Chapter 3
Forging a Path Toward More Sustainable Living: A Sustainable Communities Strategy

Chapter Contents

A Sustainable Strategy for the San Diego Region .......................................... 3-2
SCS Public Involvement Activities ......................................................... 3-4
Land Use and Transportation Connection ........................................ 3-4
A Sustainable Land Use Pattern .......................................................... 3-6
Protecting Resource Areas and Farmland ........................................... 3-40
The 2050 RTP Transportation Network ........................................ 3-57
Transportation Demand Management Measures .................................. 3-64
Transportation System Management Measures .................................. 3-64
Pricing Measures ................................................................................. 3-65
Meeting Targets for Lowering Greenhouse Gas Emissions ..................... 3-65
Considering Social Equity in the SCS ................................................. 3-66
Considering Energy Consumption ....................................................... 3-66
Meeting Federal Air Quality Requirements ......................................... 3-68
Considering Public Health in the SCS ................................................ 3-69
Promoting Sustainability through Incentives and Collaboration ............. 3-70
Consultation with the Local Agency Formation Commission .................. 3-71
Streamlining the Process for CEQA ...................................................... 3-71
Action Element .................................................................................... 3-76
The 2050 Regional Transportation Plan (RTP), and its Sustainable Communities Strategy (SCS) seek to guide the San Diego region toward a more sustainable future by integrating land use, housing, and transportation planning to create communities that are more sustainable, walkable, transit-oriented, and compact.

Senate Bill 375 (SB 375), which went into effect in 2009, added statutes to the California Government Code to encourage planning practices that create sustainable communities. It calls for each metropolitan planning organization to prepare a SCS as an integrated element of the Regional Transportation Plan. This new element shows how integrated land use, and transportation planning can lead to lower greenhouse gas (GHG) emissions from autos, and light trucks.

Government Code sections are referenced throughout the SCS to show how the requirements of SB 375 are being met. In addition, Appendix D includes a matrix that specifies the page number of the SCS or other sections of the 2050 RTP where each of the requirements of SB 375 can be found.

A Sustainable Strategy for the San Diego Region

“Each metropolitan planning organization shall prepare a sustainable communities strategy.” (Government Code Section 65080(b)(2)(B))

Achieving sustainability will require living, and working in ways that protect, and sustain our region’s vital social, environmental, and economic resources.

The strategy for the San Diego region is to use existing and reasonably expected funding to achieve our region’s transportation and housing needs, while also respecting, and enhancing our natural resources.
achieved by the sustainable communities strategy.” (Government Code Section 65080(b)(2)(H))

The California Air Resources Board (CARB) set specific targets for reducing greenhouse gas emissions for each of the state’s various regions, including the San Diego region. In 2009 CARB set targets for our region that call for a 7 percent reduction by 2020, and a 13 percent reduction by 2035. Our region will meet or exceed these targets by, among other means, using land in ways that make developments more compact, conserving open space, and investing in a transportation network that gives residents transportation options, as shown in Table. 3.1.

In accordance with SB 375, the building blocks of the SCS include:

- A land use pattern that accommodates our region’s future employment, and housing needs, and protects sensitive habitats, and resource areas.

- A transportation network of public transit, managed lanes, and highways, local streets, bikeways, and walkways built, and maintained with available funds.

- Managing demands on our transportation system (also known as Transportation Demand Management or TDM) in a way that reduces or eliminates traffic congestion during peak periods of demand.

- Managing our transportation system (also known as Transportation System Management, or TSM) through measures that maximize the efficiency of the transportation network.

- Innovative pricing policies and other measures designed to reduce vehicle miles traveled, and traffic congestion during peak periods of demand.

The key difference between past and current regional planning efforts is a sharper focus on reducing greenhouse gas emissions.

The 2050 RTP horizon year extends well beyond the target years outlined in SB 375. SB 375 requires that greenhouse gas reduction targets be set for the years 2020, and 2035. SB 375 does not address GHG targets beyond 2035. So what happens in 2036, and beyond? While growth will continue in the region, and at some point, greenhouse gas emission reductions from compact land use, and alternative transportation modes will be outpaced by regional growth, the targets are reevaluated at least every eight years, and may be revised every four years by CARB. This will enable the state and SANDAG to consider changes in circumstances, funding availability, technological advances, new legislation, and other considerations that could arise over time.

### Table 3.1 – 2050 RTP Revenue Constrained Transportation Network

<table>
<thead>
<tr>
<th>Target Year</th>
<th>CARB Target</th>
<th>Revenue Constrained Network</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>7%</td>
<td>14%</td>
</tr>
<tr>
<td>2035</td>
<td>13%</td>
<td>13%</td>
</tr>
<tr>
<td>2050</td>
<td>N/A</td>
<td>9%</td>
</tr>
</tbody>
</table>

In accordance with SB 375, the building blocks of the SCS include:

- A land use pattern that accommodates our region’s future employment, and housing needs, and protects sensitive habitats, and resource areas.

- A transportation network of public transit, managed lanes, and highways, local streets, bikeways, and walkways built, and maintained with available funds.

- Managing demands on our transportation system (also known as Transportation Demand Management or TDM) in a way that reduces or eliminates traffic congestion during peak periods of demand.

- Managing our transportation system (also known as Transportation System Management, or TSM) through measures that maximize the efficiency of the transportation network.

- Innovative pricing policies and other measures designed to reduce vehicle miles traveled, and traffic congestion during peak periods of demand.
Thousands of residents, community leaders, academics, business leaders, elected officials, and representatives from underrepresented groups have participated in the development of the 2050 RTP, and its SCS.

SCS Public Involvement Activities

“The metropolitan planning organization shall conduct at least two informational meetings in each county within the region for members of the board of supervisors and city councils on the sustainable communities strategy.” (Government Code Section 65080(b)(2)(E))

On October 8, 2010, SANDAG conducted an informational meeting on the sustainable community’s strategy at the SANDAG Board of Directors meeting. Pursuant to Government Code Section 65080(b)(2)(E), only one informational meeting is required if it is attended by the county board of supervisors, and city councilmembers representing a majority of the cities representing a majority of the population in the incorporated areas of the county. Meeting minutes, and attendance by jurisdiction can be found in Appendix D includes meeting minutes, and records of attendance by jurisdiction. They document that the meeting was attended by all jurisdictions within San Diego County. SANDAG has exceeded the statutory requirement by holding discussions concerning the SCS at several other public meetings of the Board of Directors since October 2010. The documentation from these meetings is included in Technical Appendix 6.

“Each metropolitan planning organization shall adopt a public participation plan, for development of the sustainable community’s strategy.” (Government Code Section 65080(b)(2)(F))

Through an extensive public outreach program, thousands of residents, community leaders, academics, business leaders, elected officials, and representatives from underrepresented groups have participated in the development of the 2050 RTP, and its SCS. The 2050 RTP Public Involvement Plan (PIP) established a process, and outlined specific activities for communicating with, and obtaining input from, the public throughout the RTP development process. The PIP is based on the SANDAG Public Participation Plan that the Board of Directors adopted on December 18, 2009.

Efforts to involve the public in the development of the 2050 RTP, and SCS have been tracked, and recorded to chronicle the large number, and wide range of activities that SANDAG organized. This record shows that the public involvement requirements, including informational meetings mandated by SB 375, federal regulations were exceeded. The details on these activities are included in Chapter 9, and Appendix D.

Drawing a Closer Connection to How Land Is Used, and How We Get Around: the Land Use and Transportation Connection

For some time, SANDAG has been drawing an increasingly closer connection between how land is used, and how we get around. Since the late 1990s, the principles that guide our vision for the future have deepened, and matured. The cities and County of San Diego have begun to integrate local, and regional plans for accommodating the region’s growing population, preserving open space, and reducing greenhouse gas emissions. This holistic approach is referred to as “smart growth.”

Acting individually, and collectively, local jurisdictions are taking significant steps to protect the environment. These include creating plans for conserving valuable natural habitats, and better protecting watersheds.
Some of the region’s largest initiatives to protect natural habitats include the Multiple Species Conservation Program (MSCP) and the Multiple Habitat Conservation Program (MHCP). Adopted in 1997 and 2003, respectively, the MSCP and MHCP span the region. Collectively, these initiatives establish a “greenprint” for the region.

The Regional Comprehensive Plan (RCP), adopted by the SANDAG Board of Directors in 2004, serves as a blueprint for the region’s future growth, and development. It sets forth a regional strategy to promote smarter growth, focusing on locating higher density, and mixed-use development close to existing, and planned transportation infrastructure. This strategy focuses particularly on elevating the role of public transit in people’s daily lives. The RCP is based upon three themes:

- Improving the connections between land use, and transportation plans by using smart growth principles.
- Using land use, and transportation plans to guide decisions about environmental and public facility investments.
- Focusing on collaboration, and incentives to achieve regional goals, and objectives.

The RCP and RTP planning processes are iterative, each informing the other. Upon adoption of this RTP, SANDAG will begin work to update the RCP to reflect the Sustainable Communities Strategy.

Shortly after the adoption of the 2004 RCP, SANDAG worked closely with the 18 cities, and the County to develop the regional Smart Growth Concept Map (approved in 2006, and updated in 2008). This map illustrates where smart growth development exists or could occur in our region. The map was used to prioritize transportation investments in the 2030 RTP, and to identify locations for Smart Growth Incentive Program funding. It also has been used by local jurisdictions as a tool for local plan updates, and the development of specific plans, which are reflected in the land use pattern of the SCS. The Smart Growth Concept Map is included in a technical appendix entitled, Additional SCS Background Material (Technical Appendix 9). Since the Smart Growth Concept Map has not been updated since 2008, it does not include concepts, and recommended actions in the 2050 RTP, and the SCS. Therefore, SANDAG plans to update the map to reflect changes to local land use patterns, and the regional transportation network after the adoption of the 2050 RTP.

