

CHAPTER

1

Why Sustainability?

2014 Regional Transportation Plan

In the state of California, responsibility for transportation planning and coordination is assigned to regional transportation planning agencies. The Santa Cruz County Regional Transportation Commission (referred to as the “Commission” or “RTC”) is the designated regional transportation planning agency for Santa Cruz County. The RTC is required to periodically undertake long-range planning efforts, as a way to set the course for meeting the transportation needs of their respective regions and communities over a 20 plus year timeframe. This long-range planning effort is called the Regional Transportation Plan, or RTP. Planning is a critical component to project implementation as it provides a forum for assessing the direction of transportation in our county over the next 20 plus years, it positions our community to receive funding for projects that require a well thought out plan, and helps to develop collaboration on projects. The 2014 Santa Cruz County Regional Transportation Plan (or “2014 RTP”), which looks out to 2035, incorporates sustainability principles in all of its elements: transportation goals and policies (policy element – **Chapter 4**), a financial plan for funding transportation projects (financial element – **Chapter 5**), and a program of short and long-range transportation projects (action element – **Chapter 6**).

The RTC coordinates with the Association of Monterey Bay Area Governments (AMBAG) in developing the Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) for the tri-county area of Monterey, San Benito and Santa Cruz Counties. AMBAG also develops the population, housing and employment growth projections for the region. The 2014 RTP is consistent with both of these efforts.

Why Sustainability?

Transportation affects many aspects of our lives both directly and indirectly. The transportation system enables us to get around – to work, to school, to stores and other destinations – but it is also interlinked with our health and safety, the quality of the natural environment, and the economic vitality of our region. The 2014 Regional Transportation Plan reflects a wide spectrum of sustainability objectives for this long range planning effort. A sustainable transportation system requires a plan that encompasses improvements to access, mobility, the environment, public health, safety, the economy and equity, as well as preservation of our current transportation system, all within financial constraints. A challenge, no doubt, but a strategy that strives to best serve the residents and visitors of Santa Cruz County.



With the passage of the California Sustainable Communities and Climate Protection Act of 2008 (SB 375) and the establishment of regional greenhouse gas emissions targets, a much greater emphasis is being placed on transportation plans to reduce the number of vehicle miles we travel through coordination of transportation investments and land use planning. Considering these sustainability requirements as well as all applicable state, federal, and regional priorities, the 2014 Santa Cruz County Regional Transportation Plan identifies infrastructure projects and programs that could be implemented through 2035 based on anticipated transportation revenues.

This chapter discusses a number of challenges that face transportation in Santa Cruz County now and in the future. The 2014 RTP endeavors to address these challenges and result in safer, healthier and more efficient travel choices that provide improved multimodal access to opportunities such as jobs, education, and healthcare for our residents.

System Preservation



As documented in the California *Statewide Local Streets and Roads Needs Assessment (2012)*, pavement and essential components (such as sidewalks, storm drains, gutters, and street lights) maintained by local jurisdictions are in dire condition.¹ Statewide there is a funding shortfall of approximately \$82 billion over the next 10 years to bring the system up-to-date.² On a scale of zero (failed) to 100 (excellent), the statewide average pavement condition index (PCI) has deteriorated from a 68 in 2008 to a 66 (“At Risk”) in 2012.³ Locally, streets in our county’s five jurisdictions are in even worse shape. About \$33 million per year is

needed to operate and maintain the existing local street and road network, and existing maintenance budgets typically only cover approximately \$13 million per year. Santa Cruz County’s Pavement Condition Index has fallen from a rating of “at risk” in 2008 to “poor” in 2012, one of seven counties in the state with a Pavement Condition Index rating this low.⁴ Maintenance of rural roadways can be particularly challenging due to their remote location, susceptibility to storm damage, and low traffic volumes relative to more urban roadways.

If significant additional funding is not made available to maintain the existing roadways, the condition is projected to deteriorate exponentially and become more costly as minor pothole repairs and resurfacing become major rehabilitation projects, requiring complete replacement of existing pavement. Repair costs escalate significantly as the magnitude of roadway maintenance required increases. The effects of heavy winter storms, as well as the lack of adequate funding in recent years, have contributed to a backlog of local road maintenance needs in Santa Cruz County that totals over \$350 million.

