The Regional Comprehensive Plan

2012–2013 Biennial Performance Monitoring Report
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The Regional Comprehensive Plan (RCP), adopted by the SANDAG Board of Directors in 2004, is the long-term planning framework for the San Diego region. It defines a vision and lays out goals, key issues, and needed actions in areas ranging from urban form and transportation to public facilities and borders. It summarizes where the region was in 2004, where the region wants to be by 2030, and what the region needs to do to get there. The RCP also calls for ongoing monitoring to track progress toward meeting the goals outlined in the Plan.

In 2006, SANDAG released the RCP: Establishing a Baseline for Monitoring Performance (Baseline Report), to be used to benchmark progress on an annual basis. The 2012 to 2013 RCP Biennial Performance Monitoring Report (2012 to 2013 Monitoring Report) is the fifth since the Baseline Report was accepted by the Board of Directors in October 2006.

The 2012 to 2013 Monitoring Report includes the most recent data available for each indicator, typically from either 2012 or 2013. For some indicators, there is a one year delay or longer in reporting; in these cases, data from the most recent available year are included. For all indicators, the most recent data are provided and related to historical observations.

Based on the data collected for the 2012 to 2013 Monitoring Report, the indicators illustrate those areas in which the region appears to be moving in the right direction and those in which improvement is needed.

**Moving in the Right Direction**
- Beach widths have increased.
- Air quality continues to improve.
- Water conservation has increased.
- The share of energy produced from renewable resources continues to increase.
- The percent of solid waste that is recycled continues to increase.

**Areas for Improvement**
- Share of modes other than driving alone remains relatively stable.
- Travel times and traffic volumes have been increasing since 2009.
- Affordable housing for lower and moderate income households continues to be provided at a low level when compared to housing for above moderate income households.
- Border wait times have increased.
Throughout the 2012 to 2013 Monitoring Report, indicator data are in certain cases related to changes in population, housing, or jobs as shown in Table 1.

### Table 1
Population, Housing Units, and Job Growth, 2005 and 2012

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>2,966,783</td>
<td>3,128,734</td>
<td>5%</td>
</tr>
<tr>
<td>Housing Units</td>
<td>1,107,985</td>
<td>1,165,970</td>
<td>5%</td>
</tr>
<tr>
<td>Total Employment</td>
<td>1,498,781</td>
<td>1,450,913</td>
<td>-3%</td>
</tr>
</tbody>
</table>

Sources: State of California, Department of Finance, E-8 Population and Housing Estimates; SANDAG Current Estimates Program.

Some of the indicators included in this report use the American Community Survey (ACS) as their data source. The ACS is the United States Census Bureau’s program for collecting and disseminating demographic, socio-economic, and housing data on an annual basis. Approximately one out of 38 addresses (2.5% of the population) is surveyed each year, which equals about 3.5 million addresses a year nationally. In San Diego County, one out of 38 equates to roughly 29,000 addresses each year.

Please note that ACS is not designed to count the population, but rather to collect person and household characteristic information. The official Census (short form), which counts the entire population, is still held every ten years.

Annual indicators were selected as part of the RCP based upon key policy areas and data availability. The list of indicators is revised periodically as new plans are adopted, to reflect indicators included in those plans. There are no new indicators for this reporting period.
## Biennial Indicators for Monitoring the Regional Comprehensive Plan

<table>
<thead>
<tr>
<th>Category</th>
<th>Indicators</th>
</tr>
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<tr>
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Urban Form and Transportation

Our land use and urban design decisions determine how well our communities serve us in our daily lives, including the quality of our travel choices and our personal safety. The Regional Comprehensive Plan (RCP) encourages urban development with a mix of uses designed to create safe and healthy communities. In addition, the relationship between regional transportation plans and local land use plans and policies is crucial to ensuring that the region’s transportation system efficiently connects our communities. The Urban Form and Transportation indicators track progress toward achieving these goals.

**Share of New Housing Units and Jobs Located Within Smart Growth Opportunity Areas**

Although the total number of new housing units built annually has decreased since 2006, the share of total units in Smart Growth Opportunity Areas (SGOAs) has slowly increased from 2006 onward. At present, one-fifth of the region’s total housing stock is in SGOA’s, or approximately 236,000 out of 1.17 million housing units. As shown in Figure 1, 33 percent of the region’s new housing units were built in SGOAs during 2013 with the proportion of yearly new units built within Smart Growth Opportunity Areas (SGOAs) fluctuating over time (ranging from a low of 16% in 2006 to a high of 47% in 2009).

**Figure 1**
Share of New Housing Units in SGOAs, 2006 to 2013

![Chart showing the share of new housing units in SGOAs from 2006 to 2013](chart.png)

**Note:** Data from 2010 to the present were benchmarked based on the Census 2010 data, while data for prior years were not revised. The bar representing new housing units in 2010 are from revised 2009/2010 housing estimates from the California Dept. of Finance.

**Source:** SANDAG Current Estimates Program, CA Dept. of Finance E-B Historical Population and Housing Estimates
With respect to jobs, there were 542,138 jobs in SGOAs in 2012, representing 37 percent of the region’s jobs. In 2012, SGOAs experienced a net gain of 20,020 jobs. This net increase of nearly four percent is greater than the one percent net increase for total jobs in the region, indicating faster job growth in SGOAs than in the region as a whole.

Share of Net Change in Housing Units within County Water Authority Water Service Boundary

As shown in Figure 2, the change in the number of housing units in the Water Authority service boundary accounted for almost all of the change in housing units in the San Diego region between 2005 and 2013. The number of new housing units built in the Water Authority service boundary was 3,277 during 2013, comprising 98 percent of the total increase. These data signify progress toward the RCP goal of focusing population and job growth away from rural areas and closer to existing and planned job centers and public facilities. The greater than 100 percent figures shown for 2005 and 2008 represent new units plus rebuilt units following major wildfires.

Figure 2
Share of Net Change in Housing Units in the County Water Authority Service Area, 2005 to 2013

Source: SANDAG Current Estimates Program
Annual Transit Ridership

Regional transit ridership has fluctuated in recent years. As shown in Figure 3, transit boardings in San Diego County increased dramatically between 2007 and 2009 and were followed by a 10 percent drop in boardings between 2009 and 2010. Transit ridership saw improvement in 2011 through 2012.¹

Figure 3
Annual Transit Boardings, 2005 to 2013

Source: Annual Boardings Data, Metropolitan Transit System and North County Transit District; SANDAG

¹ The number of boardings is not equal to the number of transit passengers since many passengers make multiple trips via transit.
**Commute Mode Shares**

The percent of commuters by primary mode of commute to work is provided below by looking at the American Community Survey (ACS) commute data. As presented in Figures 4 and 5, the primary transportation mode for a work commute includes those that drive alone, with about three-quarters of commuters driving to work alone. Alternative primary commute modes are also popular, with about 10 percent of commuters car- or vanpooling, seven percent working at their place of residence, five percent walking, biking, or taking alternative modes, and three percent taking transit, as displayed in Figures 4 and 6. Both drive-alone and alternative commute modes remained stable since 2005, with no statistically significant changes.

**Figure 4**
**Regional Commute Mode Shares, 2012**

Note: Percentages may not total 100 due to rounding.

Source: American Community Survey, 1-Year Estimate. United States Census Bureau
While this information provided through the ACS is helpful in discerning high-level commuting trends, it only captures the “primary mode” used by the commuter, and doesn’t consider multimodal work trips or the use of different modes during the course of the work week. Further, there is no distinction between the following:

- Individuals who primarily work from home and thus do not create daily commute-related trips
Employees who telework and normally commute to their employer’s workplace on non-telework days

In this regard, the data is not useful for accurately measuring trip reduction resulting from teleworking. To fill this gap, SANDAG conducted a Commute Behavior Survey in 2013 in which a total of 2,000 residents from the San Diego region who work at least 30 hours per week were asked about their commute behavior for each day of the week.

Most notable from the 2013 Commute Behavior Survey is the large number of individuals who report that they telework (5%) or “work at home” (8%). When combining these individual categories, the total (13%) is nearly two times larger than reported through the ACS (7%).

This survey also reflects the ever-growing complexities of the commute to work. Residents who indicated that they primarily carpooled, vanpooled, or used transit at least one day per week to get to and from work were asked about the modes of transportation used to access their primary commute mode and their final destination (e.g., the first and last mile of their commute trip).

Among the commuters who do not start their primary commute at home:

- 30 percent walked
- 22 percent drove alone
- 10 percent were dropped off
- 4 percent used a form of transit
- 3 percent used a bicycle

Among the commuters who did not end their primary commute at the final destination:

- 44 percent walked
- 2 percent used a bicycle
- 2 percent used a form of transit
- 2 percent got picked up

**Travel Times and Volumes for Key Transportation Corridors**

The RCP includes the goals of reducing traffic congestion on freeways and arterials and developing a network of fast, convenient, high-quality transit services that are competitive with drive-alone travel times during peak periods. Progress toward these goals can be measured by evaluating travel times and volumes for key auto and transit corridors.

Travel time and volume data on freeways are provided by the Caltrans Performance Measurement System (PeMS), a web-based system used for reporting and monitoring the performance of the freeway system. Freeway detector stations collect volume and lane occupancy information every 30 seconds.

It should be noted that the data presented in Map 1 and Table 2 do not represent “door-to-door” commute times, but rather, trip time once on the freeway. Travel times are representative only of a freeway trip; average travel times are computed from an aggregation of freeway loop detector...
data. Accordingly, travel time monitoring currently is limited to freeway segments and the availability of freeway loop detector stations; thus, all segments shown in Map 1 and Table 2 are confined to each respective freeway.

