

2040 Santa Cruz County Regional Transportation Plan

Executive Summary

The Santa Cruz County Regional Transportation Commission (herein referred to as the “RTC” or “Commission”) periodically completes a Regional Transportation Plan according to state guidelines to guide short- and long-range transportation planning and project implementation for the county. This 2040 Regional Transportation Plan (called the “2040 RTP”) is the RTC’s comprehensive planning document that provides guidance for transportation policy and projects through the year 2040. The 2040 RTP is based on a sustainability framework using the Sustainable Transportation Analysis and Rating System (STARS) to identify the goals, policies and thus the projects and programs to achieve a more sustainable transportation system. Sustainability is defined as balancing economic, environmental and equity interests. Individual projects listed in the 2040 RTP must still undergo separate design and environmental processes, and can only be implemented as local, state and federal funds become available. This RTP, along with those from Monterey and San Benito Counties, has also been incorporated into a Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) covering the three-county Monterey Bay area that will meet state and federal guidelines.

The following is a summary of each chapter in the 2040 RTP.

Chapter 1 – Why Sustainability?

The transportation system not only enables us to get around but it is also interlinked with our health and safety, the quality of the built and natural environment, and the economic vitality of our region. The 2040 Santa Cruz County Regional Transportation Plan endeavors to work towards a sustainable transportation system that addresses the challenges that face transportation in Santa Cruz County now and in the future. The challenges discussed in Chapter 1 include:

- System Preservation – Maintenance needs for the existing transportation network are increasing. Roadway, bikeway, sidewalk, bridge and other repairs must be addressed in parallel with capacity and operational enhancements. If ongoing routine maintenance needs are not addressed, the cost of deferred maintenance will grow exponentially, leaving little funding for new projects.
- Safety – The federal transportation act, Fixing America’s Surface Transportation Act (FAST) identifies safety as a national goal area and requires each state to set Safety Performance Management Targets in order to achieve a significant reduction in motorized and non-motorized traffic fatalities and serious injuries on all public roads. The Metropolitan Planning Organizations must also establish targets in coordination with the state.
- Congestion – Traffic congestion exists in Santa Cruz County and will not go away in the foreseeable future. Population growth and region-wide jobs to housing imbalances that encourage driving as the mode of choice result in more drivers making more automobile trips.

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The frequent traffic jams on Highway 1 are the most obvious example of congestion on county roadways.

- Environmental and Public Health - 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 (GHG) 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 use of active transportation, such as biking and walking, and adult and childhood obesity is increasingly strengthened through research. Strategies for addressing this concern are being discussed at federal, state and local levels.
- Energy – Global energy demands are predicted to grow by 30% by 2040 as emerging economies increase their energy use comparable to other major energy consuming nations. Transportation relies heavily on fossil fuel which is a finite commodity. It cannot be assumed that fossil fuel will be abundant and inexpensive into the foreseeable future.
- Economy – The economic vitality of a region can be affected by transportation in a number of ways. Improved access is likely to positively affect businesses through faster goods movement and increased tourist activity. Implementation of transportation projects can provide jobs, and the smaller the percentage of household income that goes to transportation, the greater the amount of money that is available to go back into the local economy.
- Funding – Funding for transportation in Santa Cruz County has notably improved in the last couple of years. Measure D, approved by Santa Cruz County voters in 2016, provides approximately \$20 million in revenues per year from sales taxes that are dedicated for use on the transportation categories approved by voters. In 2017, the California legislature provided more stable funding for transportation for the first time in nearly 25 years with passage of Senate Bill 1.

The 2040 RTP endeavors to work toward a sustainable transportation system that addresses these challenges and results in safer, healthier and more efficient travel choices that provide improved multimodal access to opportunities such as jobs, education, and healthcare for our residents.

Chapter 2 – Transportation Network

Santa Cruz County has a rich multi-modal transportation network. The county's existing transportation network comprises a broad range of transportation facilities and modes. These include state highways, local streets and roads, an extensive bus system, a specialized transport system for seniors and people with disabilities, bikeways, sidewalks, an airport and a rail line. The most notable improvements to the highways have been on Highway 1 including Mission St, the Highway 1 and 17 interchange and auxiliary lanes between Soquel Drive and Morrissey Boulevard.

