

Alternative Modes Element

June

2005



SOLANO
Comprehensive Transportation Plan

ALTERNATIVE MODES ELEMENT

This Alternative Modes Element has been developed as a part of the Solano Comprehensive Transportation Plan (CTP). The Solano Transportation Authority Board and its Alternative Modes Subcommittee developed the policies, strategies and programs identified in this Element. When this update was developed, opportunities for full public input were provided to the various communities in the fall of 2003 and additional workshops were held in spring and summer of 2004.

This Element focuses on a wide range of proposals from ridesharing to bike routes, pedestrian trails, downtown revitalization projects and related transportation for livable community/enhancement projects, and alternative fuels infrastructure. This Element is intended to be innovative with regard to encouraging alternative modes of transportation and proactive by supporting a set of projects and programs, that when developed will meet the goals of this Element and the Comprehensive Transportation Plan. In recent years, STA member jurisdictions have made substantial progress in encouraging the use of alternative transportation modes. Achieving the additional multi-modal options described in this report will help provide balanced transportation alternatives and improve the quality of life for Solano residents.

An early step in the CTP 2030 process was the distribution of Transportation Needs Survey to all STA member agencies. The surveys identified the long -range transportation needs of each agency by identifying specific alternative modes projects. These projects are presented in Table 3.1.

The Alternative Modes Element also begins to explore the various transportation-land use linkages in the cities and County. Such linkages should:

- Encourage direct transportation connections between a community's general plan and the countywide transportation system
- Support the efforts to improve downtown revitalization programs, urban core areas and corridor plans
- Identify some of the on-going Transportation for Livable Communities (TLC) projects and enhancement efforts now underway (such as the pending Countywide Pedestrian Plans) that will continue to make Solano County an attractive and desirable place to live and work

The cities and County are encouraged to fully explore and address these linkage proposals and strategies as part of their on-going land use and transportation plans. The STA will continue to identify programs and funding opportunities that will help achieve the goals and objectives of all Elements of the Comprehensive Transportation Plan. As a follow-up to this Element, in 2003 a "Best Practices" handbook entitled "Transportation and Land Use Toolkit" was prepared by the STA, the Yolo Solano Air Quality Management District and the Yolo County Transportation District to better describe and illustrate those types of alternative mode projects that should be considered and incorporated into the policies, plans and projects of the cities and county.

TABLE 3.1 - ALTERNATIVE MODE NEEDS BY JURISDICTION

Benicia:

- Widen State Park Road Overcrossing I-780 With Bike/Ped Access
- Construct Benicia Bridge Bike Path and Walkway Improvements
- Construct Park Road (Adams to Oak) Bike Path and Walkway Improvements
- Construct First Street Streetscape Project
- Construct 3 New Park-n-Ride Facilities
- Install Bike and Walkway Connections to the Historic Arsenal, Clocktower and Camel Barn Facilities
- Install Bay Trail Shoreline Connections Between Vallejo and the Benicia Bridge
- Install Citywide Bike Path Improvements Per General Plan/ CIP
- Install Citywide Walkway Improvements Per General Plan/ CIP
- Install Citywide Traffic Calming Improvements
- Construct Benicia Intermodal Transportation Station
- Provide Ferry Service to Benicia

Dixon:

- City Bikeway Plan
- Provide a grade separated pedestrian crossing of the Union Pacific Railroad tracks to replace the existing at-grade crossing at West B Street adjacent to the Multi-modal Center
- Intercity Bike Routes (to Vacaville)
- Downtown Streetscape Project (Phases 2 & 3)
- Dixon Multimodal Transportation Center
- Alternative vehicle partnerships
- Air quality projects
- Add additional park and ride lots along the I-80 Corridor

Fairfield:

- McGary Road Bike Path
- Blossom/UPRR Pedestrian Grade Separation
- Linear Park Path
- Fairfield/Vacaville Intermodal Train Station
- Jepson Parkway Bike Path
- Laurel & Ledgewood Creek Bike Paths
- Union Creek Pedestrian/Bike Path
- I-80/Red Top Park-and-ride lot
- I-680/Industrial Way Park-and-ride lot
- I-680 Gold Hill Park-and-ride lot
- Downtown Multimodal Project
- City Gateway Projects: 1-80/N. Texas, 1-80/W. Texas, SR 12/Pennsylvania, SR 12/Beck. 1-80/Red Top
- North Texas Street Transit Hub Access to Teen Center

Rio Vista:

- Waterfront Bikeways
- General Plan Pedestrian/Bike System
- SR 12 Pedestrian Underpass
- Riverfront Access Signage Project
- SR 12/Church Park-and-ride lot
- SR 12/Waterfront Streetscape Project
- Community Design Program

Solano County:

- Old Town Cordelia Improvement Project
- Pleasants Valley Road Bike Route
- Jepson Parkway Bike Path and Landscaping Project
- Green Valley Corridor Landscaping Project
- Reopening of McGary Road
- Vacaville-Dixon Bike Route
- Fulton Avenue Sidewalk
- Solano County Bridge Replacements to Provide Pedestrians and Bicycles

Suisun City:

- SR 12 Pedestrian/Bike Gap Closure Path
- Driftwood Waterfront Pedestrian Plaza
- Petersen Road Bike Path
- Blossom/UPRR Pedestrian Grade Separation
- SR 12 Pedestrian Path (south side)
- Suisun Marsh Pedestrian/Bike Path
- Park-and-ride lot Landscape Project
- Eastern Suisun City Park-and-ride lot
- Main Street Improvements (Phase 2)
- Rail Station Improvements
- Union Pacific Railroad Sound Walls
- Kellogg Street Waterfront Improvements

Vacaville:

- Ulatis Creek and Alamo Creek Bike Routes
- Centennial Park Bike Route
- Bicycle signage and markings
- Bicycle route landscaping
- Downtown Multi-Family Housing Program
- Electric Vehicle Subsidy Program
- Electric Vehicle Charging Station Program
- Fleet replacement with alternative fuels

Vallejo:

- Bay Trail Completion
- I-80/Turner Overcrossing Bike Lanes
- Blue Rock Springs Pedestrian/Bike Path
- Columbus Parkway Pedestrian/Bike Path
- I-780 Pedestrian/Bike Grade Separation
- Fairgrounds Drive Pedestrian/Bike Path
- Broadway Pedestrian/Bike Path
- Mare Island Pedestrian & Bike System
- Curtola Park-and-ride lot expansion
- Ferry transit-oriented development
- Investigate water taxi stops at Mare Island
- Sonoma Blvd/ SR29 TLC Corridor

THE LAND USE AND TRANSPORTATION CONNECTION

In Solano County, around the Bay Area, and across the country, governments are working to examine the relationship between transportation needs and planning and land use. For years, land use decisions have been made without fully addressing project impacts to transportation systems. Today, local decision makers are considering the interrelationship between transportation and land use, specifically how the location of residences, jobs, shopping, recreation, and other destinations are affected by land use and transportation decisions. Land use decisions affect the number of auto trips that people must take and how far they have to drive. Auto emissions and pollutants are a function of how many daily auto trips people make, how far they drive, and the type of vehicles driven. A key element of a livable community is a balanced transportation system allowing people to travel around not only by car, but also by transit, bicycling, and walking.

One of the goals in the Comprehensive Transportation Plan is to encourage the integration of transportation and land use planning. Land use authority is within the jurisdiction of the cities and the County. In order to accomplish this goal while recognizing local land use control, the STA is working with its member agencies to provide planning and funding assistance to candidate projects that demonstrate transit integration and incorporate alternative transportation modes.

STA strives to build partnerships between its member agencies to ensure that balanced transit-oriented development occurs throughout Solano County. A specific example of this concept is the Jepson Parkway Concept Plan. The Plan calls for the development of a new north-south cross county transportation corridor that includes a balance of transit modes to serve the citizens of Suisun City, Fairfield, Vacaville, and Solano County as a whole. The local jurisdictions along the corridor are planning to amend their General Plans and Zoning Ordinances to provide for transit supportive land uses at the planned rail and transit stations along this developing route. The expected result of these types of planning efforts is better linkages between communities and their land uses that offer people real transportation choices.

One of the major challenges facing Solano County today is maintaining the quality of life as population, development, jobs, and

congestion grow. According to the Solano Economic Development Corporation (Solano EDC), traffic congestion has the potential to threaten Solano County's ability to attract new employers and could directly impact the County's growing economy. As congestion worsens, the community looks to the STA to provide effective transportation solutions.

Through partnerships with its member agencies, the STA endeavors to address the relationship of transportation and land use planning. This Element establishes the foundation to focus on a balance of transportation alternatives to provide Solano County residents with convenient access to public transportation, services, jobs, recreation, community facilities, and travel destinations, while providing a sense of place.

GOALS, OBJECTIVES, AND POLICIES

STA has identified the following Alternative Transportation Modes Goal:

Emphasize that Alternative Transportation Modes are an integral part of travel and commuting in Solano County, by implementing and maintaining a transportation system that provides for transit integration and makes the use of alternative modes convenient, safe, efficient, and cost effective.

Seven objectives and policies supporting each objective have been defined for this alternative modes goal:

- **Objective A** - Implement short and long range bicycle and pedestrian systems.
- **Objective B** - Maximize multi-modal connections.
- **Objective C** - Develop a Solano County TLC/Enhancements Program
- **Objective D** - Provide incentives to expand ridesharing modes.
- **Objective E** - Advance the understanding of both the environmental and economic benefits and costs of using clean technologies and alternative fuel vehicles.
- **Objective F** - Improve and increase available alternative fuel infrastructure and support services and funding.
- **Objective G** - Convene a forum of transit and fleet operators in Solano County to discuss alternative fuels technologies and policies.



Objective A- Implement Short and Long Range Bicycle and Pedestrian Systems.

Objective A Policy Actions:

1. Update the Countywide Bicycle Plan and Countywide Pedestrian Plan periodically to maintain eligibility for State and Federal funding.
2. Provide funding only for bicycle and pedestrian projects included in the Countywide Bicycle Plan and Countywide Pedestrian Plan.
3. Coordinate with local jurisdictions to ensure appropriate opportunities for bicycle and pedestrian connections are planned, constructed, and maintained.

Objective B - Maximize multi-modal connections.

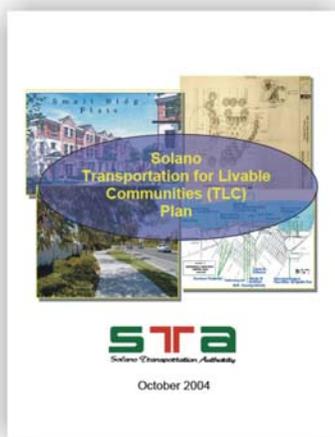
Objective B Policy Actions:

1. Prioritize funding for multimodal projects included in the Comprehensive Transportation Plan.
2. Coordinate with local jurisdictions to ensure appropriate opportunities for multimodal connections are planned, constructed, and maintained.

Objective C - Develop a Solano County TLC/ Enhancements Program.

Objective C Policy Actions:

1. Utilize local discretionary federal funds to provide funding for integrated transportation/ land-use projects that are identified in the Comprehensive Transportation Plan.
2. Coordinate with local jurisdictions to develop candidate projects for inclusion in the Comprehensive Transportation Plan.



Objective D - Provide incentives to expand ridesharing modes.

Objective D Policy Actions:

1. Develop marketing and educational strategies to inform private employers of the benefits of ridesharing.
2. Implement and expand programs that provide ridesharing incentives and encourage additional ridesharing activities.
3. Plan for and prioritize funding for additional park-and-ride lots or spaces throughout the County.
4. Support long-term funding opportunities to encourage employers to develop rideshare programs.
5. Maintain rideshare mode split with County growth.
6. Maintain Rideshare Program in Solano County in partnership with regional programs.



Objective E - Advance the understanding of both the environmental and economic benefits and costs of using clean technologies and alternative fuel vehicles.

Objective E Policy Actions:

1. Pursue various air quality strategies including funding for Alternative Fuels infrastructure.
2. Encourage and assist local and regional transit service providers to continue to purchase and use new alternative fuels and clean technology buses for their fleets.
3. Encourage local agencies to purchase alternative fuels and clean technology vehicles for their fleets.
4. Support the BAAQMD and YSAQMD in their endeavor to assist local agencies on code revision and development conducive to the use of clean and alternative fuel vehicles and fuels.
5. Develop transportation/land use strategies that could be incorporated into general plan updates.



Objective F - Improve and increase available alternative fuel infrastructure and support services and funding.



Objective F Policy Actions:

1. Develop alternative fuels marketing and educational strategies.
2. Explore the opportunity to create partnerships for shared access to new and existing refueling stations.
3. Support the development of electric vehicle recharging infrastructure at public and commercial locations.
4. Explore options available to assist in the installation of private business and/or home refueling infrastructure.

Objective G - Convene a forum of transit and fleet operators in Solano County to discuss alternative fuels technologies and policies.



Objective G Policy Actions:

1. Develop an alternative fuels and infrastructure committee comprised of transit operators, fleet operators, air board representatives, and other stakeholders.
2. Establish forum discussions on fuels and infrastructure technologies and trends.

TRANSPORTATION FOR LIVABLE COMMUNITIES PLAN

The Transportation for Livable Communities (TLC) Plan focuses on the relationship between transportation and land uses by supporting and promoting “smart growth” projects in Solano County. By creating communities that offer transportation options and promoting development patterns that foster multi-modal transportation, residents can decrease their dependence upon automobiles. The decreased automobile uses will eventually contribute to a reduction in auto pollution and traffic congestion

There are two substantial funding sources for the Bay Area for these types of projects: Regional TLC Program and the Countywide TLC Program. The Solano Transportation Authority created the TLC plan to support good planning practices and to assist in prioritizing and programming Regional and Countywide TLC funds.

TLC GOALS, OBJECTIVES, AND ACTIONS

This section presents the recommended goals and objectives of the Transportation for Livable Communities Plan that will help encourage future transportation and land use linkages; and serve as a resource for local jurisdictions.

TLC Plan Goal

Provide a balanced transportation system to enhance the quality of life, support economic development, and improve accessibility for all members of the community by efficiently linking transportation and land uses utilizing multiple transportation modes.

Objectives

Prepare a TLC Plan that identifies policies, programs, and projects for transportation/land use linkages in Solano County.

Develop a TLC Plan that:

- Identifies TLC concepts.
- Identifies candidate TLC projects.
- Develops a competitive grant process that the STA member agencies can apply to for TLC projects.

From MTC's *Transportation /Land-Use Connection Policy*

The Commission encourages community plans that:

1. Enable residents to use a range of travel modes, including transit, walking and biking, to access jobs, shopping, recreation and other daily needs.
2. Provide that the streets, transit, pedestrian and bicycl ways are part of a system of integrated routes.
3. Provide for development of housing and regional activity centers that are accessible to the regional transit network.
4. Provide for a diversity of development and other community-oriented transportation strategies designed to limit the extent to which it is necessary to travel from one community to another to access basic necessities of living.
5. Provide for the design of streets and other transportation facilities and amenities that are integrated into the overall community design and are conducive to sense of community identity and pride.

RELATIONSHIP TO OTHER PLANS, POLICIES, PROGRAMS

A number of federal, state, regional, and countywide policies and programs indirectly or directly support TLC objectives, and are the cornerstones of policies and incentives for local development supporting alternative transportation modes:

Federal Programs

The Intermodal Surface Transportation Efficiency Act (ISTEA). A landmark Federal Program passed in 1991. For the first time, significant portions of the federal transportation budget were set aside for projects and enhancements to the highway system in an effort to mitigate its impact on the quality of life, or to support alternative means of transportation.

Transportation Equity Act for the 21st Century (TEA-21). Signed into law in 1998, TEA-21 continued the integration of alternative modes into the transportation mainstream, and enhanced the ability of communities to invest in projects that can improve the safety and practicality of bicycling and walking for everyday travel.

TEA-21 was reauthorized at least through 2004-05 to provide additional time for lawmakers to complete TEA-21's successive transportation spending bill. The new federal transportation bill is expected to build upon TEA-21 by preserving funding flexibility to allow the broadest application of funds to transportation solutions, as identified by state and local communities.

Federal Community Planning Programs. Primarily through the Department of Housing and Urban Development (HUD), the federal government provides grants, loans, and technical assistance for planning, improving, and preserving communities.

State Programs

The Transit Villages Act of 1994. Probably the most important step the state has taken in support of transit-oriented development; however, the Act had limited impact because it carried no funding.

Transportation Congestion Relief Program (TCRP) And State Proposition 42. The State's 2000 TCRP provided significant new funds for transportation by dedicating all state gasoline sales tax revenues. The program has been recommended for an additional year of funding through at least 2004-05 by the Governor.

California Department of Transportation (Caltrans) Programs. Caltrans manages several grant programs (generated by gas tax revenue and federal funds) to support alternative transportation modes projects.

