Distribution of proposed RTP expenditures per Capita

The analysis for low-income populations shows that all Scenarios would result in higher increases in RTP investment per capita for low-income populations compared to non-low income populations, as follows:

a) Transit Emphasis Scenario: the rate of growth in investment per capita would increase by 121 percent for low-income populations compared to 93 percent for non-low income populations.

b) Highway Emphasis Scenario: the rate of growth in investment per capita would go up by 133 percent for low-income populations compared to 107 percent for non-low income populations.

c) Fusion Scenario: it would result in a 116 percent increase in investment per capita for low-income populations compared to 97 percent for non-low income populations.

d) Rail/Freight Emphasis Scenario: the rate of increase in investment per capita would increase by 104 percent for low-income populations compared to 90 percent for non-low income populations.

Conversely, the analysis for minority populations shows that all Scenarios would result in higher increases in RTP investment per capita for non-minority populations compared to minority populations, as follows:

a) Transit Emphasis Scenario: the rate of growth in investment per capita would be 97 percent for minority populations compared to 101 percent for non-minority populations.

b) Fusion Scenario: the rate of increase in investment per capita is projected at 96 percent for minority populations compared to 106 percent for non-minority populations.

c) Highway Emphasis Scenario: it would result in 109 percent increase in investment per capita for minority populations compared to 116 percent for non-minority populations.

d) Rail/Freight Emphasis Scenario: the rate of increase in investment per capita is projected at 85 percent for minority populations compared to 99 percent for non-minority populations.

When the low income and minority populations are combined, the Transit Emphasis Scenario would result in a slightly higher growth in investment per capita for LIM populations compared to non-LIM populations (101 percent increase for LIM populations versus 96 percent increase for non-LIM populations). The Highway Emphasis Scenario results in an equal growth in investment per capita for LIM and non-LIM populations, with both populations seeing a 113 percent increase. The other Scenarios show a slightly lower growth in investment per capita for LIM populations compared to non-LIM populations, in the following order:

a) Fusion Scenario: the rate of growth in investment per capita would go up by 100 percent for LIM populations compared to 102 percent for non-LIM populations.

b) Rail/Freight Emphasis Scenario: it would result in 90 percent growth in investment per capita for LIM populations compared to 95 percent for non-LIM populations.

None of these figures are divergent enough to constitute a statistically significant disparate impact based on state and federal social equity laws such as Title VI.

As described above, LIM populations are projected to maintain or gain slightly higher access benefits compared to non-LIM populations, with the exception of the share of homes within a half-mile of a transit stop. Any of the 2050 Scenarios would result in increased access to schools, healthcare, and parks/beaches for at least 98 percent of the LIM population. All 2050 Scenarios are projected to increase investment per capita for LIM populations between 90 percent and 113 percent.

2008 Existing Conditions Analysis

In addition, the draft results of the social equity performance measures outlined above for each of the Scenarios were compared to 2008 existing conditions to find out how mobility and accessibility indicators would change over time (2050) for LIM populations compared to non-LIM populations. Data for 2008 investment per capita is not available for LIM and non-LIM populations; therefore, an analysis of this performance measure was not possible. Key findings for the other performance measures are outlined below:

1. The draft modeling results suggest similar levels of mobility (travel time) for both LIM and non-LIM populations.
2. The percent of drive alone and carpool peak period work trips accessible within 30 minutes would decline for both LIM and non-LIM populations in a similar fashion, while access using transit would increase for both populations, with slightly higher gains for the LIM population.
3. The percent of homes within a half-mile of a transit stop shows gains for LIM and non-LIM populations, but slightly higher accessibility gains for non-LIM populations when compared to accessibility conditions for LIM populations. None of the Scenarios has a significantly different impact on LIM populations when they are compared to each other.
4. The percent of population within 30 minutes of schools would remain at similar levels for both LIM and non-LIM populations.
5. The percent of population within 30 minutes of SDIA would stay at current levels for LIM populations. However, non-LIM populations would experience a decline in accessibility to SDIA.
6. The percent of population within 15 minutes of healthcare for LIM populations would continue at similar levels in 2050.
7. The percent of LIM and non-LIM populations that could access parks/beaches within 15 minutes in 2050 would remain at virtually the same levels as in 2008.

A similar analysis of the initial modeling results indicates all 2050 Scenarios would result in similar performance compared to 2008 existing conditions. None of the Scenarios when compared to one another has a considerably different impact on LIM populations.

As described above, even though several accessibility metrics for LIM populations are projected to remain at current levels with any of the 2050 Scenarios, convenient access to schools, healthcare, and parks/beaches would range between 98 percent and 100 percent for LIM populations. In addition, for all 2050 Scenarios, 81 percent to 91 percent of homes for LIM populations would be within a half-mile of a transit stop. Data suggests that non-LIM populations would achieve higher accessibility gains in the number of homes near transit due to new transit services being proposed in areas not currently served by transit.

Based on this initial analysis, the Transit Emphasis Scenario appears to be the most beneficial for LIM populations in terms of the distribution of RTP expenditures. The data for all Social Equity performance measures indicate, however, that none of the Scenarios would create a substantial statistical disparity for LIM populations compared to non-LIM populations. Since none of the Scenarios would create a prohibited disparate impact, the Board should have the flexibility to choose any of the Scenarios without running awry of Title VI or other equity laws.

Sustainable Communities Strategy and Greenhouse Gas Emission Targets

In accordance with Senate Bill 375 (SB 375), the 2050 RTP must include a Sustainable Communities Strategy (SCS) to guide the San Diego region toward meeting greenhouse gas (GHG) emission targets related to cars and light trucks (passenger vehicles) by integrating land use, housing, and transportation planning to create more sustainable, walkable, transit-oriented compact development patterns and communities that reduce the need to drive. These targets – a 7 percent per-capita reduction in passenger vehicle GHG emissions by 2020 from a 2005 baseline, and 13 percent reduction by 2035 – were set by the California Air Resources Board (CARB) on September 23, 2010, and are consistent with the recommendation made by the SANDAG Board at the July 23, 2010, meeting.

Preliminary phasing of the Revenue Constrained Scenarios suggests that all Revenue Constrained Transportation Network Scenarios would meet the GHG emission targets for 2020 and 2035 established by CARB, as shown in Table 2.

Table 2
2050 RTP Revenue Constrained Scenarios
Preliminary Results of Greenhouse Gas Emissions
Per Capita CO2 Reductions for Passenger Vehicles from 2005 in Average Weekday Pounds

Target Year	CARB Target	Scenarios			
		Transit Emphasis	Rail/Freight Emphasis	Highway Emphasis	Fusion
Per Capita Reductions from 2005 (26 lbs/person)					
2020	7%	13%	13%	13%	13%
2035	13%	19%	19%	18%	19%

All Scenarios include the proposed full implementation of the TDM and TSM programs and projects, as well as Active Transportation programs identified through 2050. These programs provide flexible and cost-effective solutions to help reduce GHG emissions in the short-term compared to longer-term capital improvements, There also is an opportunity to consider providing options for

advancing the implementation of TDM, TSM, and Active Transportation projects and programs. For example, a funding and financing program that includes borrowing against future *TransNet* Active Transportation funds is under development as a means of completing the regional network of bicycle corridors as early as possible. The proposed implementation and financing strategy will be presented to the Transportation Committee in the coming months for recommendation to the Board of Directors.

Once the preferred Revenue Constrained Transportation Network Scenario is selected by the Board, the focus will turn to refining the phasing of the preferred scenario and completing the final GHG target analysis required by SB 375 and the air quality conformity analysis of the draft 2050 RTP.

Transportation Modeling for the 2050 RTP compared to SB 375 Target Setting

As SANDAG noted to CARB in July, "SANDAG staff modeled each [target setting] alternative using the SANDAG Regional Travel Demand Model. In the past, SANDAG has not conducted model runs for policy discussion using a draft [uncalibrated] RTP model. However, because SANDAG wanted to incorporate the latest planning and land use assumptions [from the 2050 Regional Growth Forecast] into the SB 375 target setting analysis, SANDAG used its draft model for target setting analysis."[5]

Since the target setting process, SANDAG staff finalized the calibration of the Regional Travel Demand Model. The calibration reduced daily VMT by approximately 5 million miles in the 2008 base year.[6] The reduction is a result of the continued effects of the economic recession on personal and commercial travel in the region. The downward calibration propagates throughout the forecast years resulting in lower VMT and CO_2 projections for 2020 and 2035.

The base year model calibration is validated against the Caltrans Performance Monitoring System (PeMS), Highway Performance Monitoring System (HPMS), local traffic counts, and observed transit boardings. Compared to Caltrans' HPMS the calibrated SANDAG model still estimates 5 percent more daily VMT than Caltrans in 2008 (Table 3).[7]

Table 3
2008 Estimates of Daily VMT

	SANDAG Estimate	Caltrans Estimate
Daily VMT in San Diego County	80,311,755 miles	76,492,445 miles

In addition, the recommendations from the target setting process relied on the reasonably expected network from the 2030 RTP: Pathways for the Future. In the reasonably expected scenario, the I-5 North Coast project, SR 52 Managed Lanes, and I-805 South HOV were expected to be completed by 2020. Preliminary phasing of the Scenarios for the 2050 RTP includes the development of these projects after 2020. Overall, highway capacity in the preliminary phasing for 2020 and 2035 varies in the draft 2050 RTP Scenarios compared to the 2030 RTP reasonably expected scenario resulting in reduced CO_2 emissions.

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[5] Kroninger, K. (2010, July). Model Updates Related to Senate Bill 375 Target Setting [Letter to D. Ito, California Air Resources Board]. Retrieved from http://www.arb.ca.gov/cc/sb375/mpo/sandag/tech_updates_sandag72910.pdf.

[6] The SB 375 Base Year (2005) CO_2 estimates were calculated using the fully calibrated transportation model from the 2030 Regional Transportation Plan.

[7] Caltrans (2009). *2008 California Public Road Data*. Sacramento, CA. Retrieved from http://www.dot.ca.gov/hq/tsip/hpms/datalibrary.php.

Finally, each of the draft 2050 RTP Scenarios includes more transit revenue miles by 2035 than the 2030 reasonably expected transit network. For example, the Fusion Scenario includes a new trolley line from Pacific Beach to El Cajon via Kearny Mesa, while other Scenarios include increased local bus service and new BRT and Rapid bus routes.

Feedback Received on the Alternative Revenue Constrained Transportation Network Scenarios

Working groups, PACs, and the Board have been providing feedback on the alternative Scenarios and draft performance measures results. In addition, at its November 12, 2010, meeting, the Transportation Committee requested that the list of projects that make up each Scenario be presented in a way that clearly shows the projects common to all Scenarios (Attachment 3), those that are included in specific Scenarios (Attachment 4), and those that only are part of the Unconstrained Transportation Network and are not included in any Revenue Constrained Transportation Network Scenario (Attachment 4). This information is summarized in Table 4. The following summarizes the major input received.

Scenarios

- Support for various projects that are included in the Transit Emphasis, Highway Emphasis, and Fusion Scenarios
- Concern that specific transit routes were not included in all Scenarios
- Interest in including additional transit routes in certain communities
- Support for both BRT and LRT projects
- Support for removing redundant transit routes
- Recognition of expense associated with UTC COASTER Station and Tunnel, but support for providing access to the UTC area as a major employment area
- Evaluate possible changes to the project mix, such as including the UTC COASTER station and tunnel, removing the Kearny Mesa Guideway, and removing the I-5 North BRT
- Recognition of the public opinion survey results indicating that the public favors transit investments
- Support for full funding of Active Transportation programs (bike/pedestrian programs) consistent with the region's smart growth programs
- Support for the Smart Growth Incentive Program
- Need for further inclusion of technology
- Support for including only Managed Lanes improvements in the I-5 North Coast corridor in all Scenarios

This feedback will be used to assist in developing a preferred Revenue Constrained Transportation Network Scenario.

Table 4
2050 RTP Revenue Constrained Scenarios
Summary of Estimated Major Capital Expenditures
(in $ 2010 millions)

	Transit Emphasis	Rail/Freight Emphasis	Highway Emphasis	Fusion
Transit/Highway Projects				
TransNet Projects	$21,126	$21,126	$21,126	$21,126
Other Constant Projects	$10,442	$10,442	$10,442	$10,442
Variable Projects	$11,639	$10,748	$11,691	$9,720
Local Streets & Roads	$25,319	$25,319	$25,319	$25,319
TDM/TSM/Active Transportation	$4,110	$4,110	$4,110	$4,110
Rail Grade Separations	$1,377	$1,377	$1,377	$2,493
Operations/Maintenance	$35,000	$35,000	$35,000	$35,000
Total	$109,013	$108,122	$109,065	$108,210
Unconstrained Only Capital Projects	$9,954	$9,954	$9,954	$9,954
Operations/Maintenance/Misc. Capital Projects	$25,000	$25,000	$25,000	$25,000
Total	$34,954	$34,954	$34,954	$34,954

Next Steps

The Board of Directors will be asked to select a preferred Revenue Constrained Transportation Network Scenario at its December 17, 2010, meeting. Once a preferred Revenue Constrained Transportation Network Scenario is selected, continued refinements to the transportation network and TDM, TSM, and Active Transportation programs and further performance evaluations will be made throughout the Draft 2050 RTP review period in 2011 to ensure an effective and efficient transportation network is developed for final approval.

GARY L. GALLEGOS
Executive Director

Attachments: 1. Draft 2050 RTP: Performance Measures Draft Results
2. Draft 2050 RTP: Projected Travel Times in Key Corridors
3. 2050 RTP Revenue Constrained Scenarios: Constant Projects List
4. 2050 RTP Revenue Constrained Scenarios: Variable Projects List

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Funds are budgeted in Work Element #3100500

DRAFT 2050 RTP: PERFORMANCE MEASURES DRAFT RESULTS - ATTACHMENT 1

	Goals and Performance Measures	Existing (2008)	No Build (2050)	Transit Emphasis (2050)	Rail/Freight Emphasis (2050)	Highway Emphasis (2050)	Fusion Emphasis (2050)
	SYSTEM PRESERVATION AND SAFETY						
1	Annual projected number of vehicle injury/fatal collisions per 1,000 persons	3.98	4.05	3.73	3.73	3.75	3.74
2	Annual projected number of bicycle/pedestrian injury/fatal collisions per 1,000 persons	0.65	0.56	2.64	2.65	2.64	2.64
3	Percent of transportation investements toward maintenance and rehabilitation	N/A	36%	40%	39%	40%	40%
4	Percent of transportation investments toward operational improvements						
	MOBILITY						
5	Average work trip travel time (in minutes)	26	28	27	27	27	27
6	Average work trip travel speed by mode (in m.p.h.)						
	Drive alone	34	28	29	29	30	29
	Carpool	34	30	31	31	31	31
	Transit	10	10	13	13	13	13
7	Percent of work and higher education trips accessible in 30 minutes in peak periods by mode						
	Drive alone	74%	68%	73%	73%	74%	74%
	Carpool	75%	69%	75%	75%	76%	76%
	Transit	7%	8%	15%	14%	15%	14%
8	Percent of non work-related trips accessible in 15 minutes by mode						
	Drive alone	72%	67%	68%	68%	68%	68%
	Carpool	72%	68%	68%	69%	68%	68%
	Transit	4%	4%	8%	8%	8%	8%
9	Out-of-pocket user costs per trip	$2.10	$2.19	$2.20	$2.20	$2.22	$2.20
10	Number of interregional transit routes by service type	9	16	41	30	46	35
11	Network enhancements by freight mode						
	Freight capacity acreage	470	470	580	580	580	580
	Freight capacity mileage	3,200	3,400	3,600	3,600	3,900	3,600
	PROSPEROUS ECONOMY						
12	Net benefits	DATA UNDER DEVELOPMENT					
	Benefit/Cost Ratio						
	Net Present Value (in millions)						
13	Return on investment						
14	Economic impacts						
	Job Impacts (average number per year)	N/A	1,000	35,500	34,700	36,700	35,300
	Output Impacts (gross regional product in millions)	N/A	130	$4,700	$4,600	$4,800	$4,600
	Payroll Impacts (in millions)	N/A	50	$1,800	$1,800	$1,900	$1,800
	RELIABILITY						
15	Congested vehicle miles of travel (VMT)						
	Percent of total auto travel in congested conditions (peak periods)	14%	28%	12%	12%	10%	12%
	Percent of total auto travel in congested conditions (all day)	6%	18%	8%	8%	7%	8%
	Percent of total transit travel in congested conditions (peak periods)	5%	10%	4%	4%	4%	4%
	Percent of total transit travel in congested conditions (all day)	5%	9%	4%	4%	4%	4%
16	Daily vehicle delay per capita (minutes)	3	9	4	4	3	4
17	Daily truck hours of delay	6,100	34,200	13,700	13,500	11,800	13,500
18	Percent of freeway VMT by travel speed by mode						
	Drive alone						
	Percent of VMT traveling from 0 to 35 mph	4.6%	20.0%	5.7%	5.6%	4.6%	5.3%
	Percent of VMT traveling from 35 to 55 mph	7.4%	15.0%	9.1%	9.4%	7.7%	9.1%
	Percent of VMT traveling greater than 55 mph	88.0%	64.9%	85.3%	85.0%	87.7%	85.6%
	Carpool						
	Percent of VMT traveling from 0 to 35 mph	3.3%	17.7%	5.6%	5.5%	4.6%	5.2%
	Percent of VMT traveling from 35 to 55 mph	6.1%	14.8%	8.5%	8.9%	7.4%	8.7%
	Percent of VMT traveling greater than 55 mph	90.6%	67.5%	85.8%	85.6%	88.1%	86.1%
	Truck						
	Percent of VMT traveling from 0 to 35 mph	3.1%	15.4%	4.1%	4.0%	3.0%	3.8%
	Percent of VMT traveling from 35 to 55 mph	5.7%	15.3%	8.7%	8.9%	6.7%	8.9%
	Percent of VMT traveling greater than 55 mph	91.2%	69.4%	87.3%	87.1%	90.4%	87.3%
	HEALTHY ENVIRONMENT						
19	Gross acres of constrained lands consumed for transit and highway infrastructure	N/A	98	245	275	362	264
20	On-road fuel consumption (all day) per capita*	1.45	1.02	0.89	0.89	0.90	0.89
21	Smog-forming pollutants (pounds/year) per capita*	66.32	22.54	22.05	22.01	22.21	22.06
22	Systemwide VMT (all day) per capita*	25.65	26.98	23.38	23.41	23.68	23.46
23	Transit passenger miles (all day) per capita	0.50	0.40	0.78	0.79	0.76	0.78
24	Percent of peak-period trips within 1/2 mile of a transit stop	76%	72%	77%	77%	77%	77%
25	Percent of daily trips within 1/2 mile of transit stop	78%	74%	79%	79%	79%	79%
26	Work trip mode share (peak periods)						
	Drive alone	80.6%	82.4%	68.9%	68.8%	69.0%	68.8%
	Carpool	10.8%	10.2%	15.4%	15.4%	15.4%	15.4%
	Transit	6.0%	5.0%	10.6%	10.5%	10.4%	10.7%
	Bike/Walk	2.5%	2.4%	5.1%	5.3%	5.1%	5.1%
27	Work trip mode share (all day)						
	Drive alone	80.7%	82.6%	69.1%	69.1%	69.2%	69.1%
	Carpool	10.8%	10.1%	15.3%	15.3%	15.4%	15.3%
	Transit	5.7%	4.7%	10.1%	9.9%	9.8%	10.1%
	Bike/Walk	2.8%	2.6%	5.6%	5.8%	5.6%	5.6%

*** Notes:**

20 and 21: Values based on 2050 SANDAG Transportation Model Outputs using 2040 Emission Factors from 2007 EMFAC.

No emission factors are available for 2050 (smog-forming pollutants include reactive organic gases [ROG] and oxides of nitrogen [NOx]).

22 and 31: Includes all vehicle types.

DRAFT 2050 RTP: PERFORMANCE MEASURES DRAFT RESULTS - ATTACHMENT 1

	Goals and Performance Measures	Existing (2008)	No Build (2050)	Transit Emphasis (2050)	Rail/Freight Emphasis (2050)	Highway Emphasis (2050)	Fusion Emphasis (2050)
	HEALTHY ENVIRONMENT						
28	Non work trip mode share (peak periods)						
	Drive alone	45.7%	46.4%	43.0%	43.0%	43.0%	43.0%
	Carpool	50.0%	50.0%	49.3%	49.4%	49.3%	49.3%
	Transit	0.8%	0.6%	0.8%	0.8%	0.8%	0.8%
	Bike/Walk	3.5%	3.1%	6.8%	6.8%	6.8%	6.8%
29	Non work trip mode share (all day)						
	Drive alone	49.3%	50.2%	47.0%	47.0%	47.0%	47.0%
	Carpool	46.8%	46.6%	46.2%	46.2%	46.2%	46.2%
	Transit	0.8%	0.6%	0.9%	0.8%	0.9%	0.9%
	Bike/Walk	3.1%	2.6%	5.9%	5.9%	5.9%	5.9%
30	Total bike and walk trips	523,000	617,000	1,357,000	1,364,000	1,357,000	1,357,000
31	CO2 emissions per capita*	28.0	20.1	17.6	17.6	17.8	17.7
	SOCIAL EQUITY						
32	Average travel time per person trip (in minutes)						
	Low-income population	15	17	16	16	16	16
	Non low-income population	16	17	16	16	16	16
	Minority population	15	17	16	16	16	16
	Non minority population	16	17	16	16	16	16
	Mobility population	16	18	17	17	17	17
	Non mobility population	15	17	16	16	16	16
	Community engagement population	15	17	16	16	16	16
	Non community engagement population	16	17	16	16	16	16
33	Percent of work trips accessible in 30 minutes in peak periods by mode						
	Low-income population						
	Drive alone	80%	71%	77%	77%	77%	77%
	Carpool	80%	72%	78%	79%	79%	79%
	Transit	15%	15%	24%	23%	23%	23%
	Non low-income population						
	Drive alone	72%	67%	72%	72%	73%	72%
	Carpool	74%	69%	74%	74%	75%	74%
	Transit	5%	5%	12%	11%	12%	12%
	Minority population						
	Drive alone	77%	70%	76%	76%	76%	76%
	Carpool	78%	71%	77%	78%	78%	78%
	Transit	9%	10%	18%	17%	17%	17%
	Non minority population						
	Drive alone	72%	66%	71%	71%	72%	71%
	Carpool	73%	68%	73%	73%	74%	73%
	Transit	5%	6%	12%	12%	12%	12%
	Mobility population						
	Drive alone	78%	70%	76%	76%	76%	76%
	Carpool	79%	71%	77%	78%	78%	78%
	Transit	12%	13%	21%	20%	20%	20%
	Non mobility population						
	Drive alone	73%	67%	72%	72%	73%	73%
	Carpool	74%	69%	74%	75%	75%	75%
	Transit	6%	6%	13%	12%	13%	13%
	Community engagement population						
	Drive alone	78%	70%	76%	76%	77%	76%
	Carpool	78%	71%	78%	78%	79%	78%
	Transit	12%	12%	22%	20%	21%	20%
	Non community engagement population						
	Drive alone	72%	67%	72%	72%	73%	72%
	Carpool	74%	69%	74%	74%	75%	74%
	Transit	5%	5%	12%	11%	12%	12%
34	Percent of homes within 1/2 mile of a transit stop						
	Low-income population	93%	90%	91%	91%	91%	91%
	Non low-income population	59%	57%	62%	62%	62%	63%
	Minority population	81%	78%	81%	81%	81%	81%
	Non minority population	55%	55%	59%	60%	59%	60%
	Mobility population	72%	73%	75%	74%	75%	75%
	Non mobility population	65%	63%	68%	68%	68%	68%
	Community engagement population	90%	86%	89%	88%	89%	88%
	Non community engagement population	57%	56%	61%	61%	61%	62%

*** Notes:**

22 and 31: Includes all vehicle types.

32 - 39: Mobility (zero-car households, disabled, and 75+) and Community engagement (linguistic isolation and low educational attainment)

DRAFT 2050 RTP: PERFORMANCE MEASURES DRAFT RESULTS - ATTACHMENT 1

	Goals and Performance Measures	Existing (2008)	No Build (2050)	Transit Emphasis (2050)	Rail/Freight Emphasis (2050)	Highway Emphasis (2050)	Fusion Emphasis (2050)
	SOCIAL EQUITY						
35	Percent of population within 30 minutes of schools						
	Low-income population	98%	98%	100%	99%	99%	99%
	Non low-income population	98%	97%	100%	98%	98%	98%
	Minority population	98%	98%	100%	98%	98%	98%
	Non minority population	98%	97%	100%	98%	98%	98%
	Mobility population	96%	95%	100%	96%	96%	96%
	Non mobility population	98%	98%	100%	99%	99%	99%
	Community engagement population	97%	98%	100%	98%	98%	98%
	Non community engagement population	98%	97%	100%	98%	98%	98%
36	Percent of population within 30 minutes of the San Diego International Airport						
	Low-income population	75%	75%	75%	75%	75%	75%
	Non low-income population	71%	61%	68%	66%	68%	66%
	Minority population	75%	72%	76%	75%	76%	75%
	Non minority population	69%	57%	64%	61%	64%	62%
	Mobility population	70%	65%	69%	67%	68%	67%
	Non mobility population	72%	65%	71%	69%	71%	69%
	Community engagement population	69%	68%	70%	69%	69%	69%
	Non community engagement population	73%	63%	70%	68%	70%	68%
37	Percent of population within 15 minutes of healthcare						
	Low-income population	99%	99%	99%	99%	99%	99%
	Non low-income population	97%	96%	96%	96%	96%	96%
	Minority population	99%	99%	99%	99%	99%	99%
	Non minority population	96%	94%	95%	95%	95%	95%
	Mobility population	97%	96%	96%	96%	96%	96%
	Non mobility population	98%	97%	97%	97%	97%	97%
	Community engagement population	99%	99%	99%	99%	99%	99%
	Non community engagement population	97%	95%	96%	96%	96%	96%
38	Percent of population within 15 minutes of parks or beaches						
	Low-income population	100%	100%	100%	100%	100%	100%
	Non low-income population	99%	99%	100%	100%	100%	100%
	Minority population	100%	100%	100%	100%	100%	100%
	Non minority population	99%	99%	100%	100%	100%	100%
	Mobility population	100%	100%	100%	100%	100%	100%
	Non mobility population	99%	99%	100%	100%	100%	100%
	Community engagement population	100%	100%	100%	100%	100%	100%
	Non community engagement population	99%	99%	100%	100%	100%	100%
39	Distribution of RTP expenditures per capita						
	Low-income population	N/A	$6,700	$14,800	$13,700	$15,600	$14,500
	Non low-income population	N/A	$6,700	$12,900	$12,700	$13,900	$13,200
	Minority population	N/A	$6,800	$13,400	$12,600	$14,200	$13,300
	Non minority population	N/A	$6,700	$13,500	$13,300	$14,500	$13,800
	Mobility population	N/A	$6,700	$14,000	$13,000	$14,500	$13,900
	Non mobility population	N/A	$6,700	$13,200	$13,000	$14,300	$13,400
	Community engagement population	N/A	$6,700	$13,900	$12,900	$14,800	$13,600
	Non community engagement population	N/A	$6,700	$13,200	$13,000	$14,200	$13,500

*** Notes:**

32 - 39: Mobility (zero-car households, disabled, and 75+) and Community engagement (linguistic isolation and low educational attainment)

DRAFT 2050 RTP: PROJECTED TRAVEL TIMES IN KEY CORRIDORS

	Goals and Performance Measures	Existing (2008)	No Build (2050)	Transit Emphasis (2050)	Rail/Freight Emphasis (2050)	Highway Emphasis (2050)	Fusion Emphasis (2050)
	Average travel time (peak periods) by mode for selected corridors (in minutes door to door)						
1	**Oceanside - Downtown San Diego**						
	By auto	59	66	60	60	56	60
	By transit (walk access)	104	106	88	83	92	92
	By transit (park and ride access)	93	93	83	75	83	83
	By carpool	55	64	59	59	54	59
2	**Escondido - Downtown San Diego**						
	By auto	47	52	50	50	50	50
	By transit (walk access)	74	75	62	72	62	62
	By transit (park and ride access)	75	71	53	53	56	56
	By carpool	47	47	49	49	49	49
3	**El Cajon - Kearny Mesa**						
	By auto	29	32	30	29	28	31
	By transit (walk access)	76	92	57	48	57	50
	By transit (park and ride access)	62	77	46	38	46	38
	By carpool	29	32	29	27	27	31
4	**Mid City - UTC**						
	By auto	26	39	30	29	30	30
	By transit (walk access)	65	79	38	28	38	34
	By transit (park and ride access)	56	67	40	30	40	36
	By carpool	25	39	27	27	27	27
5	**Western Chula Vista - Mission Valley**						
	By auto	26	35	28	28	26	26
	By transit (walk access)	71	72	52	51	53	55
	By transit (park and ride access)	68	69	49	48	50	53
	By carpool	26	35	27	27	25	25
6	**Carlsbad - Sorrento Mesa**						
	By auto	41	38	34	34	32	34
	By transit (walk access)	85	99	53	93	53	87
	By transit (park and ride access)	60	61	55	55	55	55
	By carpool	34	33	32	31	29	31
7	**Oceanside - Escondido**						
	By auto	32	37	32	32	31	32
	By transit (walk access)	81	90	62	62	62	62
	By transit (park and ride access)	88	87	57	66	57	56
	By carpool	32	37	31	31	30	31
8	**San Ysidro - Downtown San Diego**						
	By auto	28	32	29	30	29	28
	By transit (walk access)	44	44	40	40	44	44
	By transit (park and ride access)	46	46	42	42	46	46
	By carpool	28	32	29	29	29	29
9	**Otay Ranch - UTC**						
	By auto	45	66	46	45	45	44
	By transit (walk access)	135	123	52	65	52	52
	By transit (park and ride access)	151	121	50	63	50	50
	By carpool	45	65	44	43	44	43
10	**Pala/Pauma - Oceanside Transit Center**						
	By auto	53	54	53	53	51	53
	By transit (walk access)	180	164	99	98	98	98
	By transit (park and ride access)	99	75	64	64	62	63
	By carpool	53	54	53	53	51	53
11	**SR 67 (Ramona) - Downtown San Diego**						
	By auto	60	69	61	62	61	61
	By transit (walk access)	156	166	96	96	113	113
	By transit (park and ride access)	113	98	79	78	78	79
	By carpool	60	66	61	62	61	61

Draft 2050 RTP Revenue Constrained Network Scenarios
Constant Projects List
November 19, 2010

	***TransNet* Projects**					**Estimated UNC Cost* ($2010)**	**Project Ranking**	**Scenario #1** Transit Emphasis	**Scenario #2** Rail/Freight Emphasis	**Scenario #3** Highway Emphasis	**Scenario #4** Fusion
	FREEWAY/HIGHWAY IMPROVEMENT PROJECTS										
	Route	**From**	**To**	**Existing**	**Improvement**						
1	I-5	SR 905	SR 54	8F	8F+2ML	$220	15	✓	✓	✓	✓
2	I-5	SR 54	I-15	8F	8F+2ML	$100	14	✓	✓	✓	✓
3	I-5	I-15	I-8	8F	8F+Operational	$1,130	17	✓	✓	✓	✓
4	I-5	I-8	La Jolla Village Dr	8F/10F	8F/10F+2ML	$530	6	✓	✓	✓	✓
5	I-5	La Jolla Village Dr	I-5/I-805 Merge	8F/14F	8F/14F+2ML	$303	28	✓	✓	✓	✓
6	I-5	I-5/I-805 Merge	Manchester Ave	8F/14F+ 2HOV	8F/14F+4ML	$427	32	✓	✓	✓	✓
7	I-5	Manchester Ave	Palomar Airport Rd	8F	8F+4ML	$2,059	4	✓	✓	✓	✓
8	I-5	Palomar Airport Rd	Vandegrift Boulevard	8F	8F+4ML	$1,311	25	✓	✓	✓	✓
9	I-8	2nd Street	Los Coches	4F/6F	6F	$54	41	✓	✓	✓	✓
10	SR 15	SR 94	I-8	8F	8F+2ML	$120	19	✓	✓	✓	✓
11	I-15	Viaduct		8F	8F+2ML	$720	42	✓	✓	✓	✓
12	I-15	I-8	SR 163	8F	8F+2ML	$130	3	✓	✓	✓	✓
13	I-15	SR 163	SR 56	8F+2ML(R)	10F+4ML/MB	$419	N/A	✓	✓	✓	✓
14	I-15	Centre City Pkwy	SR 78	8F	8F+4ML	$210	N/A	✓	✓	✓	✓
15	SR 52	I-805	I-15	6F	6F+2ML	$190	30	✓	✓	✓	✓
16	SR 52	I-15	SR 125	4F	6F+2ML(R)	$325	11	✓	✓	✓	✓
17	SR 54	I-5	SR 125	6F	6F+2ML	$100	37	✓	✓	✓	✓
18	SR 56	I-5	I-15	4F	6F	$221	46	✓	✓	✓	✓
19	SR 67	Mapleview St	Dye Rd	2C/4C	4C	$570	8	✓	✓	✓	✓
20	SR 76	Melrose Drive	I-15	2C	4C	$404	N/A	✓	✓	✓	✓
21	SR 78	I-5	I-15	6F	6F+2ML/Ops	$570	5	✓	✓	✓	✓
22	SR 94	I-5	I-805	8F	8F+2ML	$480	22	✓	✓	✓	✓
23	SR 94	I-805	College Ave	8F	8F+2ML	$220	27	✓	✓	✓	✓
24	SR 94	College Ave	SR 125	8F	8F+2ML	$230	44	✓	✓	✓	✓
25	SR 94	SR 125	Avocado Blvd	4F	6F	$90	34	✓	✓	✓	✓
26	SR 94	Avocado Blvd	Jamacha Rd	4C	6C	$30	45, 24	✓	✓	✓	✓
27	SR 94	Jamacha Rd	Steele Canyon Rd	4C	6C	$20	45, 24	✓	✓	✓	✓
28	SR 125	SR 54	SR 94	6F	6F+2ML	$100	16	✓	✓	✓	✓
29	SR 125	SR 94	I-8	8F	8F+2ML	$70	2	✓	✓	✓	✓
30	I-805	Palomar St	Carroll Canyon Rd	8F/10F	8F+2ML	$2,003	18, 9, 10, 1	✓	✓	✓	✓
31	I-805	Mission Valley Viaduct		8F	8F+2ML	$401	10	✓	✓	✓	✓
32	I-805	Carroll Canyon Rd	I-5 (north)	8F/10F	8F+2ML	$86	7	✓	✓	✓	✓

	TransNet Projects					Estimated UNC Cost* ($2010)	Project Ranking	Scenario #1 Transit Emphasis	Scenario #2 Rail/Freight Emphasis	Scenario #3 Highway Emphasis	Scenario #4 Fusion
	FREEWAY CONNECTORS										
	Fwy	**Intersecting Freeway**	**Movement**								
33	I-5	SR 56	West to North			$33	9	✓	✓	✓	✓
34	I-5	SR 56	South to East			$98	10	✓	✓	✓	✓
35	I-5	SR 78	South to East			$60	2	✓	✓	✓	✓
36	I-5	SR 78	West to South			$46	4	✓	✓	✓	✓
37	SR 94	SR 125	West to North			$180	1	✓	✓	✓	✓
38	SR 94	SR 125	South to East			$139	5	✓	✓	✓	✓
	HOV CONNECTORS										
	Route	**Intersecting Freeway**	**Movement**								
39	I-5	I-805	North to North and South to South			$170	3	✓	✓	✓	✓
40	I-15	SR 78	East to South and North to West			$105	1	✓	✓	✓	✓
41	I-15	SR 94	East to North and South to West			$80	19	✓	✓	✓	✓
	TRANSIT PROJECTS										
42	COASTER - Double Tracking (including Fairgrounds and Convention Center Stations, and rail grade separation at Leucadia) (Rte 398)					$1,684	10	✓	✓	✓	✓
43	Trolley - Mid-Coast LRT Extension (Rte 510)					$1,350	N/A	✓	✓	✓	✓
44	Trolley - Trolley System Rehabilitation					$510	N/A	✓	✓	✓	✓
45	SPRINTER - Double Tracking (Oceanside-Escondido); rail grade separations assumed at El Camino Real, Vista Village, Melrose, and Mission/San Marcos Stations (Rte 399)					$678	21	✓	✓	✓	✓
46	BRT - North I-15 (Sabre Springs/Mira Mesa PNRs, Mid-City Stations) (Rte 610)					$103	3	✓	✓	✓	✓
47	BRT - Escondido-UTC via Mira Mesa Blvd (Rt 470 Project)					$20	N/A	✓	✓	✓	✓
48	BRT - South Bay BRT (Otay Mesa-Downtown) (Rte 628)					$200	N/A	✓	✓	✓	✓
49	BRT - South Bay Maintenance Facility					$51	N/A	✓	✓	✓	✓
50	BRT - Downtown BRT stations/layovers					$110	N/A	✓	✓	✓	✓
51	BRT - Otay Mesa to Sorrento Mesa via I-805, Kearny Mesa (TransNet Rt 680)					$200	N/A	✓	✓	✓	✓
52	Rapid - Mid-City Rapid - Phase 1					$44	N/A	✓	✓	✓	✓
53	Rapid - Mid-City Rapid – Phase 2 Balboa Park (Rte 15)					$24	N/A	✓	✓	✓	✓
54	Rapid - UTC Area Super Loop (Rte 180)					$0	N/A	✓	✓	✓	✓
				Total				**$21,126**	**$21,126**	**$21,126**	**$21,126**

	OTHER CONSTANT PROJECTS					Estimated UNC Cost* ($2010)	Project Ranking	Scenario #1 Transit Emphasis	Scenario #2 Rail/Freight Emphasis	Scenario #3 Highway Emphasis	Scenario #4 Fusion
	FREEWAY/HIGHWAY IMPROVEMENT PROJECTS										
	Route	**From**	**To**	**Existing**	**Improvement**						
55	I-5	Vandegrift Boulevard	Orange County	8F	8F+4T	$754	N/A	✓	✓	✓	✓
56	I-8	SR 125	2nd Street	6F/8F	6F/8F+Operational	$125	13	✓	✓	✓	✓
57	SR 11	SR 905	Mexico	--	4T	$356	N/A	✓	✓	✓	✓
58	SR 15	I-5	SR 94	6F	8F+2ML	$90	23	✓	✓	✓	✓
59	I-15	SR 78	Riverside County	8F	8F+4T	$1,005	N/A	✓	✓	✓	✓
60	SR 52	I-5	I-805	4F	6F	$110	31	✓	✓	✓	✓

	OTHER CONSTANT PROJECTS					Estimated UNC Cost* ($2010)	Project Ranking	Scenario #1 Transit Emphasis	Scenario #2 Rail/Freight Emphasis	Scenario #3 Highway Emphasis	Scenario #4 Fusion
61	SR 125	SR 905	San Miguel Rd	4T	8F	$110	N/A	✓	✓	✓	✓
62	SR 125	San Miguel Rd	SR 54	4F	8F	$60	N/A	✓	✓	✓	✓
63	SR 241	Orange County	I-5	--	4T/6T	$443	N/A	✓	✓	✓	✓
64	SR 905	I-805	Mexico	--	6F	$595	N/A	✓	✓	✓	✓
	FREEWAY CONNECTORS										
	Fwy	**Intersecting Freeway**	**Movement**								
65	I-15	SR 56	North to West			$100	7	✓	✓	✓	✓
	HOV CONNECTORS										
	Route	**Intersecting Freeway**	**Movement**								
66	I-15	I-805	North to North and South to South			$90	4	✓	✓	✓	✓
67	I-805	SR 52	West to North and South to East			$90	2	✓	✓	✓	✓
68	I-805	SR 94	East to South and North to West			$160	6	✓	✓	✓	✓
	TRANSIT PROJECTS										
69	High Speed Rail (HSR) Intercity - Temecula to Lindbergh Field ITC					$0	N/A	✓	✓	✓	✓
70	High Speed Rail (HSR) Commuter Rail Overlay - Temecula to Lindbergh ITC (Rte 598)					$330	8**	✓	✓	✓	✓
71	COASTER - Tunnel (Del Mar) (Rte 398)					$1,184	N/A	✓	✓	✓	✓
72	COASTER - Positive Train Control					$108	N/A	✓	✓	✓	✓
73	Trolley - Blue Line Frequency Enhancements (rail grade seps at: Taylor, Palomar St, H St, E St, 32nd St, 28th St, Washington St/Sassafras St) (Rte 510)					$552	1	✓	✓	✓	✓
74	Trolley - Orange Line Frequency Enhancements (rail grade seps at: Allison/University, Severin Dr, Broadway/Lemon Grove Ave, Euclid Ave) (Rte 520)					$312	11	✓	✓	✓	✓
75	Trolley - Green Line Frequency Enhancements (Rte 530)					$0	2	✓	✓	✓	✓
76	Rapid - La Mesa to Ocean Beach via Mid-City, Hillcrest, Old Town (Rte 10)					$85	15	✓	✓	✓	✓
77	Rapid - Point Loma to Kearny Mesa via Old Town, Linda Vista (Rte 28)					$48	27	✓	✓	✓	✓
78	Rapid - Kearny Mesa to Downtown via KM Guideway (Rte 120)					$0	12	✓	✓	✓	✓
79	Rapid - Escondido to Del Lago via Escondido Blvd & Bear Valley (Rte 350)					$0	N/A	✓	✓	✓	✓
80	Shuttles - San Marcos					$0	N/A	✓	✓	✓	✓
81	Local Bus Routes - 10 min in key corridors					$0	N/A	✓	✓	✓	✓
82	Feeder Bus System					$0	N/A	✓	✓	✓	✓
83	Lindbergh Intermodal Transit Center (ITC)					$215	N/A	✓	✓	✓	✓
84	Bike/Pedestrian Access Improvements					$500	N/A	✓	✓	✓	✓
85	Other (Maintenance facilities, transit system rehab, park and ride, ITS)					$3,020	N/A	✓	✓	✓	✓
					Total			**$10,442**	**$10,442**	**$10,442**	**$10,442**

Note: All Managed Lane facilities will have a HOV-3+ occupancy requirement after 2020. HOV-2 and SOVs will be required to pay a fee to use these facilities.

TransNet projects are included in all scenarios with the exception of the I-805 corridor where different improvements are being tested in some scenarios.

* Capital costs only. Operating costs, which include vehicle and vehicle replacement costs, will be based on phasing.

