

## REQUEST FOR PROPOSAL

for

### IMPROVED ESTIMATION OF AIR-QUALITY IMPACTS OF WILDFIRES AT AMBIENT AIR-QUALITY MONITORS USING GRID-BASED AIR-QUALITY MODELS

*Prepared by the Staff of the California Air Resources Board*

*Authorized by the Policy Committee of the San Joaquin Valleywide Air Pollution Study Agency*

*Funded by the Central California Ozone Study  
under the authority of the San Joaquin Valleywide Air Pollution Study Agency*

---

**Submittal Deadline:** Proposals must be received at the address below on or before  
**Friday, September 23, 2011 - 5:00 PM PDST**

Proposals received after the date and time stated above will not be accepted.

**Submissions Must Include:** two (2) signed copies of Proposal delivered by mail or messenger to establish official receipt;  
one (1) unbound master suitable for black and white reproduction; and  
one (1) electronic copy (CD-ROM) of all submittal documents in Word or PDF format.

**Address** Ajith Kaduwela  
**Submissions to:** Planning and Technical Support Division  
California Air Resources Board  
1001 "I" Street  
Sacramento, CA 95814

**Mark Envelope:** "PROPOSAL: Improved estimation of air-quality impacts of wildfires at ambient air-quality monitors using grid-based air-quality models."

**RFP Issuance Date:** August 23, 2011

**Contact:** Ajith Kaduwela, 916-327-3955, akaduwel@arb.ca.gov

## TABLE OF CONTENTS

|            |   |           |
|------------|---|-----------|
| <b>1.</b>  | <b>BACKGROUND</b> .....   | <b>3</b>  |
| <b>2.</b>  | <b>PROJECT PURPOSE</b> .....  | <b>4</b>  |
| <b>3.</b>  | <b>PROJECT DESCRIPTION</b> .....  | <b>4</b>  |
|            | <b>3.1 OBJECTIVE</b> .....  | <b>4</b>  |
|            | <b>3.2 TASKS/SCOPE</b> .....  | <b>5</b>  |
|            | <b>3.3 WORK PRODUCTS/DELIVERABLES</b> .....                             | <b>6</b>  |
|            | <b>3.4 UTILIZATION OF RESULTS</b> .....                                 | <b>8</b>  |
| <b>4.</b>  | <b>PROJECT SCHEDULE</b> .....   | <b>8</b>  |
| <b>5.</b>  | <b>BUDGET</b> .....   | <b>9</b>  |
| <b>6.</b>  | <b>REQUIRED QUALIFICATIONS</b> .....                                    | <b>10</b> |
|            | <b>6.1 EXCLUDED PARTIES LIST SYSTEM (EPLS)</b> .....                    | <b>10</b> |
|            | <b>6.2 COMPLIANCE WITH FEDERAL AND STATE REQUIREMENTS</b> .....         | <b>10</b> |
| <b>7.</b>  | <b>PROJECT DIRECTION</b> .....  | <b>11</b> |
|            | <b>7.1. MANAGEMENT</b> .....  | <b>11</b> |
|            | <b>7.2. SUBMITTAL OF RESULTS</b> .....                                  | <b>11</b> |
| <b>8.</b>  | <b>CONTENTS OF PROPOSALS</b> .....                                      | <b>12</b> |
| <b>9.</b>  | <b>SUBMISSION OF PROPOSAL</b> .....                                     | <b>14</b> |
| <b>10.</b> | <b>PROCESS</b> .....  | <b>15</b> |
|            | <b>10.1. ADDENDA AND SUPPLEMENTS TO THE RFP</b> .....                   | <b>15</b> |
|            | <b>10.2. PROPOSAL EVALUATION AND CONTRACTOR SELECTION PROCESS</b> ..... | <b>16</b> |
|            | <b>10.3. CONTRACT NEGOTIATION AND APPROVAL</b> .....                    | <b>17</b> |
| <b>11.</b> | <b>INSURANCE</b> .....  | <b>17</b> |
| <b>12.</b> | <b>DATA OWNERSHIP AND PUBLICATION</b> .....                             | <b>18</b> |
| <b>13.</b> | <b>CONFIDENTIAL INFORMATION</b> .....                                   | <b>18</b> |
|            | <b>EXHIBIT A</b> .....  | <b>19</b> |
|            | <b>EXHIBIT B</b> .....  | <b>20</b> |

## **REQUEST FOR PROPOSAL**

**for**

### **IMPROVED ESTIMATION OF AIR-QUALITY IMPACTS OF WILDFIRES AT AMBIENT AIR-QUALITY MONITORS USING GRID-BASED AIR-QUALITY MODELS**

#### **1. BACKGROUND**

The Technical Committee of the San Joaquin Valleywide Air Pollution Study Agency (Study Agency) is issuing this Request for Proposal (RFP) to improve estimation of air-quality impacts of wildfires at ambient air-quality monitors using grid-based air-quality models. The Study Agency has charge of evaluating the Proposals, selecting a qualified Contractor, and executing the contract.

