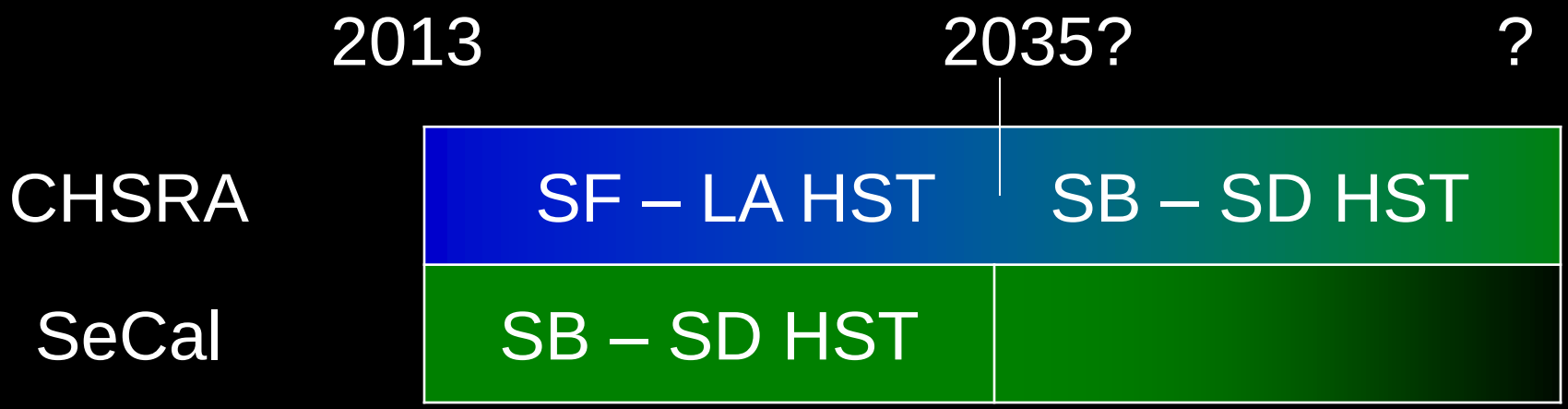
World Bank
HST Success Criteria

- High population / population density
- Adequate disposable incomes
- A focused, capacity-building effort
- Large cities in proximity to one another
- Decades-long political commitment

World Bank
HST Success Criteria

- Organize local agencies under a JPA
- Adopt a population growth level / strategy
- Prepare an integrated development plan
  - Cities development plan / HST development plan
- Prepare and execute implementation plan
- 2-year planning time frame

SeCal Can Preserve Low Density and Meet World Bank HST Success Criteria



Others are calling the shots

Legal Mandates

Construction Priorities

Who Pays, Who Benefits

Route Alignment

Station Locations

Type of Trains

Questionable Management Decisions

Superior Court Judge

San Francisco Supervisor

State Senator

Chair, CHSRA

"Quentin Kopp, a bullet train proponent, said the project, as now planned, violates the law underpinning $9.95 billion in state financing approved by voters in 2008."

(Rich Pedroncelli / Associated Press)
Los Angeles Times, March 26, 2013

Questionable Technical Decisions

High Speed System Technologies	Peak Speed (mph)
Proposition 1A / Legal Mandate	200 (Sustained)
CHSRA (Business Plan) High Speed Rail (HSR)	220 (Peak)
China, France, Korea, Spain HSR	186 - 199
China (Shanghai Airport Line) High Speed Maglev (HSM)	271+
Japan (Tokyo – Osaka) Conversion to HSM	330

HSR

HSM

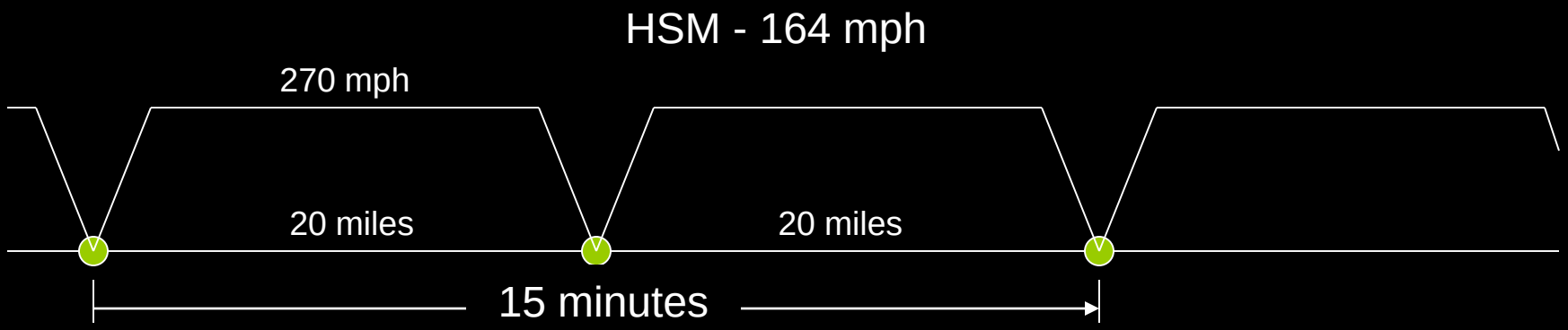
Questionable Fiscal Decisions

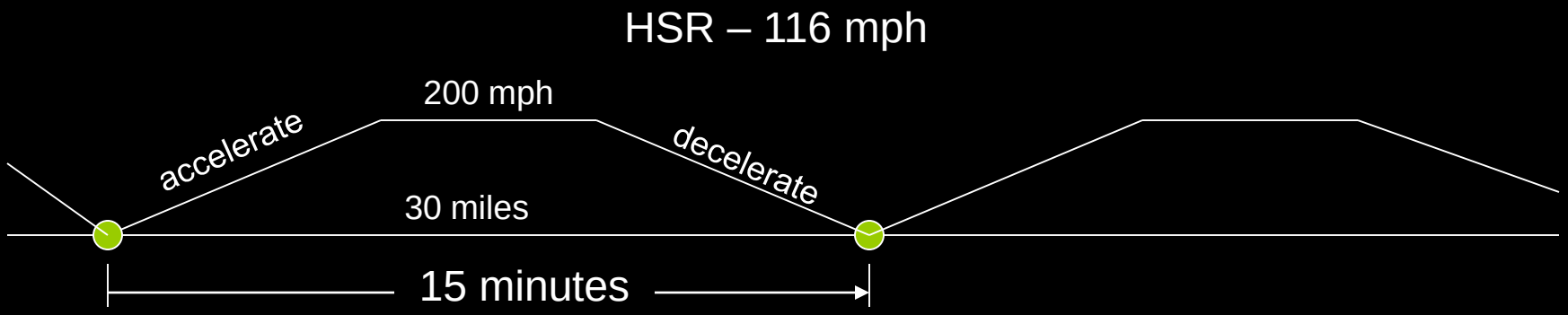
High Speed System Technologies	Peak Speed (mph)
Proposition 1A / Legal Mandate	200 (Sustained)
CHSRA (Business Plan) High Speed Rail (HSR)	220 (Peak)
China, France, Korea, Spain HSR	186 - 199
China (Shanghai Airport Line) High Speed Maglev (HSM)	271+
Japan (Tokyo – Osaka) Conversion to HSM	330

HSM

HSM

HSM - More Stations
Better Access Higher Ridership





Why HSR for CHSRA?

HSR

HSM

Dec 1998 Wilson administration letter to CHSRA, “Maglev promoters were too zealous – their underhanded and meddling behavior is reprehensible.”

It’s an Important Decision

HSR

HSM

HSM has distinct cost and service quality advantages over HSR.

With Long-term Impacts

HSR

HSM

For some, it's a about holding on to the past.
For others, it's about looking to the future.

A High Speed Train Integrated with High-Density Housing that Best Serves Your Needs

HSM

HSM

Take the Lead!

When you call the shots you'll likely be happier with the decisions

Comment Letter No. 37

Anita Au

From: Denny Schneider <denny@welivefree.com>
Sent: Monday, February 1, 2016 4:59 PM
To: 2016 PEIR
Subject: ARSAC Comments to SCAG PEIR
Attachments: SCAG RTP comments 2-1-2016.pdf

attached

--
Denny Schneider 310 641-4199 voice 213 675-1817 mobile

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February 1, 2016

Courtney Aguirre
Southern California Association of Governments
818 W 7th Street, 12th Floor
Los Angeles, CA 90017

Via email: 2016PEIR@scag.ca.gov

Re: Comments on Draft 2016-2040 RTP and PEIR

Dear Ms. Aguirre:

The Alliance for a Regional Solution to Airport Congestion (ARSAC) appreciates the opportunity to provide input to the 2016-2040 SCAG Regional Transportation Plan and Program EIR.

Founded in 1995, ARSAC is a grassroots community organization dedicated to increasing utilization of unconstrained, outlying regional airports such as Ontario (ONT) and Palmdale (PMD) instead of expanding Los Angeles International Airport (LAX) to meet Southern California's future airport capacity needs. ARSAC supports a safe, secure, modern and convenient LAX so long as LAX does not expand into surrounding communities. 1

ARSAC would like SCAG to re-establish Airport Regionalization as a permanent, standing sub-committee of the Transportation Committee. While SCAG cannot force airlines to serve underutilized, unconstrained airports that want more airline service, SCAG can help create critical mass for these airports by advocating for ground transportation improvements such as rail, bus and freeway connections. The formation of a Regionalization sub-committee will cement SCAG's long-term commitment to effect regionalization of air service in Southern California. Regionalization Committee membership should be open to staff and other interested parties. 2

ARSAC would like SCAG to remove from consideration any and all plans to create a 405 interchange at Arbor Vitae. This interchange has been studied and rejected at least 3 times by the Federal Highway Administration (FHWA). It is a waste of taxpayer's money to conduct any further study here. Without completing rebuilding 4 four miles of the 405 freeway, it would be impossible to build an offramp from the 405 north freeway. 3

We have specific comments on three areas- Noise and Aviation and Ground Access. 4

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In the RTP Project List, Table 2, "Financially Constrained RTP Projects", there are a number projects related to the LAX Landside Access Modernization Plan (LAMP). These include projects 1160009to 116027. Considering that LAMP has issued an NOP and the Draft EIR is not expected until April 2016, why are these projects included?

4 Cont.

PEIR: NOISE

We disagree with the "Less than Significant Impact" on page 3.13-32. As we understand it, the last time SCAG performed airport-by-airport comprehensive noise impact analyses was in the 2001 RTP EIR (Reference Environmental Justice Appendix page 154). No such analyses were performed for the 2008 and 2012 RTP's since the overall regional passenger demand forecasts were progressively lower, and no airport exceeded its 2004 forecast. We hope that SCAG is not trying to employ this rationale once again. However, it is no longer credible with a new 96.6 Million Annual Passenger (MAP) forecast for LAX that exceeds the previous 78.9 MAP forecast by 22.4%. This increase cannot be offset by forecast reductions at outlying airports since those suburban and largely un-encroached airports have much less noise impacts per incremental MAP increase as does the urban and highly encroached LAX. It is also highly specious to claim that the airport land use plan for LAX that provides noise and land use guidance would mitigate noise impacts associated with the 2016 RTP Aviation Demand Forecast, since the current Part 150 study for LAX does not assume a forecast for LAX exceeding 78.9 MAP. For these reasons, without performing new airport-by-airport comprehensive noise analyses, there is no way of knowing whether or not the regional noise impacts associated with the new regional aviation demand forecast in the 2016 RTP are significant, and that the 2016 RTP EIR is glaringly deficient in this regard.

5

Less than Significant Impact

Implementation of transportation projects in the 2016 RTP/SCS would result in less than significant impacts related to projects located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, that would expose people residing or working in the project area to excessive noise levels.

The SCAG Region contains 57 airports, with 12 major commercial airport serving the region. There are approximately 41 linear miles of major projects and 10,785 acres of HQTAs within the 65 dBA CNEL of the 12 major airports. According to the 2012 RTP/SCS, the regional passenger demand forecast is 145.9 million air passengers (MAP) in 2035. According to the August 6, 2015, Staff Report to the Transportation Committee, the 2016 RTP/SCS has a regional passenger demand forecast of 136.2 MAP forecast in 2040, which is a decrease of approximately 7 percent at the regional level. Furthermore, major public airports have an airport land use plan that provides guidance on noise

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levels and land use in adjacent areas. Therefore, impacts would be less than significant, and the consideration of mitigation measures is not required.

5 Cont.

We question the determination of "Less than Significant Cumulative Impact" in IMPACT-5 on page 3.13-35. The last sentence in the paragraph states, "Therefore, cumulative impacts would remain significant and unavoidable." Why do the two statements contradict one another?

IMPACT NOISE-5. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, result in the exposure of people residing or working in the project area to excessive noise levels.

Less than Significant Cumulative Impact

6

Implementation of the 2016 RTP/SCS would result in significant cumulative impacts related to projects located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, which would expose people residing or working in the project area to excessive noise levels. Areas that are within the noise contours of 65 dBA CNEL and above, associated with airport activities, are considered to be incompatible with certain land uses, including residences, schools, hospitals, and childcare facilities. There are approximately 23,082 locations of incompatible land uses and approximately 41 linear miles of major projects within the 65 dBA CNEL of the 12 major airports. The implementation of the 2016 RTP/SCS would add both construction and operation noise to an area that is already at the threshold for significant impact. Implementation of mitigation measures, as described below, would reduce impacts, but may not reduce impacts to below the level of significance in all instances. Therefore, cumulative impacts would remain significant and unavoidable.

RTP APPENDIX: AVIATION AND AIRPORT GROUND ACCESS

ARSAC has a number of questions and concerns about the Aviation and Airport Ground Access Appendix of the RTP. For simplicity, we have provided questions and comments by page number.

7

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As a general comment, the US commercial airline industry has completed consolidation for the time being. Major factors that are missing and need to be included in this document include:

1. "Open Skies" agreements between the U.S. and most countries that have removed most barriers to international service at airports in Southern California.
2. New, fuel efficient long range aircraft such as the Boeing 787 Dreamliner and the Airbus A350 XWB. The combination of Open Skies and the 787 has opened many new city pairs in California including:
    a. Norwegian Long Haul- LAX to Copenhagen, Denmark; Stockholm, Sweden; and Oslo, Norway; Oakland to Stockholm and Oslo
    b. All Nippon Airways- San Jose to Tokyo-Narita, Japan
    c. Japan Airlines- San Diego to Tokyo-Narita, Japan
    d. Hainan Airlines- LAX to Changsha, China and San Jose to Beijing, China
    e. British Airways- San Jose to London Heathrow
3. Possible effects of FAA redesign of Southern California's airspace
4. Possible effects of implementation of Next Generation Air Traffic Control System "NextGen".

7 Cont.

Comments on Exhibit 1- Southern California Regional Aviation Assets (PDF page 4). Please use a different symbol for commercial airline capable airports that presently do not have commercial airline service. This would include Oxnard (OXR), Palmdale (PMD), Riverside/March Inland Port (RIV), San Bernardino (SBD) and Victorville/Southern California Logistics Airport (VCV).

8

Comments on Airport Profiles, page 5 (PDF page 7). LA/Ontario International Airport. The transfer of Ontario International Airport (ONT) from Los Angeles World Airports (LAWA) to the Ontario International Airport Authority (OIAA) should be noted here.

9

Comments on Airport Profiles, page 6 (PDF page 8). Long Beach Airport. JetBlue began operations from LGB in 2001. The City of Long Beach recently raised the number of daily commercial flights allowed from 41 to 50. This Appendix should reflect the updated number in the text and in capacity calculations.

10

Comments on Airport Profiles, page 7 (PDF page 9), Imperial County Airport. SeaPort Airlines discontinued all service in California on January 15, 2016.

11

Comments on Airport Profiles, no page number. Missing commercial airports. Although these airports do not have commercial passenger and/or cargo service at the present time, profiles should be included for these airports: Oxnard, Palmdale, Riverside/March Inland Port, San Bernardino and Victorville/Southern California Logistics Airport.

12

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Comments on Page 9 (PDF page 11):

1. Overlapping catchment areas. Please provide a map of the commercial airport catchment areas in Southern California (including Kern, San Diego and Santa Barbara Counties).
2. Inclusion of San Diego, Carlsbad and Santa Barbara airports. We agree with the inclusion of these airports into the SCAG aviation forecast. Additional areas that need to be added include Bakersfield, Mojave and Inyo Kern airports. Bakersfield has had limited air service and a private bus service from Bakersfield to LAX has been operational for decades. The model should also include Tijuana International Airport, especially since the new Cross Border Xpress bridge has opened. Fares from Tijuana for flights within Mexico and to Central and South America can be less expensive than from U.S. airports. Additionally, SCAG needs to break out the numbers for each of these airports listed above. 13

Comments on Page 10:

1. The model does not appear to include increased utilization of alternatives to commercial airlines such as charter (e.g. Clay Lacy, JetSuite), fractional ownership (e.g. NetJets, Citation Shares) and membership plans (e.g. Surf Air). Private air transportation providers gained popularity after 9/11 for passengers wanting to avoid the hassle of commercial airport security and the convenience of business aircraft travel. Some of these business aircraft service providers fly into and out of some of the same airports as commercial airlines- e.g. Burbank, Long Beach and Santa Ana/John Wayne. 14

Comments on Page 12:

1. Combination of Canada and Greenland. We are mystified at this combination. While geographically Canada and Greenland are nearby, they are economically and politically an ocean apart. Greenland is an autonomous territory of the Kingdom of Denmark. The only flights to and from Greenland are to Denmark, Germany and Iceland. 15

Comments on Page 14:

1. Mexico/Central America/Caribbean O&D Market. How did was the evaluation the Caribbean O&D market conducted? Was Cuba included? Considering there are very few non-stop flights from SCAG area airports to the Caribbean, did the model consider one-stop or transfer flights to the Caribbean? Connecting airports should include Miami, Fort Lauderdale, Atlanta, Houston and Dallas/Fort Worth. 16

Comments on Page 15:

1. South America O&D Market. How did was the evaluation the South America O&D market conducted? Considering there are very few non-stop flights from SCAG area airports to South America, did the model consider one-stop or transfer 17

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flights to the South America? In addition to Mexico City, Mexico; San Jose, Costa Rica and Panama City, Panama, connecting airports should include Bogata, Columbia; Lima, Peru; Miami, Fort Lauderdale, Atlanta, Houston and Dallas/Fort Worth. 17 Cont.

Comments on Page 16:

1. Trans-Atlantic O&D Market. How did was the evaluation the Trans-Atlantic O&D market conducted? While the number of non-stop flights from the SCAG area airports to Trans-Atlantic has increased with "Open Skies" bilateral aviation agreement and new fuel efficient long-range aircraft such as the Boeing 787 Dreamliner and Airbus A350 XWB , did the model consider one-stop or transfer flights over the Atlantic? The chart below shows potential traffic flows. Choices for these routing may depend on schedules (one-stop from West Coast offers earlier arrival in Europe than non-stop) fares and seating availability (sometimes affect frequent flyer redemptions).

Connection	**Air Canada**	**American**	**Delta**	**United**	**JetBlue**
Atlanta					
Chicago		X		X	
Dallas/Fort Worth		X			
Detroit			X		
Houston				X	
Miami		X			
Minneapolis			X		
Newark				X	
New York JFK		X	X		X
Philadelphia		X			
Salt Lake City			X		
San Francisco				X	
Seattle			X		
Toronto	X				
Vancouver	X				

18

Comments on Page 18:

1. Average growth forecast used. We agree with the 1.6 growth rate used for the air traffic model. Between the start of the "Jet Age" in October 1958 and up to 9/11, historically, world air traffic doubled every 20 years. Half of the world's air traffic is in the United States. Since 9/11, we have seen dramatic change in the

19

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airline industry through consolidation and "right sizing" of aircraft to routes. U.S. airlines are now primarily focused on profits instead of market share.

2. Air Traffic Allocation Model. Price (air fare cost) is a major factor that is missing from this model. Passengers who live close to Burbank, Ontario and John Wayne airports are sometimes faced with significant fare differences between their home airport and LAX. In some cases, the fare difference is so great that it is worthwhile for the passenger to drive and park his car at or near LAX and still have money leftover for which he may have spent on flying out of his local airport. If airfare prices were similar at each SCAG airport ("co-terminal" pricing), then the problem of leakage of some passengers to LAX, and the attendant ground traffic congestion, could be reduced.

19 Cont.

Comments on Page 19:

1. Airfield and Terminal Capacities. Please provide us with the data and calculations used each of the four airports listed here: Burbank, LAX, Long Beach and John Wayne. Data sought is airfield configuration used, number of gates and gate sizes, aircraft selection, aircraft engine assignment (critical for air quality evaluations), etc. We ask that the 2009 LAX Design Day Flight Schedule (DDFS) not be used here. The DDFS excluded the Airbus A330 and Boeing 717 aircraft from the 2009 and 2025 baselines and overestimated the Boeing 767 for 2025 which the airlines are now retiring in favoring of narrowbody aircraft such as the Airbus A321 and Boeing 737-900ER.

20

Comments on Page 20:

1. Los Angeles International Airport. The current north airfield separation of 700 feet meets current FAA standards for parallel runway separation (FAA Advisory Circular 150/5300-13A, Section 316)
2. LAX capacity. Please provide the backup materials and calculations for the LAX capacity described in the second column. The Petitioners (ARSAC and cities of El Segundo, et al) are seeking to extend the 153 gate cap and 78.9 MAP limit at LAX through the year 2040.
3. Long Beach Airport. Please update the daily commercial flight limit from 41 to 50.

21

Comments on Page 21:

1. Table 2. For LAX, please add, "Stipulated Settlement Agreement of 153 gates and 78.9 MAP limit" to the Source of Constraint column.
2. Forecast Air Passenger Allocation Scenarios. Please provide the data and calculations for the unconstrained and constrained scenarios.

22

Comments on Page 22:

23

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1. Airport Ground Access. As with page 18 comments, the price factor is missing in this discussion.
2. We challenge the use of "ranges" in Table 3 for LAX, ONT, PMD and SBD. Courts have held that the purpose of Environmental Impact Reports are supposed to be informational documents for the public and for decision makers. The use of ranges appears to be disingenuous to the public, especially when SCAG staff confirmed that the higher MAP numbers will be used for the regional air quality model.
3. We should also point out that it is nonsensical that the overall 136.2 MAP 2040 forecast would be the same for all four of the scenarios shown on page 22, particularly between the adopted scenario that respects airport capacity constraints, and the unconstrained scenario. Past RADAM modeling done by SCAG realistically reduced overall demand served in constrained scenarios (i.e. puts unserved demand in a "latent demand" category) since not all passengers that cannot be served by a nearby constrained airport would be expected to drive to other airports, and some would simply chose not to fly. Unconstrained airport systems would always be expected to serve the highest levels of demand. SCAG's demand allocations apparently went through an artificial and arbitrary exercise to keep the demand totals the same for all four scenarios, such as by arbitrarily eliminating service at some airports in the unconstrained scenario.

23 Cont.

Comments on Page 23:

1. Burbank Airport (BUR). Please add in wording concerning the California High Speed Authority's plan to have a station at BUR.

24

Comments on Page 24:

1. Burbank Airport (BUR). Please add in wording concerning the California High Speed Authority's plan to have a station at BUR.

25

Comments on Page 25:

1. Los Angeles International Airport (LAX) FlyAway bus service. Please update this sentence to: LAWA operates LAX FlyAway, which provides non-stop bus service between each of the LAX terminals and seven locations: Van Nuys Airport, Union Station, Westwood, Hollywood, Santa Monica, Orange Line and Long Beach. Pursuant to the LAX Master Plan Mitigation and Monitoring Plan Air Quality Commitment 3 (MM-AQ3), LAX is supposed to have 8 additional sites operational (not including Van Nuys) by the end of 2015. This is a requirement before a building permit can be issued for the Intermodal Transportation Facility (ITF).
2. LAX bus service. Add in Bakersfield after Ventura County.
3. Transportation Networking Companies (TNC's). Add a sentence to end of the second to last paragraph, "In December 2015, LAX permitted TNC operators

26

ARSAC ***Alliance for a Regional Solution to Airport Congestion***
7929 Breen Ave. Los Angeles, CA 90045 (physical)
322 Culver Blvd., #231, Playa del Rey, CA 90293 (box)
310 641-4199 www.RegionalSolution.org
info@regionalsolution.org

such as Lyft and Uber to pick-up and drop-off passengers at designated points on the Departures area on the upper level roadway." 26 Cont.

Comments on Page 26:

1. Recently Completed Ground Access Projects. After Hollywood, add in Orange Line and Long Beach. 27

Comments on Page 28:

1. Ontario International Airport. The transfer of Ontario International Airport (ONT) from Los Angeles World Airports (LAWA) to the Ontario International Airport Authority (OIAA) should be noted here.
2. Please add in wording concerning the California High Speed Authority's plan to have a station at ONT. 28

Comments on Page 30:

1. Palmdale Regional Airport (PMD). Please add in wording that the Palmdale Airport Authority has a lease with the US Air Force for use of Air Force Plant 42's two 12,000 foot runways and a 60-acre leasehold with a passenger terminal for use as Palmdale Regional Airport. Also, Los Angeles World Airports (LAWA) owns 17,750 acres to the east and south of Plant 42 for a future airport. Some of the land is leased for farming, a golf course, the NASA Dryden facility and a factory that supplies railcars for Metro. 29

Comments on Page 33:

1. San Bernardino International Airport (SBD). Add in a sentence that SBD has a passenger terminal with X passenger gates and Federal Inspection Service (Immigration, Customs, etc.) facilities. Also add in a sentence that SBD has Maintenance, Repair and Overhaul (MRO) facilities and is home to San Bernardino's Sheriff's Office air unit and US Forest Service air resources. 30

Comments on Page 35:

1. Southern California Logistics Airport (VCV). In the last sentence, change Oxnard Airport to Southern California Logistics Airport.
2. Technical and Policy Committee Review. ARSAC commends SCAG for reaching out to commercial airport operators to solicit their input on future passenger growth at their respective airports. ARSAC remains concerned that the data and calculations used for projecting future LAX passenger growth have been hidden. ARSAC requests release of that data and calculations. 31

ENVIRONMENTAL JUSTICE APPENDIX

Comments on page 154, Aviation Noise Impacts 32

ARSAC ***Alliance for a Regional Solution to Airport Congestion***
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info@regionalsolution.org

1. In Table 83- 2016-2040 RTP/SCS Aviation Plan and Scenario, there are issues here with the baselines for John Wayne and LAX. Where did these numbers come from? SNA has a legal constraint of 12.5 MAP and should not be given a higher number. Where did the 100.7 MAP come from for LAX?
2. Why are the other tables for airport forecasts not consistent throughout the RTP and PEIR?

32 Cont.

We are happy to answer any questions. Please do not hesitate to contact us.

Sincerely,

Denny Schneider
President
denny@welivefree.com (213) 675-1817

Robert Acherman
Vice President
racherman@netvip.com (310) 927-2127

cc: Hon. Eric Garcetti, Mayor, City of Los Angeles
Hon. Mike Bonin, Los Angeles City Councilman, 11th District
Hon. Alan Wapner, Ontario City Councilman
Hon. Maxine Waters, Member of Congress
Hasan Ikharti, SCAG Executive Director
Ryan Hall, SCAG Aviation Program Manager

Comment Letter No. 38

2016 PEIR

From: Gary Tarkington [redacted]
Sent: Monday, February 01, 2016 12:52 PM
To: 2016 PEIR
Subject: PEIR

To whom this concerns,
NO MORE HIGH DENSITY!!! I live in [redacted], CA. and it is NOW A NIGHTMARE!!! No one really does substantial planning for anything!!! I only found the info for this this afternoon. I only have a few hours to respond!! The majority of people have had it with HD!! It has to STOP NOW!! 1
Ann Tarkington
[redacted] CA.

Comment Letter No. 39

Anita Au

From: Terry Welsh <terrymwelsh@hotmail.com>
Sent: Monday, February 1, 2016 1:35 PM
To: 2016 PEIR; 2016 RTP/SCS
Subject: RTP/SCS
Attachments: SCAG on letterhead.docx

Please consider the attached letter.

Terry Welsh, M.D.
Banning Ranch Conservancy

Banning Ranch Conservancy

February 1, 2016

Dear Southern California Association of Governments,

Thank you for the opportunity to comment on the Southern California Association of Governments (SCAG) 2016 Regional Transportation Plan (RTP) and Sustainable Community Strategy (SCS) and the Program Environmental Impact Report (PEIR). Following the release of the 2012 RTP/SCS, Friends of Harbors, Beaches and Parks (FHBP) coordinated a cross-county regional conservation coalition focused on the inclusion of natural lands mitigation and policies within that SCAG plan. Our organization, the Banning Ranch Conservancy, is now a part of this growing coalition in 2016.

The Banning Ranch Conservancy works in Orange County and has since 2008. Our mission is to preserve the entire 400 acre Banning Ranch as open space. We have had important successes since our inception including cessation of excessive unpermitted mowing of coastal sage scrub on the Banning Ranch mesa.

The 2012 RTP/SCS provided an important stepping stone for the 2016 Plan. In previous Plans, natural lands and farmlands were handled under the banner of "land use." In this new Plan, however, they are their own category. This is a great milestone in conservation planning for the region and SCAG. Additionally, the creation of a Natural and Farmlands Appendix provides important opportunities for SCAG that shouldn't be overlooked. We believe the opportunity before you isn't to "plan for" the future of open space in the region—as that's what you've been doing since the 2012 Plan. Instead, we believe SCAG can now start "implementing" a regional conservation program. We strongly urge SCAG to take a more serious leadership role by actively seeking funding to implement conservation efforts by partnering with agencies, transportation commissions and non-profits to see that the Plan created in 2012 comes to fruition through the 2016 Plan. The One Bay Area Grant Program in Northern California is a program that we believe can be replicated in Southern California. We and other coalition members would gladly assist with this implementation effort. 1

P. O. Box 15333
Newport Beach,
CA 92659-5333

(310) 961-7610

www.banningranchconservancy.org

We've reviewed the RTP/SCS and PEIR and offer the following comments and suggestions for inclusion in the Plan with the intent to clarify/strengthen the language, as well as link the goals of the RTP and SCAG's mission with the Natural and Farmland policies.

> SCAG's Support of Regional Wildlife Corridors The current federal transportation bill, FAST Act, supports understanding transportation impacts on natural resources. The previous bill, MAP-21, supported restoring and maintaining environmental functions (i.e., wildlife corridors) affected by the infrastructure projects in the RTP. SCAG has even supported efforts in Los Angeles County to create a wildlife corridor over the 101 Freeway. Many efforts are underway across the region to connect landscapes to one another. This is very important to the region and its biodiversity. Wildlife corridors allow species to migrate and forage and expand genetic diversity. These corridors also allow ecosystems to maintain ecological functions, act as sources for repopulation after natural disasters such as fire, flood or landslide, and improve the resiliency in the face of climate change impacts. The Plan would be stronger if it supported the enhancement of and/or protection of documented and regionally significant wildlife corridors, especially those that are impacted by infrastructure projects. 2

Conclusion

Thank you for reviewing our comments and we look forward to working with SCAG on the implementation of this Plan, especially as it relates to the Natural and Farmlands Appendix. Should you need to contact me, I can be reached at 714-719-2148. In addition, we request to be included on any notifications (electronic or otherwise) about this policy's creation and implementation, please send information to terrymwelsh@hotmail.com

Sincerely,

Terry Welsh, M.D.

President, Banning Ranch Conservancy

P. O. Box 15333
Newport Beach,
CA 92659-5333

(310) 961-7610

Comment Letter No. 40

Anita Au

From: Kim Kolpin <kim@bclandtrust.org>
Sent: Monday, February 1, 2016 1:22 PM
To: 2016 PEIR
Subject: Comment Letter
Attachments: SCAG Ltr.docx

To whom it may concern,
Please accept the attached letter.
Best regards,
Kim

Kim Kolpin
Executive Director
www.BolsaChicaLandTrust.org
Like Us On: Facebook, Twitter
Follow Us On: Blog

February 1, 2016

To Whom it May Concern,

Thank you for the opportunity to comment on the Southern California Association of Governments (SCAG) 2016 Regional Transportation Plan (RTP) and Sustainable Community Strategy (SCS) and the Program Environmental Impact Report (PEIR). Following the release of the 2012 RTP/SCS, Friends of Harbors, Beaches and Parks (FHBP) coordinated a cross-county regional conservation coalition focused on the inclusion of natural lands mitigation and policies within that SCAG plan. Our organization, the Bolsa Chica Land Trust is now a part of this growing coalition in 2016.

The Bolsa Chica Land Trust was formed in 1992 in Huntington Beach, Orange County, with the mission of the acquisition, preservation and restoration of all of Bolsa Chica and to educate the public as to Bolsa Chica's natural wonders and cultural significance. Today, more than 5,000 members of BCLT actively support these efforts and BCLT's projects and programs. We have had important successes since our inception and today, the Bolsa Chica Ecological Reserve spans over 1,200 acres, is home to many protected species and habitats, and sees more than 40,000 visitors each year.

The 2012 RTP/SCS provided an important stepping stone for the 2016 Plan. In previous Plans, natural lands and farmlands were handled under the banner of "land use." In this new Plan, however, they are their own category. This is a great milestone in conservation planning for the region and SCAG. Additionally, the creation of a Natural and Farmlands Appendix provides important opportunities for SCAG that shouldn't be overlooked. We believe the opportunity before you isn't to "plan for" the future of open space in the region—as that's what you've been doing since the 2012 Plan. Instead, we believe SCAG can now start "implementing" a regional conservation program. **We strongly urge SCAG to take a more serious leadership role by actively seeking funding to implement conservation efforts** by partnering with agencies, transportation commissions and non-profits to see that the Plan created in 2012 comes to fruition through the 2016 Plan. The One Bay Area Grant Program in Northern California is a program that we believe can be replicated in Southern California. We and other coalition members would gladly assist with this implementation effort. 1

5200 Warner Avenue - Suite 108 - Huntington Beach, CA 92649 - (714) 846-1001
www.bolsachicalandtrust.org

We've reviewed the RTP/SCS and PEIR and offer the following comments and suggestions for inclusion in the Plan with the intent to clarify/strengthen the language, as well as link the goals of the RTP and SCAG's mission with the Natural and Farmland policies.

Congratulations

We are pleased to see an Appendix devoted directly to natural and farmlands protection in the 2016 Plan. We are glad that the Plan contains specific strategies addressing natural land and farmlands issues. This is certainly a step in the right direction. The culmination of the work from the last RTP/SCS is clearly visible in this Draft Plan. SCAG has demonstrated that Metropolitan Planning Organizations can play a vital, thoughtful and science-based role in mitigating impacts to our natural environment from transportation, infrastructure and other development projects. By incorporating natural and farmlands protection strategies into your policy document, we believe the many benefits of this broad-based conservation approach will be realized sooner than expected. Thank you for your leadership. 2

Amendments to the Open Space Maps in the PEIR

Maps contained within the PEIR, RTP, SCS and Appendix should be internally consistent and they are not. For example, each map that shows "open space" or "protected lands" should be using the same base dataset but they do not. The 2012 Plan resulted in the creation of SCAG's very own geographic information systems (GIS) dataset: the Natural Resource Inventory. It is more accurate than what is in the document now and it has been vetted by numerous organizations. That's why it is surprising to see that so few of SCAG's own GIS layers were actually used in the documents' maps. We urge SCAG to honor its own work and that of its partner organizations by using this dataset as the basis for natural and farmland mapping. Let's move forward with the same baseline information. 3

Identify a Conservation Mechanism for the Natural and Farmlands Preservation

Our organization supports the idea that as new growth occurs it should focus on the existing infill areas. This is consistent with the finding in the SCAG surveys where respondents preferred to see existing urban areas built upon before greenfields are targeted for development, especially those at the Wildland-Urban Interface. When developments are built in infill areas, it likely relieves pressure from the fringe. However, the Plan fails to outline exactly how (or with what mechanism) these fringe lands (or any lands) will actually be protected. Just because the pressure is relieved doesn't mean the land then automatically becomes protected. Numerous organizations, ours included, focus their work on preservation of important habitat lands. A lot of time, energy, political will, strategy and other efforts combine to create a successful conservation transaction that leads to permanently conserved lands. SCAG must identify the mechanism, process or plan on how the greenfield lands will be protected. 4

Formal Versus Informal Conservation Plans—All Are Important

SCAG focused many sections of the document on formal conservation plans, in the form of Natural Community Conservation Plans and Habitat Conservation Plans (NCCP/HCP), as the conservation method most identified by the agency. It is important to note that NCCP/HCP programs are only one conservation mechanism and they have limitations. For example, they are voluntary, property owner driven and generally only apply to larger land ownerships. Efforts underway by local, regional, state and federal agencies outside of these formal plans should not be discounted and must be included. Furthermore, many conservation organizations help facilitate, coordinate and find funding for land conservation transactions. We believe the conservation approach promoted by SCAG should include all of the ways land is protected, including those less regulated methods of conservation outside of NCCP/HCP programs. 5

Population Growth Impacts to Existing and Future Parklands

The Plan outlines that the region anticipates an additional 3.8 million people by 2040 providing increased pressure on our existing parkland. Studies document that many communities in the Southern California region already do not have enough parkland as outlined by the Quimby Act (three acres per 1,000 residents). Throughout the document, the Plan promotes providing more access to these existing parks as infill projects are built, but nowhere does it state how additional parks will be created. The mechanism is missing. More importantly, these city parks are fundamentally different than habitat-focused parks. Usually city and regional parks include high intensity recreation oriented activities, like soccer and baseball fields, and are turfed. The types of land acquired as mitigation or through local conservation efforts typically are focused on preservation of natural habitat and less intensive uses (birding, hiking, etc.). In fact, many of these mitigation lands have limited or managed public access. Providing "more" access to either high or low intensity parks and/or habitat lands may have significant consequences for the land manager. The document needs to address the impacts to local parks with increased access from expanding populations. The document also needs to address how additional lands will be protected, i.e., what mechanism will be used? 6

SCAG's Support of Regional Wildlife Corridors

The current federal transportation bill, FAST Act, supports understanding transportation impacts on natural resources. The previous bill, MAP-21, supported restoring and maintaining environmental functions (i.e., wildlife corridors) affected by the infrastructure projects in the RTP. SCAG has even supported efforts in Los Angeles County to create a wildlife corridor over the 101 Freeway. Many efforts are underway across the region to connect landscapes to one another. This is very important to the region and its biodiversity. Wildlife corridors allow species to migrate and forage and expand genetic diversity. These corridors also allow ecosystems to maintain ecological functions, act as sources for repopulation after natural disasters such as fire, flood or landslide, and improve the resiliency in the face of climate change impacts. The Plan would be stronger if it supported the enhancement of and/or protection of documented and regionally significant wildlife corridors, especially those that are impacted by infrastructure projects. 7

Conclusion

Thank you for reviewing our comments and we look forward to working with SCAG on the implementation of this Plan, especially as it relates to the Natural and Farmlands Appendix. Should you need to contact me, I can be reached at (714) 846-1001. In addition, we request to be included on any notifications (electronic or otherwise) about this policy's creation and implementation, please send information to Kim@BCLandTrust.org.

Best regards,

Kim Kolpin
Executive Director

Comment Letter No. 41

Anita Au

From: Steven Schuyler <SSchuyler@biasc.org>
Sent: Monday, February 1, 2016 2:46 PM
To: 2016 PEIR
Subject: 2016 RTP/SCS PEIR Comments
Attachments: Comments on the Draft 2016-2040 RTPSCS.pdf

Ms. Sun: Attached are BIASC's comments to both the RTP/SCS and associated PEIR.

Thank you for the opportunity to comment on these important documents.

Steve

Steven Schuyler
E.V.P. Government Affairs
Building Industry Association of Southern California
24 Executive Park Suite 100
Irvine, CA 92614
(949) 553-9500 ext. 118
Sschuyler@biasc.org

February 1, 2016

Mr. Hasan Ikhrata
Executive Director
Southern California Association of Governments
818 West Seventh Street, 12th Floor
Los Angeles, California 90017-3435

RE: Comments on the Draft 2016-2040 RTP/SCS and Draft Program Environmental Impact Report

Dear Mr. Ikhrata:

The Building Industry Association of Southern California, Inc. (BIASC) is a regional trade association that represents more than 1,400 member companies within a six county region and comprised of Chapters in Orange, Los Angeles/Ventura, Riverside/Imperial and San Bernardino counties. Together, BIASC's members build most of the homes and communities throughout the same six-county region, co-extensive with the reach of Southern California Association of Governments (SCAG).

BIASC is pleased to comment on the draft 2016-2040 RTP/SCS and associated environmental documents during the public review period. We have participated in the development of the plan update since the passage of the original RTP/SCS in April 2012 via participation on the Energy and Environmental Committee, GLUE Council and Technical Working Group.

General Comments

We are pleased to support SCAG's Preferred Scenario as outlined and described in both the 20162040 RTP/SCS and the Draft Program Environmental Impact Report (DPEIR). SCAG's five core principles contained in the RTP/SCS document are reasonable and respectful of local growth forecast input as provided by the various jurisdictions and subsequently corrected and updated. The Plan's reliance and focus on technology and innovation, rather than solely increased land use constraints and density maximization to reduce Vehicle Miles Travelled (VMT), reflects a thoughtful and prudent planning approach applied in the current Preferred Scenario. With the increasing rate at which fleet change and alternative fuels are entering the market, this RTP/SCS update iteration is well timed to take advantage of the advances since the 2012 Plan was adopted.

1

Comments on the Draft 2016-2040 RTP/SCS
February 1, 2016

BIASC supports SCAG's commitment to advance the adoption of the RTP/SCS Growth Forecast at the jurisdictional level as demonstrated in the Preferred Scenario. Additionally, BIASC is opposed to the Alternative #3 Plan as analyzed in the DEIR on the premise that this "intensified" plan would, by design, negatively impact the existing built landscape region wide, potentially forcing jurisdictions to adopt land use and planning policies in conflict with their respective communities needs and individual character, in order to stay consistent with the 2016 RTP/SCS intensified scenario. It is also noted that the intensified scenario may not include all technical corrections to the growth forecasts for all counties.

1 cntd

Additionally, BIASC has worked closely with SCAG staff to insure the inclusion of identified development agreements and entitlements region wide were included in the preferred scenario and reflected in the resulting Traffic Analysis Zone (TAZ) mapping. BIASC must note, however, that some jurisdictions like Orange County expended greater time and resources to reconciling existing entitlements with SCAG modeling outcomes than others, and therefore are likely to have a higher degree of over-all accuracy than other counties. BIASC requests that any entitlements which may have not been captured through the extensive vetting process by SCAG, be included in the future as they might be identified.

2

BIASC sees this current iteration of the RTP/SCS as measured and reflective of both the progress made to date by the 2012 Plan and the current economic, technological and funding constraints that exist presently and will affect the implementation of this current RTP/SCS updated plan. Funding opportunities and strategies will continue to be a significant challenge in implementing the 2016 RTP/SCS update, and adherence to sound economic impact analysis will be crucial to assuring the Plan contributes to the continuing California economic recovery.

3

Draft Program Environmental Impact Report (DPEIR):

500' Buffer Commitment- The research and HRA analysis around this issue is well known and acknowledged as a significant public health concern. However, considering the pace at which fleet change, alternative fuels and cleaner technology options have been entering the market place, the adoption of this buffering strategy does not make sense from a long-term planning perspective, and is clearly in conflict with the greater goals of advancing creation of High Quality Transit Areas (HQTA) and VMT reductions. The plan has numerous references to prohibiting certain uses (including residential and mixed use) within 500 feet of a major transportation corridor (like a freeway). This language should be eliminated or at least made more flexible; and it should be indicated that additional study is pending by air quality agencies and SCAG. Also, if any such references remain, they should specify that

4

any buffer is measured from the edge of travel lanes and not the edge of a right of way. Precluding development within 500 feet takes a massive amount of land out of play where transit-oriented, affordable housing might well be built. Furthermore, precluding development in these areas is directly contrary to the primary objective of SB 375, which is to locate housing near job centers within previously urbanized areas.

Lastly, community design and development would be hampered by imposition of this 500' buffer along roadways, potentially making some desirable projects less economically feasible or infeasible.

4 cntd

Mitigation Measures:

One of BIASC's early concerns with the 2012 RTP/SCS DEIR was the over-all quantity and level of intended prescriptiveness of the mitigation measures contained in the first draft of the DEIR. Through painstaking collaboration, a palatable and legally defensible compromise was arrived upon when a new Appendix G was created to house these recommended voluntary mitigation measures for jurisdictions to consider for project specific application. BIASC is satisfied with the comprehensive language below, with the suggested addition underscored below.

(General Description and Legal Requirements- P.1-11)

5

"SB 375 specifically provides that nothing in a SCS supersedes the land use authority of cities and counties, and that cities and counties are not required to change their land use policies and regulations, including their general plans, to be consistent with the SCS or an alternative planning strategy (Government Code Section 65080(b)(2)(K)). Moreover, cities and counties have plenary authority to regulate land use through their police powers granted by the California Constitution, art. XI, §7, and under several statutes, including the local planning law (Government Code Sections 65100–65763), the zoning law (Government Code Sections 65800–65912), and the Subdivision Map Act (Government Code Sections 66410–66499.37). As such, SCAG has no concurrent authority/jurisdiction to implement mitigation related to land use plans and projects that implement the RTP/SCS. With respect to the transportation projects in the RTP/SCS, these projects are to be implemented by Caltrans, county transportation commissions, local transit agencies, and local governments (i.e., cities and counties), and not SCAG. SCAG also has no authority/jurisdiction to require these agencies to implement project specific mitigation measures". **The Project Level Mitigation Measures are provided as suggested approaches to help jurisdictions and project proponents achieve the collective goal of mitigating impacts at the project level. These are not intended to be exclusive nor prescriptive in nature or application.**

BIASC notes that several mitigation measures cite compliance with existing California regulatory law. This is unnecessary and duplicative as it is already assumed that existing law will be adhered to as a matter of practice by lead agencies and project stakeholders. 6

Funding (Long-term): (P.128)

The RTP/SCS Summary of Revenue Sources is very heavily dependent on tax and fee increases, including new politically sensitive and untested user based programs like a proposed VMT tax which is programmed to produce $124 Billion in revenue closer to the planning horizon, via a four cent per mile fee. A second anticipated fee source is in County Development Impact Fees (DIF's) projected to provide upwards of $10 Billion. These are both a major "leaps of faith" on multiple fronts and can have a dampening impact on both the affordability of housing and the viability of some already depressed markets such as the Inland Empire. **BIASC suggests that economic viability be highlighted again in this section to include language acknowledging the absolute need for balanced approaches to increasing taxes and fees, and the potential to negatively impact an already fragile California economy. It is important to underscore the vital nature of job creation and affordability to spurring consumer activity and the resulting tax revenue generation that is central to badly needed public sector investment.** 7

This is consistent with the RTP/SCS Goal #1, "Align the plan investments and policies with improving regional economic development and competitiveness."

Land Use Strategies: (P. ES-9)

With regard to the guiding land use strategies, BIASC respectfully asks SCAG to consider the following additions concerning SCAG's basic litany:

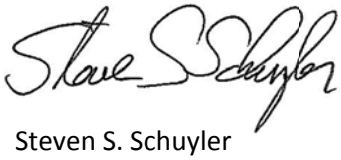
- Identify regional strategic areas for infill and investment, **including policies that provide incentives and avoid conflicts of purpose or intent;**
- Structure the plan on a three-tiered system of centers development;
- Develop "Complete Communities"; **(Please define Complete Communities)** 8
- Develop nodes on a corridor;
- Plan for additional housing and jobs near transit;
- Plan for changing demand in types of housing **and consumer preferences;**
- Continue to protect stable, existing single-family areas;

- Ensure adequate access to open space and preservation of habitat, **while avoiding conflicts between wildlife and communities as much as possible**; and
- Incorporate local input and feedback on future growth.

8 cntd

BIASC provides these comments in the spirit of collaboration and good public policy development. We continue to be an active partner with SCAG in providing input on all regional planning documents and programs to assure that the best, safest and most livable communities are developed here in southern California.

Respectfully,



Steven S. Schuyler
Executive Vice-President, Government Affairs
Building Industry Association of Southern California

CC: Ms. Lijin Sun
Huasha Liu

Comment Letter No. 42

Anita Au

From: Suzanne Seivright <sseivright@calcima.org>
Sent: Monday, February 1, 2016 4:53 PM
To: 2016 PEIR
Subject: Comments on PEIR - CalCIMA
Attachments: Final Comment letter - SCAG 2016 RTP SCS PIER, 2-1-2016.pdf

Dear SCAG,

California Construction & Industrial Materials Association (CalCIMA) appreciates the opportunity to comment on the draft 2016-2040 Regional Transportation Plan (RTP) / Sustainable Communities
Strategy (SCS), and Program Environmental Impact Report (PIER). If you have any questions regarding this letter, please contact me at (951) 941-7981 or at sseivright@calcima.org.

Kindest regards,
Suzanne

Suzanne Seivright
Director, Local Governmental Affairs
California Construction and Industrial Materials Association (CalCIMA)
3890 Orange Street, #167
Riverside, CA 92501-9998
Phone: (951) 941-7981
Email: sseivright@calcima.org
Website: www.calcima.org
Website: www.distancematters.org

CalCIMA – The statewide voice for the aggregate, ready mixed concrete and industrial materials industries.

CALCIMA
California Construction and
Industrial Materials Association

CalCIMA
1029 J Street, Suite 420
Sacramento, CA 95814
Phone: 916 554-1000
Fax: 916 554-1042
www.calcima.org www.distancematters.org

Regional Office:
3890 Orange Street, #167
Riverside, CA 92501-9998
Phone: 951 941-7981

February 1, 2016

Draft 2016 RTP/SCS Comments
Attn: Courtney Aguirre
Southern California Association of Governments
818 W. 7th Street, 12th Floor
Los Angeles, CA 90017

Re: Comments - Draft 2016-2040 Regional Transportation Plan / Sustainable Communities Strategy, and Program Environmental Impact Report

Dear Ms. Aguirre,

California Construction & Industrial Materials Association (CalCIMA) appreciates the opportunity to comment on the draft 2016-2040 Regional Transportation Plan (RTP) / Sustainable Communities Strategy (SCS), and Program Environmental Impact Report (PIER). The RTP/SCS is a long-range transportation plan that provides for a vision for regional transportation investments over a 20-year period. The RTP/SCS is updated every four years to reflect changes to the transportation network, the most recent planning assumptions, economic trends, and population and jobs growth forecasts. The 2016 RTP/SCS would occur primarily in a six-county region that includes the counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura, and in 191 cities and 15 subregional entities within these counties.

CalCIMA is a statewide trade association representing construction and industrial material producers in California. Our members supply the minerals that build our state's infrastructure, including public roads, rail, and water projects; help build our homes, schools and hospitals; assist in growing crops and feeding livestock; and play a key role in manufacturing wallboard, roofing shingles, paint, low energy light bulbs, and battery technology for electric cars and windmills.

Current and future extraction of the diverse mineral resources present within the SCAG region, while minimizing impacts of this use on the public and the environment, is important to the region's economy and success of the regional transportation projects detailed within the 2016 RTP/SCS. Protecting access to areas that contain valuable minerals is critical to the SCAG region to allow continued prosperity and reduce environmental impacts from aggregates used within the region. Currently, the region receives about 1 million tons per year of aggregates by barge from Canada and a large portion of aggregates are imported from adjacent regions resulting in increased environmental impacts from greater transport distances as compared to aggregate sources located within the SCAG region.

CalCIMA appreciates the 2016 RTP/SCS providing a regional vision and pragmatic foundation for the six counties and 191 cities within its' region to facilitate general plans which are required to

identify significant mineral resource areas and apply appropriate land use designations to ensure their future availability. In order to further supplement the 2016 RTP/SCS, CalCIMA has drafted the following comments and recommendations for your review and consideration pursuant to our stakeholder's interest as it relates to mineral resources and the regional economy.

RTP/SCS

The Road to Greater Mobility & Sustainable Growth – 2016 RTP/SCS Environmental Mitigation – Mineral Resources

CalCIMA is encouraged by SCAG's proposed endeavor to coordinate with the Department of Conservation (DOC) and California Geological Survey (CGS) to maintain a data base of available mineral resources in the SCAG region including permitted and unpermitted aggregate resources, and the anticipated 50-year demand for aggregate and other mineral resources. As detailed in this section, SCAG plans to work with local agencies on strategies to address anticipated demand and avoid transport of materials long distances from locations outside the SCAG region, including identification of ways to encourage and increase recycling to reduce demand for aggregate. CalCIMA appreciates that industry will be included in the strategizing phase of this endeavor to provide perspective related to identification of ways to encourage and increase recycling of aggregate. 1

PIER

3.12 Mineral Resources – Definitions.

In the 'Definitions' section, we recommend that the terms 'non-permitted,' 'unpermitted,' and 'known mineral resource,' be added. Adding these terms to the existing list of definitions will allow readers to become familiar with the terms prior to review of related text. The following definitions are recommended for inclusion: 2

- Non-permitted and unpermitted aggregate: Deposits that may meet specifications for construction aggregate, are recoverable with existing technology, have no land overlying them that is incompatible with mining, and currently are not permitted for mining[1].

- Known mineral resource or identified resources: Resources whose location, grade, quality, and quantity are known or estimated from specific geologic evidence. Identified resources include economic, marginally economic, and sub-economic components. To reflect varying degrees of geologic certainty, these economic divisions can be subdivided into measured, indicated, and inferred[2].

3.12.2 Existing Conditions – Regionally Important Mineral Resources. 3

[1] Southern California Association of Governments. (Retrieved in January 2016). Program Environmental Impact Report – Mineral Resources – 3.12-4.
[2] Department of Conservation. (Retrieved in January 2016). California Surface Mining and Reclamation Policies and Procedures – Guidelines for Classification and Designation of Mineral Lands. Retrieved from: http://www.conservation.ca.gov/smgb/guidelines/documents/classdesig.pdf

In order to provide regional perspective related to converted land uses that may become incompatible with mining in correlation with the proposed RTP/SCS projects, in this section we recommend inclusion of a map that outlines both the identified mineral resource zones (MRZs) and the proposed RTP projects.

3 cntd

Table 3.12.2-1: Permitted Aggregate Resources and 50-Year Demand in the SCAG Region.

This table shows that just under one-third of the projected 50-year demand is currently permitted in the SCAG region exclusive of mines in Imperial County. Discussion following this table extrapolates that CGS estimates that there are up to 74 billion tons of nonpermitted resources state-wide, and that there is an estimated excess of 37 million tons of nonpermitted resources in the region. While the estimated amount of nonpermitted resources is large, access to these resources may be limited due to social, environmental, or economic factors. In this section we recommend inclusion of a map that clarifies the proposed RTP/SCS project locations in correlation with MRZs that are identified as permitted or nonpermitted, and urban or environmentally sensitive areas in order to illuminate mineral resources that may or may not be sufficiently located from potential markets which can impact economic viability.

4

San Diego Association of Governments (SANDAG) has created an overlay map showing mine locations, documents MRZs, and the relative scarcity of locations where aggregates could be mined in comparison to the total area where aggregate resources exist. This information is located within the application section of SANDAG's '2050 RTP/SCS Final Environmental Impact Report[3].'

IMPACT MIN-1(a)(1): Potential to result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.

Please reference comments made pursuant to the RTP/SCS section 'The Road to Greater Mobility & Sustainable Growth – 2016 RTP/SCS Environmental Mitigation – Mineral Resources'

5

IMPACT MIN-1(a)(1): Potential to result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.

CalCIMA is encouraged by SCAG's proposed endeavor to facilitate, encourage, and coordinate with local jurisdictions to review, identify, and update aggregate and mineral resources in their jurisdictions through cooperation, information sharing, and regional development as part of SCAG's ongoing regional planning efforts such as web-based planning tools for local government including CA Lots, and other GIS tools and data services, including but not limited to, Map Gallery, GIS library, and GIS applications, and direct technical assistance efforts such as Compass Blueprint's Toolbox Tuesday Training series and sharing of associated online training materials. This proposed endeavor will provide cities and counties with GIS resources that reflect regional information that will be instrumental when general plans and infrastructure projects are being addressed. In parallel to this proposed endeavor, the County of Los Angeles has incorporated language within their 'General Plan' recognizing the regional importance of construction aggregates as well as the inclusion of designated resources within SB 375 which states:

6

[3] SANDAG. (October 2011). 2050 RTP/SCS Final Environmental Impact Report. Retrieved from: http://www.sandag.org/uploads/2050RTP/F2050RTPEIR47.pdf

It is also important to work with the State Mining and Geology Board and the State Geologist in the permitting process, as well as to coordinate with different agencies to address mineral resources within regional efforts. This includes the prioritization of Mineral Land Classifications efforts of MRZ-3 and MRZ-4 lands adjacent to planned new or existing freight routes, or addressing mineral resources in the Sustainability Communities Strategy, per SB 375.

6 cntd

Other comments regarding the PEIR

Pursuant to RTP/SCS modeling recommendations for regions that are nonattainment for ozone or carbon monoxide, the '2010 California Regional Transportation Plan Guidelines' compiled by the California Transportation Commission (CTC) recommends that the largest of metropolitan planning organizations incorporate goods movement and commodity flow analysis. Specifically, page 46 of this document recognizes that "Freight models should be implemented in the short term commodity flows models within a few years." CalCIMA would like to encourage SCAG to implement this modeling recommendation to educate decision makers and the public regarding how related various options would potentially affect trip making, travel modes, vehicle miles traveled, land use plans, and greenhouse gas (GHG) issues. More specifically within this RTP/SCS process, SCAG could analyze the commodity flows of construction aggregate from the mineral facilities identified within the RTP/SCS as current and future sites to the proposed transit infrastructure projects and development areas proposed for growth as well as analyze the emissions of such commodity movement within the RTP/SCS. The RTP/SCS projects which SCAG lists are the projects eligible for CTC funding and absent being included within the RTP/SCS these projects could not be funded, a reasonably foreseeable impact of the RTP/SCS is at a minimum the transportation emissions associated with supplying materials for these projects. Consideration of these GHG emissions would enable the projects to avoid additional analysis at the project level under California Environmental Quality Act (CEQA) requirements.

7

This goes to say that SB 375, 'Transportation planning: travel demand models: sustainable communities strategy: environmental review,' was signed by the Governor on September 30, 2008. According to the Governor's press release:

Senate Bill 375(Darrell Steinberg, D-Sacramento) requires the ARB to develop regional greenhouse gas emission reduction targets to be achieved from the automobile and light truck sectors for 2020 and 2035. The 18 [metropolitan planning organizations] MPOs in California will prepare a "sustainable communities strategy" to reduce the amount of vehicle miles traveled (VMT) in their respective regions and demonstrate the ability for the region to attain ARB's targets.

- *ARB would later determine if each region is on track to meet their targets.*
- *Builders also would get relief from certain environmental reviews under California Environmental Quality Act if they build projects consistent with the new sustainable community strategies.*
- *In addition, cities would get extra time -- eight years instead of five -- to update housing plans required by the state*[4].

SB 375 is primarily concerned with automobile and light truck traffic, however the goal of reducing GHGs covers all transportation sources based on the need for sustainable communities.

[4] Office of Governor Schwarzenegger. (October 2008). Fact Sheet – Senate Bill 375: Redesigning Communities to Reduce Greenhouse Gases. Retrieved from: https://www.mwcog.org/uploads/committee-documents/bF5dXVhZ20081016085919.pdf.

each transportation planning agency … shall prepare and adopt a regional transportation plan directed at achieving a coordinated and balanced regional transportation system, including, but not limited to, mass transportation, highway, railroad, maritime, bicycle, pedestrian, goods movement, and aviation facilities and service[5]s. (Section 65080(a), underline added.)

The regional transportation plan is to be an internally consistent document and include a SCS.

The sustainable communities strategy shall …(v) gather and consider the best practically available scientific information regarding resource areas and farmland in the region ….[6]

Resource areas include:

7 cntd

…areas of the state designated by the State Mining and Geology Board as areas of statewide or regional significance pursuant to Section 2790 of the Public Resources Code, and lands under Williamson Act contracts[7].

SB 375 recognizes construction aggregate as a regionally significant resource that requires special consideration in transportation and land use planning efforts. Lastly, MPOs:

..shall consider financial incentives for cities and counties that have resource areas[8].

It is a shared goal to develop and adopt a RTP/SCS that represents the best in regional planning developed collaboratively with local jurisdictions and stakeholders. CalCIMA looks forward to working with SCAG to achieve our collective goals to encourage land use and growth patterns that complement our transportation investment, and appreciate the consideration of our comments. If you have any questions regarding this letter, please contact me at (951) 941-7981 or at sseivright@calcima.org.

Sincerely,

Suzanne Seivright
Director of Local Government Affairs

[5] Government Code. (Retrieved on January 2016). Title 7. Planning and Land Use [Section 65080(a)]. Retrieved from: http://www.leginfo.ca.gov/cgi-bin/displaycode?section=gov&group=65001-66000&file=65080-65086.5.
[6] Government Code. (Retrieved on January 2016). Title 7. Planning and Land Use [Section 65080(b)(2)(B)(v)]. Retrieved from: http://www.leginfo.ca.gov/cgi-bin/displaycode?section=gov&group=65001-66000&file=65080-65086.5.
[7] Government Code. (Retrieved on January 2016). Title 7. Planning and Land Use [Section 65080.01(a)(4)]. Retrieved from: http://www.leginfo.ca.gov/cgi-bin/displaycode?section=gov&group=65001-66000&file=65080-65086.5.
[8] Government Code. (Retrieved on January 2016). Title 7. Planning and Land Use [Section 65080(b)(4)(C)]. Retrieved from: http://www.leginfo.ca.gov/cgi-bin/displaycode?section=gov&group=65001-66000&file=65080-65086.5.

Comment Letter No. 43

2016 PEIR

From: Patricia Martz <p.martz@cox.net>
Sent: Monday, February 01, 2016 7:47 PM
To: 2016 PEIR; rtpscs@scag.ca.org
Subject: RTP/SCS
Attachments: Individual Coalition Letter ccrpa.doc

Please see attached letter

Thanks,

Patricia Martz, Ph.D.
CCRPA

February 1, 2016

Dear SCAG

Thank you for the opportunity to comment on the Southern California Association of Governments (SCAG) 2016 Regional Transportation Plan (RTP) and Sustainable Community Strategy (SCS) and the Program Environmental Impact Report (PEIR). Following the release of the 2012 RTP/SCS, Friends of Harbors, Beaches and Parks (FHBP) coordinated a cross-county regional conservation coalition focused on the inclusion of natural lands mitigation and policies within that SCAG plan. Our organization, California Cultural Resources Preservation Alliance (CCRPA), is now a part of this growing coalition in 2016.

CCRPA works in Orange County and has since 1995. Our mission is to protect and preserve cultural resources. We have had important successes since our inception including preservation of 100 acres of the Tomato Springs site in Irvine.

The 2012 RTP/SCS provided an important stepping stone for the 2016 Plan. In previous Plans, natural lands and farmlands were handled under the banner of "land use." In this new Plan, however, they are their own category. This is a great milestone in conservation planning for the region and SCAG. Additionally, the creation of a Natural and Farmlands Appendix provides important opportunities for SCAG that shouldn't be overlooked. We believe the opportunity before you isn't to "plan for" the future of open space in the region—as that's what you've been doing since the 2012 Plan. Instead, we believe SCAG can now start "implementing" a regional conservation program. **We strongly urge SCAG to take a more serious leadership role by actively seeking funding to implement conservation efforts** by partnering with agencies, transportation commissions and non-profits to see that the Plan created in 2012 comes to fruition through the 2016 Plan. The One Bay Area Grant Program in Northern California is a program that we believe can be replicated in Southern California. We and other coalition members would gladly assist with this implementation effort. 1

We've reviewed the RTP/SCS and PEIR and offer the following comments and suggestions for inclusion in the Plan with the intent to clarify/strengthen the language, as well as link the goals of the RTP and SCAG's mission with the Natural and Farmland policies.

Congratulations

We are pleased to see an Appendix devoted directly to natural and farmlands protection in the 2016 Plan. We are glad that the Plan contains specific strategies addressing natural land and farmlands issues. We would like to see more attention given to archaeological sites and other cultural properties. This is a step in the right direction, however we would like to see more attention given to the protection of archaeological sites and other cultural resources. The culmination of the work from the last RTP/SCS is clearly visible in this Draft Plan. SCAG has demonstrated that Metropolitan Planning Organizations can play a vital, thoughtful and science-based role in mitigating impacts to our natural environment from transportation, infrastructure and other development projects. By incorporating natural, cultural, and farmlands protection strategies into your policy document, we believe the many benefits of this broad-based conservation approach will be realized sooner than expected. Thank you for your leadership. 2

Amendments to the Open Space Maps in the PEIR

Maps contained within the PEIR, RTP, SCS and Appendix should be internally consistent and they are not. For example, each map that shows "open space" or "protected lands" should be using the same base dataset but they do not. The 2012 Plan resulted in the creation of SCAG's very own geographic information systems (GIS) dataset: the Natural Resource Inventory. It is more accurate than what is in the document now and it has been vetted by numerous organizations. That's why it is surprising to see that so few of SCAG's own GIS layers were actually used in the documents' maps. We urge SCAG to honor its own work and that of its partner organizations by using this dataset as the basis for natural and farmland mapping. Let's move forward with the same baseline information. 3

Identify a Conservation Mechanism for the Natural, Cultural and Farmlands Preservation

Our organization supports the idea that as new growth occurs it should focus on the existing infill areas. This is consistent with the finding in the SCAG surveys where respondents preferred to see existing urban areas built upon before greenfields are targeted for development, especially those at the Wildland-Urban Interface. When developments are built in infill areas, it likely relieves pressure from the fringe. However, the Plan fails to outline exactly how (or with what mechanism) these fringe lands (or any lands) will actually be protected. Just because the pressure is relieved doesn't mean the land then automatically becomes protected. Numerous organizations, ours 4

included, focus their work on preservation of important habitat lands. A lot of time, energy, political will, strategy and other efforts combine to create a successful conservation transaction that leads to permanently conserved lands. SCAG must identify the mechanism, process or plan on how the greenfield lands will be protected.

4 cntd

Formal Versus Informal Conservation Plans—All Are Important

SCAG focused many sections of the document on formal conservation plans, in the form of Natural Community Conservation Plans and Habitat Conservation Plans (NCCP/HCP), as the conservation method most identified by the agency. It is important to note that NCCP/HCP programs are only one conservation mechanism and they have limitations. For example, they are voluntary, property owner driven and generally only apply to larger land ownerships. Efforts underway by local, regional, state and federal agencies outside of these formal plans should not be discounted and must be included. Furthermore, many conservation organizations help facilitate, coordinate and find funding for land conservation transactions. We believe the conservation approach promoted by SCAG should include all of the ways land is protected, including those less regulated methods of conservation outside of NCCP/HCP programs.

5

OPTION 5 PARAGRAPH: A Request to Better Align Increased Population and Park Access *(DELETE THIS HEADER)*

Population Growth Impacts to Existing and Future Parklands

The Plan outlines that the region anticipates an additional 3.8 million people by 2040 providing increased pressure on our existing parkland. Studies document that many communities in the Southern California region already do not have enough parkland as outlined by the Quimby Act (three acres per 1,000 residents). Throughout the document, the Plan promotes providing more access to these existing parks as infill projects are built, but nowhere does it state how additional parks will be created. The mechanism is missing. More importantly, these city parks are fundamentally different than habitat-focused parks. Usually city and regional parks include high intensity recreation oriented activities, like soccer and baseball fields, and are turfed. The types of land acquired as mitigation or through local conservation efforts typically are focused on preservation of natural habitat and less intensive uses (birding, hiking, etc.). In fact, many of these mitigation lands have limited or managed public access. Providing "more" access to either high or low intensity parks and/or habitat lands may have significant consequences for the land manager. The document needs to address the impacts to local parks with increased access from expanding populations. The document also needs to address how additional lands will be protected, i.e., what mechanism will be used?

6

SCAG's Support of Regional Wildlife Corridors

The current federal transportation bill, FAST Act, supports understanding transportation impacts on natural resources. The previous bill, MAP-21, supported restoring and maintaining environmental functions (i.e., wildlife corridors) affected by the infrastructure projects in the RTP. SCAG has even supported efforts in Los Angeles County to create a wildlife corridor over the 101 Freeway. Many efforts are underway across the region to connect landscapes to one another. This is very important to the region and its biodiversity. Wildlife corridors allow species to migrate and forage and expand genetic diversity. These corridors also allow ecosystems to maintain ecological functions, act as sources for repopulation after natural disasters such as fire, flood or landslide, and improve the resiliency in the face of climate change impacts. The Plan would be stronger if it supported the enhancement of and/or protection of documented and regionally significant wildlife corridors, especially those that are impacted by infrastructure projects.

7

Conclusion

Thank you for reviewing our comments and we look forward to working with SCAG on the implementation of this Plan, especially as it relates to Cultural Resources. Should you need to contact me, I can be reached at (949) 559-6490. In addition, we request to be included on any notifications (electronic or otherwise) about this policy's creation and implementation, please send information to p.martz@cox.net.

8

Sincerely,

Patricia Martz, Ph.D., President
CCRPA

Comment Letter No. 44

California Native Plant Society
ORANGE COUNTY CHAPTER

P.O. Box 54891
Irvine, CA 92619-4891
occnps.org

The California Native Plant Society is a statewide non-profit organization. Its membership is open to all.

CNPS' mission is to conserve California native plants and their natural habitats, and increase understanding, appreciation, and horticultural use of native plants.

The Orange County Chapter of CNPS focuses that mission on the native plants and natural vegetation of Orange County and adjacent Southern California.

January 31, 2016

Southern California Association of Governments
Attn: Courtney Aguirre
818 W. 7th Street, 12th Floor
Los Angeles CA 90017

RE: *Draft 2016 RTP/SCS/PEIR* Comments

Dear Sirs:

Thank you for the opportunity to review and comment on the Southern California Association of Governments (SCAG) *Draft 2016 Regional Transportation Plan (RTP) and Sustainable Community Strategy (SCS) and the Program Environmental Impact Report (PEIR)*.

The Orange County Chapter of the California Native Plant Society (OCCNPS) is a member of the cross-county coalition coordinated by Friends of Harbors, Beaches and Parks (FHBP). Beginning with the *2012 RTP/SCS,* the coalition has focused on working for the inclusion of policies that favor natural lands mitigation within SCAG's plans. Such natural-lands mitigation and land-use policies are important to OCCNPS' ongoing mission to conserve Orange County's native plants and habitats.

OCCNPS is pleased to see that the California Native Plant Society (CNPS) *On-Line Electronic Inventory of Rare and Endangered Vascular Plants of California* (CNPSEI 2015) is one of the technical databases reviewed to develop the *2016 RTP/SCS/PEIR's* bioresource lists. CNPS also publishes the online *Manual of California Vegetation* (cnps.org/cnps/vegetation/manual.php), a definitive system for describing vegetation statewide that has been accepted by state and federal agencies. The *Manual's* system would provide more accurate and detailed descriptions of the SCAG region's vegetation than does that used in the *2016 RTP/SCS/PEIR*.

1

OCCNPS' *Emergent Invasive Plants Program* (occnps.org/invasives.html), while focusing on invasive plant species that are new to Orange County, contains much information that is applicable to invasive plants anywhere in the coastal plain portion of the SCAG region; we offer it for SCAG's use. We hope that SCAG will espouse the use of Best Management Practices (BMPs) to help prevent the inadvertent spread of invasive plant seeds via vehicles, equipment and personnel at transportation-improvement project sites.

1 cntd

OCCNPS is glad to see that preserving natural lands is now a major initiative, with its own category, *Natural Lands and Farmlands*--in the *2016 RTP/SCS/PEIR.* The new category signifies a shift in thinking about what land's "best uses" may be, and is a great milestone in conservation planning for the region and for SCAG.

Preserving natural lands, with their native vegetation, will help SCAG reach all its environmental quality goals. That's because the most important thing about plants is that they take carbon dioxide out of the air, mix it with water and sunshine, then release oxygen back into the air and put the carbon into their bodies. This process--photosynthesis--is basic to life as we know it on this planet. And plants do it for free, all over the world, every day. The more plants, the more natural lands, the healthier, the more sustainable, the higher-quality is the natural environment that supports us all.

2

Preserving natural lands is thus a strong complement to the *RTP/SCS/PEIR*'s major initiatives for sustainability implementation, especially redirecting growth to infill in existing urbanized areas.

The *Natural and Farmlands Appendix* provides SCAG with the background and opportunity to start implementing a regional conservation program, rather than planning for the future of open space in the region. With such implementation, SCAG can take a more serious leadership role in regional conservation, can actively seek funding to implement conservation efforts by partnering with agencies, transportation commissions and non-profits. A strong focus on preserving natural lands would be a way that the *2012 Plan* can come to fruition through the *2016 Plan*.

Comments and suggestions, offered with the intent to clarify/strengthen the language and link its goals and SCAG's mission with the *Natural and Farmland Policies.*

1. Consistency is needed in the maps:

SCAG developed its own geographic information systems (GIS) dataset, the *Natural Resource Inventory,* as a result of the 2012 Plan. SCAG and its partner organizations put much work into developing the *Inventory,* and it was vetted by numerous organizations. So it is puzzling that so few of the *Inventory's* GIS layers appear to have been used in the *RTP/SCS/PEIR's* maps. The *Inventory's* baseline information is the more accurate and should be the basis for the *RTP/SCS/PEIR,* especially for the "natural and farmland" maps.

3

For example, there seems to be confusion in the terms "undevelopable" and "undeveloped." The *PEIR's* Fig. 3.4.2-5 shows (in Orange County) much of Rancho Mission Viejo's land as Undevelopable. But the Rancho is at this time developing its lands according to its 2004 Ranch Plan. (The Ranch Plan includes that some 17,000 acres are to be dedicated as preserved open space once its planned 14,000 dwelling units have been built. So the 17,000 acres may indeed be "undevelopable" but the remainder of the Rancho's lands are certainly developable--though not all are developed at this time.) The *PEIR's* Fig. 3.11.2-2 and Fig. 3.11.2-5 and Table 3.11.2-2 define the same lands as "Undevelopable or Protected." Conversely, the *RTP/SCS' Natural and Farm Lands Appendix* Exhibit 3, "Protected Lands in the SCAG Region," correctly shows the Rancho lands as partly private (i.e. developed, or soon to be) and partly as NGO (i.e. the 17,000 acres that will be The Reserve at Rancho Mission Viejo Habitat Reserve). 3 cntd

2. What Conservation Mechanism(s) Can or Will be Used for Natural and Farmlands Preservation?

The *RTP/SCS/PEIR* should identify mechanisms, processes or plans that will be employed to combine and marshal the time, energy, political will, strategy and other efforts needed to create successful conservation transactions that lead to permanently conserved land. Implementing such mechanisms is part of implementing the regional conservation program, in which SCAG could take a more serious leadership role now that the *Natural and Farmlands Appendix* provides the background and opportunity. 4

Policies to promote development in infill areas is one such mechanism, and likely relieves pressure to develop natural and farm lands. But the relief of pressure doesn't mean the natural and farm lands are automatically protected. Unless the lands are formally protected, they likely will again be proposed for development, whether or not infill is completed.

3. What Mechanism(s) Can or Will be Used to Accommodate Access to Preserved Lands?

The *RTP/SCS/PEIR* does not clearly differentiate between access appropriate to city and regional parks and access appropriate to habitat lands. Throughout the document, the *Plan* promotes providing more access to existing and new parks as infill projects are built. But infill, by definition, takes place within already-built areas. Parks within the built environment have fundamentally different purposes and uses than preserved natural lands. Such lands typically are focused on preservation of natural habitat and low-impact uses (flower-watching, birding, hiking, etc.). Limited and strictly managed public access may be part of the conditions under which these mitigation lands were preserved. Promoting "more" access to such habitat lands may have significant consequences for these lands and their managers. 5

4. Both Formal And Informal Conservation Plans Are Important:

SCAG seems to identify formal conservation plans, such as Natural Community Conservation Plans and Habitat Conservation Plans (NCCP/HCP), as the much-preferred conservation method. But NCCP/HCP programs are only one conservation mechanism and have the limitations of being voluntary, property-owner driven and generally only applicable to larger land ownerships. 6

SCAG should also promote conservation approaches that are less formal than NCCP/HCPs, such as:

- The programs of local, regional, state and federal agencies.
- The campaigns of many conservation organizations, who help facilitate, coordinate and find funding for land conservation transactions.

