



CREATING HEALTHY REGIONAL TRANSPORTATION PLANS

A Primer for California's Public Health Community on
Regional Transportation Plans and Sustainable Communities Strategies



Prepared by



In Collaboration with



ABOUT THIS REPORT

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ABOUT TRANSFORM

TransForm works to create more affordable, wonderful places where everyone – especially low-income people – can safely and easily get where they need to go on public transportation, foot, and bicycle. TransForm unites diverse coalitions to develop solutions that advance a range of environmental, public health, social equity and economic benefits. We also coordinate innovative programs. These include the Great Communities

Collaborative, GreenTRIP, and the urban-focused Alameda County Safe Routes to Schools Partnership. TransForm co-founded and fiscally sponsors ClimatePlan, which works to realize more sustainable and equitable development throughout California.

Learn more at www.TransFormCA.org.

TransForm works to create world-class public transportation and walkable communities in the Bay Area and throughout California. We build diverse coalitions, influence policy, and develop innovative programs to improve the lives of all people and protect the environment.

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SECTION 1 | INTRODUCTION

Increasingly, health experts and leaders in non-health policy are making the strong connection between the built environment – our streets, transit systems, houses, stores, parks, and offices – and a myriad of health outcomes such as obesity, diabetes, asthma, and traffic fatalities. There has been a very strong focus on local community designs and city general plans that are now leading to new plans, projects, and policies to improve health and safety.

While local governments have primary control over streets and roads in their jurisdictions, and county transportation agencies can generate funding by placing transportation sales taxes before voters, the interaction of transportation and land use happens most profoundly at a regional scale.¹

Many of the greatest health, equity and environmental benefits of smarter planning and investment – from creating access to jobs for low-income communities, to protecting open space, to reducing air pollution – can only be fully realized at a regional scale.

The Regional Transportation Plan (RTP), a long-term blueprint of a region’s transportation system, provides a particularly important opportunity for health promotion. RTPs, updated every four to five years, are where all of the planning is brought together. These plans don’t just sit on a shelf; they are tied to **billions** of dollars in state and federal transportation funds.

In the past, RTPs did not have to achieve specific outcomes, beyond compliance with existing laws like the Clean Air Act that set certain minimum thresholds. In 2008, California Senate Bill 375 (SB 375) magnified the importance of the RTP by adding a new component. This law requires California’s 18 largest regions to create a Sustainable Communities Strategy (SCS) as part of their RTP.

The SCS is an integrated plan for transportation, land use and housing that must meet, if feasible, greenhouse gas emissions reduction targets for cars and light trucks set by the California Air Resources Board. SB 375 dramatically shifted the context and framework for RTP development, putting a new emphasis on performance and outcomes, and significant opportunities to create healthier, more equitable communities and regions.

Purpose of this Guide

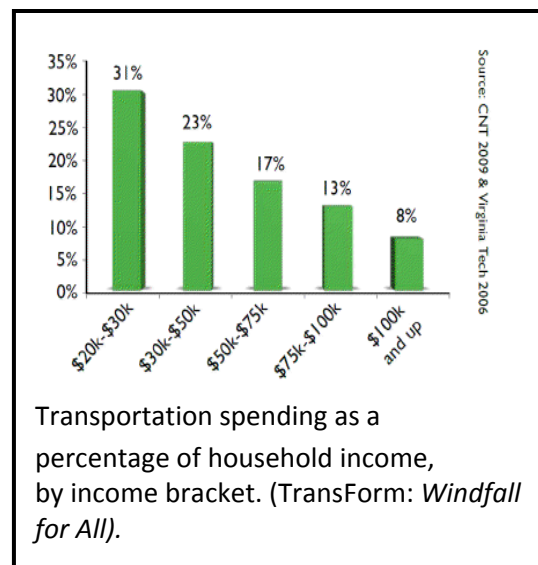
This guide is intended to help demystify RTPs, explain key components and requirements, identify ways to incorporate health-promoting strategies into RTPs, and showcase short case studies of improving community health through RTPs. The guide is intended for public health and sustainable transportation professionals as well as local government officials. Ultimately, the guide should help decision-makers focus on strategies that not only improve transportation efficiency and reduce greenhouse gas emissions, but also have dramatic health and health equity benefits.

Key Connections between Transportation, Health and Sustainability²

The way we invest in transportation is essential to the welfare of all California residents. Transportation investments and policies have a major impact on physical activity, traffic injuries and fatalities, environmental quality, and access to services and jobs. Below are some of the direct and indirect health effects of transportation projects and policies:

DIRECT EFFECTS

- **Physical Activity and Active Transportation.** Active transportation (walking, biking, and wheeling to destinations) has a direct health benefit, and can reduce the risk of heart disease, improve mental health, lower blood pressure, and reduce the risk of overweight and obesity related chronic disease such as Type 2 Diabetes.^{3,4,5,6} Public transit is considered active transportation because it generally involves an active mode at the beginning or the end of the trip.⁷
- **Collision Injuries and Fatalities.** Motor vehicle collisions are a major cause of death and injury, and are the leading cause of death among those ages 5-34.⁸ In 2009, traffic injuries caused 3,063 deaths, 25,328 hospitalizations, and 221,454 emergency department treatments in California. 18 percent of deaths, 19 percent of the hospitalizations, and 9 percent of the emergency department treatments were pedestrians and bicyclists.⁹ Road design, “Complete Streets,” speed reduction, and other strategies can all reduce the toll of motor vehicle collisions.
- **Air Pollution.** Auto emissions impact air quality and contribute to impaired lung development, lung cancer, asthma and other chronic respiratory problems, and heart disease.¹⁰ Cleaner fuels and more efficient vehicles can reduce emissions, but strategies that reduce driving are also important for air quality because some pollutants, like particulate matter from re-entrained road dust, are directly related to how much people drive.
- **Climate Change.** The transportation sector causes 38 percent of California’s total gross greenhouse gas emissions.¹¹ Minimizing transportation’s contribution to climate change will limit the health effects of climate change, such as heat illness, effects of higher ozone levels, impacts of extreme weather events, and changes in vector-borne diseases.
- **Stress and Mental Health.** Commuting during rush-hour traffic can be highly stressful for drivers. Unreliable and infrequent transit service can also cause stress, especially for low-income employees who depend solely on transit to get to their jobs on time.



INDIRECT EFFECTS

- **Access to Jobs.** For low-income families who cannot afford a car, public transit can be a lifeline to jobs. Social service agencies have found that inadequate transportation is one of the top three barriers to the transition from welfare to work.¹²
- **Access to Services and Medical care.** When getting to health care or other essential services is difficult – and this is especially true for lower-income residents who don't have access to a car or effective public transportation – patients often miss appointments or delay care until a condition deteriorates and requires emergency attention.¹³
- **Household Expenses.** An astounding 19 percent of a household's budget is now spent on getting from place A to place B. Low-income families are hit the hardest because transportation expenses account for a larger proportion of their income.¹⁴ This leaves much less for savings or investing in education, healthful food, etc. Regions can support increased economic stability and access to community necessities by assuring that all populations, and especially vulnerable populations such as youth, older adults, and low-income residents, have access to affordable and accessible transportation options.
- **Displacement/Gentrification.** Transportation improvements, especially new rail lines and stations to low-income communities, can increase access to opportunities. But they can also result in much higher property values and an increase in the cost of owning and renting property, inadvertently displacing existing residents and businesses. Being forced to leave a home is a stressful, costly and traumatic life event, especially when affordable housing is so limited.¹⁷ There is a growing recognition of tools and strategies that can be implemented alongside community investments to reduce displacement.¹⁸

Evidence: The Integrated Transport and Health Impacts Model (I-THIM)

A 2009 study estimated the health effects of replacing urban driving trips with active travel in London and predicted significant reductions in heart disease, stroke, dementia, depression, and breast cancer.¹⁵ This study was replicated in California in 2011¹⁶ by a public health research team that developed the Integrated Transport and Health Impacts Model (I-THIM) in order to estimate the health co-benefits and potential harms from active transport and low carbon driving in urban populations. In the Bay Area, the research predicted that increasing the amount people walked or biked to about 22 minutes per day can reduce the burden of heart disease, stroke, and diabetes by 15 percent, and dementia, depression, and breast and colon cancer by 5 percent, while avoiding up to 2,200 premature deaths. Almost all of those benefits came from increased physical activity. The model predicts that some of the benefit is lost due to an increase in traffic injuries to pedestrians and bicyclists, but notes that European countries with robust investments in infrastructure, education and enforcement have substantially reduced this harm. The model used in this new study is available to run on a desktop computer and has the potential to increase collaboration between the public health community and transportation planners working on RTPs.

