



BOARD OF SUPERVISORS AGENDA ITEM REPORT
AWARDS / CONTRACTS / GRANTS

Award Contract Grant

Requested Board Meeting Date: 03/19/2024

* = Mandatory, information must be provided

or Procurement Director Award:

***Contractor/Vendor Name/Grantor (DBA):**

The Water Research Foundation

***Project Title/Description:**

Project Funding Agreement 5272 Titled Evaluation of Adsorptive Medias for Optimizing Siloxane Removal from Biogas

***Purpose:**

RWRD's submitted a tailored collaboration research proposal for improving the pretreatment of biogas focusing on the largest operational expenses when upgrading biogas to Renewable Natural Gas (RNG) at a cost of \$130,000 annually for RWRD. For this project, RWRD is the primary investigator and sponsor along with the collaborative partner utilities consisting of King County (WA), South Platte Renew (CO) and Washington Suburban Sanitation Commission (MD).

A draft of the proposed agreement is attached. By accepting this award, the Board authorizes RWRD to finalize the required project funding agreement. Both PCAO and GMI have reviewed and endorse this project. Total project duration is 32 months from start date.

***Procurement Method:**

Not Applicable

***Program Goals/Predicted Outcomes:**

The utilities of RWRD and WSSC Water are responsible for system design, fabrication and assembly of the test skid followed by field deployment at the partnering utilities spatially distributed across the United States. Because siloxane species are a reflection of the local industrial and domestic contributions of every community's wastewater, the goal of this project is to facilitate selection of the ideal media for removal of targeted siloxanes from the biogas produced at each water reclamation facility thereby extending media life and reducing operational costs for utilities.

***Public Benefit:**

This research provides a comprehensive evaluation of adsorptive medias and strategies for optimizing the cost-effective siloxane removal from biogas systems. The results of this study are crucial for advancing the design of siloxane treatment strategies and the selection of optimal adsorbent technologies for the removal of volatile methylsiloxanes from biogas.

Public benefits include extended media life, reduced operational costs, and improved gas quality for local gas utilities.

***Metrics Available to Measure Performance:**

Metrics used to measure performance of this project include the following steps:

1. Test skid design and fabrication
2. Adsorptive media assessment and gas phase breakthrough
3. Solid phase siloxane adsorption
4. Reclamation facility deployment operational kinetics

***Retroactive:**

No.

GMI Approves
AF 2/29/24

THE APPLICABLE SECTION(S) BELOW MUST BE COMPLETED

Click or tap the boxes to enter text. If not applicable, indicate "N/A". Make sure to complete mandatory (*) fields

Contract / Award Information

Document Type: _____ Department Code: _____ Contract Number (i.e., 15-123): _____
Commencement Date: _____ Termination Date: _____ Prior Contract Number (Synergen/CMS): _____
Expense Amount \$ _____ * Revenue Amount: \$ _____

*Funding Source(s) required: _____

Funding from General Fund? Yes No If Yes \$ _____ % _____

Contract is fully or partially funded with Federal Funds? Yes No

If Yes, is the Contract to a vendor or subrecipient? _____

Were insurance or indemnity clauses modified? Yes No
If Yes, attach Risk's approval.

Vendor is using a Social Security Number? Yes No
If Yes, attach the required form per Administrative Procedure 22-10.

Amendment / Revised Award Information

Document Type: _____ Department Code: _____ Contract Number (i.e., 15-123): _____
Amendment No.: _____ AMS Version No.: _____
Commencement Date: _____ New Termination Date: _____
Prior Contract No. (Synergen/CMS): _____

Expense Revenue Increase Decrease Amount This Amendment: \$ _____

Is there revenue included? Yes No If Yes \$ _____

*Funding Source(s) required: _____

Funding from General Fund? Yes No If Yes \$ _____ % _____

Grant/Amendment Information (for grants acceptance and awards)

Award Amendment

Document Type: GTAW Department Code: WW Grant Number (i.e., 15-123): 24*0117
Commencement Date: 04/01/2024 Termination Date: 12/31/2027 Amendment Number: _____

Match Amount: \$ 25,000.00 Revenue Amount: \$ 132,000.00

*All Funding Source(s) required: \$66,000 funding from Water Research Foundation, \$25,000 from Pima County Regional Wastewater Enterprise Fund, \$25,000 from Washington Suburban Sanitation Commission, \$6,000 from King County, and \$10,000 from HDR Engineers.