The San Joaquin Valleywide Air Pollution Study Agency, a joint powers agency that coordinates scientific research on air quality issues in Central California, is the sponsor of this project. The Study Agency's decision-making body is a Governing Board consisting of one supervisor from each of the eight counties in the San Joaquin Valley. The mission of the Study Agency is guided by policy and technical committees of state, federal, and district air agency staff, and public- and private-sector stakeholders. Its projects are typically carried out by contractors who are coordinated and managed by the staff of the California Air Resources Board (ARB) and San Joaquin Valley Air Pollution Control District (SJVAPCD). This project will be conducted by a contractor engaged by the Study Agency and guided by an appointed project manager who reports to the Study Agency and consults with its Technical Committee members.

This project is part of the Central California Ozone Study (CCOS) and is made possible with federal funding. CCOS is a large-scale program involving many sponsors and participants. Three entities are involved in the overall management of CCOS. First, the San Joaquin Valleywide Air Pollution Study Agency directs the fund-raising and contracting aspects of CCOS. Second, the Study Agency's Policy Committee provides guidance on the objectives and funding levels of Study Agency projects; approves the selection of proposals and final budget for projects, approves preparation of an agreement with the selected contractor, and approves release of final reports. Third, the Study Agency's Technical Committee develops RFPs to select contractors for projects authorized by the Policy committee, provides overall technical guidance and direction during progress of work, and reviews all technical reports, papers and presentations produced from the study. ARB staff provides coordination for Policy Committee actions, appoints Chairs for the Technical Committees, and provides program management for the approval of project invoices during the conduct of work. SJVAPCD staff provides assistance with the coordination of the Study Agency Governing Board actions as well as legal and financial management.

## **2. PROJECT PURPOSE**

A Wildfire is a very complex phenomenon that goes through various phases during its existence. The emissions of a wildfire may be injected into various heights with different compositions depending on the nature of the fire at a given time. These emissions then mix with other pollutants in the atmosphere and could lead to increased air pollution.

In March of 2007, US EPA issued its final rule on the treatment of ambient air-quality data influenced by exceptional events (FR 72 (March 22, 2007) 13560-13581). The rule allows data affected by exceptional events such as wildfires or windstorms to be excluded from the regulatory process upon approval of appropriate documentation by US EPA. A grid-based photochemical model is a tool that can be used to assess the impact of wildfires at an ambient air-quality monitor. Thus, results of such a model can be used in the preparation of documentation to justify declaring a certain wildfire as an exceptional event.

It is not possible to fully represent all the phases of a wildfire in a grid-based photochemical model mainly due to the lack of detailed information on a given fire. Thus, wildfires are represented in an average sense using a very limited number of emissions profiles representing major phases of wildfires and using empirical equations to determine the plume rise for each phase.

During this project, we seek to improve the representation of wildfires in grid-based air-quality models in two major areas. First, we seek to improve the quality of emissions profiles using recent research-grade ambient air-quality measurements. Second, we seek to improve the determination of plume rise using best available information including space-based measurements.

## **3. PROJECT DESCRIPTION**

### ***3.1 Objective***

Data analyses show that wildfires (in remote areas by nature) can cause elevated air pollutant levels where monitors are located (in populated areas as per siting criteria). The main focus of this project is to use all available scientific data to improve the representation of wildfires in grid-based photochemical models so that they can be used confidently to estimate air-quality impacts of wildfires at ambient air-quality monitors.

A responding Proposal should include commitment to provide:

1. A comprehensive scientific literature survey on the ozone and particle forming potential of wildfire plumes.
2. Using the observations made during ARCTAS, CalNex, and other information available in the literature, develop a method to construct observation-based speciated emissions profiles for wildfires.

*RFP: Improved estimation of air-quality impacts of wildfires at ambient air-quality monitors using grid-based air-quality models.*

3. Conduct a critical review of the methods available in the literature to estimate plume heights for wildfires. The method developed by the Western Regional Air Partnership (WRAP) should be included in this review. It should also include the potential use of space-based measurements in the estimation of plume heights.
4. Using information developed so far during this project and the available fire location/extent/intensity information obtained from various sources, develop a wildfire emissions inventory for June 2008.
5. In collaboration with the modeling staff of the California Air Resources Board, conduct air quality simulations using the fire inventory developed during this study. Compare the results of these simulations with those conducted using current ARB emissions profiles and plume rise algorithms.

Once the program of work has been agreed to and initiated, the contractor must seek approval of the Study Agency Project Manager prior to recommending or implementing any changes to the proposed project. During conduct of the project, additional data collection by the contractor beyond the specified program of work must remain within the authorized budget.

