

The following sections define the recommended bikeway system improvements as CIP projects and provide construction costs. See Figures 13 to 16 and their associated tables in the previous chapter for an overview of the proposed bikeway segments. For detailed cost analysis of each segment, see the specific CIP segment cost analyses spreadsheets in Appendix B. The remaining sections describe the funding sources available for bikeway projects, followed by a summary in Tables 17-21 at the end of the chapter.

## 5.1 Bikeway Development Priorities

The factors used in prioritizing the implementation of potential bikeway projects included probable demand, likely funding, regional significance and transportation efficiency. These criteria and more are described in Appendix D: Suitability Model and Project Prioritization.

Note that projects are numbered by recommended prioritization within facility classes only, not as an overall prioritization of all recommended bikeway facility segments. This is the recommended method due to how variable the costs can be between facility types and how difficult this makes prioritizing all of the proposed bikeway facilities across the facility classes. For example, a number of Class 3 routes could be implemented at far less cost than a single Class 2 lane. Therefore, it is recommended that the Class 1, 2 and 3 facilities be regarded as parallel lists and be implemented as appropriate funds become available for each type of facility.

The cost of each project will always be a consideration. For example, if two projects with a high cost differential score very similarly based on priority criteria, it may make sense to implement the lower cost project ahead of the higher cost project. Bikeway facility implementation has no specific time line, since the availability of funds for implementation is variable and tied to the priority of the City's capital projects.

Proposed projects should be rated periodically at whatever interval best fits funding cycles or to take into consideration the availability of new information, new funding sources, updated crash statistics, etc. Bikeway facility prioritization and implementation should be fine-tuned and adjusted accordingly based on future circumstances. Facility prioritization criteria can also be used to help identify which bikeways are likely to provide the most benefit to the bikeway system user.

### Chapter

# 5



## 5.2 Typical Unit Construction Costs

The cost of bikeway facility construction varies widely depending on the type of facility concerned. A list of typical unit construction costs is shown in Table 14. These figures can be used for preliminary cost estimates, but they do not reflect special circumstances that may occur in specific situations, such as the long bridges that would be needed to span lagoons, for instance. The following sections provide generalized costs per mile for each class of bicycle facility, as well as what these costs cover, and just as importantly, what they do not.

### 5.2.1 Class 1 Bikeways (Bike Paths)

Because they are constructed independently of existing or programmed motor vehicle facilities, Class 1 paths are by far the most expensive of all bicycle facilities. Typical costs are difficult to estimate due to potential right-of-way acquisitions, bridges and other major expenses, such as necessary grading due to hilly topography. For example, a Class 1 facility being converted from an abandoned railroad bed will require very little grading, as well as far less grubbing and structural enhancements, than a facility being constructed through an undeveloped area in hilly terrain. An example is a portion of the Coastal Rail Trail through the City of Encinitas. Class 1 facility costs worked out to just over two million dollars per mile, but it should be noted that this section would require significant bridging and earthwork.

### 5.2.2 Class 2 Bikeways (Bike Lanes)

Class 2 facility costs are approximately \$30,000 per mile. This includes all necessary lane striping and signage, but does not include widening of roadways. Where such curb and gutter improvements are needed, an additional \$32 per linear foot is needed. Because each situation is unique, specific improvements will vary by project. However, basic bike lane amenities (striping, signage, pavement markings) are all part of the \$30,000 per mile cost. This cost will be higher where substantial restriping is needed, such as where multiple motor vehicle lanes require restriping.

### 5.2.3 Class 3 Bikeways (Bike Routes)

Class 3 routes costs are the lowest of all facility types because the only physical improvement required to be installed is route signage. The cost range of \$1,500 to \$5,000 per mile is due to the distance between signs, which can vary considerably depending upon factors such as horizontal and vertical curvature, the number the intersections and curb cuts, and how often the route changes direction onto different roadways. In some cases, an additional enhancement may be included in the form of shared lane markings, or “sharrows,” recommended additions where traffic volumes and parking turnover tends to be high, but where posted speed limits are no higher than 40 mph.

Table 14: Typical Unit Costs



Description	Units	Cost
<b>Grading and Drainage</b>		
6" Concrete Curb & Gutter	LF	\$40
Subgrade Prep/Exec	CY	\$16.50
<b>Demolition</b>		
Asphalt	SF	\$4
Curb & Gutter	LF	\$32
Concrete Pavement	SF	\$9
Removing Traffic Stripes	LF	\$1.50
Removing Parking Stripes	EA	\$25
Clear and Grub	SF	\$1.00
Removing Parking Stripes	EA	\$25
<b>Paving</b>		
Decomposed Granite (3" Depth, Stabilized)	SF	\$2.10
Concrete Maintenance Strip (6")	LF	\$8
Vehicular Concrete (6" Thick)	SF	\$9
Asphalt (3" thickness)	SF	\$3.50
Curb Ramps	EA	\$2,000
Curb Ramps on Existing Sidewalks	EA	\$3,000
Drainage	LF	\$5.50
Pedestrian/Bike Bridge	SF	\$500
<b>Fences and Gates</b>		
5' Chainlink Fence	LF	\$35
<b>Site Furnishings and Shade Structures</b>		
Trash Receptacle	EA	\$800
Recycle Receptacle	EA	\$800
Kiosk - Prefabricated	EA	\$2,500
Street Light	EA	\$7,300
Benches (6' long)	EA	\$1,200
<b>Bike Signs</b>		
Bike Route Signing	MI	\$1,650
Bike Route & Bike Lane Signs (with core drilling)	EA	\$350
Bike Lane Markings, Paint (\$1.25 LF)	EA	\$80
Sharrows, Paint (\$1.25 LF)	EA	\$80
Bike Lane Markings, Thermoplastic	EA	\$125
Sharrows, Thermoplastic	EA	\$125
Bike Detector Loop	EA	\$700
Bike Lane Paint	SF	\$5
Bike Buffer Paint	SF	\$2
<b>Road Striping</b>		
Bike Lane Striping (one way, two stripes)	MI	\$3,300
Centerline Striping	LF	\$1
Centerline Striping with reflectors	LF	\$2.25
Parking Stripes, Paint	EA	\$15
Parking Stripes, Thermoplastic	LF	\$20
<b>Safety Measures</b>		
Rapid Flashing Beacon/Pedestrian Signal	EA	\$5,000
High Visibility Pedestrian Beacon (HAWK)	EA	\$45,000