A Sustainable Land Use Pattern

“Each metropolitan planning organization shall prepare a sustainable communities strategy, subject to the requirements of Part 450 of Title 23 of, and Part 93 of Title 40 of, the Code of Federal Regulations, including the requirement to utilize the most recent planning assumptions considering local
general plans, and other factors. “
(Government Code Section 65080(2)(B))

“Identify the general location of uses, residential densities, and building intensities within the region.” (Government Code Section 65080(b)(2)(B)(i))

In 2008, the San Diego region included about 3.1 million people, 1.1 million homes, and 1.5 million jobs. Most of the homes, and jobs are located within the western third of the region, and in areas served by public transit. The 2050 Regional Growth Forecast projects that the region will grow by another 1.3 million people by 2050. Nearly 400,000 new homes, and 500,000 new jobs will be added during this time frame (Figure 3.1). The base year for the 2050 RTP is 2008, which reflects the start of the 42-year period covered by the growth forecast (2008-2050).

The SCS land use pattern accommodates more than 80 percent of the new homes, and jobs projected within the Urban Area Transit Strategy Study Area (Included in Technical Appendix 9). New development will be more compact, and more accessible to public transit, and other travel choices, such as walking and bicycling. The SCS land use pattern also protects about 1.3 million acres of land. These constrained lands include habitat conservation areas, parks, and steep slopes, floodplains, and wetlands.

2050 Regional Growth Forecast and establishing the SCS Land Use Pattern.

Our region’s 2050 Regional Growth Forecast is the foundation of the SCS land use pattern, and it was used to plan the transportation network in the 2050 RTP. This forecast extends to 2050 allowing our region to incorporate all transportation projects and programs that voters approved in the 40-year extension of the TransNet Ordinance. The Ordinance authorizes a half-cent sales tax, and the 40-year extension was approved by San Diego region voters in 2004 to help pay for important transportation improvements in the region. The growth forecast is based on economic and demographic projections for the year 2050, existing land use plans and policies, and potential changes to those plans and policies. It estimates how and where future growth is likely to occur, and it serves as the land use pattern for the SCS.

The 2050 Regional Growth Forecast is the result of a collaborative effort among

Figure 3.1 – 2050 Regional Population, Jobs, and Housing Forecast
demographers, planners and policy makers. A multi-step process was followed that involved input and review by a wide range of local, regional, and subject-area experts.

The first step in the forecast process was to develop growth projections for the region’s population, jobs, housing, and other demographic, and economic characteristics. These projections were developed using the Demographic and Economic Forecasting Model (DEFM). DEFM uses demographic assumptions including age and ethnicity-specific birth rates, death rates, and migration trends (domestic and international); it also uses economic assumptions including labor force participation, labor productivity, and unemployment rates. Input, assumptions, and results from the DEFM were reviewed twice by a panel of subject-area experts, including representatives from local universities, economic and workforce development agencies, resource providers, public-sector partners, and key industries. The panel represented several areas of expertise ranging from economic and demographic trends to housing and resource issues. Further details about DEFM can be found in the 2050 Regional Growth Forecast Process and Model Documentation in Appendix D.

These regionwide projections were then used to develop neighborhood-level growth forecasts, which distributed population, housing, and employment growth projections among the 19 jurisdictions. The neighborhood-level growth forecasts also considered local land use data, which was developed through extensive collaborations among the region’s 18 cities and the County of San Diego, as well as among other land use agencies such as tribal governments and the Department of Defense. The local land use data incorporated information on existing development, general plans, constraints to development (e.g., flood plains, steep slopes, habitat preserves, historic districts, building height restrictions, and zoning), and permitted projects in the development pipeline.

SANDAG has prepared maps that identify the general location of land uses. The maps also show residential densities and commercial development types within the region on Figures 3.2, 3.2A and 3.3 for 2020, 2035, and 2050, respectively. The maps for 2020 and 2035 also are provided at a subregional level in Appendix D.

Neighborhood-level growth forecasts considered a neighborhood’s proximity to existing job centers (along with travel time estimates and information on local commuting choices), as well as historical development patterns. How land in a neighborhood is used today, how it’s expected to be developed, how close the neighborhood is to job centers, and historical patterns of land use all offer clues to how a neighborhood is expected to grow.

In a last step, each jurisdiction’s staff reviewed model results. The final forecast was adjusted based on local feedback to ensure that the most current land use information and assumptions including types of use, densities, and intensities were correctly identified and included. In addition to working with local jurisdiction staff, SANDAG conducted workshops and made presentations to City Councils and the County Board of Supervisors to obtain input on the land use assumptions used in the subregional Forecast. This latest growth forecast looks out 40 years, further...
into the future than any previous forecast and beyond the lifetime of the TransNet Extension Ordinance.

During the past ten years, development patterns and local plans have aligned more closely with the goals and objectives of the RCP. These include focusing more on urban infill and redevelopment, and improving accessibility to jobs, housing, education, and recreation opportunities.
Figure 3.3A
Planned Land Use for 2035
April 2011

Residential
- Single Family Residential
- Multi-Family Residential
- Mobile Home Park

Mixed-Use, Commercial, and Industrial
- Mixed-Use
- Commercial and Office
- Heavy and Light Industry

Public Facilities and Utilities
- Transportation, Communications, Utilities
- Education and Institutions
- Public/Semi-Public
- Military

Parks and Recreation
- Recreation
- Open Space Parks

Agriculture
- Agriculture

Indian Reservations

Other
- Vacant

MAP
0 2 4 6 8 10
UNITED STATES
MEXICO
SANDAG 2050 Regional Transportation Plan 3-11
SANDAG 2050 Regional Transportation Plan
Figures 3.4, 3.5, and 3.6 depict the 2050 Regional Growth Forecast and SCS land use pattern. They show population densities of the region, by acre, in 2020, 2035, and 2050, respectively. Together the maps show that the concentration of population growth will be in the western third of the region and along major transportation corridors. The maps also show the extensive system of habitat areas, open space, and parkland that the region is preserving for the future. These natural resources are described in more detail later in this chapter.

Table 3.2 provides detailed numerical information about the 2050 Regional Growth Forecast, which shows the projected changes in population, housing, and employment between 2008 (the base year), 2020, 2035, and 2050. It shows a breakdown of how many acres are planned for residential development, employment, parks, and preserved open spaces.

Figures 3.7 through 3.9 illustrate some interesting projections in the forecast, including expected changes in demographics and housing capacity.

Figure 3.7 shows the aging of the region’s population between 2008 and 2050. The number of people aged 65 and older is expected to increase by 143 percent. The number of people older than 85 is projected to increase by 214 percent. This increase in the region’s older population will require the development of neighborhoods that are more walkable and have a variety of services that meet daily needs.

Figure 3.8 shows that the number of homes located within one half-mile of high-frequency public transit services will increase from 79 percent in 2008 to 83 percent in 2050. This increase is based
on new transit services detailed in the 2050 RTP, Chapter 6. Figure 3.9 shows changes in housing growth forecasts. The projected increase in housing capacity is dramatic for areas with densities between 20 and 39.9 dwelling units per acre, and 40-plus dwelling units per acre. The increases reflect extensive efforts by local jurisdictions to update general and specific plans to accommodate future growth and development.

Figures 3.10 through 3.12 and Figures 3.13 through 3.15 show that most growth in housing and employment is expected to occur in incorporated cities in the western third of the region in the years 2020, 2035, and 2050, respectively. 

The California Transportation Commission’s Regional Transportation Plan Guidelines (Guidelines) provide that density and clustering of land uses are “typically measured by the number of dwelling units, shops, and/or employees per acre or square mile, floor area ratio (FAR), and other similar measures.” (Guidelines, p. 134) In order to identify intensity for non-residential land uses, SANDAG has relied upon the best available information, which is employment density or jobs per acre.
Figure 3.4
Population Density for 2020
April 2011

Persons per Acre
- 0.6 or Fewer
- 0.6 - 4
- 4 - 10
- 10 - 25
- 25 - 50
- Over 50

Parks and Open Space

SANDAG 2050 Regional Transportation Plan
Figure 3.5
Population Density for 2035
April 2011

Persons per Acre

0.6 or Fewer
0.6 - 4
4 - 10
10 - 25
25 - 50
Over 50

Parks and Open Space

MILES

KILOMETERS

0 5 10 15 20 25 30 35 40 45 50

SANDAG 2050 Regional Transportation Plan
Figure 3.6
Population Density for 2050
April 2011

Persons per Acre

- 0.6 or Fewer
- 0.6 - 4
- 4 - 10
- 10 - 25
- 25 - 50
- Over 50
- Parks and Open Space

SANDAG 2050 Regional Transportation Plan 3-21
## Table 3.2 – 2050 Growth Forecast Estimated Capacity by Jurisdiction & Subregion