Caltrans faces a similar challenge maintaining the state highway system (SHS). As noted in the 10-Year State

Santa Cruz County Road Maintenance

- “Poor” Pavement Rating
- 1 of 7 counties with lowest rating in CA
- Typical budgets cover less than 30% of needs

Highway Operation and Protection Program (SHOPP) Plan,⁵ as the roadways and bridges on the SHS age and near the end of their service lives, the demands of vehicle and truck traffic are accelerating the deterioration of these assets. Compounding this deterioration is the deferment, due to lack of funding, of necessary rehabilitation and work to restore the transportation infrastructure to good operating conditions. The increased demands and deferred rehabilitation and restoration result in lower operational performance, higher user operating costs (additional vehicle repair costs, increased fuel consumption, increased tire wear, and accelerated vehicle depreciation), and ultimately higher overall long-term costs when needed repairs to the highway are eventually undertaken. In addition, the ever-increasing cost of meeting legal, statutory, and regulatory mandates is a significant contributor to the operating and maintenance needs.

The transit system is also in need of additional funds for maintenance. Buses and paratransit vehicles need to be replaced on a regular basis; transit centers are beyond their expected lifespan; bus stops need to be maintained and operations facilities need to be maintained and upgraded. In order to keep existing transit vehicles running, additional funding is needed to maintain the transit system.

While the state or federal government has provided onetime influxes of funding for system preservation, such as happened with the American Recovery and Reinvestment Act (ARRA) in 2009 and state transportation bonds of 2006, funds to maintain the existing transportation system are insufficient and unpredictable. **Figure 1.1** shows the disparity between available funds and funds needed for local road maintenance. When these on-going needs are not met, the cost to repair our roadways grows exponentially. These statistics make it clear that there is a critical need for more adequate funding to preserve and maintain existing facilities.

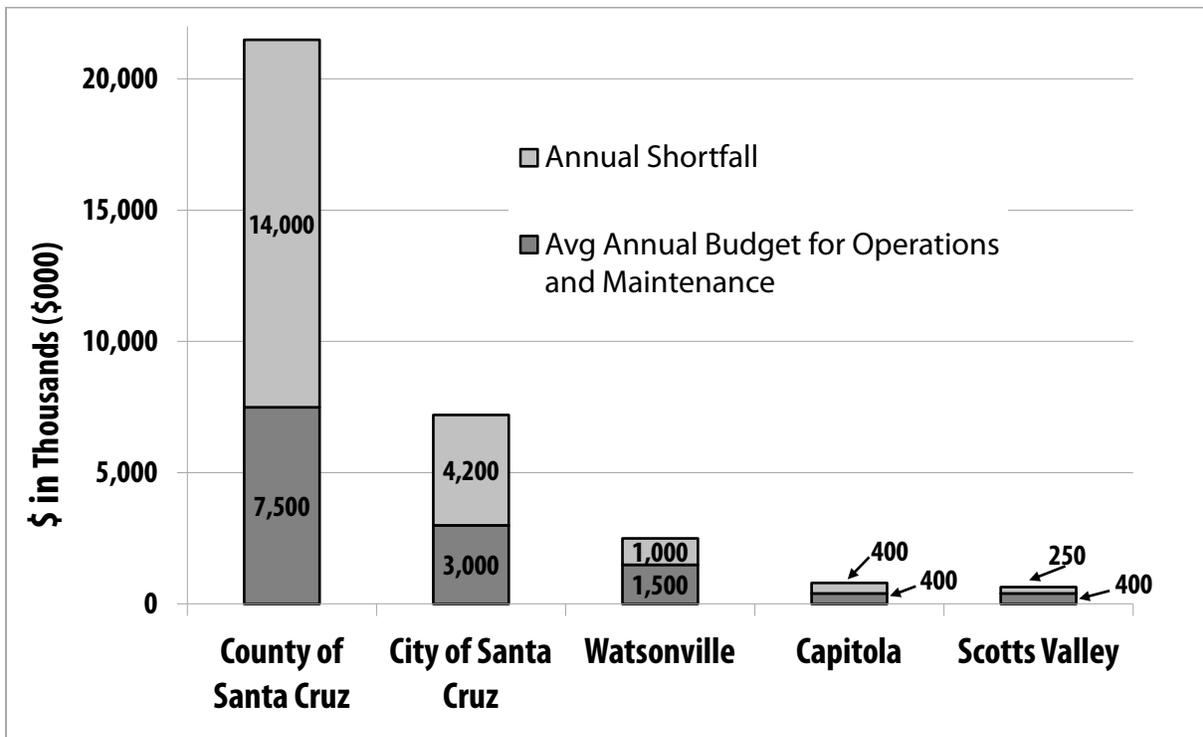


Figure 1.1 – Local Jurisdiction Annual Transportation Maintenance Budget Versus Existing Need