The California Department of Housing and Community Development (HCD). The department manages grant and loan programs that support TLC principles in land use planning and development.

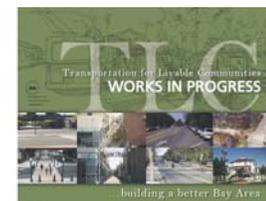
Regional Programs and Plans

Metropolitan Transportation Commission’s Transportation for Livable Communities (TLC) Program. Funded through the federal Congestion Mitigation and Air Quality Improvement program (CMAQ), the TLC program provides direct financial incentives for cities, counties, and community-based organizations to support projects that encourage pedestrian, transit and/or bicycle trips, and spur the compact development of housing, downtowns and regional activity centers. In addition, \$24 million dollars of Transportation Enhancement (TE) funds have been awarded directly to each of the congestion management agencies including \$1.5 million to the STA and its member agencies since 1998. The Metropolitan Transportation Commission’s TLC Program has utilized the CMAQ funds and TE funds to program \$59.8 million to 149 TLC projects around the Bay Area over the six-year life of the program.

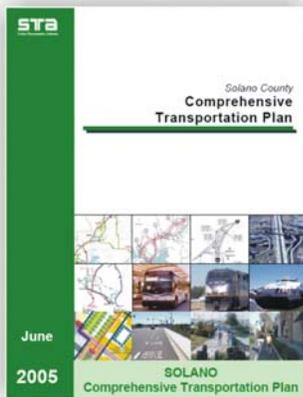
In November of 2000, the program was expanded to include a Housing Incentive Program (HIP). The HIP Program awards TLC capital grants to cities or counties that build high-density housing within walking distance of a major transit station or transit corridor. In the 2001 Regional Transportation Plan (RTP), MTC allocated \$27 million a year for regional TLC/HIP projects throughout the Bay Area as part of the re-authorization of TEA-21. In April 2004, MTC adopted new Regional TLC/HIP guidelines.

Solano County projects that have received funding from MTC’s TLC/HIP program include:

- Jepson Parkway Bikeway (planning and capital grants)
- Rio Vista Main Street Improvements (capital grant) and Downtown Waterfront Plan (planning grant)
- Solano County's Old Town Cordelia Improvement Project



- Suisun City's Main Street (Phase 1) and Driftwood Waterfront Pedestrian Plaza (capital grants)
- Vacaville's Davis Street Streetscape Project (capital grant)
- Vallejo Georgia Street/Waterfront Redevelopment Plan (capital grant)
- Vallejo Sereno Transit Village (HIP grant)
- Vallejo Station



Solano Comprehensive Transportation Plan. In May 2002, Solano Transportation Authority (STA) adopted the Solano Comprehensive Transportation Plan (CTP), establishing a vision, providing direction, and setting priorities for funding to meet the transportation needs of Solano County through the year 2025. The CTP identifies overall transportation policies for three key plan elements: the Intercity Transit Element; the Arterials, Highways, and Freeways Element; and the Alternative Modes Element. The Alternative Modes Element contains more detailed goals, policies, and plans that support alternative modes of transportation to the prevalent single-occupant automobile, including bicycling, walking, ridesharing, park-and-ride, high-occupancy vehicle systems, projects that enhance pedestrian, bicycle, and transit experience and fuels infrastructure projects. The STA Comprehensive Transportation Plan Intercity Transit Element includes plans and concepts for improving intercity transit service. The Arterials, Highways, and Freeways Element identifies various needs on routes of regional significance and proposes various improvements to corridors, highways, and major arterials. Please see the STA's website for additional information on the CTP at: <http://www.solanolinks.com/plans.html>.

Solano County Proposition A. Proposition A was first passed in 1984 and extended in 1995 continuing the effort to keep urban development within the cities, preventing "new towns" and office complexes outside of municipal areas. Prop A effectively protected agricultural and open space land in Solano County by directing urban growth and development to existing cities. This proposition shall remain in affect until December 31, 2010.

WHAT IS A “TLC” PROJECT?

In communities across the Bay Area and the nation, there is a growing concern that historical development patterns - dominated by what is commonly known as "sprawl" - are no longer in the long-term interest of our cities, agricultural lands, wilderness areas, or community identities. In Solano County and other jurisdictions around the nation, regional policies and federal funding are emphasizing the importance of “livable communities” and “smart growth.” Further support for these practices is evolving from changing demographics, strong environmental or stewardship ethics, increased fiscal concerns, and more nuanced views of unchecked growth. The result is both a new demand and a new opportunity for “livable communities” projects.

TLC projects can include a variety of improvements that encourage and enable alternative modes of transportation. Projects can range from major new or infill transit-oriented developments, to extensions of bicycle and pedestrian pathways, and enhancement of downtown sidewalks. The common thread in all TLC projects is a de-emphasis of the single-occupant vehicle.

In 1996, the U.S. Environmental Protection Agency joined with several non-profit and government organizations to form the Smart Growth Network (SGN). . The SGN provides over 700 local and state officials, development professionals, and public interest organizations with the latest information and resources on the world of smart growth. The following is SGN's ten smart growth principles and supporting policies that communities can adopt to create vibrant, diverse, healthy neighborhoods that decrease reliance upon automobiles.



Smart Growth Networks - 10 Smart Growth Principles

1. *Mix Land Uses*

Integrating residential, commercial, and leisure activities within a neighborhood rather than segregating them allows people to live, work, and play without the need to drive. Modifying zoning ordinances to favor mixed-use developments, creating incentives to create jobs near housing, reusing existing structures for a variety of uses, and providing financial incentives to develop mixed use projects are some ways to gradually transform areas into vibrant neighborhoods.





2. Take Advantage Of / Promote Compact Building Design

Higher-density developments are crucial for supporting transportation choices. Compact developments encourage walking and dense concentrations of people are ideal to support public transportation. Compact buildings also create architecturally diverse neighborhoods, provide opportunities to construct an array of housing options, and allows cities to use land more efficiently. Methods to promote compact building design include density bonuses to developers, adopting traditional neighborhood designs, reducing or removing minimum lot size requirements, and reducing off-street surface parking.



3. Create a Range of Housing Opportunities and Choices

Finding affordable housing is one of the biggest issues in California. Creating neighborhoods with a variety of housing options for different income levels benefits both residents and cities. Diverse housing in a neighborhood reduces the concentration of poverty and moves away from the “cookie cutter” appearance that seems to be a common characteristic of newer developments. Housing options enable residents to change their housing situation to better adapt to their lifestyle or household size. Achieving this mix and providing affordable housing may require changes to zoning ordinances and building codes, establishing funding programs to encourage development in underserved communities, and working with employers through programs that support employee housing nearby.



4. Create Walkable Communities

Walkable neighborhoods benefit the residents and community by decreasing traffic and its negative environmental consequences, encouraging healthy lifestyles, making walking a viable transportation option, and increasing social interaction. There are innumerable ways cities can become more pedestrian-friendly but some of the most basic measures include developing a pedestrian plan, adopting design standards for streetscapes and pedestrian facilities, mixing land uses, and promoting walking through programs such as Safe Routes to School and safe routes to transit.

5. Foster Distinctive, Attractive Communities With a Strong Sense of Place

Unique architectural styles, landscaping, distinctive signage, landmarks, and other distinguishing elements of the physical environment foster a sense of pride in one’s neighborhood. Residents enjoy where they live and work, and visitors are attracted to these areas to shop, dine, and walk. Ways to enhance existing communities and develop new neighborhoods that provoke this sense of pride include preserving historic buildings, creating public gathering places like plazas, establishing community festivals and street fairs, public art, and adopting streetscape guidelines to bring about a cohesive look and feel of the area.



6. Preserve Open Space, Farmland, Natural Beauty, and Critical Environmental Areas

Aside from the obvious environmental benefits of preserving open space and protecting critical environmental areas, open space is also an amenity that communities are finding attractive for other reasons. Accessible open space areas not only attract visitors but also entice people to relocate for the natural beauty. More open space translates into fewer developed areas that cause increased water runoff and encroach into wildlife habitat. Communities must aggressively work to maintain the natural environment through zoning to preserve open space, create trail and greenway networks, and transfer of development rights.



7. Strengthen and Direct Development Toward Existing Communities

Growth encouragement has become the subject of many heated discussions in city halls around the nation. Rapidly growing urban fringes cause growing pains on a city’s infrastructure, increased time spent in transit, and an out-migration from a city’s urban center that leaves behind decaying neighborhoods with a smaller tax base. Smart growth concentrates on infill and investment in existing neighborhoods – areas that are already equipped with infrastructure and often located closer to employment centers. Existing communities can be strengthened by creating business improvement districts, cleaning up brownfields for redevelopment, supporting community development corporations, and minimizing vacant properties through code enforcement and incentives.



Solano County supported this principle with the passage of Proposition A, effectively protecting agricultural and open space land in Solano County by directing urban growth and development to existing cities.



8. Provide a Variety of Transportation Choices

Providing transportation choices – this is the very heart of a TLC program. Ways to eliminate the necessity of owning a car benefits children and the elderly that may not be able to drive, low-income residents who cannot afford an automobile, and people who simply want a choice. Fewer cars on the road translates into improved air quality, less wear and tear on city streets, less congestion, less land devoted to parking lots, and residents living a healthier lifestyle. Encouraging transit-oriented developments (TOD), requiring sidewalks in all developments, installing bicycle facilities, and implementing car share programs are just a few of the countless ways to encourage multi-modalism.



9. Make Development Decisions Predictable, Fair, and Cost-Effective

Because the private sector is largely responsible for the development of today’s communities, government must form good working relationships in order to bring about successful TLC projects. This communication can be enhanced with easy-to-use zoning codes and development regulations (which may need to be modified to remove barriers to some redevelopment projects), streamlined plan and permit approvals for TLC projects, and educating public officials on the benefits of TLC and smart growth ventures.



10. Encourage Community and Stakeholder Collaboration in Development Decisions

Engaging the community and stakeholders in the development process may be difficult and time-consuming, but in the long run, the outcome will be worth it. Unique perspectives and the myriad of ideas generated through a project’s development will bring about a quality project that the community will support and lead to its success. Community visioning exercises, utilizing non-profit groups, making products available throughout the process, and using place audits (such as walking audits) to get participants to really understand their wants and needs are just some actions that can promote participation from a larger spectrum of the community.

BENEFITS OF A SOLANO COUNTY TLC PLAN

Environmental, economic, and quality-of-life impacts resulting from land use patterns and transportation systems have been recognized at every level of government and society. Use of alternative forms of transportation is more appealing and necessary than ever before. Market demand for TLC development forms such as “neo-traditional,” compact, mixed-use, and transit-oriented development

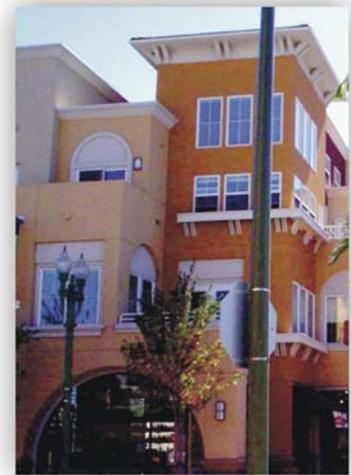
is increasing. This is the basis for the development of the many federal, state, and local transportation and land use programs and private initiatives that offer other alternatives.

The Solano Transportation Authority plans to further support TLC projects in Solano County by administering the Solano Countywide TLC Program utilizing countywide TLC and Enhancement funds, which will be provided by the MTC. The Solano Countywide TLC Program is expected to receive \$525,000 each year starting FY05/06 or a total of about \$12.5 million over the next 25 years. The program will be modeled after the MTC program with funds awarded to projects that address transportation and land use issues.

In addition there are other alternative mode funding sources including Regional TLC/HIP, Regional Bicycle/Pedestrian Program, Transportation Fund for Clean Air Program (TFCA), Eastern Congestion Mitigation Air Quality Management Program (E. CMAQ) and the Yolo Solano Air Quality Management District Clean Air Funds that can also be used to augment TLC type projects. Developing a countywide TLC plan promises to have many positive effects within Solano County.

Housing Options

Market demand for TLC type development is expected to be strongly influenced by two factors: continued population and household growth, and a shortfall in available housing, especially affordable housing for low- and moderate-income residents. Despite the increasing number of cases where commuting has become onerous, many people will still choose a suburban house and to commute alone in their car as long as they can afford it. However, for a growing number of households, the option to own a conventional single-family residence is financially out of reach, or comes with a commute that severely strains household income and quality of life. Nationwide, support for alternatives to conventional auto-oriented development principles is high. A growing number of people who can afford the alternative are choosing to live in denser types of development that are within walking distance to jobs, shopping, activities, and access to regional transit because they gain an improved convenience to destinations than in typical suburban areas.



Serve a Growing Senior Population

Solano County's population is projected to age significantly over the next twenty years. ABAG projects that the 40-54 age group (e.g., the Baby Boomers) will decline from nearly 23 percent of the total

population in 2000 to less than 19 percent by 2030. Significant increases in the proportion of the population in the 55-64 and 65+ age groups are expected. The 65+ age group will increase from 10 percent of the county population in 2000 to 19 percent in 2030.

Solano County's growing senior population will likely be accompanied by changing transportation needs (see "Solano County Senior and Disabled Transit Study," prepared by the Solano Transportation Authority – June 2004, for more information on future needs and recommended transit implementation strategies for the senior and disabled population in Solano County). A substantial increase in the demand for transit service for the elderly and disabled (paratransit)- those who need transportation to health care and other human services - is likely given the current trends. Also, older people may not feel comfortable driving; therefore, they require access to convenient transit to carry out their daily lives. Housing opportunities available to older people near destinations and close to transit will be a growing need all over Solano County.

Meet Air Quality Standards

Solano County is located within two separate air basins, the Bay Area and Sacramento. Air quality conformity is monitored by the Yolo/Solano Air Quality Management District for a small northeastern portion of Solano County and the Bay Area Air Quality Management District for the rest of Solano County.



The northeastern portion of Solano County, representing approximately one-third of the county area, is located within the Sacramento Federal Nonattainment Area. The area has been designated a "severe" nonattainment area for ozone by the U.S. EPA. The average annual number of days exceeding the federal 1-hour ozone standard was 18 during the 1980s, and decreased to 8 during the 1990s. Due to the implementation of emission controls, there has been an overall trend towards improved air quality. The 1990 Federal Clean Air Act Amendments require that the region demonstrates how it will "attain" clean air standards by 2005. Failure to meet the federal standards could result in the loss of federal transportation funds that are allocated to the region.

A majority of Solano County lies within the San Francisco Bay Area Nonattainment Area. In April 2004, U.S. EPA made a final finding that the Bay Area has attained the national 1-hour ozone standard. The Bay Area Air Quality Management District plans to submit a redesignation request to EPA in order to be reclassified as an

attainment area as well as a maintenance plan to show the region will continue to meet the 1-hour ozone standard.

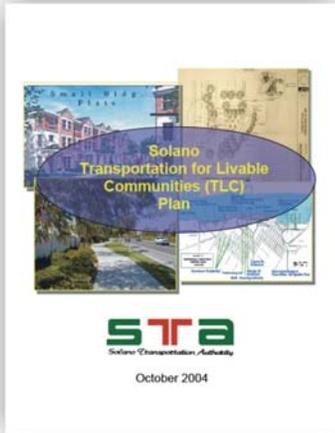
Improve Quality of Life

The same compact, mixed-use, and transit-oriented development that saves cities and their residents' money can improve their quality of life as well. These benefits can be realized through increased health and public safety, decreased congestion and commute length, and an overall improved "sense of place."

TLC-type development helps to reduce commute traffic, especially when it is adjacent to major regional transit stops. In addition, a broader benefit of TLC and similar developments is a reduction in local "convenience" trips. People take advantage of safe, attractive walking and biking routes that provide close access (within ¼ to ½ mile) to pedestrian-oriented shopping districts, parks, schools, community centers, and other activity centers. These short walking or bike trips to the store, for casual dining, for family activities, to school, or to the park reduce the traffic on local and arterial roads. Perhaps more importantly, these local trips help people know and appreciate the place where they live, and to meet other people who live in the community. This "sense of place" leads to better participation in civic and cultural affairs, and generally healthier communities. Increases in transportation choices such as bicycling, walking, or riding public transit, are directly related to improved public health. One study has demonstrated that the incidences of heart disease, obesity, and diabetes could be cut in half if all sedentary people nationwide walked or bicycled 30 minutes per day. In return, improved public health benefits the economy as well. In California, improved public health from biking and walking could translate to an annual savings of \$528 million in healthcare costs.