<table>
<thead>
<tr>
<th></th>
<th>2008</th>
<th>2020</th>
<th>2035</th>
<th>2050</th>
<th>Numeric</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Population</strong></td>
<td>3,131,552</td>
<td>3,535,000</td>
<td>4,026,131</td>
<td>4,384,867</td>
<td>1,253,315</td>
<td>40%</td>
</tr>
<tr>
<td>Household Population</td>
<td>3,033,985</td>
<td>3,405,068</td>
<td>3,873,175</td>
<td>4,210,591</td>
<td>1,176,606</td>
<td>39%</td>
</tr>
<tr>
<td>Group Quarters Population</td>
<td>97,567</td>
<td>129,932</td>
<td>152,956</td>
<td>174,276</td>
<td>76,709</td>
<td>79%</td>
</tr>
<tr>
<td><strong>Jobs</strong></td>
<td>1,501,080</td>
<td>1,619,615</td>
<td>1,813,372</td>
<td>2,003,038</td>
<td>501,958</td>
<td>33%</td>
</tr>
<tr>
<td>Civilian Jobs</td>
<td>1,411,811</td>
<td>1,515,346</td>
<td>1,709,103</td>
<td>1,898,769</td>
<td>486,958</td>
<td>34%</td>
</tr>
<tr>
<td>Military Jobs</td>
<td>89,269</td>
<td>104,269</td>
<td>104,269</td>
<td>104,269</td>
<td>15,000</td>
<td>17%</td>
</tr>
<tr>
<td><strong>Total Housing Units</strong></td>
<td>1,140,654</td>
<td>1,262,488</td>
<td>1,417,520</td>
<td>1,529,090</td>
<td>388,436</td>
<td>34%</td>
</tr>
<tr>
<td>Single Family</td>
<td>692,382</td>
<td>728,566</td>
<td>755,477</td>
<td>761,699</td>
<td>69,317</td>
<td>10%</td>
</tr>
<tr>
<td>Multiple Family</td>
<td>405,023</td>
<td>493,243</td>
<td>624,419</td>
<td>732,832</td>
<td>327,809</td>
<td>81%</td>
</tr>
<tr>
<td>Mobile Homes</td>
<td>43,249</td>
<td>40,679</td>
<td>37,624</td>
<td>34,559</td>
<td>-8,690</td>
<td>-20%</td>
</tr>
<tr>
<td><strong>Households</strong></td>
<td>1,074,896</td>
<td>1,200,966</td>
<td>1,357,084</td>
<td>1,467,026</td>
<td>392,130</td>
<td>36%</td>
</tr>
<tr>
<td>Vacancy Rate</td>
<td>5.8%</td>
<td>4.9%</td>
<td>4.3%</td>
<td>4.1%</td>
<td>-1.7</td>
<td>-29%</td>
</tr>
<tr>
<td>Household Size</td>
<td>2.82</td>
<td>2.84</td>
<td>2.85</td>
<td>2.87</td>
<td>0.05</td>
<td>2%</td>
</tr>
<tr>
<td><strong>Total Acres</strong></td>
<td>2,727,197</td>
<td>2,727,197</td>
<td>2,727,197</td>
<td>2,727,197</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Residential</td>
<td>335,895</td>
<td>403,440</td>
<td>543,040</td>
<td>634,498</td>
<td>298,603</td>
<td>89%</td>
</tr>
<tr>
<td>Employment</td>
<td>88,177</td>
<td>91,286</td>
<td>95,635</td>
<td>99,905</td>
<td>11,728</td>
<td>13%</td>
</tr>
<tr>
<td>Parks and Constrained Lands</td>
<td>1,568,346</td>
<td>1,568,853</td>
<td>1,569,749</td>
<td>1,570,003</td>
<td>1,656</td>
<td>0%</td>
</tr>
<tr>
<td>Vacant Land</td>
<td>385,917</td>
<td>327,515</td>
<td>209,672</td>
<td>138,396</td>
<td>-247,521</td>
<td>-64%</td>
</tr>
</tbody>
</table>

### Distribution of Projected Housing Growth

<table>
<thead>
<tr>
<th></th>
<th>2008</th>
<th>2020</th>
<th>2035</th>
<th>2050</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Region</strong></td>
<td>1,140,654</td>
<td>1,262,488</td>
<td>1,417,520</td>
<td>1,529,090</td>
<td>388,436</td>
<td>34%</td>
</tr>
<tr>
<td><strong>Urban Area Transit Strategy</strong></td>
<td>899,596</td>
<td>988,248</td>
<td>1,108,012</td>
<td>1,204,621</td>
<td>305,025</td>
<td>34%</td>
</tr>
<tr>
<td>Smart Growth Opportunity Areas</td>
<td>215,659</td>
<td>268,650</td>
<td>351,418</td>
<td>422,925</td>
<td>207,266</td>
<td>96%</td>
</tr>
</tbody>
</table>

### Distribution of Projected Job Growth

<table>
<thead>
<tr>
<th></th>
<th>2008</th>
<th>2020</th>
<th>2035</th>
<th>2050</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Region</strong></td>
<td>1,501,080</td>
<td>1,619,615</td>
<td>1,813,372</td>
<td>2,003,038</td>
<td>501,958</td>
<td>33%</td>
</tr>
<tr>
<td><strong>Urban Area Transit Strategy</strong></td>
<td>1,259,489</td>
<td>1,341,428</td>
<td>1,501,309</td>
<td>1,658,061</td>
<td>398,572</td>
<td>32%</td>
</tr>
<tr>
<td>Smart Growth Opportunity Areas</td>
<td>503,331</td>
<td>539,263</td>
<td>614,284</td>
<td>684,953</td>
<td>181,622</td>
<td>36%</td>
</tr>
</tbody>
</table>
Figure 3.14
Housing Density for 2035
April 2011

Dwelling Units per Acre

- 2 or Fewer
- 2 - 5
- 5 - 10
- 10 - 20
- 20 - 100
- Over 100
- Parks and Open Space

MILES
0 2 4 6 8 10 12
0 (KILOMETERS)

SANDAG 2050 Regional Transportation Plan
Welcoming Everyone Who Chooses to Live Here: Housing the Region’s Projected Growth in Population

“Identify 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 taking into account net migration into the region, population growth, household formation and employment growth.” (Government Code Section 65080(b)(2)(B)(ii))

The SCS land use pattern accommodates the estimated 388,000 new homes that will be needed regionwide over the next 40 years to serve a projected growth in population of 1.3 million people.

After the 2030 RTP and 2030 Regional Growth Forecast were adopted, changes to local general plans resulted in a significant increase in residential capacity regionwide. The 2030 Regional Growth Forecast projected a shortfall of nearly 100,000 homes by the year 2030 (which was addressed by projecting significant inter-regional commuting between San Diego County and Riverside, Orange, and Imperial Counties, as well as Baja California, Mexico). But the 2050 Regional Growth Forecast and SCS land use pattern contain sufficient residential capacity (more than 400,000 housing units) to accommodate the estimated 388,000 homes needed to house the region’s projected growth in population. The 2050 Regional Growth Forecast and SCS land use pattern contain sufficient residential capacity (more than 400,000 housing units) to accommodate the estimated 388,000 homes needed to house the region’s projected growth in population. The SCS land use pattern accommodates the needs of all economic segments of the population. About 83 percent of the projected 388,000 new homes to be built by 2050 will be attached, multi-family units—with a planned capacity of more than 200,000 units at 30+ dwelling units per acre, and about 70,000 units with a housing density of 20 to 29 dwelling units per acre. This capacity for planned housing development, particularly for multi-family development, will help the region accommodate the projected housing needs for residents of all income levels.

Accommodating the 8-year Regional Housing Needs Assessment

“Identify areas within the region sufficient to house an 8-year projection of the regional housing need for the region.” (Government Code Section 65080(b)(2)(B)(iii)).

“Consider the state housing goals.” (Government Code Section 65080(b)(2)(B)(vi))

SANDAG is required by state law to complete a Regional Housing Needs Assessment (RHNA), in consultation with the California Department of Housing and Community Development (HCD), in order to determine the region’s housing needs in four income categories - very low, low, moderate, and above moderate. This process occurs before each housing element cycle, which SB 375 changed from a five-year to eight-year cycle.

In the past, the RHNA was completed separately from the RTP. SB 375 now links the RHNA and RTP processes to better integrate housing, land use, and transportation planning. Integrating both processes helps ensure that the state’s housing goals are met.
In the past, the RHNA was completed separately from the RTP. SB 375 now links the RHNA and RTP processes to better integrate housing, land use, and transportation planning. Integrating both processes helps ensure that the state's housing goals are met.

SANDAG received its RHNA Determination from the California Department of Housing and Community Development for the fifth housing element cycle (2013-2020), as shown in Table 3.3 below.

SANDAG worked with local jurisdictions to identify RHNA allocation concepts that meet the four goals of housing element law as described below. The report detailing the concept included in Appendix D.

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.

All of the RHNA concepts include an allocation of low and very low income housing units to each of the 19 jurisdictions in the region. Table 3.4 shows the projected capacity in local plans for all income categories.

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

All of the RHNA concepts focus low and very low income housing where higher density development is planned, in urbanized areas of our region. All of the RHNA concepts use the forecasted development pattern from the 2050 Regional Growth Forecast, which incorporates policies in local plans that call for higher density development to be concentrated in urbanized areas and to protect environmental and agricultural resources. All of the RHNA concepts also move toward improving the current distribution of lower income households in the region. This is shown in Appendix D (RHNA Report, Table 4).

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

All of the RHNA concepts consider the intraregional relationship between jobs and housing. The RHNA concepts use the forecasted development pattern from the 2050 Regional Growth Forecast. As discussed above, the DEFM model considers access to and from job centers. Two of the RHNA concepts propose to strengthen the relationship between jobs and housing with a job/housing adjustment factor.

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

---

<table>
<thead>
<tr>
<th>Income Categories</th>
<th>%</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Low</td>
<td>22.5%</td>
<td>36,450</td>
</tr>
<tr>
<td>Low</td>
<td>17.1%</td>
<td>27,700</td>
</tr>
<tr>
<td>Moderate</td>
<td>18.9%</td>
<td>30,610</td>
</tr>
<tr>
<td>Above-Moderate</td>
<td>41.5%</td>
<td>67,220</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100%</td>
<td>161,980</td>
</tr>
</tbody>
</table>

---
compared with the most recent decennial United States census.