Source: Santa Cruz County Regional Transportation Commission

Safety

Safety is a significant concern in operating the transportation network. Primary collision factors as identified by the California Highway Patrol include driving under the influence of alcohol, unsafe speeds, improper turning and more recently distracted driving due to cell phone use. The federal transportation act, Moving Ahead for Progress in the 21st Century Act (MAP-21) identifies safety as a national goal area; to achieve a significant reduction in motorist traffic fatalities and serious injuries on all public roads. Although the mortality rate per mile driven has been on a downward trend since the time when data was first collected, motor vehicle collisions are still one of the leading causes of death in the U.S.⁶ The California Strategic Highway Safety Plan (SHSP) is a statewide effort to reduce fatalities and serious injuries on public roads. The initial overarching goal was to reduce the California roadway



fatality rate to less than 1.0 fatality per 100 million vehicle miles traveled (VMT) by 2010. The goal was met in 2009 bringing the California Mileage Death Rate (MDR) to 0.95 fatalities per 100 million VMT compared to the national rate of 1.14 MDR.⁷ The SHSP has now set new targets and various actions that state and local agencies can perform to reduce collisions. These include the capital projects on the state highway system funded through the State Highway Operation and Protection Program (SHOPP), added CHP enforcement – especially of vehicle speeds, and local education programs led by a coalition of police departments, health service agencies, and public works.

As we continue to successfully improve the safety for motorists, the fatality rates of those traveling on other modes of transportation also need to be addressed. The number of bicyclist and pedestrian injuries and fatalities in our county from 2002 through 2011 are shown in **Figure 1.2**. The number of injuries and fatalities has not changed significantly over this ten year period. The California Office of Traffic Safety ranked Santa Cruz County as the 5th highest county in the state for the number of bicyclist collisions in 2010 and 11th highest for the number of pedestrian collisions based on population.⁸ Santa Cruz County has a higher percentage of trips by bicycling and walking than the California state average.⁹ Without a better understanding of how many miles people are biking and walking, it is difficult to assess whether the collision rankings for Santa Cruz County are high relative to other regions based on use. Regardless of

2011 Collision Facts

California

- 159,115 Total Injury Collisions
- 7.6% Pedestrian Injury Collisions
- 8.5% Bicycle Injury Collisions
- 2791 Total Fatalities
- 22.4% Pedestrian Fatalities
- 4.1% Bicyclist Fatalities

Santa Cruz

- 1133 Total Injury Collisions
- 7.2% Pedestrian Injury Collisions
- 14.7% Bicycle Injury Collisions
- 6 Motorist Fatalities
- 2 Pedestrian Fatalities
- 1 Bicyclist Fatality

the rankings, reducing the number of fatalities and injuries for the most vulnerable users of the transportation system is critically important, especially given the multiple benefits of active transportation.