Transit-oriented developments and TLC projects provide safer conditions for residents, pedestrians, and bicyclists, as well. Pedestrian and bicycle safety in such environments has been tested and proven to be successful in European countries, such as Germany and the Netherlands. In these countries, where pedestrian and bicycle needs are taken into account, pedestrian fatality rates are 1/10 as high as in the U.S., and bicycle related fatalities are 1/4 as high. Other sources have found that communities and developments built according to TLC principles increase access to convenient housing, jobs, and services, thereby reducing traffic congestion. Overall, the California Department of Transportation has cited a 20 to 40 percent decrease in vehicle miles traveled per year by implementing these measures.

SOLANO COUNTYWIDE TLC PLAN PROCESS



The Solano TLC Plan has been developed as a part of the 2030 Solano Comprehensive Transportation Plan (CTP). The STA Board and its Alternative Modes Subcommittee met throughout the planning process to develop the policies, strategies and programs identified in this Element. Opportunities for full public input were provided to the member agencies in the fall and spring of 2003-04. The STA's member agencies (Solano cities and county) were also provided two separate opportunities to submit candidate TLC projects in the fall of 2003 and summer of 2004.

TRANSPORTATION ENHANCEMENTS SET ASIDE FOR LOCAL TLC PROJECTS

The STA actively supports the efforts of its member agencies to build livable communities. To date, the STA has assisted Solano County agencies in obtaining more than \$5 million in TLC, Housing Incentives Program (HIP), and transportation enhancement grants allocated by the Metropolitan Transportation Commission.

EXISTING CONDITIONS

TLC projects are generally associated with urban settings. Although Solano County is often viewed as a rural county in the Bay Area, there have been several successful TLC projects funded and built over the past several years with funding provided from both MTC and STA.

MTC Funded TLC Projects in Solano County

Solano County communities have received planning and capital grants totaling \$3,524,500 in MTC TLC/HIP funding. One of the earliest planning efforts in Solano County that was partially funded by a TLC grant was the Jepson Parkway Concept Plan. The Concept Plan was prepared by the STA working in coordination with the City of Fairfield, the City of Suisun City, the City of Vacaville, and the County of Solano. The Concept Plan included "A Guide to Transit Compatible Land Use and Design," a section that provided guidance on how to link transportation improvements planned for the Jepson Parkway with future land use and design decisions made by individual agencies along the corridor.

Dixon Streetscape Revitalization Project

The Dixon Streetscape Revitalization project includes plans to enhance one and one half blocks of B Street and North Jackson Street, between First and A Streets. Planned streetscape improvements include:



- Decorative Lighting
- Sidewalk Improvements
- Landscaping
- Benches
- Trash Receptacles

Jepson Parkway Bikeway-Phase 1 (Segments 9 and 10): Suisun City

The Jepson Parkway Bikeway is a multi-jurisdictional project being developed by Suisun City, Fairfield, Vacaville, and the County of Solano. As proposed in the Jepson Parkway Concept Plan approved by the STA in April 2000, this project will provide a 10-foot wide bike path along most of the entire 12-mile length of the planned Jepson Parkway. A short segment south of Cement Hill Road on Walters (Between Air Base Parkway and East Tabor Avenue in Fairfield will possibly be Class II bike lanes due to sensitive vegetation which limits available right-of-way, or a Class I along the Air Base Parkway to Peabody Road.



The multi-use path is supported by four “activity” nodes or staging areas that can serve as rest stops and recreational starting points. Each staging area would feature bicycle parking, rest rooms, special landscaping, parking for autos, picnic areas, and other amenities. Three of the staging areas are located to provide a connection between Jepson Parkway and other planned or existing bikeways, while the fourth offers an important non-motorized connection to the Fairfield/Vacaville Multi-modal Train Station.



The initial portion of the Jepson Parkway Bikeway-Phase 1 (Segments 9 and 10) located along Walters Road from SR 12 to East Tabor Avenue in Suisun City, were under construction in 2003-04. Full completion of this phase is expected during 2004-05 as part of the widening of Walters Road between Bella Vista and East Tabor Avenues.



Downtown Rio Vista Revitalization Plan

Rio Vista’s Downtown Revitalization Plan has been the recipient of regional TLC planning and construction funds. The project is intended to restore the Rio Vista’s downtown and link Main Street to the Helen Madere (Rio Vista) Bridge and the City’s waterfront. Specific improvements include:

- Streetscape Improvements
- Landscape Improvements
- Pedestrian Amenities
- Bicycle Amenities



Old Town Cordelia Improvement Project

The goal of this planning study is to define and plan a project that will be strongly supported by the local community, the affected agencies, and MTC, and which would therefore best serve the community and have the best opportunity for the planned project to be constructed. This project should improve the appearance of Cordelia and the Cordelia Road corridor; at the same time increase the livability and safety for the affected community by providing safety measures, historical interest, and walking and bicycle paths.



Suisun City’s Main Street Phase 1 and Driftwood Waterfront Pedestrian Plaza

The Driftwood/Civic Center Drive Improvements Project in Suisun City utilizes the same design concepts developed in the Downtown Concept Plan and the TLC Main Street Phase I project, and applies them to Driftwood Street and Civic Center Drive between Lotz Way and Main Street, to formalize a downtown square. Current construction on the property bounded by the square includes public spaces and amenities. Planned City improvements include improved pedestrian crossings with bulb-outs and distinctive crosswalk materials for added measures of protection, landscaping, pedestrian amenities, new sidewalks, and lighting.

Vacaville's Davis Street Pedestrian and Gateway Improvements

The Davis Street Pedestrian and Gateway Improvements Project was developed to improve pedestrian circulation on Davis Street and draw people toward historic Main Street, the Ulatis Creek Walk, and a new commercial center at the redeveloped Basic American Foods Industrial site. Project components included:

- Wider sidewalks
- Landscaped bulb-outs
- Sidewalk improvement
- Pedestrian-scaled lighting



Vallejo Sereno Transit Village

The city of Vallejo's \$382,000 HIP grant is associated with development of the Sereno Village Apartments, which provided 125 affordably priced units near an existing shopping center and bus hub. This project involved construction of higher density affordable housing near a local Vallejo bus transfer facility.



Vallejo Georgia Street/Waterfront Redevelopment Plan

The Vallejo Waterfront Plan is a culmination of three recent planning efforts to redevelop and revitalize Vallejo's waterfront, downtown, and public open spaces. The plans make specific recommendations to provide comprehensive improvements in the downtown and waterfront areas including:

- Vallejo Intermodal Center
- Multi-Modal Transportation Enhancements
- Bicycle & Pedestrian Systems
- Streetscape Improvements
- Landscape Improvements
- Public Art
- A Festival Green
- Central Plaza



The Georgia Street Extension Project was completed and opened to the public in early 2004.

Vallejo Station

The Vallejo Station is the centerpiece of the Vallejo Waterfront/Downtown Planned Development Master Plan. This project will serve as a multimodal transit hub that includes:

- Housing and commercial transit village development.
- New waterfront open spaces
- New Bay Trail segments



SOLANO COUNTY TLC & TRANSPORTATION PLANNING LAND USE SOLUTIONS (T-PLUS) PROGRAMS

A new program from MTC, called Transportation Planning and Land Use Solutions (T-PLUS), will be financed for at least ten years, with planning funds of \$150,000 a year provided to the STA. The STA will allocate T-PLUS planning grants of between \$25,000 and \$50,000 to member agencies over a two-year period. All nine counties are participating in the T-PLUS. The T-PLUS program is intended to move funding from the regional to the local level, providing the flexibility to implement the regional policies at the local level in ways which are most appropriate to the variety of communities in the region.

The general scope of work for T-PLUS focuses on four transportation/land use priorities for MTC:

1. **The Transportation for Livable Communities/Housing Incentives Programs (TLC/HIP).** These two programs fund projects which integrate transportation with land use, such as streetscapes, improved transit access, and bicycle and pedestrian improvements, or which encourage high-density housing near transit. The key project goal for both programs is to have ridership demand in place to support transit by providing higher density housing near transit facilities with attractive access improvements.
2. **MTC Transportation 2030 Land Use Principles or Transportation - Land Use Platform.** MTC is encouraging workshops, the development of modeling tools and best practices "toolkits," and other incentives and strategies to implement the smart growth concepts adopted for the region. In 2004 STA staff participated on the MTC Transportation - Land Use Task Force to develop and refine a Transportation/Land Use Platform for the region. One of the main purposes of the platform is to better co-ordinate transportation and land use decisions in each of the cities and counties to improve the quality of life in the region.
3. **MTC Resolution 3434: Major Transit Corridor Planning and Implementation.** Resolution 3434 focuses on transit corridors and regional transit policies, which need local actions such as transit-oriented development to be successful.

4. **Mitigation programs.** Transportation-related impacts can be reduced or offset with mitigation programs such as more extensive transit usage and ridesharing, and the use of mitigation banks.

Each CMA's approach to the Transportation Planning Land Use Solutions (T-PLUS), while having similar elements, is somewhat unique. Certain parts of the T-PLUS program will apply to all CMAs. All will assist MTC with the monitoring and delivery of the TLC/HIP program, will provide an annual report to MTC, and are expected to address all four general areas to some degree. Beyond that, CMAs can tailor elements of the general work scope to fit their local needs and opportunities.

REGIONAL TLC SELECTION CRITERIA

MTC Criteria

MTC subjects all TLC applications through a screening process to determine which projects satisfy the objectives of the programs. All projects must have had a collaborative planning process with community stakeholders, the project sponsor(s), the local jurisdiction and the local transit operator(s) will be undertaken. The first tier of evaluation criteria includes:

- The project supports one or more of the objectives of MTC's adopted "Transportation/Land Use Connection Policy" to promote the development/redevelopment of livable communities in the Bay Area.
- The project pertains to a defined physical location.
- The project pertains to a physical setting where deficiencies exist (or will exist) which if remedied will provide significant community benefit.
- The overall project will have identifiable and likely synergistic effects such as increased housing opportunities in the project area at densities to encourage on time transit, bicycling, and pedestrian trips.
- As appropriate during the development of the project, the following issues will be evaluated: accessibility as it relates to the Americans with Disabilities Act, economic development opportunities, environmental impacts, economic/financial considerations, safety and security, and potential adverse impacts, if any, to local trips made by commercial delivery vehicles and public transit and other forms of transportation

- The project will result in a discrete and clear work product, which will guide the overall project to the next level of planning and/or form the basis to compete for funding for the overall project.
- The project is structured to be completed within one year. The project sponsor commits to begin the project immediately if the Commission approves the project.
- The project is unlikely to be fully funded other than through MTC's program.
- The sponsor commits to pursuing the project recommendations, including subsequent planning activities, and to pursue the overall project to the extent feasible.

Second tier of evaluation criteria:

- **Project innovation:** to what degree does the project set new ground as called for in the TLC program? To what degree does the project involve the participation of community organizations and local jurisdictions? Does the project involve mixed-use development, particularly housing/
- **Project readiness:** when does the project need funding? When is construction of the overall project expected to begin?
- **Local match:** to what degree is local match offered as part of the proposed project's total cost?
- **Advisory Council comments:** the advisory council's TLC subcommittee will have the opportunity to comment on community planning projects as they are evaluated.

STA TLC & T-PLUS Program Criteria

Each year, the STA proposes to award \$25,000 annually or up to \$50,000 biannually in T-Plus Planning funds to locally programmed TLC projects to develop concept plans or serve as matching funds for candidate projects. In addition to the above listed MTC Planning Grant criteria, STA proposes the following additional criteria:

- The member agency has secured, or has attempted to secure, a substantial amount of the planning from city, county, regional, or impact fee funding sources, and needs some additional funding to complete project studies during the fiscal year.
- The study includes either a project listed in the above stated MTC criteria or includes a TLC Corridor or special TLC

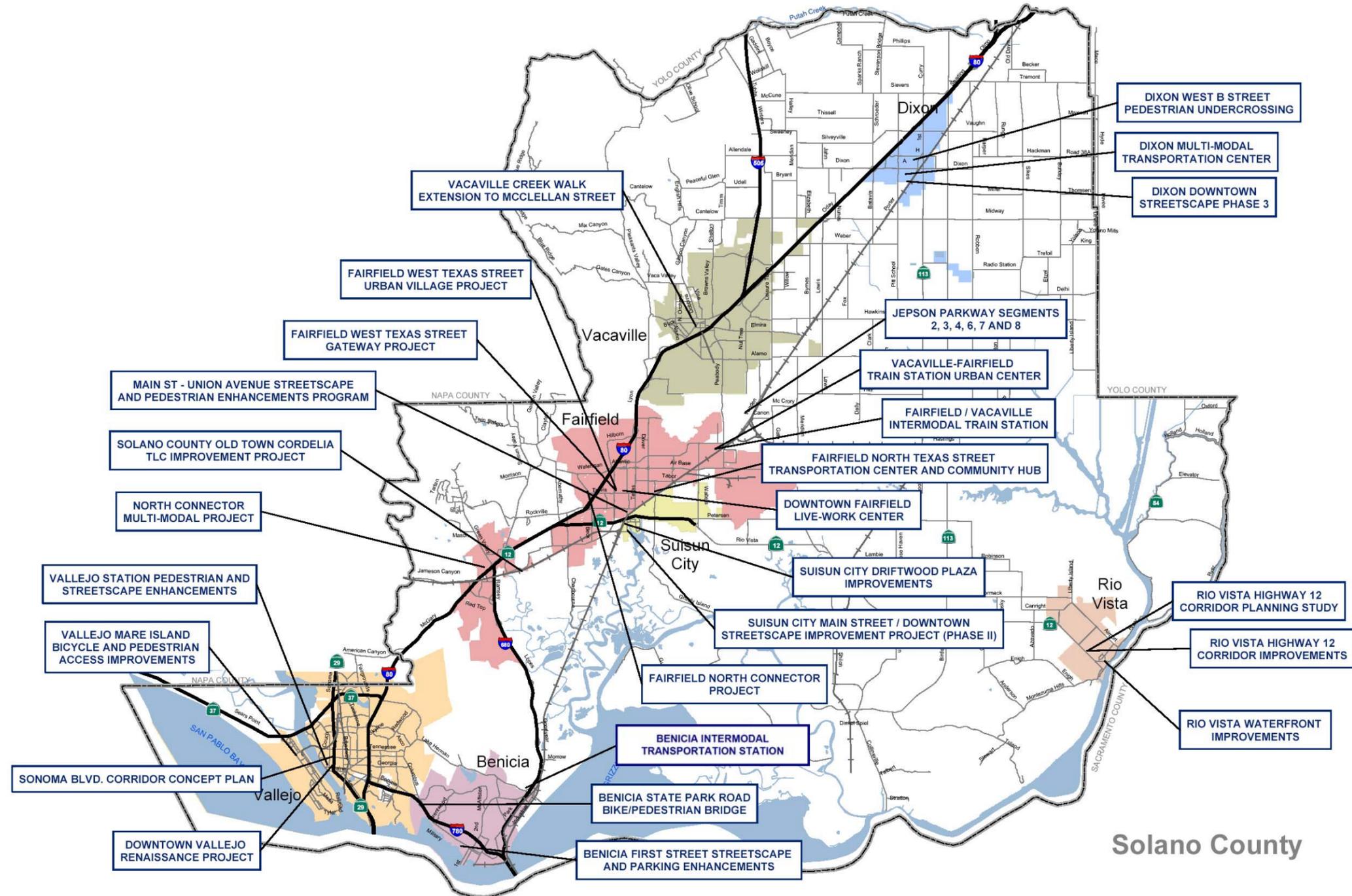
candidate project or study area identified in the Alternative Modes or TLC Element of the CTP.

- The proposed study would likely result in the project moving forward for securing a TLC, regional or countywide, capital grant during the following 3-5 years after completion of the study.
- The project study would directly implement a transit hub, intermodal center, or a new expanded transit route or service identified in the Intercity Transit Element of the CTP.

The STA will also award member agencies approximately \$2.1 million in Countywide TLC Capital projects over the next four years (FY 05/06 to FY08/09). Projects must be identified in the following list of TLC Candidate Projects and will be selected based on the Solano Countywide TLC Program Guidelines.

CANDIDATE PROJECTS

Figure 3.1 shows TLC candidate projects in the 2004 TLC Plan. For a complete list and description of TLC candidate projects, please refer to the Solano Transportation for Livable Communities (TLC) Plan adopted in October 2004.



LEGEND

TLC Candidate Projects



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Miles

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RIDESHARING

Support for carpooling and vanpooling is an important strategy to enhance mobility and minimize congestion in Solano County, and ridesharing is a key element of this Solano Comprehensive Transportation Plan. To foster continuing interest in carpooling and vanpooling, a local rideshare program is important. This document includes a policy statement to “maintain rideshare mode split with county growth” and to support this with another policy statement “support long-term funding opportunities to maintain and further develop rideshare programs.”



The rideshare component of the Alternative Modes Element is organized into five sections:

- Comprehensive Transportation Plan Relationship;
- Rideshare Institutional Organization and Funding;
- SNCI Services and Programs;
- Historical and Current Commute Rideshare Travel;
- Ridesharing Infrastructure; and
- Potential Program Enhancements.