### **3.2 Tasks/Scope**

The contractor shall select a modeling system that is compatible with the system used routinely by the California Air Resources Board. The modeling domain should adequately cover central California and its surrounding areas. We prefer that the contractor simulate the fire episodes occurred during June 2008.

Task 1: Conduct a comprehensive scientific literature survey on the ozone and particle forming potential of wildfire plumes. This review should also include research-grade ambient air-quality measurements made during recent field campaigns in California such as ARCTAS and CalNex.

Task 2: Prepare a detailed work plan for this project and conduct an “in person” meeting with Technical Committee for the Central California Air Quality Studies. Revise the work plan based on the comments received at this meeting.

Task 3: Using the observations made during ARCTAS, CalNex, and other information available in the literature, develop a method to construct observation-based speciated emissions profiles for wildfires. This may require the use of photochemical box models to mimic the aging of wildfire plumes.

Task 4: Conduct a critical review of the methods available in the literature to estimate plume heights for wildfires. The method developed by the Western Regional Air Partnership (WRAP) should be included in this review. It should also include the potential use of space-based measurements in the estimation of plume heights.

*RFP: Improved estimation of air-quality impacts of wildfires at ambient air-quality monitors using grid-based air-quality models.*

Task 5: Based on the above review and available space-based measurements of wildfire plumes, recommend/develop a method to estimate wildfire plume heights.

Task 6: Using information developed so far during this project and the available fire location/extent/intensity information obtained from various sources, develop a wildfire emissions inventory for June 2008.

Task 7: In collaboration with the modeling staff of the California Air Resources Board, conduct air quality simulations using the fire inventory developed in Task 6. Compare the results of these simulations with those conducted using current ARB emissions profiles and plume rise algorithms.

Task 8: Based on the results of air quality simulations, describe the sensitivity of modeling results to various input parameters such as emission profiles and plume heights.

Task 9: Present the results at an “in person” meeting with Technical Committee for the Central California Air Quality Studies. A draft final report should be provided at this meeting.

Task 10: Based on the comments received from the Technical Committee, finalize the draft final report. Prepare and submit a manuscript based on this project to an appropriate peer-reviewed international scientific journal.

After the Contractor submits the Draft Final Report, the Project Manager will provide comments to the Contractor. The Contractor shall comply with the Project Manager’s requests for supplemental documentation and clarifications in the report and address the Project Manager’s comments. The Contractor will provide the Final Report within 30 days after receipt of the Project Manager’s comments. The Final Report must be complete in providing documentation and results for all required objectives. The Study Agency requires that the technical writing be adequate to clearly explain the processes used to carry out the project. Multiple revisions may be required if the Final Report is not written to the satisfaction of the Study Agency.

### **3.3 Work Products/Deliverables**

**Initial Conference Call:** At the start of the contract period, the Contractor will meet with the Study Agency Project Manager (Project Manager) via telephone or in person to discuss the overall plan, details of performing the tasks, the project schedule, items related to personnel or changes in personnel, and any issues that should be resolved before work can begin. The Project Manager may include key personnel of the Technical or Policy committees in this discussion as needed.

**Progress Reports:** The Contractor will provide written progress reports to the Study Agency Project Manager upon completion of each of the tasks identified in Section 3.2, and participate in conference calls to discuss the progress reports. At least one day

*RFP: Improved estimation of air-quality impacts of wildfires at ambient air-quality monitors using grid-based air-quality models.*

before the conference call, the Contractor shall email the Project Manager a progress report that includes:

- Current status of work products and deliverables,
- A budget status summary indicating the percentage expended on the task and explanation for any items that are not in conformance with the submitted project budget. Note: Provisions of Study Agency agreements allow some reallocation of funding resources during conduct of the project; however, exceeding the total budget is not authorized,
- A review of the project timeline and justification for any requested revisions to intermediate progress dates.

**Other Meetings and Deliverables:** When requested by the Project Manager, the Contractor shall meet with the Project Manager via telephone to discuss the overall plan, details of task progress, or concerns regarding compliance with required performance objectives or timelines. The Project Manager will notify the Contractor in advance of any special topics so Contractor may assemble key staff or information to respond. Contractor shall involve in this discussion key project personnel or subcontractors necessary to provide details of task progress. The day before the conference call, the Contractor shall email the Project Manager a brief progress report or presentation material that includes:

- Current status of work products and deliverables;
- Explanation for any delays in performance;
- Justification for any revisions to project budget; and
- Action items for which the Contractor desires direction or approval.