** Project Rankings was from Temecula to International Border.

Draft 2050 RTP Revenue Constrained Network Scenarios
Variable Projects List
November 19, 2010

	VARIABLE PROJECTS					Estimated UNC Cost* ($2010)	Project Ranking	Scenario #1 Transit Emphasis	Scenario #2 Rail/Freight Emphasis	Scenario #3 Highway Emphasis	Scenario #4 Fusion
	FREEWAY/HIGHWAY IMPROVEMENT PROJECTS										
	Route	**From**	**To**	**Constant**	**Add'l Improvement**						
86	I-5	SR 54	I-15	8F+2ML	10F+2ML	$100	14	-	-	✓	✓
87	I-5	SR 56	Palomar Airport Rd	8F+4ML	10F+4ML	$136	4	-	-	✓	-
88	I-5	Palomar Airport Rd	Vandegrift	8F+4ML	10F+4ML	$87	25	-	-	✓	-
89	I-8	I-5	I-15	8F	8F+Operational	$440	33	✓	-	✓	✓
90	I-8	I-15	SR 125	8F/10F	8F/10F+Operational	$125	40	✓	-	✓	✓
91	I-8	Los Coches	Dunbar Rd	4F/6F	6F	$335	41	-	-	✓	-
92	SR 52	I-15	SR 125	6F+2ML(R)	6F+3ML/MB	$115	11	-	-	✓	-
93	SR 52	SR 125	SR 67	4F	6F	$120	36	-	-	✓	-
94	SR 54	I-5	SR 125	6F+2ML	6F/8F+2ML	$40	37	-	-	✓	-
95	SR 56	I-5	I-15	6F	6F+2ML	$69	46	-	-	✓	-
96	SR 67	I-8	Mapleview St	4F/6F	6F/8F	$180	29	-	✓	✓	-
97	SR 76	I-5	Melrose Drive	4E	6E	$225	39	-	-	✓	-
98	SR 76	Melrose Drive	Mission Rd	4C	6C	$190	20	-	-	✓	-
99	SR 76	I-15	Couser Canyon	2C	4C/6C + Ops	$130	26	-	-	✓	✓
100	SR 94	I-805	College Ave	8F+2ML	10F+2ML	$70	27	-	-	✓	✓
101	SR 94	Steele Canyon Rd	Melody Rd	2C	4C	$90	45, 24	-	✓	✓	-
102	SR 125	SR 54	SR 94	6F+2ML	8F+2ML	$40	16	-	-	✓	-
103	SR 125	SR 94	I-8	8F+2ML	10F+2ML	$215	2	-	-	✓	✓
104	SR 125	I-8	SR 52	6F	6F+2ML	$440	38	-	✓	✓	-
105	SR 163	I-805	I-15	8F	8F+2ML	$320	35	-	-	✓	-
106	I-805	SR 905	Telegraph Canyon Rd.	8F	8F+4ML	$140	12	-	-	✓	-
107	I-805	Telegraph Canyon Rd.	SR 54	8F+2ML	8F+4ML	$100	18	-	-	✓	-
108	I-805	SR 54	I-8	8F+2ML	8F+4ML	$160	9	-	-	✓	-
109	I-805	Mission Valley Viaduct		8F+2ML	8F+4ML	$160	10	-	-	✓	-
110	I-805	I-8	La Jolla Village Dr	8F/10F+2ML	8F/10F+4ML	$100	1	-	-	✓	-
111	I-805	Palomar St	SR 94	8F+2ML	8F+4ML	$516	18	✓	-	-	-
112	I-805	SR 52	Carroll Canyon Rd	8F/10F+2ML	8F/10F+4ML	$180	1	✓	-	-	-
113	I-805	SR 905	Palomar St	8F	8F+2ML	$200	12	-	✓	-	-
114	SR 905	I-5	I-805	4F	8F	$150	43	-	✓	✓	-
115	SR 905	I-805	Mexico	6F	8F	$426	21	-	✓	✓	-

	VARIABLE PROJECTS				Estimated UNC Cost* ($2010)	Project Ranking	Scenario #1 Transit Emphasis	Scenario #2 Rail/Freight Emphasis	Scenario #3 Highway Emphasis	Scenario #4 Fusion
	FREEWAY CONNECTORS									
	Fwy	**Intersecting Freeway**	**Movement**							
116	I-5	I-8	East to North		$220	6	-	-	✓	-
117	I-5	I-8	South to West		$100	3	-	-	✓	-
118	I-5	SR 94	North to East		$120	8	-	✓	-	-
	HOV CONNECTORS									
	Route	**Intersecting Freeway**	**Movement**							
119	I-5	SR 56	North to East and West to South		$80	5	-	-	✓	-
120	I-5	SR 78	South to East and West to North		$120	8	✓	-	✓	-
121	I-5	SR 78	North to East and West to South		$120	7	✓	-	✓	-
122	I-15	SR 52	West to North and South to East		$140	10	✓	-	-	✓
	TRANSIT PROJECTS									
123	COASTER - UTC Tunnel and UTC COASTER Station (Rte 398)				$2,989	See Note A	-	✓	-	-
124	SPRINTER - Branch Extensions to North County Fair (Rte 399)				$678	See Note B	✓	✓	-	✓
125	SPRINTER Express (Rte 588)				$284	23	-	✓	-	✓
126	Trolley - Downtown Trolley Tunnel betw. Park/Island and Ash St (facilitates frequency enhancements for Blue/Orange Lines and Blue/Orange Express) (Rtes 510 & 520)				$2,592	See Note C	✓	✓	-	-
127	Trolley Express - Blue Line Express - UTC to San Ysidro via Downtown (Rte 540)				$455	4	✓	✓	-	-
128	Trolley Express - Orange Line Express - El Cajon to Downtown San Diego via Euclid (Rte 522)				$230	6	✓	✓	-	-
129	Trolley Express - H St Trolley Station (formerly EUC) to UTC via Mid-City, Kearny Mesa (Rte 566)				$327	5	-	✓	-	-
130	Trolley - SDSU to Downtown via El Cajon Blvd/Mid-City (transition of Mid-City Rapid to LRT) (Rte 560)				$1,230	13	✓	-	-	-
131	Trolley - Pacific Beach to El Cajon via Kearny Mesa, Mission Valley, SDSU (Rte 563)				$1,262	9	-	✓	-	✓
132	Trolley - SDSU to San Ysidro via East San Diego, SE San Diego, National City (Rte 550)				$1,665	20	✓	-	✓	-
133	Trolley - UTC to H St Trolley Station via Kearny Mesa, Mission Valley, Mid-City, National City (Rte 562)				$1,935	14	-	✓	-	✓
134	Trolley - UTC to Mira Mesa via Sorrento Mesa (Rte 561)				$1,408	28	-	-	✓	✓
135	Guideway- Kearny Mesa Guideway (facilitates direct access for BRT, Rapid Bus, and local bus - Rtes 120, 610, 640, 652)				$3,302	See Note D	✓	-	✓	✓
136	BRT - I-5 - San Ysidro to Kearny Mesa via I-5 shoulder lanes/HOV lanes, Downtown, Kearny Mesa Guideway (Rte 640)				$0	N/A	-	-	✓	✓
137	BRT - Downtown to UTC via Kearny Mesa Guideway/I-805 (Rte 652)				$2	16	✓	-	✓	✓
138	BRT - El Cajon to UTC/Campus Pt via Santee, SR 52, I-805 (Rte 870) (Peak Only)				$7	7	✓	-	✓	-
139	BRT - Oceanside to Escondido via SR 78 HOV Lanes (Rte 430)				$234	17	✓	-	✓	-
140	BRT - Chula Vista to Palomar Airport Road Bus. Park via I-805/5 (Rte 650) (Peak Only)				$80	25	-	-	✓	-
141	BRT - El Cajon to Sorrento Mesa via SR 52, Kearny Mesa (Rte 890) (Peak Only)				$12	39	✓	-	✓	-

	VARIABLE PROJECTS	Estimated UNC Cost* ($2010)	Project Ranking	Scenario #1 Transit Emphasis	Scenario #2 Rail/Freight Emphasis	Scenario #3 Highway Emphasis	Scenario #4 Fusion
142	BRT - El Cajon to Otay Mesa via Spring Valley, SR 125, Millenia (Rte 692)	$6	22	-	-	✓	✓
143	BRT - Mid City to Palomar Airport Road via Kearny Mesa/I-805/I-5 (Rte 653) (Peak Only)	$10	33	✓	-	✓	-
144	BRT - Oceanside to UTC via I-5, Carlsbad, Encinitas (Rte 940) (Peak Only)	$38	N/A	✓	-	✓	✓
145	BRT - Santee/El Cajon Transit Centers to Downtown via SR 94 (Rte 90) (Peak Only)	$0	N/A	-	-	✓	✓
146	BRT - Millenia/Otay Ranch to Sorrento Mesa Express (Rte 688) (Peak Only)	$0	N/A	✓	-	✓	✓
147	BRT - Millenia/Otay Ranch to UTC/Torrey Pines Express (Rte 689) (Peak Only)	$0	N/A	✓	-	✓	✓
148	Rapid - Oceanside to UTC via Hwy 101 Coastal Communities, Carmel Valley (Rte 473)	$127	19	✓	-	✓	✓
149	Rapid - Old Town to Sorrento Mesa via Pacific Beach, La Jolla, UTC (Rte 30)	$102	24	✓	-	✓	✓
150	Rapid - Carlsbad to San Marcos via Palomar Airport Road Corridor (Rte 440)	$50	40	✓	-	✓	-
151	Rapid - Coronado to Downtown via Coronado Bridge (Rte 910)	$25	18	✓	-	✓	-
152	Rapid - Spring Valley to SDSU via SE San Diego, Downtown, Hillcrest, Mid-City (Rte 11)	$110	26	-	✓	✓	✓
153	Rapid - Fashion Valley to UTC/UCSD via Linda Vista and Clairemont (Rte 41)	$54	34	✓	-	✓	-
154	Rapid - SDSU to Spring Valley via East San Diego, Lemon Grove, Skyline (Rte 636)	$39	38	✓	✓	✓	-
155	Rapid - North Park to 32nd Street Trolley via Golden Hill (Rte 637)	$32	43	✓	-	✓	-
156	Rapid - Downtown Escondido to East Escondido (Rte 471)	$31	47	✓	-	✓	-
157	Rapid - Eastlake/EUC to Palomar Trolley via Main Street Corridor (Rte 635)	$54	41	✓	-	✓	-
158	Rapid - San Ysidro to Otay Mesa via Otay, SR 905 Corridor (Rte 638)	$53	48	✓	-	✓	-
159	Rapid - Otay to North Island via Imperial Beach and Silver Strand, Coronado (Rte 639)	$53	51	-	-	✓	-
160	Rapid - H Street Trolley to Millenia via H Street Corridor, Southwestern College (Rte 709)	$36	37	✓	-	✓	-
161	Rapid - North Park to Downtown San Diego via 30th St (Rte 2)	$38	35	✓	-	✓	-
162	Rapid - Oceanside to Vista via Mission Ave/Santa Fe Road Corridor (Rte 474)	$49	46	-	-	✓	-
163	Rapid - Camp Pendleton to Carlsbad Village via College Blvd, Plaza Camino Real (Rte 477)	$78	53	-	-	✓	-
164	Streetcar - Hillcrest/Balboa Park/Downtown San Diego Loop (Rte 554)	$277	31	✓	-	✓	✓
165	Streetcar - 30th St to Downtown San Diego via North Park/Golden Hill (Rte 555)	$249	29	✓	-	-	✓
166	Streetcar - Downtown San Diego: Little Italy to East Village (Rte 553)	$135	30	✓	-	✓	✓
167	Streetcar - El Cajon Downtown (Rte 557)	$160	44	-	-	-	✓
168	Streetcar - Chula Vista Downtown (Rte 551)	$134	42	-	-	-	✓
169	Streetcar - Escondido Downtown (Rte 558)	$50	47	-	-	-	✓
	Total			**$11,639**	**$10,748**	**$11,691**	**$9,720**

	UNCONSTRAINED PROJECTS ONLY				Estimated UNC Cost* ($2010)	Project Ranking	Scenario #1 Transit Emphasis	Scenario #2 Rail/Freight Emphasis	Scenario #3 Highway Emphasis	Scenario #4 Fusion
	HOV CONNECTORS									
	Route	**Intersecting Freeway**	**Movement**							
170	I-5	SR 15	North to North and South to South		$183	11	-	-	-	-
171	I-5	SR 54	West to South and North to East		$120	21	-	-	-	-
172	I-5	SR 54	South to East and West to North		$120	22	-	-	-	-
173	I-5	SR 56	South to East and West to North		$170	13	-	-	-	-
174	I-15	SR 52	West to South and North to East		$140	23	-	-	-	-
175	I-15	SR 56	East to North and South to West		$180	13	-	-	-	-

	UNCONSTRAINED PROJECTS ONLY				Estimated UNC Cost* ($2010)	Project Ranking	Scenario #1 Transit Emphasis	Scenario #2 Rail/Freight Emphasis	Scenario #3 Highway Emphasis	Scenario #4 Fusion
176	I-15	SR 163	North to North and South to South		$160	9	-	-	-	-
177	SR 52	SR 125	North to West and East to South		$100	16	-	-	-	-
178	SR 94	SR 125	East to North and South to West		$140	12	-	-	-	-
179	I-805	SR 54	South to East and West to North		$140	15	-	-	-	-
180	I-805	SR 94	West to South and North to East		$160	20	-	-	-	-
181	I-805	SR 94	East to North and South to East		$160	14	-	-	-	-
182	I-805	SR 163	North to North and South to South		$150	17	-	-	-	-
	TRANSIT PROJECTS									
183	High Speed Rail (HSR) Extension from Lindbergh Field ITC to International Border				$3,557	N/A	-	-	-	-
184	SPRINTER - Branch Extensions to East Escondido (Rte 399)				$59	N/A	-	-	-	-
185	Trolley - Otay Mesa East Border Crossing to western Chula Vista via Otay Ranch/Millenia (Rte 564)				$854	32	-	-	-	-
186	Trolley - Downtown Bus Tunnel and Hubs				$2,917	N/A	-	-	-	-
187	Streetcar - National City Downtown (Rte 552)				$40	49	-	-	-	-
188	Streetcar - Oceanside Downtown (Rte 559)				$45	52	-	-	-	-
189	Streetcar - Mission Beach to La Jolla via Pacific Beach (Rte 565)				$239	50	-	-	-	-
190	San Ysidro Intermodal Center				$320	N/A	–	-	-	-
191	Otay Mesa East Intermodal Transit Center				–	N/A	–	-	-	-
				Total			**$9,954**	**$9,954**	**$9,954**	**$9,954**

Note: All Managed Lane facilities will have a HOV-3+ occupancy requirement after 2020. HOV-2 and SOVs will be required to pay a fee to use these facilities.

TransNet projects are included in all scenarios with the exception of the I-805 corridor where different improvements are being tested in some scenarios.

* Capital costs only. Operating costs, which include vehicle and vehicle replacement costs, will be based on phasing.

** Project Ranking was from Temecula to International Border

Note A: Included in COASTER double-tracking ranking

Note B: Included in SPRINTER double-tracking ranking

Note C: Included in several LRT project rankings

Note D: Included in several BRT project rankings

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May 5, 2010

File Number 2300000

Ms. Mary Nichols
Chair
California Air Resources Board
1001 I Street
Sacramento, CA 95812

Dear Ms. Nichols:

SUBJECT: San Diego Association of Governments (SANDAG) Sustainable Communities Strategy Technical Methodology

SANDAG presents the "technical methodology it intends to use to estimate the greenhouse gas emissions from its sustainable communities strategy and, if appropriate, its alternative planning strategy" as required under California Government Code 65080(b)(2)(I)(i).

SANDAG is a nationally recognized leader in transportation and land use planning and modeling. SANDAG intends to set a positive example for the rest of the state and nation as the first metropolitan planning organization to adopt a Sustainable Communities Strategy under Senate Bill 375 (SB 375) (Steinberg, 2008). The 2050 Regional Transportation Plan and its Sustainable Communities Strategies will build upon previous successes and will include expanded public outreach, enhanced environmental justice analysis, coordination with the public and private partners, and a comprehensive economic analysis. These efforts and others are described in the attached report describing how SANDAG will develop a plan that complies with SB 375.

If you have any questions about the SANDAG Technical Methodology, please feel free to contact me or Clint Daniels of my staff at (619) 699-6946.

Sincerely,

GARY L. GALLEGOS
Executive Director

CDAN/EAR/ama

Enclosure

The planning efforts described in this report are key inputs or components for the development of a San Diego Association of Governments (SANDAG) 2050 Regional Transportation Plan (RTP) that will comply with SB 375 and federal air quality conformity. This document also includes an overview of the SANDAG transportation and land use model platform.

Developing the 2050 RTP and SCS

With each RTP update, SANDAG starts the planning process by establishing a framework of goals, policy objectives, and performance measures to guide the development of the Plan. The Board of Directors discussed the 2050 RTP vision, goals, and policy objectives to help reach the 2050 RTP goals in fall 2009.

The 2050 RTP goals are structured into two overarching themes: Quality of Travel & Livability, and Sustainability. Quality of Travel & Livability relates to how the transportation system functions from the individual customer perspective (Mobility, Reliability, and System Preservation & Safety), while Sustainability relates to making progress simultaneously in each of the Three "Es" (Social Equity, Healthy Environment, and Prosperous Economy) from a regional perspective.

The 2050 Regional Growth Forecast is the foundation for the transportation analyses conducted for the development of the 2050 RTP. Additionally, numerous studies currently underway will be incorporated into various RTP alternatives, including recommendations from the Urban Area Transit Strategy, Climate Action Strategy, collaborative projects with Tribal Nations, interregional and binational strategies, and other transportation studies. Additionally, the RTP transportation project evaluation criteria are being revised and are expected to be approved by the SANDAG Board of Directors in May, 2010. The evaluation criteria will be used to rank all transportation projects. This will assist the Board of Directors in determining projects to be included in the 2050 RTP and Sustainable Communities Strategy (SCS). Additionally, revenue projections and project cost estimates will be updated.

Scenario testing as part of the greenhouse gas (GHG) target setting also is underway. It is expected that some elements of any of these scenarios being tested could be used in the development of the SCS. While the scenario testing process is being completed to determine the impact on per capita GHG reduction, further analysis would be required if any of these measures were to be adopted as part of the 2050 RTP.

The SCS must demonstrate how the development patterns and the transportation network, policies, and programs can work together to achieve the GHG emission reduction targets, if there is a feasible way to do so. If a Metropolitan Planning Organization (MPO) cannot meet the targets through the SCS, then the MPO is required to develop an Alternative Planning Strategy (APS) that demonstrates how the emission reduction targets could be achieved.

In essence, the SCS includes four building blocks:

1. Land use component that accommodates regional housing needs and includes protection of habitat and farmland;
2. Transportation networks including highways, transit, and local streets and roads;
3. Transportation demand management strategies; and
4. Transportation system management programs and policies.

Initial RTP and SCS alternatives will be developed in summer/fall 2010 in conjunction with receiving the draft GHG reduction target from the California Air Resources Board (ARB) in June 2010. Plan performance measures are expected to be approved by the SANDAG Transportation Committee in June, 2010. In summer 2010, these performance measures will be used to evaluate the initial RTP/SCS alternatives, including an economic analysis. SANDAG will receive the final GHG reduction target from ARB in September 2010.

Based on input from SANDAG Policy Advisory Committees, working groups, and the public, the preferred 2050 RTP/SCS scenario will be finalized in fall 2010 and will be incorporated into the Draft 2050 RTP and Environmental Impact Report (EIR) which are scheduled to be released in early 2011.

2050 Regional Growth Forecast

SANDAG has completed preliminary land use and economic forecast extending to 2050 that will serve as the initial foundation for the region's first SCS. The regional forecast is based on local land use plans and policies, and is meant to reasonably identify where growth is projected to occur in the region over the long-term. The forecast is completed through a multi-step, collaborative process that involves input from local jurisdictions, citizens, and elected officials.

Recognizing that many of the region's general plans will be updated at least once between now and 2050, SANDAG staff worked with each jurisdiction to aggressively identify areas in the region where general plan designations could potentially change before the forecast horizon.

Urban Area Transit Strategy

An important, new component of the 2050 RTP is the development of an innovative and visionary Urban Area Transit Strategy to significantly increase the attractiveness and use of transit, walking, and biking in the region, and to make transit time-competitive with driving a car. Through this project, three transit network alternatives will be developed and tested with ultimate incorporation

of one of the networks (or a combination or variation thereof) into the development of the 2050 RTP.

Airport Multimodal Accessibility Plan (AMAP)

SANDAG is working with the San Diego County Regional Airport Authority (Authority) on the development of a Regional Aviation Strategic Plan (RASP) and an Airport Multimodal Accessibility Plan (AMAP). The Authority is lead for the RASP, which will identify workable strategies to improve the performance of the regional airport system. SANDAG is the lead for the AMAP, which will develop a multimodal strategy to improve surface transportation access to airports. The development of the RASP and AMAP will be a coordinated process between the Authority and SANDAG. The overall schedule is designed to allow the RASP and AMAP to be incorporated into the 2050 RTP.

Other Key 2050 RTP Tasks

Other major tasks include updates to the project evaluation criteria and plan performance measures, economic analysis of investment strategies, enhanced environmental justice analysis, new revenue projections, revised cost estimates for projects and services, and integration of technology and TDM measures into investment strategies. Additionally, the 2050 RTP will be subject to any new requirements established in the upcoming federal surface transportation reauthorization, which is anticipated to be passed in 2010/2011, and will follow updated California Transportation Commission RTP Guidelines.

RTP Public Participation Plan

SANDAG regularly involves the public in regional planning efforts. A public involvement plan has been prepared for the 2050 RTP, and it will be updated as needed as outreach and involvement strategies are underway. On May 22, 2009, the Board of Directors approved the creation of a new Regional Planning Stakeholders Working Group (SWG) to provide input on the development of key work elements in the planning process, including public involvement opportunities. Additionally, there will be a series of public presentations and workshops and other means for involving the public and receiving input on the work products and draft 2050 RTP. The Board of Directors approved the overall agency-wide Public Participation Plan in December 2009. As a cross-section of stakeholders from various sectors and subregions, the SWG contributed to the development of a 2050 RTP Public Involvement Plan and will assist in its implementation.

Modeling for the 2050 RTP

SANDAG anticipates using five models to estimate the greenhouse gas emissions from its SCS and, if appropriate, its APS: (1) Demographic and Economic Forecasting Model (DEFM), (2) Interregional Commute Model (IRCM), (3) Urban Development Model (UDM), (4) San Diego Regional Travel Demand Model (a four-step transportation forecasting model), and (5) the latest EMission FACtors (EMFAC) model from ARB.[1] Depending on model sensitivity to certain transportation policies, SANDAG will consider using off-model factors (or ARB defined Policies and Practices) as recommended by the Regional Targets Advisory Committee (RTAC). The 2050 RTP model will have a base year of 2008.

The first model component, DEFM, is an econometric forecasting model with a demographic module. DEFM produces an annual forecast of the size and structure of the region's economy and a demographic forecast consistent with that future economy. For the economic forecast, DEFM relates historical changes in the region's economy to historical changes in the United States' economy using input-output and econometric methodologies. The demographic module uses a cohort survival model to forecast population by age, gender, and ethnicity. DEFM produces a wealth of data about the region's future economic and demographic characteristics. Among the more important elements are the size and composition of the population, employment by industry sector, household and personal income, housing units by structure type, vacancy status and persons per household, labor force, and school enrollment.

The second model component is the Interregional Commute Model (IRCM). The purpose of the IRCM is to account for individuals who work in the region but live outside its boundaries.[2] The IRCM predicts the residential location of workers based upon accessibility to job sites, home prices, and the availability of residential land. Inputs to the IRCM include future job sites within our region and

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[1] See *2030 Regional Growth Forecast Update: Process and Model Documentation* for an in-depth discussion of SANDAG's modeling platform. < http://www.sandag.org/uploads/publicationid/publicationid_833_3750.pdf>. SANDAG has also has included a new truck model, 4-D indicators, and improved tolling methodology in its models since the last RTP and publication of the model documentation.

[2] The updated guidelines of California Government Code 65080(b)(2)(B) require "each metropolitan planning organization [to] prepare a sustainable communities strategy…identify[ing] areas within the region sufficient to house all the population of the region, including all economic segments of the population, over the course of the planning period of the regional transportation plan." The IRCM does not contradict the intent of the statute. The 2050 Regional Growth Forecast identifies areas within the region sufficient to house all the forecasted population, but many workers will continue to choose to live outside the San Diego region and commute to jobs in the region based upon accessibility to job sites, home prices, and quality of life issues.

potential residential sites located in the San Diego region, Orange County, southwestern Riverside County, Imperial County, and Tijuana/Northern Baja California. The model also accounts for relative home prices across the comparison areas. Additional factors include the forecast of housing unit and employment growth from DEFM and commuting probabilities that vary based on the length of the commute. The output from the IRCM is future housing units containing San Diego region workers that would be built in the region, and those that would be built in surrounding regions.

As the third model component, the Urban Development Model (UDM) allocates growth in the region's economic and demographic characteristics to jurisdictions and other geographic areas within the region. UDM satisfies the federal requirements specified in the Clean Air Act and the Safe, Accountable, Flexible, Efficient Transportation Act: A Legacy for Users (SAFETEA-LU). These legislative acts mandate that transportation plans consider the long-range effects of the interaction between land uses and the transportation system. Among UDM inputs are the current spatial distribution of jobs, housing units, income, and population, land use inputs that include the plans and policies of the 18 cities and the County of San Diego, and the current and future transportation infrastructure. Three major premises underlie the UDM forecast of residential activities: employment location is a primary determinant of residential activity location; the longer a work trip, the less likely a person makes the trip; and increased residential development opportunities translate to greater residential growth potential. Lastly, the interactions between UDM and the transportation model are handled in a sequential manner.

The San Diego Regional Travel Demand Model, the fourth model component, uses the TransCAD software package to forecast travel activity. The transportation model requires two major inputs. The first input is the forecast of housing and nonresidential land uses from UDM. The other key input is the highway and transit system networks. The transportation model uses travel behavior surveys as the basis for the mathematical models in each of the steps. There are four steps to the transportation model. The model generates person trips, then determines trip destinations using a gravity-based model, allocates these trips to various modes, and finally assigns vehicle trips to highway networks and transit trips to transit networks.

SANDAG strives to stay in the forefront of forecasting technology by subjecting its efforts to peer review and presenting the methodology at relevant meetings and conferences.

Emissions Modeling

The latest version of EMFAC (currently EMFAC 2007) and the Pavley I / Low Carbon Fuel Standard post-processing tool will be used to calculate the greenhouse gas emissions for the SCS based on the transportation model outputs. The transportation model post processes highway and transit assignment information to create EMFAC input files containing vehicle trips by vehicle class and fuel type, VMT by vehicle class and fuel type, and VMT speed distributions by vehicle class and hour. The

current version of EMFAC projects the following greenhouse gas pollutants: carbon dioxide (CO_2), carbon monoxide (CO), nitrous oxides (NO_x), total hydrocarbons (THC), and methane (CH_4). SCS targets will be measured in tons of CO_2.

Feedback in the Regional Travel Demand Model

A noteworthy feature of the forecasting and modeling process is the feedback of information from one model to another. For example, information from DEFM is used in the IRCM and then the output from the IRCM is used to modify the output from DEFM. Similarly, data from UDM are major inputs to the transportation model, and then transportation model data are used in subsequent UDM calculations. A key feature of our modeling system is the central role that land use and transportation policies play in determining future travel patterns and the associated location of people, houses, and jobs.

SANDAG Modeling Constraints

While SANDAG strives to stay at the forefront of the state of the practice in modeling, some transportation and land use policy decisions to manage GHG emissions cannot be modeled in the SANDAG Regional Travel Demand Model. These policy scenarios fall into four main categories: cultural shifts, technology breakthroughs, aesthetic (or perception) improvements, and exogenous variables.

Cultural shifts in travel are events that can not be predicted based on historical data. For example, traditional travel demand models in the 1960s and 1970s were not able to accurately model long term travel trends because they did not appropriately account for women entering the labor force in substantial numbers. Future potential cultural trends that are difficult to model include a delayed retirement age or travel activities of large retired population.

Technology breakthroughs are events or eras when travel is affected by major technological advancement. This advancement can be in the form of a new mode choice introduction (e.g. steam locomotive to air travel to high-speed rail) or new technology revolution that affects people's daily activities. The Internet has significantly impacted travel behavior around the world through e-commerce and telecommuting. Future technology breakthroughs include more fuel efficient cars, low cost, high-speed long-distance point-to-point service, and further advancements in telecommunications.

Aesthetic improvements are where future trends cannot be measured well. For example, SANDAG recently completed a Transit Impediments Study identifying personal perceptions of transit including safety, cleanliness, and surroundings. The SANDAG Travel Demand Model is primarily an econometric model that balances travel choices on the basis of cost and time. Adding additional

law enforcement or maintenance staff to monitor transit facilities may impact personal perceptions of safety and cleanliness aboard transit and positively affect transit mode share, but those impacts would not be captured within the SANDAG Travel Demand Model. Similar perception changes would be equally hard to model for highway, bicycle, and pedestrian mode choices.

Finally, exogenous variables impact travel in the San Diego region, but San Diego policymakers have little to no control their implementation or effect. Exogenous variables include the relative economic strength of Mexico, international border security, changes in international trading patterns, global warming, and natural disasters. For example, travel patterns across the international border between San Diego and Baja California changed dramatically after September 11, 2001 as result of increased border security. These impacts could not be adequately predicted in the SANDAG travel model or land use model.

Off-Model Techniques to Measure GHG

While the impacts of certain policy scenarios cannot be measured in the Travel Demand Model, SANDAG may use these policy scenarios to meet its GHG targets established by ARB. In these instances, SANDAG will rely on "off-model" techniques based on academic literature reviews, collaboration with other MPOs, and consultation with ARB's Policies and Practices Guidelines. Any off-model techniques used will be fully documented and justified in the final RTP, SCS, and / or model documentation.

RTP Consistency with RTAC Target Setting Process

SANDAG anticipates using the same methodology described in this report to calculate GHG emissions for the RTP and its SCS as well as the current GHG target setting process as outlined by the RTAC. SANDAG may revise the methodology used in the RTP in consultation with ARB if updated software (e.g. EMFAC 2010) or a more accurate methodology becomes available after the RTAC target-setting process.

Addressing GHG Emissions in the 2050 RTP

SANDAG will use the modeling methodology outlined in this document to calculate GHG emission for 2020 and 2035 for the SCS as required by California Government Code 65080. The time period after 2035 of the SANDAG 2050 RTP is not subject to SB 375 at this time. As the RTP is being developed, SANDAG will work with the appropriate federal and state agencies to ensure its RTP conforms to all applicable state and federal regulations for the entire time period of the Plan.

Methodology for Identifying Emissions from Interregional Trips

SANDAG gathered data for VMT percentages by trip end location (internal or external) that could be applied to EMFAC output for VMT and CO_2 by vehicle classification. The primary purpose of this exercise was to evaluate emission sources by trip end location as identified in the RTAC report.[3]

First, all vehicle trip tables from the TransCAD 4-Step model are aggregating across all time periods and vehicle modes. In the case of SANDAG, each of three temporal trip tables (AM peak, PM peak, off peak), with four automobile mode choices (single-occupancy vehicle (SOV) toll, SOV non-toll, high-occupancy vehicle (HOV) toll, HOV non-toll), are aggregated to create a total traffic analysis zone to traffic analysis zone (TAZ to TAZ) trip table. To determine a VMT percentage by trip end SANDAG develops an approximate VMT estimate by multiplying the TAZ to TAZ trip table by the TAZ to TAZ network distance. The resultant matrix is partitioned by X-X, I-I, I-X, and X-I by extracting the sections that corresponded to external or internal TAZs. Finally, the summed total VMT by trip end is divided by the total regional VMT to determine the percentage of each trip end type as a percentage of total VMT.

Using the latest version of EMFAC, SANDAG computes the regional travel across all vehicle types and extracts the total VMT and CO_2 emissions for LDA, LDT1, LDT2, and MDV. The values for VMT and CO_2 are multiplied by the regional percentages from the four-step model to produce the VMT and CO_2 by trip end location and EMFAC vehicle class.

Model Improvement Plan

The SANDAG Travel Demand Model is maintained and operated in a two-phase cycle based on the federal RTP requirements. SANDAG is required to adopt an RTP every four years to comply with federal air quality conformity requirements. During the four-year interval, model runs and analysis for the RTP development take approximately 18 months to complete. While model runs for the RTP are being performed, the modeling process (software and methodology) are effectively "frozen" from change. This process allows SANDAG technical and planning staff to compare model results from early in the process with results at the end of the process with consistent modeling assumptions. In the two and a half years between modeling for the RTP, SANDAG staff embarks on an ambitious update schedule for its land use and transportation models. Since the completion of the last RTP, SANDAG has added a truck travel model, enhanced pricing and mode share analysis, and implemented an integrated 4-D model.[4]

[3] Regional Targets Advisory Committee. "Recommendations of the Regional Targets Advisory Committee (RTAC) Pursuant to Senate Bill 375: A Report to the California Air Resources Board." Page 26.

[4] Additional information is available on SANDAG's long-term model improvement program in the SANDAG Model Improvement Plan. <http://www.sandag.org/uploads/publicationid/publicationid_1451_10066.pdf>

Air Resources Board

Mary D. Nichols, Chairman
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Linda S. Adams
Secretary for
Environmental Protection

Arnold Schwarzenegger
Governor

December 22, 2010

Mr. Gary L. Gallegos
Executive Director
San Diego Association of Governments
401 B Street, Suite 800
San Diego, California 92101-4231

Dear Mr. Gallegos:

Thank you for your letter to Chairman Mary D. Nichols submitting the San Diego Association of Government's Senate Bill 375 (SB 375) technical methodology document to the Air Resources Board (ARB). Your submittal fulfills the requirement that each Metropolitan Planning Organization submit to ARB a description of the technical methodology it will use to estimate greenhouse gas emissions from Sustainable Communities Strategies (SCS). We look forward to continuing our technical collaboration as SB 375 implementation shifts into the next phase of SCS development at the local and regional level. Because of the significant efforts underway, the state-of-the-art in modeling and its associated methods is rapidly evolving. We understand that the technical method will continue to evolve and improve over time.

If you have any questions, please contact me at (916) 445-4383 or your staff can contact Ms. Lynn Terry, Deputy Executive Officer at (916) 322-2739.

Sincerely,

James N. Goldstene
Executive Officer

cc: Ms. Lynn Terry
Deputy Executive Officer
Executive Office

bcc: (via email)

Linda Murchison, PTSD
Sylvia Oey, PTSD
Ravi Ramalingam, PTSD
Jonathan Taylor, PTSD
Lezlie Szeto Kimura, PTSD
Dennis Wade, PTSD

SB 375 Planning Liaisons

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Assignment #7972 / #16232

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From the California Environmental Quality Act
California Public Resources Code
Division 13. Environmental Quality
Chapter 4: Local Agencies
Chapter 4.2: Implementation of the Sustainable Communities Strategy
§21155.1

If the legislative body finds, after conducting a public hearing, that a transit priority project meets all the requirements of subdivision (a) and (b) and one of the requirements of subdivision (c), the transit priority project is declared to be a sustainable communities project and shall be exempt from this divison..

(a) The transit priority project complies with all of the following environmental criteria:

(1) The transit priority project and other projects approved prior to the approval of the transit priority project but not yet built can be adequately served by existing utilities, and the transit priority project applicant has paid, or has committed to pay, all applicable in-lieu or development fees.

(2) (A) The site of the transit priority project does not contain wetlands or riparian areas and does not have significant value as a wildlife habitat, and the transit priority project does not harm any species protected by the federal Endangered Species Act of 1973 (16 U.S.C. Sec. 1531 et seq.), the Native Plant Protection Act (Chapter 10 (commencing with Section 1900) of Division 2 of the Fish and Game Code), or the California Endangered Species Act (Chapter 1.5 (commencing with Section 2050) of Division 3 of the Fish and Game Code), and the project does not cause the destruction or removal of any species protected by a local ordinance in effect at the time the application for the project was deemed complete.

(B) For the purposes of this paragraph, "wetlands" has the same meaning as in the United States Fish and Wildlife Service Manual, Part 660 FW 2 (June 21, 1993).

(C) For the purposes of this paragraph:

(i) "Riparian areas" means those areas transitional between terrestrial and aquatic ecosystems and that are distinguished by gradients in biophysical conditions, ecological processes, and biota. A riparian area is an area through which surface and subsurface hydrology connect waterbodies with their adjacent uplands. A riparian area includes those portions of terrestrial ecosystems that significantly influence exchanges of energy and matter with aquatic ecosystems. A riparian area is adjacent to perennial, intermittent, and ephemeral streams, lakes, and estuarine-marine shorelines.

(ii) "Wildlife habitat" means the ecological communities upon which wild animals, birds, plants, fish, amphibians, and invertebrates depend for their conservation and protection.

(iii) Habitat of "significant value" includes wildlife habitat of national, statewide, regional, or local importance; habitat for species protected by the federal Endangered Species Act of 1973 (16 U.S.C. Sec. 1531, et seq.), the California Endangered Species Act (Chapter 1.5 (commencing with Section 2050) of Division 3 of the Fish and Game Code), or the Native Plant

Protection Act (Chapter 10 (commencing with Section 1900) of Division 2 of the Fish and Game Code); habitat identified as candidate, fully protected, sensitive, or species of special status by local, state, or federal agencies; or habitat essential to the movement of resident or migratory wildlife.

(3) The site of the transit priority project is not included on any list of facilities and sites compiled pursuant to Section 65962.5 of the Government Code.

(4) The site of the transit priority project is subject to a preliminary endangerment assessment prepared by a registered environmental assessor to determine the existence of any release of a hazardous substance on the site and to determine the potential for exposure of future occupants to significant health hazards from any nearby property or activity.

(A) If a release of a hazardous substance is found to exist on the site, the release shall be removed or any significant effects of the release shall be mitigated to a level of insignificance in compliance with state and federal requirements.

(B) If a potential for exposure to significant hazards from surrounding properties or activities is found to exist, the effects of the potential exposure shall be mitigated to a level of insignificance in compliance with state and federal requirements.

(5) The transit priority project does not have a significant effect on historical resources pursuant to Section 21084.1.

(6) The transit priority project site is not subject to any of the following:

(A) A wildland fire hazard, as determined by the Department of Forestry and Fire Protection, unless the applicable general plan or zoning ordinance contains provisions to mitigate the risk of a wildland fire hazard.

(B) An unusually high risk of fire or explosion from materials stored or used on nearby properties.

(C) Risk of a public health exposure at a level that would exceed the standards established by any state or federal agency.

(D) Seismic risk as a result of being within a delineated earthquake fault zone, as determined pursuant to Section 2622, or a seismic hazard zone, as determined pursuant to Section 2696, unless the applicable general plan or zoning ordinance contains provisions to mitigate the risk of an earthquake fault or seismic hazard zone.

(E) Landslide hazard, flood plain, flood way, or restriction zone, unless the applicable general plan or zoning ordinance contains provisions to mitigate the risk of a landslide or flood.

(7) The transit priority project site is not located on developed open space.

(A) For the purposes of this paragraph, "developed open space" means land that meets all of the following criteria:

(i) Is publicly owned, or financed in whole or in part by public funds.

(ii) Is generally open to, and available for use by, the public.

(iii) Is predominantly lacking in structural development other than structures associated with open spaces, including, but not limited to, playgrounds, swimming pools, ballfields, enclosed child play areas, and picnic facilities.

(B) For the purposes of this paragraph, "developed open space" includes land that has been designated for acquisition by a public agency for developed open space, but does not include lands acquired with public funds dedicated to the acquisition of land for housing purposes.

(8) The buildings in the transit priority project are 15 percent more energy efficient than required by Chapter 6 of Title 24 of the California Code of Regulations and the buildings and landscaping are designed to achieve 25 percent less water usage than the average household use in the region.

(b) The transit priority project meets all of the following land use criteria:

(1) The site of the transit priority project is not more than eight acres in total area.
(2) The transit priority project does not contain more than 200 residential units.
(3) The transit priority project does not result in any net loss in the number of affordable housing units within the project area.
(4) The transit priority project does not include any single level building that exceeds 75,000 square feet.
(5) Any applicable mitigation measures or performance standards or criteria set forth in the prior environmental impact reports, and adopted in findings, have been or will be incorporated into the transit priority project.
(6) The transit priority project is determined not to conflict with nearby operating industrial uses.
(7) The transit priority project is located within one-half mile of a rail transit station or a ferry terminal included in a regional transportation plan or within one-quarter mile of a high-quality transit corridor included in a regional transportation plan.

(c) The transit priority project meets at least one of the following three criteria:

(1) The transit priority project meets both of the following:
(A) At least 20 percent of the housing will be sold to families of moderate income, or not less than 10 percent of the housing will be rented to families of low income, or not less than 5 percent of the housing is rented to families of very low income.
(B) The transit priority project developer provides sufficient legal commitments to the appropriate local agency to ensure the continued availability and use of the housing units for very low, low-, and moderate-income households at monthly housing costs with an affordable housing cost or affordable rent, as defined in Section 50052.5 or 50053 of the Health and Safety Code, respectively, for the period required by the applicable financing. Rental units shall be affordable for at least 55 years. Ownership units shall be subject to resale restrictions or equity sharing requirements for at least 30 years.
(2) The transit priority project developer has paid or will pay in-lieu fees pursuant to a local ordinance in an amount sufficient to result in the development of an equivalent number of units that would otherwise be required pursuant to paragraph (1).
(3) The transit priority project provides public open space equal to or greater than five acres per 1,000 residents of the project.

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF HOUSING POLICY DEVELOPMENT
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P. O. Box 952053
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November 23, 2010

Mr. Gary L. Gallegos
Executive Director
San Diego Association of Governments
401 B Street, Suite 800
San Diego, CA 95101-4231

Dear Mr. Gallegos:

RE: Regional Housing Need Determination

This letter provides the San Diego Association of Governments (SANDAG) its Regional Housing Need Determination. Pursuant to State housing element law (Government Code Section 65584, et seq.), the Department of Housing and Community Development (Department) is required to provide the determination of SANDAG's existing and projected housing need.

As you know, recent legislation amended State laws impacting regional housing and transportation planning. SB 375 (Chapter 728, Statutes of 2008) strengthened coordination of housing and transportation planning and requires Metropolitan Planning Organizations (MPOs) to prepare a sustainable communities strategy to achieve greenhouse gas emission reductions. Among other things, SB 575 (Chapter 354, Statutes of 2009) included amendments establishing the due date for San Diego local governments to update the fifth revision of their housing elements. In assessing SANDAG's regional housing need, the Department considered the importance of these legislative amendments in connection with the critical role housing plays in creating sustainable communities and providing jobs.

In determining SANDAG's regional housing need, the Department and SANDAG staff completed an extensive consultation process. On June 21, 2010, the Department met with the following SANDAG staff: Mr. Muggs Stoll, Ms. Coleen Clementson, Ms. Susan Baldwin, and Ms. Beth Jarosz. The Department, along with Ms. Baldwin and Ms. Jarosz, also consulted with Ms. Mary Heim, State Department of Finance (DOF) Deputy Director of the Demographic Research Unit. Consultations between June and November included data generation and review by SANDAG, DOF, and the Department.

Attachment 1 displays the minimum regional housing need allocation (RHNA) of 161,980 total units among four income categories for SANDAG to distribute among its local governments. Attachment 2 explains the methodology applied pursuant to Government Code Section 65584.01. As you know, SANDAG is responsible for adopting a methodology and RHNA Plan for the *projection* period beginning January 2010 and

ending December 2020. Within 30 days from adopting the Plan, SANDAG must submit the Plan to the Department for approval. Local governments are required to update their Housing Element for the *planning* period beginning January 2013 and ending December 2020 to accommodate the share of RHNA for each income category.

Pursuant to Government Code Section 65584, the methodology to prepare SANDAG's RHNA plan must be consistent with the following objectives:

(1) increasing the housing supply and mix of housing types, tenure, and affordability;
(2) promoting infill development and socioeconomic equity, protecting environmental and agricultural resources, and encouraging efficient development patterns;
(3) promoting an improved intraregional relationship between jobs and housing;
(4) balancing the distribution of households by income category.

The Department commends SANDAG for its leadership and efforts in fulfilling its important role in advancing the State's housing, transportation, and environmental goals. SANDAG is also recognized for successfully undertaking the challenging task of being the first MPO in the State to begin implementing SB 375 including efforts to develop its RHNA and sustainable communities strategy. The Department especially thanks Ms. Baldwin and Ms. Jarosz for their significant efforts and assistance. The Department looks forward to its continued partnership with SANDAG and its member jurisdictions and assisting SANDAG in its planning efforts to accommodate the region's share of housing need.

If the Department can provide any additional assistance, or if you, or your staff, have any questions, please contact Glen Campora, Assistant Deputy Director, at (916) 445-4728.

Sincerely,

Cathy E. Creswell

Cathy E. Creswell
Deputy Director

Enclosures

ATTACHMENT 1

HCD REGIONAL HOUSING NEED DETERMINATION

SANDAG GOVERNMENTS: JANUARY 2010 through DECEMBER 2020

Income Category	Percent	Housing Unit Need
Very-Low	22.5%	36,450
Low	17.1%	27,700
Moderate	18.9%	30,610
Above-Moderate	41.5%	67,220
Total	**100.0%**	**161,980**

Notes:

Housing Need Determination:
Refer to Attachment 2 for a description and explanation of methodology.

The Department and SANDAG staff acknowledge important differences between the "projection" methodology specified in statute to determine housing need versus the "forecasting" methodology SANDAG used for its 2050 Growth Forecast. The planning objective of the RHNA is to accommodate housing "capacity" for projected household growth. However, among the objectives of SANDAG's Growth Forecast is to estimate housing "production" based on policy considerations (including potential constraints) and assumptions regarding variables such as housing prices, resource limitations and market trends, etc. Differences in estimates of the number of housing units can occur from applying different methodologies.

Income Categories:
Each category is defined by California Health and Safety Code (Section 50093, et seq.). Percent is derived based on Census reported household income brackets and county median income. Housing unit need is derived from multiplying income category percent against total.

ATTACHMENT 2

HCD REGIONAL HOUSING NEED DETERMINATION: SANDAG January 2010-December 2020

Methodology

Projected Population, Households, and New Housing Unit Need: December 31, 2020					
1.	**Population: December 31, 2020 (SANDAG's Estimate):**				**3,568,556**
2.	*less: Group Quarter Population (SANDAG's Estimate)*				*-130,973*
3.	**Household (HH) Population:**				**3,437,583**
4.	**Projected Households (HHs):**	**HH Population**	***HH Formation or Headship Rate (DOF)***	**Households**	
	Age Groups (DOF):	**3,437,583**		**1,258,980**	
	Under 15 years	710,371	*0.00%*		
	15 - 24 years	427,306	*14.5589%*	62,211	
	25 - 34 years	495,193	*41.9984%*	207,973	
	35 - 44 years	422,529	*50.1651%*	211,962	
	45 - 54 years	425,138	*53.5210%*	227,538	
	55 - 64 years	433,523	*54.8790%*	237,913	
	65 plus years	523,523	*59.4782%*	311,383	
	Projected Households (HHs):				**1,258,980**
5.	*less: Existing Households at Beginning of Projection Period (January 1, 2010)*				*-1,103,320*
6.	**Household (HH) Growth: 11-Year Projection Period (New Housing Unit Need):**				**155,660**
7.	**Vacancy Allowance:**	**Owners**	**Renters**	**Total**	
	Tenure Percentage	55.4%	44.6%		
	New Unit Need	86,304	69,356	155,660	
	Vacancy Rate	2.0%	5.0%		
	Vacancy Allowance	1,726	3,468	5,194	5,194
8.	**Replacement Allowance:**	0.70%		160,853	1,126
REGIONAL HOUSING NEED DETERMINATION (New Housing Unit Need):					**161,980**

Explanation and Data Sources

1. Population: Population reflects SANDAG's January 1, 2021 projection from its 2050 Growth Forecast. Per Government Code 65584.01(b), HCD accepted SANDAG's projection upon determining it was within 3 percent of the population projected by State Department of Finance (DOF) for the same period.
2. Group Quarter Population: Figure is SANDAG's estimate of persons residing in group home/institution/ military/dormatory quarters. As this population doesn't constitute a "household" population generating demand for a housing unit, the group quarter population is subtracted from total population to derive household population or the number of persons generating a housing need for a owner or renter unit.
3. Household (HH) Population: The population projected to reside in housing units after subtracting the group quarter population from total projected population.
4. Projected Households (HHs): Projected HHs are derived by applying (to HH population) estimated HH formation rates determined by DOF among displayed age groups. *HH formation or headship rates reflect the propensity of different population groups (by age, ethnicity, etc.) to form new households.*
5. Existing Households: This figure reflects DOF's estimate of "occupied" units at start of period of January 2010 (per DOF E-5 report released May 2010 by the Demographic Research Unit). Existing HHs (units) are subtracted from projected HHs at end of period (December 31, 2020) to derive household growth.
6. Household (HH) Growth: This figure reflects projected HH growth and need for new units.
7. Vacancy Allowance: An adjustment (unit increase) is made to facilitate availability among owner and renter units. Owner/Renter % is based on Census data. A smaller rate is applied to owner units due to less frequent movement. Information from different authoritative sources support an acceptable range of 1-4% for owner units and 4-8% for renter units depending on market conditions. The 2% owner rate was reduced from the 3% rate used in 2005. No change was made to the 5% renter rate.
8. Replacement Allowance: Rate (.7%) reflects housing losses localities annually reported to DOF each January for years 2000-2010.

SANDAG

BOARD OF DIRECTORS
MAY 27, 2011

AGENDA ITEM NO. 11-05-10
ACTION REQUESTED – ACCEPT

DRAFT REGIONAL HOUSING NEEDS ASSESSMENT FOR THE 2013 – 2020 HOUSING ELEMENT CYCLE

File Number 3100000

Introduction

The Regional Housing Needs Assessment (RHNA) process is being conducted by SANDAG in conjunction with the development of the 2050 Regional Transportation Plan (2050 RTP) and its Sustainable Communities Strategy (SCS) in accordance with Senate Bill 375 (Steinberg, 2008) (SB 375) and SB 575 (Steinberg, 2009). SANDAG is assigned the RHNA responsibility by state housing element law, and undertakes this process prior to each housing element cycle.

Recommendation

On May 6, 2011, the Regional Planning Committee forwarded the Draft Regional Housing Needs Assessment (RHNA) Methodology and Allocation Options 2b and 3d for consideration by the Board of Directors. SANDAG staff recommends that the Board of Directors accept Draft RHNA Methodology and Allocation Option 2b for distribution and a 60-day public review.

The RHNA process started in April 2010. It will culminate in the adoption of a RHNA Plan that allocates RHNA numbers in four income categories (very low, low, moderate, and above moderate) to the 18 cities and the unincorporated area of the County of San Diego. This RHNA is for the fifth housing element cycle (January 1, 2013 – December 31, 2020) and covers an eleven-year planning period (January 1, 2010 – December 31, 2020). Key dates in the RHNA process are shown in Attachment 1.