*Match funding from General Fund? Yes No If Yes \$ _____ % _____

*Match funding from other sources? Yes No If Yes \$ 107,000 % _____

*Funding Source: Water Research Foundation, WSSC Water, HDR, and King County

*If Federal funds are received, is funding coming directly from the Federal government or passed through other organization(s)? No

Contact: Jeff Prevatt

Department: RWRD

Telephone: 520-724-6060

Department Director Signature:

[Signature]

Date: 2/27/24

Deputy County Administrator Signature:

[Signature]

Date: 2/29/2024

County Administrator Signature:

[Signature]

Date: 2/29/2024



Project Funding Agreement 5272

Titled

“Evaluation of Adsorptive Medias for Optimizing Siloxane Removal from Biogas”

This Project Funding Agreement (“PFA”) is entered into on April 1, 2024, (the “Effective Date”) by and among The Water Research Foundation (“WRF”), a Colorado non-profit corporation, whose place of business is located at 6666 W. Quincy Ave., Denver, Colorado 80235, and Pima County RWRD (“Sub-recipient”), whose principal place of business is located at 7101 N Casa Grande Hwy, Tucson, AZ 85743. WRF and Sub-recipient are each a “Party” and together the “Parties.”

WRF has selected Sub-recipient to receive a research and development contract as more specifically detailed in this PFA, which includes the following Exhibits attached hereto:

- Exhibit A – Project Plan
- Exhibit B – Task, Timelines & Contacts
- Exhibit C – Budget Summary
- Exhibit D – Invoice Form
- Exhibit E – Copyright Assignment Form

The Parties mutually agree as follows:

I. DEFINITIONS. The following defined terms shall apply in this PFA:

- A.** “Code” means the U.S. Code of Federal Regulations Title 2 (Grants and Agreements) Part 200: Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards (a/k/a/ Uniform Grants Guidance or UGG).
- B.** “Cost Share” means the portion of allowable costs that Sub-recipient or Subcontractor funds in kind toward completing the Project. All Cost-Share accounting must comply with the Code.
- C.** “Deliverables” are the items required to be delivered to WRF as listed in Exhibit B, including all Reports and all Work Products.
- D.** “Expenses” means any WRF approved expenses incurred by Sub-recipient in performing under this PFA.
- E.** “Intellectual Property” or “IP” is all rights to copyrights, trademarks, service marks, patents, inventions, trade secrets, know how, and confidential information, including the right to enforce, divest, license, seek registration, prosecute infringers, and commercially or otherwise exploit such rights.
- F.** “Participating Utility” is a utility that is or may provide data or information for the Project, and the input and approval of which Sub-recipient must obtain to complete the Project, as described in this PFA.
- G.** “Principal Investigator” or “PI” is the Sub-recipient employee identified in Exhibit B, who is primarily responsible for ensuring that all terms and conditions of this PFA are met and to whom WRF shall give all

notices intended for Sub-recipient. If more than one PI is designated in Exhibit B, the additional PIs shall be referred to as a Co-PI(s), though the PI shall remain the primary point of contact under this PFA.

- H. "Project" is the work to be completed by Sub-recipient, as described more specifically in the Project Plan attached hereto as Exhibit A.
- I. "Project Coordinator" is WRF's staff member who supports the Research Program Manager.
- J. "Project Funds" are the aggregate maximum amount of cash award which WRF agrees to provide to Sub-recipient to fund its performance of the Project pursuant to this PFA.
- K. "Project Plan" is the description in Exhibit A of the tasks and Deliverables to be completed by Sub-recipient for the Project, for which WRF will disburse the Project Funds and monitor progress pursuant to this PFA.
- L. "Proposal Guidelines" are WRF's written guidelines, currently maintained at www.waterrf.org/proposal-guidelines, in which the procedures, criteria, and requirements for eligibility, proposal, performance, administration, reporting, and other matters governing the proposal of and performance of the Project are set forth. The Proposal Guidelines were provided to Sub-recipient prior to its submission of a Project Proposal, and its terms and requirements are incorporated in this PFA by this reference. The terms "Deliverable," "Periodic Report," "Draft Report," and "Final Report" appearing in this PFA shall have the definitions, and be governed by the requirements applicable thereto, as set forth in the Proposal Guidelines.
- M. "Reports" are the Periodic Reports, Draft Report, and/or Final Report, individually or collectively.
- N. "Research Program Manager" is WRF's staff member identified in Exhibit B who will be the primary point of contact for WRF and will oversee the Principal Investigator's performance of the Project.
- O. "Subcontractor" is any third party identified by Sub-recipient in the Project Plan as assisting in the performance of the Project under this PFA.
- P. "Sub-recipient Funds" is any portion of the Project Funds, if so identified in Exhibit C, as being provided by Sub-recipient to fund the Project under this PFA.
- Q. "Subject Data" shall mean all non-patented original and raw research data, originated or assembled by Sub-recipient in performance of this PFA, but specifically excluding WRF Intellectual Property or Sub-recipient Intellectual Property as defined within this PFA. Subject Data also excludes financial reports, receipts, costs, analysis, and similar information incidental to contract administration. Subject Data is copyrightable database Work Product and IP under this PFA.
- R. "Work Product" is copyrightable works of authorship created by Sub-recipient or its Subcontractors in the course of performing under this PFA or the Project, including, without limitation, the Project Plan, all Reports and other Deliverables, all interim drafts of the foregoing, and any computer software and related documentation developed under the Project.