In 2012, the RTC became the owner of the Santa Cruz Branch Rail Line that extends almost 32 miles between Davenport and Watsonville. The RTC purchased the rail corridor on behalf of the community to preserve the corridor for existing and future transportation uses, including freight rail, passenger rail service/transit, and bicycle and pedestrian facilities. The Unified Corridor Investment Study is currently underway to perform an analysis of the options for transportation uses of the rail right-of-way as required by Measure D. The Master Plan and Environmental Impact Report for the Monterey Bay Sanctuary Scenic Trail, a network of multiuse trails with the spine along the rail line, have been completed. Thirteen miles of trails along the rail right of way have been funded in full or in part, with

construction to begin as soon as design, engineering and environmental permitting are completed. The first project is scheduled to be completed in 2018.

Transportation system management and transportation demand management programs are also components of the transportation network. Transportation System Management (TSM) projects incorporate operational improvements that improve traffic flow and safety. Examples include signal synchronization, new turning lanes, striping, auxiliary lanes and detectors for assessing real time traffic conditions. Transportation Demand Management includes strategies that reduce the number of people that are driving alone. These strategies include increasing the number of people carpooling, bicycling, telecommuting and taking transit through programs such as Cruz511 traveler information services.

This multi-modal transportation network is crucial to meeting the travel needs of all county residents, including drivers, non-drivers and commercial traffic.

Chapter 3 – Travel Patterns

The majority of the population in Santa Cruz County lives and travels within a small area of the county. The areas of the county with higher population density are primarily along the coast (City of Santa Cruz, Capitola, Live Oak, Soquel and Aptos), in the cities of Watsonville and Scotts Valley, and along portions of the San Lorenzo Valley. Although the distances that people travel within Santa Cruz County are not extensive, increasing the diversity of land uses within neighborhoods to improve access to goods and services can result in even greater reductions in trip lengths.

The patterns of travel within Santa Cruz County are very much dependent on the number of people who live, work and visit the county. Population growth in Santa Cruz County between 2000 and 2010 increased by only 3% but future projections indicate that the growth rate will increase to 12% between 2015 and 2040. Similarly, the number of jobs in Santa Cruz County is forecasted to increase by 18% between 2015 and 2040.

Much effort on this 2040 RTP and the 2040 Metropolitan Transportation Plan has been focused on prioritizing projects that will reduce greenhouse gas emissions primarily from a reduction in vehicle miles traveled (VMT). One vehicle traveling one mile equals one “vehicle mile traveled.” The 2011-2012 California Household Travel Survey (CHTS) data results for the state show that there has been a doubling of walk, transit and bike trips compared to data collected in 2000 and a reduction of drive alone trips of approximately 10%. Mode share data for Santa Cruz County from this CHTS data shows that Santa Cruz County residents bike more often than the state average. The American Communities Survey provides mode share data for the “typical mode taken to work” for Santa Cruz County. The data from 2011-2015 shows that Santa Cruz County residents are choosing to ride their bike to work more often than in 2000, but carpool less, and the percent of drive alone trips remains the same.

Chapter 4 – Vision for 2040

The Santa Cruz County Regional Transportation Commission utilized an independent third party rating system called the Sustainable Transportation Analysis and Rating System (STARS) to develop a sustainability framework for the 2014 RTP. This sustainability framework was used for the 2040 RTP. The goals, policies, performance measures and targets were developed with extensive public and partner input using STARS to form the foundation for a sustainable transportation plan. The measures are shaped

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by readily available data and are expected to evolve as new data becomes available. The goals for the 2040 RTP are as follows:

Goal 1: Establish livable communities that improve people’s access to jobs, schools, recreation, healthy lifestyles and other regular needs in ways that improve health, reduce pollution and retain money in the local economy.

Goal 2: Reduce transportation related fatalities and injuries for all transportation modes.

Goal 3: Deliver access and safety improvements cost effectively, within available revenues, equitably and responsive to the needs of all users of the transportation system and beneficially for the natural environment.

For the first time, the Santa Cruz County Regional Transportation Plan identified measurable outcomes, called targets that are each linked to a sustainability goal. Incorporating targets into the goals and policies enables the Regional Transportation Commission to assess how well the long range plan will perform over time in advancing the targets. The assessment of performance is provided in Chapter 7.

Chapter 5 – Financial Plan

Transportation programs and projects in Santa Cruz County are funded from a variety of local, state and federal funding programs. Local sources account for 52% of the transportation revenues, 38% from state and 10% from federal. Based on current and projected revenue sources, approximately \$3.75 billion are reasonably anticipated to be available to finance transportation projects in Santa Cruz County through 2040 (\$170 million per year). The vast majority of anticipated revenues are committed to specific dedicated uses. Over one third of local, state and federal funds can only be used for transit and paratransit projects and operations. A large proportion of these transit revenues come from our county’s dedicated half-cent local sales tax for transit. Airport improvements and highway safety also account for a large portion of the dedicated funds.