Discussion

RHNA Methodology and Allocation Options

Six RHNA Methodology and Allocation Options and background data used in their development are included in Attachment 2 of this report. All six of the RHNA Methodology and Allocation Options use the land use and housing capacity data provided by the 18 cities and the County of San Diego in the preparation of the 2050 Regional Growth Forecast.

The RHNA Allocation Options are organized into two categories: Regional Share Options and Lower Income Capacity Options. These categories express two general philosophies: one that respects housing capacities in local general plans as reflected in the 2050 Regional Growth Forecast (Options 2b and 2c); and one that further improves the balance of housing for very low and low income households throughout the region based on planning principles that include income, jobs/housing balance, and proximity to transit (Options 1c, 3a, 3c, and 3d).

- Regional Share Options - based on the regional income percentages in the RHNA Determination (22.5 percent Very Low Income, 17.1 percent Low Income, 18.9 percent Moderate Income, and 41.5 percent Above Moderate Income):
  - Regional Share Option (Table 1c)
  - Regional Share Option with Jobs/Housing Balance and Income Adjustment (Table 3a)
  - Regional Share Option with Jobs/Housing Balance, Income, and Transit Adjustment (Table 3c)
  - **Regional Share Option with Jobs/Housing Balance, Income, Transit and Unincorporated Capacity Adjustment (Table 3d)** *(Forwarded by Regional Planning Committee)*
- Lower Income Capacity Options - does not exceed or minimally exceeds local jurisdiction existing plan 20+ dwelling units per acre capacity:
  - **Lower Income Capacity Option (Table 2b)** *(Forwarded by Regional Planning Committee, and Staff recommendation)*
  - Lower Income Capacity Option with Jobs/Housing Balance Adjustment (Table 2c)

These options were discussed by the Regional Planning Committee at its April and May meetings, and at joint meetings of the Regional Planning Technical Working Group (TWG) and Regional Housing Working Group (RHWG) (Working Groups) over the last several months. Two issues discussed by both groups were (1) the concept of limiting the lower income RHNA units allocated to the County of San Diego unincorporated area based on smart growth planning principles (and reflected in Options 2b and 3d), and (2) the potential of providing incentives to jurisdictions that take a larger share of lower income units.

Consistency of RHNA Methodology and Allocation Options with State Housing Element Law

SANDAG staff analyzed the RHNA options shown in Attachment 2 and has determined that all six options meet the RHNA objectives and consider the RHNA factors as required by state housing element law. Underlying this analysis is the fact that the distribution of housing in the 2050 Regional Growth Forecast is based on these same factors. Specifically, pursuant to Government Code Section 65584, the regional housing needs allocation plan must be consistent with all of the following objectives:

> (1) Increasing the housing supply and the mix of housing types, tenure, and affordability in all cities and counties within the region in an equitable manner, which shall result in each jurisdiction receiving an allocation of units for low and very low income households.
>
> (2) Promoting infill development and socioeconomic equity, the protection of environmental and agricultural resources, and the encouragement of efficient development patterns.
>
> (3) Promoting an improved intraregional relationship between jobs and housing.

(4) Allocating a lower proportion of housing need to an income category when a jurisdiction already has a disproportionately high share of households in that income category, as compared to the countywide distribution of households in that category from the most recent decennial United States census.

A more detailed description of the RHNA objectives and factors is provided in Attachment 3 (with other RHNA background information), and RHNA-related excerpts from housing element law (Government Code Sections 65584 and 65584.04) are included in Attachment 4.

Staff Recommendation to Regional Planning Committee

At the May 6, 2011, meeting, SANDAG staff recommended that the Regional Planning Committee forward Option 2b (Lower Income Capacity Option) to the Board of Directors. This option most closely aligns with the 2050 Regional Growth Forecast, which was used to prepare the Draft 2050 RTP and its Sustainable Communities Strategy (SCS) and demonstrates the region's progress toward planning for significantly more multifamily housing (approximately 80 percent) than past forecasts. Option 2b distributes housing based on the RHNA factors and in accordance with the four RHNA objectives in state housing element law, reflecting the region's commitment to planning for housing for all income levels in all jurisdictions, balancing jobs and housing, making efficient use of our transportation infrastructure and public transit improvements, focusing development in our urban areas, and protecting our rural areas, open space, and habitat. Option 2b also improves the likelihood that the 18 cities and County of San Diego will all successfully complete their housing elements.

Although the staff-recommended RHNA Methodology and Allocation Option 2b shown in Table 2b does not exceed the 20 dwelling unit per acre (du/ac) or greater capacity reflected in each jurisdiction's general/community plans, jurisdictions may need to rezone land, or adopt a rezoning program, to address their lower income RHNA housing allocations when they prepare their housing elements.[1] In addition to multifamily sites, jurisdictions can use existing units that will be acquired/rehabilitated and rent restricted, second/accessory units, and farmworker housing, among others, when identifying lower income sites in their housing elements.

Regional Planning Committee Recommendation to Board of Directors

On May 6, 2011, the Regional Planning Committee approved a motion to forward Options 2b (Lower Income Capacity Option) and 3d (Regional Share Option with Jobs/Housing Balance, Income, Transit and Unincorporated Capacity Adjustment) to the Board of Directors.

Board Policy Meeting on RHNA Methodology and Allocation Options

On May 13, 2011, the Board of Directors held a Board Policy meeting to discuss the RHNA Methodology and Allocation Options.

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[1] The determination of lower income housing capacity in the RHNA tables is based on the Existing Plan 20 dwelling units per acre (du/ac) or greater capacity of each local jurisdiction. The 20 du/ac or greater capacity was used, because although the default density in state housing element law used to identify adequate sites for lower income housing is 30 du/ac or greater for all jurisdictions in the San Diego region (except for Coronado and Del Mar whose default density is 20 du/ac or greater), if jurisdictions can demonstrate that lower income housing can be built at densities lower than 30 (or 20) du/ac, they can identify lower income housing sites in their housing elements at those lower densities.

During the discussion, a number of questions were posed by Board members and answered by staff. SANDAG staff confirmed that all the RHNA options were in compliance with state law and addressed overconcentration to varying degrees in each option. The question of the use of incentives for competitive grant programs (e.g. the *TransNet* Smart Growth Incentive Program [SGIP]) in relation to the RHNA was raised. SANDAG staff and the Working Groups will be reviewing the criteria for allocating the next SGIP funding cycle in the next several months, and will consider housing-related criteria and Board Policy No. 033: Implementation Guidelines for the SANDAG Regional Housing Needs Assessment Memorandum during that process, and will return to the Board of Directors with options for consideration. Staff also explained that the 2050 Regional Growth Forecast addresses the RHNA factors through use of a model, which distributes jobs and housing based on projected growth, local land use plans, and the transportation network using an iterative process.

Board members made the following comments:

- All jurisdictions care about planning for housing for households of all income levels;
- Balanced communities are important, but definitions of what is "balanced" differ;
- The fairest option is option 1c;
- RHNA is focused on planning for housing, not on production;
- Incentives should go to the jurisdictions assigned the highest numbers;
- Our region has one of the best plans in the state;
- Multifamily capacity limits are self-imposed;
- Subsidies are needed to build lower income housing units;
- Need to view RHNA from the perspective of SB 375 and consider how the allocation and housing planning is affected by open space, habitat plans, floodplains, airports, and other constraints;
- The 2050 Regional Growth Forecast reflects both constraints and development potential on vacant and redevelopment/infill land;
- Inclusionary housing programs have helped some jurisdictions produce affordable lower income housing units;
- Equity is an important RHNA objective;
- Lower income households impact jurisdiction finances – jurisdictions with fewer lower income households have more money available to spend;
- Option 2b takes the constraints of local jurisdiction plans into account;
- Density is sometimes used as a surrogate for affordability;
- Transit lines such as the SPRINTER are logical locations to build higher density housing;
- All jurisdictions are doing the best job they can with what they have;
- Local jurisdiction history with respect to lower income housing/households should be taken into account in RHNA;
- A hybrid scenario somewhere between Options 2b and 3c or 3d might make sense; and

- We want to work with the California Department of Housing and Community Development (HCD) on issues such as taking a regional approach to the identification of adequate sites in local housing elements.

Next Steps

After the Board of Directors accepts a Draft RHNA Methodology and Allocation, SANDAG will be holding subregional public workshops and public hearings during June on the Board's selected option(s) as well as the Draft 2050 RTP and its SCS and Draft Environmental Impact Report (EIR). Comments received on the Draft RHNA Methodology and Allocation will be provided to the Working Groups and Regional Planning Committee prior to being presented to the Board of Directors for its consideration prior to its final adoption.

During June and July, staff will prepare the RHNA Plan, which in addition to the RHNA Methodology and Allocation, will summarize housing element law; document how the regional housing need was determined; and describe the RHNA Methodology, its various components, how it meets the objectives of state law, and the process used to develop it. The results of this process will be brought back to the Board of Directors in the fall in conjunction with the summary of comments received during the Draft 2050 RTP/SCS/EIR circulation.

The adoption of the RHNA Plan for the fifth housing element cycle by the Board of Directors is scheduled to occur on October 28, 2011, in conjunction with the adoption of the 2050 RTP and its SCS and EIR.

Housing elements in the San Diego region are required to be completed within 18 months of adoption of the 2050 RTP. Therefore, local housing elements for the San Diego region must be completed (with a finding of compliance from HCD) by April 27, 2013.

GARY L. GALLEGOS
Executive Director

Attachments: 1. Key Dates for RHNA Fifth Housing Element Update
2. RHNA Methodology and Allocation Option Tables and Descriptions (May 27, 2011)
3. RHNA Background Information
4. Excerpts from Housing Element Law (Government Code Sections 65584 and 65584.04) – RHNA Objectives, Methodology, and Factors

Key Staff Contact: Susan Baldwin, (619) 699-1943, sba@sandag.org

Key Dates for Regional Housing Needs Assessment (RHNA)
Fifth Housing Element Update
May 27, 2011

February 2010	SANDAG Board of Directors accepts 2050 Regional Growth Forecast for planning purposes for use in preparing the Draft 2050 Regional Transportation Plan (2050 RTP), its Sustainable Communities Strategy (SCS), and RHNA
January 1, 2010	Eleven-year RHNA projection period for fifth housing element cycle starts (January 1, 2010 – December 31, 2020)
June 1 2010	Joint meeting between the Regional Planning Technical Working Group (TWG) and Regional Housing Working Group (RHWG) to kick off RHNA methodology discussion: RHNA background, schedule, and principles
June 2010 – April 2011	TWG/RHWG develop RHNA allocation methodology
July 9, 2010	SANDAG Board holds policy meeting to discuss RHNA
July 23, 2010	SANDAG provides California Department of Housing and Community Development (HCD) and Caltrans date of expected adoption of 2050 RTP in writing as required by Senate Bill 575 (Steinberg, 2009)
November 2010	HCD provides SANDAG with regional housing need determination for eleven-year RHNA projection period: January 1, 2010 – December 31, 2020
April 2011	RHNA allocation options forwarded by TWG and RHWG to Regional Planning Committee
May 2011	Regional Planning Committee makes recommendation on Draft RHNA methodology and allocation to SANDAG Board; Board accepts Draft RHNA methodology and allocation for 60-day public review
June 2011	Public workshops held in conjunction with 2050 RTP and its SCS
July/September	RHNA Plan to TWG/RHWG, Regional Planning Committee, and Board, including public hearing on RHNA Methodology
October 28, 2011	Final 2050 RTP, its SCS, and RHNA adopted by SANDAG Board
April 27, 2013	Due date for eight-year January 1, 2013 – December 31, 2020, housing elements (due within 18 months after RTP is adopted)*

*Housing elements are due every four years for:

1. Jurisdictions that did not adopt their fourth housing element revisions by January 1, 2009, and did not adopt the fourth revision by March 31, 2010, and complete any rezoning contained in the housing element program by June 30, 2010; and
2. Jurisdictions that do not adopt their housing element within 120 days from next housing element due date.

RHNA Methodology and Allocation Option Tables and Descriptions
May 27, 2011

Attached are background tables and RHNA Methodology and Allocation tables that have been developed during the RHNA process for the Regional Planning Technical Working Group (TWG), Regional Housing Working Group (RHWG), Regional Planning Committee, and SANDAG Board of Directors.

Tables 1a, 1b, 1c, 2b, 2c, 3a, 3c, 3d, 4, and 5 are included. Tables 2a and 3b were dropped from consideration at the March 10, 2011, joint meeting of the TWG and RHWG.

RHNA Option Tables

During the RHNA process, the two working groups (TWG and the RHWG) meeting jointly reviewed background information from the 2050 Regional Growth Forecast, and developed a number of RHNA methodology and allocation options, which considered the RHNA factors in state housing element law, meet the RHNA objectives in state law, and are consistent with the Sustainable Communities Strategy (SCS) of the Draft 2050 Regional Transportation Plan (2050 RTP).

Brief descriptions of the background information contained in Tables 1a, 1b, 4, and 5, and the remaining RHNA options shown in Tables 1c, 2b, 2c, 3a, 3c, and 3d are provided below.

To assist in understanding the RHNA allocation options, some additional information is provided below.

- The 2050 Regional Growth Forecast is the foundation for the background data and RHNA allocation options in the attached tables. Each jurisdiction's 11-year RHNA number in Table 1a, Column (e) is based on the 2050 Regional Growth Forecast.

- The numbers shown in the RHNA allocation options tables have been revised based on the technical update of the 2050 Regional Growth Forecast, and further revisions may occur based on any future changes to the transit network in the Final 2050 RTP.

- The lower income housing capacities shown in the tables are based on densities of 20 dwelling units per acre (du/ac) or greater. In state housing element law, the density associated with the identification of adequate lower income housing sites is 30 du/ac or greater for all jurisdictions in the San Diego region, except Coronado and Del Mar, which can use sites zoned for 20 du/ac or greater to identify lower income sites. State housing element law allows a jurisdiction to identify sites at lower densities if jurisdictions can demonstrate that affordable housing has been built at those densities. In addition to multifamily zoned land, jurisdictions can identify sites for farmworker housing, second units, and/or existing units that jurisdictions identify and commit funding for acquiring and rehabilitating units.

- The Very Low and Low Income (also known as lower income) RHNA numbers have been grouped together in the RHNA allocation option tables and are shown as VL+L in the table headings.

- The RHNA options in Tables 1c, 2c, 3a, 3c, and 3d exceed the existing plan lower income capacities of several jurisdictions (numbers shown in bold). (Only the RHNA option in Table 2b does not exceed the existing lower income capacities for each of the local jurisdictions.) The

TWG and RHWG discussed the potential of using incentives, such as the *TransNet* Smart Growth Incentive Program and Active Transportation Program grant funds and Board Policy No. 033 in conjunction with the methodology ultimately selected. The two groups propose to continue discussing the potential use of incentives at upcoming joint meetings and report back to the Regional Planning Committee and the Board of Directors at future meetings.

Table 1a. Distribution of Total RHNA-Determination, Jobs/Housing Data, and Percent of Very Low and Low Income Households by Jurisdiction

Table 1a addresses anticipated housing unit growth by jurisdiction over the 11-year RHNA period. To determine the 11-year RHNA projected housing unit growth, the table shows actual housing unit counts as of January 1, 2010, and housing units projected as of January 1, 2020, and January 1, 2025, based on the 2050 Regional Growth Forecast. The projected housing unit growth over the 15-year period (169,528) is then prorated to the 11-year RHNA period by jurisdiction to meet the RHNA-Determination from the California Department of Housing and Community Development (HCD) of 161,980 housing units. Existing and projected civilian jobs in 2008 and 2020 are shown and used to calculate jobs/housing ratios for those two years.

The table also includes each jurisdiction's number of agricultural jobs, and percentage and share of jobs in lower-wage industries (including retail, wholesale, leisure, and hospitality jobs). The percentages of Very Low and Low Income (VL+L) households by jurisdiction from the 2000 Census also are shown.

Table 1b. 2050 Estimated Housing Capacity

Table 1b shows the estimated housing capacity by jurisdiction in 2050 at <10, 10-19, 20-29, 30+, and 20+ dwelling units per acre (du/acre) based on the 2050 Regional Growth Forecast.

Table 1c. Regional Share Option

Table 1c allocates the 11-year RHNA projected housing unit number by jurisdiction based on the regionwide income distribution percentages assigned by HCD. The differences between the Very Low and Low Income Allocation and each jurisdiction's Existing Plan and 2050 20+ du/ac Capacity are shown in Columns (g) and (j).

This table serves as the starting point for all the remaining RHNA options (Tables 2b, 2c, 3a, 3c, and 3d).

Table 2b. Lower Income Capacity Option – ***SANDAG Staff Recommendation; Forwarded to Board of Directors by Regional Planning Committee on May 6, 2011***

Table 2b takes the 11-year RHNA projected housing numbers by jurisdiction and distributes them into the four income groups based on HCD regionwide income percentages (22.5% Very Low, 17.1% Low, 18.9% Moderate, and 41.5% Above Moderate). The Existing Plan 20+ du/ac capacity reflected in each jurisdiction's general/community plans was not exceeded to calculate the Very Low and Low Income RHNA numbers in this option. A total of 5,736 units from the jurisdictions in which existing plan capacity was exceeded in Table 1c (Carlsbad by 375 units, Del Mar by 12 units, Poway by 143 units, and the County Unincorporated Area by 5,206 units) were redistributed proportionately to jurisdictions with remaining capacity by applying an adjustment factor of 1.10871.

Table 2c. Lower Income Capacity Option with Jobs/Housing Balance Adjustment – ***Forwarded to Regional Planning Committee by Working Groups on April 14, 2011***

Table 2c adjusts the Very Low and Low Income housing unit allocations from the December 9, 2010, RHNA Allocation Proposal (Table 2a) (which was not forwarded to the Regional Planning Committee) to address the issue of jobs/housing balance using variance calculations from the regional jobs/housing ratio and a controlled adjustment. The differences between the Very Low and Low Income Allocation and each jurisdiction's Existing Plan and 2050 20+ du/ac Capacity are shown in Columns (i) and (l).

Table 3a. Regional Share Option with Jobs/Housing Balance and Income Adjustment

Table 3a demonstrates a RHNA allocation option that allocates the Very Low and Low Income units using Table 1c, and applying a jobs/housing balance adjustment and income adjustment. The percentage and numerical differences between the Very Low and Low Income Allocation and each jurisdiction's Existing Plan capacity are shown in Columns (l) and (m), and the numerical difference between the Very Low and Low Income Allocation and each jurisdiction's 2050 20+ du/ac capacity is shown in Column (p).

Table 3c. Regional Share Option with Jobs/Housing Balance, Income, and Transit Adjustment - ***Forwarded to Regional Planning Committee by Working Groups on April 14, 2011***

Table 3c demonstrates a RHNA allocation concept that allocates the Very Low and Low Income units using Table 1c and applying three adjustments: jobs/housing balance, income, and transit (based on the housing capacity within a quarter-mile radius of the transit stations and bus stops shown on the attached 2020 peak-period high-frequency transit service map). The percentage and numerical difference between the Very Low and Low Income Allocation and each jurisdiction's Existing Plan 20+ du/ac capacity are shown in Columns (p) and (q), and the numerical difference between the Very Low and Low Income Allocation and each jurisdiction's 2050 20+ du/ac capacity is shown in Column (t).

Table 3d. Regional Share Option with Jobs/Housing Balance, Income, Transit and Unincorporated Area Capacity Adjustment - ***Forwarded to Regional Planning Committee by Working Groups on April 14, 2011; Forwarded to Board of Directors by Regional Planning Committee on May 6, 2011***

Table 3d builds on Table 3c by adding a capacity adjustment that limits the Very Low and Low Income housing capacity (20+ du/ac) of the Unincorporated Area to 3,670 units and redistributes units proportionately to all the cities by applying an adjustment factor of 1.09417.

Table 4. Households by Income and Very Low and Low Income Allocation Percentages for RHNA Concepts

Table 4 shows the percentages of Very Low and Low Income Households based on the 2000 Census and the six RHNA allocation options forwarded to the Regional Planning Committee. This table shows how each RHNA allocation option addresses the RHNA income overconcentration objective in housing element law by showing the relationship between the RHNA Very Low and Low Income allocations and the percentage of existing Very Low and Low Income households in each jurisdiction. For example, Option 2b reflects an increase of 5 percentage points in Very Low and Low Income housing for Carlsbad, and a decrease of 17 percentage points in Very Low and Low

Income housing for National City in relation to the percentage of existing Very Low and Low Income households in these jurisdictions.

Table 5 Very Low and Low Income Allocation Numbers for RHNA Options

Table 5 compares the lower income RHNA allocations for the six RHNA options as well as the estimated existing lower income capacities for each of the local jurisdictions.

Summary of RHNA Allocation Options
May 27, 2011

Options	Characteristics	Notes
Option 1c: Regional Share Option	• Applies income distribution percentages assigned by HCD • Based on 2050 Regional Growth Forecast	Exceeds lower income general plan capacities of four jurisdictions – Carlsbad, Del Mar, Poway, and Unincorporated Area
Option 2b: Lower Income Capacity Option	• Applies income distribution percentages assigned by HCD, but does not exceed 20 du/ac capacity of any local jurisdiction • Redistributes lower income RHNA from four jurisdictions where capacity is exceeded to jurisdictions with remaining capacity	Only option where no lower income general plan capacities are exceeded Carlsbad, Del Mar, Poway, and Unincorporated Area lower income general plan capacities are not exceeded
Option 2c: Lower Income Capacity Option with Jobs/Housing Balance Adjustment	• Applies jobs/housing balance adjustment to December 9, 2010, RHNA Proposal (Option 2a) • Limits Unincorporated Area lower income RHNA to 3,670 units	Exceeds lower income general plan capacities of three jurisdictions (by smallest amounts) – Carlsbad, Del Mar, and Poway Unincorporated Area lower income general plan capacity not exceeded
Option 3a: Regional Share Option with Jobs/Housing Balance and Income Adjustments	• Starts with Option 1c and applies two adjustments: jobs/housing balance and income	Exceeds lower income general plan capacities of four jurisdictions – Carlsbad, Del Mar, Poway, and Unincorporated Area
Option 3c: Regional Share Option with Jobs/Housing Balance, Income, and Transit Adjustments	• Starts with Option 1c and applies three adjustments: jobs/housing balance, income, and transit accessibility within quarter mile radius of high-frequency transit stops in 2020	Exceeds lower income general plan capacities of four jurisdictions – Carlsbad, Del Mar, Poway, and Unincorporated Area
Option 3d Regional Share Option with Jobs/Housing Balance, Income, Transit and Unincorporated Area Capacity Adjustment	• Starts with Option 3c and adds an adjustment that limits the Unincorporated Area lower income RHNA to 3,670 units	Exceeds lower income general plan capacities of three jurisdictions – Carlsbad, Del Mar, and Poway Unincorporated Area lower income general plan capacity not exceeded

Table 1a. Distribution of Total RHNA-Determination, Jobs/Housing Data, and Percent of Very Low & Low Income Households by Jurisdiction

2050 Regional Growth Forecast (Technical Update)

	Existing and Projected Housing Units					Civilian Jobs								
	1/1/2010	1/1/2020	1/1/2025	2010-25 Growth (15 years)	Pro-rated to 11 years	Existing Jobs (2008)	Jobs / Housing Ratio (2008)	Projected Jobs (2020)	Jobs / Housing Ratio (2020)	Agri. Jobs (2008)	% Sales & Tourism Jobs (2008)	Number of Sales & Tourism Jobs	Jurisdiction Share of Regional Sales and Tourism Jobs	Percent VL+ L Households (2000 Census)
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(l)	(m)
Carlsbad	43,644	48,104	49,076	5,232	4,999	61,999	1.4254	70,226	1.4599	360	30%	18,621	5%	26.57%
Chula Vista	78,244	88,186	91,704	13,460	12,861	70,230	0.9064	82,146	0.9315	--	29%	20,623	6%	41.65%
Coronado	9,562	9,580	9,614	52	50	8,166	0.8557	8,265	0.8627	--	45%	3,692	1%	25.31%
Del Mar	2,542	2,587	2,606	64	61	4,065	1.6036	4,149	1.6038	--	56%	2,285	1%	25.16%
El Cajon	35,644	39,187	41,719	6,075	5,805	41,686	1.1711	44,463	1.1345	--	28%	11,688	3%	52.60%
Encinitas	24,877	26,331	27,339	2,462	2,353	26,985	1.0879	28,711	1.0904	640	31%	8,415	2%	26.99%
Escondido	47,682	50,370	52,051	4,369	4,175	61,143	1.2902	66,803	1.3262	470	24%	14,889	4%	43.82%
Imperial Beach	9,860	9,866	10,126	266	254	7,187	0.7296	7,479	0.7581	--	9%	678	0%	52.40%
La Mesa	25,614	26,785	27,416	1,802	1,722	27,579	1.1023	28,813	1.0757	--	27%	7,467	2%	44.37%
Lemon Grove	8,868	9,076	9,191	323	309	7,640	0.8662	7,890	0.8693	--	27%	2,092	1%	46.75%
National City	15,787	17,052	17,737	1,950	1,863	21,060	1.3352	21,994	1.2898	--	39%	8,185	2%	61.14%
Oceanside	64,758	69,630	71,257	6,499	6,210	43,977	0.6823	48,464	0.6960	910	33%	14,435	4%	39.51%
Poway	16,364	17,233	17,675	1,311	1,253	31,176	1.9111	32,386	1.8793	60	22%	6,811	2%	21.14%
San Diego	511,620	577,416	604,016	92,196	88,096	790,252	1.5543	838,909	1.4529	1,610	21%	167,122	48%	41.26%
San Marcos	27,744	30,065	32,122	4,378	4,183	37,383	1.3566	40,643	1.3585	--	26%	9,837	3%	40.00%
Santee	19,837	22,312	23,667	3,830	3,660	15,304	0.7833	16,949	0.7596	--	31%	4,764	1%	31.54%
Solana Beach	6,521	6,646	6,877	356	340	7,533	1.1573	7,823	1.1771	--	34%	2,559	1%	26.99%
Vista	30,716	31,602	32,154	1,438	1,374	41,315	1.3480	44,693	1.4142	100	23%	9,694	3%	42.49%
Unincorporated	169,142	180,460	192,597	23,455	22,412	107,131	0.6420	114,338	0.6336	6,820	34%	36,443	10%	34.01%
Region	**1,149,426**	**1,262,488**	**1,318,944**	**169,518**	**161,980**	**1,411,811**	**1.2377**	**1,515,346**	**1.2003**	**11,100**	**25%**	**350,300**	**100%**	**39.60%**
11-YEAR RHNA					**161,980**									

Regionwide Distribution of Total RHNA Target by Income Category

	%	units
Very Low	22.5%	36,450
Low	17.1%	27,700
Moderate	18.9%	30,610
Above Moderate	41.5%	67,220
Total		**161,980**

Notes:

(a) Actual housing unit counts (January 1, 2010)
(b) Projected housing units January 1, 2020 from 2050 Regional Growth Forecast (Technical Update)
(c) Projected housing units January 1, 2025 from 2050 Regional Growth Forecast (Technical Update)
(d) Projected 15-year housing forecast (1/1/2010-1/1/2025)
(e) Forecast pro-rated to 11-year RHNA Determination
(f) Civilian jobs in 2008
(g) Jobs / housing ratio in 2008
(h) Projected civilian jobs in 2020
(i) Projected jobs/housing ratio in 2020
(j) Number of jobs in agriculture and mining sector in 2008, rounded to nearest 10. (Values not shown if fewer than 50 jobs.)
(k) Percent of civilian jobs in lower-wage industries (retail, wholesale, leisure & hospitality) by jurisdiction.
(l) Percentage share of regional sales and tourism jobs
(m) Percent of Very Low and Low Income Households in each jurisdiction from 2000 Census

Table 1b. 2050 Estimated Housing Capacity* by Jurisdiction

2050 Regional Growth Forecast (Technical Update)

	< 10 du/ac	10-19 du/ac	20-29 du/ac	30+ du/ac	TOTAL	20+ du/ac Capacity
	(a)	(b)	(c)	(d)	(e)	(f)
Carlsbad	3,968	1,528	885	720	7,101	1,605
Chula Vista	4,189	7,347	9,354	13,738	34,628	23,092
Coronado	12	6	148	122	288	270
Del Mar	31	28	10	2	71	12
El Cajon	-772	1,352	504	12,721	13,805	13,225
Encinitas	1,578	838	899	394	3,709	1,293
Escondido	2,543	783	493	3,550	7,369	4,043
Imperial Beach	5	745	378	1,406	2,534	1,784
La Mesa	231	220	159	7,862	8,472	8,021
Lemon Grove	135	176	190	1,220	1,721	1,410
National City	167	488	4,275	14,892	19,822	19,167
Oceanside	2,992	1,528	1,452	3,299	9,271	4,751
Poway	1,563	13	0	353	1,929	353
San Diego	10,671	22,084	51,266	149,784	233,805	201,050
San Marcos	2,292	944	2,049	882	6,167	2,931
Santee	2,587	728	484	1,166	4,965	1,650
Solana Beach	86	39	408	0	533	408
Vista	832	932	604	10,988	13,356	11,592
Unincorporated	53,938	5,314	1,179	5,223	65,654	3,670
Region	**87,048**	**45,093**	**74,737**	**228,322**	**435,200**	**300,327**

* 2050 Capacity is for discussion purposes only. 2050 Capacity includes visionary inputs beyond existing, adopted general plans.

* The 20+ du/ac capacity for the Unincorporated Area was revised to reflect the County of San Diego's assessment of its lower income capacity.

Notes:
(a) Estimated housing capacity at less than 10 dwelling units per acre based on input provided by local jurisdictions for the 2050 Regional Growth Forecast
(b) Estimated housing capacity at 10-19 dwelling units per acre
(c) Estimated housing capacity at 20-29 dwelling units per acre
(d) Estimated housing capacity at 30+ dwelling units per acre
(e) Estimated total housing capacity
(f) Estimated housing capacity at 20+ du/ac (c) + (d)
(The 20+ du/ac capacity in column (f) for the Unincorporated Area was adjusted to reflect the County of San Diego's assessment of its lower income capacity.)

Table 1c. Regional Share Option

11-Year RHNA (1/1/2010 - 12/31/2020)

		RHNA Allocation Based on Regionwide %						Est. Existing Plan Capacity	Est. 2050 Capacity*	
	11 years	Very Low	Low	Moderate	Above Moderate	VL + Low	Difference between VL+L Allocation and 20+ Capacity (Existing)	20+ du/ac Capacity	20+ du/ac Capacity	Difference between VL+L Allocation and 20+ Capacity (2050)
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
Carlsbad	4,999	1,125	855	945	2,074	1,980	**375**	1,605	1,605	**375**
Chula Vista	12,861	2,894	2,200	2,430	5,337	5,094	-16,805	21,899	23,092	-17,998
Coronado	50	11	9	9	21	20	-250	270	270	-250
Del Mar	61	14	10	12	25	24	**12**	12	12	**12**
El Cajon	5,805	1,306	993	1,097	2,409	2,299	-10,926	13,225	13,225	-10,926
Encinitas	2,353	530	402	445	976	932	-361	1,293	1,293	-361
Escondido	4,175	939	714	789	1,733	1,653	-929	2,582	4,043	-2,390
Imperial Beach	254	57	43	48	106	100	-1,684	1,784	1,784	-1,684
La Mesa	1,722	388	294	325	715	682	-5,816	6,498	8,021	-7,339
Lemon Grove	309	70	53	58	128	123	-705	828	1,410	-1,287
National City	1,863	419	319	352	773	738	-17,462	18,200	19,167	-18,429
Oceanside	6,210	1,398	1,062	1,173	2,577	2,460	-2,291	4,751	4,751	-2,291
Poway	1,253	282	214	237	520	496	**143**	353	353	**143**
San Diego	88,096	19,823	15,065	16,649	36,559	34,888	-123,385	158,273	201,050	-166,162
San Marcos	4,183	941	715	791	1,736	1,656	-1,275	2,931	2,931	-1,275
Santee	3,660	824	626	691	1,519	1,450	-200	1,650	1,650	-200
Solana Beach	340	77	58	64	141	135	-127	262	408	-273
Vista	1,374	309	235	260	570	544	-1,187	1,731	11,592	-11,048
Unincorporated	22,412	5,043	3,833	4,235	9,301	8,876	**5,205**	3,670	3,670	**5,206**
Region	**161,980**	**36,450**	**27,700**	**30,610**	**67,220**	**64,150**				
11-YEAR RHNA		*36,450*	*27,700*	*30,610*	*67,220*					
Distribution		22.5%	17.1%	18.9%	41.5%	39.6%				

* 2050 Capacity is for discussion purposes only. 2050 Capacity includes visionary inputs beyond existing, adopted general plans.

Notes:

(a) 2050 Regional Growth Forecast pro-rated to 11-year RHNA Determination. The Forecast is based on information from local jurisdictions regarding existing and future land use policies and inputs.

(b) Very Low Income unit allocation by jurisdiction (based on 22.5% of total)

(c) Low Income unit allocation by jurisdiction (based on 17.1% of total)

(d) Moderate Income unit allocation by jurisdiction (based on 18.9% of total)

(e) Above Moderate Income unit allocation by jurisdiction (based on 41.5% of total)

(f) Sum of Very Low + Low Income unit allocation (b) + (c)

(g) Difference between Low + Very Low Income unit allocation and estimated capacity at 20+ du/acre = (f) - (h)

(h) Estimated Existing Plan housing capacity at 20+ du/ac

(i) Estimated 2050 housing capacity at 20+ du/ac

(j) Difference between Low + Very Low Income unit allocation and estimated 2050 capacity at 20+ du/acre = (f) - (i)

Table 2b. Lower Income Capacity Option — ***SANDAG STAFF RECOMMENDATION***

11-Year RHNA (1/1/2010 - 12/31/2020) — ***FORWARDED TO BOARD BY RPC ON 5/6/11***

		RHNA Allocation by Income Category					*Est. Existing Plan Capacity*	*Est. 2050 Capacity**
	11 years	Very Low	Low	Moderate	Above Moderate	VL + Low**	20+ du/ac	20+ du/ac
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
Carlsbad	4,999	912	693	1,062	2,332	1,605	1,605	1,605
Chula Vista	12,861	3,209	2,439	2,257	4,956	5,648	21,899	23,092
Coronado	50	13	9	9	19	22	270	270
Del Mar	61	7	5	15	34	12	12	12
El Cajon	5,805	1,448	1,101	1,019	2,237	2,549	13,225	13,225
Encinitas	2,353	587	446	413	907	1,033	1,293	1,293
Escondido	4,175	1,042	791	733	1,609	1,833	2,562	4,043
Imperial Beach	254	63	48	45	98	111	1,784	1,784
La Mesa	1,722	430	326	302	664	756	6,498	8,021
Lemon Grove	309	77	59	54	119	136	828	1,410
National City	1,863	465	353	327	718	818	18,200	19,167
Oceanside	6,210	1,549	1,178	1,090	2,393	2,727	4,751	4,751
Poway	1,253	201	152	282	618	353	353	353
San Diego	88,096	21,977	16,703	15,462	33,954	38,680	158,273	201,050
San Marcos	4,183	1,043	793	734	1,613	1,836	2,931	2,931
Santee	3,660	914	694	642	1,410	1,608	1,650	1,650
Solana Beach	340	85	65	59	131	150	262	408
Vista	1,374	343	260	241	530	603	1,731	11,592
Unincorporated	22,412	2,085	1,585	5,864	12,878	3,670	3,670	3,670
Region	**161,980**	**36,450**	**27,700**	**30,610**	**67,220**	**64,150**		
11-YEAR RHNA		*36,450*	*27,700*	*30,610*	*67,220*	*64,150*		
		22.5%	17.1%	18.9%	41.5%			

* 2050 Capacity is for discussion purposes only. 2050 Capacity includes visionary inputs beyond existing, adopted general plans.

**Allocation proposal is based on Existing Plan capacity, or regional allocation, whichever is lower in jurisdictions where Existing Plan capacity is exceeded (see bolded numbers in Table 1c, column (j))

Notes:

(a) 2050 Regional Growth Forecast pro-rated to 11-year RHNA Determination.
The Forecast is based on information from local jurisdictions regarding existing and future land use policies and inputs.

(b) Very Low Income unit allocation by jurisdiction (based on 22.5% of total, or Existing Plan capacity for 20+ du/acre).

(c) Low Income unit allocation by jurisdiction (based on 17.1% of total, or Existing Plan capacity for 20+ du/acre).

(d) Moderate Income unit allocation by jurisdiction (balance of total minus other Income categories) = (a) - (b) - (c) - (e)

(e) Above Moderate Income unit allocation by jurisdiction (based on 41.5% of total, or balance of units).

(f) Sum of Very Low + Low Income unit allocation = (b) + (c)

(g) Estimated Existing Plan housing capacity at 20+ du/ac

(h) Estimated 2050 housing capacity at 20+ du/ac

Table 2c: Lower Income Capacity Option with Jobs/Housing Balance Adjustment

11-Year RHNA (1/1/2010 - 12/31/2020)

		Jobs/Housing Balance Adjustment							*Est. Existing Plan Capacity*	*Est. 2050 Capacity**	
	11 year RHNA	VL + Low Units (Dec 9 Proposal)*	Jobs/Housing Ratio (2020)	Variance from Regional Average	Half of Variance	Basic Variance Calculation	Controlled Adjustment for Jobs/Housing Ratio	VL + Low Allocation After Jobs/Housing Adjustment**	Difference between VL+L Allocation and 20+ Capacity (Existing)	20+ du/ac Capacity	20+ du/ac Capacity	Difference between VL+L Allocation and 20+ Capacity (2050)
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
Carlsbad	4,999	1,605	1.4599	0.2596	0.12980	208	191	1,796	**191**	1,605	1,605	**191**
Chula Vista	12,861	5,384	0.9315	-0.2688	-0.13440	-724	-798	4,586	-17,313	21,899	23,092	-18,506
Coronado	50	21	0.8627	-0.3376	-0.16880	-4	-5	16	-254	270	270	-254
Del Mar	61	12	1.6038	0.4035	0.20175	2	2	14	**2**	12	12	**2**
El Cajon	5,805	2,430	1.1346	-0.0657	-0.03285	-80	-88	2,342	-10,883	13,225	13,225	-10,883
Encinitas	2,353	985	1.0904	-0.1099	-0.05495	-54	-60	925	-368	1,293	1,293	-368
Escondido	4,175	1,747	1.3262	0.1259	0.06295	110	101	1,848	-734	2,582	4,043	-2,195
Imperial Beach	254	106	0.7581	-0.4422	-0.22110	-23	-26	80	-1,704	1,784	1,784	-1,704
La Mesa	1,722	721	1.0757	-0.1246	-0.06230	-45	-50	671	-5,827	6,498	8,021	-7,350
Lemon Grove	309	130	0.8693	-0.3310	-0.16550	-22	-24	106	-722	828	1,410	-1,304
National City	1,863	780	1.2896	0.0855	0.04475	35	32	812	-17,388	18,200	19,167	-18,355
Oceanside	6,210	2,600	0.6960	-0.5043	-0.25215	-656	-723	1,877	-2,874	4,751	4,751	-2,874
Poway	1,253	353	1.8793	0.6790	0.33950	120	110	463	**110**	353	353	**110**
San Diego	88,096	36,873	1.4529	0.2526	0.12630	4,657	4,262	41,135	-117,138	158,273	201,050	-159,915
San Marcos	4,183	1,750	1.3585	0.1582	0.07910	138	127	1,877	-1,054	2,931	2,931	-1,054
Santee	3,660	1,533	0.7596	-0.4407	-0.22035	-338	-373	1,160	-490	1,650	1,650	-490
Solana Beach	340	143	1.1771	-0.0232	-0.01160	-2	-2	141	-121	262	408	-267
Vista	1,374	575	1.4142	0.2139	0.10695	61	56	631	-1,100	1,731	11,592	-10,961
Unincorporated	22,412	6,402	0.6336	-0.5667	-0.28335	-2,479	-2,732	3,670	0	3,670	3,670	0
Region	**161,980**	**64,150**	**1.2003**			**904**	**0**	**64,150**				

*Original December 9 Proposal methodology (Table 2a) with changes based on technical update of 2050 Regional Growth Forecast

**Adjustment made to cap the Unincorporated Area at 3,670 units

Notes:

(a) 2050 Regional Growth Forecast pro-rated to 11-year RHNA Determination.
The Forecast is based on information from local jurisdictions regarding existing and future land use policies and inputs
(b) Sum of Very Low + Low Income unit allocation from Table 2a column (f)
(c) Projected jobs/housing ratio in 2020
(d) Variance of each jurisdiction's jobs/housing ratio from the regional average = 1.2003 (regional average) - (c)
(e) Half of Variance = (d) * 1/2
(f) Uncontrolled Adjustment of jobs/housing ratio = (b) * (e)
(g) Adjustment of jobs/housing balance = (b) * (e) controlled to a net balance of zero regionwide
(h) New Very Low + Low Income unit allocation with controlled jobs/housing factor = (b) + (g)
(i) Difference between Very Low + Low Income unit allocation and estimated 20+ du/ac capacity
(j) Estimated Existing Plan housing capacity at 20+ du/ac
(k) Estimated 2050 housing capacity at 20+ du/ac
(l) Difference between Very Low + Low Income unit allocation and estimated 2050 capacity at 20+ du/acre = (h) - (k)

Table 3a: Regional Share Option with Jobs/Housing Balance and Income Adjustment

11-Year RHNA (1/1/2010 - 12/31/2020)

			Jobs/Housing Balance Adjustment				Income Adjustment							*Est. Existing Plan Capacity*	*Est. 2050 Capacity**	
	11 year RHNA	VL+ Low (Regionwide Shares)	Jobs/Housing Ratio (2020)	Variance from Regional Average	Half of Variance	Controlled Adjustment for Jobs/Housing Ratio	Households by Income - VL + L	Variance from Regional Average	Half of Variance	Controlled Adjustment for Income	VL + L Allocation After Jobs/Housing & Income Adjustment	VL + L Allocation as Percentage of 20+ du/acre Capacity (Existing)	Difference between VL+L Allocation and 20+ Capacity (Existing)	20+ du/ac Capacity	20+ du/ac Capacity	Difference between VL+L Allocation and 20+ Capacity (2050)
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)
Carlsbad	4,999	1,980	1.4599	0.2596	0.12980	237	26.57%	13.03%	6.515%	140	2,357	**147%**	**752**	1,605	1,605	**752**
Chula Vista	12,861	5,094	0.9315	-0.2688	-0.13440	-749	41.65%	-2.05%	-1.025%	-49	4,296	20%	-17,603	21,899	23,092	-18,796
Coronado	50	20	0.8627	-0.3376	-0.16880	-4	25.31%	14.29%	7.145%	1	17	6%	-253	270	270	-253
Del Mar	61	24	1.6038	0.4035	0.20175	5	25.16%	14.44%	7.220%	2	31	**258%**	**19**	12	12	**19**
El Cajon	5,805	2,299	1.1346	-0.0657	-0.03285	-83	52.60%	-13.00%	-6.500%	-139	2,077	16%	-11,148	13,225	13,225	-11,148
Encinitas	2,353	932	1.0904	-0.1099	-0.05495	-56	26.99%	12.61%	6.305%	64	940	73%	-353	1,293	1,293	-353
Escondido	4,175	1,653	1.3262	0.1259	0.06295	96	43.82%	-4.22%	-2.110%	-33	1,716	66%	-866	2,582	4,043	-2,327
Imperial Beach	254	100	0.7581	-0.4422	-0.22110	-24	52.40%	-12.80%	-6.400%	-6	70	4%	-1,714	1,784	1,784	-1,714
La Mesa	1,722	682	1.0757	-0.1246	-0.06230	-46	44.37%	-4.77%	-2.385%	-15	621	10%	-5,877	6,498	8,021	-7,400
Lemon Grove	309	123	0.8693	-0.3310	-0.16550	-22	46.75%	-7.15%	-3.575%	-4	97	12%	-731	828	1,410	-1,313
National City	1,863	738	1.2898	0.0895	0.04475	31	61.14%	-21.54%	-10.770%	-74	695	4%	-17,505	18,200	19,167	-18,472
Oceanside	6,210	2,460	0.6960	-0.5043	-0.25215	-678	39.51%	0.09%	0.045%	2	1,784	38%	-2,967	4,751	4,751	-2,967
Poway	1,253	496	1.8793	0.6790	0.33950	155	21.14%	18.46%	9.230%	50	701	**199%**	**348**	353	353	**348**
San Diego	88,096	34,888	1.4529	0.2526	0.12630	4,063	41.26%	-1.66%	-0.830%	-269	36,682	24%	-119,591	158,273	201,050	-162,368
San Marcos	4,183	1,656	1.3585	0.1582	0.07910	121	40.00%	-0.40%	-0.200%	-3	1,774	61%	-1,157	2,931	2,931	-1,157
Santee	3,650	1,450	0.7595	-0.4407	-0.22035	-349	31.54%	8.06%	4.030%	63	1,164	71%	-486	1,650	1,650	-486
Solana Beach	340	135	1.1771	-0.0232	-0.01160	-2	26.99%	12.61%	6.305%	10	143	55%	-119	262	408	-265
Vista	1,374	544	1.4142	0.2139	0.10695	54	42.49%	-2.89%	-1.445%	-8	590	34%	-1,141	1,731	11,592	-11,002
Unincorporated	22,412	8,876	0.6336	-0.5667	-0.28335	-2,749	34.01%	5.59%	2.795%	268	6,395	**174%**	**2,725**	3,670	3,670	**2,725**
Region	**161,980**	**64,150**	**1.2003**	0.0000	0.00000	**0**	**39.60%**	0.00%	0.000%	**0**	**64,150**					

Notes:

(a) 2050 Regional Growth Forecast pro-rated to 11-year RHNA Determination. The Forecast is based on information from local jurisdictions regarding existing and future land use policies and inputs.