II. GENERAL OBLIGATIONS OF THE PARTIES

A. Sub-recipient.

1. Sub-recipient agrees to complete the research, prepare and deliver written Reports, deliver all Deliverables to WRF, and perform such other functions, all in accordance with the schedules and other requirements set forth in the Exhibits and this PFA. Sub-recipient shall itself, and shall require all its Subcontractors to, perform the Project and all related activities in full compliance with all laws, regulations, ordinances, and other requirements governing them. All Reports and invoices shall be sent to the Research Program Manager with a copy to the Project Coordinator.
2. Sub-recipient may not use any portion of the Project Funds for any purpose other than as expressly detailed in the Project Plan as necessary to perform the Project.
3. Sub-recipient shall be solely responsible for payment of any Subcontractors, and for procurement of all equipment, materials, and other resources necessary for performance of the Project, out of the Project Funds it receives from WRF.

B. **WRF.** WRF will disburse the Project Funds to Sub-recipient as detailed in this PFA and Exhibit C.

III. DISBURSEMENT OF PROJECT FUNDS

A. **Project Funds.** WRF will disburse the Project Funds in installments directly to Sub-recipient. The amount of the Project Funds was set based on Sub-recipient's budget attached in Exhibit C and is a "not to exceed" amount. WRF will not make any payments in excess of such amount. Disbursement of all Project Funds is subject to Sub-recipient's compliance with this Section III and Exhibit C. Any increase in a budget line item by more than 10% of such line item's stated budget may require an amendment, even if other budget decreases offset such increase and there is no overall increase to the required Project Funds

B. **Advance Payment.** Following the Effective Date, WRF will advance to Sub-recipient 10% of the Project Funds. All invoices submitted by Sub-recipient must reflect a credit equal to the advance payment and will invoice WRF to the extent such Expenses correspond with the associated Deliverable.

C. Invoicing and Payments.

1. Beginning three months after the Project Start Date identified in Exhibit B, and every three months thereafter during the term of this PFA, Sub-recipient shall submit to WRF a detailed invoice itemizing the Expenses incurred by Sub-recipient in the three months prior to the invoice date in the performance of the Project and identifying all Cost Share and third-party in-kind contributions as well as the contributing parties. The invoice shall be sent to the Project Coordinator with a copy to the Research Program Manager.
2. Each invoice shall reference the line items in Exhibit B, and be in the form required in the link provided on Exhibit D. Only Expenses actually incurred by Sub-recipient, in accordance with the Code, may be invoiced under this PFA.
3. WRF will disburse Project Funds based upon Sub-recipient timely submitting Deliverables meeting the requirements of this PFA. No portion of the Project Funds will be disbursed unless and until WRF receives, approves, and accepts each corresponding invoice and Deliverable. If WRF approves and accepts the invoices and Deliverables, Sub-recipient will be paid as follows:

- a) The 10% advance payment must be shown on all invoices, including the final invoice, as an advance payment received by Sub-recipient. Subject to the hold-back provision below, invoices will be paid to the extent Expenses incurred exceed the advance payment.
- b) Regardless of the actual amounts invoiced, WRF will at all times during this PFA, hold back 20% of the Project Funds and will only disburse same as follows: 10% of the Project Funds will be disbursed to Sub-recipient when WRF receives and accepts the Draft Report. The remaining held back 10% of the Project Funds will be disbursed to Sub-recipient after Sub-recipient has completely and adequately responded to all of WRF's queries on the Final Report, has made all revisions reasonably requested by WRF to finalize the Final Report, submitted a final invoice, and Assignment of Copyright, a form of which is attached in Exhibit E, executed by all those who prepared or contributed to Work Product under this PFA.
- c) No conditions, notations, acknowledgements, comments, or terms other than the items required to be included and itemized on Sub-recipient's invoice shall be binding on WRF.
- d) WRF may deduct amounts or withhold payments if Sub-recipient fails to comply with any requirement in this PFA.

