

Mass Transit for California's 21st Century

California needs transit systems that are as smart and diverse as its residents. The rising cost of living, congested roadways and public desire to reduce the state's air pollution and global warming footprint have all contributed to double-digit percentage increases in demand for transit across the state.¹

Good transit provides good jobs—more than typically provided by building new roads.² Good transit also reduces oil consumption and air pollution, including greenhouse gas emissions.³ Transit is key to meeting California's air pollution and greenhouse gas reduction goals. Transit is essential to ensure that Californians continue to have the mobility they need to keep the economy running.

New technologies and business models now make it possible to move transit beyond the traditional single-bus trunk system. Innovative transit planners and savvy employers recognize this and have created systems that respond to a variety of public transit needs with a variety of options. They are tailoring mass transit to make it more viable and effective for people and businesses. The result is faster commutes, cleaner air, good jobs and more satisfied customers—a mass transit system for the 21st Century.

Tailored Mass Transit: Flexible and Fit

Tailoring mass transit ensures a system of flexible and reliable transit options that match the diverse needs of people who live, work and play in a community. It gives people sensible, affordable choices to get them where they need to go and provides attractive alternatives to driving.

Tailored mass transit includes workplace shuttles, retail area jitneys, light rail, heavy rail, bus rapid transit, traditional buses, better connected bike paths, walkable streets and safe pedestrian school routes.

It recognizes that no single transit option can serve every need. Instead, it integrates a range of options. It can also include features that make riding transit as comfortable as, and even more convenient than, riding in an automobile. These include free wireless connections, real-time travel information, cup holders and easy-to-use bike storage.

Developing this type of system requires strategic spending. It requires using available technology and choosing solutions that can be adopted now to update an aging infrastructure to fit current needs.

Transit diversity is a key part of an innovative system. Yet, it is not enough to offer a variety of choices if those choices don't meet community needs. Tailoring mass transit requires employing innovations that work best within a particular place, enhancing mobility and access while reducing transportation's environmental impacts and cutting congestion. Done right, tailored mass transit works in megacities, suburbs, small towns, and rural communities.



TMT is about recognizing that no single transit option can serve every transit need.

e

ENVIRONMENTAL DEFENSE FUND
finding the ways that work

www.edf.org



Here are some examples of how innovators are successfully tailoring mass transit in California to give residents more environmentally friendly and less costly transportation choices:

Rural Transit that Works in the San Joaquin Valley

Public transportation may be an institution in California's cities, but transit for rural residents has been scarce. Kings County Area Public Transportation Agency (KCAPTA) is changing that. The agency's innovative system ensures access to schools, jobs and medical services in the rural reaches of California's San Joaquin Valley.

KCAPTA oversees the Kings Area Rural Transit system (KART) and the Agricultural Industries Transportation Services, which includes more than 230 vanpools and 23 rural bus routes stretching from Kern to Madera counties. The system connects agricultural workers and correctional officers to work every day, provides critical access to medical services for the elderly, and ensures that low-income residents have a way to get to colleges that are spread throughout the area.



The vanpool service, in particular, has been a huge success. It was primarily tailored to workers in the agricultural and prison sectors, but is now being expanded to school teachers, students and state workers. The mechanics are straightforward: gather nine people from a job site with at least one person who can qualify to be the driver. Then,

KART receives state grant money to purchase the van and registers the driver. Fees are collected on a monthly basis according to mileage, and KART offers 24 hour on-site repair services.⁴

In 2007, vanpool vehicles were responsible for eliminating 373,500 vehicle commuting trips and reducing 176 tons of air pollution that would have been emitted during those trips.⁵ As gas prices soared in 2008, vanpool requests skyrocketed, with KART adding 10 vans to its fleet per month for five months. Most day trips cost less than \$5 per person, so KART vanpools offer an affordable transportation option for San Joaquin Valley residents. The vanpool is also financially viable from an operations perspective as the fares cover full costs.

A New Image for Buses: Beautiful, Fast, & Reliable

Highway 101 in the San Fernando Valley is one of the most congested freeways in the country. Providing a critical transit link and congestion relief on this route required a creative solution. Enter the Orange Bus Rapid Transit (BRT) line, the first of its kind within Los Angeles County. This BRT line connects the residents and employment centers of San Fernando Valley with the end point of Los Angeles' main subway. The Orange Line has proven to be a huge success for Los Angeles' public transit system, surpassing its ridership goals for 2020 within six months of opening and relieving traffic congestion on Highway 101.^{6,7}

Why is the Orange Line such a success? It is beautiful: its notably sleek, 60-foot articulated (accordion-like) compressed natural-gas-fueled buses have ample room for passengers and bicycles.

