6666 W. Quincy Ave. • Denver, CO 80235 • (303) 347-6100 • Fax: (303) 730-0851
1199 N. Fairfax St, Suite 900 • Alexandria, VA 22314 • 571-384-2100

GUIDELINES FOR RESEARCH PRIORITY PROGRAM PROPOSALS

July 2019

Table of Contents

Reminders

1. Proposers must complete a Co-Funding Support Form for each utility or organization that is contributing cash co-funding to the project that will be payable directly to WRF. See Section II.21.

2. All files uploaded must be in PDF format and should not be locked/secured with a password. Do not digitally sign the PDFs. This will ensure your documents can be processed by the online software.

3. Proposal review and selection includes an evaluation of the submitting organization's financial statements and its Statement of Direct Labor, Fringe Benefits and General Overheads or a Federally negotiated indirect cost rate agreement (see "Financial Statements" and "Indirect Cost Documentation" under Section II — Instructions for Preparing Proposals). This evaluation is an integral part of WRF's proposal review and selection process. The guidelines also clarify that Cost Analysis of the proposed budget is an integral part of proposal review and selection (see "Evaluation Process" under Section III — Proposal Review and Selection).

4. A signed IRS form W-9 is required for all U.S. entities to submit a proposal (see Section II IRS Form W-9).

List of Definitions

Allowable Cost. Costs that meet the criteria for allowable costs per 2 CFR 200.403.

Applicant. Any eligible entity or organization that submits a proposal in response to WRF request for proposals.

Co-Funder Funds. The portion of the Project Funds which each Co-Funder has agreed to contribute in cash to fund the project payable in full to WRF.

Co-Principal Investigator (Co-PI). An individual involved with the Principal Investigator in the scientific development or execution of a project. A Co-PI typically devotes a specified percentage of time to the project and is considered "key personnel." A Co-PI may or may not be a part of the sub-recipient’s organization. The designation of a Co-PI, if applicable, does not affect the Principal Investigator's roles and responsibilities as specified in this agreement.

Cost Share. The portion of allowable costs that the sub-recipient, subcontractor or third-party participant contributes toward completing a WRF project. Cost share includes any non-federal cash and non-cash contributions from the sub-recipient and subcontractors, and non-federal cash contributions from participants. All Cost share must meet 2 CFR 200.306.

Participant. An individual or organization that provides third-party contributions or other material support to a WRF research project but does not enter into a contractual relationship with WRF, the sub-recipient or a subcontractor.

Principal Investigator (PI). The sub-recipient’s (applicant) employee with primary responsibility to ensure that all terms and conditions of the agreement are met and to whom notice of insufficiencies are given by WRF.

Project Advisory Committee (PAC). A group of independent volunteers appointed by WRF to provide an independent technical review, assistance, and/or expertise to WRF regarding all project reports and other work products.

Project Funding Agreement (PFA). The subaward (contract) between WRF and the sub-recipient to conduct a WRF research project.

Research Manager. WRF employee with responsibility for reviewing all actions taken by the sub-recipient and with authority to communicate all WRF decisions concerning the process, procedure, scheduling requirements, funding requirements, and outcome of the sub-recipient’s project.

Request for Proposals (RFP). An open and competitive solicitation of proposals for funding to conduct a specific WRF research project.

Subcontractor. Any individual or organization with whom the sub-recipient, or another subcontractor, separately contracts to complete one or more specific tasks required by a WRF research project.

Sub-recipient. The legal entity or organization with which WRF enters into a PFA (agreement) to conduct a WRF research project.

Survey. The U.S. government's Paperwork Reduction Act of 1995 (PRA) establishes conditions on the use of federal funds for conducting information collection activities (e.g. surveys). Under the PRA, an information collection activity is defined as obtaining facts or opinions from ten or more persons by the use of standard questions presented in forms, telephone or personal interviews, the internet, requests for narrative responses to questions, or almost any other means. Typical WRF project activities that meet this broad definition include mail surveys, telephone surveys, email or web-based surveys, and face-to-face meetings (e.g. workshops) that aim to obtain information from ten or more water utility employees and/or other drinking water professionals.

Third-Party In-Kind. The value of non-cash contributions that a participant provides towards completing a WRF project. Third-party in-kind must be necessary and reasonable for proper and efficient accomplishment of a WRF project. All third-party in-kind must meet requirements in 2 CFR Part 200.306.