All of the RHNA concepts also move toward improving the current distribution of lower income households in the region. This is shown in Appendix D, (RHNA Report Table 4).

Table 3.4 shows the region’s housing capacity by density range and according to sub-regions. The RHNA-Plan will allocate the RHNA-Determination by jurisdiction.

SB 375 requires that the RHNA and SCS are consistent with one another – that is, that the SCS land use pattern can accommodate the 8-year RHNA Determination.

Table 3.4 demonstrates the capacity of the SCS land use pattern to accommodate the RHNA determination. Any changes to land use plans or zoning (because of updates to housing elements) by local jurisdictions will be reflected in the next regional growth forecast and RTP. This will ensure that land use changes resulting from the RHNA and the housing element process will be considered in future updates of these two key planning documents. The goal is to ensure consistency between future land use and transportation plans.

Protecting Resource Areas and Farmland: A key element of the Sustainable Communities Strategy

“Gather and consider the best practically available scientific information regarding resource areas and farmland in the region.” (Government Code Section 65080(b)(2)(B)(v))

<table>
<thead>
<tr>
<th>Distribution of Projected Housing Growth</th>
<th>Change 2008-2050</th>
<th>Percent of Regional Change 2008-2050</th>
</tr>
</thead>
<tbody>
<tr>
<td>Region</td>
<td>2008</td>
<td>2020</td>
</tr>
<tr>
<td>Urban Area Transit Strategy</td>
<td>899,596</td>
<td>988,248</td>
</tr>
<tr>
<td>Smart Growth Opportunity Areas</td>
<td>215,659</td>
<td>268,650</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Distribution of Projected Job Growth</th>
<th>Change 2008-2050</th>
<th>Percent of Regional Change 2008-2050</th>
</tr>
</thead>
<tbody>
<tr>
<td>Region</td>
<td>2008</td>
<td>2020</td>
</tr>
<tr>
<td>Urban Area Transit Strategy</td>
<td>1,259,489</td>
<td>1,341,428</td>
</tr>
<tr>
<td>Smart Growth Opportunity Areas</td>
<td>503,331</td>
<td>539,263</td>
</tr>
</tbody>
</table>

Each jurisdiction will receive an allocation and each jurisdiction will need to identify adequate sites to address its RHNA numbers in the four income categories when updating its housing element. Housing elements will be due no later than 18 months after the SANDAG Board adopts the 2050 RTP.

The 2050 Capacity includes projected changes to adopted general plans, resulting in additional capacity. Additional capacity was derived from input from the local jurisdictions and partner agencies for the time period of 2035 - 2050. Local land use inputs for this time period included draft plan updates, rezoning, future redevelopment (based on existing plans), mixed-use development at transit stations, and redevelopment within Smart Growth Opportunity Areas shown on
San Diegans share a strong attachment to the region’s open spaces. When asked what they like most about the San Diego region, natives and newcomers alike consistently cite the enviable climate, beaches, bays, urban canyons, local mountains and deserts.

In addition to identifying areas where development is projected to occur, the SCS land use pattern identifies protected parklands and open space, natural resource areas and farmland in the region. These parklands and open space, natural resource areas and farmland were identified using the best practically available scientific information which includes SANDAG Land Information System Geodatabase, SANDAG Conserved Lands Geodatabase, San Diego Geographic Information Source Geodatabase, Multiple Species Conservation Program (MSCP), and the North County Multiple Habitat Conservation Program (MHCP).

### Table 3.5 – Park Land and Open Space in the San Diego Region

<table>
<thead>
<tr>
<th>Ownership</th>
<th>Type</th>
<th>Acreage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public</td>
<td>Designated Park</td>
<td>996,170</td>
</tr>
<tr>
<td></td>
<td>Public Open Space</td>
<td>278,673</td>
</tr>
<tr>
<td>Private</td>
<td>Conserved Lands</td>
<td>92,013</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td><strong>:</strong></td>
<td><strong>1,366,828</strong></td>
</tr>
</tbody>
</table>

Of the 2.7 million acres within the San Diego region, about half (50.6 percent) have been conserved as parks or open space (see Table 3.5). These lands range from public use parks, such as Mission Bay and Anza Borrego State Park, to rural open space such as the Otay Mountain Wilderness Area and U.S. Forest Service Lands. These areas do not include military areas such as Camp Pendleton and Marine Corps Air Station Miramar, which also contain undeveloped land that is not accessible to the public and not considered conserved as open space. Figure 3.16 shows the location of these parks and open space lands.

The natural environment in the San Diego region includes three general geographic areas: the coast, the mountains, and the desert. Most people live and work in the western portion of the region. Although nearly 24 percent of the western portion of the region is not in its original natural state (about 19 percent is developed, 4 percent is in agricultural production and 1 percent is disturbed habitat), the remaining 76 percent is made up of natural habitats. Of these, 30 percent are covered by chaparral, 8 percent by coastal sage scrub, 5 percent by grasslands, and 33 percent by other types of vegetation (including those found in dunes, marshes, oak and eucalyptus woodlands, riparian scrub, and coniferous forests), as shown in Figure 3.16.

### Protecting the Region’s Natural Habitats

The San Diego region has conserved natural habitats for the last two decades. Regional planners have focused considerable effort on four habitat conservation plans: the Multiple Species Conservation Program (MSCP) South, finalized in 1998; the Multiple Habitat Conservation Program (MHCP), finalized in 2003; the North County MSCP, anticipated for completion in 2011; and the East County MSCP, which is expected to begin after the North County MSCP is adopted. The SCS land use pattern incorporates finalized habitat plans as well as the conservation of other sensitive resource lands such as steep slopes, wetlands, and floodplains as reflected in plans by local jurisdictions. These local and regional plans shown on Figure 3.17 ensure the conservation of plant and animal species, and natural habitats through low density zoning, conservation easements, and land purchases.
Six jurisdictions (the cities of Carlsbad, Chula Vista, La Mesa, Poway, San Diego, and the southern portion of the County of San Diego), have approved habitat conservation plans and signed implementing agreements that collectively cover 20 percent of our region. Seven jurisdictions (the cities of Encinitas, Escondido, Oceanside, San Marcos, Santee, Vista, and the northern portion of the County of San Diego) are working on agreements that cover another 73 percent of our region.

Seven jurisdictions (the cities of Coronado, Del Mar, El Cajon, Imperial Beach, Lemon Grove, National City, and Solana Beach), which collectively cover slightly more than 1 percent of our region, are not pursuing agreements because they have limited natural habitats within their boundaries. The remaining 6 percent of our region is on military land conserved by Integrated Natural Resource Management Plans, which are developed under voluntary, cooperative agreements among a Department of Defense installation, the U.S. Fish and Wildlife Service and the California Department of Fish and Game.

As part of the SANDAG participation in planning for the conservation of regional habitats, a database of conserved lands was developed in 2010 (SANDAG Conserved Lands database, 2010). This database, which is regularly updated and available to the public, serves as the basis for monitoring habitat conservation (http://www.sandag.org/resourcemaps). Approved conservation plans and signed implementing agreements make up 81 percent of land has that has been conserved within the habitat preserve system, as shown in Figure 3.18. This includes preserved lands in MSCP South and in the MHCP. It is anticipated that all conserved lands would be protected by the year 2030 in accordance with those agreements. Figure 3.20 illustrates wetlands in our San Diego region.

The regional habitat conservation plans in our San Diego region are designed to provide an umbrella of protection for multiple species by conserving their habitats and the linkages that allow them to travel between habitats. The HCPs were designed under the State's Natural Communities Conservation Planning program. Even though the umbrella protection was afforded to most species and habitats, additional protections are required to cover species not included in the regional habitat plans (e.g., Tidewater goby (Eucyclogobius newberryi)). These additional protections also are needed while experts continue to study whether the habitat plans adequately protect species. (e.g., Hermes copper butterfly (Lycaena thornei)). In most cases, the distribution and abundance of these species are unknown. While conservation, management, and monitoring efforts provided under the regional HCPs are expected to help these species, additional regulatory protections exist for them. An analysis of impacts to all biological resources is still required under the California Environmental Quality Act (CEQA) for sensitive species, sensitive habitat (including wetlands) and wildlife movement.
Figure 3.16
San Diego Region
Generalized Vegetation
April 2011

- Chaparral (739,519 ac)
- Coastal Sage Scrub (215,170 ac)
- Coniferous Forest (79,629 ac)
- Desert Chaparral (80,105 ac)
- Desert Conifer (568 ac)
- Desert Scrub (427,864 ac)
- Dry Wash Woodland (31,573 ac)
- Grassland (135,492 ac)
- Marsh (6,121 ac)
- Meadow and Seep (72,136 ac)
- Oak Forest (11,162 ac)
- Other Woodlands (194,313 ac)
- Pines/Juniper Woodlands (66,039 ac)
- Plains/Radlands/Mudflats Forbes (87,779 ac)
- Riparian (95,640 ac)
- Southern Foothills or Bunch or Saltpan or Mudflats (9,973 ac)
- Urban, Disturbed Habitat, Agriculture, Eucalyptus (877,563 ac)
- Water

Data Source: ECOWM 2011
Figure 3.17
San Diego Region Habitat Conservation Planning Areas
April 2011

- Multiple Habitat Conservation Program (MHCP)
- East County Multiple Species Conservation Program (MSCP)
- South County Multiple Species Conservation Program (MSCP)
- North County Multiple Species Conservation Program (MSCP)
Federal or state permits also may be required under the Clean Water Act, the California Fish and Game Code, and/or the Porter-Cologne Water Quality Act based upon the project-specific impact analysis. In addition, local jurisdictions may have their own mitigation requirement for species (also known as species-specific mitigation) that are not included in the HCPs. Regional HCPs, therefore, provide an umbrella of protection through regional habitat conservation, without taking away existing protection by other local, state, or federal regulations.