INTRODUCTION

Carpooling and vanpooling are popular means of commuting in Solano County and provide significant congestion relief benefits along key travel corridors. For at least the past 10 years, about 20% of Solano residents carpool or vanpool to work. This compares to the next highest alternative mode use, transit, with an approximate 5% mode split. Solano County has the highest rate of car/vanpooling in the Bay Area. Nearly 250 vanpools operate in/out of Solano, which represents a significant portion of the approximately 650 vanpools in the entire Bay Area. With an average of 12 passengers per vanpool, vanpools carry about 3,600 individuals and eliminate nearly 6,600 daily trips. The vast majority of these are run entirely by private individuals.

Vanpools succeed in long-distance commutes, of which there are many for Solano residents. The vast majority of Solano-based vanpools travel to San Francisco or South San Francisco, with other vanpool destination concentrations in Oakland and Sacramento. With the advantage of self-determination and flexibility, vanpools travel to a variety of other locations such as San Rafael, Napa, San Ramon, Richmond, Rancho Cordova, etc.

There has been relatively little public investment for car/vanpooling programs since vehicle purchase, operating, and maintenance costs are typically borne by individuals and driver duties are shared by “volunteers” who are also on their way to work. Carpools are very personal in nature; family, friends, and co-workers without institutional assistance set up most. Rideshare agencies such as STA’s Solano Napa Commuter Information (SNCI) program assist the many individuals who are unable to locate a carpool partner through their own means. Commuter vanpools tend to be more structured and the larger ones in particular need to comply with State Vehicle Code standards. Vanpools typically utilize rideshare agency services.

COMPREHENSIVE TRANSPORTATION PLAN RELATIONSHIP

The goal of the Alternative Modes Element emphasizes alternative modes of travel and commuting in Solano County by implementing and maintaining a transportation system that provides for transit integration and makes alternative modes of transportation convenient, safe, efficient, and cost effective. Objective D for this Goal is to provide incentives to expand ridesharing modes. Six policy actions are defined to achieve this objective:

1. Develop and implement marketing and educational strategies to inform private employers of the benefits of ridesharing;
2. Implement and expand programs that provide ridesharing incentives and encourage additional ridesharing activities;
3. Plan for and prioritize funding for additional park-and-ride lots or spaces throughout the county;
4. Support long-term funding opportunities to encourage employers to develop rideshare programs;
5. Maintain rideshare mode split with county growth; and
6. Maintain the Rideshare Program in Solano County in partnership with regional programs.

RIDESHARE INSTITUTIONAL ORGANIZATION AND FUNDING

The STA's Solano Napa Commuter Information (SNCI) program and the 511 Regional Rideshare Program are the two Bay Area programs that make up the Metropolitan Transportation Commission's (MTC) Regional Rideshare Program. The goal of these programs is to provide information and assistance to commuters for using alternatives to driving alone. SNCI is contracted with MTC to deliver the program in Solano and Napa counties.



Solano Napa Commuter Information (SNCI)

Solano County has had the benefit of a Rideshare Agency located within the county since 1979 to locally assist carpoolers and vanpoolers. The task of STA's SNCI Program is to provide and promote car/vanpool services to Solano residents in an effort to improve mobility through better roadway management, improve air quality through reduced emissions, and reduce energy consumption. These priorities have varied over time depending upon the state of outside public policy.



When the SNCI program relocated from the Solano County organization to the Solano Transportation Authority, a new SNCI work plan was developed. Each year the STA Board approves an updated work plan. The Napa County Transportation Planning Agency (NCTPA) requested that SNCI include a work plan for SNCI's services in Napa County, as well, so each year, the NCTPA approves a work plan for SNCI services in Napa County. These Work Programs are consistent with SNCI's contract as part of the Regional Rideshare Program.

In many aspects, the 511 Regional Rideshare Program and SNCI provide similar services for their respective service areas. In some situations, service agreements have been established to ensure coordination. There are some exceptions. The ridematching database management and a few other regional activities are performed by the 511 Regional Rideshare Program only. MTC is the lead on regional promotional campaigns with SNCI coordinating localized planning and implementing the campaigns in Solano and Napa counties. The SNCI program has been providing personalized transit trip planning services as well as local and regional schedules for many years. This is one service SNCI has provided that MTC has not, but this may change shortly with the full implementation of TranStar, an automated transit trip planning system.

To avoid duplication the service areas are broken down as follows:

TABLE 3.2 RIDESHARE SERVICE RESPONSIBILITY

Service/ Activity	SNCI Responsibility	RIDES or MTC Responsibility
Outreach and Services to Employers	Solano & Napa employers	Seven other Bay Area counties
Home based Marketing	In Solano and Napa	Seven other Bay Area counties
Phone number	In Solano and Napa	Seven other Bay Area counties
Vanpool Support	Vanpools destined to Solano/Napa/Yolo/ Sacramento and SFO airport swing/night shift vanpools from these 4 counties	All other vanpools in the Bay Area
Major Promotional Campaigns	Coordinate with region, plan/implement in Napa and Solano	Regional campaign lead. Plan/implement in seven other Bay Area counties

SNCI Funding

Over twenty years of established SNCI program service does not guarantee twenty more years of rideshare services. SNCI's funding has been continuous, but only through a series of short-term commitments. SNCI currently is in the fifth year of a secure five-year funding agreement with RIDES and MTC. For service after FY 2004/05, MTC has the option to extend for another five years or re-bid the regional rideshare program. MTC has chosen to re-bid the reformed Rideshare Program. At the same time MTC is delegating employer outreach and other services to SNCI. Once an agreement is finalized it will cover the 6-year period between FY05/06 to FY10/11. SNCI will work closely with the selected Regional Rideshare Program.

Air quality agencies also have been an important source of funding for STA's SNCI rideshare program activities. Solano County is in two air basins and therefore is eligible for air district funding from two agencies, Bay Area Air Quality Management District (BAAQMD) and Yolo Solano Air Quality Management District (YSAQMD). Since 1992, SNCI has successfully competed for and received local discretionary BAAQMD TFCA Program Manager funds from the STA ranging from \$50,000 to \$295,000 in annual grants. SNCI must annually compete with all other eastern Solano County eligible projects for YSAQMD air quality funds. The SNCI program has received special project grants ranging from \$2,000 to \$15,000.

Another potential source of funding is Caltrans' Transportation Management Plan (TMP) funds related to freeway and other construction on state highways. For several years while the I-80 HOV lanes were being constructed in Contra Costa and Alameda counties, SNCI received two multi-year contracts from Caltrans to implement a vanpool incentive program. The contract funded a position to administer and market the incentive program until construction was completed. No similar freeway construction TMPs are currently funding the SNCI program nor are any expected in the near-term.

The bottom line is that the absence of a committed long-term funding source limits long-term planning and program commitments.

NEIGHBORING RIDESHARE PROGRAMS

About a dozen regional rideshare programs remain in California. These programs continue to network and support one another through regular meetings throughout the year. Beside RIDES, which serves the other Bay Area counties, SNCI's other neighboring rideshare agencies include: the Sacramento Area Council of Governments (SACOG) Rideshare and the San Joaquin Council of Governments (SJCOG)'s Commute Connections.

SACOG Rideshare

SACOG's rideshare program covers the metropolitan Sacramento Region and coordinates closely with a number of other public and private Transportation Demand Management (TDM) organizations. SACOG's rideshare database overlaps slightly with Solano County's. SNCI does not utilize this database, but both agencies coordinate client referrals to one another as appropriate.

SJCOG Commute Connections

San Joaquin County's Stockton based Commute Connections' service area includes San Joaquin and Stanislaus Counties along with some service to three neighboring mountainous counties. Like SNCI, Commute Connections handles a significant number of long-distance commute trips bound for the Bay Area and for Sacramento. Commuters traveling Highway 12 between Solano and I-5 are referred between SNCI and Commute Connections.

SNCI SERVICES AND PROGRAMS

STA's SNCI program provides a wide array of services and programs including:

- Transportation Alternatives Information and Assistance Services
- Employer Commute Assistance Program
- Vanpool Program
- Marketing Campaign Coordination such as California Rideshare Thursday and California Bike to Work Week
- Guaranteed Return Trip Program (planned)
- Publicity

This section provides a description of rideshare programs and services available through RIDES and SNCI.

Transportation Alternatives Information and Assistance Services

The foundation of SNCI activity is to provide information and assistance to commuters regarding carpooling, vanpooling, and other alternatives to driving alone. This effort involves:

- Providing information to the public regarding carpooling, vanpooling, transit, and other alternatives through SNCI's (800) 53-KMUTE phone number, which is accessible throughout Solano and Napa counties as well as Northern California. SNCI Commute Consultants are available during the week to answer questions; after hours, a self-service voicemail system is available. SNCI's services have also been integrated into MTC's regional 511 traveler information number in the Bay Area.
- Carpool/vanpool formation, support to users, and outreach to individuals interested in forming carpools and vanpools. SNCI contributes information into MTC's Bay Area ride matching database managed by and housed at RIDES.
- Local and regional transit trip planning and referrals. This includes local and intercity bus, ferry, BART, Amtrak, Capitol Corridor, general public dial-a-ride, etc.
- Bicycle information including bikes on transit, maps storage referrals etc.
- Airporter referrals for San Francisco, Oakland, and Sacramento airports.
- Marketing, education, and public outreach, such as promoting the use of HOV lanes, park- and-ride lots, and express bus services. These efforts are also coordinated with local transit operators and the rest of the Bay Area Region.
- SNCI is the primary contact for CalWORKS - Solano and Napa County's Welfare to Work efforts – in these counties. General information is accessible to Welfare to Work clients and social service support staff. SNCI has worked closely with County Health and Social Service (HSS) staff to plan and implement transportation services tailored for Calworks clients.

Employer Commute Assistance Program

A survey previously conducted by RIDES for Bay Area Commuters (the predecessor to the 511 Regional Rideshare Program) found that four out of ten respondents are employed at companies with 50 or fewer employees; just over half (53.4%) of respondents work for employers with 100 or fewer employees. The likelihood that an

employer will operate a program that encourages employees to use alternatives to driving alone increases with employer size. Less than a quarter of companies with 50 or fewer employees operate commute programs while almost three-quarters of large companies (500+) operate commute programs. The data clearly shows that larger employers are much more likely to operate commute programs. It is worth noting here that the findings are based on respondents' knowledge of their company's programs, and that there is considerable variation in the content and quality of programs. It is possible that some companies may have programs, but respondents are not aware of them.

Employer-based commute programs have been at the heart of the approach to marketing the Regional Ridesharing Program since its inception. Both the percentage of employers operating programs (based on respondent's awareness of their employer's programs) and the effectiveness of these programs (as measured by the difference in the drive-alone rate for commuters at companies with and without programs) increased this year.

TABLE 3.3 - COMMUTE MODES WITH AND WITHOUT EMPLOYER ENCOURAGEMENT⁽¹⁾

	Drive Alone	Carpool	Transit	Other
Employer encourages alternative modes ¹	59%	18%	16%	8%
Employer doesn't encourage alternative modes ²	66%	19%	10%	6%

Notes: (1) Source: Commuter Profile 2003

The SNCI program functions as a resource to Napa and Solano employers who need commute alternative information including setting up internal rideshare programs. Employers are key channels through which SNCI distributes information and promotional materials. SNCI concentrates efforts with larger employers (100+ employees), as well as chambers of commerce, through surveying, distribution of materials, event displays, targeting with regular newsletters and including in major promotions. Additional outreach will be considered through the economic development community particularly in the area of company relocations.

- **Employer Database.** SNCI manages an employer database, which focuses on large employers. Employers receive annual promotional mailings for vanpool promotions, California Bike to Work Week, and California Rideshare Week. SNCI's employer newsletter is another communication vehicle, which covers Napa and Solano rideshare and transit related information.
- **Relocation Assistance.** The SNCI program assists employers moving to or within Napa or Solano Counties retain their employees by providing transit, carpool, vanpool and other information specifically for their worksite to ease the move.
- **Chamber of Commerce Coordination.** The SNCI program functions as a general commuter information service to existing and relocating businesses and residents as well as providing technical assistance. SNCI participates in Chamber of Commerce events such as business expos.
- **Commuter Check.** This program is administered by MTC to allow employers to offer their employees a financial benefit for using commute alternatives. Commuter Checks can be used to purchase Bay Area transit passes or pay fares on registered vanpools/buspools. Commuter Checks are purchased by the employer or the employee with a pre-tax salary deduction. Commuter Checks offer a benefit of up to \$1,200 a year of tax-free income for employees, and employers do not pay payroll taxes on Commuter Checks that are part of employees' compensation packages. If the Commuter Check program is offered as a pre-tax benefit, employees typically save \$300 to \$400 annually. The employer must establish the Commuter Check program for employees to receive this benefit. Commuter Check is one way that employers can implement the federal Commuter Choice benefits program. SNCI promotes and monitors the use of MTC's Commuter Choice Program to increase the availability of employer subsidized and tax-free transit and rideshare services. SNCI helps RIDES maintain a database of employers who receive Commuter Choice services; actively informs and encourages employers to participate in this program; informs and encourages vanpool drivers to participate; and monitors program use per RIDES format.
- The commuter check program encourages enrollment in and provides support to employers who enroll in the BAAQMD's and the Sacramento Region's voluntary Spare the Air programs.

Vanpool Program

The SNCI program aims to form over 30 new vanpools on an annual basis and handles the primary support of 85 vanpools while assisting with the support of several dozen more. Another key program is to assist individuals in forming commuter vanpools. In Napa and Solano, vanpools are usually formed and run by individuals, not employers. Services include:

- Vanpool group formation, support, and outreach; and vanpool maintenance
- Advising individuals regarding compliance with state laws; distributing vanpool start-up kits; processing driver checks through the Department of Motor Vehicles (DMV); offering medical exam reimbursements, insurance information, and special vanpool parking permits; etc.
- Offering driver check and medical reimbursement incentives

Major Promotional Campaigns: California Rideshare Week, Bike to Work Week, Vanpool Campaign

The SNCI program's major promotional activity occurs around the Rideshare Thursday campaign held in October and April each year. Program staff coordinates the Napa and Solano component of the Bay Area-wide Rideshare Thursday campaign. This multi-modal campaign encourages individuals to use a mode other than driving alone to work at least one day during the week. Rideshare Thursday is promoted online through SNCI's website, through employers, prints, radio media and other means. To encourage individuals to make this pledge, participants become eligible to win an assortment prizes. Annual participation in similar campaigns for Solano/Napa has ranged from 1200-2500 participants.

In May, Solano County celebrates California Bike to Work/School Week. STA's SNCI program coordinates the Solano and Napa component of this campaign. This campaign encourages individuals to try bicycling on Bike to Work Day (the third Thursday of May) through pledges with prize incentives. This is a smaller scale campaign, but similar to the fall Rideshare Week campaign. SNCI promotes this through employers, the general public while partnering with bicycle clubs, advisory committees, and bicycle shops.

Another promotion, sometimes held in the Bay Area is Vanpool Week. It was held for the first time in February 2001 to promote

vanpooling as a commute option. This outreach effort, focused primarily on employers and vanpools, encouraged individuals to inquire about being a vanpool passenger or driver.

The goal of these campaigns is to effect long-term change in commute patterns. The plan for doing so is to encourage individuals to try an alternative mode, and give commuters the tools to do so.

Guaranteed Return Trip (GRT) Program

Solano County does not have a Guaranteed Return Trip program, but one is currently under development. The STA has obtained a Yolo-Solano Air Quality Management District (YSAQMD) grant to allow the development of the GRT program in the eastern part of Solano County. This YSAQMD grant will be matched with Bay Area Air Quality Management District (BAAQMD) Transportation Fund for Clean Air (TFCA) funds so that the program may be expanded countywide.

The GRT service would provide a free taxi ride home or free rental car in case of an emergency (illness, family crisis, unscheduled overtime). For a typical program, eligible employees are those who work in Solano County and use any alternative to driving alone to work (public transit, carpooling, vanpooling, biking, or walking) on the day of the emergency. Some programs require that for companies with 100 or more employees, both employer and employee must pre-register in the program.

Publicity

Several indicators suggest that promotion of ridesharing should continue. According to the Bay Area Commuter Profile 2003, 27% of Solano and Napa residents aware of the availability transit and commuter service information through SNCI, but improvements can be made.

SNCI has a broad-based marketing program that includes:

- Staffing community events (such as community events, Farmers' Markets, and transportation facility and service celebrations) with SNCI booths;
- Speaking engagements;
- Partnering with other agencies (e.g., local jurisdictions, Capitol Corridor, BAAQMD and YSAQMD, Solano/Napa Resource teams);

- Freeway signage;
- Information and ads to local newspapers, newsletters, etc.;
- Radio commercials;
- Supplying display racks and materials to public and private employers. Social services, real estate professionals and other organizations; and
- Marketing strategies with a long shelf life (telephone directories, chamber directories, regional brochures).