I. OVERVIEW

The Water Research Foundation

The Water Research Foundation (WRF) is the leading not-for-profit research cooperative that advances the science of water to protect public health and the environment. Governed by utilities, WRF delivers scientifically sound research solutions and knowledge to serve our subscribers and stakeholders in all areas of drinking water, wastewater, stormwater, and reuse. The mission of WRF is *to advance the science of water to improve the quality of life*. We achieve this mission by accomplishing four strategic goals:

1. Create measurable value through strategically targeted research that meets the needs of subscribers
2. Develop communication that increases value to subscribers and key stakeholders
3. Grow revenue and diversify revenue sources to support the research mission of WRF
4. Maintain efficient and effective stewardship of all resources WRF uses for research projects, collaboration, and internal operations

WRF's research programs are highly respected as being one of the most scientifically credible and best-coordinated water research programs in the world. Information regarding the research programs is provided at
http://www.waterrf.org/the-foundation/research-programs/

The Research Priority Program

The WRF Research Priority Program enables WRF to address broadly relevant subscriber issues, challenges, and opportunities with targeted research over 3-5 years, often in a series of projects. Individual project concepts are developed by advisory committees for each research area. Projects are then prioritized, approved, and funded by our Board-appointed Research Advisory Council (RAC). Sixty percent of the WRF annual research budget is allocated to this program. Individual Research Priority Program projects are typically awarded to researchers via a competitive request for proposals (RFP) process. The RFPs are developed by teams of WRF staff and volunteer experts enlisted from water utilities and other water organizations. Additional information on the Research Priority Program is provided at http://www.waterrf.org/the-foundation/research-programs/research-priority-program/

II. INSTRUCTIONS FOR PREPARING PROPOSALS

The following section outlines the general instructions for preparing a proposal in response to a WRF RFP. Additional specific instructions are included in each RFP.

The WRF funding level (dollar amount) specified in the RFP is the maximum amount that WRF will provide toward achieving the objectives set forth in the RFP. Proposals requesting funds from WRF greater than those indicated in the RFP will not be considered.

All the forms and components of a proposal are available online in the “Proposal Component Packet” zip file. A username and password are required to download the proposal component packet, which contains all the necessary template files and forms, and to upload your proposal documents. PLEASE **ENSURE TO OBTAIN YOUR PASSWORD WELL IN ADVANCE OF THE SUBMISSION DEADLINE**. There are links to request a login or obtain a forgotten password on this site: https://proposals.WaterRF.org/Pages/RFPs.aspx. Additional guidance is available after login on the Proposal Website.

The Proposal Component Packet zip file contains Word templates and forms that will assist you in creating your proposal. You will assemble your proposal components into two proposal packets. A recommended naming convention for your two packets is: RFPNumber_Packet1_YourOrgName.pdf and RFPNumber_Packet2_YourOrgName.pdf to ensure that all the PDF files appear as your originals (formulas, equations, graphs, etc.). Ensure your two proposal packets contain the required documents. Ensure you upload them before the RFP submission deadline. It is recommended that you do not wait until the last minute to submit your proposal.

The online proposal templates are styled to assist you with the paper size and font size requirements. Those requirements are:

1. Proposals must fit on standard continental U.S. letter-sized paper (8 ½ × 11 inches), with minimum margins of one inch on each side of the paper.
2. Text font size must be a minimum of 12 point (12 characters per inch).
3. WRF’s logo is copyrighted and **should not** be displayed on proposals.
4. Proposers may include logos and alternative templates may be used as long as submittals follow the requirements outlined above (paper size, margins, font size).

Proposals must include the components listed below. **Proposals that are missing any of these required components will be considered incomplete and potentially ineligible for any consideration**. Please note the enforceable page limits for certain components of the proposal as identified below. **Proposals exceeding these page limits will not be considered**. Again, the online proposal templates are styled to assist you with meeting all proposal submittal requirements.

All files must be compiled into two PDF proposal packets and should not be locked/secured with a password. Do not digitally sign the PDF files. This will ensure the online software can process your files. If you are not a U.S. entity, some required forms, such as a W-9, may not apply to you. Simply upload the packet document stating “N/A” in those instances.

PROPOSAL PACKET ONE (Technical Review and Evaluation):

1. **Proposal Cover Worksheet**
   Complete the form fields on the document.

2. **Project Abstract (one page)**
   The abstract should be a concise summary of the research objectives, technical approach and anticipated results and benefits. It must include the names of the Principal Investigator (PI) and any Co-PIs, the applicant (submitting organization), and participating water utilities and/or organizations, as well as the funding amount requested from WRF and the total of cost share and third-party in-kind contributions.

3. **Project Description (22 pages)**

Include the following sections:

   a. Research Objective – Clearly identify the objective in one or two sentences.
   b. Background/Understanding of the Problem – Provide a detailed description of the relevant topic background including your current understanding of the problem, the current state of knowledge, regulatory perspective where applicable, and significance to water utilities and the water community.
   c. Technical Approach – Provide a well-developed experimental plan (including details such as replicates, frequency, etc.) which includes the objectives of the research, the methods that will be followed, and the nature and extent of the anticipated results.
   d. Originality and Innovation of the Research – Briefly identify how the proposed work is unique and innovative. How is the proposed work different from other related research and how will it impact future research?