6 cntd

5. Support for Regional Wildlife Corridors:

The *RTP/SCS/PEIR's Natural and Farmlands* focus would be stronger if it supported the enhancement of and/or protection of documented and regionally significant wildlife corridors, especially those that are impacted by transportation infrastructure projects. Wildlife corridors allow species to safely migrate between preserved lands that are separated by development. The migration allows species to maintain genetic diversity across the region, thus helps regional ecosystems to maintain ecological functions and resiliency in the face of disturbance (fire, flood, e.g.) and climate change impacts.

Many efforts are underway across the region to connect landscapes to one another. In Orange County, there are two such efforts:

- Coast to Cleveland, connecting the southern and northern portions of the NCCP Reserve (i.e. connecting the coastal hills to the Santa Ana Mountains) across mostly-urbanized central Orange County. This corridor is essential to the long-term successful functioning of the overall NCCP Reserve.
- Chino-Puente Hills, which connect the northern end of the Santa Ana Mountains (i.e. the northerly end of the Peninsular Ranges) and the San Gabriel River Corridor (and thence to the Transverse Ranges and beyond). The Chino Hills end of this corridor is mostly in Orange County; some of the corridor is in San Bernardino County, most is in Los Angeles County.

Each of these has tenuous portions, which may be suitable as mitigation projects for nearby transportation improvements that are outlined in Appendix B, the *2016 RTP/SCS Project List.*

7

6. On p. 177 of the *2016 RTP/SCS* it is stated: "... A more climate resilient strategy would be to design sidewalks and bike paths with native drought tolerant shade trees. ..." Seven tree species are native to the Southern California coastal plain and hills (where much of what's proposed in the *RTP/SCS/PEIR* will be done). Of those, four are riparian-woodland species, needing year-round moisture at their roots, so could not be considered drought-tolerant: sycamore *(Platanus racemosa),* willow *(Salix spp.),* alder *(Alnus racemosa),* and poplar *(Populus spp.)*. The other three are oaks *(Quercus agrifolia, Q. chrysolepis)* and California black walnut *(Juglans californica)*. These are drought-tolerant once established, but are unhappy in poorly drained soils and/or hot exposures. Only the two oaks will grow tall and wide enough to accommodate bike paths and sidewalks under their canopies. For the trees' health:

- Barriers will be needed along the sidewalks/bike paths, so that the trees' root zones will not be compacted by off-path feet/bikes. Fuchsia-flowered gooseberry *(Ribes speciosum)* would make a natural barrier that would support hummingbirds and other wildlife.
- The oaks' fallen leaves must be left to form natural mulch under the canopies, so that the mulch layer's natural nutrient cycling can support and maintain the trees.

8

- No underplanting should be done, except of species natively found under oaks, and that only in the oaks' early years.
- Routine maintenance should be limited to removal of weeds, whose seeds will inevitably be blown in and/or dropped by birds.

Oaks large enough to form the desired canopies may well be a minimum 25 years old. Planning to grow such trees, in large boxes for transplantation to the eventual sidewalks/bike paths, ought to begin soon.

9 cntd

Thank you for reviewing OCCNPS' comments. We look forward to working with SCAG on the implementation of this Plan, especially as it relates to the Natural and Farmlands Appendix. Please include OCCNPS, at the email address below, on any notifications.

10

Respectfully,

Celia Kutcher, Conservation Chair
celia552@cox.net

Comment Letter No. 45

2016 PEIR

From: Diep, Deborah <ddiep@Exchange.FULLERTON.EDU>
Sent: Friday, January 29, 2016 10:12 AM
To: 2016 PEIR; Lijin Sun
Cc: Martin, Scott; Huasha Liu; Naresh Amatya; Ping Chang; Hasan Ikhrata; Anup Kulkarni (akulkarni@octa.net); Benjamin Legbandt (blegbandt@oclafco.org); Carolyn Emery; Carolyn McInerney (carolyn.mcinerney@ocgov.com); Carroll, John; Doug Feremenga (dferemenga@thetollroads.com); Reilly, Doug; Eros Yong (eyong@ocsd.com); Frank Wen; Guoxiong Huang; Joan Finnegan (Tanchofish@gmail.com); Karl Seckel (kseckel@mwdoc.com); Kathy Millea (kmillea@ocsd.com); Kevin Hadden (khadden@ocsd.com); kbrotcke@octa.net; Marnie Primmer (edoccog@gmail.com); Ruby Maldonado (ruby.maldonado@ocpw.ocgov.com); Simon Choi; smartin@fullerton.edu; vmcfall@thetollroads.com; Ying Zhou; Brian Smolke (bsmolke@octa.net); cwalecka@earthlink.net; Esmael Adibi (E-mail); Shiomoto-Lohr, Gail; Jay Wong (jay.wong@ssa.ocgov.com); Jerry A. King (JAKingAssoc@gmail.com); John Kennedy (JKennedy@OCWD.com); Kevin Hostert (KHostert@mwdoc.com); Linda Smith (Linda.Smith@ocpw.ocgov.com); Marika Poynter (mpoynter@cityofirvine.org); Rakovski, Carter; Rudy Davila (RDavila@OCSD.COM); Scott Reekstin (E-mail); Smith, Wendy; Tim Bruckner (tim.bruckner@uci.edu); Torr, Berna
Subject: DRAFT 2016 RTP/SCS PEIR COMMENTS
Attachments: 2016.01.29 CDR comment letter PEIR_final.docx

Please see the attached comment letter on the 2016 RTP/SCS PEIR in Word format.

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Center for Demographic Research

January 29, 2016

Ms. Lijin Sun
Southern California Association of Governments
818 W. 7th Street, 12th Floor
Los Angeles, CA 90017
2016PEIR@scag.ca.gov/SunL@scag.ca.gov

SUBJECT: DRAFT 2016 RTP/SCS PEIR COMMENTS

Dear Ms. Sun:

The Center for Demographic Research has reviewed the Draft 2016 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS, "the Plan") PEIR. We recognize and appreciate the work SCAG staff has done to produce these reports and work with local agencies during the development process and for the continued cooperation and reception of initial feedback and draft comments discussion.

We also want to extend our thanks for the close coordination between SCAG and the Center for Demographic Research (CDR) at California State University, Fullerton on behalf of Orange County jurisdictions to ensure that the 2014 Orange County Projections (OCP-2014), Orange County's growth forecast, and its updates were included in the 2016 RTP/SCS and PEIR preferred alternative so that entitlements, development agreements, projects recently completed, and projects under construction were properly reflected in the 2016 RTP/SCS growth forecast. For decades, the Orange County Projections has been used by OCTA in the development of its Orange County Long-Range Transportation Plan demonstrating that Orange County has integrated transportation and land use planning for years. 1

The CDR would like to express support of comments and recommendations on the Draft 2016 RTP/SCS PEIR by the Orange County Council of Governments, the Orange County Transportation Authority, and other Orange County agencies whose comments support the Plan with its use of the Orange County's growth forecast, the 2014 Orange County Projections and its updates. We thank you for the opportunity and ask for your consideration and response to the following comments detailed comments in Table 1 below. If you have any questions, please do not hesitate to contact me.

Sincerely,

Deborah S. Diep
Director, Center for Demographic Research

EMAIL CC: CDR Management Oversight Committee
CDR Technical Advisory Committee
Hasan Ikhrata, SCAG
Huasha Liu, SCAG
Naresh Amatya, SCAG
Ping Chang, SCAG
Scott Martin, CDR

Table 1: Comments on Draft 2016 RTP/SCS PEIR

#	TOPIC	PAGE REFERENCE	NARRATIVE, COMMENT & RECOMMENDATION
1	General Comment	All	Any changes to mitigation measure language should be updated in both the Executive Summary and the chapters throughout the PEIR, as well as the RTP/SCS document.
2	General Comment	All	Cite original source data, not other documents, e.g. SCAG's Local Profiles
3	Clarification	ES-14	"MM-AES-1(b): Consistent … the Lead Agency ~~can and~~ should consider mitigation measures…"
4	Clarification	ES-14 & 15	"MM-AES-3(b): Consistent …the Lead Agency ~~can and~~ should consider mitigation measures… •~~Require~~ Encourage development of design guidelines… •~~Require~~ Encourage that sites are kept in a… ""
5	Define	ES-16	Define 'Natural Resource Inventory Database and Conservation Framework & Assessment'
6	Define	ES-16	Define 'Conservation Plan'
7	Define	ES-16	Define 'mitigation banks'
8	Clarification	ES-19	MM-Air-2(b): "•~~Require~~ Encourage contractors to assemble… •As appropriate ~~require~~ encourage that…"
9	Clarification	ES-19	MM-Air-4(b): "• ~~Require~~ Encourage clean fuels, and reduce petroleum dependency."
10	Clarification	ES-19	"MM-Air-4(b): Consistent with the provisions of Section 15091 of the State CEQA Guidelines, SCAG has identified mitigation measures that are within the jurisdiction and authority of the air quality management district(s) where proposed 2016 RTP/SCS transportation projects ~~or development projects resulting from the land use patterns in the 2016 RTP/SCS~~ would be located."
11	Clarification	ES-20	MM-BIO 1(b): • ~~Require~~ Encourage project design to avoid occupied habitat, potentially suitable habitat, and designated critical habitat, wherever practicable and feasible."
12	Clarification	ES-22	MM-BIO-2(b): "• ~~Require~~ Encourage project design to avoid sensitive natural communities and riparian habitats, wherever practicable and feasible."
13	Clarification	ES-22	MM-BIO-3(b): "• ~~Require~~ Encourage project design to avoid federally protected wetlands consistent with the provisions of Section 404…" "• ~~Require~~ Encourage review of construction drawings by a certified wetland delineator…"
14	Clarification	ES-23	MM-BIO-4(b): "• ~~Require~~ Encourage review of construction drawings and habitat connectivity mapping provided by the CDFW or CNDDB…"

#	TOPIC	PAGE REFERENCE	NARRATIVE, COMMENT & RECOMMENDATION
15	Clarification	ES-24	MM-BIO-5(b): "~~• Require~~ Ensure that no change in existing ground level occur from the base of any protected tree at any time. ~~Require~~ It is recommended that no burning or use of equipment with an open flame occur near or within the protected perimeter of any protected tree." "~~• Require~~ Encourage that no storage or dumping of oil, gas, chemicals, or other substances that may be harmful to trees occur from the base of any protected trees, or any other location on the site from which such substances might enter the protected perimeter. ~~Require~~ It is recommended that no heavy construction equipment or construction materials be operated or stored within a distance from the base of any protected trees. ~~Require~~ It is recommended that wires, ropes, or other devices not be attached to any protected tree, except as needed for support of the tree. ~~Require~~ It is recommended that no sign, other than a tag showing the botanical classification, be attached to any protected tree." "•… ~~require~~ ensure replacement of any tree removed with another tree or trees on the same site deemed adequate by the local agency to compensate for the loss of the tree that is removed."
16	Clarification	ES-31	MM-GHG-3(a)(11): "~~• Require~~ Encourage amenities for non-motorized transportation, such as secure and convenient bicycle parking."
17	Clarification	ES-40	MM-LU-1(a)(3): "SCAG shall work with its member cities and counties to encourage but not require that transportation projects and growth are consistent with the RTP/SCS."
18	Clarification	ES-40	MM-LU-1(a)(4): "SCAG shall coordinate with member cities and counties to encourage but not require that general plans consider and reflect as appropriate RTP/SCS policies and strategies. SCAG will work to encourage but not require consistency between general plans and RTP/SCS policies."
19	Clarification	ES-40	MM-LU-1(a)(8): "SCAG shall continue to use its Intergovernmental Review Process to provide comments to lead agencies on regionally significant projects, ~~that may be considered for determining consistency with the RTP/SCS~~."
20	Clarification	ES-52	MM-TRA-1(b): "•… bicyclist accommodations, and ~~require~~ encourage new development and redevelopment projects to include bicycle facilities…"
21	Clarification	ES-53	MM-TRA-1(b): "~~• Require~~ Encourage new office developments with more than 50 employees to offer a Parking "Cash-out" Program to discourage private vehicle use."
22	Clarification	ES-53	MM-TRA--2(b) "•Where traffic signals or streetlights are installed, ~~require~~ encourage the use of Light Emitting…"

#	TOPIC	PAGE REFERENCE	NARRATIVE, COMMENT & RECOMMENDATION
23	Clarification	ES-54	MM-TRA--2(b) "•Diode (LED) technology, or similar technology.
24	Clarification	ES-55	MM-TRA--2(b) "~~• Require~~ Encourage the development of Transportation Management Associations for large employers and commercial/ industrial complexes;"
25	Clarification	ES-59	MM-USS-6(b): "~~• Require~~ Encourage the reuse and recycle construction and demolition waste (including, but not limited to, soil, vegetation, concrete, lumber, metal, and cardboard)."
26	Clarification	ES-59	MM-USS-6(b): "Discourage exporting of locally generated waste outside of the SCAG region during the construction and implementation of a project. Encourage disposal within the county where the waste originates as much as possible." Comment: Trash disposal should be addressed regionally while considering distance instead of being limited to within the SCAG region. It is possible that disposal could be done nearby while crossing regional boundaries.
27	Delete	P. 3.3-26 Regional Air Quality	It is not appropriate to use the American Lung Association grading system to rate the region's the transportation plan. This section (paragraph and Table 3.3.2-1) should be deleted.
28	Clarification	P. 3.3-29 Sensitive Receptors & Table 3.3.2-3	"Sensitive Receptors by County" Clarify what the source data was and how the tally of sensitive receptors was made.
29	Clarification	Figure 3.3.2-3	Figure needs legend, labels, source of data and definition of sensitive receptors
30	Clarification	P. 3.10-5 Section 3.10.1, Regulatory Framework	The definition of a Municipal Separate Storm Sewer System (MS4) is incomplete and incorrectly cited.
31	Clarification	p. 3.10-15 Section 3.10.1, Orange County General Plan	Specific mention of the Orange County Stormwater Program's Drainage Area Management Plan (DAMP) should be made under PEIR heading Orange County General Plan. The DAMP is Orange County's principle policy and program guidance document for urban nonpoint source pollution mitigation. The PEIR should reference the DAMP's agreements, structure, and programs, and, at the project level, make note to consider the specific water pollution control elements of the DAMP that apply to land development and redevelopment projects. Transportation infrastructure projects deemed to be Priority Projects, in accordance with DAMP designation (Exhibit 7.1Table 7-1.1), would require the development of a Project Water Quality Management Plan (WQMP) in conformance with Orange County's Model WQMP.

#	TOPIC	PAGE REFERENCE	NARRATIVE, COMMENT & RECOMMENDATION
32	Clarification	p. 3.10-17 Section 3.10.2, Existing Conditions	Table 3.10.2-1 lists San Juan Creek as a surface water resource within Santa Ana (Region 8) jurisdiction. San Juan Creek is located within the San Diego Regional Water Quality Control Board (Region 9) jurisdictional boundary.
33	Clarification	p. 3.10-56 Section 3.10.6, Mitigation Measures	Mitigation Measures: Parts of this section list mitigation measures that are already being required by municipal stormwater programs across the region. Instead of listing specific mitigation measures, the PEIR should make reference to these programs. In Orange County, for example, this program is detailed in the DAMP/Model WQMP. The Model WQMP describes the process that the cities and County employ for requiring a Project WQMP, which is a plan for minimizing the adverse impacts of urbanization on site hydrology, runoff flow rates, and pollutant loads at the project level. A reference to the Model WQMP and equivalent documents in the region's other counties, should replace the last ten bullet points of section MM-HYD-l(b).
34	Clarification	p. 3.10-56 Section 3.10.6, Mitigation Measures	If a proposed project has the potential to create a major new stormwater discharge to a water body with an established Total Maximum Daily Load (TMDL), a quantitative analysis of the anticipated pollutant loads in the stormwater discharges to the receiving waters should be carried out.
35	Clarification	p. 3.10-56 Section 3.10.6, Mitigation Measures & Table ES 4-1 (page ES-37)	The PEIR states that "where feasible, restore or expand riparian areas such that there is no net loss of impervious surface as a result of the project." While the intent with many mitigative measures is to preserve (emphasis added) perviousness, the PEIR should not be establishing performance measures for land development/redevelopment outside of established local stormwater programs.
36	Clarification	3.11-8&9, 3.11-13 3.11-16 & 17	Need to specify the vacant areas that are permanently preserved or undevelopable, even park space that is vacant i. Identify the source of the data used to identify vacant land. ii. What are the following items classified as (e.g. vacant, open space): HOA open space, HOA streets, private parking lots, lakes. Table 3.11.2-2- Break out vacant land category into permanently preserved/undevelopable or developable Figure 3.11.2-7 Need to correctly label national forests as permanently preserved open space. Areas labeled vacant need to be reviewed to correctly allocate lands that are permanently preserved/undevelopable and which are developable.
37	Clarification	3.11-10	Table 3.11.2-1- Define ‘Established Communities’; Correct label or number of square miles by county
38	Define	3.11-11	Define ‘carbon sinks’

#	TOPIC	PAGE REFERENCE	NARRATIVE, COMMENT & RECOMMENDATION
39	Define	3.11-14	Define medium, high, and low density housing within text
40	Clarification	3.11-34	3.11.7 LEVEL OF SIGNIFICANCE AFTER MITIGATION IMPACT LU-1… It is likely that in some instances currently adopted general plans and other adopted plans will not General Plans are not required to be consistent with the 2016 RTP/SCS policies and land use strategies, and they are not required to be consistent for purposes of the SCS pursuant to SB 375. Implementation of mitigation measures MM-LU- 1(a)(1), MM-LU-1(a)(2), MM-LU-1(a)(3), MM-LU-1(a)(4), MM-LU-1(a)(5), MM-LU-1(a)(6), MM-LU- 1(a)(7), MM-LU-1(a)(8), and MM-LU-1(b) would may reduce some of these impacts. However, direct, indirect, and cumulative impacts would remain significant and unavoidable.
41	Correction	3.14-9	Update Table 3.14.2-1 with May 2015 DOF data and label columns as 'Households' not 'Housing Units'
42	Correction	3.14-12	Update Table 3.14.2-3 with May 2015 DOF data
43	Correction	3.14-13	Update Table 3.14.2-5 with May 2015 DOF data
44	Define	Figures 3.14.2-1 3.14.2-2 3.14.2-3	Define subjects of maps
45	Clarification	3.14.22, paragraph 4	Clarify if discussion is on new lane miles or existing; Define "additional transportation facilities"
46	Clarification	4-1, 4.1 add after last bullet	"<u>If an alternative is rejected and the project approved, it is the EIR for the proposed project that is to be used for future tiering purposes.</u>"
47	Clarification	P. 4-6, and all related documents' references to Alternative 3.	Alternative 3: Intensified Land Use Alternative "The <u>hypothetical</u> land use pattern in this Alternative build<u>s</u> on the land use strategies as described in the 2016 RTP/SCS and beyond. Specifically, it increases densities and intensifies land use patterns of the Plan, especially around high quality transit areas (HQTAs) in an effort to maximize transit opportunities. The <u>hypothetical</u> growth pattern associated with this Alternative…" Comment: Update all references to Alternative 3 in all RTP/SCS documents where it mentions that the land use pattern was developed based on the Plan to say that Alternative 3's land use plan is hypothetical.

ENDANGERED HABITATS LEAGUE
DEDICATED TO ECOSYSTEM PROTECTION AND SUSTAINABLE LAND USE

Comment Letter No. 46

February 1, 2016

Southern California Association of Governments
818 W 7th St #1200
Los Angeles, CA 90017
2016PEIR@scag.ca.gov, RTPSCS@scag.ca.gov

RE: 2016 Regional Transportation Plan (RTP) and Sustainable Community Strategy (SCS) and the Program Environmental Impact Report (PEIR)

Gentlepersons:

Endangered Habitats League (EHL) appreciates the opportunity to comment on the Southern California Association of Governments (SCAG) 2016 Regional Transportation Plan (RTP) and Sustainable Community Strategy (SCS) and the Program Environmental Impact Report (PEIR). Following the release of the 2012 RTP/SCS, Friends of Harbors, Beaches and Parks (FHBP) coordinated a cross-county regional conservation coalition focused on the inclusion of natural lands mitigation and policies within that SCAG plan. EHL – Southern California's only regional conservation group – is now a part of this growing coalition in 2016.

The 2012 RTP/SCS provided an important stepping stone for the 2016 Plan. In previous Plans, natural lands and farmlands were handled under the banner of "land use." In this new Plan, however, they are their own category. This is a great milestone in conservation planning for the region and SCAG. Additionally, the creation of a Natural and Farmlands Appendix provides important opportunities for SCAG that shouldn't be overlooked. We believe the opportunity before you isn't to "plan for" the future of open space in the region—as that's what you've been doing since the 2012 Plan. Instead, we believe SCAG can now start "implementing" a regional conservation program. **We strongly urge SCAG to take a more serious leadership role by actively seeking funding to implement conservation efforts** by partnering with agencies, transportation commissions and non-profits to see that the Plan created in 2012 comes to fruition through the 2016 Plan. The One Bay Area Grant Program in Northern California is a program that we believe can be replicated in Southern California. We and other coalition members would gladly assist with this implementation effort. 1

We've reviewed the RTP/SCS and PEIR and offer the following comments and suggestions for inclusion in the Plan with the intent to clarify/strengthen the language, as well as link the goals of the RTP and SCAG's mission with the Natural and Farmland policies.

Implementation mechanisms

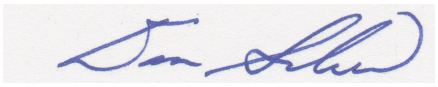
Our organization supports the idea that as new growth occurs it should focus on the existing infill areas. This is consistent with the finding in the SCAG surveys where respondents preferred to see existing urban areas built upon before greenfields are targeted for development, especially those at the Wildland-Urban Interface. When developments are built in infill areas, it helps pressure from the fringe but is not sufficient. Just because the pressure is relieved doesn't mean the land then automatically becomes protected. The Plan fails to outline exactly how (or with what mechanism) these fringe lands (or any lands) will actually be protected. Numerous organizations, ours included, focus their work on preservation of important habitat lands. A lot of time, energy, political will, strategy and other efforts combine to create a successful conservation transaction that leads to permanently conserved lands. SCAG must identify the mechanism, process or plan on how the greenfield lands will be protected. 2

Regional wildlife corridors

The current federal transportation bill, FAST Act, supports understanding transportation impacts on natural resources. The previous bill, MAP-21, supported restoring and maintaining environmental functions (i.e., wildlife corridors) affected by the infrastructure projects in the RTP. SCAG has even supported efforts in Los Angeles County to create a wildlife corridor over the 101 Freeway. Many efforts are underway across the region to connect landscapes to one another. This is very important to the region and its biodiversity. Wildlife corridors allow species to migrate and forage and expand genetic diversity. These corridors also allow ecosystems to maintain ecological functions, act as sources for repopulation after natural disasters such as fire, flood or landslide, and improve the resiliency in the face of climate change impacts. The Plan should support the enhancement of and/or protection of documented and regionally significant wildlife corridors, especially those that are impacted by infrastructure projects. 3

Thank you for reviewing our comments and we look forward to working with SCAG on the implementation of this Plan, especially as it relates to the Natural and Farmlands. In addition, we request to be included on any notifications (electronic or otherwise) for this project. 4

Yours truly,



Dan Silver
Executive Director

Environmental Coalition Support for Natural and Farmland Policies in 2016 RTP/SCS

January 29, 2016

Comment Letter No. 47

Hasan Ikhrata
Southern California Association of Governments
818 W. Seventh Street, 12th Floor
Los Angeles, CA 90017

RE: Comments on the 2016 Draft RTP/SCS and PEIR

Dear Mr. Ikhrata:

Thank you for the opportunity to comment on the Southern California Association of Governments (SCAG) 2016 Regional Transportation Plan (RTP) and Sustainable Community Strategy (SCS) and the Program Environmental Impact Report (PEIR). In 2012, with release of the prior RTP/SCS, Friends of Harbors, Beaches and Parks (FHBP) coordinated a cross-county regional conservation coalition focused on the inclusion of natural lands mitigation and associated policies within the SCAG plan. This 2016 Coalition was specifically formed to focus on the Natural and Farmland policies and its associated Appendix. It is more diverse, more inclusive, and more geographically distributed than the 2012 Coalition. Our alliance includes unincorporated community groups at the local level all the way up to national conservation non-profits.

We are pleased to see Natural and Farmlands have been included as its own Appendix in the 2016 Plan. We believe this is a step in the right direction. We've reviewed the RTP/SCS and PEIR and offer the following comments and suggestions for inclusion in the Plan with the intent to clarify or strengthen the language in the Appendix, as well as link the goals of the RTP to SCAG's mission.

SCAG's Existing Successes and Its Future
Much work has been done over the last four years by the SCAG staff and consultants as it relates to the Open Space Program. One important success was the coordination of an Open Space Work Group by SCAG, in which FHBP and others in this Coalition have been participating for the last few years. An additional success is the research and time that went into developing the Combined Habitat Assessment Protocol (CHAPs). Further, the creation and refinement of the Natural Resource Inventory Database—a geographic information system database—was well received and well timed. Congratulations on how far you've come since the 2012 Plan.

SCAG has a tremendous opportunity with the 2016 Plan. Much of the last four years has been spent researching, gathering and vetting the data, surveying local jurisdictions, completing an assessment, and planning a comprehensive six-county wide Conservation Program. The Coalition believes SCAG has the leadership in place, the homework done, the support by the conservation community, and the interest and attention of the resource agencies to now transition to actually implementing the Conservation Program.

An Implementation Example of a Multi-County Conservation Program
The Bay Area's Metropolitan Transportation Commission (MTC) spans nine counties. The Commission plans, invests, and coordinates to ensure a mobile, sustainable, and prosperous Bay Area. Through a creative partnership with the Association of Bay Area Governments (ABAG) a program called "Plan Bay Area 2040" was developed to promote conservation and infill projects simultaneously. Plan Bay Area allows cities and counties to plan for transportation needs and preserve the character of its communities while accommodating future population growth.

The Plan anticipates population growth of over two million people, one million jobs and more than 650,000 housing units over the next 30 years. Because of Plan Bay Area, two types of priority areas were identified. First, Priority Development Areas (PDAs) are areas designated by local jurisdictions to be appropriate for residential or commercial development. These are infill development sites located near transit. Eighty percent of the anticipated growth in this Plan will happen in the PDAs. Second, Priority Conservation Areas (PCAs) were created based on consensus and with local assistance from the regional non-profit Greenbelt Alliance. PCAs include four designations: Natural Landscapes, Agricultural Lands, Urban Greening, and Regional Recreation. These greenfield lands are in need of protection due to urban development pressures. (*See* ***Attachment 1 – Map of Bay Area PDAs and PCAs***) Each designation type has an instrumental role in supporting the region's natural systems, rural economy, and human health.

To fund this work, MTC created the One Bay Area Grant program. It essentially aligns the MTC investments with support for focused growth—it is both a regional and county program. One Bay Area Grants allow MTC to meet its regional transportation priorities while simultaneously advancing the regions land use and housing goals. The Grant program targets investment in PDAs and rewards cities that (1) approve new housing construction, and (2) accept allocations through the Regional Housing Needs Assessment process. The rewards come in the form of funds to allow other conservation-focused investments, such as the permanent protection of PCAs.

In 2013, funded through federal dollars made available to MTC and additional funds from the State Coastal Conservancy), 23 PCA projects were funded totaling nearly $12 million. For use in 2018, MTC has already authorized $16.4 million for PCA funding with an anticipated call for projects in early 2017. The PCAs are also eligible for other sources of local, regional, state, and federal funding to leverage the MTC One Bay Area Grant program dollars.

SCAG with its natural lands and infill focus is uniquely situated to replicate this type of program for the Southern California region. If you do this, you will be the second region in the nation that we know of that has such a program in place. Much of the baseline work of understanding where the high value habitat areas are located has already been completed since the last RTP/SCS. While there continue to be other filters that can inform decisions, SCAG has a nearly complete Regional Conservation Plan that could be used to launch a similar program here. Additionally, the majority of development sites targeted for the anticipated population growth here are less than a mile from transit. This piece is also already in place. The 2016 Southern California Conservation Coalition wholly supports this type of unique program and funding mechanism to achieve both compact infill developments where transit and employment centers already exist, while simultaneously funding conservation work to protect greenfield sites at the fringe (where less dense, more auto-dependent and fire-prone development pressures exist). 1

While we recognize that MTC is both a Metropolitan Planning Organization and a regional transportation agency for the nine-Bay Area Counties and has taxing authority, it is actually utilizing federal funds to meet the needs of the grant program. We believe SCAG could also use federal funds and other state funding sources to create such a program. This is an opportunity for creative and innovative funding to develop such a program in Southern California. We believe tools and funding mechanism are available to build off existing local efforts, coordinate the entire region, and get conservation moving forward in this unique and highly biodiverse area of the world. This coalition is willing to provide information, tools, and help identify possible funding through our own expertise. Let's partner to get this done.

Proposed Revisions to the Natural and Farmland Policies
The Coalition supports the inclusion of natural and farmland policies, but offers the following suggestions on the existing policy language:

Policy #1 - Expanding on the Natural Resource Inventory Database and Conservation Framework & Assessment by incorporating strategic mapping layers to build the database and further refine the priority conservation areas. Specifically:

- Further investing in mapping and habitat and farmland data tracking.
- Working with County Transportation Commissions to support their county-level efforts at database building.

2

We propose:

1. Modifying the first bullet as "tracking" implies you'll only note changes and maybe not incorporate them. We believe those changes should be incorporated into the existing Natural Resource Inventory Database. Modifying the first bullet by specifically *(additions shown in italics and deletions shown as ~~strikethrough~~)*:
    - Further investing in mapping *of* ~~and~~ habitat and farmland*, including* data tracking *and gathering*.
2. Adding two new bullets to this policy, specifically:
    - Coordinate data sharing with partners and stakeholders to assist with regional conservation planning efforts.
    - Use the Combined Habitat Assessment Protocol data as an overlay to integrate regional land use planning and ensure that future growth avoids greenfield sites, especially those identified as high value habitat lands.

Policy #2 - Encouraging CTCs to develop advance mitigation programs or include them in future transportation measures. Specifically: 3

- Funding pilot programs that encourage advance mitigation including data and replicable processes

- Participating in state level efforts that would support regional advanced mitigation planning in the SCAG region
- Supporting the inclusion of advance mitigation programs at county level transportation measures

We propose:

1. Modifying the policy language to leverage existing advance mitigation programs. Specifically *(additions shown in italics and deletions shown as ~~strikethrough~~)*:
    - Encouraging CTCs to develop advance mitigation programs, ~~or~~ include them in future transportation measures*, and leverage existing programs*.
2. Modifying the first bullet to focus on CTCs that do not already have advance mitigation programs and focusing on Greenprints. Proposed language is *(additions shown in italics and deletions shown as ~~strikethrough~~)*:
    - Funding pilot programs *for CTCs that do not have* advance mitigation *programs,* including data *gathering for Greenprint creation* ~~and replicable processes~~.
3. Adding a bullet at the end of the list that incentivizes existing advance mitigation programs through matching funds, specifically:
    - Provide matching dollars to CTCs with advance mitigation programs to acquire, restore, and manage natural lands.

3 cont.

Policy #3 - Aligning with funding opportunities and pilot programs to begin implementation of the Conservation Plan through acquisition and restoration. Specifically:

- Seeking planning funds, such Cap-and-Trade auction proceeds that could help prepare for local action on acquisition and restoration.
- Supporting county transportation commissions and other partners.
- Continuing support of the State Wildlife Action Plan 2015 Update[13] and its implementation.

We propose:

1. Modifying the policy language to begin implementation of the Conservation Plan. This would be the launch of a similar program to MTC's One Bay Area. Specifically *(additions shown in italics and deletions shown as ~~strikethrough~~)*:
    - Aligning with *and seeking* funding opportunities and pilot programs to begin implementation of the Conservation Plan through acquisition and restoration.
2. Modifying the first bullet to expand opportunities and include implementation using a variety of funding sources. Proposed language is *(additions shown in italics and deletions shown as ~~strikethrough~~)*:
    - Seeking ~~planning~~ funds, such as *planning grants and* Cap-and-Trade auction proceeds, that could ~~help prepare~~ *allow* for *local or regional action* on acquisition and restoration.
3. Adding another bullet to allow for programs similar to the Sonoma County Climate and Conservation Initiative:
    - Seek funding for a pilot program to digitally map and quantify carbon in the vegetation and soils.

4

Policy #4 - Providing incentives to jurisdictions that cooperate across county lines to protect and restore natural habitat corridors, especially where corridors cross county boundaries. Specifically:

- Working with stakeholders to identify incentives.
- Considering providing sustainability planning grants or seeking funding that help protect habitat corridors, especially across county boundaries.

We propose:

1. Expanding the language in the first bullet to include collaboration opportunities. Specifically *(additions shown in italics)*:
    - Working with stakeholders to identify incentives *and collaboration opportunities*.
2. Adding one additional bullet to again focus on implementation. Specifically:
    - Encourage projects that provide a net environmental benefit to wildlife connectivity.

5

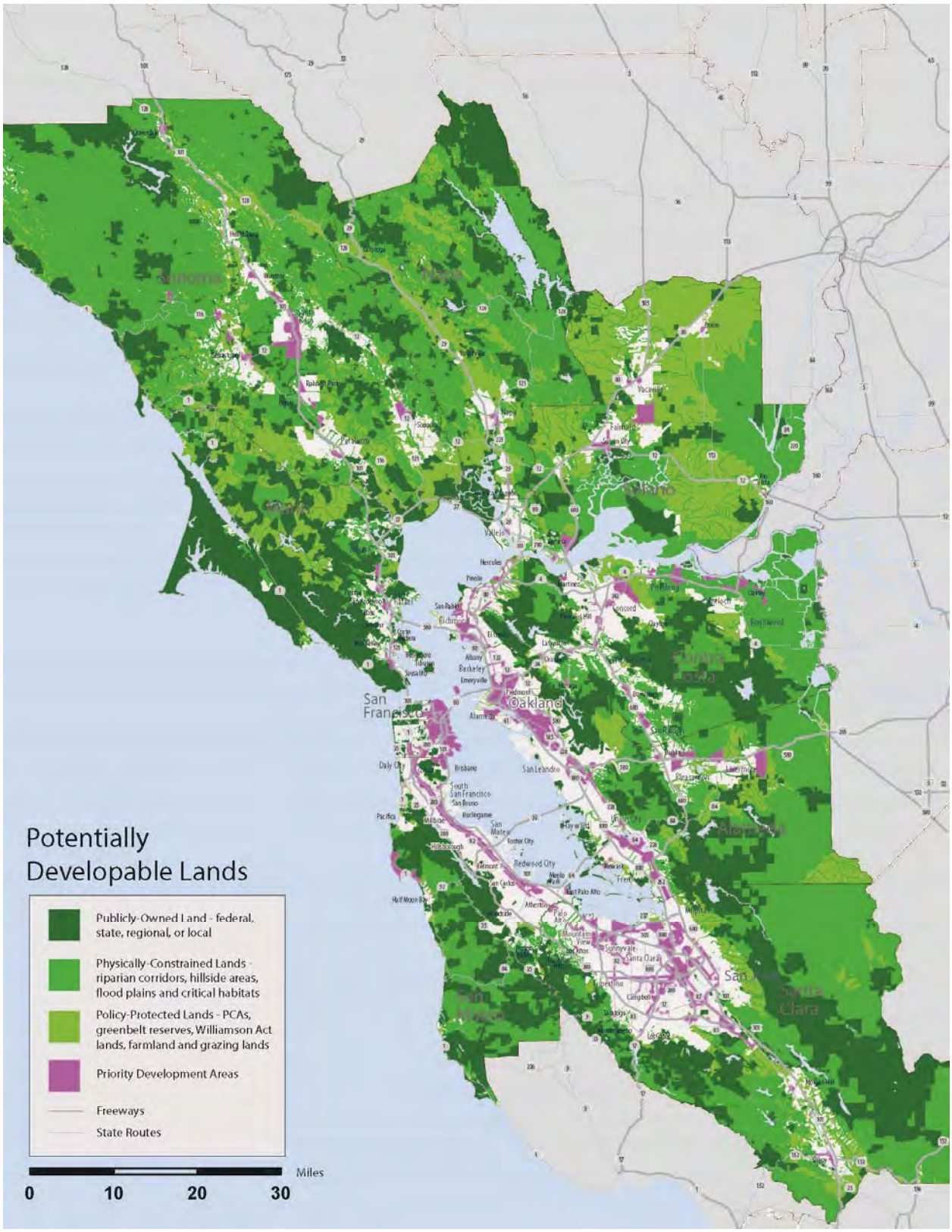
As you can see, our main interest focuses on actual implementation of the Conservation Program developed by SCAG. We individually and collectively offer our assistance to SCAG as this process unfolds and as the Plan gets implemented. We urge SCAG to consider implementing a program similar to the One Bay Area Grant program to get this effort moving forward.

Again, thank you for the opportunity to comment and provide substantive input.

Sincerely,

Banning Ranch Conservancy • Bolsa Chica Land Trust • California Chaparral Institute • California Cultural Resource Preservation Alliance • California Native Plant Society - Orange County Chapter • Canyonland Conservation Fund • Center for Biological Diversity • Defenders of Wildlife • Endangered Habitats League • Friends of Blue Mountain • Friends of Coyote Hills • Friends of Harbors, Beaches and Parks • Hills For Everyone • Huntington Beach Residents for Responsible Desalination • Huntington Beach Tree Society, Inc. • Inter-Canyon League • La Habra 2025 Centennial Founders' Day Celebration Committee • Laguna Canyon Foundation • Laguna Greenbelt Inc. • Los Angeles/Santa Monica Mountains Chapter of the California Native Plant Society • Los Cerritos Wetlands Land Trust • Natural Resources Defense Council • Naturalist For You - Santa Ana Mountains Wild Heritage Project • Orange County League of Conservation Voters • Puente-Chino Hills Task Force of the Sierra Club • Rural Canyons Conservation Fund • Saddleback Canyons Conservancy • Sea and Sage Audubon • Sierra Club • Silverado-Modjeska Recreation and Park District • The Trust for Public Land • Ventura Hillsides Conservancy

Figure 16 Public Ownership, Physical and Policy-Based Constraints on Land



Source: Derived from Maps 2 and 3 in *Plan Bay Area*, with PDAs added

Comment Letter No. 48

2016 PEIR

From: Eric Johnson <ericsj@mindspring.com>
Sent: Tuesday, January 26, 2016 8:30 PM
To: 2016 PEIR
Subject: RTP/SCS comments

To whom it may concern,

Thank you for the opportunity to comment on the Southern California Association of Governments (SCAG) 2016 Regional Transportation Plan (RTP) and Sustainable Community Strategy (SCS) and the Program Environmental Impact Report (PEIR). Following the release of the 2012 RTP/SCS, Friends of Harbors, Beaches and Parks (FHBP) coordinated a cross-county regional conservation coalition focused on the inclusion of natural lands mitigation and policies within that SCAG plan. Our organization, the Puente-Chino Hills Task Force of the Sierra Club, is now a part of this growing coalition in 2016.

The mission of the Sierra Club Puente-Chino Hills Task Force is to work towards the preservation and biological integrity of Chino Hills State Park (CHSP) and the Puente-Chino Hills Wildlife Corridor, which extends from the Whittier Narrows to the Santa Ana Mountains, as well as providing open-space and recreational activities within the Puente-Chino Hills.

The 2012 RTP/SCS provided an important stepping stone for the 2016 Plan. In previous Plans, natural lands and farmlands were handled under the banner of "land use." In this new Plan, however, they are their own category. This is a great milestone in conservation planning for the region and SCAG. Additionally, the creation of a Natural and Farmlands Appendix provides important opportunities for SCAG that shouldn't be overlooked. We believe the opportunity before you isn't to "plan for" the future of open space in the region—as that's what you've been doing since the 2012 Plan. Instead, we believe SCAG can now start "implementing" a regional conservation program. 1

We strongly urge SCAG to take a more serious leadership role by actively seeking funding to implement conservation efforts by partnering with agencies, transportation commissions and non-profits to see that the Plan created in 2012 comes to fruition through the 2016 Plan. The One Bay Area Grant Program in Northern California is a program that we believe can be replicated in Southern California. We and other coalition members would gladly assist with this implementation effort. 2

We have reviewed the RTP/SCS and PEIR and offer the following comments and suggestions for inclusion in the Plan with the intent to clarify/strengthen the language, as well as link the goals of the RTP and SCAG's mission with the Natural and Farmland policies.

Identify a Conservation Mechanism for the Natural and Farmlands Preservation

Our organization supports the idea that as new growth occurs it should focus on the existing infill areas. This is consistent with the finding in the SCAG surveys where respondents preferred to see existing urban areas built upon before greenfields are targeted for development, especially those at the Wildland-Urban Interface. When developments are built in infill areas, it likely relieves pressure from the fringe. However, the Plan fails to outline exactly how (or with what mechanism) these fringe lands (or any lands) will actually be protected. Just because the pressure is relieved doesn't mean the land then automatically becomes protected. Numerous 3

organizations, ours included, focus their work on preservation of important habitat lands. A lot of time, energy, political will, strategy and other efforts combine to create a successful conservation transaction that leads to permanently conserved lands. SCAG must identify the mechanism, process or plan on how the greenfield lands will be protected. 3 cntd

SCAG's Support of Regional Wildlife Corridors

The current federal transportation bill, FAST Act, supports understanding transportation impacts on natural resources. The previous bill, MAP-21, supported restoring and maintaining environmental functions (i.e., wildlife corridors) affected by the infrastructure projects in the RTP. SCAG has even supported efforts in Los Angeles County to create a wildlife corridor over the 101 Freeway. Many efforts are underway across the region to connect landscapes to one another. This is very important to the region and its biodiversity. Wildlife corridors allow species to migrate and forage and expand genetic diversity. These corridors also allow ecosystems to maintain ecological functions, act as sources for repopulation after natural disasters such as fire, flood or landslide, and improve the resiliency in the face of climate change impacts. The Plan would be stronger if it supported the enhancement of and/or protection of documented and regionally significant wildlife corridors, especially those that are impacted by infrastructure projects. 4

Conclusion

Thank you for reviewing our comments and we look forward to working with SCAG on the implementation of this Plan, especially as it relates to the Natural and Farmlands Appendix. In addition, we request to be included on any notifications (electronic or otherwise) about this policy's creation and implementation, please send information to ericsj@mindspring.com. 5

Sincerely,

Eric Johnson, Chair
Puente-Chino Hills Task Force of the Sierra Club

Comment Letter No. 49

Anita Au

From: Sandra Dix [redacted]
Sent: Monday, February 1, 2016 4:26 PM
To: 2016 PEIR
Subject: Fwd: SCAG Comments - 2016
Attachments: SCAG - Draft 2016 RTP-SCS - Comments - Ezequiel Gutierrez.doc

---------- Forwarded message ----------
From: **Ezequiel Gutierrez** [redacted]
Date: Mon, Feb 1, 2016 at 4:00 PM
Subject: SCAG Comments - 2016
To: [redacted]

Please see attached. Thank you.

On 08/20/15, Sandra Dix [redacted] wrote:

EZEQUIEL GUTIERREZ, ESQ.

[redacted]

February 1, 2016

SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNENTS
818 West Seventh Street, 12th Floor
Los Angeles, California 90017

Attn: Courtney Aguirre

Email: *2016PEIR@scag.ca.gov*

Re: **DRAFT 2016 RTP/SCS - Comments**

Ladies and Gentlemen:

The following brief comments are offered on behalf of individuals who live and work throughout the SCAG region, regarding SCAG's DRAFT 2016 RTP/SCS (DRAFT).

While SCAG its constituent membership and participants in the process leading to the DRAFT are to be commended, the DRAFT falls short and represents an incomplete and non-inclusive planning process and outcome, in that the DRAFT fails to acknowledge the communities and environment of the High Desert which spans extensively, eastward from the Antelope Valley to Adelanto, Victorville, Hesperia and Apple Valley; and northward from the northern base of the San Gabriel / San Bernardino Mountains into southern portions of Kern County.

These comments will focus on the High Desert (excluding Palmdale and Lancaster). Indeed, the High Desert can be seen as a populated sub-region of SCAG, requiring inclusion in its regional planning. Because of the omission of the High Desert from any meaningful treatment in the DRAFT, in effect, treated essentially as a barren landscape, these comments will be brief but will review obvious but significant issues that should have been included in the DRAFT for it to be inclusive of the entire geographic region.

THE SETTING

Many of the residents of the High Desert (HD) work in and around the Los Angeles / Orange County basin and commute "down the hill" to employment and other activity via the Cajon Pass. 1

Commuting in the Cajon Pass during work week is intense and voluminous, a process which reverses at the end of a work day. It can only be expected to intensify throughout the planning period of the DRAFT with massive adverse environmental impacts, in many critical aspects.

The High Desert with its extensive buildable areas in several HD communities can be expected to absorb a significant portion of the regional population increase to 22,000,000 residents, as anticipated in the DRAFT. One has only to personally see the several HD, haphazardly distributed new home development projects which have been slowed, but remain vacant, as a result of the 2008 recession, to understand the enormous growth potential in the HD.

A regional planning document which fails to plan for population growth in and environmental impacts generated from such an extensive constituent area is inadequate and incomplete. As a result, redraft of the document is compelled

with greater efforts at inclusion of the several HD communities than evident. Without engaging in extensive review of the DRAFT which is substantially if not completely exclusive of the HD communities and environment, two regional maps in Chapter 5 of the DRAFT startling reveal the omission. Exhibit 5.2, 2040 Transit Network Planned and Existing, reveals the absence of the HD in any transit future for the SCAN region. It is indeed a picture worth a 1000 words, only Palmdale/Lancaster are included. Similarly, Exhibit 5.4, Major Highway Projects, does not show an adequate highway scheme for the HD. The only significant infrastructure represented is the High Desert Corridor (HDC) which after considerable planning forums has been admitted not to include any on and off points between Highway 14 in the Antelope Valley and Highway 15 to the east of the Adelanto/Victorville communities. As such, it will not serve nor is it planned to serve HD communities. Its only apparent purpose is to drain dollars away from the SCAG region (and California, generally) to Vegas. It will be a toll road so any benefit to HD communities will have to be purchased.

THE POTENTIAL

The High Desert has enormous potential to accomplish any of the objectives of the DRAFT. Its relatively undeveloped areas represents, in essence, a blank slate in which to plan and develop nodal transit oriented communities (the High Quality Transit Areas (HQTA's) of the DRAFT.

As with the coming METROLINK Perris Valley Line reviewed in the DRAFT, a similar METROLINK line can be developed eastward from its Palmdale station toward Hesperia, using and expanding the existing right of way freight line of the Union Pacific railroad.

Such a commuter transit line could be developed with periodic HQTA nodes, creating the type of living environments for people envisioned in the DRAFT while protecting the natural environment of the HD. It would help link HD commuters with employment opportunities "down the hill," thus, mitigating the growing traffic load in the Cajon Pass and its adverse environmental impacts.

Such a METROLINK line would serve to economically integrate the HD to the greater economy of the region, as a whole. It would serve to channel and direct population growth into new HQTA's along the new METROLINK line, away from the haphazard pattern which based on current building would otherwise develop.

The HD would thus actually become showcase for the goals set out in the DRAFT. HQTA's along route would encompass the best environmental justice objectives, representing inclusivity rather than the exclusionary characteristic of the SCAG region with the numerous lower income HD areas geographically excluded from the remainder of the region. Such a new METROLINK line would benefit the HD (in contrast to the non-access HDC), and would thus integrate the HD into the SCAG region. The entire SCAG region itself could be transformed.

Further review and planning of the DRAFT document is requested to create a truly inclusive and integrated SCAG region.

Thank you.

Very truly yours,

Ezequiel Gutierrez, Esq.

1
cntd

Comment Letter No. 49

Anita Au

From: Sandra Dix [redacted]
Sent: Monday, February 1, 2016 4:48 PM
To: 2016 PEIR
Subject: Fwd: PEIR Comments
Attachments: SCAG - Draft 2016 RTP-SCS - PEIR Comments - Ezequiel Gutierrez.doc

---------- Forwarded message ----------
From: **Ezequiel Gutierrez** [redacted]
Date: Mon, Feb 1, 2016 at 4:21 PM
Subject: PEIR Comments
To: [redacted]

Please see attached.

On 08/20/15, Sandra Dix [redacted] wrote:

EZEQUIEL GUTIERREZ, ESQ.

[redacted]

February 1, 2016

SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNENTS
818 West Seventh Street, 12th Floor
Los Angeles, California 90017

Attn: Lijin Sun

Email: *2016PEIR@scag.ca.gov*

Re: **DRAFT 2016 RTP/SCS - Comments**

Ladies and Gentlemen:

The following brief comments are offered on behalf of individuals who live and work throughout the SCAG region, regarding SCAG's DRAFT 2016 RTP/SCS PEIR.

Inasmuch as the underlying DRAFT 2016 RTP/SCS does not adequately encompass planning for the High Desert environment and communities, and inasmuch as the PEIR does not and cannot adequately base its environmental impact analysis on and from the High Desert, comments on the PEIR are reserved.

Further preparation of the PEIR is requested to properly and completely evaluate impacts on High Desert and on the entire SCAG region from the DRAFT 2016 RTP/SCS.

1

Thank you.

Very truly yours,

Ezequiel Gutierrez, Esq.

Comment Letter No. 50

FIVE POINT COMMUNITIES
25 Enterprise, Suite 400
Aliso Viejo, CA 92656
Phone (949) 349-1000 Fax (949) 349-1075

February 1, 2016

Draft 2016 RTP/SCS Comments
Attn: Courtney Aguirre
Southern California Association of Governments
818 W. 7th Street, 12th Floor
Los Angeles, CA 90017

Subject: Comments regarding the Draft 2016 RTP/SCS

Dear Ms. Aguirre,

Five Point Communities, on behalf of Heritage Fields El Toro, LLC ("Heritage Fields"), has reviewed the Draft 2016 RTP/SCS and offers the following comments.

Heritage Fields is the master developer and owner of the residential and non-residential development on the portions of Planning Area 51 in the City of Irvine referred to as the "Great Park Neighborhoods" other than those portions of residential entitled land Heritage Fields has sold to its community builders and commercial entitled land it sold to a Broadcom Corporation subsidiary for a research and development corporate campus. The balance of Planning Area 51, known as the "Orange County Great Park" is owned by the City of Irvine. As approved by the City in 2013, our existing entitlement includes 9,500 residential units and 6,135,200 square feet of non-residential uses for Planning Area 51. Our concerns, as discussed below, are that the Draft 2016 RTP/SCS does not reflect our current entitlements for Great Park Neighborhoods. As a result, the Draft 2016 RTP/SCS underestimates the amount of development planned for Planning Area 51 in the City of Irvine. In addition, given the forecast year of 2040, the plan's emphasis on locating housing and employment near transit, and the existence of a train station in Planning Area 51, we suggest it makes sense for the PEIR and the associated RTP to consider the benefits of planning for additional growth in this area. 1

As discussed in the 2013 certified Second Supplemental EIR for our Project, a total of 9,500 dwelling units, a population of 23,728 persons and 16,510 jobs are projected for the Great Park Neighborhoods' portion (i.e., the private development area) of Planning Area 51. Additional employment growth is also planned for the Orange County Great Park, owned by the City. Heritage Fields has completed a review of the Draft 2016 RTP/SCS growth forecasts at the Traffic Analysis Zone (TAZ) level and it is not consistent with our existing, vested, entitlements, and substantially underestimates the amount of growth planned for the area, and does not capitalize on the potential for future growth consistent with the strategies in the 2

RTP. In addition, there are uses planned for the Great Park itself, which do not appear to be reflected in the RTP's estimates of future land uses. We are concerned that the PEIR does not accurately analyze potential impacts. 2

We understand that the City of Irvine has expressed similar concern through written correspondence and at various meetings of the Community, Economic and Human Development Committee and Regional Council, that the June 24, 2015 Policy Growth Forecast has significant errors and does not accurately reflect existing development agreements, entitlements and projects recently completed or under construction. Heritage Fields recommends that the 2016 RTP/SCS and all alternatives be based on the Policy Growth Forecast that includes the technical corrections provided by the Center for Demographic Research, on behalf of the City of Irvine. The growth forecast included in the Intensified Land Use alternative is not based on the technically corrected Policy Growth Forecast, is in conflict with the local growth forecast provided to SCAG through OCP 2014, and is inconsistent with the City of Irvine General Plan. 3

We are concerned that the Intensified Land Use Alternative growth forecast includes a reduction of approximately 5,000 planned housing units from the City of Irvine's Northern Sphere and Great Park Neighborhoods development areas. These units are approved and fully vested through legally binding Development Agreements, and cannot be reduced by the City. Additionally, these areas are being developed in a manner that SCAG would classify as "complete communities", with the Great Park Neighborhoods specifically being located adjacent to the multimodal Irvine Station. 4

Recent Supreme Court cases place additional emphasis on evaluating consistency of a project with regional GHG emissions strategies in CEQA analyses, such as consistency with an applicable SCS adopted pursuant to SB 375. To comply with recent rulings, projects may need to evaluate whether or not the project is consistent with the demographic assumptions in the SCAG 2016 RTP Model TAZ zone. It is our understanding that there are different levels of TAZ data (Regional TAZ, Sub-Regional [COG] TAZ, and Scenario Planning Zones) and that the Scenario Planning TAZ level demographic assumptions in the SCAG 2016 RTP Model may differ greatly from cities/counties existing and General Plan forecasts. If the SCAG 2016 RTP Model is not consistent with local forecasts at the Scenario Planning TAZ, then future projects would be consistent with a City's General Plan, but would not be consistent with the SCS, meaning that it may not achieve the SCAG's region's SB 375 targets. The large margin of error between the SCAG 2016 RTP Model and local demographic forecast would problematic with regards to future consistency findings in CEQA documents. A project that is consistent with the General Plan may not be consistent with the SCS, which is contrary to the intent of the SCS. As a result, these discrepancies between the 2016 RTP/SCS and the adopted Irvine General Plan must be corrected prior to adoption of the 2016 RTP/SCS. 5

We also do not understand why Exhibit 5.1 of the Draft 2016 RTP/SCS does not designate Irvine Station as a High Quality Transit Area (HQTA) in 2040. We understand that a HQTA is generally a walkable 6

transit village or corridor, consistent with the adopted RTP/SCS , that has a minimum density of 20 dwelling units per acre and is within a ½ mile of a well-serviced transit stop with 15-minute or less service frequency during peak commute hours. The area around the Irvine Station is designated as 8.1B Trails and Transit Oriented Development, which allows mixed-use development up to 50 units per acre and unlimited building heights within ½ mile of Irvine Station. As a result, we believe that consistent with SCAG's definition of a HQTA, Irvine Station should be designated as such in the Draft 2016 RTP/SCS for 2040. 6 cont.

We would also like to note that the land around the Irvine Station provides substantial opportunities for intensification of land uses beyond that currently allowed by the Irvine General Plan due to its location near the multimodal Irvine Station. We understand that the purpose of the Intensified Land Use Alternative is to analyze a scenario with more intensified integration of transportation and land use projects and policies aimed at further reducing vehicle miles traveled and GHG and criteria pollutant emissions to improve mobility, accessibility, and sustainability. This Alternative would include more mixed-use, infill development, increased densities in urban cores, new technological innovations, and/or additional transit and active transportation strategies. Considering that the Great Park Neighborhoods is located adjacent to the multimodal Irvine Station, is served by an extensive bicycle and pedestrian trails network, and is planned to be served by the City's iShuttle program, we recommend that the Intensified Land Use Alternative include additional growth beyond Heritage Fields' current entitlement in the area surrounding Irvine Station. Based upon the available land area, and the types of densities the RTP contemplates to be appropriate near transit, this area is appropriate for mixed-use development of up to 50 units per acre. 7

We would encourage coordination between SCAG and Heritage Fields so that the 2016 RTP/SCS accurately reflects population, housing, and employment growth consistent with our existing entitlements. Please feel free to call me at (949) 349-1076 with any questions regarding our comments contained herein. 8

Sincerely,

Jennifer Bohen, P.E.
Vice President of Engineering
Five Point Communities Management, Inc.
Development Manager for Heritage Fields El Toro, LLC

Comment Letter No. 51

February 1, 2016

Post Office Box 9256
Newport Beach, CA 92653
949-399-3669

www.FHBP.org

Hasan Ikhrata
Southern California Association of Governments
818 W. Seventh Street, 12th Floor
Los Angeles, CA 90017

RE: Comments on the 2016 Draft RTP/SCS and PEIR

Dear Mr. Ikhrata:

Friends of Harbors, Beaches and Parks (FHBP) has been engaged with the Southern California Association of Governments (SCAG) for many years—most recently through its ongoing Open Space Working Group. In 2012, we formed a coalition that promoted open space policies and advance mitigation programs at the SCAG level. These policies were ultimately adopted by SCAG leadership in the 2012 Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS). More recently, we've formed a new, more inclusive, and more diverse 2016 Southern California Conservation Coalition and are supporting the 2016 RTP/SCS Natural and Farmlands policies.

While FHBP mainly focuses its work in Orange County, we have been able to relay our experiences with the successful advance mitigation program under the Orange County Transportation Authority's Renewed Measure M to other county transportation agencies. Measure M's Environmental Mitigation Program has permanently protected 1300 acres and restored nearly 400 acres throughout Orange County. This innovative program allows 13 freeway projects to move forward unimpeded by small individual environmental mitigation efforts. It streamlines the process, allows projects to come in under budget, builds a positive working relationship with resource and permitting agencies, allows more thoughtful science-based conservation planning to occur, and is supported by many conservation and community organizations. This, and our involvement in the creation of the Natural Lands Policy in the Orange County SCS, drew our attention and focus to the SCAG RTP/SCS and opportunities for a more regional effort there. We are honored to be involved in the process and to have developed a great working relationship with SCAG leadership and staff. 1

Coalition Support for Natural Lands Implementation Program
The 2012 RTP/SCS provided an important stepping stone for the 2016 Plan. In previous Plans, natural lands and farmlands were handled under the banner of "land use." In this new Plan, however, they are their own category. This is a great milestone in conservation planning for the region and SCAG. Additionally, the creation of a Natural and Farmlands Appendix provides important opportunities for SCAG that shouldn't be overlooked. We believe the opportunity before you isn't to "plan for" the future of open space in the region—as that's what you've been doing since the 2012 Plan. Instead, we believe SCAG can now start "implementing" a regional conservation program. **We strongly urge SCAG to take a more serious leadership role by actively seeking funding to implement conservation efforts** by partnering with agencies, transportation commissions and non-profits to see that the Plan created in 2012 comes to fruition through the 2016 Plan. The One Bay Area Grant Program in Northern California is a program that we believe can be replicated in Southern California. FHBP and other coalition members would gladly assist with this implementation effort. 2

We applaud SCAG's effort since the 2012 Plan and the great work in the 2016 Plan. With this in mind, FHBP offers the following comments to the RTP/SCS and Program Environmental Impact Report (PEIR).

Program EIR Comments
Natural Communities Conservation Plans (NCCP) and Habitat Conservation Plans (HCP) (PEIR and Natural and Farmlands Appendix)
Within the Section 3.4 – Biological Resources (starting on page 3.4-52) 12 Conservation Plans are identified in the table spanning nearly every county—all but Ventura have one or more. Conservation Plans are also described in the Land Use Section 3.11 (starting on page 3.11-21). 3

There seem to be plans missing from the Land Use section that were identified in the Biological Resources section. This should be corrected. The document should be internally consistent.

Specifically, the following NCCPs/HCPs are missing from the Land Use Section:

- Imperial Irrigation District NCCP/HCP (Imperial County)
- Palos Verdes Peninsula NCCP/HCP (Los Angeles County)
- Orange County Transportation Authority NCCP/HCP (Orange County)
- Town of Apple Valley MSHCP (San Bernardino County)
- City of Colton HCP (San Bernardino County)

And as it relates to the Natural and Farmlands Appendix, there are also errors there as well. The following Plans are missing from the approved or implemented section within this document (pages 1-2):

- Lower Colorado River Multi-Species Conservation Plan (approved in 2005)
- West Mojave HCP (approved in 2006)
- Orange County Southern HCP (approved in 2007)
- City of Colton HCP (approved in 2015)

The Appendix states the following Plans are approved or are in implementation, but they are not:

- Desert Renewable Energy Conservation Plan (DRECP) (expected approval in March 2016)
- OCTA Measure M2 NCCP/HCP (expected approval June 2016)

3 Cont.

Conservation Plans vs. Planning Areas (PEIR and Natural and Farmlands Appendix)

There appears to be confusion in the Biological Resources Section 3.4 (page 3.4-52) and Appendix (pages 1-2) as to the land "afforded long term protection" under existing NCCPs and HCPs. For example, the PEIR identifies that more than 20 million acres are protected because of these plans. There is no consistent way each plan is reviewed or explained and no calculations laid out as to how the 20 million acres was reached.

In fact, there seems to be a misunderstanding of what a Conservation Plan does and does not cover. Specifically, Conservation Plans (NCCPs, HCPs, Multiple Species HCPs, etc.) create a boundary (the Plan Area) that includes the entire geography of the area where both the project impacts and mitigation will occur. It is NOT what is protected or planned for protection. It simply designates the geography of where the project impacts occur and where properties are located that *could be* protected. For example, the Appendix notes (page 2) that the Orange County Transportation Authority's (OCTA) NCCP/HCP protects 510,000 acres. This simply is not true. Those 510,000 acres are the Plan Area. In other words, the County of Orange is the Plan Area. What has actually been protected is 1,300 acres—a big difference. (See **Attachment 1 – OCTA Plan Area** and **Attachment 2 – OCTA Conserved Lands**) Further confusing the matter, the OCTA NCCP/HCP isn't even covered the Land Use section of the PEIR, but is covered in the Biological Section (page 3.4-53). Again, internal consistency is important.

Additionally, lands within the Central-Coastal NCCP/HCP and Southern HCP have their own Plan Areas that are wholly contained within the OCTA NCCP/HCP and like OCTA's Plan don't have the entirety of the lands protected within the plan area. (See **Attachment 3 – OCTA, Central-Coastal, and Southern Plan Areas**). To simply rely on the Plan Area acreages as what is protected is not only inaccurate but very misleading. The acreage protected within the Plan Areas is what should be reported. And areas that overlap should not be double counted. So, we ask: where are the facts to document that 20 million acres are actually protected because of all of these plans?

We also offer the following suggestions to clarify this sections (Land Use and Biological Resources) for readers of the PEIR:

- Determine the difference between the actual plan area and what has been protected,
- Keep the measurement units the same (either acres or square miles, not both) *[Note: This comment also applies to the Natural and Farmland Appendix]*
- Keep the reporting mechanism the same (include what has been protected within Plan),
- Include a map that shows where the plan areas are located geographically, and
- Include a caveat that explains to the reader that some of the plan areas overlap.

4

Executive Summary Concerns (PEIR)

There are six policies guiding the development of the proposed land use strategies. One of the policies is:

- "Ensure adequate access to open space and preservation of habitat." (page 2-17)

5

Our concerns around this statement are threefold. First, existing studies on parks and recreational opportunities demonstrate that many regions within the SCAG region are considered "park poor," meaning there aren't enough park acres to accommodate the existing residential population. And yet, secondly, SCAG proposes to ensure adequate access to those existing parks, while no new parks are proposed for creation or even have funding committed. Thirdly, there is a significant difference between local and regional parks (open space) and the types of parks and reserves (habitat) created as mitigation for residential development or transportation infrastructure, which generally have limited or managed access to ensure the reason it was protected (the species and habitats) are preserved in perpetuity. 5 Cont.

Natural Lands Preservation Inclusion (PEIR)
We are very pleased to see Natural Lands Preservation as one of the six strategies listed in this PEIR (p. 2-18). This reaffirms a commitment to encourage infill development near transit, jobs, housing, and other community amenities while at the same time discouraging growth at the sensitive and often times natural hazard prone Wildland-Urban Interface (WUI) areas. That said, a mechanism and plan to actually preserve important landscapes is missing. 6

Figure 3.11.2-7 (PEIR)
Surprisingly, this Figure fails to align with the findings in the Natural Resource Inventory Database with the SCAG Region Open Space, Recreation and Agricultural Uses. At a minimum the California Protected Areas Database (CPAD) should be the base layer for this map and then SCAG's Natural Resource Inventory Database overlaid on it. All of the National Forests (i.e., Angeles, San Bernardino, Cleveland, etc.) for example are listed as "vacant," as is the newly created San Gabriel National Recreation Area and the Santa Monica Mountains National Recreation Area. The reality is they are open space and recreational lands and the map should accurately reflect these varying statuses. If layers or land use types were consolidated then that needs to be mentioned in the figure. 7

Maps (PEIR)
Because of the work on the Combined Habitat Assessment Protocol (CHAP) and Natural Resource Inventory Database it is surprising to see that so few of those layers were actually used in the documents. For example, on one map (Figure 3.11.2-7 SCAG Region Open Space, Recreation and Agricultural Uses) there is one depiction of the open spaces within the region. Compared to another map (Figure 3.4.2-5 Open Space in the SCAG Region) it includes the same categories (regional open space) and yet the same lands are not open spaces. How is this possible? The following maps should be revised using the SCAG's Natural Resource Inventory Database or CPAD layers as the baseline of protected (permanently or privately) and the maps should be internally consistent, including:

- Figure 3.1.1-2 Land Use Patterns in the SCAG Region *(Rural is not the same as open space. Open space should be its own category or it should be noted as an asterisk/footnote.)*
- Figure 3.2.2-1 Regional Distribution of Important Farmlands and Grazing Lands
- Figure 3.4.2-5 Open Space in the SCAG Region
- Figure 3.11.2-2 Existing Land Uses
- Figure 3.11.2-3 Public and Private Land Ownership
- Figure 3.11.2-5 General Plan Land Use Designations *(It would be helpful to note that the land use designation of "open space" could be temporary but more importantly, it doesn't mean it is actually protected.)*
- Figure 3.16.2-1 Regional and Local Recreation and Open Space
- Figure 3.16.4-1 Regional Recreation and Open Space Areas within a 45-Mile Radius of 2040 HQTAs
- Figure 3.16.4-2 Local Recreation and Open Space within a 30-Mile Radius of 2040 HQTAs

8

RTP/SCS Comments
Introduction (RTP/SCS)
In the opening pages of the RTP/SCS readers are reminded of SCAG's mission:

"Developing long range regional plans and strategies that provide for efficient movement of people, goods and information, enhance economic growth and international trade, and improve the environment and quality of life."

The document acknowledges (page 2) that the Plan "balances the region's future mobility and housing needs with economic, environmental and public health goals." This is certainly a step in the right direction. Thank you for recognizing the inter-connection between our health, environment, economy, housing, and transportation. The identified vision (also page 2) that more compact communities with abundant options and opportunities for housing, jobs, and transportation is not only a viable option, but also one that residents support. Southern California—from its 9

Mediterranean climate and beautiful beaches to its varied housing stock and diverse employment opportunities—offers something that very few other places can offer. Our geographic location puts us at an advantage for potential employers and residents, making thoughtful and forward thinking land use planning even more important.

We are pleased to see that Goal #6 of the RTP/SCS (page 60) "Protect the environment and health of our residents by improving air quality and encouraging active transportation (e.g., bicycling and walking)" bring transportation, health, and the environment together cohesively. Furthermore, Goal #8 (also page 60) to "Encourage land use and growth patterns that facilitate transit and active transportation" supports mainly infill development and also simultaneously has the co-benefit of discouraging urban and suburban sprawl patterns typically seen at the WUI. This interface is the most critical in terms of advancing habitat protection due to many factors: distance from transportation and employment centers, adjacency to existing protected preserved lands, wildfires and the likely increase in frequency as the effects of climate change are felt, increase in greenhouse gas emissions from new residents and infrastructure needs, etc. 9 Cont.

Southern California is a global hotspot of biodiversity and thus, careful planning must be recognized and implemented. In recent years, it has become more apparent that land conservation and well-planned transportation and infill housing projects can peacefully co-exist. By planning future growth in areas that are already urban and already have the infrastructure in place—the sprawling, auto-intensive development pressures at the WUI are lessened. That said, real attention needs to be paid to those lands at the WUI since many of these undeveloped and unprotected lands have an extremely important role in the future of the region's ecological systems and their ability to remain functional and resilient.

Misconceptions about Land Preservation (RTP/SCS)

We agree that certain geographies are more vulnerable to development pressure than others. We also support focusing development away from the high value habitat, but strongly disagree with the statement that many "edge" lands do not have plans for conservation. What is the basis for this statement? What evidence do you have that substantiates this conclusion? What type of conservation plan is being included or excluded?

This is an important reminder that NCCP/HCPs are not the end all in conserving important lands. They are voluntary and property owner driven, typically only applying to larger ownerships/geographies. Just because it isn't within an existing NCCP/HCP (a formal conservation plan) doesn't mean it isn't important to conserve. Many local, regional, state, and federal agencies may have other mechanisms, processes, programs, plans, documentation, and goals for regional conservation not captured in an NCCP/HCP. For example, the California Department of Fish and Wildlife (CDFW) has a process called the Conceptual Area Protection Plan (CAPP). CAPPs provide an initial evaluation of properties considered for acquisition and when funds are available, if the CAPP is approved, lands can be acquired through state funding. CAPPs are a formal process for CDFW, but likely do not overlap with an NCCP/HCP.

Many non-profits have ongoing efforts to acquire and preserve important landscapes that are also not included in a formal or informal conservation plan yet. In fact, most non-profits exist and focus their work on a specific geography. For example, using FHBP's Greenprint, called the Green Vision Map, the entirety of Orange County has been coded in a tiered system creating a wish list of properties—many of which are at the WUI. This Greenprint covers an entire county. Many non-profits, and state and federal agencies have also already done a lot of the leg work for preservation of habitat lands, but may not have publically identified lands along the urban fringe. In other words, unless the conservation plan/effort is tied to a County Transportation Commission or local land use authority (city or county) that puts the Plan forward, it appears to be dismissed by SCAG. However, the reality is conservancies (public and private) exist to protect lands in their natural state. For example, The Trust for Public Land may have an option to buy important lands that are neither in a CAPP or formal conservation plan, but agencies funding the project agree it should be protected. State and federal agencies also focus on important areas to build a reserve, connect to another reserve, protect specific species, etc. This should be seen as an opportunity to partner and work collaboratively. Therefore, the definition of "conservation plan" in the RTP/SCS statement can have a lot of implied meanings and should be clarified. 10

Suggested Language (page 8, 21 and 73)

We suggest the following revisions (addition shown as *italics* and deletions shown as ~~strikethrough~~): "Many natural land areas *especially those* near the edge of existing urbanized areas ~~do not have plans for conservation and~~ are vulnerable to development pressure. *While some areas have formal conservation plans in place, other geographies rely on state and federal resource agencies and non-profits for inclusion in conservation efforts."*

Existing Edge Habitats (PEIR)
We expressed the same concern in the PEIR, which states that existing edge habitats don't have conservation plans (p. 2-18) but does not provide substantial evidence that this is true.

> **Suggested Language (page 2-18)**
> We suggest the same language as proposed above: "Many natural land areas especially those near the edge of existing urbanized areas are vulnerable to development pressure. While some areas have formal conservation plans in place, other geographies rely on state and federal resource agencies and non-profits for inclusion in conservation efforts."

11

The PEIR also states (page 3.4-54) that "The Plan describes a substantial effort to identify resource areas and encourage shifts in future development away from natural habitat areas. In doing so, the Plan includes land use strategies that aim to preserve natural habitats, minimize the potential for disturbance of biological resources, and support redirecting growth away from high value habitat areas to existing urbanized areas such as high quality transit areas (HQTAs)." Again the PEIR fails to identify how the Plan will "encourage" these shifts or actually "preserve natural habitats."

Increasing Population and Limited Parks (RTP/SCS and Natural and Farmland Appendix)
With an anticipated population growth of 20% (nearly 3.8 million people) by 2040 (page 47) this adds considerable pressure to our existing parkland. *[Note: the Appendix states 17% on page 1 – the documents should be internally consistent.]* Studies conducted by Friends of Harbors, Beaches and Parks (See **Attachment 4 – FHBP Park Score Study for Orange County)** and The City Project (**go to: www.MapJustice.org**) demonstrate our communities do not have enough parkland to meet the existing demand. Local land use authorities have an obligation to meet the Quimby Act (which aims for three acres of parkland per 1,000 residents). With an anticipated population boom of 3.8 million more people, this equates to more than 11,400 acres that should automatically be added to the local and regional park system as the growth occurs. These parks tend to be protected as turf parks or active/high intensity parks (with tennis courts, baseball and soccer fields, etc. This preservation is separate from the ongoing formal and informal conservation efforts by agencies, CTCs, and non-profits—many of which are protecting lands for entirely different reasons.

As indicated on page 13 of the RTP/SCS, infill developments promote active transportation and improve access to amenities such as parks and natural lands. While the document (page 2) indicates that residents utilize the natural lands and recreational areas as a respite from the busy life in the city, unfortunately unless new and additional parks are created for the new influx of people, the limited existing parks will suffer even more from overuse and abuse. Creating new parks lessens the impacts on existing parks and maintains the balance for recreational uses needed when housing is added. Another Land Use Policy of the Plan is to "ensure adequate access to open space and preservation of habitat" (page 69), but nowhere does it state how additional lands will be preserved to accommodate the anticipated growth without severely impacting the existing protected natural lands from recreational overuse.

12

The reality on the conservation-front is, that there are a lot of natural lands left to protect across the SCAG region. Furthermore, land conservation occurs for many reasons, such as: species protection, wildlife corridor enhancements, mitigation lands, NCCP/HCP lands, and even local and regional parks. Not all parkland is available for recreational use (hiking, biking, equestrian, etc.). Many lands have restrictions or managed access due to legal requirements (deed restrictions), mitigation and permit requirements, and/or conservation easements. Simply providing "more" access may have significant consequences for the land manager.

Land Conversion (RTP/SCS)
The 2012 RTP/SCS indicated 742 square miles (474,880 acres) of greenfield lands in the Baseline (business-as-usual scenario) would be converted into more urban uses, but with the 2012 Plan in place it would reduce the conversion to 334 square miles (213,760 acres). Four years later, with the 2016 Plan, the document indicates (Table 8.1 - pages 150 and 153) the 2040 Baseline (business-as-usual scenario) would result in the conversion of 154 square miles (95,860 acres) of greenfield lands into more urban uses. With the Plan in place, the document states (pages 9, 147, and 148) only 118 square miles (75,520 acres) would be converted to more urban uses. A 23.4% reduction, as proposed by the 2016 Plan, provides a solid start to improved sustainability [and conservation]. But, as page 20 indicates, current conservation efforts are underway and this reduced land conversion does NOT account for those efforts. We would anticipate the greenfield acreage converted to urban uses to be even lower.

13

We continue to urge SCAG to promote infill developments, and encourage local and regional land use authorities to halt building at the WUI. As the survey SCAG conducted indicates (page 64), the clear majority of respondents supported development in existing urban areas rather than into our natural and farmlands. On page 63, the document also accurately notes that varying combinations of land use and transportation strategies lead to different rates of land consumption, among other things. This is exactly the type of information our decision makers need to have when making important land use decisions relating to infill and greenfield development. 13 Cont.

