

State of California
AIR RESOURCES BOARD

**Identifying, Evaluating and Selecting Indicators, Indices and Data for Future
Monitoring System of the Implementation of Sustainable Communities Strategies**

RESEARCH PROPOSAL

Resolution 15-27

July 23, 2015

Agenda Item No.: 15-6-2

WHEREAS, the Air Resources Board (ARB) 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 2791-283, titled "Identifying, Evaluating and Selecting Indicators, Indices and Data for Future Monitoring System of the Implementation of Sustainable Communities Strategies," has been submitted by the University of California, Los Angeles, for a total amount not to exceed \$149,908;

WHEREAS, the Research Division staff has reviewed Proposal Number 2791-283 and finds that in accordance with Health and Safety Code section 39701, research is needed to improve understanding and monitoring statewide progress towards meeting the goals of Senate Bill 375, the Sustainable Communities and Climate Protection Act of 2008; and

WHEREAS, in accordance with Health and Safety Code section 39705, the Research Screening Committee has reviewed and recommends funding the Research Proposal.

NOW, THEREFORE BE IT RESOLVED that the Air Resources Board, pursuant to the authority granted by Health and Safety Code section 39700 through 39705, hereby accepts the recommendations of the Research Screening Committee and staff and approves the Research Proposal.

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 Proposal as further described in Attachment A, in an amount not to exceed \$149,908.

I hereby certify that the above is a true
and correct copy of Resolution 15-27 as
adopted by the Air Resources Board.

/s/

Tracy Jensen, Clerk of the Board

ATTACHMENT A**“Identifying, Evaluating and Selecting Indicators, Indices and Data for Future Monitoring System of the Implementation of Sustainable Communities Strategies”****Background**

In 2008, the Sustainable Communities and Climate Protection Act (Senate Bill [SB] 375) was passed, which requires Metropolitan Planning Organizations (MPOs) to do more integrated land use, transportation, and housing planning, through development of Sustainable Communities Strategies (SCS). SCSs show that, if implemented, the major regions of California can reduce transportation-related greenhouse gas (GHG) emissions compared to 2005 levels. In the 2014 Scoping Plan Update, one of the recommended actions to achieve the State’s post-2020 climate goals is to “ensure GHG emission reductions from approved SCSs are achieved or exceeded through coordinated planning.” In order to track and monitor the progress in achieving the goals of SB 375, a framework must be established that identifies the key indicators of progress, such as vehicle miles traveled (VMT) and fuel usage data, as well as tracking the effectiveness of land use policies. In particular, there is a need to understand the extent to which shifts in regional and local planning are resulting in actual changes in land use and transit-oriented development patterns, and resulting in reduced VMT across the State through time. This project will develop a framework and baseline to enable future tracking and evaluation of land use, development, and other indicators that reflect progress toward the goals of SB 375 over time.

Objective

The objective of this research is to support the evaluation of progress toward the goals of Senate Bill (SB) 375. The project will identify key indicators and accessibility indices and consider the advantages and disadvantages of various methodologies for assessing land use change and other indicators of SB 375 progress in California through time.

Methods

This project will examine elements of a broad framework that are relevant to monitoring and assessing land use developments and changes relevant to SB 375 and SCSs over time. This project will lay the groundwork for the development of a SCS monitoring system for the State. The first task in this project is to establish an Advisory Committee comprised of state agencies, MPOs and other stakeholders to provide recommendations on SCS indicators, accessibility indices, and analytical methods. Input from the Advisory Committee will be complemented with a literature and practice review of potential indicators, based on a review of publications and governmental documents on SCS indicators and accessibility indices, their construction, analytical uses, and relationship to travel and GHGs. This will include an examination of current professional practices as they relate to SCS indicators and accessibility indices, and to affiliated fields. The research team will then consult with MPOs and State agencies regarding availability of data, analytical capacity, and monitoring of SCS activities. This task also involves development of an assessment tool to evaluate SCS elements in

selected general plans for a small representative sample of cities and counties. The researchers will then develop a list of desirable and potential SCS indicators and accessibility indices; develop a list of possible data sets for the construction of SCS indicators and accessibility indices; conduct an assessment of the data set as it relates to the pilot SCS monitoring system; and select data sets based on benefits and cost, and on stakeholder priorities. Finally, based on input, findings, and results from previous tasks, the research team will develop recommendations on the best use and recommendations for development of a prototype SCS monitoring system.