### 5.2.4 Bikeway Bridge Improvements

The following information concerns bridges designed to serve bicycle facilities in locations other than planned or programmed roadway bridges. Typical roadway bridges are generally constructed of reinforced concrete to withstand the enormous stresses of motor vehicle traffic and seismic activity. Bridges intended for non-motorized uses do not need to be nearly as robust or as costly as bridges designed for regular motor vehicle use.

Bridges costs depend on design load and foundation, and to a lesser extent, length, width and materials. Bridges must be designed to carry the same loads as the bikeway facility they serve. On Class 1 facilities, for example, where patrol, emergency or maintenance vehicles are expected to use the bridge, it must be able to support at least the gross weight of the heaviest anticipated vehicle. Bridges intended to support motor vehicles will require much sturdier construction and increased width, both of which will substantially increase costs.

Unstable soil conditions will require any bridge to be built with more expensive foundations in the form of larger footings or piers. Wooden bridges tend to be less expensive than metal bridges, though their useful life may be shorter. Bridge costs increase almost exponentially as their height increases due to increased structural complexity. Finally, prefabricated bridges are generally cheaper and less environmentally damaging to install than constructed-in-place bridges. For bridge preliminary cost estimates, \$1,200 to \$1,600 per linear foot is adequate.

## 5.3 Bikeway Funding Sources

Federal, state and local government agencies invest billions of dollars every year in the nation's transportation system. Only a fraction of that funding is used in development projects, policy development and planning to improve conditions for cyclists. Even though appropriate funds are limited, they are available, but desirable projects sometimes go unfunded because communities may be unaware of a fund's existence, or may apply for the wrong type of grants. Also, the competition between municipalities for the available bikeway funding is often fierce.

Whenever Federal funds are used for bicycle projects, a certain level of state and/or local matching funding is generally required. State funds are often available to local governments on similar terms. Almost every implemented bicycle program and facility in the United States has had more than one funding source and it often takes a good deal of coordination to pull the various sources together.

According to the Federal Highway Administration's (FHWA) publication, *"An Analysis of Current Funding Mechanisms for Bicycle and Pedestrian Programs at the Federal, State and Local Levels,"* where successful local bike facility programs exist, there is usually a full time bicycle coordinator with extensive understanding of funding sources. Cities such as Seattle, Washington,

Portland, Oregon and Tucson are prime examples. Bicycle coordinators are often in a position to develop a competitive project and detailed proposal that can be used to improve conditions for cyclists within their jurisdictions. Much of the following information on Federal and state funding sources was derived from the previously mentioned FHWA publication.

### 5.3.1 Federal Sources

#### A. U.S. Department of Transportation Enhancement Funds SAFETEA-LU (Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users)

In 1991, Congress reauthorized the collection and distribution of the Federal gasoline tax and related transportation spending programs. The legislation, the Intermodal Surface Transportation Enhancement Act (ISTEA), was seen as particularly significant because the focus of 30 years of Federal transportation investment, the Interstate Highway System, was nearing completion. The legislation provided the opportunity to rethink transportation priorities and philosophies. This act was reauthorized in 1997 as the Transportation Equity Act (TEA-21) and again in 2005 as the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). It is planned for reauthorization once again under a new name.

SAFETEA-LU funding is currently managed through state and regional agencies, in this case the San Diego Association of Governments (SANDAG). Most, but not all, of the funding programs are oriented toward transportation versus recreation, with the emphasis on reducing auto trips and providing intermodal connections. Funding criteria include completion and adoption of a bicycle master plan, quantification of the costs and benefits of the system (including saved vehicle trips, reduced air pollution), proof of public involvement and support, National Environmental Protection Act (NEPA) compliance and the commitment of local resources. In most cases, SAFETEA-LU provides matching grants of 80 to 90 percent. The amount of money available through SAFETEA-LU is substantial, but there is always strong competition to obtain those funds.