The Study Agency may request other interim deliverables. Based on progress reports and preliminary results, the Study Agency may provide direction to Contractor to delete or amend objectives and deliverables. Deletion of tasks or deliverables is fully within the authority of the Study Agency; however Contractor will be compensated for work already completed on curtailed tasks. The Contractor and Program Manager must ensure that any amended deliverables are within the authorized budget for the project. Any extra effort directed by the Study Agency that does not fall within the authorized budget requires formal amendment to the agreement. If the Study Agency determines a need for additional tasks or services not included in the Proposal, the contract may be amended by agreement of both parties to include additional tasks and related costs.

**Electronic File Formats:** The Contractor shall provide reports and data to the Study Agency in the formats of Microsoft Office 2000 Professional software (Word, Excel or Access), and copies of all literature cited as Adobe PDF documents. Other work products such as databases or modeling files may be delivered in other appropriate file formats, as specified by the Project Manager.

**Draft Final Report and Final Report:** The Contractor shall provide the Draft Final Report and Final Report in the electronic file formats specified above. Upon approval of the Final Report by the Study Agency, the Contractor shall deliver to the Study Agency

*RFP: Improved estimation of air-quality impacts of wildfires at ambient air-quality monitors using grid-based air-quality models.*

five bound copies and one unbound copy of the report incorporating all final alterations, additions and appendices, as well as a copy of the report in the electronic file formats specified above.

**Invoices:** The Contractor will be paid for each deliverable when the Study Agency deems that deliverable satisfies the applicable requirements of the contract. Ten percent (10%) of each invoiced payment will be withheld until all work is complete and approved by the Study Agency. The total of payments shall be separated into four invoices:

- Invoice One should reflect costs for Tasks 1-3 and be submitted with a Progress Report.
- Invoice Two should reflect costs for Tasks 4-6 and be submitted with a Progress Report for Task 4.
- Invoice Three should reflect costs for Tasks 7-10 and be submitted with the Final Report and a preprint of the journal article.
- Invoice Four should reflect the 10% retention from all previous invoices and be submitted upon Study Agency approval of the Final Report.

The Contractor shall submit invoices in triplicate. Invoices must clearly show the Study Agency contract number.

Additional tasks performed by the Contractor or its subcontractors to develop supporting information or analysis, which were not specified in the Proposal, will not be reimbursed without prior written approval from the Study Agency. Unapproved additional tasks are not reimbursable.

### ***3.4 Utilization of Results***

Proposer is not authorized to establish restrictions on the release or use of final products by the Study Agency.

## **4. PROJECT SCHEDULE**

The Study Agency intends for the project to be completed according to the following schedule of deliverables. The contractor shall indicate the schedule for each task in the proposal. Payments must correspond with the submission of final reports. Progress reports and conference calls are not included in Table 1.

RFP: Improved estimation of air-quality impacts of wildfires at ambient air-quality monitors using grid-based air-quality models.

**Table 1: Project Schedule and Deliverables**

| Action/Work Product   | Approximate Date       |
|-----------------------|------------------------|
| Release of RFP        | August 23, 2011        |
| Deadline for Proposal | September 23, 2011     |
| Contractor Selection  | September-October 2011 |
| Contract Approval     | October 2011           |
| Draft Final Report    | May 01, 2012           |
| Final Report          | June 15, 2012          |

**5. BUDGET**

Costs will be a factor in evaluating Proposals responding to this RFP. Proposals shall identify the direct and indirect costs for the project in their Proposal Budget Summary, as well as the estimated payment for each invoice. Proposals will be evaluated both by comparison of cost for comparable tasks as well as projected total cost. The Study Agency’s review committee is authorized to consider the comprehensiveness of proposed efforts as well as total proposed cost to provide reasonable comparisons of the Proposals. All evaluation criteria are described in Section 10.2.

The Study Agency’s budget for this project is \$120,000. The budgeted amount is available to the Contractor for research, analysis, coordination, teleconferences, meetings, report writing, subcontractors, and all other efforts undertaken by the Contractor for this project.

The Proposer’s costs must be itemized by the following categories:

**Task:** List a total cost per task. The Study Agency reserves the right to remove tasks as deemed necessary to remain within budget.

**Labor:** List an hourly labor rate for each assigned principal and technical specialist. The rate quoted must include labor, general, administrative, and overhead costs.

**Subcontractor Costs:** Identify subcontractors by name, list their cost per hour or per day, and the number of hours or days their services will be used.

**Travel Costs:** Identify estimated travel costs, including the number of trips required, destinations, and approximate costs of travel. Travel costs are reimbursed at prevailing rates for the contracting company or rates approved by the Study Agency, whichever is lower, unless negotiated otherwise.

**Miscellaneous Costs:** If any.

Total cost must be clearly indicated in the Costs of Proposal section of the Proposal.

It is expected that general overhead and administrative costs are included in the hourly rate for labor. It will be assumed that all contingencies and/or anticipated escalations are included. No additional funds will be paid above and beyond the contracted amount for

*RFP: Improved estimation of air-quality impacts of wildfires at ambient air-quality monitors using grid-based air-quality models.*

the services specified in the Proposal. If the Study Agency determines a need for additional tasks or services not included in the Proposal, the contract may be amended by agreement of both parties to include additional tasks and related costs.

