

Request for Proposals, 2001-1
Joint Fire Science Program

U.S. Department of the Interior

Bureau of Indian Affairs

Bureau of Land Management

National Park Service

U.S. Fish and Wildlife Service

U.S. Geological Survey

U.S. Department of Agriculture

Forest Service

Opens February 22, 2001

(Closes April 23, 2001)

Includes Task Statements on fire in roadless/wilderness areas; interactions among forest/woodland operations systems, ecological variables, and economic impacts; fuel reduction approaches within the matrix of land management practices; remote sensing; regional haze; fire climate and weather; fire management decision support aids/processes; and fire/fuel management in non-forested ecosystems.

Request for Proposals

by the
Joint Fire Science Program

A. Program Description

The Joint Fire Science Program (JFSP) is a partnership of six federal wildland management and research agencies with a need to address problems associated with accumulating wildland fuels (combustible material, generally living and dead plant materials) on lands administered by the partners. The partners include the USDA Forest Service and five bureaus in the Department of the Interior (Bureau of Indian Affairs, Bureau of Land Management, National Park Service, U.S. Fish and Wildlife Service, and the U.S. Geological Survey). For the purposes of this Request for Proposals (RFP), "wildlands" are considered to be forests and woodlands, shrublands, grasslands, and associated wetlands and riparian areas.

Wildland fuels have been accumulating during at least the past half century due to wildland fire management policies, wildland management practices, and other factors. As demonstrated in the wildland fires of 2000, the additional fuels contribute to intense fire behavior and increase the resistance of fires to control. Consequently, property and natural resources have been destroyed, costs of fire management have escalated, fire dependent ecosystems have deteriorated, and the risks to human life remain high.

The Congress, agency administrators, JFSP partners, and others have recognized that the accumulation of wildland fuels must be reduced in order to reduce the human threat from fire and maintain natural resource values. Congress directed the Department of the Interior and the USDA Forest Service to develop a Joint Fire Science Plan to provide science-based support to land management agencies as they address this need. The JFSP was established with the 1998 Appropriation for Interior and Related Agencies to help ensure that cooperating Federal land management agencies expedite scientifically sound, efficient, systematic, and effective solutions and monitoring programs that cross agency jurisdictions and fuel types.

The 1998 Joint Fire Science Plan addressed four issues (Principal Purposes) critical to the success of the fuels management and fire use programs. These included wildland fuels inventory and mapping, evaluation of fuels treatments, scheduling of fuels treatments, and monitoring and evaluation. The Congress included additional direction in the 2001 Appropriation for Interior and Related Agencies. In addition to the four original Principal Purposes, the JFSP was directed to focus attention on such issues as protocols for evaluating post fire stabilization and rehabilitation projects, aircraft based remote sensing, and regional/local issues.

For further background on the goals of the JFSP, those considering submitting proposals and other interested parties are encouraged to review the Joint Fire Science Plan which is available via the Internet at: http://www.nifc.gov/joint_fire_sci/jointfiresci.html. In addition, the JFSP issued RFPs in June 1998, February 1999, and February 2000, and subsequently selected and funded over 70 projects. Previous RFPs and lists of the funded projects can also be found at the web site.

This RFP contains eight Task Statements for which proposals are solicited. The JFSP encourages proposals from all interested parties. However, because the focus of the JFSP is on wildland fire and fuels issues on Federal wildlands, evidence of the cooperation of a Federal cooperator must be included in all proposals. That is, non-Federal proposers are asked to ensure that a Federal cooperator participates in development and submission of proposals. The Federal cooperator is also the direct recipient of funding. Proposals for this RFP must be received by the close of business on April 23, 2001 to be considered at this time. Questions should be directed, and proposals forwarded to:

Dr. Bob Clark
Program Manager
Joint Fire Science Program
National Interagency Fire Center
3833 S. Development Ave.
Boise ID 83705
phone (208) 387-5349
facsimile (208) 387-5960

Electronic submissions of proposals are acceptable provided they are followed by a hard copy of the title/signature page with original signature(s). Please e-mail electronic proposals, in Wordperfect, Microsoft Word, or Rich Text Format, to Bob_Clark@nifc.blm.gov. The signature page must be received by April 23, 2001.

Finally, the JFSP conducts annual workshops for Principal Investigators (PIs) from each active project. Proposal budgets submitted in response to this RFP should include travel and related funding needed for at least one PI to participate in the annual workshop.