Federal funding through the SAFETEA-LU program provides the bulk of outside funding. SAFETEA-LU is comprised of two major programs, Surface Transportation Program (STP) and Congestion Management and Air Quality Improvement (CMAQ), along with other programs such as the National Recreational Trails Fund, Section 402 (Safety) funds, Scenic Byways funds and Federal Lands Highways funds, though municipalities are unlikely to be eligible for funding from all of these sources. Among the new concepts in the original legislation were intermodalism, transportation efficiency, funding flexibility and planning, all of which had direct benefits for cycling. The legislation also created a wide range of funding opportunities for bicycle-related activities, including the following that may represent opportunities for the City of Chula Vista:

## **B. Surface Transportation Program (STP)**

Section 1007 (a)(1)(b)(3) allows states to spend their allocation of Surface Transportation Program (STP) funds on a range of activities similar to those of the National Highway System. Bicycle facilities are specifically listed as eligible items. STP funds can also be used for “*non-construction bicycle projects related to safe bicycle use.*” Section 1007 (b)(2)(C)(c) created a new category of transportation enhancement activities (TEA) on which states were required to spend at least 10 percent of their Surface Transportation Program funds. TEAs are very broadly defined as:

*“...with respect to any project or the area to be served by the project, provision of facilities for pedestrians and cyclists, acquisition of scenic easements and scenic or historic sites, scenic or historic highway programs, landscaping and other scenic beautification, historic preservation, rehabilitation and operation of historic transportation buildings, structures or facilities including historic railroad facilities and canals, preservation of abandoned railway corridors (including the conversion and use thereof for pedestrian and bicycle trails), control and removal of outdoor advertising, archaeological planning and research and mitigation of water pollution due to highway runoff.”*

Surface Transportation Program funds are allocated to Caltrans and 75 percent of STP funds are programmed by regional agencies such as the SANDAG under current state law. The Federal government does not allocate funds to specific projects. Therefore, for a bicycle project to be funded, it must appear on the list of potential projects under consideration at the state, regional, or city level, whichever is appropriate.

## **C. Transportation Enhancements Activities**

Transportation Enhancement (TE) activities offer funding opportunities to help expand transportation choices and enhance the transportation experience through 12 eligible TE activities related to surface transportation, including pedestrian and bicycle infrastructure and safety programs, scenic and historic highway programs, landscaping and scenic beautification, historic preservation and environmental mitigation. TE projects must relate to surface transportation and must qualify under one or more of the 12 eligible categories.

### **Eligible Activities**

- Provision of pedestrian and bicycle facilities
- Provision of pedestrian and bicycle safety and education activities
- Acquisition of scenic or historic easements and sites
- Scenic or historic highway programs including tourist and welcome centers
- Landscaping and scenic beautification
- Historic preservation
- Rehabilitation and operation of historic transportation buildings, structures, or facilities
- Conversion of abandoned railway corridors to trails

- Control and removal of outdoor advertising
- Archaeological planning and research
- Environmental mitigation of highway runoff pollution, reduce vehicle-caused wildlife mortality, maintain habitat connectivity
- Establishment of transportation museums

#### **D. Safe Routes to School Programs**

There are two separate Safe Routes to School Programs administered by Caltrans. There is the state-legislated program referred to as SR2S and there is the Federal Program referred to as SRTS. Both programs are intended to achieve the same basic goal of increasing the number of children walking and bicycling to school by making it safer for them to do so. The differences between the two programs are as follows:

#### **Legislative Authority**

SR2S - Streets & Highways Code Section 2330-2334

SRTS - Section 1404 in SAFETEA-LU

#### **Expires**

SR2S - AB 57 extended program indefinitely

SRTS - Pending SAFETEA-LU reauthorization. Extensions have been granted through December 31, 2010

#### **Eligible Applicants**

SR2S - Cities and counties

SRTS - State, local and regional agencies experienced in meeting Federal transportation requirements. Non-profit organizations, school districts, public health departments and Native American Tribes must partner with a city, county, MPO, or RTPA to serve as the responsible agency for their project.

#### **Eligible Projects**

SR2S - Infrastructure projects, public outreach/education/enforcement

SRTS - Stand-alone infrastructure or non-infrastructure projects

#### **Local Match**

SR2S - 10 percent minimum required

SRTS - None

#### **Project Completion Deadline**

SR2S - Within 4 ½ years after project funds are allocated to the agency

SRTS - Within 4 ½ years after project is amended into FTIP

#### **Restriction on Infrastructure Projects**

SR2S - Must be located in the vicinity of a school

SRTS - Infrastructure projects must be within two miles of a grade school or middle school

### **Targeted Beneficiaries**

SR2S - Children in grades K-12

SRTS - Children in grades K-8

### **Funding**

SR2S - \$24.25M annual funding

SRTS - \$23M annual funding

The Safe Routes to School Program funds non-motorized facilities in conjunction with improving access to schools through the Caltrans Safe Routes to School Coordinator. For more information visit: <http://www.dot.ca.gov/hq/LocalPrograms/saferoutes/saferoutes.htm>

### **E. Local Planning Requirements**

Section 1024 (a) requires each metropolitan area (with a population greater than 200,000) to develop an annual or biannual Transportation Improvement Program (TIP) that *“shall provide for the development of transportation facilities (including pedestrian walkways and bicycle transportation facilities) which will function as an intermodal transportation system.”*

These TIPs must be based on available funding for projects in the program and they must be coordinated with transportation control measures to be implemented in accordance with Clean Air Act provisions. Final project selection rests with the California Transportation Commission (CTC), with technical input from Caltrans.