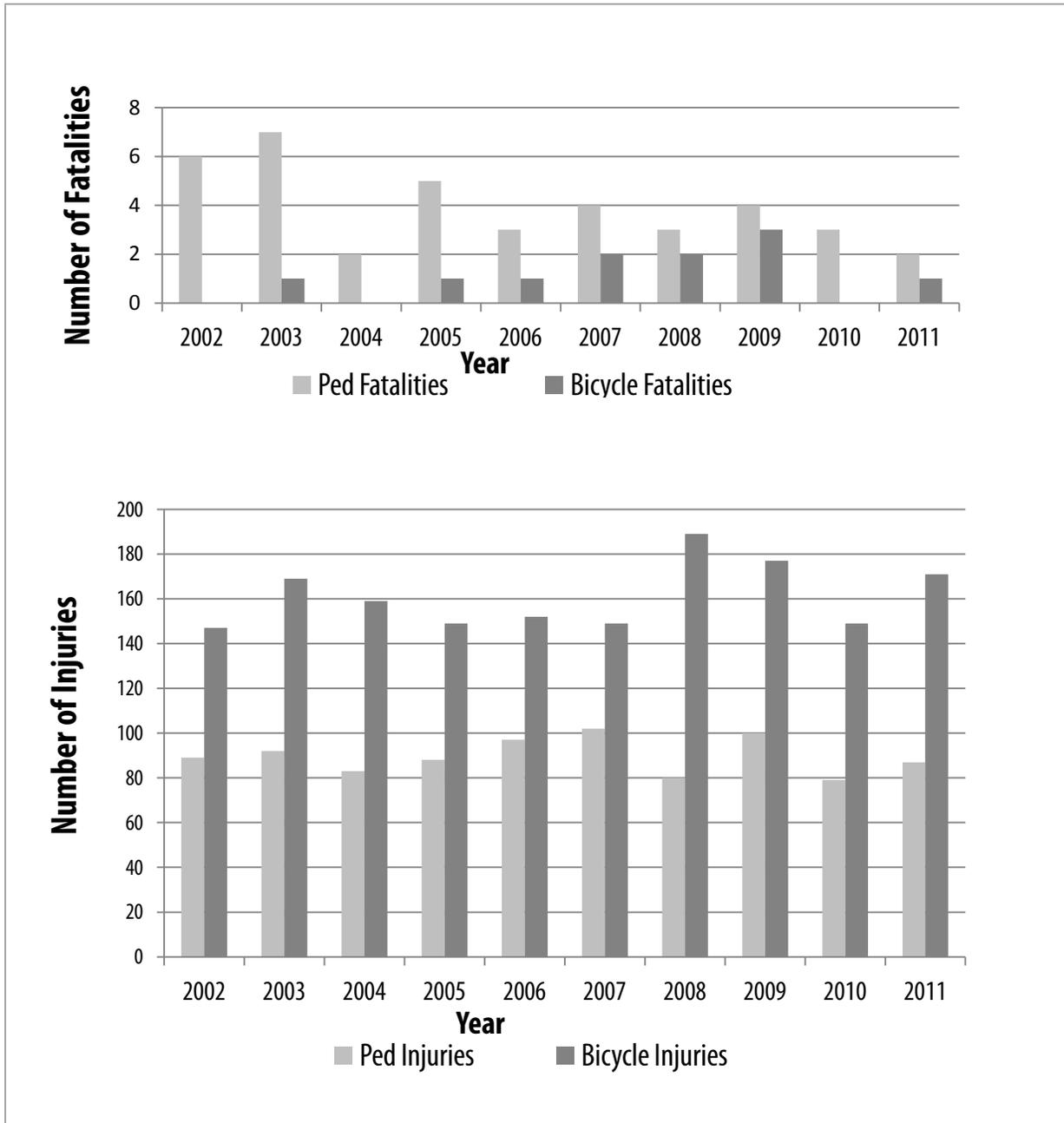


Figure 1.2 – Santa Cruz County Bicycle and Pedestrian Injuries and Fatalities from 2002 through 2011

Source: Statewide Integrated Traffic Records System (SWITRS) via UC Berkeley Transportation Injury Mapping System (TIMS)¹⁰

Congestion

Traffic congestion has become considerably harder to avoid. Congestion nationwide has increased two to threefold over the last 30 years.¹¹ In Santa Cruz County, segments of Highway 1 and a number of our local roads are notorious for being congested particularly at peak commute hours. Congestion on highways and arterials can encourage cut through auto traffic on neighborhood streets which can degrade the local road system and discourage walking and biking. The economic recession at the end of the last decade reduced congestion slightly in Santa Cruz County¹² but as the economy recovers, traffic congestion could increase again to previous highs.

Santa Cruz County residents have suggested many strategies to respond to congestion and reduce how long it takes to get places, but with increased demands on even more limited financial resources, an aging system that is already difficult to maintain, and requirements for

reducing greenhouse gas emissions, it is no longer expected that the community can completely eliminate congestion. The region must find ways to operate and utilize our existing highway and transit networks more efficiently and sustainably over the long term.



Environmental and Public Health

Not only in Santa Cruz County, but all over the world, communities are realizing that the movement of people and goods should be balanced with environmental and public health priorities. Greenhouse gas emissions have global environmental and public health effects and air pollutants can affect both the environment and public health on a regional scale. The link between limited active transportation, such as biking and walking, and adult and childhood obesity is being strengthened as research and strategies for addressing this concern are being discussed at federal, state and local levels. A sustainable transportation system can play a vital role in the environmental health of Santa Cruz County and the health of its residents.

Greenhouse Gas Emissions

In 2005, Governor Schwarzenegger issued an Executive Order for the state of California to reduce greenhouse gas emissions from all sectors to 1990 levels by 2020 and to 80% below 1990 levels by 2050. To support these goals, the California legislature passed the California Global Warming Solutions Act of 2006 (Assembly Bill 32) established a statewide target to reduce greenhouse gas (GHG) levels to 1990 levels by 2020.¹³ With

California Global Warming Solutions Act (AB 32)

- Reduce GHG emissions from all sectors to 1990 levels by 2020

transportation responsible for approximately 28% of the total GHG emissions nationally¹⁴ and approximately 60% of the total GHG emissions in Santa Cruz County,¹⁵ this bill set in motion a series of events that will change transportation planning for decades to come.