Improvements to PeMS has been an ongoing statewide effort since its initial development and release back to the late 1990s. Key PeMS enhancements have generally focused on assessing and improving the quality of the data and performance measures that the PeMS provides. Specific enhancements currently developed for the San Diego region under the PeMS multimodal project will allow the PeMS to incorporate real-time transit and arterial data. This additional data will better approximate “door-to-door” travel times. The Arterial PeMS (A-PeMS) Module and Transit PeMS (T-PeMS) Module were completed in 2011. Current efforts are underway that include the design and implementation of a Corridor PeMS that combines the freeway, arterial, and transit modules. As arterial detection is introduced and transit vehicles in the region are outfitted with Automated Passenger Counters (APC) and Automated Vehicle Location (AVL) units, the A-PeMS, T-PeMS, and Corridor PeMS modules will serve as the regional platform to analyze and assess freeway, arterial, and transit performance data. These statistics will be incorporated into the established and on-going performance monitoring reports.²

Travel times shown in Table 2 differ from those presented in the 2050 Regional Transportation Plan and its Sustainable Communities Strategy (2050 RTP/SCS) for the following reason:

- 2050 RTP/SCS travel times are model based, whereas the reported travel times represent actual observed data. 2050 RTP/SCS travel times represent “door-to-door” commute times that take into account road configuration, assigned traffic volume, and any intersection controls, whereas the travel times listed below only include trip time once on the freeway. However, as indicated above, the PeMS will have the ability to measure arterial travel times to approximate 2050 RTP/SCS door-to-door travel times for future reports.

² Additionally, travel times and volumes reported for previous years in the 2012 to 2013 Monitoring Report may differ from those reported in previous reports as loop detection capability has been enhanced and now more accurately reflects the start and end points of the designated freeway segments.
Between 2007 and 2009, commute times decreased in most corridors due in part to the economic downturn. Since 2009, commute times in the region generally have been increasing at a modest rate as the regional economy continues to recover.

Table 2
Travel Times in Key Auto Corridors, 2005 to 2013

<table>
<thead>
<tr>
<th>Corridor</th>
<th>Length (miles)</th>
<th>AM Peak (0800 Departure)</th>
<th>PM Peak (1700 Departure)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 I-5 Oceanside to Downtown SD</td>
<td>36.5</td>
<td>55 54 55 43 39 44 43 41 43 43 47 48 47 41 39 43 44 44 45</td>
<td></td>
</tr>
<tr>
<td>2 I-15 Escondido to Downtown SD</td>
<td>29.3</td>
<td>46 47 41 36 34 36 31 32 38 36 34 32 30 36 35 28 32</td>
<td></td>
</tr>
<tr>
<td>3 SR-78 Escondido to Carlsbad</td>
<td>16.5</td>
<td>16 17 16 16 16 16 16 16 22 25 27 24 22 25 26 27 24</td>
<td></td>
</tr>
<tr>
<td>4 SR-94 El Cajon to Downtown SD</td>
<td>10.3</td>
<td>16 16 14 13 14 14 15 15 16 12 12 12 11 12 10 11 11</td>
<td></td>
</tr>
<tr>
<td>5 I-8 El Cajon to Downtown SD</td>
<td>13.3</td>
<td>18 20 17 14 16 19 19 19 21 17 17 16 15 14 14 14 15</td>
<td></td>
</tr>
<tr>
<td>6 SR-52 Santee to Kearny Mesa</td>
<td>11.8</td>
<td>12 14 14 13 11 12 13 14 15 16 17 18 16 13 13 17 19</td>
<td></td>
</tr>
<tr>
<td>7 I-805 Mid-City to Sorrento Valley</td>
<td>10.9</td>
<td>17 18 15 14 12 14 15 15 18 15 16 14 14 13 13 14 17</td>
<td></td>
</tr>
<tr>
<td>8 I-805 Chula Vista to Sorrento Valley</td>
<td>24.8</td>
<td>40 39 36 32 28 32 32 33 37 41 44 36 31 30 32 29 34</td>
<td></td>
</tr>
<tr>
<td>9 I-805 Chula Vista to Downtown SD</td>
<td>12.8</td>
<td>22 20 19 17 17 18 17 17 17 20 19 18 15 15 16 13 13</td>
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<tr>
<td>10 I-5 San Ysidro to Downtown SD</td>
<td>12.8</td>
<td>14 16 16 14 14 15 16 16 18 16 17 15 15 15 15 16 16</td>
<td></td>
</tr>
<tr>
<td>11 I-8 El Cajon to Sorrento Valley</td>
<td>17.3</td>
<td>29 31 27 24 20 23 25 25 30 24 25 24 24 22 22 22 25</td>
<td></td>
</tr>
</tbody>
</table>

Notes: (a) The a.m. peak period is based on a departure time of 8 a.m., and the p.m. peak period is based on a departure time of 5 p.m.; (b) the a.m. direction is listed; the p.m. is the reverse direction of travel; (c) corridor limits are listed for the a.m. direction and are approximately the same for the p.m. direction; and (d) data are reported for commutes on Tuesdays, Wednesdays, and Thursdays.

Source: Freeway Performance Measurement System (PeMS) Version 12.3, Caltrans
Map 1
Key Auto Corridor Travel Times, 2013

1. Interstate 5 Oceanside to Downtown SD
   - North Bound: 45 minutes
   - South Bound: 43 minutes

2. Interstate 15 Escondido to Downtown SD
   - North Bound: 32 minutes
   - South Bound: 32 minutes

3. State Route 78 Escondido to Carlsbad
   - East Bound: 24 minutes
   - West Bound: 16 minutes

4. State Route 94 El Cajon to Downtown SD
   - East Bound: 11 minutes
   - West Bound: 16 minutes

5. Interstate 8 El Cajon to Downtown SD
   - East Bound: 15 minutes
   - West Bound: 21 minutes

6. State Route 52 Santee to Kearny Mesa
   - East Bound: 20 minutes
   - West Bound: 15 minutes

7. Interstate 8 Mid City to Sorrento Valley
   - North Bound: 18 minutes
   - South Bound: 21 minutes

8. Interstate 805 Chula Vista to Sorrento Valley
   - North Bound: 37 minutes
   - South Bound: 37 minutes

9. Interstate 805 Chula Vista to Downtown SD
   - North Bound: 17 minutes
   - South Bound: 13 minutes

10. Interstate 5 San Ysidro to Downtown SD
    - North Bound: 18 minutes
    - South Bound: 16 minutes
As shown in Table 3, travel volumes continued to fluctuate in 2013. Observed decreases in travel time and travel volume can potentially be attributed to a variety of factors, including the downturn of the economy and roadway construction efforts during the last several years focused on infrastructure improvements that address “severe congestion levels, specific bottlenecks that cause an overall slowing of the system”.

### Table 3
**Travel Volumes in Key Auto Corridors, 2005 to 2013**

<table>
<thead>
<tr>
<th>Monitoring Point at</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
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<td>220,700</td>
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**Notes:**
(a) Data are reported for commutes on Tuesdays, Wednesdays, and Thursdays; (b) traffic data obtained from monitoring stations may be subject to atypical operating conditions due to active highway construction. Volumes for Interstate 805 (I-805) Mid-City to Sorrento Valley and I-805 Chula Vista to Sorrento Valley are the same as those for Chula Vista to Downtown San Diego because they share the same screenline; (c) Historical data have been adjusted to reflect current information available.

**Source:** Freeway PeMS Version 12.3, Caltrans
As mentioned above, as the PeMS continues to be developed and refined, it will eventually incorporate real-time transit data. In the meantime, the 2012 to 2013 Monitoring Report includes transit volume information from FY 2005 through FY 2013 based on SANDAG Passenger Counting Program data. Transit passenger volumes are measured at key locations (screenlines) selected within each corridor. For each corridor, transit passenger volumes are listed by screenline in Table 4. As with vehicle travel volumes, transit travel volumes continued to fluctuate. This may be partially related to the economic recession as well as changes in state and federal funding.

Table 4
Transit Passenger Volumes in Key Transit Corridors at Specific Screenline Locations, 2005 to 2013

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<td>559</td>
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<td>194</td>
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### Table 4 (continued)
Transit Passenger Volumes in Key Transit Corridors at Specific Screenline Locations, 2005 to 2013

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Table 4 (continued)
Transit Passenger Volumes in Key Transit Corridors at Specific Screenline Locations, 2005 to 2013

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<td>21,585</td>
<td>22,989</td>
<td>22,989</td>
<td>19,465</td>
</tr>
<tr>
<td></td>
<td>Route 929</td>
<td>12th and Imperial</td>
<td>986</td>
<td>1,036</td>
<td>1,290</td>
<td>1,361</td>
<td>1,301</td>
<td>1,271</td>
<td>1,017</td>
<td>1,244</td>
<td>1,328</td>
</tr>
<tr>
<td>11</td>
<td>I-8</td>
<td>El Cajon to Sorrento Valley</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td></td>
</tr>
</tbody>
</table>

*Monitoring at two screenlines along corridor.

Notes: Total for both directions. The transit screenline locations for individual routes may not represent peak passenger load locations nor total ridership on the route.

Source: SANDAG Passenger Counting Program 2013

**Annual Hours of Traffic Delay per Traveler**

Annual hours of traffic delay per traveler decreased from 2005 through 2009, as shown in Figure 7. After 2009, the annual hours of delay has remained stable at 37 hours. Delay is defined as the extra travel time it takes travelers to complete a trip during peak periods (6 to 9 a.m. and 4 to 7 p.m.) as a result of congestion.

**Figure 7**
Annual Hours of Traffic Delay Per Traveler During Peak Periods, 2005 to 2011

Source: Annual Urban Mobility Report, Texas Transportation Institute
**Regional Crime Rate**

As shown in Figure 8, while the rate of crime in the region declined from 2005 through 2011, there was a slight increase in 2012 and stabilizing at 26 crimes per 1,000 people in 2013.