4. **Applications Potential (one page)**
   Define the practical benefits of the proposed project to the water community. What will be the products of the research (e.g., knowledge, protocol, instrument, software package, etc.)? How can they be used, who will use them, and what level of sophistication will be required? Define the steps to be taken in the project to ensure practical application (e.g., utility involvement). Where possible, identify additional efforts following project completion that will be needed prior to application of the research results.

5. **Quality Assurance/QualityControl (20 pages maximum)**
   Provide a detailed description of the procedures that will be used to ensure the quality of project data (e.g., statistical basis for number of analyses, statistical methods to be used in data evaluations, sample duplicates, blanks, and blind samples). If the project involves laboratory analyses, this description should indicate whether the laboratory performing the analyses is accredited or state certified for the analyses of concern. If the laboratory is not certified, and/or if nonstandard methods are used, detailed quality assurance/quality control procedures must be submitted with the proposal.

6. **Management Plan (two pages)**
   Identify the individuals and organizations participating in the project, their specific roles

and responsibilities, and their time commitment to the project. Describe how the PI will maintain accountability for the individuals and organizations involved in the project. Include a concise organizational chart showing the relationships and the lines of communication among the research team and all project participants.

7. **Communication Plan (one page)**
   Provide a draft plan for how the project results and key outcomes will be communicated effectively and in a timely manner to WRF subscribers and other end users who will apply the results for the benefit of the water community. WRF will work with the selected researcher to refine the draft Communication Plan prior to the start of the project. The draft Communication Plan should address the following questions:

   - Who are the target audiences for the final deliverable(s)?
   - Who are the end users of the project results, and what other WRF stakeholders might benefit from knowing the results?
   - What deliverables and communication activities are necessary to effectively reach the target audiences? What format, content, focus and level of detail are appropriate?
   - When during the project should communication occur? Should there be interim deliverables and communication activities prior to project completion?
   - Are there opportunities for joint or combined communication activities with those of other ongoing, related projects?

   The proposed budget should include the costs and resources associated with implementing the draft Communication Plan. Applicants are encouraged to review WRF's Project Deliverables Guidelines located at http://www.waterrf.org/funding/Pages/project-report-guidelines.aspx for information and considerations about various project communication tools and activities.

   Proposals that include the production of software such as Excel spreadsheets, Access databases, etc., must follow the criteria outlined for electronic media presented in the document, "Software Criteria:" located at http://www.waterrf.org/funding/Pages/project-report-guidelines.aspx

   Proposals that include the production of an external Website must follow the guidelines and submit the feasibility study in the document, "Website Criteria Feasibility Study" located at http://www.waterrf.org/funding/Pages/project-report-guidelines.aspx

8. **References (as required)**
   Include an alphabetical list of references for works cited. References should conform to journal format.

9. **Licenses and Inventions (as required)**
   If the research is likely to produce inventions, new products, or processes (or

improvements thereof), include a statement defining the relationship between the proposed research and any pre-existing patents or patent applications owned or controlled by the applicant, subcontractors, or any participants. Identify the patents or patent applications and attach copies. WRF does not exercise any claims on patent rights for new inventions, products or processes developed through our research; however, if a patent application could result from the proposed project, include a statement as to the proposed ownership of any resultant patent. **NOTE: WRF does not endorse or product-test commercial products or processes.**

If a patented product or process is being used in the research and is not owned by the applicant, then a license to use the patent must be submitted with the proposal.

10. Budget Narrative

Itemize, explain and justify each cost included in the project budget, and identify when (Year 1, Year 2, etc.) during the period of performance, the cost is expected to be incurred. Budget tables are often the best way to represent costs on a yearly basis. Note: **Do NOT include individual salary and wage rates in the Budget Narrative**.

The Budget Narrative must provide sufficient detail to enable each itemized cost to be evaluated for allowability and appropriateness for the project. Refer to the “Instructions for Budget Preparation” in the Proposal Component Packet Guidance folder, for additional information on specific items that must be addressed in the Budget Narrative.

The Budget Narrative must accompany the completed WRF Research Project Budget Form.

11. Schedule

Proposers should include a detailed timeline of the project, including start and end dates for each task (including deliverables such as the Draft Final Product and Final Product) and responsible party (e.g., a Gantt chart or schedule table). The contractual period of performance should include additional time for review and required revisions to draft final deliverables. Note: the specific dates may be need to be altered depending on the timing of the selection process and funding agreement negotiations.

12. Current and Pending Form

Complete the form fields of this form. A completed Current and Pending Form is required for the PI and for each Co-PI listed on the Proposal Cover Worksheet. List all public support (e.g., U.S. federal funding, state grant funding) and private support (e.g., industry-supported projects, in-house support, etc.) to which the individual has committed time, regardless of salary support. The proposal being submitted to WRF should be listed in the pending section. The PI and each Co-PI must commit a reasonable and appropriate amount of time to the project, commensurate with the proposed scope of work described in the Project Description and the Management Plan.