- **Social Cohesion and Social Networks.** Transportation planning and community design that facilitates active transportation, including public transportation, tends to increase social interaction and community cohesion. Increased neighborly interactions can help reduce crime, depression, and poverty, provide support and safety, and increase property values. Community cohesion and supportive transportation services are particularly important for vulnerable populations, including the elderly and disabled.¹⁹

Combined, these effects contribute to the rising levels of chronic disease in our country. Chronic disease accounts for over 75 percent of all deaths in California²⁰ and 75 percent of all U.S. health care expenditures.²¹ Poor health from chronic disease also contributes to lost productivity, costing the state an estimated \$21 billion in 2006.²² In addition, lower income populations and communities of color disproportionately face exposure to greater levels of air pollution and noise, lack of access to services and jobs, unsafe streets, and lower levels of overall health.

Selecting transportation plans, programs, and projects that support multimodal modes (walking, cycling, and transit use) is integral to creating safe, sustainable, and active communities, and can:

- Allow sufficient opportunities for daily physical activity;
 - Reduce preventable injury and death;
 - Provide affordable access for all users;
 - Help meet the State's air quality and greenhouse gas emission goals, and;
- Enhance community economic viability by improving feasibility of less expensive multimodal trips and by linking residents to job centers.²³

SECTION 2 | RTP BASICS

All of California’s 18 urbanized areas have Metropolitan Planning Organizations (MPOs) that are required by federal law to produce a Regional Transportation Plan (RTP). At its core, the RTP is a process to identify how a region will spend its transportation revenue over the next 25 years.²⁴ Some plans have had longer “horizon” years, such as San Diego’s new plan that stretches to 2050.²⁵ The RTPs are updated every four years in most areas of California.²⁶

Who Creates RTPs?

There are 18 MPOs in California (see map). These MPOs are made up, often exclusively, of local government elected officials that are appointed to the boards by their peers (who represent entities such as County Boards of Supervisors, City Councils, or Conferences of Mayors). Other important government stakeholders in the RTP process include federal and state agencies, and County Transportation Commissions. County Transportation Commissions are particularly important in multi-county MPOs in Southern California, the Bay Area, Sacramento and Monterey. In these multi-county regions, RTPs are shaped by the individual transportation plans that are created by each county.²⁷ MPOs vary dramatically in size and in resources that are available for developing RTPs.



How are RTPs Created?

When creating an RTP, MPOs take a variety of steps, including:

- Develop a public participation process, including strategies to reach out to underserved communities;
- Set regional policy goals such as congestion reduction, increased physical activity, or open space protection;
- Estimate the total amount of transportation revenue that will be available during the entire RTP period from all sources;
- Consider a range of road or transit projects, programs like Safe Routes to Schools, or pricing strategies such as toll lanes;

- Estimate the amount of future job and housing growth, and create at least one land use scenario that predicts where new growth will go;
- Create at least three different investment scenarios and use computer travel models to analyze how these scenarios are likely to perform along a range of indicators, and;
- Choose a “preferred scenario” that is “financially constrained,” meaning it can only propose transportation projects that match the amount of transportation funding anticipated in the time frame. It also must conform to the Federal and State Clean Air Act(s), CEQA (California Environmental Quality Act), and other laws, including SB 375.

HOW DO RTPS AFFECT FUNDING?

Each MPO must develop a “Transportation Improvement Program” (TIP) that describes and lists all major transportation projects that will be implemented over the next four years in the region. In order to be included in the TIP, projects must already be contained in the RTP. Put another way, RTP are powerful because projects that do not make it into the RTP cannot access the crucial federal funding or necessary approvals from federal agencies that are tied to the TIP. RTPs are also an excellent venue to propose and identify funding for innovative regional projects or programs.

SECTION 3 | SB 375: NEW FRONTIERS FOR THE RTP

Prior to the passage of California’s Senate Bill (SB) 375, MPOs had few incentives to examine ways in which simultaneous changes in land use and transportation could improve progress toward regional goals. SB 375 fundamentally changes this process by creating a framework that is more focused on outcomes and performance. As explained below, it requires a scenario, the Sustainable Communities Strategy (SCS), which strives to achieve a greenhouse gas reduction target.

Authored by Senate President Pro Tempore Darrell Steinberg, SB 375 was signed into law on September 30, 2008. It is the most ambitious attempt yet to improve coordination of planning for transportation, land use and housing at a regional scale, with the goal of reducing greenhouse gas (GHG) emissions associated with transportation. SB 375 is an important mechanism to reach California’s statewide goals for reducing greenhouse gas emissions.²⁸

Regional Blueprints as a Precursor to SB 375

In 1998, the Metropolitan Transportation Commission (MTC), which is the MPO for the Bay Area, was faced with an RTP that, under any investment scenario, produced much worse outcomes. The region’s 25-year land use projections were based on local general plans that assumed highly auto-dependent growth. MTC realized that no investments – transit, roads or otherwise – could meet their policy goals with that type of land use and agreed to conduct a “blueprint” process. This effort identified more walkable, transit-friendly communities for more of the jobs and future homes, and indeed the projected results showed many negative trends starting to improve.

All of the major regions soon conducted these blueprints, and Caltrans started the Regional Blueprint Planning Program to provide grant funding, share best practices, and support inter-agency coordination. While MPOs worked to implement their blueprints through a host of strategies, such as giving grants to local governments to update plans near transit stations, there were still major barriers. Local and regional planning still did not have a clear outcome orientation, transportation

Table 1. SB 375 Targets

Region (MPO)	Anticipated RTP/SCS Adoption	2020 Target*	2035 Target*
Southern California (SCAG)	May 2012	-8%	-13%
Bay Area (MTC)	April 2013	-7%	-15%
San Joaquin Valley (8 COGs/counties**)	July 2014	-5%	-10%
San Diego (SANDAG)	Oct. 2015	-7%	-13%
Sacramento (SACOG)	Dec 2015	-7%	-16%
<i>Tahoe RPA</i>	<i>Aug. 2012</i>	<i>-7%</i>	<i>-5%</i>
<i>Shasta CRTPA</i>	<i>July 2015</i>	<i>0%</i>	<i>0%</i>
<i>Butte CAG</i>	<i>Dec. 2012</i>	<i>+1%</i>	<i>+1%</i>
<i>San Luis Obispo</i>	<i>Dec. 2013</i>	<i>-8%</i>	<i>-8%</i>
<i>Santa Barbara</i>	<i>June 2013</i>	<i>0%</i>	<i>0%</i>
<i>Monterey Bay (AMBAG)</i>	<i>Nov. 2013</i>	<i>0%</i>	<i>-5%</i>

* The greenhouse gas reduction targets are projected on a per capita basis, compared to an emissions baseline of 2005 for that region.
 **Fresno, Kern, Kings, Madera, Merced, San Joaquin, Stanislaus, Tulare. SB 375 allows these counties to decide whether to continue developing separate RTPs, or to develop multi- county plans.

and housing plans were updated on different timelines, and blueprints without strong links to the RTPs mostly remained visioning exercises. In spite of these challenges, the blueprints provided a sense that there really was a better way to plan – and built much of the planning framework and political will for passage of SB 375.

SB 375: THE BASICS

SB 375 requires California’s 18 MPOs to include a regional land use and transportation strategy - known as the Sustainable Communities Strategy (SCS) - in their RTP.²⁹ The SCS must include methods and strategies to try and meet regional GHG reduction targets that are established by the California Air Resources Board (see Table 1).

SB 375 does not change the fact that local governments have exclusive authority over land use. Instead, the bill aligns planning for the number of homes in a region, local governments’ plans for housing, and incentives to grow in areas that provide transportation choices.

Major components of SB375:

1) Creates regional targets for GHG emissions reductions from cars and light trucks. The California Air Resources Board (ARB) set these targets in 2010 for the 18 MPOs. These targets were developed based on intensive research as to what transportation and land use strategies could achieve in the various regions. They attempted to strike a balance for the targets to be both ambitious and achievable.³⁰

2) Regional planning agencies must create a Sustainable Communities Strategy (SCS). As discussed in this section, the SCS is an integrated land use and transportation plan that is designed to meet the GHG targets. (Note that most of the MPOs do not seem to be identifying an SCS scenario from the beginning of their process. Instead, they are creating a range of scenarios and then choosing a preferred alternative that becomes their SCS.)

3) Regional governments must plan for a jobs and housing balance and match. This means that regions must plan for enough housing to meet anticipated job growth and that the types of housing must match the income level of the jobs that are produced. This Regional Housing Needs Allocation (RHNA -- pronounced “Reena”) will be adopted at the same time as the first SCS’s, then every 8 years thereafter.³¹

4) Each city in the region must show where its allocation of housing will go, for residents at each income level. Within 18 months of SCS adoption, Housing Elements of General Plans must show where and how they will accommodate 8 years of housing growth identified in the RHNA. Cities have 3 years to ensure that zoning for those areas can accommodate the projected housing.