**Figure 8**

FBI Index Crimes Per 1,000 People, 2005 to 2013

![Graph showing FBI Index Crimes Per 1,000 People from 2005 to 2013.](source)

**Conclusion**

As of 2013, the region continued to make progress toward achieving some of the urban form and transportation goals listed in the RCP, but not others. The proportion of total housing units within Smart Growth Opportunity Areas has increased and the number of jobs in these areas is growing faster than overall employment. Commute times are generally decreasing or remaining stable in the region, with annual hours of delay in the peak period also remaining stable. Future monitoring is required to fully understand our progress toward improving mobility.
The limited supply of affordable housing to meet the region’s demand continues to be one of the major issues facing the San Diego region today. Building permit issuance was nearly 15,000 units in 2005, fell to just over 5,000 units in 2011, and is climbing back slowly to 7,300 units in 2012 and 9,200 units in 2013. The Regional Comprehensive Plan (RCP) calls for more housing choices—more apartments, condominiums, and single family homes in all price ranges. How much, what type, and where housing is built are some of the most important decisions the region can make in shaping its future. The Smart Growth Opportunity Areas located on the Smart Growth Concept Map identify approximately 200 sites throughout the region where new housing can be located near jobs and transit—thus providing more housing and transportation choices and better connecting transportation and land use. Implementation of smart growth, by creating more compact, walkable, and bicycle-friendly communities that are accessible to public transit, will help the region meet its Greenhouse Gas (GHG) reduction emission targets set by the California Air Resources Board.

In October 2011, SANDAG adopted the 2050 Regional Transportation Plan and its Sustainable Communities Strategy (2050 RTP/SCS) and the Regional Housing Needs Assessment (RHNA) Plan for the fifth housing element cycle (2013 to 2020). Both documents, which were prepared concurrently, show that the region has made strides toward ensuring sufficient housing capacity for all income levels between now and 2050. Collectively, the 18 cities and County of San Diego have over 200,000 units of multifamily unit housing capacity planned in the 30 dwelling units per acre category. About 80 percent of the new housing units expected to be built between now and 2050 will be multifamily, with most of them located on infill and redevelopment sites near transit. This trend toward more compact, transit-oriented development will help the region achieve both its housing and GHG reduction targets, and is reflected in the local general, community, and specific plans that have been adopted since 2004.

A new challenge faced by the region and its local jurisdictions (along with other areas in the state) is the loss of affordable housing funding related to the elimination of redevelopment agencies, and the minimal amount of funding remaining from the housing bonds approved by the state’s voters in 2002 and 2006. In order to continue building affordable housing at the levels seen during the 2000s, new sources of funding and new approaches to addressing our affordable housing needs for very low, low, and moderate income households need to be found. The state legislature is considering several ways of funding affordable housing including a permanent source of funding (Senate Bill 391) and the use of cap and trade funds.
**Housing Opportunity Index**

As shown in Figure 9, data from 2013 suggests that the upward trend in housing affordability since 2007 may have reversed. The percent of homes sold that are affordable to households earning the regional median income has declined to 35 percent in 2013 after reaching a high of 55 percent in 2011 and 2012.

**Figure 9**

**Housing Opportunity Index, 2005 to 2013**

Source: National Association of Home Builders
As Table 5 shows, although housing became more affordable from 2005 through 2011, home prices remained out of reach for many households in the region, and began increasing again starting in 2012. Historically, the median price of a home has been considered to be affordable at three to four times the median income. Even at the lowest median home price point in December 2008, the annual income needed to afford a home priced at $300,000 would be between $75,000 and $100,000, well above the regional median household income. The December 2012 median home price ($366,000) is nearly 5.5 times the regional median income of $67,753 (SANDAG 2013 Current Estimates Program); and the December 2013 median home price ($420,000) is about six times the regional median income. With increasing mortgage interest rates, tighter lending requirements, and current median income, owning a home in the San Diego region continues to be a challenge.

Table 5
Median Home Prices, 2005 to 2013

<table>
<thead>
<tr>
<th>Month/Year</th>
<th>Median Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>December 2005</td>
<td>516,000</td>
</tr>
<tr>
<td>December 2006</td>
<td>483,000</td>
</tr>
<tr>
<td>December 2007</td>
<td>430,000</td>
</tr>
<tr>
<td>December 2008</td>
<td>300,000</td>
</tr>
<tr>
<td>December 2009</td>
<td>330,000</td>
</tr>
<tr>
<td>December 2010</td>
<td>333,000</td>
</tr>
<tr>
<td>December 2011</td>
<td>315,000</td>
</tr>
<tr>
<td>December 2012</td>
<td>366,000</td>
</tr>
<tr>
<td>December 2013</td>
<td>420,000</td>
</tr>
</tbody>
</table>

Note: Includes all resale homes and condominiums, new homes and condominiums, and condominium conversions.
Source: DataQuick: http://www.dataquick.com/about/news/industrynews/
Percent of Households with Housing Costs Greater Than 35 Percent of Income

As shown in Figure 10, the percentage of households paying more than 35 percent of their income toward housing costs has been relatively stable since 2005, ranging from 37 percent to 41 percent in 2009 and 2010. In 2012, 39 percent of households paid more than 35 percent of income on housing.

Figure 10
Percent of Households Paying 35 Percent or More of Income for Housing, 2005 to 2012

Source: American Community Survey, 1-Year Estimates. United States Census Bureau
Another indicator of housing affordability in the region is the income a household must earn to afford the rent for an apartment at the Department of Housing and Urban Development’s most recent Fair Market Rent of $1,382 for a two-bedroom unit (note this is a decrease from a high of $1,418 in 2009). As Figure 11 shows, in 2013, that amount was $55,280 annually or about $27 per hour (assuming that no more than 30 percent of income is spent on housing). However, the income needed in the San Diego region is $1,653 more than for the state ($53,627); the upward trend in annual income needed since 2000 is fairly consistent for both the state and the region.

In 2013, the minimum wage in California was $8.00 per hour. Therefore, a household would need to include more than three minimum wage earners working forty hours per week to make a two-bedroom fair market rent affordable in the San Diego region.

**Figure 11**

Annual Income Needed to Afford Fair Market Rent, 2005 to 2014

Source: Out of Reach, National Low-Income Housing Coalition

**Ratio of New Jobs to New Housing Units**

In 2008 the California Planning Roundtable published a report entitled, “Deconstructing Jobs-Housing Balance.” This report provides an overview of jobs-housing balance issues for planning practitioners. It outlines the objectives such a policy hopes to achieve (such as reduced driving and congestion, reductions in air pollutants, and lower costs to businesses and commuters, among others) and the strengths and shortcomings of the various ways of measuring this balance. The conclusion of the report is that jobs-housing balance ratios should be used as generalized indicators, and that regional and local policies such as the smart growth, affordable housing, economic prosperity, transit-oriented transportation, congestion pricing, and transportation demand and system management strategies that the region is pursuing through implementation of the RCP and 2050 RTP/SCS, and RHNA will assist in meeting the objectives associated with jobs-housing balance. The variables that make assessing jobs-housing balance difficult include the types of jobs available, job skills and education of residents, availability (or lack thereof) of a range of housing choices that...
are affordable to a variety of income levels, households with multiple workers, job changes, and quality of schools.

With that perspective in mind, Figure 12 shows the ratio of new jobs created to new housing units built from 2005 to 2012, and Table 6 shows the jobs and housing data and ratios for both total jobs and housing units and new jobs and housing units. The ratio fluctuates between 1.17 and 1.07 based on the total number of jobs and housing units between 2005 and 2012. This ratio is similar to most of the other major metropolitan areas of the state (see California Regional Progress Report, 2007).

**Figure 12**
Total New Jobs Per New Housing Unit Ratio, 2005 to 2012

---

*Source: SANDAG Annual Population and Housing Estimates; California Employment Development Department*
As shown in Table 6, over the past few years, growth in the number of new housing units increased significantly in 2011 and slowed again in 2012. Regarding new jobs, the net job losses associated with the economic recession in 2008, 2009, and 2010 has reversed with increases in 2011 and 2012. As a result, the ratio of new jobs to new housing units reached a high of 2.47 in 2012.

### Table 6
**Total Jobs Per Housing Unit Ratio, 2005 to 2012**

<table>
<thead>
<tr>
<th>Year</th>
<th>Housing Units</th>
<th>Wage &amp; Salary Jobs</th>
<th>New Units</th>
<th>New Jobs</th>
<th>New Jobs/New Units</th>
<th>Jobs/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>1,107,985</td>
<td>1,292,800</td>
<td>12,908</td>
<td>21,300</td>
<td>1.65</td>
<td>1.17</td>
</tr>
<tr>
<td>2006</td>
<td>1,118,283</td>
<td>1,312,500</td>
<td>10,298</td>
<td>19,700</td>
<td>1.91</td>
<td>1.17</td>
</tr>
<tr>
<td>2007</td>
<td>1,131,749</td>
<td>1,319,700</td>
<td>13,466</td>
<td>7,200</td>
<td>0.53</td>
<td>1.17</td>
</tr>
<tr>
<td>2008</td>
<td>1,140,349</td>
<td>1,310,000</td>
<td>8,600</td>
<td>-9,700</td>
<td>-1.13</td>
<td>1.15</td>
</tr>
<tr>
<td>2009</td>
<td>1,145,548</td>
<td>1,251,000</td>
<td>5,199</td>
<td>-59,000</td>
<td>-11.35</td>
<td>1.09</td>
</tr>
<tr>
<td>2010</td>
<td>1,149,426</td>
<td>1,223,000</td>
<td>3,878</td>
<td>-28,000</td>
<td>-7.22</td>
<td>1.06</td>
</tr>
<tr>
<td>2011</td>
<td>1,161,720</td>
<td>1,239,300</td>
<td>12,294</td>
<td>16,300</td>
<td>1.33</td>
<td>1.07</td>
</tr>
<tr>
<td>2012</td>
<td>1,165,970</td>
<td>1,249,800</td>
<td>4,250</td>
<td>10,500</td>
<td>2.47</td>
<td>1.07</td>
</tr>
</tbody>
</table>

1 Does not include military and self-employed

Note: The 2010 Housing Unit estimate in Table 6 was not benchmarked to the 2010 Census. Since this table reflects a series benchmarked from the Census 2000, it is appropriate to use this figure. It does not match the estimate in Table 1.

Source: SANDAG Current Estimates Program, California Employment Development Department.
Share of New Housing Units by Income Category

Fourth Housing Element Cycle*

Although the fourth housing element cycle ended in June 2010, information for this cycle is included in this report to provide historical housing production data. A total of 80,682* building permits for new housing units were issued in the region between January 1, 2003, and December 31, 2010 (six months beyond the 7.5-year RHNA projection period for the fourth housing element cycle), including 4,537* very low income, 4,721* low income, 3,652 moderate income, and 67,772 above moderate income housing units, as shown in Table 7. Based on the 2003 to 2010 RHNA adopted by SANDAG in February 2005, building permits have been issued for 19 percent of the very low income, 26 percent of the low income, 18 percent of the moderate income, and 152 percent of the above moderate income regional housing needs established for the RHNA projection period.