It is fast: the bus runs on a dedicated lane built on a former rail right-of-way and gets signal priority in traffic. Coupled with station improvements such as ticket vending machines and well-designed boarding platforms, these elements ensure that the buses are not wasting time and fuel by idling at the station or in traffic.

And most importantly, the Orange Line is a reliable, time-saving transportation option: a BRT bus arrives every six minutes during peak commute hours and every 10 minutes throughout the rest of the day.⁸ A January 2006 survey showed that 85 percent of riders save time by leaving their car at home and using the Orange Line everyday.⁹

Another secret to the Orange Line's success is its comprehensive approach. A 14-mile bike path and an 8-mile pedestrian walkway accompany the Orange Line and 79 percent of riders use these options to get to their local bus stop.¹⁰ The stations are crafted with care and include public art installations, real-time information displays, bike storage, shade canopies and convenient parking.

The future of the Orange Line is already in motion. Expanding the Orange Line is one of the priority transit projects slated for funding with local transportation funds



established by Los Angeles County voters in November 2008. Transit-oriented development is also beginning to sprout up at several stations along the BRT line. The success of the Orange Line in one of the United States' most car-focused regions illustrates the ability of BRT to fill the gaps between urban and suburban transportation options.

A Personalized Approach to Transit Marketing in the East Bay

Often the biggest hurdle to getting people out of their cars and onto public transit is education. People perceive bus and bike options as more time-consuming and less attractive than jumping into their car and don't consider these as viable alternatives. Often, they just don't know how to use local transit. The TravelChoice personalized transit marketing program tackles this issue head on. It sends trained educators into neighborhoods to talk one-on-one with residents about their transit, walking, and biking options.

TravelChoice began as a non-profit organization's pilot project in the City of Alameda from April to July, 2006. The pilot confirmed that, in some cases, residents were unaware that an express bus around the corner could get them to work in half the time as driving or that a connection of bike paths were designed so they could bike to their local grocery store.

Before-and-after surveys showed that simply educating residents resulted in a 14 percent reduction in

drive-alone trips, with a 34 percent increase in transit use.¹¹ Through funding from Alameda County, the Bay Area Air Quality Management District, and the City of Berkeley, with AC Transit and BART as project partners, TravelChoice has spread to Fruitvale, Berkeley, and San Leandro.

Here's how it works: TravelChoice workers canvas a designated neighborhood and conduct initial in-person travel consultations with residents. With the information gathered, TravelChoice creates—and then delivers by bicycle to each participant—an organic cotton bag filled with information, including individualized bus maps and fare information linked to the best alternatives to driving. Follow-up phone calls that help residents navigate their new transportation choices complete the TravelChoice process.

Individualized transit marketing was pioneered in the mid 1990s, with its first significant application by the TravelSmart program in Australia. It has since proved to be a cost-effective solution that has helped residents expand their personal travel to include transit, bike and pedestrian options in Europe and several cities throughout the United States. In 2002, Portland, Oregon, began its successful SmartTrips program. SmartTrips includes walking and biking workshops and programs designed to help communities connect with each other and their transit options. SmartTrips routinely sees a 9 to 13 percent reduction in drive-alone trips among participants and the program only costs about \$10 per person.¹²



An effective, creative solution, individualized transit marketing is a good way to help customers tailor their own mass transit. Programs like TravelChoice show that getting people out of their cars is not just about giving them options—it's also about informing them about options and helping them determine when and how those options best fit individual lifestyles.

Beyond the Bus: Place-based Shuttling in California

When public transit isn't available, private mass transit can work. Yahoo! and Google have campuses in a part of the San Francisco Bay Area that lacks reliable public transit services; as a result, the companies have put into place critical shuttle services to attract employees from around the Bay Area. Google, in particular, has garnered a lot of attention for this innovation due to its transit system's sheer size—1,200 employees are shuttled from 40 locations every day.¹³ The shuttles, outfitted with wireless internet access, not only get employees to and from work, they have helped maintain the real estate market in San Francisco along the system's routes.¹⁴

This is not just a phenomenon of the Bay Area. Place-based shuttles are increasingly available throughout California.

The City of Los Angeles works to provide affordable, accessible cultural and recreational activities to its residents. The Department of Public Works (DPW) in Los Angeles has run summer recreational transit services for decades. The DPW shuttles people to and from the beach and provides critical links to theater and music events throughout the city.