5) Once an SCS is adopted and approved by ARB, regional transportation funding decisions are required to be consistent with the SCS and RTP.

6) If MPO modeling shows that the SCS plan will not meet the region’s GHG target, the MPO will prepare an Alternative Planning Strategy (APS). This could be a separate document from the RTP, essentially a step-by-step guide to what additional investments, policies, or changes in land uses it would take to meet the target. SB 375’s CEQA (California Environmental Quality Act.) exemptions would

be based on the land use map in the APS, not the SCS, since that is the scenario that would meet the GHG target.

7) Streamlined environmental review may be available for residential or mixed-use projects that are consistent with an SCS or APS that meets the GHG reduction targets. In some cases, small residential developments qualifying as “Transit Priority Projects” and meeting a host of criteria can qualify for full exemption from CEQA.

The California Air Resources Board (ARB) is responsible for reviewing the technical methodology and describing “any aspects of the methodology it concludes will not yield accurate estimates of greenhouse gas emissions, and suggested remedies.” ARB is required to review the SCSes and determine whether they meet the GHG targets for that region. ARB can either accept or reject the SCS. If ARB rejects the SCS, the MPO can revise it for resubmission, or can create an APS that shows how the GHG emission targets would be achieved through alternative development patterns, infrastructure, or transportation efforts or policies.

SECTION 4 | SHOULD AND SHALLS: THE RTP GUIDELINES

The California Transportation Commission (CTC) is responsible for updating and adopting the RTP guidelines.³² Comprised of 11 appointed voting members,³³ the CTC can prescribe study areas for analysis and evaluation by regional transportation agencies. The guidelines are developed in close coordination with Caltrans, along with other agencies and stakeholders.

The RTP guidelines were last updated in 2010 to reflect SB 375 requirements. There is no required timeline for the next updating of the guidelines. The last RTP process was inclusive and open, and although there was not strong public health participation, various health-promoting strategies were incorporated into the RTP guidelines.

Main Sections of the Guidelines

The RTP guidelines are long, but with clear chapters and sections, it is easy to reference particular issues. As you read through the sections, you will see that they use a convention of explaining a topic, then ending that section with:

- **Shalls.** These reflect a state or federal requirement, either statutory or regulatory.
- **Shoulds.** These are optional in nature, reflecting where the word “may” or “should” was used in the underlying statute.
- **Best Practices.** These are identified as appropriate.

KEY CHAPTERS

There are several chapters in the guidelines, but the key chapters include:

- **The RTP process.** This is a basic primer on how RTPs are developed.
- **Modeling.** This new section on travel models is of great importance, given SB 375’s performance-based approach. It provides a good explanation of what travel demand models are, the role they have in transportation planning, the strengths and weaknesses of these models, modeling requirements and recommendations, and a discussion of modeling as a policy tool.
- **Consultation and Coordination.** This is a key section that includes specific requirements for a public participation plan.
- **Environmental Considerations.** This section addresses wetlands, parks, refuges, historic sites, the California Coastal Trail, floodplains, threatened and endangered species, cumulative impacts, and growth-related indirect impacts.
- **RTP Contents.** This section covers critical RTP elements including a discussion of public transit, bicycle and pedestrian issues. There is a section on performance measures with recommended (but not required) indicators. It also includes a new section on GHG Reduction Requirements and Considerations. This is the heart of the RTP guidelines, providing information as to proposed actions and alternative strategies for attaining the desired outcomes of the RTP.

FOUR MAJOR ELEMENTS

The chapter on RTP contents starts with an explanation of the four major “elements” of an RTP:

1. **Policy Element:** Identifies major issues and requirements for the RTP, describes transportation in the region, and identifies important regional needs and priorities;
2. **Sustainable Communities Strategy (SCS):** Described in the previous chapter;
3. **Action Element:** Covers major activities, broad investment strategies and alternative actions that can be taken; and
4. **Financial Element:** Has six major components that focus on costs to operate and maintain the current system, costs of new projects in the Action Plan, an inventory of existing funding sources, lists of candidate projects if additional funding becomes available, potential funding shortfalls, and policies that may affect project funding.

These four elements must be “internally consistent,” i.e., in agreement with one another. As a result, transportation investments and the forecasted development pattern in the SCS should be complementary and not contradictory.³⁴

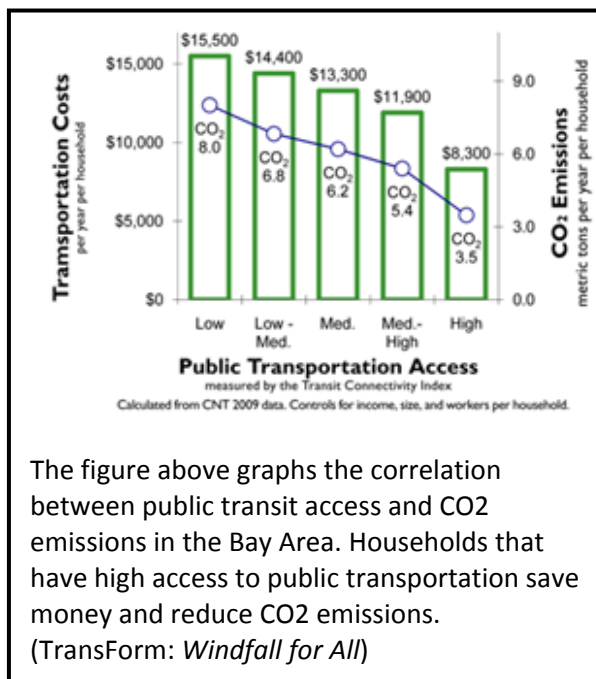
Before trying to put this information to work, it is important to know two things. First, while an RTP has to contain the necessary components, RTP documents are usually not categorized neatly into these four “elements.” Second, many MPOs have not been designating a SCS alternative from the beginning of the process. Rather, many they are creating multiple scenarios (in coordination with other agencies, local governments and the public) and reviewing the results. Some hybrid of these may then be dubbed the SCS, approve, and sent to the Air Resources Board (ARB).

Guidelines that Support Healthy Outcomes

While health is rarely called out by name in the RTP guidelines, the outcome-oriented focus of SB 375 can provide much of the direction needed to get healthier and more equitable outcomes from RTPs. For example, by working towards policy outcomes in the RTP that increase access to transit, it is possible to reduce household costs for low-income families, increase physical activity, reduce local air pollution, and cut greenhouse gas emissions.³⁵

Also, SB 375 requires that the SCS must identify areas within the region sufficient to house all income segments of the population.³⁶ Ensuring that this housing component actually works its way into city plans and zoning codes could have tremendous health and health equity benefits.

This section identifies parts of the RTP guidelines that can promote better health, by topic area.



BICYCLE AND PEDESTRIAN SECTIONS

Improving the ability to walk and bike safely to more destinations is the “sweet spot” between public health, reducing greenhouse gases, and creating livable communities. When focused on low-income neighborhoods that typically have the highest rates of walking and bicycling collisions, obesity, diabetes, and related diseases, this approach can also reduce health disparities.

The RTP Guidelines address bicycle and pedestrian issues most directly in two ways:

- **Bicycle and Pedestrian Section** (page 111) This short section points out what aspects of bicycle and pedestrian issues need to be identified in the plan. It also highlights the requirement to identify existing and potential California Coastal Trail network segments.
- **Complete Streets Policies** (page 24) This section states that “agencies should also include Complete Streets improvements in MPO/RTPA funded transportation systems to the extent feasible.” This is potentially a powerful policy, and follows up on AB 1358, the California Complete Streets Act of 2008. This law outlines how transportation facilities should be designed and operated to meet the needs of all users, including pedestrians, transit riders, bicyclists, the elderly, the disabled, and motorists.³⁷

Be Creative

When the City of Berkeley needed funding for a bike/ped bridge over I-80, they were told to wait until the existing overpass (which had no pathway) was replaced decades ahead. They successfully argued that the projects could be separated so the bike/ped component could be its own bridge and could be built sooner.

The guidelines promote prioritizing resources for these types of projects by stating that “the MPOs should consider accelerating programming for projects that retrofit existing roads that provide safe and convenient travel by all users.” Because a 25-year RTP generally has a very long list of projects, this concept is difficult, though not impossible, to apply. The most important way to implement complete streets is by getting it seriously evaluated in *all projects*, and by prioritizing complete streets projects for near-term funding in the Transportation Improvement Program, or TIP.