The data show that the above moderate income housing needs established in the fourth RHNA cycle were exceeded, while the housing needs for very low, low, and moderate income households fell short of their respective goals, due in part to the high cost of land and lack of subsidies to build very low, low, and moderate income housing.

Table 7
Share of New Housing Units by Income Category, January 1, 2003, through December 31, 2010

<table>
<thead>
<tr>
<th>Income Level</th>
<th>Very Low</th>
<th>Low</th>
<th>Moderate</th>
<th>Above Moderate</th>
<th>Total for all Categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Housing Units Permitted</td>
<td>4,537*</td>
<td>4,721*</td>
<td>3,652</td>
<td>67,772</td>
<td>80,682*</td>
</tr>
<tr>
<td>RHNA Goal (4th Cycle)</td>
<td>24,143</td>
<td>18,348</td>
<td>20,280</td>
<td>44,530</td>
<td>107,301</td>
</tr>
<tr>
<td>Percent of Goal Produced</td>
<td>19%</td>
<td>26%</td>
<td>18%</td>
<td>152%</td>
<td>75%</td>
</tr>
<tr>
<td>Units Left to Permit</td>
<td>19,606*</td>
<td>13,627*</td>
<td>16,628</td>
<td>-23,242</td>
<td>26,619*</td>
</tr>
</tbody>
</table>

Source: Data compiled from building permits issued by the local jurisdictions in the San Diego region. Permitted units include deed-restricted and non-deed-restricted units as reported by each jurisdiction.

*This information has been corrected since the original publication.
As shown in Figure 13, total building permit issuance dropped off during 2006, 2007, 2008, and 2009, before increasing slightly in 2010, the final year of the fourth housing element cycle. Likewise, construction of above moderate income units slowed during 2007, 2008, and 2009, and increased in 2010. Lower income units (very low and low) had the most variable changes in new building permit issuance, experiencing a decline in one year and an increase the following year. However, as Figure 13 illustrates, more housing units were permitted for lower income households (very low and low) than for moderate income households from 2003 to 2011.

Overall, the region met 75 percent of its RHNA housing goal of 107,301 units during the eight year period (six months beyond the seven and a half years of the RHNA projection period).

Figure 13
Total Housing Units Permitted by Income Category, 2005 to 2013

Source: Data compiled from building permits issued by the local jurisdictions in the San Diego region based on Annual Housing Element Progress Reports submitted to the California Department of Housing and Community Development and information provided to SANDAG by individual jurisdictions.
Fifth Housing Element Cycle (January 1, 2013 to December 31, 2020)

A total of 9,810 building permits for new housing units were issued in the region between January 1, 2012, to December 31, 2013 (four years out of the 11-year RHNA projection period for the fifth housing element cycle), including 1,950 very low income, 2,151 low income, 950 moderate income, and 21,288 above moderate income housing units, as shown in Table 8.

Based on the 2010 to 2020 RHNA Plan adopted by the SANDAG Board of Directors in October 2011, the region has achieved 5 percent of the very low income, 8 percent of the low income, 3 percent of the moderate income, and 32 percent of the above moderate income regional housing needs established for the RHNA projection period. Because the data collected through December 31, 2013, reflects the first four years of an 11-year RHNA cycle (36% of the cycle), the percentages of the units produced for very low, low, moderate, and above moderate income households are fairly low. The data show that satisfactory progress is being made in the above moderate income housing category, while nominal progress has been made in meeting the housing needs for very low, low, and moderate income households within the first four years of the 11-year RHNA projection period.

As shown in Figure 13, total building permit issuance for homes affordable to above moderate income households increased from 2012 to 2013, while homes affordable for very low, low, and moderate income households were built at much lower rates. *(Note: The data in Tables 7 and 8 overlap by one year – from January 1, 2010, to December 31, 2010).*

Table 8
Share of New Housing Units by Income Category, January 1, 2010, through December 31, 2013

<table>
<thead>
<tr>
<th>Income Level</th>
<th>Very Low</th>
<th>Low</th>
<th>Moderate</th>
<th>Above Moderate</th>
<th>Total for all Categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Housing Units Permitted</td>
<td>1,950</td>
<td>2,151</td>
<td>950</td>
<td>21,288</td>
<td>26,339</td>
</tr>
<tr>
<td>RHNA Goal (5th Cycle)</td>
<td>36,450</td>
<td>27,700</td>
<td>30,610</td>
<td>67,220</td>
<td>161,980</td>
</tr>
<tr>
<td>Percent of Goal Produced</td>
<td>5%</td>
<td>8%</td>
<td>3%</td>
<td>32%</td>
<td>16%</td>
</tr>
<tr>
<td>Units Left to Permit</td>
<td>34,500</td>
<td>25,549</td>
<td>29,660</td>
<td>45,932</td>
<td>135,641</td>
</tr>
</tbody>
</table>

*Source: Data compiled from building permits issued by the local jurisdictions in the San Diego region. Permitted units include deed-restricted and non-deed-restricted units as reported by each jurisdiction.*
**Vacancy Rates**

Housing vacancy rates in the region were stable at around 4.4 percent between 2005 and 2008. However, vacancy rates began to climb in 2009 and 2010 (to 5.8% and 6.1%, respectively) and continued to decline slightly to 5.5 percent in 2013, as shown in Figure 14.

**Figure 14**

Vacancy Rates, 2005 to 2013

Source: SANDAG Current Estimates Program
Percent of Households Living in Overcrowded Conditions

As shown in Figure 15, the percentage of households living in overcrowded conditions in the region remained relatively stable between 2005 and 2012. The Census definition of overcrowded is more than one person per room, which constituted 6 percent of households in the San Diego region for 2012.

Figure 15
Overcrowding in the Region, 2005 to 2012

Source: American Community Survey, 1-Year Estimates, United States Census Bureau
Number of Households on the Waiting List for Section 8 Vouchers

Only six jurisdictions in the San Diego region issue Section 8 vouchers: Carlsbad, Encinitas, National City, Oceanside, the City of San Diego, and the County of San Diego. At the end of 2013, collectively the region had approximately 133,500 households on Section 8 waiting lists. In 2011, the combined waiting lists totaled about 92,600, while in 2007 and 2008 the waiting lists included 65,600 and 49,700 households respectively. (The shorter waiting list in 2008 was likely the result of the periodic purging of the lists undertaken by the Section 8 jurisdictions.) The increase in the number of people on the waiting lists in 2013 reflects the need for more affordable housing in the region, and is partially due to the economic recession and sequestration (no additional Section 8 vouchers). Also, some households may sign up for multiple waiting lists causing some duplication.

Conclusion

Housing affordability continues to be a significant issue in the San Diego region. While the proportion of affordable homes sold (based on the regional median income) rose during the recession, the most recent data indicate that this trend is reversing as the price of homes rises. The percent of households paying 35 percent or more for housing remains relatively unchanged. As in the past, fair market rent requires three times the minimum wage. Although building permits for above moderate income (market rate) homes exceeded the RHNA goals in the fourth housing element cycle, the region’s ability to produce housing for very low, low, and moderate income households is and will likely continue to be challenging. With the expenditure of state housing bond money (Propositions 46 and 1C) virtually complete, and the generally accepted need for financial subsidies and/or regulatory measures to construct very low and low income units, the region will need to consider new ways to provide housing for families and individuals whose incomes fall into these categories, as well as those within the moderate income category.
Healthy Environment

To ensure a healthy environment, the region must protect its key open spaces and sensitive habitat areas, ensure that the air and water are clean, and restore the eroding beaches. Viable natural habitats, water quality, a well-managed shoreline, and air quality are critical components to the health and well-being of residents as well as to the overall economic prosperity of the region.

Habitat Conserved Within Designated Preserve Areas

The region is engaging in the development and implementation of the following four subregional habitat conservation plans:

1. Multiple Species Conservation Program Plan (MSCP) South, finalized in 1998
2. Multiple Habitat Conservation Program (MHCP), finalized in 2003
3. MSCP North, sent for public review in 2009 with comments received through this review used to revise the Plan for future consideration by the County Board of Supervisors
4. East County Plan, delayed until further notice as a result of budget and staffing constraints

Map 2, provided below, shows the location and boundaries of these plans.

Map 2
Habitat Conservation Planning Areas

Six jurisdictions, including a portion of the unincorporated area of the County, have approved habitat conservation plans and signed implementing agreements (covering 20% of the region). Seven jurisdictions are working on approval of their implementing agreements (covering 73% of
the region), and seven jurisdictions are not pursuing implementing agreements due to limited habitat in their jurisdictions (covering 1% of the region). The remaining area (covering 6% of the region) consists of military lands which have their own integrated natural resource management plans.

As part of SANDAG participation in regional habitat conservation planning, a conserved lands database was developed in 2010 to track the conservation and management of land in San Diego County. In 2014, the database underwent a quality assurance and quality control process. It is available to the public at http://gis.sandag.org/ConservedLand/. The database will be maintained and serve as the basis for Regional Comprehensive Plan (RCP) monitoring for regional habitat conservation, as well as provide information to the public on the tracking of these regional planning efforts. Of the total land in jurisdictions that have approved conservation plans and signed implementing agreements, 81 percent of land has been conserved within the habitat preserve system, as shown in Figure 16. This includes lands preserved to date within the MSCP South and the MHCP.

Additional acreage has been obligated by the City and County of San Diego under approved discretionary development entitlements or conservation banks, but has not yet been conserved through formal legal mechanisms (e.g., easement, dedication in fee title to jurisdictions). This acreage will be added to the conserved lands database when they are legally conserved.