In response to ongoing funding shortfalls and the large backlog of maintenance and other projects, Santa Cruz County voters approved Measure D in November 2016, a 30-year half-percent sales tax dedicated to local transportation projects and programs. Measure D provides approximately \$20 million per year in stable funding for projects in Santa Cruz County. In 2017, the California legislature passed Senate Bill 1 – The Road Repair and Accountability Act to stabilize transportation funding and help address the diminishing transportation revenues from the per gallon gasoline and diesel tax.

The Regional Transportation Commission (RTC) has discretion over less than 4% of the funds available for transportation projects in the next 22 years (approximately \$7 million per year). These funds are from regional shares of the State Transportation Improvement Program (STIP) Surface Transportation Block Grant Program (STBG) and SB 1- Local Partnership Program.

It is important to note that transportation funding can be incredibly unpredictable. State and federal actions can result in elimination of certain funding programs or diversion of transportation funds to the State General Fund, as has happened regularly to transit funds over the past several years. Inevitably, some of the funding sources assumed within the financial projections for this plan will not actually be realized. Even if all of the revenues assumed in this document are realized, projected funds are insufficient to keep up with maintenance, operational, safety, and major improvement needs of the region

discussed in Chapter 6. Therefore, this document identifies additional sources for new funds that could potentially become available. The RTC works with entities locally, statewide, and nationally to seek new transportation revenue sources. These could include new local or state gas taxes, transportation impact fee programs, statewide transportation bonds, special federal funding programs (such as economic stimulus bills), special state legislative budget requests, and new grants.

Chapter 6 – Transportation Investments

A list of programs, projects and actions needed to operate, maintain, and improve the transportation system in Santa Cruz County has been developed – based on input from the public and sponsoring agencies -- as part of the Action Element of the RTP. The cost of implementing this list of transportation projects in Santa Cruz County is approximately \$7 billion, whereas the estimated funds available through 2040 is approximately \$3.75 billion – just over half of the estimated need.

Given the significant gap between funding needs for transportation and projected revenues, the projects listed in the RTP must be divided into two groups. Transportation improvements that can be funded with foreseeable transportation revenues between 2018 and 2040 are shown as “Constrained.” This group includes projects with dedicated funding, already funded projects to be constructed in the short term, and planned projects that could be constructed anytime within the 2040 RTP’s 22-year time-line as projected funds become available. Transportation improvements to be implemented only if new revenues are generated or become available show their funding as “unconstrained.” Some projects are identified with both constrained and unconstrained funds, indicating a need for additional funds to complete the entire project, though portions of those projects may be completed using available funding.

In order to determine which projects are prioritized for the constrained list for the 2040 RTP, input was solicited from project sponsors, the public, public interest groups and RTC advisory committees throughout the process in developing the final project list that identifies the projects as either constrained and/or unconstrained.

The within projected funds or constrained project list consists of approximately 220 projects that could be fully implemented and 120 projects that could be partially implemented over the twenty-two year timeframe. These projects and programs address the region’s accessibility, economic, safety and environmental sustainability needs over the next 22 years and constitute the 2040 RTP’s constrained project list described in Chapter 6 with the full list of projects and programs provided in Appendix E. During the next 22 years, approximately \$3.75 billion from federal, state, and local funding sources is projected to be available to finance transportation projects in Santa Cruz County. Over 230 projects are on the unconstrained list, for which additional funds will be needed in order to be implemented.

The 2040 RTP assigns future transportation funds to a range of projects and programs designed to maintain the current transportation system, and improve access, safety and environmental and public health by broadening transportation options. Key proposals, based on available funding, include:

- Maintenance of the existing transportation network including roads, highways, bike lanes, sidewalks, and transit
- Safety and operational improvements to Highways 1, 9, 17, 129 and 152
- Addition of auxiliary lanes on Highway 1 between State Park Drive in Aptos and Soquel Ave
- Bicycle and pedestrian crossings over Highway 1 at Chanticleer and Mar Vista