13. Third Party Contribution Letters of Commitment (as required)

Most WRF RFPs require a match of at least a 33 percent of the project award as cost-share, applicant in-kind, or third-party in-kind. If the applicant's budget includes third party contributions, these contributions must be confirmed by letters of commitment. The letter of commitment must identify the type (e.g., cash, labor, materials, services, etc.) and estimated dollar value of the contribution, and must be signed by an authorized representative of the organization. Letters of commitment must match the budget form. E-mail communications will be accepted as a letter of commitment so long as the e-mail originates from an authorized representative and adheres to the requirements set forth above. No letters of commitment or changes to letters of commitment will be accepted after the proposal submittal deadline. **Third-Party contributions will not be considered in the proposal selection process unless a letter of commitment -- with the dollar amount of contributions listed -- is included with the proposal.**

14. Curriculum Vitae or Resumes for Key Team Members (2 pages/person)

Upload Curriculum Vitae or abbreviated resumes as a single file for the PI, Co-PI and any other key members of the research team.

PROPOSAL PACKET TWO (Cost Analysis and Financial Grant Management Capabilities Evaluation):

The following items are for internal WRF evaluation purposes and will not be provided to the Project Advisory Committee (see Section III — Proposal Review and Selection)

15. Budget Form

Use the WRF Research Project Budget Form to provide a realistic, cumulative budget for the project. Consult the "Instructions for Budget Preparation" in the Proposal Component Packet Guidance folder for details on preparing the budget. Costs will be evaluated for allowability under the applicant's relevant U.S. federal cost principles and any project-specific guidelines identified in the RFP. The budget should include sufficient funding to prepare the project deliverables described in Section IV – Award Administration.

The Budget Form must be accompanied by a detailed Budget Narrative in the main body of the proposal (See **10. Budget Narrative**.).

If indirect costs are included on the budget form, the applicant must substantiate their indirect cost rate as outlined below in Indirect Cost Documentation. **Note:** Recovery of overhead is not required, but if indirect costs are not budgeted, WRF will undertake some examination to assure that recovery is not included within another budget element.

16. Financial Statements (for the last fiscal year)

16-1. **Entities subject to the Single Audit Act (2 CFR Part 200 Subpart F):** Must provide within the Budget Narrative, the name, title, email address and phone number of the Sub-recipient employee who is familiar with the Single Audit Report, including the financial statements and expenditures of federal awards, **AND** provide the Sub-recipient's publicly available URL for WRF's access to the Single Audit Report (e.g. State Auditor or University website). A hard copy of the Single Audit report is not required now but may be requested later if any review or the Data Collection Form (SF-SAC) or the Single Audit Report in the Federal Audit Clearinghouse indicates issues needing review in the Single Audit.

16-2. For-profit (commercial entities) and all entities NOT subject to Single Audit: Provide the highest level available from the following descending three levels of independent (external) CPA-prepared Balance Sheet and Income Statement (and associated notes):

- Audited Financial Statements, including Notes, (or do not submit hard copy statements, but comment in the Budget Narrative if your company complies with SEC Form 10-K requirements)
- Reviewed Financial Statements in accordance with Statements on Standards for Accounting and Review Services (SSARS) issued by the AICPA (American Institute of Certified Public Accountants),
- Compiled Financial Statements in accordance with SSARS issued by the AICPA.

Confidentiality

WRF does not enter into Confidentiality or Non-Disclosure Agreements regarding corporate financial information contained in research proposals. However, WRF does understand the sensitivity surrounding corporate financial information and is careful to review and maintain it confidentially and only on a need-to-know basis. Only WRF staff assigned to review the submission see financial statements, direct labor schedules, and budget detail. This kind of information is not provided to the Project Advisory Committee nor to individuals outside WRF. This procedure applies to Financial Statements and related Statements of Direct Labor, Fringe Benefits and General Overhead, and the Financial Grant Management Capabilities form (see below).

17. Indirect Cost Documentation (for the last fiscal year)

If indirect costs are budgeted anywhere within the project, including cost share, provide the highest level available from the following descending four levels of agreements and statements in accordance with Federal cost principles:

a. U.S. Federal government agency approved **Indirect Cost Negotiation Agreement/Determination** OR **Audited Statement** of Direct Labor, Fringe Benefits and General Overhead (for-profit entities are required to comply with 48 CFR 31.2)
b. **Reviewed Statement** of Direct Labor, Fringe Benefits and General Overhead in accordance with Statements on Standards for Accounting and Review Services

(SSARS) issued by the AICPA (American Institute of Certified Public Accountants) (for-profit entities are required to comply with 48 CFR 31.2)

c. **Compiled Statement** of Direct Labor, Fringe Benefits and General Overhead in accordance with SSARS issued by the AICPA (for-profit entities are required to comply with 48 CFR 31.2)
d. **Election to charge** a **de minimis rate of 10%** of modified total direct costs in accordance with 2 CFR 200.414

Note: Recovery of overhead is not required, but if indirect costs are not budgeted, WRF will undertake some examination to assure that recovery is not included within another budget element. Alternatively, if the proposer's accounting system permits, costs may be allocated in the direct costs categories.

