



DISTRICTS 1 AND 2 BIKEWAYS STRATEGY

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I Executive Summary

This report summarizes the results of a collaborative effort focused on the identification of potential regional bikeways within Orange County's Supervisorial Districts 1 and 2.

The Orange County Transportation Authority (OCTA) develops the Commuter Bikeways Strategic Plan (CBSP) every five years which outlines OCTA's roles in bikeways planning. These include:

- Suggesting regional priorities for optimal use by local jurisdictions
- Assisting in coordinating plans between jurisdictions
- Providing planning and design guidelines; and
- Participating in outreach efforts to encourage bicycle commuting

The Regional Bikeways Planning effort led by OCTA plans to expand upon the 2009 OCTA CBSP to identify potential regional bikeway improvements. While this planning process has been initiated and coordinated by OCTA, local jurisdictions will bring projects from concept to construction.

Regional Bikeways Planning is a countywide process involving OCTA, local jurisdictions, and public stakeholders. This process began in 2011 with a pilot effort for Supervisorial District 4 in northern Orange County. Following the success of that effort, OCTA will continue to conduct similar efforts throughout the County and is currently focusing on Supervisorial Districts 1 & 2.

Phase 1 of the effort is this bikeways strategy (Strategy). The Strategy identifies regional bikeway corridors that connect to major activity centers including employment areas, transit stations, colleges and universities. The regional bikeway corridors have been identified based on consensus-building and facilitation efforts. In Phase 2, feasibility studies will be developed to provide design recommendations to the local jurisdictions.

The Strategy aims to enhance community interaction and provide increased travel choices for a variety of residents within northwestern Orange County. The integrated planning effort establishes routes for focused attention to improve bikeways for cyclists of all skill levels, coordinate cross-jurisdictional efforts, and serve major destinations and employment centers. The coordinated efforts by OCTA and member agencies can

result in improved bicyclist safety, reduced automobile trips, reduced fuel consumption and air emissions, and improved community health outcomes.

Several of these goals are interrelated, such as the desire to increase the bicycling mode share in Orange County and improve user safety. Aside from the clear health benefits of more physical activity, studies have shown that more bicycling is correlated with improved safety (the "safety in numbers" effect):

- Cycling fatalities fell by 21% in the U.S. from 1998 to 2008 (Pucher, J., et al., 2011) even while bicycling activity is rising: the American Community Survey shows that bicycling to work has increased in all but four states between 2005 and 2009 (Alliance for Biking and Walking, 2012)
- Cities with high bicycling rates tend to have lower crash rates for all road users. (Marshall, W., and Garrick, N., 2011)
- A study of walking and bicycling in California cities found that the risk of injury to pedestrians and cyclists decreases as walking or bicycling rates increase. (Jacobsen, P.L., 2013)

Therefore, providing for more bicycling activity is likely to be an effective means to improve cyclist safety.

I.1 Facilitation Efforts

Preparation of this report was a collaborative effort, with facilitation by OCTA of input from public stakeholders, agency staff, and elected officials. Preparation of the Strategy included:

- A project development team (PDT) was convened with planning and engineering representatives from each member agency within Districts 1 and 2, as well as OCTA, OCCOG, and project consultant team staff. The PDT met on multiple occasions to discuss project goals and objectives, opportunities and constraints, preliminary corridor alignments, and draft ranking criteria.
- Focus group meetings were convened with smaller working groups of PDT representatives. During the focus meetings, large format boards were printed for brainstorming potential bikeways corridors. The printed materials included identification of utility corridors, water and rail corridors, the transportation network, existing and proposed bikeways, major

destinations, and other key features for consideration and collaborative brainstorming.