(b) Very Low + Low Income unit allocation based on regionwide shares

(c) Projected jobs/housing ratio in 2020

(d) Variance of each jurisdiction's jobs/housing ratio from the regional average = 1.2003 (regional average) - (c)

(e) Half of Variance = (d) * 1/2

(f) Adjustment for jobs/housing balance = (b) * (e) controlled to a net balance of 0 regionwide

(g) Percentage of Very Low + Low Income Households in each jurisdiction (2000 Census)

(h) Variance from regional average of VL + L Income Households = 39.6% - (g)

(i) Half of Variance = (h) * 1/2

(j) Adjustment for income distribution = (b) * (i) controlled to a net balance of 0 regionwide

(k) New Very Low + Low Income unit allocation with controlled jobs/housing factor & controlled income adjustment= (b) + (f) + (j)

(l) New Very Low + Low Income unit allocation expressed as percentage of 20+ du/acre capacity = (k)/(n)

(m) Difference between Very Low + Low Income unit allocation and estimated 20+ du/ac capacity (k)- (n)

(n) Estimated Existing Plan housing capacity at 20+ du/ac

(o) Estimated 2050 housing capacity at 20+ du/ac

(p) Difference between Very Low + Low Income unit allocation and estimated 2050 capacity at 20+ du/acre = (k) - (o)

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Table 3c: Regional Share Option with Jobs/Housing Balance, Income, and Transit Adjustment

11-Year RHNA (1/1/2010 - 12/31/2020)

			Jobs/Housing Balance Adjustment				Income Adjustment				Transit Adjustment							Est. Existing Plan Capacity	Est. 2050 Capacity	
	11 year RHNA	VL+ Low (Regionwide Shares)	Jobs/Housing Ratio (2020)	Variance from Regional Average	Half of Variance	Controlled Adjustment for Jobs/Housing Balance	Households by Income - VL + L	Variance from Regional Average	Half of Variance	Controlled Adjustment for Income	Percent Housing Unit Capacity within a Qtr Mi of Transit*	Variance from Incorporated Average**	Half of Variance	Controlled Adjustment for Transit	VL + L Allocation After Jobs/Housing Income & Transit Adjustment	VL + L Allocation as Percentage of 20+ du/acre Capacity (Existing)	Difference between VL+L Allocation and 20+ Capacity (Existing)	20+ du/ac Capacity	20+ du/ac Capacity	Difference between VL+L Allocation and 20+ Capacity (2050)
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)	(s)	(t)
Carlsbad	4,999	1,980	1.4599	0.2596	0.12980	237	26.57%	13.03%	6.52%	140	36.29%	-31.98%	-15.99%	-197	2,170	135%	565	1,605	1,605	565
Chula Vista	12,861	5,094	0.9015	-0.2985	-0.13440	-749	41.65%	-2.05%	-1.03%	-49	60.88%	-7.39%	-3.70%	-111	4,185	19%	-17,714	21,899	23,092	-15,907
Coronado	50	20	0.8627	-0.3376	-0.16880	-4	25.31%	14.29%	7.15%	1	83.68%	15.41%	7.71%	5	22	8%	-248	270	270	-248
Del Mar	61	24	1.5038	0.4035	0.20175	5	25.16%	14.44%	7.22%	2	74.65%	6.38%	3.19%	2	33	275%	21	12	12	21
El Cajon	5,805	2,299	1.1346	-0.0867	-0.03285	-80	52.80%	-13.00%	-6.50%	-139	77.28%	9.01%	4.51%	338	2,415	18%	-10,810	13,225	13,225	-10,810
Encinitas	2,353	932	1.0904	-0.1099	-0.05495	-56	26.99%	12.81%	6.31%	64	53.90%	-14.37%	-7.19%	-38	901	70%	-392	1,293	1,293	-392
Escondido	4,175	1,653	1.3062	0.1259	0.06295	96	43.82%	-4.22%	-2.11%	-33	64.34%	-3.93%	-1.97%	-15	1,697	66%	-886	2,582	4,043	-2,346
Imperial Beach	254	100	0.7581	-0.4422	-0.22110	-24	52.40%	-12.80%	-6.40%	-6	84.20%	25.93%	12.97%	42	112	6%	-1,672	1,784	1,784	-1,672
La Mesa	1,722	682	1.9757	0.1246	0.06230	46	44.91%	-4.77%	-2.39%	-15	90.20%	21.93%	10.97%	344	965	13%	-5,833	6,498	8,021	-7,156
Lemon Grove	309	123	0.8693	-0.3310	-0.16550	-22	46.75%	-7.15%	-3.58%	-4	68.91%	0.64%	0.32%	1	98	12%	-730	828	1,410	-1,312
National City	1,863	738	1.2898	0.0895	0.04475	31	61.14%	-21.54%	-10.77%	-74	94.29%	25.02%	13.51%	314	1,009	6%	-17,191	18,200	19,197	-18,188
Oceanside	5,212	2,460	0.8960	-0.5043	-0.25215	-578	39.51%	0.09%	0.05%	2	42.00%	-29.27%	-13.14%	-191	1,693	34%	-3,158	4,751	4,751	-3,158
Poway	1,253	496	1.8793	0.6760	0.33950	168	21.14%	18.46%	9.23%	50	0.00%	-68.27%	-34.14%	-109	901	176%	249	353	353	248
San Diego	88,696	34,888	1.4529	0.2536	0.12530	4,063	41.26%	-1.96%	-0.83%	-289	71.40%	3.13%	1.57%	1,785	40,467	28%	-117,806	158,273	201,050	-160,583
San Marcos	4,183	1,656	1.3585	0.1582	0.07910	121	40.00%	-0.40%	-0.20%	-3	50.63%	-17.63%	-8.82%	-86	1,688	58%	-1,243	2,931	2,931	-1,243
Santee	3,669	1,450	0.7596	-0.4467	-0.22335	-349	31.54%	8.06%	4.03%	63	2.87%	-65.40%	-32.70%	-250	884	54%	-766	1,650	1,650	-766
Solana Beach	340	135	1.1771	-0.0232	-0.01160	-2	26.99%	12.61%	6.31%	10	32.06%	-36.19%	-18.10%	-14	129	49%	-133	262	406	-279
Vista	1,374	544	1.4142	0.2139	0.10695	54	42.40%	-2.99%	-1.45%	-8	73.83%	5.56%	2.78%	50	640	37%	-1,991	1,731	11,592	-10,952
Unincorporated	22,412	8,876	0.5336	-0.5867	-0.28335	-2,749	34.61%	-5.59%	2.80%	265	1.33%	-66.94%	-33.47%	-1,754	4,941	126%	971	3,670	3,670	971
Region	**161,989**	**64,150**	**1.2003**	0.0000	0.00000	**0**	**39.60%**	0.00%	0.00%	0				**0**	**64,150**					

*For this analysis, the transit types included are: Bus Rapid Transit (BRT), rail, and local and express bus routes with 15 minute headways or better during peak periods

**For this calculation, the incorporated area housing capacity average was used instead of the regional average. This is based on the fact that the Unincorporated Area has little transit service and very low density land which significantly reduces the regional average housing capacity within a quarter mile of transit.

Notes:

(a) 2050 Regional Growth Forecast pro-rated to 11-year RHNA Determination.
The Forecast is based on information from local jurisdictions regarding existing and future land use policies and inputs.
(b) Very Low + Low Income unit allocation based on regionwide shares
(c) Projected jobs/housing balance in 2020
(d) Variance of each jurisdiction's jobs/housing ratio from the regional average = 1.2003 (regional average) - (c)
(e) Half of Variance = (d) * 1/2
(f) Adjustment for jobs/housing balance = (b) * (e) controlled to a net balance of 0 regionwide
(g) Percentage of Very ILow + Low Income Households in each jurisdiction (2009 Census)
(h) Variance from regional average of VL+ L income Households = 39.60% - (g)
(i) Half of Variance = (h) * 1/2
(j) Percent of each jurisdiction's capacity within 1/4 mile of a transit stop
(k) Variance of each jurisdiction's transit accessible housing unit capacity from incorporated average = (k) - 69%
(l) Half of variance = (l) * 1/2
(m) Adjustment for transit = (m) * (b) controlled to a net balance of 0 regionwide
(n) Very ILow + Low Income unit allocation with controlled Jobs/Housing, Income, & Transit adjustments= (b) + (f) + (j) + (n)
(o) Very ILow + Low Income unit allocation expressed as percentage of 20+ du/acre capacity = (o)/(r)
(p) Adjustment for income distribution = (b) * (j) controlled to a net balance of 0 regionwide
(q) Difference between VL+L Income Income unit allocation and existing 20+ du/ac capacity = (o) - (r)
(r) Estimated Existing Plan housing capacity at 20+ du/ac
(s) Estimated 2050 Capacity at 20+ du/acre
(t) Difference between Very Low + Low Income unit allocation and estimated 2050 capacity at 20+ du/acre = (o) - (s)

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Table 3d: Regional Share Option with Jobs/Housing Balance, Income, Transit and Unincorporated Area Capacity Adjustment

FORWARDED TO BOARD BY RPC ON 5/6/11

11-Year RHNA (1/1/2010 - 12/31/2020)

				Jobs/Housing Balance Adjustment				Income Adjustment				Transit Adjustment							Est. Existing Plan Capacity	Est. 2050 Capacity*	
	11 year RHNA	VL+ Low (Regionwide Shares)	New Starting Shares*	Jobs/Housing Ratio (2020)	Variance from Regional Average	Half of Variance	Controlled Adjustment for Jobs/ Housing Balance	Households by Income - VL + L	Variance from Regional Average	Half of Variance	Controlled Income Adjustment	Percent Housing Unit Capacity w/in a 0to ¼ of Transit**	Variance from Incorporated Average***	Half of Variance	Controlled Adjustment for Transit	VL + L Allocation After Jobs/Housing, Income & Transit Adjustment	VL + L Allocation as Percentage of 20+ du/acre Capacity (Existing)	Difference between VL+L Allocation and 20+ Capacity (Existing)	20+ du/ac Capacity	20+ du/ac Capacity	Difference between VL+L Allocation and 20+ Capacity (2050)
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)	(s)	(t)	(u)
Carlsbad	4,999	1,580	2,186	1.4599	0.2596	0.12980	191	26.57%	13.03%	6.515%	229	36.29%	-31.96%	-15.98%	-258	2,319	144%	714	1,605	1,605	714
Chula Vista	12,861	5,094	5,574	0.9315	-0.2688	-0.13440	-1,424	41.65%	-2.95%	-1.025%	-42	60.68%	-7.39%	-3.70%	-153	3,955	18%	-17,944	21,899	23,092	-19,137
Coronado	50	20	22	0.8627	-0.3379	-0.16890	-5	25.31%	14.29%	7.145%	3	83.68%	15.41%	7.71%	3	20	7%	-250	270	270	-250
Del Mar	61	24	26	1.6038	0.4035	0.20175	4	25.16%	14.44%	7.220%	3	74.65%	6.38%	3.19%	1	34	285%	22	12	12	22
El Cajon	5,905	2,299	2,516	1.1346	-0.0657	-0.03285	-156	52.80%	-13.06%	-6.500%	-121	77.28%	9.01%	4.51%	173	2,410	18%	-10,815	13,225	13,225	-10,815
Encinitas	2,353	902	1,020	1.0904	-0.1099	-0.05495	-107	26.99%	12.61%	6.305%	100	53.90%	-14.37%	-7.19%	-55	968	74%	-335	1,293	1,293	-335
Escondido	4,175	1,553	1,809	1.3262	0.1259	0.06295	78	43.82%	-4.22%	-2.110%	-28	94.34%	-3.90%	-1.97%	-27	1,832	71%	-750	2,582	4,043	-2,211
Imperial Beach	254	100	109	0.7581	-0.4422	-0.22110	-46	52.40%	-12.90%	-6.400%	-5	94.20%	25.90%	12.97%	22	80	4%	-1,704	1,784	1,784	-1,704
La Mesa	1,722	682	790	1.0757	-0.1246	-0.06230	-98	44.37%	-4.77%	-2.365%	-13	90.20%	25.90%	10.97%	125	770	12%	-5,728	6,498	8,021	-7,251
Lemon Grove	309	123	135	0.8893	-0.3310	-0.16550	-42	46.75%	-7.15%	-3.575%	-3	68.91%	0.64%	0.32%	0	90	11%	-738	828	1,410	-1,320
National City	1,663	736	807	1.2898	0.0895	0.04475	25	61.14%	-21.54%	-10.770%	-64	94.29%	26.92%	13.01%	160	928	5%	-17,272	18,200	19,167	-18,239
Oceanside	6,210	2,460	2,692	0.6990	-0.5043	-0.25215	-1,291	39.51%	0.99%	0.045%	2	42.00%	-26.27%	-13.14%	-263	1,140	24%	-3,611	4,751	4,751	-3,611
Poway	1,253	496	543	1.8793	0.6790	0.33950	125	21.14%	18.46%	9.230%	79	0.00%	-68.27%	-34.14%	-138	606	172%	256	350	350	256
San Diego	68,096	34,888	38,173	1.4529	0.2526	0.12630	3,270	41.26%	-1.56%	-0.830%	-234	71.49%	3.13%	1.57%	910	42,119	27%	-116,154	158,273	201,060	-158,931
San Marcos	4,163	1,656	1,812	1.3585	0.1582	0.07910	87	40.00%	-0.40%	-0.200%	-3	50.53%	-17.50%	-8.82%	-119	1,787	61%	-1,144	2,931	2,931	-1,144
Santee	3,660	1,450	1,587	0.7596	-0.4407	-0.22035	-566	31.54%	8.06%	4.030%	99	2.87%	-65.40%	-32.70%	-386	634	38%	-1,016	1,650	1,650	-1,016
Solana Beach	340	135	148	1.1771	-0.0232	-0.01160	-4	26.99%	12.61%	6.305%	14	32.08%	-36.19%	-18.10%	-30	138	53%	-124	262	408	-270
Vista	1,374	544	595	1.4142	0.2139	0.10695	44	42.49%	-2.86%	-1.445%	-8	73.83%	5.58%	2.79%	25	656	38%	-1,073	1,731	11,562	-10,934
Unincorporated	22,412	9,676														3,670	100%	0	3,670	3,670	0
Region	**151,980**	**64,150**	**66,480**	**1.2003**			**0**	39.60%			**0**				**0**	**64,150**					

*New starting shares based on VL + L Regionwide Shares with an adjustment made to cap the Unincorporated Area at 3,670 units, and 5,266 units distributed proportionally to the remaining jurisdictions

** For this analysis, the transit types included are: Bus Rapid Transit (BRT), rail, and local and express bus routes with 15 minute headways or better during peak periods

*** For this calculation, the incorporated area housing capacity average was used as opposed to the regional average. This is based on the fact that the Unincorporated Area has little transit service and very low density land which significantly reduces the regional average housing capacity within a quarter mile of transit.

Notes:

(a) 2050 Regional Growth Forecast pro-rated to 11-year RHNA Determination.
The Forecast is based on information from local jurisdictions regarding existing and future land use policies and inputs.
(b) Very Low + Low Income unit allocation based on regionwide shares.
(c) New Starting Shares
(d) Projected jobs/housing balance in 2020
(e) Variance of each jurisdiction's jobs/housing ratio from the regional average = 1.2003 (regional average) - (c)
(f) Half of Variance = (e) * 1/2
(g) Adjustment for jobs/housing balance = (c) * (f) controlled to a net balance of 0 regionwide
(h) Percentage of Very Low + Low Income Households in each jurisdiction (2000 Census)
(i) Variance from regional average of VL + L Income Households = 39.6% - (g)
(j) Half of Variance = (i) * 1/2
(k) Adjustment for income distribution = (c) * (j) controlled to a net balance of 0 regionwide
(l) Percent of each jurisdiction's capacity within 1/4 mile of a transit stop
(m) Variance of each jurisdiction's transit accessible housing capacity from incorporated average = (l) - 69%
(n) Half of variance = (m) * 1/2
(o) Adjustment for transit = (n) * (c) controlled to a net balance of 0 regionwide
(p) Very Low + Low Income unit allocation with controlled Jobs/Housing, Income, & Transit adjustments = (c) + (g) + (k) + (o)
(q) Very Low + Low unit allocation expressed as a percentage of existing 20+ du/acre capacity = (p)/(s)
(r) Difference between Very Low + Low Income unit allocation and existing 20+ du/acre capacity = (p) - (s)
(s) Estimated Existing Plan housing capacity at 20+ du/acre
(t) Estimated 2050 housing capacity at 20+ du/acre
(u) Difference between Very Low + Low Income unit allocation and estimated 2050 capacity at 20+ du/acre = (p) - (t)

May 27, 2011

Table 4. Households by Income and Very Low & Low Income Allocation Percentages for RHNA Options

11-Year RHNA (1/1/2010 - 12/31/2020)

	Households by Income (2000 Census)	Regional Share Option (Table 1c)	Lower Income Capacity Option (Table 2b)	Lower Income Capacity Option with Jobs/Housing Balance Adjustment (Table 2c)	Regional Share Option with Jobs/Housing Balance and Income Adjustment (Table 3a)	Regional Share Option with Jobs/Housing Balance, Income, and Transit Adjustment (Table 3c)	Regional Share Option with Jobs/Housing Balance, Income, Transit and Unincorporated Area Capacity Adjustment (Table 3d)
	VL + Low	VL + Low	VL + Low	VL + Low	VL + Low	VL + Low	VL + Low
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
Carlsbad	27%	40%	32%	36%	47%	43%	46%
Chula Vista	42%	40%	44%	36%	33%	33%	31%
Coronado	25%	40%	44%	32%	34%	44%	40%
Del Mar	25%	40%	20%	23%	51%	54%	56%
El Cajon	53%	40%	44%	40%	36%	42%	42%
Encinitas	27%	40%	44%	39%	40%	38%	41%
Escondido	44%	40%	44%	44%	41%	41%	44%
Imperial Beach	52%	40%	44%	31%	28%	44%	31%
La Mesa	44%	40%	44%	39%	36%	50%	45%
Lemon Grove	47%	40%	44%	34%	31%	32%	29%
National City	61%	40%	44%	44%	37%	54%	50%
Oceanside	40%	40%	44%	30%	29%	26%	18%
Poway	21%	40%	28%	37%	56%	48%	49%
San Diego	41%	40%	44%	47%	44%	46%	48%
San Marcos	40%	40%	44%	45%	42%	40%	43%
Santee	32%	40%	44%	32%	32%	24%	17%
Solana Beach	27%	40%	44%	41%	42%	38%	41%
Vista	42%	40%	44%	46%	43%	47%	48%
Unincorporated	34%	40%	16%	16%	29%	21%	16%
Region	**40%**	**40%**	**40%**	**40%**	**40%**	**40%**	**40%**

Notes:

(a) Proportion of households in Very Low and Low Income categories (Where "Very Low " is defined as less than 50% of regional median household income and "Low" is defined as 50-80% of regional median household Income defined by California Dept. of Housing and Community Development).

(b) Percent of Very Low + Low Income Units under the Regional Share Option (Table 1c)

(c) Percent of Very Low + Low Income Units under the Lower Income Capacity Option (Table 2b)

(d) Percent of Very Low + Low Income Units under the Lower Income Capacity Option with Jobs/Housing Balance Adjustment (Table 2c)

(e) Percent of Very Low + Low Income Units under the Regional Share Option with Jobs/Housing Balance and Income Adjustment (Table 3a)

(f) Percent of Very Low + Low Income Units under the Regional Share Option with Jobs/Housing Balance, Income, and Transit Adjustment (Table 3c)

(g) Percent of Very Low + Low Income Units under the Revised Regional Share Option with Jobs/Housing Balance, Income, Transit and Unincorporated Area Capacity Adjustment (Table 3d)

Table 5. Very Low & Low Income Allocation Numbers for RHNA Options

11-Year RHNA (1/1/2010 - 12/31/2020)

	Regional Share Option (Table 1c)	Lower Income Capacity Option (Table 2b)	Lower Income Capacity Option with Jobs/Housing Balance Adjustment (Table 2c)	Regional Share Option with Jobs/Housing Balance and Income Adjustment (Table 3a)	Regional Share Option with Jobs/Housing Balance, Income, and Transit Adjustment (Table 3c)	Regional Share Option with Jobs/Housing Balance, Income, Transit and Unincorporated Capacity Adjustment (Table 3d)	Estimated Existing Plan Capacity
	VL + Low	VL + Low	VL + Low	VL + Low	VL + Low	VL + Low	20+ du/ac capacity
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
Carlsbad	1,980	1,605	1,796	2,357	2,170	2,319	1,605
Chula Vista	5,094	5,648	4,586	4,296	4,185	3,955	21,899
Coronado	20	22	16	17	22	20	270
Del Mar	24	12	14	31	33	34	12
El Cajon	2,299	2,549	2,342	2,077	2,415	2,410	13,225
Encinitas	932	1,033	925	940	901	958	1,293
Escondido	1,653	1,833	1,848	1,716	1,697	1,832	2,582
Imperial Beach	100	111	80	70	112	80	1,784
La Mesa	682	756	671	621	865	770	6,498
Lemon Grove	123	136	106	97	98	90	828
National City	738	818	812	695	1,009	928	18,200
Oceanside	2,460	2,727	1,877	1,784	1,593	1,140	4,751
Poway	496	353	463	701	601	608	353
San Diego	34,888	38,680	41,135	38,682	40,467	42,119	158,273
San Marcos	1,656	1,836	1,877	1,774	1,688	1,787	2,931
Santee	1,450	1,608	1,160	1,164	884	634	1,650
Solana Beach	135	150	141	143	129	138	262
Vista	544	603	631	590	640	658	1,731
Unincorporated	8,876	3,670	3,670	6,395	4,641	3,670	3,670
Region	**64,150**	**64,150**	**64,150**	**64,150**	**64,150**	**64,150**	**241,817**

Notes:

(a) Very Low + Low Income Units under the Regional Share Option (Table 1c)

(b) Very Low + Low Income Units under the Lower Income Capacity Option (Table 2b)

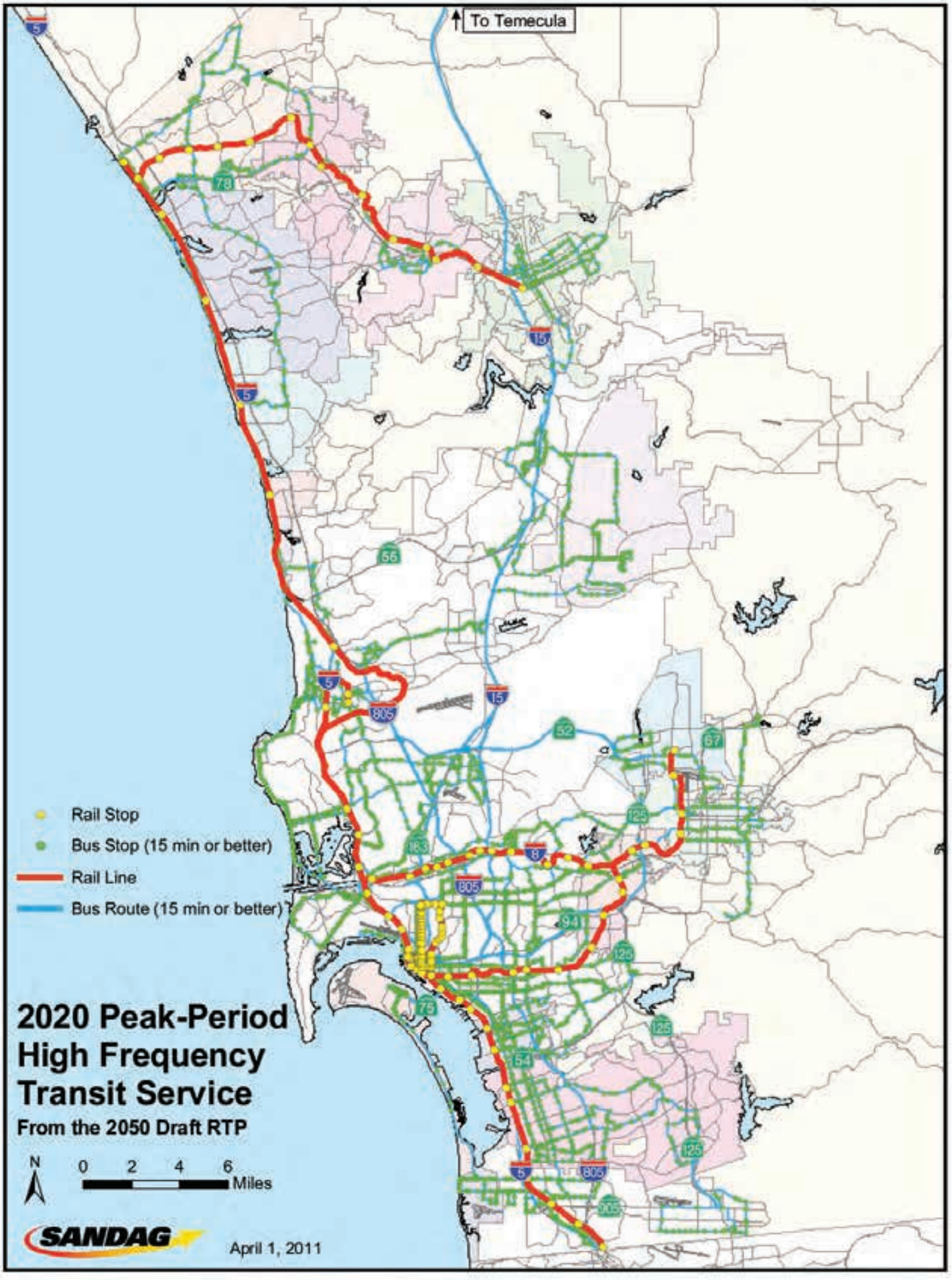
(c) Very Low + Low Income Units under the Lower Income Capacity Option with Jobs/Housing Balance Adjustment (Table 2c)

(d) Very Low + Low Incomd Units under the Regional Share Option with Jobs/Housing Balance and Income Adjustment (Table 3a)

(e) Very Low + Low Income Units under the Regional Share Option with Jobs/Housing Balance, Income, and Transit Adjustment (Table 3c)

(f) Very Low + Low Income Units under the Regional Share Option with Jobs/Housing Balance, Income, Transit and Unincorporated Capacity Adjustment (Table 3d)

(g) Estimated Existing Plan Housing Capacity at 20+ du/ac


To Temecula
Rail Stop
Bus Stop (15 min or better)
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Bus Route (15 min or better)
2020 Peak-Period
High Frequency
Transit Service
From the 2050 Draft RTP
N
0 2 4 6
Miles
SANDAG
April 1, 2011

RHNA Background Information
May 27, 2011

RHNA and Senate Bills 375 and 575

The Regional Housing Needs Assessment (RHNA) process is being conducted by SANDAG in conjunction with the development of the 2050 Regional Transportation Plan (2050 RTP) and its Sustainable Communities Strategy (SCS) in accordance with Senate Bill 375 (Steinberg, 2008) (SB 375) and SB 575 (Steinberg, 2009). SANDAG is assigned the RHNA responsibility by state housing element law, and undertakes this process prior to each housing element cycle as described in the statutory excerpts from state law (Attachment 4).

SB 375 calls for the coordination and integration of housing planning with the regional transportation plan. It requires that the RHNA be consistent with the development pattern of the SCS and that the SCS show that it accommodates the RHNA. The coordination of the 2050 RTP and its SCS with RHNA is intended to assist the region in meeting the greenhouse gas reduction targets that were set by the California Air Resources Board on September 23, 2010.

SB 575 modified the timing of the fifth housing element cycle in the San Diego region and eliminated the housing element, which SB 375 required to be due by July 1, 2010. SB 575 requires some jurisdictions to prepare a housing element update in four years; and specifies housing site identification requirements for the July 1, 2010, to December 31, 2013, timeframe for all jurisdictions. Prior to passage of SB 375, housing element cycles were five years in length. The housing element cycle for the San Diego region now covers an eight-year time period from January 1, 2013, to December 31, 2020.

RHNA Components and RHNA-Determination

The RHNA process has three main components, which are described below:

- RHNA Determination – California Department of Housing and Community Development (HCD) regionwide housing need determination in four income categories: very low, low, moderate, and above moderate for the 11-year RHNA Projection Period of January 1, 2010, to December 31, 2020;

- RHNA Plan – SANDAG plan to distribute the RHNA-Determination to the local jurisdictions by four income categories, which includes the RHNA methodology; and

- RHNA Allocation – Each jurisdiction's housing need allocation in four income categories for use in updating local housing elements.

SANDAG received its RHNA Determination from HCD in a letter dated November 23, 2010, following the required consultation process between the two agencies, which began in June 2010.

The HCD RHNA-Determination for the 11-Year RHNA Projection Period of January 1, 2010, through December 31, 2020, is 161,980 housing units. The regional distribution of the RHNA Determination by income category is shown in the table below. SANDAG is required to distribute the total number of units in the four income categories among the region's 19 jurisdictions in the RHNA Plan.

Regionwide Distribution of Total RHNA-Determination by Income Category

Income Categories	Percent	Units
Very Low	22.5%	36,450
Low	17.1%	27,700
Moderate	18.9%	30,610
Above Moderate	41.5%	67,220
Total	**100%**	**161,980**

State Housing Element Law RHNA Objectives and Factors

State housing element law (found, in part, at Government Code Section 65584 (d)) states that the RHNA shall be consistent with the following four objectives:

1. Increasing the housing supply and the mix of housing types, tenure, and affordability in all cities and counties within the region in an equitable manner, which shall result in all jurisdictions receiving an allocation of units for low- and very low-income households.

2. Promoting infill development and socioeconomic equity, the protection of environmental and agricultural resources, and the encouragement of efficient development patterns.

3. Promoting an improved intraregional relationship between jobs and housing.

4. Allocating a lower proportion of housing need to an income category when a jurisdiction already has a disproportionately high share of households in that income category, as compared to the countywide distribution of households in that category from the most recent decennial United States census.

All of the RHNA Methodology and Allocation options under consideration meet the four objectives listed above.

1. All options allocate RHNA numbers in all four income categories to each of the region's 19 jurisdictions, thus addressing the objective of promoting socioeconomic equity.

2. All of the RHNA options also utilize the forecasted pattern of development from the 2050 Regional Growth Forecast, which incorporates policies in local plans that call for higher density housing to be concentrated in urbanized areas adjacent to transit and that protect environmental and agricultural resources, and demonstrates that the region's local land use plans have significantly increased the region's multifamily housing capacity and ability to accommodate the housing needs of all income levels during the next housing element cycle and out to the horizon year of the 2050 RTP.

3. The RHNA options promote an intraregional relationship between jobs and housing because the 2050 Regional Growth Forecast distributes housing and employment growth at a jurisdiction level using a model that considers proximity to job centers, travel times, and commuting choices, as well as land use plans.

4. The RHNA options also move toward improving the current distribution of lower income households in the region to reduce overconcentration.

State housing element law also requires that SANDAG consider a number of factors as the RHNA allocation methodology is developed. These factors include: jobs/housing relationship; opportunities and constraints to developing housing; distribution of household growth in RTP, and maximizing transportation infrastructure; market demand for housing; agreements between county and cities to direct growth toward incorporated areas; units at risk of converting to market rate units; high housing cost burdens; housing needs of farmworkers; housing needs generated by California State University or University of California campuses; and other factors adopted by SANDAG.

Most of these factors are components of the 2050 Regional Growth Forecast model, and influence the distribution of the region's future housing and job growth. During the formulation of the RHNA Methodology and Allocation options, the Regional Planning Technical Working Group (TWG) and Regional Housing Working Group (RHWG) discussed these factors and incorporated some adjustments to increase the influence of some factors to a greater degree than reflected in the 2050 Regional Growth Forecast. The RHNA Plan will describe in detail how the factors were considered in the development of the Draft RHNA Methodology and Allocation.

Public Meetings Held by SANDAG in Developing the Draft RHNA Methodology and Allocation

Since June 2010, the TWG and RHWG have been meeting jointly to discuss and formulate recommendations to the Regional Planning Committee on the RHNA Determination and the Draft RHNA Methodology and Allocation. The two groups have met jointly 11 times in public meetings to date: June 8, July 8, September 9, October 21, November 10, and December 9, 2010; and on January 13, February 10, February 24, March 10, and April 14, 2011.

In addition to these working group meetings, the Regional Planning Committee discussed the RHNA on April 2, September 10, and December 3, 2010; and on March 4, April 1, and May 6, 2011. The SANDAG Board of Directors discussed the RHNA at a Policy Board meeting on July 9, 2010, and will do so again on May 13, 2011. In addition, the January 28, 2011, Board agenda included an information item regarding the RHNA Determination from HCD. All of the Regional Planning Committee and Board meetings were public meetings.

Excerpts from Housing Element Law (Government Code Sections 65584 and 65584.04)

Regional Housing Needs Assessment (RHNA) Objectives, Methodology, and Factors

65584. (a) (1) For the fourth and subsequent revisions of the housing element pursuant to Section 65588, the department shall determine the existing and projected need for housing for each region pursuant to this article. For purposes of subdivision (a) of Section 65583, the share of a city or county of the regional housing need shall include that share of the housing need of persons at all income levels within the area significantly affected by the general plan of the city or county.

(2) While it is the intent of the Legislature that cities, counties, and cities and counties should undertake all necessary actions to encourage, promote, and facilitate the development of housing to accommodate the entire regional housing need, it is recognized, however, that future housing production may not equal the regional housing need established for planning purposes.

"future housing production may not equal regional housing need ..."

(b) The department, in consultation with each council of governments, shall determine each region's existing and projected housing need pursuant to Section 65584.01 at least two years prior to the scheduled revision required pursuant to Section 65588. The appropriate council of governments, or for cities and counties without a council of governments, the department, shall adopt a final regional housing need plan that allocates a share of the regional housing need to each city, county, or city and county at least one year prior to the scheduled revision for the region required by Section 65588. The allocation plan prepared by a council of governments shall be prepared pursuant to Sections 65584.04 and 65584.05 with the advice of the department.

SANDAG/HCD RHNA consultation

(c) Notwithstanding any other provision of law, the due dates for the determinations of the department or for the councils of governments, respectively, regarding the regional housing need may be extended by the department by not more than 60 days if the extension will enable access to more recent critical population or housing data from a pending or recent release of the United States Census Bureau or the Department of Finance. If the due date for the determination of the department or the council of governments is extended for this reason, the department shall extend the corresponding housing element revision deadline pursuant to Section 65588 by not more than 60 days.

(d) The regional housing needs allocation plan shall be consistent with all of the following objectives: **RHNA plan objectives**

(1) Increasing the housing supply and the mix of housing types, tenure, and affordability in all cities and counties within the region in an equitable manner, which shall result in each jurisdiction receiving an allocation of units for low and very low income households.

(2) Promoting infill development and socioeconomic equity, the protection of environmental and agricultural resources, and the encouragement of efficient development patterns.

(3) Promoting an improved intraregional relationship between jobs and housing.

(4) Allocating a lower proportion of housing need to an income category when a jurisdiction already has a disproportionately high share of households in that income category, as compared to the countywide distribution of households in that category from the most recent decennial United States census.

(e) For purposes of this section, "household income levels" are as determined by the department as of the most recent decennial census pursuant to the following code sections:

(1) Very low incomes as defined by Section 50105 of the Health and Safety Code.

(2) Lower incomes, as defined by Section 50079.5 of the Health and Safety Code.

(3) Moderate incomes, as defined by Section 50093 of the Health and Safety Code.

(4) Above moderate incomes are those exceeding the moderate income level of Section 50093 of the Health and Safety Code.

(f) Notwithstanding any other provision of law, determinations made by the department, a council of governments, or a city or county pursuant to this section or Section 65584.01, 65584.02, 65584.03, 65584.04, 65584.05, 65584.06, or 65584.07 are exempt from the California Environmental Quality Act (Division 13 (commencing with Section 21000) of the Public Resources Code).

65584.04. (a) At least two years prior to a scheduled revision required by Section 65588, each council of governments, or delegate subregion as applicable, shall develop a proposed methodology for distributing the existing and projected regional housing need to cities, counties, and cities and counties within the region or within the subregion, where applicable pursuant to this section. The **RHNA allocation methodology development**

methodology shall be consistent with the objectives listed in subdivision (d) of Section 65584.

RHNA allocation methodology data collection

(b) (1) No more than six months prior to the development of a proposed methodology for distributing the existing and projected housing need, each council of governments shall survey each of its member jurisdictions to request, at a minimum, information regarding the factors listed in subdivision (d) that will allow the development of a methodology based upon the factors established in subdivision (d).

(2) The council of governments shall seek to obtain the information in a manner and format that is comparable throughout the region and utilize readily available data to the extent possible.

(3) The information provided by a local government pursuant to this section shall be used, to the extent possible, by the council of governments, or delegate subregion as applicable, as source information for the methodology developed pursuant to this section. The survey shall state that none of the information received may be used as a basis for reducing the total housing need established for the region pursuant to Section 65584.01.

(4) If the council of governments fails to conduct a survey pursuant to this subdivision, a city, county, or city and county may submit information related to the items listed in subdivision (d) prior to the public comment period provided for in subdivision (c).

Public participation in RHNA methodology and allocation

(c) Public participation and access shall be required in the development of the methodology and in the process of drafting and adoption of the allocation of the regional housing needs. Participation by organizations other than local jurisdictions and councils of governments shall be solicited in a diligent effort to achieve public participation of all economic segments of the community. The proposed methodology, along with any relevant underlying data and assumptions, and an explanation of how information about local government conditions gathered pursuant to subdivision (b) has been used to develop the proposed methodology, and how each of the factors listed in subdivision (d) is incorporated into the methodology, shall be distributed to all cities, counties, any subregions, and members of the public who have made a written request for the proposed methodology. The council of governments, or delegate subregion, as applicable, shall conduct at least one public hearing to receive oral and written comments on the proposed methodology.

Public hearing on proposed RHNA methodology

Factors for use in RHNA methodology

(d) To the extent that sufficient data is available from local governments pursuant to subdivision (b) or other sources, each council of governments, or delegate subregion as applicable, shall include the following factors to develop the methodology that allocates regional housing needs:

Jobs-housing balance

(1) Each member jurisdiction's existing and projected jobs and housing relationship.

(2) The opportunities and constraints to development of additional housing in each member jurisdiction, including all of the following:

Opportunities and constraints to development

(A) Lack of capacity for sewer or water service due to federal or state laws, regulations or regulatory actions, or supply and distribution decisions made by a sewer or water service provider other than the local jurisdiction that preclude the jurisdiction from providing necessary infrastructure for additional development during the planning period.

Sewer and water service capacity

(B) The availability of land suitable for urban development or for conversion to residential use, the availability of underutilized land, and opportunities for infill development and increased residential densities. The council of governments may not limit its consideration of suitable housing sites or land suitable for urban development to existing zoning ordinances and land use restrictions of a locality, but shall consider the potential for increased residential development under alternative zoning ordinances and land use restrictions. The determination of available land suitable for urban development may exclude lands where the Federal Emergency Management Agency (FEMA) or the Department of Water Resources has determined that the flood management infrastructure designed to protect that land is not adequate to avoid the risk of flooding.

Vacant, underutilized, infill, and redevelopment land available for residential development

(C) Lands preserved or protected from urban development under existing federal or state programs, or both, designed to protect open space, farmland, environmental habitats, and natural resources on a long-term basis.

Land protected from urban development

(D) County policies to preserve prime agricultural land, as defined pursuant to Section 56064, within an unincorporated area.

Prime agricultural land in unincorporated area

(3) The distribution of household growth assumed for purposes of a comparable period of regional transportation plans and opportunities to maximize the use of public transportation and existing transportation infrastructure.

Distribution of household growth in RTP

(4) The market demand for housing.

(5) Agreements between a county and cities in a county to direct growth toward incorporated areas of the county.

(6) The loss of units contained in assisted housing developments, as defined in paragraph (9) of subdivision (a) of Section 65583, that changed to non-low-income use through mortgage prepayment, subsidy contract expirations, or termination of use restrictions.

(7) High-housing cost burdens.

(8) The housing needs of farmworkers.

(9) The housing needs generated by the presence of a private university or a campus of the California State University or the University of California within any member jurisdiction.

(10) Any other factors adopted by the council of governments.

(e) The council of governments, or delegate subregion, as applicable, shall explain in writing how each of the factors described in subdivision (d) was incorporated into the methodology and how the methodology is consistent with subdivision (d) of Section 65584. The methodology may include numerical weighting.

SANDAG shall explain how factors were used in RHNA

(f) Any ordinance, policy, voter-approved measure, or standard of a city or county that directly or indirectly limits the number of residential building permits issued by a city or county shall not be a justification for a determination or a reduction in the share of a city or county of the regional housing need.

Building permit limits shall not be justification for RHNA allocations

(g) In addition to the factors identified pursuant to subdivision (d), the council of governments, or delegate subregion, as applicable, shall identify any existing local, regional, or state incentives, such as a priority for funding or other incentives available to those local governments that are willing to accept a higher share than proposed in the draft allocation to those local governments by the council of governments or delegate subregion pursuant to Section 65584.05.

SANDAG shall identify incentives for acceptance of higher RHNA share

(h) Following the conclusion of the 60-day public comment period described in subdivision (c) on the proposed allocation methodology, and after making any revisions deemed appropriate by the council of governments, or delegate subregion, as applicable, as a result of comments received during the public comment period, each council of governments, or delegate subregion, as applicable, shall adopt a final regional, or subregional, housing need allocation methodology and provide notice of the adoption of the methodology to the jurisdictions within the region, or delegate subregion as applicable, and to the department.

60-day public comment period

(i) (1) It is the intent of the Legislature that housing planning be coordinated and integrated with the regional transportation plan. To achieve this goal, the allocation plan shall allocate housing units within the region consistent with the development pattern included in the sustainable communities strategy.

Coordination with RTP, consistency with SCS development pattern

(2) The final allocation plan shall ensure that the total regional housing need, by income category, as determined under Section 65584, is maintained, and that each jurisdiction in the region receive an allocation of units for low- and very low income households.

Each jurisdiction shall receive an allocation of units for lower-income households

(3) The resolution approving the final housing need allocation plan shall demonstrate that the plan is consistent with the sustainable communities strategy in the regional transportation plan.

REGIONAL HOUSING NEEDS ASSESSMENT (RHNA)
FACT SHEET

2010 Household Income Limits for a Family of Four

Very Low Income =
0 – 50 percent AMI ($39,250)

Low Income =
50 – 80 percent AMI ($62,800)

Moderate Income =
80 – 120 percent AMI ($90,600)

Above Moderate Income =
120+ percent AMI

AMI = Area Median Income

AMI for a family of four in 2010 is $75,500

The San Diego Association of Governments (SANDAG), in consultation with the California Department of Housing and Community Development (HCD), is required by California state law to undertake a Regional Housing Needs Assessment (RHNA) prior to each housing element cycle for the 19 local jurisdictions in the San Diego region -- the 18 cities and County of San Diego. The RHNA process has three main components:

- RHNA Determination – HCD regionwide housing need determination in four income categories: very low, low, moderate, and above moderate for the housing element cycle;
- RHNA Plan - SANDAG plan to distribute the RHNA Determination to the local jurisdictions in four income categories; and
- RHNA Allocation - each jurisdiction's housing need assessment in four income categories for use in updating local housing elements.

The RHNA process for the eight-year, fifth housing element cycle (January 1, 2013 – December 31, 2020) is being conducted in conjunction with the development of the 2050 Regional Transportation Plan (RTP) and its Sustainable Communities Strategy (SCS) in accordance with Senate Bill (SB) 375 (Steinberg).

RHNA/SCS Consistency

SB 375 requires consistency between the RHNA and the development pattern of the SCS. It also requires that the SCS land use pattern, and therefore the RHNA, assist the region in meeting the greenhouse gas (GHG) reduction targets set by the California Air Resources Board (CARB)

RHNA Determination

The overall regionwide housing need for the housing element cycle is based on projections from the California Department of Finance and the SANDAG 2050 Regional Growth Forecast, and on assumptions about the formation rates for new households, vacancy rates, household size, and demolitions, and data from the U.S. Census.

RHNA Methodology and Allocation

The Draft RHNA Methodology and Allocation accepted for distribution and comment by the SANDAG Board of Directors on May 27, 2011, for a 60-day public review, is based on the land use pattern in the 2050 RTP and SCS and the 2050 Regional Growth Forecast, which reflects the region's local general and community plans. These plans indicate that approximately 80 percent of our projected new housing will be multifamily, and 83 percent of our housing in 2050 will be located within a half-mile of high frequency (15 minute headways) transit service. The Draft RHNA Methodology and Allocation distributes housing in accordance with the four RHNA objectives in state law: by reflecting the region's commitment to planning for housing for all income levels in all jurisdictions, balancing jobs and housing, focusing development in our urban areas, and protecting our rural areas, open space, and habitat lands.

RHNA Process and Public Involvement

SANDAG worked with the region's planning directors (Regional Planning Technical Working Group) and Regional Housing Working Group to develop the Draft RHNA Methodology and Allocation to distribute

(Continued on reverse)

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Regionwide Distribution of RHNA Determination by Income Category
January 1, 2010 – December 31, 2020
(RHNA Projection Period)

Income Categories	%	units
Very Low	22.5%	36,450
Low	17.1%	27,700
Moderate	18.9%	30,610
Above-Moderate	41.5%	67,220
Total		**161,980**

the regionwide housing need to the 18 cities and County of San Diego in the four income categories. The development of the Draft RHNA Methodology and Allocation took place over a 12-month period during numerous public meetings conducted by the working groups, Regional Planning Committee, and SANDAG Board of Directors.

To read more about the RHNA and to comment on the Draft RHNA Methodology and Allocation, visit **www.sandag.org/rhna. Public comments will be accepted through July 28, 2011.**

Draft RHNA Methodology and Allocation*

		RHNA Allocation by Income Category					Estim. Existing Plan Capacity
	11-Year RHNA	Very Low	Low	Moderate	Above Moderate	VL + Low**	20+ du/ac
Carlsbad	4,999	912	693	1,062	2,332	1,605	1,605
Chula Vista	12,861	3,209	2,439	2,257	4,956	5,648	21,899
Coronado	50	13	9	9	19	22	270
Del Mar	61	7	5	15	34	12	12
El Cajon	5,805	1,448	1,101	1,019	2,237	2,549	13,225
Encinitas	2,353	587	446	413	907	1,033	1,293
Escondido	4,175	1,042	791	733	1,609	1,833	2,582
Imperial Beach	254	63	48	45	98	111	1,784
La Mesa	1,722	430	326	302	664	756	6,498
Lemon Grove	309	77	59	54	119	136	828
National City	1,863	465	353	327	718	818	18,200
Oceanside	6,210	1,549	1,178	1,090	2,393	2,727	4,751
Poway	1,253	201	152	282	618	353	353
San Diego	88,096	21,977	16,703	15,462	33,954	38,680	158,273
San Marcos	4,183	1,043	793	734	1,613	1,836	2,931
Santee	3,660	914	694	642	1,410	1,608	1,650
Solana Beach	340	85	65	59	131	150	262
Vista	1,374	343	260	241	530	603	1,731
Unincorporated	22,412	2,085	1,585	5,864	12,878	3,670	3,670
11-Year RHNA Totals		**36,450**	**27,700**	**30,610**	**67,220**	**64,150**	**241,817**
		22.5%	**17.1%**	**18.9%**	**41.5%**	**39.6%**	

*Table 2b. Lower Income Capacity Option. This table excerpted from the May 27, 2011 RHNA Board Report.

**Allocation proposal is based on estimated existing plan capacity, or regional allocation, whichever is lower in jurisdictions where estimated existing plan capacity is exceeded.