With the introduction of MTC's 511 Travel Information System, the public awareness of SNCI's 1-800 phone number seems to be declining. Yet while the public continues to adapt to the multipurpose 511 system, SNCI's 1-800 number remains the preferred phone number. Callers are immediately assisted rather than having to navigate 511 voicemail system.. Since the early '90s, SNCI's services and outreach have broadened. From primarily providing carpool/vanpool services and information, the SNCI program now provides comprehensive alternative transportation information. At the same time, staffing has been reduced from six to four.

MTC's 511 regional rideshare program and the SNCI program must make service adjustments as the direction of the region changes. Several major changes, which may significantly change SNCI's local identity, have recently been completed or are on the horizon. In summary, some major shifts in rideshare service delivery are imminent regionally and locally.

HISTORICAL AND CURRENT COMMUTE RIDESHARE TRAVEL

What are the important factors that influence rideshare participation? What have been and what are the characteristics of ridesharing in Solano County? In general, carpool and vanpool journey to work trips tend to have regular travel times and origin-destination patterns. Carpool, vanpool, and transit usage is highest in highly congested corridors with preferential lanes for rideshare vehicles and in corridors with convenient park and ride facilities. Carpool and vanpool usage tends to be highest in regions with relatively sparse public transit services, for long distance trips, and for trips benefiting from HOV travel time and/or toll savings. Suburban office complexes that are not located along major transit trunk lines tend to be good carpool/vanpool markets.

Factors Influencing Commute Ridesharing

RIDES for Bay Area Commuters previously conducted annual region-wide telephone surveys of commuters. The results of these surveys are published as Commute Profile reports focusing on trends in commuter travel behavior. These survey findings provide useful insight into commuter ridesharing in the Bay Area and regarding Solano County residents and were used to analyze factors below that influence ridesharing.

Ridesharer Characteristics

Most Commute Profile respondents indicated that they carpooled with co-workers (42%) or members of the same household (33%). Co-workers and household members are consistently the two most common groups of carpoolers, and they trade the number one and two spots from year-to-year. The next most common arrangement (8%) was through casual carpools. Seven percent of carpoolers indicated that they carpooled with relatives who did not live in the same household, 6% of carpools included friends and neighbors, and the remaining 4% indicated other carpooling arrangements.

Longer Commute Distances

Solano County itself has relatively few jobs relative to its workforce size, which results in a high proportion of long distance commute trips. On average, residents of Solano County have the longest commutes in the Bay Area (in 2003, the average commute from Solano County was 23 miles and took 33 minutes). The longer commute distances traveled by Solano County residents increase the appeal of alternative modes.

Cost of Parking and Tolls

A much lower rate of driving alone occurs for commuters who work in areas where free parking is not available, indicating that car and vanpool programs should be targeted to areas where parking is scarce and costly. In the Bay Area almost eight out of ten respondents (78%) have free all-day parking available at or near their worksite. As explained by Commute Profile and current transportation research, the influence on mode choice of destinations with and without free parking is significant. In the Bay Area, locations with free parking have a drive-alone rate of 71%, while those without free parking have a drive-alone rate of 37%. Results from past years have shown similar differences between respondents who commute to areas with free parking versus those who commute to areas where one must pay to park. Commuters will trade their car for the bus or train given the right combination of incentives (e.g., frequent service) and disincentives (e.g., paid parking).

Solano County commuters are already willing to try alternatives to driving alone. Modifying the region's infrastructure to discourage driving alone is a difficult and long-term challenge, but based on local evidence the goal has merit. Although seven out of ten commuters drive their car by themselves, the rate drops to four out of ten in areas where one must pay to park and frequent transit service is available.

Commuters driving to San Francisco must pay two bridge tolls, if they do not have three or more persons in their vehicle. This commute cost is a significant incentive to rideshare. Discussions regarding increasing bridge tolls could lead to even stronger incentives to rideshare. After crossing the Carquinez or Benicia Bridge to leave Solano County, Solano residents must contend with congested commute corridors on the I-80 and I-680 respectively. The stress and unreliability of traveling in these corridors also acts as an incentive to use rideshare alternatives.

Lost Tax Credits

For many years until 1995, California gave a tax credit for vanpools. Vanpool passengers could receive a credit for 40% of their annual vanpool fare up to \$480/year. This was a popular incentive. Several attempts to extend this tax credit failed and enthusiasm for vanpooling waned for a while. Reviving the credit would provide a desirable incentive to encourage additional vanpooling with little administrative cost.

ROLE OF RIDESHARING TODAY

Carpooling and vanpooling remain a popular commute alternative for Solano residents (see Table 3.4). In 2003, ridesharing was used by 22% of Solano residents to commute to work. Over the past ten years, ridesharing has been used by “in the ballpark” of 22% of Solano commuters. This compares to about 4% who use transit for work trips. Solano has consistently maintained a higher rideshare usage than the average in the Bay Area. Ridesharing has remained a consistent and important commute alternative in Solano over time and significantly helped manage the roadway system by moving more people per vehicle during commute periods. Table 3.4 illustrates Solano County's commute modes split between 1993 to 2004. Table 3.5 illustrates the entire Bay Area commute split during the same period.

TABLE 3.4 - SOLANO COUNTY COMMUTE MODE SPLIT

Mode	1993	1994	1995	1996	1998	1999	2000	2001	2002	2003
Drive Alone	68%	72%	73%	67%	77%	66%	72%	73%	73%	71%
Car/vanpool	25%	22%	22%	23%	18%	25%	19%	24%	22%	22%
Transit	4%	3%	3%	5%	4%	4%	7%	2%	2%	3%
Other Mode	3%	3%	3%	6%	2%	4%	3%	1%	3%	5%

Source: Commute Profile 2003, RIDES

TABLE 3.5 - BAY AREA COMMUTE MODE SPLIT OVER TIME

Mode	1994	1995	1996	1998	1999	2000	2001	2002	2003
Drive Alone	66%	62%	64%	71%	67%	68%	69%	69%	64%
Car/vanpool	17%	19%	17%	14%	15%	14%	17%	18%	18%
Transit	12%	12%	13%	11%	14%	14%	10%	10%	12%
Other Mode	5%	7%	6%	4%	4%	4%	4%	3%	6%

Source: Commute Profile 2003, RIDES for Bay Area Commuters, Inc.

Results from RIDES' Commute Profile 2003 indicate that the percentage of Bay Area commuters who rideshare has fluctuated only a few percentage points throughout the decade. Most recently, ridesharing has increased from 14 percent in 2000 to 18 percent in 2003. Table 3.5 reports Bay Area commute mode splits from 1994 through 2003.

RIDESHARING INFRASTRUCTURE

Casual Carpooling

Solano County, along with Alameda and Contra Costa counties, supports a significant level of casual carpooling. Casual carpooling is an informal, unscheduled approach to ridesharing where drivers offer rides to unknown passengers. Casual carpools (with three or more people) are eligible to use the HOV lane at the Bay Bridge toll plaza and bypass the toll and metering lights, thereby saving travel time and the cost of the toll during the morning commute. Typically, casual carpooling operates one-way, providing morning commuters a free ride to San Francisco. However, signing has been established in San Francisco to facilitate return trips via casual carpools. Return trips also benefit from the carpool lane time-savings on I-80 as well as free, fast toll passage at the Carquinez Bridge in the afternoon. Information is maintained on Environmental Defense Fund's (EDF) website www.edf.org.

Casual carpool locations tend to be located near transit routes that provide parallel service, which provide a ride home opportunity in the evening for passengers in a morning casual carpool. The Curtola park-and-ride lot became a favorite location for casual carpoolers when I-80 HOV lanes were opened in Contra Costa and Alameda Counties. RIDES' 1998 Casual Carpool Report counted 170 casual carpools that formed at the Curtola park-and-ride lot during the morning commute period (6 to 9 a.m.).

Park-and-Ride Lots

Park-and-ride lots are an important component of Solano's comprehensive transportation system. There are 15 existing park-and-ride lots located in the county. These locations serve as important staging areas for carpools, vanpools, and transit. The existing lots range from ad-hoc locations where multiple commuters meet along the side of a road or highway to catch transit or to ride-share, to formal lots with limited infrastructure improvements other than parking, to large transportation centers that include multi-modal connections, long-term storage solutions for motorized and non-motorized users, services, and ITS. Due to the high percentage of carpool and vanpool commuters in Solano County (22% according to the Rides for Bay Area Commuters, 2003 Commute Profile), a number of these facilities are used to capacity during peak commute times. New park and ride facilities are planned as components of transportation projects in Benicia, Dixon, Fairfield, Suisun City, Vacaville, and Vallejo.



Table 3.6 - EXISTING AND PLANNED PARK-AND-RIDE FACILITIES

	City	Location	Transit	Spaces Existing	Planned	Bikes	Lighting
1	Benicia	East Second St. & East "S" St. at I-780		15	15	No	Yes
2	Cordelia	Green Valley Rd. at I80 & I-680		65	65		Yes
3	Dixon	Market Ln. & I-80 near Pitt School Rd.	F/S	89	89	Yes	Yes
4	Dixon	B St. at Jackson Capitol Corridor Station		114	225	Yes	Yes
5	Dixon	Downtown Intermodal Park and Ride Facility					
6	Fairfield	Cadenasso Dr. near West Texas at Beck St.	F/S, VAL	400	600	Yes	Yes
7	Fairfield	K-Mart on N. Texas near Air Base Highway (Unofficial site)	F/S	48	48	Yes	No
8	Suisun City	Main St. at Route 12	CC, F/X, VAL	240	240	Yes	Yes
9	Vacaville	Cliffside at I-80	Greyhound, VVCC	128	128	No	Yes
10	Vacaville	Davis St. at I-80	F/S, VAL	250	250	Yes	Yes
11	Vacaville	Leisure Town Rd. at I-80	VVCC	47	47		
12	Vallejo	Benicia Rd. at I-80		13	13	No	No
	Vallejo	Lemon St. at Curtola Pkwy & I-80 (NW)	BEN, VAL, VINE	379	600	Yes	Yes
13	Vallejo	Lemon St. at Curtola Pkwy near I-80 (SW)	VAL	64	64	Yes	Yes
14	Vallejo	Magazine St. and Lincoln Rd. at I-80	VAL	21	21	No	Yes
15	Vallejo	Intermodal Center at Mare Island Way & Georgia St.	VAL, BEN, VINE	650	1800	Yes	Yes

ALTERNATIVE MODES ELEMENT

City	Location	Transit	Spaces Existing	Planned	Bikes	Lighting
Currently Planned Park and Ride Lots						
16	<i>Benicia</i>	<i>Industrial Way/ Park Road and/or Benicia Intermodal Transportation Station (Lake Herman) at I-680</i>	BEN, CC	0	300 to 500	Yes Yes
17	<i>Benicia</i>	<i>Columbus/ Rose Drive</i>	TBD	0	TBD	TBD TBD
18	<i>Benicia</i>	<i>West Military/ Southampton Road Area</i>	TBD	0	TBD	TBD TBD
19	<i>Benicia</i>	<i>Downtown</i>	TBD	0	TBD	TBD TBD
20	<i>Dixon</i>	<i>I-80/First Street</i>	TBD	0	TBD	TBD TBD
21	<i>Fairfield</i>	<i>Intermodal Rail Station at Peabody Rd. & Vanden Rd.</i>	F/S, CC	0	600	Yes Yes
22	<i>Fairfield</i>	<i>Red Top Rd. & I-80</i>		0	200	
23	<i>Suisun City</i>	<i>SR 12 and Walters Road</i>				
24	<i>Fairfield</i>	<i>Gold Hill Road</i>				
25	<i>Vacaville</i>	<i>Bella Vista & I-80</i>		0	200	
26	<i>Vacaville</i>	<i>Leisure Town Rd. & I-80</i>		0	50	
27	<i>Rio Vista</i>	<i>Church St. & SR 12</i>		0	50	
Total				2407	7588	

Transit Abbreviations

BEN = Benicia Transit VAL = Vallejo Transit F/S = Fairfield/Suisun Transit CC = Capitol Corridor
 VVCC = Vacaville City Coach VINE = VINE (Napa County)
 Planned stations are *italicized*.

Proposed Park-and-Ride Facilities Improvement

A number of park-and-ride facility improvements were identified in the I-80/680/780 Transit Corridor Study and included in this update Comprehensive Transportation Plan's Intercity Transit Element. Improvements include the development of new lots as well as expansion and upgrading of current lots. Improved convenience and provision of adequate capacity will be critical to the achievement of the full potential for ridesharing in Solano County. Where

appropriate, consideration of non-exclusive or joint use park-and-ride lots should be explored. In addition to upgrading and expanding current park-and-ride facilities, new carpool and vanpool oriented park-and-ride lots are proposed for:

Interstate 80

North First Street/SR-113 (Dixon)

West A Street (Dixon)

Nut Tree Development (Vacaville)

North Texas Street (Fairfield)

Red Top Road (Fairfield)

State Route 37/I-80 Turner Overcrossing (Vallejo)

Interstate 680

Gold Hill Road (Fairfield-Cordelia)

Industrial Way/Park Road and/or Benicia Intermodal Transportation Station- Lake Herman (Benicia)

Interstate 780

Rose and Columbus (Benicia)

West Military/ Southampton Road Area (Benicia)

Downtown (Benicia)

State Route 12

Church Street (Rio Vista)

Vicinity of Main Street (Rio Vista)

SR12/Walters Road (Suisun City)

Transit oriented park-and-ride terminals are identified fully in the Intercity Transit Element of the Comprehensive Transportation Plan. Opportunities for integrating park-and-ride facilities into the plans for the I-80/I-680/I-780 Major Investment and Corridor Study need to be pursued.

High Occupancy Vehicle (HOV) Lanes

HOV or carpool lanes play an important role in motivating commuters to use high occupancy vehicle (HOV) modes. According to Commute Profile 2003 results, 51 percent of respondents who were currently using a carpool, vanpool or bus indicated that the carpool lane had influenced their choice of travel mode. Of those who regularly use the carpool lane, 61% indicated that they would continue to use an HOV mode if the carpool lane did not exist.

Except at the Benicia and Al Zampa (Carquinez) bridges during peak hours, Solano does not currently have HOV lanes; however a west bound HOV lane is now planned from the Al Zampa Bridge to just east of SR 29. Toll-free and non-stop passage is available on the Carquinez Bridge for vehicles with three or more passengers during peak hours. On the Benicia Bridge, there is not an HOV exclusive lane at the toll plaza, but a vehicle with three passengers may cross toll-free during commute hours. Large vanpools (11-15 passengers) may cross these and other Caltrans bridges toll-free 24 hours a day once Caltrans eligibility is secured.

The HOV lanes that provide the most benefit to Solano County commuters are the I-80 HOV lanes between the junction with State Route 4 in Hercules and the Bay Bridge toll plaza. Funds have been programmed to extend this HOV asset across the Carquinez Bridge into Solano County. An HOV facility is also planned on I-80 between the Carquinez Bridge and I-680 as well as an HOV lane across the Benicia Bridge. These new HOV facilities will make ridesharing and transit use much more attractive in the future. Increased ridesharing and transit usage will place increased pressure on Solano County's park-and-ride facilities. The already overburdened Vallejo Curtola park-and-ride lot will be particularly impacted by the new HOV facilities.

POTENTIAL PROGRAM ENHANCEMENTS

Commute Profile 2003 found that carpooling is the commute alternative that appeals to the greatest number of people who are currently driving alone. That suggests that Napa and Solano counties, which both have disproportionately high numbers of drive alone commuters as well as a demonstrated willingness to try car and vanpooling in Solano, have untapped ridesharing potential.

Car and vanpoolers are conscious of commuting costs—significantly more so than drive alone commuters. It is doubtful, however, that even rideshare commuters fully appreciate the cost associated with drive alone commuting. These full costs typically are in the range of \$3,500 annually, or \$300 per month. At six percent annual interest this would translate to approximately \$40,000 in additional 20-year mortgage value with which to purchase better living accommodations. Transporting children, using HOV lanes, and the companionship provided by carpool members are other factors that influence the choice to rideshare.

Vanpool Program Enhancement

STA's SNCI program has a comprehensive vanpool program. These Elements and potential enhancements are described in Table 3.7. Another potential strategy would be to subsidize cell phone costs for the vanpool driver to help coordinate rideshare connections.