Planners can also work to integrate funding for bicycle, pedestrian, and other users as part of the cost of road and transit projects. Even if the bicycle or pedestrian project is not integrated as part of the larger project, for example a parallel trail, planners can ask for that to be funded as well.

PROMOTING ACCESS FOR AND PARTICIPATION OF VULNERABLE COMMUNITIES

The RTP guidelines include components that support social equity and civil rights. There is a federal requirement that the RTP process must comply with Title VI of the Civil Rights Act of 1964. Another federal regulation, reflected in the RTP guidelines, “requires that an MPO’s public participation plan describe explicit procedures, strategies and desired outcomes for seeking out and considering the needs of those traditionally underserved... such as low-income and minority households, who may face challenges accessing employment and other services.”³⁸ Citing this key requirement can help keep MPOs accountable to creating an inclusive and equitable decision-making process.

Title VI can also apply to the impacts of transportation projects or plans, ensuring that there are not disproportionate negative impacts on low-income communities of color. This may be difficult to apply at an RTP level because it can be difficult to connect the impacts of a regional plan to specific populations. However, a complaint was successfully filed against the proposed Oakland Airport Connector for failing to consider the impact of high fares on low-income communities, and led to required significant improvements at BART and a number of mitigations for the project. In 2012, the Federal Transit Administration (FTA) will come out with new proposed guidance in the form of a “circular” that could strengthen the impact of Title VI, including much better information for the public and a possible requirement that transit agencies have their full board consider any equity analyses.

Section 4.2 of the RTP guidelines describes some best practices in community participation, including locating meeting sites near affordable transit, translating meeting materials and providing interpretation for non-English speakers, and ensuring that meetings are attended by MPO decision-makers in addition to MPO staff.

Coordinated Public Transit/Human Services Transportation Plans also present an opportunity to meet the needs of disadvantaged communities. These plans are focused on improving service for “persons with disabilities, older adults and individuals with lower incomes by ensuring that communities coordinate the available transit resources.”³⁹ MPOs are required to complete a Coordinated Plan to get funding from FTA. RTP investments should be consistent with these plans.

During the first round of RTP/SCSes, new mapping, visualization and modeling tools are being refined to further support participation and equity analyses.

DEVELOPMENT OF THE SUSTAINABLE COMMUNITIES STRATEGY

The development of the Sustainable Communities Strategy (SCS) is a tremendous opportunity to revisit long-held assumptions and projections about how the region is growing and investing. Sections 6.23 through 6.28 of the RTP guidelines are essential reading to understand what is really required, or is considered a best practice. A few of the most critical subsections include:

SCS PLANNING ASSUMPTIONS (A.K.A. PROJECTED LAND USES)

Because SCS’s represent a new approach with outcome-oriented goals, it is important for regions to be able to make projections that differ from how things have been previously done. The RTP guidelines include a critical clarification of how land use projections and planning assumptions can differ from historical trends or existing plans and boundaries, and outline key circumstances when it may be “appropriate or necessary” to make new assumptions, including:

- New demographic, market or regulatory trends, such as the growing demands for walkable and more urban communities, particularly if it has been several years since a general plan has been updated;
- Adopted blueprints or other forward-looking plans;
- General uses and densities that may be required to comply with state laws such as the Regional Housing Needs Allocation (RHNA)
- Longer time horizons of an RTP than an adopted general plan; and
- Changes in state, federal or local funding that may impact growth.

In preparing these forecasts, MPOs can consider how factors such as the density, design or diversity of land uses could help reduce GHG emissions. MPOs are also encouraged to consider equity issues, such as household transportation costs and air quality impacts. Assumptions that are significantly different than historical trends must be reasonable, based on the best available information, and consistent with the transportation system set forth in the plan.⁴⁰

These projections and assumptions must be created in consultation with a broad variety of agencies and the public. The guidelines suggest that MPOs should work closely with local governments, especially in regions where not all cities and counties have a permanent seat on the MPO Board.

LAND USE AND TRANSPORTATION STRATEGIES

The RTP guidelines contain some excellent suggestions in Section 6.27 and Appendix I, including:

- **Land use strategies** such as future school siting and pedestrian or bicycle-only streets;
- **Transportation strategies** such as shifting investments towards improving and expanding urban and suburban core transit, programs for walkability, bicycling, car-sharing or housing near transit;
- **Parking and trip reduction strategies** (as detailed in the Victoria Transport Policy Institute's Encyclopedia), and;
- **Pricing strategies** such as free or reduced transit fares, congestion pricing, and strategies to reduce the impacts of pricing on low-income individuals.

All of these strategies are strongly interrelated, and many require significant time commitments to develop models and measurement tools.

SECTION 5 | EFFECTIVELY ENGAGING IN RTPS

Before getting into some of the main challenges to engaging in RTPs, it is important to understand the range of ways that health professionals and other stakeholders can engage in the process:

- **Familiarize yourself with the RTP timelines and process.** This document is just an introduction. Once engaged in an RTP, it will be important to dig deeper to understand how to maximize your impact in your time available. There are a large number of resources available, some of which are listed in the references section at the end of this document. No matter how little time you have, there may be strategic ways and points to get involved.
- **Build partnerships with stakeholders who are already engaged.** Many stakeholders across the state are already involved in the RTP process and would welcome the perspective of public health professionals. Join forces with transportation professionals, environmental groups, social equity organizations and others to support activities that improve health. See the ClimatePlan website to get in contact with partners that are already involved in each of the major regions.
- **Promote performance measures and indicators that address human health and GHG emissions.** Setting health and equity goals and measuring the impacts of different projects and regional scenarios will enable better decisions. This quickly evolving field is discussed more in the next section. An excellent source of potential health indicators is a report prepared by Human Impact Partners titled: *Elevating Health & Equity into the Sustainable Communities Strategy (SCS) Process* (www.humanimpact.org).
- **Directly address health disparities.** Under Title VI, MPOs must analyze the impacts of RTP scenarios by income and race. These analyses are generally conducted through a transportation mobility lens, such as job opportunities within 30 minutes. This is a significant opportunity to expand the focus to disparities in health outcomes. For example, understanding the extent to which pedestrian injuries and fatalities disproportionately impact communities of concern may be a way to highlight safety, and to focus RTP safety programs on saving the most lives and reducing those disparities. Health departments and others can support this work by providing data, such as maps that are geocoded with high chronic disease prevalence census blocks, poverty, or communities with high rates of emergency department visits for asthma, to help inform investment decisions.
- **Encourage projects and programs with the most health benefits, especially those not typically included in RTPs.** As is discussed above, many projects already included in RTPs have positive health outcomes, although they may not perform quite as well on congestion relief or other measures. With growing competition for shrinking resources, public health professionals could review proposed RTP investments and identify and encourage projects that provide the greatest health benefits. Since RTPs have typically focused on large infrastructure, there is not often a strong voice for smaller projects or programs, like Safe Routes to Schools or livable communities grant programs that provide direct health benefits.

- **Connect directly with MPO staff and board members.** Health professionals, particularly from City and County Health Departments, can meet with the MPO staff responsible for preparing the RTP and SCS. Large MPOs create ad hoc advisory committees whose membership sometimes includes representatives of local health departments or state health departments. This allows a public health perspective to be explicitly included in the MPO planning process. While attending MPO events and hearings is important, individual meetings are also a critical way to get into more detail on the use of health metrics or the health impacts of the RTP.
- **Comment on documents.** Submitting letters on key decisions is an important way to encourage inclusion of certain types of activities. MPOs are required to review and respond to every comment received.

Health Professionals in Action

During the Bay Area’s 2009 RTP process, staff from the San Mateo County Health Systems met with MTC Commissioners representing the County to discuss how programs, especially Safe Routes to Schools and the regional bike program, supported the county’s public health goals. Various health departments, as well as physicians from Kaiser Permanente, also testified before the full MTC commission about the impact and cost of pedestrian and bicycle collisions and air pollution. This provided important stories that humanized the health impacts and helped build support for full funding of both programs.

SECTION 6 | TECHNICAL CHALLENGES AND PITFALLS

Several case studies in Section 7 show how RTPs can effectively support healthy communities. But before trying to replicate those, it is important to understand some of the most fundamental challenges of the RTP process. This section provides an overview of critical pitfalls to help you navigate the complicated world of RTPs and ensure that your time is well spent.

“Over-Commitment”: Committed vs. Discretionary Spending

One of the earliest and most fundamental decisions of the RTP process is to identify which projects or programs are “committed” and which are “discretionary.” This is typically based upon criteria such as whether the project has completed its environmental review or was included in a county sales tax. “Committed” projects form a “baseline” and are included in every scenario. They are, therefore, automatically included in the RTP’s final preferred alternative.