The three primary approaches for reducing greenhouse gas emissions from transportation are through:

- Improvements in vehicle technology creating greater fuel efficiencies
- Improvements in low carbon fuels
- Reduction in the number of vehicle miles traveled

None of these approaches alone will result in meeting the GHG emission reduction targets. Like other regions, pursuit of all three in combination will be necessary. Clean car standards, such as those set forth in regulations approved by the California Legislature, establish specific requirements for increasing the efficiency of, and reducing greenhouse gas emissions from, new passenger vehicles. The Low Carbon Fuel Standard establishes performance standards for reductions in carbon in transportation fuels that fuel producers and importers must meet each year. These measures are anticipated to result in the greatest reductions statewide.



The third approach, reducing the number of vehicle miles that are traveled (VMT), requires changes to how

much we drive. While some reductions in VMT are achievable by changes in individual travel behavior, modifications to land use patterns and the transportation system are also needed to support these changes. Reducing passenger vehicle use is supported through the requirements of the California

Sustainable Communities and Climate Protection Act of 2008 (SB 375). The emphasis of this bill is to promote compact, mixed-use commercial and residential infill development and the transportation infrastructure to support it to improve people’s ability to meet many of their daily needs through walking, biking and taking transit thereby reducing the per capita number of vehicle miles traveled.

California Sustainable Communities and Climate Protection Act of 2008 (SB 375)

AMBAG Region Targets (relative to 2005)

- 0% increase in per capita GHG from passenger vehicle use by 2020
- 5% reduction in per capita GHG from passenger vehicle use by 2035

SB 375 requires each of the state’s 18 metropolitan areas to reduce per capita greenhouse gas emissions from cars and light trucks. The law requires that the Association of Monterey Bay Area Governments (AMBAG) as the metropolitan planning organization for the region develop a new element of the Metropolitan Transportation Plan (MTP) called the Sustainable Communities Strategy (SCS). This strategy coordinates land use and transportation planning to strive to reach the greenhouse gas (GHG) reduction

target established for the region by the California Air Resources Board.

For the Monterey Bay region, the California Air Resources Board established reduction goals for per capita GHG emissions from passenger vehicle use of 0 percent and 5 percent by 2020 and 2035 respectively relative to 2005 levels. SB 375 streamlines the California Environmental Quality Act (CEQA) for housing and mixed-use projects that are consistent with the SCS and meet specified criteria, such as proximity to public transportation. The Santa Cruz County 2014 Regional Transportation Plan has been developed to be consistent with the SCS planning effort of the Association of Monterey Bay Area Governments (AMBAG).

Senate Bill 391 requires California Department of Transportation to prepare the California Transportation Plan that demonstrates how GHG emissions will be reduced to 1990 levels by 2020 and 80% below 1990 level by 2050. The California Transportation Plan will demonstrate how agencies can coordinate planning efforts to achieve critical statewide goals.

Air Pollutants

Much progress has been made in the reduction of air pollutants from transportation nationwide in the past several decades.¹⁶ Since the U.S. Clean Air Act was enacted in 1970, there has been a downward trend in the six criteria air pollutants (ozone, lead, particulate matter, carbon monoxide, sulfur oxides, and nitrogen oxides). Although substantial improvements have been made, there is still public health concern over the levels of air pollutants from transportation and many regions in California do not meet the National Ambient Air Quality Standards for these pollutants. Respiratory illness, asthma, cardiovascular disease and lung cancer are all associated with increased levels of air pollutants. Santa Cruz County, as part of the North Central Coast Air Basin, has met the National Ambient Air Quality Standards for all criteria pollutants and thus is not subject to Federal Clean Air Act conformity requirements in this plan. Partially the result of the region's coastal location and limited industrial operations, Santa Cruz County is on the "cleanest counties" list for low levels of ozone and particulate matter as published by the American Lung Association in their State of the Air 2013 report.¹⁷

Obesity

A growing body of evidence suggests that the design of our communities influences the likelihood that people will use active transport for their daily travel.¹⁸ The act of walking or biking to school, work, the store, transit or to other places that are a part of our daily routine has an influence on our health. Multiuse trails, bicycle paths, sidewalks, safe street crossings, and availability of public transit are all examples of transportation infrastructure that promote greater physical activity. Combined with increased housing density and mixed land use, people more often choose active forms of transportation which have the potential to lower obesity rates. The relationship between active transportation and obesity was examined in a study published in 2008 which showed that countries with the highest levels of active transportation had the lowest obesity rates (Figure 1.3).¹⁹