18. Financial Grant Management Capabilities Form

Provide the requested information regarding financial and accounting systems, policies and procedures by completing the form fields of this form and uploading the document**. Note: This form should be completed by the organization's financial staff, including staff familiar with the Uniform Grants Guidance.** This information is used to evaluate the capability of the applicant's systems to meet the criteria outlined in WRF's Project Funding Agreement. Signatures are required and may be provided as either an image inserted into the document or hand-written on scanned forms.

19. Certification and Assurance Forms (3 forms)

Complete the form fields in these documents. Signatures are required and may be provided as either an image inserted into the documents or hand-written on scanned forms. The information on these forms will be used by WRF to determine applicant eligibility and should normally be completed by sub-recipient finance, grants management or contracting staff.

If no funds have been paid to any person to influence action on any Federal contract, grant, cooperative agreement, etc., then only the two forms, "Certification Regarding Lobbying" and "Assurances and Certifications Non-Construction Programs" need be completed, signed and submitted to the WRF.

How others complete the forms may or may not be relevant to your situation, but generally:

- "Disclosure of Lobbying Activities", SF-LLL – is generally not required, since most WRF sub-recipients do not make any payments to any lobbying entity for influencing any Federal person in connection with a Federal grant, cooperative agreement, etc.
- "Certification Regarding Lobbying" – is generally always required, since most WRF sub-recipients can certify they have not and will not pay Federal funds to any person to influence any Federal person in connection with a Federal grant, cooperative agreement, etc.

- “Assurances and Certifications Non-Construction Programs” – is always required, since at least some of the items on the form are relevant to all WRF sub-recipients.

20. IRS Form W-9

For all U.S. entities, a certified (signed) W-9 form is required. Obtain the latest version from www.IRS.gov, complete the information and upload the signed first page (only) as the file with your proposal. Outdated revisions of the form may not be acceptable.

For non-U.S. entities, simply include the packet W-9 page in place of the W-9 form.

21. Co-funding Support Form (as required)

Any participant in the project (sub-recipient or co-funder) who is contributing cash payable to WRF should complete the Co-funding Support Form. The Co-funding Support Form provides information pertinent to the agreement. A pre-contracting meeting will be scheduled by the Research Manager with the sub-recipient, co-funders, and WRF staff to discuss the Co-funding Support Form information and co-funding requirements.

III. PROPOSAL REVIEW AND SELECTION

Proposals are selected for funding based on technical merit, cost analysis, and evaluation of the submitting organization's financial and grant management capabilities. The WRF proposal review involves two steps:

1. **Technical review:** Proposals are reviewed and evaluated on technical merit and cost analysis. The criteria by which proposals are reviewed can be found in Attachment 2. (See **Technical Review and Evaluation**, below.)
2. **Evaluation of financial and grant management capabilities:** Once a proposal has been selected for consideration based on technical review and cost analysis, then an evaluation of the financial and grant management capabilities provides the final approval for funding. This is a risk evaluation of the organization's capability to meet the administrative, financial, audit and programmatic requirements of WRF's Project Funding Agreement. (See **Financial Grant Management Capabilities Evaluation**, below.)

WRF will fund a single proposal for each RFP, unless otherwise specified. WRF may choose not to fund any of the proposals submitted in response to an RFP.

All proposals and proposal reviews are treated confidentially and are available only to WRF staff, and Project Advisory Committee members.

Technical Review and Evaluation

Technical review and evaluation of proposals is performed by an independent Project Advisory Committee (PAC) and the research manager. PACs are composed of volunteer professionals with expertise in the RFP topic area. PACs provide guidance, review all project reports and other work products, and generally monitor project technical performance on behalf of WRF and the water community. PACs and the project Research Manager review all proposals accepted in response to the RFP and are ultimately responsible for selecting a proposal for funding consideration based on technical review and evaluation. *Proposals are reviewed according to the criteria in Attachment 2.*

Applicants should be aware that timeliness on past WRF projects will be considered during proposal evaluation. WRF's Timeliness Policy can be found on WRF's web site at: http://www.waterrf.org/funding/Pages/policies.aspx
Researcher performance on previous WRF projects is also considered in proposal selection.

Cost Analysis

Concurrently with the technical review and evaluation, WRF staff conducts a cost analysis of the proposal that is guided by the Budget Form and Budget Narrative. The objectives of the cost analysis are to determine the necessity, reasonableness, and allocability of costs proposed in the proposal budget. Each budget is also reviewed for cost allowability under the Uniform Grants Guidance. Principles governing the allowability of costs are contained in the Uniform Grants Guidance at 2 CFR 200 Subpart E, for non-commercial entities and in the FARS at 48 CFR 31.2, for commercial organizations.