B. Areas of Interest for Proposals

This Request for Proposals (RFP) contains eight separate tasks, and proposals are solicited on each of the tasks. In some cases it may be appropriate for proposals to respond to more than one task statement. The JFSP also encourages all proposals to include attention to wildland/urban issues as appropriate.

Task 1. *Evaluate impacts of alternative management strategies on fire regimes, and/or on the costs or operational impacts associated with fire management in unroaded areas, wilderness areas, and other areas managed for similar purposes. Studies considering ecological, social, and institutional factors are encouraged.*

In the context of this Task Statement, areas of interest include such areas as unroaded areas, federally designated Wilderness Areas, National Monuments, and National Parks. Although these areas may differ in terms of management constraints and objectives, they are similar in terms of access.

The Joint Fire Science Program solicits proposals that specifically address the unique challenges and opportunities of managing fire and fuels in unroaded, wilderness, and similar areas. The JFSP solicits proposals to address one or more of the following:

- (1) Impacts of past policies on fuel loading and structure, current and potential fire hazard, and fire behavior and their interactions with ecosystem structure, function, and ecological values. A particular area of concern is the relative influences of factors such as reduced access for some types of fire equipment and changes in human caused ignitions typically attributed to reduced access;
- (2) Improved tools for evaluating and understanding the effects of alternative regulatory and policy scenarios, management and restoration goals, or the tools used to implement these goals in unroaded, wilderness, and other areas with restricted access; evaluate fiscal, regulatory, institutional, and behavioral constraints within agencies to managing fire and fuels in unroaded, wilderness, and similar areas;
- (3) improved understanding of the perceptions, knowledge, and attitudes of the public regarding fire; the options for restoring and managing fire in unroaded, wilderness, and similar areas; innovative methods or techniques to help reduce conflicts and build consensus with the public and other institutional partners toward workable management solutions; and/or to fire and fuels issues in unroaded, wilderness, and similar areas.

Federal wildland management agencies' ability to deliver and use fire management equipment in unroaded areas, designated Wilderness Areas, and other areas with limited access influences fire management activities. Fires in inaccessible areas can require extensive commitment of a large number of labor intensive resources such as hand crews, depending on the strategy selected in the Wildland Fire Situation Analysis (WFSa). In such cases, the resources may be committed for extensive periods and are therefore

unavailable for other assignments. Although many such fires are ecologically beneficial, there may be occasions when the threat to human life, property and sensitive ecosystems, volume and duration of smoke, or commitment of labor intensive resources require that suppression actions be taken. Conversely, selection of the appropriate management response may actually reduce the need for resources in inaccessible areas. The purpose of this Task Statement is to obtain information, data, models, and other information and/or tools that will enable agencies and local managers to make better decisions regarding allocation of funding and other resources, and determine optimum strategies for fire management in these areas.

Task 2. *Evaluate factors affecting the feasibility of economically viable utilization of biomass material removed to reduce fire hazard and fuel loading. Proposals should consider economic and social factors (such as fluctuations in wood products markets in areas having fuel treatments) as well as impacts of treatment alternatives on key variables such as fuel loading, carbon storage, soil compaction, water quality, or habitat structure. This task is not intended to solicit proposals for development of new technologies or products for utilization of biomass materials.*

This task seeks to engender research that integrates elements commonly treated as separate variables. The focus is on evaluating operational aspects such as utilization potential of mechanically-removed materials of varying size classes and structures, changing market conditions, improved fuel manipulation techniques, alternate equipment or operating systems for biomass harvest within an ecological context. Fuel treatments, affected at least in part by economic and social constraints, and subject to social perceptions regarding their acceptability, affect the ecological characteristics of the area treated, and in turn are affected by biophysical constraints such as phenology, geomorphology, etc. The ecological variables include wildlife population dynamics, soils, and hydrologic features. Research under this task is expected to assist managers in evaluating the economic feasibility and ecological impacts of alternative harvesting systems, improve integration of biological factors into decision-making, and link operational approaches to the need to achieve sustainability of managed systems.