Appendix E

List of Related Studies and Reports

Appendix Contents

Studies/Reports Completed Since the 2030 Regional Transportation Plan (RTP)

Completed Studies

2050 Regional Growth Forecast (April 2011)

Since 1972, the San Diego Association of Governments (SANDAG) has produced long range forecasts of population, housing, and employment that are used as a basic resource by elected officials, planners, academics, and the general public. Among other applications, the 2050 Regional Growth Forecast is the basis for the 2050 Regional Transportation Plan (RTP).

These forecasts represent the best assessment of the changes we can anticipate for the region and its communities based on the best available information and well-proven and verified computer models. The SANDAG forecasts are meant to help policy- and decision-makers prepare for the future and are not an expression for or against growth. The forecasts are developed through a collaborative effort with experts in demography, housing, the economy, and other disciplines, and the close cooperation of the local planning directors and their staffs. The 2050 Regional Growth Forecast is included as Technical Appendix 2.

Central Interstate 5 Conceptual Improvement Program (July 2010)

In 2009, the Centre City Development Corporation (CCDC) initiated the Central Interstate 5 (I-5) Conceptual Improvement Program. This study was intended to identify ideas for improving the Central I-5 Corridor. These ideas would be subsequently refined as required by the Regional Transportation Plan (RTP) process. Staff members at the CCDC, the San Diego Association of Governments (SANDAG), the California Department of Transportation (Caltrans), the City of San Diego, the Port of San Diego, the San Diego County Regional Airport Authority, and the Metropolitan Transit System collaborated on the study.

The concept plan was initially based on the Central I-5 Corridor Study (SANDAG; June 2003), and refinements and modifications to the plan were based on more recent studies, as well as input from the involved agencies. This effort identified enhancements to the Sea World Drive and Old Town interchanges; Pacific Highway high occupancy vehicle (HOV) Lanes from Sea World Drive to downtown San Diego; Harbor Drive HOV lanes from Tidelands Avenue to downtown San Diego; I-5 Freeway HOV lanes south of I-15 connectors; and I-5 freeway ramp improvements and auxiliary lanes.

Comprehensive Freight Gateway Study (March 2010)

In March 2010, SANDAG published the Comprehensive Freight Gateway Study (Gateway Study), which forecasts regional freight traffic in San Diego and Imperial Counties through 2050. The primary objective of the Gateway Study is to give SANDAG, the Imperial County Transportation Commission, and other regional stakeholders access to timely and comprehensive information on the flow of freight. This information is used as a tool to better plan and manage a network for freight that is sustainable, particularly for the flow of freight across the border with Mexico.

The Gateway Study informed the update of the Goods Movement Strategy, a component of the 2050 RTP, by identifying

current and future freight flows and by providing insights into how freight investments impact the flow of freight, industrial development, and related economic activity. The Gateway Study is included as Technical Appendix 11.

Congestion Management Program (CMP) (November 2008)

The purpose of the state-mandated CMP is to monitor roadway congestion and assess the overall performance of the region's transportation system. Based on this assessment, the CMP contains specific strategies and improvements to reduce traffic congestion and improve the performance of a multimodal transportation system. Examples of strategies include increasing the emphasis on public transportation and rideshare programs, mitigating the impacts of new development, and better coordinating decisions for how land is used and how transportation is planned. The region opted to be exempt from the state CMP requirements in 2009.

Coordinated Public Transit – Human Services Transportation Plan (October 2010)

The Regional Short Range Transit Plan (RSRTP) provides a five-year blueprint for how public transit improvements described in the RTP are to be implemented. The federal government, through the Safe, Accountable, Flexible, and Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) now requires each region to prepare a Coordinated Public Transit and Human Services Transportation Plan (Coordinated Plan). The intent of this plan is to improve coordination in transportation planning and operations between public transit and human service transportation. Because several requirements for the RSRTP and the Coordinated Plan overlap, it was determined that the two documents should be combined. In addition to including new federal requirements, the Coordinated Plan also includes goals, objectives, and indicators that will be used to evaluate performance, as required by the Transportation Development Act of the State of California.

A key highlight of this Coordinated Plan update is the addition of information on rural transportation services and needs, based on surveys and outreach efforts specifically in rural areas. Therefore, rural area transportation information and needs are woven throughout the document.

Designing for Smart Growth, Creating Great Places in the San Diego Region (June 2009)

The quality of a community's design can make the difference between a sense of overcrowding and a feeling of vibrancy. This is particularly true where smart growth principles result in more compact development and promote a wider mix of uses.

Smart growth guidelines reflect the importance of design in maintaining and enhancing a community's character, and in creating great public places. They collectively serve as both a primer and a technical reference. Among the subjects covered are site design, street design, parking, and other topics that define a mixed-use community that offers a variety of options for transportation.

Destination Lindbergh (March 2009)

In March 2009, SANDAG, the City of San Diego, and the San Diego County Regional Airport Authority finalized the Destination Lindbergh Project. This report identified the ultimate configuration and capacity for the San Diego International Airport. Also, it

described proposed improvements for connecting the airport with the greater San Diego region with multiple modes of transportation. Destination Lindbergh is included as Technical Appendix 16.

Encinitas Grade Separated Pedestrian Crossings Combined Project Study Report/Project Report (June 2009)

SANDAG collaborated with the City of Encinitas on the development and analysis of alternatives for grade separated pedestrian crossings along the Coastal Rail corridor. Major products of this study included: an analysis of alternatives; final plans, specifications, and estimates; and an environmental document that provided the needed approvals for the construction phase under a separate project.

Escondido BREEZE Rapid (June 2011)

In June 2005, in cooperation with the City of Escondido and the North County Transit District (NCTD), SANDAG initiated the Escondido Rapid Bus project. The purpose of this project was to identify and implement improvements for a "rapid bus" connection between the Escondido Transit Center, downtown and south Escondido, and Westfield North County (North County Fair). This service also would connect to the future SPRINTER passenger rail line and I-15 Bus Rapid Transit (BRT) services.

This project corridor was identified in the MOBILITY 2030 RTP to improve local and rapid bus services. A number of transit priority measures were reviewed to improve the travel time and reliability of Route 350, without adversely impacting the local transportation system. Specific improvements include a "queue jump" lane at one of the most congested intersections along the route, transit signal priority at each intersection, and improved bus stops and shelters with real-time bus schedule information signs.

The NCTD Board of Directors, Escondido City Council, and SANDAG Transportation Committee approved the recommendations from the initial study. Preliminary engineering and design was completed in 2007, final design was completed in 2010, and the service was launched in June 2011.

Feasibility Study for the San Diego Portion of the California Coastal Trail

The California Coastal Trail (CCT) is currently made up of a series of trails stretching 1,300 miles up and down the California coastline. The Preliminary Scoping Study for the San Diego Portion of the California Coastal Trail provides a summary of planning, mapping, engineering, environmental, and funding data relevant to the California Coastal Trail. This data can provide background information for the preparation of future feasibility studies. The San Diego portion of the CCT will be made up of a series of trails running from Camp Pendleton and Oceanside to the southern border of the United States. The Feasibility Study for the San Diego Portion of the California Coastal Trail Technical Memoranda No. 1 through 5 are included as Technical Appendix 14.

Hillcrest Corridor Bus Rapid Transit Planning and Conceptual Design (Spring 2008)

This was a planning and conceptual design study of pedestrian and transit improvements in the 4th and 5th Avenue corridors in Hillcrest. Work included a conceptual design of street improvements, including transit lanes, stations, and pedestrian improvements, as well as an initial operating plan that assumes the current level of operating resources.

Intelligent Transportation Systems (ITS) Strategic Plan (August 2011)

ITS is an approach to managing Transportation networks using technology to maximize efficiency. ITS includes the application of advanced technologies like communications, sensor technologies, and other techniques to enhance the current transportation system and provide safer, efficient, and economic travel in the San Diego Region.

Whereas the 2050 RTP has a 40-year horizon, the ITS Strategic Plan looks at the next 10 years at what is possible to implement and institute in the coming decade.

The ITS Strategic Plan was developed with inputs from SANDAG's regional partners including the 18 cities within the region, the County of San Diego, Caltrans District 11, the Metropolitan Transit System, and North County Transit District. The ITS Strategic Plan documents the region's priorities for investments into TSM without regard to which agency will implement individual strategies. Instead, this plan looks at the region as a whole and how each partner can participate as a member of the whole to improve the overall transportation system network. The ITS Strategic Plan is included as a Technical Appendix 21.

Interstate 15 Interregional Partnership Phase III (February 2010)

The primary goal of this partnership is for the San Diego and Riverside regions to collaborate on planning for housing, transportation, and economic development to improve the quality of life for residents in both regions. Phase III was funded by two Caltrans grants. The first grant allowed SANDAG and the Western Riverside Council of Governments to continue with activities in all three of the areas of focus: economic development, transportation and housing. The second grant allowed SANDAG and the Riverside County Transportation Commission to improve vanpool programs that the two agencies administer, and to look at how people who use vanpools and carpools can be persuaded to instead choose transit options such as the express bus or BRT. Phase III received additional funding to develop a Strategic Implementation Plan (SIP), using a multimodal approach to reduce congestion in the I-15 corridor at the county line.

Interstate 15 Managed Lanes Implementation Study (2009)

This study described plans for a new Electronic Toll Collection System (ETCS) for the expanding I-15 Managed Lanes facility between State Route (SR) 163 and SR 78. This project is expected to build upon the recommendations from the I-15 Managed Lanes Value Pricing Study, completed in 2003, which evaluated the feasibility of allowing single occupant vehicles to use the excess capacity of the Managed Lanes. Final design and systems engineering of the ETCS and deploying the toll system has been completed. Training for I-15 Managed Lanes incident management and implementation of a Violation Enforcement systems field operational test also has been completed. The I-15 Managed Lanes Implementation Study is included as Technical Appendix 17.

Interstate 5 South Multimodal Corridor Study (December 2010)

SANDAG, in collaboration with the City of Chula Vista and Caltrans, conducted the I-5 South Multimodal Corridor Study to examine potential transportation improvements to I-5 between SR 54 and Main Street in the City of Chula Vista. Initiated in February 2009, this study will complement a larger effort by Caltrans to

prepare a highway project study report for a longer segment of I-5, from SR 15 to the international border with Mexico. In May 2010, the SANDAG Board approved Alternative 2, which includes the addition of two high occupancy vehicle (HOV) lanes, a braided freeway on\off ramp system, bus rapid transit service (BRT) on I-5, and three Trolley rail grade separations, for consideration in the development of the 2050 RTP. The I-5 South Multimodal Corridor Study is included as Technical Appendix 18.

Los Angeles-San Diego-San Luis Obispo Rail Corridor (LOSSAN) Preliminary Environmental Impact Report/Statement (PEIR/EIS) (Spring 2008)

In July 2004, Caltrans and the Federal Railroad Administration released the draft PEIR/EIS for the Los Angeles to San Diego coastal rail corridor. This document complies with federal and state environmental laws, in terms of reviewing rail improvement alternatives, demonstrating the purpose and the need for these improvements, and identifying project impacts. In some locations along the corridor, the document selects a preferred alternative. In other locations, options are identified that will require further environmental review. Caltrans finalized the document in FY 2008, following an extensive public comment period.

Mid-City Interstate 15 Transit Station Study (June 2009)

Due to operational safety issues surrounding centerline stations that were previously proposed on I-15 in Mid-City, SANDAG, Caltrans, and the City Heights community developed a design for bus rapid transit stations. This effort was conducted in conjunction with community planning for transit-oriented development. The goal was to have the stations built by the time that I-15 BRT service begins in 2012. The Mid-City I-15 Transit Station Study was completed in June 2009. Four alternatives were selected for a future environmental analysis, and a draft of the analysis was released on December 30, 2010. A final environmental document was released on June 30, 2011.

Mid-City Rapid Bus Project Development (Summer 2008)

Service and phasing plans for the introduction of rapid bus service for Mid-City will be developed through this project. Preliminary engineering (PE), final design, environmental work for the implementation of rapid bus service in the Mid-City communities, and an outline PE/environmental work for the Park Boulevard segment were completed. Staff has coordinated with the Federal Transit Administration and will be receiving a Very Small Starts grant. Phase I of the project is scheduled start service in 2012.

Regional Aviation Strategic Plan and Airport Multimodal Accessibility Plan (RASP – March 2011; AMAP – June 2011)

SANDAG and the San Diego County Regional Airport Authority are engaged in a two-pronged process to plan for improved infrastructure that will be needed to accommodate air traffic in the region, as well as surface transportation that will serve airport facilities.

Senate Bill 10 of 2007 (SB 10) requires airport multimodal planning to be conducted and coordinated by SANDAG and the Authority. The main planning provisions of SB 10 include the development of a Regional Aviation Strategic Plan (RASP) and an Airport Multimodal Accessibility Plan (AMAP).

The Authority is the lead for the RASP, which identified workable strategies to

improve the performance of the regional airport system. SANDAG is the lead for the AMAP, which is developing a multimodal strategy to improve surface transportation to airports.

The development of the RASP and AMAP is a coordinated process between the Authority and SANDAG. While the Authority is the lead for the aviation demand, capacity, and airport infrastructure components to be completed for the RASP, these studies were incorporated into the AMAP – particularly the first phase of the AMAP, the Regional Air Rail Network Study. The RASP identified the airport infrastructure needed to meet future aviation demands. The AMAP identified surface transportation infrastructure needs associated with future airport expansion. The RASP and the AMAP are included as Technical Appendix 12.

Regional Comprehensive Plan 2009 Performance Monitoring Report (September 2010)

The Regional Comprehensive Plan (RCP) describes using performance indicators as tools to track progress in implementing the plan. Many of the strategies and actions recommended in the RCP will take years to develop and fund. Therefore, it is important to have a consistent and valid set of indicators that can reflect sometimes subtle changes that occur over the long run. Future performance monitoring reports on these indicators will be used to assess how the RCP is influencing the quality of life in the region.

The RCP Baseline Report for Performance Monitoring was completed in November 2006, and it established a benchmark for future monitoring. The 2009 RCP Monitoring Report is the third to be published since the 2006 Baseline Report.

Riding to 2050, the San Diego Regional Bicycle Plan (May 2010)

The San Diego Regional Bicycle Plan was adopted to provide a regional strategy for making the bicycle a useful form of transportation for everyday travel. It was developed to support implementing the RCP and RTP. The San Diego Regional Bicycle Plan includes a bicycle network, as well as the programs that are necessary to support it.

The Bicycle Plan also would lead to benefits to public health by encouraging more people to exercise by riding a bicycle on at least some of their trips. The San Diego Regional Bicycle Plan provides detailed information on the structure of the Regional Bicycle Network, the policies and programs that support it, and the benefits of implementing the Regional Bicycle Plan. The San Diego Regional Bicycle Plan is included as Technical Appendix 13.

San Diego Region Aggregate Supply Study (January 2011)

The San Diego Region Aggregate Supply Study is an analysis of aggregate supply in the region. SANDAG, in cooperation with Caltrans District 11, examined issues related to the supply of aggregate in order to begin developing a framework for managing projected shortfalls.

The objectives of the study are to provide a comprehensive review of aggregate sources in the region; clarify regional needs for aggregate; understand what affects the supply of aggregate; develop a regional geographic information system (GIS) database for visualizing aggregate sources; and develop tools that local governments can use to identify potential aggregate sites and estimate how air quality would be impacted by mining.

San Diego-Imperial County I-8 Corridor Strategic Plan (February 2009)

The San Diego-Imperial County I-8 Corridor Strategic Plan was developed by the Imperial Valley Association of Governments in collaboration with SANDAG and Caltrans District 11. The plan comprises the first phase of a planning effort to improve mobility for people and goods along the I-8 freeway corridor between San Diego and Imperial counties. The Strategic Plan recognizes that economic conditions, population growth, environmental conditions and other dynamics all interact to influence traffic. The plan looks holistically at these traffic-related issues, and it provides direction for planning. The San Diego-Imperial County I-8 Corridor Strategic Plan is included as Technical Appendix 19.

San Diego Station Car Pilot Program Study (Summer 2008)

SANDAG conducted a Station Car Pilot Program Study that consisted of two parts. The first was a marketing study and operations plan, and the second was implementation of the car sharing demonstration program. The San Diego Station Car Pilot Program Study served as a two-year demonstration to measure the market demand for car sharing, specifically station car services, and to outline the implementation plan necessary for sharing cars in San Diego.

Smart Growth Concept Map Update (July 2008)

In 2006, SANDAG accepted the initial Smart Growth Concept Map for the San Diego region. In July 2008, the SANDAG Board accepted an updated Concept Map. The Concept Map contains nearly 200 locations in seven smart growth categories identified in the RCP. The seven smart growth "place types" include: the Metropolitan Center, Urban Centers, Town Centers, Community Centers, Rural Villages, Mixed Use Transit Corridors, and Special Use Centers. This reflects the notion that smart growth is not a "one-size-fits-all" endeavor.

Smart Growth Trip Generation and Parking Study (June 2010)

Smart growth developments are generally perceived to generate fewer auto trips and less demand for parking, compared with conventional developments, because these developments promote the use of public transit, walking, and bicycling. Current guidelines for trip generation and parking supply are based on conventional suburban development, which can impose a burden on developers and jurisdictions to provide more roadway and parking capacity than is necessary. Applying trip generation and parking demand rates appropriate for smart growth development could result in cost savings for jurisdictions, developers, homebuyers, and renters.

SANDAG prepared the studies "Trip Generation for Smart Growth: Planning Tools for the San Diego Region" and "Parking Strategies for Smart Growth: Planning Tools for the San Diego Region" to identify trip generation rates and parking demands associated with smart growth developments. The trip generation and parking demand guidelines update the "SANDAG San Diego Traffic Generators Manual," a guide to trip generation rates in the San Diego region, and "Designing for Smart Growth: Planning Tools for the San Diego Region," smart growth design guidelines published by SANDAG in 2009. The guidelines are available for jurisdictions to use in local planning efforts.

Smart Parking Research Pilot Project (June 2010)

SANDAG, Caltrans, NCTD, and the Federal Highway Administration (FHWA) worked jointly to implement QuickPark, a Smart Parking Research Pilot Project at select COASTER stations. Smart parking uses modern technologies to deliver an effective parking management system.

A study funded by the federal and state governments evaluated how cost-effective smart parking technologies can be used to improve parking management; provide customers with information on available parking; evaluate pricing strategies; and develop parking management business models. Providing convenient and reliable access to parking is essential for making transit more competitive to driving alone.

State of the Commute – Performance Monitoring Report (June 2011)

The State of the Commute report is prepared for the *TransNet* Independent Taxpayer Oversight Committee. The 2010 Report documented how the freeway, transit, and some local arterial network systems are performing; identified transportation performance bottlenecks; and documented the effects and benefits associated with completed *TransNet* or other capital project investments.

State Route 67 Project Study Report (PSR) (November 2008)

Caltrans developed this PSR to convert the existing State Route from a two-lane conventional roadway to a four-lane conventional highway. The PSR included an examination of possible alternatives for median barriers, and some operational improvements as they may pertain to future traffic analyses.

Transit Impediments Study (September 2009)

The Transit Impediments Study summarizes both financial and ridership impediments to maintaining long-term transit service levels throughout San Diego County. The report also details potential alternatives for overcoming these impediments, increasing and maintaining service levels, and increasing and maintaining funding for transit operational expenses.

Tribal Transportation Demand Management Outreach Project (February 2009)

The objective of this project was to partner with the Reservation Transportation Authority (RTA) to strengthen participation by tribal nations in the San Diego region in the regional Transportation Demand Management (TDM) program. SANDAG, the RTA, and the Southern California Tribal Chairmen's Association (SCTCA) collaborated on an assessment of the needs of tribal employers; developed a strategy to meet their needs; and assisted the RTA in setting up a tribal Transportation Management Association (TMA) that collaborated with the SANDAG iCommute program. The tribal TMA, a private, non-profit, member-controlled organization, provided the institutional framework for the recommended TDM programs and services developed as a result of the study.

Current Studies

Coordinated Public Transit-Human Services Transportation Plan (2011)

The Coordinated Public Transit-Human Services Transportation Plan (Coordinated Plan) provides a framework for transit and social service transportation development over the next five years. SANDAG was designated by the State of California as the agency responsible for the preparation of

the federally mandated Coordinated Plan. The Plan also incorporates the Regional Short Range Transit Plan required by the SANDAG Board of Directors, as well as service monitoring required by the state Transportation Development Act. The Coordinated Plan is updated annually. The Coordinated Plan (2010) is included as Technical Appendix 10.

High-Speed Rail Plan (2013/2014)

The California High-Speed Rail Authority (Authority) is the state agency responsible for planning, constructing, and operating a high-speed train system that serves California's major metropolitan areas, including San Diego.

The proposed system would stretch more than 800 miles, connecting San Diego, Los Angeles, the Central Valley, San Francisco, and Sacramento. San Diego would be connected from Los Angeles via the Inland Empire. High-speed train (HST) service along the Inland Corridor would parallel I-215 and I-15 and extend south to downtown San Diego. HST service on the coastal corridor would extend no farther south than Irvine, because of environmental constraints along the coast and in coastal communities between South Orange County and San Diego. Between Los Angeles and Irvine, HST service would share the corridor with existing Amtrak intercity service, Metrolink commuter rail service, and freight.

iCommute Strategic Plan (Summer 2012)

The iCommute Strategic Plan (Strategic Plan) is a five-year implementation plan for all of the SANDAG TDM programs. These include vanpool, carpool, SchoolPool, Buspool, and the Regional Bike Program. The purpose of the Strategic Plan is to outline measurable objectives, describe actions to achieve those objectives, and define performance measures to evaluate progress. These objectives support the goals of other SANDAG plans and initiatives, including the RTP, RCP, the Regional Bicycle Plan, and the Climate Action Strategy.

Performance Measurement System (PeMS) (2011)

PeMS is a joint effort by Caltrans, U.C. Berkeley, Partners for Advanced Transit and Highways, and Berkeley Transportation Systems. SANDAG has partnered with these agencies in the past to expand the capabilities of PeMS to provide transportation performance data tailored to the San Diego region including the development of a multimodal performance measurement and evaluation tool. Specifically, this includes completing the arterial (A-PeMS) and transit (T-PeMS) module. PeMS will allow the region to track "door-to-door" travel times. The A-PeMS module was completed in 2010. Work will continue to develop the T-PeMS module, and integrate it with the PeMS statewide system.

Regional Transit Passenger Counting Program (PCP) (Ongoing)

The PCP fulfills a Federal Transit Administration (FTA) requirement for transit operators, and it provides data required for local transit planning and performance monitoring. This project also manages estimation counts for riders of the Trolley and SPRINTER, which are required by the FTA and are used to manage local revenue-sharing requirements between MTS and NCTD.

State Route 11 and Otay Mesa East Port of Entry (POE) Environmental Reports (November 2011)

In collaboration with SANDAG, Caltrans is conducting the initial phases of environmental studies for the development

of SR 11. This road will connect SR 125 and SR 905 in the United States. In Mexico, the corridor will connect the new POE to the Tijuana-Tecate and Tijuana-Ensenada free and toll roads. SR 11 will include two travel lanes in each direction, and a new Commercial Vehicle Enforcement Facility.

In June 2008, the U.S. General Services Administration (GSA) and U.S. Customs and Border Protection completed a feasibility study of the proposed Otay Mesa East POE. GSA, in partnership with Caltrans, began a program development study for the Otay Mesa East POE in fall 2008.

The Final Phase I PEIR/PEIS for SR 11 and the Otay Mesa East POE was completed in August 2008, and the Federal Highway Administration approved it in October 2008. The Tier II EIS/EIR is underway and it will be completed in 2012.

State Route 78 Corridor Study (Spring 2012)

The SR 78 Corridor Study is evaluating the feasibility of toll and non-toll alternatives to address future regional and local travel demand within this regionally significant corridor. The study area includes SR 78 from I-5 to I-15, and includes participation from SANDAG, Caltrans, local jurisdictions, and other key stakeholders.

TransNet Environmental Mitigation Program (EMP) (ongoing)

The *TransNet* Extension Ordinance and Expenditure Plan, approved by voters in November 2004, includes an EMP. The EMP is a funding allocation category for the costs associated with mitigating habitat impacts from regional transportation projects. The EMP is a unique component of the *TransNet* Extension, because it goes beyond traditional mitigation for transportation projects by including a funding allocation for acquiring habitat, and managing and monitoring those habitats as needed to help implement the Multiple Species Conservation Program and the Multiple Habitat Conservation Program. This funding allocation is tied to mitigation requirements and the environmental clearance approval process for projects outlined in the RTP.

Urban Area Transit Strategy (October 2011)

SANDAG crafted a new vision for public transit as part of its 2050 RTP with the development of the Urban Area Transit Strategy, an innovative transit network within the San Diego region.

The goals of the transit strategy are two-fold: first, to maximize transit ridership in the greater urbanized area of the region; and second, to test the role of the transit network to reduce vehicle miles traveled and greenhouse gas emissions. This study will be finalized as part of the 2050 RTP. The Urban Area Transit Strategy is included as Technical Appendix 7.

Future Studies

Connected Vehicle Development Program (2013)

This project will conduct planning and deployment of the local Phase I pilot test bed environment to complement the I-15 Integrated Corridor Management project. It will prepare the San Diego region for an expected 2013 federal rule that will mandate vehicles to be connected to an intelligent communications infrastructure.

Regional Comprehensive Plan Update (Fall 2013)

The RCP serves as the long-term planning framework for the San Diego region. It provides a broad context in which local and regional decisions can be made that move the region toward a sustainable future – a

future with more choices and opportunities for all residents of the region. The RCP will be updated after the 2050 RTP is adopted.

Regional Safe Routes to School Strategic Plan (March 2012)

The Regional Safe Routes to School Strategic Plan will provide a framework to support the region's local communities and schools as they implement programs that enable students to walk and bike to school safely and routinely. The plan will detail actions, implementing agencies, and the estimated costs of effectively implementing the Safe Routes to School Strategy, which is delineated in the 2050 RTP. The draft plan is anticipated in November 2011, and the final plan is expected to be completed in March 2012.

Trucks on Managed Lanes Study (2013)

This study will assess opportunities and feasibility for improved operations, safety, and efficiency on freeways in the San Diego region by exploring options for Truck Managed Lanes (TML). Based on the evaluation of TML strategies, the study will identify two test corridors to determine the most effective and feasible set of alternatives for TML on regional freeways.

Appendix F:

Glossary

Appendix Contents

Glossary of Transportation Terms, Abbreviations, and Acronyms

2050 Regional Growth Forecast
The 2050 Regional Growth Forecast was accepted for use in planning studies by the SANDAG Board of Directors in 2010. The forecast is based on the General and Community Plans of each of the region's 19 jurisdictions.

ADA
Americans with Disabilities Act: The federal civil rights legislation for disabled people that was passed in 1990; it requires public transportation systems to be more fully accessible; includes the provision of paratransit service.

Active Transportation
Active Transportation includes any method of travel that is human-powered, but most commonly refers to walking and bicycling.

ADT
Average Daily Traffic: The average number of vehicles that travel on a given roadway in a 24-hour period on a weekday.

Air Cargo
Revenue-producing items in domestic or international air commerce, composed of freight, express, and mail, but excluding passenger baggage.

Air Carrier
An aviation operator that provides regular round-trips per week between two or more points, and publishes flight schedules that specify the times, days of the week, and places between which such flights are performed; or that transports mail by air pursuant to a contract with the U.S. Postal Service.

Alternative Transportation Fuels
Low polluting fuels that are used to propel a vehicle, in place of petroleum-based gasoline or diesel fuels. Examples include biodiesel, electricity, ethanol, propane, compressed natural gas, and liquid natural gas.

Amtrak
The National Railroad Passenger Corporation, or Amtrak, is the nation's intercity passenger rail provider. Amtrak operates trains in partnership with 15 states and four commuter rail agencies.

Annual Service Miles
The number of miles that all transit vehicles travel each year in scheduled transit service operations, or when carrying passengers in door-to-door transit service.

APCD
Air Pollution Control District: The APCD is a government agency that regulates sources of air pollution within San Diego County. The County Board of Supervisors sits as the Air Pollution Control Board.

Apportionment
A federal budgetary term that refers to a statutorily prescribed division of assigned funds. It is based on formulas prescribed by law.

APS
Alternative Planning Strategy: Senate Bill 375 (SB 375) provides that if the sustainable communities strategy falls short of meeting the regional greenhouse gas reduction targets from passenger vehicles, the region must prepare an "alternative planning strategy" that, if implemented, would meet the targets.

ArcInfo
A geographic information system (GIS) that can be used to maintain, manipulate, and display transportation, land use, and demographic data.

Arterial
Streets with traffic lights that serve primarily to carry traffic through an area as quickly and efficiently as possible.

Arterial Rapid Transit (also known as Rapid Bus)
Provides rapid and frequent transit service along arterials that use signal priority and queue jumper lanes at major intersections.

Arterial Management System
A hardware and software system that enables local agencies to coordinate the timing of traffic signals across jurisdictional boundaries; optimize the flow of traffic on regionally significant arterials; manage traffic caused by special events and major accidents; and coordinate arterial signals with freeway ramps, transit service, and rail grade-crossings.

Auxiliary Lane
An additional freeway lane between adjacent interchanges that improves the weaving conflicts between exiting and entering vehicles.

AVL
Automated Vehicle Location: A transportation device that uses the coordinates from earth-orbit satellites to determine the precise location of a vehicle on the earth's surface. AVL is used to manage taxi, bus, and commercial vehicle fleet operations.

Bikeway Classifications
As defined by the Manual on Uniform Traffic Control Devices:

- Class I Bike Path: A paved shared-use path within an exclusive right of way
- Class II Bike Lane: Signed and striped lanes within a street right of way
- Class III Bike Route: Preferred routes on existing streets identified by signs only
- Shared Lane Marking or "Sharrow:" Provides positional guidance to bicyclists on roadways that are too narrow to be striped with bicycle lanes and to alert motorists of the location a cyclist may occupy in the roadway

BRT
Bus Rapit Transit: Corridor-level services providing fast and frequent transit services that are designed to take advantage of freeway improvements such as High Occupancy Vehicle (HOV) and Managed Lanes in order to serve longer distance regional trip-making.

CAA
Clean Air Act: Federal legislation that sets national air quality standards and requires each state with areas that have not met federal air quality standards to prepare a State Implementation Plan, or SIP. The 1990 amendments to the CAA, often referred to as the CAAA, established new air quality requirements for the development of metropolitan transportation plans and programs. The California Clean Air Act (CCAA) sets more stringent standards for state air quality.

CAAA
Clean Air Act Amendments of 1990: Federal legislation that established criteria for attaining and maintaining federal air quality standards for allowable concentrations and exposure limits for various air pollutants. The legislation also provides emissions standards for specific vehicles and fuels.

Caltrans
California Department of Transportation: The state agency responsible for the design, construction, operation, and maintenance of the state highway system. The State system includes interstate freeways and state highways.

CARB
California Air Resources Board: The state agency responsible for adopting state air quality standards, establishing emission standards for new cars sold in the state, overseeing activities of regional and local air pollution control agencies, and setting regional targets for reducing greenhouse gas emissions from passenger vehicles.

Carpool
An arrangement in which two or more people share the use of a privately-owned automobile to travel together to and from pre-arranged destinations — typically between home and work or home and school.

Carsharing
Organized short-term auto rental, often located in downtown areas near public transit stops as well as near residential communities and employment centers. Carsharing organizations operate fleets of rental vehicles that are available for short trips by members who pay a subscription fee, plus a per trip charge.

CCAA
California Clean Air Act: A California law passed in 1988 that provides the basis for air quality planning and regulation, independent of federal regulations.

CCI
Construction Cost Index: A measurement of the inflation rate in the cost of major construction projects.

CHP
California Highway Patrol: The state law enforcement agency responsible for highway safety.

CHSRA
California High Speed Rail Authority: It was created by the California Legislature in 1996 to develop a plan for the construction, operation, and financing of a statewide, intercity high speed passenger rail system.

CMIA
Corridor Mobility Improvement Account: A $4.5 billion congestion relief component of Proposition 1B, a measure approved by voters in 2006 that provides nearly $19.9 billion in infrastructure bonds.

CMAQ
Congestion Mitigation and Air Quality Improvement Program: A category of funds contained in SAFETEA-LU for projects and activities that reduce congestion and improve air quality in regions not yet attaining federal air quality standards.

CMP
Congestion Management Program: Required of every county in California with a population of 50,000 or more to qualify for certain state and federal funds. CMPs set performance standards for roads and public transit, and show how local agencies will attempt to meet those standards. The CMP is required to be adopted by the Congestion Management Agency, and it must be consistent with the adopted Regional Transportation Plan (RTP). The San Diego region elected to be exempt from the California State CMP in October 2009.

CNG
Compressed Natural Gas: A clean-burning alternative fuel for vehicles.

COG
Council of Governments: A voluntary organization of local governments that strives for comprehensive regional planning. SANDAG is the COG in the San Diego region.

Community Plan
More specific versions of General Plans, generally dealing with smaller geographical areas, but having the same force of law. See General Plan.

Commuter
A person who travels regularly between home and work or school.

Commuter Rail
Conventional rail passenger service within a metropolitan area. Service primarily is in the morning (home-to-work) and afternoon (work-to-home) travel periods.

Compass Card
A payment system that utilizes smart card technology to enable transit customers to board vehicles more quickly. The Compass Card stores monthly, 30-day, and 14-day transit passes.

Conformity
A demonstration of whether a federally-supported activity is consistent with the SIP — per Section 176 (c) of the Clean Air Act. Transportation conformity applies to plans, programs, and projects approved or funded by the Federal Highway Administration or the Federal Transit Administration.

Congestion
Congestion is usually defined as travel time or delay in excess of what is normally experienced under free-flow traffic conditions. Congestion is typically accompanied by lower speeds, stop-and-go travel conditions, or queuing, such as behind ramp meters or heavily-used intersections.

Corridor
A broad geographical band that follows a general directional flow connecting major trip origins and destinations. A corridor may contain a number of streets, highways, and transit route alignments.

CPI
Consumer Price Index: Developed by the Bureau of Labor Statistics of the U.S. Department of Labor to provide a measurement of the inflation rate in the general economy of a given metropolitan area.

CTC
California Transportation Commission: A state agency that sets state spending priorities for many state and federally funded highway and transit projects and allocates funds to those projects. CTC members are appointed by the governor.

CVO
Commercial Vehicle Operations: The segment of the surface transportation system involved in the movement of commercial goods or freight. Commercial vehicles are generally trucks and rail cars. The management of these fleets and the movement of freight, including its movement through ports of entry, intermodal transfer facilities, and other services is referred to as commercial vehicle operations.

DEFM
Demographic and Economic Forecasting Model: DEFM is an econometric forecasting model with a demographic module. It produces annual forecasts of the size and structure of the region's economy and a demographic forecast consistent with that future economy. Outputs include data such as the size and composition of the region's population, employment by industrial sector, household and personal income, and housing units by structure type, vacancy status and persons per household, labor force, and school enrollment.

Demand Responsive Service
Transit service that is provided in response to a pre-ordered or telephone reservation.

Development Impact Fee
A fee charged to private developers, usually on a per-dwelling-unit or per-square-foot basis, to help pay for infrastructure improvements necessitated as a result of the development.

Diamond Awards
A program sponsored by SANDAG that honors employers who have developed, maintained, and marketed superior transportation benefit programs for their employees.

DOT
Department of Transportation: At the federal level, the cabinet agency headed by the Secretary of Transportation that is responsible for highways, transit, aviation, and ports. The DOT includes the Federal Highway Administration (FHWA), the Federal Transit Administration (FTA), the Federal Aviation Administration (FAA), and other agencies. The state DOT is Caltrans.

Drive Alone
See SOV.

EAP
Early Action Program: A variety of high-priority *TransNet* transportation projects that have been accelerated into construction. Projects include highway, transit, and goods movement.

EIR
Environmental Impact Report: A detailed statement prepared under the California Environmental Quality Act (CEQA) that describes and analyzes the significant environmental effects of a project and discusses ways to mitigate or avoid the effects.

EMP
Environmental Mitigation Program: Provides *TransNet* funding for the mitigation of local and regional transportation projects and additional funding for activities that help implement the region's habitat preservation plans.

Environmental Justice
The fair treatment of people of all races, cultures, and incomes during the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies.

EPA
See U.S. EPA.

E-work
See Telework.

Expressway
Similar to a freeway, but with some signal-controlled intersections.

FAA
Federal Aviation Administration: The federal agency that regulates the use of airspace and is responsible for evaluating and disseminating information about hazards and obstructions to aviation. FAA is a component of the federal DOT.

Farebox Recovery Ratio
The proportion of operating expenses covered by passenger fares. The ratio divides the farebox revenue by the total operating expenses.

Farebox Revenue
The value of cash, tickets, and pass receipts given by passengers for payment for rides on public transit.

Fare Structure
The varying fees charged to use transit, normally differing by the age of the transit rider, single versus multiple transit trips, the

type of service (Trolley, express bus, etc.), and, for some types of services, the length of the trip.

FHWA
Federal Highway Administration: The federal agency responsible for the administration of federal highway funds, and issuing policy and procedures for implementing federal legislative directives. FHWA is a component of the federal DOT.

Fiscal Year
The 12-month period established for budgeting purposes. In California, the commonly accepted fiscal year for governmental purposes begins on July 1 and ends on June 30.

Fixed Route Service
Service provided on a regular, fixed-schedule basis along a specific route, with vehicles stopping to pick up and deliver passengers to specific locations.

Freeway
A divided highway with limited access and grade-separated junctions, and without traffic lights or stop signs.

FSP
Freeway Service Patrol: An ongoing program to provide a roving tow and motorist aid service, with technicians who assist or remove stranded and disabled vehicles on designated urban freeways and state roadways during peak period commuting hours. It is operated by SANDAG in cooperation with Caltrans and the California Highway Patrol.

FTA
Federal Transit Administration: The federal agency responsible for administering federal transit funds. FTA is part of the federal DOT.

Gas Tax
The tax applied to each gallon of fuel sold. Currently, the federal government has imposed a per-gallon tax of 18.4 cents, and the state has imposed a per-gallon excise tax of 35.3 cents per gallon.

General Plan
A policy document required of California cities and counties by state law that describes a jurisdiction's future development in general terms. All land use decisions must be derived from the document, which includes text, maps, and other information. The General Plan contains a set of broad policy statements about the goals for the jurisdiction, and it also must contain seven mandatory elements: Land Use, Circulation, Housing, Conservation, Open Space, Noise, and Safety.

GHG Emissions
Greenhouse Gas Emissions: Gases that influence global climate change. They include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride.

GIS
Geographic Information System

Grade Separation
A physical and/or structural separation between intersecting roads and/or railway tracks. One road or railway track typically travels over or under the other via an overpass, tunnel, or other structure.

GRH
Guaranteed Ride Home: A program that provides a free taxicab ride or 24-hour car rental up to three times per year to those who carpool, vanpool, use premium bus service or the COASTER train, or bike to work, in the event of an unscheduled incident, overtime, or illness.

HCM
Highway Capacity Manual: A resource for generating technical information that is used by transportation planners, designers, and operators. The materials contained in the HCM represent a collection of state of the art techniques for estimating level of service for many transportation facilities and modes.

Heavy Rail
Railroad services that operate in a mixed-user environment on conventional railroad tracks. Heavy rail services include freight trains, Amtrak, Commuter Rail, and most conventional rail transit systems.

Highway
A general term usually referring to a state or federally-designated urban or rural route, designed to accommodate longer trips in the region.

Household
All people living in a housing unit, regardless of whether they are related to one another. Housing units include houses, condominiums, apartments, and mobile homes.

HOT Lane
High Occupancy Toll Lane: HOT lanes are limited access lanes in which carpools, vanpools, and buses travel for free, while other vehicles gain access by paying a fee.

HOV
High Occupancy Vehicle: A vehicle that carries more than one occupant. Examples include carpools, vanpools, shuttles, and buses.

HOV Lane
High Occupancy Vehicle Lane: An exclusive road or traffic lane that typically has a higher operating speed and lower traffic volumes than a general purpose or mixed-flow lane. In California, vehicles that typically can use HOV lanes include carpools, vanpools, buses, other multi-passenger vehicles, and motorcycles and emergency vehicles.

HSR
High Speed Rail: Railroad passenger service that, as defined by California state law, operates at maximum speeds of more than 200 miles per hour. Because of the speed, high speed rail normally operates on intercity (longer) routes.

ICM
Integrated Corridor Management: A collaborative, cooperative, and coordinated system in which corridor partners work together to improve mobility and safety across modes and networks for people and goods.

iCommute
The San Diego regional rideshare program that provides information to commuters and employers on commute choices, such as carpooling, vanpooling, public transportation, bicycling, and telecommuting. iCommute operates a carpool ridematching service, the San Diego Regional Vanpool Program, the San Diego Regional Bike Locker Program, and the Guaranteed Ride Home Program.

I-15 FasTrak®
The I-15 FasTrak® Program uses electronic toll collection technology to employ dynamic pricing that allows solo drivers to use the lanes for a fee. The net revenues generated by the program are used to improve transit and carpool services along the I-15 corridor.

I-15 IRP
I-15 Interregional Partnership: The I-15 IRP is a voluntary partnership of local officials representing SANDAG and the Western Riverside Council of Governments. The I-15 IRP is working to identify and prioritize issues as well as implement recommended short- and long-term solutions related to the jobs/housing imbalance and traffic congestion along the north I-15 corridor.

Incident
An incident may be a traffic collision, stalled vehicle, load spillage, or other event that affects one or more lanes of traffic.

Integrated Performance Management Systems Network
This network will connect the region's local transportation management centers, and will enable agencies to cooperatively manage the overall performance of the local and regional transportation systems.

Intercity Rail
Railroad passenger service that primarily serves longer trips, such as those between major cities or regions.

Intermodal
Passenger or freight transportation services which involve or use more than one type of transportation facility (or mode). Aviation, automobile, rail, and transit are travel modes.

ITS
Intelligent Transportation Systems: A general classification of transportation technologies, management tools, and services made possible through advances in computer and communication technologies. ITS is used to make transportation systems safer and more efficient.

JARC
Jobs Access Reverse Commute: The SAFETEA-LU formula fund program that provides support for capital or operating costs for transportation services and facilities designed to facilitate reverse commute employment-related travel for people with limited means.

LEP
Limited English Proficiency

Light Rail
A passenger transportation system of self-propelled vehicles that operate over steel rails located in the street, on an aerial structure, or on a separated right of way.

LIM
Low Income and Minority communities

LNG
Liquefied Natural Gas: An alternative liquid fuel derived from a natural gas that is cooled to below its boiling point so it becomes a liquid.

LOS
Level of Service: A qualitative measure describing operational conditions within a traffic stream and motorists' perceptions of those conditions. LOS ratings typically range from LOS A, which represents free-flow conditions, to LOS F, which is characterized by heavy congestion, stop-and-go traffic, and long queues forming behind breakdown points.

LOSSAN
Los Angeles-San Diego-San Luis Obispo (LOSSAN): The LOSSAN Rail Corridor Agency coordinates planning and programming on the coastal rail line. SANDAG, Metropolitan Transit System, and North County Transit District are voting members of LOSSAN, along with regional transportation planning agencies in Orange, Los Angeles, Ventura, Santa Barbara, and San Luis Obispo counties. LOSSAN sets priorities for improvements in the corridor that will increase the capacity of the rail line and the reliability of service.

Low Community Engagement Community of Concern
A Low Community Engagement Community of Concern is any community in which 20 percent or more of households do not speak English as a primary language and do not speak English well, and/or 20 percent or

more of the population aged 25 and older have less than a high school education.

Low Income Community of Concern
A Low Income Community of Concern is any community in which 33 percent or more of households are low income, and/or 10 percent or more of the households are severely overcrowded, and/or 25 percent or more of the population is in poverty.

Low Mobility Community of Concern
A Low Mobility Community of Concern is any community in which 25 percent or more of households have no auto available, and/or 25 percent or more of the population is disabled, and/or 20 percent or more of the population is aged 75 or older.

LRT
Light Rail Transit: A type of transit vehicle and service that uses steel wheels and operates over railroad tracks. LRT systems generally serve stations averaging one-mile apart, are not remotely controlled, and can operate in a separated right of way or on public streets. The San Diego Trolley and the SPRINTER are LRT systems.

Managed Lanes (or Express Lanes)
These lanes provide access for carpools, vanpools, bus, and solo drivers who pay a fee to use the lanes. The lanes can be barrier-separated and some lanes can be reversed to go with the flow of traffic.

Minority Community of Concern
A Minority Community of Concern is any community in which 65 percent or more of the population is non-White.

Mixed-Use
The combining of commercial, office, and residential land uses to provide easy pedestrian access and reduce the public's dependence on driving. It can be implemented in multi-story buildings containing businesses and retail stores on the lower floors, and homes on the upper floors.

Mode
One of the various forms of transportation, including automobile, transit, bicycle, and walking. Intermodal refers to the connection between modes; multimodal refers to the availability and/or use of multiple transportation modes.

Mode Split or Mode Share
The percentage of trips that use each of the various travel modes.

MPO
Metropolitan Planning Organization: A federally-designated agency that is responsible for regional transportation planning in each metropolitan area. SANDAG is the MPO for the San Diego region.

MTS
San Diego Metropolitan Transit System: The agency created by the California legislature to operate in 570 square miles of the urbanized areas of San Diego County, as well as in the rural parts of East County. The system covers 3,240 total square miles, providing service to more than 2 million San Diego residents.

NAFTA
North American Free Trade Agreement: A formal agreement between Canada, Mexico, and the United States to promote ways to improve and increase free trade among the three countries.

NCTD
North County Transit District: The agency created by the California legislature to operate transit facilities in the North San Diego County. Its geographical boundary encompasses 1,020 square miles of North San Diego County extending from Del Mar in the south, northeasterly to Escondido, north to the Riverside County line and west to the

Orange County line. The 2010 total population of NCTD's service area is estimated at over 900,000 residents.

Non-Attainment Area
A geographic area identified by the U.S. EPA and/or the CARB as not meeting either the national or California Ambient Air Quality Standards for a given pollutant.

Off-Peak Period
The time of day when the lowest concentration of vehicles or transit riders are on the road or on another transit facility. These times are generally before 6 a.m., between 9 a.m. and 3 p.m., and after 6 p.m.

Paratransit
A specialized, door-to-door transport service for people with disabilities who are unable to use standard bus or commuter rail services.

Park-and-Ride
A travel option in which commuters park their personal vehicles in a public lot or other location, and continue their trip via carpool, vanpool, or transit.

Park-and-Ride Lot
A facility where individuals can meet to utilize carpools, vanpools, and public transit to continue traveling to their destinations.

Passenger Miles
The total number of passengers carried by a transit system, multiplied by the number of miles each passenger travels. Passenger miles are normally measured on a daily or annual basis.

Peak Period
The time of day when the highest concentrations of vehicles or transit riders are on the road or on another transit facility. The morning peak period is generally considered to be from 6 to 9 a.m.; the afternoon peak period is from 3 to 6 p.m.