- A workshop provided the opportunity for roundtable discussions on the potential corridors and their ranking. Attendees included public stakeholders from the bicycle advocacy, health, safety, and social justice sectors, as well as elected officials and community residents. Presentations and large-format boards were provided describing the planning process and project components.
- A second workshop is planned to present and refine this Strategy.
- A project webpage was created at www.octa.net/D1-2bike. The webpage includes a project overview and a map illustrating the existing bikeways network in the project area. The webpage was updated regularly with project materials including meeting materials, meeting dates, and contact information.
- A survey that asked respondents to identify corridors they would be most likely to utilize, their bicycling preferences, and frequency was distributed online, during outreach events, and at the first public workshop. The survey was provided in English and Spanish, and included a graphic showing the preliminary regional corridors. A total of 103 surveys were completed including six using the Spanish language survey.
- Six small-format outreach events were held throughout the project area to reach an audience diverse in geography, as well as skill-level (from the “strong & fearless” to the “interested but concerned”). These included organized events such as the Huntington Beach Bicycle Master Plan meeting, Buena Park City Hall and Police Department Open House, the Santa Ana Health & Fitness Fair, and the Fountain Valley Kiwanis Club meeting, and a standalone booth at Mile Square Park in Fountain Valley and the Newport Beach Back Bay Trail.
- The Districts 1 & 2 Bikeways Collaborative has been promoted and covered by various outlets throughout the process. The winter 2013 edition of OCTA’s Bikeways Newsletter described the December 2012 kickoff to the effort and mentioned the 4th District’s similar planning process. The local nonprofit news source Voice of OC published an article about bicycle safety on May 30, 2013, and credited the current regional bikeways strategy effort for seeking to make

the county’s roadways safer for bicycling. OCTA’s blog and newsletter – “Orange County On the move” – advertised the Bikeways Workshop in its April edition, then provided a recap in the May edition. In addition, the independent “bikeNewportBeach” blog provided a positive summary of the May 16, 2013 Bikeways Workshop.

I.II Regional Corridors

As shown in **Figure ES-1**, a total of eleven (11) regional bikeway corridors are proposed. The corridors include key connections to existing regional bikeway routes (e.g. Santa Ana River & Coyote Creek trails), as well as to major destinations within the districts (e.g. the beach & Santa Ana Regional Transportation Center). In addition, several of the proposed corridors would link with regional bikeway corridors identified in the District 4 Bikeways Strategy.

Each of the proposed regional bikeway corridors were evaluated using a set of criteria that are consistent with OCTA’s 2009 CBSP and the goals of the Districts 1 and 2 Bikeways Collaborative and build off those used for the District 4 Bikeways Collaborative. The criteria below account for a range of opportunities, constraints, and other factors that could influence usage and implementation:

- Trip Demand
- Level of Traffic Stress
- Reported Collisions
- Public Support
- Physical Constraints
- Completes the Corridor
- Completes the Network
- Economic Efficiency

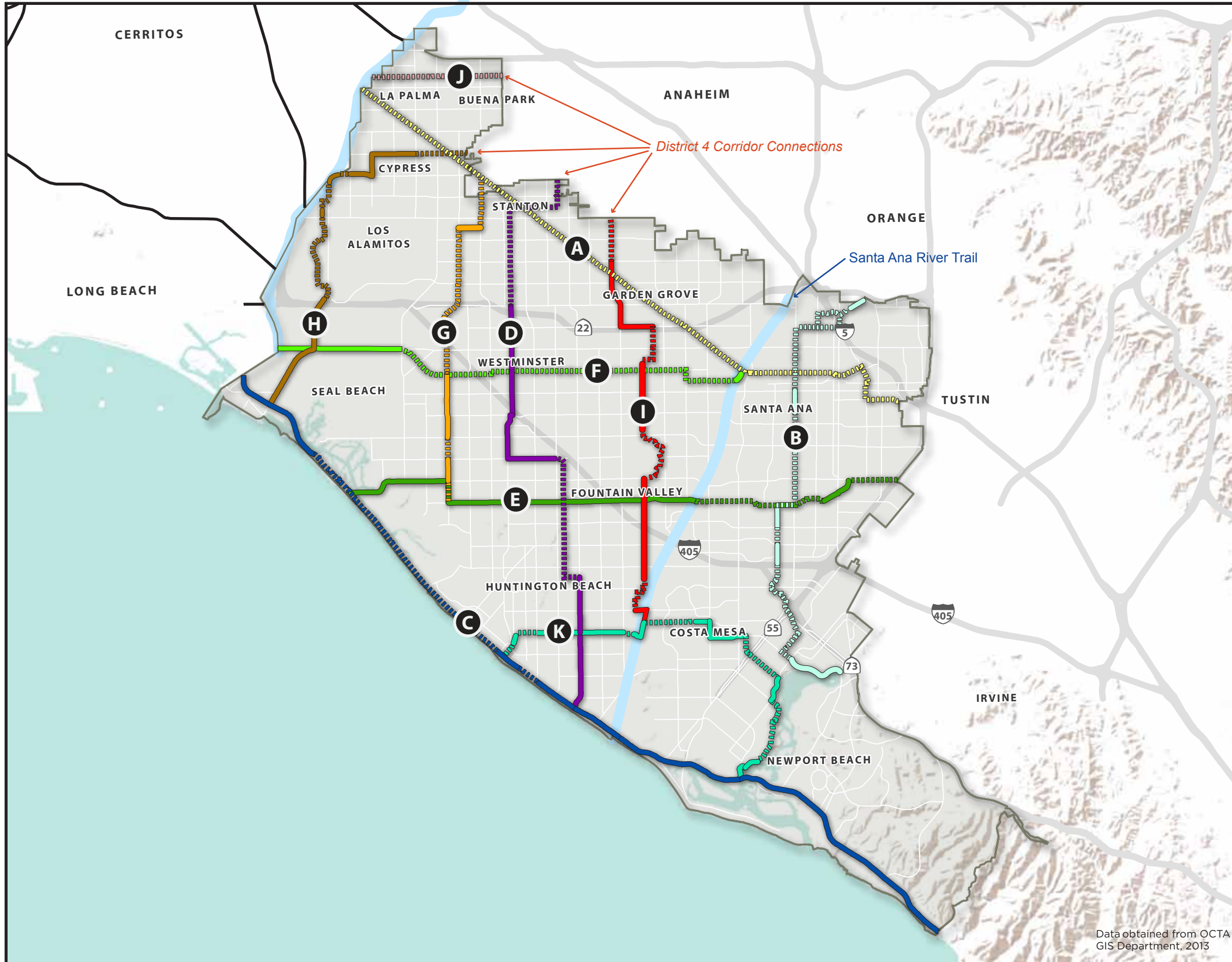
Table ES-1 summarizes the ranking evaluation, with raw and weighted scores shown. The weighted scores account for normalizing between 0 and 100, and weighting of each criterion. As shown in the table, Corridor A received the highest total score at 74 out of 100 points.