Table 3.7 - VANPOOL PROGRAM

Target	Purpose/Description	Financial & Other Incentive
Existing Program		
Vanpool drivers	Medical check-up reimbursement. To encourage compliance with State law requirement and defray cost the first time. Check-up required every two years.	Up to \$60 of out-of-pocket cost reimbursement. One time. The amount could be increased or made available more frequently.
Vanpool drivers	Free Motor Vehicle Record (MVR) check and Sworn Statement Card. Annual driver check required by State Law and clean record required for inclusion in regional database.	Save the \$5 cost if did this through DMV and save them the trip to the DMV. SNCI will also forward to insurance provider upon request.. Could be done more quickly if subscribed to Equifax.
Vanpools crossing Bay Area bridges	To encourage HOV modes across bridges.	Daily savings of \$3-\$6 and time-savings where exclusive HOV lane.
Start-up vanpools to specific areas (Contra Costa, San Mateo, Napa, and Sacramento counties)	To encourage the formation of vanpools to/from these counties.	Incentives offered by agencies in these counties. Provide this information to appropriate vanpool startups.
Vanpool passengers to Contra Costa County	To encourage joining a vanpool.	Incentive for new vanpool passengers to/from Contra Costa County. Eligible for CCTA GRT program.
Vanpools to San Francisco	To encourage vanpooling by minimizing parking costs.	SNCI processes SF reduced rate vanpool parking permit working with SF PTD.
Vanpools to Oakland	To encourage vanpooling by minimizing parking costs.	Provide information on Oakland reduced rate vanpool permit parking.

ALTERNATIVE MODES ELEMENT

Target	Purpose/Description	Financial & Other Incentive
Vanpool Backup Driver Incentive	To encourage more vanpool passengers to be a back-up vanpool driver to avoid driver burn-out and/or folding of vanpool for lack of driver.	Cost to SNCI would vary depending upon incentive.
Vanpool Formation Incentive	For routes that do not have built-in demand, to facilitate starting a vanpool which does not have enough passengers to make it viable in the short-term while passengers are being recruited. Phase out incentive while passengers are being recruited.	A seat subsidy during a start-up period. Cost would depend upon number of eligible vanpools, subsidy time limit, and amount.

Target	Purpose/Description	Financial & Other Incentive
Potential Program Enhancements		
Established vanpools that cross Bay Area bridges	To give vanpools the same time savings as SOVs who use FasTrak at any time of the day on all bridges.	Working with MTC and Caltrans to establish non-revenue FasTrak account. No cost to SNCI.
Existing vanpools	To add value to vanpooling, develop public/private incentives via a “vanpool club.”	No cost to SNCI if incentives donated by businesses interested in advertising to/supportive of vanpools via incentives (Thunderbirds example).
Vanpool resuscitation	To keep an established but struggling vanpool on the road when it may have otherwise folded.	Short-term seat subsidy for a struggling vanpool to keep on the road. The subsidy would give a vanpool time to recruit more passengers and/or drivers or set up new vanpool lease.
Commuter Check: vanpool coordinators	To increase the usage of Commuter Check by Solano/Napa vanpools.	Up to a \$100 incentive is available to employees at companies who offer this benefit. May be used on vanpools that honor it. Educate vanpool coordinators and increase their acceptance of it. Amount of SNCI incentive to vanpool unknown.
Commuter Check: employers with existing or forming vanpools	To increase the usage of Commuter Check by Solano/Napa employers who have or would like to have vanpools to their worksite by educating them about Commuter Check and providing an incentive for them to do so.	Up to a \$100 incentive may be offered to employees (pre or post tax). Cost to SNCI for incentive to employer unknown.
Vanpool drivers	There are State Laws (other than those referred to above) that vanpools need to comply with, primarily related to safety.	Develop nominal incentive to encourage compliance and make it easier for drivers. Minimal or no cost if incentives donated (i.e., maintenance check-up).
Vanpool drivers	Annual “gift” along with reminder during birthday month of need to update their MVR and/or Medical check-up.	About \$1 cost per gift/reminder.



CARPOOL PROGRAM ENHANCEMENT

Similarly, the SNCI program has a comprehensive carpool program as summarized in Table 3.8. Three additional program enhancements are also identified in Table 3.8.

Table 3.8 - CARPOOL PROGRAM

Target	Description/Purpose	Financial Incentive
Existing Program		
New carpool members to/from /through Contra Costa County.	To encourage new carpool riders and increase the number of carpool members in existing carpools.	\$20/month for two months; No cost to SNCI; CCCTA administers and funds. Eligible for CC GRT program.
Carpoolers to destinations across Bay Area bridges.	To encourage carpooling across bridges.	For 3-person carpools, free toll crossing (vs. \$3/crossing) and time-savings.
Commuters driving to BART stations.	To encourage carpooling to BART stations and decrease parking demand.	\$20/month for two months and preferred parking location at BART station (“Bartpool”).
Commuters willing to divert 5 minutes on their commute to carpool. Target commuter through home and direct mailings.	Offer incentive to commuters who will carpool and register on ridematching database to improve potential for matches and increase carpooling.	Cost to SNCI would vary depending upon amount of incentive and number of respondents.
Potential Program Enhancements		
Commuters driving to selected PNRs.	To encourage carpooling to PNRs and maximize limited PNR spaces.	As PNR parking is free, offer preferred parking spaces. Offer \$20/month for two months. Would need to create preferred parking spaces.
Commuters driving to Baylink Ferry Terminal.	To encourage carpooling to Baylink Ferry Terminal.	Ferry parking is free, so offer preferred parking spaces. Offer \$20/month for two months. Would need to create preferred parking spaces.

Employer Incentive Program Enhancements

Table 3.9 summarizes employer incentive programs and potential enhancement strategies. Special focus of employer incentive programs should be given to coordination with welfare to work employers and employers not located at transit accessible sites.



Table 3.9 - EMPLOYER INCENTIVE PROGRAM

Target	Purpose/Description	Financial & Other Incentive
Existing Program		
Local employees	Encourage employee commuter info requests when surveying employer by offering prize-drawing incentive.	SNCI cost nominal or none if incentive donated. Alternative could be to offer incentive to all who complete commute info request form.
Solano/Napa employer transportation coordinators (ETC)	Offer incentives to ETC to encourage their active promotion of major campaigns (such as Rideshare Thursday) through prize drawings, competitions, and/or participation rates.	SNCI cost nominal. Typically use donated prizes.
Potential Program Enhancements		
Employment Area Shuttle Buses	To link employment areas to transportation centers or residential communities with free shuttle buses.	Employers provide 25% of the support funding for these free shuttles. Potential costs have not been studied.
Solano Guaranteed Return Trip (GRT) Program	To encourage the use of any alternative mode by Solano workers from employers participating in the GRT program. GRT program offers a free ride home (limited) in the case of emergencies to eligible commuters.	The set-up of this program is funded. On-going cost of program will depend on level of participation; some funding for implementation is secured.
Solano/Napa employers	To encourage employers' promotion through internal methods (including intranets) employees' use of SCI website commuter information request page through one-time promotion or on-going link.	Cost could vary depending upon incentive.
Solano/Napa employers within a given business park	To encourage "surveying" employees simultaneously and therefore maximize ridematches and transit promotion.	Cost unknown. Depends on nature of incentive.



Transit and Bicycling Promotion Program Enhancement

Table 3.10 summarizes current transit and bicycling incentive programs and potential new opportunities to enhance these programs. Deployment of real-time passenger information systems could also be explored to advise motorists of available parking at major ferry, rail and bus terminals and of actual arrival times. The viability of ClassPass fare payment for Solano Community College should also be investigated.

Table 3.10 - TRANSIT

Incentives ProgramTarget	Purpose/Description	Financial & Other Incentive
Existing Program		
General public, new bus riders	Free Fare Day. Through free “trial and sample,” offer free fare on Solano & Napa bus tours. This also rewards regular riders. Held in conjunction with larger campaigns.	Varies depending on cost of transit trip. No benefit to monthly pass holder. No cost to SNCI.
Employers, real estate community, economic development community, social service agencies, event visitors, general public	Commuter Guide free roundtrip coupon. Through free trial and sample, offer free fare on participating Solano/Napa transit.	Varies depending upon cost of transit trip. No cost to SNCI.
Commuters to/from Contra Costa County	To encourage new use of transit for commuting. New users provided a free monthly pass.	Varies depending on cost of monthly pass. No cost to SNCI. Eligible for CC GRT program.
New bus riders for commuting	To encourage regular bus usage by offering monthly transit pass as prizes for CRSW campaign.	Varies depending on cost of monthly pass. No cost to SNCI.
Potential Program Enhancements		
Existing express bus riders originating in Solano – Commuter Check promotion	To increase express bus rider retention, promote Commuter Check incentive to riders to maximize their taking advantage of employer’s Commuter Check benefit or request it.	On-going cost of up to \$100/month borne by employer or employee via pre-tax benefit program.

Incentives ProgramTarget	Purpose/Description	Financial & Other Incentive
Local employer transportation coordinators – Commuter Check	To increase the usage of transit for local commuting by increasing local employer participation in Commuter Check as an outright benefit of pre-tax benefit by Solano and Napa employers through heightened promotion.	Up to \$100/month currently offered via pre-tax deduction or by employer. No SCI cost.
Free or subsidized monthly pass to encourage new bus commuters.	To increase the usage of transit for Solano/Napa residents by offering a free transit pass for new bus commuters.	Would vary depending upon the commute and transit pass cost. Cost borne by SNCI.
Existing and new Solano and Napa bus riders	To encourage and add value to riding the bus, have bus riders send in used monthly pass or transfer slip with personal info to be eligible for monthly prize drawings.	Cost to SNCI would vary depending upon if prizes are donated or purchased.

OTHER MEASURES

Land use coordination is a very important means of efficiently managing the deployment of limited transit resources. STA should consider development of land use strategy guidelines for transit and pedestrian friendly site plans to assist local communities work with developers. Such strategies would also benefit car and vanpooling. Other attractive measures include:

- Improved service delivery and outreach through the internet (website, email messages, links, etc.). More regular and interactive information.
- Increase service access and convenience through developing technology.
- Targeted, timed outreach to employment centers.
- Increase partnerships with organizations involved with relocating employers and residents.
- Increased promotional partnerships with private and public organizations.
- Promote and implement School-pool programs.

COUNTYWIDE BICYCLE PLAN



The Federal Highway Administration estimates that 60 percent of all automobile trips are less than five miles in length (Transportation Air Quality Selected Facts and Figures; USDOT FHWA, 1996). This highlights the tremendous potential for the increased use of bicycling and walking to meet these short trip transportation needs. Bicycling and walking are underutilized modes of transportation in Solano County. Together they account for approximately 2% of the County’s mode split. However, they offer the potential for significant reductions in traffic congestion, transportation emissions, and demand for petroleum. Additional community benefits include: achieving the larger goals of developing and maintaining “livable communities”; making neighborhoods safer and friendlier; reducing transportation related environmental impacts, mobile emissions and noise; as well as reducing the destruction of open space, agriculture, and habitat.

Bicycling is important to the health of all Californians and Solano County residents, and not just to those doing the cycling. The California Air Resources Board estimates that statewide about 7 tons per day of smog-forming gases and almost a ton of inhalable particles are spared from the air due to the use of bicycles rather than motor vehicles. People choosing to ride rather than drive are typically replacing short automobile trips, which are disproportionately high in pollutant emissions.

STA COUNTYWIDE BICYCLE PROGRAM

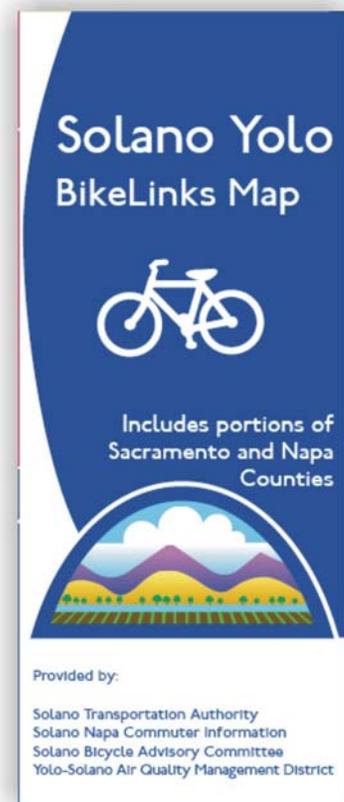
The Solano Transportation Authority has been working with its member agencies and a number of non-governmental groups to increase public awareness and promote bicycling as an environmentally sound, viable commute alternative since its inception. An important component of the Bicycle Program is the Countywide Bicycle Advisory Committee (BAC), which is comprised of representatives from the STA’s member agencies and participants from the public.

The STA adopted its first Countywide Bicycle Plan in 1995. Much progress has been made since the original plan, with the adoption of three updates in 1997, 2001, and 2004, along with the development of several regional bikeway segments. Of the county’s 416 miles of regional roadways, 30.9 miles now contain bike lanes and more than 13 miles of off-street multi-use paths have been developed.

The STA's bicycle program focuses on maximizing the use of bicycles as a viable commute alternative for work, school, shopping, recreation, and other purposes. To achieve its cycling goals, the STA is working to ensure that safe and convenient facilities are located where residents choose to ride. The STA is planning for bicycle storage facilities and transit connections, to enable commuting cyclists to safely store their bicycles, extend the length of their trips, and avoid inclement weather. Multi-modal connections are currently available at most of the county's transit centers, park-and-ride lots and ferry terminals. Bicycle racks and lockers are found at most major shopping areas and destinations where residents choose to ride, and current plans address implementing new facilities where there is demand.

STA's Solano Napa Commuter Information (SNCI) Program supports and promotes bicycling programs in Solano County. SNCI promotes bicycling as a commute mode, develops bicycle maps, provides bridge, transit, and shuttle information for cyclists who use bikes on transit, promotes bicycle safety and education programs, works with employers and the Bicycle Advisory Committee to develop these programs, and promotes California's Bike to Work/School Week.

The 2004 Countywide Bicycle Plan provides specific recommendations on safety improvements, design standards, implementation, operations and maintenance, educational programs, performance standards, and funding. The Plan recommends the development of a comprehensive bikeway system in Solano County including more than 138 miles of bikeways, comprised of Class I multi-use paths, Class II bike lanes, and Class III bike routes. The planned regional system connects all seven cities with each other, and the major activity centers in the county, such as Solano Community College, major shopping and major commercial areas, multi-modal transfer stations, schools, parks, city centers, libraries, and open space areas. Bike paths will provide important linkages and allow bicyclists to travel without having to interface with automobile and truck traffic along busy streets and narrow county roads. Bike lanes and routes will provide an extra level of comfort for bicyclists negotiating city streets and avenues. Crossing improvements could help minimize conflicts between motorists and bicyclists at some appropriate locations. New bicycle lockers and racks will improve bicycle safety, decrease vandalism, provide long-term storage, and encourage and support bicycle commuters.



The planned bicycle system is based on a broad range of criteria including: access, traffic conditions, right-of-way availability, connection to major destinations, cost and implementation restraints, and level of public support expressed at the public workshops. The major components of this Plan are:

- An integrated and comprehensive network of bikeway facilities and programs totaling approximately \$56 million to be invested over 25 years.
- Adoption of the goals, policies, design standards and guidelines, and recommendations in the Plan.