IV. COMPLIANCE MONITORING

- A. Financial Management System.** Sub-recipient shall maintain an accounting system and accurate and complete accounting records that, at a minimum but without limitation, allow for the identification, tracking, and verification of Expenses, Cost Share, invoiced items, and funding received, all in a manner that is segregated and allocable solely to performance of the Project. All Expenses incurred must be supported by receipts and be made available to WRF upon request.
- B. U.S. Federal Administrative, Cost, and Audit Requirements.** Regardless of the nature or funding source for the Project, WRF is categorized as a Pass Thru Entity (PTE) because of the federal funding it receives. To stay in procurement compliance, WRF must comply with applicable federal regulations and requirements governing federal funding and must pass through compliance to its funding recipients. Accordingly, Sub-recipient represents and certifies that the budget disclosures in the Project Plan were prepared by Sub-recipient in full compliance with WRF Guidelines and all relevant U.S. laws, regulations, and agreement terms and conditions related to U.S. Federal Financial Assistance including, but not limited to, the Code. Cost Principles specifically applicable for awards to for-profit organizations are set forth in the Federal Acquisition Regulations System (FARS, at 48 CFR 31.2) to determine allowable costs under WRF project funding agreements. Sub-recipient shall throughout the Project, and in the preparation of every invoice, report, and maintenance of its accounting system, remain in compliance with the above regulations. It shall be Sub-recipient's obligation to determine and comply with its governing cost principles, including, without limitation, those governing survey costs, and to ensure all of its Subcontractors' invoices are equally in compliance with these requirements.
- C. Indirect Costs and Allocation of Costs.** If Sub-recipient proposes to invoice for indirect costs, substantiation of those charges must be in compliance with WRF's "Guidelines for Research Priority Program Proposals," which include compliance with the applicable cost principles referenced in Section IV.B above.
- D. Record Retention.** Sub-recipient shall retain all original books and records pertinent to this PFA and the Project for at least three years from the termination of this PFA.

E. Audit and Monitoring.

1. Sub-recipient's use of the Project Funds under this PFA shall be in compliance with the Code, including its Subpart F, Audit Requirements, and may be audited by WRF and its designee. Furthermore, WRF shall have the right, itself or through a designee, to visit Sub-recipient premises or anywhere else performance of the Project takes place, to observe, review, and monitor performance of the Project, as well as application and use of the Project Funds. Accordingly, following a two-business-day prior notice from WRF, Sub-recipient shall provide WRF and its designee access to its premises, technical staff, supervisors, knowledgeable personnel, computer systems and databases, assistance, original documents, including those required to be maintained under this PFA, and any information related to Sub-recipient's use of the Project Funds and performance under this PFA, to enable WRF's audit and monitoring. WRF's audit rights shall survive termination of this PFA by three years.
2. WRF will keep any proprietary financial, technical, and/or scientific information obtained in the course of performing an audit under this Section in confidence, provided that such material, (a) is appropriately marked as "Confidential," (b) is not already generally known to the public, (c) is not required to be disclosed as a result of a legal proceeding or applicable legal requirement, (d) is not already known to WRF or others without a confidentiality obligation, and (e) is not a Deliverable or Work Product under this PFA.
3. Any deficiencies or non-compliance in Sub-recipient's systems, procedures, record keeping, finances, and performance of other obligations under this PFA discovered in the audit review or monitoring process, or discovered otherwise, shall be a material breach of this PFA subject to the procedures and remedies in Section VII below.

