

**REQUEST FOR PROPOSAL**

**WESTERN GOVERNORS' ASSOCIATION  
WESTERN REGIONAL AIR PARTNERSHIP (WRAP)**

**2002 National Wildfire Emissions Inventory**

April 27, 2004

**INVITATION TO BID**

DATE: April 27, 2004  
 BID NO: 04WGA132WRAP  
 DIRECT INQUIRIES TO: Richard Halvey  
 PHONE NO: (303) 623-9378

RETURN BID TO: Western Governor's Association  
 1515 Cleveland Place, Suite 200  
 Denver, Colorado 80202  
 Attn: Richard Halvey

DATE BID DUE: 2:00 p.m., Mountain Daylight Time, May 28, 2004

Bids properly marked as to BID NO., DATE, and HOUR of opening, subject to the conditions herein stipulated and in accordance with the specifications set forth and/or attached hereto, will be accepted at the address listed above, prior to the date and time listed for the bid opening. All bids shall be quoted F.O.B. destination, unless otherwise specified, to the delivery location listed herein.

**SEALED COMPETITIVE PROPOSAL FOR:  
 2002 National Wildfire Emissions Inventory**

Prices shall be quoted F.O.B. destination and include delivery to the Western Governors' Association. See attached pages for terms and conditions and proposal requirements.

**IMPORTANT:** Bidders should read the entire document before submitting bid.  
**BIDS MUST BE SIGNED IN INK.**

TERMS: Terms of less than 30 calendar days will not be considered.

\_\_\_\_\_  
 TYPED OR PRINTED SIGNATURE

\_\_\_\_\_  
 Handwritten signature by Authorized  
 Officer or Agent of Vendor (in ink)

TITLE \_\_\_\_\_  
 DATE \_\_\_\_\_  
 PHONE # \_\_\_\_\_

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

\_\_\_\_\_  
 VENDOR NAME AND ADDRESS

The above bid is subject to Terms and Conditions on attached sheets.

**RETURN THIS COPY**

**PROPOSER COST SUBMITTAL**

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PROPOSER'S NAME

---

PROPOSER'S ADDRESS STREET AND NUMBER

---

CITY

STATE

ZIP CODE

---

NAME OF AUTHORIZED OFFICIAL (PRINT OR TYPE)

---

OFFICIAL TITLE

---

SIGNATURE OF AUTHORIZED OFFICIAL

---

TELEPHONE NUMBER

---

E-MAIL ADDRESS

TOTAL COST

\_\_\_\_\_

## **RFP TERMS AND CONDITIONS**

1. **LATE BIDS/PROPOSALS WILL NOT BE ACCEPTED OR CONSIDERED.** It is the responsibility of the bidder/proposer (hereinafter “bidder” or “proposer”) to ensure that the bid/proposal (hereinafter “bid” or “proposal”) arrives prior to the time and at the place indicated in the bid. Telephone or facsimile responses will not be accepted.
2. Specifications are provided to identify product/service required and to establish an acceptable quality level. Bids on products of equal quality and usability will normally be considered unless otherwise stated. The Western Governors’ Association (WGA) will be the sole judge in determining “equals” in regard to quality, price and performance. Samples of product(s), when required, must be furnished free of expense to the WGA, and, if not destroyed by tests, may upon request at the time the sample is furnished, be returned at bidder’s expense. Failure to furnish brochures, specifications, and/or samples as requested may be sufficient cause for rejection of bids.
3. Bidders shall furnish all the information required and are expected to examine the drawings, specifications, schedule of delivery and all instructions. Should the bidder find any part of the listed specifications, terms and conditions to be discrepant, incomplete or otherwise questionable in any respect, it shall be the responsibility of the bidder to call such matters to the attention of the WGA immediately. Failure to do so will be at the bidder’s risk. All official changes to this bid will be furnished, in writing by the WGA.
4. The bidder shall furnish the products and/or services in strict accordance with the specifications, and at the price set forth for each item. In case of error in extension, the unit price will prevail. All products quoted shall be newly manufactured and of the manufacturer’s current model, unless otherwise specified.
5. Bidders must furnish all Material Safety Data Sheets (MSDS) for any chemicals or hazardous materials. Awards may not be made if MSDS are not received by the WGA.
6. The bid should be returned in an envelope sealed and properly marked as to bid number and opening time and date.
7. No bid shall be withdrawn for a period of less than sixty (60) calendar days subsequent to the opening of the bids, unless otherwise stipulated by the WGA.
8. **Americans with Disabilities Act (ADA) Requirements.** The vendor assures that, at all times during the performance of this contract, no qualified individual with a disability shall, by reason of that disability, be excluded from participation in, or be denied benefits of services, programs, or activities performed by the vendor or be subject to any discrimination by the vendor.
9. **Independent Contractor.** The contractor shall perform its duties herein as an independent contractor and not as an employee. Neither the contractor nor any agent or employee of

the contractor shall be, or shall be deemed to be, an employee or agent of the WGA. Contractor shall pay when due all required employment taxes and income tax withholding, shall provide and keep in force workers compensation (and show proof of such insurance) and employment compensation insurance in the amounts required by law, and shall be solely responsible for the acts of the contractor, its employees, and its agents.

10. Bidder agrees to comply with all applicable federal and state laws, regulations and policies, as amended, including those regarding discrimination and unfair labor practices.

## ADMINISTRATIVE INFORMATION

- A. ISSUING OFFICE: This Request For Proposal (RFP) is issued by the Western Governors' Association (WGA). The WGA is the sole point of contact on this RFP.
- B. INVITATION TO SUBMIT PROPOSALS: The WGA is hereby contacting prospective offerors who have an interest or are known to do business relevant to this RFP. All interested offerors who were not contacted are invited to submit a proposal in accordance with the rules, procedures and dates set forth herein. In the event of "No Bid", please sign the Invitation for Bid form, indicating "No Bid," and return it to the WGA.
- C. PURPOSE: This RFP provides prospective offerors with sufficient information to enable them to prepare and submit proposals for consideration by the WGA to satisfy the need for expert assistance in the completion of the goals of this RFP.
- D. SCOPE: This RFP contains the instructions governing the proposal to be submitted and the material to be included therein, including mandatory requirements which must be met to be eligible for consideration.

E. SCHEDULE OF ACTIVITIES:

1.	RFP Published	04/27/04
2.	Pre-Proposal Conference	05/14/04
3.	Prospective Offerors' Written Inquiry	05/17/04
4.	Proposal Submission	
	5 hard copies including original and 1 electronic copy	05/28/04
5.	Bidder Interviews (option of the WGA)	06/07/04
6.	Proposal Selection (estimated)	06/14/04
7.	Contract Finalized (estimated / week of)	06/21/04
8.	Contract Period	06/04-3/05

- F. INQUIRIES: Unless otherwise noted, prospective offerors may make written inquiries concerning this RFP to obtain clarification of the requirements. No inquiries will be accepted after the date/time indicated in the Schedule of Activities. Send all inquiries to:

Western Governors' Association  
1515 Cleveland Place, Suite 200  
Denver, Colorado 80202  
Attn: Richard Halvey (rhalvey@westgov.org)

Response to offerors inquiries will be made in writing in a timely manner to all prospective offerors. Any oral interpretations of clarifications to this RFP shall not be relied upon. All changes to this RFP must be in writing to be valid.