Climate Change (RTP/SCS)

The Plan also notes that climate change will have impacts to natural habitats and overall biodiversity (page 56). In addition to coastlines being vulnerable to sea level rise and destructive storm surges, many of the transportation infrastructure (roads, highways, and rail lines) that already exists is vulnerable as well. A study conducted by the Pacific Institute may be helpful for SCAG in understanding what a 1.4 meter (4.6 feet) sea level rise has the potential to impact. (See **Attachment 5 – Vulnerable Infrastructure**) For example, with a 1.4 meter sea level rise, Ventura County has 7.7% of its roadways impacted, Los Angeles County has 18%, and Orange County has 9%. Another example, with a 1.4 meter sea level rise, Ventura has 10 miles of rail lines impacted, Los Angeles County has 14 miles, and Orange has 6.6 miles impacted. As noted in the Plan, we agree that your response to climate change impacts requires cooperation, creative thinking, and better use of limited resources (page 56). On page 13, the Plan discusses making communities more resilient to the impacts of climate change, but we also see a connection to ensuring our wildlands are more resilient to the effects as well. Guaranteeing our wildlife and plant species have the ability to reach other elevations through permanent connections between protected lands is essential to ensuring this region's biodiversity is retained and functional in the future. 14

The Process of Land Conservation (RTP/SCS)

Preserving natural lands comes in many forms. While, we support the general idea that as new growth is concentrated in existing urban areas (page 16) mainly concentrated at the HQTA (per Huasha Lui at the Elected Official Briefing in OC on January 20, 2016), the pressures to develop the fringe lands are decreased. The reality remains that some mechanism (local land use plan, policy, ordinance, etc.) and entity (local, regional, state or federal or even non-profit) needs to spearhead the conservation effort. Just because you say growth will be focused in the urban areas, doesn't automatically protect the fringe areas. It likely alleviates some pressure on the fringe areas, but this may only be temporary. Often times there is significant coordination, funding and support that must be organized before natural lands are protected. For example, within the Land Use Policies (page 108) the document notes that the 2016 Plan itself leads to, among other things, "the preservation of natural lands," however the Plan fails to state exactly how that will occur. The Plan lacks a mechanism for actually protecting resource rich lands. This should be corrected and suggestions are in the revised Natural and Farmland policy language included in the Coalition letter submitted January 29, 2016. References to this concern occur on the following pages as well: 14, 16, 78, 108, and 159. 15

Existing Support for Land Conservation (RTP/SCS)

Ninety percent of the survey respondents supported protecting natural habitats (page 64). This is important information for our decision makers to have—it should be highlighted and enacted. The Plan has advanced well since 2012 and as the document states (page 111) "Building on this effort has the potential to create a regional conservation program that stakeholders such as CTCs, cities, agencies, and non-profits can align with and support." We agree. Let's work on the mechanism and funding by which land can be protected in the SCAG region and the environmental community and resources agencies will engage and support this effort. 16

Focused New Growth Around Transit (RPT/SCS)

The Plan indicates on page 70 that there are numerous benefits to focusing new growth around HQTA. A clear benefit to focusing development at HQTA is also a reduction in greenfield development. We believe this should be included in your list of benefits. 17

Maps (RTP/SCS)

Urban vs. Agriculture

Exhibit 2.1 (page 23) has a colorful map indicating the per acre habitat value of lands across the SCAG region. While this designation likely came from the CHAP mentioned earlier, we should note that there is a huge difference between the concrete "urban" landscape and the undeveloped "agricultural" landscape. Separating the Urban from the Agricultural layers in the map would provide a better delineation of the types of resources in the program—after all these policies address the Natural Lands *and Farmlands*. 18

Furthermore, the California Department of Conservation has mapped the "prime agricultural lands" for the state and every county in the SCAG region is included in this mapping. Prime agricultural lands are defined by two important criteria. First, the land use: "has been used for irrigated agricultural production at some time during the four years prior to the Important Farmland Map date. Irrigated land use is determined by FMMP (Farmland Mapping and Monitoring Program) staff by analyzing current aerial photos, local comment letters, and related GIS data, supplemented with field verification." Second, the soil type: "The soil must meet the physical and chemical criteria for Prime Farmland or Farmland of Statewide Importance as determined by the USDA [United States Department of Agriculture] Natural Resources Conservation Service (NRCS)." Furthermore, the designation of "prime" refers to the agricultural use. (Source: California Department of Conservation, Prime Farmlands as Mapped by the FMMP http://www.conservation.ca.gov/dlrp/fmmp/overview/Pages/prime_farmland_fmmp.aspx) 18 Cont.

Why isn't the SCAG Natural Resource Inventory Database used as the base layer for this map?

Wildlife Corridors (RTP/SCS)
Many efforts are underway across the SCAG region to connect the landscapes to one another. For example, efforts are underway to create a mountain lion corridor at Liberty Canyon to connect the Santa Monica Mountains in Los Angeles County to other preserved open space areas. In Riverside County, efforts are underway to connect lands in the San Jacinto Range with the San Gorgonio Range within the San Bernardino National Forest. Without connections for our large predators the entire ecosystem is impacted. The RTP/SCS has an opportunity to support documented wildlife corridors that are impacted by infrastructure projects. The research conducted by SC Wildlands and its South Coast Missing linkages project should be at the forefront of this effort. (See **Attachment 6** – South Coast Missing Linkages Study) 19

Glossary (RTP/SCS)
Greenfields are defined within the Plan's glossary. Please define "agricultural lands." (page 178). 20

SCAG's Role in Mitigation Measure for Local Projects (RTP/SCS)
The RTP/SCS promotes building on the 2012 Plan with the aim to serve as a resource for lead agencies (page 109). This is a commendable goal. That said, SCAG could offer assistance through the use of the CHAP and Natural Resource Inventory Database layers by providing the data to those agencies or even suggesting potential mitigation sites with high per acre habitat value. 21

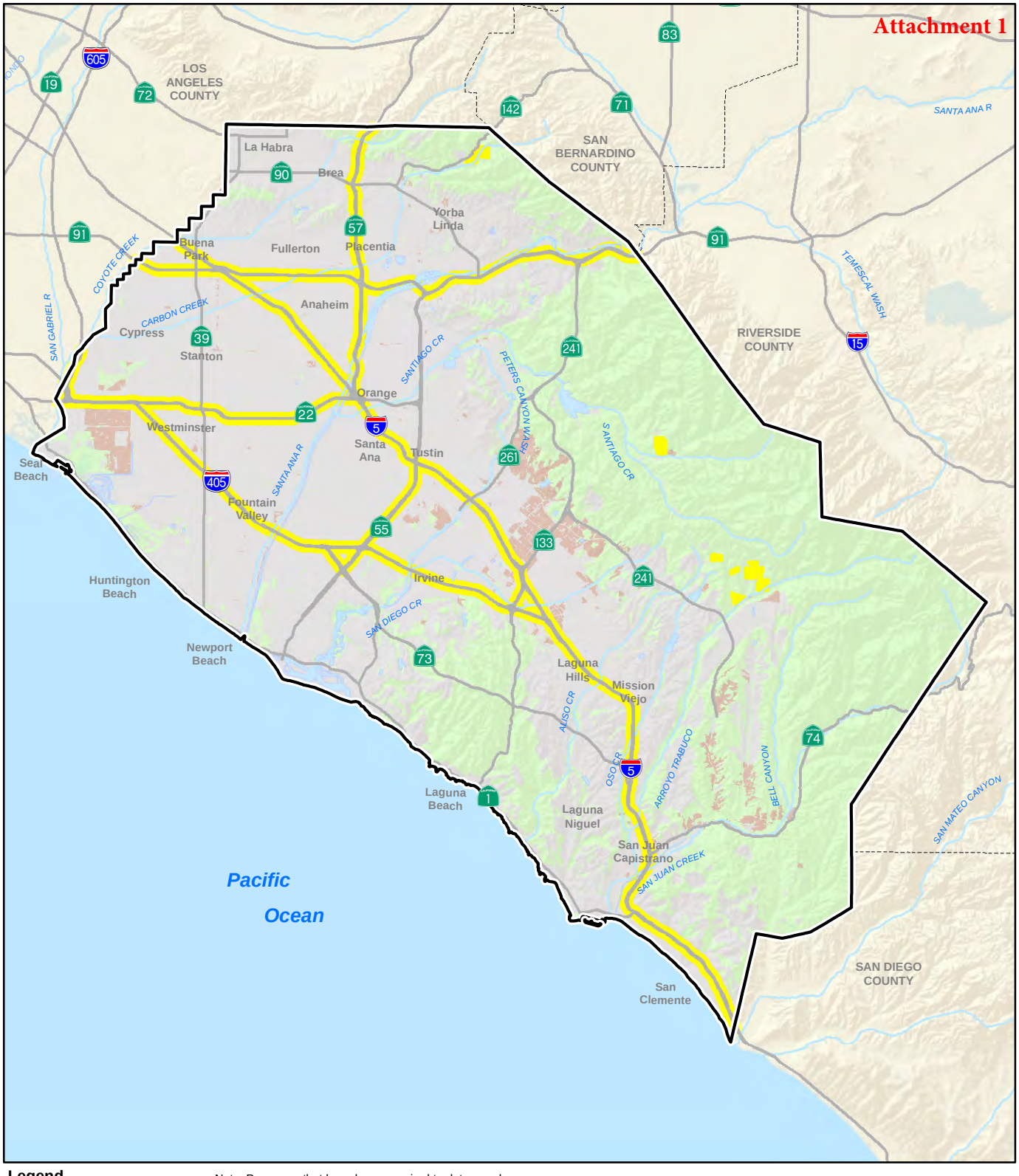
Thank you for the opportunity to provide substantive comments on the SCAG 2016 RTP/SCS and PEIR. We look forward to working closely with you in the future.

Sincerely,

Jean H. Watt

Jean H. Watt
President

Attachment 1



Legend

- Plan Area
- Permit Area
- Natural Habitats
- Agriculture
- Developed

Note: Preserves that have been acquired to date are shown on this figure as part of the Permit Area. As additional Preserve(s) are acquired and included in the Plan, the Permit Area will expand, by definition, to include the additional Preserve(s).

Vegetation Source: TAIC/ICF 2013

N

Miles

0 6

OCTA

Plan and Permit Area

Figure 1-2

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Date: 8/14/2014

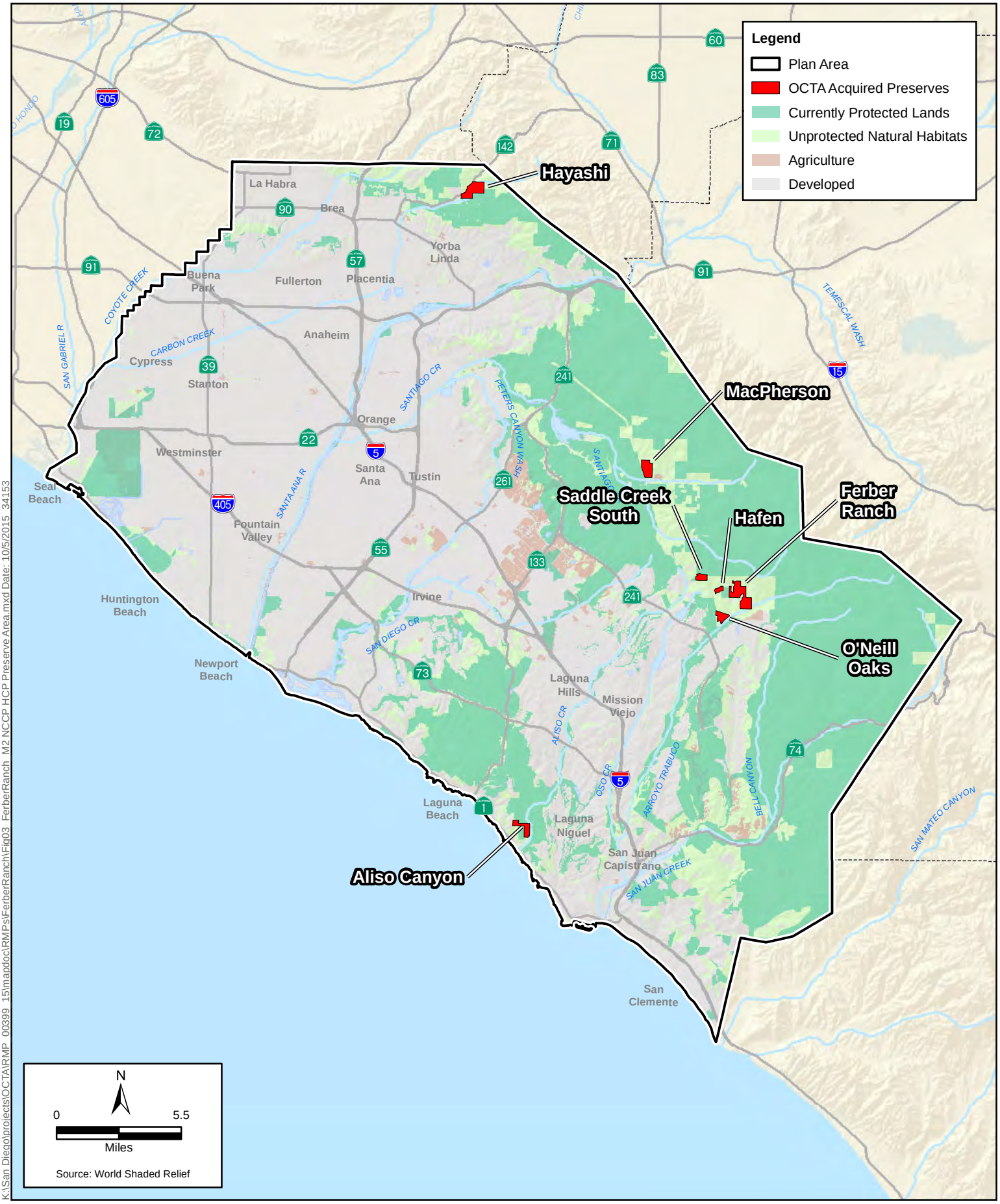

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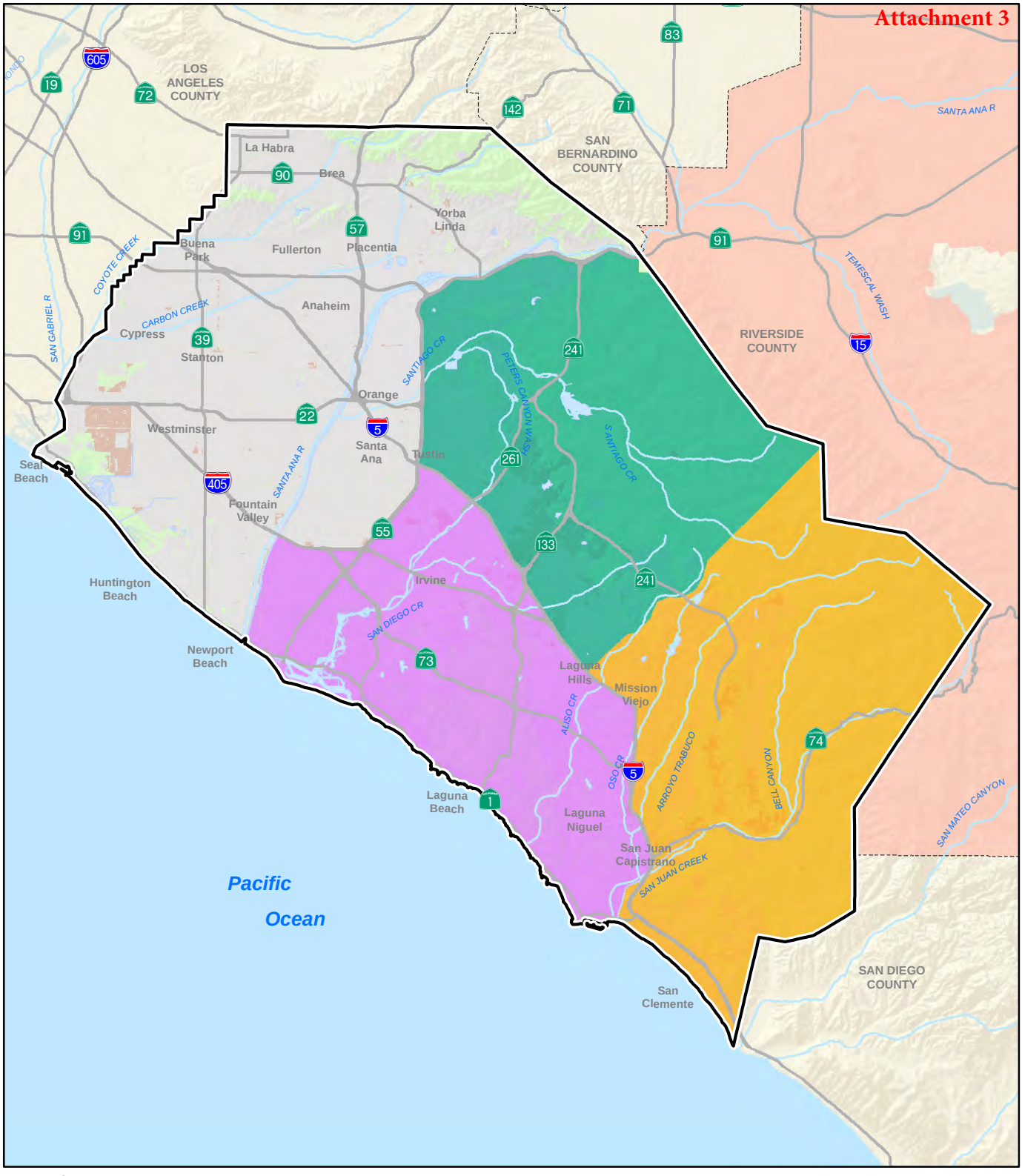
Figure 3
M2 NCCP/HCP Preserve Area
Ferber Ranch Resource Management Plan



OCTA

Regional Conservation Planning Efforts

Figure 1-3

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Date: 10/16/2013

Attachment 4

Orange County Park Scores

Place to Play and Rejuvenate

Imagine living in a community where the design and layout allowed you to quickly access protected natural lands, tot lots, and recreational trails. Parks play an important role in our life. Not only do parklands allow residents places to enjoy nature, they also boost the economy, increase property values, and reduce the cost for public services.

"City parks and open space improve our physical and psychological health, strengthen our communities, and make our cities and neighborhoods more attractive places to live and work," according The Trust for Public Land's Benefits of Parks. It further explains "U.S. voters have repeatedly shown their willingness to raise their own taxes to pay for new or improved parks."

Benefits of Parks

Parks have many benefits, including:

- Increasing the value of neighboring residential property
- Providing exceptional opportunities for children to learn, experience, and understand nature
- Improving our environment—including filtering pollutants from our air, soil, and water
- Creating community resources and activity hubs, like urban gardens and outdoor gyms
- Encouraging residents to exercise more and live healthier lifestyles

Sources: Benefits of Parks, The Trust for Public Land
Nature Deficit Disorder, Richard Louv

Friends of Harbors, Beaches, and Parks works to protect the natural lands, waterways, and beaches of Orange County.

www.FHBP.org

ORANGE COUNTY'S TOP 3 BEST REGIONAL PARK SCORES

1. Laguna Beach (79.2 acres/1000 residents)
2. Irvine (56.2)
3. Rancho Santa Margarita (43.9)

Orange County Park Scores

For our purposes Friends of Harbors, Beaches, and Parks looked at the Park Score for each city in Orange County. Three analyses were conducted. The first analysis included city-owned parkland only. The second final analysis included city- and county-owned parkland. The final analysis included all publicly owned protected lands and beaches, even those with restricted access, as well as lands protected by conservation non-profits. Only 13 cities met or exceeded the 3+ acres in the city-only analysis, while 24 met or exceeded it in the other two analyses.

Measuring Park Scores

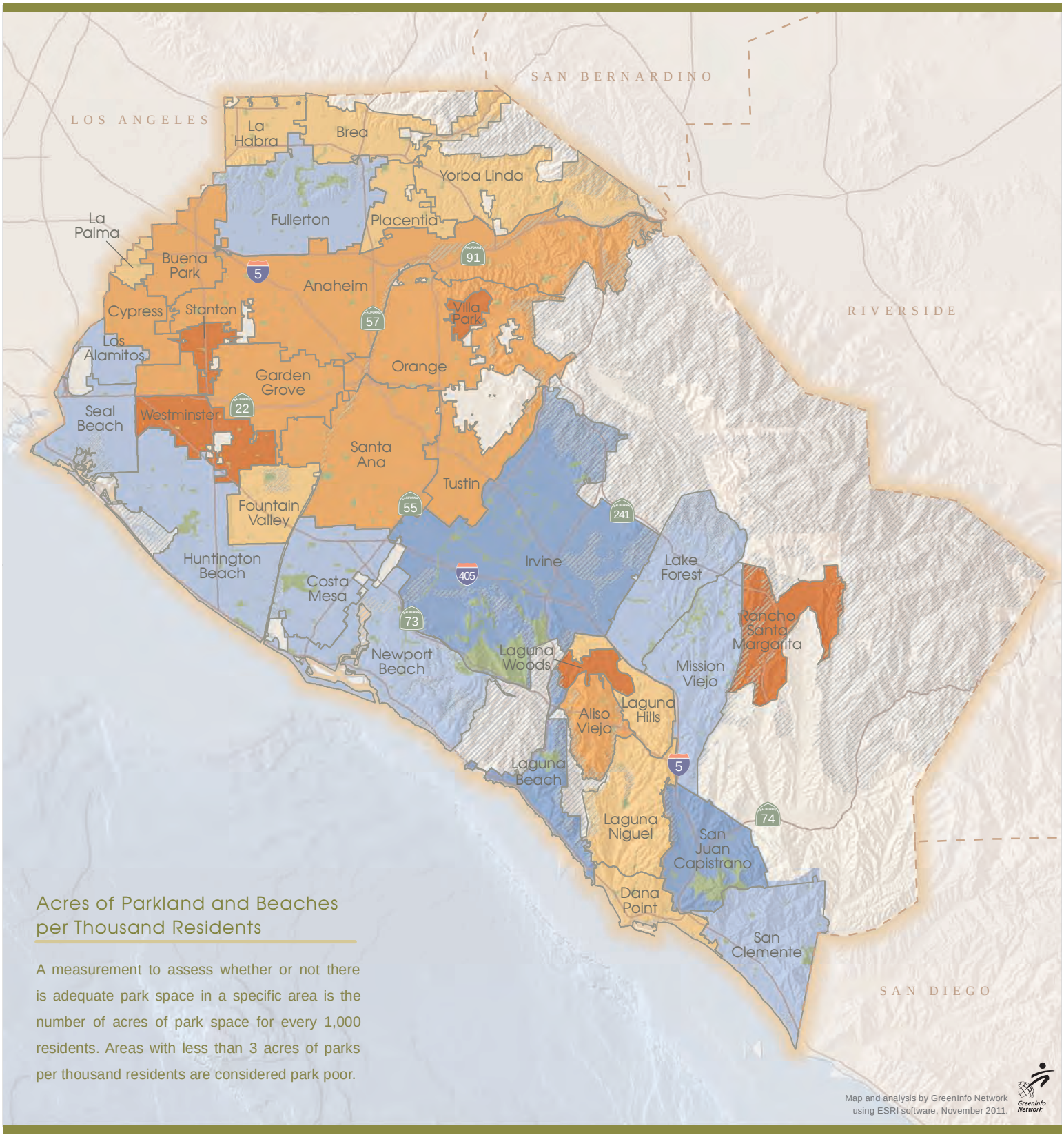
Park Scores measure how many acres of protected parkland there are per 1,000 residents. The 1975 Quimby Act established a statewide requirement that developers set aside land, donate conservation easements, or pay fees for park improvements (called park in lieu fees). Revenues generated through the Quimby Act cannot be used for the operation and maintenance of park facilities. Many jurisdictions have enacted local ordinances that require the maximum number of park acres per person allowed by the Quimby Act or 5 acres per 1,000 residents.

The scores for this analysis were calculated using the 2010 Census data and the California Protected Areas Database. See the additional pages in this flyer for a map and tables which illustrate our results.

ORANGE COUNTY

Park Score by City

Includes City Ownerships



Acres of Parkland and Beaches per Thousand Residents

A measurement to assess whether or not there is adequate park space in a specific area is the number of acres of park space for every 1,000 residents. Areas with less than 3 acres of parks per thousand residents are considered park poor.

Map and analysis by GreenInfo Network using ESRI software, November 2011.

Acres of Parkland and Beaches per Thousand Residents

- Less than 1 acre
- 1 - 2 acres
- 2 - 3 acres
- 3 - 10 acres
- More than 10 acres

Acres of parkland and beaches per thousand residents includes land with public access or restricted public access. Parkland and beach ownership includes city agencies only.
Data Sources: Demographics - 2010 census, Park/Green Space - CPAD v1.6, calands.org.

Other Features

- City Boundary
- City Park Land
- Federal, State, County or NGO Park Land
- Highway
- County Line
- County Unincorporated

ORANGE COUNTY – PARK SCORE BY CITY

Includes City Park Ownerships

Name	Total Population	Acres of City Parkland	Acres of City Parks per Thousand Residents
Aliso Viejo	47,823	94	1.95
Anaheim	336,265	507	1.50
Brea	39,282	117	2.98
Buena Park	80,530	82	1.02
Costa Mesa	109,960	671	6.10
Cypress	47,802	88	1.83
Dana Point	33,351	97	2.89
Fountain Valley	55,313	160	2.89
Fullerton	135,161	877	6.49
Garden Grove	170,883	172	1.00
Huntington Beach	189,992	727	3.83
Irvine	212,375	4,003	18.85
La Habra	60,239	127	2.11
La Palma	15,568	36	2.35
Laguna Beach	22,723	353	15.52
Laguna Hills	30,344	71	2.34
Laguna Niguel	62,979	160	2.54
Laguna Woods	16,192	3	0.21
Lake Forest	77,264	281	3.64
Los Alamitos	11,449	37	3.17
Mission Viejo	93,305	672	7.20
Newport Beach	85,186	499	5.86
Orange	136,416	243	1.78
Placentia	50,533	108	2.15
Rancho Santa Margarita	47,853	0	0.00
San Clemente	63,522	341	5.37
San Juan Capistrano	34,593	1,138	32.90
Santa Ana	324,528	356	1.10
Seal Beach	24,168	120	4.98
Stanton	38,186	24	0.62
Tustin	75,540	102	1.35
Villa Park	5,812	0	0.00
Westminster	89,701	85	0.95
Yorba Linda	64,234	176	2.74

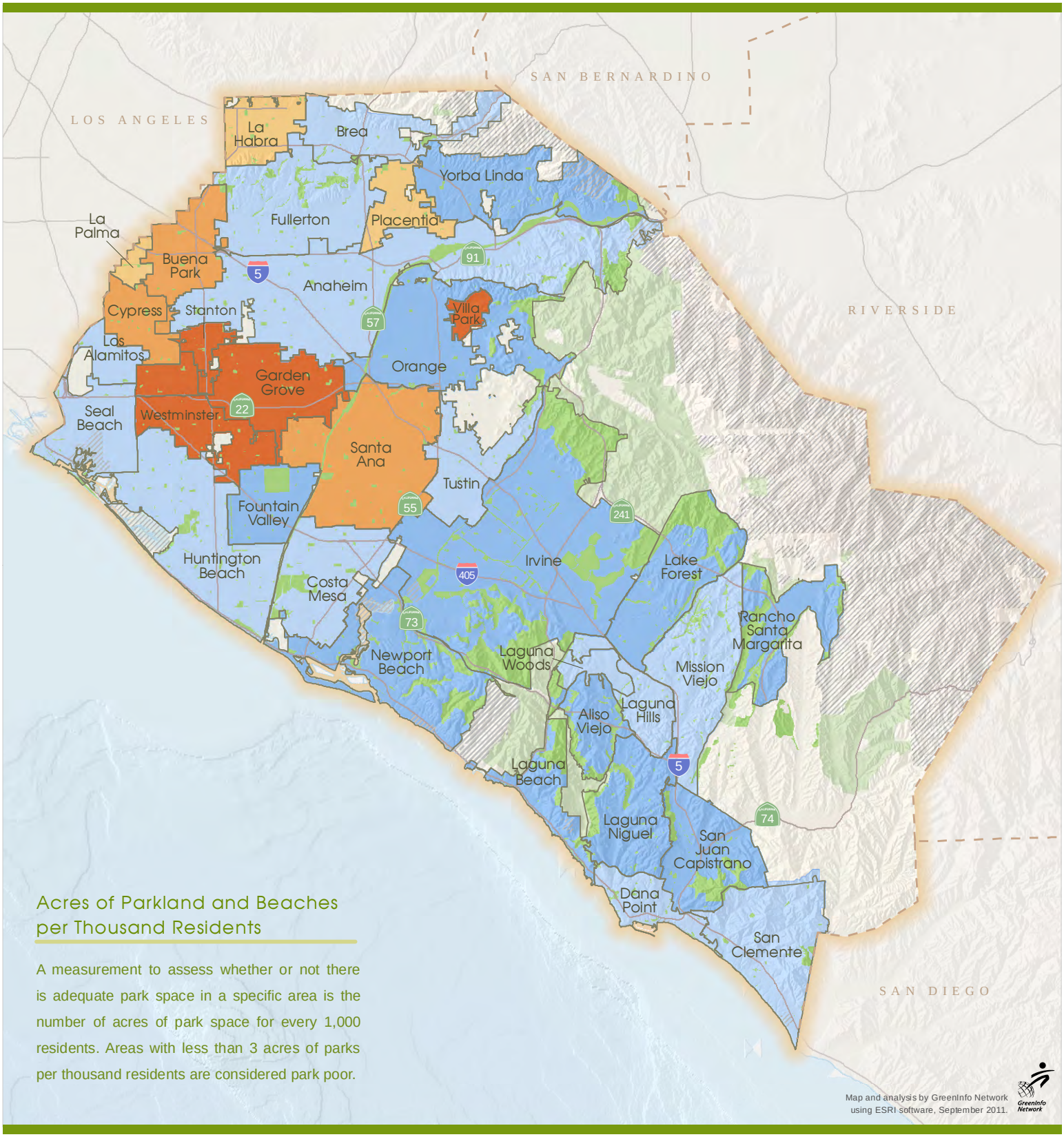
Parks and open space data was calculated from GreenInfo Network's California Protected Areas Database (CPAD) version 1.6, January 2011 www.calands.org. Acres of parkland and beaches per thousand residents includes land with public access or restricted public access. Parkland and beach ownership includes city agencies only.

Population Counts were calculated from 2010 Census Short Form Data, http://factfinder2.census.gov.

ORANGE COUNTY

Park Score by City

Includes City and County Park Ownerships



Acres of Parkland and Beaches per Thousand Residents

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Map and analysis by GreenInfo Network using ESRI software, September 2011.

Acres of Parkland and Beaches per Thousand Residents

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- 3 - 10 acres
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Acres of parkland and beaches per thousand residents includes land with public access or restricted public access. Parkland and beach ownership includes city and county agencies only. Data Sources: Demographics - 2010 census, Park/Green Space - CPAD v1.6, calands.org.

Other Features

- City Boundary
- Highway
- City or County Park Land
- County Line
- Federal, State or NGO Park Land
- County Unincorporated

ORANGE COUNTY – PARK SCORE BY CITY

Includes City and County Park Ownerships

Name	Total Population	Acres of City or County Parkland	Acres of City or County Parks per Thousand Residents
Aliso Viejo	47,823	930	19.4
Anaheim	336,265	2,761	8.2
Brea	39,282	231	5.9
Buena Park	80,530	129	1.6
Costa Mesa	109,960	963	8.8
Cypress	47,802	88	1.8
Dana Point	33,351	227	6.8
Fountain Valley	55,313	686	12.4
Fullerton	135,161	1,110	8.2
Garden Grove	170,883	172	1.0
Huntington Beach	189,992	881	4.6
Irvine	212,375	11,928	56.2
La Habra	60,239	127	2.1
La Palma	15,568	36	2.3
Laguna Beach	22,723	1,801	79.2
Laguna Hills	30,344	111	3.7
Laguna Niguel	62,979	1,033	16.4
Laguna Woods	16,192	106	6.5
Lake Forest	77,264	3,066	39.7
Los Alamitos	11,449	37	3.2
Mission Viejo	93,305	823	8.8
Newport Beach	85,186	2,258	26.5
Orange	136,416	1,443	10.6
Placentia	50,533	111	2.2
Rancho Santa Margarita	47,853	2,102	43.9
San Clemente	63,522	343	5.4
San Juan Capistrano	34,593	1,412	40.8
Santa Ana	324,528	603	1.9
Seal Beach	24,168	142	5.9
Stanton	38,186	24	0.6
Tustin	75,540	259	3.4
Villa Park	5,812	0	0.0
Westminster	89,701	85	1.0
Yorba Linda	64,234	918	14.3

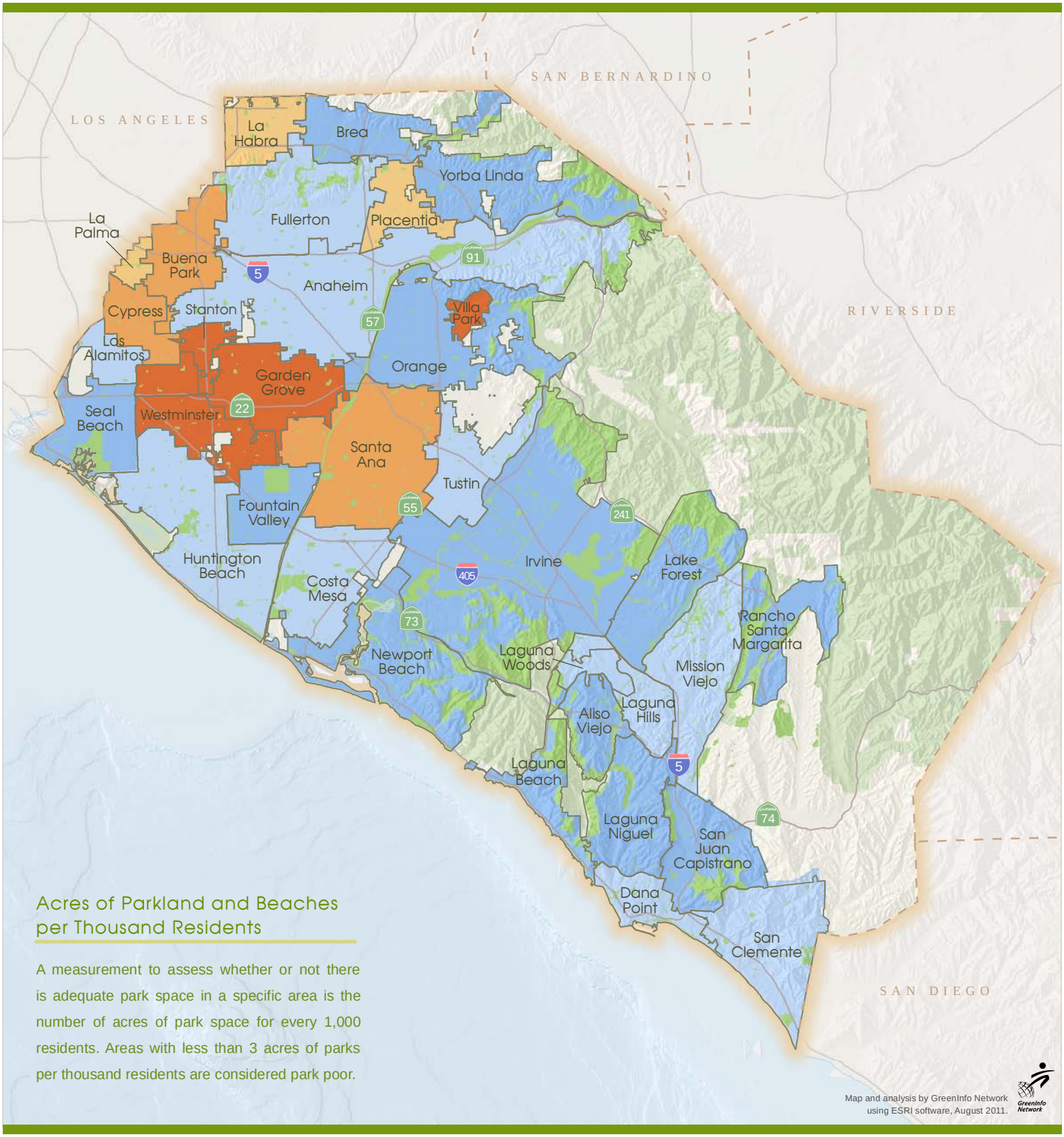
Parks and open space data was calculated from GreenInfo Network's California Protected Areas Database (CPAD) version 1.6, January 2011 www.calands.org. Acres of parkland and beaches per thousand residents includes land with public access or restricted public access. Parkland and beach ownership includes city and county agencies only.

Population Counts were calculated from 2010 Census Short Form Data, http://factfinder2.census.gov.

ORANGE COUNTY

Park Score by City

Includes All Park Ownerships



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Map and analysis by GreenInfo Network using ESRI software, August 2011.

Acres of Parkland and Beaches per Thousand Residents

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- 1 - 2 acres
- 2 - 3 acres
- 3 - 10 acres
- More than 10 acres

Acres of parkland and beaches per thousand residents includes land with public access or restricted public access. Parkland and beach ownership includes the following agencies: non-governmental organizations, city, county, state and federal governments.
Data Sources: Demographics - 2010 census, Park/Green Space - CPAD v1.6, calands.org.

Other Features

- City Boundary
- Park Land
- County Unincorporated
- Highway
- County Line

ORANGE COUNTY – PARK SCORE BY CITY

Includes All Park Ownerships

Name	Total Population	Acres Parkland	Acres of Parks per Thousand Residents
Aliso Viejo	47,823	930	19.4
Anaheim	336,265	3,340	9.9
Brea	39,282	665	16.9
Buena Park	80,530	129	1.6
Costa Mesa	109,960	963	8.8
Cypress	47,802	88	1.8
Dana Point	33,351	302	9.1
Fountain Valley	55,313	686	12.4
Fullerton	135,161	1,115	8.2
Garden Grove	170,883	172	1.0
Huntington Beach	189,992	1,208	6.4
Irvine	212,375	12,127	57.1
La Habra	60,239	127	2.1
La Palma	15,568	36	2.3
Laguna Beach	22,723	1,950	85.8
Laguna Hills	30,344	111	3.7
Laguna Niguel	62,979	1,033	16.4
Laguna Woods	16,192	106	6.5
Lake Forest	77,264	3,066	39.7
Los Alamitos	11,449	37	3.2
Mission Viejo	93,305	823	8.8
Newport Beach	85,186	3,464	40.7
Orange	136,416	1,443	10.6
Placentia	50,533	111	2.2
Rancho Santa Margarita	47,853	2,131	44.5
San Clemente	63,522	463	7.3
San Juan Capistrano	34,593	1,412	40.8
Santa Ana	324,528	603	1.9
Seal Beach	24,168	1,078	44.6
Stanton	38,186	24	0.6
Tustin	75,540	259	3.4
Villa Park	5,812	0	0.0
Westminster	89,701	85	1.0
Yorba Linda	64,234	2,343	36.5

Parks and open space data was calculated from GreenInfo Network's California Protected Areas Database (CPAD) version 1.6, January 2011 www.calands.org. Acres of parkland and beaches per thousand residents includes land with public access or restricted public access. Parkland and beach ownership includes the following agencies: non-governmental organizations, city, county, state and federal governments.

Population Counts were calculated from 2010 Census Short Form Data, http://factfinder2.census.gov.

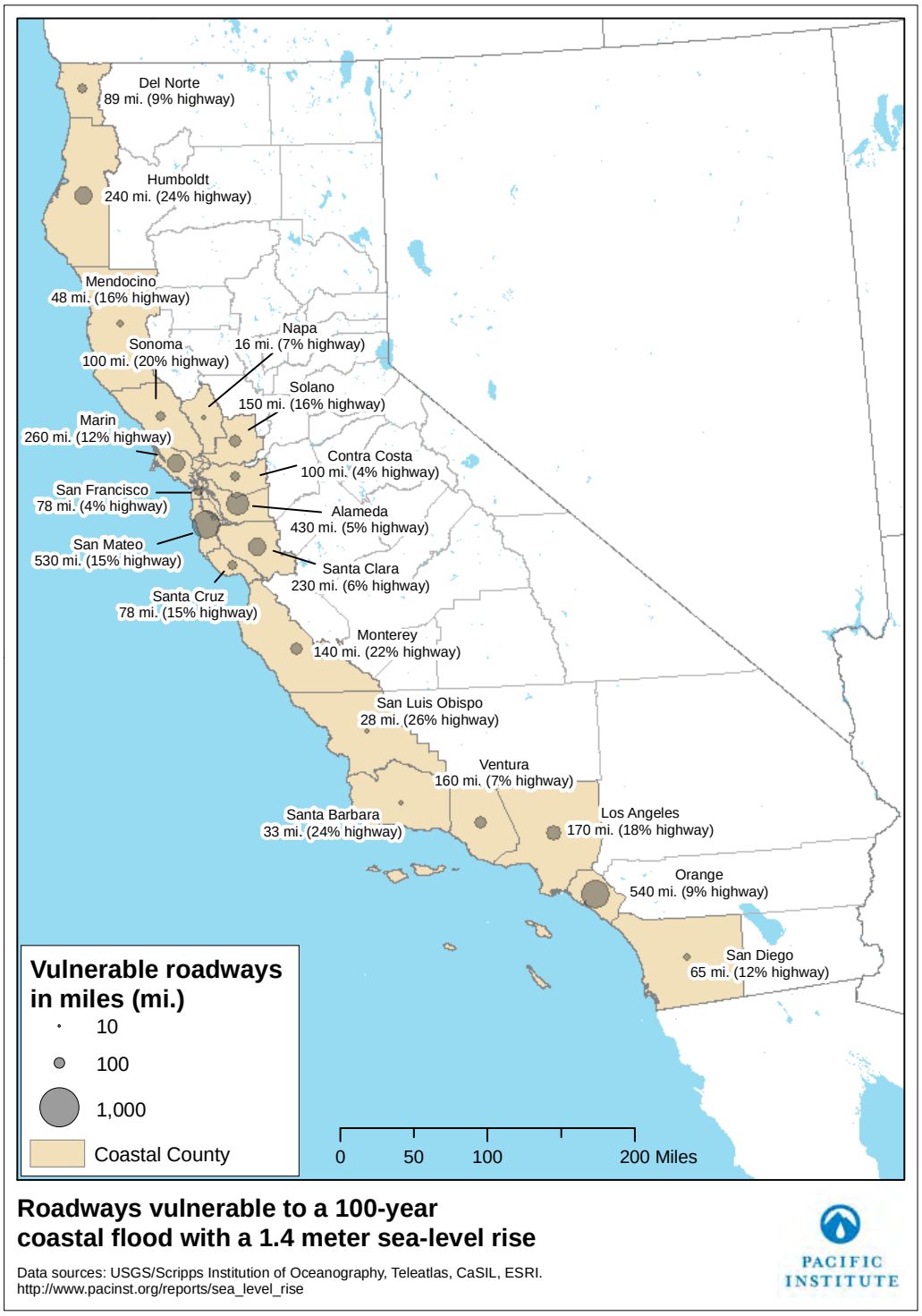

Figure 19. Roadways vulnerable to a 100-year coastal flood with a 1.4 m sea-level rise

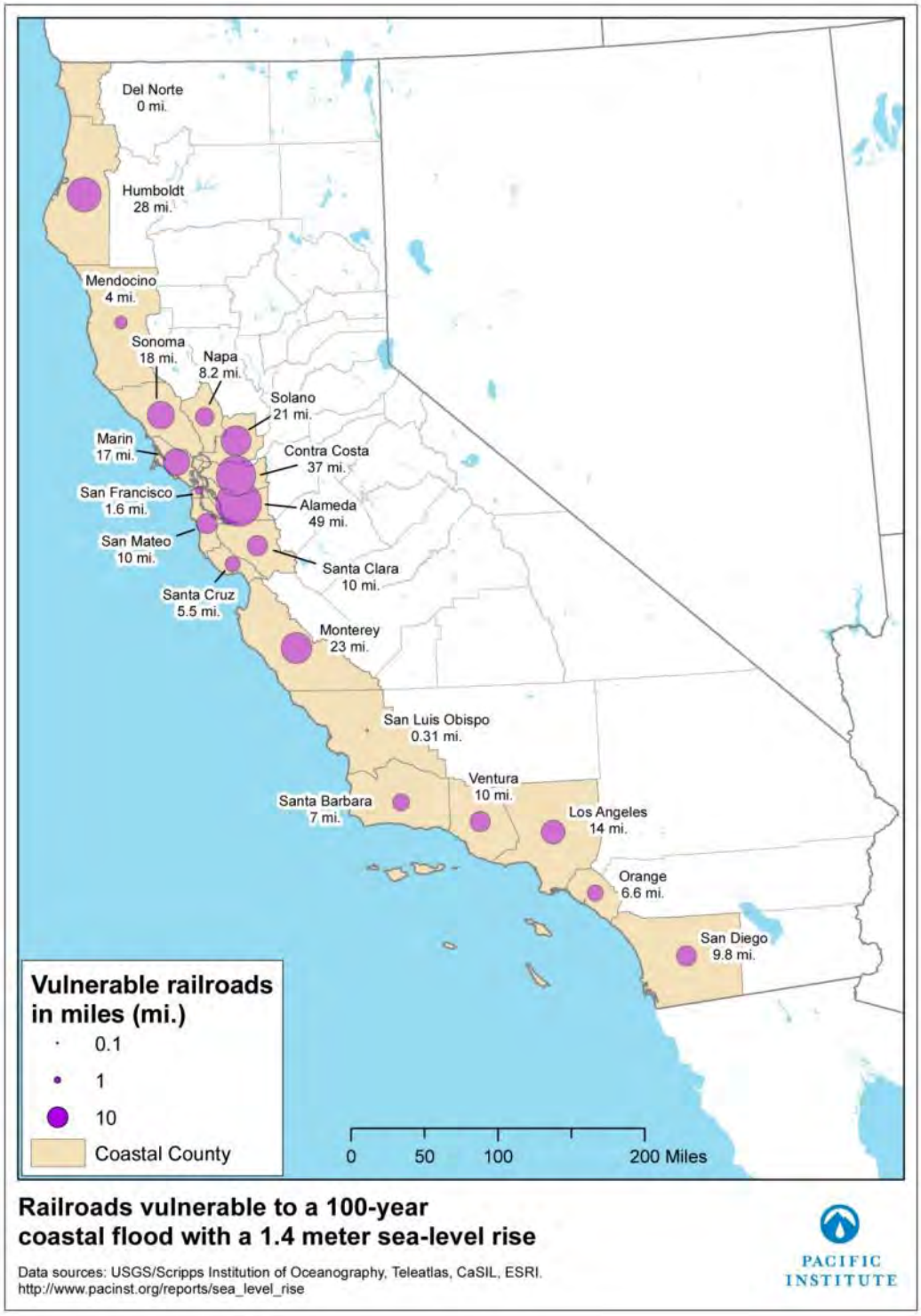

Figure 20. Railroads vulnerable to a 100-year coastal flood with a 1.4 m sea-level rise

Attachment 6

South Coast Missing Linkages:

A Wildland Network for the South Coast Ecoregion

South Coast Wildlands

Produced by South Coast Wildlands: Our Mission is to protect and restore systems of connected wildlands that support native wildlife and the ecosystems upon which they rely.

Project Partners: We would like to recognize our partners on the South Coast Missing Linkages Project, including The Wildlands Conservancy, The Resources Agency, U.S. Forest Service, California State Parks, California State Parks Foundation, National Park Service, San Diego State University Field Stations Program, Environment Now, The Nature Conservancy, Conservation Biology Institute, Santa Monica Mountains Conservancy, Wetlands Recovery Project, Mountain Lion Foundation, Rivers and Mountains Conservancy, California Wilderness Coalition, Wildlands Project, Zoological Society of San Diego Center for Reproduction of Endangered Species, Pronatura, Conabio, and Universidad Autonoma de Baja California. We are committed to collaboration to secure a wildlands network for the South Coast Ecoregion and beyond and look forward to adding additional agencies and organizations to our list of partners.

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B. South Coast Wildland Network, Existing Conservation Investments
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Executive Summary: A Network of Wildlands

Only a century ago, southern California was one vast wildland supporting a dazzling array of habitats and a veritable treasure trove of life. Creatures great and small, mobile and stationary – many found no where else on earth - thrived in these habitats. Grizzly bears dominated the landscape and mountain lions roamed from the mountains to the sea.

Much of this vast wildland has been lost to housing developments, freeways, and strip malls, with drastic impacts on the abundant plant and animal communities that flourished here. Yet, much of the unique vegetation and wildlife that dominated this pre-development landscape can still be found, and what remains can be maintained, despite the changes we've made and continue making to the landscape.

Habitat loss and fragmentation are the leading threats to biodiversity worldwide, and nowhere is the risk more severe than in southern California. Countering these threats requires protecting connections between our existing open space areas to form a regional wildland network. Such an interconnected set of reserves would allow natural ecological processes—such as migration and range shifts with climate change--to continue operating as they have for millennia.

The South Coast Missing Linkages project has developed a comprehensive plan for such a regional network that would maintain and restore critical habitat linkages between existing reserves. These linkages form the backbone of a conservation strategy for southern California where the whole would be greater than the sum of the parts. This strategy represents the best hope for maintaining what remains of southern California's wildlife legacy, while ensuring quality of life for our citizens via clean air, clean water, and recreational opportunities.

The South Coast Ecoregion encompasses roughly 8% of California and extends 190 miles into Baja.

South Coast Missing Linkages is a highly collaborative inter-agency effort to identify and conserve the highest-priority linkages in the South Coast Ecoregion. Partners include South Coast Wildlands, National Park Service, U.S. Forest Service, California State Parks, The Wildlands Conservancy, The Resources Agency, California State Parks Foundation, The Nature Conservancy, Santa Monica Mountains Conservancy, Resources Legacy Foundation, Conservation Biology Institute, San Diego State University Field Stations Program, Environment Now, Mountain Lion Foundation, and the Zoological Society of San Diego's Conservation and Research for Endangered Species, among others. Cross-border alliances have also been formed with Pronatura, Universidad Autonoma de Baja California, Terra Peninsular, and Conabio, in recognition of our shared vision for ecological connectivity across the border into Baja.

Nature Needs Room to Roam

Movement is essential to wildlife survival, whether it be the day-to-day movements of individuals seeking food, shelter, or mates, dispersal of offspring to find new homes, or seasonal migration to find favorable conditions. Movement is essential for gene flow, for recolonizing unoccupied habitat after a local population goes extinct, and for species to shift their geographic range in response to global climate change. Disruption of these natural movement patterns by roads, development, or other impediments can alter these essential ecosystem functions and lead to losses of species and critical environmental services.

Gerald and Buff Corsi

The tension between habitat fragmentation and conservation is particularly acute in southern California, one of 25 hotspots of biological diversity on Earth, and one of our nation's largest urban areas. It is also one of the most threatened areas, with over 400 species of plants and animals considered endangered, threatened or sensitive by government agencies and conservation groups. Existing reserves conserve many of these species, but wide-ranging species like mountain lions, badgers, and bighorn sheep may be lost from even the largest areas if highways and urbanization isolate each major wildland.

Gerald and Buff Corsi

Despite a half-century of rapid habitat conversion, the South Coast Ecoregion retains valuable wildlands, and opportunities remain to conserve and restore a functional wildland network. The region's archipelago of conserved wildlands is fundamentally one interconnected system, and the goal of South Coast Missing Linkages is to keep it so. It is our hope that the South Coast Missing Linkages plan will serve as a catalyst for directing funds and attention toward the protection of ecological connectivity for the South Coast Ecoregion and beyond.

"Without connectivity, landscapes may be reduced to pathetic remnants that sustain few species and provide little ecological value."

E.O. Wilson

Impediments to Wildlife Movement

Impediments to wildlife movement include roads, railroads, dams, canals, urban development, and agriculture. Loss of connectivity is by no means inevitable, and development does not have to result in a proliferation of barriers to wildlife movement.

In our Ecoregion, roads and urbanization are the major obstacles to wildlife movement. Road effects extend far beyond the road itself and include road kill, disruption of animal movements, spread of exotic species, and increases in pollution, noise, light and fire in wildlife habitats. Roads can fragment large habitat areas into smaller patches that support smaller populations, which are consequently more prone to local extinction. Many of these effects can be mitigated and recommendations to do just that are an important component of our plan for restoring ecological connectivity to the South Coast Ecoregion.

© Clint Graves

Urban developments, unlike roads, create movement barriers that cannot be readily removed, restored, or mitigated. The impacts of urbanization include removal of native vegetation, spread of non-native vegetation, dogs and cats killing and harassing wildlife, artificial night lighting impeding night-time movement, pesticides, rodenticides, noise, disruption of fire regimes, pollution, conflicts with wild animals that eat domestic plants and animals, and altered patterns of water in streams and ponds.

Conservation Planning Approach

South Coast Missing Linkages incorporates advanced conservation planning techniques and the expertise of preeminent scientists. Our approach has been highly collaborative and interdisciplinary with participation by experts in biology, conservation design, and implementation in a reiterative process. This approach has yielded a strong biological foundation and a quantifiable, repeatable conservation design methodology (Appendix A, Conservation Planning Approach) that can be used as the basis for conservation action.

South Coast Missing Linkages developed the linkage designs based on inputs from a series of workshops at which 270 participants from 126 agencies, academic institutions, land managers, planners, conservation organizations, and community groups identified 109 focal species, including 26 plants, 25 insects, 4 fish, 5 amphibians, 12 reptiles, 20 birds and 17 mammals. These focal species cover a broad range of habitat and movement requirements such that planning adequate linkages for their needs is expected to cover connectivity needs for the ecosystems they represent. The linkage designs are based on state-of-the-art GIS analyses informed by experts on each focal species, and contain multiple strands to serve the needs of various species.

To identify potential routes between existing protected areas we conducted landscape permeability analyses for selected focal species for which appropriate data were available. Permeability analyses model the relative cost for a species to move between protected core habitat or population areas. We defined a least-cost corridor—or best potential route—for each species, and then combined these into a Least Cost Union. We then analyzed the size and configuration of suitable habitat patches within this Least Cost Union for all focal species to verify

that the final Linkage Design would suit the live-in or move-through habitat needs of all. Where the Least Cost Union omitted areas essential to the needs of a particular species, we expanded the Linkage Design to accommodate that species' particular requirements, and ensure that no species was left behind. We also visited priority areas in the field to identify and evaluate barriers to wildlife movement. We also suggest restoration strategies to mitigate those barriers, with special emphasis on opportunities to reduce the adverse effects of transportation barriers.

The resultant linkage designs are broad to 1) buffer against edge effects; 2) provide live-in habitat for species needing multiple generations to achieve gene flow through the linkage; 3) ensure availability of key resources; 4) allow natural processes to operate, and 5) allow species and natural communities to respond to climatic changes. A crucial element of each linkage design is a set of recommendations to mitigate barriers, restore habitats, and manage the linkage.

A Scientifically Sound Plan for Conservation Action

The South Coast Missing Linkages conservation plan addresses the challenges posed to our natural environment by the ever-increasing human footprint by seeking to influence regional development and land-management patterns in a manner that best preserves landscape level processes while accommodating economic development needs. We hope this linkage conservation plan will be used to protect an interconnected system of natural space where our native biodiversity can thrive at minimal cost to other human endeavors. For example, the plan can be used as a resource for regional land managers to guide how they can best help sustain biodiversity and ecosystem processes by implementing the linkage designs. Relevant aspects of the plan can be folded into management plans of agencies and organizations administering conservation lands in the region.

Transportation agencies can use the plan to design new projects and find opportunities to upgrade existing structures. Regulatory agencies can use this information to help inform decisions regarding impacts on streams and other habitats.

This report can also help motivate and inform construction of wildlife crossings, watershed planning, habitat restoration, conservation easements, zoning, and land acquisition. Implementing this plan will likely take decades, and will require collaboration among county planners, land and resource management agencies, transportation agencies, conservancies, and private landowners.

Public education and outreach are vital to the success of this effort – both to change land use activities that threaten wildlife

movement and to generate appreciation for the importance of the linkages and the wildland network they will sustain. The biological information, maps, figures, tables, and photographs in this plan are ready materials for interpretive programs. Public education can encourage residents at the urban-wildland interface to become active stewards of the land and generate a sense of place and ownership for local habitats and processes. Such voluntary cooperation is essential to preserving linkage function.

South Coast Wildland Network

South Coast Missing Linkages has prioritized and designed landscape linkages that are widely considered the backbone of a conservation strategy for southern California. The linkages designed by South Coast Missing Linkages stitch together over 18 million acres of our existing conservation investments (national forests, state and national parks, etc.) to form the South Coast Wildland Network (Appendix B, Existing Conservation Investments). The network encompasses 19,435,105 acres (94% is already protected), maintaining connected wildlife populations from the southern Sierra Nevada to Baja California, and from the beaches of Camp Pendleton eastward to the deserts of Anza-Borrego Desert State Park. These critically important linkages must be secured if we are to maintain the region's tremendous biodiversity.

The ecological, educational, recreational, and spiritual values of protected wildlands in the South Coast Ecoregion are immense. These conserved lands also represent an investment of tens of billions of dollars. We need to ensure the ecological health of this investment by securing these linkages.

The linkages identified by South Coast Missing Linkages are key to the ultimate protection and restoration of a wildlands network where our native biodiversity can thrive. The unbroken chain of mountains and foothills created by the South Coast Wildland Network will allow wide-ranging species like the mountain lion to roam from the Sierra Nevada to the Sierra Juarez in Baja California Norte. The South Coast Wildland Network will also provide unparalleled recreational, educational, and spiritual opportunities for more than 17 million people who make southern California their home, while promoting the long-term health of the state's land, water and air.

The following section provides an overview of the critical linkages: where they lie on the landscape, what they connect and the species that use them. The descriptions also provide some recommendations for improving wildlife

movement in each linkage. For a complete description of what is required to conserve and improve functional habitat connectivity in each linkage, please see the full linkage reports available at www.scwildlands.org.

Linkage Design
Conservation Lands
Department of Defense Lands
South Coast Ecoregion
Highway
Major River or Stream
County Boundary

South Coast Missing Linkages:
A Wildland Network for the
South Coast Ecoregion

1:1,350,000

0 10 20 40 60 80 Kilometers

0 10 20 40 60 80 Miles

Las Californias Binational Conservation Initiative

Tehachapi Connection

This linkage has statewide importance as the sole wildland connection between the Sierra Nevada-Cascade system that stretches for over 2000 miles from Kern County into British Columbia, and the 800 mile long upland system comprised of the Sierra Madre (the coast ranges from San Francisco to Los Angeles), Transverse (Santa Monica, San Gabriel, San Bernardino, and San Jacintos Mountains), and Peninsular Ranges (Santa Ana, Palomar, and Laguna Mountains of San Diego County, and the Sierra Juarez of Baja). This linkage is also situated at the juncture of several ecoregions, including the Sierra Nevada, South Coast, Central Valley, and the Mojave Desert. The Tehachapis have been described as a "biogeographic crossroads" and a "crucible of evolution", and are home to a stunning variety of plant and animal life (White et al. 2003). As might be expected in this remarkable landscape, the Linkage Design encompasses a diversity of natural communities, including over 30 vegetation types. About 15% (102,355 out of 663,257 total acres) of the Linkage Design currently enjoys some level of conservation protection, mostly in land administered by the Bureau of Land Management.

Looking down Bear Trap Canyon in the Tehachapi Mountains toward the Sierra Madre Ranges, Los Padres National Forest (Photo Andrew Harvey, VisualJourneys.net).

The Linkage Design has four main strands, which tend to follow elevational contours that connect along areas of similar ecological conditions. One strand includes a swath of grassland and foothill habitats along the southern rim of the San Joaquin Valley to serve the suite of grassland-dependent species clinging to existence there, such as the endangered San Joaquin kit fox and blunt-nosed leopard lizard. A second strand connects a series of higher elevation forest and shrubland habitats serving species, such as puma, western gray squirrel, and mule deer. A third strand follows the desert-side slopes of the Tehachapis, connecting habitats for species, such as

the Tehachapi pocket mouse, that are restricted to the unique conditions of this biogeographic contact zone. These three major strands, or linkages, are clearly separated in the northeast where each connects into the Sierra Nevada, but they tend to fuse in the more geographically constrained southwestern portion of the study area, in the western Tehachapis. Some cross connections were included between these strands to serve the movement needs of species, such as the western pond turtle, that require aquatic and riparian habitats running perpendicular to the main contour-following linkages. The forth strand follows alluvial habitats along the Kern River across the San Joaquin Valley to connect alluvial grasslands and rare alkali habitats required by valley-floor species, such as the endangered Tipton kangaroo rat.

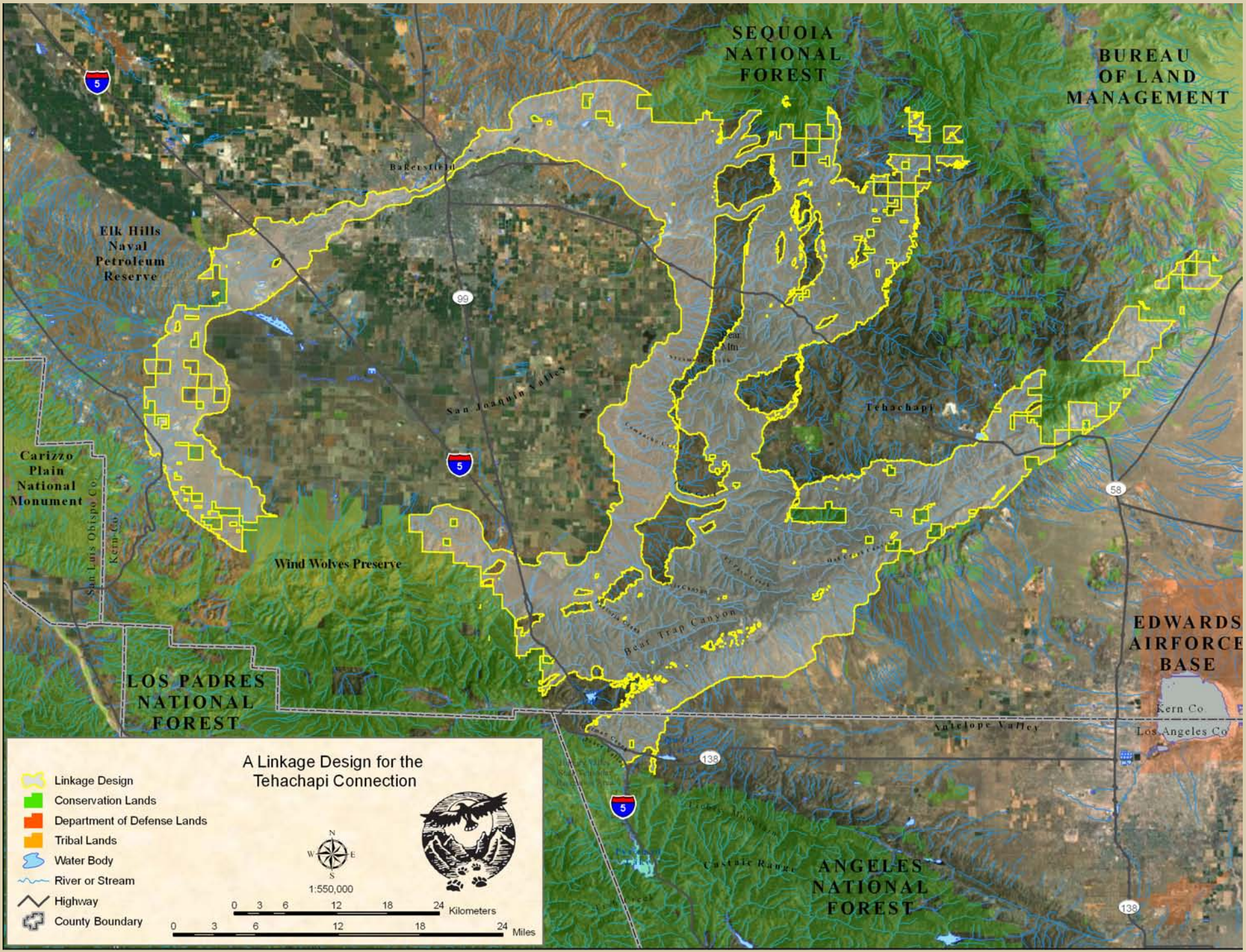
Interstate 5 and State Route 58 are the primary impediments to movement, with I-5 being the most substantial barrier. It bisects the southern part of the linkage and currently lacks adequate crossing structures. Given the continental importance of this linkage, we have identified four locations on I-5 and three locations on SR-58 at which first-class crossing structures should be located. At each of these locations, we recommend either a vegetated landbridge, or a bridged undercrossing large enough to allow natural vegetation to grow throughout the structure.

The top priority for a crossing structure on I-5 is where Grapevine Creek crosses I-5 just south of Ft. Tejon State Park and Tejon Ranch Headquarters. The least cost corridors for puma, mule deer, and western gray squirrel cross the freeway here, and appropriate habitats occur for numerous other species. Grapevine Creek now crosses I-5 in a small box culvert, which should be replaced with a large bridged undercrossing. To maximize the utility of Grapevine Creek as a movement area, we recommend removal of several buildings of the Tejon Ranch Headquarters (two administrative buildings, about a dozen homes, and an old school), and the associated mile of Lebec Road. The area vacated by these buildings should be restored to native vegetation.

Another priority area for improved crossing structures along I-5 is a 3-mile stretch south of the village of Gorman and north of the SR138 interchange. The least cost path of the Tehachapi pocket mouse crosses I-5 here, and suitable habitat occurs for several other focal species. The vegetation on the steep slopes appears to have been overgrazed and now lacks woody cover except in drainage bottoms; restoration or cessation of grazing domestic livestock would be needed. Four box culverts about 5 feet tall and wide are spaced one-half to 1 mile apart, and suggest locations for bridged undercrossings. Each culvert opens directly into Hungry Valley State Park on the west, and into Gorman Valley on the east. Alternatively, a vegetated land bridge may also be feasible in this area.

Culvert on Interstate-5 for Gorman Creek with Hungry Valley State Park in the foreground. Note steep degraded slopes on far side of I-5.

SR-58 is a 4-lane road with heavy traffic volumes. A concrete center divider runs almost continuously from the western foothills to the Tehachapi Creek Bridge at Keene, and again for another mile near Tehachapi. This barrier is about 5 ft tall from its west end to Bealville Road; elsewhere it is about 2.5 ft tall. The major feeder road to SR-58 in the western part of the linkage area (Bear Mountain Road SR-223) is a quiet country lane that is not a major impediment today. However, if lanes are added to SR-233, wildlife passage should be accommodated. Further east, SR-202 runs eastward from the city of Tehachapi into the agricultural but increasingly urban Cummings Valley and nearby residential developments of Stallion Springs and Bear Valley.


SEQUOIA NATIONAL FOREST
BUREAU OF LAND MANAGEMENT
Elk Hills Naval Petroleum Reserve
Bakersfield
99
San Joaquin Valley
Tehachapi
Carizzo Plain National Monument
San Luis Obispo Co
Kern Co
Wind Wolves Preserve
Bear Trap Canyon
58
EDWARDS AIRFORCE BASE
Kern Co
Los Angeles Co
LOS PADRES NATIONAL FOREST
Antelope Valley
138
Castaic Range
ANGELES NATIONAL FOREST
A Linkage Design for the Tehachapi Connection
Linkage Design
Conservation Lands
Department of Defense Lands
Tribal Lands
Water Body
River or Stream
Highway
County Boundary
N
W
E
S
1:550,000
0 3 6 12 18 24 Kilometers
0 3 6 12 18 24 Miles

We recommend first-class crossing structures (canyon-spanning bridges, or vegetated overcrossings) in three areas along SR-58. The first area is in the grasslands near the San Joaquin Valley floor, between the 900-ft and 1400-ft elevation contours. The least cost corridors for blunt-nosed leopard lizard, San Joaquin kit fox, and badger all lie in this 2.5-mile wide stretch of SR-58. The best location for an underpass is at the 1020-ft elevation contour, where the freeway now sits on a 40-ft fill slope that spans a small canyon. Replacing this fill slope with a bridge 40 ft above the canyon bottom and about 500 ft long would provide an excellent crossing opportunity. At the 1280-ft contour, there is a similar fill slope that provides another location for a bridge of similar dimensions. The lower elevation area was modeled as the best habitat for focal species, but habitat quality is high at both sites. There are no dwellings or significant infrastructure (besides the highway) in the area.

Fill slope along SR-58 that should be replaced with a bridge.

The second area we propose an improved crossing structure is in the oak woodlands between the Hart Flat Road interchange with SR-58 and the village of Keene. The least cost corridors for mule deer and western gray squirrel cross SR-58 here and the entire area is excellent mountain lion habitat. The best location for an underpass is at the 2440-ft contour, where the highway now sits on a 20-ft fill slope that should be replaced with a bridge. Alternatively, it may be possible to construct a vegetated overcrossing here.

Oak woodlands between Hart Flat Rd interchange with SR58 and Keene.

We also recommend maintaining the rural character of the landscape at the bridge over Tehachapi Creek. Although this bridge is an excellent crossing, it is not sufficient as the sole structure in the oak woodland belt for several reasons. First, it's on the periphery of the linkage. Second, the crossing structure contains a railroad and a 2-lane paved road. Finally, the wildland approaches to the underpass are steep slopes on both sides of the freeway. To the extent that animals tend to follow streams, an animal that descended the steep slope to reach the underpass may follow Tehachapi Creek east or west (village of Keene in both directions) rather than ascend the steep slope on the other side.

SR-58 bridge over Tehachapi Creek. The paved road connects the east and west portions of Keene.

The third area we recommend a crossing structure is in the transition between Mojave Desert, grassland, and woodland west of Tehachapi, where two bridges now span Sand Creek. The least cost corridors of Tehachapi pocket mouse, mule deer, and mountain lion all cross SR-58 here. Excellent bridges already exist. We recommend enhancement of riparian vegetation underneath the bridges and approaching them.

The north side of SR-58 at Sand Creek.

Santa Monica-Sierra Madre Connection

This linkage is one of the few coastal to inland connections remaining in the South Coast Ecoegion. It stretches from the rugged Santa Monica Mountains at the coast to the jagged peaks of the Santa Susana Mountains and the Sierra Madre Ranges of Los Padres National Forest. The Linkage Design includes substantial public ownership that protects natural habitats from development, with 34% (43,249 of 125,613 acres) of the linkage currently enjoying some level of conservation protection. The linkage is comprised of a rich mosaic of oak woodland, savanna, chaparral, coastal sage scrub, grasslands, and riparian forests and woodlands, and has several major strands to accommodate diverse species and ecosystem functions.

Looking toward the coast over the gently sloping Simi Hills and the rugged Santa Monica Mountains. Photo Credit: Andrew M. Harvey, VisualJourneys.net

For most species, U.S. Route 101 and State Routes (SR) 23, 118, and 126 are the most obvious barriers between core reserves in the Santa Monica and Sierra Madre mountains, while Interstate 5 (I-5) and SR-14 impede movement between the Santa Susana and San Gabriel Mountains. The 101 Freeway is the most substantial impediment to movement. Several existing structures facilitate various levels of animal movement across these freeways.

Liberty Canyon was delineated by the landscape permeability analysis for mule deer, but also provides connectivity for species such as mountain lion and badger. Much research has been done to document the importance of this connection to wildlife (Soulé 1989, Kohn et al. 1999, Edelman 1991, Sauvajot et al. 2000, Allen 2001, Riley et al. 2003, Ng et al. 2004, Riley et al.

2006a). The existing bridge is regularly utilized by deer, coyotes, and raccoons (Ng et al. 2004). The National Park Service is working with Caltrans to provide a wildlife-specific crossing structure at this location, either a bridged underpass or an overpass, to prevent co-location of vehicle traffic and animal movement options (the current situation). Habitat restoration is also recommended, as well as fencing to direct animals towards the structure.

Looking toward the Simi Hills through the Liberty Canyon underpass.

A variety of wildlife has been documented using the bridge at Alamos Canyon, including mountain lion, bobcat, coyote mule deer, striped skunk, raccoon, small mammals and birds (Ng 2000, Psomas 2002, LSA 2004). This bridge should be maintained, and if the existing road is not needed for vehicular access for maintenance purposes, we suggest removal of the pavement and habitat restoration. We advise conservation of contiguous natural habitats between Happy Camp Canyon Park and protected areas in the Simi Hills and Tierra Rejada Valley.

Looking toward the Santa Susanas through the bridge at Alamos Canyon.

Rocky Peak is in the eastern strand of the linkage and was delineated by the least cost corridor analyses for mountain lion, badger, and mule deer, but also provides habitat for virtually every other focal species modeled. Several protected areas occur here, including Rocky Peak, Santa Susana State Historic, and Corriganville parks. This roadway overpass (roughly 60 feet wide and 130 feet long) connects Santa Susana State Historic Park south of SR-118, with Rocky Peak Park to the north. Mule deer, coyote, bobcat, raccoon, and skunk have been recorded utilizing this structure. The existing bridge could be converted to a vegetated land bridge, with native shrubs and trees tall enough to block lighting and reduce noise from traffic. One lane could be decomposed granite for emergency vehicle access.

Looking south at the Rocky Peak overpass.

Caltrans is working with the National Park Service to monitor wildlife movement at several culverts under SR-23. Proposed improvements include clearing tunnels and culverts and installing wildlife-proof fencing with escape gates to direct animals off the road and through underpasses. The pipe culvert to the right is located north of the Tierra Rejada Valley. Ng et al. (2004) recorded bobcat, coyote, and raccoon using this structure. We encourage protection of remaining natural habitats and conservation measures to maintain the rural character of the Tierra Rejada Valley.

Pipe culvert north of Tierra Rejada; typical of most structures on SR-23.


A Linkage Design for the
Santa Monica - Sierra Madre Connection
Linkage Design
Conservation Lands
Department of Defense Lands
Tribal Lands
Water Body
River or Stream
Highway
County Boundary
1:350,000
0 1.5 3 6 9 12 Kilometers
0 1.5 3 6 9 12 Miles
Sierra Madre Range
LOS PADRES NATIONAL FOREST
SESPE CONDOR SANCTUARY
Santa Monica Mountains National Recreation Area
Point Mugu State Park
Malibu Creek State Park
Topanga State Park
Santa Monica
Ventura
Oxnard
Camarillo
Thousand Oaks
Simi Valley
Santa Paula
Fillmore
Santa Clarita
Rocky Peak Park
Happy Camp Canyon Park
Oak Ridge
Big Mountain
Santa Susana Mountains
Piru Lake
Castaic Lake
Santa Clara River
Santa Clara River
South Mountain
Las Posas Hills
Conejo Mountain
Santa Rosa Valley
Tierra Rejada Valley
Lasley Mesa
Simi Peak
Newhall Ranch Open Space
San Fernando Park
5
126
118
101
405
14
PCH

Sierra Madre-Castaic Connection

This linkage serves to connect the Los Padres and Angeles national forests. The Linkage Design encompasses 398,944 acres, of which 75% is already protected. It covers very diverse ecological settings and encompasses several major vegetation types. It has several main strands, reflecting variation in the habitat needs of different sets of target species. The northern strand is dominated by pinyon-juniper woodland, sagebrush, and desert scrub habitats and serves linkage needs of badger, puma, and mule deer. The central strands connect at generally higher elevations, including a series of hardwood, conifer, chaparral, and riparian habitats. They serve the needs of numerous focal species, including puma, mule deer, Pacific kangaroo rat, California spotted owl, acorn woodpecker, mountain kingsnake, pond turtle, two-striped garter snake, Monterey salamander, and bear sphinx moth. The southernmost strand of the Linkage Design follows the southern foothills and is dominated by coastal oak woodland, coastal sage scrub, valley foothill riparian, and grassland habitats. It provides the only fairly contiguous belt of coastal habitats in the Linkage Design, and provides connectivity for mule deer; Pacific kangaroo rat, acorn woodpecker and Monterey salamander, as well as many other species.