PeMS
Performance Monitoring System: The PeMS program uses urban freeway data collected through freeway loop detectors to provide current, ongoing data on freeway volumes and speeds that can be displayed graphically and exported to other monitoring applications.

Performance Measures
Objective, quantifiable measures used to evaluate the performance of the transportation system, and to determine how well planned improvements to the system are achieving established objectives.

Person Trip
Any person's one-way travel to any destination for any purpose. More specifically, a trip is the one-way movement from an origin to a destination, whereby each trip has two trip ends.

PTC
Positive Train Control: It is a state-of-the-art train signaling and communication system that improves the efficiency of operations and enhances safety.

POE
Port of Entry: Trans-border facilities that process conveyances, passengers, and goods entering and exiting the United States.

PSR
Project Study Report: A preliminary engineering report that documents agreements on the scope, a set of reasonable and feasible alternatives, the schedule, and the estimated cost of a project so that the project can be included in a future State Transportation Improvement Program (STIP).

Public Transit
See Public Transportation

Public Transportation
Travel by bus, rail, or other vehicle, either publicly or privately owned, that provides general or specialized service on a regular or continuing basis.

Ramp Metering
Electronic traffic control devices located at freeway access points to meter the entry of vehicles onto the freeway. The goal is to help optimize the movement of persons and vehicles.

Rapid Bus (also known as Arterial Rapid Transit)
Provides rapid and frequent transit service along arterials that use signal priority and queue jumper lanes at major intersections.

RAQS
Regional Air Quality Strategy: The San Diego County Air Pollution Control District developed the Regional Air Quality Strategy (RAQS) pursuant to California Clean Air Act requirements. It identifies emission control measures to provide expeditious progress toward attaining the state ozone standard.

RCP
Regional Comprehensive Plan: A plan that serves as the foundation for integrating land uses, transportation systems, infrastructure needs, and public investment strategies within a regional smart growth framework. The RCP was adopted by SANDAG in July 2004.

Reverse Commute
Travel in the direction opposite to the main flow of peak period commute traffic.

Ridership
The number of transit users, usually reported as a yearly total or as the average for a normal workday.

Ridesharing
A mode of travel in which at least two individuals share the same vehicle to get to their destination. Rideshare vehicles include private automobiles, privately owned and operated vans and buses, as well as public transportation.

Route Miles
The length of a transit route or service, multiplied by the number of trips made by transit vehicles or trains each day.

ROW
Right of Way: The land required for the construction and/or operation of transportation infrastructure.

RTIP
Regional Transportation Improvement Program (RTIP): A five-year listing of major highway, transit, and active transportation projects including project costs, funding sources, and development schedules. Compiled from priority lists submitted by local jurisdictions and transportation agencies.

RTMS
Regional Transit Management System: A sophisticated management tool used to monitor and report on the performance of the transit system in real time, used for more than 50 percent of the region’s fixed route services.

RTP
Regional Transportation Plan: A minimum 20-year plan that is required by state and federal law to guide the development of the region's transportation system.

RTPA
Regional Transportation Planning Agency: A state-designated agency responsible for preparing the RTP and the RTIP, and for administering state transportation funds. SANDAG is the San Diego region's RTPA.

State Highway
A state-designated roadway. May be urban or rural.

Safe Routes to School
A state and federal program that funds education, encouragement campaigns, and infrastructure improvements to help decrease traffic congestion around schools, and to make the the journey to school on foot or bike more feasible for children.

Safe Routes to Transit
A program that funds strategies to address the challenges of getting to and from a transit stop or station. These strategies include first-mile/last-mile solutions such as enhanced pedestrian crosswalks near transit stations, bicycle lanes that connect to transit and bike parking at transit stations, feeder-distributor bus/shuttle routes, car sharing/station cars, and ridesharing.

SAFETEA-LU
Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users: Federal legislation signed into law on August 10, 2005 authorizing $244.1 billion for Federal surface transportation programs for highways, highway safety, and transit for the five-year period between 2005 and 2009. At the time of this writing, Congress had not yet passed a re-authorization of a multi-year transportation bill. In its place, Congress has approved a series of extensions, known as Continuing Resolutions, to keep federal funds flowing at the last approved annual funding level to SAFETEA-LU formula programs.

SANDAG
San Diego Association of Governments: SANDAG is responsible for long-range transportation planning and programming under both federal and state law.

SCS
Sustainable Communities Strategy: A new element of the RTP, as required by SB 375, that demonstrates how development patterns and the transportation network, policies, and programs can work together to achieve the state's targets for reducing regional greenhouse gas (GHG) emissions from cars and light trucks in a region.

SD&AE
San Diego and Arizona Eastern Railway: The SD&AE Railway is the only rail link to the east for the international and interstate movement of goods into, out of, and through the Southern California/Baja California region.

SIP
State Implementation Plan: A document that shows the steps planned to meet federal air quality standards (outlined in the Clean Air Act). Each non-attainment area prepares an air quality improvement plan; those are combined to make up the statewide SIP.

SHOPP
State Highway Operation and Protection Program: Caltrans' three-year program to address traffic safety, roadway rehabilitation, roadside rehabilitation, or operations needs on the state highway system.

SIDUE
Secretaría de Infraestructura y Desarrollo Urbano: State of Baja California Secretariat of Infrastructure and Urban Development.

Smart Growth
A compact, efficient, and environmentally-sensitive pattern of development that provides people with additional travel, housing, and employment choices by focusing future growth away from rural areas and closer to existing and planned job centers and public facilities, while preserving open space and natural resources.

Social Equity
Social Equity means ensuring that all people are treated fairly and are given equal opportunity to participate in the planning and decision-making process, with an emphasis on ensuring that traditionally disadvantaged groups are not left behind.

SOV
Single Occupant Vehicle: A vehicle with one occupant – the driver. Also referred to as a "drive alone."

SPRINTER
In 2008, NCTD launched the east-west SPRINTER light rail train system between Oceanside and Escondido.

STIP
State Transportation Improvement Program: A multi-year program of major transportation projects to be funded by the state. The CTC adopts the STIP every two years, based on projects proposed in RTIPs and from Caltrans.

STP
Surface Transportation Program: A federal program, originally established in the federal ISTEA legislation, that provides flexible funding allocated by regional agencies such as SANDAG for a wide range of projects including highways, transit, local streets and roads, and bicycles.

TAZ
Traffic Analysis Zone: a geographic unit used for transportation modeling. A TAZ is smaller than a census tract and a Trip Distribution Zone (TDZ).

TCM
Transportation Control Measure: A transportation strategy intended to reduce vehicle miles traveled (VMT) and to make VMT more efficient. TCMs include transportation system management (TSM) and transportation demand management (TDM) elements. Examples include carpooling, transit, and computer-optimized traffic signals.

TDA
Transportation Development Act: TDA funds are generated from a tax of one-quarter of one percent on all retail sales in each county, and they are used for transit, specialized transit for disabled people, and bicycle and pedestrian purposes.

TCRP
Transportation Congestion Relief Program

TDM
Transportation Demand Management: Programs to reduce demand by automobiles on the transportation system, by promoting telecommuting, flex-time, bicycling, walking, transit use, staggered work hours, and ridesharing.

TDZ
Trip Distribution Zone: The San Diego region is covered by 2,000 TDZs.

TEA-21
Transportation Efficiency Act for the 21st Century: Federal legislation enacted in 1998, authorizing the preparation and funding of a surface transportation program. Like previous ISTEA legislation, TEA-21 emphasizes diversity and a balance of modes, as well as the preservation of existing systems before the construction of new facilities.

Telework
Teleworkers or e-workers are employees who conduct some or all of their daily work activities from their home or from a remote site other than the normal work site, in order to avoid commuting during peak periods.

Title VI of the Civil Rights Act
Title VI of the Civil Rights Act states that "no person in the United States, shall, on the grounds of race, color or national origin be

excluded from participation in, be denied the benefits of, or be subject to discrimination under any program or activity receiving federal financial assistance."

TPP
Transit Priority Project: Under SB 375, a project is exempt from CEQA if it (1) qualifies as a "transit priority project" and (2) meets the "sustainable communities project" requirements as declared by the legislative body of the local jurisdiction.

TransCAD
A computer model that simulates travel demand and its distribution to facilities within a geographic area.

Transit
See Public Transportation.

Transit Management System
A field operations management system that enables improved transit route planning, scheduling, and performance monitoring.

Transit-Oriented Development
Residential and employment growth that occurs near existing and planned public transit facilities.

TransNet
A half-cent local sales tax that San Diego region voters approved in 1987. Administered by SANDAG, this 20-year program generated nearly $3 billion in funding, which was divided equally among three major transportation categories: highways, pubic transit, and local streets.

***TransNet* Extension**
The *TransNet* sales tax, approved in 1987, expired in 2008. In November 2004, more than 67 percent of voters countywide approved an extension of the *TransNet* program to 2048. This 40-year extension will generate more than $14 billion for transportation improvements, and it includes an innovative $850 million environmental mitigation program (EMP).

Trip
See Person Trip and/or Vehicle Trip.

Trolley
The San Diego Trolley is the urban light rail transit service currently provided in the San Diego region. It operates three primary lines named the Blue Line, the Orange Line, and the Green Line.

TSM
Transportation Systems Management: Strategies that allow transportation systems to operate in a way that maximizes the number of people traveling in a corridor or facility. These strategies include traffic flow improvements, ramp metering, tracking public transit vehicles; and keeping travelers informed.

U.S. DOT
United States Department of Transportation: The federal cabinet-level agency with responsibility for highways, mass transit, aviation, and ports and headed by the Secretary of Transportation. The DOT includes the Federal Highway Administration and the Federal Transit Administration, among other agencies.

Urban Area Transit Strategy
A strategy to create a robust transit network that maximizes transit ridership in the greater urbanized areas of the San Diego region.

U.S. EPA
U.S. Environmental Protection Agency: The federal agency charged with setting policy and guidelines, and carrying out legal mandates, for the protection of national interests in environmental resources.

Vanpool
A vehicle operating as a ridesharing arrangement, providing transportation to a group of individuals typically traveling directly between their homes and employment locations within the same geographic area.

V/C Ratio
Volume to Capacity Ratio: The volume of traffic divided by the capacity of a transportation facility. Traffic volume is defined as the number of vehicles passing (or projected to pass) a point or section of roadway in a given time interval. Capacity is defined as the maximum number of vehicles that reasonably can be expected to traverse that point or section of roadway during the same time period under prevailing roadway, traffic, and control conditions.

Vehicle Trip
A single vehicle movement from the beginning of travel to its destination, in a vehicle that is motor-driven (e.g., automobiles, motorcycles, trucks, buses, and vans).

VMT
Vehicle Miles Traveled: The total number of miles traveled on all roadways by all vehicles. Reducing VMT can help ease traffic congestion and improve air quality.

Walking School Bus
A Walking School Bus consists of two adults walking to pick up children at pre-designated stops on the route to school. This program has been adopted by elementary, middle, and high schools alike, both public and private.

Work Trip
Any "person" or "vehicle" trip whose purpose (on at least one trip end) involves work or work-related business.

Our Region.
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2050 Regional Transportation Plan

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CHAPTER 3 **Land Use Element**

Introduction

The **Land Use Element** provides a framework to accommodate future development in an efficient and sustainable manner that is compatible with the character of unincorporated communities and the protection of valuable and sensitive natural resources.

Currently, the County of San Diego is faced with both significant growth pressures and severe environmental constraints. While population continues to grow, the supply of land capable of supporting development continues to decrease. In accommodating this growth, the land use plan encourages the provision of diverse housing choices while protecting the established character of existing urban and rural neighborhoods.

In general, the majority of new development—approximately 80 percent—is planned within the County Water Authority (CWA) boundary. This strategy coincides with the provision of imported water in San Diego County's semi-arid environment, and reflects the development pattern of the County's largest unincorporated communities, which are located in the County's western areas where demand for new development has and will continue to be greatest. The County's unincorporated communities and rural lands, however, exhibit tremendous diversity. This General Plan recognizes and encourages these unique identities by providing sufficient flexibility within a countywide framework to respect the character of individual communities, neighborhoods, and landscapes.

Focusing development in and around existing unincorporated communities allows the County to maximize existing infrastructure, provides for efficient service delivery, and strengthens town center areas while preserving the rural landscape that helps define the unique character of the unincorporated County.

Purpose and Scope

COUNTYWIDE

The Land Use Element is a framework that provides maps, goals, and policies that guide planners, the general public, property owners, developers, and decision makers as to how lands are to be conserved and developed in the unincorporated County. The first section, **Land Use Framework**, defines the categories of use to be permitted. These are defined at two scales: *(a)* broadly defined regional categories differentiated by character and overall density and *(b)* detailed categories that break-down the regional categories into more precise land use types, population densities, and development intensities. The Land Use Maps Appendix presents the **Land Use Map** depicting the allocation of these categories to all unincorporated County lands based on the General Plan's **Guiding Principles** in Chapter 2 (Vision and Guiding Principles). The Land Use Map serves as the regulatory document guiding land use, conservation, and development. The final section presents the goals and policies that carry out and amplify the intentions of the Land Use Map.

COMMUNITY PLANS

While the Land Use Element inclusive of Land Use Maps and Goals and Policies applies to all lands throughout the unincorporated County, there are special land use issues and objectives that uniquely pertain

to each of its diverse communities. These are addressed by **Community Plans** in which goals and policies are defined to provide more precise guidance regarding the character, land uses, and densities within each community planning area. Though Community Plans are a part of this General Plan, they are bound separately and must be referenced in determining the types and density of land use that may be considered for any property within the community planning area.

PUBLIC INFRASTRUCTURE AND SERVICES

Public infrastructure such as roads, drainage facilities, sewer and water lines, and treatment plants are the structural framework that supports development. Their availability plays an important part in determining the pattern of land uses within a community, as well as the direction and intensity of growth. Community services such as law enforcement, fire protection, libraries, and parks are important to the safety and livability of communities. They can affect the well-being of communities and should also be accounted for when planning future growth.

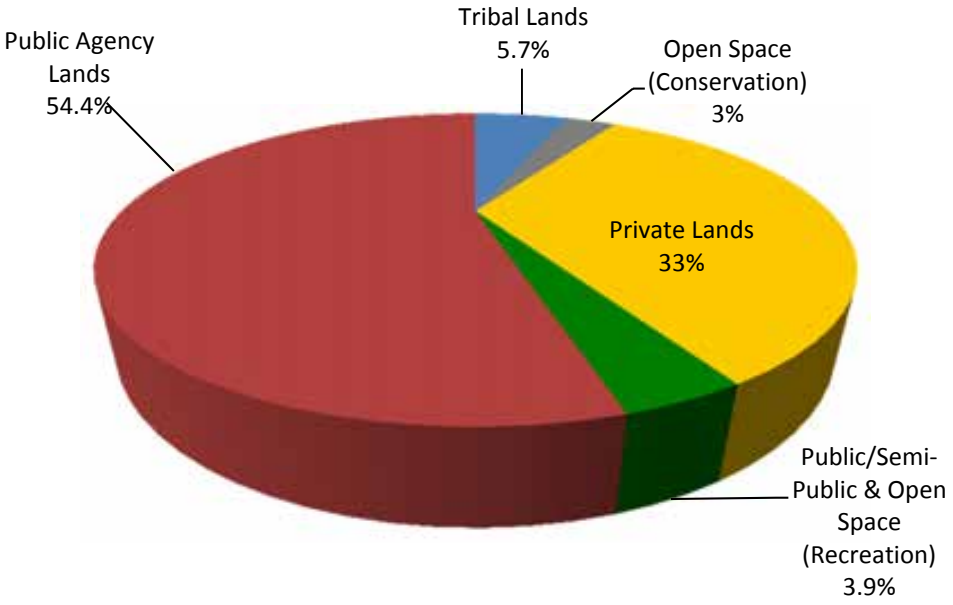
Community services and infrastructure in the County of San Diego are either provided by the County or by independent agencies and special districts at the local, regional, state, and federal levels. Actions taken by these independent districts for the planning, provision, and funding of public facilities are not subject to the County's land use authority. The County does operate and maintain several dependent sanitation districts and wastewater facilities. In addition, some regional public facilities, such as courthouses, are under the authority of the County and serve the entire San Diego region, including residents of the County's 18 cities. Also, the County operates the library system for all unincorporated areas, along with some incorporated jurisdictions.

This element includes a **Community Services and Infrastructure** section. Goals and policies specific to services or infrastructure that correspond to other elements can be found in those elements. Refer to the Mobility Element for transportation-related infrastructure, the Conservation and Open Space Element for recreational facilities, and the Safety Element for emergency services and law enforcement.

Land Use Setting

The unincorporated portion of San Diego County is located in the southwestern corner of California and encompasses approximately 2.3 million acres, or 3,570 square miles. A majority of the unincorporated County's land, in excess of 90 percent, is either open space or undeveloped. This includes several large federal, state, and regional parklands that encompass much of the eastern portion of the County. Only 35 percent or about 807,000 acres of the unincorporated County is privately owned. In 2007, it was estimated that approximately 5.6 percent of the unincorporated County, or 128,369 acres, was private undeveloped land with potential for future development in Village, Semi-Rural, Commercial, or Industrial areas.

Land Ownership in the Unincorporated County



SOURCE: County of San Diego DPLU 2011

The predominant pattern of development in the unincorporated County is rural in character, offering a choice in use and lifestyle different from the urbanized coastal and inland communities. Dispersed throughout the unincorporated County are over 20 distinct communities that vary in land use and density. In general, the communities include a core of local-serving commercial uses, services, schools, and public facilities surrounded by residential neighborhoods. They vary from "semi-suburban" communities that transition in scale and density from adjoining incorporated cities to low-density "village" centers surrounded by agricultural lands and open spaces. Some of the communities are uniquely defined by their setting in hillside areas, the desert valley, and agricultural areas.

The most developed communities are located along the unincorporated territory's westernmost boundaries and include the community plan areas of Spring Valley, Sweetwater, Valle de Oro, Lakeside, San Dieguito, portions of North County Metro, and Fallbrook. These areas are largely within the County Water Authority service area and have had access to water, sewer, roads, schools, and comparable public facilities, enabling them to grow at a faster rate. As such facilities are more costly and difficult to develop as distances increase further inland, development occurs more sparsely in the backcountry region.

Guiding Principles for Land Use

The Land Use Element's maps and goals and policies are based on and amplify the Guiding Principles specified in Chapter 2 of the General Plan. Central to the land use concept for unincorporated San Diego County is a development pattern that balances the land requirements of residential growth, with those of commerce, agriculture, recreation, and wildlife habitats.

The location and densities of land uses, as depicted on the Land Use Map, are based on an analysis of development constraints such as road access, available water/sewer services, topography, significant

habitats, groundwater resources, hazards, and accessibility to emergency fire protection services. Using these factors in defining permitted land use locations and densities is consistent with the County's Strategic Initiatives (which include safe livable communities and the environment) and *California Government Code* requirements. This approach will promote health and well being, while reducing environmental impacts that would likely result from locating development in inappropriate locations.

Within these constraints, the core concept for the County's development directs future growth to areas where existing or planned infrastructure and services can support growth and locations within or adjacent to existing communities. By giving priority to areas identified for urban level densities, this concept also helps to retain the rural setting and lifestyle of remaining areas of the County. Most areas that are appropriate for growth are located within the CWA boundary, while future development outside that boundary is limited. To decrease potential development outside the CWA boundary and areas without infrastructure and services, residential densities will typically be reduced where land is not already subdivided.

The Land Use Element establishes a model for community development based on a physical structure defining communities by a "village center" surrounded by semi-rural or rural land. In communities inside the CWA boundary, higher density neighborhoods and a pedestrian-oriented commercial center would provide a focal point for commercial and civic life. Medium-density, single-family neighborhoods, as well as a broad range of commercial or industrial uses, would surround the commercial core. Semi-rural neighborhoods surrounded by greenbelts, agricultural uses, or other rural lands would be located outside the more urbanized portion of the community.

Relationship to Other GP Elements

In many respects, the issues, goals, and policies discussed in the Land Use Element represent the synthesis of those of all or most other General Plan elements. Nearly any issue that deals with the physical characteristics of the land has implications for land use conservation and development. Recognition and understanding of the interrelationship between the Land Use Element and these other elements is necessary to assure an integrated and cohesive General Plan. The following describes the interrelationships between these elements:

- **Mobility Element**—The Mobility Element provides the backbone of roads, bike routes, and trails that support the uses designated by the Land Use Element, connect the communities, and are linked within the region. The capacity required for the road network is based on the average number of daily vehicle trips that would be generated with build-out of the uses designated by the Land Use Map, in consideration of infrastructure costs, environmental constraints, and community compatibility. Goals and policies of the Land Use Element closely consider the design, characteristics, and availability of transportation infrastructure addressed by the Mobility Element to assure their compatibility with the character and needs of the communities.
- **Housing Element**—The Land Use Element is closely related to the Housing Element in that the Land Use Map must provide sufficient capacity to meet goals of the State Housing Law including the Regional Housing Needs Assessment. It establishes the distribution of residential growth and densities appropriate for a range of housing types and affordability.
- **Conservation / Open Space Element**—The Conservation and Open Space Element provides measures for the preservation, conservation, development, and use of natural resources. In turn, these influence

the distribution and density of use depicted by the Land Use Map. Additionally, the Land Use Map incorporates designations that support the conservation and preservation of natural resources.

- **Safety Element**—The Safety Element identifies and maps hazards and provides hazard-specific goals and policies to more clearly guide land use to protect life and property from potential hazards. The Land Use Element goals, policies, and map minimize future development in hazardous areas.

- **Noise Element**—The Noise Element establishes noise compatibility guidelines that are applied to future development. In addition, noise compatibility concerns were taken into account during development of the Land Use Map.

Land Use Framework

The General Plan guides the intensity, location, and distribution of land uses in the unincorporated County through a two-tier land use framework. The first tier, **Regional Categories**, establishes a hierarchy for the overall structure and organization of development that differentiates areas by overall character and density, while the second tier, **Land Use Designations**, disaggregates these categories and provide more precise direction regarding the planned density and intensity of residential, commercial, industrial, open space, and public land uses. This framework establishes the range and intensity of allowable land uses, for all areas under the County of San Diego's land use jurisdiction. Unincorporated San Diego County contains numerous lands that are outside the land use jurisdiction of the County, such as tribal lands, military installations, public utility lands, State parks, and national forests. Examples of these lands include the Cleveland National Forest, Anza-Borrego State Park, Cuyamaca Rancho State Park, Palomar Mountain State Park, Marine Corps Base Camp Pendleton, and 18 different tribal reservations. While the land use framework does not apply to these lands, the present and planned uses on these lands were considered in its development and assignment of the Regional Categories and Land Use Designations. Additionally, this element contains goals and policies that relate to the planning and development of these lands.

The Community Development Model

A major component to guiding the physical planning of the County is the **Community Development Model** (discussed in Chapter 2). The Community Development Model is implemented by three regional categories—Village, Semi-Rural, and Rural Lands—that broadly reflect the different character and land use development goals of the County's developed areas, its lower-density residential and agricultural areas, and its very low–density or undeveloped rural lands (see Figure LU-1 [Regional Categories Map] at the end of the section). The Community Development Model directs the highest intensities and greatest mix of uses to **Village** areas, while directing lower-intensity uses, such as estate-style residential lots and agricultural operations, to **Semi-Rural** areas. The Semi-Rural category may effectively serve as an edge to the Village, as well as a transition to the lowest-density category, **Rural Lands**, which represents large open space areas where only limited development may occur.

The three regional categories are described further in the following section. As a broad set of development classifications, the Regional Categories do not specify allowable land uses, but rather the general regional structure, character, scale, and intensity of development. The Regional Categories allow many different land

use types to be planned in a more unified, regional manner. As a result, they do not regulate allowed uses or intensities of individual development proposals. Instead, they are intended to provide a structure for the location of specific Land Use Designations, described later in this element, that define allowed type and intensity of uses.

To facilitate a regional perspective, the Regional Categories of Village, Semi-Rural Lands, and Rural Lands have been applied to all privately-owned lands within the unincorporated County, along with Open Space (Recreation) and Open Space (Conservation) which are included under the Semi-Rural and Rural Lands categories, respectively. Tribal Lands, Federal and State Lands (including MCB Camp Pendleton) and Public/Semi-Public lands are assigned to the No Jurisdiction Regional Category. As shown in Figure LU-1, approximately 2.3 percent of the County is designated as Village, 10.3 percent as Semi-Rural, 36.7 percent as Rural Lands, and 50.7 percent as No Jurisdiction.[1]

Regional Categories

As stated above, the Regional Categories provide a framework for the regional distribution of uses that serves as the foundation for the Land Use Map designations, goals, policies, and regulations that guide future development.

VILLAGE

The Village category identifies areas where a higher intensity and a wide range of land uses are established or have been planned. Typically, Village areas function as the center of community planning areas and contain the highest population and development densities. Village areas are typically served by both water and wastewater systems. Ideally, a Village would reflect a development pattern that is characterized as compact, higher density development that is located within walking distance of commercial services, employment centers, civic uses, and transit (when feasible).

Alpine Boulevard serves as the primary circulation route in the village of Alpine

Rural Village of Pine Valley in the Central Mountain Subregion

Generally, larger Villages are anchored by "**Town Center**" areas that serve as focal points for commercial and civic life. Town Centers often benefit from the development of more detailed plans to guide new

[1] These percentages are based off the Draft Land Use Map, and will be updated based upon what Land Uses are adopted by the Board of Supervisors.

development in achieving consistency with the goals and policies of the General Plan. A Town Center will typically contain one or more of the following:

- Pedestrian-oriented commercial area
- Mixed-use development: residential, retail, and office/professional uses
- Higher-density residential developments
- Community-serving private and public facilities

Transit Nodes typically encompass lands within walking distance—approximately one-half mile—of future rapid transit stations and should be located within a Village. These may be planned as diverse, mixed-use areas with a range of residential, commercial, and where appropriate, employment-generating land uses (e.g., office/professional or industrial) as well as parks and civic spaces. However, planning must be consistent with the type and quantity of ridership expected of the node as well as the surrounding community. Potential Transit Node locations are based on long-range transit plans and include rail stations as well as express bus stops that feed into rail systems.

SEMI-RURAL

The Semi-Rural category identifies areas of the County that are appropriate for lower-density residential neighborhoods, recreation areas, agricultural operations, and related commercial uses that support rural communities. Semi-Rural areas often function as a transition between the Village and Rural Lands categories, providing opportunities for development, but without the intensity and level of public services expected in Villages and with design approaches that blend the development with the natural landscape. Semi-Rural residential densities are derived in consideration of the physical conditions, community character, and availability of public services, roads, and other infrastructure. Higher densities within the allowable range should be located near Village areas, while lower densities should be located near Rural Land areas. Site design methods that reduce on-site infrastructure costs and preserve contiguous open space or agricultural operations are encouraged.

Semi-rural development patterns in Bonsall community

View of the Cuyamaca Reservoir and rural community

RURAL LANDS

The Rural Lands category is applied to large open space and very-low-density private and publicly owned lands that provide for agriculture, managed resource production, conservation, and recreation and thereby retain the rural character for which much of unincorporated County is known. Rural areas are not appropriate for intensive residential or commercial uses due to significant topographical or environmental constraints, limited access, and the lack of public services

or facilities. Further, the undeveloped nature of Rural Lands benefits all of San Diego County by doing the following:

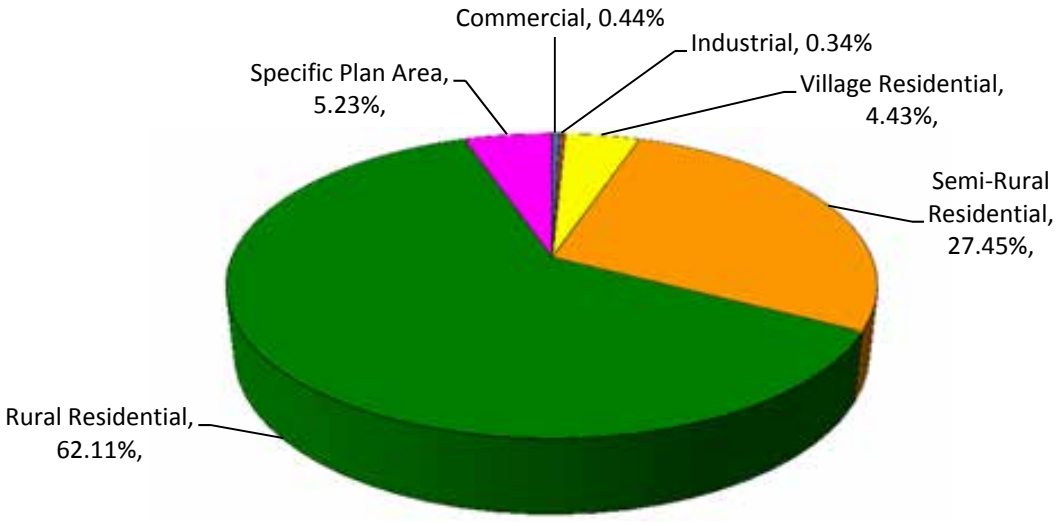
- Preserving the County's rural atmosphere
- Protecting land with significant physical or environmental constraints or hazards
- Preserving open space, farmland, and natural resources
- Providing open space buffers and a visual separation between communities
- Preserving and providing land for agricultural opportunities
- Preventing sprawl development, which reduces vehicle miles traveled and greenhouse gas emissions

Land Use Designations

Where the Regional Categories represent a broad framework for the form and organization of development, the Land Use Designations are property specific and identify the type and intensity of land uses that are allowed. The Land Use Designations are defined by the land use type—Residential, Commercial or Industrial—and the maximum allowable residential density or nonresidential building intensity. The designations are applied throughout the County, as shown on Land Use Maps, which are located in the Land Use Maps Appendix. More specific standards may be established for each Land Use Designation to implement the goals and policies of the General Plan, through such tools as the Zoning Ordinance, to address impacts related to specific land uses or the needs of an individual community.

Assignment of the land use designations to lands in the County is guided by the goals and policies contained in this element, which reflect the Guiding Principles presented in Chapter 2. A general summary of the designations is shown on the Land Use Maps in the Land Use Maps Appendix. The pie chart shown below depicts how the privately owned lands are designated.

Land Use Designations for Privately Owned Lands in the Unincorporated County



Development within **Residential**, **Commercial**, **Industrial**, **Specific Plan Areas**, and **Public/Semi-Public** General Plan land use designations is regulated through either a maximum residential density or building intensity. **Residential density** is expressed as a maximum number of dwelling units per gross acre (exclusive of public road rights-of-way). **Nonresidential building intensity** is expressed as a maximum floor-area ratio (FAR). A **floor-area ratio** (FAR) is the ratio of the gross building square footage on a lot to the net square footage of the lot or parcel (listed in Table LU-1 [Land Use Designations and Compatible Regional Categories]). For example, on a lot with 10,000 net square feet of land area, an FAR of 1.00 will allow 10,000 square feet of gross building area, regardless of the number of stories in the building. When combined with height and setback standards in the Zoning Ordinance, a maximum FAR can also be clearly translated into limits on building mass and bulk. In addition to density/intensity standards, some land use classifications also stipulate allowable building types, such as single-family residential, to respect the character of certain existing and planned neighborhoods.

Multifamily housing in 4S Ranch

Single-family residential at 7.3 dwelling units per acre

RESIDENTIAL LAND USE DESIGNATIONS

Seventeen residential land use designations provide for a full range of housing types, from village multi-family development to rural single-family housing. As noted previously, residential densities are stated as a maximum number of housing units per gross acre with the provision that at least one dwelling unit may be built on each existing legal lot designated for residential use. The stated maximum residential density may or may not be achievable in a given area due to local site conditions and constraints. In addition to these primary residential designations, residential uses are also permitted in certain commercial designations as specified in the Zoning Ordinance.

Second dwelling units are allowed pursuant to the Zoning Ordinance and are in addition to the maximum densities otherwise permitted.

VILLAGE RESIDENTIAL DESIGNATIONS

Nine residential land use designations are applied within the Village regional category ranging from two to 30 dwelling units per gross acre. Village residential densities are not subject to density reductions based on slope. The residential densities permitted within Village areas typically require water and wastewater service and can support a range of housing types including single-family and multifamily housing. Generally, residential densities of 10.9 dwelling units per gross acre or higher require multi-family development. Typically, multi-family development is characterized as attached apartments or condominiums that are two to three stories in height. The higher densities may require structured or underground parking.

Table LU-1 Land Use Designations and Compatible Regional Categories

Designation	Maximum Density	Maximum FAR[a]	Compatible Regional Category[f]		
			Village	Semi-Rural	Rural Lands
Village Residential					
Village Residential 30 (VR-30)	30 units per gross acre	—	X		
Village Residential 24 (VR-24)	24 units per gross acre	—	X		
Village Residential 20 (VR-20)	20 units per gross acre	—	X		
Village Residential 15 (VR-15)	15 units per gross acre	—	X		
Village Residential 10.9 (VR-10.9)	10.9 units per gross acre	—	X		
Village Residential 7.3 (VR-7.3)	7.3 units per gross acre	—	X		
Village Residential 4.3 (VR-4.3)	4.3 units per gross acre	—	X		
Village Residential 2.9 (VR-2.9)	2.9 units per gross acre	—	X		
Village Residential 2[b] (VR-2)	2 units per gross acre	—	X		
Semi-Rural					
Semi-Rural 0.5[b] (SR-0.5)	1 unit per 0.5, 1, or 2 gross acre	—	X	X	
Semi-Rural 1[c] (SR-1)	1 unit per 1, 2, or 4 gross acres	—	X	X	
Semi-Rural 2[c] (SR-2)	1 unit per 2, 4, or 8 gross acres	—	X	X	
Semi-Rural 4[c] (SR-4)	1 unit per 4, 8, or 16 gross acres	—	X	X	
Semi-Rural 10[c] (SR-10)	1 unit per 10 or 20 gross acres	—	X	X	
Rural Lands					
Rural Lands 20 (RL-20)	1 unit per 20 gross acres	—	X	X	X
Rural Lands 40 (RL-40)	1 unit per 40 gross acres	—	X	X	X
Rural Lands 80 (RL-80)	1 unit per 80 gross acres	—	X	X	X
Commercial					
General Commercial (C-1)	—[e]	0.45 or 0.70[a]	X	X	
Office Professional (C-2)	—[e]	0.45 or 0.80[a]	X	X	
Neighborhood Commercial (C-3)	—[e]	0.35 or 0.65[a]	X	X	
Rural Commercial (C-4)	2 units per gross acre	0.35 or 0.60[a]	X	X	X
Village Core Mixed Use (C-5)	30 units per gross acre[d]	0.70[d]	X		
Industrial					
Limited Impact Industrial (I-1)	—[e]	0.60	X	X	
Medium Impact Industrial (I-2)	0	0.50	X	X	X
High Impact Industrial (I-3)	0	0.35	X	X	X
Other					
Tribal Lands (TL)	—[f]	—	X	X	X
Public Agency Lands	—[f, h]	—	X	X	X
Specific Plan Area (SPA)[g]	refer to individual SPA	—	X	X	X
Public/Semi-Public Facilities (P/SP)	—[h]	0.50	X	X	X
Open Space—Conservation (OS-C)	0	—	X	X	X
Open Space—Recreation (OS-R)	1 unit per 4, 8, or 16 gross acres[i]	—	X	X	X

a. Maximum floor area ratio is provided based on regional categories to guide intensity of development. Community Plans may specify specific areas where these FARs may be exceeded such as areas with shared parking facilities or mixed uses, areas in or around town centers or transit nodes, or when other special circumstances exist.
b. Village Residential 2 (VR-2) and Semi-Rural 0.5 (SR-0.5) currently appear as one designation on the Land Use Map but are differentiated on the Regional Categories Map. The Land Use Map will be updated to reflect the different designations prior to finalization. Semi-Rural 0.5 is appropriate in the Semi-Rural Regional Category in areas where the predominant development pattern is 0.5-acre and larger parcels.
c. The maximum density for lands designated as Semi-Rural is based on the slope of the site (see Table LU-2).
d. This denotes the upper range for each component, but there is no expectation that this would be achieved when each component is applied in the same area. The maximum FAR in the Village Core Mixed Use Designation is 0.7 unless offsite parking or underground parking is provided in conjunction with the proposed development. In that case, the maximum FAR could be up to 1.3.
e. Maximum residential densities are applied per the Zoning Ordinance.
f. The reflection of existing land uses on the Land Use Map results in some land use designations that are not consistent with the compatibility set forth in this table. This exception is available to existing land uses only.
g. This designation solely reflects those designations retained from the former General Plan. New SPAs will not be shown on the Land Use Map under the SPA designation, rather these areas will retain their underlying land uses.
h. Refer to Policy LU-1.6
i. Residential uses would not occur within this designation unless the proposed development has been carefully examined to assure that there will be no significant adverse environmental impacts, and erosion and fire problems will be minimal.

SEMI-RURAL RESIDENTIAL DESIGNATIONS

Five residential land use designations are applied within Semi-Rural regional category (refer to Table LU-1). Semi-Rural densities range from one dwelling unit per 0.5 acre to one dwelling unit per ten gross acres. Residential development within Semi-Rural areas is not typically served by municipal sewer systems, but is often served by municipal water systems especially where water-intensive crops such as avocado and citrus are common.

Examples of semi-rural residential at one to two dwelling units per acre

In an effort to balance the allowance of reasonable use of property on lands constrained by steep slopes, the maximum allowable residential densities for the five Semi-Rural designations are reduced according to Table LU-2 (Density Formula for Slope-Dependent Lands).

Table LU-2 Density Formula for Slope-Dependent Lands

Land Use Designation	Slope less than 25%	Slope 25% to less than 50%	Slope 50% or greater
Semi-Rural 0.5	2 du/gross acre	1 du/gross acre	1 du/2 gross acres
Semi-Rural 1	1 du/gross acre	1 du/2 gross acres	1 du/4 gross acres
Semi-Rural 2	1 du/2 gross acres	1 du/4 gross acres	1 du/8 gross acres
Semi-Rural 4	1 du/4 gross acres	1 du/8 gross acres	1 du/16 gross acres
Semi-Rural 10	1 du/10 gross acres	1 du/20 gross acres	1 du/20 gross acres

Density calculations shall be based on a topographic map with 10-foot contour intervals or less. To calculate maximum density for a property the acreage of the property should be divided into the above three categories (<25%, 25–50%, >50%), each total should be multiplied by the associated density, and then the resulting yields combined.
du = dwelling unit

RURAL LANDS RESIDENTIAL DESIGNATIONS

Four residential land use designations are applied within the Rural Lands regional category. The densities provided by these designations are the lowest in the unincorporated County—ranging from one dwelling unit per 20 gross acres, to one dwelling unit per 80 gross acres—and are intended to reflect and preserve the rural agricultural, environmentally constrained, and natural "backcountry" areas of the County (see Table LU-1). Residential development within the Rural Lands category is typically not served by either municipal water and or municipal sewer systems.

House on a large lot in a rural area of County

NONRESIDENTIAL LAND USE DESIGNATIONS

Eight nonresidential land use designations provide for commerce and employment in the unincorporated County. The maximum development intensity of uses in these designations is expressed as a maximum FAR (see Table LU-1). As these are expressed as maximums, in many communities the desired FAR will likely be lower. Similarly, in specific areas (identified by Community Plans) it may be appropriate to accommodate an increased FAR to meet specific development objectives, such as areas with shared parking facilities, mixed uses, or around Town Centers or Transit Nodes. Detailed regulations specified in the Zoning Ordinance will support the desired development intensity. In any case, the permitted development intensity must be supportive of the goals and policies of the General Plan and the applicable Community Plan.

While zoning regulations and site constraints may reduce development potential within the allowable range, zoning can also provide specific exceptions to the FAR limitations, such as FAR bonuses in return for the provision of public amenities or other community benefits. Illustrative public amenities and benefits include public parks and affordable housing units.

COMMERCIAL DESIGNATIONS

General Commercial. This designation provides for commercial areas where a wide range of retail activities and services are permitted. This designation is appropriate for the following types of commercial areas: (1) regional shopping centers, (2) community shopping centers, and (3) existing strip development or commercial clusters containing small but diverse commercial uses. Uses permitted within this designation are typically limited to commercial activities conducted within an enclosed building. Residential development may also be allowed as a secondary use in certain instances. The maximum intensity of General Commercial development varies according to the compatible regional category as follows:

- Village—0.70 FAR
- Semi-Rural—0.45 FAR

Shopping center in the Valle de Oro community

Neighborhood Commercial. This designation provides locations for limited, small-scale retail sales and service uses intended to meet the convenience needs of local residents. The limited commercial uses allowed under this designation should be considered in contrast to the larger scale and more broadly serving General Commercial designation. Neighborhood Commercial establishments should be compatible in bulk and scale with adjacent residential

Neighborhood Commercial use in the Crest community

neighborhoods. Residential development may also be allowed as a secondary use in certain instances. The maximum intensity of Neighborhood Commercial development varies according to the compatible regional category as follows:

- Village—0.65 FAR
- Semi-Rural—0.35 FAR

Rural Commercial. This designation provides for small-scale commercial and civic development. Mixed-use development may take the form of small offices or residences up to two units per gross acre (as further specified by the Zoning Ordinance) either above ground-floor retail uses or separated structures typically with commercial or civic uses located along the road frontage. A wide variety of local serving commercial and civic uses is encouraged by this designation, including: retail stores; visitor-oriented services; automotive sales and services; eating and drinking establishments; professional offices; business and personal services; and parks, libraries, and other community facilities. The maximum intensity of Rural Commercial development varies according to the compatible Regional Category as follows:

Rural Commercial use in Valley Center

- Rural Village—0.60 FAR
- Semi-Rural and Rural Lands—0.35 FAR

Mixed uses along Main Avenue in Fallbrook

Village Core Mixed Use. This designation is intended for pedestrian-scaled town center development. A wide variety of commercial, civic, and residential uses are encouraged by this designation, and these uses may be mixed "vertically"—on separate floors of a building—or "horizontally"—in separate buildings on a single site or on adjacent parcels. To maintain a pedestrian scale and orientation, retail and other active uses are encouraged at street level. Structured parking may be necessary to accommodate allowable densities, and shared parking arrangements may be allowed consistent with the nature of the mixed uses. Specific maximum FAR and residential density standards shall be developed through community-specific town center planning, though in no case, within either multiple- or single-use buildings, may nonresidential intensities exceed 1.3 FAR or residential densities exceed 30 units per acre. Permitted uses must be consistent with the town center plan, or in absence of a town center plan, shall not preclude the development and implementation of such a plan.

Office Professional. This designation provides areas dedicated to administrative and professional services as well as limited retail uses related to or serving the needs of the primary office uses. Residential development may also be allowed as a secondary use in certain instances. The maximum intensity of Office Professional development varies according to compatible regional category as follows:

- Village—0.80 FAR
- Semi-Rural—0.45 FAR

Office complex in Rancho San Diego

INDUSTRIAL DESIGNATIONS

Limited-Impact Industrial. This designation provides for both freestanding and campus-style industrial development in Village and Semi-Rural areas with access to key transportation corridors at a maximum FAR of 0.60. Typical uses within this designation include light manufacturing, processing, and assembly, all within enclosed buildings, with no exterior indications of such activity or need for outdoor storage. This designation may be located in close proximity to residential and commercial designations in Village and Semi-Rural areas with suitable screening and buffering. Supporting uses—such as office, business service, and institutional uses—and accessory retail uses are also allowed.

Public storage facility in Spring Valley

Medium-Impact Industrial. This designation provides for freestanding industrial development in all Regional Category areas with access to key transportation corridors at a maximum FAR of 0.5. Typical uses within this designation include: manufacturing, processing, and assembly; warehousing and distribution; large equipment supply and sales; and other industrial and commercial activities that are generally incompatible with dissimilar adjacent land uses. Uses in this designation may include outdoor operations or require significant outdoor storage of process materials and product. This designation should generally not be located in close proximity to residential and commercial designations in Village areas, because significant screening and buffering will typically be required to minimize unacceptable off-site impacts. Supporting uses are allowed in this designation, including business services.

Medium-Impact Industrial use with outdoor storage in 4S Ranch

High-Impact Industrial. This designation provides for freestanding industrial development in areas with access to key transportation corridors at a maximum FAR of 0.35. Typical uses within this designation are similar to those of the Medium Impact Industrial designation and include: manufacturing, processing, and assembly; warehousing and distribution; large equipment supply and sales; and other industrial and commercial activities that are generally incompatible with dissimilar adjacent land uses. However, the off-site impacts of industrial uses in this designation are likely to be more significant due to process, product, and reliance on outdoor operations or storage of process materials and product. Therefore, this designation may be incompatible with most Village areas and must be thoughtfully applied in any location in the unincorporated area. In certain limited circumstances it may be designated near the periphery of Village areas where the industrial use is isolated from residential and commercial designations and all allowed uses are adequately screened and buffered to eliminate unacceptable off-site impacts. Secondary support uses are also allowed in this designation, including related business and industrial services.

Steel fabricating plant in Spring Valley

OTHER LAND USE DESIGNATIONS

Seven additional land use designations are applied in the General Plan to recognize other existing land use types and jurisdictions. Four designations—Specific Plan Areas, Public and Semi-Public Facilities, Open Space—Conservation, and Open Space—Recreation—generally relate to areas where the County or some other agency controls land under County jurisdiction to provide public facilities, such as schools, protect open space resources, or to serve recreational needs. Two other designations—Tribal Lands, and Federal and State lands—apply to areas where the County has no jurisdiction over land use.

Resort hotel, casino, and golf course on the Barona Reservation

Tribal Lands. These lands comprise about 126,000 acres, or five percent of the unincorporated County on 18 federally recognized reservations or Indian villages. Tribal lands are primarily located in Rural Areas.

Public Agency Lands (State Parks, National Forests and other public agency non-conservation lands). Public agency lands comprise 1,160,700 acres, or 50.8 percent, the majority of the unincorporated County land area. State Parks—including Anza-Borrego Desert State Park, Cuyamaca Rancho State Park, and Palomar Mountain State Park—and the Cleveland National Forest contribute significantly to the unique and unspoiled character of the County's backcountry. The County contains several military installations, including Marine Corps Base Camp Pendleton, which alone encompasses about 135,000 acres, or

Laguna Meadow within the Cleveland National Forest

six percent of the unincorporated County. These installations are designated as "Military Installations." This category also includes lands owned by the Bureau of Land Management (BLM) and incorporated jurisdictions.