Figure 16
MSCP South County and MHCP Land Conservation by Year, 2005 to 2013, with 2020 and 2030 Targets

Source: SANDAG Conserved Land Database, 2013

The SANDAG Environmental Mitigation Program (EMP), funded through TransNet, aims to protect, preserve and restore native habitats as offsets to disturbance caused by construction of regional and local transportation projects. Since 2008, SANDAG acquired 25 habitat conservation properties totaling 3,334 acres of open space under the EMP, with much of the acquired land previously slated
for development. These projects include Tabata (23.7 acres acquired in 2010), Zamudio (32.5 acres acquired in 2010), Mendocino (19.7 acres acquired in 2010), Vessels (162 acres acquired in 2010), Jeffries Ranch (80.3 acres acquired in 2011), Rincon (37.3 acres acquired in 2011), Deer Canyon (31.4 acres acquired in 2011), Rancho Lilac (902 acres acquired in 2011), and Hidden Valley (953 acres acquired in 2012). The status of acquisition under the EMP can be viewed at http://keepsandiegomoving.com/EMP/EMP-intro.aspx.

One successful project in the TransNet EMP is the Hidden Valley property in Jamul, which connects the San Diego National Wildlife Refuge to the State of California’s Rancho Jamul Ecological Reserve. This key acquisition was jointly procured by the United States Department of Interior and SANDAG with the assistance of the Nature Conservancy. SANDAG acquired 953 acres on the site with an additional 952 acres funded by the United States Border Patrol (negotiated through the Nature Conservancy) for a total of 1,905 acres. The land that will be added to the national refuge system will be managed by the United States Fish and Wildlife Service for endangered and threatened species such as the Quino checkerspot butterfly, the California gnatcatcher, and other rare plant and animal species. This project has been the largest acquisition completed under the TransNet EMP and will be used to mitigate transportation-related infrastructure impacts south of State Route 56.
Percent of Preserve Area Actively Maintained

Once conserved, property owners are responsible for the maintenance of the area to retain its habitat conservation values. Based upon the estimates of land conserved in the region described in the previous section, over 1.28 million acres in the region are managed as open space with dedicated land managers (Figure 17). This area includes land in the North and East County MSCP that are federal, state, and locally owned and conserved for open space and habitat (e.g., State Parks, United States Forest Service Lands, Bureau of Land Management areas).

Homeowner Association lands are often set aside when individual projects are approved. In the past monitoring report, those lands were considered preserved, but it is unknown if the land has some restrictive covenant to preserve the land in perpetuity. The SANDAG definition of conserved land now requires a clear record of that restriction and therefore many of these private lands are no longer considered ‘conserved lands’ per the new definition.

Figure 17
Land Management by Source, 2013

### Conserved Land by Ownership (Acres)

- Federal (486,039)
- State (639,651)
- Local (121,168)
- Private (16,158)
- Non-Profit (24,649)

Source: SANDAG Conserved Land Database 2013

Implementation of RCP Strategic Initiatives

A number of strategic initiatives relating to regional habitat management were identified in Chapter 9 of the RCP. The following provides information on the progress to date.

- **Develop regional habitat funding program**

  The SANDAG Board of Directors established the Quality of Life Ad Hoc Steering Committee in June 2008 to provide policy direction and guide collaborative efforts with regional stakeholders on possible approaches to a regional Quality of Life Funding Strategy. A regional funding program for habitat conservation is one of the funding elements being discussed.
Develop and implement regional habitat management and monitoring plan

The SANDAG Board of Directors approved funding for the coordination of regional management and monitoring efforts. A group of contractors was hired to assist the local jurisdictions, land managers, and wildlife agencies with the development of standardized habitat management and monitoring plans that are efficient and cost-effective.

Coordinate regional habitat monitoring databases

Currently there are four regional databases for management and monitoring efforts located at the federal, state, and local levels. The focus of the regional management and monitoring team for FY 2012 was to assist the database managers to make these independent databases able to share data and collaborate in future data gathering efforts. This centralized database is now available to the public at http://www.sdmmp.com/reports_and_products/databases.aspx. Future work will include upgrades for a more user friendly public interface.

Prepare guidelines for protecting natural habitats in urbanized areas, and for use of native vegetation in urban landscapes

The various jurisdictions are working on implementing or adopting habitat conservation plans for the natural habitats in urbanized and un-urbanized areas. The various subregional habitat conservation plans illustrated in Map 2 provide the umbrella guidelines for conservation. Included in these jurisdictional plans are provisions for use of native and prohibition of invasive species in urban areas adjacent to open space areas. SANDAG is working with San Diego State University to develop standard guidelines for all land managers to follow in the creation of their natural resource management plans.

Coordinate the planning of future transportation and wildlife corridors

Caltrans has been partnering with SANDAG, United States Fish and Wildlife Service and the California Department of Fish and Game on the development of wildlife movement structures under new transportation infrastructure projects, such as State Route 76. In addition, SANDAG is engaged in a multi-stakeholder effort to identify critical linkages for the connectivity of wildlife linkages and to initiate regional monitoring of these areas.

Number of Beach-Mile Day Closures

Beach-Mile Days (BMDs) is a standardized measure indicating the scale of a beach closure. It is the product of the number of days a beach was closed and the length of impacted coastline (in miles). For example, if a particular beach was closed for three days and for a distance of 150 yards, the number of BMDs for this incident would be 0.26 (150 yards/1 mile X 3 days). BMD is a useful measure for annual comparisons of beach health. The Beach closures shown in Figure 18 are caused by water contamination by pathogens. Pathogens can potentially endanger beachgoers when they are exposed to the contaminated water through skin contact (swimming or surfing) or ingestion. Runoff during storms can contribute to contamination; thus, years with a lot of rain may have a higher BMD.

Beginning with this 2012 to 2013 Monitoring Report, closure BMDs do not include closures in the region’s south county beaches due to sewage-contaminated runoff from the Tijuana River. When
closure events related to the Tijuana River are excluded, the trend of closure BMDs due to sanitary sewer overflow in the rest of the region is more accurately reflected. The previous source for BMD data, San Diego County Annual Beach Closure and Advisory Report, is no longer available as of 2008. Instead, the Beach and Bay Water Quality Monitoring Program Brochure provides an overview of the program and beach water quality data from 2008 to 2013, including closure BMDs.

As shown in Figure 18, BMD closures have fluctuated over the years, with 54.3 in 2005 and 3.57 in 2013. The lower level of closures in recent years may be partially attributed to better maintenance of sewer lines and better containment of spills by municipal water agencies.

Figure 18
Closure Beach Mile Days, 2005 to 2013

*Increase associated with a regionwide power outage when pumps could not move storm water and waste water through the treatment process.

Source: San Diego County Department of Environmental Health, Land and Water Quality Division
**Beach Widths**

The San Diego shoreline consists of narrow beaches backed by steep cliffs and dense urban development. As a result of development, there have been deficits in the sand supply flowing to the region’s beaches while there has been increasing demand for beach recreation.

In 2001, SANDAG implemented the first-of-its-kind regional sand restoration project in the western United States. The 2001 Regional Beach Sand Project (RBSP) placed a total of 2.1 million cubic yards of clean, beach-quality sand on 12 sites from Oceanside to Imperial Beach. In the initial year following the 2001 RBSP, beach widths increased in all three Littoral Cells in the region Oceanside, Mission Beach, and Silver Strand. As expected, these gains were followed by gradual shoreline retreat and shorezone volume losses through 2006, with an unusual increase in 2007 due to mild wave conditions, which was then followed by continued losses.

Between 2009 and 2010, shoreline retreat and shorezone volume losses occurred at most of the beaches in the Oceanside and Silver Strand Littoral Cells. These losses likely are due to the relatively severe wave conditions that prevailed during the 2009 to 2010 winter season. However, substantial shoreline advance and shorezone volume gains predominated in the Mission Beach Littoral Cell. These gains appear to be attributable to the 450,000 cubic yards of nourishment material placed at Mission Beach by the United States Army Corps of Engineers. These changes produced beach widths that exceeded the 2010 target widths by a large margin in the Mission Beach Littoral Cell. In contrast, beach widths at the Oceanside Littoral Cell sites remained below their 2010 target widths (Table 9).

Building upon the success of the RBSP in 2001, SANDAG completed a second RBSP during the fall of 2012. By the start of the 2012 RBSP, the Oceanside and Silver Strand Littoral Cells were below the pre-2001 RBSP beach widths. Initial monitoring results show that as with the 2001 RBSP, there have been initial beach width gains at the receiver sites where sand was placed, followed by losses. However, net benefits resulting from the 2012 RBSP thus far include beach width gains at adjacent beaches and a surplus of sand within the region's overall system. Through the 2012 RBSP, SANDAG has continued the process of restoring the region’s eroded beaches by implementing measures to protect and enhance the quality of our coastline.
### Table 9
Beach Widths and Targets of Shoreline Segments (in feet), 2005 to 2013