View from the Ridge Route of the Castaic Ranges in spring.

Interstate 5 and State Highway 33 are major transportation routes and are the greatest barriers to wildlife movement. By far the largest of these impediments is I-5, which bisects the linkage for a distance of 27 miles, and currently lacks adequate crossing structures. We call attention to five particular areas (Gorman Creek, Coyote Canyon, Cherry Canyon, Forest Road 6N43, and Big Oak Flat/Canton Canyon) where large crossing structures are needed on Interstate 5. These five areas are important because they provide opportunities for movement of animals via riparian and upland habitats and correspond to least-cost corridors for focal species.

Just south of the SR 138 interchange, Gorman Creek flows through a large bridged undercrossing with concrete flooring. It is then diverted to a concrete channel and funneled toward Pyramid Lake. The channel is fenced with chain link and barbed wire. We recommend removing the concrete flooring of the structure, the entire length of the concrete channel, and the fencing; restoring riparian habitat through the structure; and, if necessary, tapping the water of Gorman Creek farther south. Coordination with the California Department of Water Resources and other agencies will be essential to restore Gorman Creek.

Gorman Creek undercrossing just south of I-5/SR-138 interchange.

Cherry Canyon provides suitable habitat for puma, mule deer, Pacific kangaroo rat, and California spotted owl. At present Cherry Canyon leads to a steep fill slope at I-5. There are many deer trails on this slope, and a major deer trail up Cherry Canyon to the toe of the fill slope. Clearly deer are currently crossing at grade. Topography would allow a wildlife overpass on either the west or the east ridge of Cherry Canyon. Since this is one of the largest canyons crossing I-5, and it offers a direct link to Piru Creek below Pyramid dam, we suggest either a wildlife overpass (where existing cut banks occur) or a bridge be installed across the main wash that follows the contours that existed before the fill slope was created.

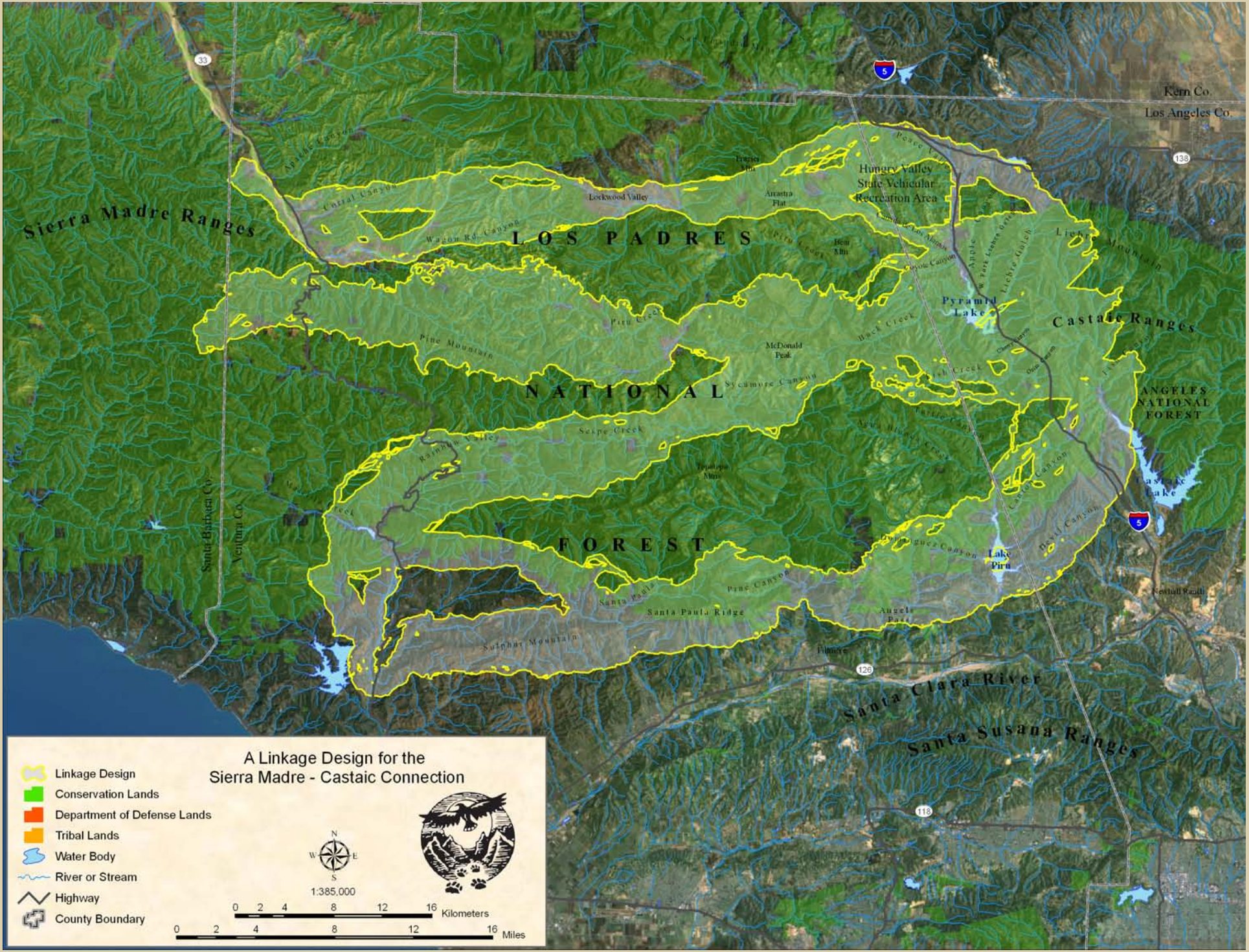
Potential site for vegetated landbridge on I-5 on the east ridge of Cherry Canyon.

The bridged underpass for Templin Highway at Canton Canyon is the only large underpass south of Pyramid Lake and currently provides one of the safest wildlife crossings. It is also used by (a) about 20 residences in the area, (b) a few recreationists, and (d) workers at the Castaic power plant. We recommend working with landowners to minimize land uses that compromise linkage function. We suggest reducing the pavement in the underpass from 4 to 2 lanes, restoring and redirecting Canton wash from the concrete culvert, and making the bridge wide enough to accommodate the wash. This would provide ample room to enhance wildlife movement and provide vehicular access.

Canton Canyon with Templin Highway underpass at the center of the photo.

The Linkage Design crosses SR 33 in four areas. The best existing structure south of Ojai, which should be maintained is where San Antonio Creek passes under the 33 to join the Ventura River. From the north end of Meiners Oaks and Ojai to the confluence of Apache Canyon with the Cuyama River, we suggest constructing at least one expansive bridge every mile and crossing structures for reptiles, amphibians, and small mammals every 450-900 feet.

San Antonio Creek passing under the 33 to join the Ventura River.


A Linkage Design for the
Sierra Madre - Castaic Connection
Linkage Design
Conservation Lands
Department of Defense Lands
Tribal Lands
Water Body
River or Stream
Highway
County Boundary
1:385,000
0 2 4 8 12 16 Kilometers
0 2 4 8 12 16 Miles
Sierra Madre Ranges
LOS PADRES
NATIONAL
FOREST
Castaic Ranges
Santa Susana Ranges
Santa Clara River
Hungry Valley
State Vehicular
Recreation Area
Pyramid
Lake
Castaic
Lake
Lake
Piru
Kern Co.
Los Angeles Co.
Santa Barbara Co.
Ventura Co.
Lockwood Valley
Arastra
Flat
Pine Mountain
McDonald
Peak
Sespe Creek
Rainbow Valley
Santa Paula
Santa Paula Ridge
Pine Canyon
Sulphur Mountain
Fillmore
Piru Creek
Sycamore Canyon
Castaic Canyon
Devil Canyon
Apache Canyon
Central Canyon
Wagon Rd. Canyon
Bear
Mtn.
Frazier
Mtn.
Liebre
Mountain
Liebre Gulch
Oak Grove
Oak Forest
Bear Creek
Fish Creek
Cattle Canyon
Agua Blanca Creek
Tejon Canyon
Tejonpan
Mtn.
Angeles
Pass
Kentucky Ranch
33
5
138
126
118

San Gabriel-Castaic Connection

The majority of both the San Gabriel and Castaic ranges are included in the National Forest system, together forming the Angeles National Forest. The linkage encompasses a unique transition zone between coastal and desert landscapes, featuring coastal sage and chaparral on the west, and desert scrub, juniper and Joshua tree woodlands to the east. The Santa Clara River, one of the last free-flowing rivers in southern California and an integral part of the linkage, provides breeding sites and traveling routes for a variety of wildlife, and supports other critical natural processes such as natural flood control, recharge of groundwater basins, and nutrient cycling. Approximately 12% (2,772 out of 23,947 total acres) of the Linkage Design currently benefits from some level of conservation protection, mostly in Bureau of Land Management parcels and Vasquez Rocks County Park.

Looking toward the San Gabriel Mountains from Vasquez Rocks County Park. Photo credit Andrew M. Harvey, VisualJourneys.net.

The Linkage Design has three strands. The northwest strand is dominated by coastal sage scrub and chaparral and encompasses all or portions of Bee, Spring, Tapie, Tick, and Mint Canyons. It serves most of the focal species, including puma, mule deer, Pacific kangaroo rat, and California thrasher. The eastern strand connects a series of desert scrub and juniper woodland habitats, thereby linking habitat for species such as badger, burrowing owl, and bear sphinx moth that prefer the open habitats that are prevalent in desert plant communities. The third distinct strand of the Linkage Design follows the Santa Clara River and Soledad Canyon and provides large stepping-stones of habitat for semi-aquatic species, such as the western pond turtle, two-striped garter snake, and mountain kingsnake; it also serves a suite of aquatic and riparian-dependent

species (e.g., Unarmored three-spine stickleback, Santa Ana sucker, arroyo chub, California red-legged frog, arroyo toad), not specifically addressed by our analyses.

State Route 14 and Sierra Highway are major transportation routes and pose the greatest barriers to wildlife movement. By far the largest of these impediments is SR-14, which bisects the southern part of the linkage for a distance of eight miles. We have identified four locations at which crossing structures should be located (1) near the confluence of Spring Canyon, Bee Canyon and the Santa Clara River; (2) Agua Dulce Canyon; and (3 & 4) both places where Escondido Creek crosses the freeway.

The least cost corridors for puma, badger, mule deer, and Pacific kangaroo rat cross the freeway near the confluence of Spring Canyon, Bee Canyon, and the Santa Clara River. The existing bridge for Spring Canyon Road is inadequate to accommodate wildlife movement due to the steep fill slope for Soledad Canyon Road, lack of natural vegetation, asphalt in the two-lane underpass, and the mining operation in the Santa Clara River make it unlikely that this structure and the surrounding habitat can be restored to provide meaningful connectivity in the foreseeable future. We recommend a new bridge about 1200 feet east of the existing structure, and redirecting the main channel of Spring Canyon so that it would join Bee Canyon just south of SR-14, near the Santa Clara River. The new bridge would replace a section of fill slope along the low ridge between lower Spring and Bee Canyons. This design would provide a long and essentially undisturbed canyon (Spring Canyon) that would funnel animals toward a SR-14 underpass from the north. The south side of the freeway is close to both riparian and upland habitats, and away from the gravel mine.

Removing the fill slope under SR-14 would route Spring Canyon to Bee Canyon and the Santa Clara River.

Agua Dulce Canyon vehicle underpass, with drainage culvert for stream visible to the left of the underpass.

At present Agua Dulce Creek passes under SR-14 via an oversized concrete pipe culvert, with concrete flooring, poor visibility to the other side, and no vegetation in the structure, reducing the likelihood for plant and animal movement. South of SR-14, the riparian vegetation is well developed with cottonwoods, sycamores, and willows, and no significant riparian or upland impediments between SR-14 and Soledad Canyon (and the Angeles NF boundary) about two miles to the south. Immediately north of the freeway, the riparian vegetation is much reduced, and the town of Agua Dulce lies about one mile north, impeding meaningful riparian connectivity at this time. To maximize the utility of Agua Dulce Creek as a movement area, we recommend removing the fill slope under SR-14 and upgrading the existing vehicle underpass to a bridged undercrossing that spans the canyon. Improving this structure could help animals get to Vasquez Rocks or funnel them toward the middle strand of the Linkage Design to Spring, Tapie, and Tick Canyons.


Sierra Pelona Mountains
ANGELES
NATIONAL
FOREST
Castaic Ranges
Del Sur Ridge
Sierra Pelona Valley
Agua Dulce
VASQUEZ ROCKS
Escondido Canyon
Soledad Canyon
Santa Clarita
San Gabriel Mountains
ANGELES
NATIONAL
FOREST
Magic Mountain
A Linkage Design for the
San Gabriel - Castiac Connection
Linkage Design
Conservation Lands
Department of Defense Lands
Tribal Lands
Water Body
River or Stream
Highway or Major Road
1:130,000
Kilometers
Miles

San Gabriel-San Bernardino Connection

This linkage provides connectivity between two expansive areas of the Angeles and San Bernardino National Forests. Approximately 66% (77,941 out of 129,901) of the Linkage Design currently enjoys some level of conservation protection, mostly in National Forest land, whose management policies do not allow conversion to urban or agricultural use. The San Andreas Rift Zone runs through the linkage, producing steep rugged topography and a variety of microhabitats that support a rich diversity of natural communities, from coastal sage scrub and alluvial fan habitats in the southern foothills, chaparral, mixed conifer and oak woodlands in the central part of the linkage, transitioning to pinyon-juniper woodlands and desert scrub in the north. This linkage provides live-in and move-through habitat for rare wildlife such as bighorn sheep, San Bernardino kangaroo rat, and the metalmark butterfly.

Snow capped peaks in the San Gabriel-San Bernardino Connection.

At first glance, the linkage between the San Bernardino and San Gabriel Mountain Ranges seems simply to be a matter of getting plants and animals across Interstate 15. Indeed, for most species, the freeway is the most obvious barrier between core population centers, and National Forest land abuts both sides of the freeway for several miles. However, a Linkage Design that simply maintained and improved permeability along I-15's frontage with Forest Service land would fail to provide connectivity for lowland species along the southern foothills, and could result in Baldy Mesa becoming an island or peninsula of habitat, hemmed in by urban and agricultural land on the north, increasingly dense ranchette development on the south and west, and I-15 on the south and east. Therefore, the Linkage Design has three roughly parallel routes to accommodate diverse species and ecosystem functions.

The northern strand offers a high desert connection dominated by chaparral with scattered patches of desert scrub, juniper and Joshua tree woodlands, grassland, and riparian habitats, serving species such as the badger, rock wren, horned lizard, and metalmark butterfly. It extends

from the Upper North Fork of Lytle Creek, across Stockton Flat, down into Lone Pine Canyon, across Cajon Pass to Horsethief Canyon, up into Summit Valley and then on to the West Fork of the Mojave River. The central strand links a series of higher elevation forest and shrubland habitats serving numerous species, including puma, mule deer, spotted owl, mountain quail, and wrentit. This strand also offers the best potential connection for bighorn sheep, pygmy nuthatch, treefrog, whipsnake, and speckled dace. It encompasses the majority of land between Upper Lytle Creek Ridge, lower Lone Pine Canyon, Crowder and Cleghorn Canyons in the north and Cucamonga and Arrowhead Peaks in the south. The southern strand encompasses coastal and alluvial fan scrub habitats from San Antonio, Cucamonga, Deer, Day, Etiwanda, Morse, and San Sevaine creeks, to Lytle Creek and Cajon Wash, serving the movement needs of the endangered San Bernardino kangaroo rat and slender-horned spineflower, as well as the Pacific kangaroo rat, tarantula hawk, giant flower-loving fly, and California sagebrush.

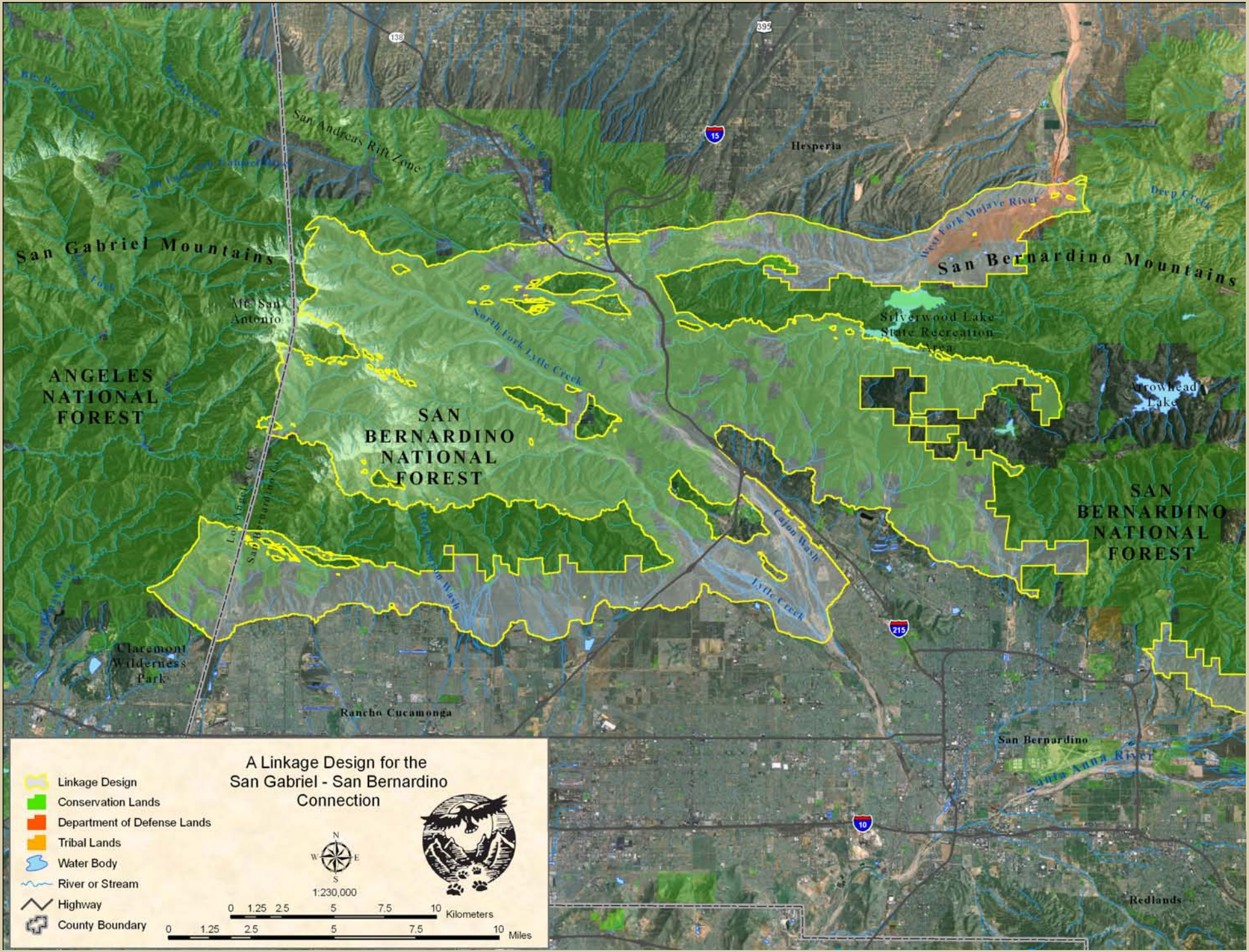
Interstate 15 and State Route 138 are the major transportation routes and pose the most substantial barriers to wildlife movement. Interstate 15 is by far the most severe impediment, bisecting the linkage for a distance of roughly 17 miles, with 46 million vehicles a year traveling through the pass (USDA Forest Service 2004). Currently, State Route 138 (Rim of the World) is a two-lane road that receives light tourist traffic, though substantial increases in traffic and upgrading of the highway are planned. The US Forest Service is working with the Department of Transportation and Biological Resources division of US Geological Survey to design adequate linkages that will include one or more bridges and other large crossing structures to accommodate wildlife movement. Historic Route 66 and several major rail lines run alongside the freeway in many areas, adding to the barrier effect.

View down Cleghorn Canyon under I-15.

There are currently three bridges along I-15 that accommodate animal movement. All three occur within a one and a half mile long section of the highway south of the Cajon interchange. By far the best of these is the bridge at Cleghorn Canyon. The Least Cost Corridors for puma, mule deer, and bighorn sheep cross I-15 at Cleghorn Canyon, and there is a perennial spring in the upper canyon that draws animals into the drainage. Until new or upgraded crossing structures are available, it is critical that this structure be maintained and that the private and public lands near it are protected from urban development.

The other two bridged crossings lie to the north of Cleghorn Canyon and south of the site of old Cajon. Compared to the bridge at Cleghorn Canyon, these bridges have shorter spans, less clearance above the wash, and the canyons drain much smaller watersheds (100 to 300 acres, compared to about 1500 acres for Cleghorn). They may be expected to serve focal species, such as the Pacific kangaroo rat, San Diego horned lizard, and Chaparral whipsnake.

Bridges on I-15 north of Cleghorn Canyon; the top is 0.7 miles north of Cleghorn; the bottom is 400 yards south of the Cajon interchange.


San Gabriel Mountains
San Bernardino Mountains
ANGELES NATIONAL FOREST
SAN BERNARDINO NATIONAL FOREST
SAN BERNARDINO NATIONAL FOREST
San Andreas Rift Zone
Hesperia
Mt. San Antonio
North Fork Lytle Creek
Silverwood Lake State Recreation Area
Arrowhead Lake
West Fork Mojave River
Deep Creek
Cajon Wash
Lytle Creek
Los Angeles Co.
San Bernardino Co.
Claremont Wilderness Park
Rancho Cucamonga
San Bernardino
Santa Ana River
Redlands
138
395
15
215
10
A Linkage Design for the San Gabriel - San Bernardino Connection
Linkage Design
Conservation Lands
Department of Defense Lands
Tribal Lands
Water Body
River or Stream
Highway
County Boundary
N
W
E
S
1:230,000
0 1.25 2.5 5 7.5 10 Kilometers
0 1.25 2.5 5 7.5 10 Miles

San Bernardino-Granite Connection

This linkage connects the San Bernardino National Forest with extensive natural lands in the Granite, Ord, and Rodman Mountains. The Linkage Design encompasses 11,322 acres, of which approximately 38% (4,272 acres) currently enjoys some level of conservation protection, mostly Bureau of Land Management lands in the eastern strand of the linkage. This linkage is also within the California Desert Conservation Area and is addressed by the West Mojave Plan (BLM 2003, 2005). The linkage comprises two main strands, which accommodate overlapping but somewhat different suites of species.

The western strand was delineated by the permeability analyses for bighorn sheep, badger, and Pacific kangaroo rat and includes both riparian and upland habitats. It would also serve the movement needs of such diverse species as antelope ground squirrel, desert woodrat, and speckled rattlesnake. It extends from the San Bernardino Mountains, encompassing both Grapevine and Lovelace canyons, through Fifteenmile Valley and across State Highway 18, to enter the Granite Mountains at Fifteenmile Point. There is little surface water in the linkage, but Grapevine Canyon flows out of the San Bernardino Mountains through a dense riparian forest dominated by cottonwood (*Populus fremontii*) and various willow species (*Salix* spp.) before emptying into a broad bajada in Fifteenmile Valley. In addition to facilitating movements for several focal species, this strand supports habitat for several listed and sensitive species, including the Mojave ground squirrel (CDFG 2005).

The eastern strand of the Linkage Design encompasses rocky terrain and is dominated by creosote bush with scattered Joshua trees.

The eastern strand of the Linkage Design encompasses more rocky terrain. It was also delineated by the permeability analysis for bighorn sheep but should also serve badger, antelope ground squirrel, Pacific kangaroo rat, Merriam's kangaroo rat, and rock wren. This strand extends from Black Hawk Mountain near Cushenberry Canyon in the San Bernardino Mountains, through Fry Valley to the Fry and Rodman Mountains, crossing State Highway 247 between Lucerne and

Johnson Valleys. It encompasses Joshua tree woodland and pinyon-juniper woodland in the foothills of the San Bernardino Mountains, desert scrub through the valley and Fry Mountains, and sagebrush habitats in the Rodman Mountains. The eastern strand of the linkage includes substantial public ownerships that protect natural habitats from development.

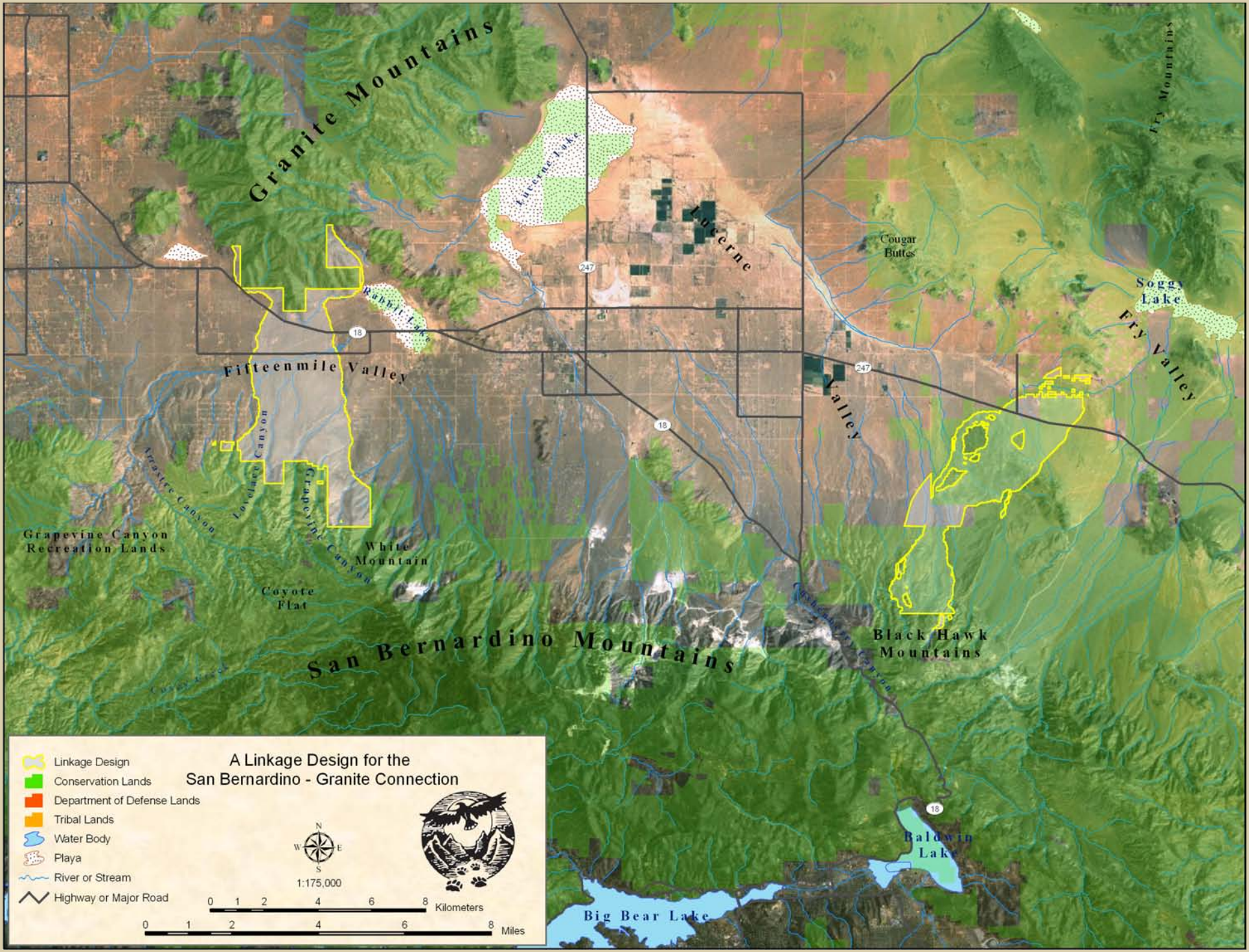
State Highway 18 (Happy Trails Highway) and Highway 247 (Old Woman Spring Road) are the only major transportation routes crossing the linkage and the only paved roads. State Highway 18 bisects the western strand of the linkage and State Highway 247 crosses the eastern strand; both are currently at grade for their entire length. Opportunities for using natural topographic features to enhance habitat connectivity in the linkage are limited and no crossing structures currently exist. The speed limit is 55 mph along both stretches of highway in the linkage, but many vehicles far exceed this limit. Although flat desert highways seem to be destined for high speeds, we suggest reducing the speed limit on both highways to 45 mph through each strand of the linkage. We also recommend installing wildlife crossing signs to alert drivers they are entering a wildlife movement corridor. Laser and infrared activated warning signs with flashing lights may be an option to alert drivers to slow down for wildlife (Reed 1981, Messmer et al. 2000, Gordon 2001, Robinson et al. 2002, Huijser and McGowen 2003). These two actions alone could significantly reduce wildlife mortality in the linkage area but other measures can be taken to improve wildlife movement when the next highway improvement projects are undertaken. Future transportation projects will likely widen both of these two-lane highways to at least four lanes. These transportation improvement projects represent timely opportunities to improve habitat connectivity. We suggest a roadkill study as part of the upgrade projects, with design of crossing structures contingent on results.

Western strand: State Highway 18 looking south toward Grapevine and Lovelace canyons in the San Bernardino Mountains from Fifteenmile Point in the Granite Mountains.

In the western strand, we recommend burying or elevating a stretch of State Highway 18 at least 650 feet long to provide an at-grade wildlife crossing that conforms to the natural topography of the site. To either side of this structure, we suggest installing several pipe culverts (one foot diameter), spaced fairly frequently to provide passage for small mammals and reptiles.

If wildlife movement studies for road improvement projects confirm bighorn sheep movement through the eastern strand of the linkage, we recommend installing a vegetated overpass over State Highway 247. Although the topography in this area isn't ideal to accommodate a ridge-to-ridge overpass, there is a ridge south of the highway that could be extended out and over the roadway, creating an overpass for wildlife and a tunnel for vehicular traffic. The structure should be at least 650 to 985 feet wide and should be strong enough to allow placement of large boulders along each side of the overpass to minimize noise from the highway, with a soil depth sufficient to maintain desert vegetation. The overpass should be vegetated using plants propagated from cuttings and seed collected from the surrounding vegetation communities.

Eastern strand: the ridge south of the highway could be extended out and over the roadway providing an overpass for wildlife and a tunnel for vehicular traffic.


Granite Mountains
Fry Mountains
Lucerne Lake
Lucerne
Cougar Buttes
Soggy Lake
Fry Valley
Rabbit Lake
247
18
Fifteenmile Valley
Valley
Grapevine Canyon Recreation Lands
Fraser Canyon
Lovelace Canyon
Grapevine Canyon
White Mountain
Coyote Flat
San Bernardino Mountains
Black Hawk Mountains
Baldwin Lake
Big Bear Lake
Linkage Design
Conservation Lands
Department of Defense Lands
Tribal Lands
Water Body
Playa
River or Stream
Highway or Major Road
A Linkage Design for the
San Bernardino - Granite Connection
N
W
E
S
1:175,000
0 1 2 4 6 8 Kilometers
0 1 2 4 6 8 Miles

San Bernardino-Little San Bernardino Connection

This linkage connects San Bernardino National Forest with Joshua Tree National Park. It also connects the South Coast Ecoregion to the Mojave and Sonoran Deserts and encompasses a unique variety of both coastal and desert habitats. The Linkage Design encompasses 60,805 acres, of which approximately 62% (37,650 acres) currently receives some level of conservation protection. The majority of land in the Linkage Design within Riverside County will be included in the Coachella Valley Multiple Species Habitat Conservation Plan (MSHCP).

The Big Morongo Canyon Preserve in the linkage is known internationally for its bird diversity. In this landscape of predominantly dry vegetation, the desert oases provide essential resources that attract a diversity of wildlife such as mountain lion, bighorn sheep as well as rare aquatic species.

The Linkage Design has five major swaths or strands. The most northerly strand is a high desert connection dominated by juniper and Joshua tree woodlands. It extends from Antelope Creek and meanders in and out of Pipes Canyon, takes in a wide swath of habitat between Morongo and Yucca Valleys, and enters Joshua Tree National Park near Burnt Mountain. The next strand extends from Onyx Spring in the San Bernardino Mountains, and follows Little Morongo Canyon; it is especially important for species requiring a contiguous riparian connection. The next strand follows Big Morongo Canyon, which flows out of the San Bernardino Mountains through riparian forests dominated by white alders and cottonwoods before emptying into a broad bajada in the Morongo Basin, which then feeds the oasis in Big Morongo Canyon Preserve. The widest strand extends from Dry Morongo Canyon to Mission Creek and encompasses the steepest terrain along State Route 62. Dry Morongo Creek flows southward out of the San Bernardino Mountains, passes under State Route 62, and then meanders along the highway to empty into Mission Creek. The most southerly strand encompasses much of the Mission Creek watershed, as well as the southern segments of Little Morongo, Big Morongo, and Dry Morongo washes, where they empty into Mission Creek.

State Route 62 is the most substantial impediment to movement within the Linkage Design. Several structures along State Route 62 accommodate various levels of animal movement.

Mission Creek is an excellent lowland linkage that provides live-in and move-through habitat for several species. Desert scrub occurs in the uplands, and desert willows line Mission Creek. There are two well-designed bridges where the creek flows under the highway and animals that follow washes could then enter Big Morongo, Midway, or White House Canyons in the Little San Bernardino Mountains. Big Morongo appears to be the best route; we recorded numerous species using it, including mountain lion, bobcat, and gray fox. Off-road vehicle signs were visible beneath both bridges and efforts should be made to discourage these activities.

One of two bridges for Mission Creek; this is the southernmost bridge.

The least cost corridor for bighorn sheep crossed State Route 62 in very rugged topography. We recommend a ridge to ridge vegetated overpass. To the extent possible, the overpass should follow the contours that existed prior to the highway being constructed. The structure should be at least 650 to 985 feet wide and strong enough to allow placement of large boulders along each side to minimize noise from the highway. The overpass should be vegetated using plants propagated from cuttings and seed from the area.

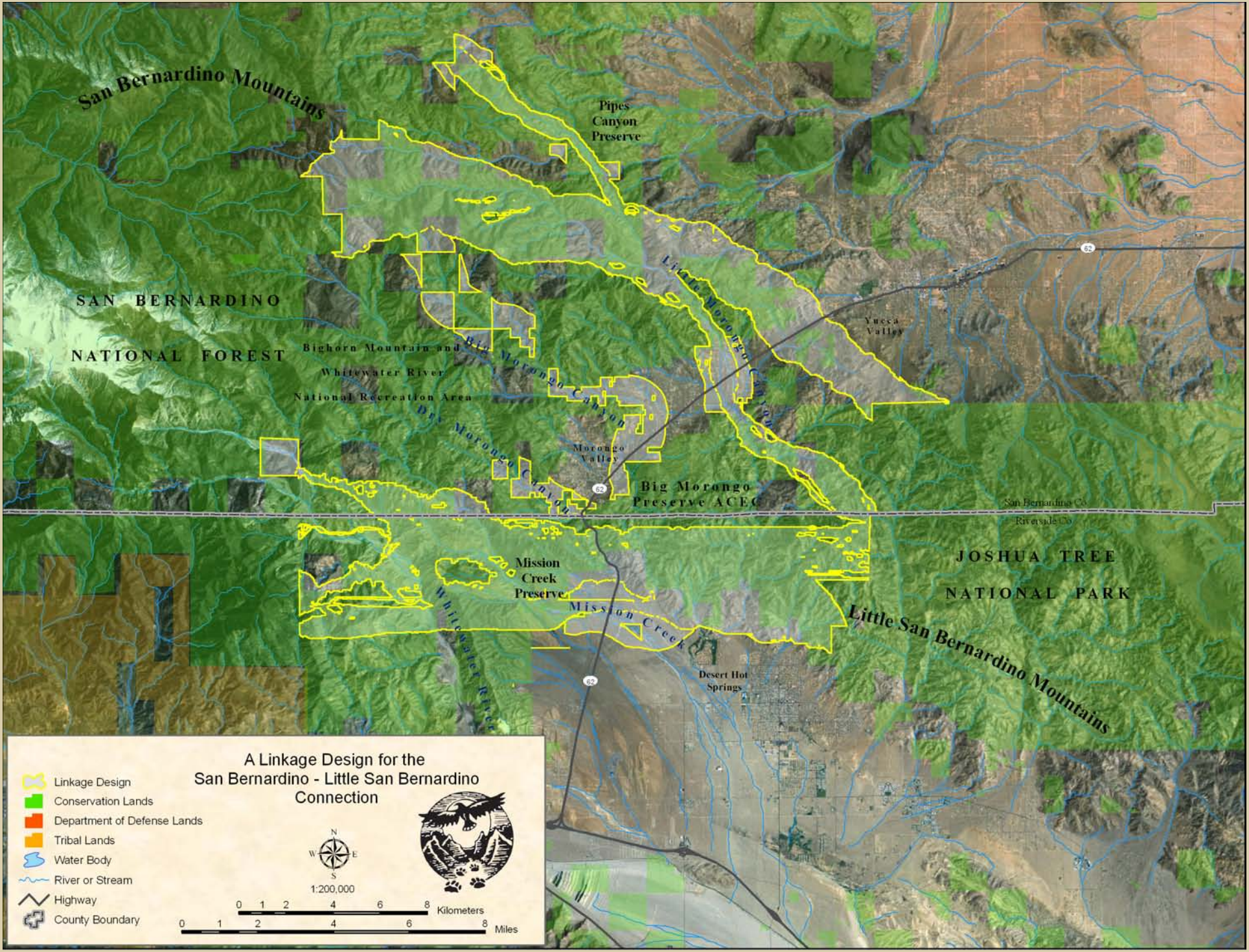
We recommend a vegetated wildlife overpass be built in this area to accommodate bighorn sheep movement.

A well-designed bridge that allows wildlife movement is found where Dry Morongo Wash flows under State Route 62. There are springs in the upper canyon that draw animals into the drainage. The area is also popular with off-road vehicle enthusiasts. These activities impact soils and vegetation and will inhibit species from using this crossing. We recommend preventing off-road vehicles from entering the canyon and enforcing closures. This structure should be maintained and lands near it protected.

Looking down Dry Morongo Canyon from BLM parcel west of the highway.

Big Morongo Wash passes under State Route 62 via a box culvert. We recommend a bridge here that is tall enough and sufficiently wide to provide views to the other side, with natural flooring. We recommend measures to confine light and noise pollution to home sites, and advise conservation of land in the broad bajada of the wash, and parcels that straddle the highway to enhance the integrity of the linkage.

The culvert for Big Morongo Wash flowing under State Route 62.


San Bernardino Mountains
Pipes Canyon Preserve
SAN BERNARDINO
NATIONAL FOREST
Bighorn Mountain and Whitewater River
National Recreation Area
Big Morongo Canyon
Dry Morongo Canyon
Little Morongo Canyon
Yucca Valley
Morongo Valley
Big Morongo Preserve ACEC
San Bernardino Co.
Riverside Co.
Mission Creek Preserve
Whitewater River
Mission Creek
JOSHUA TREE
NATIONAL PARK
Little San Bernardino Mountains
Desert Hot Springs
62
A Linkage Design for the
San Bernardino - Little San Bernardino
Connection
Linkage Design
Conservation Lands
Department of Defense Lands
Tribal Lands
Water Body
River or Stream
Highway
County Boundary
N
W
E
S
1:200,000
0 1 2 4 6 8 Kilometers
0 1 2 4 6 8 Miles

This linkage provides a connection between the San Bernardino and San Jacinto mountains, which together form the San Bernardino National Forest. The San Bernardino Mountains are part of the Transverse Ranges and feature the highest peak in southern California, Mount San Gorgonio, while the San Jacinto Mountains are the highest and northernmost of the Peninsular Ranges. Both coastal and desert habitats occur in the lowlands between these mountain masses, with the San Gorgonio River marking the transition between coastal habitats in the west and desert habitats in the east. The Linkage Design encompasses a total of 74,414 acres, of which approximately 29% (21,223 acres) is currently protected. The majority of unprotected land in the linkage could be conserved through the Western Riverside MSHCP and the Coachella Valley MSHCP (County of Riverside 2002, CVAG 2004).

Looking across the broad bajada of the San Gorgonio River toward the San Jacinto Mountains.

The Linkage Design has five routes to accommodate diverse species and ecosystem functions. The western strand links the San Bernardino Mountains with the Badlands and extends from Noble Creek in the San Bernardino Mountains, taking in the wide swath of natural habitats remaining between the communities of Calimesa and Cherry Valley, and entering San Timoteo Canyon in the Badlands. The next strand encompasses the San Gorgonio River, which forms a substantial alluvial fan through the pass to its confluence with the Whitewater River. This strand is intended to serve badger, large-eared woodrat, Merriam's kangaroo rat, and coast horned lizard. The San Gorgonio River is especially important for a number of rare endemic species associated with alluvial fans (County of Riverside 2002, CVAG 2004). The strand in the foothills of the San Jacinto Mountains near the confluence of Smith Creek and the San Gorgonio River accommodates several focal species including mountain lion, chaparral whipsnake, and slender-horned spineflower. The Stubbe Canyon Wash strand was delineated by the landscape

permeability analysis for mountain lion but is also expected to serve species such as badger and little pocket mouse. The easternmost strand follows the Whitewater River, which empties into a broad bajada in the San Gorgonio Pass at the base of the San Jacinto Mountains. This strand was delineated by the landscape permeability analysis for puma but also serves focal species such as California treefrog, and white alder.

Interstate 10, Highway 111 and Highway 79 are the major transportation routes posing the most substantial barriers to movement. Interstate 10 bisects the linkage for roughly 11 miles. Several existing structures accommodate various levels of animal movement.

There is a series of crossing structures where the San Gorgonio River flows under Interstate 10, and for the service road between the freeway and the railroad tracks. Animals that follow washes can then enter several canyons in the San Jacinto Mountains. Just downstream, however, a low concrete dike runs almost the full width of the river, deflecting flow to the south bank to protect a mining operation that occupies the river bottom. Mining operations in the river decrease its value as a travel corridor, closing and restoring these areas would benefit this connection.

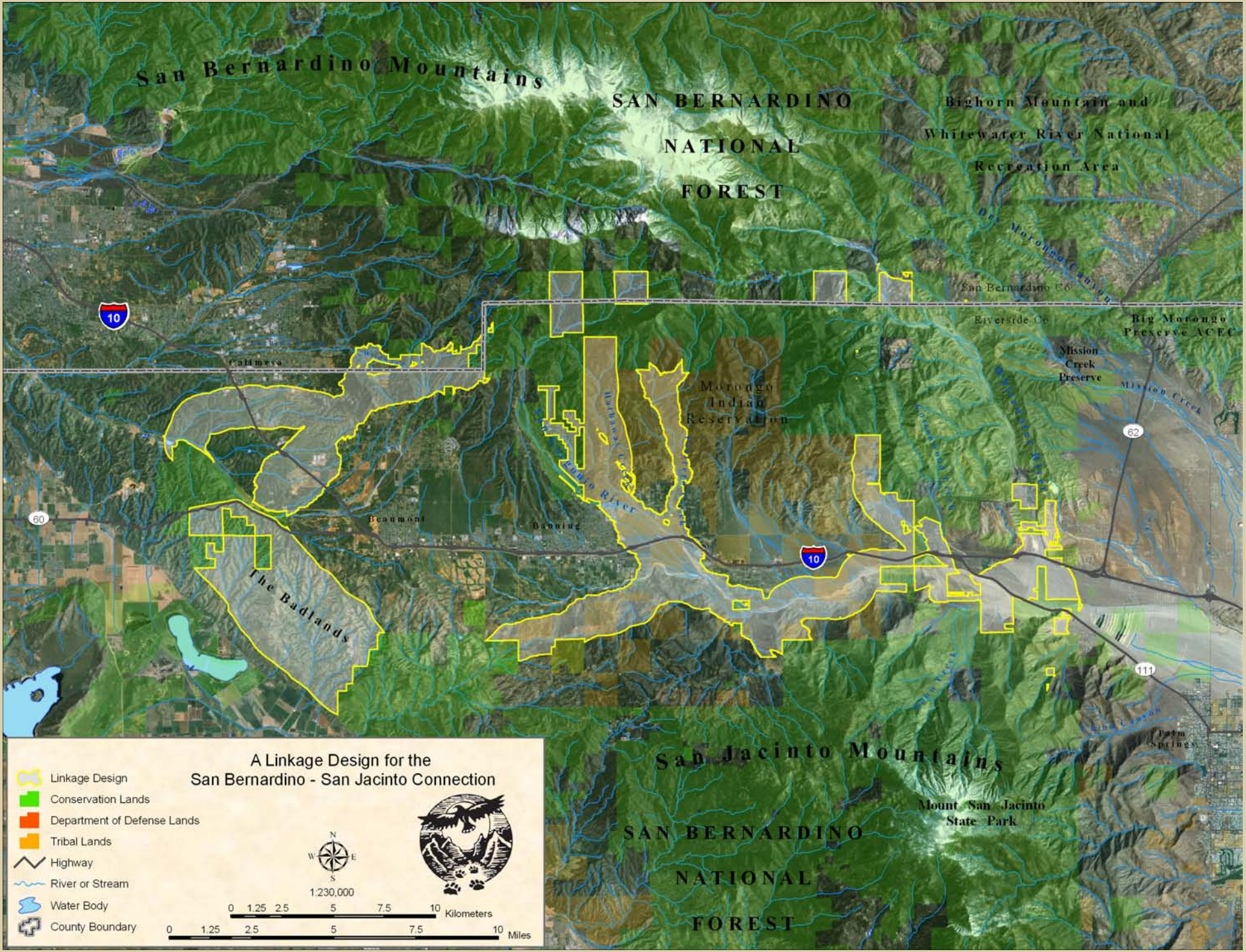
Bridge spanning the San Gorgonio River.

There is a series of under-crossings to accommodate Stubbe Wash, which crosses the freeway and service road in two places, roughly 90 feet apart. There is some native vegetation at the approach of these structures, but virtually no vegetative cover through the entire length of the structures. We suggest planting native shrubbery in between each bridge. We also recommend maintaining the rural character of the landscape by confining light and noise pollution to existing home sites in the vicinity.

Looking toward the San Jacintos at the westernmost bridges over Stubbe Canyon.

There is also a series of bridges for the Whitewater River, and one for the service road. The Whitewater River had the highest frequency of bobcat use; coyote, rabbit, and roadrunners were also documented here (Myers et al. 1996). Public agencies bulldoze a stretch of the river to increase percolation for groundwater recharge; we recommend habitat restoration here. There are windmills in the river south of the freeway that are enclosed by chain-link fence, which should be removed to allow animals to roam the floodplain and access side canyons more easily.

Looking toward the San Jacintos through the bridge over the Whitewater River.


San Bernardino Mountains
SAN BERNARDINO
NATIONAL
FOREST
Bighorn Mountain and
Whitewater River National
Recreation Area
Dry Morongo Canyon
San Bernardino Co
Riverside Co
Big Morongo
Preserve ACEC
Mission
Creek
Preserve
Mission Creek
Morongo
Indian
Reservation
Whitewater River
Little San Gorgonio Creek
Little River
Banning
Beaumont
Calimesa
The Badlands
10
60
62
111
Palm
Springs
San Jacinto Mountains
Mount San Jacinto
State Park
SAN BERNARDINO
NATIONAL
FOREST
A Linkage Design for the
San Bernardino - San Jacinto Connection
Linkage Design
Conservation Lands
Department of Defense Lands
Tribal Lands
Highway
River or Stream
Water Body
County Boundary
N
W
E
S
1:230,000
0 1.25 2.5 5 7.5 10 Kilometers
0 1.25 2.5 5 7.5 10 Miles

This linkage facilitates wildlife movement between Cleveland and San Bernardino National Forests and Anza Borrego Desert State Park, and overlaps portions of the Cahuilla and Santa Rosa Reservations. The Linkage Design encompasses 204,766 acres, of which approximately 57% (116,396 acres) currently enjoys some level of conservation protection, mostly in land administered by Bureau of Land Management, Forest Service, California State Parks, The Nature Conservancy, and the counties. Portions of the Cahuilla and Santa Rosa reservations also occur and are almost entirely covered by high-quality natural habitats. Coordination with Tribal Councils will be critical for securing this regionally important landscape linkage.

One of many magnificent vistas of the rocky terrain in Anza Borrego Desert State Park.

The Linkage Design has three major strands. The most northerly strand extends from the Palomar Ranges of Cleveland National Forest, encompassing the coastal sage scrub and chaparral habitats surrounding Vail Lake and on Billy Goat, Cahuilla and Little Cahuilla mountains, the riparian habitats along Temecula Creek, Wilson Creek, Bautista Canyon, Lion Canyon, and Cottonwood Creek, and the oak woodland and hardwood conifer habitats in the foothills of the San Jacinto Mountains. This strand was delineated by the landscape permeability analysis for mule deer and mountain lion but also provides the largest core areas of suitable habitat for quino checkerspot butterfly. The central strand follows a series of valleys, from Aguanga Valley near the junction of highways 371 and 79, through the Cahuilla and Anza valleys and up into Garner Valley in the San Jacinto Mountains. This strand was delineated by the landscape permeability analysis for badger, a species that prefers grassland habitats in flat or gently sloping terrain, but it is also intended to serve the Aguanga kangaroo rat, loggerhead shrike, rock wren, and coast horned lizard. The southern strand extends from the Palomar Ranges, and encompasses habitats around Oak Grove, on Beauty Mountain, Tule Peak, and Iron Spring Mountain, and in Copper Canyon, Previtt Canyon and the Chihuahua Valley, to Table Mountain in the Santa Rosa Mountains. This strand was defined by the landscape permeability

analysis for mountain lion but it provides live-in and move-through habitat for a number of native species.

State Route 79, and Highways 74, and 371 are the primary impediments to movement. The 79 is a two-lane heavily traveled highway that is at-grade for much of its length, except where it crosses major drainages. Highway 371 runs east-west through the central strand of the linkage, from its juncture with Highway 79 in the Aguanga Valley, to its juncture with Highway 74 near Garner Valley. This busy two-lane road is mostly at grade, with very few existing crossing structures. Highway 74 runs through Garner Valley for roughly 11 miles in the linkage. Several structures exist that facilitate various levels of wildlife movement.

There is a sizeable culvert on Highway 79 for Tule Creek with suitable habitat in the vicinity for mountain lion, badger, large-eared woodrat, western toad, coast horned lizard, and pale swallowtail. Tule Creek supports a well-developed cottonwood willow riparian forest; however tamarisk (*Tamarix ramosissima*), has invaded this system. We recommend habitat restoration to eradicate or control this and other non-native species. If transportation projects are undertaken, the culvert should be replaced with a bridge at least 24 feet wide and as close to 12 feet high as topography will allow.

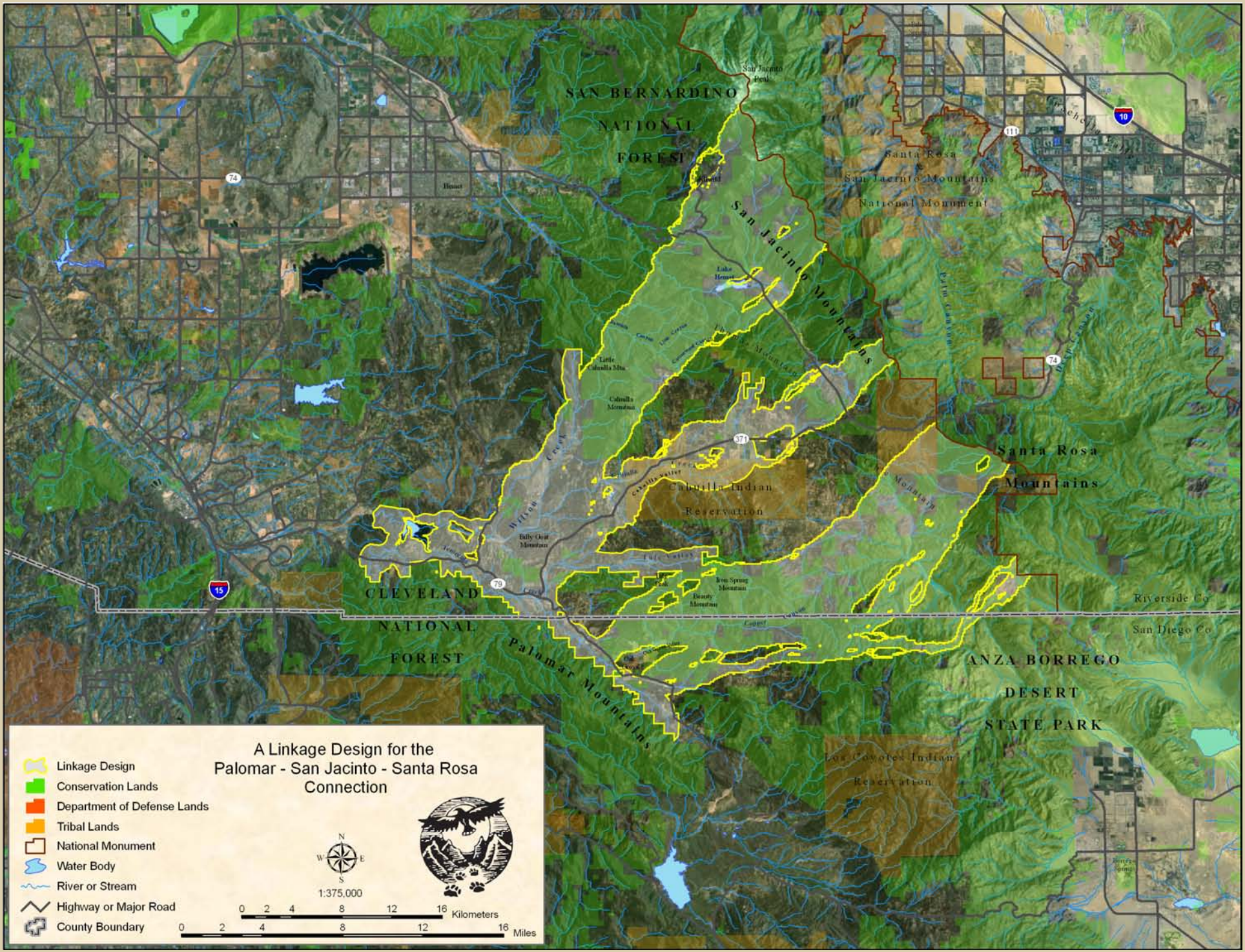
Looking up Tule Creek at the concrete box culvert under Highway 79.

Chihuahua Creek flows under Highway 79 through an expansive well-designed bridge that facilitates wildlife movement in the southern strand of the linkage. Coast live oak riparian forest lines Chihuahua Creek, with grassland, sagebrush and redshank chaparral in the uplands. The bridge is roughly 30 feet high and 138 feet wide. When transportation projects occur, the dimensions of the structure should remain the same. Lands along the creek effectively link the Palomar and Santa Rosa Mountains, with only a few parcels remaining to secure this fully functional connection.

Looking down Chihuahua Creek toward the Palomar Ranges.

Highway 74 runs through Garner Valley for roughly 11 miles in the linkage. Several structures were incorporated into the original road design. There are three box culverts measuring four feet high and wide, and 23 feet long. There are also two box culverts in this stretch of highway but each has a significant drop off at the eastern entrance, which should be fixed to provide passage. There are two bridges (6' high, 43' wide) spaced about 600 feet apart that span Antsell Rock Creek and Servo Creek. Another bridge (10' high, 12' wide) spans Hurkey Creek. These creeks feed expansive wetland habitats that provide habitat for a number of aquatic and semi aquatic species.

Example of a concrete box culvert on Highway 74 in Garner Valley.


SAN BERNARDINO NATIONAL FOREST
San Jacinto Peak
San Jacinto Mountains
Santa Rosa San Jacinto Mountains National Monument
Santa Rosa Mountains
Lake Hemet
Little Cahuilla Mtn
Cahuilla Mountain
Cahuilla Indian Reservation
Bally Goat Mountain
Iron Spring Mountain
Beauty Mountain
CLEVELAND NATIONAL FOREST
Palomar Mountains
Riverside Co
San Diego Co
ANZA BORREGO DESERT STATE PARK
Los Coyotes Indian Reservation
Beaut
74
371
79
15
10
111
A Linkage Design for the
Palomar - San Jacinto - Santa Rosa
Connection
Linkage Design
Conservation Lands
Department of Defense Lands
Tribal Lands
National Monument
Water Body
River or Stream
Highway or Major Road
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Santa Ana-Palomar Connection

This linkage joins the Santa Ana Mountains and its coastal lowlands to the Palomar Mountains and inland ranges of San Diego County, serving to connect extensive natural areas of Cleveland National Forest (CNF) and Camp Pendleton, the largest contiguous block of coastal habitat remaining in the ecoregion. The Linkage Design is a band of habitat roughly 21 miles in width and 75 miles long that extends eastward from the CNF Trabuco Ranger District, and Camp Pendleton to the western and northern boundaries of the CNF Palomar Ranger District. The Santa Margarita River, the longest intact stream corridor in southern California, winds through the linkage; it crosses I-15 and continues up Temecula Creek and across Vail Lake until it reaches the CNF Palomar Ranger District via the Arroyo Secco, Kolb, and Temecula creek drainages. This connection serves aquatic species (arroyo and southern steelhead trout), but also benefits semi-aquatic and terrestrial species that move along canyon bottoms (e.g., western pond turtle, pale swallowtail, or mountain lions). Approximately 1/3 of the 67,888 acres in the Linkage Design are protected from conversion to urban or agricultural use.

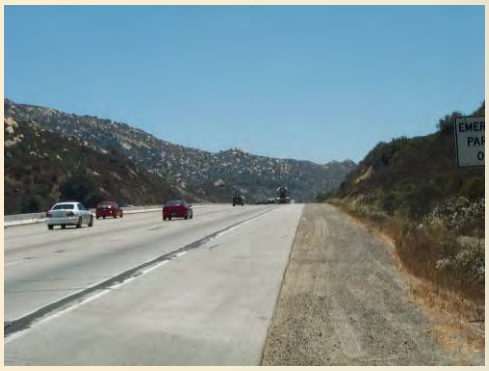
Looking west across Interstate 15, toward the Santa Ana Mountains from Sage Scrub Ridge in the Palomar Mountains.

Interstate 15 is the only major freeway in the Linkage Design, and currently lacks crossing structures adequate to accommodate species moving through upland and aquatic habitats. Other paved roads in the Linkage Design are two lanes in width (including Old Highway 394 and the Pala Temecula Road) and show lower levels of use than I-15 or State Route 79. Fisher and Crooks (2001) showed that roads in the linkage area vary substantially in their danger to wildlife depending upon level of use. Larger mammals and low flying birds and insects often are able to

successfully cross roads of this type, but small mammal and reptile mortalities are fairly high (Fisher and Crooks 2001).

The bridge spanning Temecula Creek would permit use by both upland and riparian focal species, but the adjacent Red Hawk Golf Course and commercial and residential developments block movements to and from the bridge on the eastern side. Further upstream there are significant gaps in natural habitats creating a dead-end for species moving eastward along Temecula Creek. We recommend restoring riparian vegetation from the Temecula Creek crossing to natural habitats in the Palomar Mountains and restoring a chaparral connection near the bridge on the east side of I-15 that extends to the ridgeline above the golf course, and removing existing fences and any other barriers. There are also three corrugated metal pipes about three feet in diameter and roughly 144 feet in length but curvature in the pipes prevents visibility to the other side. We recommend these pipes be replaced with expansive underpasses with earthen substrate flooring that are large enough to provide visibility to the other side. Appropriate fencing should be used to guide animals to these passageways. Due to the significance of I-15 as a barrier and the compromised function of the Temecula Creek bridge, a top priority for restoring linkage function is to install a habitat overpass just north of the Border Patrol checkpoint. Beier and Barrett (1993) identified this site as the "most critical link". During their study, three lions were killed but a juvenile successfully crossed at this location. They also concluded that this connection must be secured for immigration of lions from the Palomar Range to prevent the extinction of the population in the Santa Ana Mountains.

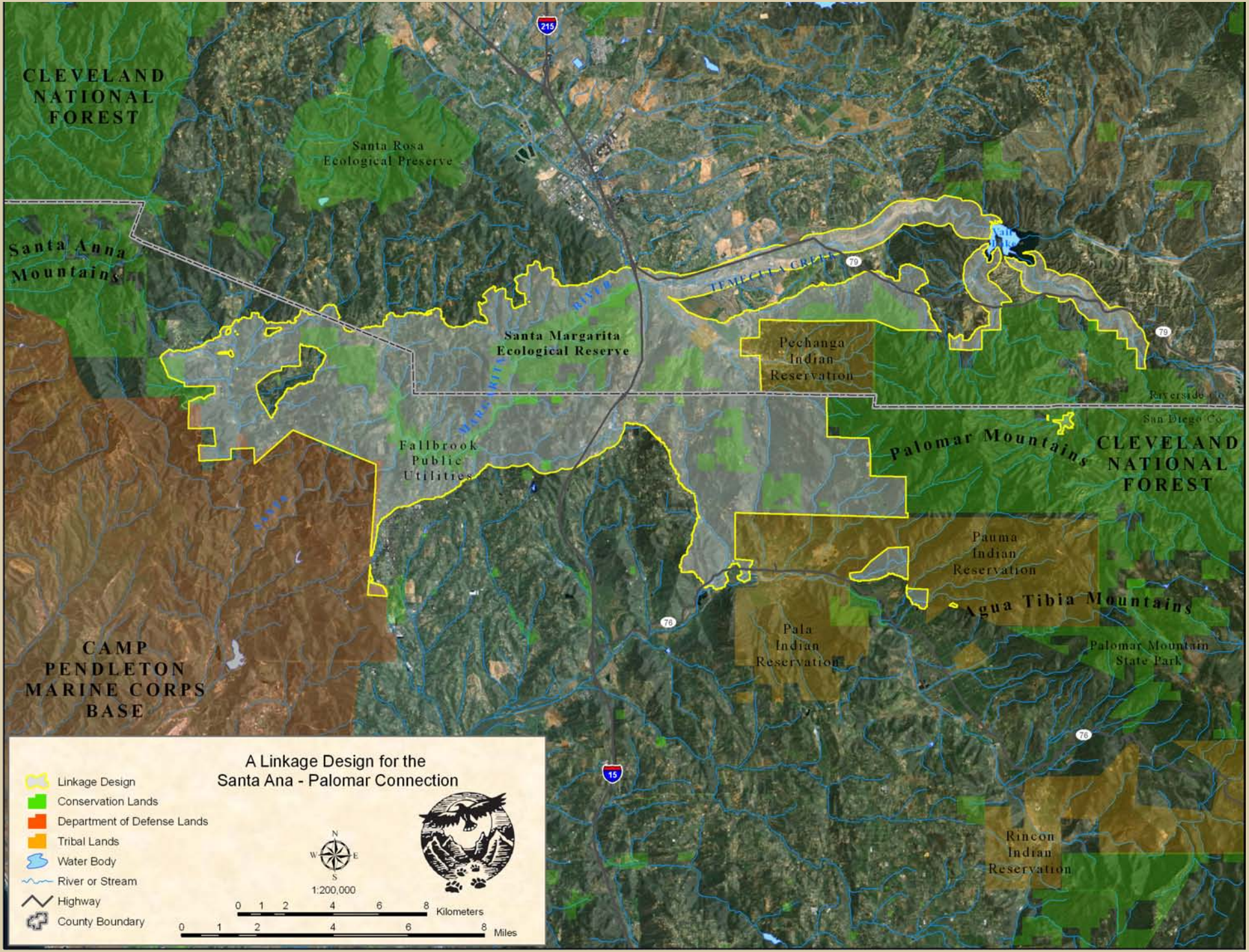
Temecula Creek passing through two extended bridges on Interstate 15.



Potential site for vegetated land bridge on Interstate 15; near call box 15-16.

State Highway 79 is a two-lane high-speed road with heavy levels of traffic that crosses key riparian drainages in the eastern portion of the linkage. It crosses Kolb Creek, Arroyo Secco, and Temecula creek drainages above Vail Lake near the Palomar Ranger District. These bridges vary in height from 6 to 30 feet, and all have well-developed riparian and upland vegetation in the vicinity, and provide good visibility to the other side. These bridges provide passageways across the 79 for various species, but use of all of the bridges could be enhanced by installing fencing to guide animals towards the structures.

Kolb Creek bridge on the SR-79.


CLEVELAND NATIONAL FOREST
Santa Rosa Ecological Preserve
Santa Anna Mountains
Santa Margarita Ecological Reserve
Pechanga Indian Reservation
Fallbrook Public Utilities
Palomar Mountains
CLEVELAND NATIONAL FOREST
Pauma Indian Reservation
Agua Tibia Mountains
Pala Indian Reservation
Palomar Mountain State Park
CAMP PENDLETON MARINE CORPS BASE
Rincon Indian Reservation
A Linkage Design for the
Santa Ana - Palomar Connection
Linkage Design
Conservation Lands
Department of Defense Lands
Tribal Lands
Water Body
River or Stream
Highway
County Boundary
1:200,000
0 1 2 4 6 8 Kilometers
0 1 2 4 6 8 Miles

Peninsular-Borrego Connection

This linkage connects the coastal habitats of Cleveland National Forest and Cuyamaca Rancho State Park in the Peninsular Ranges with the desert communities of Anza Borrego Desert State Park. The Linkage Design encompasses 127,788 acres, of which approximately 36% (45,521 acres) currently enjoys some level of conservation protection, mostly in land administered by US Forest Service, California State Parks, Bureau of Land Management, Department of Fish and Game, County of San Diego, and The Nature Conservancy. Portions of the Santa Ysabel and Mesa Grande reservations also occur in the linkage.

The Linkage Design has three major strands. The most northerly strand extends from the Palomar and Aguanga mountains of Cleveland National Forest, encompasses habitats surrounding Lake Henshaw in the Warner Basin, the riparian habitats along the San Luis Rey River, San Ysidro, Buena Vista, and Matagual Creeks and the mixed chaparral and oak woodland habitats in the San Felipe Hills near Pinyon Ridge in Anza-Borrego Desert State Park. This strand was delineated by the landscape permeability analysis for badger but also provides the largest core areas of suitable habitat for grasshopper sparrow and black-tailed jackrabbit.

Looking southeast down Banner Canyon with Granite Mountain in Anza Borrego Desert State Park in the distance.

The central strand extends from Black Mountain in Cleveland National Forest and encompasses riparian and upland habitats along Bloomdale, Witch, and Santa Ysabel creeks, Santa Ysabel Valley, the southern extent of the Volcan Mountains, Banner Canyon, and San Felipe Creek, and enters Anza-Borrego Desert State Park between Pinyon Ridge and Grapevine Mountain. This strand was delineated by the landscape permeability analysis for mountain lion but is also intended to serve other species such as mule deer, badger, and granite night lizard. Santa Ysabel Creek is especially important for species requiring a contiguous riparian connection.

The southern strand extends from Sutherland Lake and follows the belt of oak savanna, and grassland habitats in the Ballena Valley and the riparian habitats of Witch Creek to the upper San Diego River Gorge, and then up Sentenac Creek to habitats around Lake Cuyamaca in Cuyamaca Rancho State Park and the desert riparian habitats of Vallecito Wash in Anza-Borrego Desert State Park. This strand was defined by the landscape permeability analysis for mule deer.

State Routes 78 and 79 are the major transportation routes and pose the most substantial barriers to movement. SR-79 bisects the linkage for a distance of roughly 27 miles, while SR-78 passes through the central and southern strands of the linkage.

A well-designed bridge conveys flows of Canada Verde Creek under SR-79 near Warner Springs. Coast live oak riparian forest lines the creek with grasslands south of the SR-79 and redshank chaparral the dominant community north of the highway. This bridge is well-suited as a wildlife crossing, as the stream draws animals to the canyon. The Pacific Crest Trail also utilizes this structure, as it passes through the northern strand of the linkage, between Anza-Borrego Desert State Park and Forest Service lands north of SR-79.

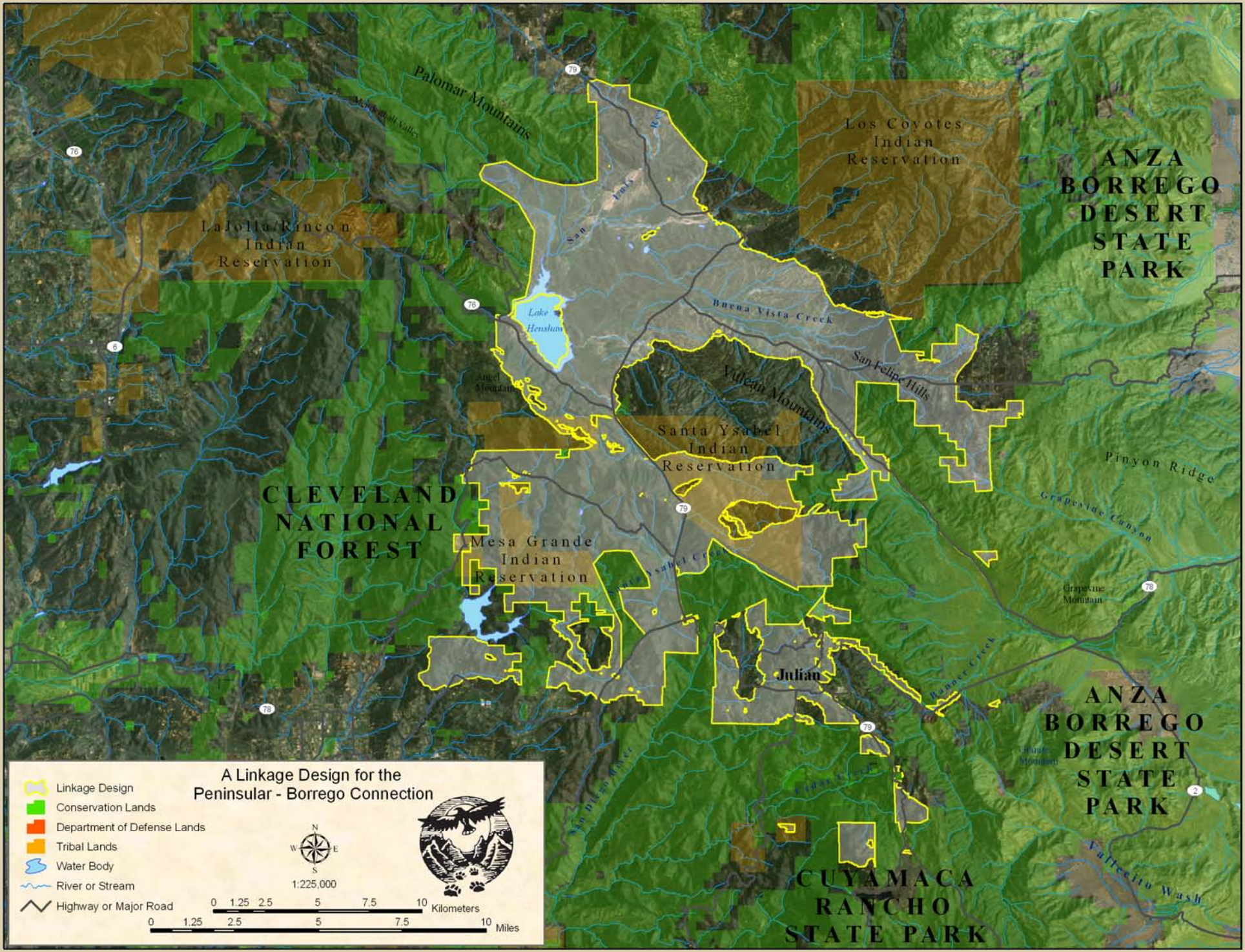
Bridge for Canada Verde Creek and the PCT under SR-79.

The least cost corridor for mountain lion crossed SR-79 using Santa Ysabel Creek and researchers have documented lions using the creek as a travel route (Sweanor et al. 2003). There is a well-designed bridge that has natural flooring, provides good visibility, and measures about 30 feet high, 40 feet wide, and 22 feet long. Species that utilize riparian, grassland, or oak savanna habitats (e.g., badger, mule deer, black-tailed jackrabbit, and grasshopper sparrow) will benefit from this connection. Santa Ysabel Creek provides the most direct riparian connection between targeted areas, and most of the canyon is already protected.

Bridge for Santa Ysabel Creek on SR-79.

The bridge for San Felipe Creek is roughly 30 feet high, 325 feet wide and 30 feet long. San Felipe Creek is designated as a National Natural Landmark, one of the last natural perennial desert streams that supports an incredible diversity of species. Many focal species have been detected, including mountain lion, badger, mule deer, black-tailed jackrabbit, granite night lizard, golden eagle, and black brant. Most of the habitat in the San Felipe Hills and Valley is already conserved. S2 runs along San Felipe Creek at the base of the San Felipe Hills, connecting SR-78 and Sr-79. S22 passes through the northern strand of the linkage, and stretches from the community of Borrego Springs to the base of the San Felipe Hills. Both of these scenic highways are currently one lane in each direction and almost entirely at grade. Any road improvements should incorporate regularly spaced culverts to increase movement opportunities for smaller species and reduce roadkill.

San Felipe Creek flows beneath SR-78 through a bridge that provides passage to numerous species.


Palomar Mountains
Los Coyotes Indian Reservation
ANZA BORREGO DESERT STATE PARK
La Jolla/Rincon Indian Reservation
Lake Henshaw
Buena Vista Creek
San Felipe Hills
Vulcan Mountains
Santa Ysabel Indian Reservation
Pinyon Ridge
Grapevine Canyon
CLEVELAND NATIONAL FOREST
Mesa Grande Indian Reservation
Julian
Volcan Mountain
ANZA BORREGO DESERT STATE PARK
CUYAMACA RANCHO STATE PARK
Vallecito Wash
A Linkage Design for the Peninsular - Borrego Connection
Linkage Design
Conservation Lands
Department of Defense Lands
Tribal Lands
Water Body
River or Stream
Highway or Major Road
1:225,000
0 1.25 2.5 5 7.5 10 Kilometers
0 1.25 2.5 5 7.5 10 Miles

Missing Linkages along the U.S.-México Border

Linkages along the U.S.-México border in San Diego and Imperial counties are being implemented as part of the *Las Californias Binational Conservation Initiative* (LCBCI; www.consbio.org/cbi/projects), led by The Nature Conservancy, Conservation Biology Institute, Pronatura, and Terra Peninsular, with assistance from the Resources Legacy Fund Foundation, Back Country Land Trust, The Conservation Fund, California State Parks, Bureau of Land Management, and others. As a result of the LCBCI, priority properties have been identified and approximately 3,500 acres have been conserved to date (representing an investment of over $8 million in private, state, and federal funds), and LCBCI priorities have been included in several agency planning documents. The California Biodiversity Council (CBC) has embraced LCBCI and established a border work group, comprised of agencies and NGOs from both sides of the border, which is collaborating on implementation. We are also working with the San Diego Natural History Museum, U.S. and Mexican agencies, and academic institutions on a binational expedition to increase our understanding of resources in the study area on both sides of the border.

Otay Mountain—Cerro San Ysidro linkage

Otay Mountain in California and Cerro San Ysidro in Baja California represent *sky islands* of endemic plant species and represent the last cross-border coastal sage scrub linkage. This linkage continues along Cottonwood Creek to the Laguna Mountains in the Cleveland National Forest. Completion of this linkage will contribute to the recovery of 22 federally and state listed species and secure protection of some of the most rare and floristically diverse vegetation communities on the planet.

La Posta linkage

This linkage serves to connect the Campo Valley in San Diego County with the El Hongo Valley in Baja California. It occurs in an ecological transition area between the coast and the desert, and between mountain and inland valley biomes. Completing this linkage, by conserving a series of small core areas, will decrease fragmentation, maintain a sanctuary of wilderness values at the edge of an urban metropolis, and ensure conservation across a range of elevational gradients that will enhance the resilience of existing protected lands to global climate change.