### **F. State Planning Requirements**

Two sections of SAFETEA-LU explicitly require the state to develop a TIP to *“consider strategies for incorporating bicycle transportation facilities and pedestrian walkways in projects, throughout the State,”* (Section 1025 (c) (3)), and to *“develop a long range plan for bicycle transportation facilities and pedestrian walkways for appropriate areas of the State, which shall be incorporated into the long range transportation plan,”* (Section 1025 (e)). These provisions are important on a municipal level because they are crucial for getting incidental bicycle projects funded. The intent behind these sections is to ensure that if bicycle facilities are identified in a TIP or long range plan as being necessary in a corridor and construction or reconstruction work in those corridors is planned, then the relevant bicycle improvements called for in the planning must be included and implemented. Opportunities for incorporating bicycle projects are not limited to large transportation projects and not even to actual construction projects. Independent bicycle and pedestrian projects, such as trails away from highway corridors and non construction projects, such as mapping, also need to be incorporated into state and city planning documents if they are to be funded.

Section 1033 states that the Federal share under SAFETEA-LU of bicycle transportation facilities is to be 80 percent. The remaining 20 percent of the funds must be matched by the state or local government agency imple-

menting the project. The section also states that, to be funded, a bicycle transportation facility must be principally for transportation rather than recreation purposes. This has been defined by the FHWA to mean:

*“Where Federal aid highway funds are used, these projects should serve a transportation function. A circular recreation path, for example, would not be eligible. However, any type of facility which does serve a valid transportation need while also fulfilling recreation purposes would be eligible.” The section goes on to describe a bicycle transportation facility as: “new or improved lanes, paths or shoulders for the use of cyclists, traffic control devices, shelters and parking facilities for cyclists.”*

### **G. Congestion Mitigation and Air Quality Program (CMAQ)**

Section 1008 is referred to as the Congestion Mitigation and Air Quality Program (CMAQ). This part of the legislation is intended to fund programs and projects likely to contribute to the attainment of national ambient air quality standards under the 1990 Clean Air Act Amendments. Five areas of eligibility have been defined: Transportation activities in an approved State Implementation Plan (SIP) developed under the Clean Air Act Transportation Control Measures listed in Section 108 (b)(1)(A) of the Clean Air Act, which include:

- (ix) Programs to limit portions of roadway surfaces or certain sections of the metropolitan area to the use of non-motorized vehicles or pedestrian use, both as to time and place;
- (x) Programs for secure bicycle storage facilities and other facilities, including bicycle lanes, for the convenience and protection of cyclists in both public and private areas; and
- (xv) Programs for new construction and major reconstruction of paths, tracks, or areas solely for the use by pedestrians or other non-motorized means of transportation, when economically feasible and in the public interest.

*“Construction of bicycle and pedestrian facilities, non construction projects related to safe bicycle use and state bicycle/pedestrian coordinator positions as established in the TEA-21, for promoting and facilitating the increased use of non-motorized modes of transportation. This includes public education, promotional and safety programs for using such facilities.”*

To be funded under this program, projects and programs must come from a transportation plan (or State (STIP) or Regional (RTIP) Transportation Improvement Program) that conforms to the SIP and must be consistent with the conformity provisions of Section 176 of the Clean Air Act.

### **H. Section 402 (Safety) Funds**

Section 402 funds address state and community highway safety grant programs. Priority status of safety programs for cyclists expedites the approval process for these safety efforts.

### **I. Symms National Recreational Trails Act**

The Symms National Recreational Trails Act created a trust fund for the construction and maintenance of trails. At least 30 percent of the funds must be spent on trails for non-motorized users and at least 30 percent for trails for motorized users. The remainder is to be allocated to projects as determined by the State Recreational Trails Advisory Board of the California Department of Parks and Recreation, which the state must have to be eligible for the funds.

### **J. Federal Transit Act**

Section 25 of the 1964 Urban Mass Transportation Act states that:

*“For the purposes of this Act a project to provide access for bicycles to mass transportation facilities, to provide shelters and parking facilities for bicycles in and around mass transportation facilities, or to install racks or other equipment for transporting bicycles on mass transportation vehicles shall be deemed to be a construction project eligible for assistance under sections 3, 9 and 18 of this Act.”*

The Federal share for such projects is 90 percent and the remaining 10 percent must come from sources other than Federal funds or fare box revenues. Typical funded projects have included bike lockers at transit stations and bike parking near major bus stops. To date, no projects to provide bikeways for quicker, safer or easier access to transit stations have been requested or funded.

### **K. Department of the Interior - Land and Water Conservation Fund (LWCF)**

The U.S. Recreation and Heritage Conservation Service and the State Department of Parks and Recreation administer this funding source. Any project for which LWCF funds are desired must meet two specific criteria. The first is that projects acquired or developed under the program must be primarily for recreational use and not transportation purposes and the second is that the lead agency must guarantee to maintain the facility in perpetuity for public recreation. The application will be considered using criteria such as priority status within the State Comprehensive Outdoor Recreation Plan (SCORP). The State Department of Parks and Recreation will select which projects to submit to the National Park Service (NPS) for approval. Final approval is based on the amount of funds available that year, which is determined by a population based formula. Trails are the most commonly approved project.

## **L. National Recreational Trail Fund**

This funding source is intended to pay for a variety of recreational trails programs to benefit cyclists, pedestrians and other non-motorized users. Projects must be consistent with the State Comprehensive Outdoor Recreation Plan required by the Land and Water Conservation Act.

## **M. American Recovery and Reinvestment Act 2009**

The \$789 billion economic stimulus package provided \$27.5 billion to modernize roads and bridges and includes a three percent set aside of each state's share of the \$27.5 billion for the Transportation Enhancements Program. At least half of the funds must be obligated by states within 120 days, or the U.S. Secretary of Transportation can recall up to 50 percent of the unobligated funds.