- G. MODIFICATION OR WITHDRAWAL OF PROPOSALS: Proposals may be modified or withdrawn by the offeror prior to the established due date and time.
- H. PROPOSAL SUBMISSION: Proposals must be received on or before the date and time indicated in the Schedule of Activities. Late proposals will not be accepted. It is the responsibility of the offeror to ensure that the proposal is received by the WGA on or before the proposal opening date and time. Offerors mailing their proposals shall allow sufficient mail delivery time to ensure receipt of their proposals by the time specified. The proposal package shall be delivered or sent by mail to:

Western Governor's Association  
1515 Cleveland Place, Suite 200  
Denver, Colorado 80202  
Attn: Richard Halvey

The WGA Invitation for Bid form must be signed in ink by the offeror or an officer of the offeror legally authorized to bind the offeror to the proposal. Proposals that are determined to be at variance with RFP requirements may not be accepted. Proposals must be submitted and sealed in a package showing the following information on the outside of the envelope:

OFFEROR'S NAME  
RFP-NO.  
PROPOSAL DUE DATE AND TIME

- I. ADDENDUM OR SUPPLEMENT TO REQUEST FOR PROPOSAL: In the event that it becomes necessary to revise any part of this RFP, an addendum will be provided to each offeror who received the original RFP. It is the responsibility of offerors, prior to the bid date, to enquire as to addenda issued and ensure their bid reflects any and all changes. The WGA will maintain a register of holders of this RFP. Any party receiving this RFP other than from the WGA should inform the WGA of its interest in order to ensure receipt of any addenda.
- J. BIDDER INTERVIEWS: Offerors who are deemed most qualified after initial evaluation may be asked to interview with the selection committee.
- K. ACCEPTANCE OF RFP TERMS: A proposal submitted in response to this RFP shall constitute a binding offer. Acknowledgment of this condition shall be indicated by the signature of the offeror or an officer of the offeror legally authorized to execute contractual obligations. A submission in response to this RFP acknowledges acceptance by the offeror of all terms and conditions, including compensation, as set forth herein. Any offeror shall identify clearly and thoroughly any variations between its proposal and this RFP. Failure to do so shall be deemed a waiver of any rights to subsequently modify the terms of performance.

- L. PROTESTED SOLICITATIONS AND AWARDS: Any actual or prospective offeror or contractor who is aggrieved in connection with the solicitation or award of a contract may protest to the Executive Director of the WGA. The protest shall be submitted in writing within seven working days after such aggrieved person knows or should have known.
- M. COST DATA/BUDGET: Proposals for \$10,000 or more must include Cost/Data/Budget providing factual information concerning the cost of labor, material, travel, overhead and other cost elements expected to be incurred.
- N. CONFIDENTIAL/PROPRIETARY INFORMATION: Any restrictions on the use or inspection of material contained within the proposal shall be clearly stated in the proposal itself. Written requests for confidentiality shall be submitted by the offeror with the proposal. The offeror must state specifically what elements of the proposal are to be considered confidential or proprietary. Confidential and proprietary information must be readily identified, marked and separated/packaged from the rest of the proposal. Co-mingling of confidential or proprietary information and other information is not acceptable. The WGA will make a written determination as to the apparent validity of any request for confidentiality and send it to the offeror. Neither a proposal in its entirety nor proposal price information will be considered confidential or proprietary. Any information that will be included in any resulting contract cannot be considered proprietary.
- O. RFP RESPONSE MATERIAL OWNERSHIP: All material submitted regarding this RFP becomes the property of the WGA. Proposals may be reviewed by any person after the Notice of Intent to Award letter has been issued. The WGA reserves the right to use any and all information and material presented in reply to the RFP, subject to the limitations outlined in (N), Confidential/Proprietary Information. Disqualification of an offeror does not eliminate this right.
- P. PROPOSAL PRICES: Estimated proposal prices are not acceptable. Best and final offers cannot be considered in determining the apparent successful offeror. All work toward a deliverable task will be billed on a time and materials basis subject to a not to be exceeded budget for each deliverable task or contract. All work will be performed consistent with the schedule specified in the contract.
- Q. SELECTION OF PROPOSAL: All offerors will be notified in writing regarding the results of the RFP evaluation. Upon review and approval of the evaluation committee's recommendation for award, the WGA will issue a Notice of Intent to Make Award letter to the apparent, successful offeror. A contract must be completed and signed by all parties concerned on or before the date indicated in the Schedule of Activities. If this date is not met through no fault of the WGA, the WGA may elect to cancel the Notice of Intent to Make Award letter and make the award to the next most responsive offeror.
- R. AWARD OF CONTRACT: The award will be made to that offeror whose proposal, conforming to the RFP, will be the most advantageous to the WGA, price and other factors considered.

- S. ACCEPTANCE OF PROPOSAL CONTENT: The contents of the proposal of the successful offeror, including persons specified to implement the project, will become contractual obligations if acquisition action ensues. Failure of the successful offeror to accept these obligations in a contract may result in cancellation of the award, and such offeror may be removed from future solicitations.
- T. STANDARD CONTRACT: The WGA reserves the right to incorporate standard WGA contract provisions into any contract resulting from this RFP.
- U. RFP CANCELLATION: The WGA reserves the right to cancel this Request for Proposal at any time without penalty.
- V. WGA OWNERSHIP OF CONTRACT PRODUCTS/SERVICES: Proposals, upon established opening time, become the property of the WGA. All products/services produced in response to the contract resulting from this RFP will become the sole property of the WGA. The contents of the successful offeror's proposal will become contractual obligations.
- W. INCURRING COSTS: The WGA is not responsible for any cost incurred by offerors prior to the issuance of a legally executed contract or procurement document. No proprietary interest of any nature shall occur until a contract is awarded and signed by all concerned parties.
- X. MINORITY PARTICIPATION: It is the WGA's goal to achieve maximum participation of minorities in the procurement process. Accordingly, minority enterprises are to be utilized whenever possible. By the submission of a proposal, the offeror shall agree to utilize the maximum amount of minority business firms that the offeror finds to be consistent with the efficient performance of any resulting contract.
- Y. NON-DISCRIMINATION: The offeror shall comply with all applicable state and federal laws, rules, and regulations involving non-discrimination on the basis of race, color, religion, national origin, age, or sex.
- Z. REJECTION OF PROPOSALS: The WGA reserves the right to reject any and all proposals and to waive informalities and minor irregularities in proposals received and to accept any portion of a proposal or all items proposed if deemed in the best interest of the WGA.
- AA. PARENT COMPANY: If an offeror is owned or controlled by a parent company, the name, main office address, and parent company's tax identification number shall be provided in the proposal.
- BB. NEWS RELEASES: News releases pertaining to this RFP shall not be made prior to execution of the contract without prior written approval of the WGA.