Parque-to-Park linkage

This linkage provides a connection between Anza-Borrego Desert State Park in San Diego and Imperial counties, and Parque Constitución de 1857 in Baja California. This is a truly continental-scale linkage along the transboundary region of the Peninsular Ranges, thus ensuring cross-border connectivity through the eastern edge of the South Coast Ecoregion and the Sonoran Desert. Completing this linkage ultimately will allow the endangered Peninsular Bighorn Sheep to repopulate the Sierra Juárez in northern Baja California and encourage binational collaboration in managing bighorn sheep populations on both sides of the border.

Following are a few of the primary implementation objectives:

- Work toward creation of a binational park that links Parque Constitución de 1857 in the Sierra Juárez in Baja California with public wilderness areas in San Diego County.
- Work toward creation of a cross-border linkage between Tijuana and Tecate / San Diego and Campo.
- Conserve the Cottonwood Creek corridor between Cerro San Ysidro, Otay Mountain, and the Laguna Mountains.
- Provide technical support to Mexican partners in conserving large, intact natural areas and working landscapes within Baja California.

Recommendations to Reduce the Effects of Roads: Although road-widening projects and new roads generally increase vehicle traffic, they need not result in more wildlife/vehicle collisions, or a decrease in animal movements. Transportation projects present the greatest opportunity to provide crossing structures to accommodate wildlife movement. Because most of California's roads were not originally designed to accommodate wildlife movement, road improvement projects can dramatically restore permeability. Conversely, we can expect slower progress making canals and railroads more wildlife-friendly because these structures are not as regularly upgraded. Nonetheless, most structures are eventually upgraded, creating opportunities to facilitate connectivity, thus it is critical that planners and engineers be aware of the need for connectivity.

Wildlife crossing structures that have been used in North America and Europe to facilitate movement through landscapes fragmented by roads include wildlife overpasses, bridges, culverts, and pipes. While many of these structures were not originally constructed with ecological connectivity in mind, many species benefit from them (Clevenger et al. 2001; Forman et al. 2003). No single crossing structure will allow all species to cross a road. For example rodents prefer to use pipes and small culverts, while bighorn prefer vegetated overpasses or open terrain below high bridges. A concrete box culvert may be readily accepted by a mountain lion or bear, but not by a deer or bighorn sheep. Small mammals, such as deer mice and voles, prefer small culverts (McDonald & St Clair 2004).

Elk using wildlife overpass, Banff National Park, Canada

Although some documents refer to such structures as "corridors" or even "linkages," we use these terms in their original sense to describe the entire area required to link the landscape and facilitate movement between large wildland blocks. Crossing structures represent only small portions, or choke points, within an overall habitat linkage or movement corridor. Properly designed crossing structures are a means of making barriers more permeable to wildlife movement. However, investing in specific crossing structures may be meaningless if essential lands in the linkage are left unprotected. Thus it is essential to keep the larger landscape context in mind when discussing existing or proposed structures to cross movement barriers. This broader context also allows awareness of a wider variety of restoration options for maintaining functional linkages.

Based on the small but increasing number of scientific studies on wildlife use of highway structures, we offer these general standards and guidelines for *all* existing and future crossing structures intended to facilitate wildlife passage across highways, railroads, and canals.

- **Multiple crossing structures should be constructed to provide connectivity for all species likely to use a given area** (Little 2003). For deer or other ungulates, an open

structure such as a bridge is crucial. For medium-sized mammals, black bear, and mountain lions, large box culverts with natural earthen substrate flooring are optimal (Evink 2002). For small mammals, pipe culverts from 0.3m – 1 m in diameter are preferable (Clevenger et al. 2001; McDonald & St Clair 2004).

- **At least one crossing structure should be located within an individual's home range**. Because most reptiles, small mammals, and amphibians have small home ranges, metal or cement box culverts should be installed at intervals of 150-300 m (Clevenger et al. 2001). For ungulates (deer, bighorn) and large carnivores, larger crossing structures such as bridges, viaducts, or overpasses should be located no more than 1.5 km (0.94 miles) apart (Mata et al. 2005; Clevenger and Wierzchowski 2006).

- **Suitable habitat for species should occur on both sides of the structure** (Ruediger 2001; Barnum 2003; Cain et al. 2003; Ng et al. 2004). "Crossing structures will only be as effective as the land and resource management strategies around them" (Clevenger et al. 2005).

- **Whenever possible, suitable habitat should occur *within* the crossing structure.** This can best be achieved by having a bridge high enough to allow enough light for vegetation to grow under the bridge, and by making sure that the bridge spans upland habitat that is not regularly scoured by floods. Where this is not possible, rows of stumps or strands under large span bridges can provide cover for smaller animals such as reptiles, amphibians, rodents, and invertebrates; regular visits are needed to replace artificial cover removed by flood. Within culverts, earthen floors are preferred by mammals and reptiles.

- **Structures should be monitored for, and cleared of, obstructions that impede movement.** Many box culverts have large accumulations of branches, Russian thistle, sand, or garbage that impede animal movement, while bridged undercrossings rarely have these problems.

- **Fencing should direct animals towards crossing structures** (Yanes et al. 1995). In Florida, construction of a wall to guide animals into a culvert system resulted in 93.5% reduction in roadkill, and also increased the total number of species using the culvert from 28 to 42 (Dodd et al. 2004). One-way ramps on roadside fencing can allow an animal to escape if it is trapped on a road (Forman et al. 2003).

- **Raised sections of road discourage animals from crossing roads, and should be used when possible to encourage animals to use crossing structures**. Clevenger et al. (2003) found that vertebrates were 93% less susceptible to road-kills on sections of road raised on embankments, compared to road segments at the natural grade of the surrounding terrain.

- **Manage human activity near each crossing structure**. Clevenger & Waltho (2000) suggest that human use of crossing structures should be restricted and foot trails relocated away from structures intended for wildlife movement. However, a large crossing structure (viaduct or long, high bridge) should be able to accommodate both recreational and wildlife use. At a minimum, nighttime human use of crossing structures should be restricted.

- **Design culverts specifically to provide for animal movement**. Most culverts are designed to carry water under a road and minimize erosion hazard to the road. Culvert designs adequate for transporting water often have pour-offs at the downstream ends that

prevent wildlife usage. At least one culvert every 150-300m of road should have openings flush with the surrounding terrain, and with native land cover up to both culvert openings, as noted above.

Recommendations to Reduce the Effects of Rail Lines: We recommend a policy of using any railroad realignment as an opportunity not simply to mitigate loss of wildland connectivity, but to improve it. Ameliorating the adverse affects of railroads is similar to that for roads, providing viaducts, bridged underpasses, and tunnels (Reed and Schwarzmeier 1978, Borowske and Heitlinger 1981, Forman 1995).

- We recommend that crossing structures should be sited at least every 1.5 to 2 km.
- We suggest structures for rail lines be aligned with crossing structures on freeways.
- We encourage crossing structures associated with rail lines be integrated with sound walls to reduce noise.
- Structures should be integrated with fences where beneficial to guide animals toward crossing structures. Fencing can be permeable to humans and larger animals, and would not be needed where steep cut and fill slopes already divert animals toward structures.

Recommendations to Reduce the Effects of Streams Barriers: Since 80% of terrestrial vertebrate species depend on riparian systems (Kreuper 1992), it is critical to maintain these communities. Measures to minimize development impacts on aquatic habitats typically focus on establishing riparian buffer zones (Barton et al. 1985, Allan 1995, Willson and Dorcas 2003). Buffers must contain enough upland habitat to maintain water-quality and habitat characteristics essential to the survival of many aquatic and semiaquatic organisms (Brosofske et al.1997, Willson and Dorcas 2003). To enhance species use of riparian habitats, we recommend:

- Restore riparian vegetation in all drainages and upland vegetation within 0.6 miles of streams and rivers to encourage plant and animal movement and increase water quality.
- Investigate historic flow regimes and develop surface and groundwater management programs to restore and recover properly functioning aquatic/riparian conditions.
- Remove exotic plants (e.g., tamarisk) and animals (e.g., bullfrogs, African clawed frogs) from washes, streams and rivers. Work with relevant agencies and organizations to survey for invasive species and develop a comprehensive removal strategy.
- Enforce regulations protecting streams and stream vegetation from illegal diversion, alteration, manure dumping, and vegetation removal.
- Enforce regulations restricting farming, gravel mining, suction dredging, and building in streams and floodplains.
- Work with the Resource Conservation Districts to help establish use of Best Management Practices for rural communities in the linkage designs and surrounding communities.
- Support efficient water use and education programs that promote water conservation.
- Discourage development in flood prone areas and prevent the construction of concrete-banked streams and other channelization projects.

- Support the protection of riparian and adjacent upland habitats on private lands. Pursue cooperative programs to improve conditions in riparian and upland habitats.

Recommendations to Reduce the Effects of Mining: Mining operations can be modified with actions that reduce the affects of these industrial activities. Preventing any further mining operations in key areas of a Linkage Design through administrative withdrawals will have the greatest effect on preserving linkage function. Existing mining operations can be targeted for regulatory actions that reduce the effects of these industrial activities. These include, limiting noise from blasting, minimizing night lighting, reducing traffic in sensitive areas or constriction points, monitoring water quality and quantity, minimizing the use of harmful chemicals, and increasing enforcement of existing regulations. The California Surface Mining and Reclamation Act (1975) require that land used in mining operations be restored once operations have ceased.

Recommendations to Reduce the Effects of Urban Barriers: Urban developments, unlike roads, create movement barriers that cannot be readily removed, restored, or mitigated. Preventing urban developments in key areas through acquisition or conservation easements is therefore the strongest option. Mitigation for existing urban developments focuses on designing and managing buffers to reduce penetration of undesirable effects into natural areas (Marzluff and Ewing 2001). Management in buffers can include fencing in pets, reducing human traffic in sensitive areas or constriction points, limiting noise and lighting, reducing traffic speeds, minimizing use of irrigation, maximizing outdoor water use efficiency measures, encouraging the planting of locally native vegetation, minimizing the use of pesticides, poisons and other harmful chemicals, and increasing enforcement of existing regulations.

Recommendations to Reduce the Effect of Agricultural Barriers: Agricultural practices remove native vegetation, require significant water resources, and increase nutrient runoff into streams, and support invasions by exotic species. Waters draining from these developments show elevated levels of nutrients and particles. Many drainages that were once ephemeral become perennial (Fisher and Crooks 2001) and are capable of supporting exotic species such as exotic fish, bullfrogs and giant reed. As with urban developments, acquisition or conservation easements with willing landowners will have the greatest effect on preserving linkage function from agricultural impacts. For existing developments, a variety of Best Management Practices can reduce nutrient runoff and erosion. These include the timing and types of nutrient use, use of native vegetation to absorb surface and subsurface runoff, dirt road design, and soil management. In addition, the pattern of agricultural developments can have a significant affect on species movements. We provide the following initial recommendations to prevent or mitigate the effects of agriculture in the linkage design areas:

- Discourage further agricultural development by purchasing lands with natural vegetation, or developing easements with willing landowners.

- Restore agricultural lands in areas of a linkage where natural habitats have been severely constricted. Where possible, restore a one kilometer wide isthmus of habitat through adjacent agricultural developments.

- Work with The Regional Water Quality Control Board's Total Maximum Daily Load plans to evaluate the cause the water quality deterioration and enact an implementation plan to return water quality to targeted water quality values.

- Encourage research on agriculture that specifically identifies solutions to elevated nutrient runoff, erosion, and effects of perennializing streams.

Recommendations to Reduce the Effects of Recreation: If recreational activities are effectively planned, developed, managed, and monitored, most negative impacts can be avoided or minimized by limiting types of use, directing recreational activities away from particular locations, sometimes only for particular seasons, and with reasonable precautions. We provide the following recommendations:

- Monitor recreational use to provide a baseline for decisions regarding levels, types, and timing of recreational use.
- Collect data on special status species, species movements, and vegetation disturbance in areas of high recreational activity.
- Develop and conduct multi-lingual outreach programs to recreational users on how to lessen impacts in sensitive areas.
- Close, obliterate, and restore any unauthorized off-road vehicle routes.
- Enforce leash laws so that dogs are under restraint at all times.

Translating Plans into Action

Although South Coast Missing Linkages rigorous, detailed designs are central to the approach, the project will not be complete with the publication of the linkage designs. The success of South Coast Missing Linkage will be measured by our effectiveness at *translating our vision of a connected landscape into land-saving actions.* With the completion of the planning and design phase comes the need to disseminate and institutionalize the results and build and support Linkage Implementation Coalitions to undertake the on-the-ground work to conserve our South Coast linkages.

Institutionalization of Linkage Designs

Partners in the South Coast Missing Linkages initiative are designing a strategic outreach plan that will a) focus broad incorporation of the Linkage Designs into relevant governing instruments (e.g. general plans, HCPs, local ordinances, CEQA); b) establish a public expectation of linkage protection; c) organize new constituencies and empower old partners; and d) utilize the unique abilities of each constituency to institutionalize support for these linkages. We are also working with our partners to develop and implement communication strategies to broaden the dissemination of the designs and inform the public and decision makers as to the importance of protecting these linkages.

The South Coast Missing Linkages initiative has already strongly influenced a number of important local, regional, and statewide conservation planning efforts. One direct result of our broad collaboration is the integration of the South Coast Missing Linkages into policy decisions to improve and enforce protection of these regionally important habitat linkages. For example, the four southern California Forests (Los Padres, Angeles, San Bernardino, and Cleveland) recently finalized their Resource Management Plans and identified connecting the four forests to the existing network of protected lands as one of the key strategies for protecting biodiversity in the forests. South Coast Missing Linkages was also recently acknowledged as a vital strategy for improving the status of wildlife in the state by the California Department of Fish and Game in a report prepared for the National State Wildlife Grant Program. *California Wildlife: Conservation Challenges* includes the following as one of its Recommended Region-Specific Conservation Actions:

> "To address regional habitat fragmentation, federal, state, and local agencies, along with nongovernmental conservation organizations, should support the protection of the priority wildland linkages identified by the South Coast Missing Linkages project."

South Coast Wildlands is representing South Coast Missing Linkages in the Western Governors Wildlife Corridors Initiative (http://www.we stgov.org/wga/initiatives/corridors/index.htm). The governors of the 19 Western States passed a unanimous resolution in 2007 that all future highways, canals, energy developments, and new land-use plans should be consistent with conservation of important wildlife corridors. Although this will be a broad-brush approach, it can profoundly impact the face of the conserved landscape of the Western United States.

Building Implementation Coalitions

The importance of investing in building and maintaining relationships cannot be over-emphasized. Development of technical plans to overcome barriers to animal movement must be matched by efforts to build and maintain linkages among all the players. Partners across the region have already heeded the call to action! The following describes a few of the implementation activities underway to translate our plans into land-saving actions:

In the Santa Ana-Palomar Mountains Linkage, we have been working with the South Coast Conservation Forum, a consortium of county, state, and federal agencies, universities, and non profits formed to advise the Department of Defense on reducing urban encroachment and conflicts with military training maneuvers on Camp Pendleton. South Coast Missing Linkages information provided to the Forum ensured that this linkage was recognized as important to mitigating long-term impacts to sensitive species. The Linkage Design has been used to target Defense Authorization Act funds that will protect thousands of acres within the linkage. In addition, this linkage overlaps planning boundaries for two Multiple Species Conservation Plans, the Western Riverside Multiple Species Habitat Conservation Plan and the Northern San Diego Multiple Species Conservation Plan. Roughly 70% of the linkage in Riverside County and 92% in San Diego County are targeted for conservation by these NCCPs. A Conceptual Area Protection Plan (CAPP) has also been completed which will target state land acquisition funds.

To conserve the linkage between the San Gabriel Mountains and the Castaic Ranges of the Angeles National Forest, we are partnering with Upper Santa Clara Biodiversity Working Group, whose members include Forest Service, Bureau of Land Management, Fish and Wildlife Service, Department of Fish & Game, City of Santa Clarita, Santa Monica Mountains Conservancy (SMMC), Rivers and Mountains Conservancy, Wetlands Recovery Project, and The Nature Conservancy (TNC). The Linkage Design helped the agencies focus on the western part of the linkage; the most important area for promoting wildlife movement. The City of Santa Clarita is focusing its capital improvement project mitigation acquisitions in the Linkage Design even though this area is outside their city limits. The Forest Service is working with National Park Service to reroute the Pacific Crest Trail, now threatened by encroaching development, into our linkage design. A CAPP has also been completed, which will target state land acquisition funds. The Nature Conservancy, Rivers and Mountains Conservancy, & Santa Monica Mountains Conservancy are working with the Land Agent at Wildlife Conservation Board to acquire land in the linkage.

To maintain connectivity between the Santa Monica Mountains and Sierra Madre Ranges, we are working with the National Park Service, Caltrans, SMMC, TNC, Trust for Public Land, and Los Angeles and Ventura Counties. Caltrans used the Linkage Design to identify mitigation opportunities along State Route 118, and has initiated a working group for this transportation improvement project. It is our hope that this working group will evolve into an implementation coalition that covers the entire linkage area.

Exporting the South Coast Missing Linkages Model

The success with which South Coast Missing Linkages has been met propels us to work with our partners beyond the South Coast Ecoregion to identify and design landscape linkages across the state, the west, and the nation. To our great excitement, the state of Arizona has completely adopted the South Coast Missing Linkages methodology for designing landscape linkages, and Colorado has partially adopted it.

The Vision

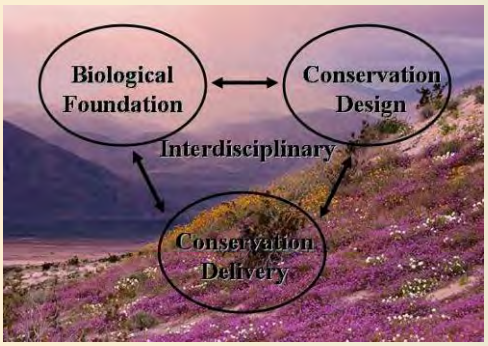
The ecological, educational, recreational, and spiritual values of protected wildlands in the South Coast Ecoregion are immense. These conserved lands also represent an investment of tens of billions of dollars. We need to ensure the ecological health of this investment by securing these linkages. These Linkage Designs represent opportunities to protect truly functional landscape-level connections among these wildlands. If implemented, our plan would not only permit movement of individuals and genes, but should also conserve large-scale ecosystem processes that are essential to the integrity of existing conservation investments throughout the region.

Appendix A
Conservation Planning Approach

The goal of linkage conservation planning is to identify specific lands that must be conserved to maintain or restore functional connections for all species or ecological processes of interest, generally between two or more protected core habitat areas. Our approach can be generally summarized as follows:

1) *Focal Species Selection:* select focal species from diverse taxonomic groups to represent a diversity of habitat requirements and movement needs.
2) *Landscape Permeability Analysis:* conduct landscape permeability analyses to identify a zone of habitat that addresses the needs of multiple species potentially traveling through, or residing in the linkage.
3) *Patch Size & Configuration Analysis:* use patch size and configuration analyses to identify the priority areas needed to maintain linkage function.
4) *Field Investigations:* conduct fieldwork to ground-truth results of analyses, identify barriers, and document conservation management needs.
5) *Linkage Design:* compile results of analyses and fieldwork into a detailed comprehensive report with recommended conservation and restoration opportunities.

Our approach has been highly collaborative and interdisciplinary (Beier et al. 2006). We followed Baxter (2001) in recognizing that successful conservation planning is based on the participation of experts in biology, conservation design, and implementation in a reiterative process. To engage regional biologists and planners early in the process, we held a series of habitat connectivity workshops in 2002. The workshops engaged over 270 participants representing over 126 different agencies, academic institutions, conservation organizations, and community groups. Our partners come from wide and varied backgrounds and include scientific and academic institutions, federal land management agencies, state agencies, local electeds, and conservation non-government organizations.

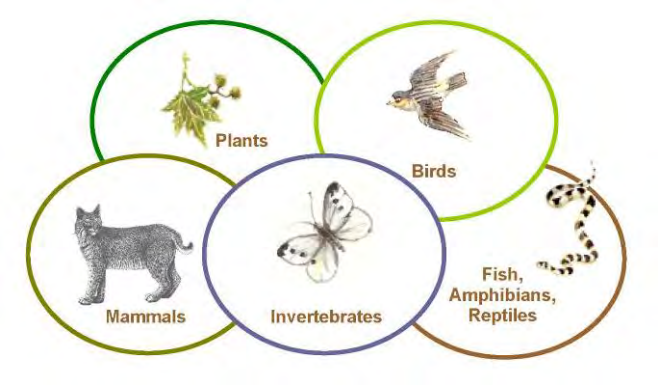


Successful conservation planning requires an interdisciplinary and reiterative approach among biologists, planners, and activists (Baxter 2001).

Focal Species Selection

Although our ultimate goal is to conserve ecosystem function, we designed linkages to serve the needs of particular species. We selected species that covered a cover a wide array of habitat and movement needs in the region, so that planning adequate linkages for these species is expected to cover connectivity needs for the *ecosystems* they represent. We identified species from several taxonomic groups (plants, birds, mammals, invertebrates, fish, amphibians, and reptiles with 109 focal species selected from across the priority linkages. Our suite of focal species included a few "orthogonal" species, i.e., species that occur within the linkage but not necessarily in the core areas. Planning for such species can help ensure that linkages maintain ecological integrity and are not sterile gauntlets through which other species must pass. Thus, although most of our focal species were "species that need the linkage" (to pass between core areas), the orthogonal taxa represented "species that the linkage needs" (to ensure its integrity).

A taxonomically diverse group of focal species was selected to represent species that are sensitive to habitat loss and fragmentation and to represent the diversity of ecological interactions that can be sustained by successful linkage design. The focal species approach (Beier and Loe 1992) recognizes that species move through and utilize habitat in a wide variety of ways. Focal species were selected because their life history characteristics render them either particularly sensitive to habitat fragmentation or otherwise meaningful to linkage design.

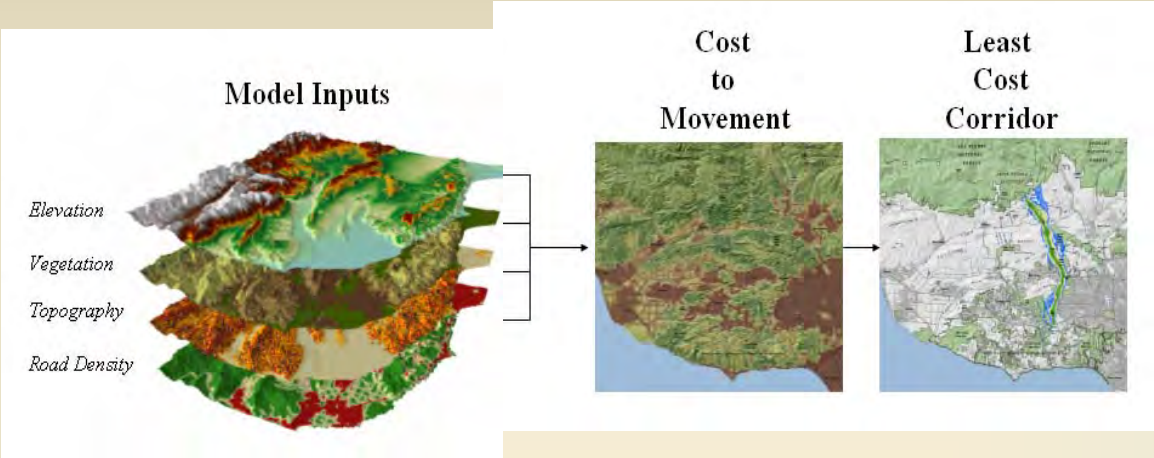


Landscape Permeability Analysis

Landscape permeability analysis is a GIS technique that models the relative cost for a species to move between core areas based on how each species is affected by habitat characteristics, such as slope, elevation, vegetation composition, and road density. This analysis identifies a least-cost corridor, or the best potential route for each species between protected core areas (Walker and Craighead 1997, Craighead et al. 2001, Singleton et al. 2002). The purpose of the analysis was to identify land areas, which would best accommodate all focal species living in or moving through the linkage (Beier et al. 2006). Species used in landscape permeability analysis must be carefully chosen, and were included in this analysis only if:

- We know enough about the movement of the species to reasonably estimate the cost-weighted distance using the data layers available to our analysis.
- The data layers in the analysis reflect the species' ability to move.
- The species occurs in both cores (or historically did so and could be restored) and can potentially move between cores, at least over multiple generations.
- The time scale of gene flow between core areas is shorter than, or not much longer than, the time scale at which currently mapped vegetation is likely to change due to disturbance events and environmental variation (e.g. climatic changes).

The relative cost of travel was assigned for each species based upon its ease of movement through a suite of landscape characteristics (vegetation type, road density, and topographic features). The following spatial data layers were assembled at 30-m resolution: vegetation, roads, elevation, and topographic features. We derived four topographic classes from elevation and slope models: canyon bottoms, ridgelines, flats, or slopes. Road density was measured as kilometers of paved road per square kilometer. Within each data layer, we ranked all categories between 1 (preferred) and 10 (avoided) based on focal species preferences as determined from available literature and expert opinion regarding how movement is facilitated or hindered by natural and urban landscape characteristics. Each input category was ranked and weighted, such that: (Vegetation * w%) + (Road Density * x%) + (Topography * y%) + (Elevation * z%) = Cost to Movement, where w + x + y + z = 100%.



Permeability Model Inputs: elevation, vegetation, topography, and road density. Landscape permeability analysis models the relative cost for a species to move between core areas based on how each species is affected by various habitat characteristics.

Weighting allowed the model to capture variation in the influence of each input (vegetation, road density, topography, elevation) on focal species movements. A unique cost surface was thus developed for each species. A corridor function was then performed in GIS to generate a data layer showing the relative degree of permeability between core areas.

For each focal species, the most permeable area of the study window was designated as the least-cost corridor. The least-cost corridor output for all focal species was then combined to generate a Least Cost Union. The biological significance of this Union can best be described as the zone within which all modeled species would encounter the least energy expenditure (i.e., preferred travel route) and the most favorable habitat as they move between targeted protected areas. The output does not identify barriers (which were later identified through fieldwork), mortality risks, dispersal limitations or other biologically significant processes that could prevent a species from successfully reaching a core area. Rather, it identifies the best zone available for focal species movement based on the data layers used in the analyses.

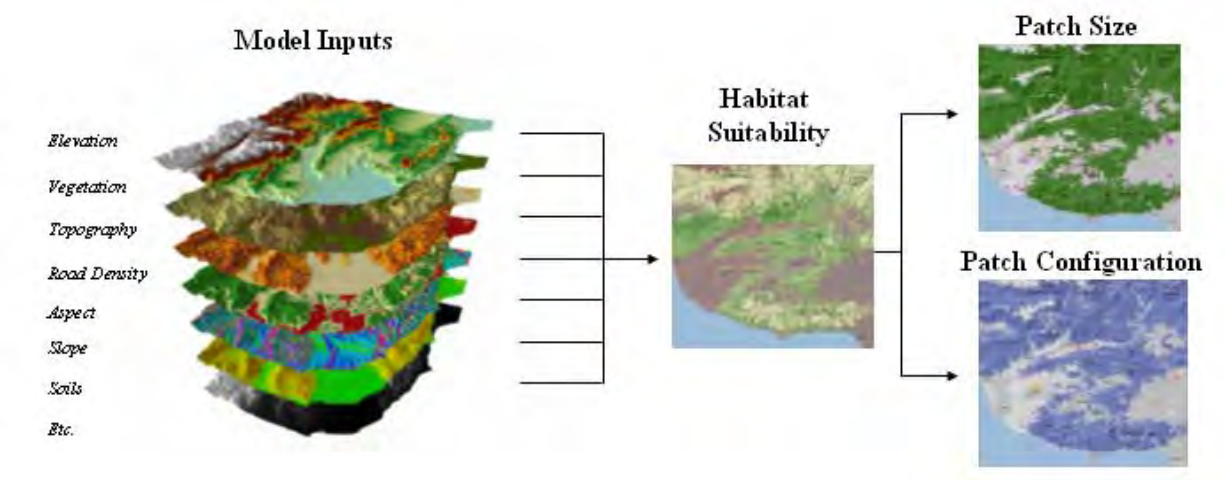
Patch Size & Configuration Analysis

Although the Least-Cost Union identifies the best zone available for movement based on the data layers used in the analyses, it does not address whether suitable habitat in the Union occurs in large enough patches to support viable populations and whether these patches are close enough together to allow for inter-patch dispersal. We therefore conducted patch size and configuration analyses for all focal species (Table 1) and adjusted the boundaries of the Least Cost Union where necessary to enhance the likelihood of movement. Patch size and configuration analyses are particularly important for species that require multiple generations to traverse the linkage. Many species exhibit metapopulation dynamics, whereby the long-term persistence of a local population requires connection to other populations (Hanski and Gilpin 1991). For relatively sedentary species like desert woodrat and terrestrial insects, gene flow will occur over decades through a metapopulation. Thus, the linkage must be able to accommodate metapopulation dynamics to support ecological and evolutionary processes in the long term.

A habitat suitability model formed the basis of the patch size and configuration analyses. Habitat suitability models were developed for each focal species using the literature and expert opinion. Spatial data layers used in the analysis varied by species and included: vegetation, elevation, topographic features, slope, aspect, hydrography, and soils. Using scoring and weighting

schemes similar to those described in the previous section, we generated a spectrum of suitability scores that were divided into five classes using natural breaks: low, low to medium, medium, medium to high, or high. Suitable habitat was identified as all land that scored medium, medium to high, or high.

To identify areas of suitable habitat that were large enough to provide a significant resource for individuals in the linkage, we conducted a patch size analysis. The size of all suitable habitat patches in the planning area were identified and marked as potential cores, patches, or less than a patch. *Potential core areas* were defined as the amount of contiguous suitable habitat necessary to sustain at least 50 individuals. A *patch* was defined as the area of contiguous suitable habitat needed to support at least one male and one female, but less than the potential core area. Potential cores are probably capable of supporting the species for several generations (although with erosion of genetic material if isolated). Patches can support at least one breeding pair of animals (perhaps more if home ranges overlap greatly) and are probably useful to the species if the patch can be linked via dispersal to other patches and core areas.



Model Inputs to Patch Size and Configuration Analyses vary by species. Patch size delineates cores, patches, and stepping-stones of potential habitat. Patch configuration evaluates whether suitable habitat patches and cores are within each species dispersal distance.

To determine whether the distribution of suitable habitat in the linkage supports meta-population processes and allows species to disperse among patches and core areas, we conducted a configuration analysis to identify which patches and core areas were functionally isolated by distances too great for the focal species to traverse. Because the majority of methods used to document dispersal distance underestimate the true value (LaHaye et al. 2001), we assumed each species could disperse twice as far as the longest documented dispersal distance. This assumption is conservative in the sense that it retains habitat patches as potentially important to dispersal for a species even if it may appear to be isolated based on known dispersal distances. Groupings of core areas and patches that were greater than the adopted dispersal distance from other suitable habitat were identified using a unique color.

For each species we compared the configuration and extent of potential cores and patches, relative to the species dispersal ability, to evaluate whether the Least Cost Union was likely to serve the species. If necessary, we added additional habitat to help ensure that the linkage provides sufficient live-in or “move-through” habitat for the species’ needs.

Minimum Linkage Width

While the size and distance among habitats (addressed by patch size and configuration analyses) must be adequate to support species movement, the shape of those habitats also plays a key role. In particular, constriction points—areas where habitats have been narrowed by surrounding development—can prevent organisms from moving through the Least Cost Union. To ensure that functional processes are protected, we imposed a minimum width of 2 km (1.2 mi) for all portions of the final Linkage Design.

For a variety of species, including those we did not formally model, a wide linkage helps ensure availability of appropriate habitat, host plants (e.g., for butterflies), pollinators, and areas with low predation risk. In addition, fires and floods are part of the natural disturbance regime and a wide linkage allows for a semblance of these natural disturbances to operate with minimal constraints from adjacent urban areas. A wide linkage should also enhance the ability of the biota to respond to climate change, and buffer against edge effects.

Field Investigations

We conducted field surveys to ground-truth habitat conditions, document existing barriers and potential passageways, and determine restoration opportunities. Because paved roads present the most formidable barriers, surveyors drove or walked each accessible section of road that transected a linkage. We identified areas where structures could be improved or installed, and opportunities to restore vegetation to improve road crossings and minimize roadkills.

Restoration and Conservation Opportunities and Recommendations

Each Linkage Design provides implementation opportunities for agencies, organizations, and individuals interested in participating in conservation activities in the linkage. Biological and land use summaries include descriptions and maps of vegetation, land cover, land use, roads, road crossings, railroads, and restoration opportunities. Each design also identifies existing planning efforts addressing the conservation and use of natural resources in the planning area. Finally, each provides a flyover animation using aerial imagery, satellite imagery, and digital elevations models, which provide a visualization of the linkage from a landscape perspective.

Appendix B
South Coast Wildland Network, Existing Conservation Investments

Linkage	Conservation Investments the Linkage Serves	Regional Significance	Major Conservation Investors
Tehachapi Connection	Links 4,100,994 acres of existing conservation investments. In the Sierra Nevada this includes Sequoia National Forest, 7 other Forests (Sierra, Inyo, Stanislaus, Eldorado, Tahoe, Plumas, Lassen), 3 National Parks (Sequoia-Kings Canyon, Yosemite, and Lassen), and Red Rock Canyon State Park. In the Sierra Madre, this includes Los Padres National Forest, Carrizo Plain National Monument, Bitter Creek National Wildlife Refuge, Hungry Valley State Vehicular Recreation Area, Wind Wolves Preserve, and others.	The only upland connection between the 2000 mile long Sierra-Cascade mountain system and the 800 mile long complex of the Coastal, Transverse, and Peninsular ranges of the S Coast region.	US Forest Service, Bureau of Land Management, US Fish & Wildlife Service, National Park Service, California State Parks, California Department of Fish and Game, The Wildlands Conservancy, The Nature Conservancy, among others.
Santa Monica-Sierra Madre Connection	Links 1,914,175 acres of existing conservation investments. In the Sierra Madre, this includes Los Padres National Forest, Carrizo Plain National Monument, Bitter Creek National Wildlife Refuge, Hungry Valley State Vehicular Recreation Area, and Wind Wolves Preserve. In the Santa Monica Mountains, this includes Santa Monica Mountains National Recreation Area, Point Mugu State Park, Malibu Creek State Park, Topanga State Park, and others.	The Sierra Madre – Sierra Madre Connection is one of the last remaining coastal to inland connections in the South Coast Ecoegion.	US Forest Service, National Park Service, California State Parks, Santa Monica Mtns Conservancy, Mountain Resources Conservation Authority, Conejo Open Space and Conservation Authority, Rancho Simi Dept of Parks and Rec, LA County Dept of Parks and Rec, The Nature Conservancy, among others.
Sierra Madre – Castaic Connection	Links 1,665,624 acres of existing conservation investments. In the Sierra Madre, this includes Los Padres National Forest, Carrizo Plain National Monument, Bitter Creek National Wildlife Refuge, Hungry Valley State Vehicular Recreation Area, and Wind Wolves Preserve. In the Castaic Ranges, this includes Angeles National Forest, Castaic Lake State Recreation Area, and others.	This linkage covers diverse ecological settings and encompasses several major vegetation types, including desert, forest, and coastal vegetation communities.	US Forest Service, US Fish & Wildlife Service, California State Parks, The Wildlands Conservancy, Ventura County Dept. of Parks & Recreation, and The Nature Conservancy, among others
San Gabriel-Castaic Connection	Links 661,023 acres of existing conservation investments. In the San Gabriel Mountains and Castaic Ranges, this includes Angeles National Forest, and Castaic Lake State Recreation Area, and others.	This linkage encompasses a unique transition zone between coastal and desert communities. The Santa Clara River, one of the last free-flowing rivers in southern California, is an integral part of the linkage.	US Forest Service, Bureau of Land Management, Santa Monica Mountains Conservancy, The Nature Conservancy, Rivers and Mountains Conservancy, Los Angeles County, City of Santa Clarita, among others.

San Gabriel – San Bernardino Connection	Links 948,451 acres of existing conservation investments. In the San Gabriel Mountains, this includes the Angeles National Forest. In the San Bernardino Mountains, this includes San Bernardino National Forest, Silverwood Lake State Recreation Area, Mission Creek Preserve, Pipes Canyon Preserve, Oak Glen Preserve and others.	The San Andreas Rift Zone runs through the linkage, producing steep rugged topography and a variety of microhabitats that support a rich diversity of natural communities.	US Forest Service, California State Parks, Bureau of Land Management, California Department of Fish and Game, The Wildlands Conservancy, among others.
San Bernardino – Granite Connection	Links 3,272,463 acres of existing conservation investments. In the San Bernardino Mountains, this includes San Bernardino National Forest, Silverwood Lake State Recreation Area, Mission Creek Preserve, Pipes Canyon Preserve, Oak Glen Preserve and others. In the Granite, Ord, and Rodman Mountains this includes land administered by the Bureau of Land Management, and others.	Ecoregional connection linking the South Coast Eocregion to the Mojave Ecoregion.	US Forest Service, Bureau of Land Management, California State Parks, California Department of Fish and Game, The Wildlands Conservancy, among others.
San Bernardino – Little San Bernardino	Links 3,236,289 acres of existing conservation investments. In the San Bernardino Mountains, this includes San Bernardino National Forest, Silverwood Lake State Recreation Area, Mission Creek Preserve, Pipes Canyon Preserve, Oak Glen Preserve and others. In the Little San Bernardino Mountains, this includes Joshua Tree National Park, and Big Morongo Canyon Preserve, and others.	Connects the South Coast Ecoregion to the Mojave and Sonoran Desert ecoregions, encompasses a unique variety of both coastal and desert habitats.	San Bernardino National Forest, Bureau of Land Management, The Wildlands Conservancy, Coachella Valley and Mountains Conservancy, among others.
San Bernardino – San Jacinto	Links 656,423 acres of existing conservation investments. In the San Bernardino Mountains, this includes San Bernardino National Forest, Silverwood Lake State Recreation Area, Mission Creek Preserve, Pipes Canyon Preserve, Oak Glen Preserve and others. In the San Jacinto Mountains, this includes San Bernardino National Forest, Mount San Jacinto State Park, and others.	San Bernardino Mountains are part of the Transverse Ranges and feature the highest peak in southern California, Mount San Gorgonio, while the San Jacinto Mountains are the highest and northernmost of the Peninsular Ranges.	US Forest Service, Bureau of Land Management, California State Parks, The Wildlands Conservancy, Coachella Valley Mountains Conservancy, Friends of the Desert Mountains, among others.
Palomar – San Jacinto – Santa Rosa Connection	Links 826,678.4 acres of existing conservation investments. In the San Jacinto Mountains, this includes San Bernardino National Forest, Mount San Jacinto State Park, and others. In the Palomar Mountains, this includes Cleveland National Forest and Palomar Mountain State Park, and others. In the Santa Rosa Mountains, this includes Anza Borrego Desert State Park, Santa Rosa and San Jacinto Mountains National Monument, and others.	Elements of both coastal and desert habitats occur side by side in many areas of this linkage, serving wildlife such as mountain lion, mule deer, Aguanga kangaroo rat, western toad, and the endangered quino checkerspot butterfly.	US Forest Service, Bureau of Land Management, California State Parks, County of San Diego, The Nature Conservancy, among others.

Santa Ana – Palomar Connection	Links 199,904 acres of existing conservation investments. In the Santa Ana Mountains, this includes Cleveland National Forest, Santa Margarita Ecological Reserve, Santa Rosa Ecological Plateau, Camp Pendleton, and others. In the Palomar Mountains, this includes Cleveland National Forest and Palomar Mountain State Park, and others.	The Santa Margarita River, the longest intact stream corridor in southern California, winds through the linkage.	US Forest Service, Bureau of Land Management, California State Parks, County of San Diego, San Diego State University Field Stations Program, The Nature Conservancy, among others.
Peninsular – Borrego Connection	Links 845,224 acres of existing conservation investments. In the Peninsular Ranges, this includes Cleveland National Forest, Cuyamaca Rancho State Park, and others. In the Santa Rosa Mountains, this includes Anza Borrego Desert State Park, Santa Rosa and San Jacinto Mountains National Monument, and others.	The linkage contains a number of rare and sensitive natural communities, including coastal sage scrub, grassland, meadow, palm oasis, coast live oak forest, and Engelmann oak woodland	US Forest Service, Bureau of Land Management, California State Parks, Anza Borrego Foundation and Institute, The Nature Conservancy, among others.
Otay Mountain—Cerro San Ysidro linkage	In the United States this includes, Otay Mountain Wilderness Area, administered by the BLM, Laguna Mountains of Cleveland National Forest, and others. In Baja California this includes Cerro San Ysidro.	Otay Mountain in southern California and Cerra San Ysidro in Baja represent sky islands of endemic plant species, and the last cross-border coastal sage scrub linkage.	US Forest Service, Bureau of Land Management, California State Parks, The Nature Conservancy, Conabio, Pronatura, and Universidad Autonoma de Baja California, among others.
La Posta linkage	This linkages serves to connect the Campo Valley in the United States with the El Hongo Valley in Baja California.	Occurs in an ecological transition zone between the coast and the desert and between mountain and inland valley biomes.	US Forest Service, Bureau of Land Management, California State Parks, The Nature Conservancy, Conabio, Pronatura, and Universidad Autonoma de Baja California, among others.
Parque-to-Park linkage	In the United States, this includes Anza Borrego Desert State Park, Santa Rosa and San Jacinto Mountains National Monument, and others. In the Sierra Juarez Mountains in Baja California, this includes Parque Constitucion de 1857.	Completing this connection will allow the endangered Peninsular bighorn sheep to repopulate the Sierra Juarez in northern Baja.	US Forest Service, Bureau of Land Management, California State Parks, The Nature Conservancy, Conabio, Pronatura, and Universidad Autonoma de Baja California, among others.

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Comment Letter No. 52

Comment Id	Submitter	Affilia	Comment	Category	Assigned To	Created On	
16238.01.2	Hank Fung		Overall - indicate as a disclaimer that these RTP projects may be subject to individual environmental review and the programmatic EIR is not a substitute for project level environmental analysis.	Environmental Mitigation	Lijin Sun	2/8/2016 4:34 PM	1

Comment Letter No. 53

Submitter	Affiliation (Submitter)	Comment	
Claire Schlotternbeck	Hills for Everyone 1/27/2016 4:05 PM	Thank you for the opportunity to comment on the Southern California Association of Governments (SCAG) 2016 Regional Transportation Plan (RTP) and Sustainable Community Strategy (SCS) and the Program Environmental Impact Report (PEIR). Following the release of the 2012 RTP/SCS, Friends of Harbors, Beaches and Parks (FHBP) coordinated a cross-county regional conservation coalition focused on the inclusion of natural lands mitigation and policies within that SCAG plan. Our organization, Hills for Everyone is now a part of this growing coalition in 2016. Hills for Everyone has been working in Los Angeles, Orange, San Bernardino and Riverside Counties since 1977, Our mission is to protect the unique and disappearing landscapes in the Puente-Chino Hills Wildlife Corridor. We have had important successes since our inception including the establishment of the 14,100 acre Chino Hills State Park and the conservation of the Coal Canyon Biological Corridor. The 2012 RTP/SCS provided an important stepping stone for the 2016 Plan. In previous Plans, natural lands and farmlands were handled under the banner of "land use." In this new Plan, however, they are their own category. This is a great milestone in conservation planning for the region and SCAG. Additionally, the creation of a Natural and Farmlands Appendix provides important opportunities for SCAG that shouldn't be overlooked. We believe the opportunity before you isn't to "plan for" the future of open space in the region—as that's what you've been doing since the 2012 Plan. Instead, we believe SCAG can now start "implementing" a regional conservation program. We strongly urge SCAG to take a more serious leadership role by actively seeking funding to implement conservation efforts by partnering with agencies, transportation commissions and non-profits to see that the Plan created in 2012 comes to fruition through the 2016 Plan. The One Bay Area Grant Program in Northern California is a program that we believe can be replicated in Southern California. We and other coalition members would gladly assist with this implementation effort. We've reviewed the RTP/SCS and PEIR and offer the following comments and suggestions for inclusion in the Plan with the intent to clarify/strengthen the language, as well as link the goals of the RTP and SCAG's mission with the Natural and Farmland policies. Amendments to the Open Space Maps in the PEIR Maps contained within the PEIR, RTP, SCS and Appendix should be internally consistent and they are not. For example, each map that shows "open space" or "protected lands" should be using the same base dataset but they do not. The 2012 Plan resulted in the creation of SCAG's very own geographic information systems (GIS) dataset: the Natural Resource Inventory. It is more accurate than what is in the document now and it has been vetted by numerous organizations. That's why it is surprising to see that so few of SCAG's own GIS layers were actually used in the documents' maps. We urge SCAG to honor its own work and that of its partner organizations by using this dataset as the basis for natural and farmland mapping. Let's move forward with the same baseline information. Identify a Conservation Mechanism for the Natural and Farmlands Preservation Our organization supports the idea that as new growth occurs it should focus on the existing infill areas. This is consistent with the finding in the SCAG surveys where respondents preferred to see existing urban areas built upon before greenfields are targeted for development, especially those at the Wildland-Urban Interface. When developments are built in infill areas, it likely relieves pressure from the fringe. However, the Plan fails to outline exactly how (or with what mechanism) these fringe lands (or any lands) will actually be protected. Just because the pressure is relieved doesn't mean the land then automatically becomes protected. Numerous organizations, ours included, focus their work on preservation of important habitat lands. A lot of time, energy, political will, strategy and other efforts combine to creat a successful conservation transaction that leads to permanently conserved lands. SCAG must identify the mechanism, process or plan on how the greenfield lands will be protected. Formal Versus Informal Conservation Plans—All Are Important SCAG focused many sections of the document on formal conservation plans, in the form of Natural Community Conservation Plans and Habitat Conservation Plans (NCCP/HCP), as the conservation method most identified by the agency. It is important to note that NCCP/HCP programs are only one conservation mechanism and they have limitations. For example, they are voluntary, property owner driven and generally only apply to larger land ownerships. Efforts underway by local, regional, state and federal agencies outside of these formal plans should not be discounted and must be included. Furthermore, many conservation organizations help facilitate, coordinate and find funding for land conservation transactions. We believe the conservation approach promoted by SCAG should include all of the ways land is protected, including those less regulated methods of conservation outside of NCCP/HCP programs. SCAG's Support of Regional Wildlife Corridors The current federal transportation bill, FAST Act, supports understanding transportation impacts on natural resources. The previous bill, MAP-21, supported restoring and maintaining environmental functions (i.e., wildlife corridors) affected by the infrastructure projects in the RTP. SCAG has even supported efforts in Los Angeles County to create a wildlife corridor over the 101 Freeway. Many efforts are underway across the region to connect landscapes to one another. This is very important to the region and its biodiversity. Wildlife corridors allow species to migrate and forage and expand genetic diversity. These corridors also allow ecosystems to maintain ecological functions, act as sources for repopulation after natural disasters such as fire, flood or landslide, and improve the resiliency in the face of climate change impacts. The Plan would be stronger if it supported the enhancement of and/or protection of documented and regionally significant wildlife corridors, especially those that are impacted by infrastructure projects. Conclusion Thank you for reviewing our comments and we look forward to working with SCAG on the implementation of this Plan, especially as it relates to the Natural and Farmlands Appendix. Should you need to contact me, I can be reached at 714-996-0502. In addition, we request to be included on any notifications (electronic or otherwise) about this policy's creation and implementation, please send information to Claire@schlotterbeck.net	1 2 3 4 5 6

Comment Letter No. 54

2016 PEIR

From: I. Sandler [redacted]
Sent: Sunday, January 31, 2016 10:49 PM
To: 2016 PEIR
Subject: 2016 SCAG PEIR Comments

Attn: Lijin Sun RE: (2016 Draft PEIR)
Southern California Association of Governments
818 W. 7th Street, 12th Floor
Los Angeles, Ca. 90017

Attn: Courtney Aguirre (RE: 2016 Draft RTP/SCS)
Southern California Association of Governments
818 W. 7th St, Floor12
Los Angeles, Ca. 90017

January 31, 2016

RE: Draft 2016 RTP/SCS PEIR and Draft 2016/SCS
Comments in Opposition to the RTP ID LA 996425 (Sepulveda Reversible Lane)
PEIR Appendix B, Table 1, page 18
RTP/SCS Project Appendix List Table 2, Page 124

I have lived in the community of [redacted] for over 13 years. I served on the Sepulveda Reversible Lane Community Advisory Committee from 2003-2005. I am familiar with the original plans, the revisions, and the completed portions of the project. I drive on Sepulveda almost daily, as it the means of ingress and egress for the [redacted] Community.

.

The Sepulveda Reversible Lane and Improvement Project came into existence in 1998 as an Los Angeles Dept. of Transportation project. For many years It has been a component of the SCAG RTIP's and SCAG RTP's. LA 996425 can be found in both the SCAG 2016 PEIR and the 2016 SCAG RTP/SCS documents. Funding has been set aside for this Project for about 18 years. The project scope has been modified over time, and it is now substantially complete. However, It is still part of both the Draft 2016 PEIR Impact Report and the Draft 2016 RTP/SCS Plans .The one component that is not completed is the unnecessary Sepulveda Reversible Lane in the Mulholland Tunnel on Sepulveda Blvd in CD 5 and 11, and Metro District 7. 1

The I-405 Sepulveda Pass Improvement Project, (funded by Federal, State, County, and City governments), added new Skirball ramps to the I-405 and an additional northbound lane on Sepulveda Blvd itself, leading from the new I-405 Skirball northbound exit ramp northward to the Skirball Bridge. Northbound Sepulveda traffic flows well. Northbound traffic going toward/through the Mulholland Tunnel does not present a traffic problem. The Reversible Lane Project in the Mulholland Tunnel is not needed.

Irene Sandler
[redacted]

[redacted]

Comment Letter No. 55

2016 PEIR

From: I. Sandler [redacted]
Sent: Sunday, January 31, 2016 10:49 PM
To: 2016 PEIR
Subject: 2016 SCAG PEIR Comments

Attn: Lijin Sun RE: (2016 Draft PEIR)
Southern California Association of Governments
818 W. 7th Street, 12th Floor
Los Angeles, Ca. 90017

Attn: Courtney Aguirre (RE: 2016 Draft RTP/SCS)
Southern California Association of Governments
818 W. 7th St, Floor12
Los Angeles, Ca. 90017

January 31, 2016

RE: Draft 2016 RTP/SCS PEIR and Draft 2016/SCS
Comments in Opposition to the RTP ID LA 996425 (Sepulveda Reversible Lane)
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Irene Sandler
[redacted]

[redacted]

2016 PEIR

From: I. Sandler [redacted]
Sent: Monday, February 01, 2016 10:31 PM
To: 2016 PEIR
Subject: RE: 2016 SCAG PEIR Comments

Der Ms. Sun,

It is not often that one receives a personalized e-mail from a "real person" representing such an important entity, and I appreciate it. I'm glad to know that you received the comments.

I do have a correction, which I didn't notice until after I sent the comments. I referred to the new I-405 Skirball Center ramps on Sepulveda. However, those are the "SOUTHBOUND ramps, not Northbound ramps. I hope that this clarification is OK and that my error does not invalidate my comments!

Sincerely yours,
Irenem Sandler

-----Original Message-----
From: 2016 PEIR <2016PEIR@scag.ca.gov>
Sent: Feb 1, 2016 7:52 AM
To: "I. Sandler"
Cc: 2016 PEIR <2016PEIR@scag.ca.gov>
Subject: RE: 2016 SCAG PEIR Comments

Thanks very much for your comments.

Sincerely,

Lijin Sun, J.D., Esq.
Senior Regional Planner
SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS
818 W. 7th Street, 12th Floor
Los Angeles, CA 90017
T: (213) 236-1882 | F: (213) 236-1963
E: SunL@scag.ca.gov | W: www.scag.ca.gov

Stay Connected

From: I. Sandler [redacted]
Sent: Sunday, January 31, 2016 10:49 PM
To: 2016 PEIR
Subject: 2016 SCAG PEIR Comments

Attn: Lijin Sun RE: (2016 Draft PEIR)

Southern California Association of Governments
818 W. 7th Street, 12th Floor
Los Angeles, Ca. 90017

Attn: Courtney Aguirre (RE: 2016 Draft RTP/SCS)
Southern California Association of Governments
818 W. 7th St, Floor12
Los Angeles, Ca. 90017

January 31, 2016

RE: Draft 2016 RTP/SCS PEIR and Draft 2016/SCS
Comments in Opposition to the RTP ID LA 996425 (Sepulveda Reversible Lane)
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The I-405 Sepulveda Pass Improvement Project, (funded by Federal, State, County, and City governments), added new Skirball ramps to the I-405 and an additional northbound lane on Sepulveda Blvd itself, leading from the new I-405 Skirball northbound exit ramp northward to the Skirball Bridge. Northbound Sepulveda traffic flows well. Northbound traffic going toward/through the Mulholland Tunnel does not present a traffic problem. The Reversible Lane Project in the Mulholland Tunnel is not needed.

Irene Sandler
[redacted]
[redacted]

Comment Letter No. 56

Anita Au

From: Joyce Dillard [redacted]
Sent: Monday, February 1, 2016 3:52 PM
To: 2016 PEIR
Subject: Comments SCAG PEIR RTP & SCS due 2.1.2016
Attachments: Comments SCAG PEIR RTP & SCS due 2.1.2016.pdf; DRAFT POLICY GROWTH FORECAST.pdf

Attached.

Joyce Dillard
[redacted]

Comments SCAG PEIR RTP & SCS due 2.1.2016

You list the GUIDING POLICIES as:

Policy 1:
Transportation investments shall be based on SCAG's adopted regional Performance Indicators

Policy 2:
Ensuring safety, adequate maintenance, and efficiency of operations on the existing multimodal transportation system should be the highest RTP/SCS priorities for any incremental funding in the region.

Policy 3:
RTP/SCS land use and growth strategies in the RTP/SCS will respect local input and advance smart growth initiatives.

Policy 4:
Transportation demand management (TDM) and active transportation will be focus areas, subject to Policy 1.

Policy 5:
High-Occupancy vehicle (HOV) gap closures that significantly increase transit and rideshare usage will be supported and encouraged, subject to Policy 1.

1

Policy 6:
The RTP/SCS will support investments and strategies to reduce non-recurrent congestion and demand for single occupancy vehicle use, by leveraging advanced technologies.

Policy 7:
The RTP/SCS will encourage transportation investments that result in cleaner air, a better environment, a more efficient transportation system, and sustainable outcomes in the long run.

Policy 8:
Monitoring progress on all aspects of the Plan, including the timely implementation of projects, programs, and strategies, will be an important and integral component of the Plan.

The DRAFT POLICY GROWTH FORECAST does not match amongst the POPULATION, HOUSEHOLDS and EMPLOYMENT.

LOS ANGELES COUNTY has a POPULATION growth for cities/unincorporated of 10% and more at 1,226,100 or 10.65% of the total. That is 77.01% growth in 10 cities.

Cities/unincorporated with the largest expected growth comprise of 12.10% of the total with a population increase of 1,393,000.

LOS ANGELES COUNTY HOUSEHOLD increase is at 17.46%. LOS ANGELES COUNTY EMPLOYMENT is at 18.73%. 1 cont.

As with the other counties, we see no consistency in the model used, and therefore, no reality of real growth.

You have no substantiation for the following statements:

Like the 2012 RTP/SCS, the proposed land use strategies included in the 2016 RTP/SCS continue to focus new growth in HQTAs, existing suburban town centers, and more walkable, mixed-use communities:

- *Identify regional strategic areas for infill and investment;*
- *Structure the plan on a three-tiered system of centers development;11*
- *Develop "Complete Communities";*
- *Develop nodes on a corridor;*
- *Plan for additional housing and jobs near transit;*
- *Plan for changing demand in types of housing;*
- *Continue to protect stable, existing single-family areas;*
- *Ensure adequate access to open space and preservation of habitat; and*
- *Incorporate local input and feedback on future growth.*

2

In support of the foundation policies and guiding principles, the RTP/SCS includes six proposed land use strategies:

- *High Quality Transit Areas (HQTA)*
- *Livable Corridors*
- *Neighborhood Mobility Area*
- *Zero-Emission Vehicles and Electric Vehicle Charging Stations*
- *Natural Lands Preservation*
- *Balancing Growth Distribution between 500 Feet of Freeways and HQTAs*

Infrastructure needs to be analyzed. All Elements of all Cities/Unincorporated should be analyzed for General Plan consistency. 3

All Alternatives presented have no consistency with the DRAFT POLICY GROWTH FORECAST. 4

Material presented at the Southern California Economic Summit are not consistent with the DRAFT POLICY GROWTH FORECAST. If slower growth is expected, then this PEIR should reflect a timeline accordingly. 5

Joyce Dillard
[redacted]

Attachment:
Draft Policy Growth Forecast

SCAG PEIR 2016-2040 Regional Transportation Plan
and Sustainable Communities Strategy
DRAFT POLICY GROWTH FORECAST
LOS ANGELES COUNTY

	POPULATION				
	2012	2040	Increase	Percent	% of Total
Agoura Hills city	20,500	22,700	2,200	9.69%	0.02%
Alhambra city	84,000	88,800	4,800	5.41%	0.04%
Arcadia city	56,700	65,900	9,200	13.96%	0.08%
Artesia city	16,600	18,000	1,400	7.78%	0.01%
Avalon city	3,800	5,100	1,300	25.49%	0.01%
Azusa city	47,100	55,000	7,900	14.36%	0.07%
Baldwin Park city	76,100	83,600	7,500	8.97%	0.07%
Bell city	35,700	36,900	1,200	3.25%	0.01%
Bellflower city	77,100	79,600	2,500	3.14%	0.02%
Bell Gardens city	42,300	44,000	1,700	3.86%	0.01%
Beverly Hills city	34,400	37,200	2,800	7.53%	0.02%
Bradbury city	1,100	1,200	100	8.33%	0.00%
Burbank city	103,300	118,700	15,400	12.97%	0.13%
Calabasas city	23,800	24,500	700	2.86%	0.01%
Carson city	92,000	107,900	15,900	14.74%	0.14%
Cerritos city	49,300	50,900	1,600	3.14%	0.01%
Claremont city	35,500	39,400	3,900	9.90%	0.03%
Commerce city	12,900	13,500	600	4.44%	0.01%
Compton city	97,300	100,900	3,600	3.57%	0.03%
Covina city	48,200	51,600	3,400	6.59%	0.03%
Cudahy city	23,800	23,800	-	0.00%	0.00%
Culver City	39,100	40,700	1,600	3.93%	0.01%
Diamond Bar city	56,000	63,900	7,900	12.36%	0.07%
Downey city	112,500	121,700	9,200	7.56%	0.08%
Duarte city	21,500	24,300	2,800	11.52%	0.02%
El Monte city	114,200	137,200	23,000	16.76%	0.20%
El Segundo city	16,700	17,300	600	3.47%	0.01%
Gardena city	59,400	68,700	9,300	13.54%	0.08%
Glendale city	193,200	214,000	20,800	9.72%	0.18%
Glendora city	50,500	54,300	3,800	7.00%	0.03%
Hawaiian Gardens city	14,300	15,900	1,600	10.06%	0.01%
Hawthorne city	85,300	87,000	1,700	1.95%	0.01%
Hermosa Beach city	19,600	20,400	800	3.92%	0.01%
Hidden Hills city	1,900	2,000	100	5.00%	0.00%
Huntington Park city	58,500	67,400	8,900	13.20%	0.08%
Industry city	500	500	-	0.00%	0.00%
Inglewood city	110,900	129,000	18,100	14.03%	0.16%
Irwindale city	1,400	2,000	600	30.00%	0.01%
La Cañada Flintridge city	20,400	21,600	1,200	5.56%	0.01%
La Habra Heights city	5,400	6,200	800	12.90%	0.01%
Lakewood city	80,600	84,700	4,100	4.84%	0.04%
La Mirada city	48,800	52,100	3,300	6.33%	0.03%
Lancaster city	158,300	209,900	51,600	24.58%	0.45%
La Puente city	40,100	50,200	10,100	20.12%	0.09%
La Verne city	31,800	32,900	1,100	3.34%	0.01%
Lawndale city	33,000	33,900	900	2.65%	0.01%
Lomita city	20,500	21,200	700	3.30%	0.01%
Long Beach city	466,300	484,500	18,200	3.76%	0.16%
Los Angeles city	3,845,500	4,609,400	763,900	16.57%	6.63%
Lynwood city	70,300	76,100	5,800	7.62%	0.05%
Malibu city	12,700	14,100	1,400	9.93%	0.01%

Prepared by Joyce Dillard
February 1, 2016

SCAG PEIR 2016-2040 Regional Transportation Plan
and Sustainable Communities Strategy
DRAFT POLICY GROWTH FORECAST
LOS ANGELES COUNTY

	POPULATION				
	2012	2040	Increase	Percent	% of Total
Manhattan Beach city	35,300	37,100	1,800	4.85%	0.02%
Maywood city	27,500	28,900	1,400	4.84%	0.01%
Monrovia city	36,800	40,300	3,500	8.68%	0.03%
Montebello city	63,000	67,300	4,300	6.39%	0.04%
Monterey Park city	61,300	65,000	3,700	5.69%	0.03%
Norwalk city	105,900	106,300	400	0.38%	0.00%
Palmdale city	154,200	201,500	47,300	23.47%	0.41%
Palos Verdes Estates city	13,600	13,900	300	2.16%	0.00%
Paramount city	54,500	58,000	3,500	6.03%	0.03%
Pasadena city	140,300	150,700	10,400	6.90%	0.09%
Pico Rivera city	63,400	69,100	5,700	8.25%	0.05%
Pomona city	150,500	190,400	39,900	20.96%	0.35%
Rancho Palos Verdes city	42,000	42,300	300	0.71%	0.00%
Redondo Beach city	67,200	74,400	7,200	9.68%	0.06%
Rolling Hills city	1,900	2,000	100	5.00%	0.00%
Rolling Hills Estates city	8,100	8,600	500	5.81%	0.00%
Rosemead city	54,300	60,800	6,500	10.69%	0.06%
San Dimas city	33,600	34,500	900	2.61%	0.01%
San Fernando city	23,900	26,900	3,000	11.15%	0.03%
San Gabriel city	40,100	46,900	6,800	14.50%	0.06%
San Marino city	13,200	13,300	100	0.75%	0.00%
Santa Clarita city	202,000	262,200	60,200	22.96%	0.52%
Santa Fe Springs city	16,600	21,700	5,100	23.50%	0.04%
Santa Monica city	90,700	103,400	12,700	12.28%	0.11%
Sierra Madre city	11,000	11,200	200	1.79%	0.00%
Signal Hill city	11,200	12,000	800	6.67%	0.01%
South El Monte city	20,300	22,500	2,200	9.78%	0.02%
South Gate city	94,700	111,800	17,100	15.30%	0.15%
South Pasadena city	25,800	27,100	1,300	4.80%	0.01%
Temple City city	35,900	40,600	4,700	11.58%	0.04%
Torrance city	146,500	159,800	13,300	8.32%	0.12%
Vernon city	100	300	200	66.67%	0.00%
Walnut city	29,800	33,800	4,000	11.83%	0.03%
West Covina city	107,000	116,700	9,700	8.31%	0.08%
West Hollywood city	34,800	41,800	7,000	16.75%	0.06%
Westlake Village city	8,300	8,800	500	5.68%	0.00%
Whittier city	85,900	96,900	11,000	11.35%	0.10%
Unincorporated	1,040,700	1,273,700	233,000	18.29%	2.02%
TOTALS	9,922,600	11,514,800	1,592,200	870.91%	13.83%

13.83%

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HOUSEHOLDS

	2012	2040	Increase	Percent	% of Total
Agoura Hills city	7,300	8,200	900	10.98%	0.02%
Alhambra city	29,300	31,900	2,600	8.15%	0.07%
Arcadia city	19,600	22,900	3,300	14.41%	0.08%
Artesia city	4,500	5,000	500	10.00%	0.01%
Avalon city	1,500	2,100	600	28.57%	0.02%
Azusa city	12,800	15,600	2,800	17.95%	0.07%
Baldwin Park city	17,200	19,300	2,100	10.88%	0.05%
Bell city	8,900	9,200	300	3.26%	0.01%
Bellflower city	23,700	24,400	700	2.87%	0.02%
Bell Gardens city	9,700	10,100	400	3.96%	0.01%
Beverly Hills city	14,900	16,200	1,300	8.02%	0.03%
Bradbury city	400	400	-	0.00%	0.00%
Burbank city	42,500	48,400	5,900	12.19%	0.15%
Calabasas city	8,700	9,100	400	4.40%	0.01%
Carson city	25,300	30,800	5,500	17.86%	0.14%
Cerritos city	15,500	16,000	500	3.13%	0.01%
Claremont city	11,700	13,200	1,500	11.36%	0.04%
Commerce city	3,400	3,600	200	5.56%	0.01%
Compton city	23,100	24,000	900	3.75%	0.02%
Covina city	15,900	17,200	1,300	7.56%	0.03%
Cudahy city	5,600	5,600	-	0.00%	0.00%
Culver City	16,800	17,500	700	4.00%	0.02%
Diamond Bar city	17,900	21,200	3,300	15.57%	0.08%
Downey city	33,900	37,300	3,400	9.12%	0.09%
Duarte city	7,000	8,200	1,200	14.63%	0.03%
El Monte city	27,800	34,700	6,900	19.88%	0.17%
El Segundo city	7,100	7,400	300	4.05%	0.01%
Gardena city	20,600	24,200	3,600	14.88%	0.09%
Glendale city	72,400	81,100	8,700	10.73%	0.22%
Glendora city	17,200	18,900	1,700	8.99%	0.04%
Hawaiian Gardens city	3,600	4,000	400	10.00%	0.01%
Hawthorne city	28,600	30,000	1,400	4.67%	0.04%
Hermosa Beach city	9,500	9,800	300	3.06%	0.01%
Hidden Hills city	600	600	-	0.00%	0.00%
Huntington Park city	14,600	17,400	2,800	16.09%	0.07%
Industry city	100	100	-	0.00%	0.00%
Inglewood city	36,600	43,300	6,700	15.47%	0.17%
Irwindale city	400	500	100	20.00%	0.00%
La Cañada Flintridge city	6,900	7,300	400	5.48%	0.01%
La Habra Heights city	1,800	1,900	100	5.26%	0.00%
Lakewood city	26,600	28,200	1,600	5.67%	0.04%
La Mirada city	14,700	15,800	1,100	6.96%	0.03%
Lancaster city	47,400	65,300	17,900	27.41%	0.45%
La Puente city	9,500	12,400	2,900	23.39%	0.07%
La Verne city	11,400	12,100	700	5.79%	0.02%
Lawndale city	9,700	10,100	400	3.96%	0.01%
Lomita city	8,100	8,400	300	3.57%	0.01%
Long Beach city	163,800	175,500	11,700	6.67%	0.30%
Los Angeles city	1,325,500	1,690,300	364,800	21.58%	9.24%
Lynwood city	14,700	16,200	1,500	9.26%	0.04%
Malibu city	5,300	5,600	300	5.36%	0.01%

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HOUSEHOLDS

	2012	2040	Increase	Percent	% of Total
Manhattan Beach city	14,000	14,800	800	5.41%	0.02%
Maywood city	6,600	6,900	300	4.35%	0.01%
Monrovia city	13,800	15,300	1,500	9.80%	0.04%
Montebello city	19,100	21,000	1,900	9.05%	0.05%
Monterey Park city	20,200	21,500	1,300	6.05%	0.03%
Norwalk city	27,100	27,200	100	0.37%	0.00%
Palmdale city	43,100	59,300	16,200	27.32%	0.41%
Palos Verdes Estates city	5,100	5,200	100	1.92%	0.00%
Paramount city	13,900	14,800	900	6.08%	0.02%
Pasadena city	58,900	62,400	3,500	5.61%	0.09%
Pico Rivera city	16,600	18,400	1,800	9.78%	0.05%
Pomona city	38,600	51,100	12,500	24.46%	0.32%
Rancho Palos Verdes city	15,600	15,700	100	0.64%	0.00%
Redondo Beach city	29,000	33,000	4,000	12.12%	0.10%
Rolling Hills city	700	700	-	0.00%	0.00%
Rolling Hills Estates city	3,000	3,100	100	3.23%	0.00%
Rosemead city	14,300	16,400	2,100	12.80%	0.05%
San Dimas city	12,000	12,400	400	3.23%	0.01%
San Fernando city	6,000	7,000	1,000	14.29%	0.03%
San Gabriel city	12,600	15,300	2,700	17.65%	0.07%
San Marino city	4,300	4,400	100	2.27%	0.00%
Santa Clarita city	67,300	90,300	23,000	25.47%	0.58%
Santa Fe Springs city	4,800	6,500	1,700	26.15%	0.04%
Santa Monica city	47,100	53,900	6,800	12.62%	0.17%
Sierra Madre city	4,800	5,000	200	4.00%	0.01%
Signal Hill city	4,200	4,600	400	8.70%	0.01%
South El Monte city	4,600	5,200	600	11.54%	0.02%
South Gate city	23,200	28,300	5,100	18.02%	0.13%
South Pasadena city	10,500	11,100	600	5.41%	0.02%
Temple City city	11,600	13,500	1,900	14.07%	0.05%
Torrance city	56,100	62,000	5,900	9.52%	0.15%
Vernon city	-	100	100	100.00%	0.00%
Walnut city	8,700	10,400	1,700	16.35%	0.04%
West Covina city	31,700	35,000	3,300	9.43%	0.08%
West Hollywood city	22,600	27,800	5,200	18.71%	0.13%
Westlake Village city	3,300	3,500	200	5.71%	0.01%
Whittier city	28,300	32,600	4,300	13.19%	0.11%
Unincorporated	292,700	392,400	99,700	25.41%	2.53%
TOTALS	3,257,600	3,946,600	689,000	987.05%	17.46%

17.46%

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	EMPLOYMENT				
	2012	2040	Increase	Percent	% of Total
Agoura Hills city	12,500	15,300	2,800	18.30%	0.05%
Alhambra city	28,000	33,500	5,500	16.42%	0.11%
Arcadia city	28,900	34,400	5,500	15.99%	0.11%
Artesia city	5,000	5,800	800	13.79%	0.02%
Avalon city	2,500	2,500	-	0.00%	0.00%
Azusa city	16,600	20,600	4,000	19.42%	0.08%
Baldwin Park city	16,500	19,500	3,000	15.38%	0.06%
Bell city	12,400	13,700	1,300	9.49%	0.02%
Bellflower city	13,600	14,700	1,100	7.48%	0.02%
Bell Gardens city	9,400	10,500	1,100	10.48%	0.02%
Beverly Hills city	57,700	68,900	11,200	16.26%	0.21%
Bradbury city	100	200	100	50.00%	0.00%
Burbank city	106,800	145,000	38,200	26.34%	0.73%
Calabasas city	16,700	17,300	600	3.47%	0.01%
Carson city	58,500	69,700	11,200	16.07%	0.21%
Cerritos city	30,400	33,700	3,300	9.79%	0.06%
Claremont city	17,400	19,700	2,300	11.68%	0.04%
Commerce city	44,600	49,100	4,500	9.16%	0.09%
Compton city	25,400	28,200	2,800	9.93%	0.05%
Covina city	25,300	29,500	4,200	14.24%	0.08%
Cudahy city	2,900	2,900	-	0.00%	0.00%
Culver City	44,100	53,000	8,900	16.79%	0.17%
Diamond Bar city	15,400	19,300	3,900	20.21%	0.07%
Downey city	47,500	53,000	5,500	10.38%	0.11%
Duarte city	10,100	11,900	1,800	15.13%	0.03%
El Monte city	28,000	35,700	7,700	21.57%	0.15%
El Segundo city	38,400	45,400	7,000	15.42%	0.13%
Gardena city	28,900	33,500	4,600	13.73%	0.09%
Glendale city	111,300	127,000	15,700	12.36%	0.30%
Glendora city	20,000	23,000	3,000	13.04%	0.06%
Hawaiian Gardens city	4,800	5,600	800	14.29%	0.02%
Hawthorne city	27,200	32,100	4,900	15.26%	0.09%
Hermosa Beach city	7,400	10,000	2,600	26.00%	0.05%
Hidden Hills city	300	300	-	0.00%	0.00%
Huntington Park city	15,600	18,600	3,000	16.13%	0.06%
Industry city	67,700	74,700	7,000	9.37%	0.13%
Inglewood city	31,100	37,400	6,300	16.84%	0.12%
Irwindale city	18,800	21,500	2,700	12.56%	0.05%
La Cañada Flintridge city	6,500	8,300	1,800	21.69%	0.03%
La Habra Heights city	200	400	200	50.00%	0.00%
Lakewood city	18,900	21,400	2,500	11.68%	0.05%
La Mirada city	17,400	20,200	2,800	13.86%	0.05%
Lancaster city	45,800	59,600	13,800	23.15%	0.26%
La Puente city	6,300	8,700	2,400	27.59%	0.05%
La Verne city	12,200	14,300	2,100	14.69%	0.04%
Lawndale city	6,700	8,200	1,500	18.29%	0.03%
Lomita city	4,600	5,400	800	14.81%	0.02%
Long Beach city	153,200	181,700	28,500	15.69%	0.55%
Los Angeles city	1,696,400	2,169,100	472,700	21.79%	9.05%
Lynwood city	9,200	10,900	1,700	15.60%	0.03%
Malibu city	8,500	10,300	1,800	17.48%	0.03%

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EMPLOYMENT

	2012	2040	Increase	Percent	% of Total
Manhattan Beach city	18,000	20,700	2,700	13.04%	0.05%
Maywood city	3,600	4,000	400	10.00%	0.01%
Monrovia city	19,700	23,300	3,600	15.45%	0.07%
Montebello city	27,500	30,800	3,300	10.71%	0.06%
Monterey Park city	32,500	36,500	4,000	10.96%	0.08%
Norwalk city	24,100	27,300	3,200	11.72%	0.06%
Palmdale city	29,300	40,300	11,000	27.30%	0.21%
Palos Verdes Estates city	2,300	2,900	600	20.69%	0.01%
Paramount city	19,600	22,300	2,700	12.11%	0.05%
Pasadena city	111,000	144,800	33,800	23.34%	0.65%
Pico Rivera city	18,900	22,400	3,500	15.63%	0.07%
Pomona city	55,100	67,200	12,100	18.01%	0.23%
Rancho Palos Verdes city	5,800	6,200	400	6.45%	0.01%
Redondo Beach city	24,000	29,800	5,800	19.46%	0.11%
Rolling Hills city	100	100	-	0.00%	0.00%
Rolling Hills Estates city	5,900	6,800	900	13.24%	0.02%
Rosemead city	13,700	16,200	2,500	15.43%	0.05%
San Dimas city	11,200	12,700	1,500	11.81%	0.03%
San Fernando city	10,900	12,700	1,800	14.17%	0.03%
San Gabriel city	14,100	16,800	2,700	16.07%	0.05%
San Marino city	3,600	4,200	600	14.29%	0.01%
Santa Clarita city	73,500	95,900	22,400	23.36%	0.43%
Santa Fe Springs city	54,600	62,000	7,400	11.94%	0.14%
Santa Monica city	89,600	103,700	14,100	13.60%	0.27%
Sierra Madre city	1,900	2,100	200	9.52%	0.00%
Signal Hill city	13,800	16,500	2,700	16.36%	0.05%
South El Monte city	15,700	17,800	2,100	11.80%	0.04%
South Gate city	20,400	24,000	3,600	15.00%	0.07%
South Pasadena city	9,300	10,500	1,200	11.43%	0.02%
Temple City city	6,900	8,400	1,500	17.86%	0.03%
Torrance city	102,300	117,600	15,300	13.01%	0.29%
Vernon city	43,200	46,100	2,900	6.29%	0.06%
Walnut city	8,400	9,900	1,500	15.15%	0.03%
West Covina city	29,500	34,300	4,800	13.99%	0.09%
West Hollywood city	29,800	37,300	7,500	20.11%	0.14%
Westlake Village city	13,300	15,900	2,600	16.35%	0.05%
Whittier city	26,900	31,700	4,800	15.14%	0.09%
Unincorporated	222,900	288,400	65,500	22.71%	1.25%
TOTALS	4,246,600	5,225,300	978,700	1362.58%	18.73%