## **6. REQUIRED QUALIFICATIONS**

To be selected, a Proposer must have demonstrated extensive experience and expertise in the following areas:

- Development of emissions inventories and photochemical modeling;
- Skill in performing the types of technical tasks required for completion of this project;
- Excellent working relationships with government agencies;
- Skill in preparing clear reports; and
- Excellent technical writing skills.

To be selected, the Proposer must also demonstrate the ability and resources to produce the deliverables requested in this RFP. The Study Agency reserves the right to reject any Proposal deemed non-responsive to the RFP, not responsible, and/or not reasonable.

### ***6.1 Excluded Parties List System (EPLS)***

A Proposer or any individual identified in the Proposal that appears in the Excluded Parties List System (EPLS) is not eligible for award of a contract. The EPLS is a central registry that contains information regarding entities debarred, suspended, proposed for debarment, excluded, or otherwise declared ineligible from receiving Federal contracts. Access to the EPLS is available at [www.epls.gov](http://www.epls.gov).

The Proposer certifies by signing the signature page of the original copy of the submitted Proposal and any amendment signature page(s) that the Proposer is not presently debarred, suspended, proposed for debarment, declared ineligible, voluntarily excluded from participation, or otherwise excluded from or ineligible for participation under federal assistance programs. The Proposer should complete and return the attached certification regarding debarment, etc., i.e. Exhibit A, with their bid. This document must be satisfactorily completed prior to award of the contract.

### ***6.2 Compliance with Federal and State Requirements***

The selected Contractor shall comply with applicable federal requirements including but not limited to Office of Management and Budget Circular No. A-87 (Cost Principles for State, Local, and Indian Tribal Governments) and Circular No. A-102 (Grants and Cooperative Agreements With State and Local Governments), and Circular No. A-133 (Audits of States, Local Governments, and Non-Profit Organizations).

*RFP: Improved estimation of air-quality impacts of wildfires at ambient air-quality monitors using grid-based air-quality models.*

California Government Code Section 1090 generally prohibits a public official from being financially interested in a contract which he or she has made or participated in an official capacity. Under certain circumstances, persons who perform work pursuant to a contract with a government agency may be subject to the restrictions of Government Code Section 1090. With respect to the CCOS, this means that based on participation in the planning of the project, certain consultants are precluded from participating in all or some of the post-planning contracts. This preclusion would apply to a contractor as either a prime contractor or a subcontractor. In most cases, whether a particular contractor is eligible to bid will depend on an analysis of all of the circumstances surrounding the contractor's earlier participation in the CCOS and the work that that contractor now proposes to perform. Any response to this RFP which includes a paid participant who is ineligible based on Government Code Section 1090 will be rejected during the review of the Proposals.

Questions concerning the eligibility of a potential Contractor must be directed to the Study Agency attorney at the address provided below prior to the preparation of a Proposal.

General Counsel  
San Joaquin Valleywide Air Pollution Study Agency  
San Joaquin Valley Unified Air Pollution Control District  
1990 East Gettysburg Avenue  
Fresno, CA 93726

## **7. PROJECT DIRECTION**

### ***7.1. Management***

The Contractor selected to conduct this work shall report to the Study Agency Project Manager, who will be identified in the contract. For the purposes of this project, the staff of the SJVUAPCD will write and monitor contracts with the participants and will be the primary interface between the Contractor, the Policy and Technical Committees, and the Study Agency. The Contractor must not begin work on the project until a contract is fully approved by the San Joaquin Valleywide Air Pollution Study Agency.

### ***7.2. Submittal of Results***

All completed files or reports shall be released by the Contractor to the Project Manager for distribution and review by the Study Agency. The Study Agency may review any of the results in whole or in part and submit comments or questions to the Contractor through the Project Manager. The Contractor shall perform any additional work needed to address issues raised by this process for the items authorized by the Project Manager unless such effort would exceed the authorized budget. Any extra effort directed by the Study Agency that does not fall within the authorized budget requires formal amendment to the agreement. If the Study Agency determines a need for

additional tasks or services not included in the Proposal, the contract may be amended by agreement of both parties to include additional tasks and related costs.

## **8. CONTENTS OF PROPOSALS**

Proposals must be signed by a duly authorized official of the Proposer and must state that the Proposal is valid for a period of not less than one hundred and twenty (120) days from the date of submittal. The Proposer's name and address as used in contractual agreements should be provided. The name, address, title, telephone number, fax number and email address of the person(s) authorized to execute agreements and the person(s) acting as principal for the work conducted in the Proposal should be provided.