Expected Results

The study will identify key indicators and accessibility indices and consider the advantages and disadvantages of various methodologies for assessing land use change and other indicators of SB 375 progress in California through time. The study will also provide recommendations for the development of a prototype SCS monitoring system to evaluate the statewide progress of SB 375 implementation.

Significance to the Board

Results will provide essential data for understanding and monitoring statewide progress towards meeting the goals of SB 375.

Contractor:

University of California, Los Angeles

Contract Period:

18 months

Principal Investigator (PI):

Paul Ong, Ph.D.

Contract Amount:

\$149,908

Basis for Indirect Cost Rate:

The State and the UC system have agreed to a ten percent indirect cost rate.

Past Experience with this Principal Investigator:

This project brings together the expertise of four researchers with extensive knowledge and experience related to the tasks listed in this proposal. Dr. Paul Ong (Ph.D. in Economics from UC Berkeley) will be the project leader, and Dr. Michael Lens (Ph.D. in Public Administration from New York University), Dr. Paavo Monkkonen (Ph.D. in City and Regional Planning from UC Berkeley) and Dr. Gian-Claudia Sciara (Ph.D. in City and Regional Planning from UC Berkeley) are co-PIs. The first three are professors in UCLA's Department of Urban Planning in the Luskin School of Public Affairs, and the latter is a Professional Researcher at UC Davis. The project's analytical design and methodological approaches are built on previous academic and professional publications, which are listed in the proposal. To the degree possible, the project will align and leverage past and current work of the four researchers, including utilizing an existing data library.

Dr. Ong is an expert on spatial, demographic and socioeconomic data from the U.S. Bureau of the Census, and has made extensive use of spatial data and analyses for professional practices. He has served on two national advisory committees on the use of American Community Survey data for transportation and housing. He was the lead researcher for a massive project examining subsidized housing and fair housing in California, which was conducted by the California Department of Housing and Community Development.

ARB staff has also worked with Dr. Ong on other research projects and are confident in his ability to lead an effective project. Dr. Ong is currently directing the data assembly and spatial analyses for the Los Angeles component of the ARB funded project on "Developing a New Methodology for Analyzing Potential Displacement."

Prior Research Division Funding to the University of California, Los Angeles:

Year	2014	2013	2012
Funding	\$ 497,281	\$ 819,131	\$ 400,000

BUDGET SUMMARY

Contractor: University of California, Los Angeles

Identifying, Evaluating and Selecting Indicators, Indices and Data for Future Monitoring System of the Implementation of Sustainable Communities Strategies**DIRECT COSTS AND BENEFITS**

1.	Labor and Employee Fringe Benefits	\$	130,389
2.	Subcontractors	\$	0
3.	Equipment	\$	0
4.	Travel and Subsistence	\$	2,400
5.	Electronic Data Processing	\$	425
6.	Reproduction/Publication	\$	1,000
7.	Mail and Phone	\$	100
8.	Supplies	\$	966
9.	Analyses	\$	0
10.	Miscellaneous	\$	<u>1,000</u>

Total Direct Costs \$136,280

INDIRECT COSTS

1.	Overhead	\$	13,628
2.	General and Administrative Expenses	\$	0
3.	Other Indirect Costs	\$	0
4.	Fee or Profit	\$	<u>0</u>

Total Indirect Costs \$ 13,628

TOTAL PROJECT COSTS **\$ 149,908**