Similarly, MPOs can determine which funding sources will be “committed” or “discretionary.” While most funding sources have specified uses, there is still sometimes flexibility to distribute them in different ways within the region.

These definitions have a dramatic impact on the RTP process. While having a very large “baseline” of projects reduces complexity and adds certainty, it also limits opportunities for variation between scenarios. Regions that are not meeting their GHG, health, equity or other targets will want opportunities to pursue innovative approaches by shifting investments, but may not be able to if they have a large baseline.

For example, just 3% of the 2011 San Diego RTP’s funding was discretionary, because all projects in their 40-year sales tax were considered committed and most had large mandatory matches. This would be like going to the supermarket with \$100 and being told that \$97 was for already predetermined items.

MPOs have a surprisingly large amount of latitude in deciding their “committed projects” policy. For example, as the Bay Area’s MTC has recognized the importance

What's Getting More Money: Roads or Transit?

RTPs in California are increasingly showing a majority or more of the “regional transportation funding” being put towards public transit. In many places this reflects the will of the voters who have supported transit-heavy funding measures. However, in large part it is also a peculiarity of what constitutes transportation spending. Nearly all public transit spending, including operating and maintaining vehicles, passes through government agencies and is therefore reflected in the RTP. Yet when we build roads most of the operations and maintenance (of private vehicles) is a private expense and not reflected. In fact, in *Windfall for All*, TransForm calculated that Bay Area residents spend about seven times what government agencies do each year for transportation. It can be useful to calculate the total private costs in the major regions, and show how agency funding on transit helps reduce these costs. Even better, ask the MPO to include this analysis in some of their scenarios or assessments of individual projects.

of having more discretionary funds, they have gradually increased these funds from just 7% in 1998 to 25% for the 2013 RTP. One way to maintain as much discretion as possible is for a policy to state that if a project will not be under construction, or has not completed its environmental review by the time the RTP is adopted, then it is not committed.

Models: Challenging by Any Measure

One of the greatest potential benefits of SB 375 is that it focuses regional planning on quantitative outcomes. At least in larger regions, this will take place through rigorous analysis and iterations, in order to develop a scenario that meets the GHG targets. Travel demand models will make predictions for travel at a point in the future that is based upon projected populations, land uses, household size and income levels, and other factors. These models predict how future trips will take place, and can look at scenarios that have different transportation infrastructure, prices, land uses or other factors.

SB 375 and the RTP guidelines call for these modeling efforts to be more transparent and to “quantify, to the extent possible, the co-benefits associated with the achievement of their GHG targets, as a means of increasing public understanding and support (RTP Guidelines page 48).” Modeling of co-benefits can be very useful, especially because GHG reduction strategies frequently have health co-benefits from reduced air pollution, increased physical activity, etc.

OVERCOMING PITFALLS IN MODELING AND MEASUREMENT

While SB 375 necessitates a focus on quantitative outcomes, at least for GHG emissions, planners face several limitations and potential pitfalls.

- Transportation performance measures have traditionally been more focused on vehicle and transit travel times, with limited study of equity impacts and very little on health.
- Travel models that have been used to predict future transportation needs were largely designed to understand the impact of large infrastructure projects. They are not sufficiently sensitive to many types of land use change and bicycle and pedestrian projects that can have significant health benefits.
- Certain GHG reduction strategies do *not* correlate with social equity benefits. For example, road pricing can disproportionately increase costs to low-income commuters. Other strategies that focus on offering new transportation options to long-distance commuters could come at the expense of core urban services.
- Models can only be as good as the data collected, and there is often inadequate data on health and equity indicators.

Because modeling is intrinsic to the RTP process, the RTP guidelines dedicate a chapter to the issue, and California’s Strategic Growth Council has directed significant funding to help update models. Further, in 2011, ARB adopted clear guidance for MPOs on the format and type of information they include in both models and performance indicators.⁴¹

Modeling resources and tools are improving, and we can expect to see higher quality modeling as we move forward. During the public comment period for San Diego’s 2011 SCS, many complaints were lodged about the opacity and inaccuracy of the model used. SANDAG is now updating their model to be more accurate, and they will make it open-source so others can verify aspects of the model and learn best practices from their experience.

SACOG: I-PLACES3 Model

MPOs continue to experiment with ways to improve models, and to make them more interactive and transparent. Sacramento Council of Governments’ (SACOG) I-PLACE3S is a web-based modeling program for scenario planning that can evaluate how alternative development approaches or transportation investments may impact a number of indicators, including transportation patterns, energy usage, cost efficiency and climate change.¹³ This detailed interactive analysis of planning scenarios and policy issues provides a seamless data loop between transportation and land use modeling. I-PLACE3S was instrumental in SACOG’s Blueprint Project from 2002 to 2004 and in the development of the Metropolitan Transportation Plan for 2035 and continues to be important in the Blueprint implementation efforts and for several member and partner agencies. The strong visual component of the program, as well as its hands-on interactivity, allows users to create different scenarios during public workshops and other settings. SACOG also uses I-PLACE3S at various land use planning scales to develop land use scenarios that feed into travel and air quality models for General Plans, Community Plans, and Transit-Oriented Developments. SACOG has plans to enhance the program with PLACE3S Public Health, which specifically assesses and estimates body mass index, minutes of physical activity and greenhouse gas emissions, and was first developed for King County, Washington.

Other Key Challenges

JUST CAN’T GET ENOUGH: OPERATIONS AND MAINTENANCE

Simply maintaining and operating the existing transportation system – from repairing roads and bridges to replacing tracks and trains – is a huge and growing challenge. Current shortfalls are large in most areas, and with aging infrastructure the projected shortfalls are simply staggering. It is critical to prioritize funding for road maintenance because the repair bill can grow exponentially if ignored. Shortfalls for public transit can result in large service cuts, unreliable equipment and service or fare hikes.

Yet a major focus of RTPs -- the “fun” part really -- is identifying new expansion projects or innovative programs. This focus only grows with SB 375, because “maintenance” does not show a GHG benefit or any transportation benefit for that matter, in most models. How can planners make sure that maintenance and operations get the appropriate amount of funding?

First, in scenarios where massive shortfalls are allowed to persist, modeling should reflect actual consequences of this decision, such as unreliable buses or higher transit fares. Off-model measures such

as higher repair bills from hitting potholes can also be reflected. Second, scenarios could show these shortfalls getting exponentially worse if not addressed.

There are two important caveats: First, typically local streets and roads are maintained and primarily funded locally, not regionally. There is no “correct” amount of regional contribution. But Proposition 13⁴² and other laws make it difficult for local governments to raise enough revenue on their own. Second, most state and federal funding considered in RTPs cannot easily be flexed for operating public transit. To confront these shortfalls, stakeholders must start early and make sure that as many funding sources as possible are not considered “committed.” Just as importantly, get involved in new county or regional funding measure to focus new sources of funding on operations and maintenance.

LIMITED PROJECT PROPOSALS

Sometimes the only projects under consideration for a certain transportation corridor may have negative health or community impacts, or are no longer cost-effective. How can stakeholders know if there are other options? Before projects get included in RTPs they have often been through studies that looked at various alternatives. For example, rail projects may have had a “Major Investment Study” or an “alternatives analysis” that looked at express buses or other options. These studies end with a “preferred alternative” that gets approved by its sponsoring agency.

Stakeholders can refer back to these earlier planning documents for ideas and can re-introduce those other options for consideration in the current RTP if they seem like a good fit. (Note that if the project with the negative impacts gets defined as a “committed” project it will not be possible to reconsider it once the RTP process is underway.)

ABILITY TO FOCUS ON THE OVERALL PLAN

Engaging in an RTP can be overwhelming in scope for those that only have a modest amount of time. Any level of engagement can be beneficial, but the less time there is to engage, the more focused that engagement needs to be to have an impact. In these situations, stakeholders should get in contact with other like-minded groups or coalitions that are working on the entire plan, get an overview of the key issues that are in play, and decide where to plug in, whether through developing health indicators, supporting a Complete Streets policy, or some other way.

ENSURING FUNDING IS ACTUALLY ALLOCATED

The RTP is a long-term blueprint for spending and it impacts *eligibility* for funding. To ensure that projects and programs that promote health outcomes are prioritized, it is also important to focus on what goes in the “TIP” – the four-year Transportation Improvement Program. There is often a new TIP passed along with the RTP, and these TIPs are frequently amended.

When that is not possible, there may be other ways to get early commitments. For example, during the 2011 RTP process in San Diego, bicycle and pedestrian supporters won a commitment for over \$2.5 billion over forty years. But that funding was not going to kick in until 2015! Public health advocates, along with groups like Walk San Diego and Move San Diego, were able to secure a commitment to have an “early action” program to identify specific funding within two years.

