

State of California  
AIR RESOURCES BOARD

RESEARCH PROPOSAL

Resolution 10-38

November 18, 2010

Agenda Item No.: 10-10-4

WHEREAS, the Air Resources Board (ARB or Board) has been directed to carry out an effective research program in conjunction with its efforts to combat air pollution, pursuant to Health and Safety Code sections 39700 through 39705;

WHEREAS, a research proposal, number 2703-268, entitled "Characterization of the Atmospheric Chemistry in the Southern San Joaquin Valley," has been submitted by the University of California, Berkeley to augment contract number 08-316;

WHEREAS, the Research Division staff has reviewed and recommended this proposal for approval; and

WHEREAS, the Research Screening Committee has reviewed and recommends for funding:

Proposal Number 2703-268 entitled "Characterization of the Atmospheric Chemistry in the Southern San Joaquin," submitted by the University of California, Berkeley, for a total amount not to exceed \$45,000.

NOW, THEREFORE BE IT RESOLVED that the Air Resources Board, pursuant to the authority granted by Health and Safety Code section 39703, hereby accepts the recommendation of the Research Screening Committee and approves the following:

Proposal Number 2703-268 entitled "Characterization of the Atmospheric Chemistry in the Southern San Joaquin Valley," submitted by the University of California, Berkeley, for a total amount not to exceed \$45,000.

BE IT FURTHER RESOLVED that the Executive Officer is hereby authorized to initiate administrative procedures and execute all necessary documents and contracts for the research effort proposed herein, and as described in Attachment A, in an amount not to exceed \$45,000.

I hereby certify that the above is a true and correct copy of Resolution 10-38, as adopted by the Air Resources Board.

/s/  
Mary Alice Morency, Clerk of the Board

## ATTACHMENT A

### Characterization of the Atmospheric Chemistry in the Southern San Joaquin Valley (Augmentation to ARB Contract No. 08-316)

#### Background

A budget augmentation is requested to cover unanticipated expenses associated with changing the monitoring location of this project, which served as the super monitoring site in the southern San Joaquin Valley for the CalNex 2010 field study. The original budget assumed that this “supersite” would be at the long-term ARB monitoring site in Arvin. However, shortly before the contract was executed, staff of the Monitoring & Laboratory Division informed the project planners that ARB had lost the lease to the Arvin site when the property owner would not renew the agreement. Consequently, the contractor (UC Berkeley) needed to investigate potential alternate sites and to establish a new monitoring site suitable for serving as the Bakersfield supersite for the CalNex field study, which was set to begin the field measurements phase a few months later in May of 2010. Because it was necessary to find and set-up a totally new monitoring site, this contract incurred significant (~10% of the budget) additional costs associated with ground preparation, installation and distribution of electrical power, etc. To cover these unanticipated logistical expenses, an augmentation of the budget for Contract No. 08-316 is needed.

#### Objective

This requested augmentation of the budget for Contract No. 08-316 will defray the costs that UC Berkeley unexpectedly incurred in establishing a new monitoring site. The requested augmentation will ensure that the objectives and deliverables of the project are fully met. The technical objective of the project remains to collect and analyze the CalNex gas and aerosol measurements and to improve the current understanding of atmospheric chemistry and the performance of models simulating O<sub>3</sub> and PM<sub>2.5</sub> production in the southern San Joaquin Valley.

#### Methods

The principal investigators, their sub-contractors, and other CalNex 2010 participants collected specialized air quality measurements in the San Joaquin Valley to address air quality and climate change issues. The investigators will share results and analyze the data to better characterize the atmospheric chemistry at work in determining ambient air quality in the San Joaquin Valley.

#### Expected Results

This project will improve our understanding of the atmospheric chemistry in the southern San Joaquin Valley and how it controls the formation of secondarily formed pollutants (e.g., O<sub>3</sub> and PM<sub>2.5</sub>).

#### Significance to the Board

The measurements and data analyses from this project and the larger parent CalNex 2010 study will support the development of appropriate and cost-effective control strategies for reducing secondarily formed pollutants like O<sub>3</sub> and PM<sub>2.5</sub> in the San Joaquin Valley and the South Coast Air Basin. The CalNex 2010 study will

provide critical data for characterizing the potential impacts of climate change on ambient air quality in California.

**Contractor:**

University of California, Berkeley

**Contract Period:**

36 months

**Principal Investigators (PIs):**

Professors Ronald Cohen and Allen Goldstein

**Original Contract Amount:**

\$1,050,000

**Contract Augmentation:**

\$45,000

**Basis for Indirect Cost Rate:**

The State and the University of California system have agreed to a ten percent indirect cost rate.

**Past Experience with these Principal Investigators:**

Professors Cohen and Goldstein are well-respected researchers in the atmospheric measurements and chemistry community. They have worked with other high-level, national research groups (e.g., the National Aeronautics and Space Administration) in the past. At least four staff members of ARB Research Division have worked with these PIs on at least seven projects (e.g., biogenics, organic aerosols, Lake Tahoe Atmospheric Deposition Study, night-time chemistry, satellite measurements) in the past. Staff has been very satisfied with their research.

**Prior Research Division Funding to (UCB):**

Year	2009	2008	2007
Funding	\$1,509,539	\$1,157,110	\$1,420,484

# AUGMENTATION BUDGET SUMMARY

**Contractor:** University of California, Berkeley

Characterization of Atmospheric Chemistry in the Southern San Joaquin Valley

## **DIRECT COSTS AND BENEFITS**

1.	Labor and Employee Fringe Benefits	\$	0
2.	Subcontractors	\$	0
3.	Equipment	\$	0
4.	Travel and Subsistence	\$	0
5.	Electronic Data Processing	\$	0
6.	Reproduction/Publication	\$	0
7.	Mail and Phone	\$	0
8.	Supplies	\$	40,909
9.	Analyses	\$	0
10.	Miscellaneous	\$	<u>0</u>
	Total Direct Costs		\$40,909

## **INDIRECT COSTS**

1.	Overhead	\$	4,091
2.	General and Administrative Expenses	\$	0
3.	Other Indirect Costs	\$	0
4.	Fee or Profit	\$	<u>0</u>
	Total Indirect Costs		\$4,091

**TOTAL PROJECT COSTS** \$ 45,000