Task 3. *Within the matrix of land management practices, determine the cumulative effects of fuels manipulation/reduction methods and techniques on future landscape characteristics in terms of fire behavior and severity, wildlife population and habitat structure dynamics, hydrologic effects, soil processes, ecosystem health issues, and other environmental variables; develop one or more methods or approaches to integrate fuels management into landscape level processes.*

Implementing national, regional, and local fire policies requires an understanding of the landscape level processes that integrate interactions of fire (at both desired and historical levels) with wildlife dynamics, hydrologic effects, soil erosion, and ecosystem health issues including threatened or endangered species.

Past and current studies addressing the environmental effects of fuels treatments at the local or individual stand level may not consider the cumulative and interactive effects of such treatments at the larger landscape or regional level. For example, an individual stand treatment could be shown to have negligible adverse impacts on a particular migratory bird species whereas multiple treatments conducted over a

landscape, watershed, or region could result in significant impacts on the bird species population. Proposals are solicited which:

- (1) address fuels treatment impacts on wildlife populations and habitat structure, hydrology, soils, ecosystem health, or other environmental variables at a landscape or regional level,
- (2) address the effects of multiple vegetation manipulation treatments (including fuels treatments) conducted over time and space on potential or actual fire behavior, severity and resistance of fire to control, and/or
- (3) address the impacts of expected fire behavior and severity resulting from landscape level treatments on environmental variables.

Task 4. *Develop, apply, and validate improved aircraft or satellite-based remote sensing applications for quantifying fuel types, fuel condition and loading, fire hazard, fire behavior, and effects such as fire distribution and severity. Approaches must be validated by, and linked to, ground measurements.*

Currently, remotely sensed approaches to determine, evaluate, and map wildland fuels and the environmental effects of wildland fire and fuels treatments are often inefficient, ineffective, or poorly validated with respect to ground measurements. Accurate, reliable, and efficiently obtained data are urgently needed for mapping, classification, loading, and determining the condition of wildland fuels for use by local, regional, and national fire, fuel, and land managers. A series of coarse scale maps for use at the national level was previously developed (<http://www.fs.fed.us/fire/fuelman/>). Remote sensing approaches for the development of similar products at regional, state, and local scales are needed. Similar methods are also needed for mapping burned areas, with emphasis on classification methods and accuracy, spatial variability, fuel consumption, and burn severity classification. Developing and testing validation approaches in connection with potential operational applications is encouraged.

Managers and scientists need real time capability for monitoring active fire behavior (for example, energy release rate and rate of spread), testing and validating fire behavior models, and predicting fire behavior. Proposals to apply existing technologies (such as digital infrared cameras) to quantify fire behavior for research purposes and to test usefulness of technologies under adverse atmospheric conditions such as the presence of clouds or smoke are encouraged. Also, proposals to compare, test, demonstrate, and validate cost effective, operationally feasible systems for fire monitoring or mapping are solicited.

Task 5. *Evaluate potential contributions of wildland fire (including prescribed fire) smoke emissions to regional haze; develop and test methods, models, and analysis tools to help managers predict, quantify, identify, and document regional haze caused by wildland fires.*

Wildland fire has been recognized as a contributor of particulate matter (PM) and other pollutants to the atmosphere. Revisions to the Clean Air Act will increase the need to accurately quantify the impacts of

wildland fire on regional haze (visibility) as well as on fine PM, ozone, and other chemicals. States have developed or will develop State Implementation Plans (SIPs) and possibly Smoke Management Plans to address PM and other pollutants, including the PM and other pollutants emitted from wildland fires. However, while considerable research has been done on coarse particulate emissions (PM₁₀), there is less information on fine particulates and aerosols that contribute to regional haze. To meet new air quality monitoring requirements there will be a need for more and improved information on fire emissions and their fate in the atmosphere and for consistent approaches to adequately identify and document the contribution of wildland fire to regional haze.

Information and modeling needs include: improved emission predictions from wildland fires (including fire intensity, severity, and spatial pattern); development and testing of procedures to determine the contribution of smoke to federal reference method particulate monitor data and visibility; improved smoke dispersion modeling on regional scales as related to regional haze; improved methods for predicting, monitoring, and tracking emissions and secondary aerosols, including evaluation of potential remote sensing applications; linkage of emissions and dispersion models to fire behavior, fuel characteristics, and consumption data and tools.

Models or systems developed should be broadly applicable and acceptable to Federal, State, Tribal, and local wildland and air quality managers. They should also be compatible with the computing capabilities of users (e.g., Federal, State, Tribal, and local managers) and with implementation in a queryable national data base structure.