<table>
<thead>
<tr>
<th>Fall Averages</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2010 Target</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Silver Strand Littoral Cell</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Imperial Beach</td>
<td>114.5</td>
<td>168.5</td>
<td>151.0</td>
<td>152.5</td>
<td>162.5</td>
<td>117.5</td>
<td>100.0</td>
<td>229.0</td>
<td>174.0</td>
<td>238.0</td>
</tr>
<tr>
<td>Silver Strand State Beach</td>
<td>438.5</td>
<td>486.0</td>
<td>453.5</td>
<td>458.5</td>
<td>462.0</td>
<td>427.0</td>
<td>425.0</td>
<td>429.0</td>
<td>431.0</td>
<td>210.0</td>
</tr>
<tr>
<td>Coronado</td>
<td>737.0</td>
<td>790.0</td>
<td>784.0</td>
<td>767.0</td>
<td>766.0</td>
<td>736.0</td>
<td>692.0</td>
<td>736.0</td>
<td>756.0</td>
<td>232.0</td>
</tr>
<tr>
<td><strong>Mission Beach Littoral Cell</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ocean Beach</td>
<td>225.0</td>
<td>273.0</td>
<td>248.0</td>
<td>242.0</td>
<td>266.0</td>
<td>227.0</td>
<td>236.0</td>
<td>237.0</td>
<td>213.0</td>
<td>220.0</td>
</tr>
<tr>
<td>Pacific/Mission Beaches</td>
<td>240.8</td>
<td>255.0</td>
<td>226.5</td>
<td>244.5</td>
<td>244.5</td>
<td>294.3</td>
<td>254.5</td>
<td>230.0</td>
<td>229.5</td>
<td>200.0</td>
</tr>
<tr>
<td><strong>Oceanside Littoral Cell</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>La Jolla</td>
<td>193.3</td>
<td>202.0</td>
<td>169.8</td>
<td>197.5</td>
<td>188.5</td>
<td>193.3</td>
<td>179.0</td>
<td>168.8</td>
<td>186.5</td>
<td>n/a</td>
</tr>
<tr>
<td>San Diego</td>
<td>160.5</td>
<td>185.0</td>
<td>144.0</td>
<td>165.5</td>
<td>163.5</td>
<td>125.0</td>
<td>143.0</td>
<td>109.0</td>
<td>147.5</td>
<td>228.0</td>
</tr>
<tr>
<td>Del Mar</td>
<td>119.0</td>
<td>158.0</td>
<td>106.0</td>
<td>125.5</td>
<td>118.5</td>
<td>102.5</td>
<td>135.0</td>
<td>102.5</td>
<td>118.5</td>
<td>232.0</td>
</tr>
<tr>
<td>Solana Beach</td>
<td>130.0</td>
<td>157.0</td>
<td>116.0</td>
<td>155.0</td>
<td>157.0</td>
<td>163.0</td>
<td>136.0</td>
<td>212.0</td>
<td>196.0</td>
<td>232.0</td>
</tr>
<tr>
<td>Encinitas</td>
<td>158.4</td>
<td>181.8</td>
<td>156.8</td>
<td>176.0</td>
<td>180.3</td>
<td>165.1</td>
<td>174.3</td>
<td>180.7</td>
<td>196.1</td>
<td>240.0</td>
</tr>
<tr>
<td>Carlsbad</td>
<td>113.6</td>
<td>131.2</td>
<td>117.0</td>
<td>131.6</td>
<td>129.0</td>
<td>118.7</td>
<td>115.8</td>
<td>134.1</td>
<td>140.1</td>
<td>216.0</td>
</tr>
<tr>
<td>Oceanside</td>
<td>226.0</td>
<td>251.0</td>
<td>204.0</td>
<td>194.5</td>
<td>209.8</td>
<td>188.3</td>
<td>190.5</td>
<td>242.8</td>
<td>221.3</td>
<td>232.0</td>
</tr>
</tbody>
</table>

**Notes:**
(a) Based on average fall beach widths, derived from 44 transects established in 2000, allowing for comparisons over time. This method was not utilized previously. Therefore, the information presented in prior reports do not match this table; (c) SANDAG implemented Regional Beach Sand Projects in 2001, which nourished 12 of the region’s beaches, and again in 2012, which nourished 8 of the region’s beaches.

**Source:** SANDAG Regional Beach Monitoring Program, Annual Report 2013
**Impaired Waterbodies**

Data for this indicator are published every four years by the San Diego Regional Water Quality Control Board. Therefore, the analysis remains unchanged since the last report, as presented below.

Between 2006 and 2010, impaired waterbodies in the region decreased. Impaired waterbodies are those that do not meet Clean Water Act standards. The region as a whole greatly enhanced its monitoring efforts between 2002 and 2006; as such, a greater percentage of waterbodies were found to be impaired in 2006 than in 2002 (Figure 19). Thus, the extent to which the region’s impaired waterbodies has increased between 2002 and 2006 cannot be conclusively determined. Similarly, between 2006 and 2010 more information was available from the Water Board and outside agencies that makes comparisons among the years difficult due to changing data collection methodologies. Overall, the new policies in place for the listing and de-listing of impaired water bodies reflects an increase in the amount and better organized water quality data available for consideration.

**Figure 19**

Impaired Waterbodies, 2002, 2006, and 2010

*Miles of rivers, streams, creeks, and other waterways that are considered impaired based on federal 303(d) criteria

**Acres of lakes, bays, lagoons, and other bodies of water that are considered impaired based on federal 303(d) criteria

Source: San Diego Regional Water Quality Control Board
Air Quality

The Air Quality Index (AQI) data suggest that air quality continues to improve in the San Diego region. As shown in Figure 20, air quality appeared to have been at its cleanest in 2013. The increases in the AQI index in 2006 and 2008 were likely due to a number of days during which the region experienced record-high temperatures.

The AQI can be used to report daily air quality. It tells us how clean or polluted the air is and what associated health effects might be of concern. The United States Environmental Protection Agency (EPA) calculates the AQI for five major pollutants regulated by the Clean Air Act: ground-level ozone, particle pollution (also known as particulate matter), carbon monoxide, sulfur dioxide, and nitrogen dioxide. For each of these pollutants, the EPA has established national air quality standards to protect public health. In the San Diego region, ground-level ozone and particulate matter pollutant levels are responsible for the majority of days during which the region experiences an AQI over 100.

An AQI value of 100 generally corresponds to the national air quality standard for the pollutant, which is the level the EPA has set to protect public health. AQI values below 100 are generally thought of as satisfactory. When AQI values are above 100, air quality is considered to be unhealthy – first for certain sensitive groups of people, then for everyone as AQI values rise. Sensitive groups are defined as those “at greater risk than the general population from the toxic effects of a specific air pollutant,” such as older adults, children, or those with heart or lung disease.

The AQI data presented in this report reflect EPA revised standards for PM$_{2.5}$ (fine particles). The EPA enacted stricter standards for PM$_{2.5}$ in 2006 and ozone in 2008. The data shown report on performance relative to the revised standard from 2005 to 2013. It also should be noted that the data exclude days during the 2007 wildfire when PM$_{2.5}$ and carbon monoxide exceeded their respective standards.

**Figure 20**
Number of Days AQI More Than 100, 2005 to 2013

![Graph showing the number of days with AQI more than 100 from 2005 to 2013.](Source: San Diego Air Pollution Control District)
Conclusion

The region continues to make progress on habitat conservation, and further progress is anticipated as the North County MSCPs is refined based on public input. With respect to beach mile closure days, sewer line maintenance and containment of spills have contributed a lower level in recent years. While beach widths do not meet or exceed 2010 targets for every beach, there is a surplus of sand within the overall system, in part due to the SANDAG Regional Beach Sand Project. For air quality, 2013 had the fewest number of unhealthy days since 2005. SANDAG continues to evaluate strategies to fund improvements to water quality, habitat preservation, and beach nourishment.
Economic prosperity is an important area of focus for tracking the region's performance. A well-educated workforce, growth in regional industry clusters, and high-wage along with balanced-wage jobs are all important indicators to measure the progress of the region's economy. Additionally, focusing resources on human and physical infrastructure, job growth, and a rising standard of living are important factors that work symbiotically to improve San Diego’s quality of life.

**Economic Prosperity Factors that Improve the Region’s Quality of Life**

Economic prosperity indicators were developed for the Regional Comprehensive Plan (RCP) Annual Performance Monitoring Report to track past performance and to anticipate future areas of strategic initiatives. These indicators include the following:

- Labor Force Education Attainment
- Employment Growth in High Wage Industry Clusters
- Regional Unemployment Rate Compared to California and the United States
- Real per Capita Income Compared to California and the United States
- Regional Poverty Rate Compared to California and the United States

As a component of the RCP, the Regional Economic Prosperity Strategy (REPS) was originally developed in 1998 in response to the economic restructuring and recession of the early 1990s. The REPS was updated in 2008 and identifies demographic and economic challenges facing the San Diego region, and promotes a strategy to meet these challenges and improve the competitiveness of our local economy. The outcome of the REPS identified strategic goals and recommended actions for infrastructure investment and public policy support in order to strengthen the region's economic foundation.

Another important component of the RCP includes measuring employment growth in the region’s traded industry clusters. The clusters were introduced locally in 1994 as a tool to aid in the economic
recovery by identifying several employment clusters that would serve as the foundation for regional recovery and growth. Since 1998, SANDAG has completed four cluster reports.

**Labor Force Educational Attainment**

Labor force educational attainment is an important measure of the region’s educational progress and standard of living. Overall, the San Diego region has a well-educated labor force. As shown in Figure 21, 34 percent of the labor force reported having a bachelor’s degree or higher in 2012 with 32 percent having some college education, 19 percent having only a high school degree, and 14 percent with no high school education. Overall, educational attainment generally remained stable since 2005.

**Figure 21**

**Labor Force Educational Attainment, 2005 to 2012**

Source: American Community Survey, 1-Year. United States Census Bureau

**Employment Growth in High-Wage Traded Industry Clusters**

Economic industry clusters are groups of interrelated, export-oriented industries that are responsible for driving the economic growth and prosperity of the regional economy. Industries within a cluster have business transactions with one another and function interdependently. Cluster companies often participate in local industry associations and collaborate with universities and community colleges, which foster collaboration and the exchange of knowledge. Companies within a cluster also compete with each other for market share, which drives innovation and productivity. Companies within clusters tend to be among the region’s leaders in research and development funding, patent awards, and other key indicators of innovation. Many of the clusters also pay high wages, although some do not. All clusters are economic drivers for the region because they are export-oriented and bring in funding and spending from outside the region.
Measuring employment growth in traded industry clusters is an important indicator of economic prosperity because it shows how the region’s economy grows, changes, and adapts over time. Clusters help drive economic growth because they bring new money into the region by selling their products and services nationally and internationally.

According to the report *Traded Industry Clusters in the San Diego Region, 2012*, the following thirteen clusters drive the regional economy:

- Action Sports Manufacturing
- Advanced Precision Manufacturing
- Aerospace, Navigation, and Maritime Technology
- Apparel Manufacturing
- Biomedical Devices and Products
- Biotechnology and Pharmaceuticals
- Cleantech
- Entertainment and Hospitality
- Fruits and Vegetables
- Horticulture
- Information and Communication Technology
- Publishing and Marketing
- Specialty Foods and Microbreweries

Out of these thirteen traded industry clusters, eight clusters were considered “high wage traded industry clusters” and showed wages that are greater than the region’s annual average wage across all industries.