Specific Plan Area. This designation is applied to **areas** where a Specific Plan was adopted by the County prior to the adoption of this General Plan. Specific Plans may contain residential, commercial, industrial, public, institutional, and/or open space uses; and detailed land use regulations are contained within each adopted specific plan document. The designation of new Specific Plan Areas to substitute for General Plan Land Use Designations is not permitted. This is not intended to restrict the use of Specific Plans, which are useful planning tools allowed for by State law and may be developed for areas of the County to provide more precise guidance for land development, infrastructure, amenities, and resource conservation consistent with the use types and densities specified by the Land Use Designations and the goals and polices of the General Plan. The intention is to retain the underlying densities on the General Plan Land Use Plan to clearly show the area's relationship within the context where it is located.

Public and Semi-Public Facilities. This designation identifies major facilities built and maintained for public use. Examples include institutional uses, academic facilities, governmental complexes, and community service facilities, such as County airports, public schools, correctional institutions, solid waste facilities, water facilities, and sewer facilities. This designation may include privately owned facilities built and maintained for public use, such as hospitals, cemeteries, and landfills. A maximum FAR of 0.50 is permitted by this designation.

Post office in the rural village of Pine Valley

Public/Semi-Public Lands (Solid Waste Facility). This designation occurs on two sites in the County: the Gregory Canyon and East Otay Mesa landfill sites. On November 8, 1994, the voters adopted County of San Diego Initiative Proposition C, which amended the General Plan and re-designated the Gregory Canyon site. Similarly, on June 8, 2010, the voters adopted County of San Diego Initiative Proposition A, which re-designated the East Otay Mesa Site. Both initiatives assigned a (22) Public/Semi-Public Lands designation with a Solid Waste Facility Designator based on the General Plan that was in effect at that time. Although that designation has since been amended in an updated General Plan, the previous designation has been retained for those two sites to comply with the voter-adopted ordinances.

Open space preserved in Mountain Empire Subregion

Open Space—Conservation. This designation is primarily applied to large tracts of land, undeveloped and usually dedicated to open space, that are owned by a jurisdiction, public agency, or conservancy group. Allowed uses include habitat preserves, passive recreation, and reservoirs. Grazing and other uses or structures ancillary to the primary open space use may be permitted if they do not substantially diminish protected resources or alter the character of the

area. Such ancillary uses within this designation will typically be controlled by use-permit limitations. Open space preserves total 159,400 acres or 7 percent of the total land area in the unincorporated County. Due to the success of the County's MSCP program, this number continues to grow.

This designation is not normally applied to conservation easements within residential subdivisions on private lots.

Open Space—Recreation. This designation is applied to large, existing recreational areas. This designation allows for active and passive recreational uses such as parks, athletic fields, and golf courses. Uses and structures ancillary to the primary open space use may be permitted to enhance recreational opportunities only if they relate to the recreational purpose and do not substantially alter the character of the area.

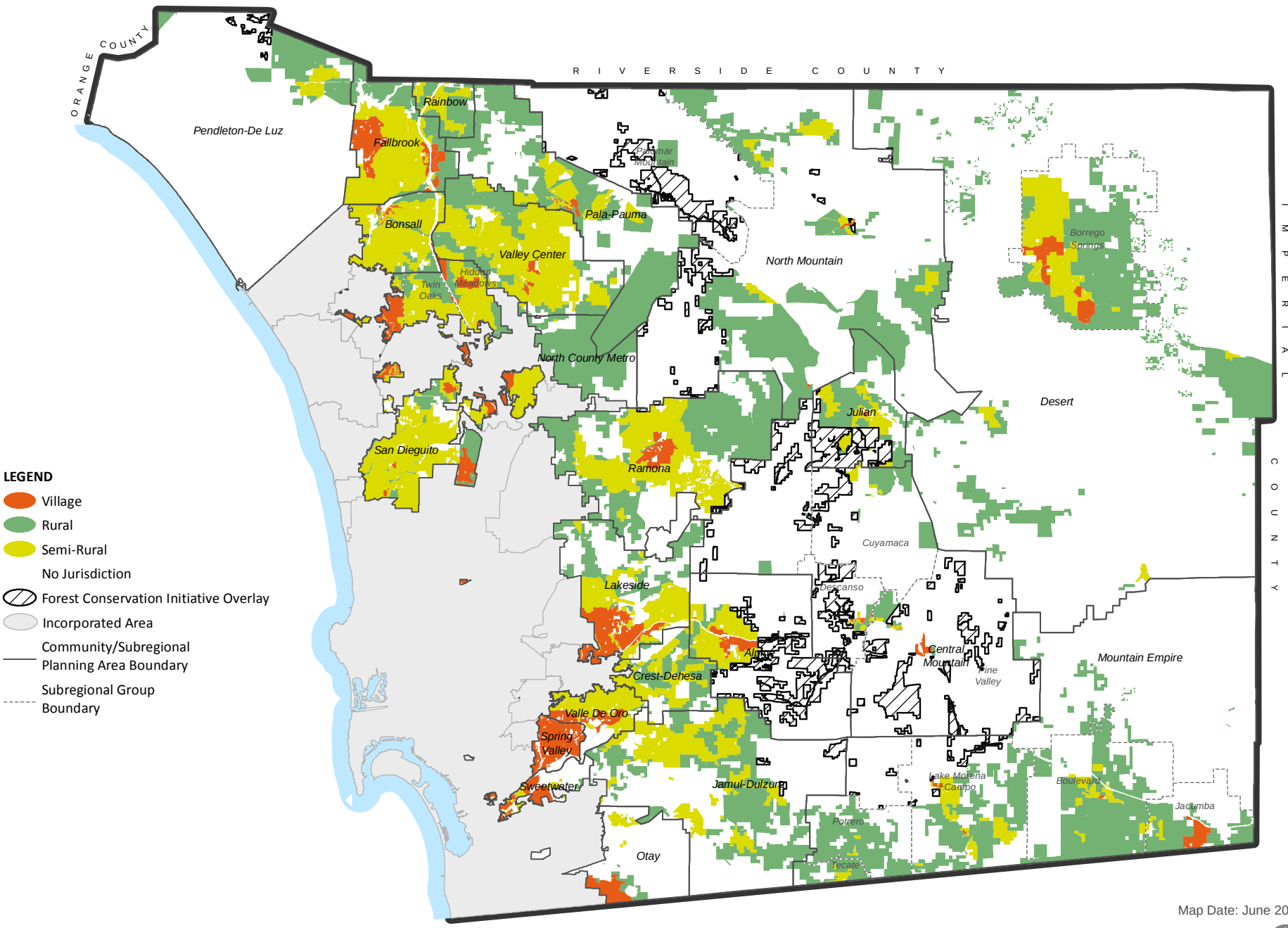
Valle de Oro Park

Forest Conservation Initiative Lands. This designation applies to lands affected by the Forest Conservation Initiative (FCI) of 1993. This initiative mandated specific land use designations, goals, and policies (provided in the Forest Conservation Initiative Appendix), which are in effect through December 31, 2010. Upon expiration of the FCI, the General Plan must be amended to remap the lands in conformance with this General Plan.

Regional Categories Map and Land Use Maps

The Regional Categories Map (Figure LU-1) and the Land Use Maps (located in the appendix) are graphic representations of the Land Use Framework and the related goals and policies of the General Plan. As required by State law, these depict the general distribution, location, and extent of the uses of the land for housing, business, industry, open space, education, public buildings, and other categories of public and private uses of the land. The land use designations are shown on these maps as color or graphic patterns and correspond directly to the designations shown on Table LU-1 and defined in the Land Use Designations section, including allowable uses and permitted development densities or intensities. These may be further modified by specific policies for the Community Plan Areas as specified by their respective Community Plan (separately bound as a part of this General Plan). As an adopted part of the General Plan, the Land Use Maps are to be used and interpreted only in conjunction with the text and other figures contained in the General Plan.

In the Land Use Maps Appendix are 35 land use maps. Of the 35 maps, 23 are regional maps, some of which have subarea maps that are within the geographic boundary of the subregion. These maps also correlate to the community plans, which are bound separately.



REGIONAL CATEGORIES MAP

San Diego County General Plan

Figure LU-1

Legacy Communities

SENATE BILL 244 GENERAL PLAN REQUIREMENTS

Hundreds of disadvantaged unincorporated communities exist in California and often exhibit a lack of public and private investment that leads to a lack of basic infrastructure as well as economic, social, and educational inequality. In October 2011, Senate Bill (SB) 244 Land Use, General Plans, and Disadvantaged Communities was enacted requiring cities and counties to review and update the Land Use Element of the General Plan to identify disadvantaged unincorporated communities concurrent with the requirement to update their housing elements. The intent of SB 244 is to encourage investment and planning to address the regional inequality and infrastructure deficits that exist within disadvantaged unincorporated communities. For each subsequent revision of the Housing Element, a city or county is also required to conduct a review of the disadvantaged communities identified, and if necessary, amend the General Plan to update the required analysis of water, wastewater, stormwater drainage, and structural fire protection needs and deficiencies.

In this instance, a "community" means an inhabited area within a city or county that is comprised of no less than 12 or more registered voters adjacent or in close proximity to one another. In addition, a "disadvantaged unincorporated community" means a fringe, island, or legacy community in which the median household income is 80 percent or less than the statewide median household income. "Fringe", "island" and "legacy" communities are defined below.

Island community — any inhabited and unincorporated territory that is surrounded or substantially surrounded by one or more cities or by one or more cities and a county boundary or the Pacific Ocean

Fringe community — any inhabited and unincorporated territory that is within a city's sphere of influence

Legacy community — geographically isolated community that is inhabited and has existed for at least 50 years[2]

Per the state law, Counties must identify and describe each legacy community, as defined, within the boundaries of a county that is a disadvantaged unincorporated community. Consequently, Cities are responsible for identifying disadvantaged unincorporated communities that are fringe communities within the sphere of influence of an incorporated city and island communities that are substantially surrounded by one or more cities.

If legacy communities are identified, then the Land Use Element Amendment must include an analysis of the service needs and deficiencies for the identified legacy communities. As a minimum, this analysis of service needs and deficiencies would include the following:

1. Coordinate with the Local Agency Formation Commission (LAFCO) to incorporate the information contained in the Municipal Service Review into the infrastructure needs of the identified communities
2. Map the location of existing infrastructure elements including, but not limited to fire stations, sewer trunk lines, and drainage systems

[2] State Office of Planning & Research Technical Advisory: Senate Bill 244: Land Use, General Plans, and Disadvantaged Communities (page 5), February 15, 2013

3. Conduct an assessment of the capacity and availability of the physical infrastructure necessary to support the existing and proposed land uses in the identified community
4. Consult with affected public utilities and special districts, if any, for information on the location and capacity of their facilities to determine the ability and the timing of facility expansion for infrastructure improvements for the identified community
5. Review regional and state transportation, air quality, and water quality plans and regulations to consider whether any of these plans affect the future operation and expansion of public and private facilities[3]

After the assessment of service needs and deficiencies, SB 244 requires an analysis of financing alternatives that could make the extension of services and facilities to the identified communities financially feasible. This includes evaluating the opportunity for grants, taxes, benefit assessments, bonds, and exactions such as impact fees.

DISADVANTAGED UNINCORPORATED COMMUNITIES

Under SB 244, LAFCOs are required to identify and plan for disadvantaged unincorporated communities in conjunction with municipal service reviews, sphere of influence updates and annexation approval restrictions. In compliance with the requirements and recommendations of SB 244, the San Diego LAFCO identified and mapped the geographic locations within unincorporated San Diego County containing disadvantaged communities, both within and outside the cities' spheres of influence.

Identification of the disadvantaged unincorporated communities by the San Diego LAFCO was based on the SB 244 definitions addressing income, population size, and geographical relationships. In accordance with SB 244, the qualifying annual median household income is 80% or less than the statewide median household income, which based on 2010 census data is $46,166[4]. Therefore, in accordance with the requirements of SB 244, communities that qualify as "disadvantaged" would have annual household incomes below $36,932. The following is the process LAFCO used to identify and map disadvantaged communities in San Diego County:

1. Indentify census tracts in San Diego County that meet the annual median household income range (80% or less than the 2010 statewide annual median household income) based on estimates provided by the San Diego Association of Governments (SANDAG). [While other GIS data besides census tracts exist to map disadvantage communities, San Diego LAFCO determined the census tract data was the most complete and reliable source of information for the purpose of this analysis.]
2. Integrate the census tract estimates into a county-wide map to identify each census tract that had a SB 244-qualifying annual median household income.

[3] State Office of Planning & Research Technical Advisory: Senate Bill 244: Land Use, General Plans, and Disadvantaged Communities (pages 8-9), February 15, 2013.
[4] Source: 2010 American Community Survey 1-Year Estimates, U.S. Census Bureau identified the statewide median household income as $46,166.

3. The SB 244-qualifying census tracts were then overlaid with the incorporated city boundaries and adopted spheres of influence to determine if the identified disadvantaged unincorporated communities were island, fringe, or legacy communities, as defined by SB 244.

The LAFCO analysis identified 25 SB 244-qualifying census tracts that require further analysis to determine if they contain any disadvantaged unincorporated communities (see Figure 1).

IDENTIFICATION OF LEGACY COMMUNITIES

As discussed above, Counties must identify and describe disadvantaged unincorporated communities that are legacy communities located outside the sphere of influence of a city, while Cities are responsible for fringe and island communities. Based on the SB 244 criteria for island, fringe and legacy communities, six of the 25 census tracts have only island communities and two census tracts have only fringe communities. Therefore, the County analyzed the 17 remaining census tracts to determine if any contained legacy communities.

The analysis to identify legacy communities consisted of a review of each census tract using aerial photography and GIS data to identify areas in the census tract where eight or more dwellings were located within a one-quarter mile radius. Eight is considered a reasonable number of dwellings to ensure the SB 244 definition of a community is met—areas with 12 or more registered voters reside adjacent or in close proximity to each other. The one-quarter mile radius was used to determine if the dwellings were in close proximity to each other. Any communities identified that met these criteria were further evaluated to determine if they meet the remaining SB 244 criteria for a legacy community.

Only communities that meet all the criteria below would be considered a legacy community.

1. Within the County's land use authority (i.e.:; military installations are outside County's land use authority)
2. Areas more than one mile from urban and suburban development patterns (these areas are more likely to be geographically isolated)
3. No evidence of recent or newer construction on dwellings and their lots, such as new roofs (these dwellings would likely be less than 50 years old)
4. Non-estate type development (large dwellings on lots two acres and larger) since these dwelling would not likely meet the maximum household income requirements

The 17 census tracts were analyzed using the methodology identified above (refer to the Background Report for more details). Based on this analysis, no legacy communities were identified within the land use jurisdiction of the County of San Diego. As such, the County has fulfilled the obligations set forth in SB 244 concurrent with the fifth cycle of the Housing Element.

Goals and Policies for Land Use Element

The Community Development Model

CONTEXT

The General Plan Land Use Framework defines a Community Development Model that uses three regional categories—Village, Semi-Rural, and Rural Lands—to broadly reflect the differing character of County lands that range from communities with substantial populations to predominantly undeveloped backcountry areas. The goals and policies in this section implement the Community Development Model and are intended to apply across the entire unincorporated County and are the basis for assigning densities to these areas. Further, they recognize the diversity of the unincorporated communities and need for community-specific planning and guidance. Lastly, they acknowledge that planning by other agencies with responsibilities within, around, or overlapping the unincorporated lands will also affect how the Community Development Model is implemented. The Community Development Model is included in the Vision and Guiding Principles chapter under Guiding Principle 2, and discussed further in pages 3-6 and 3-7.

Community Development Model (refer to Guiding Principle 2)

GOALS AND POLICIES

GOAL LU-1

Primacy of the Land Use Element. A land use plan and development doctrine that sustain the intent and integrity of the Community Development Model and the boundaries between Regional Categories.

Policies

LU-1.1 **Assigning Land Use Designations.** Assign land use designations on the Land Use Map in accordance with the Community Development Model and boundaries established by the Regional Categories Map.

Refer to Guiding Principle 2 for an explanation of the Community Development Model.

LU-1.2 **Leapfrog Development.** Prohibit leapfrog development which is inconsistent with the Community Development Model. Leapfrog Development restrictions do not apply to new villages that are designed to be consistent with the Community Development Model, that provide necessary services and facilities, and that are designed to meet the LEED-Neighborhood Development Certification or an equivalent. For purposes of this policy, leapfrog development is defined as Village densities located away from established Villages or outside established water and sewer service boundaries. [*See applicable community plan for possible relevant policies*.]

LU-1.3 **Development Patterns.** Designate land use designations in patterns to create or enhance communities and preserve surrounding rural lands.

LU-1.4 **Village Expansion.** Permit new Village Regional Category designated land uses only where contiguous with an existing or planned Village and where all of the following criteria are met:

- Potential Village development would be compatible with environmental conditions and constraints, such as topography and flooding
- Potential Village development would be accommodated by the General Plan road network
- Public facilities and services can support the expansion without a reduction of services to other County residents
- The expansion is consistent with community character, the scale, and the orderly and contiguous growth of a Village area

LU-1.5 **Relationship of County Land Use Designations with Adjoining Jurisdictions.** Prohibit the use of established or planned land use patterns in nearby or adjacent jurisdictions as the primary precedent or justification for adjusting land use designations of unincorporated County lands. Coordinate with adjacent cities to ensure that land use designations are consistent with existing and planned infrastructure capacities and capabilities.

LU-1.6 **Conversion of Public Lands to Private Ownership.** Assign lands in public use an underlying designation of Rural Lands 80. When such lands are transferred to private ownership, the RL-80 designation shall apply until the appropriate long-term use of the property is determined and a general plan amendment is approved for redesignation of the property. This policy applies to areas on the Land Use Map designated Public/Semi-Public Facilities, Federal and State Lands, and Tribal Lands.

LU-1.7 **Maximum Residential Densities.** Determine the maximum number of dwelling units permitted within the boundaries of any subdivision or single lot based on the applicable land use designation(s). When the total number of dwelling units is less than one, this shall be interpreted as permitting one dwelling unit. When more than one dwelling unit is permitted, fractional dwelling units are rounded down to the nearest whole number of dwelling units.

LU-1.8 **Density Allocation on Project Sites.** Permit changes in density within a project site with parcels that have more than one land use designation to provide flexibility in project design only when approved by Major Use Permit or Specific Plan. The policy does not allow a project to receive more units than is established by the Land Use Maps nor to supersede Housing Element requirements related to achieving the County's Regional Housing Needs Allocation. [*See applicable community plan for possible relevant policies*.]

LU-1.9 **Achievement of Planned Densities.** Recognizing that the General Plan was created with the concept that subdivisions will be able to achieve densities shown on the Land Use Map, planned densities are intended to be achieved through the subdivision process except in cases where regulations or site specific characteristics render such densities infeasible.

GOAL LU-2

Maintenance of the County's Rural Character. Conservation and enhancement of the unincorporated County's varied communities, rural setting, and character.

Policies

LU-2.1 **Community Plans.** Maintain updated Community Plans, as part of the General Plan, to guide development to reflect the character and vision for each individual unincorporated community, consistent with the General Plan.

LU-2.2 **Relationship of Community Plans to the General Plan.** Community Plans are part of the General Plan. These plans focus on a particular region or community within the overall General Plan area. They are meant to refine the policies of the General Plan as they apply to a smaller geographic region and provide a forum for resolving local conflicts. As legally required by State law, Community Plans must be internally consistent with General Plan goals and policies of which they are a part. They cannot undermine the policies of the General Plan. Community Plans are subject to adoption, review and amendment by the Board of Supervisors in the same manner as the General Plan.

LU-2.3 **Development Densities and Lot Sizes.** Assign densities and minimum lot sizes in a manner that is compatible with the character of each unincorporated community.

LU-2.4 **Relationship of Land Uses to Community Character.** Ensure that the land uses and densities within any Regional Category or Land Use Designation depicted on the Land Use Map reflect the unique issues, character, and development objectives for a Community Plan area, in addition to the General Plan Guiding Principles.

LU-2.5 **Greenbelts to Define Communities.** Identify and maintain greenbelts between communities to reinforce the identity of individual communities.

LU-2.6 **Development near Neighboring Jurisdictions.** Require that development in the proximity of neighboring jurisdictions retain the character of the unincorporated community and use buffers or other techniques where development in the neighboring jurisdiction is incompatible.

LU-2.7 **Commercial Viability.** Ensure that new commercial centers maintain or enhance the viability of existing commercial areas.

LU-2.8 **Mitigation of Development Impacts.** Require measures that minimize significant impacts to surrounding areas from uses or operations that cause excessive noise, vibrations, dust, odor, aesthetic impairment and/or are detrimental to human health and safety.

LU-2.9 **Maintaining Rural Character**. Consider level of service criteria, in accordance with Policy M-2.1, to determine whether adding lanes to a Mobility Element road would adversely impact the rural character of a community or cause significant environmental impacts. In those instances, consider other options to mitigate LOS where appropriate.

GOAL LU-3

Diversity of Residential Neighborhoods. A land use plan that accommodates a range of building and neighborhood types suitable for a variety of lifestyles, ages, affordability levels, and design options.

Policies

LU-3.1 **Diversity of Residential Designations and Building Types.** Maintain a mixture of residential land use designations and development regulations that accommodate various building types and styles.

LU-3.2 **Mix of Housing Units in Large Projects.** Require new large residential developments (generally greater than 200 dwelling units) to integrate a range of housing types and lot and building sizes. [*See applicable community plan for possible relevant policies*.]

LU-3.3 **Complete Neighborhoods.** Require new development sufficiently large to establish a complete neighborhood (typically more than 1,000 dwelling units) to include a neighborhood center within easy walking distance of surrounding residences. [*See applicable community plan for possible relevant policies*.]

GOAL LU-4

Inter-jurisdictional Coordination. Coordination with the plans and activities of other agencies and tribal governments that relate to issues such as land use, community character, transportation, energy, other infrastructure, public safety, and resource conservation and management in the unincorporated County and the region.

Policies

LU-4.1 **Regional Planning.** Participate in regional planning to ensure that the unique communities, assets, and challenges of the unincorporated lands are appropriately addressed with the implementation of the planning principles and land use requirements, including the provisions of SB375.

LU-4.2 **Review of Impacts of Projects in Adjoining Jurisdictions.** Review, comment, and coordinate when appropriate on plans, projects, and proposals of overlapping or neighboring agencies to ensure compatibility with the County's General Plan, and that adjacent communities are not adversely impacted.

LU-4.3 **Relationship of Plans in Adjoining Jurisdictions.** Consider the plans and projects of overlapping or neighboring agencies in the planning of unincorporated lands, and invite comments and coordination when appropriate.

LU-4.4 **Development Compatibility with Military Facilities.** Ensure compatibility of new development with the current and planned mission and operations of U.S. government military installations.

LU-4.5 **Annexations with Incompatible Land Uses.** Coordinate with LAFCO to oppose annexations by neighboring cities that would result in land uses incompatible with unincorporated lands.

LAFCO is responsible for coordinating, directing, and overseeing annexation of territory. A prerequisite for annexation is the inclusion of a territory within an adjacent city's sphere of influence.

LU-4.6 **Planning for Adequate Energy Facilities.** Participate in the planning of regional energy infrastructure with applicable utility providers to ensure plans are consistent with the County's General Plan and Community Plans and minimize adverse impacts to the unincorporated County.

LU-4.7 **Airport Land Use Compatibility Plans (ALUCP).** Coordinate with the Airport Land Use Commission (ALUC) and support review of Airport Land Use Compatibility Plans (ALUCP) for development within Airport Influence Areas.

Planning for Sustainability

CONTEXT

As discussed in Chapter 2, sustainability is a key theme of this General Plan and is inextricably related to a number of General Plan elements, as well as land use topics. Addressing global climate change through the reduction of GHG emissions is a common tenant of sustainability. The types, densities, and distribution of land uses in the County play a profound role in sustaining natural resources, the economy, and well being of residents. Land use patterns defined by the Community Development Model and Land Use Map provide for a more compact land use pattern, where residents live closer to jobs, businesses, schools, parks, services, and their neighbors, and would reduce vehicle trips and miles traveled. In turn, this would reduce energy consumption, air pollution, noise, and GHG emissions, while improving the quality of life for residents and economic activity of local businesses. Policies are also defined for the application of more sustainable approaches to land development, building design, and construction.

The County also recognizes sustainability as it applies to the other natural systems that are integrated with our communities. Ecosystems, topography, riparian corridors, rock formations, mature trees, and our natural assets such as our air, water (and groundwater), agriculture, and views are important contributing elements to sustainability.

This section focuses on general goal and policies that relate to the designation of land uses and the development that could occur based on those land use designations. Climate Change–related goals and policies are found throughout this General Plan. Table I-1 (General Plan Policies Addressing Climate Change) in the introduction summarizes by topic area the goals and policies in the County's General Plan that address reducing GHGs and adapting to climate change. The Air Quality, Climate Change, and Energy section of the Conservation and Open Space Element contains several goals and policies directly related to emissions reductions.

A complete reference to County General Plan Climate Change-related policies can be found in the Introduction Chapter in Table I-1 on page I-16.

GOALS AND POLICIES

GOAL LU-5

Climate Change and Land Use. A land use plan and associated development techniques and patterns that reduce emissions of local greenhouse gases in accordance with state initiatives, while promoting public health.

Policies

LU-5.1 **Reduction of Vehicle Trips within Communities.** Incorporate a mixture of uses within Villages and Rural Villages and plan residential densities at a level that support multi-modal transportation, including walking, bicycling, and the use of public transit, when appropriate.

LU-5.2 **Sustainable Planning and Design.** Incorporate into new development sustainable planning and design.

LU-5.3 **Rural Land Preservation.** Ensure the preservation of existing open space and rural areas (e.g., forested areas, agricultural lands, wildlife habitat and corridors, wetlands, watersheds, and groundwater recharge areas) when permitting development under the Rural and Semi Rural Land Use Designations.

Open space and rural lands are primary areas that provide carbon sequestration benefits for the Region.

LU-5.4 **Planning Support.** Undertake planning efforts that promote infill and redevelopment of uses that accommodate walking and biking within communities.

LU-5.5 **Projects that Impede Non-Motorized Travel**. Ensure that development projects and road improvements do not impede bicycle and pedestrian access. Where impacts to existing planned routes would occur, ensure that impacts are mitigated and acceptable alternative routes are implemented.

Examples include large parking areas that cannot be crossed by non-motorized vehicles, and new developments that block through access on existing or potential bicycle and pedestrian routes.

GOAL LU-6

Development—Environmental Balance. A built environment in balance with the natural environment, scarce resources, natural hazards, and the unique local character of individual communities.

Policies

LU-6.1 **Environmental Sustainability.** Require the protection of intact or sensitive natural resources in support of the long-term sustainability of the natural environment.

LU-6.2 **Reducing Development Pressures.** Assign lowest-density or lowest-intensity land use designations to areas with sensitive natural resources.

LU-6.3 **Conservation-Oriented Project Design.** Support conservation-oriented project design. This can be achieved with mechanisms such as, but not limited to, Specific Plans, lot area averaging, and reductions in lot size with corresponding requirements for preserved open space (Planned Residential Developments). Projects that rely on lot size reductions should incorporate specific design techniques, perimeter lot sizes, or buffers, to achieve compatibility with community character. [*See applicable community plan for possible relevant policies*.]

Approval of Conservation-Oriented projects is not guaranteed by-right but shall be allowed to process if consistent with applicable minimum lot sizes, design guidelines, and regulations

LU-6.4 **Sustainable Subdivision Design.** Require that residential subdivisions be planned to conserve open space and natural resources, protect agricultural operations including grazing, increase fire safety and defensibility, reduce impervious footprints, use sustainable development practices, and, when appropriate, provide public amenities. [*See applicable community plan for possible relevant policies*.]

Low Impact Development practices on a landscaped median in 4S Ranch

LU-6.5 **Sustainable Stormwater Management.** Ensure that development minimizes the use of impervious surfaces and incorporates other Low Impact Development techniques as well as a combination of site design, source control, and stormwater best management practices, where applicable and consistent with the County's LID Handbook.

LU-6.6 **Integration of Natural Features into Project Design.** Require incorporation of natural features (including mature oaks, indigenous trees, and rock formations) into proposed development and require avoidance of sensitive environmental resources.

LU-6.7 **Open Space Network.** Require projects with open space to design contiguous open space areas that protect wildlife habitat and corridors; preserve scenic vistas and areas; and connect with existing or planned recreational opportunities.

LU-6.8 **Oversight of Open Space.** Require that open space associated with future development that is intended to be preserved in perpetuity either be:

1) Retained in private ownership of the property owner or a third party with a restrictive easement that limits use of the land as appropriate; or
2) Transferred into public ownership of an agency that manages preserved open space.

The owner of the open space will be responsible for the maintenance and any necessary management unless those responsibilities are delegated through an adopted plan or agreement. Restrictive easements shall be dedicated to the County or a public agency (approved by the County) with responsibilities that correspond with the purpose of the open space. When transferred to a third party or public agency, a funding mechanism to support the future maintenance and management of the property should be established to the satisfaction of the County.

LU-6.9 **Development Conformance with Topography.** Require development to conform to the natural topography to limit grading; incorporate and not significantly alter the dominant physical characteristics of a site; and to utilize natural drainage and topography in conveying stormwater to the maximum extent practicable.

LU-6.10 **Protection from Hazards.** Require that development be located and designed to protect property and residents from the risks of natural and man-induced hazards.

LU-6.11 **Protection from Wildfires and Unmitigable Hazards.** Assign land uses and densities in a manner that minimizes development in extreme, very high and high fire threat areas or other unmitigable hazardous areas.

LU-6.12 **Flooding.** Document and annually review areas within floodways and 100- and 200-year floodplains to ensure areas subject to flooding are accurately mapped in accordance with AB 162 (enacted January 1, 2008). (*See also Policy S-9.1*)

Additional goals and policies that relate to natural resources are contained in the Conservation and Open Space Element, while those related to natural hazards are in the Safety Element.

GOAL LU-7

Agricultural Conservation. A land use plan that retains and protects farming and agriculture as beneficial resources that contribute to the County's rural character.

Agricultural lands in the Pauma Valley

Policies

LU-7.1 **Agricultural Land Development.** Protect agricultural lands with lower-density land use designations that support continued agricultural operations.

LU-7.2 **Parcel Size Reduction as Incentive for Agriculture.** Allow for reductions in lot size for compatible development when tracts of existing historically agricultural land are preserved in conservation easements for continued agricultural use.

Refer to the Agricultural Resources section of the Conservation and Open Space Element for additional goals and policies.

GOAL LU-8

Aquifers and Groundwater Conservation. Sustainable aquifers and functional groundwater recharge areas.

Policies

LU-8.1 **Density Relationship to Groundwater Sustainability.** Require land use densities **in** groundwater dependent areas to be consistent with the long-term sustainability of groundwater supplies, except in the Borrego Valley.

LU-8.2 **Groundwater Resources.** Require development to identify adequate groundwater resources in groundwater dependent areas, as follows:

- In areas dependent on currently identified groundwater overdrafted basins, prohibit new development from exacerbating overdraft conditions. Encourage programs to alleviate overdraft conditions in Borrego Valley.
- In areas without current overdraft groundwater conditions, evaluate new groundwater-dependent development to assure a sustainable long-term supply of groundwater is available that will not adversely impact existing groundwater users.

A groundwater basin is considered in an overdraft condition when, during average conditions over a number of years, the amount of water being withdrawn from the basin exceeds the amount of water that recharges the basin.

LU-8.3 **Groundwater-Dependent Habitat.** Discourage development that would significantly draw down the groundwater table to the detriment of groundwater-dependent habitat.

LU-8.4 **Program for Borrego Valley Aquifer.** Support the Borrego Valley Water District with their program to slow the overdrafting and extend the life of the aquifer supporting the residents of the Borrego Valley.

An aquifer is in overdraft condition when the amount of water being withdrawn (by pumping or by other means) exceeds the amount of water that recharges the basin over a period of years, during which the water supply conditions approximate average conditions.

Refer to the Water Resources section of the Conservation and Open Space Element for additional groundwater-related goals and policies.

Villages and Town Centers

CONTEXT

Smart growth concepts focus growth in compact areas close to jobs, services, and public facilities to maximize the use of existing infrastructure and preserve open space and natural resources. The General Plan Land Use Map accommodates approximately 80 percent of the unincorporated County's population growth within the CWA boundary. The Village regional category, which allows the most intensive land uses in the unincorporated County, facilitates the use of compact development patterns.

Villages that contain a mix of land uses encourage strong neighborhoods and contribute to meeting a community's daily commercial, civic, and social needs. New development can facilitate the achievement of these objectives and enhance the vitality and livability of existing Villages. Such development is expected to be diverse considering the unique needs and character of each Village.

It is important that new development in Villages be compatible with and connects to its surrounding area. Under the General Plan land use designations, many of the County's Villages may realize a sizable amount of growth in the future years. Unchecked, growth and new development can easily transform a community. However, when planned and implemented wisely, growth can be beneficial to a community's identity, economy, and character. Compatibility should be directed through the Community Plan, where the community's character is defined in greater detail, and the Zoning Ordinance. Because Village development will occur as infill or redevelopment, compatibility takes on a greater scope, accounting for the immediately surrounding area as well as the overall character of the Village.

Connections are also important to support a Village that has vitality and mobility. These attributes allow components of a Village to interact and capitalize upon one another, thus improving economy, place, and the sense of a distinct and unified identity. This is achieved through interconnected street and pedestrian networks, the use of localized design standards, careful transitions between land uses, and the incorporation of pedestrian connections and public amenities within larger developments.

Town Centers are the hubs or cores of Villages and can be more than just an assemblage of high-intensity land uses. Ideally, they are active places where community members interact, contribute to the local economy, and enjoy the unique sense of place offered by each community. Development plans can facilitate these activities through the design of both public and private spaces. Major public facilities such as schools, libraries, community centers, and parks that are located in Town Centers often contribute to its identity and level of activity.

New residential development, whether infill or new neighborhoods, can complement adjacent Village residential neighborhoods through compatible site and building design and connected circulation networks.

Larger developments have greater ability to contribute to the Village with a mix of housing options and a range of community amenities and supporting uses, such as recreational facilities and, where appropriate, civic and neighborhood commercial uses.

New commercial and industrial uses are at least equally and often more important to enhancing Villages and contributing to their identity and viability. This is because they serve as attractors to residents and visitors, provide employment, and are often located near the core of the Village and have high visibility. In locating new commercial and industrial uses, care must be taken to avoid impacting existing business. Design will also require careful consideration to ensure compatibility.

Main Street in Julian provides a variety of land uses and building types

GOALS AND POLICIES

GOAL LU-9

Distinct Villages and Community Cores. Well-defined, well-planned, and well-developed community cores, such as Villages and Town Centers, that contribute to a community's identity and character.

Policies

A commercial center in Bonsall

LU-9.1 **Village and Community Core Planning.** Encourage the delineation of and development of more detailed planning direction for the character, design, uses, densities, and amenities of Village areas, Town Centers, and other community cores in Community Plans to assist in the future planning of residences, infrastructure, businesses, and civic uses.

LU-9.2 **Density Relationship to Environmental Setting.** Assign Village land use designations in a manner consistent with community character, and environmental constraints. In general, areas that contain more steep slopes or other environmental constraints should receive lower density designations. [*See applicable community plan for possible relevant policies*.]

LU-9.3 **Village and Community Core Guidelines and Regulations.** Support the development and implementation of design guidelines, Village-specific regulations for roads, parking, and noise, and other planning and regulatory mechanisms that recognize the unique operations and character of Villages, Town Centers, and transportation nodes. Ensure that new development be compatible with the overall scale and character of established neighborhoods.

LU-9.4 **Infrastructure Serving Villages and Community Cores.** Prioritize infrastructure improvements and the provision of public facilities for Villages and community cores as sized for the intensity of development allowed by the Land Use Map.

LU-9.5 **Village Uses.** Encourage development of distinct areas within communities offering residents places to live, work, and shop, and neighborhoods that integrate a mix of uses and housing types.

LU-9.6 **Town Center Uses.** Locate commercial, office, civic, and higher-density residential land uses in the Town Centers of Villages or Rural Villages at transportation nodes. Exceptions to this pattern may be allowed for established industrial districts and secondary commercial districts or corridors.

In this reference, a transportation node is intended to be the intersection of two high volume Mobility Element roadways, along with a transit stop.

Residential areas surround commercial and office establishments, schools, and parks in Fallbrook

LU-9.7 **Town Center Planning and Design.** Plan and guide the development of Town Centers and transportation nodes as the major focal point and activity node for Village areas. Utilize design guidelines to be compatible with the unique character of a community. Roadways, streetscapes, building facades, landscaping, and signage within the town center should be pedestrian oriented. Wherever possible, locate public facilities, such as schools, libraries, community centers, and parks in Town Centers and Villages.

LU-9.8 **Village Connectivity and Compatibility with Adjoining Areas.** Require new development within Villages to include road networks, pedestrian routes, and amenities that create or maintain connectivity; and site, building, and landscape design that is compatible with surrounding areas. [*See applicable community plan for possible relevant policies*.]

LU-9.9 **Residential Development Pattern.** Plan and support an efficient residential development pattern that enhances established neighborhoods or creates new neighborhoods in identified growth areas.

LU-9.10 **Internal Village Connectivity.** Require that new development in Village areas are integrated with existing neighborhoods by providing connected and continuous street, pathway, and recreational open space networks, including pedestrian and bike paths.

LU-9.11 **Integration of Natural Features in Villages.** Require the protection and integration of natural features, such as unique topography or streambeds, into Village projects.

LU-9.12 **Achieving Planned Densities in Villages.** In villages, encourage future residential development to achieve planned densities through multi-family, mixed use, and small-lot single-family projects that are compatible with the community character.

Semi-Rural/Rural Lands

CONTEXT

As they share many common goals and policies, the Semi-Rural and Rural Lands regional categories are combined under this section. Semi-Rural areas comprise the majority of unincorporated land within the CWA boundary and include low-density residential, agricultural, and recreation uses. These lands buffer and separate Village areas and are expected to develop in a manner consistent with their natural environment and rural character. Rural Lands are typically located outside of or between Semi-Rural areas and further define and separate the communities they surround.

Rural lands outside the village of Julian

The majority of unincorporated land outside the CWA Boundary is largely undeveloped, lacks infrastructure, and is thus designated as Rural Lands. A significant portion of these lands is in public ownership and is typically used for recreation or environmental preservation. Outside the CWA boundary, Semi-Rural lands typically reflect established communities.

The lower densities in the Semi-Rural and Rural Lands allow for reduced development pressures and greater flexibility in a manner that minimizes impacts to the environment. This can be accomplished by implementing policies that require all development in Semi-Rural and Rural Lands to protect and sustain ecosystems, topography, riparian corridors, rock formations, mature trees and other natural assets, and avoid natural hazards, such as flooding, steep slopes, and seismic instability.

Despite numerous constraints to agriculture in San Diego County, such as high water and land costs, the County has a robust agricultural economy. Agriculture contributes to the character of the County, and particularly Semi-Rural and Rural Lands, supplying County residents with local agricultural products, and contributing significantly to the local economy. A goal of these categories is the preservation of local agriculture, which includes a diverse mix of high value commodities and takes advantage of a long—in some cases year-round—growing season. Incompatibility of adjacent land uses can present yet another constraint to the viability of local agriculture. As residential and other potentially incompatible development occurs in traditionally agricultural areas, careful attention should be given to the compatibility of these nonagricultural uses and to site design techniques that would reduce or avoid potential conflicts. Goals and policies that pertain to agriculture are located in the conservation and Open Space Element (Chapter 5).

GOALS AND POLICIES

GOAL LU-10

Function of Semi-Rural and Rural Lands. Semi-Rural and Rural Lands that buffer communities, protect natural resources, foster agriculture, and accommodate unique rural communities.

Policies


Echo Valley in the Jamul Community Planning Area

LU-10.1 **Residential Connectivity.** Require residential development in Semi-Rural areas to be integrated with existing neighborhoods by providing connected and continuous street, pathway/trail, and recreational open space networks.

LU-10.2 **Development—Environmental Resource Relationship.** Require development in Semi-Rural and Rural areas to respect and conserve the unique natural features and rural character, and avoid sensitive or intact environmental resources and hazard areas.

LU-10.3 **Village Boundaries.** Use Semi-Rural and Rural land use designations to define the boundaries of Villages and Rural Land Use designations to serve as buffers between communities.

LU-10.4 **Commercial and Industrial Development.** Limit the establishment of commercial and industrial uses in Semi-Rural and Rural areas that are outside of Villages (including Rural Villages) to minimize vehicle trips and environmental impacts.

Commercial, Office, and Industrial Development

CONTEXT

While the Community Development Model and the General Plan Regional Categories directly relate to the ranges of intensity of the residential Land Use Designations, as shown on Table LU-1, there is less of a correlation to the nonresidential Land Use Designations (Commercial, Office Professional, and Industrial). As such, specific guidance is needed to ensure that nonresidential development is planned and occurs in a manner consistent with the Guiding Principles for the General Plan and the plans of each unincorporated community.

Commercial, office, and industrial uses are important to a community's identity and viability. They serve as attractors to residents and visitors, provide employment, and contribute to the economy. Commercial uses accommodate the retail and service needs of, and provide employment opportunities for, surrounding residents. Primary commercial areas, such as Town Centers, typically serve an entire Village and its surrounding rural residents. Land-intensive commercial activity will generally serve regional as well as local needs, and is best located at key intersections of multi-modal transportation corridors. There is also a need for smaller scale commercial uses in residential neighborhoods beyond the Village core to serve the convenience needs of residents in that area.

Typical Office Professional uses include office-oriented professional and administrative services and research and development activities. Large-scale office uses are typically clustered in campus-style office or industrial park settings, while smaller-scale office uses are typically located in mixed-use Village and Neighborhood Centers. The Village Core Mixed Use, neighborhood commercial, and General Commercial land use

designations all provide for this type of mixed-use office development. While, office development that requires large, continuous floor area may be accommodated in campus-style office parks under the Office Professional and Light Industrial land use designations, it is important that these developments not be isolated and separated by location design from adjoining land uses, resulting in a distinct island. Compatibility with the adjacent development and connections to vehicular and pedestrian circulation networks remain important.

The pedestrian-oriented Main Avenue in Fallbrook

Typical industrial uses include manufacturing, processing, assembly, wholesaling, and warehouse activities that normally require large indoor and outdoor areas for processing and storage. In the unincorporated County, these uses typically occur on large development sites or as clusters of smaller sites served by municipal infrastructure and with direct access to major transportation corridors. Industrial uses with adverse impacts such as noise, vibration, odor, and aesthetic impairment must be carefully located and designed to avoid compatibility issues with adjacent land uses. Light industrial uses are considered compatible in pedestrian-oriented Village centers because they are similar in function and form to offices. Medium industrial uses are most compatible within Village boundaries but outside the pedestrian-oriented center and buffered from incompatible residential or commercial land uses.

GOALS AND POLICIES

GOAL LU-11

Commercial, Office, and Industrial Development. Commercial, office, and industrial development that is appropriately sited and designed to enhance the unique character of each unincorporated community and to minimize vehicle trip lengths.

Policies

LU-11.1 **Location and Connectivity.** Locate commercial, office, and industrial development in Village areas with high connectivity and accessibility from surrounding residential neighborhoods, whenever feasible.

LU-11.2 **Compatibility with Community Character.** Require that commercial, office, and industrial development be located, scaled, and designed to be compatible with the unique character of the community.

LU-11.3 **Pedestrian-Oriented Commercial Centers.** Encourage the development of commercial centers in compact, walkable configurations in Village centers that locate parking in the rear or on the side of the parcel, use transparent storefronts with active retail street-fronting uses, minimize setbacks, and discourage "strip" commercial development. "Strip" commercial development consists of automobile-oriented commercial development with the buildings set back from the street to accommodate parking between the building and street.

LU-11.4 **Town Center Intensity and Vitality.** Encourage revitalization of Town Center areas to strengthen neighborhoods, expand local employment opportunities, and establish or enhance a sense of place.

LU-11.5 **Large-Format Retail Stores.** Allow large-format retail uses, typically referred to as "big box stores," only where the scale of the use and design is compatible with the surrounding areas. Large-format retail typically means retail stores with floor plans that are larger than 65,000 sq. ft.

LU-11.6 **Office Development.** Locate new office development complexes within Village areas where services are available, in proximity to housing, and along primary vehicular arterials (ideally with transit access) with internal vehicular and pedestrian linkages that integrate the new development into the multi-modal transportation network where feasible.

LU-11.7 **Office Development Compatibility with Adjoining Uses.** Require new office development, including office parks, to be compatible to the scale, design, site layout, and circulation patterns of adjacent existing or planned commercial and residential development.

LU-11.8 **Permitted Secondary Uses.** Provide a process where secondary land uses may be permitted when appropriate and compatible with the primary commercial, office, and light industrial uses, in order to better serve the daily needs of employees and to reduce the frequency of related automobile trips. This policy is not intended for high impact industrial uses.

LU-11.9 **Development Density and Scale Transitions.** Locate transitions of medium-intensity land uses or provide buffers between lower intensity uses, such as low-density residential districts and higher intensity development, such as commercial or industrial uses. Buffering may be accomplished through increased setbacks or other techniques such as grade differentials, walls, and/or landscaping but must be consistent with community design standards.

LU-11.10 **Integrity of Medium and High Impact Industrial Uses.** Protect designated Medium and High Impact Industrial areas from encroachment of incompatible land uses, such as residences, schools, or other uses that are sensitive to industrial impacts. The intent of this policy is to retain the ability to utilize industrially designated locations by reducing future development conflicts.

LU-11.11 **Industrial Compatibility with Adjoining Uses.** Require industrial land uses with outdoor activities or storage to provide a buffer from adjacent incompatible land uses (refer to Policy LU-11.9 for examples of buffering).

Community Services and Infrastructure

CONTEXT

Land uses in the County are supported by a diversity of public utilities and services. Among these are water supply, wastewater collection and treatment, solid waste management, schools, and libraries.