CC: CONTRACT CANCELLATION: The WGA reserves the right to cancel, for cause, any contract resulting from this RFP by timely written notice to the contractor.

DD. CERTIFICATION OF INDEPENDENT PRICE DETERMINATION:

1. By submission of this proposal, each offeror certifies, and in the case of a joint proposal each party thereto certifies, as to its own organization, that in conjunction with this procurement:
  - (a) The prices in this proposal have been arrived at independently, without consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other offeror or with any competitor;
  - (b) Unless otherwise required by law, the prices which have been quoted in this proposal have not been knowingly disclosed by the offeror prior to opening, directly or indirectly to any other offeror or to any competitor; and
  - (c) No attempt has been made or will be made by the offeror to induce any other person or firm to submit or not submit a proposal for the purpose of restricting competition.
  
2. Each person signing the Invitation for Bid form of this proposal certifies that:
  - (a) He is the person in the offeror's organization responsible within that organization for the decision as to prices being offered herein and that he has not participated, and will not participate in any action contrary to (1)(a) through (1)(c) above; or
  - (b) He is not the person in the offeror's organization responsible within that organization for the decision as to the prices being offered herein but that he has been authorized in writing to act as agent for the persons responsible for such decision in certifying that such persons have not participated, and will not participate in any action contrary to (1)(a) through (1)(c) above; and as their agent does hereby so certify; and he has not participated, and will not participate, in any action contrary to (1)(a) through (1)(c) above.
  
3. A proposal will not be considered for award where (1)(a), (1)(c), or (2) above has been deleted or modified. Where (1)(b) above has been deleted or modified, the proposal will not be considered for award unless the offeror furnishes with the proposal a signed statement which sets forth in detail the circumstances of the disclosure and the head of the agency, or his designees, determines that such disclosure was not made for the purpose of restricting competition.

EE. TAXES: The WGA, as a purchaser designated as a 501(c)(3) organization, is exempt from all federal taxes and from all state and local government use taxes. Seller is hereby notified that when materials are purchased in certain political subdivisions, the seller may be required to pay sales tax even though the ultimate product or service is provided to the WGA. This sales tax will not be reimbursed by the WGA.

- FF. ASSIGNMENT: Except for assignment of antitrust claims, neither party to any resulting contract may assign any portion of the agreement without the prior written consent of the other party.
- GG. AVAILABILITY OF FUNDS: Financial obligations of the WGA payable after the current fiscal year are contingent upon funds for that purpose being appropriated, budgeted, and otherwise made available. In the event funds are not appropriated, any resulting contract will become null and void, without penalty to the WGA.
- HH. INSURANCE: If the proposal so states, the contractor shall procure at its own expense, and maintain for the duration of the work, the following insurance coverages and provide the WGA with certificates as an additional insured.
1. Standard Worker's Compensation and Employers' Liability, as required by State statute, including occupational disease, and covering all employees at a work site.
  2. General Liability (PL & PD) (Minimum)
    - (a) Combined single limit - \$600,000 written on an occurrence basis.
    - (b) Any aggregate limit will not be less than \$1 million.
    - (c) Contractor must purchase additional insurance if claims reduce the annual aggregate below \$600,000.
    - (d) WGA to be named as additional insured on each comprehensive general liability policy.
    - (e) Certificate of Insurance to be provided to the WGA within 10 working days of the receipt of the award.
    - (f) Insurance shall include provisions preventing cancellation without 60 days prior notice by certified mail to the WGA.
  3. Automobile Liability (minimum). The Contractor shall carry a minimum of \$600,000 combined single limit auto insurance.
  4. Additional coverages may be required in specific solicitations.

For any insurances required by this RFP, a completed Standard Certificate of Insurance form shall be provided to the WGA by the contractor prior to the date of any contract.

- II. INDEMNIFICATION: To the extent authorized by law, the contractor shall indemnify, save and hold harmless the WGA, its employees, and agents, against any and all claims, damages, liability, and court awards including costs, expenses, and attorney fees incurred as a result of any act or omission by the contractor or its employees, agents, subcontractors, or assignees pursuant to the terms of the contract resulting from this RFP.
- JJ. VENUE: The laws of the State of Colorado, U.S.A. shall govern in connection with the formation, performance and the legal enforcement of any resulting contract.

## **Administrative**

1. All products/services produced in response to the contract resulting from this RFP will become the sole property of the WGA.
2. Computer code products produced for this project may remain confidential, but WGA will be able to manipulate as needed for this project.
3. The products/services resulting from this contract will not be subject to separate renewal or upgrade fees during the life of the contract.
4. Licenses for proprietary software and other products included as part of the package of products/services resulting from this contract will not be subject to separate renewal or upgrade fees.
5. The successful offeror will provide a warranty provision for the products/services resulting from this contract, for the life of the contract, starting from the date that the project deliverables are fully operational.
6. The capabilities of the project deliverables will be maintained from the date that the project deliverables are fully operational, such that staff turnover is less than 20% per year of the portion of the company or institution routinely operating the project deliverables.
7. The successful offeror may be an individual company, entity, or institution, or may be composed of a team of companies, entities, and/or institutions to handle the development and routine operations portions of this project.
8. No changes to the staffing of the prime and any subcontractors can be made without prior written approval by WGA.

## **1.0 Scope of Work**

### **1.1 Background**

The Western Regional Air Partnership (WRAP) is a collaborative effort of tribal governments, state governments, and various federal agencies to implement the recommendations of the Grand Canyon Visibility Transport Commission (GCVTC), and to develop the technical and policy tools needed by western states and tribes to comply with the U.S. Environmental Protection Agency's (EPA) regional haze rule (RHR). Other common western regional air quality issues raised by the WRAP membership may also be addressed. WRAP activities are conducted by a network of committees and forums composed of WRAP members and stakeholders who represent a wide range of viewpoints.