18.73%

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IMPERIAL COUNTY

	POPULATION				
	2012	2040	Increase	Percent	% of Total
Brawley city	25,800	42,900	17,100	39.86%	6.06%
Calexico city	40,200	62,200	22,000	35.37%	7.80%
Calipatria city	7,600	9,600	2,000	20.83%	0.71%
El Centro city	44,100	61,000	16,900	27.70%	5.99%
Holtville city	6,100	8,000	1,900	23.75%	0.67%
Imperial city	15,800	25,400	9,600	37.80%	3.40%
Westmorland city	2,300	2,700	400	14.81%	0.14%
Unincorporated	37,700	70,300	32,600	46.37%	11.56%
TOTALS	179,600	282,100	102,500	246.50%	36.33%

36.33%

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HOUSEHOLDS

	2012	2040	Increase	Percent	% of Total
Brawley city	7,600	15,000	7,400	49.33%	8.00%
Calexico city	10,200	19,300	9,100	47.15%	9.84%
Calipatria city	1,000	1,600	600	37.50%	0.65%
El Centro city	13,100	19,900	6,800	34.17%	7.35%
Holtville city	1,800	2,500	700	28.00%	0.76%
Imperial city	4,600	8,800	4,200	47.73%	4.54%
Westmorland city	600	700	100	14.29%	0.11%
Unincorporated	10,400	24,700	14,300	57.89%	15.46%
TOTALS	49,300	92,500	43,200	316.06%	46.70%

46.70%

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EMPLOYMENT

	2012	2040	Increase	Percent	% of Total
Brawley city	8,000	16,800	8,800	52.38%	7.06%
Calexico city	8,300	17,500	9,200	52.57%	7.38%
Calipatria city	1,300	2,200	900	40.91%	0.72%
El Centro city	20,300	43,800	23,500	53.65%	18.86%
Holtville city	1,000	2,000	1,000	50.00%	0.80%
Imperial city	3,400	9,500	6,100	64.21%	4.90%
Westmorland city	300	500	200	40.00%	0.16%
Unincorporated	16,400	32,300	15,900	49.23%	12.76%
TOTALS	59,000	124,600	65,600	402.95%	52.65%

52.65%

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ORANGE COUNTY

	POPULATION				
	2012	2040	Increase	Percent	% of Total
Aliso Viejo city	49,300	51,000	1,700	3.33%	0.05%
Anaheim city	345,300	403,400	58,100	14.40%	1.68%
Brea city	41,100	50,600	9,500	18.77%	0.27%
Buena Park city	81,800	92,500	10,700	11.57%	0.31%
Costa Mesa city	111,200	116,400	5,200	4.47%	0.15%
Cypress city	48,500	49,700	1,200	2.41%	0.03%
Dana Point city	33,800	35,800	2,000	5.59%	0.06%
Fountain Valley city	56,000	59,300	3,300	5.56%	0.10%
Fullerton city	138,000	160,500	22,500	14.02%	0.65%
Garden Grove city	172,900	178,200	5,300	2.97%	0.15%
Huntington Beach city	193,200	207,100	13,900	6.71%	0.40%
Irvine city	227,100	327,300	100,200	30.61%	2.89%
Laguna Beach city	23,100	23,100	-	0.00%	0.00%
Laguna Hills city	30,600	31,500	900	2.86%	0.03%
Laguna Niguel city	63,900	72,000	8,100	11.25%	0.23%
Laguna Woods city	16,500	17,100	600	3.51%	0.02%
La Habra city	61,100	68,500	7,400	10.80%	0.21%
Lake Forest city	78,500	90,700	12,200	13.45%	0.35%
La Palma city	15,800	15,800	-	0.00%	0.00%
Los Alamitos city	11,600	12,100	500	4.13%	0.01%
Mission Viejo city	94,500	96,600	2,100	2.17%	0.06%
Newport Beach city	86,300	92,700	6,400	6.90%	0.18%
Orange city	138,500	153,000	14,500	9.48%	0.42%
Placentia city	51,500	58,400	6,900	11.82%	0.20%
Rancho Santa Margarita city	48,500	48,700	200	0.41%	0.01%
San Clemente city	64,400	68,000	3,600	5.29%	0.10%
San Juan Capistrano city	35,200	39,500	4,300	10.89%	0.12%
Santa Ana city	329,200	343,100	13,900	4.05%	0.40%
Seal Beach city	24,400	24,800	400	1.61%	0.01%
Stanton city	38,700	41,600	2,900	6.97%	0.08%
Tustin city	77,300	83,000	5,700	6.87%	0.16%
Villa Park city	5,900	6,100	200	3.28%	0.01%
Westminster city	91,000	92,800	1,800	1.94%	0.05%
Yorba Linda city	66,200	70,500	4,300	6.10%	0.12%
Unincorporated	120,700	180,100	59,400	32.98%	1.72%
TOTALS	3,071,600	3,461,500	389,900	277.20%	11.26%

11.26%

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February 1, 2016

SCAG PEIR 2016-2040 Regional Transportation Plan
and Sustainable Communities Strategy
DRAFT POLICY GROWTH FORECAST
ORANGE COUNTY

HOUSEHOLDS

	2012	2040	Increase	Percent	% of Total
Aliso Viejo city	18,500	19,400	900	4.64%	0.08%
Anaheim city	99,200	122,600	23,400	19.09%	2.03%
Brea city	14,500	18,100	3,600	19.89%	0.31%
Buena Park city	24,000	27,900	3,900	13.98%	0.34%
Costa Mesa city	40,000	42,500	2,500	5.88%	0.22%
Cypress city	15,700	16,300	600	3.68%	0.05%
Dana Point city	14,200	15,300	1,100	7.19%	0.10%
Fountain Valley city	18,700	19,900	1,200	6.03%	0.10%
Fullerton city	45,500	55,200	9,700	17.57%	0.84%
Garden Grove city	46,200	48,200	2,000	4.15%	0.17%
Huntington Beach city	74,900	81,200	6,300	7.76%	0.55%
Irvine city	81,800	123,400	41,600	33.71%	3.61%
Laguna Beach city	10,800	11,000	200	1.82%	0.02%
Laguna Hills city	10,400	10,900	500	4.59%	0.04%
Laguna Niguel city	24,300	27,700	3,400	12.27%	0.30%
Laguna Woods city	11,400	11,700	300	2.56%	0.03%
La Habra city	19,000	21,700	2,700	12.44%	0.23%
Lake Forest city	26,300	30,500	4,200	13.77%	0.36%
La Palma city	5,100	5,100	-	0.00%	0.00%
Los Alamitos city	4,100	4,200	100	2.38%	0.01%
Mission Viejo city	33,200	34,100	900	2.64%	0.08%
Newport Beach city	38,800	41,700	2,900	6.95%	0.25%
Orange city	43,600	49,300	5,700	11.56%	0.49%
Placentia city	16,600	18,900	2,300	12.17%	0.20%
Rancho Santa Margarita city	16,700	16,800	100	0.60%	0.01%
San Clemente city	24,000	25,300	1,300	5.14%	0.11%
San Juan Capistrano city	11,500	13,300	1,800	13.53%	0.16%
Santa Ana city	73,300	78,000	4,700	6.03%	0.41%
Seal Beach city	13,000	13,300	300	2.26%	0.03%
Stanton city	10,700	11,800	1,100	9.32%	0.10%
Tustin city	25,600	27,900	2,300	8.24%	0.20%
Villa Park city	2,000	2,000	-	0.00%	0.00%
Westminster city	26,200	26,800	600	2.24%	0.05%
Yorba Linda city	21,900	23,400	1,500	6.41%	0.13%
Unincorporated	37,800	56,900	19,100	33.57%	1.66%
TOTALS	999,500	1,152,300	152,800	314.06%	13.26%

13.26%

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DRAFT POLICY GROWTH FORECAST
ORANGE COUNTY

EMPLOYMENT

	2012	2040	Increase	Percent	% of Total
Aliso Viejo city	18,900	20,900	2,000	9.57%	0.11%
Anaheim city	177,900	245,600	67,700	27.57%	3.57%
Brea city	46,700	53,700	7,000	13.04%	0.37%
Buena Park city	34,300	39,800	5,500	13.82%	0.29%
Costa Mesa city	84,400	93,200	8,800	9.44%	0.46%
Cypress city	22,100	27,700	5,600	20.22%	0.29%
Dana Point city	11,900	14,100	2,200	15.60%	0.12%
Fountain Valley city	30,400	34,900	4,500	12.89%	0.24%
Fullerton city	60,800	94,100	33,300	35.39%	1.75%
Garden Grove city	51,700	58,500	6,800	11.62%	0.36%
Huntington Beach city	75,800	87,000	11,200	12.87%	0.59%
Irvine city	224,400	320,000	95,600	29.88%	5.03%
Laguna Beach city	12,100	14,100	2,000	14.18%	0.11%
Laguna Hills city	18,500	19,400	900	4.64%	0.05%
Laguna Niguel city	18,300	22,100	3,800	17.19%	0.20%
Laguna Woods city	4,400	6,500	2,100	32.31%	0.11%
La Habra city	17,300	19,900	2,600	13.07%	0.14%
Lake Forest city	39,200	49,000	9,800	20.00%	0.52%
La Palma city	7,700	8,500	800	9.41%	0.04%
Los Alamitos city	14,200	15,600	1,400	8.97%	0.07%
Mission Viejo city	37,100	39,100	2,000	5.12%	0.11%
Newport Beach city	76,000	79,100	3,100	3.92%	0.16%
Orange city	94,100	105,500	11,400	10.81%	0.60%
Placentia city	19,000	23,500	4,500	19.15%	0.24%
Rancho Santa Margarita city	17,200	19,500	2,300	11.79%	0.12%
San Clemente city	24,800	29,500	4,700	15.93%	0.25%
San Juan Capistrano city	14,700	17,900	3,200	17.88%	0.17%
Santa Ana city	154,800	166,000	11,200	6.75%	0.59%
Seal Beach city	11,000	12,300	1,300	10.57%	0.07%
Stanton city	7,200	8,500	1,300	15.29%	0.07%
Tustin city	37,600	66,400	28,800	43.37%	1.52%
Villa Park city	1,500	1,700	200	11.76%	0.01%
Westminster city	24,200	26,400	2,200	8.33%	0.12%
Yorba Linda city	15,600	17,700	2,100	11.86%	0.11%
Unincorporated	20,700	41,200	20,500	49.76%	1.08%
TOTALS	1,526,500	1,898,900	372,400	573.98%	19.61%

19.61%

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DRAFT POLICY GROWTH FORECAST
RIVERSIDE COUNTY

	POPULATION				
	2012	2040	Increase	Percent	% of Total
Banning city	30,100	37,600	7,500	19.95%	0.24%
Beaumont city	39,400	80,600	41,200	51.12%	1.30%
Blythe city	20,000	24,600	4,600	18.70%	0.15%
Calimesa city	8,100	24,800	16,700	67.34%	0.53%
Canyon Lake city	10,700	11,300	600	5.31%	0.02%
Cathedral City city	52,200	68,100	15,900	23.35%	0.50%
Coachella city	42,400	146,300	103,900	71.02%	3.28%
Corona city	156,000	172,300	16,300	9.46%	0.51%
Desert Hot Springs city	27,800	58,900	31,100	52.80%	0.98%
Eastvale City	56,500	65,400	8,900	13.61%	0.28%
Hemet city	80,800	126,500	45,700	36.13%	1.44%
Indian Wells city	5,100	7,200	2,100	29.17%	0.07%
Indio city	78,800	123,300	44,500	36.09%	1.40%
Lake Elsinore city	54,100	111,400	57,300	51.44%	1.81%
La Quinta city	38,300	47,700	9,400	19.71%	0.30%
Menifee city	81,600	121,100	39,500	32.62%	1.25%
Moreno Valley city	197,600	256,600	59,000	22.99%	1.86%
Murrieta city	105,600	129,800	24,200	18.64%	0.76%
Norco city	26,900	32,100	5,200	16.20%	0.16%
Palm Desert city	49,800	61,700	11,900	19.29%	0.38%
Palm Springs city	45,600	56,900	11,300	19.86%	0.36%
Perris city	70,700	116,700	46,000	39.42%	1.45%
Rancho Mirage city	17,600	25,000	7,400	29.60%	0.23%
Riverside city	310,700	386,600	75,900	19.63%	2.40%
San Jacinto city	45,100	79,900	34,800	43.55%	1.10%
Temecula city	104,100	137,400	33,300	24.24%	1.05%
Wildomar city	33,000	56,200	23,200	41.28%	0.73%
Jurupa Valley City	97,000	114,500	17,500	15.28%	0.55%
Unincorporated	359,500	487,500	128,000	26.26%	4.04%
TOTALS	2,245,100	3,168,000	922,900	874.04%	29.13%

29.13%

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DRAFT POLICY GROWTH FORECAST
RIVERSIDE COUNTY

HOUSEHOLDS

	2012	2040	Increase	Percent	% of Total
Banning city	10,800	14,000	3,200	22.86%	0.31%
Beaumont city	12,400	27,200	14,800	54.41%	1.41%
Blythe city	4,500	6,200	1,700	27.42%	0.16%
Calimesa city	3,300	10,900	7,600	69.72%	0.72%
Canyon Lake city	3,900	4,100	200	4.88%	0.02%
Cathedral City city	17,100	26,000	8,900	34.23%	0.85%
Coachella city	9,200	40,100	30,900	77.06%	2.95%
Corona city	45,300	52,000	6,700	12.88%	0.64%
Desert Hot Springs city	9,100	21,900	12,800	58.45%	1.22%
Eastvale City	14,100	16,500	2,400	14.55%	0.23%
Hemet city	30,300	52,200	21,900	41.95%	2.09%
Indian Wells city	2,800	4,400	1,600	36.36%	0.15%
Indio city	23,800	39,300	15,500	39.44%	1.48%
Lake Elsinore city	15,200	35,000	19,800	56.57%	1.89%
La Quinta city	14,900	19,100	4,200	21.99%	0.40%
Menifee city	28,400	48,100	19,700	40.96%	1.88%
Moreno Valley city	51,800	73,000	21,200	29.04%	2.02%
Murrieta city	32,800	43,500	10,700	24.60%	1.02%
Norco city	7,000	9,200	2,200	23.91%	0.21%
Palm Desert city	23,400	31,400	8,000	25.48%	0.76%
Palm Springs city	22,900	31,300	8,400	26.84%	0.80%
Perris city	16,600	32,700	16,100	49.24%	1.54%
Rancho Mirage city	8,900	13,600	4,700	34.56%	0.45%
Riverside city	92,400	118,600	26,200	22.09%	2.50%
San Jacinto city	13,200	27,600	14,400	52.17%	1.37%
Temecula city	32,500	42,900	10,400	24.24%	0.99%
Wildomar city	10,100	18,100	8,000	44.20%	0.76%
Jurupa Valley City	25,000	30,400	5,400	17.76%	0.52%
Unincorporated	112,700	159,200	46,500	29.21%	4.43%
TOTALS	694,400	1,048,500	354,100	1017.07%	33.77%

33.77%

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RIVERSIDE COUNTY

	EMPLOYMENT				
	2012	2040	Increase	Percent	% of Total
Banning city	7,300	14,200	6,900	48.59%	0.59%
Beaumont city	5,900	18,000	12,100	67.22%	1.03%
Blythe city	3,700	6,600	2,900	43.94%	0.25%
Calimesa city	1,300	5,900	4,600	77.97%	0.39%
Canyon Lake city	1,200	2,700	1,500	55.56%	0.13%
Cathedral City city	10,800	21,200	10,400	49.06%	0.89%
Coachella city	8,500	34,400	25,900	75.29%	2.21%
Corona city	66,400	88,400	22,000	24.89%	1.87%
Desert Hot Springs city	3,700	12,900	9,200	71.32%	0.78%
Eastvale City	4,300	9,800	5,500	56.12%	0.47%
Hemet city	21,000	45,500	24,500	53.85%	2.09%
Indian Wells city	4,000	7,000	3,000	42.86%	0.26%
Indio city	16,000	36,800	20,800	56.52%	1.77%
Lake Elsinore city	11,800	31,700	19,900	62.78%	1.69%
La Quinta city	12,400	21,500	9,100	42.33%	0.77%
Menifee city	10,300	23,500	13,200	56.17%	1.12%
Moreno Valley city	31,400	83,200	51,800	62.26%	4.41%
Murrieta city	23,200	45,100	21,900	48.56%	1.86%
Norco city	13,200	25,700	12,500	48.64%	1.06%
Palm Desert city	36,900	53,600	16,700	31.16%	1.42%
Palm Springs city	26,300	45,800	19,500	42.58%	1.66%
Perris city	15,100	32,200	17,100	53.11%	1.46%
Rancho Mirage city	12,300	20,500	8,200	40.00%	0.70%
Riverside city	120,000	200,500	80,500	40.15%	6.86%
San Jacinto city	5,900	17,800	11,900	66.85%	1.01%
Temecula city	43,000	63,500	20,500	32.28%	1.75%
Wildomar city	5,000	13,500	8,500	62.96%	0.72%
Jurupa Valley City	24,500	32,600	8,100	24.85%	0.69%
Unincorporated	71,300	160,200	88,900	55.49%	7.57%
TOTALS	616,700	1,174,300	557,600	1493.33%	47.48%

47.48%

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DRAFT POLICY GROWTH FORECAST
SAN BERNARDINO COUNTY

	POPULATION				
	2012	2040	Increase	Percent	% of Total
Adelanto city	31,100	70,000	38,900	55.57%	1.42%
Apple Valley town	70,200	100,600	30,400	30.22%	1.11%
Barstow city	23,100	35,100	12,000	34.19%	0.44%
Big Bear Lake city	5,100	6,900	1,800	26.09%	0.07%
Chino city	79,400	120,400	41,000	34.05%	0.015
Chino Hills city	75,800	94,900	19,100	20.13%	0.70%
Colton city	52,800	69,100	16,300	23.59%	0.60%
Fontana city	200,200	280,900	80,700	28.73%	2.95%
Grand Terrace cit	12,200	14,200	2,000	14.08%	0.07%
Hesperia city	91,100	129,100	38,000	29.43%	1.39%
Highland city	53,700	66,900	13,200	19.73%	0.48%
Loma Linda city	23,400	29,300	5,900	20.14%	0.22%
Montclair city	37,200	42,700	5,500	12.88%	0.20%
Needles city	4,900	7,000	2,100	30.00%	0.08%
Ontario city	166,300	258,600	92,300	35.69%	3.38%
Rancho Cucamonga city	170,100	204,300	34,200	16.74%	1.25%
Redlands city	69,600	85,500	15,900	18.60%	0.58%
Rialto city	100,800	112,000	11,200	10.00%	0.41%
San Bernardino city	211,900	257,400	45,500	17.68%	1.66%
Twentynine Palms city	25,900	37,300	11,400	30.56%	0.42%
Upland city	74,700	81,700	7,000	8.57%	0.26%
Victorville city	119,600	184,500	64,900	35.18%	2.37%
Yucaipa city	52,300	72,500	20,200	27.86%	0.74%
Yucca Valley town	21,000	26,300	5,300	20.15%	0.19%
Unincorporated	295,600	344,100	48,500	14.09%	1.77%
TOTALS	2,070,012	2,733,340	663,300	613.95%	24.27%

24.27%

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SAN BERNARDINO COUNTY

HOUSEHOLDS

	2012	2040	Increase	Percent	% of Total
Adelanto city	7,900	18,100	10,200	56.35%	1.19%
Apple Valley town	23,700	34,800	11,100	31.90%	1.30%
Barstow city	8,100	12,900	4,800	37.21%	0.56%
Big Bear Lake city	2,200	3,000	800	26.67%	0.09%
Chino city	21,000	34,000	13,000	38.24%	1.52%
Chino Hills city	23,000	28,300	5,300	18.73%	0.62%
Colton city	15,000	20,800	5,800	27.88%	0.68%
Fontana city	49,600	74,000	24,400	32.97%	2.85%
Grand Terrace cit	4,400	5,700	1,300	22.81%	0.15%
Hesperia city	26,400	39,100	12,700	32.48%	1.48%
Highland city	15,500	20,600	5,100	24.76%	0.60%
Loma Linda city	8,800	11,800	3,000	25.42%	0.35%
Montclair city	9,600	11,600	2,000	17.24%	0.23%
Needles city	1,900	2,800	900	32.14%	0.11%
Ontario city	45,100	75,300	30,200	40.11%	3.53%
Rancho Cucamonga city	55,400	73,100	17,700	24.21%	2.07%
Redlands city	24,800	32,400	7,600	23.46%	0.89%
Rialto city	25,400	31,500	6,100	19.37%	0.71%
San Bernardino city	59,300	77,100	17,800	23.09%	2.08%
Twentynine Palms city	8,300	11,400	3,100	27.19%	0.36%
Upland city	25,900	28,900	3,000	10.38%	0.35%
Victorville city	33,100	55,400	22,300	40.25%	2.60%
Yucaipa city	18,400	28,200	9,800	34.75%	1.14%
Yucca Valley town	8,300	12,200	3,900	31.97%	0.46%
Unincorporated	94,200	111,300	17,100	15.36%	2.00%
TOTALS	617,312	856,340	239,000	714.94%	27.91%

27.91%

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SAN BERNARDINO COUNTY

	EMPLOYMENT				
	2012	2040	Increase	Percent	% of Total
Adelanto city	3,900	7,800	3,900	50.00%	0.38%
Apple Valley town	15,400	27,600	12,200	44.20%	1.18%
Barstow city	8,100	16,800	8,700	51.79%	0.84%
Big Bear Lake city	3,800	5,400	1,600	29.63%	0.16%
Chino city	42,600	50,600	8,000	15.81%	0.78%
Chino Hills city	11,500	18,600	7,100	38.17%	0.69%
Colton city	16,800	29,200	12,400	42.47%	1.20%
Fontana city	47,000	70,800	23,800	33.62%	2.31%
Grand Terrace cit	2,200	5,300	3,100	58.49%	0.30%
Hesperia city	14,900	28,300	13,400	47.35%	1.30%
Highland city	5,500	10,200	4,700	46.08%	0.46%
Loma Linda city	16,700	21,100	4,400	20.85%	0.43%
Montclair city	16,500	19,000	2,500	13.16%	0.24%
Needles city	2,200	3,800	1,600	42.11%	0.16%
Ontario city	103,300	175,400	72,100	41.11%	7.00%
Rancho Cucamonga city	69,900	104,600	34,700	33.17%	3.37%
Redlands city	31,700	53,400	21,700	40.64%	2.11%
Rialto city	21,100	30,500	9,400	30.82%	0.91%
San Bernardino city	88,900	128,900	40,000	31.03%	3.88%
Twentynine Palms city	4,300	8,500	4,200	49.41%	0.41%
Upland city	31,700	43,500	11,800	27.13%	1.15%
Victorville city	29,800	52,700	22,900	43.45%	2.22%
Yucaipa city	8,200	15,000	6,800	45.33%	0.66%
Yucca Valley town	6,100	10,000	3,900	39.00%	0.38%
Unincorporated	57,400	91,100	33,700	36.99%	3.27%
TOTALS	661,512	1,030,140	368,600	951.80%	35.78%

35.78%

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DRAFT POLICY GROWTH FORECAST
VENTURA COUNTY

	POPULATION				
	2012	2040	Increase	Percent	% of Total
Camarillo city	66,300	79,900	13,600	17.02%	1.41%
Fillmore city	18,800	21,800	3,000	13.76%	0.31%
Moorpark city	34,800	43,000	8,200	19.07%	0.85%
Ojai city	7,500	8,400	900	10.71%	0.09%
Oxnard city	200,100	237,300	37,200	15.68%	3.85%
Port Hueneme city	21,800	22,400	600	2.68%	0.06%
San Buenaventura (Ventura) city	106,700	125,300	18,600	14.84%	1.93%
Santa Paula city	29,800	39,600	9,800	24.75%	1.02%
Simi Valley city	125,100	142,400	17,300	12.15%	1.79%
Thousand Oaks city	127,800	131,700	3,900	2.96%	0.40%
Unincorporated	96,700	113,600	16,900	14.88%	1.75%
TOTALS	835,400	965,400	130,000	148.50%	13.47%

13.47%
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February 1, 2016

SCAG PEIR 2016-2040 Regional Transportation Plan
and Sustainable Communities Strategy
DRAFT POLICY GROWTH FORECAST
VENTURA COUNTY

	HOUSEHOLDS				
	2012	2040	Increase	Percent	% of Total
Camarillo city	24,800	30,200	5,400	17.88%	1.73%
Fillmore city	5,200	6,300	1,100	17.46%	0.35%
Moorpark city	10,600	13,100	2,500	19.08%	0.80%
Ojai city	3,100	3,300	200	6.06%	0.06%
Oxnard city	50,100	60,100	10,000	16.64%	3.20%
Port Hueneme city	7,100	7,300	200	2.74%	0.06%
San Buenaventura (Ventura) city	40,700	48,400	7,700	15.91%	2.47%
Santa Paula city	8,500	11,500	3,000	26.09%	0.96%
Simi Valley city	41,300	47,400	6,100	12.87%	1.95%
Thousand Oaks city	45,900	47,200	1,300	2.75%	0.42%
Unincorporated	32,100	37,500	5,400	14.40%	1.73%
TOTALS	269,400	312,300	42,900	151.88%	13.74%

13.74%

Prepared by Joyce Dillard
February 1, 2016

SCAG PEIR 2016-2040 Regional Transportation Plan
and Sustainable Communities Strategy
DRAFT POLICY GROWTH FORECAST
VENTURA COUNTY

	EMPLOYMENT				
	2012	2040	Increase	Percent	% of Total
Camarillo city	35,800	47,300	11,500	24.31%	2.74%
Fillmore city	3,000	5,300	2,300	43.40%	0.55%
Moorpark city	11,300	16,600	5,300	31.93%	1.26%
Ojai city	5,100	5,300	200	3.77%	0.05%
Oxnard city	58,100	79,200	21,100	26.64%	5.03%
Port Hueneme city	6,400	6,700	300	4.48%	0.07%
San Buenaventura (Ventura) city	60,700	66,000	5,300	8.03%	1.26%
Santa Paula city	7,800	11,700	3,900	33.33%	0.93%
Simi Valley city	44,000	61,100	17,100	27.99%	4.07%
Thousand Oaks city	68,200	81,900	13,700	16.73%	3.26%
Unincorporated	31,800	38,700	6,900	17.83%	1.64%
TOTALS	332,200	419,800	87,600	238.44%	20.87%

20.87%

Prepared by Joyce Dillard
February 1, 2016

Comment Letter No. 57

PUBLIC COMMENT CARD

2016 2040 RTPSCS

Please provide your additional comments below and submit this to a SCAG staff member.

Si desea hacer un comentario en un idioma distinto del inglés, por favor póngase en contacto con un empleado de SCAG para solicitar ayuda.
如果你想用除英文以外的另一種語言發表評論，請聯繫南加州政府協會工作人員尋求幫助。
영어 외의 다른 언어로 의견을 제출하길 원하시는 분은 SCAG staff에게 도움을 요청하시기 바랍니다.
Nếu quý vị muốn bình luận bằng một ngôn ngữ khác hơn tiếng Anh, xin vui lòng liên lạc với nhân viên của SCAG.

Meeting Location: San Bernardino *Date:* Jan 19 2016

Name: Kirsty Norman *Phone:* (909) 213-4303

Agency or Affiliation: Inland Empire Biking Alliance

Address: PO Box 9266 *City:* Redlands, *Zip:* 92375

Email: kirstyhameleers@gmail.com *Check here if you'd like us to keep you updated on the 2016 RTP/SCS:* ☑

COMMENTS: Looking at the proposed projects for Riverside & San Bernardino county projects I'm seeing very little transit and ATP improvements. The fact that SoCal is very much relying on cars is not something to be proud of. The IE in particular has a great need for more transit and ATP facilities, it's a shame that nothing is included in this project 1

Comment Letter No. 58

Anita Au

From: Hallie Jones <hallie@lagunacanyon.org>
Sent: Monday, February 1, 2016 1:22 PM
To: 2016 PEIR; 2016 RTP/SCS
Subject: SCAG RTPSCS
Attachments: SCAG- LCF.pdf

Hello,
Attached please find Laguna Canyon Foundation's comments on the SCAG Regional Transportation Plan and Sustainable Communities Strategy. Thank you.

Hallie Jones
Executive Director
Laguna Canyon Foundation
(949) 497-8324
hallie@lagunacanyon.org

LAGUNA CANYON FOUNDATION

PO Box 4895 Laguna Beach CA 92652 Tel 949.497.8324 Fax 949.376.5590
lagunacf2@lagunacanyon.org www.lagunacanyon.org

Tax ID #33-0441816 501(c)(3) Non-profit status determined by IRS letter of 6/14/91

KEEP IT WILD!

February 1, 2016

To whom it may concern,

Thank you for the opportunity to comment on the Southern California Association of Governments (SCAG) 2016 Regional Transportation Plan (RTP) and Sustainable Community Strategy (SCS) and the Program Environmental Impact Report (PEIR). Following the release of the 2012 RTP/SCS, Friends of Harbors, Beaches and Parks (FHBP) coordinated a cross-county regional conservation coalition focused on the inclusion of natural lands mitigation and policies within that SCAG plan. Laguna Canyon Foundation is now a part of this growing coalition in 2016.

Laguna Canyon Foundation was founded in 1990 with the mission of acquiring and preserving open space. We work in the 22,000 acre South Coast Wilderness, which includes Orange County Parks, State Parks, and City land. Our mission now focuses on education, outreach, habitat restoration, stewardship and land acquisition.

The 2012 RTP/SCS provided an important stepping stone for the 2016 Plan. In previous Plans, natural lands and farmlands were handled under the banner of "land use." In this new Plan, however, they are their own category. This is a great milestone in conservation planning for the region and SCAG. Additionally, the creation of a Natural and Farmlands Appendix provides important opportunities for SCAG that shouldn't be overlooked. We believe the opportunity before you isn't to "plan for" the future of open space in the region—as that's what you've been doing since the 2012 Plan. Instead, we believe SCAG can now start "implementing" a regional conservation program. **We strongly urge SCAG to take a more serious leadership role by actively seeking funding to implement conservation efforts** by partnering with agencies, transportation commissions and non-profits to see that the Plan created in 2012 comes to fruition through the 2016 Plan. The One Bay Area Grant Program in Northern California is a program that we believe can be replicated in Southern California. We and other coalition members would gladly assist with this implementation effort. 1

We've reviewed the RTP/SCS and PEIR and offer the following comments and suggestions for inclusion in the Plan with the intent to clarify/strengthen the language, as well as link the goals of the RTP and SCAG's mission with the Natural and Farmland policies.

Congratulations

We are pleased to see an Appendix devoted directly to natural and farmlands protection in the 2016 Plan. We are glad that the Plan contains specific strategies addressing natural land and farmlands issues. This is certainly a step in the right direction. The culmination of the work from the last RTP/SCS is clearly visible in this Draft Plan. SCAG has demonstrated that Metropolitan Planning Organizations can play a vital, thoughtful and science-based role in mitigating impacts to our natural environment from transportation, infrastructure and other development projects. By incorporating natural and farmlands protection strategies into your policy document, we believe the many benefits of this broad-based conservation approach will be realized sooner than expected. Thank you for your leadership. 2

LAGUNA CANYON FOUNDATION

PO Box 4895 Laguna Beach CA 92652 Tel 949.497.8324 Fax 949.376.5590

lagunacf2@lagunacanyon.org www.lagunacanyon.org

Identify a Conservation Mechanism for the Natural and Farmlands Preservation

Our organization supports the idea that as new growth occurs it should focus on the existing infill areas. This is consistent with the finding in the SCAG surveys where respondents preferred to see existing urban areas built upon before greenfields are targeted for development, especially those at the Wildland-Urban Interface. When developments are built in infill areas, it likely relieves pressure from the fringe. However, the Plan fails to outline exactly how (or with what mechanism) these fringe lands (or any lands) will actually be protected. Just because the pressure is relieved doesn't mean the land then automatically becomes protected. Numerous organizations, ours included, focus their work on preservation of important habitat lands. A lot of time, energy, political will, strategy and other efforts combine to create a successful conservation transaction that leads to permanently conserved lands. SCAG must identify the mechanism, process or plan on how the greenfield lands will be protected. 3

SCAG's Support of Regional Wildlife Corridors

The current federal transportation bill, FAST Act, supports understanding transportation impacts on natural resources. The previous bill, MAP-21, supported restoring and maintaining environmental functions (i.e., wildlife corridors) affected by the infrastructure projects in the RTP. SCAG has even supported efforts in Los Angeles County to create a wildlife corridor over the 101 Freeway. Many efforts are underway across the region to connect landscapes to one another. This is very important to the region and its biodiversity. Wildlife corridors allow species to migrate and forage and expand genetic diversity. These corridors also allow ecosystems to maintain ecological functions, act as sources for repopulation after natural disasters such as fire, flood or landslide, and improve the resiliency in the face of climate change impacts. The Plan would be stronger if it supported the enhancement of and/or protection of documented and regionally significant wildlife corridors, especially those that are impacted by infrastructure projects. 4

Conclusion

Thank you for reviewing our comments and we look forward to working with SCAG on the implementation of this Plan, especially as it relates to the Natural and Farmlands Appendix. Should you need to contact me, I can be reached at Hallie@lagunacanyon.org. In addition, we request to be included on any notifications (electronic or otherwise) about this policy's creation and implementation, please send information to the above email address. 5

Sincerely,

Hallie Jones

Executive Director

Comment Letter No. 59

Anita Au

From: Elisabeth Brown <lagunagreenbelt@gmail.com>
Sent: Monday, February 1, 2016 4:29 PM
To: 2016 PEIR; 2016 RTP/SCS
Cc: Schlotterbeck, Melanie
Subject: 2016 Southern California Association of Governments Regional Transportation Plan and Sustainable Communities Strategy.
Attachments: LGB letterhead SCAG.doc

Hello,

Please find attached our comment letter.

Thank you!

Elisabeth Brown

--
Elisabeth M. Brown, Ph.D
President
Laguna Greenbelt, Inc.
949-494-8190
949-533-0242 cell

Laguna Greenbelt, Inc. a non-profit corporation

February 1, 2016
To: Southern California Association of Governments
Re: 2016 RTPSCS

By email to: 2016PEIR@scag.ca.gov andRTPSCS@scag.ca.gov

Laguna Greenbelt, Inc., was formed in 1968 as a non-profit community organization to preserve land in the coastal canyons near Laguna Beach for public enjoyment and natural habitat protection. The experience of open space, wilderness areas, and wildlife viewing are important to the long-term health and wellbeing of residents of southern California. We were successful to the tune of 22,000 acres of parks and preserves, but they are an island in an urban sea.

Thank you for the opportunity to comment on the Southern California Association of Governments (SCAG) 2016 Regional Transportation Plan (RTP) and Sustainable Community Strategy (SCS) and the Program Environmental Impact Report (PEIR). We are part of the regional coalition organized by Friends of Harbors, Beaches and Parks (FHBP) to advocate for the inclusion of natural lands mitigation within the 2016 plan.

We are now working on a 6-mile wildlife corridor between the coastal open space and the Cleveland National Forest in the Santa Ana Mountains, because 22,000 acres aren't enough to maintain the top predators in the local ecosystem, or prevent inbreeding in our wildlife. We are isolated by urban development from other large blocks of open space with wildlife populations. All of our wildlife is at risk from past habitat fragmentation, and genetic studies affirm our isolation from nearby San Diego and Orange County populations of wildlife.

It's time for SCAG to ***implement*** a regional conservation program. **We strongly urge SCAG to take a more serious leadership role by actively seeking funding to implement conservation efforts** by partnering with agencies, transportation commissions and non-profits to see that the Plan created in 2012 comes to fruition through the 2016 Plan. The One Bay Area Grant Program in Northern California is a program that should be replicated in Southern California. 1

If there are any questions, please contact us at lagunagreenbelt@gmail.com, or by phone.

Sincerely,

Elisabeth. M. Brown, Ph.D
President

P O Box 860 Laguna Beach CA 92652 949-494-8190 www.lagunagreenbelt.org

Comment Letter No. 60

Anita Au

From: Elizabeth Lambe <ejlambe@verizon.net>
Sent: Monday, February 1, 2016 4:24 PM
To: 2016 PEIR
Cc: 2016 RTP/SCS
Subject: Comments on the 2016 Draft RTP/SCS and PEIR
Attachments: Ikhrata letter.doc

Please find letter from the Los Cerritos Wetlands Land Trust attached to this email.

Sincerely,

Elizabeth Lambe
Executive Director
Los Cerritos Wetlands Land Trust

Los Cerritos Wetlands Land Trust
for Long Beach and Seal Beach

PO Box 30165
Long Beach, CA 90853

714-357-8576
www.lcwlandtrust.org

February 1, 2016

Hasan Ikhrata
Southern California Association of Governments
818 W. Seventh Street, 12th Floor
Los Angeles, CA 90017
RE: Comments on the 2016 Draft RTP/SCS and PEIR

Dear Mr. Ikhrata

Thank you for the opportunity to comment on the Southern California Association of Governments (SCAG) 2016 Regional Transportation Plan (RTP) and Sustainable Community Strategy (SCS) and the Program Environmental Impact Report (PEIR). Following the release of the 2012 RTP/SCS, Friends of Harbors, Beaches and Parks (FHBP) coordinated a cross-county regional conservation coalition focused on the inclusion of natural lands mitigation and policies within that SCAG plan. Our organization, The Los Cerritos Wetlands Land Trust, is now a part of this growing coalition in 2016.

The Los Cerritos Wetlands Land Trust works in Orange and Los Angeles Counties and has for 15 years. Our mission is the protection and preservation of Los Cerritos Wetlands. We have had important successes since our inception including moving almost half of Los Cerritos Wetlands into the public trust.

The 2012 RTP/SCS provided an important stepping stone for the 2016 Plan. In previous Plans, natural lands and farmlands were handled under the banner of "land use." In this new Plan, however, they are their own category. This is a great milestone in conservation planning for the region and SCAG. Additionally, the creation of a Natural and Farmlands Appendix provides important opportunities for SCAG that shouldn't be overlooked. We believe the opportunity before you isn't to "plan for" the future of open space in the region—as that's what you've been doing since the 2012 Plan. Instead, we believe SCAG can now start "implementing" a regional conservation program. **We strongly urge SCAG to take a more serious leadership role by actively seeking funding to implement conservation efforts** by partnering with agencies, transportation commissions and non-profits to see that the Plan created in 2012 comes to fruition through the 2016 Plan. The One Bay Area Grant Program in Northern California is a program that we believe

1

can be replicated in Southern California. We and other coalition members would gladly assist with this implementation effort. 1 cntd

We've reviewed the RTP/SCS and PEIR and offer the following comments and suggestions for inclusion in the Plan with the intent to clarify/strengthen the language, as well as link the goals of the RTP and SCAG's mission with the Natural and Farmland policies.

We are pleased to see an Appendix devoted directly to natural and farmlands protection in the 2016 Plan. We are glad that the Plan contains specific strategies addressing natural land and farmlands issues. This is certainly a step in the right direction. The culmination of the work from the last RTP/SCS is clearly visible in this Draft Plan. SCAG has demonstrated that Metropolitan Planning Organizations can play a vital, thoughtful and science-based role in mitigating impacts to our natural environment from transportation, infrastructure and other development projects. By incorporating natural and farmlands protection strategies into your policy document, we believe the many benefits of this broad-based conservation approach will be realized sooner than expected. Thank you for your leadership. 2

Sincerely,

Elizabeth Lambe
Executive Director
Los Cerritos Wetlands Land Trust

Comment Letter No. 61

2016 PEIR

From: Dan Fairbanks <danfairbanks9@gmail.com>
Sent: Sunday, January 31, 2016 4:11 PM
To: 2016 PEIR; Dan Fairbanks
Subject: Comments on RTP/SCS PEIR

Here are the comments from the March JPA on the RTP/SCS PEIR:

1. It appears that the March JPA General Pan was not included in the SCAG analysis and EIR Figures, as identified below:

a. PEIR Land Use and Planning Section: Figure 3.11.2-2: the map should identify existing land uses within March JPA. At present the exhibit shows military facility for 4,400 acres which are within the JPA. This area should be reflected as industrial, conservation area, and undeveloped land uses. 1

b. PEIR Land Use and Planning Section: Figure 3.11.2-3: this exhibit shows an approximate 6,500 acre March AFB/ARB facility. The exhibit should be corrected to identify a 2,100 acre military facility (March ARB) and 4,400 acre private/unclassified area (March JPA). 2

c. PEIR Land Use and Planning Section: Figure 3.11.2-5: This exhibit should primarily show industrial, office and conservation/open space for the 4,400-acre March JPA planning area. 3

2. Appendix B (Project List) for the RTP/SCS PEIR should provide the following information regarding the Van Buren Widening Project which is on the WRCOG NW TUMF TIP and is presently in construction: COUNTY: RIVERSIDE, SYSTEM: LOCAL HIGHWAY, FTIP ID: ?, ROUTE: 0, DESCRIPTION: IN WESTERN RIVERSIDE COUNTY WITHIN THE MARCH JOINT POWERS AUTHORITY: VAN BUREN BOULEVARD WIDENING FROM I-215 TO BARTON STREET, WIDEN FROM 4 - 6 LANES, INCLUDING CLASS 2 BIKE LANES, SIDEWALK, LANDSCAPED MEDIAN, AND TRAFFIC SIGNAL UPGRADES. PROJECT COST: 5,200 4

Dan Fairbanks, AICP
fairbanks@marchjpa.com
(951) 656-7000

Comment Letter No. 62

Anita Au

From: Mark Jolles [redacted]
Sent: Monday, February 1, 2016 4:51 PM
To: 2016 PEIR
Subject: SCAG 2016 PEIR COMMENTS
Attachments: feinstein02052007pg1.pdf; weeks.pdf; BRT_basics.pdf; BRT_Brazil.pdf; BRT_Chicago.pdf; BRT_Curitiba.pdf; BRT_MexicoCity.pdf; BRT_SanFrancisco.pdf

Hi,

I did not receive notice about commenting on the EIR. I did comment on the RTP. I think that the following comments are appropriate for the PEIR as well. Primarily my comments are regarding air quality impacts, economic impacts, mobility impacts, competitive impacts, land-use, and concerns about the style of the text hindering accessibility to information presented.

Please place my comments in the appropriate subject area as expressed in each comment text.

==========

ILLUSTRATION EXAMPLES - SMART STREETS

Some illustrations in the SCAG document portray one third of street capacity used for vehicle storage (parked cars) while high capacity transit vehicles are stuck in mixed traffic. This may not be a good model to provide as an example of smart streets or improved mobility. 1

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LRV TECHNOLOGY

The SCAG discussion about BRT (Bus Rapid Transit Technology) and LRV (Light Rail Vehicle Technology) is not accurate. Light rail technology was developed prior to pavement and rubber tires, only steel on steel existed as an option. Since the development of efficient paving systems, rubber tires, the internal combustion engine, and increases in vehicle ownership, LRV lost much of its benefit and became obsolete. 2

"TRUE" BRT

"True" BRT is a technology that replaces LRV at about one third the cost. It is faster, safer, more nimble, higher capacity, with less noise and vibration, and avoids construction and maintenance of rail and catenary systems. Please include with my comment, the attached photos and links with examples of "true" BRT as a competitive replacement to LRV at about 1/3 the cost.

WHAT IS "TRUE" BRT? - INSTITUTE FOR TRANSPORTATION & DEVELOPMENT POLICY
https://www.itdp.org/library/standards-and-guides/the-bus-rapid-transit-standard/what-is-brt/ 3

NATURAL RESOURCES DEFENSE COUNCIL - SWITCHBOARD
http://switchboard.nrdc.org/blogs/kbenfield/how_bus_rapid_transit_is_clean.html

WORLD RESOURCES INSTITUTE - ROSS CENTER - http://www.wricities.org/media/video/bus-rapid-transit-social-environmental-and-economic-impacts

==========

BENEFIT ANALYSIS STANDARDS 4

Regarding the LRV systems that SCAG discusses in the RTP, I am concerned that these systems are incurring cost without a comparative benefit. The "benefit", as described in the attached FTA and FHWA documents is what attracts ridership (primarily descretionary) and additional associated economic development to a transportation facility. Without this "benefit", the LRV discussed in the SCAG document imposes investment and operational costs on the public without a mobility or economic advantage. 4 cntd

FUNDING - MISSED OPPORTUNITIES

Specifically with the Expo Line LRV discussed in the attachments, the local agency, METRO, turned down a $2.5 billion 50% federal match and developed the project without a "benefit". The ridership of existing LRV lines without this "benefit", is equal to what prior bus service provided. I suggest that future transportation improvement projects provide a verifiable calculated "benefit", as is the industry standard, in order to obtain and leverage significant federal matching funds and meet economic development goals. 5

COMPETITIVE TRANSIT ALTERNATIVES

As an additional note, "true" BRT (Bus Rapid Transit Technology) developed correctly, provides a higher mobility "benefit" than LRV (Light Rail Vehicle Technology) at one third the cost. It is my understanding that a benefit is a "calculated" improvement in travel time, cost, and convenience, as compared to alternatives. 6

==========

IMPORTANT FORECASTS EXCLUDED

The SCAG RTP uses constrained forecasts that are obscuring a significant amount of forecasted regional travel demand. This has manifested itself most apparently as unmet demand and a capacity shortage in the region's core. Congestion is being forced outward toward suburban communities. Economic development is leaving the region completely. 7

PROVIDE UNCONSTRAINED FORECASTS

I urge SCAG staff to provide decisionsmakers both constrained and unconstrained forecasts in the RTP. Planning documents for other MPO's include both forecasts for comparison. This gives decisionmakers a tool to measure the effectiveness of various constrained plans. Local governments are then provided the ability to capture economic growth strategically. Tax base benefits regionwide can be significant. 8

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CARPOOL LANES - SYSTEM ANALYSIS

The continued regional investment in additional carpool lane capacity is of concern. Firstly, this program diverts huge resources from competitive alternatives. Second, it is adding to the number of single vehicle (SOV) trips being taken. 9

DRIVING INCENTIVES

When carpoolers shift to additional lanes, this increases the capacity for single occupancy vehicles (SOV) in the main lanes. These lanes quickly fill. When the system overall exceeds capacity, as in the SCAG region, these additional single occupancy vehicles overload connecting roads. Congestion is simply moved and increases systemwide. It appears to be relieved in one area only to migrate to adjoining streets. Relieving one bottleneck simply moves it down the road to the next bottleneck. A thorough "system" analysis of road capacity changes reveals this. 10

CARPOOL LANE ALTERNATIVES

A more effective objective is to improve mobility on the highway system without adding traffic or congestion elsewhere. I suggest using existing lanes for carpool lanes rather than adding new lanes and redirecting the saved resources to develop competitive transit alternatives. Also, I suggest referring local agencies to the Victoria Transport Policy Institute, http://www.vtpi.org/ for resources to facilitate modeshift from SOV to other alternatives. 11

REGIONAL COMPETITIVENESS 12

The average pedestrian on transit utilizes three square meters of public space. The average SOV vehicle occupies 115 square meters of public space. This is forty times more space for the same trip. Imposing this extra infrastructure cost on the taxbase and local business makes the region uncompetitive against other regions where the percentage of SOV trips is much less. 12 cntd

$4.2 BILLION

The best example of resources ill spent on carpool lanes may be the $4.2 billion I-405 widening from I-105 to Highway 101. The 12 year multi-project traffic delays from construction exceeded by several times the benefit calculated. The delay is greater now than before the project and traffic is increased on connecting surface streets. Overall mobility in the corridor has declined. The $4.2 billion would have been better spent making higher capacity improvements. An extensive "true" BRT (Bus Rapid Transit) system is one example. 13

==========

INACCESSIBLE INFORMATION

The document is too Verbose. This makes is difficult to read. Important facts and figures are buried in lengthy compound and run-on sentences. The meaning becomes obscured to the interested reader. Hopefully this is not intentional. The 19 million citizens paying for the $560 billion plan deserve better. 14

FACTS & FIGURES

Facts and figures are better presented in graphic format. Important points are more readable in bullet or outline format. Clarity and brevity attracts more readers. Simple objective language also instills confidence that issues and facts are not handpicked or manipulated. 15

SPIN AND OBJECTIVITY

The tone of the document has too much spin. It is not supposed to be a sales document but rather an objective analysis. If SCAG surveys those that pay for and use the regional transportation system, they may find viewpoints quite different and far more critical than what is presented in the RTP text. Language that may not be construed as objective should be edited out. 16

==========

Thanks,

--

Mark Jolles

[redacted]

U.S. Department of Transportation
Federal Transit Administration

Administrator

400 Seventh St., S.W.
Washington, D.C. 20590

FEB - 2 2007

Mr. Harry Berezin
Office of Senator Dianne Feinstein
One Post Street, Suite 2450
San Francisco, CA 94104

Re: Questions from Mr. Mark Jolles pertaining to the Los Angeles Exposition Light Rail Line

Dear Mr. Berezin:

This letter is in response to Senator Dianne Feinstein's letter to Mr. Wes Irvin, Associate Administrator, for Office of Communications and Congressional Affairs for the Federal Transit Administration (FTA), seeking to respond to questions from Mark Jolles regarding the Los Angeles County Metropolitan Transportation Authority (LACMTA) Exposition Corridor Light Rail Line. FTA representatives have had numerous meetings and phone conversations with Mr. Jolles prior to this correspondence. Based upon his January 10, 2007, letter to your office, he feels that FTA has not previously provided sufficient responses to his questions. Below are specific responses to his questions:

1) We would like specific information that was provided by FTA to the LACMTA regarding project modeling and failure to meet the New Starts project justification criteria.

FTA Response: In the Fall of 2004, FTA notified LACMTA that it appeared the majority of the project's forecasted travel time savings resulted from: 1) increases in bus speeds and timed transfers from feeder buses, and 2) the use of an asserted travel time benefit (modal constant) for high-income transit riders that did not benefit other transit riders. As a result of these assumptions, FTA believed that a large proportion of the project's benefits did not reflect the benefits of the proposed project, but resulted from the impacts of an improved feeder bus network for the light rail system. FTA requested that LACMTA correct these issues so that the travel forecasts would better reflect the benefits of the proposed light rail extension, and not the impact of feeder bus service and modal constant that benefits high-income transit riders.

At that time, LACMTA believed it would be too time consuming to recalibrate the regional model and re-code the bus feeder network. LACMTA decided to pursue the project without Section 5309 New Starts funding for the project, to expedite project implementation. FTA has not received revised forecasts for the Exposition Corridor project. Because LACMTA is not seeking Section 5309 New Starts funds for construction, the calculation of transportation system user benefits is not required because a rating for project justification is not required.

YAHOO! MAIL

Print - Close Window

Subject: RE: Exposition Light Rail Line - forecast modeling

Date: Tue, 23 Jan 2007 13:47:36 -0500

From: Dwayne.Weeks@dot.gov

To: mjolles@pacbell.net

CC: Raymond.Tellis@dot.gov

Mark,

In fall of 2004, FTA notified the LACMTA that it appeared that the majority of the projects forecasted travel time savings resulted from: 1) increases in bus speeds and timed transfers from feeder buses for the build alternative compared to the baseline alternative, and 2) the use of an asserted travel time benefit (modal constant) for high-income transit riders that did not benefit other transit riders. As a result of these assumptions, FTA felt that a large proportion of the projects benefits did not reflect the benefits of the proposed LRT project, but resulted from the impacts of differences in the feeder bus network for the LRT project. During a conference call, FTA requested that the LACMTA correct these issues so that the travel forecasts better reflect the benefits of the proposed light extension, and not the impact of improved feeder bus service and modal constant that benefits high-income transit riders. FTA communicates is findings of technical reviews of travel forecasts via meetings and conference calls, and does not send written correspondence for routine technical matters.

At that time, the LACMTA felt it would be time consuming to recalibrate the regional model and re-code the bus feeder network. The LACMTA decided to pursue the project without Section 5309 New Starts funding for the project, to expedite project implementation. FTA has not received revised forecasts for the Exposition Corridor project. Because the LACMTA is not seeking Section 5309 New Starts funds for construction, the calculation of transportation system user benefits is not required because a rating for project justification is not required.

Finally, FTA has identified similar issues with travel demand models used by numerous projects throughout the U.S., and the LACMTA did not employ measures that are unusual in the development of regional travel forecasts. However, for those projects seeking New Starts funds, FTA requires the forecasts to representative of only the benefits of the project.

Dwayne Weeks, AICP
ph. 202-493-0316
dwayne.weeks@fta.dot.gov

-----Original Message-----
From: Mark Jolles [mailto:artmarket2c@yahoo.com]
Sent: Monday, January 22, 2007 6:12 PM
To: Weeks, Dwayne <FTA>
Subject: Exposition Light Rail Line - forecast modeling

Dwayne Weeks

- Exclusive lanes
- Metro type stations
- Smart card
- **High capacity buses**
- Measured and scheduled operation

12 m

18 m

25 m

SFMTA

SAN FRANCISCO COUNTY TRANSPORTATION AUTHORITY

8

Kaid Benfield's Blog

How bus rapid transit is cleaning the air and saving commute time in Mexico City and Istanbul

Posted December 11, 2013
Tags: BRT, smartgrowth, sustainablecommunities, transportation

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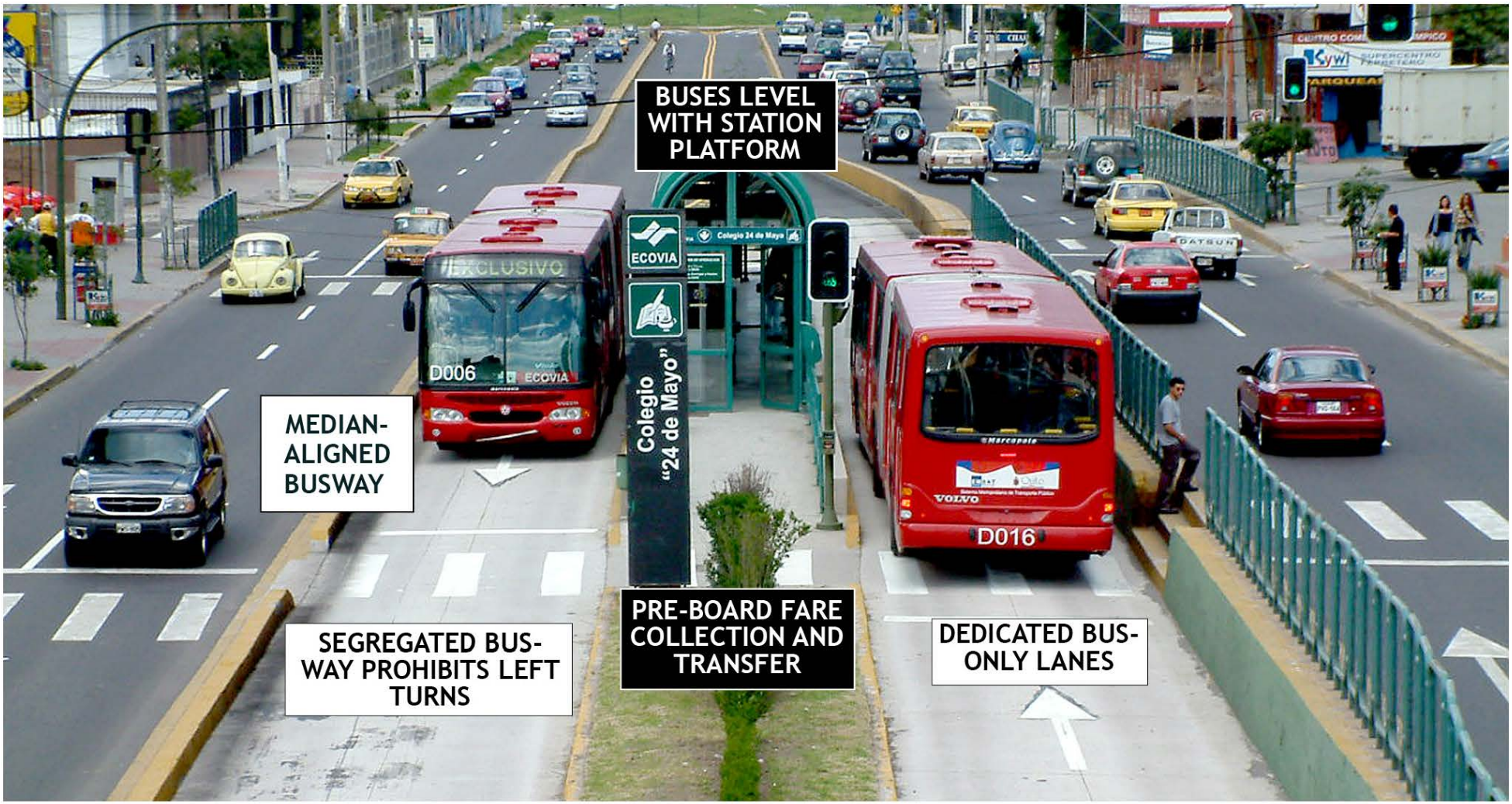
BUS ONLY
ONLY


TRANSOESTE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Comment Letter No. 63

PUBLIC COMMENT CARD

2016 2040 RTPSCS

Please provide your additional comments below and submit this to a SCAG staff member.

Si desea hacer un comentario en un idioma distinto del inglés, por favor póngase en contacto con un empleado de SCAG para solicitar ayuda.
如果你想用除英文以外的另一種語言發表評論，請聯繫南加州政府協會工作人員尋求幫助。
영어 외의 다른 언어로 의견을 제출하길 원하시는 분은 SCAG staff에게 도움을 요청하시기 바랍니다.
Nếu quý vị muốn bình luận bằng một ngôn ngữ khác hơn tiếng Anh, xin vui lòng liên lạc với nhân viên của SCAG.

Meeting Location: San Bernardino *Date:* 19 Jan 16

Name: Maruen Norman *Phone:* [redacted]

Agency or Affiliation:

Address: [redacted] *City:* [redacted] *Zip:* [redacted]

Email: [redacted] *Check here if you'd like us to keep you updated on the 2016 RTP/SCS:* ☐

COMMENTS:

Better standards for future projects to ensure that transit and alternative transportation are included as part of all projects, make number of people moved the highest priority 1

Include transit as a mitigation measure to all newly developed projects 2

- Pilot VMT-based analyses to assist OPR's implementation 3
- Encourage active modes for shortest trips and to transit 4

Comment Letter No. 64

Anita Au

From: Christina Morris <CMorris@savingplaces.org>
Sent: Monday, February 1, 2016 3:25 PM
To: 2016 PEIR
Cc: Chris Wilson; cvaughn@achp.gov; Reid Nelson; Julianne.Polanco@parks.ca.gov; Lindquist, Natalie@Parks; Linda Dishman; afine@laconservancy.org; Marina Khubesrian; Margaret Lin; Sergio Gonzalez; Ara Najarian; Antonio Rossmann; Mahmud, Diana; Nagami, Damon; Bertoni, Vincent P.; Coby King; Betsy Merritt; Brian Turner; Virgil McDill; Kevin Sanada
Subject: Comments on Southern California Association of Governments Draft 2016 RTP/SCS and Draft Program Environmental Impact Report
Attachments: National Trust Comment Letter_SCAG 2016 RTP SCS PEIR_FINAL_020116.pdf

Ms. Aguirre and Ms. Sun – Please see the attached comment letter from the National Trust for Historic Preservation regarding the SCAG Draft 2016 Regional Transportation Plan and Draft Program Environmental Impact Report.

Thank you.

Chris Morris | FIELD DIRECTOR
P 213-232-1123 x1159 c 213-705-7122

NATIONAL TRUST FOR HISTORIC PRESERVATION
Los Angeles Field Office
700 South Flower Street, Suite 1100, Los Angeles, CA 90017
SavingPlaces.org

National Trust *for* Historic Preservation
Save the past. Enrich the future.

February 1, 2016

Courtney Aguirre and Lijin Sun
Southern California Association of Governments
818 West 7th Street, 12th Floor
Los Angeles, CA 90017

Via email (2016PEIR@scag.ca.gov) and USPS

RE: Southern California Association of Governments Draft 2016 Regional Transportation Plan and Sustainable Communities Strategy; and Draft Program Environmental Impact Report (SCH#2015031035) – National Trust for Historic Preservation Comments

Dear Ms. Aguirre and Ms. Sun,

Thank you for the opportunity to comment on the Southern California Association of Governments (SCAG) Draft 2016 Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS); and Draft Program Environmental Impact Report (PEIR) (SCH#2015031035).

We commend SCAG for its focus on constructive, sustainable, regional transportation improvements, and for not explicitly including the State Route 710 Tunnel Alternative (SR-710 Tunnel) in the list of constrained projects. However, some ambiguity about the status of the SR-710 Tunnel project remains as a result of references to the SR-710 North project in the Draft PEIR. We urge SCAG to clarify references to the SR-710 North project in the Final 2016 RTP/SCS and PEIR, and confirm that the SR-710 Tunnel Alternative is not included in the RTP list of constrained projects. 1

Interests of the National Trust

The National Trust for Historic Preservation is a private, nonprofit organization chartered by Congress in 1949 to facilitate public participation in the preservation of our nation's heritage, and to further the historic preservation policy of the United States. 54 U.S.C. §§ 320101, 312102. With the strong support of its members across the nation, the National Trust works to protect significant historic sites and to advocate historic preservation as a fundamental value in programs and policies at all levels of government.

The National Trust has decades of experience working for better transportation solutions in Southern California. Beginning in 1989, the Trust named South Pasadena, Pasadena and El Sereno to its annual list of *America's 11 Most Endangered Historic Places*, for five

San Francisco Field Office
The Hearst Building, 5 Third Street, Suite 707 San Francisco, CA 94103
E info@savingplaces.org P 415.947.0692 F 415.947.0699 www.PreservationNation.org

consecutive years, shining a national spotlight on the devastating threat posed to historic communities within the corridor from the proposed 710 freeway extension. And in 1999, the National Trust was a co-plaintiff in the litigation that resulted in an injunction against the surface freeway proposed at the time, which would have demolished hundreds of historic homes and cultural sites. *City of South Pasadena, et al. v. Slater,* 56 F. Supp. 2d 1106 (C.D. Cal. 1999). In 2015, the National Trust became a member of Connected Cities and Communities (C3) coalition and named the "Historic Communities of the 710" as a National Treasure in light of the renewed threats to historic resources, neighborhoods, and communities from the tunnel projects proposed in the SR-710 Draft Environmental Impact Report (DEIR).

Since a Locally Preferred Alternative has not yet been identified by Caltrans for the SR-710 North Project, SCAG should remove all references or inferences that the project will be the SR-710 Tunnel Alternative. Specifically, RTP ID 1M0101 should be moved from the Constrained Plan to the Strategic Plan, and the language should be clarified to ensure the project description is alternative–neutral, for the following reasons:

I. An SR-710 Tunnel Alternative Is Inconsistent with the Majority of SCAG's Regional Goals Expressed in the Draft 2016 RTP/SCS.

Inclusion of a freeway Tunnel Alternative in the Final RTP/SCS and PEIR would be in direct opposition to the many valid, forward-thinking, and sustainable initiatives established by the Draft 2016 RTP/SCS:

- Preserving the Transportation System We Already Have (Fixing it First)
- Expanding Our Regional Transit System to Give People More Alternatives to Driving Alone
- Expanding Passenger Rail
- Managing Demand on the Transportation System
- Promoting Walking, Biking and Other Forms of Active Transportation
- Focusing New Growth Around Transit

2

II. Including a Tunnel Alternative Would Be Inconsistent with Recent California State Legislation.

An SR -710 Tunnel Alternative is in opposition to the principles and goals of Assembly Bill 32 (AB 32) and Senate Bill 375 (SB 375) because the resulting project would induce demand, increase vehicle miles traveled (VMT), and increase greenhouse gas (GHG) emissions. As the Metropolitan Planning Organization for the region, SCAG should promote and implement policies that will improve regional air quality and support projects that will reduce regional VMT and GHG emissions.

III. References to "SR-710 North Extension (Alignment TBD)" should be revised.

We remain concerned with SCAG's assertion in Appendix B of the draft PEIR that the alignment is "to be determined." Comments within the draft RTP/SCS and PEIR suggests

that the project proposed by SCAG remains the SR-710 Tunnel and that it is not alternative-neutral. The PEIR should be revised accordingly to address the following:

- Appendix B, page 149 describes the project as "SR-710 North Extension (Alignment TBD)." A footnote indicates that the project will be selected after environmental review and then the RTP/SCS will be subsequently amended. However this description suggests that the tunnel project is the only extension contemplated, when in fact, the ongoing environmental review for the 710 project includes other alternatives that are not highway extensions (TDM/TSM, Bus Rapid Transit, and Light Rail Transit).

- Appendix B, page 37, notes that funding is being sought "to close the 710 freeway gap." Listing the project as a "freeway gap closure" implies that the project is a freeway tunnel rather than any of the other alternatives proposed in the SR-710 DEIR.

- The Appendix B designation of the project as a "State Highway," like the "Route #" of SR-710 (Appendix B, pp. 37, 149) suggests the project is the SR-710 Tunnel Alternative, which is the only state highway alternative identified in the Caltrans 710 North Study

- Figure 2.4.2-1 (Major Highway Projects) and Figure 2.4.2-5 (Major Toll Projects) in the draft PEIR describe the SR-710 North Project as a toll project. The only Caltrans 710 North Project alternative that calls for a toll road is the freeway Tunnel Alternative.

- The stated project cost of $5.6 billion in Appendix B page 149 correlates with the project costs stated in the SR-710 DEIR, and therefore appears to identify the dual-bore Tunnel as the selected alternative.

2 cont.

IV. The SR-710 Tunnel Alternative Should Be Removed from the Constrained Projects List.

Inclusion of the SR-710 Tunnel Alternative fails to meet the federal requirement that any project listed as fiscally constrained must establish that funds for the project are "committed, available, or reasonably available." (23 C.F.R. §450.104.) The$5.6 billion in projected project costs for the dual-bore SR-710 Tunnel Alternative are not at all "committed, available, or reasonably available."

Only $740 million of Los Angeles County Measure R funds remain for construction of a San Gabriel Valley transportation project, and these funds are *not* specifically designated for the SR-710 Tunnel Alternative, but can be applied to other projects or programs. *City of South Pasadena v. Los Angeles County Metropolitan Transportation Authority* (Mar. 22, 2011) 2d Civil No. B22118, Cal. App. 2d Dist. (available at http://www.leagle.com/decision/In%20CACO%2020110322011/CITY%20OF%20SOUTH%20PASADENA%20v.%20LOS%20ANGELES%20COUNTY%20METROPOLITAN%20TRANSPORTATION%20AUTHORITY.) Even if the remaining $740 million of Measure R

funding were assigned to a Tunnel Alternative, the additional $4.8 billion has not yet been identified to fund the construction of the dual-bore alternative.

SCAG should remove the Tunnel Alternative from its constrained list in the Final RTP/SCS and PEIR, and invest the region's limited financial resources in transportation projects that are in alignment with the regional goals and priorities set forth in the RTP/SCS. The previous error of including the SR-710 Tunnel in the 2012 Constrained Plan should be corrected in the 2016 RTP/SCS by moving the project to the Strategic Plan to accurately reflect the lack of available funding. 2 cont.

As a member of the Connected Cities and Communities (C3) coalition, the National Trust supports *Beyond the 710: Moving Forward - New Initiative for Mobility and Community* (http://www.beyondthe710.org/the_bt710_proposal) a proactive initiative developed in collaboration with the Natural Resources Defense Council, the 5 Cities Alliance, and other community stakeholders. The *Beyond the 710* initiative carefully considers the larger mobility and economic development needs of the San Gabriel Valley, promotes strategies and solutions similar to SCAG's 2016 Draft RTP/SCS Land Use Strategies, and could serve as the starting point for SCAG to outline an East Los Angeles/Pasadena or West San Gabriel Valley Mobility Plan.

Thank you for considering the comments of the National Trust for Historic Preservation. Please feel free to contact us if you have any questions.

Sincerely,

Brian R. Turner
Senior Field Officer and Attorney

Elizabeth S. Merritt
Deputy General Counsel

cc: Chris Wilson, Charlene Vaughn, and Reid Nelson, Advisory Council on Historic Preservation
Julianne Polanco and Natalie Lindquist, California State Historic Preservation Office
Cindy Heitzman, California Preservation Foundation
Linda Dishman and Adrian Scott Fine, Los Angeles Conservancy
Sue Mossman and Jesse Lattig, Pasadena Heritage
Damon Nagami, Natural Resources Defense Council
Sarah Gavit, West Pasadena Residents Association
Marina Khubesrian and Ara Najarian, Beyond the 710

Claire Bogaard and Jan SooHoo, No 710 Action Committee
Antonio Rossmann, Esq., Counsel to City of South Pasadena
Margaret Lin, City of South Pasadena
Vince Bertoni, Planning & Community Development, City of Pasadena
Elena Phleger, Sequoyah School
Douglas Carstens, Chatten-Brown and Carstens on behalf of Westridge School

Comment Letter No. 65

Anita Au

From: Joel Robinson <jrobinson@naturalist-for-you.org>
Sent: Monday, February 1, 2016 2:48 PM
To: 2016 PEIR; 2016 RTP/SCS
Cc: Schlotterbeck, Melanie
Subject: Southern California Association of Governments Regional Transportation Plan and Sustainable Communities Strategy
Attachments: Individual CoalitionNFY.doc

Dear SCAG,

Attached is my letter regarding the Regional Transportation Plan and Sustainable Communities Strategy.

Joel Robinson
Director/Head Naturalist
Naturalist For You
www.naturalist-for-you.org
714-649-9084
Usually available on Monday - Friday, 10AM-6PM

Mission: Connecting everyone to local wilderness!

Individual Coalition Letter

February 1, 2016

Dear Southern California Association of Governments,

Thank you for the opportunity to comment on the Southern California Association of Governments (SCAG) 2016 Regional Transportation Plan (RTP) and Sustainable Community Strategy (SCS) and the Program Environmental Impact Report (PEIR). Following the release of the 2012 RTP/SCS, Friends of Harbors, Beaches and Parks (FHBP) coordinated a cross-county regional conservation coalition focused on the inclusion of natural lands mitigation and policies within that SCAG plan. Our organization, Naturalist For You is now a part of this growing coalition in 2016.

Naturalist For You works in Orange, San Diego, Riverside, Los Angeles, San Bernardino and Ventura County, and has since 2006. Our mission is to connect everyone to local wilderness. We have had important successes since our inception including recruitment of community members as naturalists and the continuous environmental education of an estimated 20,000 members of the public through our nature walks, presentations, workshops and events.

The 2012 RTP/SCS provided an important stepping stone for the 2016 Plan. In previous Plans, natural lands and farmlands were handled under the banner of "land use." In this new Plan, however, they are their own category. This is a great milestone in conservation planning for the region and SCAG. Additionally, the creation of a Natural and Farmlands Appendix provides important opportunities for SCAG that shouldn't be overlooked. We believe the opportunity before you isn't to "plan for" the future of open space in the region—as that's what you've been doing since the 2012 Plan. Instead, we believe SCAG can now start "implementing" a regional conservation program. **We strongly urge SCAG to take a more serious leadership role by actively seeking funding to implement conservation efforts** by partnering with agencies, transportation commissions and non-profits to see that the Plan created in 2012 comes to fruition through the 2016 Plan. The One Bay Area Grant Program in Northern California is a program that we believe can be replicated in Southern California. We and other coalition members would gladly assist with this implementation effort. 1

We've reviewed the RTP/SCS and PEIR and offer the following comments and suggestions for inclusion in the Plan with the intent to clarify/strengthen the language, as well as link the goals of the RTP and SCAG's mission with the Natural and Farmland policies.

Congratulations

We are pleased to see an Appendix devoted directly to natural and farmlands protection in the 2016 Plan. We are glad that the Plan contains specific strategies addressing natural land and farmlands issues. This is certainly a step in the right direction. The culmination of the work from the last RTP/SCS is clearly visible in this Draft Plan. SCAG has demonstrated that Metropolitan Planning Organizations can play a vital, thoughtful and science-based role in mitigating impacts to our natural environment from transportation, infrastructure and other development projects. By incorporating natural and farmlands protection strategies into your policy document, we believe the many benefits of this broad-based conservation approach will be realized sooner than expected. Thank you for your leadership. 2

Amendments to the Open Space Maps in the PEIR

Maps contained within the PEIR, RTP, SCS and Appendix should be internally consistent and they are not. For example, each map that shows "open space" or "protected lands" should be using the same base dataset but they do not. The 2012 Plan resulted in the creation of SCAG's very own geographic information systems (GIS) dataset: the Natural Resource Inventory. It is more accurate than what is in the document now and it has been vetted by numerous organizations. That's why it is surprising to see that so few of SCAG's own GIS layers were actually used in the documents' maps. We urge SCAG to honor its own work and that of its partner organizations by using this dataset as the basis for natural and farmland mapping. Let's move forward with the same baseline information. 3

Identify a Conservation Mechanism for the Natural and Farmlands Preservation

Our organization supports the idea that as new growth occurs it should focus on the existing infill areas. This is consistent with the finding in the SCAG surveys where respondents preferred to see existing urban areas built upon before greenfields are targeted for development, especially those at the Wildland-Urban Interface. When developments are built in infill areas, it likely relieves pressure from the fringe. However, the Plan fails to outline exactly how (or with what mechanism) these fringe lands (or any lands) will actually be protected. Just because the pressure is relieved doesn't mean the land then automatically becomes protected. Numerous organizations, ours included, focus their work on preservation of important habitat lands. A lot of time, energy, political will, strategy 4

and other efforts combine to create a successful conservation transaction that leads to permanently conserved lands. SCAG must identify the mechanism, process or plan on how the greenfield lands will be protected.

4 cntd

Formal Versus Informal Conservation Plans—All Are Important

SCAG focused many sections of the document on formal conservation plans, in the form of Natural Community Conservation Plans and Habitat Conservation Plans (NCCP/HCP), as the conservation method most identified by the agency. It is important to note that NCCP/HCP programs are only one conservation mechanism and they have limitations. For example, they are voluntary, property owner driven and generally only apply to larger land ownerships. Efforts underway by local, regional, state and federal agencies outside of these formal plans should not be discounted and must be included. Furthermore, many conservation organizations help facilitate, coordinate and find funding for land conservation transactions. We believe the conservation approach promoted by SCAG should include all of the ways land is protected, including those less regulated methods of conservation outside of NCCP/HCP programs.

5

Population Growth Impacts to Existing and Future Parklands

The Plan outlines that the region anticipates an additional 3.8 million people by 2040 providing increased pressure on our existing parkland. Studies document that many communities in the Southern California region already do not have enough parkland as outlined by the Quimby Act (three acres per 1,000 residents). Throughout the document, the Plan promotes providing more access to these existing parks as infill projects are built, but nowhere does it state how additional parks will be created. The mechanism is missing. More importantly, these city parks are fundamentally different than habitat-focused parks. Usually city and regional parks include high intensity recreation oriented activities, like soccer and baseball fields, and are turfed. The types of land acquired as mitigation or through local conservation efforts typically are focused on preservation of natural habitat and less intensive uses (birding, hiking, etc.). In fact, many of these mitigation lands have limited or managed public access. Providing "more" access to either high or low intensity parks and/or habitat lands may have significant consequences for the land manager. The document needs to address the impacts to local parks with increased access from expanding populations. The document also needs to address how additional lands will be protected, i.e., what mechanism will be used?