WATER SUPPLY

Otay Reservoir

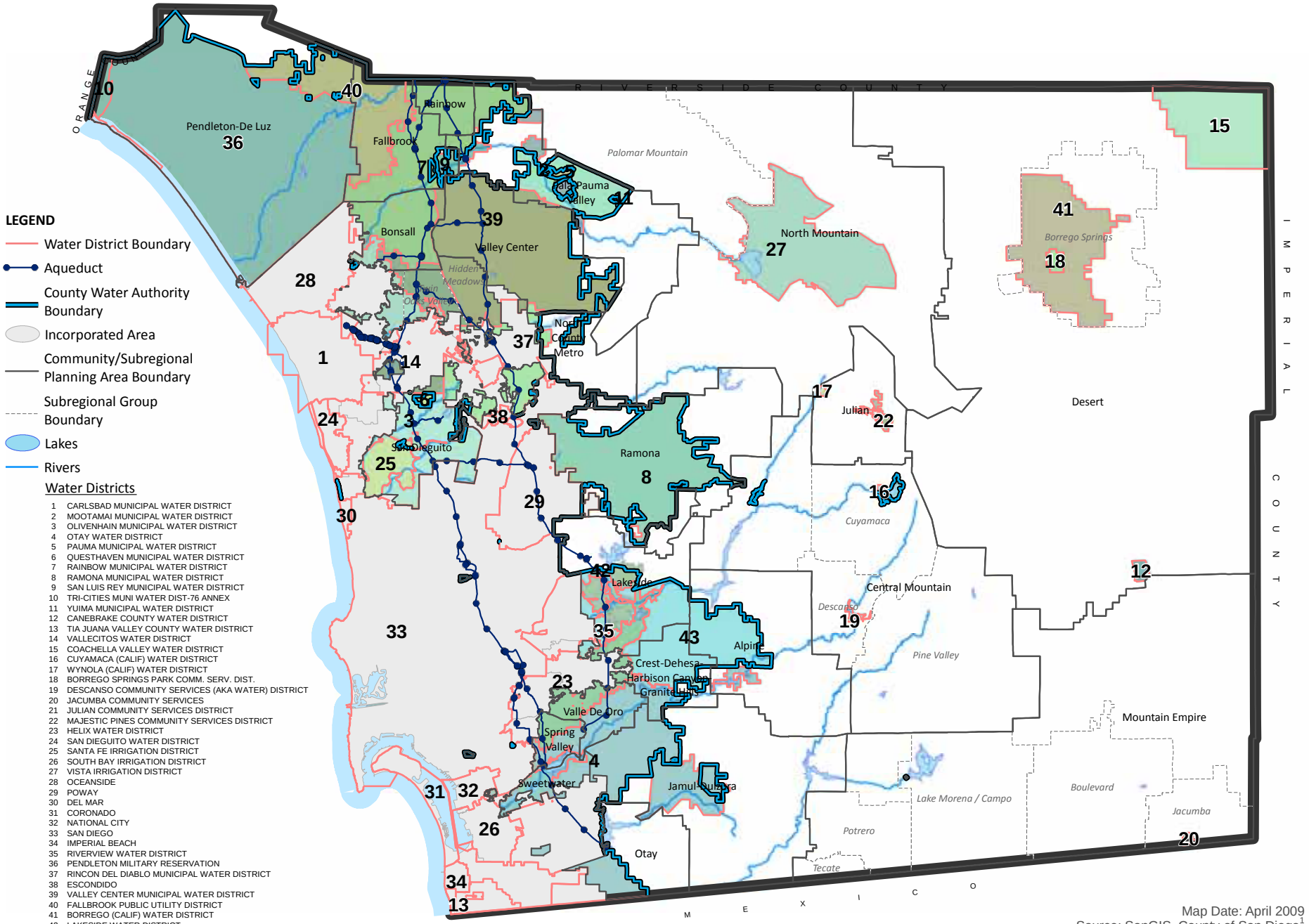
San Diego County is located in a semi-arid to arid desert climate with limited local water supplies, requiring that the majority of its water resources be imported. The County is not a purveyor of water and must rely on the San Diego County Water Authority (SDCWA) and its member agencies to provide the majority of water delivery to the region. Fifteen of the 24 current SDCWA member agencies provide water to the unincorporated areas of the County. An additional 14 independent special districts, along with private water systems, provide services to the unincorporated County. The water districts in the unincorporated County are shown on Figure LU-2 (Water Districts).

The City of San Diego owns and maintains seven drinking source water reservoirs in the County. While these reservoirs do not provide potable water for residents outside the city, they are used by County residents for recreation and provide valuable habitat.

The California Urban Water Management Planning Act requires that each urban water supplier, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually, shall prepare, update and adopt an (Urban Water Management Plan) UWMP at least once every five years on or before December 31, in years ending in five and zero. In the 2005 UWMPs, the Metropolitan water District (MWD), SDCWA and all 15 SDCWA member agencies that serve the unincorporated County determined that adequate water supplies would be available to serve existing service areas under normal water year, single dry water year, and multiple dry water year conditions through the year 2030. However, there are multiple issues related to the projections included in the 2005 UWMPs. Factors such as cutbacks in water importation supplies from MWD and SDCWA and the statewide drought have not have been accounted for in 2005 UWMP supply and demand projections.

In addition to the UWMP, which deals with long term planning, SDCWA's Board of Directors approved a Drought Management Plan (DMP) in 2006. The DMP provides potential actions that the SDCWA can take to minimize or avoid the impacts associated with supply shortage conditions due primarily to droughts. The DMP also contains a water supply allocation methodology to be used if the SDCWA is required to allocate supplies to its member agencies.

In August 2007, a U.S. District court decision was issued to protect the endangered Delta smelt (fish). This federal court ruling set operational limits on pumping in the Sacramento-San Joaquin Delta from December 2007 to June 2008 to protect the Delta smelt. As a result of this ruling, MWD is estimated to see as much as a 20 to 30 percent reduction in State Water Project supplies in 2008 and beyond. This means that local water agencies would have to rely on increased conservation, along with contingency and emergency sources of water, including local groundwater and storage supplies, to lessen direct impacts on water availability for their customers.



WATER DISTRICTS

Additionally, after a record dry spring that dramatically curtailed snow runoff from the Sierra Nevada Mountains, Governor Schwarzenegger declared an official statewide drought on June 4, 2008. Following the Governor's action, the MWD board of directors issued a Water Supply Alert for its six-county service area, urging local jurisdictions to adopt and implement water conservation ordinances and to significantly increase efforts and programs to conserve water.


Otay County Landfill

The Colorado River, the other major source of imported supplies for MWD, has experienced drought conditions for eight of the last nine years. The Colorado River provides water to more than 31 million people in seventeen western states. Since the drought in the late 1980s and early 1990s, MWD enacted a plan to improve water supplies during dry conditions. The Integrated Resources Plan (2004) called for increasing MWD's ability to store wet-year surplus supplies from the Colorado River and Northern California's Sacramento-San Joaquin Delta. In 2007, enough water in reserve was available to help MWD withstand up to three successive dry years. The federal court decision on the Delta smelt reduces MWD's ability to replenish reserves in wet years and prolonged dry conditions in California continue to draw on the reserves. As a result the, MWD's near-term strategy is to lower demand and stretch the reserve supplies as much as possible.

Additionally, climate changes due to global warming also create new uncertainties that significantly affect California's water resources and lessen the reliability of 2005 UWMPs. All 2005 UWMPs include a drought management or shortage contingency analysis section, which identifies how the agency will manage shortages. However, these UWMPs do not account for the severity or longevity of the above-mentioned difficulties in providing enough supply for the region's demand. In preparing 2010 UWMPs, the SDCWA and its water districts will need to account for these issues and will likely place more emphasis on conservation, water recycling, and expanding local supplies through methods such as seawater desalination, groundwater, surface water, transfers, and imported supplies. Development of the diverse sources of water will aid in reducing the SDCWA's purchases of imported supplies from the MWD. Groundwater is the primary source of supply for the special water districts and private water systems that serve the groundwater-dependent unincorporated areas. In addition, many areas of the County are dependent on individual wells and are not served by water agencies. The Land Use Map allows limited development in these areas. In California, individual groundwater users are typically not regulated in regard to the amount of groundwater they can use nor does the County typically restrict an individual's use. However, the County can deny discretionary permits if the proposed groundwater resources are not sufficient for the proposed development. For permits with ongoing conditions, the County can require limitations or conditions on the amount of groundwater that can be withdrawn.

SOLID WASTE

Solid waste management has been recognized as an important regional issue in San Diego County because of limited landfill capacity, urban encroachment, and environmental concerns reducing potential facility expansions and replacement sites, environmental regulations, and the increased cost of developing and operating waste management facilities. Historically, the primary method of disposing of solid waste has been through the use of landfills. Since the early 1990s, there has been a growing emphasis to reduce the amount of solid waste being disposed of in landfills through integration of recycling and source reduction. There are seven active landfills in the San Diego region that serve both incorporated and unincorporated areas. The landfills currently operating in the County for public use are either privately owned and operated or are owned and operated by another local jurisdiction. There is sufficient landfill space for thirty years considering current landfill expansions, and proposed new landfills. However there is insufficient infrastructure to support the traffic flow to and from the landfills resulting in daily and annual permitted tonnage restrictions. Current plans for expansion of existing landfills and new landfills would add 179 million tons of capacity. The San Diego County Integrated Waste Management Plan Siting Element analysis (2005) determined that if the County would recycle at a rate of 75 percent, which complies with State mandates for integrated solid waste management, compared to the present 50 percent, there would be no need for additional landfills in the County, including the proposed Gregory Canyon and Campo landfills.

EDUCATION

The provision of educational facilities and services are mandated by the State Department of Education and administered by the San Diego County Board of Education and the San Diego County Office of Education, which is a public agency with land use authority that is separate from the County of San Diego. The County Offices of Education and the San Diego County Board of Education provide a support infrastructure for local schools and districts while acknowledging each school board's responsibility to represent and serve their community. The day-to-day development of facilities and delivery of instruction is generally the responsibility of the County's 42 local school districts. Student populations in the unincorporated areas of the County have generally experienced steady growth rates depending on the particular community or area that the school facility is located. Because the County of San Diego does not have jurisdiction over the land use decisions of public schools, its responsibility for school facilities is limited to review and comment on projects for proposed schools.

WASTEWATER

The majority of sewage treatment and disposal in the unincorporated areas of San Diego County is accomplished by one of the following three methods: (1) regional systems maintained by public water or sewer districts; (2) small wastewater treatment facilities operated by independent districts or the County; and (3) on-site subsurface sewage disposal (septic) systems. The method of treatment and disposal often depends on the district's location. Generally, those districts located in the proximity of the City of San Diego are members of the San Diego Metropolitan Sewerage System (Metro) and use its system for treatment and effluent disposal. A number of agencies also use a combination of the Metro system and inland treatment and disposal. Those districts located near the coastal areas provide effluent disposal through the use of an ocean outfall. Those districts located inland (a majority of the unincorporated areas of the County) provide sewage treatment and disposal through reuse, spray fields, evaporation, and other techniques.

The Department of Public Works (DPW) Wastewater Management Section (WWM) is responsible for maintaining sewer lines, pump stations, force mains and several treatment plants for the unincorporated areas of Alpine, Julian, Lakeside, Spring Valley, Pine Valley, Campo, East Otay Mesa, and the Winter Gardens area. Wastewater flows originating within the communities of Alpine, Lakeside, Winter Gardens, Spring Valley, and East Otay Mesa are transmitted to the City of San Diego metro system for treatment and disposal. The remaining communities of Julian, Pine Valley, and Campo utilize "inland" treatment and disposal systems.

TELECOMMUNICATIONS

Telecommunications services are offered to county residents by a diversity of providers. These include Time Warner and Cox Communications for cable television and digital services; AT&T for standard landline telephone; Verizon, Sprint, Cingular/AT&T, Nextel, Cricket, and T-Mobile for cell phone; and Vonage and Skype for voice over Internet protocol. Due to the dispersed and low-density pattern of development in the County, particularly in its eastern-most reaches, some telecommunication services are not available throughout the entirety of the area.

ISSUES

The following are the key issues related to community services and infrastructure in the unincorporated County:

- Coordination of service and infrastructure can be difficult in the unincorporated areas that are served by numerous other entities.
- The geographic extent of the unincorporated County precludes the ability to provide the same level of services and infrastructure to all of its lands.
- Limited population density and/or access to some areas of the unincorporated County also result in both physical and fiscal challenges to providing services.
- Maintenance and enhancement of public infrastructure is important to the well-being of existing communities. Many existing communities include basic infrastructure such as roads, water and sewer, but could benefit from enhancements such as pathways, trails, landscaping, and better connected roads.
- As development occurs, it is important to existing communities that this development provides for adequate services to meet its own needs without adversely affecting the existing residents.
- Some community services, such as libraries and community centers, may contribute to defining a community's identity, location, and character.

These and other issues relevant to community services and infrastructure in the unincorporated County area are addressed in this General Plan. As previously stated, additional goals and policies on some specific services or infrastructure can be found in other elements of the General Plan (refer to the Mobility Element for transportation-related infrastructure, the Conservation and Open Space Element for recreational facilities, and the Safety Element for emergency services and law enforcement). The following goals and policies either pertain to those issues not covered by other elements or are more general.

GOALS AND POLICIES

GOAL LU-12

Infrastructure and Services Supporting Development. Adequate and sustainable infrastructure, public facilities, and essential services that meet community needs and are provided concurrent with growth and development.

Policies

LU-12.1 **Concurrency of Infrastructure and Services with Development.** Require the provision of infrastructure, facilities, and services needed by new development prior to that development, either directly or through fees. Where appropriate, the construction of infrastructure and facilities may be phased to coincide with project phasing.

In addition to utilities, roads, bicycle and pedestrian facilities, and education, police, and fire services, transit-oriented infrastructure, such as bus stops, bus benches, turnouts, etc, should be provided, where appropriate.

LU-12.2 **Maintenance of Adequate Services.** Require development to mitigate significant impacts to existing service levels of public facilities or services for existing residents and businesses. Provide improvements for Mobility Element roads in accordance with the Mobility Element Network Appendix matrices, which may result in ultimate build-out conditions that achieve an improved LOS but do not achieve a LOS of D or better.

LU-12.3 **Infrastructure and Services Compatibility.** Provide public facilities and services that are sensitive to the environment with characteristics of the unincorporated communities. Encourage the collocation of infrastructure facilities, where appropriate.

Public services and facilities in Village areas are expected to differ from those in rural lands. Development standards in the Implementation Plan, Zoning Ordinance, and community-specific planning documents may reflect this 'context-sensitive' approach.

LU-12.4 **Planning for Compatibility.** Plan and site infrastructure for public utilities and public facilities in a manner compatible with community character, minimize visual and environmental impacts, and whenever feasible, locate any facilities and supporting infrastructure outside preserve areas. Require context sensitive Mobility Element road design that is compatible with community character and minimizes visual and environmental impacts; for Mobility Element roads identified in Table M-4, an LOS D or better may not be achieved.

GOAL LU-13

Adequate Water Quality, Supply, and Protection. A balanced and regionally integrated water management approach to ensure the long-term viability of San Diego County's water quality and supply.

Olivehain Reservoir in the Elfin Forest Recreational Preserve

Policies

LU-13.1 **Adequacy of Water Supply.** Coordinate water infrastructure planning with land use planning to maintain an acceptable availability of a high quality sustainable water supply. Ensure that new development includes both indoor and outdoor water conservation measures to reduce demand.

LU-13.2 **Commitment of Water Supply.** Require new development to identify adequate water resources, in accordance with State law, to support the development prior to approval.

GOAL LU-14

Adequate Wastewater Facilities. Adequate wastewater disposal that addresses potential hazards to human health and the environment.

Policies

LU-14.1 **Wastewater Facility Plans.** Coordinate with wastewater agencies and districts during the preparation or update of wastewater facility master plans and/or capital improvement plans to provide adequate capacity and assure consistency with the County's land use plans.

LU-14.2 **Wastewater Disposal.** Require that development provide for the adequate disposal of wastewater concurrent with the development and that the infrastructure is designed and sized appropriately to meet reasonably expected demands.

LU-14.3 **Wastewater Treatment Facilities.** Require wastewater treatment facilities serving more than one private property owner to be operated and maintained by a public agency. Coordinate the planning and design of such facilities with the appropriate agency to be consistent with applicable sewer master plans.

LU-14.4 **Sewer Facilities.** Prohibit sewer facilities that would induce unplanned growth. Require sewer systems to be planned, developed, and sized to serve the land use pattern and densities depicted on the Land Use Map. Sewer systems and services shall not be extended beyond either Village boundaries or extant Urban Limit Lines, whichever is more restrictive, except:

- When necessary for public health, safety, or welfare;
- When within existing sewer district boundaries;
- When necessary for a conservation subdivision adjacent to existing sewer facilities; or
- Where specifically allowed in the community plan.

An Urban Limit Line is a growth boundary that can be used in Community Plans to define the maximum extent of urban and suburban development. An Urban Limit Line may be the basis for containment of growth inducing urban infrastructure or community-specific goals and policies.

LU-14.5 **Alternate Sewage Disposal Systems.** Support the use of alternative on-site sewage disposal systems when conventional systems are not feasible and in conformance with State guidelines and regulations.

GOAL LU-15

Adequate Wireless Communication Facilities. Wireless telecommunication facilities that utilize state-of-the-art techniques to minimize impacts to communities and the environment.

Policies

LU-15.1 **Telecommunication Facilities Compatibility with Setting.** Require that wireless telecommunication facilities be sited and designed to minimize visual impacts, adverse impacts to the natural environment, and are compatible with existing development and community character.

LU-15.2 **Co-Location of Telecommunication Facilities.** Encourage wireless telecommunication service providers to co-locate their facilities whenever appropriate, consistent with the Zoning Ordinance. [*See applicable community plan for possible relevant policies*.]

GOAL LU-16

Appropriately Sited Waste Management Facilities. Solid waste management facilities that are appropriately located and sited in a manner that minimizes environmental impacts and potential conflicts from incompatible land uses, while facilitating recycling and resource recovery activities.

Policies

LU-16.1 **Location of Waste Management Facilities.** Site new solid waste management facilities identified in the San Diego County Integrated Waste Management Plan, in a manner that minimizes environmental impacts and prevents groundwater degradation, and in accordance with applicable local land use policies.

LU-16.2 **Integrity of Waste Management Facilities.** Avoid encroachment of incompatible land uses upon solid waste facilities in order to minimize or avoid potential conflicts.

LU-16.3 **New Waste Management Facilities.** Encourage the establishment of additional recycling and resource recovery facilities in areas with Industrial land use designations or other appropriate areas based on the type of recycling.

For example, some agricultural areas may be appropriate for management or recycling of agricultural wastes (composting).

GOAL LU-17

Adequate Education. Quality schools that enhance our communities and mitigate for their impacts.

Policies

LU-17.1 **Planning for Schools.** Encourage school districts to consider the population distribution as shown on the Land Use Map when planning for new school facilities.

LU-17.2 **Compatibility of Schools with Adjoining Uses.** Encourage school districts to minimize conflicts between schools and adjacent land uses through appropriate siting and adequate mitigation, addressing such issues as student drop-off/pick up locations, parking access, and security.

LU-17.3 **Priority School Locations.** Encourage school districts to locate schools within Village or Rural Village areas wherever possible and site and design them in a manner that provides the maximum opportunity for students to walk or bicycle to school.

LU-17.4 **Avoidance of Hazards.** Assist school districts with locating school facilities away from fault zones, flood or dam inundation zones, and hazardous materials storage areas in conformance with State statutes.

GOAL LU-18

Adequate Civic Uses. Civic uses that enhance community centers and places.

Policies

LU-18.1 **Compatibility of Civic Uses with Community Character.** Locate and design Civic uses and services to assure compatibility with the character of the community and adjoining uses, which pose limited adverse effects. Such uses may include libraries, meeting centers, and small swap meets, farmers markets, or other community gatherings.

LU-18.2 **Co-Location of Civic Uses.** Encourage the co-location of civic uses such as County library facilities, community centers, parks, and schools. To encourage access by all segments of the population, civic uses should be accessible by transit whenever possible.

County of San Diego
Housing Element Inventory
North County Metro

Map Reference	Assessor's Parcel Number	Acres	Existing Land Use	General Plan/Zoning	Density (acres)	Potential Units	Notes
NC1-1	*1831511000*	*1.87*	*Underutilitzed (Single Family Residential)*	*VR15*	*15*	*22*	
NC1-2	1832112800	1.48	Vacant	VR15	15	17	
NC1-3	1841112400	0.36	Vacant	VR15	15	4	
NC1-4	1841214000	1.12	Underutilized (Single Family Residential)	VR20	20	17	
NC1-4	1841213900	1.51	Underutilized (Single Family Residential)	VR20	20	24	Floodplain will not affect overall yield of site
NC1-4	*1841212000*	*1.61*	*Underutilitzed (Single Family Residential)*	*VR20*	*20*	*25*	
NC1-4	1841211400	0.29	Vacant	VR20	20	4	
NC1-5	1841222500	5.93	Vacant	VR20	20	94	
NC1-5	1841222100	0.31	Vacant	VR20	20	4	
NC1-5	1841222000	0.31	Vacant	VR20	20	4	
NC1-5	1841221900	0.29	Vacant	VR20	20	4	
NC1-5	1841221800	0.41	Vacant	VR20	20	6	Steep Slope will not affect overall yield of site
NC1-5	1841221100	0.64	Vacant	VR20	20	10	
NC2-1	1841812400	1.17	Underutilized (Single Family Residential)	VR30	30	28	
NC2-1	1841812300	1.64	Underutilized (Single Family Residential)	VR30	30	39	
NC2-1	1841812200	4.46	Underutilized (Single Family Residential)	VR30	30	107	
NC2-1	1841620400	0.73	Vacant	VR30	30	17	Aerial shows small storage structures
NC2-1	1841620300	3.62	Underutilized (Single Family Residential)	VR30	30	86	
NC2-1	1841620200	2	Vacant	VR30	30	48	
NC2-1	1841812700	3	Underutilized (Intensive Agriculture)	VR30	30	72	
NC2-1	1841812600	3.2	Underutilized (Single Family Residential)	VR30	30	76	
NC2-1	1841814400	0.74	Underutilized (Single Family Residential)	VR30	30	17	

County of San Diego
Housing Element Inventory
North County Metro

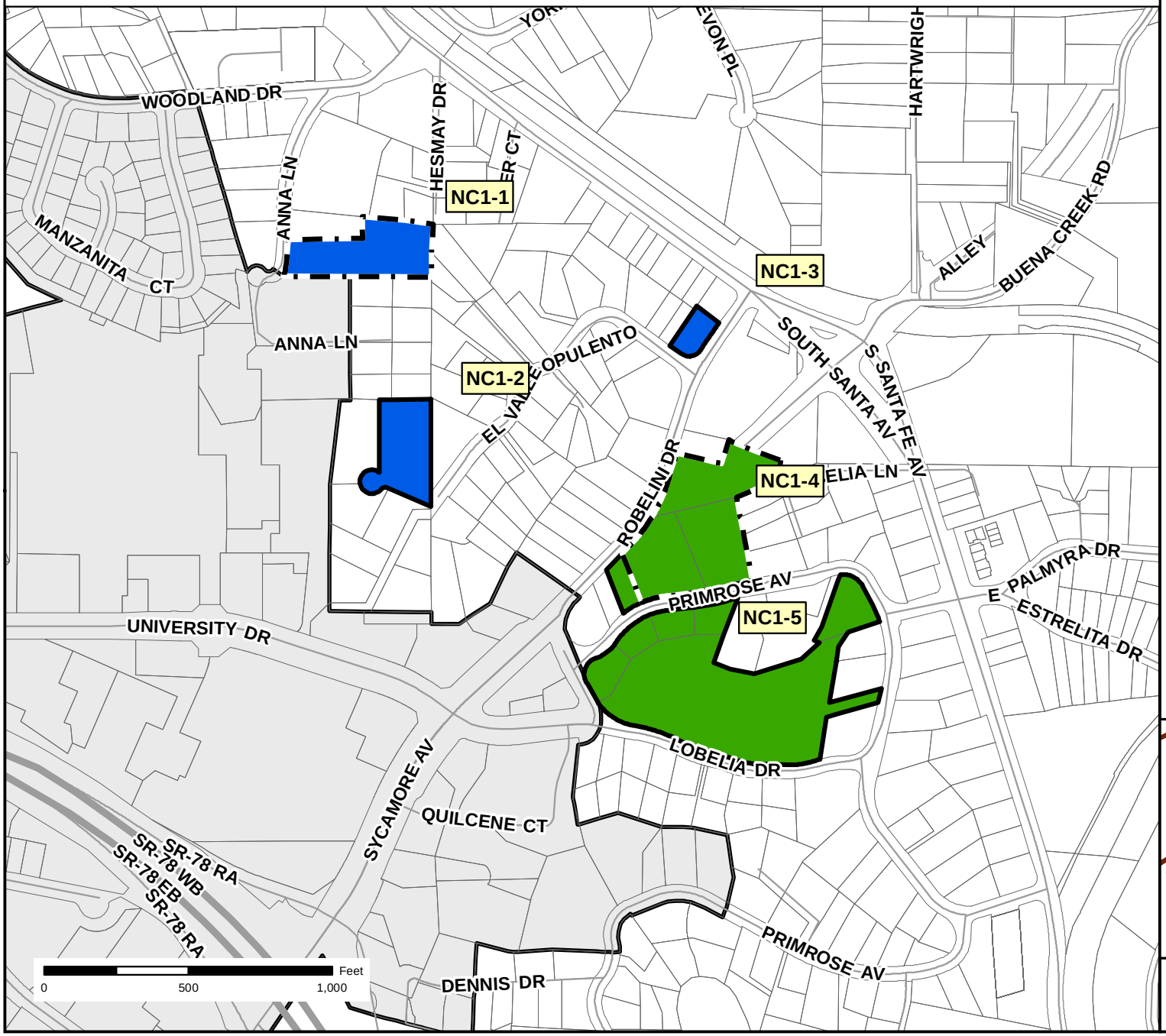
Map Reference	Assessor's Parcel Number	Acres	Existing Land Use	General Plan/Zoning	Density (acres)	Potential Units	Notes
NC2-1	1841814300	1.99	Underutilized (Single Family Residential)	VR30	30	47	
NC2-1	1841813500	0.8	Vacant	VR30	30	19	
NC2-1	1841813100	1	Underutilized (Single Family Residential)	VR30	30	24	
NC2-1	1840610500	2.31	Underutilitzed (Spaced Rural Residential)	VR30	30	55	Floodplain will not affect overall yield of site.
NC2-1	1841620500	0.68	Underutilized (Single Family Residential)	VR30	30	16	Floodway/floodplain could affect yield.
NC2-1	1841810400	5.64	Underutilized (Intensive Agriculture)	VR30	30	135	
NC2-1	1841812500	0.3	Underutilized (Single Family Residential)	VR30	30	7	
NC2-1	1841812800	4.86	Underutilized (Intensive Agriculture)	VR30	30	116	
NC2-1	1841813300	8.87	Underutilitzed (Spaced Rural Residential)	VR30	30	213	
NC2-1	1841813400	0.48	Underutilized (Single Family Residential)	VR30	30	11	
NC2-1	1841813600	0.9	Underutilized (Single Family Residential)	VR30	30	21	
NC2-1	1841814200	5.06	Vacant (Intensive Agriculture)	VR30	30	121	
NC2-1	1841813000	2.9	Underutilized (Single Family Residential)	VR30	30	69	
NC2-1	1841810300	3.36	Underutilized (Intensive Agriculture)	VR30	30	80	
NC2-1	1841810200	1.1	Vacant	VR30	30	26	
NC2-1	1841810100	2.11	Vacant (Intensive Agriculture)	VR30	30	50	
NC3-1	2170812400	1.3	Vacant	VR15	15	15	
NC3-2	2170820800	5.62	Vacant (Intensive Agriculture)	VR20	20	89	
NC3-3	*2170740800*	*1.09*	*Underutilitzed (Single Family Residential)*	*VR15*	*15*	*13*	

County of San Diego
Housing Element Inventory
North County Metro

Map Reference	Assessor's Parcel Number	Acres	Existing Land Use	General Plan/Zoning	Density (acres)	Potential Units	Notes
NC3-4	2170920800	0.71	Vacant	VR15	15	8	
NC3-5	2170933500	0.44	Vacant	VR15	15	5	
NC3-5	2170933400	0.23	Vacant	VR15	15	2	
NC4-1	*2215002800*	*0.89*	*Vacant*	*Office Profressional*	*29*	*21*	*C31 zoning allows residential as a primary use*
NC4-1	*2215004100*	*1.05*	*Vacant*	*Office Profressional*	*29*	*24*	*C31 zoning allows residential as a primary use*
NC5-1	2263304700	0.39	Vacant	VR24	24	7	
NC5-1	2263303900	0.61	Vacant	VR24	24	11	
NC6-1	*2243103600*	*1.1*	*Underutilitzed (Single Family Residential)*	*VR24*	*24*	*21*	
NC6-1	*2243103300*	*2.94*	*Underutilitzed (Single Family Residential)*	*VR24*	*24*	*56*	
NC6-2	2243101500	0.45	Vacant	VR24	24	8	Same ownership for both parcels in NC6-2
NC6-2	2243101400	0.3	Vacant	VR24	24	5	Same ownership for both parcels in NC6-2
NC6-3	2243102000	1.42	Vacant	VR24	24	27	
NC6-3	*2243100600*	*3.51*	*Underutilitzed (Single Family Residential)*	*VR24*	*24*	*67*	
NC7-1	2351102600	3.71	Vacant	VR15	15	44	
Total						**2158**	

Note: Village Core Mixed Use designation allows residential development as a primary use on the entire site.
Office Professional designation with C31 zoning allows residential development as a primary use on the entire site.
Density is based on General Plan designation.
Potential units based on 80% yield of allowed density.
Entries in italics are new sites that were not in the 4th Cycle Inventory.

NC Metro Community Planning Area NC1

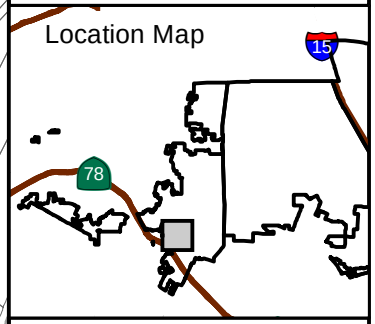


Housing Element Sites Inventory

Legend

- 30 du/acre
- 24 du/acre
- 20 du/acre
- 15 du/acre
- 10.9 du/acre
- General Commercial
- Mixed Use
- Specific Plan Area
- Vacant Site
- Underutilized Site
- Incorporated Areas
- A-# Table Reference

Location Map



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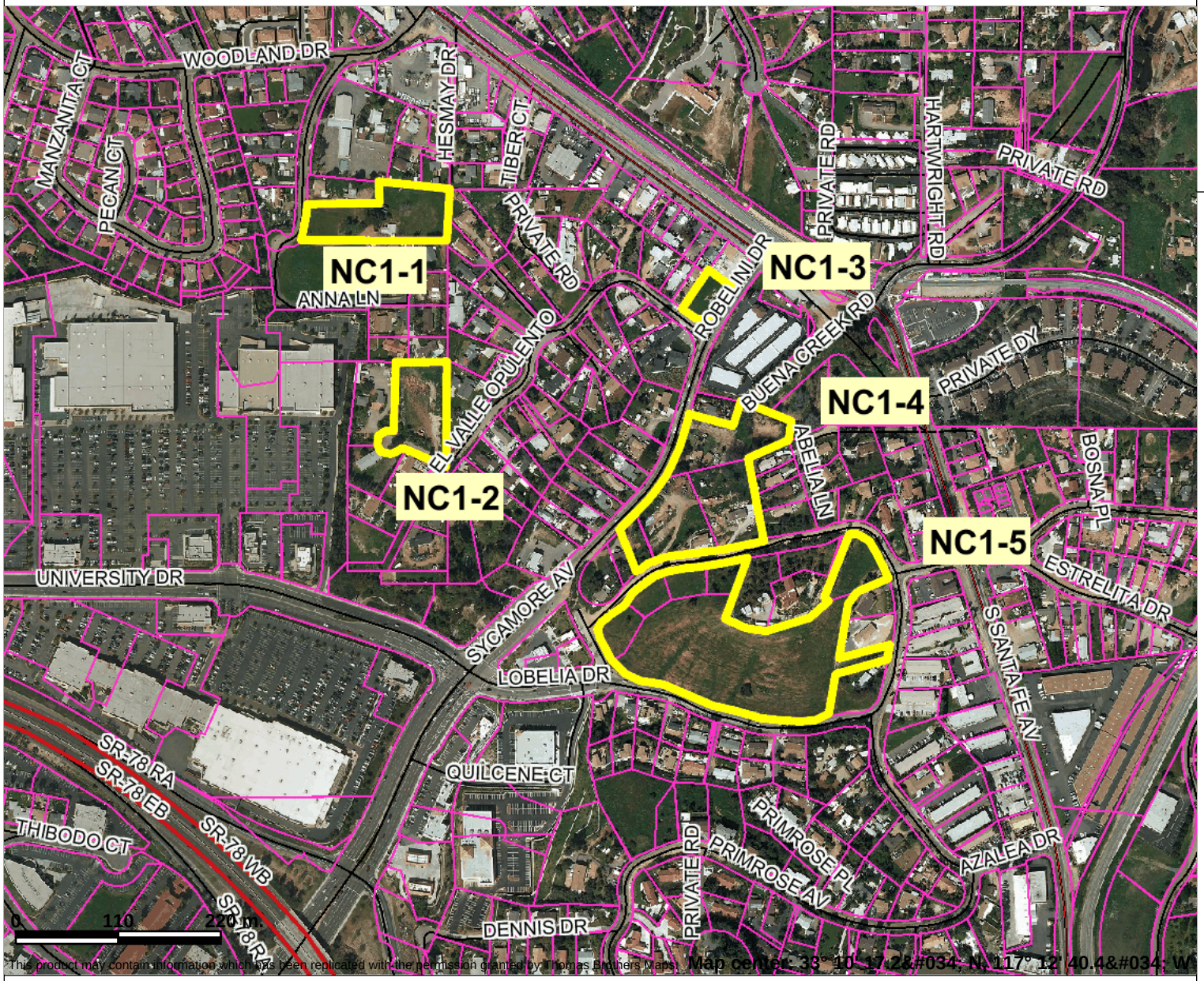
LUEGGIS

North County Metro Community Planning Area 1 - Aerial



Legend

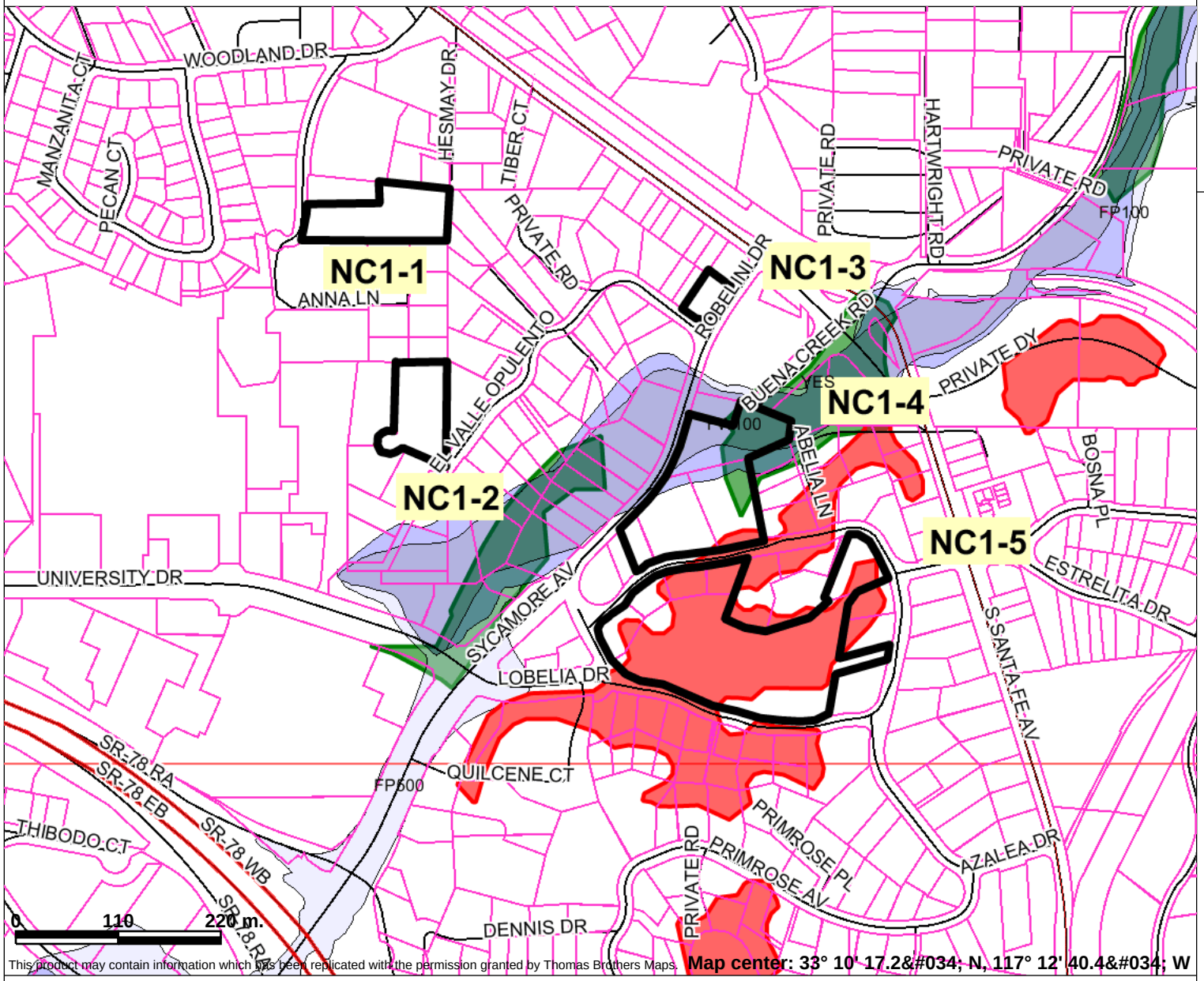
- Parcels with out labels
- Highways
- Freeways
- Streets
- Water Bodies
- Water Bodies
- County Boundary2

N

Scale: 1:6,409

DPLU GIS

North County Metro Community Planning Area 1 - Environmental Factors



Map center: 33° 10' 17.2" N, 117° 12' 40.4" W

Legend

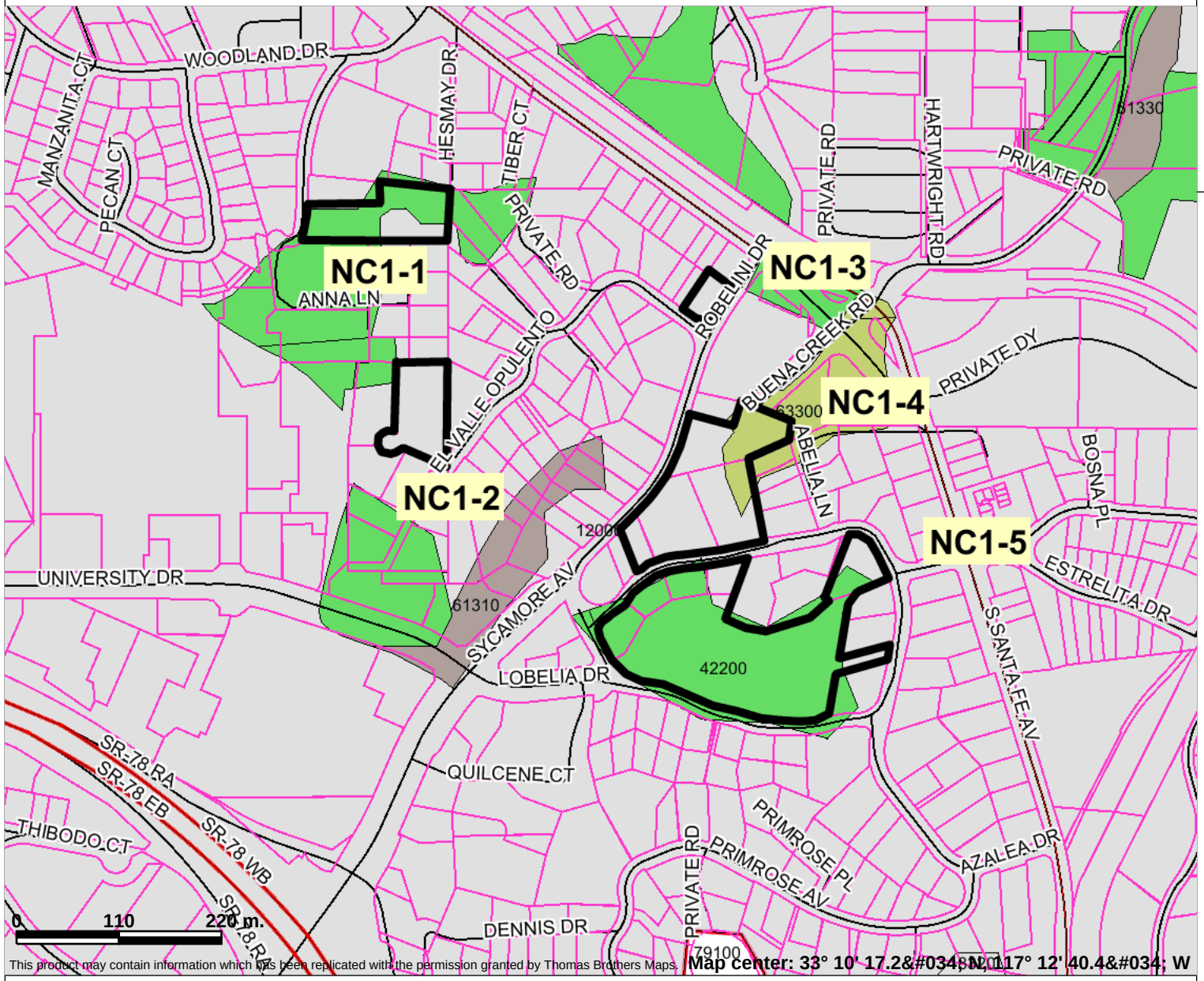
- Parcels with out labels
- Highways
- Freeways
- Streets
- Water Bodies
- Water Bodies
- Slope > 25%
- FEMA Flood Plains
- Flood Way
- 100 Year Flood Plain
- 500 Year Flood Plain
- Wetlands (RPO def.)
- County Boundary2

N

Scale: 1:6,409

DPLU GIS

North County Metro Community Planning Area 1 - Vegetation



Map center: 33° 10' 17.2"N, 117° 12' 40.4" W

Legend

- Parcels with out labels
- Highways
- Freeways
- Streets
- Water Bodies
- Water Bodies

Aggregated Regional Vegetation

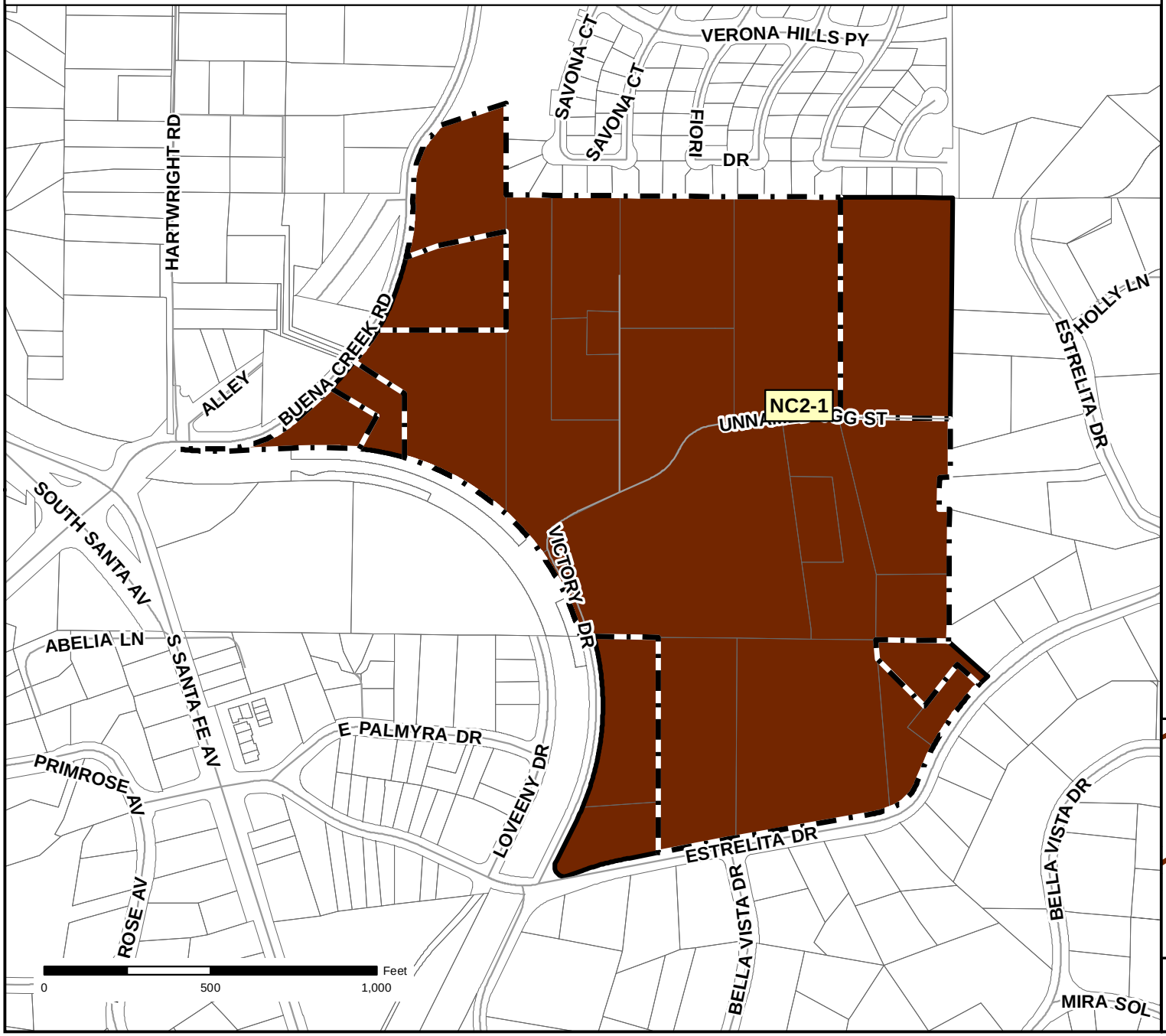
- Southern Foredunes, Beach, Saltpan, Mudflats
- Sage Scrub (Coastal)
- Chaparral
- Grasslands
- Riparian Scrub
- Riparian Woodland
- Riparian Forest
- Pinyon Juniper Woodlands
- Other Woodlands
- Oak Forest
- Meadow and Seep
- Marsh
- Coniferous Forest
- Desert Dunes
- Playas/Badlands/Mudhill Forbs
- Desert Scrub
- Desert Chaparral
- Dry Wash Woodland
- Water
- Urban, Unvegetated, Disturbed Habitat, Agriculture, Eucalyptus Woodland
- Other
- County Boundary2

N

Scale: 1:6,409

DPLU GIS

NC Metro Community Planning Area NC2



Housing Element Sites Inventory

Legend

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- 15 du/acre
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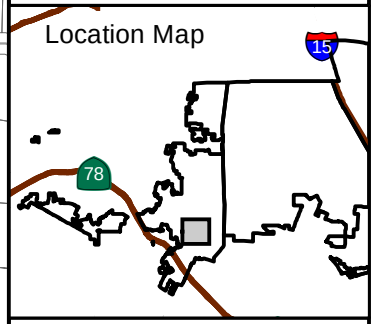
- Mixed Use
- Specific Plan Area
- Vacant Site
- Underutilized Site
- Incorporated Areas
- A-# Table Reference



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LUEGGIS