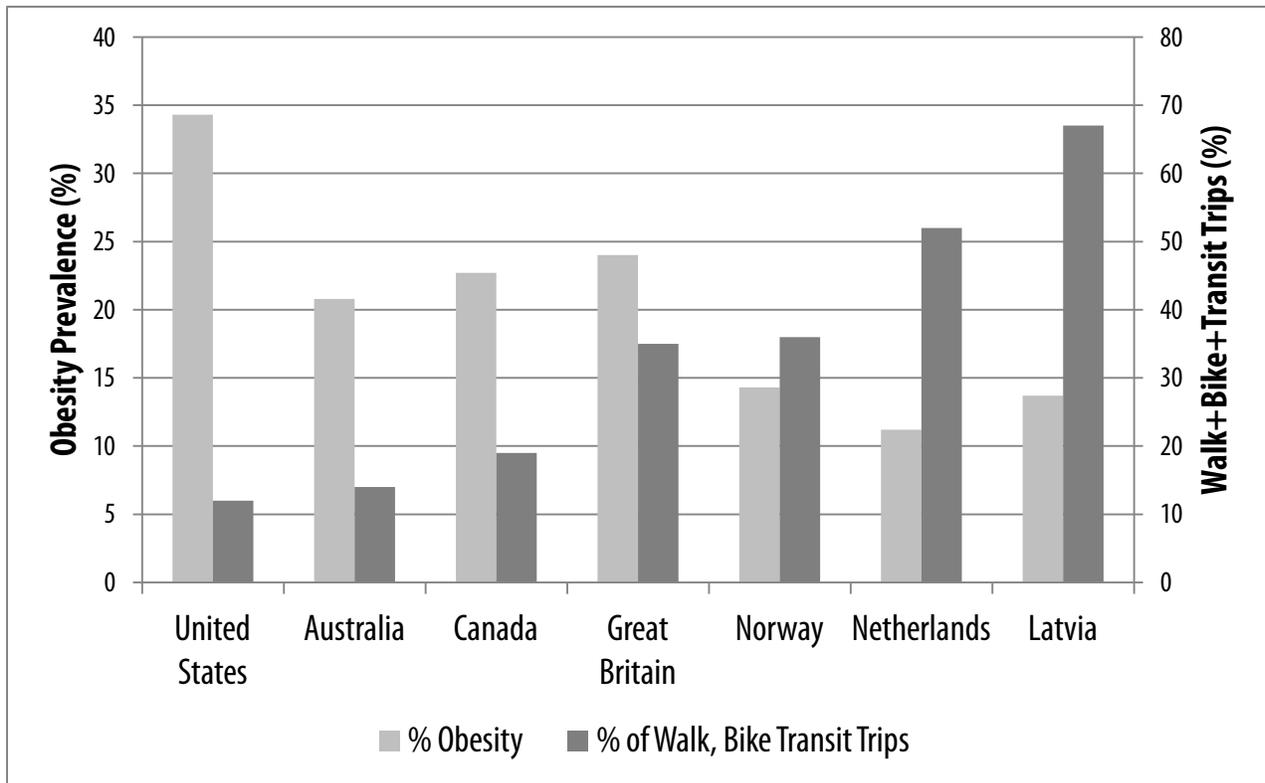


Figure 1.3 – Obesity Prevalence and Rates of Active Transportation in Countries of Europe, North America, and Australia

Source: Journal of Physical Activity and Health²⁰

The percentage of people in the United States that are obese has more than doubled over the last two decades. In 2009-2010, 35.7% of adults and 16.7% of children and adolescents in the United States were obese compared to 15.0% adults and 5.5% children and adolescents in 1980.²¹ The White House Task Force on Childhood Obesity’s action plan for solving the problem of childhood obesity in a generation also acknowledges the link between the built environment (including transportation infrastructure) and obesity. Recommendations from this study include encouragement of “active transport” between homes, schools and community destinations. A benchmark of success of the action plan is to “increase by 50% by 2015 the percentage of children ages 5-18 taking safe walking and biking trips to and from school.” Assembly Bill 441, championed by local Assemblyman Bill Monning and signed by Governor Brown in September, 2012, acknowledges the link between transportation infrastructure and health of California residents and requires the California Transportation Commission to promote health and health equity as part of the Regional Transportation Plan guidelines. The 2040 California Transportation Plan also promotes active transportation through a goal of “fostering livable and healthy communities and promoting social equity.”

In Santa Cruz County, the number of adults who are overweight and obese increased from 50% in 2007 to 57% in 2011.²² In 2003, Santa Cruz County had a higher percentage of overweight children in low income families than more than half of the counties in California.²³ The Community Assessment Project identified obesity as a key issue of concern. The percent of students in Santa Cruz County at a healthy weight has slowly been increasing since 2006. In 2011, the percentage of healthy children in Santa Cruz County is greater than the statewide average.²⁴ Currently, there are a number of efforts in the county that are

working to reduce both adult and childhood obesity through promoting a healthy lifestyle that includes bicycling and walking to school, work or other daily needs.