TransNet Environmental Mitigation Program

“The metropolitan planning organization shall consider financial incentives for cities and counties that have resource areas or farmland.” (Government Code Section 65080(b)(4)(C))

In 1987, San Diego County voters approved TransNet, a half-cent sales tax to fund a variety of transportation improvements throughout the region. The initial 20-year, $3.3 billion program expired in 2008. However, in November 2004, 67 percent of the region’s voters supported the extension of TransNet for another 40 years to 2048. The extension is expected to generate an additional $14 billion for highway, transit, and local road projects, as well as other transportation improvements.
The Environmental Mitigation Program (EMP) was created as part of the TransNet Extension Ordinance, and it goes beyond traditional mitigation programs ("Mitigation" is the effort to compensate for the loss of native habitat — which is disturbed by new development — through the preservation and/or restoration of another native habitat. Mitigation occurs after all methods to avoid and/or minimize impacts have been exhausted).

SANDAG employs the EMP to help fill the mitigation needs resulting from major transportation infrastructure improvement projects and programs identified in the RTP.

SANDAG intends to satisfy the mitigation requirements for these projects comprehensively, rather than on a project-by-project basis, to maximize opportunities for acquiring land early and restoring habitats. In turn, this funding enables SANDAG to help implement regional habitat conservation plans by targeting key acquisition areas for conservation, management and monitoring. As of February 2011, more than 1,241 acres have been acquired using EMP funds.

**Additional Protection for Rare, Threatened, Endangered and CEQA-Sensitive Species**

CEQA Guidelines Appendix G requires the evaluation of the potential impacts to sensitive species, sensitive habitats, wetlands including riparian habitats, wildlife movement and migration, and the impacts to adopted regional habitat conservation plans. This includes the Natural Communities Conservation Plan and other local policies and plans for biological conservation. Prior to the development of any native habitat in the San Diego region, a biological impact assessment is required by all local jurisdictions subject to the CEQA. The purpose of the assessment is to determine consistency with the regional habitat conservation plans (HCPs) and assess any impacts to species and habitats not covered by these plans. This includes wetland resources such as U.S. waters.

**Protecting the Region’s Farmlands**

The Farmland Mapping and Monitoring Program (FMMP), administered by the Division of Land Resource Protection at the California Department of Conservation, produces maps and statistical data to analyze impacts to California’s agricultural resources. To characterize existing and potential farmland, agricultural lands are rated according to soil quality and irrigation status. FMMP maps are updated every two years using aerial photographs, a geographic information system, public review, and field reconnaissance. Lands important for agriculture are placed in one of four categories of productivity established by the United States Department of Agriculture (USDA). These lands are evaluated according to the specific qualities of the soil, slope of the land, degree of wetness, flooding hazards and other factors. The FMMP identifies about 223,000 acres of land as “Important Agricultural Lands,” as shown in Figure 3.21 and described in Table 3.6.

These lands also are reflected in the SCS land use pattern, and they are not threatened because of low-density zoning, or the purchase of land for conservation easements. In the SCS land use pattern 95 percent of the region’s existing agricultural land is expected to remain available for agriculture. Thirty-three percent of the region’s agricultural land is planned for future agricultural use only and 62 percent is planned as low-density, rural
residential land. These lands are zoned at densities that allow and often encourage continued farming. Figure 3.21 includes agricultural preserves such as the San Pasqual Valley in the City of San Diego and areas under Williamson Act contracts. The California Land Conservation Act of—commonly referred to as the Williamson Act—enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use.

Table 3.6 – USDA Important Farmland Acreage

<table>
<thead>
<tr>
<th>USDA Important Farmland Category</th>
<th>2008 Acreage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prime Farmland</td>
<td>7,754</td>
</tr>
<tr>
<td>Farmland of Statewide Importance</td>
<td>10,411</td>
</tr>
<tr>
<td>Unique Farmland</td>
<td>51,975</td>
</tr>
<tr>
<td>Farmland of Local Importance</td>
<td>153,186</td>
</tr>
<tr>
<td><strong>Important Farmland Subtotal:</strong></td>
<td><strong>223,326</strong></td>
</tr>
</tbody>
</table>

Land with the best combination of physical and chemical features able to sustain long term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.

Land similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Land must have been used for irrigated agricultural production at some time during the four years prior to the last FMMP mapping date.

Land of lesser quality soils used for the production of the State’s leading agricultural crops. This land is usually irrigated, but may include non-irrigated orchards or vineyards as found in some climatic zones in California. Land must have been cropped at some time during the four years prior to the mapping date.

Land of importance to the local agricultural economy as determined by each county’s board of supervisors and a local advisory committee. In San Diego County, this category is defined as land that meets all the characteristics of Prime and Statewide, with the exception of irrigation. They are farmlands not covered by the above categories but are of significant economic importance to the county. They have a history of good production for locally adapted crops. The soils are grouped in types that are suited for truck crops (such as tomatoes, strawberries, cucumbers, potatoes, celery, squash, romaine lettuce, and cauliflower) and soils suited for orchard crops (avocados and citrus).
Considering Mineral Resource Areas

The California Mining and Geology Board has designated areas of statewide or regional significance for the potential mining of aggregate materials. Aggregate materials include sand, gravel, and crushed stone. They are key ingredients in concrete and asphalt, as well as for constructing and maintaining the physical framework of buildings and infrastructure. According to the California Geologic Survey, aggregate supply sources in the San Diego region have dropped from 48 mines in 1980 to 27 mines in 1995. The number of significant and active mines has since declined to only 16. The California Geologic Survey projects a 40 percent shortfall in the statewide supply of aggregate material needed to meet demand through 2055, and an 83 percent shortfall in the region’s supply of aggregate material. As supplies decrease, importing aggregate from other regions or countries will increase.

SANDAG, in cooperation with Caltrans District 11, completed the San Diego Region Aggregate Supply Study in January 2011 to examine the supply issues related to aggregate. (The study is available at www.sandag.org/aggregate.) The purpose of the study was to provide background information, and the tools necessary to begin developing a framework to address future projected shortfalls of this important resource. The California Department of Conservation classifies lands into four Mineral Resource Zones (MRZs). MRZ-1 includes areas where no significant mineral deposits are present, or where there is little likelihood they are present. MRZ-2 includes areas where geologic information indicates that significant mineral deposits are present, or where there is a high likelihood they are present. MRZ-3 includes areas that contain mineral deposits, but where their significance to the region or state cannot be evaluated because detailed data is lacking. MRZ-4 includes areas where geologic information does not rule out the presence or absence of mineral resources. Figures 3.22 and 3.23 show the location of areas by MRZ Classification (MRZs 1 through 4), and a composite map showing potential aggregate supply sites in the region. Table 3.7 shows 1,159 potential aggregate supply sites in the region, each categorized by size. Information contained in the San Diego Region Aggregate Study will be used by planners to help manage the region’s aggregate resources.

<table>
<thead>
<tr>
<th>Size (Acreage)</th>
<th>Number of Sites</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 to 59</td>
<td>606</td>
</tr>
<tr>
<td>60 to 99</td>
<td>163</td>
</tr>
<tr>
<td>100 to 499</td>
<td>279</td>
</tr>
<tr>
<td>500 to 999</td>
<td>50</td>
</tr>
<tr>
<td>1,000 to 9,999</td>
<td>47</td>
</tr>
<tr>
<td>10,000 to 15,000</td>
<td>14</td>
</tr>
<tr>
<td>Total</td>
<td>1,159</td>
</tr>
</tbody>
</table>

Investing in a Transportation Network that Provides Residents and Workers with Transportation Options that Reduce Greenhouse Gas Emissions: The 2050 RTP Transportation Network

“Identify a transportation network to service the transportation needs of the region.” (Government Code Section 65080(b)(2)(B)(iv))

The 2050 RTP and SCS are based upon four pillars of transportation planning to serve the transportation needs of our region.
Figure 3.22
Mineral Resources Zone (MRZ) Classification
April 2011

MRZ-1: Resource Not Present
MRZ-2: Resource Present
MRZ-3: Resource Potentially Present
MRZ-4: Inconclusive
Unclassified

SANDAG 2050 Regional Transportation Plan
Figure 3.23
Potential Aggregate Supply Sites
April 2011

Available Land (20 acres or greater)

- MRZ-1: Resource Not Present
- MRZ-2: Resource Present
- MRZ-3: Resource Potentially Present
- MRZ-4: Inconclusive
- Unclassified

MILES
0 1 2 3 4 5 6 7 8 9 10
KILOMETERS
0 1 2 3 4 5

SANDAG 2050 Regional Transportation Plan
They are a Revenue Constrained Transportation Network (that is, a network funded by financial resources expected between now and 2050). Transportation Demand Management (TDM) measures; Transportation System Management (TSM) measures; and pricing measures. Taken together, these four pillars will provide residents and workers with alternatives to driving alone, and they will help the region meet or exceed its state-mandated targets for reducing greenhouse gas emissions. Each of these four components is explained in detail in the following chapters: transportation network (Chapter 6), TDM (Chapter 8), TSM (Chapter 7), and pricing (Chapters 6 and 7).