If project funding includes co-funding paid to WRF, a pre-contract meeting is scheduled with the researcher, co-funders, and WRF staff assigned to the project. The purpose of the meeting is to familiarize all parties involved with the co-funding language in the contractual funding agreement and general participation in the project.

Financial Grant Management Capabilities Evaluation

Once a proposal is selected for funding consideration through technical review and evaluation and cost analysis, WRF staff assesses the financial grant management capabilities of the submitting organization. This is a risk evaluation of the organization's capability to meet the administrative, financial, audit and programmatic requirements of WRF's Project Funding Agreement.

Potential applicants are encouraged to review "Evaluation of Proposed Costs and Financial Grant Management Capabilities: Researcher Guidelines and Resources" included in the Guidance folder of the Proposal Component Packet for additional background and information about the financial grant management capabilities evaluation. It is important that **both** the applicant's proposed Principal Investigator and financial staff understand the Federal regulations that apply to their proposal, and how these directly influence WRF's cost analysis and financial grant management capabilities evaluation.

IV. AWARD ADMINISTRATION

Terms and Conditions

WRF will enter into a Project Funding Agreement (PFA) with the selected researcher. WRF's standard PFAs for both federally funded and non-federally funded projects are available at http://www.WaterRF.org/funding/Pages/contract-materials.aspx. The selected researchers and their subcontractors will be expected to comply with the terms and conditions of the applicable standard contractual funding agreement.

WRF has established a 45 business day period for contractual funding agreement negotiations commencing on the issuance date of the draft agreement and ending on the return date of the final fully executed agreement. Upon the issuance of the draft agreement, the researcher has ten (10) business days to review the draft and respond back to WRF with a) requested revisions, or b) the approval to proceed to a final agreement. WRF will conduct contractual funding negotiations in good faith and in a timely manner for this period. Upon completion of the contract negotiations, a final executed agreement will be issued to the researcher. The researcher has ten (10) business days to execute the final agreement and return to WRF. A PDF of the signature page is acceptable to be sent via email. WRF emails a PDF of the agreement; a hardcopy is not sent in the mail. If a researcher is experiencing contractual issues please convey the issue(s) to the WRF Contract Manager that is listed in Exhibit B – WRF Key Contacts.

If agreement cannot be reached within this 45 business day period, WRF may choose, at its sole discretion, to terminate the negotiations.

Applicants and their proposed subcontractors are therefore strongly urged to review the standard contractual funding agreement before submitting the proposal to determine that the terms and conditions are acceptable. Prior review of the standard contractual agreement is beneficial to all project participants. Please note that the standard funding agreement reflects WRF's intention to solely own all worldwide copyrights in all the Work Product (Scope of Work, Periodic Reports, Draft Reports and Final Report). WRF does grant the sub-recipient and any co-funders a right to use the data from the Work Product with some restrictions outlined in the standard contractual funding agreement.

WRF's contractual funding agreement is a not-to-exceed subaward of financial assistance. The WRF funding level (award dollar amount) specified in the funding agreement is the maximum amount that WRF will provide towards achieving the scope of work set forth in the applicant's proposal.

Additional, project-specific terms and conditions may apply as set forth in the RFP.

Federal Administrative, Cost, and Audit Requirements

All WRF sub-recipients, regardless of source of funding, are required to comply with WRF Proposal

Guidelines and all relevant U.S. laws and regulations, and agreement terms and conditions related to U.S. Federal Financial Assistance, including, but not limited to, 2 CFR 200, which is the Uniform Administrative Requirements, Cost Principles and Audit Requirements for Federal Awards, also known as the Uniform Grants Guidance, implemented on December 26, 2014. An electronic version of 2 CFR 200 is available at this website: www.ecfr.gov by browsing to Title 2, Subpart 200. Cost principles for commercial entities are still referenced under the FARS at 48 CFR 31.2, an electronic version is available at www.ecfr.gov by browsing to Title 48, Subpart 31.2.

Participating Utilities and Organizations

WRF places high value on water utility and organization participation and active involvement in our research projects. Utility and organization participation helps ensure that WRF-sponsored research is directly responsive to subscriber and stakeholder needs. Participating utilities and organizations should be considered an integral element of the research team. It is the responsibility of the PI to ensure that participating utilities and organizations provide support to the project as set forth in the project Scope of Work. PIs are encouraged to keep participating utilities and organizations apprised of status throughout the course of the project. In accordance with WRF's standard contractual agreement, each participating utility and organization must be given an opportunity to review the project's use of their data and conclusions regarding these data, and must be provided with reasonable opportunity to correct and respond to any problems or difficulties uncovered by the data and test results prior to their publication or use. The participating utility and organization confirmation is part of the contract deliverables (shown in Exhibit B). At the end of a project, the PI is responsible for providing the final utility and/or organization participation that is reconciled against their original participation (shown in Exhibit C) and the final invoice showing all incurred costs to date against the proposed Scope of Work.