Also included is \$8.4 billion to increase public transportation and improve transit facilities; \$8 billion for investment in high speed rail and \$1.5 billion for a discretionary surface transportation grant program to be awarded competitively by the Secretary of Transportation.

The Federal Highway Administration (FHWA) and Federal Transit Administration have issued guidance to assist state and local agencies in preparing for implementation of the stimulus bill. The guidance includes Q&As and actions that can be taken to expedite economic recovery projects.

## **N. Other Bicycle Pedestrian Infrastructure Funding Options**

Additionally, states are receiving \$53.6 billion in state fiscal stabilization funding. States must use 18.2 percent of their funding – or \$9.7 billion – for public safety and government services. An eligible activity under this section is to provide funding to K-12 schools and institutions of higher education to make repairs, modernize and make renovations to meet green building standards. The Leadership in Energy and Environmental Design (LEED) Green Building Rating System, developed by the U.S. Green Building Council (USGBC), addresses green standards for schools that include bicycle and pedestrian facilities and access to schools.

Another \$5 billion is provided for the Energy Efficiency and Block Grant Program. This provides formula funding to cities, counties and states to undertake a range of energy efficiency activities. One eligible use of funding is for bicycle and pedestrian infrastructure.

### 5.3.2 State Sources

#### A. Streets and Highways Code – Bicycle Transportation Account (BTA)

The Bicycle Transportation Account (BTA) funds non-motorized facilities and access to cities and counties that have adopted bikeway master plans. Section 2106 (b) of the Streets and Highways Code transfers funds annually to the BTA from the revenue derived from the excise tax on motor vehicle fuel. The Caltrans Office of Bicycle Facilities administers the BTA. It is locally administered through SANDAG to counties and cities. Approximately \$8.2 million is available annually to projects in San Diego County. For a project to be funded from the BTA, the project shall:

- i) Be approximately parallel to a state, county, or city roadways, where the separation of bicycle traffic from motor vehicle traffic will increase the traffic capacity of the roadway; and
- ii) Serve the functional needs of commuting cyclists; and
- iii) Include but not be limited to:
  - New bikeways serving major transportation corridors
  - New bikeways removing travel barriers to potential bicycle commuters;
  - Secure bicycle parking at employment centers, park and ride lots and transit terminals
  - Bicycle carrying facilities on public transit vehicles
  - Installation of traffic control devices to improve the safety and efficiency of bicycle travel
  - Elimination of hazardous conditions on existing bikeways serving a utility purpose
  - Planning
  - Safety and education

Maintenance is specifically excluded from funding and allocation takes into consideration the relative cost-effectiveness of the proposed project.

#### B. State Highway Account

Section 157.4 of the Streets and Highways Code requires Caltrans to set aside \$360,000 for the construction of non-motorized facilities that will be used in conjunction with the state highway system. The Office of Bicycle Facilities also administers the State Highway Account fund. Funding is divided into different project categories. Minor B projects (less than \$42,000) are funded by a lump sum allocation by the California Transportation Commission (CTC) and are used at the discretion of each Caltrans District office. Minor A projects (estimated to cost between \$42,000 and \$300,000) must be approved by the CTC. Major projects (more than \$300,000) must be included in the State Transportation Improvement Program and approved by the CTC. Funded projects have included fencing and bicycle warning signs related to rail corridors.

### **C. Transportation Development Act Article III (Senate Bill 821)**

TDA funds are based on a quarter percent state sales tax, with revenues made available primarily for transit operating and capital purposes. By law, the San Diego County Auditor's office estimates the apportionment for the upcoming fiscal year. SANDAG prepares forecasts of TDA funds using the apportionment as the base level. The forecasts are based on a forecast of sales tax revenues estimated for the San Diego County using SANDAG's Demographic and Economic Forecasting Model (DEFM), an econometric forecasting model which takes into consideration numerous variables, including population growth, inflation and real income growth. Certain TDA funds are included in the local revenue sources and in the operating costs.

### **D. Traffic Congestion Relief Program (TCRP)**

In FY 2001, the Governor of California initiated a new funding program (TCRP) in an effort to relieve congestion statewide. The TCRP was created as a result of a budget surplus. However, with the continuing budget deficit, TCRP allocations haven been sporadic. TCRP funds are based on the priority list of TCRP allocations.

### **E. Governor's Energy Office (Oil Overcharge Funds)**

The Federal government forced oil companies to repay the excess profits many of them made when they violated price regulations enacted in response to the energy crisis of the early 1970s. Few states have taken advantage of this fund, but some have received grants for bike coordinators and bicycle facilities. The types of projects eligible for funding vary by state, as does the level of allocation available.

## **5.3.3 Local Sources**

### **A. TransNet Sales Tax Funds**

San Diego County voters passed a local tax ordinance authorizing the creation of the TransNet Sales Tax, imposing a 1/2 cent "transaction and use tax" solely to fund transportation improvements. About one million dollars are allocated annually for improved bicycle routes throughout the region. The ordinance describes bicycle facilities and requirements for facilities as:

*"All purposes necessary and convenient to the design, right-of-way acquisition and construction of facilities intended for the use of bicycles. Bicycle facilities shall also mean facilities and programs that help to encourage the use of bicycles, such as secure bicycle parking facilities, bicycle promotion programs and bicycle safety education programs."*

*"All new highway projects funded with revenues as provided in this measure, which are also identified as bikeway facilities in the Regional Transportation Plan (RTP), shall be required to include provision for bicycle use."*

In November 2004, 67 percent of voters approved a 40 year extension of TransNet, which will generate an additional \$14 billion for public transit, highway, and local street and road improvements. SANDAG leverages these funds with state and Federal resources to improve the region's transportation infrastructure and tackle growing traffic congestion head-on.