6

SCAG's Support of Regional Wildlife Corridors

The current federal transportation bill, FAST Act, supports understanding transportation impacts on natural resources. The previous bill, MAP-21, supported restoring and maintaining environmental functions (i.e., wildlife corridors) affected by the infrastructure projects in the RTP. SCAG has even supported efforts in Los Angeles County to create a wildlife corridor over the 101 Freeway. Many efforts are underway across the region to connect landscapes to one another. This is very important to the region and its biodiversity. Wildlife corridors allow species to migrate and forage and expand genetic diversity. These corridors also allow ecosystems to maintain ecological functions, act as sources for repopulation after natural disasters such as fire, flood or landslide, and improve the resiliency in the face of climate change impacts. The Plan would be stronger if it supported the enhancement of and/or protection of documented and regionally significant wildlife corridors, especially those that are impacted by infrastructure projects.

7

Conclusion

Thank you for reviewing our comments and we look forward to working with SCAG on the implementation of this Plan, especially as it relates to the Natural and Farmlands Appendix. Should you need to contact me, I can be reached at 714-649-9084. In addition, we request to be included on any notifications (electronic or otherwise) about this policy's creation and implementation, please send information to jrobinson@naturalist-for-you.org.

8

Sincerely,

Joel Robinson
Director/Head Naturalist
Naturalist For You
www.naturalist-for-you.org

Comment Letter No. 66

Anita Au

From: Bryan Starr <BStarr@ocbc.org>
Sent: Monday, February 1, 2016 3:05 PM
To: 2016 PEIR
Subject: Comment Letter Orange County Business Council
Attachments: OCBC SCAG 2016 RTPSCS COMMENT LETTER 2.1.16.pdf

Importance: High

Please accept the attached Comment Letter on the 2016 RTP/SCS

Bryan Starr
Senior Vice President
Orange County Business Council
2 Park Plaza, Suite 100 | Irvine, CA 92614
Cell 949.554.8563 | bstarr@ocbc.org

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ORANGE COUNTY
BUSINESS COUNCIL

2 Park Plaza, Suite 100 | Irvine, CA 92614-5904 | P 949.476.2242 | F 949.476.9240 | www.ocbc.org

January 28, 2016

Mr. Hasan Ikhrata
Executive Director
Southern California Association of Governments
818 West Seventh Street, 12th Floor
Los Angeles, California 90017-3435

Re: Southern California Association of Governments (SCAG) draft 2016- 2040 Regional Transportation Plan/Sustainable Communities Strategy (2016 RTP/SCS)

Dear Mr. Ikhrata:

On behalf of Orange County Business Council (OCBC) I would like to formally submit comments on the Southern California Association of Governments (SCAG) draft 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (2016 RTP/SCS) and the associated Program Environmental Impact Report (PEIR). The draft 2016 RTP/SCS and PEIR is critical to the region's ability to receive federal funding for transportation projects, improve mobility, support sustainable development of the region's housing needs, operate and maintain the transportation system, and meet the region's greenhouse gas emission reduction targets and other air conformity standards. **For the business community the key word in achieving all of these objectives is balance.** To that end we offer the following technical and policy suggestions for consideration.

1. **The RTP/SCS should not mandate technologies or use transit agencies as technology incubators.** Instead, it should allow for any and all technologies (i.e. near-zero emission technologies) that can meet SCAG's performance goals (focus on performance metrics vs technology mandates). Near-zero emission technologies will help achieve regional air quality and climate goals, at a fraction of the cost and with more flexibility/choice for agencies. 1

2. **SCAG should take advantage of the best of what innovation can deliver, and shouldn't limit options, but instead welcome technology advancements that moves us towards our goals by:**
    a) Maximizing opportunities to improve air quality and reduce GHG emissions through "near-zero" technologies.
    b) Emphasis Life Cycle emission analysis as opposed to simply tail pipe emissions.
    c) Supporting technology neutral policies. 2

3. **OCBC does not support the growth forecast utilized in the development of the Intensified Land Use Alternative (Alternative 3) in the draft PEIR.** The Intensified Land Use (ILU) Alternative does not reflect entitlements, development agreements, open space donations, projects recently completed and projects under construction (which are properly reflected in The Plan). OCBC requests that the growth forecast in the 2016 RTP/SCS and ALL alternatives be based on the technically corrected growth forecast submitted to SCAG by Orange County Council of Governments (OCCOG) in August 2015. 3

4. In order to clarify the intent that the mitigation measures are a menu of options for which feasibility has not been established for any given project, the "can and should" language should be changed in all mitigation measures identifying entities other than SCAG to read "should consider where applicable and feasible." 4

5. OCBC concurs with the comments identified by OCTA in its letter of January 11, 2016. OCTA has identified policy and technical issues related to the draft 2016 RTP/SCS and PEIR that are of concern to Orange County. These are focused on the regional strategies that go above and beyond the projects submitted by the county transportation commissions (CTC). 5

6. OCBC Concurs with comments in the OCCOG letter regarding Priority and Funding Preference for Transportation Projects. To address the significant impacts of increasing Vehicle Miles Traveled (VMT) and traffic congestion, the draft Program EIR for SCAG's 2016 - 2040 RTP/SCS proposes project-level mitigation measures that include language allowing for:
    a. Giving priority to transportation projects that would contribute to a reduction in vehicle miles traveled per capita [Mitigation Measure MM-TRA-1(b)]; and,
    b. Giving funding preference to improvements in public transit over other new infrastructure for private automobile traffic [Mitigation Measure MM-TRA-2(b)]. 6

Please delete these provisions in Mitigation Measure MM-TRA-1(b) and Mitigation Measure MM-TRA-2(b), <u>unless the language in these provisions is modified to recognize that they would only be considered if they are found by the Lead Agency to be appropriate and consistent with local transportation priorities.</u>

7. Recently the California Transportation Commission (CTC) moved to deprogram nearly $1 Billion in transportation projects. How will the State's continued funding shortfall factor into the assumptions in the 2016 RTP/SCS. 7

8. The PEIR and its appendices instruct local lead agencies to consider VMT in their project- and plan-level CEQA analyses, in lieu of a "level of service" (LOS) traffic analysis. This instruction is premature as the Governor's Office of Planning and Research (OPR) is currently considering whether VMT analysis should be incorporated into CEQA analysis—a direction from the California Legislature. SCAG should defer to any eventual OPR decision. 8

9. OCBC applauds SCAG's emphasis on managed lane strategies as not only a funding source, but as a means to enhance mobility. 9

OCBC applauds SCAG's work on developing the draft 2016 RTP/SCS. The valuable work conducted by your professional staff under the leadership of the SCAG Board of Directors is critical to the prosperity of the Southern California region. We thank you for you dedication to this process and we appreciate your thoughtful consideration of the comments we have presented. Please do not hesitate to contact me at (949)794-7210 if your team has questions or needs clarification on any of the points we have addressed.

Sincerely,

Bryan M. Starr
Senior Vice President, Government Affairs

Cc: OCBC Infrastructure Committee
OCMoves Steering Committee

Comment Letter No. 67

ORANGE COUNTY LEAGUE OF CONSERVATION VOTERS

January 27, 2016

Southern California Association of Governments
818 West 7th Street, 12th Floor
Los Angeles, CA 90017

RE: 2016 Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS) and Program Environmental Impact Report (PEIR)

Dear SCAG:

Thank you for the opportunity to comment on the Southern California Association of Governments (SCAG) 2016 Regional Transportation Plan (RTP) and Sustainable Community Strategy (SCS) and the Program Environmental Impact Report (PEIR). Following the release of the 2012 RTP/SCS, Friends of Harbors, Beaches and Parks (FHBP) coordinated a cross-county regional conservation coalition focused on the inclusion of natural lands mitigation and policies within that SCAG plan. Our organization is now a part of this growing coalition in 2016.

The 2012 RTP/SCS provided an important stepping stone for the 2016 Plan. In previous Plans, natural lands and farmlands were handled under the banner of "land use." In this new Plan, however, they are their own category. This is a great milestone in conservation planning for the region and SCAG. Additionally, the creation of a Natural and Farmlands Appendix provides important opportunities for SCAG that shouldn't be overlooked. We believe the opportunity before you isn't to "plan for" the future of open space in the region—as that's what you've been doing since the 2012 Plan. Instead, we believe SCAG can now start "implementing" a regional conservation program. **We strongly urge SCAG to take a more serious leadership role by actively seeking funding to implement conservation efforts** by partnering with agencies, transportation commissions and non-profits to see that the Plan created in 2012 comes to fruition through the 2016 Plan. The One Bay Area Grant Program in Northern California is a program that we believe can be replicated in Southern California. We and other coalition members would gladly assist with this implementation effort. 1

The **Orange County League of Conservation Voters** is the Political Action Arm
of Orange County's Environmental Community
PO Box 1303, Huntington Beach, CA • 92647 • 714-525-5377 • kshanfield@aol.com
FAIR POLITICAL PRACTICES COMMISSION REGISTRATION # 1223961

SCAG focused many sections of the document on formal conservation plans, in the form of Natural Community Conservation Plans and Habitat Conservation Plans (NCCP/HCP), as the conservation method most identified by the agency. It is important to note that NCCP/HCP programs are only one conservation mechanism and they have limitations. For example, they are voluntary, property owner driven and generally only apply to larger land ownerships. Efforts underway by local, regional, state and federal agencies outside of these formal plans should not be discounted and must be included. Furthermore, many conservation organizations help facilitate, coordinate and find funding for land conservation transactions. We believe the conservation approach promoted by SCAG should include all of the ways land is protected, including those less regulated methods of conservation outside of NCCP/HCP programs. 2

Thank you for reviewing our comments and we look forward to working with SCAG on the implementation of this Plan, especially as it relates to the Natural and Farmlands Appendix. Should you need to contact me, I can be reached at (714) 928-8689. In addition, we request to be included on any notifications (electronic or otherwise) about this policy's creation and implementation, please send information to me at wellborn.michael@gmail.com. 3

Sincerely,

Michael Wellborn, President
Orange County League of Conservation Voters

Comment Letter No. 68

public health alliance of southern california
A Partnership for Healthy Places

City of Long Beach
Department of Health
and Human Services

Los Angeles County
Department of Public Health

City of Pasadena
Public Health Department

County of Riverside
Department of Public Health

Santa Barbara County
Public Health Department

County of San Bernardino
Department of Public Health

County of San Diego
Health and Human Services
Agency

Ventura County
Public Health

Cheryl Viegas-Walker, President
Regional Council
Southern California Association of Governments
818 W. 7th Street, 12th Floor
Los Angeles, CA 90017

February 1, 2016

Dear President Viegas-Walker:

The Public Health Alliance of Southern California (Alliance) is a collaboration of local health departments in Southern California. Our health departments are committed to realizing a vision in which all Southern California communities are healthy places to live, work, play and learn. We were pleased to participate in the development of the 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) as part of our efforts to achieve this goal. Thank you for your efforts to include health in the development of the RTP/SCS, and for the opportunity to provide the following comments on the draft plan. 1

Overarching Comments

The 2016-2040 DRAFT RTP/SCS and the plan scenario point our region in the right direction, and represent important progress for considering the public's health when planning for our region's future.

We are pleased that the plan does the following: 2

- Puts the region on target to meet our AB 32 Greenhouse Gas Reduction goals of 8% by 2020. *Climate change is a threat to public health in our region, our Alliance strongly supports the climate change mitigation actions included in this plan.*
- Includes increased investment in transit and more active modes of transportation, particularly in Los Angeles County. *Transportation and built environment structures that support increased physical activity will significantly improve our region's health.*
- Includes performance measures that will help us understand the health impacts of the plan, and measure our progress toward implementation.
- Includes a more robust Environmental Justice analysis than prior plans, setting the stage for increased commitment to equity in our region.
- Includes a framework for operationalizing the ongoing consideration of health in our regional planning, as detailed by the Public Health Work Program in the Public Health Appendix.
- Is supported by data efforts, including the REVISION tool and the Urban Footprint Scenario Planning Module, which will allow us to project and understand trends in our region and plan impacts at a more granular level.
- Includes targeted land use strategies to help meet plan goals, including intensification of land use in high quality transit areas, complete streets strategies, and the livable corridor strategies.

We encourage SCAG members to work to implement these strategies within their local plans. 2 Cont.

Recommendations for the Project List and Performance-Based Planning

- Consider a performance-based cost/benefit analysis of the largest projects as a way of building authentic public engagement around funding decisions included in plan.
- Consider setting aside a portion of funding for a public discussion/ referendum on the types of projects to be included in the plan as a way of building public engagement. At this time there is no clear mechanism for public input on the project list.
- Performance measures in general, and the public health and environmental justice measures in particular should include numeric targets rather than a simple directional goal/presentation of data.
- Include a performance monitoring measure in the RTP/SCS tracking the number of very low, low, and moderate income housing units available and constructed as a way of gauging progress towards the 2013 Regional Housing Needs Assessment by 2021. 3
- Maintain an updated public data portal that allows the public to measure the implementation of the plan based on the performance measures used for plan selection.
- In the PEIR, clarify which (if any) of the Strategic Projects are being modeled in the plan scenario. It is not clear from the existing documentation which projects were included at which stage in the modeling process.

Comments on the Public Health Process

- We commend the integration of Public Health into the development of the 2016-2040 RTP/SCS. In particular, we strongly support the new Public Health Appendix to the plan, and appreciate the hard work that went into the creation of this document.
- SCAG's Public Health Working Group has created a forum for public health professionals to engage with the plan and to advance work on the RTP, and the broader goals of the Public Health Work Program. SCAG's staff participation on the Alliance's Healthy Transportation Working Group has further built constructive engagement between transportation planning and public health and we commend and look forward to this continued participation.
- The Public Health appendix provides a primer explaining the Social Determinants of Health pathways through which planning and the RTP impact public health. We encourage SCAG to maintain the appendix as a living document and to include it in future RTP/SCSs to ensure future members and users understand these links.
- We applaud the inclusion of Safety and Health measures in the overall Plan Performance measures, particularly the "Daily amount of walking and biking related to work and non-work trips" and the "Collision rates by severity and mode." We encourage SCAG members to collaborate with SCAG, Public Safety, Caltrans, and Public Health Departments to improve the collection of data to track these metrics over time at a granular level. Data collection will be particularly important in tracking the impacts/ benefits of the plan to Environmental Justice communities where greater numbers of residents are reliant on active transportation modes. 4
- We appreciate the inclusion of healthy food access on page 4 of the Public Health Appendix. Given the importance of this topic to health, we recommend integration of healthy food systems discussions into the broader RTP/SCS. An example would be to consider the impact of the food system on goods movement; i.e., how can preservation of local agriculture and development of urban agriculture in the region reduce the greenhouse gas emissions from that sector?
- We also encourage SCAG to update the data analysis and performance measures included in the public health appendix, where possible, provide this data at a granular level through the REVISION tool and other public data portals. This will facilitate the development of strategies

and projects to advance public health supportive built environments while making it easier for member jurisdictions to incorporate public health analyses in their plans. 4 Cont.

Comments on Scenario Planning Model Health Benefit Analysis

- We appreciate the effort on the part of the Strategic Growth Council, SCAG and others to develop the Urban Footprint Scenario Planning Model (SPM) Public Health Module as a tool for helping evaluate the health impacts of proposed scenarios.
- While there is room for the refinement of this tool both in terms of including a risk exposure pathway and in addressing member's concerns related to the land use codes, we think the Urban Footprint SPM Health Module is useful in providing a ballpark assessment of some of the health benefits that may come from the plan.
- We are encouraged by the estimated health benefits of the plan scenario, which projects a 2.5% decrease in the regional obesity rate, 3% reduction in share of population with high blood pressure and a 13% reduction in total annual health costs for respiratory disease. 5
- We encourage SCAG and its member agencies to capture the value of our investments in active transportation by purchasing bicycle and pedestrian counters, and investing in National Household Transportation Survey (NHTS) oversample for active modes for the entire region. Detailed tracking of the physical activity increases resulting from the plan are key to understanding health impacts as well as how injury rates are related to exposure.
- In future years as data investments such as automated counters improves the granularity of our bike and walk mode share and trip length data, we encourage SCAG to analyze health co-benefits by using a relative risk assessment tool such as the Integrated Transportation Health Impact Model (ITHIM).

Comments on Environmental Justice Appendix and Disadvantaged Communities

- The Environmental Justice (EJ) outreach process and analysis is significantly more robust in this 2016-2040 RTP/SCS than in prior years. Thank you for incorporating the feedback we provided through the workshops and focus groups, and including the "Active Transportation Hazard" and "Climate Vulnerability" measures.
- We particularly appreciate SCAG's inclusion of multiple methods of identifying EJ communities. Due to the complex and localized nature of the issues EJ communities face, we would encourage SCAG to provide the detailed community-level analysis that is presented in aggregated form in the EJ appendix through a public data portal for use by individual communities.
- The Public Health Alliance has developed the "California Health Disadvantage Index" as a tool for identifying community disadvantage from a 'Social Determinants of Health' perspective. We encourage SCAG to consider the use of this tool for future EJ analysis, and as a layer for inclusion in future publicly available datasets on this topic.
- Given some of the unavoidable impacts of the plan on EJ Communities, we encourage SCAG to establish an ongoing process for elucidating and addressing these challenges in the region. A standing Environmental and Social Justice/Disadvantage Community workgroup could provide guidance for the integration of environmental justice/social justice/ disadvantage community prioritization processes in county and city-level transportation planning, ensuring that the project lists included in future RTPs have been developed with an eye toward more equitable transportation investment. Greater investment in disadvantaged communities' readiness will have the added benefit of increasing the competitiveness of the SCAG region in state funding competitions subject to SB 535 requirements. 6
- Displacement and gentrification are particularly important areas for action in the coming years. We appreciate the analysis of this issue in the EJ appendix, and its brief treatment in the Environmental Justice toolbox, however given the enormous affordable housing deficit in our region, and the trend of the displacement of transit-captive populations from the most transit-accessible urban core, more action on displacement will be necessary in order to realize the

VMT-reductions promised by our transit investments. We encourage SCAG members to convene a task force specifically dedicated to this issue. Because transit investment is a proven driver of displacement, this task force should seek to develop a fiscal structure for ensuring that the added land value of transit investment is captured for the development of affordable housing, with the minimum goal of achieving a 'no net loss' of affordable units within High Quality Transit Areas.

- The 2015 County of Riverside Community Health Assessment, which involved community forums and surveys, both homelessness and housing affordability surfaced as high priorities for residents. The fear of displacement is also a concern for residents of San Bernardino County. Strategies to address housing affordability should take the entire region into account.
- The EJ analysis should explicitly align the discussion with the Social Determinants of Health and the Public Health appendix, as there is no mention of the concept throughout. Consider using the California Planning Roundtable's Social Determinants of Health paper as a resource to explain the connection between these two appendices for newcomers to the field.
- Given the pressing nature of inequity, displacement, and poverty in our region, we recommend greater integration of the performance measures and mitigation actions included in the Environmental Justice appendix within the main body of the RTP/SCS.

6 Cont.

Detailed comments on Draft RTP/SCS main document:

- **Page 5 and page 39:**
  Please update this sentence: *In Riverside County, the Healthy Riverside County Initiative is working to have healthy cities resolutions adopted by a minimum of 15 cities.*
  To read: *In Riverside County, the Healthy Riverside County Initiative has formed a Healthy City Network to continue to successfully work with the county's 28 cities to enact Healthy City Resolutions and Health Elements into their General Plans.*

7

- **Page 16, #2: Collaborating with Member Agencies, Jurisdictions and Stakeholders:**
  Please explicitly mention public health departments as one of the key stakeholders, modifying the fifth sentence in that section to read: The Agency will also have to work with key stakeholders *including local public health departments* to ensure…

8

- **Page 20, Categorizing Land Use:** Rural development, which is neither suburban nor natural lands, does not fall into any of the listed categories. We would appreciate either a clarification of which of the categories rural land uses fall under, or a new, separate category addressing rural development.

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Thank you for taking the time to consider our comments.
Sincerely,

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Comment Letter No. 69

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February 1, 2016

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RE: Request for Compete Removal of SR-710 Freeway Tunnel Project from 2015-2040 Regional Transportation Plan/Sustainable Communities Strategies (RTP/SCS). Comments to the Draft Program Environmental Impact Report for the 2016-2040 RTP/SCS [State Clearing House Number 2015031035] pursuant to the California Environmental Quality Act.

Dear Mr. Ikhrata, Ms. Aguirre and Ms. Sun:

I join with a growing number of people, organizations and public entities in requesting that SCAG act responsibly in the preparation of the 2015-2040 Regional Transportation Plan/Sustainable Communities Strategies (RTP/SCS) and remove all references which could be construed to support inclusion of the SR-710 Freeway Tunnel Project from that instrument. Even though the 710 North Project alternatives are undergoing environmental review and no alternative should have yet been selected pursuant to the current EIR process it is obvious that SCAG has already "pre-determined" the SR-710 Tunnel alternative. This patently illegal action by SCAG unfortunately opens the door to the very type of "post hoc rationalization" under the California Environmental Quality Act which California appellate courts have uniformly condemned. (See for example Laurel Heights Improvement Association v. Regents of the University of California (1988) 47 Cal. 3rd 376). A number of references which point solely to the tunnel still remain in the in the RTP/SCS. 1

Given the circumstances of the Seattle SR 99 Alaskan Way Viaduct project in the State of Washington, any attempt to carry forth the SR-710 North Freeway Tunnel would represent the very height of local governmental irresponsibility. As I will demonstrate subsequently, the Washington Alaskan Way Viaduct Project is the only other project in the world in which the proposed tunnel boring technology which is contemplated for the SR-710 Freeway Tunnel has ever been attempted. The catastrophic consequences which have followed from that project provide every reason for concluding that the SR-710 Tunnel Project should never be seriously considered or pursued. The State of Washington, of course, rues the day it ever gave thought to attempting to construct the Alaskan Way Viaduct tunnel.

Given all of this and given the current status of the CalTrans SR-710 North EIR/EIS process, the only reasonable transportation solution now posed for the SCAG RTP/STS is to reject all 710 tunnel alternatives. Any further transportation matters associated with this ill-conceived and controversial tunnel project should be carried forth by examining the community based alternatives which have been submitted within the currently pending CalTrans EIR/ EIS process which seek to address transportation issues in the West San Gabriel Valley without the tunnel.

The comments set forth herein are also being submitted in connection with the SCAG Draft Program Environmental Impact Report for the 2016-2040 RTP/SCS (California State Clearing House Number 2015031035) which is currently circulating and currently within the requisite comment period. Pursuant to the California Environmental Quality Act I ask that these comments be considered in connection with SCAG's suggestion in this instrument that a freeway connection between Valley Boulevard in Alhambra and California Boulevard in Pasadena be part of SCAG's Regional Transportation Plan. As you are aware various freeway tunnel alternatives which purport to do precisely this are presently under study in connection with the CalTrans Draft EIR/EIS pertaining to the SR-710 North Study. The Draft EIR/EIS pertaining to the SR-710 North Study circulated during mid 2015 and comments to this DEIR are currently under study. While CalTrans' Draft SR-710 North EIR/EIS sets forth five potential project alternatives, only the alternative which entails the various SR 710 North freeway tunnel configurations appear to be the type of state highway alternatives fitting the description provided for this particular freeway route in the Draft PEIR for the SCAG RTP/SCS. 1 cntd

The 710 North tunnel has a dark and tumultuous history which has been fueled in no small part by the pressures of special interests. As a preliminary matter I would ask that SCAG bear in mind the loud public outcry and the fierce public opposition which has characterized the 710 North project for more than fifty years, as well as the bitter enmity which this project has often evoked in Southern California in the past. This opposition has occurred in no small part because of the devastating environmental degradation which this project would have wreaked upon a significant geographic area of Los Angeles County. I am hopeful that, with appropriate reflection, SCAG will have the vision to free itself from the irrational tunnel vision, which over and over creates more congestion on this region's freeway systems and that SCAG, as a more progressively responsible organization, will

instead work to help develop a responsible transportation paradigm which can better serve the region in the generations to come.

To some it has seemed puzzling that this imprudent freeway project has survived the heated debate and substantial public opposition which it has generated for more than half a century. However, despite all of this, and despite the enormous, costs, risks and environmental consequences which are involved, various engineering and construction special interests have breathed continued life into this project, even though it can never represent a responsible transportation solution.

The history of the 710 North Project has been chronicled by a long series of failed attempts by large environmentally insensitive organizations which have vainly sought to carry out what would otherwise have become an enormous environmental travesty. Construction of the 710 North project originally contemplated a massive multiple lane freeway which would have torn through numerous historic neighborhoods and would have bulldozed scores of structures on local, state and national historic registries in Los Angeles, South Pasadena and Pasadena. In fact, the entities tasked with freeway planning and construction attempted to initiate the construction without even completing the required environmental review pursuant to the National Environmental Policies Act of 1969 (NEPA) or the 1970 California Environmental Quality Act (CEQA). As a result in 1973 the City of South Pasadena and others brought an action in the United States District Court for the Central District of California to enjoin this proposed construction. This action, as reported in South Pasadena et. al. v. Volpe et. al., 418 F. Supp 854 (USDC Central CA., 1976), resulted in an injunction barring the project due to the failure to prepare the required Environmental Impact Statement under NEPA and the required Environmental Impact Report under CEQA. 1 cntd

Subsequent to the Volpe decision more than two decades passed, with at least four more draft EIR's, before the required Environmental Impact Statement and Environmental Impact Report were finalized. In a second lawsuit a United States District Judge in 1999 in South Pasadena et. al. v. Slater et. al., 56 F. Supp. 2d 1106 (USDC Central CA., 1999) issued another injunction against the project because the environmental review by the governmental organizations charged with preparing these instruments was inadequate.

Today, the current volley of histrionics which we see coming from the tunnel proponents represents the third such campaign to extend 710 freeway. And this campaign has culminated in still another inadequate environmental document. The 710 North Draft EIR/EIS and all of the preliminary work which has gone into it have cost Los Angeles County taxpayers well in excess of forty million dollars. These are moneys which have been poorly spent and would have been better devoted to more responsible solutions to Los Angeles County's transportation challenges, as the current SR710 North Project EIR/EIS is a deeply flawed instrument.

The SR-710 Tunnel project currently being touted by the tunnel proponents represents a proposal to extend the 710 freeway in a manner which is now described in the CalTrans Draft EIR/EIS to entail either one or two sixty foot diameter tunnels which will

traverse an underground course through the west San Gabriel Valley for over four and one half miles.

In this current third 710 North freeway campaign SCAG has received a number of comments from the tunnel proponents purporting to support the inclusion of the SR-710 Tunnel Project in the RTP/SCS. However, there is large money driving the proponents of the tunnel. Englander, Knabe and Allen, which in a filing with the Los Angeles City Ethics Commission appears as one the highest grossing lobbying firms in the City, is on the payroll of proponents of the tunnel. And it appears that the inducements of the tunnel have also attracted a number of others who have submitted comments which, in their attempt to advance the tunnel, are contradicted by a number of highly qualified experts concerning the environmental consequences of this project. Unfortunately it is one of those insidious realities that such commentators sometimes appear to be driven more by their own personal interests than those of the general public where their loyalties should more appropriately reside. A number of letters have parroted the following statement: "Most importantly the freeway would significantly improve air quality and reduce cancer risk for the majority of the study area." These people fail to disclose that the United States Environmental Protection Agency has been very critical of the current air quality analysis relating to the tunnel and has called for a supplement to the existing draft EIR/EIS relating to the 710 tunnel because it is inadequate and does not properly address the adverse air quality impacts of this project. Proponents of the tunnel also frequently omit to disclose that both the South Coast Air Quality Management District and learned medical school professors at the Keck School of Medicine have raised serious concerns about the 710 tunnel's effects on air quality. The tunnel proponents also state that: "A freeway tunnel also maximizes mobility and flow of traffic throughout the Los Angeles Region." Actually this assertion is directly at odds with the Duranton and Turner studies which are later referenced herein, as well as the many other traffic studies which are cited in the attachments to this comment letter. So a number of the comments made by the proponents of the 710 tunnel significantly misstate the facts and do not accurately reflect the true impact which the tunnel would predictably cause for the area.

1 cntd

The proponents of the 710 tunnel state that "the freeway tunnel has strong local support and is consistent with voter mandate and local plans." Actually, Southern California is emerging into a new changing transportation paradigm in no small part because of the passage some seven years ago of Measure R. However, the voter mandate was not necessarily motivated by a desire to build irresponsible freeway tunnels but instead the electorate was motivated to develop new modes of urban transportation. Irrespective of what anyone may suggest to the contrary, the average voter never intended Measure R revenues to be used to build more and more freeways. Instead the actual expectations of the people who approved this initiative was to change the transportation landscape of Southern California so that all Los Angeles County could benefit more fully from mass transit projects.

Although some "freeway improvements" were mentioned in passing, it is clear that building an entirely new freeway, such as the SR 710 North, was the last thing the voters had in mind when they passed measure R. The fact that freeway expansion does not

relieve freeway congestion is well established and can be seen in over twenty different well respected transportation studies conducted by transportation experts during the past two decades. Many studies, which will be addressed in the following section, show that freeway expansion simply results in traffic inducement which in turn causes more overcrowding and more freeway congestion. Based on people's long experience with freeway expansion projects the answer to our twenty first century transportation challenges, embraced in Measure R, was never contemplated to be more freeways, but rather, the development of other transportation methodologies.

The 710 Gap Closure (Tunnel) Project was not expressly referenced in the actual ballot measure which was placed on the ballot in front of the voters in the 2008 election. Instead this project was obscurely referenced, along with scores of others, in an attachment, "Attachment A", to an ordinance - Ordinance 08-01 - which, while passed by the Metro Board, was never fully reproduced for the Voters in the Measure A ballot materials.

The official title of Measure R by Metro was "Traffic Relief, Rail Extensions, Reduce Foreign Oil Dependence." Based on all the circumstances associated with Measure R it doesn't appear that freeway expansion was the purpose of the measure at all in the minds of voters. This can be seen in the description which appeared on the original ballot measure, the impartial analysis by the Los Angeles County Counsel and the various ballot arguments presented for and against Measure R, as well as the positions taken by various Los Angeles County cities on the Measure. 1 cntd

If one carefully examines the news articles surrounding Measure R at the time it is clear that the debate centered on a skepticism by the cities in Eastern Los Angeles County that their transit needs would not be addressed and that Measure R monies would predominantly benefit other parts of Los Angeles County. The argument of the Eastern Los Angeles County cities was that Measure R was simply a device designed by Mayor Villaraigosa to build his "subway to the sea", which was not seen as benefiting those in the eastern part of the county.

While the ballot initiative contained some references to freeway traffic flow improvements which might have been directed at improvements in off-ramps and on-ramps, and in freeway flow and freeway interchanges, it was not understood by the average voter to contemplate construction of a whole new freeway. Measure R's purpose, in the mind of the average voter, was to improve mass transit. To the average voter it was intended to free us of the irrational over-congestion of the region's freeway systems and to develop a responsible mass transit paradigm which would serve Los Angeles for generations to come. It's passage represented the hope and the vision of the electorate to free our children and our children's children from the obstructive gridlock and air pollution of congested freeways. SCAG, however, needs to take irresponsible projects such as the SR 710 North tunnel off the table altogether if this hope and this vision is ever to become a reality.

As you are aware the SCAG RTP/SCS PEIR process, among other things, is supposed to provide decision makers and the public with detailed information about how the pursuit of the SCAG RTP/SCS is likely to affect the environment. (See California Public Resources Code Sections 21002, 21002.1(a) and 21061.) I intend to demonstrate in the Draft PEIR discussion which follows, the lack of complete information in the Draft PEIR which should properly be considered to assess impacts of decisions made pursuant to the RTP/SCS, the flawed perspective through which this project would be undertaken if the SR-710 Tunnel Project is ever seriously considered, the perils inherent in underground road tunnels which are not addressed in the Draft PEIR and the availability of other more responsible solutions to transportation challenges for our people who, in the end, are really supposed to be the beneficiaries of SCAG's transportation planning processes. 2

THE DRAFT PEIR FAILS TO APPROPRIATELY ADDRESS FORMS OF TRAFFIC INDUCEMENT AND INDUCED DEMAND WHICH AFFECT FREEWAY EXPANSION PROJECTS

The concept of induced demand is never adequately dealt with in the Draft PEIR for the SCAG RTP/SCS. For more than twenty years traffic engineers and transportation departments have been aware of an ever increasing number of studies which convincingly demonstrate that freeway expansion simply results in traffic inducement which in turn begets greater overcrowding and more significant freeway congestion. This in turn, results in more and greater gridlock into which a greater and greater number of motorists become mired on the now extended freeway system. Based on a long series of empirical studies of freeway expansion projects, transportation experts have consistently concluded that the answer to twenty first century challenges associated with transportation congestion does not lie in expanding our freeways. If there has been any abiding truth which has emerged in the past two decades, it is that you can't build your way out of congestion. It is the expansion of the roads itself which induces greater traffic demand and which thereupon causes more traffic. 3

The concept of induced demand associated with freeway expansion is a concept which is well understood by CalTrans and has been seen again and again in a number of empirical verifications. Induced demand or traffic inducement is simply a somewhat intuitive principle which holds that an increase in the supply and availability of a resource such as a freeway will cause more and more people to shift their decision making to utilize this freeway resource. Though some traffic engineers made note of this phenomenon at least as early as the 1960s, it is only in recent years that social scientists have collected enough data to show how this happens in almost all instances when we build new roads. These findings imply that the way we traditionally go about trying to mitigate traffic congestion through freeway expansion does not work.

In 2011, two economists—Matthew Turner of the University of Toronto and Gilles Duranton of the University of Pennsylvania—published a very definitive and well documented study, which between 1980 and 2000, compared in terms of kilometers, the number of new highways which were built in different U.S. cities and compared this to the 4

total number of kilometers traveled in those cities during the same period. It is probably appropriate that studies of induced demand, like these, are the province of economists because the study of demand for a particular product, service or resource is clearly within their particular area of expertise. These two economists found that there was a perfect correlation between these two variables - that is an elasticity of demand coefficient of 1.0, or virtually a 100% relationship of kilometers of new roads built to additional kilometers traveled by motorists. In other words their study verified that for every kilometer of roads and highways that were built during this period there was a perfectly proportional increase in kilometers traveled by motorists in each city. In every instance these figures changed at the same rate. If a city had increased its road capacity by 10 percent between 1980 and 1990, then the amount of driving in that city went up by 10 percent. If the amount of roads in the same city then went up by a specified percentage between 1990 and 2000, the total number of miles driven also went up by that same specified percentage.

4 cntd

The introductory paragraph from the Duranton and Turner traffic study reads as follows:

> " We investigate the effect of lane kilometers of roads on vehicle-kilometers traveled (VKT) in US cities. VKT increases proportionately to roadway lane kilometers for interstate highways and probably slightly less rapidly for other types of roads. The sources for this extra VKT are increases in driving by current residents, increases in commercial traffic, and migration. Increasing lane kilometers for one type of road diverts little traffic from other types of road. We find no evidence that the provision of public transportation affects VKT. We conclude that increased provision of roads or public transit is unlikely to relieve congestion. " See Duranton. and Turner. 2011. *The Fundamental Law of Road Congestion: Evidence from US Cities.* American Economic Review, 101: 2616-2652. (emphasis added)

However, in addition to the findings in the Duranton and Turner studies, there are numerous other the studies associated with the induced travel phenomenon. It is notable that the CalTrans Draft EIR/EIS indicates that under the Freeway Tunnel Alternative vehicle miles traveled will increase slightly and that the traffic will made up mostly from vehicles diverted from what otherwise would have been trips on surrounding surface streets in the area. The tunnel proponents, referred to earlier, parrot the same thing. However, a substantial number of studies show that this induced demand for freeways arises from new trips not just those which would otherwise have been taken on adjacent surface streets. In 2014 Susan Handy, a professor at the University of California, Davis, and Marlon Boarnet, a professor at the University of Southern California published two articles which compiled the findings concerning traffic inducement in a substantial number of traffic studies over the past two decades. Similarly to the Duranton Turner studies, these transportation studies described the same phenomenon - that freeway expansion creates greater demand for freeway utilization and does nothing to relieve congestion. The Handy - Boarnett analysis pointed out that similar conclusions arise from approximately twenty different studies and that the quality of evidence linking increases in highway capacity to vehicle miles traveled was fairly high:

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> "The quality of the evidence linking highway capacity expansion to VMT increases is

relatively high, although tying changes in VMT to changes in capacity is challenging. The cited studies use time-series data and sophisticated econometric techniques to estimate the effect size. These studies control for other factors that might also affect VMT, including population growth, increases in income, other demographic effects, and changes in transit service." (citing Noland and Lem, 2002). See Susan Handy and Marion G. Boarnet, *Impact of Highway Capacity and Induced Travel on Passenger Vehicle Use and Greenhouse Gas Emissions*, Policy Brief, September 30, 2014, California Air Resource Board.

5 cntd

Because of the importance of these articles in dispelling traditional conceptions about ways to mitigate traffic congestion, both of the Handy - Boarnet articles are set forth on the California Air Resources Board web site. See Handy & Boarnett, Policy Brief at: **http://www.arb.ca.gov/cc/sb375/policies/hwycapacity/highway_capacity_brief.pdf** and Handy & Boarnet, Technical Background Brief at: **http://www.arb.ca.gov/cc/sb375/policies/hwycapacity/highway_capacity_bkgd.pdf** I have attached both of these two short papers as they contain a great deal of information on the harmful environmental impact of freeway expansion which appears to have been overlooked in the SCAG RTP/SCS Draft PEIR.

Relief from traffic congestion is one of the goals which is also touted in the CalTrans Draft EIR/EIS by the freeway tunnel alternative. Yet, from the more than twenty traffic studies during the last twenty years which have been compiled by Professor Handy and Professor Boarnet, the conclusions of the experts in these studies would suggest that traffic congestion will not be relieved by any proposed extension of the SR 710 North. It would be irresponsible for SCAG in its consideration of any freeway project to ignore the conclusions in all of these traffic studies which have consistently found substantial traffic inducement in connection with every freeway expansion.

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THE INCLUSION OF THE SR-710 TUNNEL, EITHER IMPLICITLY OR EXPLICITY, INTO THE SCAG RTP/SCS WOULD BE A SERIOUS MISTAKE. THE PEIR FAILS TO ADDRESS THE SIGNIFICANT IMPACTS WHICH WOULD OCCUR IN THE EVENT OF A CATASTROPHIC TUNNEL BORING MACHINE FAILURE

The SR-710 Tunnel Project which is referenced in the communications to SCAG by the tunnel proponents contemplates the employment of either four separate sixty foot diameter tunnel boring machines in connection with the Dual Bore Tunnel configurations in the CalTrans 710 North DEIR or two such tunnel boring machines with respect to the Single Bore Tunnel configurations in the 710 North DEIR. Despite the fact that these sixty foot diameter tunnel boring machines are prototypes and have never been successfully used anywhere in the world, neither CalTrans nor SCAG makes any allowance for the probable environmental impacts, much less the untoward consequences, which would follow should any one of these such machines suffer a failure. The only tunnel boring machine of similar design and dimension used anywhere in the world is that which is

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currently being employed in connection with the Seattle SR 99 Alaskan Way Viaduct project in the State of Washington.

The Washington Department of Transportation has denominated the SR 99 Alaskan Way Viaduct tunnel boring machine as "Bertha", described on its website as follows:

> "Bertha was shipped from her manufacturing facility in Japan to Seattle in spring 2013. She was then reassembled in an 80-foot-deep pit to the west of Seattle's stadiums. After a series of thorough tests, Bertha was launched into the soils beneath Seattle on July 30, 2013."
> http://www.wsdot.wa.gov/Projects/Viaduct/About/Tunneling

This tunnel boring machine, "Bertha", has suffered serious catastrophic failure and had only proceeded about one thousand feet between the time the Washington tunnel boring operation began in 2013 and the end of 2015. The Washington Department of Transportation has described this failure as follows:

7 cntd

> "In December 2013, STP stopped tunneling approximately 1,000 feet into the tunnel drive after measuring increased temperatures in the tunneling machine. While investigating the cause of the high temperatures, STP discovered damage to the machine's seal system and contamination within the main bearing. STP is working to repair the seal system and replace the main bearing so that crews can resume tunneling." http://www.wsdot.wa.gov/Projects/Viaduct/About/Tunneling
>
> "In summer 2013, Bertha, the world's largest tunneling machine, began digging the SR 99 tunnel beneath downtown Seattle. In December 2013 , Seattle Tunnel Partners, the contracting team hired to design and build the tunnel, stopped excavation approximately 1,000 feet into the dig after measuring increased temperatures in the tunneling machine. While investigating the cause of the high temperatures, STP discovered damage to the machine's seal system and contamination within the main bearing."
> http://www.wsdot.wa.gov/Projects/Viaduct/About/FollowBertha
>
> "Bertha lifted to the surface for repairs
>
> On March 30, 2015, Seattle Tunnel Partners safely placed the front end of the SR 99 tunneling machine on the repair platform located just south of the access pit. The piece - along with three others - was lifted from the 120-foot-deep pit crews built to access and repair the machine. With the necessary pieces now at the surface, STP is making repairs and enhancements. "
> http://www.wsdot.wa.gov/Projects/Viaduct/About/FollowBertha

Tunneling in the Washington Alaskan Way Viaduct project did not resume again until late 2015 and then stopped again. While the same unprecedented large tunnel boring machines, having the same "Bertha" design, are slated to be employed for the SR-710

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Tunnel project, nothing in the SCAG RTP/SCS or the Draft PEIR ever attempts to determine the affects which such a failure would cause should it occur with respect to the tunnel boring machines which are contemplated to be used here. It is unlikely that a catastrophic failure due to conditions in the shield of these tunnel boring machines could be remedied from underground because of safety concerns for the affected workers. Because of overriding considerations for worker safety such a tunnel boring machine rescue would have to be undertaken by way of excavation from above.

California Labor Code Section 6401 provides:

> "Every employer shall furnish and use safety devices and safeguards, and shall adopt and use practices, means, methods, operations, and processes which are reasonably adequate to render such employment and place of employment safe and healthful. Every employer shall do every other thing reasonably necessary to protect the life, safety, and health of employees."

8 cntd

California Labor Code Section 6403 provides:

> "No employer shall fail or neglect to do any of the following:
> (a) To provide and use safety devices and safeguards reasonably adequate to render the employment and place of employment safe.
> (b) To adopt and use methods and processes reasonably adequate to render the employment and place of employment safe.
> (c) To do every other thing reasonably necessary to protect the life, safety, and health of employees."

Title 8 Section 8410 (a) of the California Code of Regulations, which is part of the California Tunnel Safety Orders promulgated by the State of California Division of Industrial Safety, provides that "The employer shall ensure that every reasonable effort is taken for the safety of employees, whether or not provided for in these orders."

There is a very significant likelihood that OSHA requirements, tunnel safety orders and the provisions of Title 8 of the California Code of Regulation would require that any rescue of a failed tunnel boring machine be effectuated by means of a fully shored excavation from above, as occurred in Washington. Despite this it does not appear that SCAG, in preparing the RTP/SCS or the Draft PEIR, ever attempted to assess how such an event would impact resources and structures on the surface. Although this would have catastrophic consequences for resources on the surface there is no mention of this, and no mention is made as to how such an eventuality would be dealt with.

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It needs to be emphasized that the prospect of a tunnel boring machine failure with respect to this project is more than a speculative possibility. It has already happened with respect to the only other tunnel boring machine in the world similar to those which are being proposed for the SR-710 Tunnel Project. The machines contemplated with respect

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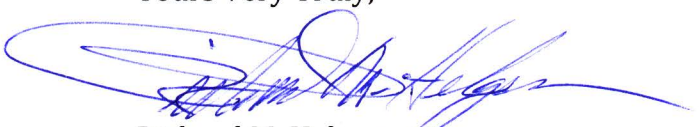
to the 710 Freeway Tunnel Project are prototypes and have no record of any operating history other than that associated with the catastrophic failure which occurred in connection with the Seattle, Washington Alaskan Way Viaduct project. The environmental and economic consequences of such a failure should counsel a more responsible transportation solution than attempting the SR-710 tunnel. 10 cntd

GIVEN WHAT HAS BEEN SET FORTH HERE,
THERE ARE MUCH MORE DESERVING TRANSPORTATION PROJECTS
THAN THE SR-710 FREEWAY TUNNEL

In 2011 the Second Appellate District of the California Court of Appeal handed down a decision which explained that Measure R did not necessarily commit Metro to those items listed as "potential projects" in Attachment A of the Metro ordinance passed in advance of Measure R. (See *City of South Pasadena et. al. et al., Plaintiffs and Appellants, v. Los Angeles County Metropolitan Transportation Authority, Defendant and Respondent; California Department of Transportation, Real Party in Interest.* California Court of Appeals, Second District, Division Six, 2d Civil No. B221118 (2011). In light of this SCAG should be guided by the reality that construction of a 710 tunnel through the West San Gabriel Valley would represent a project fraught with substantial uncertainty and danger, and that there are wiser and more compelling transportation solutions to which our limited resources should appropriately be devoted. 11

The numerous traffic studies compiled by Susan Handy and Marion Boarnet illustrate that little will be accomplished in terms of reducing induced demand or traffic congestion by the proposed expansion of the 710 Freeway through the SR-710 Tunnel Project. And if one seriously considers the enormous environmental and financial risks this project poses, there are far better solutions to traffic congestion in Los Angeles County which are represented in extensions of the Gold Line, the Purple Line, the Crenshaw Line and other mass transit projects that would better serve our twenty-first century transportation needs, than to burrow a freeway tunnel through the bowels of the West San Gabriel Valley. Given the environmental consequences of the SR-710 Freeway Tunnel our limited transportation resources should be better used for worthwhile twenty-first century Los Angeles County transportation projects and not the SR-710 Freeway Tunnel. 12

Yours Very Truly,



Richard M. Helgeson

Attachments

Impact of Highway Capacity and Induced Travel on Passenger Vehicle Use and Greenhouse Gas Emissions

Policy Brief

Susan Handy, University of California, Davis
Marlon G. Boarnet, University of Southern California

September 30, 2014

Policy Brief:
http://www.arb.ca.gov/cc/sb375/policies/hwycapacity/highway_capacity_brief.pdf

Technical Background Document:
http://www.arb.ca.gov/cc/sb375/policies/hwycapacity/highway_capacity_bkgd.pdf

California Environmental Protection Agency
Air Resources Board

Policy Brief on the Impact of Highway Capacity and Induced Travel on Passenger Vehicle Use and Greenhouse Gas Emissions

Susan Handy, University of California, Davis
Marlon G. Boarnet, University of Southern California

Policy Description

Because stop-and-go traffic reduces fuel efficiency and increases greenhouse gas (GHG) emissions, strategies to reduce traffic congestion are sometimes proposed as effective ways to also reduce GHG emissions. Although transportation system management (TSM) strategies are one approach to alleviating traffic congestion,[1] traffic congestion has traditionally been addressed through the expansion of roadway vehicle capacity, defined as the maximum possible number of vehicles passing a point on the roadway per hour. Capacity expansion can take the form of the construction of entirely new roadways, the addition of lanes to existing roadways, or the upgrade of existing highways to controlled-access freeways.

One concern with this strategy is that the additional capacity may lead to additional vehicle travel. The basic economic principles of supply and demand explain this phenomenon: adding capacity decreases travel time, in effect lowering the "price" of driving; when prices go down, the quantity of driving goes up (Noland and Lem, 2002). An increase in vehicle miles traveled (VMT) attributable to increases in capacity is called "induced travel." Any induced travel that occurs reduces the effectiveness of capacity expansion as a strategy for alleviating traffic congestion and offsets any reductions in GHG emissions that would result from reduced congestion. If the percentage increase in VMT matches the percentage increase in capacity, congestion (a function of the ratio of VMT to capacity) is not alleviated at all.

Conversely, some communities have decreased roadway capacity, in part motivated by the goal of reducing VMT. While temporary reductions in highway capacity are common (e.g. through the closure of lanes for construction or emergencies), permanent reductions are relatively rare. San Francisco eventually removed two elevated freeway segments damaged in the 1989 Loma Prieta earthquake, replacing them with street-level boulevards. Many European cities have closed selected streets in their

[1] See the separate policy brief on traffic incident clearance programs: http://arb.ca.gov/cc/sb375/policies/policies.htm

commercial cores to car traffic. This strategy is less common in U.S. cities, but one notable example is the recent elimination of vehicle traffic in Times Square in New York City. Increasingly common in the U.S. are "road diet" projects that re-allocate a portion of the public right-of-way for modes other than cars, though such projects do not necessarily decrease the capacity of the roadway as measured by vehicle throughput.

Impacts of Highway Capacity Expansion

Increased highway capacity can lead to increased VMT in the short run in several ways: if people shift from other modes to driving, if drivers make longer trips (by choosing longer routes and/or more distant destinations), or if drivers make more frequent trips (Noland and Lem, 2002; Gorham, 2009; Litman, 2010). Longer-term effects may also occur if households and businesses move to more distant locations or if development patterns become more dispersed in response to the capacity increase. Capacity expansion can lead to increases in commercial traffic as well as passenger travel (Duranton and Turner, 2011).

The induced-travel impact of capacity expansion is generally measured with respect to the change in VMT that results from an increase in lane miles, determined by the length of a road segment and its number of lanes (e.g. a two mile segment of a four-lane highway equates to eight lane miles). Effect sizes are usually presented as the ratio of the percent change in VMT associated with a one percent change in lane miles. The expectation is that this ratio, also called an "elasticity," will be positive: an increase in lane miles will lead to an increase in VMT. An elasticity of 1 or greater means that the new capacity is entirely filled by additional VMT, producing no reduction in congestion or GHG emissions; for elasticities between 0 and 1, the closer the elasticity is to zero, the smaller the increase in VMT relative to the increase in capacity, and thus the greater the reduction in congestion and GHG emissions.

Impacts are also sometimes measured as the change in VMT associated with the change in travel time (that results from the change in highway capacity). Many studies analyze the change in the number of vehicles per day on that road segment (a metric called "average daily traffic"). No studies focused on travel time or average daily traffic are included here.

Effect Size

Studies consistently show that increased capacity induces additional VMT. Elasticity estimates of the short-run effect of increased highway capacity range from 0.3 to 0.6,

though one study produced a lower estimate of 0.1 (Table 1). Estimates of the long-run effect of increased highway capacity are considerably higher, mostly falling into the range from 0.6 to just over 1.0. The more recent studies have produced the highest estimates of long-run elasticities using more sophisticated methodologies that are better able to illuminate the impact of highway capacity on VMT (as discussed in the accompanying Technical Background Document). Thus, the best estimate for the long-run effect of highway capacity on VMT is an elasticity close to 1.0, implying that in congested metropolitan areas, adding new capacity to the existing system of limited-access highways is unlikely to reduce congestion or associated GHG in the long-run.

Table 1. Impact of Capacity Expansion on VMT

Study	Study location	Study year(s)	Results	
			Change in VMT/ change in lane miles	*Time period*
Duranton and Turner, 2011	U.S.	1983 - 2003	1.03	10 years
Cervero, 2003	California	1980 - 1994	0.10	Short term
			0.39	Long term
Cervero and Hansen, 2002	California	1976 - 1997	0.59	Short term (1 year)
			0.79	Intermediate term (5 years)
Noland, 2001	U.S.	1984 - 1996	0.30 to 0.60	Short term
			0.70 to 1.00	Long term
Noland and Cowart, 2000	U.S.	1982 - 1996	0.28	Short term
			0.90	Long term
Hansen and Huang, 1997	California	1973 - 1990	0.20	Short term
			0.60 to 0.70	Long term – counties
			0.90	Long term – metro areas

Even the earlier studies were skeptical about the potential of capacity expansion to reduce VMT, particularly in the long-run. In 1997, Hansen and Huang found that population growth is the most consistent contributor to VMT growth, but that the contribution from increases in lane miles is significant: "...Our results suggest that the urban [state highway lane miles] added since 1970 have, on the whole, yielded little in the way of level of service improvements." Noland (2001) concluded that "Increased capacity clearly increases vehicle miles of travel beyond any short run congestion relief

that may be obtained." More recently, Duranton and Turner (2011) echoed these earlier studies: "We conclude that increased provision of roads... is unlikely to relieve congestion."
The effect size appears to depend on the size (whether in terms of population or geographic extent) of the metropolitan area. On a percentage basis, the effects are larger for smaller areas (Schiffer, et al. 2005), likely for a number of reasons. In smaller areas, capacity increases are likely to represent larger percentage increases in total capacity, which then produce larger percentage increases in VMT (Noland and Cowart, 2000). Note that the amount (rather than the percentage) of induced travel is likely to be greater in larger areas than in smaller areas (Hansen and Huang, 1997).

Other factors may also influence the effect size. As noted above, the effect is larger in the long-run than in the short-run, with one study concluding that the full impact of capacity expansion on VMT materializes within five years (Hansen and Huang, 1997) and another concluding that the full effect takes as long as ten years (Durantan and Turner, 2011). The level of congestion is important, as capacity expansion will produce a larger reduction in travel time and thus a larger increase in VMT when congestion is high than when it is low and driving speeds are unconstrained (Schiffer, et al. 2005). In addition, the effect size may depend on fuel prices: when fuel prices are lower, the induced travel effects of expanded capacity tend to be higher, as travel time is a greater share of the cost of travel in this situation (Noland and Lem, 2002). Whether the form of capacity expansion (i.e. new roads or expanded roads) matters is not clear (Schiffer, et al., 2005).

An important question is whether increased VMT on highways following capacity expansion is partially offset by decreases in VMT on other roads. This would be the case if drivers shifted from slower and more congested roads to the new or newly expanded highways. However, Hansen and Huang (1997) found "no conclusive evidence that increases in state highway lane-miles have affected traffic on other roads," while more recently Duranton and Turner (2011) concluded that "increasing lane kilometers for one type of road diverts little traffic from other types of road." In other words, capacity expansion leads to a net increase in VMT, not simply a shifting of VMT from one road to another.

Another important question is whether increased highway capacity impacts public transit ridership, or vice versa. The potential interactions are complex. Increased highway capacity could lead public transit riders to shift to driving, thereby contributing to the induced travel effect. Conversely, increased public transit service could entice drivers to replace some driving with public transit, thereby reducing highway traffic and in effect freeing up additional capacity that could then lead to induced traffic. Duranton and

Turner (2011) found no evidence that public transit service affects VMT, suggesting that whatever interactions do occur tend to cancel each other out. In other words, adding transit capacity does not help to reduce congestion, as any freed up capacity is consumed by additional driving.

As noted, some communities have decreased roadway capacity, in part motivated by the goal of reducing VMT. Evidence on the effects of roadway removals or capacity decreases is sparse, however. A 1998 study of 60 locations where road space was taken away from cars in the UK, Canada, Tasmania, and Japan found that, on average, 25 percent of VMT seemed to go away, though the effect size varied widely (Goodwin, et al. 1998). A study of a fourteen-month closure of an important bridge in Calgary, Canada found only a small reduction in trips and little change in behavior with respect to mode (Hunt et al., 2001). Researchers also found limited changes in behavior during the temporary closing for construction of a stretch of Interstate 5 through downtown Sacramento in 2008 (Ye et al., 2012). Studies of the removal of the Central Freeway in San Francisco documented a significant drop in traffic: counts on the boulevard that replaced the freeway were roughly 50 percent less than counts on the freeway (Cervero et al., 2009). Effects on VMT rather than traffic counts have not been assessed.

Evidence Quality

The quality of the evidence linking highway capacity expansion to VMT increases is relatively high, although tying changes in VMT to changes in capacity is challenging. The cited studies use time-series data and sophisticated econometric techniques to estimate the effect size. These studies control for other factors that might also affect VMT, including population growth, increases in income, other demographic effects, and changes in transit service (Noland and Lem, 2002).

Although these studies show a strong correlation between capacity increases and increases in VMT, the direction of causality is an important question in that the anticipation of growth in VMT is generally the rationale for capacity expansion. One study showed that a 10 percent increase in VMT is associated with a 3.3 percent increase in lane-miles (Cervero and Hansen, 2002). However, Fulton, et al. (2000) found that growth in lane-miles precedes growth in VMT, and Duranton and Turner (2011) concluded that "roads are assigned to [metropolitan areas] with little or no regard for the prevailing level of traffic." The cited studies have found a significant influence of capacity expansion on VMT even after accounting for the reverse effect.

Caveats

Many of the studies focus on California, and the results for these studies are similar to those for the national studies, suggesting that the effects are relatively uniform across the U.S. However, as noted above, the effect size may depend on size of the metropolitan area, existing levels of congestion, and fuel prices, and it is likely to be higher in the long run than in the short run.

GHG Emissions

The effect of capacity expansion on GHG emissions depends on two competing effects: the increase in VMT (which increases GHG emissions), and the reduction in traffic congestion (which tends to decrease GHG emissions). As noted above, any induced travel that occurs reduces the effectiveness of capacity expansion as a strategy for alleviating traffic congestion and offsets any reductions in GHG emissions that would result from improved traffic flow. Noland (2001) predicted that the growth in VMT attributable to increased lane miles would produce an additional 43 million metric tons of CO_2 emissions in 2012 nationwide. Conversely, any reductions in VMT resulting from reductions in capacity will reduce GHG emissions, though if traffic congestion increases as a result of the capacity reduction, the benefits will be offset to some degree.

Co-benefits

Given the induced travel effect, capacity expansion has limited potential as a strategy for reducing congestion. The additional vehicle travel induced by capacity expansion increases GHG emissions as well as other environmental effects, including increased air, water, and noise pollution. On the other hand, capacity expansion potentially generates economic and social benefits, at least in the short run, even if the new capacity is completely filled by induced travel. The additional benefits derive from the fact that the expanded highway is carrying more people, each of whom benefits from his or her travel. However, most studies of the impact of capacity expansion on development in a metropolitan region find no net increase in employment or other economic activity, though highway investments do influence where within a region development occurs (Handy, 2005; Funderberg et al., 2010).

In addition, the construction process itself generates both positive and negative effects. Most obviously, highway construction projects create jobs that can boost the local economy. On the other hand, highway construction projects often have substantial negative effects on the communities through which they are sited, particularly if construction necessitates the removal of homes or businesses. Historically, low-income

and/or minority communities were and continue to be disproportionately affected by such projects.

In contrast, reductions in road capacity tend to produce positive social and environmental effects, and they can also generate economic benefits. For example, many cities in Europe have adopted the strategy of closing streets in the central business district to vehicle traffic as an approach to economic revitalization (Hajdu, 1988; Rodriguez, 2011). Road diet projects are becoming increasingly popular in California and elsewhere in the U.S. as a way to support modes other than driving and enhance the local environment, though their economic impacts have not yet been systematically documented.

Examples

California continues to expand its highway system, though at a far slower rate than during the era of interstate highway construction. According to the national Bureau of Transportation Statistics, California had 31,435 miles of freeways, highways, and arterial roadways in 2010, a 1.6 percent increase from 2005.

As noted above, San Francisco removed two segments of elevated freeway damaged in the 1989 Loma Prieta earthquake. The Central Freeway was replaced with Octavia Boulevard, while the removal of the Embarcadero Freeway enabled substantial improvements to the at-grade Embarcadero Boulevard. Both projects sparked an on-going revitalization of their surrounding areas (Cervero, et al. 2009).

The strategy of closing central business district streets to car traffic is uncommon in California but not unknown. Cities in California that have or have had "pedestrian malls" include Burbank, Oxnard, Pomona, Redding, Redlands, Sacramento, and Santa Cruz. The Fulton Mall in downtown Fresno, closed to traffic in the 1960s, has struggled, despite several revitalization efforts. In contrast, Santa Monica's Third Street Promenade, closed to traffic in the 1960s, is widely seen as a success in promoting economic activity and creating a thriving community core.

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Impact of Highway Capacity and Induced Travel on Passenger Vehicle Use and Greenhouse Gas Emissions

Technical Background Document

Susan Handy, University of California, Davis
Marlon G. Boarnet, University of Southern California

September 30, 2014

Policy Brief:
http://www.arb.ca.gov/cc/sb375/policies/hwycapacity/highway_capacity_brief.pdf

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California Environmental Protection Agency
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Technical Background Document on the Impact of Highway Capacity and Induced Travel on Passenger Vehicle Use and Greenhouse Gas Emissions

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Study Selection

Research on the effects of highway capacity expansion on vehicle travel focuses on the "induced travel" effect. Induced travel is defined as the increase in vehicle travel that occurs because of capacity expansion. The primary mechanism underlying this effect is an increase in travel speed, which enables more trips and longer distance trips in a given amount of time.

Although research on this topic goes back several decades, a surge of studies in the late 1990s and early 2000s, many focused on California, produced relatively consistent results using somewhat different methods. Included in the accompanying *Policy Brief on the Impact of Highway Capacity and Induced Travel on Passenger Vehicle Use and Greenhouse Gas Emissions* are studies from California and the U.S. that focus on effects on vehicle-miles traveled (VMT) and that control for factors other than capacity expansion that influence VMT. Six studies published between 1997 and 2011 were included (see Table 1). The brief excludes studies that focused on traffic counts or average daily traffic (ADT) (e.g. Mokhtarian et al. 2002) or on the relationship between VMT and changes in travel time (i.e. travel-time elasticities) (e.g. Barr, 2000), as they do not have a direct relationship with greenhouse gas emissions.

No systematic studies of the effect on VMT of permanent capacity reductions in the U.S. were identified. Hunt et al. (2002) describe the challenges associated with studying the effects of permanent capacity reductions.

Methodological Considerations

The six selected studies all use a combined cross-sectional and time-series approach with aggregate data, though with different units of analysis (Table 1). Several studies analyze effects at the level of metropolitan regions (e.g. Noland and Cowart, 2000; Hansen and Huang, 1999) or counties (e.g. Cervero and Hansen, 2001 and 2002; Hansen and Huang, 1999). One study analyzes effects at the state level (Noland, 2001), while another examines effects for projects (Cervero, 2003). Region- or county-level analysis may be most effective in capturing the effect of the shifting of travel from

one roadway to another in determining the net effect of capacity expansions (Cervero and Hansen, 2002).

Table 1. Descriptions of Selected Studies

Study	Study location and years	Unit of analysis and sample Roadway types	Method	Dept Var	Indept Var	Fixed effects	Instru-ments	Controls	Lags
Duranton and Turner, 2011	US 1983 – 2003	Metro Areas: 192 MSAs with urban interstates at three time points Interstate Highways	Multiple models. Final model: Two-stage least-squares regression with instrumental variables	VKT	Lane km	Decade	Historic routes	Population, geographic variables, census division variables,	n/a
Cervero, 2003	California 1980 - 1994	Freeway projects: 24 projects at 15 time points Projects in small- and medium-sized cities in suburban areas	Path model accounting for speed and development as mediating variables	VMT	Lane miles	Project Year	n/a	Population density, employment density, race/ethnicity	7-8 years
Cervero and Hansen, 2002	California 1976 - 1997	Counties: 34 urban counties at 22 time points State-owned roadways	Multiple models: simultaneous equation analysis (three-state least squared regression); distributed lag model	VMT	Lane miles	County	n/a	Population, income per capita, fuel price, employment density	1 to 5 years
Noland, 2001	US 1984-1996	States: 50 states at 13 time points All roadway types as reported by US DOT in *Highway Statistics*	Multiple models: fixed-effects ordinary least squares models, distributed lag models; for all roads and disaggregated by road type	VMT	Lane miles per capita	State	n/a	Population, income per capita, fuel cost	2 and 5 years
Noland and Cowart, 2000	US 1982 - 1996	Metro areas: 70 areas at 15 time points Freeways and arterials	Multiple models: distributed lag model, two-stage least-squares regression with instrumental variables	VMT per capita	Lane miles per capita	Metro area Year	Urbanized land area, population density	Population density, income per capita, fuel cost	1 year
Hansen and Huang, 1997	California 1973 – 1990	Counties: 30 counties at 19 time points Metro areas: 14 metro areas at 19 time points State-owned highways	Multiple models: fixed-effects ordinary least square models, distributed lag models with fixed effects	VMT	Lane miles	County/ metro area Year	n/a	Population, population density, income per capita, fuel price	2 and 4 years

The dependent variable in most studies is vehicle-miles of travel (VMT), though one study uses VMT per capita (Noland and Cowart, 2002) and one uses vehicle-kilometers of travel (VKT) (Duranton and Turner, 2011). Similarly, capacity is measured as lane miles, lane miles per capita (Noland and Coward, 2000; Noland, 2001), or lane kilometers (Duranton and Turner, 2011). Most studies focus on state-owned or maintained highways (including federal highways as well as state highways), but the Duranton and Turner (2011) study includes only interstate highways, and Noland (2001) uses data for all roadway types. In all cases, the log or natural log of both VMT and lane miles are used in estimating the statistical model, so that the coefficient for lane miles is equivalent to the elasticity of VMT with respect to lane miles.

The studies employ similar econometric techniques in estimating statistical models, though with notable variations, as described in more detail below. All six studies pool data for multiple places and points in time and then estimate models with fixed effects for geography and/or for time. Including fixed effects in the model (in the form of a dummy variable for geography or time) compensates for the lack of information on all of the factors that might influence VMT. The models generally control for factors other than capacity expansion that may influence changes in VMT, such as population, income per capita, and fuel price.

However, the studies use different approaches to addressing simultaneity bias, the possibility that VMT growth causes capacity expansions at the same time that capacity expansions cause VMT growth. Most common is the use of two-state least squares regression with instrumental variables (Noland and Cowart 2000; Duranton and Turner 2011). This approach involves "instrumenting" the independent variable of interest (i.e. lane miles) with an estimator based on exogenous variables that do not directly affect the dependent variable (i.e. VMT) (Hansen and Huang, 1997). For example, Duranton and Turner (2011) use three instrumental variables: miles of routes of major expeditions of exploration between 1835 and 1850, major rail routes in 1898, and proposed routes of interstate highways in preliminary plans. The analysis used these three variables to predict lane kilometers in cities, then used this estimate in a second equation to predict the effect of road capacity on VMT. Finding appropriate instrumental variables for which data are available is challenging, however (Hansen and Huang, 1997; Duranton and Turner, 2011).

Several other methods to address simultaneity bias have also been used. Cervero and Hansen (2002) estimated simultaneous equation models (equivalent to a three-stage least squares model) to account for the bi-directional relationship between capacity expansion and VMT. They also used a Granger test of time precedence to further

confirm that capacity expansion precedes VMT growth, but VMT growth also precedes capacity expansion.

The question of short-term versus long-term effects is addressed in some studies through the inclusion of lagged effects in the models (e.g. Cervero and Hansen, 2002). "Lagged effects" refers to the lag between the timing of the capacity expansion and the timing of the observed effect. In the studies reviewed, the lags range from 1 year to 8 years, with lags of 1 to 2 years considered "short term" and lags of 4 years or more considered "long term." Cervero (2003) used a path model to demonstrate both short-term effects resulting from increases in travel speed and long-term effects resulting from impacts of capacity expansion on speed as well as development patterns. Distributed lag models were used in several studies to estimate long-term elasticities (Noland and Cowart, 2000; Noland, 2001; Hansen and Huang, 1997). In this approach, VMT per capita lagged by one year is included in the model as an independent variable; the coefficient for lagged VMT is then used to adjust the short-term elasticity (as represented by coefficient for unlagged VMT) to get a long-term elasticity. Hansen and Huang (1997) tested several different lag periods and found that a two-year lag was appropriate for counties, while a four-year lag was appropriate at the metropolitan level.

Notable aspects of specific studies (starting with the most recent study) are as follows:

Duranton and Turner (2011): This study uses data for metropolitan regions in the U.S. at three points in time. Similar to other studies, this study used two-stage least squares regression with instrumental variables, but the use of the three instrumental variables described above overcomes problems with those used by other researchers, according to the authors. Through a multitude of analyses, this study provides estimates of the effect of increasing capacity for one road type on other road types and examines the relationship between vehicle travel and public transit service. The analysis controls for population, physical geography, and census division indicators.

Cervero (2003): This study focuses on freeway expansion projects that occurred in small- to medium-size cities in suburban settings in California. The analysis uses a path model structured according to a proposed conceptual model that accounts for the mechanisms by which capacity expansion leads to increased VMT: increases in speed, and changes in development patterns. The estimated elasticity in the short term (0.10) is the product of the change in speed relative to the change in lane miles (0.42) and the change in VMT relative to the change in speed (0.24). The estimated elasticity in the long term (0.39) is the sum of the effect from lane miles to speed to VMT (0.25), the effect from lane miles to speed to development to VMT (0.07) and the effect from lane miles to development to VMT (0.07). The author argues that the estimated elasticities

are smaller than estimates in other studies because not all speed improvements are attributable to capacity expansion.

Cervero and Hansen (2002): This study used 22 years of observations for 34 urban counties in California. The analysis employed simultaneous equation modeling with both induced travel demand (VMT) and induced road investment (i.e. supply, measured as lane-miles) as endogenous variables in order to account for their reciprocal relationship. The analysis examined different lagged structures to account for the fact that effects are not instantaneous for either supply or demand. The analysis controlled for operating cost and gas prices, county population, population by race, population and employment density, personal income, average fuel efficiency, geography/weather, air quality, and political party affiliations. Fixed-effects for time were not included in the model, as the inclusion of population, which increased steadily over the study period in California, serves a similar role, according to the authors. The findings showed strong reciprocal relationships between road investment and travel demand, but the elasticity estimates were similar to those from previous single-equation studies.

Noland (2001): This study is unique in analyzing effects at the state level. As a measure of capacity, this study used lane-miles per capita rather than lane-miles, to account for the wide variation in population by state. In addition to a fixed-effects ordinary least squares model, the study employed distributed lag models, in which one-year lagged VMT per capita was included as an independent variable in the model. The study also disaggregated the analysis by road type, e.g. whether interstate, arterial, or collector, and whether urban or rural. The seemingly unrelated regression method was used to account for the interrelationships between VMT on various road types, including urban versus rural roadways. The study controlled for state population, per capita income, and cost per energy unit of gasoline.

Noland and Cowart (2000): This study analyzed VMT per capita as a function of lane miles per capita, the latter a proxy for traffic congestion and thus travel time. In calculating the elasticity (the ratio of the change in VMT per capita to the change in lane miles per capita) based on this model, the "per capita" element cancels out, leaving an elasticity equivalent to those of other studies. The elasticities reported in the brief are from the distributed lag model. The study also estimated two-stage least squares regression models with urbanized area and population density as instrumental variables, but the authors concluded that these instruments were less than ideal. The study controlled for population density, income per capita, and fuel cost.

Hansen and Huang (1997): This study focused on counties and on metropolitan areas in California but examined VMT on state highways only. The study estimated fixed-

effects models using ordinary least squares regression as well as the Prais and Winsten method. In addition, distributed lag models with fixed effects were estimated, and several different lag periods were tested. The study did not use two-stage regression with instrumental variables, as the researchers could not identify appropriate instruments for which data were available. The analysis controlled for population and personal income per capita.

A seventh study was considered for inclusion in the brief. Fulton, et al. (2000) used an approach similar to Noland and Cowart (2000) and Duranton and Turner (2011) in a study of the induced travel effect in counties in the mid-Atlantic region. However, this study used growth in lane miles over two or three years as the instrument for current (one-year) growth in lane-miles, arguing that "this variable is both highly correlated with the growth in lane miles and not correlated with the growth in VMT." Given the tenuousness of this assumption, this study was excluded from the brief. The effect size estimated in this study falls within the range of estimates from the other studies, however.

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Acknowledgements

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Comment Letter No. 70

Lijin Sun

From: robert dale <robertdaleplanning@yahoo.com>
Sent: Friday, January 22, 2016 2:41 PM
To: 2016 RTP/SCS; 2016 PEIR; Angela Lindstrom; Shawn Nelson; Bill Ballinger; Barbara Ballinger; Carl Nelson; Carlos Jaramillo; Chamber; Chris Johansen; Chuck Buck; Cliff Kaiser; Dave Larson; David Whiting; Debbie Presley; Douglas Cox; Dr. David Nilson; Jeff Dickman; Teri Daxon; davidd@lahabracity.com; Jack Miller; Kitty Ernie Zoeter; ecarpenter@octa.net; Fullerton Observer; Shirley Gregg; Jim Gomez; sue gaede; heather mcRea; Chris Johansen; James Odling; Jean Watt; Sadro, Jim; Angela Lindstrom; Jim Brewer; Lahabrajournal News; Lou Salazar; Lynton Hurdle; Amir Mozayeny; Mike Foley; Schlotterbeck, Melanie; Nord, Gregory; Lahabrajournal News; Nelson Wong; Nicole Panza; Debbie Presley; Claire Schlotterbeck; Theresa Sears; sfailla@lahabraca.gov; Thy Vo; TheTracks@cityofbrea.net; Alan Thompson; tory@trwengineering.com
Subject: Public comments, SCAG 2016 Regional Transportation Plan (RTP) and Sustainable Community Strategy (SCS)

1/22/16

To: Southern California Association of Governments (SCAG)

Re: Public comments, 2016 Regional Transportation Plan (RTP) and Sustainable Community Strategy (SCS) and the Program Environmental Impact Report (PEIR).

Dear SCAG

Thank you for the opportunity to comment on the Southern California Association of Governments (SCAG) 2016 Regional Transportation Plan (RTP) and **Sustainable Community Strategy (SCS**) and the Program Environmental Impact Report (PEIR). Following the release of the 2012 RTP/SCS, Friends of Harbors, Beaches and Parks (FHBP) coordinated a cross-county regional conservation coalition focused on the inclusion of natural lands mitigation and policies within that SCAG plan. Our organization, "La Habra 2025" is now a part of this growing coalition in 2016.

La Habra 2025 works in Orange County and has since 2000. Our mission is to encourage citizen participation & visionary planning of the La Habra area. We have had important successes since our inception including planting 1000 trees to help replace 4000 missing municipal trees.

The 2012 RTP/SCS provided an important stepping stone for the 2016 Plan. In previous Plans, natural lands and farmlands were handled under the banner of "land use." In this new Plan, however, they are their own category. This is a great milestone in conservation planning for the region and SCAG. Additionally, the creation of a Natural and Farmlands Appendix provides important opportunities for SCAG that shouldn't be overlooked. We believe the opportunity before you isn't to "plan for" the future of open space in the region—as that's what you've been doing since the 2012 Plan. Instead, we believe SCAG can now start "implementing" a regional conservation program. **We strongly urge SCAG to take a more serious leadership role by actively seeking funding to implement conservation efforts** by partnering with agencies, transportation commissions and non-profits to see that the Plan created in 2012 comes to fruition through the 2016 Plan. The One Bay Area Grant Program in Northern California is a program that we believe can be replicated in Southern California. We and other coalition members would gladly assist with this implementation effort. 1

We've reviewed the RTP/SCS and PEIR and offer the following comments and suggestions for inclusion in the Plan with the intent to clarify/strengthen the language, as well as link the goals of the RTP and SCAG's mission with the Natural and Farmland policies.

Population Growth Impacts to Existing and Future Parklands

The Plan outlines that the region anticipates an additional 3.8 million people by 2040 providing increased pressure on our existing parkland. Studies document that many communities in the Southern California region already do not have enough parkland as outlined by the **Quimby Act (3 acres per 1,000 residents**). **The City of La Habra is 100 acres short of meeting its, "2.5 acres of parkland per 1000 people", General Plan requirement. Now is the time to acquire more regional open-space.**
In the future, these regional parks will become even more valuable.