The regional corridors were ranked to help guide implementing agencies in prioritizing bikeway improvements.



PROJECT CORRIDOR OVERVIEW

OCTA Districts 1 and 2 Bikeways Collaborative



LEGEND

Existing Facility	Proposed Facility	
		A: Pacific Electric ROW*
		B: Bristol-Bear
		C: Pacific Coast Highway*
		D: Magnolia-Hoover*
		E: Slater-Segerstrom*
		F: Westminster-Hazard
		G: Knott-Springdale
		H: Seal Beach-Orange Avenue
		I: Brookhurst-Ward
		J: Edison Transmission Line
		K: Indianapolis-Fairview
		Project Boundary

Miles (0, 2.5, 5)

*Feasibility studies planned at top ranked corridors

Data obtained from OCTA GIS Department, 2013

Figure ES-1

The evaluation process determined that these corridors would provide the greatest potential benefit to cyclists in terms of regional connectivity, access to key destinations, and improved safety, while also possessing significant public support and limited physical constraints that could hinder implementation. The following top ranked corridors will be further studied for feasibility in the second phase of the Districts 1 & 2 Bikeways Collaborative:

- Corridor A: Pacific Electric Right-of-Way
- Corridor C: Pacific Coast Highway
- Corridor D: Magnolia-Hoover
- Corridor E: Slater-Segerstrom

While feasibility review is not immediately being provided for all the corridors, cities may respectively advance study of corridors where there is interest and desire to continue the efforts of the strategy. The four corridors shown listed above travel through all the project cities (including the unincorporated County of Orange) except

for Costa Mesa and Los Alamitos.

Table ES-2 summarizes the results of the criteria ranking for the eleven proposed corridors within Districts 1 and 2 with length and a range of costs shown.

I.III Action Plan

This section identifies potential near-term projects that can be implemented by each of the cities within Districts 1 and 2 to begin implementation of the proposed corridors. Potential near-term projects are those with low construction costs that can be implemented in relatively short order as funds become available. Each jurisdiction would be responsible for the implementation of their respective projects and strategies for funding these projects. OCTA would assist local jurisdictions through such things as letters of support, grant notifications and guidance, and design solutions.