SECTION 7 | CASE STUDIES: EAT YOUR P'S FOR BETTER HEALTH

This section provides a snapshot of how health has been incorporated into RTPs across the state. These case studies are meant to be illustrative of important work already happening in California. TransForm will be developing a more comprehensive, web-based tool that captures the best practices that come out of the first round of RTP/Sustainable Communities Strategies.

The case studies represent four key types of RTP content: Programs, Projects, Plans, and Policies.

- **Programs.** Increasingly, our complex problems are not being addressed by large infrastructure projects, but bike lanes, educational activities, grants for community-based planning, commuter incentive programs, etc. To fit into an RTP framework initially geared for larger projects, these activities are increasingly being bundled by type into a “program” that can then compete for funding. Examples of programs in this section include the Safe Routes to Transit and Safe Routes to Schools Programs, and San Diego’s Environmental Conservation Program. Typically, an RTP will list the program and the amount of funds that will be dedicated to that program. While programs can be *conceived* of any time (outside of an RTP process), to be funded at any significant scale they either need to get into an RTP, or into a new local funding measure like a sales tax (in which case it would automatically become part of the next RTP).
- **Projects.** Projects represent infrastructure changes to the transportation system. While highway and transit projects account for the majority of the projects included in most RTPs, larger bicycle and pedestrian trails and paths are also included. This section includes bus rapid transit lines and a new scenic trail as examples.
- **Plans.** During the RTP process, MPOs can identify the need for a new plan, or can designate funding for an existing plan. Once you have a plan that includes a list of projects or supportive programs, like SANDAG’s Regional Bike Plan (described below), it can be considered for regional funding. Also described here is Sacramento’s Rural-Urban Connection Strategy, an ongoing planning process to identify ways to promote economic and environmental sustainability for rural areas.
- **Policies.** RTPs contain a “policy element” that helps set the overall direction and may set broad objectives (e.g. a goal of having all local roads in a good state of repair). In addition, individual policies can actually be tied to funding in the RTP. Included here are case studies of MTC’s “complete streets policy” as well as MTC’s policy that sets a threshold for more homes that must be developed near transit before regional funding will be released. Policies can be a good way to leverage existing funding to improve the outcomes of RTPs, especially in a time of shrinking revenue.

Programs

MTC – SAFE ROUTES TO SCHOOL PROGRAM

In 1969, half of schoolchildren walked or bicycled to school each morning. But in the past 40 years, this rate has plummeted to lower than 15%. School trips now comprise up to 25% of morning traffic, and cause congestion, create emissions, and contribute to childhood obesity. Safe Routes to Schools (SR2S) is a comprehensive approach to these problems. SR2S combines established, tested methods to encourage schoolchildren to walk, bicycle, and carpool to school. SR2S utilizes the 5 Es: traffic engineering, safety education, bicycle and pedestrian encouragement programs, traffic law enforcement, and continual program evaluation. It also develops extensive partnerships by engaging students, parents, school faculty, police, city planners, and elected officials in a unified effort.

Founded in Marin County in 2001, SR2S programs have spread across the country. During the Bay Area's 2009 RTP process, TransForm proposed that the Bay Area's Metropolitan Transportation Commission (MTC) fund the SR2S program at a regional scale. A report titled *Bringing Safe Routes to Scale* estimated the costs and potential reduction in vehicle trips from SR2S by extrapolating from evaluation data from Marin and Alameda Counties to the other MTC regions.⁴³

With strong support from county public health departments, Kaiser doctors and advocates, the recommendation was adopted and funded at \$17 million over 3 years. Just as significantly, this funding came from MTC's new *Transportation Climate Action Program*.⁴⁴ Linking programs that promote health to specific anticipated reductions in GHG emissions can produce positive results. Collecting good data, which show projected regional benefits, can also support the scaling up of successful local programs.

MTC SAFE ROUTES TO TRANSIT PROGRAM

MTC's Safe Routes to Transit (SR2T) Program is an example of how a program that began outside of an RTP can be enhanced and sustained through inclusion in an RTP. Bicycling and walking are cost-effective and sustainable ways to reach regional transit stations, yet many commuters drive because of safety concerns. The SR2T Program funds projects and plans that make non-motorized trips to transit stations easier, faster and safer.

The East Bay Bicycle Coalition first put the concept of SR2T forward during the development of the Bay Area's 2004 bridge toll increase to fund public transit, known as Regional Measure 2. With the help of bicycle coalitions around the region, TransForm then developed a spreadsheet showing hundreds of proposed but unfunded safety programs near regional transit stations. Ultimately, \$20 million was included in Regional Measure 2 and to date, nearly \$16 million has been awarded to over 30 capital and planning projects. Bundling smaller projects into a large program allowed SR2T to successfully compete for funding.

SR2T was picked up as an important recommendation by health advocates in San Diego with good results. SANDAG included \$700 million over 40 years for a SR2T program in their proposed RTP/SCS.

Not only do SR2T programs have climate and health benefits, but they can have economic benefits by reducing or obviating the need to construct expensive additional parking spaces for older transit stations or for new station parking design. This planning can be reinforced by planning and transit agencies. For

example, BART no longer requires a one-to-one replacement for parking spaces when development takes place at their station parking lots. They now analyze the total improvement in access to the station by all modes combined.

SACRAMENTO REGION BLUEPRINT PROJECT

The Sacramento Region Blueprint Project serves as a pioneering example of a regional agency creating a directional tool for sustainable growth. In 2002, as an attempt to address prospective worsening congestion and air pollution, the Sacramento Area Council of Governments (SACOG) initiated the Blueprint, an extensive study and outreach process on the impacts of transportation land use and air quality. In order to better inform local government, the Blueprint provided advanced data and modeling tools to help forecast impacts of future growth. It also educated communities on the impacts of different types of development, such as open space consumption, change in travel patterns and air emissions.

The Blueprint study developed into a tool to provide tangible opportunities to reduce the potential detrimental effects of growth on the health of the community and ultimately became part of SACOG's RTP. With the establishment of funding programs like the Community Design Program that promote Blueprint principles, it serves as a framework to guide and implement sustainable development and transportation infrastructure in local government. SACOG's Blueprint Program is an innovative program that was adopted by many other MPOs across the state and is used as a case study nationwide.

SANDAG'S TRANSNET ENVIRONMENTAL CONSERVATION PROGRAM

SB 375 does not have a strong mechanism for land conservation, as it only requires that SCSes “gather and consider the best practically available scientific information regarding resource areas and farmland in the region.”⁴⁵ MPOs are not required to create land conservation programs, and the state and federal transportation funds under consideration in RTPs are not well-suited for large-scale land conservation. However SANDAG, the MPO for San Diego County, developed a way to leverage long-range transportation funding to protect and create more open spaces for people and habitat.

In 2004, San Diego County residents voted to extend TransNet, a half-cent sales tax that funds many of the transportation projects in the RTP. When SANDAG was drafting the initiative, conservation and open space advocates, such as the Endangered Habitats League, worked closely with numerous government agencies to include \$850 million toward the creation of an Environmental Conservation Program. These funds were included as an “Early Action Program,” which gives SANDAG access to all of the conservation funds within in the first 10-15 years of the sales tax's 40-year life span. This allows SANDAG to go beyond mitigating their RTP projects on a piecemeal basis and allows the agency to create and/or restore large ecosystem preserves before the transportation infrastructure projects are even built. Protecting land sooner rather than later creates more habitat space for animals and native plant species, and allows current community members the opportunity to enjoy the recreational and physical activity opportunities in these new open spaces, such as hiking and mountain biking. This program has been so successful that Orange County created a similar program through the 2007 passage of Measure M.

While land conservation programs may not be fundable within an RTP, the SCS presents a significant opportunity to identify a “greenprint” to match urban development blueprints, and to quantify the costs

of that land conservation. That information can then be used in future funding measures, essentially emulating what SANDAG did.

SMART GROWTH GRANTS

Many MPOs offer grant programs to support infrastructure and planning for smarter growth projects. The RTP process often determines how much funding these anticipate. Instead of choosing to highlight one as a case study, this guide lists some representative programs below, and provides web URLs.

MPO grant programs typically focus on promoting and modeling best practices in catalytic or influential locations, thus setting the stage for better planning and project design region-wide. MPOs with larger populations, and therefore larger pools of transportation funds, are usually more likely to sponsor grant programs.

