

November 30, 2007

José Luis Cáceres
Sacramento Area Council of Governments
1415 L Street, Suite 300
Sacramento CA 95814

Dear Mr. Cáceres:

I am pleased to submit the Sacramento Metropolitan Air Quality Management District's application for SACOG's Bicycle and Pedestrian Funding Program. This application will provide necessary bicycle parking infrastructure, a key factor in encouraging bicycle use for transportation purposes. The Air District will partner with local jurisdictions to implement the project. We expect that this program will result in bicycle rack installations in every jurisdiction within the Sacramento Air District.

This application requests \$309,855 in SACOG funding, with a local match of \$40,145 for a total program budget of \$350,000. Once this application is funded, Air District staff will recommend that the Board of Directors adopt Implementation Guidelines, memorandums of understanding with local jurisdictions providing match funds, as well as a request for proposals for rack vendors and installers.

If you have any questions regarding this application or require additional documentation, please contact Peter Christensen at 916.874.4886 or pchristensen@airquality.org.

Sincerely,



Larry Greene
Executive Director/Air Pollution Control Officer

Attachments

c: Brian Williams, Sacramento Transportation Authority

PROJECT SUMMARY

Project Title	Bicycle Parking Incentive Project
Local agency contact information	Peter Christensen Sacramento Metropolitan AQMD 777 12 th Street, Ste 300 Sacramento CA 95814 916.874.4886 pchristensen@airquality.org
Partners	SMAQMD City of Sacramento City of Rancho Cordova Others TBA
Project Number in SACOG Master Plan	Implements Measure A.7.2 in SACOG Master Plan
Scope of project & location (not to exceed 150 words) Include aspects of project/program that contribute to Blueprint implementation and other goals of the Funding Program	This project will provide funding for the purchase and installation of approximately 1,000 bicycle racks for short term bicycle parking within the Sacramento Air Quality Management District. Racks will be placed at locations identified by Air District or jurisdiction staff, and at locations requested by property owners that meet specific location criteria. Rack design criteria will be specified in the Implementation Guidelines, and will be consistent with the guidelines of the Association of Pedestrian and Bicycle Professionals, in consultation with the Sacramento City/County Bicycle Advisory Committee. All racks will be available for public use.
Project Schedule & Milestones: <ul style="list-style-type: none"> • Start work • Final Ed approved • R/W Acquired • Final plans approved • Environmental permits secured • Award construction contract • Work completed 	Feb 21, 2008 – Project approved by SACOG Apr 24, 2008 – Approval by SMAQMD Board May 1, 2008 – RFP Released for Rack Vendors/Installers June 2, 2008 – Successful RFP respondent(s) notified June 9, 2008 – Installations begin Feb 1, 2010 – Project Complete
Overall Total Cost Estimate	\$350,000
Total funding sought and funding committed from other sources	SACOG Funding Sought: \$309,855 Total Local Match: \$40,145
Local funding commitment from each partner Local match must be at least 11.47% of requested amount	City of Sacramento: \$10,000 City of Rancho Cordova: \$5,000 SMAQMD: \$25,145
Risks to Schedule or Cost	None. Project will commence as soon as funding is approved. Two previous bicycle parking projects were successfully implemented by the Air District with no delays or cost overruns.
Phases/divisibility	This is a single phase project

COST ESTIMATE

Funding Categories	Task	Cost Estimate
Environmental	Environmental Studies	
Engineering	Engineering & Design	
Right-of-Way*	Right-of-Way acquisition	
	Utility relocation & lighting	
Construction*	Environmental mitigation	
	Grading	
	Foundation & Pavement	
	Bridges &/or tunnels	
	Drainage, curb/gutter, street furniture, planting & irrigation	
	Signage, signals, & striping	
	Bicycle storage/parking	\$350,000
	Buildings/structures	
	Non-capital staff activities	
	Non-capital materials (maps, brochures, manuals, printing, etc)	
Misc.*	Other project components	

*If project applicant is Caltrans, please provide cost estimate for the following additional two components:

- Right-Of-Way Support: _____
- Construction Support: _____

BICYCLE PARKING INCENTIVE PROJECT

Implementation of SACOG Bicycle, Pedestrian, and Trails Master Plan

Section A.7 of the SACOG Master Plan describes the importance of specific measures that improve conditions for cycling and walking, including a focus on improved bicycle parking. Since bicycle theft is a common problem, the Master Plan notes that, "...secure bicycle parking is often the key factor in deciding to travel via bicycle." (Master Plan, p, 24).

Consistency with Capital Project Program Goals

This project directly implements Capital Project Goal #8, as shown in the 2008 Bicycle and Pedestrian Funding Program Guidelines:

8. Provide capital facilities that support bicycling, such as storage, parking, or bike stations.

This project will result in the installation of approximately 1,000 public bicycle racks. The new racks will help encourage bicycling by customers of retail and commercial uses, as well as public facilities such as libraries. All racks will be installed at existing destinations without adequate bicycle parking; funds may not be used for rack installations at new projects where the zoning code requires a developer to install bicycle parking.