An important part of the Revenue Constrained Transportation Network, which is described more fully in Chapter 6, Table 6.2, is a significant investment in public transit (rail and bus), as well as facilities that encourage walking and bicycling as forms of active transportation. The aim of these investments is to significantly increase the attractiveness of public transit, walking, and bicycling in areas that are planned for more compact and mixed-use development. Investments in our local streets and roads, including access to regional airports, goods movement projects, and TDM and TSM projects and programs also are an integral part of the overall transportation network.

The overarching goal of the public transit investments detailed in the 2050 RTP (Chapter 6) is to create a world-class transit system for our San Diego region by 2050 that connects our homes to the region’s major employment centers and other destinations. Achieving this vision means making public transit a more appealing option for many trips, and reducing the impact of vehicle travel on the environment and on public health. Specific goals include:

- Making public transit more time-competitive with automobile travel.
- Maximizing the role of public transit within the broader transportation system.
- Reducing vehicle miles traveled and lowering greenhouse gas emissions throughout our region.

Investments that promote bicycling are also an important part of the Revenue Constrained Transportation Network. A regional bicycle network estimated to cost about $419 million is part of the San Diego Regional Bicycle Plan, which was approved by the SANDAG Board on May 28, 2010. (The Plan can be found in Technical Appendix 13 and at www.sandag.org/bicycle) This Plan provides a vision for a diverse regional bicycle system of interconnected bicycle corridors, support facilities, and programs to make bicycling more practical and desirable to a wider cross-section of people in our region. This vision is intended to guide the development of the regional bicycle system through the year 2050.

Considering TransNet Projects in the SCS

“Nothing in this section requires projects programmed for funding on or before
December 31, 2011, to be subject to the provisions of this paragraph if they (iii) were specifically listed in a ballot measure prior to December 31, 2008, approving a sales tax increase for transportation projects.”
(Government Code Section 65080(b)(2)(L)

The TransNet Extension Ordinance as it was approved by the voters in November 2004 includes specific transportation projects. Based upon this provision of the law, the projects identified in TransNet need not be variables in reaching the GHG targets established by CARB. These TransNet projects have been identified in the Revenue Constrained Transportation Network detailed in Chapter 6, Table 6.3.

Transportation Demand Management Measures

TDM measures improve the efficiency of our transportation system by helping to reduce or eliminate vehicle trips during peak periods of demand. They typically offer programs and incentives to encourage modes of transportation other than driving alone, or to shift demand to periods of low demand on the transportation system. Examples of current TDM measures are employer-sponsored transportation benefits, regional transit and vanpool subsidies, and carpool and biking incentives.

The TDM measures that complement the 2050 RTP transportation network (see Chapter 8) include:

- Expanded marketing of the SANDAG iCommute program.
- Expanded vanpool and carpool incentive programs.
- New resources for teleworking.

- Expanded bike locker program and new bike stations.
- New bike sharing and carsharing programs.
- Expanded SchoolPool programs.
- New buspool program in coordination with regional military bases.

Transportation System Management Measures

TSM measures help maximize the efficiency of existing and future transportation facilities. A combination of programs – including signal- and ramp-metering coordination and optimization; improved performance monitoring; and advanced vehicle and roadside communication platforms – will increase the ability of operators to monitor the performance of the transportation system, manage our system better, and improve efficiency. TSM measures that complement the 2050 RTP transportation network (see Chapter 7) include expanded:

- Traveler information services
- Improvements to the timing of traffic signals
- Ramp metering
- Management of arterials, freeways, and transit/Trolley corridors
- Bottleneck/auxiliary lane projects
- Incident management (e.g., Freeway Service Patrol)
Pricing Measures

Pricing strategies also are used to reduce the demand on our transportation system. The long-established strategy of varying prices within corridors with Managed Lanes, such as the managed or express lanes in the I-15 Corridor, is included in the 2050 RTP. These High Occupancy Toll (HOT) lanes are operated in ways that provide incentives for using public transit and sharing rides, both of which contribute to lowering greenhouse gas emissions.

Meeting Targets for Lowering Greenhouse Gas Emissions

“Set forth a forecasted development pattern for the region, which, when integrated with the transportation network, and other transportation measures and policies, will reduce greenhouse gas emissions from automobiles and light trucks to achieve, if there is a feasible way to do so, the greenhouse gas emission reduction targets approved by the state board.” (Government Code Section 65080(b)(2)(B)(vi))

On September 23, 2010, CARB set targets for lowering greenhouse gas emissions in the San Diego region. They call for a 7 percent reduction, per capita, in greenhouse gas emissions by passenger vehicles by 2020 (compared with 2005); and a 13 percent reduction by 2035.

The San Diego region will meet these targets, shown in Table 3.1, by focusing housing and employment growth in urbanized areas; protecting sensitive habitat and open space; and investing in a transportation system that provides residents and workers with transportation options. The determination that SANDAG will meet the CARB GHG reduction target is based upon model results. For the 2050 RTP, SANDAG used an enhanced four-step transportation model.

Four-step models have been the standard in transportation modeling since the late 1950s, and they are used by nearly every MPO in the United States for the development of transportation plans, corridor studies, Federal Transit Administration New Starts proposals, and air quality analyses. The traditional four steps of this model are:

1. Trip generation
2. Trip distribution
3. Mode choice
4. Traffic (route) assignment

Output from the four-step model includes total vehicle miles traveled in the region and with other GHG factors such as vehicle speed and congestion. The model outputs take into account the forecasted land use pattern, the revenue constrained multimodal transportation network, and the implementation of telework programs. These outputs are converted into total GHG emissions in the region using the CARB Emission Factors (EMFAC) 2007 model.

The regional transportation model inputs include all of the land use, motorized network, and TDM assumptions in the SCS. All of the SCS inputs interact and fuse with one another in the transportation model making it difficult to identify the individual contribution of each component to the overall GHG reductions. For example, modeling each component individually and summing results will yield a different result than modeling the components collectively due to the co-benefits of the components working together.

SANDAG also includes further reductions in GHG emissions using off-model factors to account for the following programs: Safe Routes to School; regional vanpool, carpool, and buspool programs; and pedestrian and bicycle network improvements. Unlike the transportation model that combines various
It is vitally important to plan housing and invest in a transportation network that provides all residents with equal opportunities to live, work, shop, study, be healthy, and play in our region regardless of their age, race, color, national origin, income, or physical capabilities.

Factors into one summarized output, the off-model measures are calculated separately. Each off-model strategy was developed with its own unique calculation methodology based on a review of best practices across the country. Documentation of this methodology is included in Technical Appendix 15. SANDAG also contracted with a consultant to validate the methodology of the off-model calculations.

The off-model GHG reduction benefits are then subtracted from the model GHG outputs to generate the projected GHG emissions for the region. Per capita emissions are calculated using total projected GHG emissions divided by the regional population. For this analysis, and to determine if the SCS achieves the GHG targets pursuant to SB 375, only emissions from four CARB vehicle classifications are included in this calculation. They are: Light Duty Auto, Light Heavy Duty Truck 1, Light Heavy Duty Truck 2, and Medium Heavy Duty Truck. Detailed model documentation is included in Technical Appendix 15.

Considering Social Equity in the SCS

Equity is essential to our region’s economic sustainability. How our region uses land and organizes its transportation system significantly influences the quality of life for its residents. It is vitally important to plan housing and invest in a transportation network that provides all residents with equal opportunities to live, work, shop, study, be healthy, and play in our region regardless of their age, race, color, national origin, income, or physical capabilities.

The SCS land use pattern accommodates the estimated 388,000 new homes needed to serve projected growth (1.3 million more people) within our region, including all economic segments of the population, during the RTP planning period. Most of these new housing units are proposed at higher densities that provide the greatest opportunity for affordable housing to be built. Additionally, a majority of the planned higher density is within one half-mile of existing or planned public transit. Taken together, the opportunities for affordable housing and access to public transit are intended to reduce housing and transportation cost burdens on lower income individuals and families.

More detailed information and analysis on social equity considerations and analysis is included in Chapter 4.

Considering Energy Consumption and Cutting Greenhouse Gas Emissions in the SCS

The transportation investments our region makes between now and 2050 will affect how we use energy. How much energy our region needs, and the sources of energy we use, will be the result of choices that we make for getting around – whether it’s by automobile, bus, train, or by bicycling or walking. It will also be the result of how our region moves goods and products that people need whether it’s by truck, rail, or ship. The supply and cost of energy, as well as the consequences of using different sources of energy, also influences our region’s ability to build and maintain its transportation system. For example, oil prices influence the cost of asphalt, and diesel-powered construction equipment generates greenhouse gas emissions.

Greenhouse Gas Emissions and Energy Consumption

The transportation of people and goods in cars, trucks, buses, and motorcycles is the single largest source of greenhouse gas emissions in our region. It accounts for 46 percent of total emissions, with passenger cars and light-duty trucks alone responsible
for 41 percent. Heavy-duty trucks and vehicles represent about five percent of greenhouse gas emissions, civil aviation and rail (passenger and freight) account for 6 percent, and additional emissions result from electricity that powers the Trolley. Figure 3.24 shows greenhouse gas emissions in the San Diego region by category.

Our need for gasoline and diesel is projected to decline to about 4.2 million gallons per day by 2050 from about 4.5 million gallons per day in 2008. The projected reduction in fuel consumption considers the increasingly efficient vehicle fleet on the road (due in part to the increased fuel efficiency standards outlined in Clean Car Standards – AB 1493, Pavley). Over time, older vehicles will be retired and newer, more efficient vehicles will account for an increasingly larger percentage of vehicles on the road.