RECENTLY COMPLETED PROJECTS INCLUDE:

- Countywide Bridge Replacement Program – 12 narrow bridges in the unincorporated County have been replaced with widened structures to accommodate bike lanes - Solano County
- Dixon to Davis Bike Route Phase - Solano County
- Green Valley Bike Path - Solano County
- Central County Bikeway along Highway 12 - Suisun City
- Jepson Parkway (SR to Bella Vista Road) - Suisun City
- Ulatis Creek Bike Path - Vacaville
- Alamo Creek Bike Path - Vacaville
- Al Zampa (Carquinez) Bridge Multi-use Bikeway - Vallejo
- The Solano Bikeway Phase 1, Columbus Parkway to McGary Road – Vallejo

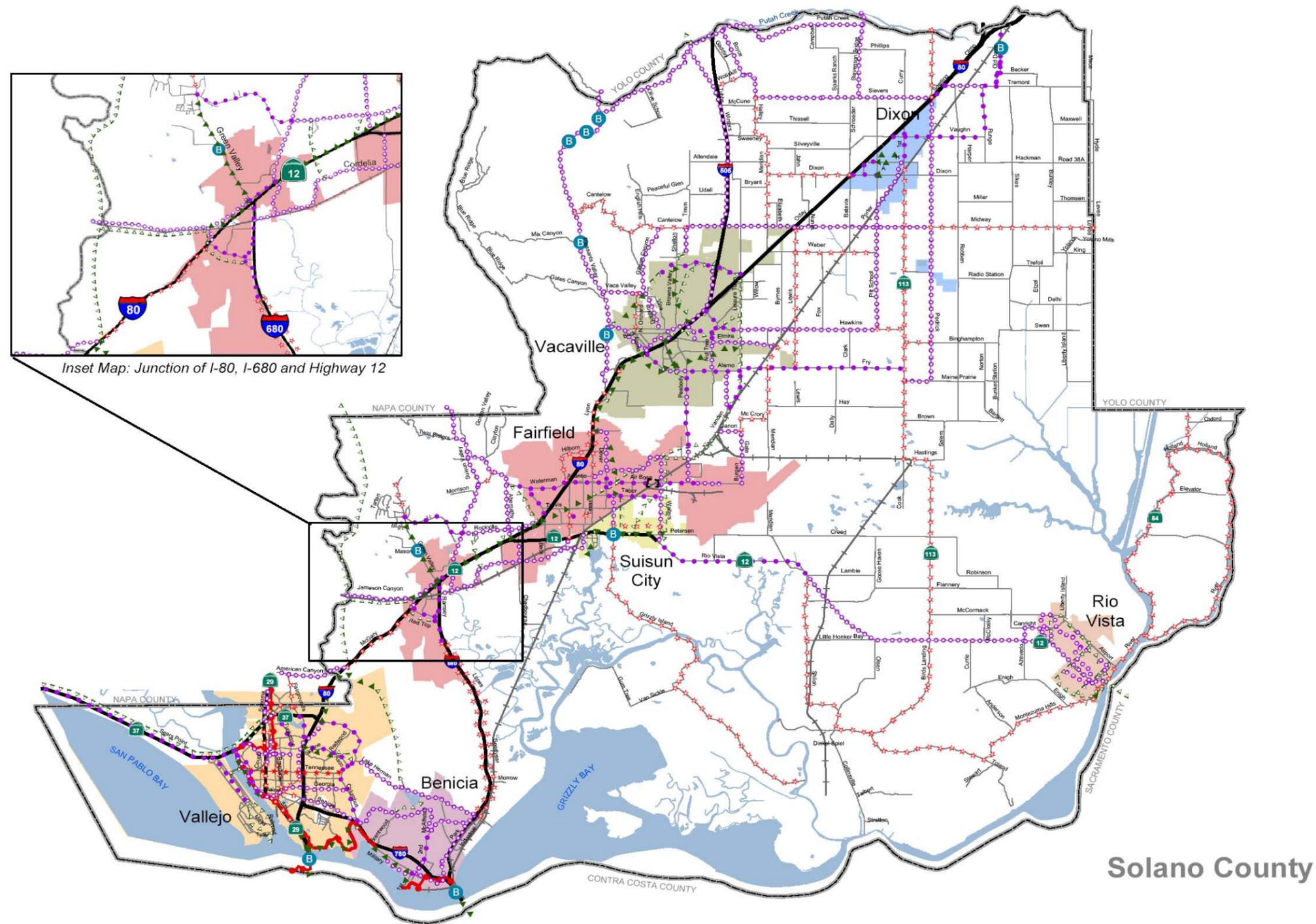
SHORT-TERM PROJECTS AND SPECIFIC RECOMMENDATIONS INCLUDE:

- Solano Bikeway Extension Phase 2 connecting Hiddenbrooke/American Canyon and Fairfield
- Vacaville-Dixon Bike Route
- Jepson Parkway Bike Path from Bella Vista Road in Suisun City (SR 12) to Vacaville (I-80)
- Benicia's State Park Road Bike Bridge
- Highway 37 Bike Route

- Countywide Signing Program using the custom “Solano Bike Route” sign
- Enhanced bicycle education programs for students and adults.
- Improved bicycle parking and transit standards.
- Adopt design standards that adhere to applicable state guidelines and provide a continuity of facilities between jurisdictions.
- Maintain outreach and educational programs and operations to maximize bicycling around the county.

The Solano Countywide Bikeway System bicycle projects are illustrated in the proposed system map figure 3.2. A more detailed description of these projects are in the Solano Countywide Bicycle Plan adopted in October 2004.

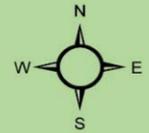
Many of the system’s projects are feasible and should be implemented over the next 10 to 20 years through road improvements and new developments. This ultimate system is designed to meet the needs of bicyclists over the long term and help establish bicycling as a viable travel mode in Solano County.



Inset Map: Junction of I-80, I-680 and Highway 12

LEGEND

- EXISTING BIKEWAYS
- ▲ CLASS I BIKE PATH
 - CLASS II BIKE LANE
 - ★ CLASS III BIKE ROUTE
- PROPOSED BIKEWAYS
- ▲ CLASS I BIKE PATH
 - CLASS II BIKE LANE
 - ★ CLASS III BIKE ROUTE
- BAY TRAIL
- EXISTING
 - PROPOSED
- B BIKE/PED BRIDGE



0 5
Miles

12.22.2004

COUNTYWIDE PEDESTRIAN PLAN

The goal of the Pedestrian Plan is to encourage and support walking as a means of transportation in Solano County. This includes creation and enhancement of *connections* that support pedestrian movement, and the creation or enhancement of *places* that support pedestrian travel or activity. “Walking” in this context includes accommodating people using wheelchairs and other types of mobility assistance.

The Plan is intended to identify general guiding policies and practices, and specific projects and priorities to be implemented by the eight Solano Transportation Authority (STA) member agencies, with assistance from the STA Pedestrian Advisory Committee. This Plan has a strong relationship to the STA’s Transportation for Livable Communities (TLC) Program, which in addition to direct connections and enhancements, supports land use and development projects with densities and patterns that support walking and other alternative modes of transportation to the automobile.

The Pedestrian Plan is not intended to address recreational trails, which would be the purview of a regional parks or open space agency. There is some overlap with recreational trails because some existing or planned trails and pathways in urban areas also serve as important pedestrian circulation routes. The Plan does recognize existing and planned pedestrian routes to access regional open space areas. There is also some overlap with STA’s Countywide Bicycle Plan in that some Class 1 (separated path) bicycle facilities also serve as significant pedestrian facilities. The Countywide Pedestrian Plan builds on many previous phases of studies and plans undertaken by STA and other agencies related to pedestrian circulation.



PEDESTRIAN PLAN OBJECTIVES

The Countywide Pedestrian Plan has two overall planning objectives:

1. To develop an overall vision and systematic plan for accommodating pedestrians in each urban area based on general shared policies, principles, and criteria, and;
2. To document existing conditions, and plans and projects that will implement the Plan, highlighting specific current or potential projects for each agency.

This Pedestrian Plan is based on information provided by the cities and the County, and developed in conjunction with the agencies. The scope of the Plan does not include detailed assessment of pedestrian needs or conditions, or preparation of detailed plans or projects descriptions except by working through the agencies. It is intended to encourage the local agencies to undertake such systematic planning based on the framework provided by the Plan.

PEDESTRIAN PLAN ELEMENTS:

- A Plan Summary, including recommended goals, objectives and policies; a categorized and prioritized list of current projects of the STA member agencies that focus on or feature pedestrian improvements, and a list of concepts for future improvements for each of the agencies.
- A review of the physical, social, economic and environmental benefits of walking, and the opportunities presented by current federal and state policies and funding programs
- General information regarding pedestrian safety, and information for Solano County relative to other Bay Area counties, and for each city, if available, showing the location of pedestrian/vehicle accidents
- A review of policies and plans from each of the cities and Solano County relating to pedestrian circulation and creation or improvement of areas that are conducive to pedestrian activity
- Principles, policies, and guidelines for planning and designing good pedestrian places and connections, including a checklist that can be used to rate a city's existing conditions, policies and plans, and to guide development of new plans
- An inventory of existing and planned pedestrian connections and places in each city. Includes descriptions, maps and lists of the major existing and planned pedestrian routes, key connections, destinations and districts in each city, highlighting current and potential projects, including examples of good pedestrian projects in Solano County and elsewhere
- An Implementation Section, including a guide to building public and policy support, tips for preparing project documentation and grant applications, general cost information for pedestrian improvements; and funding sources for different types of projects, including key information on contacts, deadlines, and criteria

- Extensive annotated reference list of pertinent policy and planning documents from Solano County agencies, and other pedestrian plans, guidelines, standards, and references with more detail for planning and designing projects to accommodate pedestrians.

PEDESTRIAN PLAN BENEFITS

The Countywide Pedestrian Plan is intended to directly benefit local agencies by:

- Providing more attention to needs and opportunities to support walking as a means of transportation and as an integral part of community character;
- Supporting current city pedestrian plans and projects and providing a framework for creating more detailed city pedestrian plans; Sharing information on planning and implementing successful projects;
- Encouraging better consistency and coordination between communities on pedestrian accommodations and pedestrian oriented projects;
- Providing a means for local citizens and groups to understand pedestrian plans and opportunities and make suggestions;
- Providing resources for planning and describing projects, and identifying and preparing grant applications to support implementation;
- Coordinating Countywide projects for a better overall result and greater success in competing against other regions for project funding.



PUBLIC OUTREACH AND PARTICIPATION PROCESS

Preparation of the Countywide Pedestrian Plan included extensive efforts to reach a broad cross-section of Solano County constituents, including minorities and other Title VI groups. Information about the Plan goals and process and a request for input into the Plan was sent to the directors of the City Planning, Public Works and Parks and Recreation Departments, or the equivalent, of each of the cities in the County, as well as to the County departments. The police department of each member agency was contacted to collect pedestrian safety data and to identify needs for safety improvements. Information and an input request was sent to the administrator of every school district in the county.



Through the member agencies, STA solicited appointment of representatives to its Pedestrian Advisory Committee (PAC), consisting of a broad cross-section of the several communities and stakeholder groups. The PAC reviewed and commented on the preparation of the Plan at each stage. Follow-up contacts were made with each City and County department and school district to encourage participation. Special staff and/or public presentations and discussions were offered to each member agency to focus on the needs in that community, and most of the agencies took advantage of this to provide additional concepts to current plans and projects.

The project was explained and participation was encouraged at meetings of STA's Technical Advisory Committee, consisting of Public Works Directors, from each of the cities and the Solano County Transportation Department and Solano Planning Director's Group. The draft Plan was presented to these groups and reviewed by the member agencies. The Plan was reviewed at noticed public meetings of the STA Board's Alternative Transportation Modes Committee and will be reviewed and approved by the full STA Board of Directors.

CURRENT PEDESTRIAN-SUPPORTIVE PROJECTS AND CONCEPTS

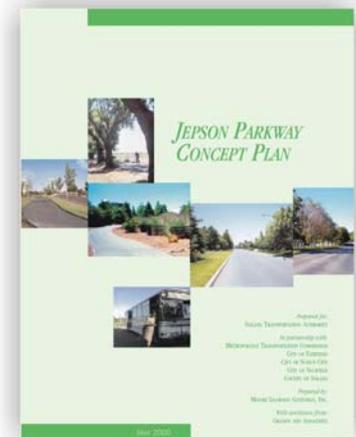
The overall goal of the Countywide Pedestrian Plan is "A complete, safe, and enjoyable system of pedestrian routes and zones in the places people need and want to go in Solano County, providing a viable alternative to use of the automobile, through connection to transit, and employment, health, commercial, recreational and social centers." Achieving the overall goal requires a long-term commitment. The Plan identifies 39 current pedestrian-support projects. The priority pedestrian projects for Solano County are:

1. State Park Road/I-780 Bike/Pedestrian Bridge (City of Benicia)
2. Vallejo Ferry Station Pedestrian and Streetscape Enhancements (City of Vallejo)
3. West Texas Street Urban Village Project (City of Fairfield)
4. Driftwood Drive Pedestrian Project (City of Suisun)
5. Vacaville Creekwalk Extension to McClellan Street (City of Vacaville)
6. Multi-Modal Transportation Center (City of Dixon)

7. Waterfront Plan and Improvement Project (City of Rio Vista)
8. Old Town Cordelia Improvement Project (Solano County)
9. Jepson Parkway Concept Plan (Multi-Jurisdiction: Fairfield, Suisun, Vacaville, and Solano County)
10. Union Ave to Main Street Streetscape Enhancements Program (Multi-Jurisdiction: Fairfield, Suisun, and Solano County)

The Plan also identifies pedestrian concept projects that have not yet been formally proposed as projects. These concepts originated from various sources, including informal discussion with agency staff, specific policies found in general plans and other policy documents, studies and reports related to pedestrian issues, and public workshops held for development of the Plan.

Many of the identified pedestrian projects are Transportation for Livable Communities (TLC) projects and Class I multi-use bicycle projects. Therefore, the costs for many of the current pedestrian-supportive projects are already accounted for in the Countywide Bicycle Plan, the Countywide TLC Program, or other components of the CTP. The total estimated cost of pedestrian improvement projects and enhancements that are not accounted for in other CTP elements is \$3,622,000. Figure 3 is an overview map illustrating the locations of the pedestrian-oriented projects, the major on-street and off-street routes that accommodate pedestrians, and the general origin and destination areas for pedestrians.



The Solano Countywide Pedestrian Plan also identified pedestrian concept projects that have not yet been formally proposed as projects. These concepts originated from various sources, including informal discussions with agency staff, specific policies found in general plans and other policy documents, studies and reports related to pedestrian issues, and public workshops held for this Pedestrian Plan. These concepts are also described in each agency’s respective portion of Section 6 of the *Solano Countywide Pedestrian Plan*. These concepts may not yet be commitments of the agencies, but they represent the potential next tier of pedestrian projects to work toward the comprehensive system envisioned by the Pedestrian Plan.

The total estimate “placeholder” cost of pedestrian improvement concepts that are not yet defined as projects is \$21,550,000. Ultimately, many of these concepts may become all or part of projects in other CTP elements.

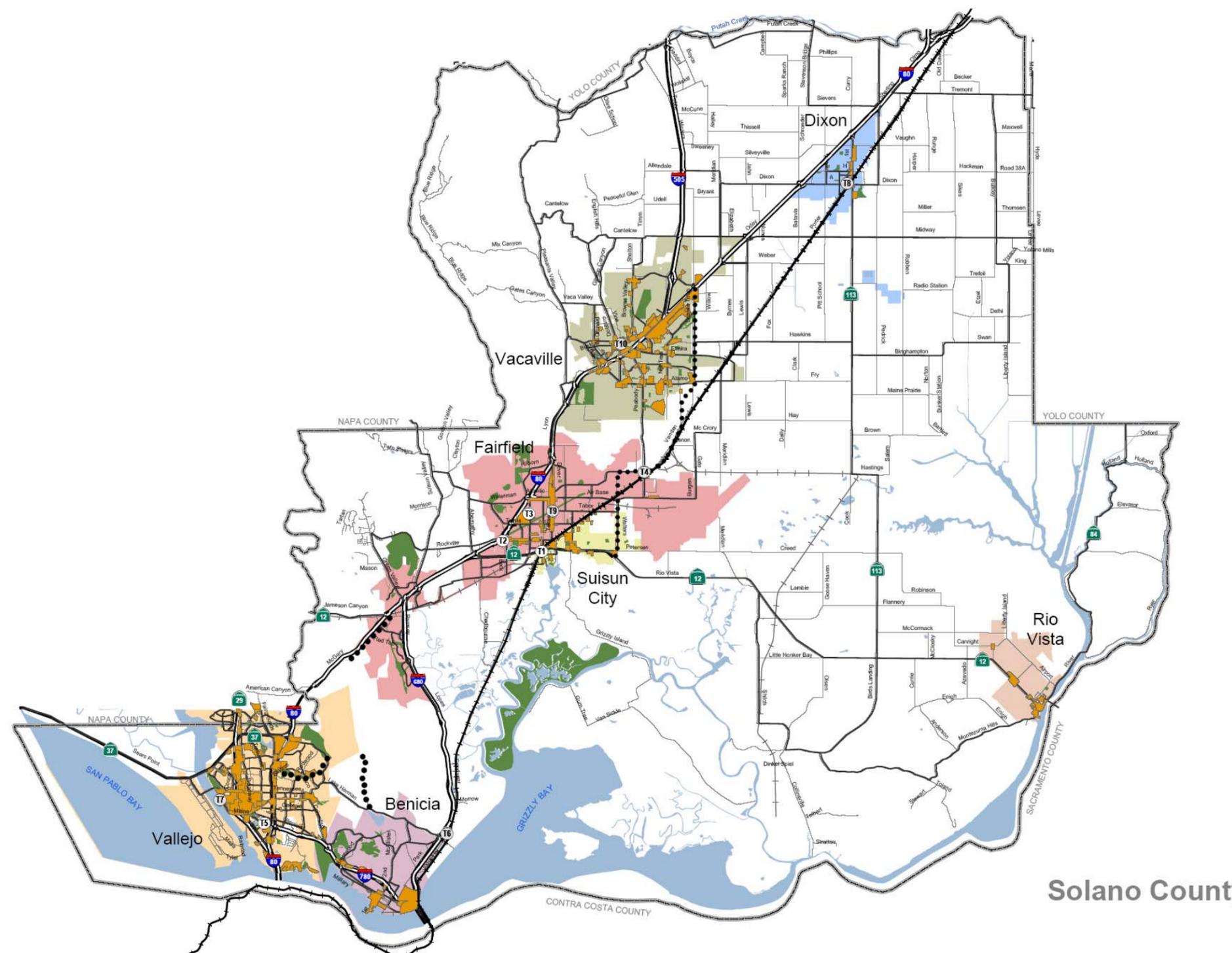
GUIDELINES FOR PLANNING & DESIGNING PEDESTRIAN ROUTES & PLACES

Planning and design must occur at all stages and scales to successfully encourage and facilitate pedestrian activity and circulation. Information on planning and designing for pedestrians is organized into four different topic areas:

1. Land Use
2. Site Planning & Design
3. Street System Planning & Layout
4. Pedestrian Routes, Spaces, & Amenities

PEDESTRIAN IMPROVEMENT COSTS

One of the objectives of this Pedestrian Plan is to estimate the cost of the complete future pedestrian transportation system as part of STA’s overall Comprehensive Transportation Plan (CTP). A figure of \$25 million has been identified as a working budget for future pedestrian improvements, based on a relative proportion to the CTP’s budget allocations for other transportation modes.