PAC Meeting

While most communications between the PAC, research team, and research manager are done via email, conference calls or web-based meetings, projects may also include a one-day, face- to-face meeting during the project. These meetings typically involve the PAC, the Research Manager and the research team. The meeting will sometimes include participating utilities, project co-funders and other stakeholders. This meeting may be held at any time during the project, as agreed between the PAC, Research Manager, and PI. The PAC meeting is an opportunity for face-to-face interaction among the key project stakeholders.

WRF covers WRF staff and PAC member travel costs for the PAC meeting using non-project funds. The research team is expected to cover any research team travel costs associated with the meeting.

Project Deliverables

The following deliverables are required for most WRF projects. Applicants should allocate adequate resources for developing these deliverables. Once a proposal is selected, the project reporting schedule and specific reporting requirements will be negotiated in Exhibit B in the project funding agreement. All project deliverables (with the exception of products such as spreadsheets, databases, videos, Websites, etc.) must be submitted in Microsoft Word® or Adobe InDesign software with figures, tables and graphics embedded in the text. All deliverables must be submitted electronically (via email, or if the files are too large, via DropBox or other electronic method).

Scope of Work

The Scope of Work is typically due one month after the project start date. The Scope of Work is comprised of the Project Abstract, Project Description, and Applications Potential sections of the project proposal, with revisions as necessary to reflect any changes negotiated prior to the start date. The Scope of Work is provided by WRF to outside audiences for informational purposes, including posting on the WRF web site. Therefore, reasonable effort should be made to exclude information that may be considered sensitive to organizations participating in the project.

Periodic Reporting

Periodic reporting is a requirement for all WRF research projects, as it allows WRF to evaluate the researcher's progress and performance on a project. Periodic reporting also provides a mechanism for ongoing review of technical findings by WRF and the PAC. Finally, it provides information that enables WRF to review and approve the sub-recipient's invoices.

Most projects will require submittal of Periodic Reports, which are described below. Some projects will have specialized periodic reporting requirements and Exhibit B of the project funding agreement will include the reporting schedule and requirements for a project.

The Periodic Report format is outlined in Attachment 1 — Periodic Report Format and Content. Note that the Title Page and Status Summary are due every three months, while the more extensive Technical Summary and the Web Site Update are due every six months (i.e., with every other Periodic Report). As stipulated in Exhibit B of the PFA, an invoice detailing expenses incurred during the reporting period must be submitted with each periodic report. Sub recipient invoices will not be paid until the associated Periodic Report is received and accepted. Report and Invoice reminders will be sent to the PI from the Project Coordinator -- a WRF staff member who assists the Research Managers in the tracking all contract deliverables.

WRF generally posts the Website Update on the WRF website as information for subscribers on research in progress. In some instances, WRF may edit the Website Update for clarity and readability. WRF may also choose not to post the Website Update at its discretion.

Researchers sometimes wish to use the Technical Summary to present sections of the Project Report as a work in progress, thereby reducing the level of effort required to compile the Project Report at the end of the research phase. This approach is acceptable if approved by the WRF research manager and the PAC.

Final Deliverable

WRF generally plans to publish a report for each project, but a number of other outreach options are available. The options are detailed in WRF's Project Deliverable Guidelines located at http://www.waterrf.org/funding/Pages/project-report-guidelines.aspx. It is the researcher's responsibility to prepare the final deliverable in accordance with WRF's guidelines and requirements, whether the deliverable is a standard final report, white paper, video, external Website, etc. Project-specific requirements for the final deliverable may be set forth in the RFP.

The target audience for the final deliverable is the water sector (i.e., utilities, consultants, manufacturers, regulators and other water professionals); accordingly, the deliverable(s) must clearly provide practical benefits to the water sector.

A completed Copyright Permission Form, as described in the above guidelines, is required.

If a researcher chooses to produce a standard final report, please use WRF's Research Report Template located at http://www.waterrf.org/funding/Pages/project-report-guidelines.aspx

A Draft Report should be submitted for review at the completion of the research phase of the project. The report should be submitted electronically (via email, or if the files are too large, via file transfer such as Dropbox). WRF will review the Draft Report as set forth in the "Review and Alteration of Project Deliverables" section below, and WRF may require additional drafts of the Draft Report.

To be considered acceptable, the Draft Report must be clearly written and responsive to the project goals and objectives.

The Final Report should be the acceptable revised Draft Report. The report should be submitted electronically (via email, or if the files are too large, via file transfer such as Dropbox).

WRF reserves the right to determine which of several processes will be used to publish the Final Report. If the Final Report is clearly organized and understandable, and has a neat and uniform appearance, then the quickest publishing process, the True-Camera Ready (TCR) process, shall be used. Adherence to WRF's Project Deliverable Guidelines will improve chances that the Final Report will be published through the TCR process.