### **B. Local Privatization/Toll Revenues**

The 2006 RTIP includes a local privatization/toll revenue funding from the SR-125 private toll road project from SR-905 to SR-54 (authorized by AB 680). The project and the privatization funding programmed are based upon the most recent information provided by California Transportation Ventures (CTV) and Caltrans.

### **C. Proposition A**

This is a funding source administered by SANDAG with an annual availability of approximately \$1 million per year.

### **D. Assembly Bill 2766/434**

This bill funds air pollution reduction projects related to alternate modes of transportation. The Air Pollution Control Board (APCB) administers this fund and approximately \$3 million is available annually.

### **E. RideLink**

This program is operated by SANDAG and covers a variety of transportation management activities including projects such as bicycle lockers and security devices. These will be provided, installed and maintained for public agencies at no cost to the requesting agency. RideLink also offers a bicycle locker loan program to private sector entities.

### **F. Developer Impact Fees**

As a condition for development approval, municipalities can require developers to provide certain infrastructure improvements, which can include bikeway projects. These projects have commonly provided Class 2 facilities for portions of on-street, previously planned routes. They can also be used to provide bicycle parking or shower and locker facilities. The type of facility that should be required to be built by developers should reflect the greatest need for the particular project and its local area. Legal challenges to these types of fees have resulted in the requirement to illustrate a clear nexus between the particular project and the mandated improvement and cost.

### **G. New Construction**

Future road widening and construction projects are one means of providing on-street bicycle facilities. To ensure that roadway construction projects provide bike lanes where needed, it is important that the review process includes input pertaining to consistency with the proposed system. Future development in the City of Chula Vista will contribute only if the projects are conditioned.

## H. Restoration

Cable TV and telephone companies sometimes need new cable routes within public rights of way. This has most commonly occurred during expansion of fiber optic networks. Since these projects require a significant amount of advance planning and disruption of curb lanes, it may be possible to request reimbursement for affected bicycle facilities to mitigate construction impacts. In cases where cable routes cross undeveloped areas, it may be possible to provide for new bikeway facilities following completion of the cable trenching, such as shared use of maintenance roads.

## I. Other Sources

Local sales taxes, fees and permits may be implemented as new funding sources for bicycle projects. However, any of these potential sources would require a local election. Volunteer programs may be developed to substantially reduce the cost of implementing some routes, particularly multi-use paths. For example, a local college design class may use such a multi-use route as a student project, working with a local landscape architectural or engineering firm. Work parties could be formed to help clear the right-of-way for the route. A local construction company or service organization may donate or discount services beyond what the volunteers can do. A challenge grant program with local businesses may be a good source of local funding, through which businesses can “adopt” a route or segment of one to help construct and maintain it.

### 5.3.4 Most Likely Sources

According to City of Chula Vista sources, the most likely local sources of bikeway funding are the following:

- 1) TDA/CIP (Transportation Development Act, Capital Improvement Projects)
- 2) BTA (Bicycle Transportation Account)
- 3) TransNet
- 4) Developer Impact Fees
- 5) Toll Revenues
- 6) APCB (Air Pollution Control Board)
- 7) City General Fund

### 5.3.5 Private Sources

Private funding sources may be acquired by applying through advocacy groups such as the League of American Bicyclists and the Bikes Belong Coalition, as well as through public health foundations. Most of the private funding from foundations is intended to enhance and improve bicycle facilities and advocacy or improve general public health by providing active transportation links. Grant applications will typically be through the advocacy groups as they leverage funding from Federal, state and private sources.

Table 15: Federal Funding Sources

Federal Sources					
Grant Source	Annual Total	Agency	Funding Cycle	Match Required	Remarks
Land and Water Conservation Act of 1965		California Department of Parks and Recreation	December	50%	Funding subject to North-south split. Funds for outdoor recreation projects
SAFETEA-LU - Surface Transportation Program (STP)	\$639 million in 2009*	FHWA / Caltrans / SANDAG	June 1	20%	STP funds may be exchanged for local funds for non-federally certified local agencies. No match required if project improves safety
SAFETEA-LU - Transportation Enhancement Activities (TEA)	\$80 million in 2010*	FHWA / Caltrans / SANDAG	STIP cycle	20%	Contact State TE Coordinator
SAFETEA-LU - Bridge Replacement and Rehabilitation Program (BRP)	\$386 million in 2009*	FHWA / Caltrans	Jan/list of projects	20%	Contact Caltrans Division of Structures, Office of Local Programs, Program Manager
SAFETEA-LU - National Highway System	\$587 million in 2009*	FHWA / Caltrans		20%	Bike projects must provide a high degree of safety
SAFETEA-LU - Scenic Byways Program	\$740,000 in 2009	FHWA / Caltrans		20%	Should apply first for TEA funds until TEA runs out
SAFETEA-LU - Public Lands Highway	Varies - averages \$7 million/yr. state-wide	FHWA / Caltrans	June 7	20%	For roads and bikeways leading to and serving National Forests
SAFETEA-LU - Safe Routes to School (SRTS)	\$23 million in 2009*	FHWA / Caltrans		20%	For pedestrian facilities and bikeways leading to schools. Five E's must be incorporated
SAFETEA-LU - Highway Safety Improvement Program	\$98 million in 2009*	FHWA / Caltrans		20%	Bike projects must provide a high degree of safety
Forest Highway Program	\$19 million in 2009*	FHWA / Caltrans	Oct. 30	20%	For roads and bikeways leading to and serving National Forests