Economy

The economic recession that began towards the end of the last decade has been challenging for Santa Cruz County as well as the entire nation. Unemployment rates in Santa Cruz County were up to 12.6% in 2010 from a low of 5.1% in 2000. Transportation and the economy are linked in a number of ways. Improved access and travel time reliability are likely to positively affect job markets, business delivery markets, freight supply chains, and visitor activity, all allowing businesses in the region to operate more efficiently and maintain their competitiveness. But signs of an improved economy include greater use of the transportation system as more people are traveling to work and more goods are being delivered, often resulting in increased levels of congestion and longer travel times. Transportation and the economy are also interlinked as the greater the number of transportation projects implemented, the higher the level of employment there will be for people in this area. Over the next 22 years, this plan proposes to fund \$2.8 billion for transportation that will provide direct economic benefits, such as new construction jobs, as well as the indirect benefits of these investments, such as the demand for services and supplies to support the construction projects. Downturns in the economy can have the opposite effect by reducing the available funding for construction of transportation projects. And lastly, the economy can also be affected by the percentage of household income that goes towards transportation costs. The smaller the percentage of household costs needed for transportation, the more money there is available to go into the local economy. By reducing the amount spent on fuel through a reduction in vehicle miles traveled, more dollars are on hand for the local economy. The 2014 transportation plan strives for a more efficient, desirable, and competitive area where businesses can thrive over the long term.

Energy

Transportation relies heavily on fossil fuels. In 2012, over 70% of petroleum use in the United States was for transportation and over 92% of energy for transportation comes from petroleum.²⁵ Fossil fuel is a finite commodity and the assumption that fuel will be abundant and inexpensive into the foreseeable future cannot be taken for granted. The International Energy Agency (IEA) 2012 World Energy Outlook

2012 U.S. Energy Facts

- 70% of petroleum used in U.S. is for transportation
- 92% of energy for transportation in U.S. relies on petroleum

states that “the world is still failing to put the global energy system onto a more sustainable path.”²⁶ Global energy demands are predicted to grow by more than one-third over the period to 2035 as the emerging economies of China, India, and the Middle East continue to increase their use of energy comparable to other major energy consuming nations.²⁷ Energy efficiency measures based on currently available technological solutions could play a large role in reducing energy needs. Only about a fifth of the energy that is used for transportation is converted into useful energy that moves your vehicle down the road, the rest of the energy is lost to engine and driveline inefficiencies and idling.²⁸ The potential to improve fuel efficiency with advanced technologies is enormous. Major energy consuming nations have announced new measures for

improving energy efficiencies in the automobile including the fuel economy standard of the U.S. but a significant amount of the potential for improved efficiencies still remains untapped.²⁹

Transportation Funding

One of the most critical challenges our county faces is the need for greater levels of transportation funding. Over the previous two decades, transportation funding has been inconsistent and unreliable. The costs to operate, maintain and improve transportation in Santa Cruz County through 2035 are approximately double the amount of available funds. Most transportation funding in Santa Cruz County comes from state and federal gasoline taxes which have been decreasing substantially over the last many years for a number of reasons.

- The gas tax has not been indexed to keep up with inflation and thus has lost approximately 38% of its buying power since 1993;³⁰
- Cars and trucks overall have become more efficient and are thus using less gasoline;
- State and federal transportation funding distribution formulas favor major metropolitan areas over smaller areas such as Santa Cruz County; and
- As other parts of the state and nation grow at a faster rate than Santa Cruz County, the county's proportional share of limited transportation funds decreases.



The 2012 federal transportation bill, Moving Ahead for Progress in the 21st century (MAP-21), did not increase revenues for transportation nor identify a reliable funding mechanism for the future. Federal and state revenue deficits have grown to the point that the general fund cannot be relied upon to backfill transportation funding. At the same time, transportation infrastructure is aging and more and more of our transportation dollars are needed for maintaining our current system. All of these issues, coupled with the need to provide greater multimodal improvements to address climate change legislation, have resulted in a huge backlog of transportation projects. New locally-generated revenues, such as local sales taxes and vehicle registration fees dedicated for transportation, are needed to address these growing transportation needs.