Review and Alteration of Project Deliverables

All deliverables will be reviewed by WRF, and WRF retains the right to require response to comments, questions, and suggested revisions. This response may include explanation and clarification of technical information or revisions to the deliverables. WRF will also have the right to make grammatical, stylistic, or syntax revisions to any deliverables submitted to WRF, or to request such revisions from the researcher. Unless otherwise specified, the researcher is to provide revisions in response to technical comments within 45 calendar days of receipt of the comments, and is to respond to formatting or editorial comments within 14 calendar days of receipt of the comments. The need for revised drafts of deliverables shall be determined at the sole reasonable discretion of WRF.

Webcast

The project webcast is intended to communicate project-specific findings to WRF subscribers and other stakeholders. The decision on whether to hold a webcast will be made at the sole discretion of WRF. The webcast may be scheduled prior to, or up to six months following, submittal of the final deliverable. The webcast will be hosted by WRF in coordination with the PI. WRF will cover the costs of hosting the webcast outside of the project budget, but cannot compensate the PI for his/her time in preparing or providing the webcast.

ATTACHMENT 1
WATER RESEARCH FOUNDATION
Periodic Report Format and Content

Periodic reporting is a requirement for all WRF research projects. Most projects will require submittal of Periodic Reports, the format for which is shown below. *Some projects have specialized periodic reporting requirements and Exhibit B of the project funding agreement will include the reporting schedule and requirements for a particular project.*

PERIODIC REPORT

I. **Title Page** – 1 page (every 3 months)

- Project title and number
- Periodic report number and period covered
- Principal Investigator and organization
- Project start date and end date
- Subcontractors, participating utilities and organizations, and other participants
- Project funding
- Project objective

II. **Status Summary (basic Periodic Report)** – 2 to 5 pages (every 3 months)

- Statement of goals for the reporting period
- Summary of work tasks completed and accomplishments in reporting period, including significant findings, major observations, statement of how goals were met, and applicability of findings to the water community.
- Assessment of actual versus planned progress for each work task (recommend using a table to show actual versus percent completed for each task)
- Tasks proposed to be completed in the upcoming period
- Problems encountered
- Rationale for proposed changes (if any) to the scope of work
- Brief explanation of abstracts, presentations, papers, reports submitted for publication or presentation during reporting period
    - List of submitted/published reports (title, author, journal/conference, date)
    - Copy of submitted/published reports and presentations
- Response to questions and comments on previous report

III. **Technical Summary** – 5 to 20 pages (every 6 months, include with Status Summary)

- Methods and materials
- Data and analysis
- Significant findings
- Applicability of findings to water utilities
- Response to questions and comments on previous report

IV. **Web Site Update** - 1 to 2 pages (every 6 months, include as separate section after Technical Summary)

- Project title and number
- Principal Investigator and organization
- Reporting period (i.e., period covered by update)
- Activities and progress since previous Web Site Update; work to be performed next period
- Findings of significance to WRF subscribers and other stakeholders; how/why are they significant?
- Statement of how overall project results will ultimately benefit water utilities and the water community
- Brief statement on communications and outreach (presentations, papers, etc.)

ATTACHMENT 2

Research Priority Program Proposal Evaluation Criteria

Evaluation Criteria
1. Understanding the Problem and Responsiveness to RFP (maximum 20 points)
Does the proposal demonstrate a thorough understanding of the issue(s) including the current state of knowledge, regulatory perspectives (if applicable), and significance to the scientific community and water utilities? Does the proposal adequately address the RFP objectives? If the objectives in the proposal go beyond those in the RFP, do they address current or future needs?
2. Technical and Scientific Merit (maximum 30 points)
Is the proposal clearly understandable and prepared with appropriate supporting information? Is the approach technically sound with clear project goals and objectives? Does the approach include the necessary components to achieve the desired outcome? Does the proposal reflect creativity, originality, or innovation? Does the proposal outline adequate QA/QC procedures?
3. Qualifications, Capabilities, and Management (maximum 20 points)
Does the applicant and key personnel possess the necessary knowledge, skills, abilities, experience, and resources to accomplish the project? Have key personnel committed an appropriate amount of time? Does the PI and lead organization provide the appropriate level of management and oversight to successfully complete the project? Are team roles, responsibilities, and assignments clear?
4. Communication Plan, Deliverables, and Applicability (maximum 15 points)
Does the proposal include an effective communication plan that is applicable to the intended end users and other identified stakeholders? Are the project deliverables well-described? Will the deliverables provide value to the intended target audiences and address the practical applications of the research? Are utilities and key stakeholders appropriately engaged?
5. Budget and Schedule (maximum 15 points)
Does the proposal provide good value for the amount of funding requested? Is the budget realistic and commensurate with the work plan and time frame? Has the applicant provided significant in-kind contributions (at least 33% of the project award)? Is the level of effort allocated to each task reasonable (if applicable)? Is the schedule realistic for the tasks described?