The Hollywood Bowl Express Bus Service, a park-and-ride service, is perhaps the most utilized event shuttle. With fewer than 3,000 parking spaces for a venue that holds 18,000 people, the classic summer evening picnic spent under the stars and listening to music would have long been a memory without this critical shuttle.

The associated park-and-ride facilities extend throughout Los Angeles County, making the shuttle accessible to a

large percentage of residents. The Hollywood Bowl Express Bus has historically been a premier bus service, using local agency buses to demonstrate viable public transit options being used in Los Angeles County.

Subscription shuttle services and non-fixed route shuttles may be a good way to extend these successes in the future.

Policies to Advance Tailored Mass Transit

California has many proven examples of tailored mass transit that help systems respond to diverse rider needs. Beyond the ones just profiled, others include the restored Union Station transit hub in Los Angeles, the Trolley light rail system in San Diego, Stanford's new successful Commute Club (a new version of transportation-demand management), the Muir Woods Shuttle to and from San Francisco and the MTC's Community Based Transportation Planning processes.

The key to successfully tailoring mass transit is to incorporate a range of options into a community's transit system, and to help make sure residents know about those options. It also requires coordination among state, regional and local transit agencies, participation by employers, job, and service centers, and active use and evaluation by residents. Most of all, it requires reliable state and community investment.

Californians want to reduce their exposure to health-threatening air pollution, and they want to reduce their global warming footprint.¹⁴ They are demanding more and better mass transit and have shown in recent elections that they are willing to pay for it. California's policy and transportation leaders have an opportunity to satisfy all of these demands by expanding Californians' transit options.

For more information contact Kathryn Phillips at Environmental Defense Fund; kphillips@edf.org, (916)492-7072.

1 American Public Transportation Association, "Transit Ridership Surges as Gas Prices Decline—Highest Quarterly Transit Ridership Increase in 25 Years," December 8, 2008, http://www.apta.com/media/releases/081208_ridership_surges.cfm.

2 Surface Transportation Policy Project, "Setting the Record Straight: Transit, Fixing Roads and Bridges Offer Greatest Jobs Gain," January 28, 2004, http://www.ferndale-mi.com/Government/jobs_decoder.pdf. Science Applications International Corporation, "Public Transportation's Contribution to U.S. Greenhouse Gas Reduction," September 2007, http://www.apta.com/research/info/online/documents/climate_change.pdf.

3 Greg Dierkers, and others, "Center for Clean Air Policy Transportation Emissions Guidebook, Part One: Land Use, Transit and Travel Demand Management," 2005, [http://www.ccap.org/guidebook/downloads/CCAP%20Transportation%20Guidebook%20\(1\).pdf](http://www.ccap.org/guidebook/downloads/CCAP%20Transportation%20Guidebook%20(1).pdf)

4 Ron Hughes, KAPTA Executive Director, personal communications with author, October 2008.

5 Eiji Yamashita, "Denting those travel costs," Coalinga Record, October 26, 2008, <http://www.coalingarecord.com/articles/2008/10/26/news/doc490402bc86329521084849.txt>.

6 Callaghan, Lisa, and William Vincent, "A Preliminary Evaluation of the Metro Orange Line Bus Rapid Transit Project," Journal of the Transportation Research Board 2034, (2007): 37-44.

7 Gomes, Gabriel and Hamed Benouar, "Short-Term Impacts of the New Orange Line Bus Service on Peak Hour 101 Traffic," California Center for Innovative Transportation, December 2005, www.calccit.org/news/.

8 Los Angeles County Metropolitan Transportation Authority, "How to Ride the Metro Orange Line," http://www.metro.net/projects_studies/orangeline/images/ol_interactive.htm.

9 See note 5 above.

10 See note 5 above.

11 Alameda County Congestion Management Agency, Travel Choice Program Update Memorandum, February 19, 2008, http://www.accma.ca.gov/pdf/reoccurring_meetings/cma_board/cb_2008_02_28/cb_item_9.0.pdf

12 John Knox White, TravelChoice Program Manager at TransForm, personal communication with author, August 2008.

13 Miguel Helft, "Google's Buses Help Its Workers Beat the Rush," The New York Times, March 10 2007.

14 Carol Lloyd, "The Google Effect: How the company's shuttle line affects San Francisco real estate," The San Francisco Chronicle, July 25 2008.

15 Public Policy Institute of California, "PPIC Statewide Survey: Californians and the Environment." July 2008, <http://www.ppic.org/main/publication.asp?i=834>.