The objective of this RFP is to develop a national wildfire emissions inventory for the year 2002. The primary purpose of the inventory is to support atmospheric modeling of fine particulate mass and visibility for the year 2002. The modeling will be performed for or by the five Regional Planning Organizations (RPO) that were established under the Environmental Protection Agency (EPA)'s regional haze rule and will support development of state and tribal implementation plans under this rule. The inventory may also be used to supplement state inventory submittals for 2002 under EPA's Consolidated Emissions Reporting Requirements or to update EPA's National Emissions Inventory for 2002. For these inventory and modeling purposes, fire activity data should be maintained at the finest temporal and spatial scale available. Emissions should be calculated for individual fires and compiled to define monthly and annual inventories. Data should be supplied in easily assessable format (e.g. Excel) for general review purposes. Individual fires are to be reported as point sources using EPA National Inventory Format Version 3.0 (NIF3.0) and consistent with EPA formatting requirements and the Inter-RPO Data Exchange Protocol (see Appendix 1). Fires are also to be composited as monthly inventories by county in NIF3.0 area source format and in formats required by the individual RPOs.

This RFP is intended to support the wildfire inventory needs of the five RPOs. A significant component of this RFP is to provide consistent methodology for a national wildfire inventory. The successful bidder will be expected to work with each RPO to establish their specific priorities and inventory needs and to integrate the collective priorities into the total work effort. The general scope of work is described below. A National Fire Emissions Technical Workshop will be held May 4-6, 2004 in New Orleans, LA. The successful bidder will be expected to implement the recommendations from the Workshop to provide consistent methodology across the five RPOs. Three of the five RPOs are already developing first draft fire inventories. The Midwest RPO is sponsoring development of a 2002 wildfire inventory for the Midwest states plus Iowa and Wisconsin. This inventory will be available by June 1, 2004. VISTAS contracted and received delivery of a draft 2002 inventory for wildfire, prescribed fire, land clearing, and agricultural burning based on fire activity data submitted by the southern states and federal agencies. The draft inventory has been reviewed by state and federal forestry agencies and revised. The revised 2002 inventory is available on the MACTEC FTP site upon request. The WRAP has contracted for delivery of a draft 2002 wildfire inventory in April 2004. It will be available after April 20, 2004 by request. Working with the US Forest Service, the WRAP

Fire Forum has developed guidelines for using wildfire activity data and fire models to develop detailed emissions estimates.

The WRAP and VISTAS have air quality modeling schedules that require the 2002 fire inventory data (with individual fires formatted as point sources) be available no later than September 30, 2004. To meet this schedule, the contractor will be expected to complete initial collection of fire activity data by no later than July 31, 2004 and deliver a draft 2002 fire inventory for review by August 15, 2004. The state and federal agencies that provided the original fire activity data and the RPOs will review and comment on the draft inventory and the contractor will incorporate revisions into the 2002 Wildfire inventory delivered by September 30, 2004. Because draft 2002 fire inventories have already been developed for 3 of the 5 RPOs, the focus for these 3 inventories will be methods improvement and consistency rather than primary data collection. A comparison of the three RPO inventories with the final product from this RFP will be conducted by the bidder. The other RPOs may have schedule requirements that will allow submittal of their 2002 inventories after the September 30, 2004 date but not to exceed December 31, 2004.

## 2.0 Project Tasks and Deliverables

### **Task 1: Project Management**

#### **Task 1a: Finalize Project Workplan**

The bidder's response to this RFP should be sufficiently detailed to provide clear understanding of the proposed level of effort and costs associated with each of the following tasks. This task is intended to allow the contractor to update the proposed scope of work with specific information provided by the participating RPOs concerning inventory needs and data availability and to reflect specific recommendations from the National Fire Workshop. Task priorities will be established by the Inter-RPO Steering Committee. *Due: 3 weeks after contract execution*

#### **Task 1b: Quality Assurance Quality Control (QA/QC) Plan**

A detailed QA/QC plan is required as part of this task. The QA/QC plan should include description of methods to screen wildfire activity data, apply emissions factors, and calculate and report emissions, including explicitly addressing resolution of "complex" fires (multiple fires that are managed as one for suppression purposes) and duplicate records and the use of Geographic Information Systems (GIS) to refine spatial locations of fires. QA/QC methods are further discussed in the subsequent tasks. The QA/QC plan must be approved by the Inter-RPO Steering Committee and the Contract Officer prior to implementation. *Due: 3 weeks after contract execution*

#### **Task 1c: Participation in conference calls and meetings**

The bidder should assume participation in monthly calls with the Inter-RPO steering committee at a minimum and attendance at two 2-day national meetings. The bidder should also budget

time to prepare presentations updating project status for these meetings, in addition to presentations of results and final report (task 9).

## **Task 2: Wildfire Activity Data Collection:**

Centralized wildfire activity information is available from a limited number of sources. The sources may be specific to a particular federal agency that committed resources to a wildfire incident, or the source may be inclusive of all land management agencies (state, local, etc.). Information on wildfires not occurring on federal lands or requiring federal resources may not be included within any federal reporting system. Generally speaking, most federal reporting mechanisms are available in electronic format, and contain detailed information as to a fire's approximate location, timing, and activity. State reporting mechanisms are more variable with differing levels of detail and availability.

Initial efforts have been made to gather wildfire information from both the USDA Forest Service, and the Department of Interior agencies that manage wildland fires. To date, activity information has been obtained, electronically, for 2002 wildfire incidents nation-wide from the following sources:

- USDA FS NIFMID/WIMS Database
- DOI 1202/SACS Fire Occurrence Database
- FS/DOI ICS-209 Database

This raw data is available upon request. The USDA and USDOJ track wildfire activity information with agency-specific annual reporting forms (NIFMID/WIMS and 1202/SACS respectively), and with individual databases for all wildfires regardless of size. The USDA and USDOJ also utilize a daily Interagency ICS-209 Report Forms for wildfires larger than 100 acres in timber and larger than 300 acres in grass and brush fuel types, which are considerably less detailed, but generally provide sufficient spatial, temporal, activity information and some observational fuel information. The daily forms are used to populate an interagency fire-occurrence database used for public information and fire suppression resource management and likely contains most of the incidents appearing in either of the annual FS or DOI databases, as well as additional incidents that may not appear in the individual federal systems as some states, tribes and counties also use the system. Any one wildfire may appear in one or all of the information sources. A record-by-record analysis will be required to assess which incidents appear as duplicates among the information sources, which records match on another, and which records are unique to a particular information source. The ICS-209 database is a primary data source for temporally allocating activity and subsequent emissions.

At a minimum, the following fields will be needed for each wildfire record appearing in the activity inventory to create a temporally- and spatially-resolved emissions inventory.

Require fields include:

- Burn Date(s)
- Number of Acres Burned (blackened acres preferred, perimeter if only data available)

- Latitude/Longitude of fire center as recorded or converted from Township/Range/Section. Latitude/Longitude of county center if only county data are available. If a single fire spanned multiple counties, define a number of acres burned per county.

Incidents that do not reflect this minimal activity information, or possess enough information to place an incident in a specific time and place, will need to be separated from the final activity inventory and provided as a separate file to the RPOs. This submittal will also include fires less than 10 acres in size.