Information in the Proposals shall become public property subject to disclosure under the Public Records Act. Proposals should convey a maximum of technical content related to the relevant task with a minimum of extraneous material. Proposals should convey a high degree of technical understanding and innovation while demonstrating the ability to present complex scientific results to technically qualified decision-makers. The Proposal should be clear and concise. The response to the RFP is expected to be brief, with text of the proposed approach to completing the tasks limited to less than 30 pages, not inclusive of qualification information (e.g. attached resumes, etc.), budget summary table and timeline.

The response to the RFP must include:

1. Qualifications of the Proposer, including in-house staff and subcontractors, to complete the required tasks.
2. Approach to completing tasks identified in Section 3 of this RFP.
3. Discussion of any missing tasks identified by the Proposer, which Proposer proposes to add for fulfillment of Section 3 objectives.
4. Estimated timeline for completion of the tasks subsequent to contract execution. This estimate may indicate a minimum and maximum reflecting the investigative nature of the project. Include information on the availability of the Proposer and proposed subcontractors during the proposed term. Indicate and explain or justify adjustments to the schedule anticipated by or proposed by Proposer.
5. Budget for RFP tasks and additional identified tasks. The proposed payment for each deliverable should be provided, as well as hourly billing rates for additional services that may be necessary to complete additional processing identified by the investigative tasks, if authorized for completion by the Study Agency Project Manager.

*RFP: Improved estimation of air-quality impacts of wildfires at ambient air-quality monitors using grid-based air-quality models.*

Submitted Proposals must follow the format outlined below and all requested information must be supplied. The submitted Proposal shall be limited to 30 pages, single-sided or 15 pages, double sided, with 1-inch margins. Proposal shall be printed on white paper and the font shall be black Arial and no smaller than 12 point. Failure to submit Proposals in the required format may result in elimination from Proposal evaluation.

**Cover Letter** - Must include the name, address, and telephone number of the Proposer's company, total cost, the name of the contact person for the Proposal, and be signed by the person or persons authorized to represent the firm.

**Table of Contents** - Clearly identify material contained in the Proposal by section and page number.

**Summary (Section 1)** - State the overall approach to the analysis and objective(s). Demonstrate a clear understanding of the analysis goal. Include total project cost. Provide specific examples of steps to be taken to complete the analysis, as well as measures to assure repeatability, reliability and applicability of analysis.

**Work Program (Section 2)** - Describe work activities or tasks to be performed including the sequence of activities and a description of methodology or techniques to be used.

**Program Schedule (Section 3)** - Provide projected milestones or benchmarks for major products/reports within the total time allowed.

**Project Organization (Section 4)** - Describe the proposed management structure, organization of the contracting group, and facilities available.

**Assigned Personnel (Section 5)** - Identify the principals having primary responsibility for conducting the analysis. Discuss their professional and academic backgrounds. Provide a summary of similar work they have previously performed. List the amount of time, on a continuous basis, that each principal will spend on this project. Describe the responsibilities and capacity of the technical personnel involved. Substitution of the project manager and/or lead personnel shall not be permitted without prior written approval of the Study Agency Project Manager.

**Study Agency and District Resources (Section 6)** - Describe any Study Agency or District services and staff resources needed to supplement Contractor activities to achieve identified objectives.

**Subcontractors (Section 7)** - If subcontractors are to be used, identify each of them in the Proposal. Describe the work to be performed by them and the number of hours or the percentage of time they will devote to the project. Provide a list of their assigned staff, their qualifications, and their relationship to project management, schedule, costs and hourly rates.

*RFP: Improved estimation of air-quality impacts of wildfires at ambient air-quality monitors using grid-based air-quality models.*

**Contractor Capability and References (Section 8)** - Provide a summary of the firm's relevant background experience. Discuss the applicability of each experience to this RFP. Include a brief summary of related studies completed for other parties that are of a similar nature to the work requested by this RFP. (Report examples [see Section 11] can be provided in an attachment. Attached documents are not part of the 30-page limitation.).

**Costs of Proposal (Section 9)** - Identify all costs associated with the execution of this RFP. Also attach a Proposal Budget Summary Table similar to Exhibit B of this RFP.

**Conflict of Interest (Section 10)** - Identify any actual or potential conflicts of interest resulting from any contractual work performed, or to be performed, for other clients, as well as any such work done, or to be done, by its proposed subcontractors for the Proposer. Specifically, Proposer must disclose any recent or current contracts with the Study Agency, business entities regulated by the any of the participating air districts, and/or any environmental group or business interest group. In addition, Proposer must disclose any contracts with the Study Agency, public or private entities, which are scheduled to be performed in the future, or which are currently under negotiation. The Study Agency will consider the nature and extent of such work in evaluating the Proposal (see Section 10.0).