Source: Summary of FY 2009 Apportionments for RTA-000-1664A, \*California Only

Table 15: Federal Funding Sources (Continued)

Federal Sources					
Grant Source	Annual Total	Agency	Funding Cycle	Match Required	Remarks
<b>Congestion Mitigation and Air Quality Improvement Plan (CMAQ)</b>	\$370 million in 2009*	FHWA / Caltrans	Annually to Multi-Year. Depends on MPO	20%	The amount of CMAQ Funds depends on the state's population share and on the degree of air pollution
<b>Regional Trails Program (RTP)</b>	\$5 million in 2010*	California Department of Parks and Recreation	October	20%	Funds are for both motorized and non-motorized categories
<b>Rivers, Trails and Conservation Assistance Program (RTCA)</b>		National Park Service	August		Expenditures include bikeway plans, corridor studies and trails assistance
<b>Energy Efficiency and Block Grant Program</b>	\$3 million	FHWA			Provided formula funding for cities, counties and states to take part in energy efficient activities
<b>Transportation Enhancement Program</b>	\$74 million in 2009	FHWA	Every 2 years, proposals due in 2011	STIP 11.47%, local 25%	At least half of the funds must be obligated by states within 120 days, or the U.S. Secretary of Transportation can recall up to 50 percent of the unobligated funds.
<b>Community Development Block Grants (CDBG)</b>		Council Districts	Annual Budget		Available for low-income neighborhoods to improve land use and transportation infrastructure. Can be used for accessibility improvements citywide.
<b>FDA Nutrition Network Mini Grants</b>		San Diego Nutrition Network	6 years or longer		Federal block grant program for projects in Clean Air Act non-attainment areas that will help attain the national ambient air quality standards stated in the 1990 Clean Air Act amendments.
<b>Land and Water Conservation Fund (LWCF)</b>	\$3 million in 2009	California Department of Parks and Recreation	Annual (May)	50%	LWCF grants may be used for statewide outdoor recreational planning and for acquiring and developing recreational parks and facilities, especially in urban areas.
<b>Active Community Transportation Act of 2010</b>	\$2 billion over 5 years. Set aside from STP.	FHWA / Caltrans	Annually	50%	H.R. 4722 would enable communities to compete for targeted funds to complete active transportation networks to enable Americans to walk or bike safely and conveniently. Not yet passed as of 2010.

Table 16: State Funding Sources

State Sources					
Grant Source	Annual Total	Agency	Funding Cycle	Match Required	Remarks
State Highway Account (SHA): Bicycle Transportation Account (BTA)	\$7,200,000/yr. state-wide	Caltrans	Consult Local Assistance Office	10%	Available for planning grants
Transportation Development Act (TDA) Section 99234			Annually	None	2% of TDA total
AB 2766 Vehicle Registration Funds		Caltrans			Competitive program for projects that benefit air quality
Vehicle Registration Surcharge Fee (AB 434) RCF		APCB	July	None	Competitive program for projects that benefit air quality
Vehicle Registration Surcharge Fee (AB 434) PMF	40% from grant source	APCB	April	None	Funds distributed to county communities based on population
Developer Fees or Exactions	Project-specific	Cities	Ongoing	None	Mitigation required during land use approval process
Caltrans Minor Capital Program	Varies (Est. \$4 million/yr. for District 11)	Caltrans	Ongoing after July 1	None	Projects must be on state highways; such as upgraded bike facilities
Environmental Enhancement and Mitigation Program (EEM)	\$10 million/yr. state-wide	State Resources Agency	October annually	None required, but favored	Projects that enhance or mitigate existing or future transportation projects
Petroleum Violation Escrow Account (PVEA)	Varies	Caltrans, CA Community Services and Development, Air Resources Board	March	None	Projects must save energy, provide restitution to the public and be approved by CA Energy Commission and US DOE
Community Based Transportation Planning Demonstration Grant Program	\$3 million annually	Caltrans	November	20%	Projects must have a transportation component or objective

Table 16: State Funding Sources (Continued)

State Sources					
Grant Source	Annual Total	Agency	Funding Cycle	Match Required	Remarks
Habitat Conservation Fund Grant Program (HCF)	\$2 million	CA Dept of Park and Recreation	October	50%	Will only be available until July 1, 2020
Office of Traffic Safety Program (OTS)	Varies	Office of Traffic Safety	January	None	Program objective is to reduce motor vehicle fatalities and injuries through a national highway safety program. Program to include: education, enforcement and engineering
Safe Routes to School Program (SR2S)	\$24 million in 2009*	Caltrans	April	10%	Eligible for projects in the vicinity of a school and grades K-12
State Transportation Improvement Program (STIP)	Varies	Regional Transportation Planning Agency	Every 4 years	None	Gives metropolitan regions more control over how state transportation funds are invested
California Conservation Corps (CCC)		California Conservation Corps			The CCC provides emergency assistance & public service conservation work. In San Diego County, the CCC has installed bike lockers for Caltrans.
Environmental Justice (EJ) Planning Grants	\$9 million in 2010	Caltrans	Annually	10%	EJ planning grants help engage low-income and minority communities in transportation projects early in the planning process to ensure equity and positive social, economic and environmental impacts occur.