LEGEND

■ PEDESTRIAN ORIENTED AREAS

●●● PEDESTRIAN ROUTES WITH REGIONAL CONNECTIONS

TRANSIT HUBS

- EXISTING
- T1: SUISUN CITY INTERMODAL STATION
- T2: FAIRFIELD TRANSPORTATION CENTER
- T3: SOLANO MALL
- T4: CURTOLA PARK AND RIDE

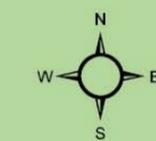
- PLANNED
- T5: FAIRFIELD/VACAVILLE INTERMODAL TRAIN STATION
- T6: BENICIA INTERMODAL TRAIN STATION
- T7: VALLEJO STATION
- T8: DIXON MULTIMODAL TRANSPORTATION CENTER
- T9: NORTH TEXAS TRANSPORTATION CENTER AND COMMUNITY HUB
- T10: VACAVILLE BUS TERMINAL AND TRANSFER CENTER

— MAJOR ROADS/PEDESTRIAN ROUTES

== HIGHWAYS

— AMTRAK CAPITOL CORRIDOR ROUTE

■ PARKS & OPEN SPACE



0 — 5
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1.10.2005

AIR QUALITY AND DEVELOPMENT OF ALTERNATIVE FUELS AND INFRASTRUCTURE

This section is designed to educate the STA's member agencies on advances in alternative transportation technologies and to identify the county's existing and proposed alternative fuels infrastructure. New transportation technologies have the potential to reduce our dependence on fossil fuels and offer significant air quality, economic, and environmental advantages over conventional technologies. However, their introduction and use requires careful planning. While the STA has a clear interest in transportation



related air quality planning activities, its authority lies in its ability to provide guidance, funding, and assistance on transportation plans and strategies to its member agencies, local districts and transportation agencies, as policies, regulations, and enforcement of state and federal ambient air quality standards fall under the jurisdiction of the state and air districts. The STA's role in the introduction of emerging transportation technologies is as an educational and support mechanism for its member agencies. Each of the alternative fuels technologies described below has unique advantages and disadvantages. Local jurisdictions will need to choose which technologies to invest in. Ideally they will select the ones that will meet environmental requirements, be cost-effective and readily available, and provide the performance required by their developing communities.

Local programs and policies can make a difference. Local agencies can play a critical role in laying the groundwork for clean air vehicles in their communities, as evidenced by efforts in the City of Vacaville, which has the highest per capita use of private electric vehicles in the nation due to local efforts. In addition to acquiring clean vehicles for their fleets, local governments can implement purchase assistance programs for its citizenry, develop thresholds for development projects that require the installation of alternative fuels infrastructure, and provide enforcement of alternative fuels vehicle parking policies.



AIR QUALITY REGULATIONS

Solano County lies within two separate air basins. The western portion of the county is within the Bay Area Air Basin, within the boundaries of the Bay Area Air Quality Management District (BAAQMD), a National 1-Hour Ozone Non-Attainment Area. The eastern portion of Solano County lies within the Sacramento Federal Ozone Non-Attainment Area, within the boundaries of the Yolo-Solano Air Quality Management District (YSAQMD).

While air quality has improved in recent years in the eastern portion of the County, exceedances of the health based ozone air quality standards continue to occur. According to the YSAQMD, the number of days exceeding the federal 1-hour ozone standard in eastern Solano County was one day in 1996, two days in 1998, and one day in 1999. No exceedances of the 1-hour ozone standard occurred in eastern Solano County in 2000, and no exceedances of the federal standard occurred in 2001.

The Sacramento Air Basin is one of the worst regions in the nation for ozone. As a result, much emphasis has been placed on reducing emissions of all types, including vehicle emissions throughout the air basin. Rideshare activities have been successful to a certain extent in eliminating some vehicle emissions by eliminating some commute vehicle trips to the work site, via carpooling, vanpooling, transit use, and encouraging other alternative modes such as bicycling, walking, compressed work schedules, and even telecommuting. However, efforts to continue to reduce mobile emissions and improve the commute mode split are needed as about 70% of the commuting public continues to drive to work as single occupant vehicle (SOV) drivers.

ALTERNATIVE FUEL VEHICLES

Since a large portion of the ozone forming emissions comes from vehicles, a major strategy to reduce emissions in the region is the use of lower emission vehicles and alternative fuels. For air quality purposes, an alternative fuel is any fuel used in place of gasoline or diesel fuel. The fuels and technologies that are either in use in Solano County or are being considered for use by the local air districts include: biodiesel, electricity, fuel cells, hybrid electric, liquefied and compressed natural gas (L/CNG), low sulfur (clean) diesel, propane (LPG), and methanol.

Generally, a reduction in ozone forming emissions and particulates can be achieved with the use of most alternative fueled vehicles when compared with conventional gasoline or diesel engines, especially in heavy-duty applications. Different fuels have different impacts on the environment. These impacts occur in two phases: first in the production, processing and transport of the fuel and second in its consumption on-board of the vehicle. In general, both phases are relevant as far as global impacts are concerned (e.g. greenhouse effect), but the latter is more important with regard to the local air quality. For example, the use of electricity in battery-powered vehicles does not cause local emissions, but its generation leads to emissions at the power plant.

When determining what alternative fuels to use for light, medium or heavy duty vehicles, public and private vehicle owners and fleet managers should weigh all the factors: economics, available models, rebates, incentives, the ease of refueling, and number and cost of fueling infrastructure. Vehicle owners and operators should also consider whether the vehicle is a dedicated or a bi fuel vehicle, whether its emission rating falls into one of the following categories: Low Emissions Vehicle (LEV), Transitional Low Emissions Vehicle (TLEV), Ultra Low Emissions Vehicle (ULEV), Super Low Emissions Vehicle (SULEV), and Zero Emissions Vehicle (ZEV), and what its operating range and maintenance costs will be.



A brief description of the fuels and technologies that are currently in use in Solano County as well as emerging technologies being considered for use by the local air districts follows below. A more detailed description of these technologies is included in Appendix C.

ENERGY IMPACTS OF ALTERNATIVE FUEL VEHICLES

The prices of all fuels are dynamic. Not only have we experienced significant price spikes for gasoline in recent years, but also given California's recent energy crisis and ongoing energy concerns, it is important to consider the potential energy impacts associated with electric vehicles (EVs) and other alternative fuel vehicles. In the short term, the use of EVs and other alternative fuel vehicles is expected to have no significant impact on the demand for electricity or other sources of energy. In the long term, energy consumption patterns will shift and our expanded use of alternative fuel vehicles will reduce our dependence on petroleum in the transportation sector, and diversify our energy supply. Ultimately, a more diversified vehicle fleet can help to reduce our vulnerability to

shortages or price increases in any one sector of the energy market. Key points are summarized below:

- The transportation sector accounts for only a fraction of one percent of current natural gas consumption in California, according to data from the California Energy Commission staff.
- In the next 3-5 years, the number of electric vehicles on the road will remain small, and their aggregate electricity demand will be negligible. Even by the year 2010 as more EVs are phased into use, the California Energy Commission estimates they will use less than one-half of one percent of today's electrical demand.
- EVs typically recharged at night when there is excess capacity in the electrical grid. PG&E already offers a special rate structure to EV drivers to encourage off-peak charging.
- Electric (and hybrid electric) vehicles are inherently more efficient in energy use compared to internal combustion engines. Also, EVs and Hybrids recapture a portion of the energy they use through regenerative braking.



Local agencies will need to consider infrastructure and energy requirements in their plans to acquire and operate alternative fuel vehicles. The capital and operating costs associated with these emerging technologies will need to be evaluated with the variety of alternative and conventional technologies available. The initial purchase cost of an alternative fuel vehicle is generally higher, however, they offer savings in fuel costs and reduced maintenance costs as compared to gasoline vehicles. According to the California Energy Commission, the cost to drive battery electric vehicles has typically been 30-40% of the cost of gasoline vehicles on

a per mile basis. Even with a significant increase in electric prices, EVs should still be cheaper to operate, based upon overall fuel and maintenance costs.

Not only did California's electric grid feel the crunch of our recent energy crisis, but prices for natural gas have experienced sharp spikes in the short term market too. Despite the fact that natural prices are

already declining, many agencies that operate natural gas fleets had to negotiate long-term contracts to protect against short-term fluctuations in the price of the fuel, and in some cases revert to using retired conventional vehicles.

The future price of any one fuel and the price of electricity and natural gas relative to gasoline cannot be predicted. However, by moving to diversify the fuels that power the vehicles we drive, public agencies and private operators can reduce their vulnerability to rapid increases in the cost of any one fuel, whether it's gasoline, diesel, natural gas, or electricity.

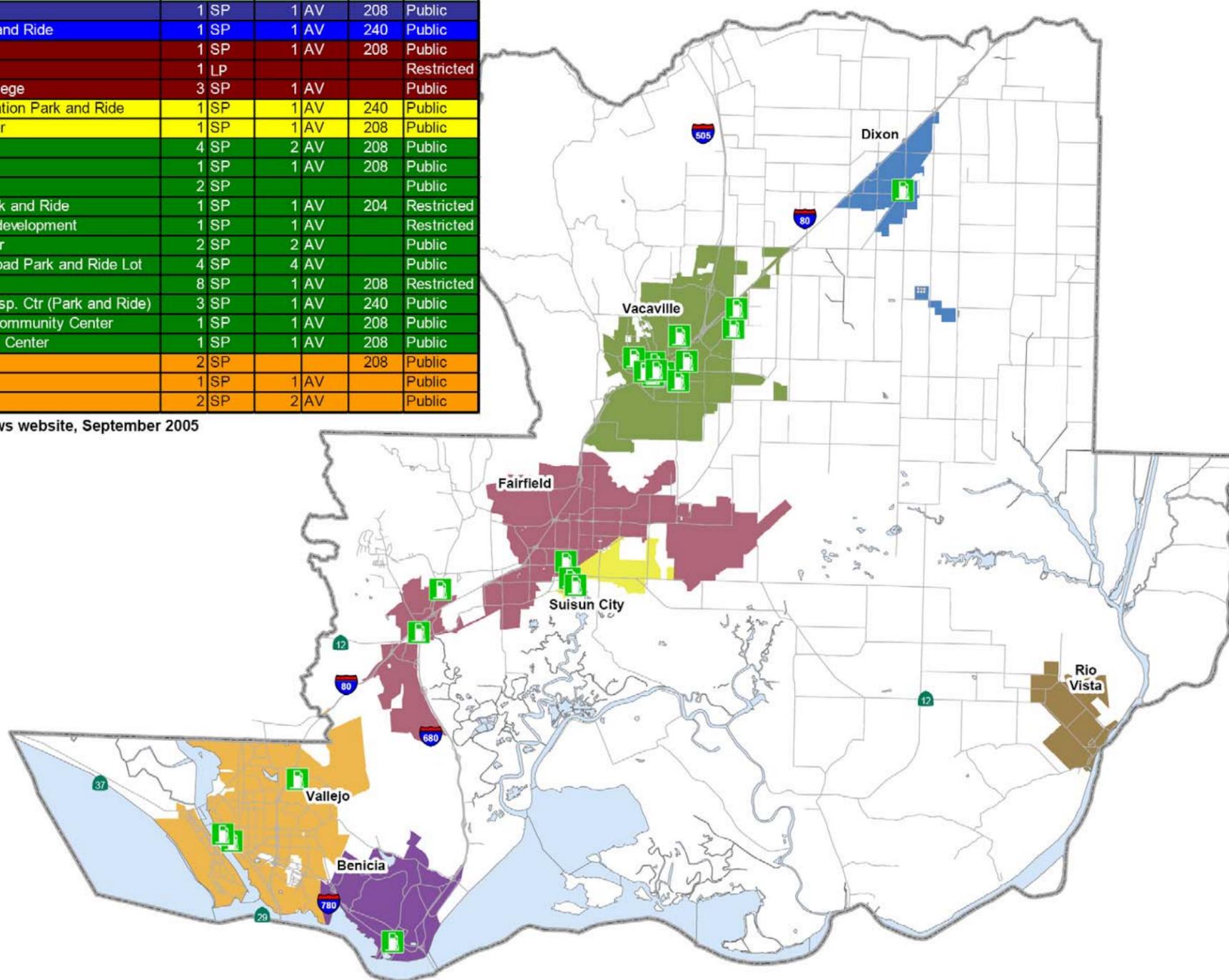
ALTERNATIVE FUELS INFRASTRUCTURE

Alternative fuels provide opportunities to reduce vehicle emissions and reduce our dependence upon imported petroleum. However, the lack of adequate fueling infrastructure has limited the alternative fuels market penetration and expanded use. Therefore developing the infrastructure necessary to deliver alternative fuels is a critical component of bringing the technologies into the market place for private consumers. There are a number of existing barriers which need to be addressed, but ultimately can be overcome. For example, compressed natural gas requires complex compressor stations that have proven to be expensive to build and difficult to maintain, and EVs are currently available utilizing two different charging technologies. The existing barriers, real or perceived, must be examined and understood to determine how they limit widespread public use of alternative fuels.

The following map displays the 20 different electric vehicle charging station locations around Solano County.

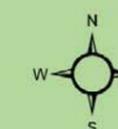
City	Electric Vehicle Charging Station Location	Inductive	Conductive	Volts	Type
Benicia	Benicia City Hall	1 SP	1 AV	208	Public
Dixon	Downtown Dixon Park and Ride	1 SP	1 AV	240	Public
Fairfield	Fairfield City Hall	1 SP	1 AV	208	Public
Fairfield	Satum of Fairfield	1 LP			Restricted
Fairfield	Solano Community College	3 SP	1 AV		Public
Suisun City	Suisun City Amtrak Station Park and Ride	1 SP	1 AV	240	Public
Suisun City	Suisun City Civic Center	1 SP	1 AV	208	Public
Vacaville	Costco Vacaville	4 SP	2 AV	208	Public
Vacaville	KUIC parking lot	1 SP	1 AV	208	Public
Vacaville	Leisure Town Center	2 SP			Public
Vacaville	Leisure Town Road Park and Ride	1 SP	1 AV	204	Restricted
Vacaville	Office of Housing & Redevelopment	1 SP	1 AV		Restricted
Vacaville	Stars Recreation Center	2 SP	2 AV		Public
Vacaville	Vacaville Bella Vista Road Park and Ride Lot	4 SP	4 AV		Public
Vacaville	Vacaville City Hall	8 SP	1 AV	208	Restricted
Vacaville	Vacaville Regional Transp. Ctr (Park and Ride)	3 SP	1 AV	240	Public
Vacaville	Vacaville Three Oaks Community Center	1 SP	1 AV	208	Public
Vacaville	Vacaville Ulatis Cultural Center	1 SP	1 AV	208	Public
Vallejo	Costco Vallejo	2 SP		208	Public
Vallejo	Vallejo City Hall	1 SP	1 AV		Public
Vallejo	Vallejo Ferry Terminal	2 SP	2 AV		Public

* Data taken from EV Charger News website, September 2005



LEGEND

EV Charging Station



September 2005

ALTERNATIVE FUELS FUNDING OPPORTUNITIES

There are a variety of funding opportunities available to implement alternative transportation projects over time. Funding for these projects comes from local, regional, state, and federal sources. Potential sources are listed below:

Congestion Mitigation & Air Quality Improvement Program (CMAQ)

Transportation Fund for Clean Air (TFCA)

California Air Resources Board (CARB) Zero Emissions Vehicle (ZEV) Incentive Program

Efficient Vehicle Incentive Program (VIP)

Lower-Emission School Bus Program

Sacramento Emergency Clean Air and Transportation Pilot Program

Charge! Grant Program to Install Public Electric Vehicle Charging Facilities

Carl Moyer Memorial Air Quality Standards Attainment Program

Yolo-Solano Air Quality Management District Clean Air Fund (CAF)

Solano Clean Air Fund (AB 8)

Regional Electric Vehicle Incentives CEC's ZEV Demonstration Program

California Energy Commission (CEC) Alternative Fuel Incentive Program