**Additional Data (Section 11)** - Attach a copy of any work prepared similar to what is requested in this RFP. Provide other essential data that may assist in the evaluation of this Proposal. These items shall not be considered part of the 30-page limitation set for the Proposal.

**Certificate of Eligibility for Federal Funding (Exhibit A)** - The Proposer should complete and return the certification regarding debarment, Exhibit A, with their Proposal.

**Attachments** – Extensive documentation is discouraged, but attachments for the budget summary table, resumes, and report examples can be included in the Proposal. Attached documents are not part of the 30-page limitation.

## **9. SUBMISSION OF PROPOSAL**

All Proposals must be submitted according to the specifications set forth in Section 8 "Contents of Proposal" and this section. Failure to adhere to these specifications may be cause for rejection of Proposal.

1. Signature - Proposal shall be signed by an authorized representative of the Proposer.

*RFP: Improved estimation of air-quality impacts of wildfires at ambient air-quality monitors using grid-based air-quality models.*

2. Due Date - Proposal must be received no later than **5:00 p.m. on Friday, September 23, 2011**. Late Proposals will not be accepted. Any correction or resubmission by the Proposer will not extend the submittal due date.
3. Delivery Address - Proposal must be directed to and received at the address below and should be directed to:

Ajith Kaduwela  
Planning and Technical Support Division  
California Air Resources Board  
1001 "I" Street  
Sacramento, CA 95814

4. Identification – To accommodate processing and identification of time of receipt, the Proposer shall submit the required copies of the Proposal in a sealed envelope, plainly marked in the upper left-hand corner with the name and address of the Proposer and the words:

“PROPOSAL: Improved estimation of air-quality impacts of wildfires at ambient air-quality monitors using grid-based air-quality models.”

5. Electronic Copy (Compact Disc, read-only-memory) - The Proposer shall also submit an electronic copy of the Proposal in Microsoft Word. The electronic copy shall be emailed to [akaduwel@arb.ca.gov](mailto:akaduwel@arb.ca.gov)

Grounds For Rejection - A Proposal may be immediately rejected if:

- It is received at any time after the exact due date and time set for receipt of Proposals;
- It is not prepared in the format prescribed; or
- It is not signed by an individual authorized to represent the firm.

Once a Proposal is submitted, the composition of the Proposal team cannot be altered without prior written consent of the Study Agency. The Proposal shall constitute a firm offer and may not be withdrawn for a period of one hundred and twenty (120) days following the last day to accept Proposals. Proposals become the property of the Study Agency. The Study Agency reserves the right to reject all Proposals and make no award.

## **10. PROCESS**

### ***10.1. Addenda and Supplements to the RFP***

The Study Agency may modify this RFP and/or issue supplementary information or guidelines relating to the RFP before the Proposal deadline. In the event that it becomes necessary to revise any part of this RFP, or if additional information is

*RFP: Improved estimation of air-quality impacts of wildfires at ambient air-quality monitors using grid-based air-quality models.*

necessary to enable adequate interpretation of the provisions of this RFP, or if it is necessary to extend the deadline for Proposals, a supplement to the RFP will be released and distributed in the same manner as the release of the RFP.

## **10.2. Proposal Evaluation and Contractor Selection Process**

The Study Agency will evaluate all Proposals received by the deadline to determine responsiveness to the RFP, ensure the requirements for this project will be satisfied, and will then commend a Contractor for approval by the Policy Committee. Failure to adhere to specifications in this RFP may be cause for rejection of the Proposal. The Technical Committee, Policy Committee, Study Agency, and participating air districts retain the right to reject all Proposals received and conduct direct negotiations with a selected Proposer if all Proposals are considered to be substantially nonresponsive to key issues.

Proposals will be rated on the following key factors:

1. A demonstration of the Proposer's qualifications and ability to perform the services requested in the RFP. Proposals should include a brief statement of qualifications of the proposed participants and a description of the duties they will perform, including specific discussions of (a) previous working relationships with government agencies, and (b) recent project experience. Extensive corporate experience is not as important as the qualifications of the principals who will be dedicated to the project. Greater detail may be incorporated by reference to a corporate website (preferred) or as a standard package.
2. Effectiveness of the proposed action to meet the goals of the RFP; thoroughness and appropriateness of the proposed work program; innovation in approach to work tasks.
3. Timeliness of the proposed schedule for the completion of tasks.
4. Efficiency and total cost of the Proposal.
5. Clarity and thoroughness of the Proposal; presentation, including good organization, formatting, and a minimum of grammatical errors;

During the selection process, the Study Agency may interview Proposers with scores above a natural break, for clarification purposes only. No new material will be permitted at this time.

A contract will be awarded to the Proposer with the best acceptable Proposal based on cost effectiveness and the criteria described in this section. The selection of Contractor, final project budget and award of contract are subject to approval by the Policy Committee and the San Joaquin Valleywide Air Pollution Study Agency Governing

*RFP: Improved estimation of air-quality impacts of wildfires at ambient air-quality monitors using grid-based air-quality models.*

Board. The Study Agency may choose to reject all Proposals. All Proposers will be notified of the selection process results by letter.