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- Modifications to major arterial roads -- including intersection improvements and bus, pedestrian and bicycle facilities
- Freeway Service Patrol along Highways 1 and 17
- Expanded bus service for high ridership routes to serve University of California Santa Cruz (UCSC), south county and San Jose commuters
- Transit queue jumps and high occupant vehicle signal priority
- Construction of the Monterey Bay Sanctuary Scenic Trail , the Pajaro River Trail, and the San Lorenzo Valley Trail
- Local bicycle and pedestrian projects and programs designed to increase bicycle commuting, and provide safe bicycle and pedestrian routes to schools and key destination areas
- Expansion of specialized transport services in response to projected increases in senior and disabled populations
- Individualized marketing programs to employers to increase carpooling and vanpooling

Development of the RTP project list is a preliminary step towards actual implementation of the projects identified in the 2040 RTP. Prior to the beginning of project construction, a number of steps must be taken which can take from 6 months to 20 years, depending on the particular project's complexity, impacts, level of public interest, funding and environmental requirements, and availability of funds. These steps include: developing a detailed project cost estimate; obtaining local, state and/or federal funds; designing the project; determining the project's environmental impacts; securing right-of-way, if necessary; and throughout the process, incorporating public input.

Chapter 7 – System Performance

Performance-based planning is a strategic approach that uses key information to help inform investment decisions. The performance of the previous regional transportation plan for Santa Cruz County completed in 2014 was analyzed in detail to determine how well the constrained list of transportation projects and programs advance the goals and targets established for the 2014 RTP and affect the county's future. The analysis that was performed is still largely applicable to the 2040 RTP given the project list for the 2040 RTP has not changed substantially from the 2014 version. The performance measure analysis that was developed for the 2014 RTP can be found in **Appendix D** for reference.

The 2040 RTP focuses the system performance on presenting available data that monitors the performance of the transportation system to date. Data is not available at this time to monitor all of the measures in the 2040 RTP although many of the more fundamental indicators (safety, vehicle miles traveled, greenhouse gas emissions, pavement condition) are presented.

Chapter 8 – Environmental and Air Quality Review

The California Environmental Quality Act of 1970 (CEQA) requires that the environmental effects of the 2040 RTP be analyzed. This analysis was prepared as a separate program-level Environmental Impact Report (EIR) released along with the 2040 RTP. The EIR, prepared in coordination with the Association of Monterey Bay Area Governments (AMBAG), Transportation Agency for Monterey County (TAMC), and the San Benito County Council of Governments (SBCOG), collectively evaluates the MTP/SCS and the

Regional Transportation Plans for the Monterey Bay region - Santa Cruz, Monterey, and San Benito Counties. The EIR analyzes the potential environmental impacts of the 2040 RTP, including alternative investment scenarios, and identifies potential mitigation measures for impacts of the transportation program for the whole region. The EIR does not analyze impacts of, or mitigations for, individual projects. The respective agency sponsors will conduct a project-specific review, once funding is received and the project is initiated.

Together Santa Cruz, Monterey, and San Benito Counties comprise the North Central Coast Air basin (NCCAB). Many projects in the plan implement the Monterey Bay Unified Air Pollution Control District's (Air District) approved Transportation Control Measures for the region, which are developed to reduce transportation-related emissions by reducing vehicle use or improving traffic flow. The three county region (or NCCAB) is an attainment area for air quality impacts and therefore exempt from the required conformity analysis.

Chapter 9 – What's Next?

The Santa Cruz County Regional Transportation Plan is a work in progress that will be updated approximately every four years. This chapter identifies a number of considerations that will likely be prominent features of the RTP over the next couple of decades.

Santa Cruz County is susceptible to a wide range of climate change effects. The RTC is aware of the need to undertake efforts to respond to *impacts* of climate change along with the current effort to reduce GHG emissions. Future editions of the RTP may address the impacts of climate change by identifying areas at most risk to sea level rise as well as other additional transportation considerations.

The effects of automated vehicles on future transportation systems are under much debate. Automated vehicles (AVs) are an emerging technology that could bring a number of benefits to the transportation system including increased safety, increased throughput due to driving efficiencies, and improved system management through vehicle data. Conversely, there is also the potential of AVs to drastically increase traffic congestion and the amount of vehicle miles traveled particularly when self-driving vehicles no longer require a person on board. There are many uncertainties associated with AVs including a currently unfolding set of federal and state regulations, resolution of questions around programming ethics, solutions to liability and insurance concerns, potential criminal abuse, and market adoption rates. The RTC will be watching the evolution of this technology for incorporation into future RTPs.