MPO grants can fund health-supportive planning projects, including those that increase walking and biking, improve park access, and minimize environmental hazards and pollution. In fact, these strategies can be established as key grant-funding criteria. It is also important that MPO grant programs avoid the potential negative impacts of displacement in low-income neighborhoods. Some representative examples of MPO grant programs include:

Selected MPOs	Grant Programs Examples	Link
MTC (Metropolitan Transportation Commission – San Francisco Bay Area)	<ul style="list-style-type: none"> One Bay Area Grant Program (planning in coordination with the region’s SB 375 Sustainable Communities Strategy) Station Area Planning Grants (transit station area planning and design) 	http://www.mtc.ca.gov/funding/
SCAG (Southern California Association of Governments)	<ul style="list-style-type: none"> Compass Blueprint Planning Grants (funds planning projects in line with the regional smart growth blueprint) 	http://www.compassblueprint.org/
SACOG (Sacramento Area Council of Governments)	<ul style="list-style-type: none"> Bicycle and Pedestrian Grants (funds capital and non-capital bicycle and pedestrian projects) Community Design Grants (funds planning and capital improvements that support the SACOG's Blueprint project principles) 	http://www.sacog.org/regionalfunding/fundingprograms.cfm
SANDAG (San Diego Association of Governments)	<ul style="list-style-type: none"> TransNet Smart Growth Incentive Program (funds public infrastructure and planning that facilitates compact, mixed use development focused around public transit) 	http://www.sandag.org/index.asp?projectId=340&fuseaction=projects.detail
FRESNO COG (Fresno Council of Governments)	<ul style="list-style-type: none"> Measure C TOD Program (funds transit projects developed through community engagement, improves transportation choices, and supports high-density housing and mixed use around transit) 	http://www.measurec.com/admin/docs/TOD%20Cycle%20I%20Application%20Packet-12-27-11%20-1.pdf
SJCOG (San Joaquin Council of Governments)	<ul style="list-style-type: none"> Measure K Smart Growth Incentive Program (funds infrastructure and planning to support infill development, neighborhood revitalization and downtown improvements) 	http://www.sjcog.org/docs/pdf/Measure%20K/Final_2008_SGIP.pdf

In addition, health advocates can be creative in finding funding for land use and transportation from non-MPO grant programs. For example, the California Department of Housing and Community Development has an incentive program that provides financial assistance to develop new parks, or to rehabilitate old parts of cities and counties to increase the overall supply of affordable housing for low- and very low-income households.⁴⁶

KINGS COUNTY AGRICULTURAL WORKER VANPOOLS

California's agricultural workers continue to face dangerous conditions on their way to work. Most have very limited transit options and cannot afford a car, and some that do drive do so without insurance. Over half ride with someone else or in a *raitero* (illegal taxis or vans). These workers, especially those who ride raiteros, are often subject to outrageous and inconsistent charges, dangerous driving, and unreliable and unsafe vehicles. *Raitero* vehicles typically lack air conditioning and seatbelts, with passengers sitting on the floor in some cases. In 1999, a series of tragic accidents in the Central Valley, including one that killed all 13 agricultural workers aboard, brought statewide attention to transportation issues facing these workers.

Following these tragedies, the Kings Area Rural Transit (KART) began a vanpool program to provide agricultural workers with safe and affordable vans they could use to drive themselves and others to work. After the program's early success, the Agricultural Industries Transportations Services (AITS) Pilot Project was established with an initial \$8 million in state and federal funding. The pilot project assessed the transportation needs of agricultural workers throughout the state in order to guide the vanpool program's eventual statewide expansion.⁴⁷

AITS is now offered in several counties as a safer and more dependable transportation alternative with approximately 150 vans serving up to 1,500 farm workers daily, and growing. Instead of the average \$5 per passenger per ride charge by *raiteros*, AITS passengers pay a weekly fare (depending on mileage) that averages to be a little more than \$2 per ride. The AITS Pilot Project assessment also found that the program reduces total GHG emissions by up to 2,871 tons annually.⁴⁸ The AITS has since broken from KART and transitioned into CalVans, a statewide vanpool agency, serving not only farm workers but other commuters and students in Kings, Madera, Fresno, Tulare, Monterey, San Benito, Santa Cruz, Sacramento, Yolo, Yuba, and Sutter Counties.

Counties are primarily responsible for providing capital to purchase the vehicles to get the program running in their area. AITS has used Transportation Development Act (TDA) money to help cover operations and maintenance costs. In other cases, the program has worked with farms to help subsidize vanpools for their employees.

The 2011 Kings County RTP promotes the expansion of ridesharing and vanpooling as a way to serve low-density areas and inter-county commuters and, with four adjacent counties, seeks to establish a Joint Powers Authority that would oversee both KART and AITS.⁴⁹

Projects

MONTEREY BAY SANCTUARY SCENIC TRAIL NETWORK

The Monterey Bay Sanctuary Scenic Trail Network (MBSST) is the result of a collaborative effort between public agencies, non-profit organizations and local groups⁵⁰ to create a multi-use recreational and educational bicyclist and pedestrian pathway for residents and visitors.⁵¹ While the project began with an aim to maximize the economic and educational opportunities that the National Marine Sanctuary brings to Santa Cruz, it evolved into a transportation-oriented effort to provide alternative transportation options and access in order to address issues like parking, traffic congestion, safety and

auto emissions. The MBSST promotes health by taking advantage of aesthetic views of Santa Cruz County's Pacific coastline and provides users with a network of trails for active transportation that connects the coast to other desirable destinations such as transit hubs, parks, commercial centers, and schools.⁵²

The project began as an effort by the Santa Cruz Inter-Agency Task Force, consisting of representatives from numerous public and private institutions.⁵³ Working together, local agencies in Monterey and Santa Cruz Counties gradually acquired the abandoned Southern Pacific Railroad right-of-way for the trail.⁵⁴ As of 2012, the Santa Cruz County Regional Transportation Commission (SCCRTC) had initiated the planning process, conducted stakeholder interviews, and started a public workshop series for the trail's master plan and environmental impact review. In 2010, SCCRTC committed \$2 million in discretionary funds to MBSST.

LOS ANGELES METRO'S 30/10 INITIATIVE⁵⁵

The 30/10 Initiative is an example of how to use momentum and excitement about expanding public transit to identify new funding and resources. 30/10 is a proposal to accelerate construction of twelve major Los Angeles County Metropolitan Transportation Agency (Metro) expansion projects, in order to create a more complete transit system for the region. Metro originally scheduled these projects to be completed with the long-term revenue from the 2008 Measure R sales tax, a half-cent sales tax that will raise nearly \$40 billion for local transportation over 30 years.⁵⁶ Instead of construction occurring over a 30-year time frame, the 30/10 Initiative would utilize Measure R revenue as collateral for long-term bonds and federal and private loans to complete these projects by 2019 - a 10-year time period.

The support for 30/10 has led to the proposal's inclusion in at least one of the scenarios in SCAG's upcoming RTP/SCS. Its inclusion in the RTP will help build further momentum and validation for 30/10 as an essential strategy as new sources of funding are sought.

Proponents of 30/10 understand that it will be critical to complement new transit development with other improvements, such as enhancing bicycle and pedestrian amenities around the stations, and planning for transit villages with affordable homes and policies to prevent displacement. It will be critical to identify additional operating and maintenance funds to ensure existing transit systems can be maintained and expanded. With LA's continued growth and the historic status as the center of the car culture, 30/10 could be a model for the entire nation on how to shift minds and modes.

LOS ANGELES METRO ORANGE LINE

The Los Angeles County Metropolitan Transportation Agency's (Metro) Orange Line is an example of what transit agencies can do to speed up transit using the cost-effective option of Bus Rapid Transit (BRT).⁵⁷ In 1991, Metro purchased an abandoned railroad line in the San Fernando Valley and considered building a light rail system in the corridor.⁵⁸ After the success of the Metro Rapid (Bus) Demonstration Program and due to funding constraints, Metro proposed a 14-mile BRT line. BRT emulates what people love about rail, such as a dedicated transit lane, infrequent stops, fast, frequent service and pre-paid boarding. But BRT delivers it at a fraction of the price. With the lower cost, Metro was also able to afford the adjacent Metro Orange Line bicycle path.

While both the Bus and Bike route have had some design issues, that is to be expected from a pioneering design and Metro is incorporating lessons learned from that experience as they extend the line an additional 4 miles. The Orange Line has proven to be a true success – with over 21,000 average daily boardings during July 2010. The Orange Line provides greater access to needed destinations and attracts new riders resulting in fewer automobile trips and a reduction in greenhouse gas emissions.

Plans

SANDAG REGIONAL BIKE PLAN

The San Diego Association of Governments (SANDAG)'s Regional Bike Plan, *Riding to 2050*, serves as an excellent example of combining local plans and programs for active transportation into a regional effort. SANDAG took advantage of existing bicycle trails within the county to create a regional bicycle trail network with interconnected bicycle corridors, support facilities, and programs.⁵⁹ The plan also includes education, marketing/public awareness programs, encouragement, enforcement, and monitoring.