Task 6. *Develop methods or systems for incorporating existing weather and climate predictions (ranging from short- to long-term) into tactical and strategic fire preparedness and planning, prescribed fire planning, mid- and long-range fire and land management planning, and assessments of the potential for success of post fire stabilization and rehabilitation treatments; evaluate and analyze the role of climate in interannual, decadal, or longer term changes in fire season characteristics.*

The understanding and forecasting skill of models predicting regional and intermediate- to long-term impacts of weather/climate phenomena such as El Nino, the Pacific Decadal Oscillation, and synoptic global change on climate and weather patterns continues to improve. Yet this information is rarely used to inform planning decisions for fire management or post fire stabilization and rehabilitation activities. Managers need better management and analysis tools to guide them in applications of such forecast information for short-, mid-, and longer-term planning. This Task solicits proposals for developing and pilot testing of such applications on a regional (e.g., multi-State or large State) to national level and for evaluation of the long- and short-term impacts of climate patterns on fire regimes, fire severity, or fire occurrence, both to increase our understanding of the role of climate in recent changes in fire patterns, and to improve our ability to predict such impacts in the future.

Task 7. *Develop scientifically based support tools to improve fire management decision processes.* Many fire management decisions involve national, regional, and local interagency managers responsible for allocating funds, prioritizing strategic responses, and allocating scarce resources such as aircraft, crews, and

equipment. Specific areas needing decision support aids include the determination of prescribed fire risk, expenditures, wildland fire use, prioritization of multiple ignitions, prioritization criteria for fuel treatment investments in the wildland/urban interface, allocation of fuels treatment funds, and allocation of scarce fire management resources.

Management of multiple wildland incidents (which could include prescribed fire, wildland fire use, and wildfire management and possibly other non-fire emergencies) using different strategies requires quick decisions based on uncertain and differing amounts of information. Tools to support these decisions that provide additional information to characterize and reduce uncertainty, identify risk, and improve decisions are needed. These tools differ from existing techniques in that they must reflect the best available science, present a quantitative result, present visual outputs, and be easy to use.

In particular, managers also need a quantitative means to assess the risk of escape of prescribed fire. This should include an analysis of probability and consequences of escape of individual and multiple prescribed fires from ignition to extinguishment. Factors to be incorporated may include climatology (including drought assessment), current and projected weather and fuel conditions, fire duration, fuel complexes inside and outside of burn area, and values to be protected.

Strong collaboration between research scientists and end users is required in all proposals responding to this Task Statement. End users may include, for example, agency fire planners, appropriate members of Incident Management Teams, and prescribed fire managers.

Task 8. *Design (or design and implement) a standard protocol that can be used across regions, agencies, and fuel types to evaluate and compare the cost, social implications, and effectiveness of vegetation manipulation (including fuel treatments) and stabilization/rehabilitation treatments to manage wildland fire and fuels in major shrubland, grassland, and/or woodland ecosystems and their included wetlands/riparian areas. "Design only" proposals/phases will be limited to \$50,000 and one year time limit.*

A major circumstance driving increased fire size, intensity and frequency in many shrub dominated ecosystems is the past history of land use coupled with encroachment of invasive plants. Treatment evaluations are typically designed and performed locally, often using different standards with different approaches. This process impedes regional, national, or ecosystem-wide assessments of responses to fuel treatments, within or among agencies and across fuel types, and hinders efforts to collect information critical to understanding the effects of disturbances and methods to manage, maintain, and restore biodiversity and functional ecosystems.

In order to develop a statistically valid and uniform approach to contrasting and comparing effects of various treatments on different sites and in different vegetation types, the JFSP solicits proposals to design (or design and implement) a standard protocol (or set of protocols) that can be used across geographic areas with similar fire regimes, ecosystems, and fuel types to evaluate alternative fuel management treatments. Protocols may address different intensities of treatments, for example, the relative effectiveness of relative amounts of canopy removal, thinning, or species replacement in the same vegetation type. The protocol(s) should be designed to provide land managers with essential information on effects of treatments on wildland fuels, ecosystem processes, and environmental quality (for example, air, water, and soils), as

well as providing a linkage to evaluating social and economic impacts of treatments. It should also be consistent with respect to measurements, database(s), etc. While it is intended that studies established under such protocols will provide more detailed information than would be obtained through monitoring programs, the protocol should be designed to provide data that can be linked to evaluating impacts of fuel treatments on a landscape level through broad-scale monitoring.