\* California Only

Table 17: Local Funding Sources

Local Sources					
Grant Source	Annual Total	Agency	Funding Cycle	Match Required	Remarks
<b>Smart Growth Incentive Program</b>	\$7.2 million /yr. state-wide	SANDAG	6 year or longer	None	Regional funds dedicated to Smart Growth projects, which include pedestrian facilities.
<b>Transportation Development Act (TDA)</b>	\$105 million in 2010 in the San Diego region	SANDAG	Annual (March)	None	TDA funds originate from a statewide sales tax of one quarter cent for transportation projects, which includes two percent for pedestrian and bicycle facilities.
<b>Transportation Sales Tax (TRANSNET) Regional Share</b>	\$4.8 million in 2009	SANDAG	Biennial started in '08	None	In 2004, voters approved Prop. A, a 40 year extension of TransNet. The proposition will generate \$14 billion for transportation projects. Several new programs will fund pedestrian facilities, smart growth development & neighborhood traffic safety projects.
<b>Parking Meter Districts</b>		City	Annual Budget	N/A	Parking Meter Districts can use parking meter revenues for streetscape improvements such as pedestrian facilities, landscaping and lighting.
<b>Redevelopment Tax Increment Financing (TIF)</b>		City	Annual Budget	None	TIFs apply to redevelopment areas where bonds are issued based on expected increased tax revenues. Used for improved infrastructure, including pedestrian facilities.
<b>Transient Occupancy Tax (TOT)</b>		City	Annual Budget	None	Addresses improvements related to tourism. May be appropriate in areas where tourism exists such as along the waterfront, major parks and historic neighborhoods.



Table 18: Private Funding Sources

Private Sources					
Grant Source	Annual Total	Agency	Funding Cycle	Match Required	Remarks
<b>SRAM Cycling Fund</b>	\$400,000+/yr	SRAM	Ongoing	None	www.sramcyclingfund.org
<b>Surdna Foundation</b>	Project-specific	Surdna Foundation	Ongoing	None	The Surdna Foundation makes grants to nonprofit organizations in the areas of environment, community revitalization, effective citizenry, the arts, and the nonprofit sector.
<b>1 World 2 Wheels</b>	\$1.6 million in the next 3 years	Trek Bicycles	Ongoing	None	Supports LAB's Bicycle Friendly Community Program and IMBA trails
<b>Bikes Belong</b>	\$1.6 million annually	Bikes Belong Coalition	Ongoing	None	Leverages Federal, state and private funding for bicycle projects
<b>Kaiser Permanente Community Health Initiatives</b>	\$54 million annually	Kaiser Permanente	Ongoing	None	Numerous programs to help with Healthy Initiatives
<b>Health Foundations</b>		Various foundations	Ongoing		Focus on pedestrian improvements for obesity prevention. Examples include California Wellness Foundation, Kaiser and California Endowment.
<b>Rails to Trails Conservancy</b>		Rails to Trails Conservancy			Provides technical assistance for converting abandoned rail corridors to use as multi-use trails.
<b>Donations</b>		Depends on nature of project	Ongoing		Corporate or individual donations, sponsorships, merchandising or special events.
<b>In-kind Services</b>		Depends on nature of project	Ongoing		Donated labor and materials for facility construction or maintenance such as tree planting programs or trail construction.

Table 19: Summary of Eligible Projects

<b>Bicycle and Pedestrian Funding Opportunities</b>	Transportation Enhancements	Congestion Mitigation and Air Quality Improvement	Surface Transportation Program	Federal Safe Routes to Schools	Recreational Trails Program	Highway Safety Improvement Program	State and Community Highway Safety Grant Program (Section 402)	National Highway System	Scenic Byways	Federal Lands Highway Program	Highway Bridge Program	Caltrans BTA	TransNet	SANDAG	California Safe Routes to School	
	Bicycle and pedestrian plans		•	•											•	•
	Bicycle lanes on roadways	•	•	•	•		•		•	•	•	•	•			•
	Paved shoulders	•	•	•	•		•		•	•	•	•	•			•
	Signed bike routes	•	•	•	•				•	•	•	•	•			•
	Shared use paths/trails	•	•	•	•	•			•	•	•	•	•			•
	Single track hike/bike trails					•										
	Spot improvement programs	•	•	•	•		•									
	Maps		•	•	•			•					•		•	•
	Bike racks on buses	•	•	•	•									•	•	•
	Bicycle parking facilities	•	•	•	•				•				•	•		•
	Trail/highway intersections	•	•	•	•	•			•	•			•	•		•
	Bicycle storage/service centers	•	•	•	•										•	•
New or retrofit sidewalks	•	•	•	•				•	•	•	•		•		•	
New or retrofit crosswalks	•	•	•	•				•	•	•			•		•	
Signal improvements	•	•	•	•				•				•	•		•	
Curb cuts and ramps	•	•	•	•				•					•		•	
Traffic calming			•	•								•	•		•	
Coordinator positions		•	•	•											•	
Safety/education positions		•	•	•			•								•	
Police patrols			•	•			•								•	
Helmet promotions	•		•	•			•					•		•	•	
Safety brochures/books	•	•	•	•	•	•	•					•		•	•	
Training	•	•	•	•	•	•	•							•	•	