The plan stands out not only for its comprehensiveness, but also for its clarity on implementation. It provides clear maps that show how the whole region will benefit and provides excellent near and mid-term sample benchmarks. Most importantly, it quantifies the cost of implementation and shows potential funding sources. The results of the plan have been adopted into the 2050 RTP.⁶⁰

Public health and safety benefits were touted as primary benefits of the plan. In 2006, 25% of all deaths in San Diego County were caused by heart disease and stroke and diabetes were responsible for 9% of deaths. Advocates understood the effect that increased active transportation options could have on curbing some of these poor health outcomes.

With this strong support from health professionals and advocates, active transportation received a tremendous boost in SANDAG's SCS, with funding more than doubling as a percentage of the RTP (from 2007). Not only did this grow to over \$3 billion but SANDAG also provided a commitment to adopt a regional Complete Streets policy within 2 years.

SACOG'S RURAL-URBAN CONNECTIONS PROGRAM

With inevitable population growth throughout the Sacramento region, SACOG is making an effort to address how they plan to feed the next generation and ensure that their agricultural economy can adjust to meet demand for local and worldwide food demand. In 2007, SACOG took an innovative and detailed approach to rural land use issues in a project called the Rural-Urban Connections Strategy (RUCS).⁶¹ RUCS complements SACOG's urban economic strategy, the Blueprint Project, as it strives to be an economic and environmental sustainability strategy for rural areas.⁶² RUCS looks at the region's growth and sustainability objectives from a rural perspective, focusing on land use and conservation, agricultural infrastructure, economic opportunities, forest management, and government regulations.⁶³

RUCS assembled working groups to concentrate on these 5 focus areas and enabled SACOG to work directly with citizens, businesses, rural stakeholders, and public agencies.⁶⁴ This effort will become part of SACOG's 2012 RTP/SCS and will offer a more comprehensive approach to land use and transportation

investments to help maintain more access to locally produced foods, create rural economic development opportunities, and help protect the greenbelt.

MTC'S LIFELINE PROGRAM AND COMMUNITY BASED TRANSPORTATION PLANS

As part of the 2001 RTP, MTC undertook a comprehensive assessment to identify where public transit services, on a route-by-route basis, were most vital to disadvantaged neighborhoods, and where there were spatial and temporal gaps. Out of the *Lifeline Transportation Network Report*⁶⁵ came a recommendation to establish the Lifeline Transportation Program as part of the 2005 RTP. With a combination of state and federal funds, the Lifeline Program supports transportation projects that are most needed by disadvantaged communities. A total of 75 projects at \$50 million have been funded to date. Funded projects have included pedestrian and bicycle access improvements, senior and children's transportation, information and training programs, and community shuttles.⁶⁶

To fill gaps of information that the Lifeline Report failed to capture, MTC also created the Community-Based Transportation Planning Program. It is a process for individual low-income communities to evaluate and self-identify their transportation needs and seek solutions. The process focuses on community participation as a tool to better inform implementation of transportation projects and plans. So far, 29 plans have been completed at a cost of about \$50,000 to \$60,000 per plan.⁶⁷

Like any program that tries to break new ground, there have been criticisms of its effectiveness. But a recent program evaluation⁶⁸ points the way to overcoming these barriers and highlights some inspiring examples of best practices. For example in the East Bay, Cycles of Change allows low-income participants to receive a bicycle, ride training, and follow-up tune-ups by them and other neighborhood organizations. They have exceeded expectations and added youth job training and in-depth mechanical skills courses. In Concord, a new shuttle service was funded to link the low-income Monument Corridor with the County Medical Center, a local health clinic, shopping and transit connections at a discounted fare. The route includes excellent bi-lingual materials and services and was a top recommendation in the community's plan.

These programs show that strong fixed-route transit is not enough to create a truly equitable system, but that there are equitable and inclusive decisions in regional transportation processes.

Policies

MTC'S COMPLETE STREETS CHECKLIST

In 2005, the Bay Area's Metropolitan Transportation Commission (MTC) undertook the "Routine Accommodation" study to evaluate how well the region's transportation projects created complete streets for all users – pedestrians, cyclists, transit, and automobiles. Bay Area cycling advocates were strong and vocal supporters of the study which resulted from a commitment in the Bay Area's 2005 RTP (known as Transportation 2030). Study results showed that while around 57% of MTC's RTP-funded projects included non-motorized facilities consistent with already adopted federal, state and regional guidelines to accommodate all users, 43% did not.

As a result, MTC passed a “complete streets” resolution in June 2006. The resolution called on regionally funded projects to consider the needs of all users in street design and transportation planning. As a complement to this, MTC has since developed a “Complete Streets Checklist” that projects must complete when they receive MTC funding. The checklist is reviewed by MTC and/or local bicycle and pedestrian advisory groups, who in turn provide input to the project sponsor about how to better accommodate all users.

Complete streets standards and best practices are actually implemented at the local government level since cities and counties usually have direct control over the design and construction of RTP-funded transportation projects. Therefore, MTC has recently begun working directly with Bay Area cities to incorporate best practices from the Complete Streets Checklist into municipal transportation planning and design processes.

MTC’S TRANSIT-ORIENTED DEVELOPMENT POLICY

Between 2000 and 2004, Bay Area transportation agencies secured sales tax and bridge toll funding for a massive expansion of rail, bus rapid transit, and ferries. To ensure strong transit ridership, it was critical for local governments to plan for walkable communities and more homes near the future stations. Community stakeholders advocated for a policy that conditioned the regional funding for these projects on smarter local land use. Specific criteria were outlined in a report entitled *It Takes a Transit Village*.⁶⁹ This advocacy, combined with very strong outreach by MTC staff to explain the proposed policy to cities, led to the groundbreaking Transit-Oriented Development (TOD) Policy. Also known as Resolution 3434 and passed along with the 2005 RTP, this policy required that cities along a new transit corridor zone for a specified number of homes within walking distance of new transit stations, with bonuses for affordable homes, before MTC will release regional discretionary funds to support transit expansion projects.

Cities that are expecting stations have been prioritized for MTC grants that support community-based plans that can achieve the housing thresholds. While there are several possible critiques of the Transit Oriented Development Policy – that the housing thresholds should be higher, that design guidelines were not included, and that it did not include a jobs threshold – it has undoubtedly been successful at making a direct link between regional investments and local zoning.⁷⁰

ENDNOTES

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 23. UCLA Health Impact Assessment Project, "State Funding for Mass Transit - Health Impact Assessment Policy Brief," (Los Angeles, CA: UCLA School of Public Health, August 2007).
 24. Federal law requires a minimum of 20 years.
 25. Some RTPs, such as Sacramento's are referred to as "Metropolitan" Transportation Plans.
 26. Areas that meet federal Clean Air Act thresholds can do them every five years, but almost all California regions are not "in attainment" and update their RTPs every four years.
 27. In most regions the county transportation commission (CTC) is the same body as the MPO.
 28. SB 375 is the primary mechanism referenced in the Scoping Plan for AB 32, California's historic greenhouse gas reduction framework passed in 2006, for reducing GHGs through more sustainable land use and transportation systems. It pertains specifically to cars and light trucks.
 29. These requirements do not pertain to the 26 rural areas that have "RTPAs" as seen in the map.
 30. To learn more about the strategies that were considered and the methodologies used read the report of the SB 375 Regional Targets Advisory Committee (RTAC) found here <http://www.arb.ca.gov/cc/sb375/rtac/rtac.htm>
 - ³¹ The RTPs must incorporate strategies to improve the balance of jobs and housing, and synchronize the assumptions in the RTP with the Regional Housing Needs Assessment (RHNA). The RHNA for the region is determined by the State Department of Housing and Community Development (HCD) in consultation with the council of governments (COG). The RHNA represents the projected new housing need which cities and counties must use in updating the housing elements of their general plan for a planning period that generally covers eight years.
 32. California Transportation Commission, *2010 California Regional Transportation Guidelines* (Sacramento, CA: California Transportation Commission, 2010), <<http://www.catc.ca.gov/programs/rtp.htm>>.
 33. Of the 11 voting members on the CTC, 9 are appointed by the Governor, one is appointed by the Senate Rules Committee, and one is appointed by the Speaker of the Assembly. The two ex-officio non-voting members are appointed from the State Senate and Assembly, usually the respective chairs of the transportation policy committee in each house.

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 38. Page 63 of the 2010 RTP guidelines and in Federal Code, 23 CFR 450. 316(a)(1)(vii).
 39. Pages 74-75 of the 2010 RTP guidelines.
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