Additional data fields that would be useful if available include:

- Incident name
- Incident number
- State
- County
- Discovery date
- Date fire strategy met or controlled
- Total acres burned
- Type of material burned
- Fuel loading (tons/acre)

These data may be helpful in the producing the required activity information described above and in providing information about an incident that can be used to discriminate records between and among information sources

The following sources of wildfire activity can be utilized to further refine the final activity inventory, or provide baseline information for states or areas for which wildfire records from the above sources is absent or incomplete:

- 2002 Wildfire activity statistics reports
- BLM National Fire Data Occurrence Database
- State/Local Records
- National Situation Reports

Annual wildfire statistics are published infrequently by the USDA FS. The annual number of fires and total acres burned were made available for each WRAP state during the creation of the initial 1996 Wildfire Activity Inventory. These statistics may be useful to evaluate how well wildfire frequency and intensity in 2002 reflect other years.

Further data collection is expected from local fire departments, counties, and large industrial timber landholders, states, or tribal governments, especially in areas where federal land ownership is small or where data is clearly lacking. The level of effort in this data collection can be prioritized using the above sources of data and Table 1 below. National Situation Reports, which are created from 209 Report Forms, may also provide additional information about a fire's location, timing, and fuel type. The Situation Reports may also provide information about a fire that was communicated by means other than the 209 Reports, such as direct communication

between incident commanders and operation support personnel. VISTAS has already collected wildfire activity data from state and local forestry agencies as has WRAP and the MWRPO. These datasets or formats are available by request and will be provided as they are available to the successful bidder (not all datasets will be available during the bidding period for this RFP).

Additional Geographic Information System (GIS) overlays may also be needed to complete needed fuels information, such as required for National Fire Danger Rating System (NFDRS) fuel models, or to provide needed spatial information such as county or state, from available spatial information. A cross-walk table will need to be used where observational information is available on fuels but are not classified using a NFDRS fuel model. Observation based fuel information is preferred over GIS-based fuel model assignment to NFDRS or other alternatives.

***Due: initial collection of wildfire activity data completed by July 15, 2004. Updated activity data to be incorporated in revised fire inventory due by Sept. 30, 2004***

### **Task 3: Inventory Structuring and Dataset Configuration**

The RPO Steering Committee recommends that criteria be set to define the level of detail that will be provided for each individual fire, based on proximity to Class I areas or Metropolitan Statistical Areas (MSA), acreage burned, and data availability. Preliminary criteria are listed in Table 1. The successful bidder will be expected to finalize the criteria in response to recommendations from the National Fire Workshop and to include the updated criteria in the final project workplan.

**Table 1.** Wildfire emissions inventory development.

Daily Acres	Distance from MSA or Class I	Spatial Resolution	Temporal Resolution	Fuel ID	Fuel Moisture	Fuel Consumption
10-99 (Class C)	>50 miles	TRS/Lat Long Centroid	Default Hourly Distribution*	Regional Composite	Default*	Default*
10-99 (Class C)	<50 miles	TRS/Lat Long Centroid	Default Hourly Distribution*	Regional Composite or NFDRS GIS layer	Default*	Default*
100-999 (Class D-E)	>50 miles	TRS/Lat Long Centroid	Start Time and Consume/EPM Hourly Distrbn	Observed or NFDRS GIS layer	Default* or Near RAWS site	Default* or Modeled**
100-999 (Class D-E)	<50 miles	TRS/Lat Long Centroid	Start Time and Consume/EPM Hourly Distrbn	Observed or NFDRS GIS layer	Nearest RAWS site	Modeled**
1000+ (Class F-G)		TRS/Lat Long Centroid	Start Time and Consume/EPM Hourly Distrbn	Observed or NFDRS GIS layer	Nearest RAWS site	Modeled**

\*Default hourly distribution, fuel moisture, and fuel consumption to be defined by each RPO for their region

\*\* Modeled using fire consumption model such as CONSUME or comparable model

### Task 3a: Data Completeness

Activity information from each information source should be identified and reviewed to ensure that each incident contains sufficient temporal, spatial, and activity information. Incidents having no fire activity (i.e. “0” acres burned), no spatial information, and no start and end dates should be removed from the data set. Any prescribed fires included within the records from any source should also be removed. (Prescribed fires should be retained in a separate file to allow states or individual RPOs to authorize additional effort to compile and quality assure prescribed burn activity data and to calculate and report prescribed fire emissions for selected states.)

Pertinent information from all remaining wildfire records should be placed into a single dataset, using the following field descriptors as a template for the preliminary inventory:

- Information Source
- Fire Name
- Fire Number
- Agency
- Unit
- Start Date
- Fire Start Time
- End Date (control date)
- Burn Date\*
- County
- State
- Acres Burned Daily \* (including separate accounting of blackened acres vs fire perimeter, as data permit)
- Township
- Range
- Section
- Vegetation Description/Fuel Type
- Fuel Loading
- NFDRS Fuel Model

\*Denotes calculated or contrived values or fields

Additional data will be generated for fires falling in those categories for which the NFDRS fuel models will be used (see task 4).

Wildfire records, once placed within a template as described above, may be more easily compared with other records, within and among other data sources. All retained incidents should demonstrate fire activity on one or more days, a location (with land ownership being the lowest-level of resolution), and a burn date or a range of burn dates.

### **Task 3b: Source Comparison and Incident Evaluation**

Using a wildfire's name, total acres burn, start date, end date, state, and latitude/longitude or T/R/S, each fire occurrence will need to be evaluated and compared among fire records from all other information sources. "Duplicate" records (i.e. incidents appearing more than once within the same dataset) should be removed, with the record having the most complete information and/or largest fire size retained. Duplicate records will almost always have the same or similar fire name, the same or similar total fire size, the same or similar start and end dates, and location. All records unique to a particular database and having complete temporal and spatial information should be retained. These "non-matching" records will generally have a unique fire name (within any given state), have a significantly different total fire size compared to other fires in the area that burned at about the same time, and have a relatively distinct location and timing than the other fires.

Although a fire may have a unique fire name, it is important to consider that the fire may be included as part of another incident within the inventory. Often times a fire's name may be

abbreviated in one record or not in another, or a fire may have the same name but appear in multiple states. In addition, some fires appear in the one or more information sources as “complex” fires (multiple fires with different names managed as a single incident having only one name.) In these instances, a fire’s location and timing, and perhaps even total fire size, will be critical in categorizing fire activity.

### **Task 3c: Inventory Refinement and Incident Processing**

Records appearing in the inventory at this stage should have fairly complete temporal, spatial, and activity information. The inventory should also not contain redundant wildfire information, that is, activity should not be duplicated, with each fire occurring independently of one another. GIS applications may be useful for this purpose. When significant missing fields or redundant files are found, they should be compiled for transmittal to sources for a follow-up data request where appropriate based on the priority established in Table 1.