The bicycle parking facilities also help implement other Capital Project Goals. For example, bicycle parking helps improve the safety and security of bicycling (Goal #6), as the lack of secure parking is often cited as a reason for not cycling. And convenient bicycle parking helps provide a pleasant and comfortable cycling experience (Goal #7).

Strength of Commitment

The Air District has supported bicycle planning and programs for decades. This project represents the third bicycle parking program implemented by the District since 1996. In addition, bicycling is an important part of the local strategy to achieve state and federal air quality standards.

This project is ready to be implemented as soon as funding is approved. The Air District will coordinate memorandums of understanding with partner jurisdictions, followed by issuing a request for proposals for bicycle rack vendors. Installations are planned to begin no later than June 9, 2008.

Local Match and Partner Commitments

The Air District will implement this project in cooperation with local jurisdictions. Staff of any jurisdiction within the Sacramento Air District (including Sacramento County and all its incorporated cities) may recommend rack installation locations. All recommendations that meet

location criteria will be approved for funding on a first come-first served basis. Staff of the following jurisdictions have already indicated their intent to participate and share in the local match requirement:

City of Sacramento:	\$10,000
City of Rancho Cordova:	\$5,000
SMAQMD:	<u>\$25,145</u>
Total Local Match:	\$40,145

Racks may be installed in any jurisdiction within the Sacramento Air District, regardless of whether the jurisdiction contributed to the local match requirement.

Implementation Guidelines

Implementation Guidelines, to be approved by the Air District Board of Directors, will specify the eligible rack designs as well as installation criteria. Rack design criteria will be based on recommendations of the Association of Pedestrian and Bicycle Professionals, in consultation with the Sacramento City/County Bicycle Advisory Committee.



Illustration credit: Association of Pedestrian & Bicycle Professionals, Bicycle Parking Guidelines

Installation criteria will ensure that racks are installed in locations that are consistent with all Americans with Disabilities Act requirements, including unobstructed sidewalk width. Installation locations will also maintain sufficient clearance to allow for maintenance of traffic signal hardware, utility equipment, and other devices. The installation criteria will also encourage parking space conversion, as described in SACOG Master Plan section A.7.2.3, with jurisdiction concurrence.

Emissions Calculations

As documented below, this project is estimated to result in emissions reductions of 64.53 pounds per day of reactive organic gases (ROG), oxides of nitrogen (NO_x), and particulate matter (PM₁₀). Assuming that racks would be used only during the prime cycling season of 200 days per year, the annual emission reduction is 12,906 pounds, or 6.45 tons.

Assumptions:						
Racks Provided	Spaces Provided*	Potential Uses/Day	Usage Factor **	Round Trips/Day	One-way Trips/Day	
1000	2500	15	10%	3750	7500	

* assume rack capacity of 2.5 bikes per rack

** conservative estimate that racks are occupied only 10% of the time

Emission Reductions	
total trips (one-way) *	7500
average mileage	3
ROG (lbs)	30.03 $((1.02*\text{trips})+(0.266*\text{miles}))/454$
NOx (lbs)	23.38 $((0.458*\text{trips})+(0.319*\text{miles}))/454$
PM10 (lbs)	11.12 $((0.016*\text{trips})+(0.219*\text{miles}))/454$
ROG+NOx+PM10 (lbs/day)	64.53

Project Benefit Estimate

The annual combined emission reduction of 12,906 pounds results in a 15 year cost effectiveness estimate of \$2.17 per pound.

$$\begin{aligned}
 \text{Cost Effectiveness} &= (\text{Capital Recovery Factor} * \text{Cost}) / \text{Emission Reduction} \\
 &= (0.08 * \$350,000) / 12,906 \text{ lbs} \\
 &= \$2.17 \text{ per pound}
 \end{aligned}$$

This project will provide qualitative benefits in addition to the quantified air quality benefits. The bicycle parking facilities will encourage residents and customers to choose bicycling instead of driving for common trip purposes, thereby reducing mobile source emissions, reducing congestion, and reducing vehicle parking demand in areas with limited parking space.

Environmental Justice

The bicycle parking facilities provided by this program will expand transportation options for economically disadvantaged members of the community. Bicycling is an economical transportation choice, providing mobility while eliminating the need for large capital expenditures on vehicles as well as fuel and maintenance costs.

The Air District is implementing a comprehensive environmental justice program, where public outreach regarding District programs will be a core component. This includes a Board-adopted Environmental Justice policy and a two-year work plan. Accordingly, news releases announcing the bicycle parking funding will be distributed to diverse media contacts. Interested parties can contact the Air District via a toll-free phone number, and a translation service has been secured. Upon request, the Air District will provide an inventory of all bicycle parking facilities installed in designated environmental justice areas.