### **10.3. Contract Negotiation and Approval**

Contract negotiation will be conducted after approval of Contractor selection by the Policy Committee. All agreements must be approved and executed by the Study Agency. Standard contract language is available for advance review by request to the Program Manager.

## **11. INSURANCE**

The Contractor shall provide insurance in coverage and amount acceptable to the Study Agency. The Study Agency will require that any Contractor prior to endorsement of a contract meet the following insurance requirements for this project.

Without limiting Study Agency's right to obtain indemnification from Contractor or any third parties, the Contractor, at its sole expense, shall maintain in full force and effect throughout the term of this Agreement the following insurance policy(s):

1. Liability insurance for bodily injury, including automobile liability, with limits of coverage of not less than Five Hundred Thousand Dollars (\$500,000) each person and One Million Dollars (\$1,000,000) each occurrence; and
2. Liability insurance for property damage with limits of coverage not less than Fifty Thousand Dollars (\$50,000) each occurrence; and
3. Workers compensation insurance in accordance with the California Labor Code; and
4. Commercial general liability insurance with minimum limits of coverage of not less than One Million Dollars (\$1,000,000) per occurrence.

The foregoing insurance policy(s) shall not be canceled, reduced, or changed without a minimum of thirty (30) calendar days' advance, written notice given to Study Agency.

Prior to performing its obligations under this Agreement, the Contractor shall provide the Study Agency with a certificate of insurance from an insurer acceptable to Study Agency as evidence of complying with the insurance requirements described above.

*RFP: Improved estimation of air-quality impacts of wildfires at ambient air-quality monitors using grid-based air-quality models.*

## **12. DATA OWNERSHIP AND PUBLICATION**

The Study Agency shall have the right, at reasonable times during the project, to inspect and reproduce any data received, collected, produced, or developed by the Contractor. No reports, professional papers, information, inventions, improvements, discoveries, or data obtained, prepared, assembled, or developed by Contractor shall be released or made available (except to the Study Agency) without prior, express written approval from the Project Manager. At the completion of the project, the Contractor shall provide the Study Agency all data developed through conduct of the project that is in its possession. All data which is received, collected, produced, or developed from conduct of the project shall become the exclusive property of the Study Agency; however, the Contractor shall be allowed to retain a copy of any non-confidential data received, collected, produced, or developed by the Contractor. Should the Contractor subsequently include data collected in this project for other evaluations and publications, the Study Agency would appreciate a notification of publication and/or a copy of the article or manuscript published.

## **13. CONFIDENTIAL INFORMATION**

All responsible Proposals received by the Study Agency are public records available for review by the public after the selection process is completed. Proposals containing information the Proposer identifies as confidential or proprietary will be rejected as nonresponsive.

## **EXHIBIT A**

### **Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion Lower Tier Covered Transactions**

This certification is required by the regulations implementing Executive Order 12549, Debarment and Suspension, 29 CFR Part 98 Section 98.510, Participants' responsibilities. The regulations were published as Part VII of the May 26, 1988, Federal Register (pages 19160-19211).

(1) The prospective recipient of Federal assistance funds certifies that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

(2) Where the prospective recipient of Federal assistance funds is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this Proposal.

---

Name and Title of Authorized Representative

Signature \_\_\_\_\_

Date \_\_\_\_\_

**EXHIBIT B**  
Proposal Budget Summary

**Direct Costs:**

|  |                 |
|--|-----------------|
| 1. Labor & Employee Fringe Benefits (provide detailed breakdown by task and employee on separate sheet [including subcontractors]) | \$ _____        |
| 2. Equipment (provide detailed breakdown on separate sheet)  | \$ _____        |
| 3. Travel & Subsistence  | \$ _____        |
| 4. Electronic Data Processing  | \$ _____        |
| 5. Photocopying/Printing/Mail/Telephone/FAX  | \$ _____        |
| 6. Materials and Supplies  | \$ _____        |
| 7. Miscellaneous (please specify)  | \$ _____        |
| <b>TOTAL DIRECT COST:</b>  | <b>\$ _____</b> |

**Indirect Costs:**

|   |                 |
|---|-----------------|
| 8. Overhead (specify rate)                          | \$ _____        |
| 9. General & Administrative Expenses (specify rate) | \$ _____        |
| 10. Other Indirect Costs (please specify)           | \$ _____        |
| 11. Fee or Profit (specify rate)                    | \$ _____        |
| <b>TOTAL INDIRECT COST:</b>                         | <b>\$ _____</b> |

**TOTAL DIRECT AND INDIRECT COST:** \$ \_\_\_\_\_