In a separate database, fires which are not well temporally defined for daily fire size will need to be calculated using a fire’s total size, and dividing that size between the number of days between a fire’s start date and end date. Bidders should propose specific method to allocate acres among days in a multi-day burn. A “burn date” will be created for each day between the start date and end date. In other words, for incidents with more than one day as indicated between a fire’s start date and end date, a single fire record will be grown into a multiple-day burn event; each event will be given a date and a specific number of acres burned. Spatial and fuels information from the original record may be duplicated to the other burn days. In addition, omitted matching records may be used to supplement the matching records that were retained. ICS-209 data should be used to drive this allocation to the maximum extent possible. The total final size of a fire in the various source data files may also need to be reconciled and an approach to do this will also need to be developed.

The activity inventory should be completed so that all fields are populated for each wildfire incident, consistent with the priorities set in Table 1, to produce a complete and uniform activity inventory.

Efforts will need to be made to account for each and every incident, from each information source. If records were deleted, omitted, or over-written, notes should be clear as to the disposition of each wildfire-day-incident. All the above steps shall be summarized in the QA/QC report.

*Due: This task should proceed in parallel to task 2 as data are available. Processed fire activity data due July 31, 2004. Updated activity data to be incorporated in revised fire inventory due by Sept. 30, 2004 for WRAP and VISTAS (other RPOs may be later).*

### **Task 4 Emissions Calculations**

Priorities outlined in Table 1 for Wildfire Inventory Development should be followed. Below these assumptions are described in further detail. For those RPOs that have already developed draft 2002 Wildfire inventories, the Contractor should review the existing assumptions and

identify specific differences from methods recommended by the Contractor or by the National Fire Workshop. RPOs with initial 2002 inventories retain final approval of the revised assumptions used to recalculate the 2002 wildfire inventory. State and federal agencies supplying fire activity data will be asked to reviewed draft fire activity data and draft fire emissions calculations.

### **Fuel Load Estimation**

The temporally and spatially resolved database should then be linked to the appropriate fuel load as defined by each RPO (e.g. WRAP-modified NFDRS fuel model: 1996 Fire Emission Inventory for the WRAP Region-Methodology and Emission Estimates Report). The WRAP-modified NFDRS provides for addition of crown and duff fuels not included in the base NFDRS fuel model but which are critical for calculation of emissions. The WRAP-modified NFDRS addresses all fuel models and is not limited to western types. In addition, USFS is developing a Fuel Characteristic Class coverage for use with fuel consumption models. The contractor should check for the latest updates to fuel databases, consumption and emissions models, and recommendations from the National Fire Workshop before making final emissions estimates.

### **Fuel Consumption**

Fuel consumption should be calculated using techniques consistent with Table 1. The contractor should review previous WRAP approaches as well as other more refined techniques such as model runs using CONSUME and options being considered by EPA and other RPOs. Fire severity should be assessed as an additional factor when calculating consumption for very large (>1000 acre) fires.

### **Emission Factors**

Emissions will need to be calculated for eleven pollutants (TSP, PM10, PM2.5, PM2.5 elemental carbon, PM2.5 organic carbon, VOC, CH4, NH3, NOx, CO, SO2 (PM coarse is also to be calculated)). Acceptable approaches will be based on use of AP-42, WRAP methods EPA's 2001 Development of Emissions Inventory Methods for Wildland Fire Report, and applicable more recent analyses (e.g. VISTAS 2002 draft fire inventory, EPA 2003 report). Smoldering emissions should be accounted for in the calculation of emissions and duration of smoke emission. Again the contractor should check the latest updates and recommendations from the National Fire Workshop before finalizing approach.

### **Hourly Emissions Profile**

Each RPO should be contacted to define hourly emissions profiles specific to that region or states. The emissions profile developed for the WRAP should be assessed to see if they may be refined. For Day One emissions and incident, time of ignition/start should be used where possible.

### **Plume Profile**

Where applicable, the wildfire emissions should be linked to a profile of plume height to support point source type model and emissions compilers. The WRAP plume profile approach should be used as a starting point for the initial estimates. The contractor should check other RPOs for comparable methods and any recommendations from the National Fire Workshop.

## **Fuel Moisture**

To apply specific fuel models, the following additional data is needed:

- Number days since last rain
- Dead Fuel moisture
- Live Fuel moisture
- Fuel Consumption
- Emissions

All above methods will be applied consistent with the approved QA/QC plan.

*Due: This task should proceed as data are available with delivery of the draft 2002 National Wildfire inventory due no later than Aug 15, 2004. States and federal agencies and RPOs will review the results and provide comment. The revised 2002 National Wildfire inventory is due Sep 30, 2004 for WRAP and VISTAS (other RPOs may be later).*

## **Task 5 Emissions Output Formats**

The RPOs are likely to use different modeling tools, therefore emissions should be formatted to be compatible with EMS, SMOKE, and the Open Emissions Model now under development (NIF3.0). Data should also be presented in format that is compatible with GIS applications. The role of the Inter-RPO data Transfer Protocol will be assessed for this purpose. Further information on data formatting is provided in Appendix 1.

Emissions data are to be shared as requested by the RPOs.

The Contractor shall compare 2002 wildfire emissions prepared under this contract with 2002 wildfire emissions in EPA's Comprehensive Emissions Reporting Requirement inventory and EPA's National Emissions Inventory for 2002 in the Final Report.

*Due: Model-ready 2002 National Wildfire Inventory due Sept 30 2004 for WRAP and VISTAS (other RPOs may be later).*

## **Task 6 Reports**

A report on methods used, data summary and model ready files will be developed specific to each RPO. Data summaries will include reports on activity information, data quality and reporting issues, temporal and spatial trends in each region, and emissions. Data are to be provided in a format consistent with Appendix 1 and the specific requests of each RPO.

The draft reports are due August 15, 2004 for the WRAP and VISTAS. Other dates are

dependent on the EI due date of the respective RPO. State and federal agencies and each RPO will review and provide comments. Final reports are due 2 weeks after review comments are submitted to the contractor.