Proposals submitted in response to this Task Statement must demonstrate close collaboration between research scientists, land managers, and technical specialists. Technical specialists could include, for example, land rehabilitation specialists, wildland fuels managers, and specialists from a variety of related disciplines such as soils, wildlife, and hydrology. Also, the JFSP is currently funding a project known as the “Fire and Fire Surrogates” project (<http://ffs.psw.fs.fed.us/>) for which a comprehensive study design, sampling protocol, and data base have been developed. To the extent possible, proposals responding to this task statement should follow the Fire and Fire Surrogates project lead to ensure compatibility of data and format and to reduce redundancy in study design and development.

C. Format for Proposals

Overview of the Proposal Format

The full proposal should specify rationale, objectives, methodologies, and deliverables in sufficient detail to allow an informed peer to assess the proposal's validity in addressing one or more task statements in the RFP. The proposal should also identify criteria by which success of the project can be determined. The proposal text and accompanying tables and figures should be limited to 12 pages (not including detailed budget documentation, curriculum vitae, and similar information). Complete annual and total budgets and a firm timeline for deliverables must be included, as well as a mechanism for “technology transfer” to appropriate end users. The proposal also provides a record of management responsibility and accountability for various aspects of the project.

Title Page

The following format should be used for the title page (not to exceed 1 page):

Project Title:

Principal Investigator(s):

Affiliation:

Address:

Telephone/Facsimile Number(s):

E-mail:

Duration of Project:

Annual Funding Requested from the Joint Fire Science Program: \$ _____

Total Funding Requested from the Joint Fire Science Program: \$ _____

Total Value of In-Kind and Financial Contributions: \$ _____

Abstract: Summarize the proposed project in a brief abstract not to exceed ½ page. The abstract should include the justification for the proposed project in relation to one or more task statements in the Request for Proposals, objectives, appropriate methodology, and applicability of results.

E-mail or facsimile proposals are acceptable provided that the e-mail or facsimile transmission is followed by a hard copy of the title page with original signature(s). If hard copy is provided, only 1 copy is necessary.

Introduction

An introductory section should include:

- 1) Project Justification. A summary of the issue(s), why the project needs to be done (relevance to task statements in the Request for Proposals), and benefits derived.
- 2) Project Objectives. A statement of the project objective(s) must be clearly stated and measurable. This should include a brief statement of the hypothesis to be tested (if applicable), what information or product(s) will be provided at the end of the project, and how the information or product can be used to resolve the issue(s) stated in the task statement(s).
- 3) Background. This section includes a concise review and synthesis of existing knowledge and previous research or other pertinent background information in the project task area.

The introductory section is intended to provide peer reviewers and the Governing Board with evidence that the proposed work compliments previous and on-going work and that the work is applicable to task

statements in the Request for Proposals. Although the literature may be extensive, the synthesis should generally include reference to no more than about 15-20 of the most important and/or most relevant sources.

Materials and Methods

This section should describe procedures proposed for conducting the project in sufficient detail that a knowledgeable reviewer could understand the process and that a peer could replicate the project. A brief description of the study sites (as applicable) should be included.

Project Duration

Proposals will generally not be funded for longer than three years although requests for extensions or additional work may be considered.

Budget

The proposed budget should be provided in sufficient detail to identify indirect costs and related surcharges, to separate labor costs from operational costs, and to identify salaries associated with funded scientists. Annual costs should be provided. Separate line items for "capitalized" equipment should be included. Outyear projections should be included for multi-year proposals. Proposed budgets should include travel expenses for at least one Principal Investigator (PI) to participate in an annual 2-3 day PI workshop.

Deliverables

Provide specific details on the information or product(s) that would be provided by the proposed project, and realistic time tables for delivery dates. It is expected that all final products will include an electronic version suitable for distribution, posting, etc. Descriptions in English units, with metric equivalents in parenthesis, are required. Annual progress reports are required.

Technology Transfer

It is imperative that information or products reach field managers in a useful form. Therefore, each proposal should include a description of how the "technology" would be transferred to the field. Also, proposers are strongly encouraged to use Internet websites to post information regarding funded projects.