The levels of fuel consumption and greenhouse gas emissions result from our region’s near total dependence on petroleum-based gasoline and diesel fuels, the average fuel efficiency of vehicles, and the dominance of driving alone over choosing other modes of transportation. Three primary strategies for saving energy and reducing greenhouse gases from on-road transportation are listed below.

**Transportation Strategies for Saving Energy and Reducing Greenhouse Gases**

- Increase the fuel efficiency of vehicles
- Use cleaner transportation fuels

---

**Figure 3.24 – San Diego Country Greenhouse Gas Emissions by Category (2006)**
Integrate land use and transportation plans, policies, and programs to provide more opportunities for shorter vehicle trips, reduced traffic congestion, and alternatives to driving alone such as carpooling, vanpooling, walking, bicyling, and using public transportation.

Meeting Federal Air Quality Requirements

“All allow the regional transportation plan to comply with the federal Clean Air Act.” (Government Code Section 65080(b)(2)(B)(viii))

SANDAG and the U.S. Department of Transportation (DOT) must make a determination that the RTP and the Regional Transportation Improvement Program (RTIP) conform to the state implementation plan (SIP) for air quality. Conformity to the SIP means that transportation activities will not create new air quality violations, worsen existing violations, or delay the attainment of the national ambient air quality standards. Analyses for Carbon Monoxide, and for Reactive Organic Gases and Nitrogen Oxides as precursors to Ozone were conducted for the 2050 RTP and demonstrate that the 2050 RTP conforms to the SIP. This process is documented in Appendix B.

Climate Change Impacts and Adaptation

The transportation sector has been identified as a key contributor of greenhouse gases, but also is threatened by the impacts of continued climate change. The climate of the San Diego region is expected to change, even under the most optimistic scenarios for reducing greenhouse gas emissions. Potential impacts include more frequent and intense heat waves, more frequent and intense wildfires, degraded air quality, fresh water shortages, rising sea levels and higher storm surges, the loss of native plant and animal species, and a higher demand for electricity during peak periods. Developing and implementing measures to help the region adapt to these potential changes will be critical to protecting the regional transportation network.
More frequent hot days and prolonged periods of extreme heat would increase the risk of buckling highways and railroad tracks. This could lead to increased and more frequent maintenance costs, premature deterioration, or even the failure of transportation infrastructure. More frequent and severe wildfires that are followed by rainfall would increase the risk of mudslides. This could disrupt major infrastructure such as roadways and rail lines. Rising sea levels and stronger storm surges would likely impact high-density urban areas, ports, airports, and other vital lines of coastal transportation. Existing fortifications may need to be enhanced as sea levels rise and storm surges intensify, and areas not previously considered at risk may need to be protected. Preparing transportation infrastructure for climate change impacts is a new priority as future projects are designed and our current system is maintained. The tools and methodologies for evaluating and adapting to such impacts are still in the early stages of development.

**Considering Public Health in the SCS**

According to the U.S. Centers for Disease Control and Prevention (CDC), the percentage of Californians that is obese increased from less than 10 percent in 1985 to nearly 25 percent in 2008. The San Diego County Health and Human Services Agency (HHSA) reports that in 2007, 33 percent of county residents were overweight and nearly 22 percent were obese.

Evidence suggests that land use and transportation planning and policies affect public health. Epidemiological studies have shown that people who live in compact, mixed-use communities have more opportunities to walk and they are less likely to be obese and hypertensive, compared with people who live in communities in which automobiles are primarily used to get around. Land use patterns in many communities today make driving a necessity, and they discourage walking and bicycling. A decrease in walking and bicycling results in a decrease in daily physically activity, which contributes significantly to the epidemic in obesity, especially among children. Childhood obesity in the U.S. more than tripled during the last 30 years. In our San Diego region, more than one in four children are obese. As with the adults, poor nutrition and a lack of physical activity are cited as the primary causes.
connection between land use and transportation. The result is more walkable communities, more people bicycling, and more people using public transit.

Strategies related to public health are described in more detail in Social Equity and Environmental Justice (Chapter 4), in Systems Development (Chapter 6), and Demand Management (Chapter 8).

Promoting Sustainability through Incentives and Collaboration: SANDAG Policies and Programs that Support the SCS

“Neither a sustainable communities strategy nor an alternative planning strategy regulates the use of land, nor, except as provided by subparagraph (J), shall either one be subject to any state approval. Nothing in a sustainable community’s strategy shall be interpreted as superseding the exercise of land use authority of cities and counties within the region.” (Government Code Section 65080(b)(2)(K))

This SCS does not regulate or supersede the exercise of land use authority of cities and the County of San Diego. SANDAG has adopted policies and programs that support the SCS and that provide information and funding to assist local jurisdictions in planning and monitoring.

Policies, programs, and guidelines that SANDAG has adopted over the past few years that support the SCS include:

- **Smart Growth Concept Map:** Identifies existing, planned and potential smart growth opportunity areas in our region.

- **TransNet Smart Growth Incentive Program:** This provides funds to local jurisdictions engaged in smart growth planning and smart growth capital investments.

- **TransNet Environmental Mitigation Program:** This provides funding for mitigating local and regional transportation projects, as well as additional funding for acquiring, managing and monitoring natural habitats in ways that support our region’s habitat conservation programs.

- **TransNet/Transportation Development Act Active Transportation Program:** This provides funding for bicycle, pedestrian and traffic calming planning and capital improvement projects.

- **Healthy Works:** Provides grant funding from the American Recovery and Reinvestment Act (ARRA) to help local jurisdictions and non-profit organizations plan healthy communities by integrating public health considerations into planning efforts and promoting Safe Routes to School programs and strategies.

- **Supplemental Funding Potential:** A collaborative effort led by a Quality of Life Steering Committee and Working Group to identify the needs and possible funding mechanisms for four infrastructure areas: habitat conservation, shoreline preservation, water quality enhancement, and public transit.

- **Climate Action Strategy:** A guide to help policymakers consider climate change as they make decisions to meet the varied needs of our region’s growing population, maintain and enhance the region’s quality of life, and promote economic stability.

- **Regional Energy Strategy:** An energy policy guide for policymakers and staff of member agencies as the region strives to meet the energy needs of a growing population and expanding housing stock.
while also enhancing our region's quality of life and economic stability.

- **Smart Growth Design Guidelines:** These guidelines address the importance of design in maintaining and enhancing community character and in creating great public places.

- **Trip Generation for Smart Growth and Parking Strategies for Smart Growth:** These studies identify trip generation rates and parking demands associated with smart growth developments.

- **RCP Performance Monitoring:** This is a mechanism to track the implementation of the RCP.

### Consultation with the Local Agency Formation Commission

“In preparing a sustainable communities strategy, the metropolitan planning organization shall consider spheres of influence that have been adopted by the local agency formation commissions within its region.” (Government Code Section 65080(b)(2)(G))

SANDAG considered spheres of influence that have been adopted by the Local Agency Formation Commission (LAFCO) within our region during the development of the SCS. A sphere of influence is defined as a plan for the probable physical boundaries and service area of a local government agency, as determined by LAFCO. All territory proposed for annexation to an incorporated city is required to be included in the city’s sphere of influence and be located within the city’s general plan.

LAFCO is responsible in our San Diego region for assisting the State Legislature with promoting orderly development and growth while fulfilling many regional priorities. These include: accommodating growth within or through the expansion of local agency boundaries, extending necessary government services, preserving open space and prime agricultural lands, and promoting the provision of housing for residents of all incomes.

LAFCO also is a representative on the Regional Planning Technical Working Group, which provides coordination on regional growth management issues among member agencies. The working group consists of the planning or community development director from each of the 18 cities and the County of San Diego, as well as representatives from other single-purpose regional agencies.

In the development of the Regional Growth Forecast, LAFCO and SANDAG consulted regularly and exchanged written correspondence regarding the sphere of influence determinations, impacts of proposed jurisdictional changes, and factors to be considered in the review of proposals. The 18 incorporated cities and the County of San Diego were asked about sphere of influence issues during the Growth Forecast’s land use inputs process. Adjustments were made to sphere-area land use inputs where requested by the local jurisdictions and confirmed by the County of San Diego.

### Reducing Government Regulations: Streamlining the Process for the California Environmental Quality Act (CEQA)

Provisions in SB 375 include opportunities for the CEQA process, when certain conditions are met, as an incentive for implementing projects that are consistent with this SCS. Generally, there are two types of projects for which CEQA requirements can be streamlined, once the MPO adopts an RTP and SCS that meet the greenhouse gas targets established by the California Air Resources Board:
Residential/mixed use projects streamlining (Public Resources Code Section 21159.28)

Transit priority projects streamlining (Public Resources Code Sections 21155-21155.3)

SB 375 includes specific requirements for the CEQA streamlining. The discussion below provides a general outline of the requirements.

Residential/Mixed-Use Projects Consistent with the SCS

If a residential or mixed use project is consistent with the land use designation, density, building intensity, and other applicable policies assumed for the SCS, the lead agency for the project would still be required to conduct an environmental review pursuant to CEQA. But reviews for those projects would not be required to repeat growth inducing impacts analyses or the discussion of how cars and light trucks could increase greenhouse gas emissions, because that discussion was already included in the environmental impact report (EIR) for the 2050 RTP and SCS. Similarly, if an EIR were being prepared for a residential/mixed use project, the alternatives section of that EIR would not be required to include a reduced density alternative to reduce greenhouse gas emissions. For purposes of this provision, a residential/mixed use project is defined as a project in which at least 75 percent of the square footage is devoted to residential uses.