**Optional Task 7: 2002 wildfire inventory for (a) Canada and/or (b) Mexico**

The objective of this optional task is to work with existing inventory efforts to deliver a 2002 wildfire inventory for Canada and/or Mexico for purposes of modeling PM2.5 and visibility. Methods and schedule for delivery should be consistent with those used to develop the 2002 US national wildfire inventory. Bidders are invited to provide an estimate of level of effort, costs, and schedule for this optional task. *Due December 31, 2004*

**Optional Task 8: Develop “representative” base year fire inventories for (a) current conditions and (b) future modeling year(s)**

The baseline planning period for the regional haze rule is the five-year period 2000-2004. The RPOs will need to estimate “representative” fire activity and emissions for the baseline planning period. Fire activity in 2002 may not be representative of the average activity over the 2000-2004 baseline period or other recent multi-year period. The RPOs will also need to project “representative” fire activity and emissions for the future modeling baseline of 2018. Bidders are invited to offer level of effort, costs, and schedule to provide “representative” current and future wildfire activity and emissions data, consistent with methods approved by the Contract Officer for tasks 1-6. *Due December 31, 2004.*

**Optional Task 9: Software development to convert section/township/range to latitude/longitude across the United States.**

Much of the wildfire and prescribed fire data uses legal location information based on section/township/range. Air quality models and emissions pre-processors use other coordinate systems such as latitude/longitude. In some parts of the country, software already exists to automatically convert section/township/range to latitude/longitude. In other parts of the country, software does not currently exist to automatically convert such data to latitude/longitude. Bidders are invited as an optional task to propose an approach and costs to develop appropriate software for this purpose that would allow for batch processing of such legal formatted data across the United States. Depending on level of effort, such a task may be funded as part of this inter-RPO contract or may be considered by individual states or RPOs. *Due September 2004.*

**Optional Task 10: 2002 Prescribed Fire Inventory**

Any prescribed fire records collected as part of task 2 should be retained in a separate file in the event that individual states or RPOs would like to request development of prescribed fire emissions for 2002 modeling purposes. These records should include prescribed fires that were separated from the federal wildfire records (task 2) or collected from local fire departments, counties, and large industrial timber landholders, states, or tribal governments. RPO dependent due date- no later than *December 31, 2004.*

### 3.0 Schedule/Deliverables

The contract term and work schedule below represent an estimate of the schedule that will be followed. If a component of this schedule is delayed, the rest of the schedule would be shifted. Alternate schedules may be proposed for interim dates; however, the proposer should justify any changes.

#### SCHEDULE OF ACTIVITIES:

1.	RFP Published	04/27/04
2.	Pre-Proposal Conference	05/14/04
3.	Prospective Offerors' Written Inquiry	05/17/04
4.	Proposal Submission	
	5 hard copies including original and 1 electronic copy	05/28/04
	to WGA office plus electronic copies to selection committee	
	members	
5.	Bidder Interviews (option of the WGA)	06/07/04
6.	Proposal Selection (estimated)	06/14/04
7.	Contract Finalized (estimated / week of)	06/21/04
8.	Contract Period	06/04-3/05
9.	Draft inventory data and report	08/15/04
10.	State and RPO review	09/10/04
11.	Revised 2002 National Wildfire inventory	09/30/04
12.	Final report	02/01/05

### 4.0 THE PROPOSAL

Any response to the RFP must include the following two parts:

A. Task completion requirements. Proposals should indicate the level of effort required, the approach to be taken (including examples of the potential formats for the final products), and include an estimate of hours and cost by task in tabular format.

B. Related experience. Successful bidders will have demonstrated expertise with the completion of similar assessment work, including the specific qualifications of the proposed staff

Proposal responses are limited to 30 pages, exclusive of key staff resumes and budgets. Five (5) copies of each proposal and one (1) electronic copy must be supplied. The electronic copy may be submitted either with the proposal response or by e-mail in Adobe Acrobat PDF format and should be exactly as the hard copy.

### 4.1 Anticipated Cost

The WGA currently has \$100,000 available for this project. Bidders are encouraged to be cognizant that the WRAP prefers bidders with efficient budgets.

#### **4.2 Amendments to the RFP**

The WGA reserves the right to issue amendments in the form of addenda to this RFP prior to the date for proposal submissions. All persons known by the WGA to have received the RFP will be sent any and all amendments. Failure to acknowledge receipt of the amendments in accordance with the instructions contained in the addenda may result in proposals being rejected. The WGA will allow a reasonable time for the acknowledgment of receipt following issuance of the amendments.

The WGA reserves the right to issue amendments after the date of proposal openings. All persons submitting proposals will be sent any such amendments. The failure to acknowledge receipt of amendments provisions stated in the previous paragraph will apply to post-opening amendments as well.

#### **4.3 Submission of proposal**

All proposals must be received by the WGA, 1515 Cleveland Place, Suite 200, Denver, CO 80202 on or before 2:00 PM MDT on May 28, 2004. The proposals will be publicly acknowledged at that time. Acknowledgment of the proposers' submission will occur on June 1, 2004 or as soon as possible thereafter.

Telephone, telegraph, e-mail, or fax proposals will not be accepted in lieu of the hard copy submission. A late proposal will not be eligible for consideration and will be returned unopened, with notification of the reason for its refusal. Proposers must submit their cost proposal, rounded to the nearest dollar, on the proposal form that accompanies this RFP and sealed in an envelope.

#### **4.4 Modification of Proposal**

Proposal modification by amendment will be accepted on conditions that:

- 1) The amendment arrives before the deadline for proposal submittal;
- 2) The amendment is in writing and signed by the proposer; and
- 3) The proposal, as amended, conforms in all aspects to the requirements in this RFP.

#### **4.5 Withdrawal of Proposal/Mistakes in Bid**

A proposal may be withdrawn at any time prior to the proposal opening.

#### **4.6 Disqualification of Proposers**

The WGA reserves the right to reject any and all proposals in writing, before or after the opening, for evidence of conditions including but not limited to collusion with intent to defraud or other illegal practices on the part of the proposer.

#### **4.7 Non-Conformance**

Any proposal that does not conform to all of the requirements of the RFP may be rejected. The WGA will so notify the affected proposer in writing of the rejection and the reason for the rejection.

#### **4.8 Statement of Financial Condition**

A firm shall provide a statement regarding its financial viability. Any submission is subject to review by the WGA and acceptance or rejection is at the discretion of the WGA.

The WGA reserves the right to ask for additional information concerning financial responsibility. If a proposer unreasonably fails to provide such information, the WGA may find the proposer to be non-responsive.

#### **4.9 Related Experience Statement**

The proposal must contain a proposer's experience statement as described below:

- 1) The proposer must provide a list of previous and current contracts of a similar nature, if any, which were awarded to the proposer by a governmental agency and/or the private sector. The statement should provide details on its management ability as well as its technical expertise and a listing of its projects and accomplishments.
- 2) The proposer must include the following in each list described above:
  - a. Contract duration, including dates;
  - b. Geographic area served; and
  - c. Name, address, and telephone number of the contracting agency which may be contacted for verification of all data submitted.

#### **4.10 Proposers Conference/Questions and Answers**

A proposers telephone conference will be held at 11:00 a.m. Mountain Time on May 14, 2004. The call in number is 312-461-9324, access code 915601.

The WGA will accept written questions through the close of business May 19, 2004. The WGA will provide written answers to all written questions as expeditiously as possible to

all persons and entities known to have received this RFP. The responses to questions will become a part of the RFP.