These eight high wage clusters in the San Diego region include:

- Action Sports Manufacturing
- Advanced Precision Manufacturing
- Aerospace, Navigation, and Maritime Technology
- Biomedical Devices and Products
- Biotechnology and Pharmaceuticals
- Cleantech
- Information and Communications Technology
- Publishing and Marketing

As shown in Figure 22, total employment in high-wage economic clusters has remained relatively steady since 2005, with 166,361 jobs in these high-wage traded industry clusters in 2012.
Employment growth in high wage clusters has a dual benefit to the region such as economic growth that brings in new money into the region and growth of jobs for local residents. These characteristics fit in with the RCP’s goals of improving local business environment and providing a rising standard of living to the region’s residents.

Source: SANDAG Cluster Inventory; Traded Industry Clusters in the San Diego Region, 2012
Regional Unemployment Rate Compared to California and the United States

As shown in Figure 23, San Diego’s unemployment rate was around 4 percent in 2005. As jobs were lost and the economy began to weaken, the unemployment rate for San Diego increased, peaking to 10.6 percent in 2010. Since 2010, unemployment rates in San Diego were steadily declining. These trends were consistent with the state and the nation.

Figure 23
Unemployment in San Diego, California and the United States, 2005 to 2013

Source: Unemployment Survey, United State Department of Labor, Bureau of Labor Statistics
Real Per Capita Income Compared to California and the United States

Real per capita income, or the income per person adjusted for inflation, is one indicator that measures the region’s standard of living. As shown in Figure 24, San Diego’s real per capita income has been relatively stable over time, showing that San Diego’s residents generally aren’t more prosperous today than they were in 2005. In 2012, real per capita income was $49,719 in San Diego, consistently higher than California and the United States.

Figure 24
Real Per Capita Income in San Diego, California and the United States in Inflation-Adjusted 2012 Dollars, 2005 to 2012

Source: United States Bureau of Economic Analysis
Regional Poverty Rate Compared to California and the United States

The San Diego region’s poverty rate has historically been lower than the state and the nation, as shown in Figure 25. However, the region’s poverty rate has increased since 2007, with trends similar to the state and the nation. In 2012, San Diego’s poverty rate was 15 percent, which is slightly lower than California and the United States. Again, as with other indicators, this increase is partially attributable to the economic recession.

Figure 25
Percent of Residents Living in Poverty in San Diego, California and the United States, 2005 to 2012

Source: American Community Survey, 1-Year. United States Census Bureau

Conclusion

Economic prosperity for the region shows recent positive gains following the economic downturn. The region continues to have a well-educated labor force and unemployment is on the decline. Many of the traded industry clusters in the region provide a variety of balanced and high wage jobs for residents, though the quantity of jobs in these areas has been flat in recent years. The region’s standard of living, as measured by real per capita income, has been relatively flat over time. Further, poverty levels are lower locally than for California and the United States as a whole.
Our region requires reliable supplies of water and energy, opportunities to reuse and recycle materials, and sufficient disposal options for waste. The region also needs to make more efficient use of its resources. With respect to water, the County Water Authority’s long-term strategy developed in the 1990s to diversify the region’s water supply sources and enhance its supply reliability includes major investments in the region’s water delivery and storage system and improved water use efficiency. The Regional Energy Strategy (RES), originally adopted in 1994 and updated in 2003 and 2009. It serves as an energy policy guide to support decision-making by SANDAG and its member agencies. The RES identifies region-specific energy issues such as increasing the diversity of energy supply in the region. The 2012 to 2013 Monitoring Report reflects the indicators and targets included in the updated RES.
Water Consumption

As shown in Figure 26, water consumption has fluctuated over time. The decline from 2007 to 2011 has reversed with water consumption increasing in 2012 and 2013. According to Water Authority, the drop in consumption between 2007 and 2011 was related to the following:

- Water-use restrictions and ramped up public outreach campaigns
- Supply cutbacks imposed by the Metropolitan Water District (MWD) due to drought conditions
- Lingering adverse economic impacts associated the recession
- Above average rainfall in 2011 (almost 13 inches from October through September at the Lindberg Field Station compared to about 10 inches historically)

The reversal of this downward trend in 2012 and 2013 is partially due to MWD lifting previous supply restrictions in April 2011, below average rainfall (7.9 inches in 2012 and 6.6 inches in 2013), and improving economic conditions.

Figure 26
Water Consumption, 2005 to 2013

Source: San Diego County Water Authority Annual Reports
Diversity of Water Supply

Associated with the Water Authority’s long-term strategy, the region’s water supply became more diverse between 2005 through 2011, with reliance on MWD water supplies decreasing from 79 percent in 2005 to 44 percent in 2011 (Figure 27). These levels have remained stable since that time, with MWD representing 46 percent in 2013. However, the Water Authority is on track to meet its water diversification strategy target by 2020, including the ramped up transfer of water supplies from the Imperial Irrigation District and approval of a 30-year contract signed by the Water Authority in November 2012 to purchase desalinated seawater from a plant that is currently under construction in Carlsbad.

Figure 27
Water Supply Diversification by Source, 2005 to 2013 with 2020 Target

<table>
<thead>
<tr>
<th>Year</th>
<th>MWD</th>
<th>Imperial Irrigation District</th>
<th>Canal Lining Transfer</th>
<th>Groundwater</th>
<th>Recycling</th>
<th>Conservation</th>
<th>Sea Water</th>
<th>Surface Water</th>
<th>Dry-Year Transfer</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>79%</td>
<td>4%</td>
<td>0%</td>
<td>2%</td>
<td>2%</td>
<td>7%</td>
<td>0%</td>
<td>7%</td>
<td>0%</td>
</tr>
<tr>
<td>2006</td>
<td>73%</td>
<td>5%</td>
<td>0%</td>
<td>2%</td>
<td>2%</td>
<td>7%</td>
<td>0%</td>
<td>7%</td>
<td>0%</td>
</tr>
<tr>
<td>2007</td>
<td>76%</td>
<td>6%</td>
<td>1%</td>
<td>2%</td>
<td>3%</td>
<td>7%</td>
<td>0%</td>
<td>7%</td>
<td>0%</td>
</tr>
<tr>
<td>2008</td>
<td>71%</td>
<td>7%</td>
<td>2%</td>
<td>3%</td>
<td>3%</td>
<td>8%</td>
<td>0%</td>
<td>7%</td>
<td>0%</td>
</tr>
<tr>
<td>2009</td>
<td>62%</td>
<td>8%</td>
<td>4%</td>
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<td>10%</td>
<td>0%</td>
<td>7%</td>
<td>3%</td>
</tr>
<tr>
<td>2010</td>
<td>53%</td>
<td>10%</td>
<td>8%</td>
<td>3%</td>
<td>3%</td>
<td>14%</td>
<td>0%</td>
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<tr>
<td>2011</td>
<td>44%</td>
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<td>13%</td>
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<td>2012</td>
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<td>14%</td>
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<td>2013</td>
<td>46%</td>
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<td>7%</td>
<td>3%</td>
</tr>
<tr>
<td>2020</td>
<td>30%</td>
<td>24%</td>
<td>10%</td>
<td>4%</td>
<td>4%</td>
<td>13%</td>
<td>0%</td>
<td>7%</td>
<td>n/a</td>
</tr>
</tbody>
</table>

Note: Percentages may not total 100 due to rounding.
Source: San Diego County Water Authority Annual Reports (fiscal year water supply by source)
Recycled Water Use

As indicated in previous reports, the amount of recycled water use has increased over time as the region continues to invest in infrastructure and consumer awareness, as shown in Figure 28. Recycled water use has steadily increased from 2005 through 2009, with decreases in 2010 and 2011, followed by a rise through 2013. The slight declines in 2010 and 2011 may be due to the decrease in water consumption overall, see the Water Consumption previously shown in Figure 26. The goal for the region is to grow recycled water supplies to 44,000 acre-feet annually by 2020.

Several Water Authority member agencies have collaborated to obtain state and federal funding for the North San Diego County Regional Recycled Water Project, which will add approximately 30 million gallons per day of recycled water to the regional water supply portfolio. In addition to more recycled water production in the near future, there is increasing support by the public for water purification and recycling. Member agencies also have been providing recycled water retrofit assistance to existing customers in order to expedite hook-ups to their recycled water systems.

Figure 28
Amount of Recycled Water Used, 2005 to 2013

Source: San Diego County Water Authority Annual Reports
Energy Supply and Use

Energy supply describes the resources that make up the total electricity produced for the San Diego Gas & Electric (SDG&E) service area, of which 91 percent is attributed to San Diego County. The energy supply is a mix of both imported and in-region power. Over 60 percent of the region’s overall power comes from natural gas. The region’s use of coal continues to decrease, since California no longer permits in-state coal plants and long-term out-of-state contracts continue to expire. Figure 29 shows the breakdown of energy sources used in 2005 and 2012.

Figure 29
Energy Sources, 2005 and 2012

* In January 2012, the San Onofre Nuclear Generation Station was shutdown.
** Other refers to power sold to SDG&E, but the energy source is unknown.

Note: Percentages may not equal 100 due to rounding.

Source: SDG&E Power Content Label.
Share and Types of Energy Produced from Renewable Resources

As of 2012, 19 percent of the region's electricity came from renewable resources, while state and regional targets called for 20 percent as shown in Figure 30. However, this proportion is up from seven percent in 2005. In 2009, the SANDAG Board of Directors approved the Regional Energy Strategy (RES), which updated the region's energy goals and targets. One of the RES goals is to support development of renewable energy resources to meet or exceed a 33 percent Renewable Portfolio Standard (RPS) by 2020. Figure 31 compares the different types of renewable energy resources used in the San Diego region 2005 to 2012. While most categories increased, the largest growth occurred for wind, followed by solar.

Figure 30
Share of Energy Produced from Renewable Resources, 2005 to 2012, with 2010, 2020, and 2030 Targets

Source: SDG&E Power Content Label.
Figure 31
Breakdown of Renewable Energy Resources, 2005 and 2012

*Under California law, rooftop solar energy systems are not counted toward the RPS requirements. The RES includes a separate clean distributed generation goal that sets targets for rooftop solar and other kinds of onsite energy systems.

Source: SDG&E Power Content Label.