Transit Priority Projects

The second type of CEQA streamlining is for Transit Priority Projects. A Transit Priority Project (TPP) is eligible for CEQA streamlining provisions if it meets certain criteria. It would be up to the local agency to determine if a project qualifies as a TPP. For a local jurisdiction to determine that a project is a TPP, the project must be consistent with the general use designation, density, building intensity, and applicable policies identified in an approved SCS. In addition, a TPP that is eligible for CEQA streamlining also must be: 1) 50 percent residential, 2) with a minimum density of 20 dwelling units per acre, and 3) be within a half-mile of a major transit stop or high-quality transit corridor (defined as having 15-minute frequencies during peak periods) that is included in the 2050 RTP. Figure 3.25 indicates the areas where CEQA streamlining may be available for Transit Priority Projects if the other two criteria listed above also can be demonstrated for a proposed project.

If a project meets these criteria, it may be analyzed under a new environmental document created by SB 375, called the Sustainable Communities Environmental Assessment (SCEA), or through an EIR for which the content requirements have been reduced. More details are below:

- The SCEA, which is similar to a Mitigated Negative Declaration (MND), would need to include an analysis of all significant environmental effects, as well as mitigation measures to reduce those impacts to an insignificant level.

- If an EIR were prepared for a TPP, the document would not need to include an analysis of cumulative impacts, or of greenhouse gas emissions from cars and light duty trucks. In addition, project alternatives – as required in EIRs – need not address reduced density or off-site location alternatives.

If additional criteria can be met, a TPP may be eligible for a new CEQA exemption created with the adoption of SB 375. Projects that meet all the required criteria are known as sustainable communities projects. This new exemption is intended to provide CEQA relief for TPP projects that are consistent with the
SCS. A sustainable communities project (as defined in SB 375), must meet the criteria outlined above for TPP projects, and it also must generally comply with an extensive list of conditions in the law. These are detailed in Appendix D.

It is not known how many projects in the San Diego region would be able to meet the criteria to qualify for the CEQA exemption. It would be up to the local agency to determine if a project qualifies for the exemption at the time it is proposed.

It should also be noted that proponents of these types of projects are still required to pay development fees or in-lieu fees, as specified in SB 375. However, another new provision of SB 375/SB 575 enables a local jurisdiction to adopt a uniform set of traffic mitigation measures for transit priority projects (Public Resources Code Section 21155.3). These are detailed in included in Appendix D.

Conclusion

Achieving sustainability will require living and working in ways that protect and sustain the region’s vital social, environmental, and economic resources. This 2050 RTP and its SCS seek to guide the San Diego region toward a more sustainable future by focusing housing and job growth in urbanized areas, protecting sensitive habitat and open space, and investing in a transportation network that provides residents and workers with transportation options to reduce greenhouse gas emissions. Implementing this plan will require close collaboration among and between SANDAG, local jurisdictions, member agencies and regional stakeholders.
Figure 3.25
Potential Transit Priority Project Areas for 2035
April 2011

- Potential Transit Priority Project Areas
- High Quality Transit Corridors
- Rail Stations

* 1/2-mile buffer from center of transit line or from mid-point of station location

** Includes major transit stops and 15-minute peak period service as defined in SB 375
**Action Element**

The Regional Transportation Plan shall include an “action element that describes the programs and actions necessary to implement the plan and assigns implementation responsibilities.” (Government Code Section 65080(b)(3))

The actions included in this chapter as well as those throughout the 2050 RTP will implement the SCS.

**Actions to Implement the SCS**

<table>
<thead>
<tr>
<th>Proposed Action</th>
<th>Responsible Parties</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Incorporate the concepts and recommended actions of the 2050 RTP into the next update of the RCP.</td>
<td>SANDAG</td>
</tr>
<tr>
<td>2. Expand the smart growth strategy in the RCP to include public health principles that emphasize access to active transportation and public transit, parks and recreation, medical facilities, healthy food, economic development opportunities, quality and affordable housing, safe neighborhoods, a quality environment, and daily goods and services.</td>
<td>SANDAG and local jurisdictions</td>
</tr>
<tr>
<td>3. Refine indicators that are used to monitor progress toward the implementation of the RCP, so they include additional measures that address sustainability, greenhouse gas reductions and public health considerations.</td>
<td>SANDAG</td>
</tr>
<tr>
<td>4. Update the Smart Growth Concept Map to reflect changes to local land use plans and to the regional transportation network.</td>
<td>SANDAG and local jurisdictions</td>
</tr>
<tr>
<td>5. Use the updated Smart Growth Concept Map as a basis for allocating smart growth incentives, prioritizing transit service enhancements, and seeking additional smart growth funds.</td>
<td>SANDAG, MTS, NCTD and local jurisdictions</td>
</tr>
<tr>
<td>6. Refine the selection criteria for the TransNet Smart Growth Incentive Program so it reflects the 2050 RTP and the SCS.</td>
<td>SANDAG</td>
</tr>
<tr>
<td>7. Consider health principles in the evaluation criteria for existing grant programs, such as the Smart Growth Incentive Program and the Bicycle, Pedestrian, and Neighborhood Safety Program.</td>
<td>SANDAG</td>
</tr>
<tr>
<td>8. Support legislation that provides financial incentives for smart growth projects that provide more affordable housing near transit, and that addresses fiscal reform issues consistent with the SCS and smart growth principles in the RCP.</td>
<td>SANDAG, MTS, and NCTD</td>
</tr>
<tr>
<td>9. Through the development review process, continue to provide comments to local jurisdictions that encourage development patterns that promote walking, bicycling, and access to public transit in existing and emerging smart growth areas in or near major public facilities such as colleges and hospitals.</td>
<td>SANDAG, MTS, and NCTD</td>
</tr>
<tr>
<td>10. Pursue joint development opportunities to promote the construction of housing and mixed-use projects at existing and planned transit stations.</td>
<td>SANDAG and local jurisdictions</td>
</tr>
<tr>
<td>11. Continue to collaborate with the region’s public health professionals to enhance how SANDAG addresses public health issues in its regional planning, programming, and project development activities.</td>
<td>SANDAG and County Health and Human Services Agency</td>
</tr>
<tr>
<td>Proposed Action</td>
<td>Responsible Parties</td>
</tr>
<tr>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>--------------------------------------------</td>
</tr>
<tr>
<td>12. Continue to refine the Quality of Life Funding Strategy and determine the appropriate time to seek voter approval.</td>
<td>SANDAG</td>
</tr>
<tr>
<td>13. Coordinate and cooperate throughout the region on the planning and implementation of future transportation infrastructure and habitat preserves.</td>
<td>SANDAG, MTS, NCTD, Caltrans, and local jurisdictions</td>
</tr>
<tr>
<td>14. Design future infrastructure projects in a way that protects wildlife corridors and habitat linkages in designated habitat conservation plans.</td>
<td>SANDAG, MTS, NCTD, Caltrans, and local jurisdictions</td>
</tr>
<tr>
<td>15. Continue to secure and distribute regional funding for acquiring habitats, and for ongoing land management and monitoring in accordance with the approved habitat plans.</td>
<td>SANDAG</td>
</tr>
<tr>
<td>16. Manage and monitor the TransNet Environmental Mitigation Program.</td>
<td>SANDAG and wildlife agencies</td>
</tr>
<tr>
<td>17. Implement the Regional Energy Strategy and the Climate Action Strategy, in coordination with state and local jurisdiction efforts.</td>
<td>SANDAG and local jurisdictions</td>
</tr>
<tr>
<td>18. Continue to engage lower income and minority communities in regional planning and programming efforts.</td>
<td>SANDAG</td>
</tr>
<tr>
<td>19. Support the increased use of clean, alternative fuels in SANDAG and local jurisdiction-owned vehicle fleets, and the vehicle and equipment fleets of contractors and funding recipients, such as the vehicle fleet for the SANDAG Vanpool Program or for local jurisdiction waste haulers.</td>
<td>SANDAG and local jurisdictions</td>
</tr>
<tr>
<td>20. Support planning and infrastructure development for alternative fueling stations and plug-in electric vehicle (EV) chargers.</td>
<td>SANDAG and local jurisdictions</td>
</tr>
<tr>
<td>21. Develop or facilitate a regional approach to long-term planning for alternative fuel infrastructure that includes the continued development of public-private strategic alliances.</td>
<td>SANDAG and local jurisdictions</td>
</tr>
<tr>
<td>22. Assess the impact that increasing the use of clean, alternative fuels would have on gas tax revenues.</td>
<td>SANDAG</td>
</tr>
<tr>
<td>23. Integrate alternative fuel considerations into the development of the regional transportation network by, for example, integrating infrastructure for electric vehicle charging into regional park-and-ride lots and transit stations.</td>
<td>SANDAG, MTS, and NCTD</td>
</tr>
<tr>
<td>24. Work with San Diego Gas &amp; Electric and other stakeholders to mitigate the potential impacts of electric vehicles on the electric grid.</td>
<td>SANDAG and local jurisdictions</td>
</tr>
<tr>
<td>25. Address climate adaptation issues in the design of new projects, and when improvements are made to existing infrastructure.</td>
<td>SANDAG, Caltrans, and local jurisdictions</td>
</tr>
<tr>
<td>26. Evaluate the feasibility of developing preliminary mapping of infrastructure that is vulnerable to changes in precipitation, heat, and sea level rise.</td>
<td>SANDAG, Caltrans, and local jurisdictions</td>
</tr>
<tr>
<td>27. Consider developing healthy community or active design guidelines that integrate smart growth, sustainability, walking and bicycling, parking, and street design.</td>
<td>SANDAG</td>
</tr>
</tbody>
</table>