Qualifications of Investigators

Include Curriculum Vitae for principal investigator(s) and at least 1 major collaborator. These should reflect recent, relevant experience and publication(s) and should not exceed 2 pages.

Checklist for Proposal Submissions

Does the proposal:

- * include an introduction or background section that includes the specific objectives of the project and describes how the proposed work is relevant to one or more task statements in

- the RFP?
- * include a list of cooperators and their proposed contribution, including the original signature of the principal investigator and an authorized signature from a cooperating federal unit (See Proposal Format, Title Page)?
 - * include a relevant Curriculum Vitae of the Principal Investigator(s) which demonstrates ability to complete the proposed work?
 - * include a review and synthesis of related past and current literature and work?
 - * include an adequate description of the specific location of the proposed work?
 - * include a description of the materials and methods of the proposed work including (as appropriate) experimental design and statistical analysis(es)?
 - * include a detailed annual and total budget, including identification of salaries and indirect costs?
 - * include a “Justification of Need for Salary Support,” approved by appropriate authority, if needed? (See Salary Policy Section)
 - * include a description and cost of equipment which needs to be purchased to support the work?
 - * include a list of deliverables with proposed dates of delivery?
 - * include a technology transfer mechanism?

D. Review and Evaluation of Proposals

The following factors will be considered in reviews and evaluations of proposals to the Joint Fire Science Program:

1. How well does the proposal address one or more specific task statements identified in the RFP?
2. Does the proposal follow the requested format and include all the requested information?
3. Will the proposed work provide information or products that are useful across agency jurisdictions, fuel types, and geographic areas?
4. Does the proposal provide for adequate transfer of information or products, consider general availability and usefulness of proposed technology, and, as appropriate, provide for a feedback mechanism to the study team for product testing and improvement?
5. Does the proposal provide for adequate collaboration among agencies, between fire and land management personnel and research scientists or other collaborators, and between disciplines to ensure broad integration of existing knowledge and approaches as well as applicability of results and recommendations?
6. Are study approaches or design and statistical analysis(es) appropriate and adequate to meet stated objectives?
7. What are the qualifications of the team to do the proposed work? Are adequate institutional resources and support available?
8. Are proposed timeframes and budget reasonable and adequately justified, including budgets for proposed sub-agreements?
9. If formal cooperative arrangements are proposed (e.g., with universities or other non-federal organizations), is there evidence that these will be feasible and agreeable to the cooperators?

E. Indirect Costs and Salary Policy

Indirect Costs

The Program recognizes the need of participating organizations to recover reasonable indirect costs. Indirect costs up to 15 percent (for the unit performing the work) may be included in proposals without detailed justifications, however, any indirect costs exceeding 15 percent must be justified. Similarly, indirect costs in excess of 10 percent on pass-through arrangements from federal units to cooperating federal or non-federal units must be justified. The Governing Board of the Joint Fire Science Program reserves the right to negotiate budget amounts and deliverables (including indirect costs over 15 percent) with proposing organizations.

Salary Policy

Normally, salaries of permanent full-time federal employees are expected to be provided by their agencies. This is also true of university faculty on 12-month tenure-track appointments. These employees are already fully funded by their institutions. However, the Governing Board recognizes that there can be mitigating circumstances arising from the need to fill in behind these employees when they are reassigned to Joint Fire Science Program funded activities, or due to policies of individual organizations. In such cases, the Program may agree to fund salaries of permanent employees. A brief justification must be included in the proposal, and the justification must be certified by an appropriate institutional authority, other than the Principal Investigator or other cooperator on the proposal, at the employee's organization or institution. The format provided below should be used for the certification. In addition, permanent employee salary costs must be explicitly identified in the project budget. The Program requires no special justification (other than a brief description of the need for the position in the budget justification section of the proposal) for funding temporary or term employees, post-doctoral employees, or graduate or undergraduate students.

Certification to the Joint Fire Science Program Justification of Need for Salary Support

I hereby certify the attached Justification of Need to provide temporary salaries for full-time permanent employee (s) _____ (*list name of employee(s)*) is necessary and appropriate to enable him/her (them) to fully and directly participate in the proposed project.

I understand that salary funding for this/these employee(s) directly involved in the proposed project is temporary and will not be provided beyond the duration of the proposed project.

Signature _____

Date _____

Title _____

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