Throughout the document, the Plan promotes providing more access to these existing parks as infill projects are built, but nowhere does it state how additional parks will be created. The mechanism is missing. More importantly, these city parks are fundamentally different than habitat-focused parks. Usually city and regional parks include high intensity recreation oriented activities, like soccer and baseball fields, and are turfed. The types of land acquired as mitigation or through local conservation efforts typically are focused on preservation of natural habitat and less intensive uses (birding, hiking, etc.). In fact, many of these mitigation lands have limited or managed public access. Providing "more" access to either high or low intensity parks and/or habitat lands may have significant consequences for the land manager. The document needs to address the impacts to local parks with increased access from expanding populations. The document also needs to address how additional lands will be protected, i.e., what mechanism will be used? 2

SCAG's Support of Regional Wildlife Corridors

The current federal transportation bill, FAST Act, supports understanding transportation impacts on natural resources. The previous bill, MAP-21, supported restoring and maintaining environmental functions (i.e., wildlife corridors) affected by the infrastructure projects in the RTP. SCAG has even supported efforts in Los Angeles County to create a wildlife corridor over the 101 Freeway. Many efforts are underway across the region to connect landscapes to one another. This is very important to the region and its biodiversity. Wildlife corridors allow species to migrate and forage and expand genetic diversity. These corridors also allow ecosystems to maintain ecological functions, act as sources for repopulation after natural disasters such as fire, flood or landslide, and improve the resiliency in the face of climate change impacts. The Plan would be stronger if it supported the enhancement of and/or protection of documented and regionally significant wildlife corridors, especially those that are impacted by infrastructure projects. 3

Regional Bike Trails

Now is the time for a "Regional Bike Trail System Implementation Plan". 4

Thank you for reviewing our comments and we look forward to working with SCAG on the implementation of this Plan, especially as it relates to the Natural and Farmlands Appendix. In addition, we request to be included on any notifications (electronic or otherwise) about this policy's creation and implementation, please send information to RobertDalePlanning@Yahoo.com

Sincerely,
Robert Dale
La Habra 2025
RobertDalePlanning@Yahoo.com
1401 Sierra Vista Dr.

La Habra, CA 90631

Comment Letter No. 71

Submitter	Affiliation (Submitter)	Comment	
Ronald Stein	PTS Staffing Solutions 1/13/2016 11:43 AM	Comments on the RTP SCS draft. To continue our efforts to minimize the world's greenhouse gases, we need to work with the Oil Infrastructure that serves the 38 million on the California's "energy island". The unintended consequences of CARB's over regulations on the oil infrastructure industry are that when other states or countries opt to make the California boutique fuels, we would have an option to import our crude oil, transportation fuels, and jet fuels from other states or countries that have significantly less environmental controls. Thus, Imports would increase, not decrease, the world's greenhouse gas emissions, and further raise the costs to deliver our transportation fuels from afar. The report should reference the 2016 ASCE Infrastructure Report Card that is due for publication around April 2016.	1

Oil Infrastructure Final December 1, 2015

Summary for the Citizens Guide Booklet

The transportation fuels needs of Orange County are manufactured from crude oil by the manufacturers in the oil infrastructure system of California for which the State receives a grade of B-. This reflects a concern that Orange County receives 100% of its transportation fuels needs from manufacturers located outside of Orange County. A lower grade is probable in the event one of the few remaining in-state manufacturers decides to opt out of the California business environment. The concern is further complicated by the fact that California is an energy island that imports the majority of the crude oil needs from foreign countries and Alaska from tankers into California ports to support the California manufacturers of our transportation fuels, and that virtually no other State or Country can provide Orange County's needs for transportation fuels in a timely manner.

California's isolation as an "energy island" and fuel differentiation are documented problems for California and these problems become much more apparent when outages and/or shocks to the system occur. As California's fuel standards become more differentiated from surrounding states and the rest of the nation, it will likely become more difficult to find relief sources that are compliant with state regulations. This means that Californians are likely to become more vulnerable to price surges if there are supply outages. The state's growing population—which will lead to continuous demand for transportation fuels—combined with potential for disruption to the fuel supply infrastructure from such things as earthquakes and other disasters underscore the long-term likelihood of such price surges in the future. Crude by rail would be helpful to resiliency for the supply of crude oil.

Even though the California population continues to grow, the number of operating refineries in California has been decreasing over the last few decades. Generally the smaller refineries have been shuttered primarily as a result of regulatory requirements that are economically infeasible for small capacity refineries, economies of scale, flattened demand, cost effectiveness, as well as the huge cost of land in California, and the continuous pressures from special interest groups and those from the groups of "not-in-my-backyard" (NIMBY's), "citizens against virtually everything" (CAVE's), and the California Environmental Quality Act (CEQA) process that has given the opportunity for virtually anyone to continually challenge any project from getting off the ground.

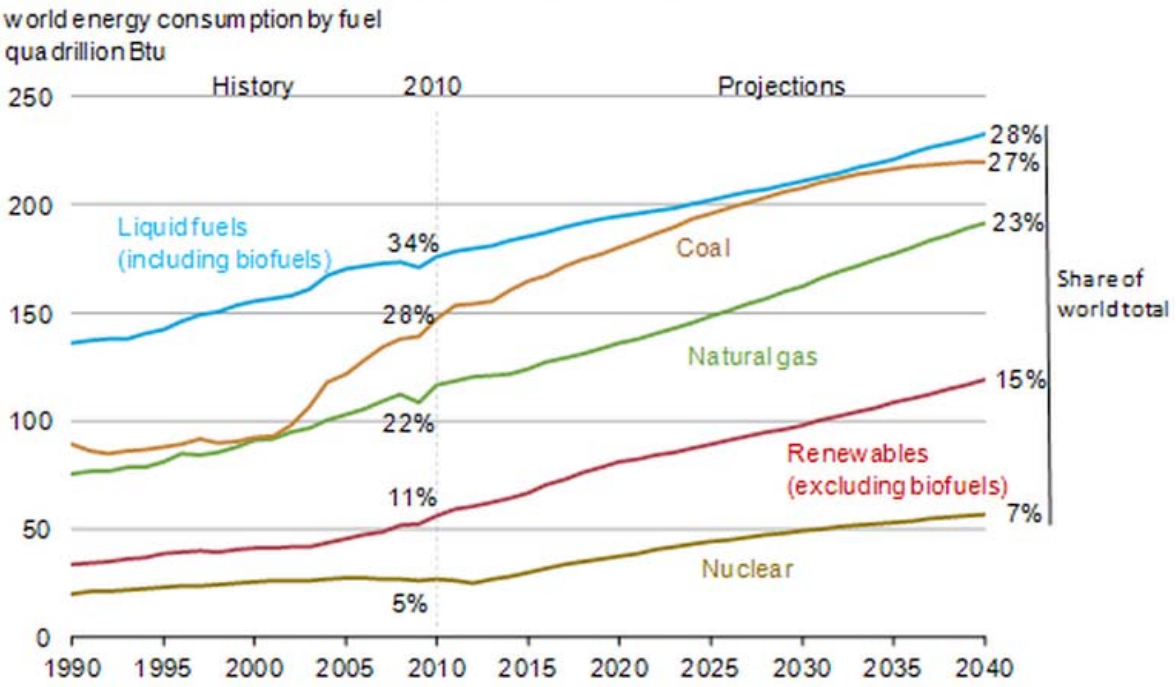
Background Information

This is the first time that oil infrastructure has been incorporated into the Orange County Report Card, since virtually everything Orange County citizens see, touch, and use in their daily lives is derived from the benefits of our use of one or more of the fossil fuels; crude oil, coal, gas, and the products manufactured from crude oil.

We focused our efforts on assessing Orange County's numerous industries and infrastructures that drive the economy and the lifestyle to which we have become accustomed that are dependent on energy from the oil and gas industries for their existence as well as the chemical

by-products from oil. We recognized that oil has industrialized the world and driven an exponential increase in human numbers and human civilization and most importantly the development of economies that drive the technological developments that supports the various infrastructures for: transportation systems, sewage treatment, sanitation systems, water purification systems, irrigation, synthetic fertilizers and pesticides, genetically improved crops, agricultural productivity, dams, seawalls, heating, air conditioning, sturdy homes, drained swamps, central power stations, vaccinations, pharmaceuticals, medications, eradication of most diseases, improvements in manufacturing productivity, electronics, communication systems, and so on. Other benefits from fossil fuel energy include the continuing reduction in infant mortality and that fossil fuel use is a major contributor to the longest life expectancy in history. Oil, coal and natural gas remains essential to the security and stability of modern society, both today and tomorrow (*see the Energy Information Administration figure*). Worldwide there is an increase in nuclear power to meet energy consumption growth requirements, but in California we've had a big drop in energy supplied by nuclear due to the closure of the San Onofre Nuclear Generating Station (SONGS), thus there will be more reliance in California placed on fossil fuels and renewables to meet the forecasted energy outlook as it is also reasonable to conclude that there will be no new sources of nuclear power in the USA that could supply California with the future given regulatory and licensing restrictions.

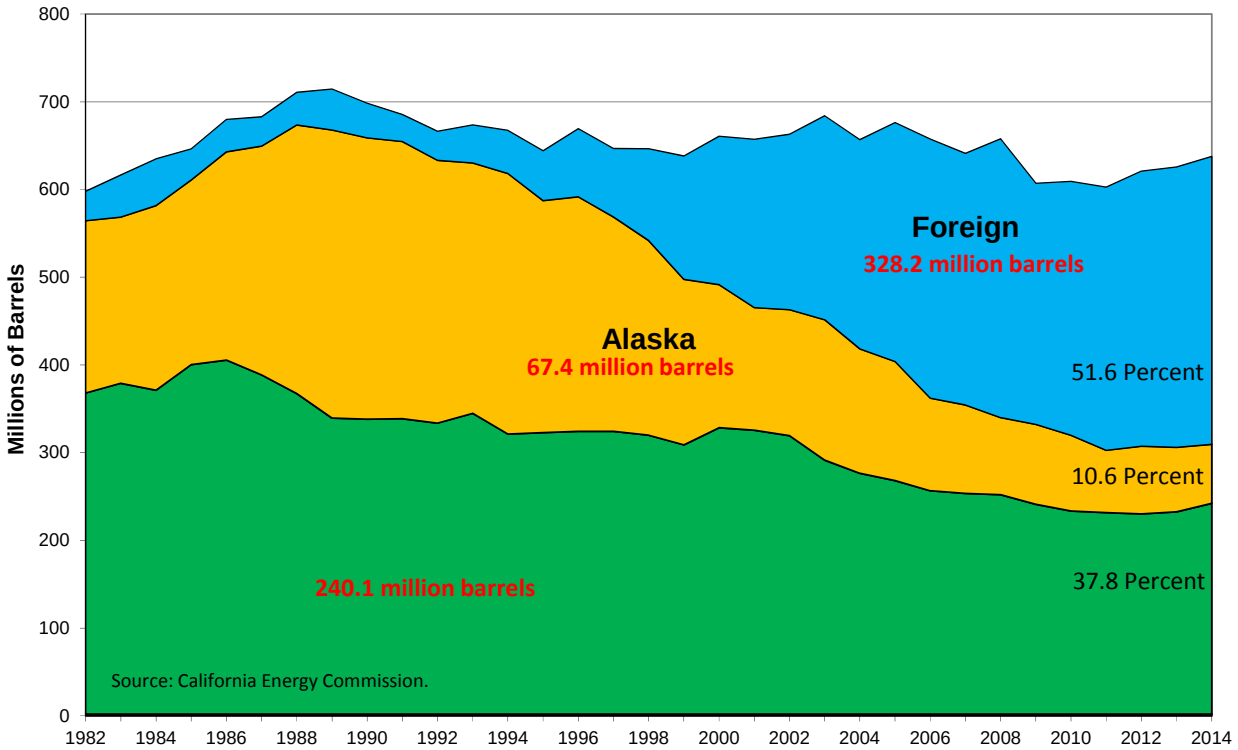
Figure 2. Renewable energy and nuclear power are the fastest growing sources of energy consumption



Source: EIA, International Energy Outlook 2013

We considered that without an accessible, reliable, and affordable fuel supply, California's economy that is heavily driven by affordable transportation would suffer, negatively impacting the business community, families, communities, regions, and ultimately the state budget. We observed that Californians pay more per gallon in gasoline due to Californians being isolated on an "energy island", the "boutique" fuel standards required by the Federal Clean Air Act and the California Air Resources Board (CARB) to meet the state's fuel blending requirements for reformulated gasoline standards (in comparison to the mix of conventional, oxygenated, and reformulated gasolines represented in the national average), and California taxes-which also top most of the other 49 states. These excess costs quickly add up when billions of gallons are consumed by millions of consumers and businesses in a trillion dollar California economy.

It's a great accomplishment that California remains one of the largest economies in the world even though California's 38 million citizens live on an "energy island" with the Pacific Ocean on one side and the Sierra Nevada Mountains on the other side. The huge California economy is very dependent on the continued mobility of its 32 million registered vehicles and the ability of maintaining a fuel supply to that growing fleet. With no crude oil pipelines into the State from other States, the concern toward the economy is complicated by the fact that California currently imports more than 50% of the crude oil needed (by the in-state manufacturers of California's transportation fuels) via ships from foreign countries and Alaska. With crude oil production and shipments from Alaska on the decline, ships from foreign countries or via crude by rail for oil from the Midwest or Canada will be increasing to meet the demands on the California energy island.



Historic trend in sources of oil to California refineries (source: California Energy Commission)

Most of USA is decreasing imports of crude oil as they take advantage of domestic oil production, while California is increasing their imports of crude as California has no access to the growth in domestic oil production, other than crude by rail. We have concerns that the choice is with Californians either to continue the ever increasing importation of crude oil from foreign countries into California ports (*see the California Energy Commission figure*), already at more than 50% of California needs, or to take advantage of the lower cost of crude oil from Canada and the Midwest (which requires public approval of crude-by-rail projects to get that crude oil into California).

We recognize and have concerns that Orange County receives 100% of its demand for transportation fuels of gasoline, diesel, and jet fuel from California manufacturers located throughout California. Those California based manufacturers are dependent on the supply of the raw product of crude oil to support their manufacturing processes. Few other manufacturers of transportation fuels, outside of California, manufacture California fuel blends, thus the reliability of supply to Orange County for transportation fuels and other fossil fuel products has been impacted by the fact that California is an "energy island" that can experience periodic transportation fuel price spikes resulting from significant unplanned refinery outages. Continued unimpeded access to marine terminals for importing additional transportation fuel supplies in the aftermath of significant unplanned refinery outages, as well as to maintain an adequate and growing import capacity for crude oil is essential to avoid potential constraints that can lead to possible fuel shortages and significantly higher prices for gasoline and diesel fuel.

Public Policy Considerations

The Economy

The ongoing and future needs of Orange County is a balance in the sources for energy, but regulators and community leaders need to think broadly to find solutions across the entire energy system, inclusive of renewables, electricity, and the fossil fuels of crude oil, coal, and natural gas, to meet California's ambitious environmental goals without severely impacting the economy.

Economically, the California "emissions crusade" to lower emissions was prioritized with California's flagship climate change policy Assembly Bill 32, the Global Warming Initiative. This bill was signed into law in 2006 at a time when California was contributing a minuscule 1% to the world's greenhouse gases, and has since raised billions of dollars for the government while dramatically increasing the costs for energy and products to all 38 million that live in California.

We have further concerns that both solar and wind energy provide on-and-off intermittent power to the electric grid. Unfortunately, there is no evidence that solar and wind can provide the cheap, plentiful reliable energy to the electric grid on a 24/7 basis that our standard of living requires. In addition, solar or wind can not provide the oil or the oil by-products that every industry and infrastructure relies upon for their existence. Further concerns are that wind and solar require huge amounts of real estate that are located long distances from the users, thus much is lost in transmission to where the users have the demand. Solar and wind power are NOT cheap, plentiful, reliable, scalable, and dependable and thus requires heavy government

subsidies to flourish. Shortcomings such as these mean that more costs will be borne by the financially challenged in California (which already ranks 1st in the nation in poverty).

We have continued concerns that California persists on a go-it-alone emissions crusade that generates billions of dollars for the government at the expense of businesses and the financially challenged as the costs of burdensome regulations that disproportionately affect young people and other Americans who are living within limited means.

Resiliency

The resiliency of exploration and production of oil equates to Foreign oil production currently at 52% of California's needs and increasing yearly to make up for the decreasing production in California and Alaska. Imported crude oil is delivered to California ports via foreign tankers. The availability of abundant conventional energy supplies is what drives the economy that funds the technologies for affordable renewable energy and alternative fuels and improving the efficiencies of every infrastructure sector and business sector that are the basis of our economy and standard of living.

The resiliency to disruptions to manufacturing is driven by timely supplies of crude oil to California, and the planned and unplanned turnaround periods that are disruptions to the manufacturing of transportation fuels, resulting in temporary shortages and price increases until the turnaround is completed and the refinery is able to get back to a full operational mode. All of petroleum production and manufacturing in California are also dependent on adequate water supplies.

What you can do

1. Urge policymakers, regulators and community leaders to think broadly to find solutions across the entire energy system to meet California's ambitious environmental goals. This means renewables, electricity, and the fossil fuels of crude oil, coal, gas, and the products manufactured from crude oil.
2. Remind policymakers, regulators, residents and businesses that:
    a. Virtually all products that citizens see, touch, and use in their daily lives are derived from the benefits of our use of one or more of the fossil fuels; crude oil, coal, natural gas, and the products manufactured from crude oil.
    b. California is an isolated "energy Island" that currently imports more than half of the crude oil needed to meet the demands for boutique blends of transportation fuels manufactured in California for gasoline, diesel, and jet fuels.
    c. Orange County receives 100% of its transportation fuel needs from three transportation fuel manufacturing centers on the West Coast: Pacific Northwest, San Francisco, and Los Angeles.
    d. The availability of affordable, plentiful, reliable, scalable, accessible and dependable supplies of energy is what drives the California economy.
    e. California's 100,000 electric vehicles are the most that any state has. However, the other 97% of California's 32 million vehicles that DO NOT run on electricity or other alternative fuels are consuming more than 40 million gallons of

transportation fuels, gasoline and diesel, EVERY DAY, excluding jet fuel for the numerous airports. Sounds like a lot of fuel, but it equates to just more than 1 gallon per day per vehicle.

f. Even though there is a projected growth in population from the current 38 million citizens, and vehicle registrations from the current 32 million, the gasoline demand is projected to decline slightly from the current 40,000,000 gallons per DAY mostly as a result of more fuel efficiencies, and a slight impact by the 3% of vehicles that run on electricity or other alternative fuels.

g. The huge California economy is very dependent on the continued mobility of its 30 million registered vehicles and the ability of maintaining a fuel supply to that growing fleet. In the event California cannot manufacture transportation fuels to meet the demand to continue to support the mobile fleet of vehicles that drives the California economy, Californians will be forced to seek their transportation fuel needs and the by-products from oil to be provided by other states or countries that have less stringent emission guidelines, resulting in an increase in the World's Green House Gases.

h. Off-oil schemes in Sacramento that seem to constantly perpetuate would result in transferring the responsibility for California energy supply requirements to other State or Countries and would increase greenhouse gasses because no other State or Country has the stringent air quality regulations than California. In addition, hundreds of thousands of energy related jobs would also be transferred out of California to the States or Countries that would provide the energy needs of California.

i. Continued unimpeded access to marine terminals to maintain an adequate and growing import capacity for crude oil is essential to avoid potential constraints that can lead to possible fuel shortages and significantly higher prices for gasoline and diesel fuel.

j. The choice is with Californians to continue the ever increasing importation of crude oil from foreign countries into California ports, already at 52% of California needs, or to take advantage of the lower cost of crude oil from Canada and the Midwest which requires public approval of crude-by-rail projects to get that crude oil into California.

3. Support legislation for incentives for clean engine technology and clean energy refueling infrastructure.

Members:	Dave Hackett	President, Stillwater Associates
	Dr. Donald Paul	Executive Director, USC Energy Institute
	Stephen Faichney	Director of Public and Government Affairs, Valero
	Gordon Schremp	Energy Commission Specialist, Calif Energy Commission
	Marc Mitchell	Vice President, Cerrell Associates
Program Manager:	Ronald Stein, PE	Founder, PTS Staffing Solutions

Comment Letter No. 72

Anita Au

From: Ray Chandos <chandos_r@yahoo.com>
Sent: Monday, February 1, 2016 1:20 PM
To: 2016 PEIR; 2016 RTP/SCS
Subject: Attached Comment Letter
Attachments: SCAGRTP_2_1_2016.doc

Dear SCAG,

Please find attached my letter commenting on the RTP and SCS.

Thank you.

Ray Chandos
Secretary/Treasurer
Rural Canyons Conservation Fund

Rural Canyons Conservation Fund

P.O. Box 556, Trabuco Canyon, CA 92678-0556
RuralCanyons.org

February 1, 2016

Dear SCAG:

The Rural Canyons Conservation Fund, founded in 1983, advocates for the preservation of Orange County's unique inland rural canyon areas through a program of public education and participation in land use decisions affecting the area's unique and scenic natural resources.

Thank you for the opportunity to comment on the Southern California Association of Governments (SCAG) 2016 Regional Transportation Plan (RTP) and Sustainable Community Strategy (SCS) and the Program Environmental Impact Report (PEIR). Following the release of the 2012 RTP/SCS, Friends of Harbors, Beaches and Parks (FHBP) coordinated a cross-county regional conservation coalition focused on the inclusion of natural lands mitigation and policies within that SCAG plan. Rural Canyons Conservation Fund is part of this coalition.

The 2012 RTP/SCS provided an important stepping stone for the 2016 Plan. In previous Plans, natural lands and farmlands were handled under the banner of "land use." In this new Plan, however, they are their *own* category. This is a great milestone in conservation planning for the region and SCAG. Additionally, the creation of a Natural and Farmlands Appendix provides important opportunities for SCAG that shouldn't be overlooked. We believe the opportunity before you isn't to "plan for" the future of open space in the region—as that's what you've been doing since the 2012 Plan. Instead, we believe SCAG can now start "implementing" a regional conservation program. **We strongly urge SCAG to take a more serious leadership role by actively seeking funding to implement conservation efforts** by partnering with agencies, transportation commissions and non-profits to see that the Plan created in 2012 comes to fruition through the 2016 Plan. The One Bay Area Grant Program in Northern California is a program that we believe can be replicated in Southern California. We and other coalition members would gladly assist with this implementation effort. 1

We've reviewed the RTP/SCS and PEIR and offer the following comments and suggestions for inclusion in the Plan with the intent to clarify/strengthen the language, as well as link the goals of the RTP and SCAG's mission with the Natural and Farmland policies.

Congratulations

We are pleased to see an Appendix devoted directly to natural and farmlands protection in the 2016 Plan. We are glad that the Plan contains specific strategies addressing natural land and farmlands issues. This is certainly a step in the right direction. The culmination of the work from the last RTP/SCS is clearly visible in this Draft Plan. SCAG has demonstrated that Metropolitan Planning Organizations can play a vital, thoughtful and science-based role in mitigating impacts to our natural environment from transportation, infrastructure and other development projects. By incorporating natural and farmlands protection strategies into your policy document, we believe the many benefits of this broad-based conservation approach will be realized sooner than expected. Thank you for your leadership.

Identify a Conservation Mechanism for the Natural and Farmlands Preservation 2

Our organization supports the idea that as new growth occurs it should focus on the existing infill areas. This is consistent with the finding in the SCAG surveys where respondents preferred to see existing urban areas built upon before greenfields are targeted for development, especially those at the Wildland-Urban Interface. When developments are built in infill areas, it likely relieves pressure from the fringe. However, the Plan fails to outline exactly how (or with what mechanism) these fringe lands (or any lands) will actually be protected. Just because the pressure is relieved doesn't mean the land then automatically becomes protected. Numerous organizations, ours included, focus their work on preservation of important habitat lands. A lot of time, energy, political will, strategy and other efforts combine to create a successful conservation transaction that leads to permanently conserved lands. SCAG must identify the mechanism, process or plan on how the greenfield lands will be protected. 2 cont.

Conclusion
Thank you for reviewing our comments and we look forward to working with SCAG on the implementation of this Plan, especially as it relates to the Natural and Farmlands Appendix. Should you need to contact me, I can be reached at (949) 858-0157. In addition, we request to be included on any notifications (electronic or otherwise) about this policy's creation and implementation, please send information to ruralcanyons@yahoo.com

Sincerely,

Ray Chandos

Ray Chandos
Secretary/Treasurer

Comment Letter No. 73

Saddleback Canyons Conservancy
P.O. BOX 1022
TRABUCO CANYON, CALIFORNIA 92678

SADDLEBACK CANYONS
TRABUCO • MODJESKA • SILVERADO
- Preserving Our Canyons -

January 30, 2016

VIA EMAIL TO: RTPSCS@scag.ca.gov and 2016PEIR@scag.ca.gov

Dear SCAG Policy Committee,

Thank you for the opportunity to comment on the Southern California Association of Governments (SCAG) 2016 Regional Transportation Plan (RTP) and Sustainable Community Strategy (SCS) and the Program Environmental Impact Report (PEIR) (collectively, the Plan). Following the release of the 2012 RTP/SCS, Friends of Harbors, Beaches and Parks (FHBP) coordinated a cross-county regional conservation coalition focused on the inclusion of natural lands mitigation and policies within that SCAG plan. Our organization, Saddleback Canyons Conservancy, is now a part of this growing coalition in 2016.

Saddleback Canyons Conservancy advocates in the rural canyon areas of southeast Orange County and has since 2001. Our mission is to protect and enhance the environment and quality of life in the Foothill-Trabuco Specific Plan (FTSP) and Silverado-Modjeska Specific Plan (SMSP) areas adjacent to the Trabuco District of the Cleveland National Forest. Our efforts include environmental advocacy and active involvement in land-use decisions for projects in these unique and biologically rich areas. We have had important successes since our inception including stopping inappropriate development encroaching on the Cleveland National Forest boundary and existing natural open space. We've also partnered with FHBP on the "Green Vision Map" for the rural canyon areas covered by the FTSP and SMSP. We advocated for the Orange County Transportation Authority's acquisition of the Ferber Ranch, Hafen, MacPherson, O'Neill Oaks, and Saddle Creek South Preserves. These acquisitions represent over 850 acres of natural landscape, rich with biological resources, that are now conserved in perpetuity.

The 2012 RTP/SCS provided an important stepping-stone for the 2016 Plan. In previous plans, natural lands and farmlands were handled under the banner of "land use." In this new Plan, however, they are their own category. This is a great milestone in conservation planning for the region and SCAG. Additionally, the creation of a Natural and Farmlands Appendix provides important opportunities for SCAG that shouldn't be overlooked. We believe the opportunity before you is not to "plan for" the future of open space in the region—as that's what you've been doing since the 2012 Plan. Instead, we believe SCAG can now start "implementing" a regional conservation program. **We strongly urge SCAG to take a more serious leadership role by actively seeking funding to implement conservation efforts** by partnering with agencies, transportation commissions, and nonprofits to see that the Plan created in 2012 comes to fruition through the 2016 Plan. The One Bay Area Grant Program in Northern California is a program that we believe can be replicated in Southern California. We and other coalition members would gladly assist with this implementation effort. 1

We have reviewed the RTP/SCS and PEIR and offer the following comments and suggestions for inclusion in the Plan with the intent to clarify and strengthen the language, as well as link the goals of the RTP and SCAG's mission with the Natural and Farmland policies.

We Need a Conservation Mechanism for Natural and Farmlands Preservation

We are pleased to see an Appendix devoted directly to natural and farmlands protection in the 2016 Plan and that the Plan contains specific strategies addressing natural land and farmlands issues. This is certainly a step in the right direction. The culmination of the work from the last RTP/SCS is clearly visible in this draft Plan. SCAG has demonstrated that Metropolitan Planning Organizations can play a vital, thoughtful, and science-based role in mitigating impacts to our natural environment from transportation, infrastructure, and other development projects. By incorporating natural and farmlands protection strategies into your policy document, we believe the many benefits of this broad-based conservation approach will be realized sooner than expected. Thank you for your leadership. 2

Our organization supports the idea that as new growth occurs it should focus on the existing infill areas. This is consistent with the finding in the SCAG surveys where respondents preferred to see existing urban areas built upon before greenfields are targeted for development, especially those at the wildland-urban interface. When developments are built in infill areas, it likely relieves pressure on the fringe lands. However, the Plan does not outline exactly how (or with what mechanism) these fringe lands (or any lands) will actually be protected. Numerous organizations, including ours, focus their work on preservation of important habitat lands. A lot of time, energy, political will, strategy, and other efforts combine to create a successful conservation transaction that leads to permanently conserved lands. SCAG must identify the mechanism, process, or plan on how the greenfield lands will be protected. 3

All Conservation Plans are Important, Whether Formal or Informal

SCAG focused many sections of the document on formal conservation plans, in the form of Natural Community Conservation Plans and Habitat Conservation Plans (NCCP/HCP), as the conservation method most identified by the agency. However, NCCP/HCP programs are only one conservation mechanism and they have limitations. For example, they are voluntary, property-owner driven, and generally only apply to larger land ownerships. Efforts underway by local, regional, state, and federal agencies outside of these formal plans should not be discounted and must be included. Furthermore, many conservation organizations help facilitate, coordinate, and find funding for land conservation transactions. We believe the conservation approach promoted by SCAG should include all of the ways land can be protected, including those less regulated methods of conservation outside of NCCP/HCP programs. 4

SCAG's Support of Regional Wildlife Corridors

The current federal transportation bill, the FAST Act, supports understanding transportation impacts on natural resources. The previous bill, MAP-21, supported restoring and maintaining environmental functions (i.e., wildlife corridors) affected by the infrastructure projects in the RTP. SCAG has even supported efforts in Los Angeles County to create a wildlife 5

corridor over the 101 Freeway. Many efforts are underway across the region to connect landscapes to one another. This is very important to the region and its biodiversity. Wildlife corridors allow species to migrate and forage and expand genetic diversity. These corridors also allow ecosystems to maintain ecological functions, act as sources for repopulation after natural disasters such as fire, flood or landslide, and improve the resiliency in the face of climate change impacts. The Plan would be stronger if it supported the enhancement and/or protection of documented and regionally significant wildlife corridors, especially those that are impacted by infrastructure projects.

5 cntd

Conclusion

We look forward to working with SCAG on the implementation of this Plan, especially as it relates to the Natural and Farmlands Appendix. Should you need to contact us, we can be reached at the email addresses below. In addition, we request to be included on any notifications (electronic or otherwise) about this policy's creation and implementation. Please send information to our email addresses below. Thank you for considering our comments. Please include this letter in the official record for the 2016 RTP/SCS.

6

Sincerely,

SADDLEBACK CANYONS CONSERVANCY

Gloria Sefton, Attorney at Law, Co-founder
gloriasefton@gmail.com

Richard Gomez, Co-founder
rtgomez@aol.com

Comment Letter No. 74

2016 PEIR

From: Scott Thomas <redtail1@cox.net>
Sent: Friday, January 29, 2016 8:31 PM
To: 2016 RTP/SCS; 2016 PEIR
Cc: Schlotterbeck, Melanie
Subject: Support for RTP
Attachments: Individual-Coalition-Sample-Letter.doc

Please find the attached letter from Sea and Sage Audubon regarding the RTP?SCS

Thank you

Scott Thomas
Conservationa and Wildlife Research
Sea &Sage Audubon Society
(949) 293-2915
Redtail1@cox.net

Sea & Sage Audubon
P.O. BOX 5447, IRVINE, CA 92616-5447

January 29, 2016

Draft 2016 RTP/SCS Comments
Attn: Courtney Aguirre
Southern California Association of Governments
818 W. 7th Street, 12th Floor
Los Angeles, CA 90017

RE: Support for RTP

Dear Ms. Aguirre,

Thank you for the opportunity to comment on the Southern California Association of Governments (SCAG) 2016 Regional Transportation Plan (RTP) and Sustainable Community Strategy (SCS) and the Program Environmental Impact Report (PEIR). Following the release of the 2012 RTP/SCS, Friends of Harbors, Beaches and Parks (FHBP) coordinated a cross-county regional conservation coalition focused on the inclusion of natural lands mitigation and policies within that SCAG plan. Our organization, Sea and Sage Audubon Society is now a part of this growing coalition in 2016.

Sea and Sage Audubon, incorporated in 1958, is an Orange County chapter or National Audubon Society with nearly 3,500 local members. Our mission is to protect birds, other wildlife, and their habitats through education, citizen science, research, and public policy advocacy. We strongly advocate for and support Orange County's open spaces through participation in the NCCP processes, Orange County Park and other open space reserves from the coast to the mountains.

The 2012 RTP/SCS provided an important stepping stone for the 2016 Plan. In previous Plans, natural lands and farmlands were handled under the banner of "land use." In this new Plan, however, they are their own category. This is a great milestone in conservation planning for 1

the region and SCAG. Additionally, the creation of a Natural and Farmlands Appendix provides important opportunities for SCAG that shouldn't be overlooked. We believe the opportunity before you isn't to "plan for" the future of open space in the region—as that's what you've been doing since the 2012 Plan. Instead, we believe SCAG can now start "implementing" a regional conservation program. **We strongly urge SCAG to take a more serious leadership role by actively seeking funding to implement conservation efforts** by partnering with agencies, transportation commissions and non-profits to see that the Plan created in 2012 comes to fruition through the 2016 Plan. The One Bay Area Grant Program in Northern California is a program that we believe can be replicated in Southern California. We and other coalition members would gladly assist with this implementation effort. 1 cntd

We've reviewed the RTP/SCS and PEIR and offer the following comments and suggestions for inclusion in the Plan with the intent to clarify/strengthen the language, as well as link the goals of the RTP and SCAG's mission with the Natural and Farmland policies.

Congratulations

We are pleased to see an Appendix devoted directly to natural and farmlands protection in the 2016 Plan. We are glad that the Plan contains specific strategies addressing natural land and farmlands issues. This is certainly a step in the right direction. The culmination of the work from the last RTP/SCS is clearly visible in this Draft Plan. SCAG has demonstrated that Metropolitan Planning Organizations can play a vital, thoughtful and science-based role in mitigating impacts to our natural environment from transportation, infrastructure and other development projects. By incorporating natural and farmlands protection strategies into your policy document, we believe the many benefits of this broad-based conservation approach will be realized sooner than expected. Thank you for your leadership. 2

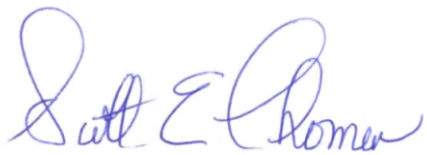
Identify a Conservation Mechanism for the Natural and Farmlands Preservation

Our organization supports the idea that as new growth occurs it should focus on the existing infill areas, where it is appropriate and sustainable. This is consistent with the finding in the SCAG surveys where respondents preferred to see existing urban areas built upon before greenfields are targeted for development, especially those at the Wildland-Urban Interface. When developments are built in infill areas, it has the possibility to relieve pressure from the fringe. However, the Plan fails to outline exactly how (or with what mechanism) these fringe lands (or any lands) will actually be protected. Just because the pressure is relieved doesn't mean the land then automatically becomes protected. Numerous organizations, ours included, focus their work on preservation of important habitat lands. A lot of time, energy, political will, strategy and other efforts combine to create a successful conservation transaction that leads to permanently conserved lands. SCAG must identify the mechanism, process or plan on how the greenfield lands will be protected. 3

Conclusion

Thank you for reviewing our comments and we look forward to working with SCAG on the implementation of this Plan, especially as it relates to the Natural and Farmlands Appendix. Should you need to contact me, I can be reached at 949 293-2915. In addition, we request to be included on any notifications (electronic or otherwise) about this policy's creation and implementation, please send information to redtail1@cox.net. 4

Sincerely,



Scott Thomas, Conservation Committee Special Projects
Sea and Sage Audubon Society

Comment Letter No. 75

Lijin Sun

From: Huasha Liu
Sent: Monday, February 01, 2016 6:47 PM
To: Ping Chang; Lijin Sun; Roland H. Ok
Cc: Joann Africa
Subject: FW: Comment Letter - RE: SCAG's Draft 2016-2040 RTP/SCS and PEIR
Attachments: Comment Letter - SCAG 2016 RTP-SCS & PEIR (02-01-16) - FINAL.pdf; Comment Letter - SCAG 2016 RTP-SCS & PEIR (02-01-16) - FINAL.docx

---

From: Richard Lambros [rlambros@southerncaliforniagroup.com]
Sent: Monday, February 01, 2016 4:19 PM
To: Hasan Ikhrata
Cc: Mike Lewis; Bryan Starr; Paul Granillo; <wes.may@ecasocal.org>; Peter Herzog (peter@talleyassoc.com); Kish Rajan; Darin Chidsey; Huasha Liu
Subject: Comment Letter - RE: SCAG's Draft 2016-2040 RTP/SCS and PEIR

Dear Hasan,

On behalf of the Southern California Leadership Council and a select group of our partner organizations, we appreciate the opportunity to submit the attached comment letter regarding SCAG's Draft 2016-2040 RTP/SCS and PEIR. In addition to SCLC, our group is comprised of the following leading Southern California business and industry organizations.

- Orange County Business Council (OCBC)
- Inland Empire Economic Partnership (IEEP)
- Construction Industry Air Quality Coalition (CIAQC)
- Engineering Contractors Association (ECA)
- National Association for Industrial and Office Parks (NAIOP) – Southern California Chapter

Overall we want to applaud SCAG for the development of what we find to be a very comprehensive, well thought-out and cohesive RTP/SCS and PEIR. We particularly appreciate the plan's focus on achieving its stated environmental, transportation and land use goals in a way that also maintains local control and assures the plan will provide important economic development and job creation benefits for our region. We know this is derivative of the approach used by you, your Board and the SCAG staff in developing this plan and it is much appreciated.

Our comment letter is intended to be constructive and offer a few areas for improvement within the plan. They are relatively minor compared to the overall scope and depth of the entire Draft RTP/SCS and PEIR. We respectfully submit them for your consideration and comment.

Sincerely,
Rich

Richard J. Lambros | Managing Director
Southern California Leadership Council
444 S. Flower Street, 37th Floor, Los Angeles CA 90071
T: (213) 236-4810 | **M**: (909) 225-0095 | **F**: (213) 622-7100
E: richard.lambros@socallc.org | **W:** www.socallc.org

SOUTHERN CALIFORNIA
LEADERSHIP COUNCIL

Three former Governors and three dozen President/CEOs of major companies and agencies comprise the Southern California Leadership Council, a nonprofit, nonpartisan organization formed to provide leadership on major public policies critical to economic vitality, job growth and the quality of life in Southern California.

SOUTHERN CALIFORNIA
LEADERSHIP COUNCIL

444 South Flower Street, 37th Floor
Los Angeles, CA 90071
P: 213.622.4300
F: 213.622.7100

February 1, 2016

Mr. Hasan Ikhrata
Executive Director
Southern California Association of Governments
818 West 7th Street, 12th Floor
Los Angeles, CA 90017

Re: Comments Concerning Southern California Association of Government's (SCAG's) Draft 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy ("RTP/SCS") and accompanying Draft Program Environmental Impact Report ("PEIR")

Dear Hasan:

On behalf of the Southern California Leadership Council and the undersigned group of partner organizations, we thank you for the opportunity to review and comment on the draft 2016 RTP/SCS and the accompanying draft PEIR. Our group is comprised of leading Southern California business and industry organizations.

Each of our organizations appreciates the assistance provided by and hard work of SCAG's able staff in the months leading up to the present draft documents. As we bring the issues set forth below to your attention for consideration concerning the final policy document and PEIR, we look forward to additional discussions about these important policies and promulgations.

Our group is particularly focused on assuring that the RTP/SCS will provide positive economic impacts and job creation. With that in mind, we applaud SCAG's commitment to providing thorough economic analysis, including an evaluation of the plan's impact on jobs and job creation. The economist's analysis of the plan has produced some very positive data, projecting that the benefits of the RTP/SCS, in terms of job creation and economic growth in the region, will exceed the costs of the plan. Our group is encouraged by this analysis and will continue to work with SCAG and other stakeholders to assure that these projected benefits are brought to fruition through the plan's effective implementation.

As you read the comments below, please recognize that we are – overall – very positively impressed with the high quality, comprehensiveness and cohesion of the Draft 2016 RTP/SCS and accompanying PEIR. Our comments are intended to be constructive rather than critiquing. They are few and relatively minor when compared to the scope and depth of the work brought forth by SCAG's staff and consultants. We hope that these comments will be well received and helpful towards the pending final plan, strategy and report.

With that in mind, we provide the following comments:

I. Limited Legal Jurisdiction of SCAG to Impose Mitigation Measures

The Legislature has made clear that "[i]n mitigating or avoiding a significant effect of a project on the environment, a public agency may exercise only those express or implied powers provided by law other than this division [i.e., laws other than CEQA]." (Pub. Res. Code section 21004.) Because SCAG is not empowered under existing laws to fund or approve construction of specific transportation or housing projects, and is instead a joint powers authority enabled with limited powers, we agree that most of the mitigation measures identified in the draft PEIR are appropriately identified as recommendations for consideration by those agencies that are themselves empowered with the requisite statutory authority over the transportation and development activities contemplated by the RTP/SCS. SCAG lacks the legal jurisdiction to directly impose such mitigation measures. 1

II. Impacts of the Environment on the Project

Based on a recent Supreme Court case, *California Building Industry Association v. Bay Area Air Quality Management District*, 196 Cal. Rptr. 3d 94 (Cal. 2015) ("*CBIA*"), any impacts of the existing environment on new projects (including occupants or residents of future projects) fall outside the scope of CEQA. This decision removes from CEQA several of the topics that are addressed in the draft PEIR as CEQA impacts requiring mitigation measures, including but not limited to certain thresholds derived from Appendix G of the CEQA Guidelines. 2

We recommend that the final PEIR include a discussion of the Supreme Court's *CBIA* decision, and note that the analysis and consideration of environmental impacts on a project (e.g., air quality impacts from existing roadways and highways on nearby residential and other uses) may be considered in planning policy discussions, notwithstanding that such considerations have been adjudged to be outside CEQA's scope.

III. Consistency with State CEQA Guidelines Appendix G Thresholds

We commend SCAG for generally using Appendix G of the State CEQA Guidelines in completing a comprehensive evaluation of the environmental impacts of the RTP/SCS project (as well as the now-unnecessary evaluation of Appendix G topics that address the impacts of the existing environment on the project). In several cases, however, the draft PEIR deviates from Appendix G by adding to CEQA analysis thresholds of significance which are not identified in Appendix G. Because SB 375 requires that SCAG prepare a PEIR as required by CEQA for the RTP/SCS, and because SCAG lacks the legal jurisdiction to dictate mitigation under CEQA where other agencies act as the respective lead agencies (as discussed in Section I above), we request that the final PEIR clarify that thresholds included in the draft PEIR that go beyond the thresholds listed in Appendix G are provided for informational purposes only and are not required by CEQA. These extraneous, non-Appendix G thresholds are listed in Attachment A to this letter. 3

IV. Specific Concerns Regarding Proposed Thresholds of Significance and Suggested Mitigation Requirements and Goals

A few concerns deserve more pointed consideration because they loom relatively large in their importance. They involve (1) the instruction to use "vehicle miles traveled" (VMT) traffic analysis; (2) the failure to account for certain constitutional limitations on the imposition of mitigation requirements; (3) the draft documents' various references to creating a 500-foot buffer next to highways, (4) specification of a particularly problematic aesthetic significance threshold.

First, the PEIR and its appendices instruct local lead agencies to consider VMT in their project- and plan-level CEQA analyses, in lieu of a "level of service" (LOS) traffic analysis. This instruction is premature as the Governor's Office of Planning and Research (OPR) has recently proposed an approach for incorporating VMT into CEQA, the comment period on this OPR proposal is still underway, there is no pending proposal to amend the Guidelines to incorporate VMT as an impact under CEQA. SCAG should defer to any eventual OPR decision. Additionally, labeling VMT in and of itself as an environmental impact under CEQA is highly controversial because it simply measures a unit of accomplishment or mobility which does not necessarily correspond to any adverse environmental impact. Therefore, we commend SCAG for taking into account aggregate and per capita VMT in transportation planning, but we request clarification that SCAG is not directing lead agencies using the RTP/SCS as a tiering document for CEQA purposes to label VMT as a negative impact under CEQA. We also note that lead agencies retain the discretion under CEQA to select significance thresholds. Lastly concerning VMT, we respectfully request that SCAG clarify that Section 1.17 (entitled Transportation, Traffic, and Safety) of the final PEIR is not intended to imply that each project or plan that "increases the daily VMT" conflicts with "the established measures of effectiveness for the performance of the circulation system." This statement cannot be correct as it suggests that all VMT in a growing population must be mitigated, which would conflict with existing plans and forecasts and the ongoing prerogatives maintained by local government, as well as the constitutional limitation discussed below. 4

Second, the PEIR recommends thresholds of significance concerning cumulative impacts that fail to mention and take into account the federal constitutional mandate that mitigation requirements may be imposed to cumulative impacts only to a degree that is no more than roughly proportional to a proposed project's impacts. Not only do the VMT thresholds of significance discussed above omit any reference to this constitutional limitation, but the recommended threshold of significance concerning energy consumption does so as well. The final EIR should state that any threshold of significance for cumulative impacts, or at least the imposition of mitigation requirements related to such thresholds, should be limited so that the imposition does not conflict with the constitutional prohibition related to mitigation requirements. 5

Third, the draft policy document and PEIR make various references to imposing a buffer applicable to land uses in close proximity to major highways and roads. We respectfully request that SCAG clarify that the final PEIR and policy document are not intended to create land use restrictions or prohibitions on lands immediately adjacent to roads and highways. Concerning new development near existing transportation infrastructure, the Supreme Court's recent *CBIA* decision, discussed above, should also be addressed in SCAG's response. 6

Finally, the draft PEIR states that a significant aesthetic impact results whenever a new structure built pursuant to the RTP/SCS would "cast shade over sensitive uses for more than three hours in the wintertime or for more than four hours in the summertime." We respectfully request clarification that SCAG is not intending to direct lead agencies that may use the RTP/SCS as a tiering document for CEQA purposes to use this "shade threshold," given that Appendix G does not indicate this as a negative impact under CEQA. As noted above, lead agencies also retain the discretion under CEQA to select significance thresholds. 7

V. Minor Plan Adjustments to Conform to General Plan Designations and Reasonably Foreseeable Future Projects Identified in COG-Certified EIRs

In a very few instances, the proposed SCS was analyzed using population and development forecasts that are below both the densities included in existing General Plan designations and the densities forecasted by the respective local jurisdictions. Fortunately, these deviations are relatively small in number and extent. However, in order to abide by the planning principles that were expressly adopted prefatory to the draft documents, these should be corrected. 8

VI. Conclusion

Once again, we wish to applaud SCAG, its staff and its consultants on a herculean and well-done effort. In the next RTP/SCS cycle, we hope to work with SCAG's staff to bring even greater transparency to the land use and transportation modeling which underpins the projected greenhouse gases reductions that the RTP/SCS might facilitate. The aim should be to facilitate harmonization and consistency among the myriad planning documents that together project the region's future and those of the region's parts at smaller scales. We look forward to meeting that aim with SCAG and all concerned stakeholders.

Respectfully submitted,

Richard Lambros
Managing Director
SOUTHERN CALIFORNIA LEADERSHIP COUNCIL

Mike Lewis
Senior Vice-President
CIAQC

Wes May
Executive Director

Paul Granillo
President & CEO
INLAND EMPIRE ECONOMIC PARTNERSHIP
The Region's Voice for Business and Quality of Life

Peter Herzog
Assistant Director of Legislative Affairs
NAIOP
COMMERCIAL REAL ESTATE DEVELOPMENT ASSOCIATION
SoCAL CHAPTER

Bryan Starr
Senior Vice President, Govt. Affairs
ORANGE COUNTY BUSINESS COUNCIL

Attachment A

Non-Appendix G Thresholds Included in the 2016 RTP/SCS PEIR

3.1 Aesthetics

- If shadow-sensitive uses would be shaded by project-related structures for more than three hours in the winter or for more than four hours during the summer.

3.3 Air Quality

- Expose sensitive receptors to substantial pollutant concentrations and harm public health outcomes substantially.

3.5 Cultural Resources

- Disturb any human remains, including those interred outside of formal cemeteries and those interred in Native American Sacred Sites.

3.6 Energy

- Increase petroleum and non-renewable fuel consumption in the regional transportation system.
- Increase residential energy consumption.
- Increase building energy consumption in anticipated development.
- Increase water consumption and energy use related to water in anticipated development.

3.8 Greenhouse Gas Emissions and Climate Change

- Increase GHG emissions compared to existing conditions (2015).
- Conflict with SB 375 GHG emission reduction targets.

3.17 Transportation, Traffic, and Safety

- Conflict with the established measures of effectiveness for the performance of the circulation system, by increasing the daily VMT, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.
- Conflict with an applicable congestion management program, including, but not limited to, VMT and travel demand measures, or other standards established by the County congestion management agency for designated roads or highways.
- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections), increased volumes or incompatible uses (e.g., farm equipment).

Comment Letter No. 76

2016 PEIR

From: Steve Rogers [redacted]

Sent: Tuesday, February 2, 2016 9:49 AM
To: 2016 PEIR
Cc: Gabe DeLaRosa; Tim Watkins; Wolfe, Raymond
Subject: Draft 2016 RTP/SCS PEIR Comments

Attn: Lijin Sun- Please see letter dated January 31, 2016 sent via US mail. Thank you for this opportunity to provide comments for SCAG's Draft 2106 RTP/ SCS PEIR review and final document approval process. Sincerely, Steve Rogers

January 31, 2016

Southern California Association of Governments
818 W. 7th Street, 12th Floor
Los Angeles, CA 90017

To Whom It May Concern:

I would like to take this opportunity to introduce my independent engineering firm, Stephen W. Rogers, P.E. Consulting. My small business specializes in providing constructibility review for engineering project design and specification preparation, quality assurance/ quality control and development project liaison services for public works project design, permitting and construction, including development of municipal special districts. I currently operate out of my Redlands, CA home in San Bernardino County, having experience working on land development, transportation and building/ grading/ landscaping design and construction projects in San Bernardino, Riverside and LA Counties. Local agencies where my team and I have provided services include: Ontario, Riverside County Flood Control and Water Conservation District, Barstow, Chino Hills, Diamond Bar, Moreno Valley, Rialto and a number of smaller LA County contract cities.

I received a Bachelors of Science degree in Civil Engineering (B.S.C.E.) from Bucknell University located in central Pennsylvania in 1984. I first became registered as a California Professional Civil Engineer in 1989 while working for the City of Ontario's Engineering Department starting in 1985, engaged in the day to day operations of a full-service municipality, working within the management level staff on land development, transportation and capital improvement programs, involving project staff training and development, to include experience with the procurement, administration and oversight of outside engineering consultant contracts. 1

In 2003, I left public sector employment and began my private practice as an independent consultant engineer and small business person. Since 2009, I've diversified my project portfolio to include the Friendly Communities and companion ThunderBird Transportation Network (TTN) programs. These programs involve the development and upgrading of existing transportation facilities or infrastructures, and the improvement, reuse and reorganization of the various public resources needed to implement environmentally sustainable community strategies, by pursuing projects that have been specifically designed to generate job creation opportunities and to stimulate area economic development and renewal efforts. I also serve as the Vice President and Treasurer for the Mentone Area Community Association (MACA), a non-profit corporation devoted to bettering the quality of life within the unincorporated San Bernardino County area.

My pursuits involving the development of the Friendly Communities program and ThunderBird Transportation Network include the design of extensive information- technology (IT) network enhancements to serve as the backbone infrastructure needed to establish Central Maintenance Facilities (CMF) at strategic locations along our transportation corridors. These CMF hubs would facilitate the implementation of a comprehensive resource asset management system, designed to optimize transit and goods movement efficiencies for passengers, logistics, cargo and freight, through corridor security enhancements and communications infrastructure upgrades to inter-modal facilities and equipment.

1 cntd

I'm encouraging all interested private businesses to consider participation in the Friendly Communities program currently being developed as a business association and referral network. Our team is uniquely positioned to advocate and assist small businesses across Southern California. Please call me at cell: [redacted] or email to [redacted] if you have any questions or in order to set-up an appointment. Sincerely, Steve Rogers

---

FRIENDLY COMMUNITIES

Dear Business Owners and Public Agency Officials:

The Friendly Communities program is being developed to assist stakeholder groups, including small business owners, in implementing an area-wide economic development strategy to help stimulate growth in local economies. Once developed, the Friendly Communities business association has been strategically envisioned to fill the void that has been created due to the loss of California's redevelopment agencies and to augment the current State Enterprise Zone business incentive funding. With your initiating participation in the Friendly Communities organization, we will begin to build the capacity necessary to attract the public-private business and investment capital needed for implementation of our strategically selected projects under this regional economic development and job creation program.

Friendly Communities and the ThunderBird Transportation Network are programs that have been created to identify and promote the area's sustainable economic development resources, training and job creation for "cradle to career" employment opportunities and for region-wide participation of small, medium- sized to large and not-for-profit business interests in the commerce of the new global marketplace. In order to encourage collaboration and a new cooperative spirit with local government, business and labor organizations, we are promoting the development of the Friendly Communities business association with both public and private sector entities alike. The benefits to member business partners sponsoring this effort will include having a stakeholder interest in the development coordination efforts with a consortium of other like-minded business entities, to accommodate referrals and networking opportunities for businesses to take advantage of the latest applications in science and technology, and to promote and implement efficient and effective areawide economic development community business strategies.

One-time membership fees are established for the following sponsorship levels:

Gold Level for larger businesses - $25,000
Silver Level for medium-sized businesses - $5,000
Bronze Level for small business or individual sponsor - $500

Please call me at [redacted] or email to [redacted] if you have any questions, or would like to set-up a time to get together to see how the Friendly Communities business association will help to create a more business friendly environment in our state and local areas, which once embraced by the business community, will result in bettering the quality-of-life in neighborhoods and communities across Southern California.

FRIENDLY COMMUNITIES ECONOMIC DEVELOPMENT PROGRAM - THUNDERBIRD TRANSPORTATION NETWORK IMPROVEMENT AND LOGISTICS DEVELOPMENT

These programs involve the development and upgrading of existing transportation facilities or infrastructures, and the improvement, reuse and reorganization of the various public resources needed to implement environmentally sustainable community strategies by pursuing projects that have been specifically designed to generate job creation opportunities, and to stimulate area economic development and renewal efforts.

The ThunderBird multi-modal transportation network is being developed to focus attention and resources towards the optimization of programs, facilities, equipment, systems and labor assets continent-wide, in promoting transportation corridor redevelopment and efficiency upgrades, through various asset management and improvement projects, involving joint-community cooperative and multi-tribal government-business partnership stakeholders. San Bernardino City is centrally located in the western transportation and commodity distribution corridor and is poised for a unique opportunity to provide oversight leadership for corridor improvement under the ongoing Federal corridor development program to improve our 50-mile wide band of territory from Sacramento to San Diego.

San Bernardino is uniquely located at the critical crossroads of these north-south, and east-west ancient transportation routes. The infrastructure, labor resources, and professional community resources needed to reach our goals for job creation are already in place. Through a maximization of efficiencies and coordination of efforts, local entities must take advantage of these programs, designed to achieve and surpass the Federal Clean Air standard limits set for YR2020/ 2035, using sustainable communities strategies to meet the regional goals and regulatory requirements established under AB32 and SB375

We propose an inter-modal resource and distribution business association that will bring into operation a complete logistical service to Southern California, inter-connected through San Bernardino, to include:

- Former-Norton Air Force Base /San Bernardino International Airport conversion and redevelopment as inter-modal goods movement hub.
- Central Maintenance Facilities at major distribution centers, administration and equipment operations terminal services standardization, technical modernization and on-job training.
- TSA corridor security enhancement project implementation, to include DOT equipment safety guideline inspections and on-job training.
- Clean Water Act environmental safety and remediation services and on- job training.
- Clean Air Act heavy equipment retrofits, code enforcement services and on-job training.
- TSA rail car and truck technology retrofits, conversions, maintenance and on- job training.
- Small commercial aircraft maintenance, including Airspace Flow Program (AFP) services and on-job training.
- NAFTA enhancements to commodity movement through governmental regulatory enforcement technology upgrades and on-job training.
- Grants administration through administrative oversight and successor leadership development.

FRIENDLY COMMUNITIES PROGRAM - RENEWABLE ENERGY BUSINESS BEST MANAGEMENT & SUSTAINABLE STRATEGY

Invest in a sustainable way of life and end your reliance on the grid. Install PV solar for your business/ household today.

- Residential Rooftop or Ground Mounted systems
- Commercial Conversions

- Utility Enterprises utilizing Solar Fields

The Friendly Communities program is teaming with some of the area's leading Alternative Energy Supply companies and contractors based in the Inland Empire to offer homeowners, business owners and investors the opportunity to take advantage of the numerous government programs and incentives available for installation of renewable energy technologies. Programs and incentives that are available include:

- Residential / Commercial HERO Program financing available through the San Bernardino Association of Governments (SanBAG)
- 30% Government Tax Credits
- Additional incentives for Solar Systems utilizing Storage
- Commercial Grade Solar Carport Installations (w/ battery storage capabilities)

PROJECTS OF INTEREST

- Orange Blossom Trailhead Staging Area (Mentone)
- Mentone Beach Park Redevelopment (MWD R/W)
- San Bernardino International Airport Multi- modal Goods Movement Hub and Central Maintenance Facility (CMF)
- Ontario Airport Localization via ThunderBird JPA
- Bloomington Community Services District (CSD)
- Bloomington Garage Automotive Learning Center
- Central Maintenance Facility (CMF) Optimization & Development (OmniTrans/LACMTA/OCTA/CHP)
- Assisted Living Senior Housing Village (Lytle Creek)
- Crystal Springs Ranch Historic & Scenic Preservation (Redlands)
- SK8Park, Sylvan Park Orange Blossom Trail (Redlands)
- Pacific Crest Trail & Lytle Creek Wash Remediation
- American Indian Manufacturing start-up, developers of the Vertablock medical device and Vertical Farming food towers (Westside San Bernardino)
- Route 66 San Bernardino to LA Street Festival

Comment Letter No. 77

2016 PEIR

From: T Goller [redacted]
Sent: Sunday, January 31, 2016 4:19 PM
To: 2016 PEIR
Subject: response letter to scag
Attachments: Response to SCAG.docx

Enclosed are my comments about the plan.
Terry Goller

Response to SCAG (scagrtpscs.net)

This Federal Reginal SCAG plan would be a grandiose state endeavor to further burden the taxpayer and their individual rights. With a $556 billion expenditure and a $275 billion operating and maintenance cost, there would be a $200 billion difference resulting in tax increases.

Allowing the state and cities to solve their own transportation problems and working with Cal Trans is a more feasible solution. Even curtailing the rail plans would be a monetary benefit as there are existing construction impossibilities. This would free up funds to improve California needs and not federal mandates and more taxes.

Yes, we have transportation issues. This can be solved with more park and ride-share incentives along with rewards for car-pooling and using bus services that are not utilized. The DMV should be made more aware of enforcing legal valid drivers with more stringent retail auto sales verifications.

When the state mandates housing to live near transportation, this differs from the American Way. Such regional living borders on the sci-fi "Hunger Games" mentality. Living near railroad stations with increased walking and biking to work with untold restrictions are not a priority. 1

Like the Obama Plan, this has too many mandates and loop-holes with the benefits siding with the provider companies. This tact can be seen as a forcible way to eliminate the American "know-how" of entrepreneurship. I commend the designers of this document as it contains all legal-binding, freedoms and taxes that would restrict the California citizen. If the draft is predominately from an environment persuasion, then it is not reflecting a balanced voice.

Since SCAG is a voluntary association, I recommend that Southern California does not participate in this Federal plan. Our state should not accept assistance with regional housing, energy, transportation or the environment. Voting for 86 more government officials to implement this would restrict California from making their own decisions. Please do not accept this draft.

Sincerely,

Terry Goller

Comment Letter No. 78

Anita Au

From: Robert Garcia <rgarcia@cityprojectca.org>
Sent: Monday, February 1, 2016 4:49 PM
To: 2016 PEIR
Cc: Ariel Collins; Nancy Negrete
Subject: The City Project Public Comments to the 2016 Draft PEIR
Attachments: SCAG Draft PEIR public comments 20160201.pdf

Dear Ms. Lijin Sun,

Please find attached The City Project's public comments to include environmental justice and civil rights compliance in SCAG's 2016 Draft PEIR.

Thank you,
Robert

Robert García
Founding Director and Counsel
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February 1, 2016

Lijin Sun
Senior Regional Planner
Southern California Association of Governments
818 West Seventh Street, 12th Floor
Los Angeles, CA 90017-3435

Re: Public Comments to Include Environmental Justice and Civil Rights Compliance in the SCAG Program Environmental Impact Report (PEIR)

Dear Ms. Lijin Sun:

The City Project commends the Southern California Association of Governments (SCAG) for addressing park access, active transportation, climate, gentrification and displacement, and for putting a greater emphasis on public health in its 2016 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). We support SCAG's strategies to improve public health and well being, including an active transportation plan and improvements to the regional transportation system to improve public access to parks and open space. We are pleased to see Environmental Justice included as a performance measure to help gauge progress and meet federal and state requirements. We support the thoroughness of the accompanying Environmental Justice Appendix. We applaud SCAG for referencing Title VI of the Civil Rights Act of 1964, President's Executive Order 12898 on Environmental Justice and Health, and California Government Code 11135. These laws promote equal justice and prohibit intentional discrimination and unjustified discriminatory impacts regardless of intent by federal agencies, recipients of federal funding, state agencies, and recipients of state funding. 1

The RTP/SCS is generally a best practice to address environmental justice and civil rights compliance.

We respectfully submit the following recommendations regarding the PEIR.

Include Environmental Justice Analyses in the Program Environmental Impact Report (PEIR) Itself

Environmental Justice should be included as an issue area in the PEIR itself, in addition to and as part of the 18 environmental issue areas required by CEQA. Relying on environmental standards alone is inconsistent with civil rights law and has failed to eliminate the adverse or disparate impacts to environmental justice communities. Compliance with environmental standards alone is not necessarily good enough. Civil rights and environmental justice advocates have emphasized the need to move away from reliance on the traditional environmental regulatory approach, and to apply the congressionally mandated civil rights framework. 2

SCAG does refer to the RTP/SCS environmental justice analysis in the PEIR. The draft PEIR states, "Accessibility to parks is a public health concern and is addressed under Environmental Justice in the 2016 RTP/SCS.[61]" Footnote 61 says: "This Draft PEIR does not analyze environmental justice. However, environmental justice is an important subject to the region and is analyzed in the Draft Plan (2016 RTP/SCS) and the associated Environmental Justice Appendix." *Draft PEIR page 3.16-18*.

SCAG should make clear in the final draft that the PEIR includes consideration of environmental justice in accordance with Title VI of the Civil Rights Act of 1964 and its regulations, California Government Code 11135, and Executive Order 12898. At a minimum, the final EIR must fully incorporate the environmental justice analysis by reference to the RTP/SCS.

Attorney General Kamala Harris has published a fact sheet on environmental justice and civil rights protections under California law for projects that are funded or administered by the state.[1] For example, economic and social effects are relevant in determining significance under CEQA. Such impacts may lead to significant physical changes in the environment. *See, e.g., id., citing Citizens for Quality Growth v. City of Mt. Shasta* (1988), 198 Cal.App.3d 433, 446. 3

The draft PEIR does include a discussion of air quality as it relates to low-income and minority populations and public health. "Consistent with the environmental justice analysis in the 2016 RTP/SCS, this PEIR considers the potential benefits and impacts on sensitive receptors and low-income and minority populations located in the vicinity of transportation facilities…" *Draft PEIR at 3.3-2*. "[T]his impact analysis was conducted from a public health lens as air quality is closely related to public health." *Draft PEIR at page 3.3-38*. The final PEIR should include similar environmental justice and health analyses for applicable issue areas, including Greenhouse Gas Emissions and Climate Change; Land Use and Planning; Population, Housing and Employment; and Recreation.

SCAG should include the environmental justice information as a required part of the PEIR for state and local agencies to ensure equal access through the planning and implementation process as a condition of receiving state or federal funding, as state and federal laws require. For example, disparities in access to green space based on race, color, or national origin along the Los Angeles River, in Los Angeles County, and throughout California are indisputable, as are related health disparities based on those factors. Yet state and local agencies commonly refuse to commit to enforce civil rights and environmental justice laws and principles to alleviate such disparities. SCAG should set a best practice example.

Address the Impact of Climate Change on People, Particularly Low-Income Communities and Communities of Color in the PEIR

We urge SCAG to address the impact of climate change on people, and on low-income communities and communities of color in particular, not only in the RTP/SCS Environmental 4

[1] The fact statement is available at http://oag.ca.gov/sites/all/files/agweb/pdfs/environment/ej_fact_sheet.pdf.

Justice Appendix but also in the PEIR itself. Climate is a civil rights and moral issue as well as a health, economic, and environmental issue. A successful climate analysis will address the rights of communities of color and low-income communities directly.

The U.S. Environmental Protection Agency's Clean Power Plan will limit carbon dioxide (CO_2) emissions from fossil fuel-fired power plants nationwide. EPA emphasizes that climate change is an environmental justice issue and asks states to conduct environmental justice analyses. The Environmental Justice Leadership Forum on Climate Change has published a useful guide for state, regional, and local agencies to do just that: *The Environmental Justice State Guidance: How to Incorporate Equity & Justice Into Your State Clean Power Planning Approach (2016)* (goo.gl/TR5YAF). Incorporating equity, health, and meaningful engagement are key elements of the planning process. 4

Other Comments

- The PEIR states "Urbanized areas, such as the communities of Westlake and Southeast Los Angeles in the City of Los Angeles, are significantly park poor, with less than half an acre of park space per 1,000 residents, many of which are also low-income areas." *Draft PEIR at 3.16-18*. The PEIR should address the fact that these "urbanized areas" of Los Angeles are significantly park poor, low-income, **and** disproportionately communities of color. The same communities suffer first and worst from environmental injustice. 5

- The "Environmental Justice" maps in the Population, Housing and Employment section (following page 3.14-13 of the draft PEIR) include U.S. Census data on income, but not on race, color, or national origin. An environmental justice analysis must include both. 6

We look forward to working with SCAG to ensure environmental justice for all through the PEIR and RTP/SCS. Thank you.

Sincerely,

Robert García
Founding Director and Counsel

Ariel Collins
Assistant Director

Nancy Negrete
Program Manager

Comment Letter No. 79

Anita Au

From: Tressy Capps [redacted]
Sent: Monday, February 1, 2016 3:21 PM
To: 2016 PEIR; 2016 RTP/SCS
Cc: Tressy Capps
Subject: Draft 2016 RTP/SCS PEIR Comments
Attachments: scag letter.docx

Importance: High

Hello. Please acknowledge receipt of the attached today. Tressy Capps

To: SCAG

From: Tressy Capps, [redacted]

Re: Comments regarding the Draft 2016 RTP/SCS

As a member of TOLL Free IE in San Bernardino County I can tell you that the public outreach for the TOLL lane project is just as bogus as SCAG's public outreach for this plan. The public is clueless and that is by design. The way SANBAG votes on the project without each member city getting input from the other council members or the community is fraudulent and criminal in nature. The way SCAG has conducted the public outreach on the plan is scandalous and demands an investigation. I attended all 4 public hearings and there was no real engagement. At one of the public hearings, the Riverside office did not even attend. **What happened there and how do you plan on correcting that situation?** 1

Shame on all for you for the way you are top down conducting this process all the while engaging in your bogus outreach that only the stakeholders participate in. Regional government is unconstitutional and SCAG needs to be abolished. 50 years and the public is weary of these schemes that serve only to line the pockets of your stakeholders and does very little to actually facilitate traffic movement. Hasan Ikhrata may have been a planner in the Soviet Union but his methods are not welcome here in the United States. Americans do not need to be coordinated. Hasan needs to stop running around Southern California using false statistics and population data in an effort to deceive the public and swindle taxpayers.

I testified regarding the plan at 3 of the 4 public hearings and want a transcript of my statements to ensure they are part of the report. 2

Tressy Capps 2-01-16

Comment Letter No. 80

Comment Id	Submitter	Affiliation	Comment	Category	Assigned To	Created On	
16274.12	Jan Dietrick	Ventura County 350 Climate HUB - A Coalition	The well documented and serious deficiency in the SANDAG RTP-SCS may inform what we need to see addressed by SCAG's plan. To that end we refer you to: https://oag.ca.gov/news/press-releases/attorney-general-kamala-d-harris-filed-motion-intervene-lawsuit-seeking http://www.climateplan.org/wp-content/uploads/2011/05/CA_AG_comments-to-SANDAG.pdf	Environmental Mitigation	Lijin Sun	2/1/2016 5:00 PM	1

Comment Letter No. 81

2016 PEIR

From: Derek Poultney <derekvhc@gmail.com>
Sent: Tuesday, February 2, 2016 11:12 AM
To: 2016 PEIR; 2016 RTP/SCS
Subject: support letter for SCAG Regional Transportation Plan and Sustainable Communities Strategy
Attachments: Individual Coalition Letter FINAL.doc

Please find attached support and suggested revisions for the Sustainable Communities Strategy.

Thank you for your attention to this as it is very important to us,
Derek

Derek Poultney, M.S.
Executive Director
Ventura Hillsides Conservancy
P.O. Box 1284
Ventura, CA 93002
(805) 643-8044

Ventura Hillsides Conservancy
P.O. Box 1284 Ventura, California 93002
www.venturahillsides.org 805-643-8044

January 31, 2016

To whom this concerns,

Thank you for the opportunity to comment on the Southern California Association of Governments (SCAG) 2016 Regional Transportation Plan (RTP) and Sustainable Community Strategy (SCS) and the Program Environmental Impact Report (PEIR). Following the release of the 2012 RTP/SCS, Friends of Harbors, Beaches and Parks (FHBP) coordinated a cross-county regional conservation coalition focused on the inclusion of natural lands mitigation and policies within that SCAG plan. Our organization, the Ventura Hillsides Conservancy, is now a part of this growing coalition in 2016.

The Ventura Hillsides Conservancy works in Ventura County and has since 2004. Our mission is to preserve the open space resources that contribute to the unique character and natural environment of the City of Ventura and surrounding region for the benefit of present and future generations. We have had important successes since our inception including the creation of the lower Ventura River Parkway and the ongoing purchase of important Ventura hillside lands that provide numerous public benefits, including wildlife habitat and migration corridors.

The 2012 RTP/SCS was an important stepping stone for the 2016 Plan. In previous Plans, natural lands and farmlands were handled under the banner of "land use." In this new Plan, they are their own category. This is a great milestone in conservation planning for the region and SCAG. Additionally, the creation of a Natural and Farmlands Appendix provides important opportunities for SCAG that shouldn't be overlooked. We believe the opportunity before you isn't to "plan for" the future of open space in the region—as that's what you've been doing since the 2012 Plan. Instead, we believe SCAG can now start "implementing" a regional conservation program. **We strongly urge SCAG to take a more serious leadership role by actively seeking funding to implement conservation efforts** by partnering with agencies, transportation commissions and non-profits to see that the Plan created in 2012 comes to fruition through the 2016 Plan. The One Bay Area Grant Program in Northern California is a program that we believe can be replicated in Southern California. We and other coalition members would gladly assist with this implementation effort. 1

We've reviewed the RTP/SCS and PEIR and offer the following comments and suggestions for inclusion in the Plan with the intent to clarify/strengthen the language, as well as link the goals of the RTP and SCAG's mission with the Natural and Farmland policies.

Congratulations

We are pleased to see an Appendix devoted directly to natural and farmlands protection in the 2016 Plan. We are glad that the Plan contains specific strategies addressing natural land and farmlands issues. This is certainly a step in the right direction. The culmination of the work from the last RTP/SCS is clearly visible in this Draft Plan. SCAG has demonstrated that Metropolitan Planning Organizations can play a vital, thoughtful and science-based role in mitigating impacts to our natural environment from transportation, infrastructure and other development projects. By incorporating natural and farmlands protection strategies into your policy document, we believe the many benefits of this broad-based conservation approach will be realized sooner than expected. Thank you for your leadership. 2

SCAG's Support of Regional Wildlife Corridors

The current federal transportation bill, FAST Act, supports understanding transportation impacts on natural resources. The previous bill, MAP-21, supported restoring and maintaining environmental functions (i.e., wildlife corridors) affected by the infrastructure projects in the RTP. SCAG has even supported efforts in Los Angeles County to create a wildlife corridor over the 101 Freeway. Many efforts are underway across the region to connect landscapes to one another. This is very important to the region and its biodiversity. Wildlife corridors allow species to migrate and forage and expand genetic diversity. These corridors also allow ecosystems to maintain ecological functions, act as sources for repopulation after natural disasters such as fire, flood or landslide, and improve the resiliency in the face of climate change impacts. The Plan would be stronger if it supported the enhancement of and/or protection of documented and regionally significant wildlife corridors, especially those that are impacted by infrastructure projects. 3

Formal Versus Informal Conservation Plans—All Are Important

SCAG focused many sections of the document on formal conservation plans, in the form of Natural Community Conservation Plans and Habitat Conservation Plans (NCCP/HCP), as the conservation method most identified by the agency. It is important to note that NCCP/HCP programs are only one conservation mechanism and they have limitations. For example, they are voluntary, property owner driven and generally only apply to larger land ownerships. Efforts underway by local, regional, state and federal agencies outside of these formal plans should not be discounted and must be included. Furthermore, many conservation organizations help facilitate, coordinate and find funding for land conservation transactions. We believe the conservation approach promoted by SCAG should include all of the ways land is protected, including those less regulated methods of conservation outside of NCCP/HCP programs. 4

Identify a Conservation Mechanism for the Natural and Farmlands Preservation

Our organization supports the idea that as new growth occurs it should focus on the existing infill areas. This is consistent with the finding in the SCAG surveys where respondents preferred to see existing urban areas built upon before greenfields are targeted for development, especially those at the Wildland-Urban Interface. When developments are built in infill areas, it likely relieves pressure from the fringe. However, the Plan fails to outline exactly how (or with what mechanism) these fringe lands (or any lands) will actually be protected. Just because the pressure is relieved doesn't mean the land then automatically becomes protected. Numerous organizations, ours included, focus their work on preservation of important habitat lands. A lot of time, energy, political will, strategy and other efforts combine to create a successful conservation transaction that leads to permanently conserved lands. SCAG must identify the mechanism, process or plan on how the greenfield lands will be protected. 5

Population Growth Impacts to Existing and Future Parklands

The Plan outlines that the region anticipates an additional 3.8 million people by 2040 providing increased pressure on our existing parkland. Studies document that many communities in the Southern California region already do not have enough parkland as outlined by the Quimby Act (three acres per 1,000 residents). Throughout the document, the Plan promotes providing more access to these existing parks as infill projects are built, but nowhere does it state how additional parks will be created. The mechanism is missing. More importantly, these city parks are fundamentally different than habitat-focused parks. Usually city and regional parks include high intensity recreation oriented activities, like soccer and baseball fields, and are turfed. The types of land acquired as mitigation or through local conservation efforts typically are focused on preservation of natural habitat and less intensive uses (birding, hiking, etc.). In fact, many of these mitigation lands have limited or managed public access. Providing "more" access to either high or low intensity parks and/or habitat lands may have significant consequences for the land manager. The document needs to address the impacts to local parks with increased access from expanding populations. The document also needs to address how additional lands will be protected, i.e., what mechanism will be used? 6

Amendments to the Open Space Maps in the PEIR

Maps contained within the PEIR, RTP, SCS and Appendix should be internally consistent and they are not. For example, each map that shows "open space" or "protected lands" should be using the same base dataset but they do not. The 2012 Plan resulted in the creation of SCAG's very own geographic information systems (GIS) dataset: the Natural Resource Inventory. It is more accurate than what is in the document now and it has been vetted by numerous organizations. That's why it is surprising to see that so few of SCAG's own GIS layers were actually used in the documents' maps. We urge SCAG to honor its own work and that of its partner organizations by using this dataset as the basis for natural and farmland mapping. Let's move forward with the same baseline information. 7

Conclusion

Thank you for reviewing our comments and we look forward to working with SCAG on the implementation of this Plan, especially as it relates to the Natural and Farmlands Appendix. Should you need to contact me, I can be reached at 805-643-8044. In addition, we request to be included on any notifications (electronic or otherwise) about this policy's creation and implementation, please send information to dpoultney@venturahillsides.org.

Sincerely,

Derek Poultney
Executive Director

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