Per Capita Peak Demand for Electricity

The region’s annual per capita electricity peak demand has been relatively steady since 2005, as shown in Figure 32 below. The RES calls for cost effective steps and incentives to utilize demand response and energy efficiency measures to reduce overall peak demand.

Figure 32
Annual Per Capita Electricity Peak Demand, 2005 to 2012

Source: California Energy Commission. California Energy Demand 2014-2024 Baseline Revised Forecast - Mid Demand Case, SDG&E Planning Area, September 2013; State of California, Department of Finance, E-8 Population and Housing Estimates
Electricity Consumption by Sector

Electricity and natural gas consumption by sector were added as performance measures in the 2009 update of the RES. This indicator assists SANDAG in tracking the RES goals of reaching energy efficiency and conservation targets, implementing cost-effective steps to reduce peak demand, and increasing the total amount of renewable and nonrenewable energy resources to diversify electricity supply. Residential and commercial sectors use the most electricity in the region. Figure 33 shows the total annual consumption of electricity by sector for years 2005 to 2012, and projected consumption for 2020; this information is used to track the RES energy efficiency goal to reduce per capita electricity consumption in the residential and commercial sectors by 20 percent by 2030, in order to keep total electricity consumption flat between now and 2030.

Figure 33
Electricity Consumption by Sector, 2005 to 2012 and 2020 Projected

Source: California Energy Commission
Natural Gas Consumption by Sector

Natural gas supplies more than half of the fuel to generate electricity for the San Diego region. Natural gas is the most environmentally benign fossil fuel; it is used for cooking, to heat and cool homes, and for industrial applications. In 2012, the San Diego region consumed approximately 476 million therms of natural gas (this number does not include gas used for electricity production). Similar to electricity consumption, the majority of natural gas consumption is from the residential and commercial sectors as shown in Figure 34. The RES calls for increased use of natural gas for certain transportation applications, decreased use of natural gas for end-uses like water heating, and more efficient use of natural gas in electricity generation.

Figure 34
Natural Gas Consumption by Sector, 2005 to 2012 and 2020 Projected

Source: California Energy Commission
Percent of Solid Waste that is Recycled

The State ceased reporting local jurisdictions’ diversion rates in 2007. With the passage of Senate Bill 1016 (Wiggins, 2008), only per capita disposal rates are reported for each jurisdiction. The rates are not reported for the county as a whole. The County of San Diego reports an average of the region’s local jurisdictions, including the unincorporated area. This average is then calculated into a diversion rate that is shown in Figure 35. It should be noted that the County “average” is not a true average because each jurisdiction’s rate is based on its own population. However, it is the only measure available that gives a sense of the region’s rate of recycling.

The percent of solid waste that is recycled in the region increased since 2005, surpassing the state-mandated target, as shown in Figure 35. The target calls for a 50 percent solid waste diversion rate; in 2009 66 percent of solid waste was diverted from landfills.

Figure 35
Percent of Solid Waste Diverted From Landfills, 2005 to 2012

Source: California Integrated Waste Management Board; San Diego County Department of Public Works
Landfill Space Available

The County of San Diego is the designated local enforcement agency (LEA) for all solid waste facilities in the region. The City of San Diego is the LEA for facilities within the City of San Diego. The LEAs with concurrence for the Department of Resources Recycling and Recovery (CalRecycle), formerly the California Integrated Waste Management Board (CIWMB), issue operating permits to facilities including landfills, transfer stations, material recovery, and composting facilities.

In general terms, solid waste refers to garbage, refuse, and other discarded solid materials generated by residential, commercial, and industrial activities. CalRecycle identifies 10 categories of wastes: paper, glass, metal, electronics, plastic, other organic, Construction and Demolition (C&D), household hazardous waste, special waste, and mixed residue. Solid waste generation is measured by disposal and diversion. Disposal is defined in PRC Section 40192 as “the final deposition of solid wastes onto land, into the atmosphere, or into the waters of the state.” Solid waste that is disposed in landfills is measured in volume (cubic yards) and weight (tons). Diversion includes programs and practices such as waste prevention and source reduction, recycling, reuse, and composting that reduce the total amount of waste that requires disposal.

The San Diego region is currently served by three privately operated landfills and one operated by the City of San Diego. The four landfills have a total remaining capacity of 82,086,893 cubic yards and have a total daily throughput of 17,680 tons per day. In addition to these four landfills, there are two landfills operated by Marine Corps Base Camp Pendleton for its exclusive use. A limited amount of solid waste generated in the San Diego region is also disposed of outside of the region. The four landfills have an estimated average of 37.1 percent remaining capacity.

Table 10 shows the remaining capacity of each landfill located in the San Diego region and their estimated date of closure.

<table>
<thead>
<tr>
<th>Facility</th>
<th>Estimated Closure Date</th>
<th>Throughput (tons/day)</th>
<th>Total Capacity (cubic yards)</th>
<th>Remaining Capacity</th>
<th>% Remaining Capacity</th>
<th>Remaining Capacity Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Borrego Landfill</td>
<td>10/31/2030</td>
<td>50</td>
<td>844,000</td>
<td>478,836</td>
<td>56.7%</td>
<td>August 31, 2009</td>
</tr>
<tr>
<td>Otay Landfill</td>
<td>2/28/2028</td>
<td>5,830</td>
<td>61,154,000</td>
<td>24,514,904</td>
<td>40.1%</td>
<td>March 31, 2012</td>
</tr>
<tr>
<td>West Miramar Landfill</td>
<td>8/31/2022</td>
<td>8,000</td>
<td>87,760,000</td>
<td>14,846,602</td>
<td>16.9%</td>
<td>November 30, 2013</td>
</tr>
<tr>
<td>Sycamore Landfill</td>
<td>10/1/2031</td>
<td>3,800</td>
<td>71,233,171</td>
<td>42,246,551</td>
<td>59.3%</td>
<td>February 28, 2011</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>17,680</strong></td>
<td><strong>220,991,171</strong></td>
<td><strong>82,086,893</strong></td>
<td><strong>37.1%</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: CalRecycle 2014
There are 145 recycling centers in the San Diego region that collect recyclable materials. In addition, eight composting facilities in the region collect, grind, mix, pile, and add moisture and air to organic materials to speed natural decay and produce a soil amendment. Another six chipping and grinding facilities in the region are designed to reduce the size of compostable material. Recycling, composting, chipping, and grinding all reduce the amount of solid waste that must be disposed of in a landfill.

C&D materials include lumber, drywall, metals, masonry (brick, concrete, etc.), carpet, plastic, pipe, rocks, dirt, paper, cardboard, or green waste related to land development. CalRecycle reported in 2010 that metals are the most commonly recycled material while lumber makes up the majority of debris that still goes to a landfill. According to CalRecycle in 2014, there are 29 C&D intermediate processing facilities in San Diego, and six inert fill-disposal operations.

With respect to additional landfill space, the proposed Gregory Canyon Landfill was planned to be operational in late 2005, but opening has been delayed. In the analysis conducted by the County of San Diego for the Countywide Five-Year Review Report of the Countywide Integrated Waste Management Plan, Gregory Canyon is assumed to open in 2014, though the actual year is unclear.

**Conclusion**

Following reductions in regional water consumption from 2007 through 2011, it has risen in recent years. However, the diversity of the water supply has increased. There continues to be an increase in the amount of recycled water used. With respect to energy, the use of natural gas as an energy source has grown, as well as energy produced from renewable resources, particularly through solar and wind generators. The residential and commercial sectors continue to consume the majority of energy.
The region’s distinct characteristics present a variety of opportunities and challenges for planning and coordinating along our interregional and binational borders. Access to jobs and housing continues to be an important issue.

**Interregional Traffic Volumes into San Diego from Surrounding Counties and Baja California**

The number of trips between San Diego County and neighboring California counties has remained stable, while trips between Northern Baja California (San Ysidro and Otay Mesa border crossings) and the region decreased from 2005 to 2010, increased in 2011, and declined in 2012, as shown in Figure 36. Specifically, there were 178,700 vehicles traveling between the region and Northern Baja California in 2005, declining to 135,200 in 2012. With respect to pedestrian trips from Baja California into San Diego, the annual number of trips is back up to pre-recession levels to 11,781,373 in 2013, as shown in Figure 37.

**Figure 36**

*Average Weekday Traffic Volumes to and from Orange, Imperial, and Riverside Counties and Northern Baja California, Mexico, 2005 to 2012*

*Note: Northern Baja California includes San Ysidro and Otay Mesa border crossings.*

*Source: Caltrans Traffic Census Department*
Figure 37
Northbound Pedestrian Border Crossings from Baja California into San Diego, 2005 to 2013

NOTE: Includes San Ysidro, Otay Mesa, and Tecate border crossings.
Source: United States Department of Transportation, Bureau of Transportation Statistics
**Border Wait Times**

After declining from 2008 to 2010 for both passengers and commercial vehicles, Figure 38 shows that border wait times have increased again.

**Figure 38**

*Average Border Wait Times, Northbound into San Diego from Northern Baja California, Mexico, 2008 to 2013*

*Includes San Ysidro and Otay Mesa border crossings.*

**Includes San Ysidro, Otay Mesa, and Tecate border crossings.*

***Includes Otay Mesa and Tecate border crossings.*

*Source: United States Customs and Border Protection, Border Wait Times: Southern Border Ports of Entry*
Participation in Secure Electronic Network for Travelers Rapid Inspection Lanes

There were a total of 186,283 Secure Electronic Network for Travelers Rapid Inspection (SENTRI) participants in 2013, which represents 54,656 more participants than the prior year, as shown in Figure 39. This number excludes Global Entry enrollment. All SENTRI participants for the entire United States-Mexico border are included, and they are able to cross at any United States-Mexico border crossing. According to Customs and Border Patrol, a strong local marketing effort contributed to the increase in SENTRI applications during 2013.

Figure 39
SENTRI Participants, 2006 to 2013

Conclusion

The volume of trips into San Diego from Baja California has slightly decreased, but the numbers of new participants in the SENTRI program have increased. Wait times have generally increased for the past three years. The volume of travel between the San Diego region and neighboring counties has remained relatively flat.