Any corrections or necessary revisions that are identified will result in a formal amendment to this RFP, which will be provided to all persons and entities known to have received this RFP.

#### **4.11 Evaluation of Proposals**

An evaluation committee will be established to evaluate all proposals in accordance with the evaluation factors stated in this RFP. After the initial review of the proposals by the evaluation committee, the proposers may be asked to make an oral presentation in support of their proposals. It is likely that the oral presentation will be done by telephone conference. Upon final consideration, the review team will make a recommendation to the Executive Director of the WGA. The Executive Director will make the final decision.

The evaluation committee is responsible for developing a final ranking of each proposal and recommending that the proposer deemed to be in the best interest of WGA be awarded the contract. In this capacity, the committee will:

- 1) Rate each proposal on the criteria; and
- 2) Develop a final ranking of each proposal with a narrative that addresses pertinent points and issues.

Proposals will be evaluated based on the following criteria:

- 1) The ability to provide sound technical support;
- 2) Experience with similar projects;
- 3) Personnel qualifications;
- 4) Availability and support of management;
- 5) Completeness and clarity of the proposal;
- 6) Cost;
- 7) Schedule; and
- 8) Offers of in-kind (no cost to the WGA) services from the bidder's organization, which will be reviewed under established WGA procedures

#### **4.12 Award of Contract**

The contract shall be awarded to the responsible proposer determined to be the most advantageous to the WGA based on the evaluation factors set forth in Section 4.11 of this RFP. After proposals are opened, meetings may be held with the proposers determined to be the most responsive. Discussion may be held to clarify requirements and to make minor adjustments in services to be performed and in related costs. Any change to the proposal shall be submitted/confirmed in writing by the contractor.

Before an award can be made to a proposer, the WGA reserves the right to reject any and all proposals or waive any minor nonsubstantive irregularity in proposals received. Upon selection of a proposal, the WGA will issue a Letter of Intent specifying a date by which a contract must be executed.

In the event the proposer the evaluation committee has determined to be the most advantageous withdraws their proposal, the award shall be given to the next declared most advantageous proposer as determined by the evaluation committee.

#### **4.13 Contract Duration and Renewal**

The WGA intends to sign the contract within 30 days or as soon as possible after notification to the successful proposer.

#### **4.14 WGA Preference**

Any or all proposals may be rejected in whole or in part if the executive director determines in writing that such action is in the WGA's best interest.

#### **4.15 Confidentiality**

The contents of all proposals, correspondence, working papers, and any other medium that discloses any confidential aspect of the proposal shall be held in the strictest confidence until notice of intent to award.

All proposals will be publicly opened. A register of proposals will be developed by the evaluation committee, providing a proposer name and description of that proposal. This register of proposals will be made public only after the contract is awarded. Confidential information submitted with proposals shall be readily separable and accompanied by a written request of confidentiality.

### **5.0 PRIME CONTRACTOR RESPONSIBILITIES**

If the proposal includes services supplied by other contractors, it will be mandatory for the successful proposer to identify them and to assume responsibility for their performance.

## **5.1 Subcontracting**

The Contractor's use of subcontractors shall not diminish the Contractor's obligations to complete the work in accordance with the contract. Each contractor shall control, coordinate, and be responsible for the work of subcontractors. The contractor shall be responsible for informing all subcontractors of all terms, conditions, and requirements of the contract. The WGA reserves the right to approve all subcontractors prior to their assumption of duties on behalf of the contractor. The contractor shall forward to the WGA a listing of each designated subcontractor that indicates their purpose or area of participation.

## **5.2 Patent and Copyright Infringement**

The contractor shall defend, protect, and save harmless the WGA, its officers, agents, and employees against all suits at law or in equity and from all damages, claims, or demands for actual or alleged infringement of any patent or copyright by reason of the contractor's use of any equipment or supplies in connection with the contract.

## **5.3 Conflict of Interest**

The contractor and/or subcontractors must affirm in writing that he/she currently has no interest and shall not acquire any interest, direct or indirect, which would pose a conflict of interest in any manner or degree with the performance of services required by this RFP for the life of the contract.

## **6.0 CONTRACT GENERAL TERMS**

A proposer's response to this RFP shall be considered as the proposer's formal offer. The WGA reserves the right to negotiate additional contract terms within the scope of the RFP. The signing of the contract by the WGA shall constitute the WGA's written acceptance of the successful proposal.

## Appendix 1

### Building Net Input Format Records For A Day Specific Fire Inventory

The purpose of this document is to give a broad outline of the issues related to creating a fire inventory using EPA National Inventory Format Version 3.0 (NIF3.0) for industrial point sources. The Consolidated Emissions Reporting Rule (CERR) specifies that states should submit their inventories to EPA in the NIF format. Additionally, current and future emissions models will be built to read the NIF3 formats so this format will be the only commonly available formats that can easily incorporate day specific emissions estimates for fires into the photochemical process. The most important goal of this organization for putting all of the fire information into the NIF format will be the informational transparency created when all the calculations and background information used to calculate these emissions can be found in one digital location. Using this method each fire is treated the same way that an industrial point source would be treated. Highlights of this would include by NIF record type

- TR - The organization that built the inventory
- SI - Each Fire would be a facility/site
- ER - Each fire would have one or more emission release points (pseudo-stack)
- EU - Each plant community would be an emission unit
- EP - Each fuel type would be an emission process
- PE - The hourly spread and fuel burned would be specified as a process
- CE - No CE records necessary
- EM - Each pollutant for each fuel type would be an emission record.

While this is a goal it is also understood that not all fires will have the available data to fill in the variety of inputs available. We would expect a minimum of one record of each type for each fire and multiple "EM" records for each pollutant. The attached spreadsheet shows the NIF3.0 file format and the appropriate fields that will be filled in with fire information. Several important observations should be made about the use of NIF to store fire inventories. The first is that each plant community should have its own sets of EU records. Additionally each Fuel type for each plant community should have its own set of EP, PE, and EM records. Finally each pollutant should have a set of records so there could be many EM records for each fire. For example, if a large fire effected 4 broad plant communities and 6 fuel types per plant community and estimates were made for 7 pollutants then there would be  $4 \times 6 \times 7$  or 168 EM records per fire and 24 EP and PE records, 4 EU records. Since each day of a fire will require new EM records then in the case of the fire above that lasted 4 days (2 days of burning and 2 days of smoldering) NIF would require  $168 \times 4 = 672$  EM records.

It was disappointing to see that NIF version 3.0 did not contain any temporal fields in the ER (Stack) record. This will make it difficult to characterize changes in plume characteristics for different days. Some method will need to be developed to describe the changes in plume characteristics as the fire grows possibly based on local meteorology and fuel burning values "on the fly" in the emissions model. It is our expectation that the emissions models will need to

include some method of identifying those records built for fires and allocating their plumes in a different way than for standard industrial point sources.