Public Input is a Critical Component

One of the RTC's primary goals is to foster broad public discussion about transportation issues in the community. This serves to deepen public understanding about the complexity of transportation issues and assists the public in providing informed input to the 2014 RTP. Public input is also important in order to ensure that the RTP accurately reflects the transportation issues that are of highest concern to the residents of Santa Cruz County. The RTC works to engage the public in an informed dialogue and to



Public Participation Procedures

- Define Purpose & Identify Stakeholders
- Consultation & Coordination with other Agencies
- Consultation with Interested Parties (Boards of Directors and Advisory Committees)
- Public Notice, Public Hearings, Comment Periods (per Brown Act)
- Use of Media & Informational Materials, and Visualization Techniques
- Encourage Bilingual Participation
- Respond to Public Input
- Distribution of Final Documents

solicit input from a broad cross-section of the population. Regular public input at key stages of the plan development assists in the formation of a long range plan that advances a sustainable transportation system through the 2014 RTP. Consistent with federal requirements (23 CFR 450.316 and 23 CFR 450.322) and the Public Participation Plan for the Monterey Bay region, input from the public and various state, federal and local entities is solicited at key stages of the RTP's development. **Figure 1.4** outlines the required procedures and methods for public participation based on state and federal laws. Refer to **Appendix A** for details on the public participation process. See **Appendix B** for the roles and responsibilities of the Regional Transportation Commission and its partner agencies.

Figure 1.4 – Public Participation Procedures Based on State and Federal Laws

Source: AMBAG Public Participation Plan³¹

Notes for Chapter 1

- ¹ “Reports,” Save California Streets, accessed December 2013, <http://www.savecaliforniastreet.org/reports.html>
- ² See note 1 above.
- ³ See note 1 above.
- ⁴ See note 1 above.
- ⁵ “State Highway Operation and Protection Program (SHOPP) and Minor Program,” California Department of Transportation, accessed January 2014, <http://www.dot.ca.gov/hq/transprog/shopp.htm>.
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- ⁷ “California Traffic Safety Report Card 2011,” California Office of Traffic Safety, accessed December 2013, http://www.ots.ca.gov/OTS_and_Traffic_Safety/Report_Card_2011.asp.
- ⁸ “2010 OTS Rankings,” California Office of Traffic Safety, accessed December 2013, http://www.ots.ca.gov/media_and_research/Rankings/default.asp.
- ⁹ “American Community Survey 5 Year-Summary,” United States Census Bureau, Means of Transportation to Work for Santa Cruz County and California, accessed November 2013, <http://factfinder2.census.gov>.
- ¹⁰ “TIMS – Transportation Injury Mapping System,” Safe Transportation Research & Education Center, University of California, Berkeley, accessed December 2013, <http://tims.berkeley.edu>.
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- ¹³ California Global Warming Solutions Act of 2006, AB 32 (2006), http://www.leginfo.ca.gov/pub/05-06/bill/asm/ab_0001-0050/ab_32_bill_20060927_chaptered.html.
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- ¹⁶ “National Emissions Inventory (NEI) Air Pollutant Emissions Trends Data,” U.S. Environmental Protection Agency, accessed December 2013, <http://www.epa.gov/ttnchie1/trends/>.
- ¹⁷ “State of the Air 2013,” American Lung Association, accessed December 2013, <http://www.stateoftheair.org/2013/assets/American-Lung-Association-State-of-the-Air-2013-FINAL.pdf>.

- ¹⁸ Barbara A. McCann and Reid Ewing, “Measuring the Health Effects of Sprawl: A National Analysis of Physical Activity, Obesity and Chronic Disease,” Smart Growth America, Surface Transportation Policy Project (2003).
- ¹⁹ David R. Bassett, Jr., John Pucher, Ralph Buehler, Dixie L. Thompson, and Scott E. Crouter, “Walking, Cycling, and Obesity Rates in Europe, North America, and Australia,” *Journal of Physical Activity and Health* (2008): 795-814.
- ²⁰ See note 19 above.
- ²¹ Cheryl D. Fryar, Margaret D. Carroll, and Cynthia L. Ogden, “Prevalence of Overweight, Obesity, and Extreme Obesity Among Adults: United States, Trends 1960-1962 Through 2009-2010,” Centers for Disease Control and Prevention, Division of Health and Nutrition Examination Surveys (2012), http://www.cdc.gov/nchs/data/hestat/obesity_adult_09_10/obesity_adult_09_10.htm. See also, “Adult Obesity Facts,” Centers for Disease Control and Prevention, <http://www.cdc.gov/obesity/data/adult.html>.
- ²² “Health – Santa Cruz County Community Assessment Project, Year 18, 2012,” Applied Survey Research (2012), http://www.appliedsurveyresearch.org/storage/database/quality-of-life/santacruzcap/cap18_2012/CAP%2018%20Health_FINAL.pdf
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- ²⁸ See note 25 above.
- ²⁹ See note 26 above.
- ³⁰ “CPI Inflation Calculator,” U.S. Bureau of Labor Statistics, accessed December 2013, http://www.bls.gov/data/inflation_calculator.htm.
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