Each of the corridors has been reviewed at a conceptual level to identify “potential near-term” projects expected to require minimum capital investment, little or

Table ES-1: Corridor Scoring

Criteria	Rank	Score	Economic Efficiency		Trip Demand		Level of Traffic Stress		Public Input		Physical Constraints		Completes the Corridor		Completes the Network		Reported Collisions	
			Raw Score	Weighted Score	RS	WS	RS	WS	RS	WS	RS	WS	RS	WS	RS	WS	RS	WS
Best Possible Score *		Total	Raw Score	Weighted Score	RS	WS	RS	WS	RS	WS	RS	WS	RS	WS	RS	WS	RS	WS
		100	4.3	18	6.0	18	3.8	18	69	9	1	9	37%	9	2.1	9	12.1	9
A PE ROW	1	74	4.3	18	6.0	18	3.7	18	46	6	4	2	100%	3	1.8	8	1.7	1
C PCH	2	69	1.8	8	3.4	10	3.8	18	69	9	1	9	100%	3	1.1	5	9.2	7
D Magnolia-Hoover	3	65	2.2	9	4.0	12	3.2	15	32	4	2	5	44%	8	2.1	9	3.4	3
E Slater-Segerstrom	4	64	2.2	9	3.7	11	3.4	17	30	4	3	3	37%	9	1.6	7	5.0	4
B Bristol-Bear	5	60	1.6	7	4.4	13	3.4	16	62	8	3	3	76%	4	1.4	6	4.0	3
G Knott-Springdale	6	59	1.0	4	3.2	10	3.6	17	12	2	1	9	67%	5	2.0	9	4.0	3
H Seal Beach - Orange Ave	6	57	1.1	5	3.5	11	2.6	13	31	4	1	9	46%	7	1.5	7	1.9	1
I Brookhurst - Ward	8	57	1.1	5	3.4	10	2.9	14	12	2	1	9	42%	8	1.3	6	3.7	3
K Indianapolis - Fairview	9	57	2.5	11	3.4	10	2.1	10	32	4	2	5	50%	7	1.6	7	4.1	3
J Edison Transmission	10	53	0.4	2	2.4	7	3.0	14	8	1	2	5	50%	7	1.8	8	12.1	9
F Westminster-Hazard	11	51	1.3	5	3.3	10	3.4	16	30	4	2	5	92%	4	0.9	4	3.8	3

*Note: RS = Raw Score; WS = Weighted Score

Table ES-2: Corridor Ranking

Corridor ID	Corridor Name	Rank	Weighted Score	Length (miles)	Cost Range (Millions)
A	PE ROW	1	74	15.6	\$32.1 - \$26.3
C	PCH	2	69	21.3	\$1.7 - \$1.4
D	Magnolia-Hoover	3	65	15.1	\$5.7 - \$4.7
E	Slater-Segerstrom	4	64	14.1	\$19.9 - \$16.2
B	Bristol-Bear	5	60	12.2	\$20.8 - \$17.0
G	Knott-Springdale	6	59	8.1	\$1.2 - \$1.0
H	Seal Beach - Orange Ave	6	57	10	\$3.3 - \$2.7
I	Brookhurst - Ward	8	57	11.5	\$2.8 - \$2.3
K	Indianapolis - Fairview	9	57	11.2	\$1.8 - \$1.5
J	Edison Transmission	10	53	2.8	\$2.7 - \$2.2
F	Westminster-Hazard	11	51	11.4	\$7.4 - \$6.0
TOTAL			133.3	\$99.4 - \$81.3	

Note: The costs shown above include right-of-way, anticipated bridges and construction costs, but do not include environmental clearance, design, utility impacts or maintenance costs.

no right-of-way acquisition, and minimal environmental review. These may include restriping a street to implement a Class II bikeway, signing a street to designate it as a Class III bikeway, or signing and striping an existing paved off-street path or maintenance road of sufficient width to serve as a Class I off-street bikeway. Pursuit of funding is a near-term effort that can be led by project study area cities with support from OCTA. OCTA can help with grant applications and resolutions of support.

I.IV 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, Arizona, 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.

To support agency efforts to find outside funding sources to implement improvements along the proposed corridors, a summary by source type has been provided with details regarding eligibility, use, and requirements associated with funding sources.

I.V Programs

Of the “Five E’s” of bicycle planning, four are related to programs: encouragement, education, enforcement and evaluation. Programs should complement engineering improvements such as bike paths, lanes and routes by giving Orange County residents the tools they need to safely and confidently use the bikeway network. All of the Five E’s work together to enhance the bicycling experience. Based on community input and coordination with agency staff, programmatic recommendations have been provided to complement the infrastructure recommendations associated with the defined corridors.