V. PROCUREMENT STANDARDS

A. Procurement Standards. Sub-recipient shall at all times remain in compliance with Subpart D, Procurement Standards, of the Code. Sub-recipient represents and warrants that it is familiar with and able to comply with these standards, which include but are not limited to:

1. Sub-recipient's procurement policies must adhere to the Uniform Grants Guidance.
2. Sub-recipient shall maintain and enforce with its officers, employees, and agents (including Subcontractors) a code of conduct designed to enhance goodwill, ethics, and compliance with laws while performing under this PFA.
3. Sub-recipient shall conduct all procurement transactions in a manner that maximizes open and free competition and in compliance with the restrictions and limitations in this PFA.
4. Sub-recipient shall ensure that its Subcontractors comply with the requirements and restrictions in this Section and in this PFA generally.
5. Sub-recipient shall notify WRF, within two months of the Project Start Date, of all Subcontractor agreements executed between Sub-recipient and the Subcontractors identified in the Project Plan.

VI. IP RIGHTS AND PUBLICATION

A. Work Product.

1. **Copyrights.** WRF shall own all worldwide copyrights in all the Work Products, including the Project Plan, all Deliverables, and all interim drafts of the foregoing. Sub-recipient shall and hereby does assign exclusively to WRF all right, title, and interest in and to the Work Product and the copyrights embodied therein, and subject to provisions of the Code and 37 CFR 401 which are made part of this PFA by reference except where superseded by this Section VI or the U.S. Federal Grant Agreement.
2. **Distribution Permission.** WRF will provide Sub-recipient with a PDF copy of the Final Report. The Work Product may not be copied, published, adapted, modified, transferred, posted on an intranet or website, or disclosed in any manner except with WRF's prior written approval. WRF granting approval will not be unreasonably withheld, though it may be conditioned. WRF has provided approval in certain circumstances prior to publishing the Final Report. To request approval, refer to our copyright page at www.waterrf.org/Copyright.
3. **License Granted to Sub-recipient.** WRF hereby grants Sub-recipient a non-exclusive, irrevocable, perpetual, royalty free license to create derivative works, including the use of the Subject Data which is produced as a result of this PFA.
4. WRF Intellectual Property Guidelines for PIs are available at www.waterrf.org/project-report-guidelines.
5. PI guidelines for Periodic Report Format and Content and Preparation of Research Reports are available at www.waterrf.org/project-report-guidelines.

B. Inventions and Patents.

1. All proprietary or patentable ideas, devices, methods, formulations, designs, and other inventions developed or conceived by or on behalf of Sub-recipient during performing under the Project, including, but not limited to, the right to apply for patent protection thereon and all patents issuing on such applications (collectively, "Inventions"), shall remain the property of Sub-recipient.
2. Sub-recipient shall not withhold any information on, or descriptions of Inventions, whether or not patentable, from Work Products or any Deliverable. Sub-recipient's rights in Inventions shall not limit, delay, restrict, or in any other manner interfere with WRF's right to own, publish, and exercise all other copyrights in the Work Product.
3. All IP rights that were owned and developed by Sub-recipient or third parties prior to the Project Start Date and outside the scope of the Project (collectively, "Preexisting IP"), and which Sub-recipient will use in the performance of the Project or incorporate in whole or in part into any Deliverables, has been fully disclosed and identified by Sub-recipient in the Project Plan. Sub-recipient represents that all Preexisting IP is used with full authorization and permission from its respective owner, and copies of such permissions and licenses shall be provided to WRF by the Project Start Date. Sub-recipient shall obtain all appropriate permissions on WRF's behalf to the extent necessary to enable WRF to exercise its ownership and publication rights in the Work Product, including the Final Report. Such right shall be transferable, sublicensable, and shall not be subject to any payment, restriction, or other obligation on the part of WRF. Such agreements to procure rights for WRF shall be subject to WRF's prior review and approval, at its sole discretion.

4. Sub-recipient hereby grants WRF a fully paid-up, royalty-free, perpetual, irrevocable, world-wide, nonexclusive license, with the right to grant sublicenses, to utilize the Inventions and Preexisting IP for educational or other non-profit purposes.

C. Publication. As the owner of Work Product, all rights to publish, distribute, publicly perform, publicly display, and publicly present the Work Product belong solely to WRF. Notwithstanding the foregoing, Sub-recipient may publish or present based on the Work Product, in whole or in part, and subject to this Section VI, with the prior written permission of WRF prior to the Final Report being published. Any such request for permission from WRF must be made to WRF at least three weeks prior to the requesting party's proposed date of publication or presentation based on any portion of the Work Product, and the request must be accompanied by copies of the proposed publication or presentation material. All copies of or presentations based on the Work Product authorized to be made by WRF shall furthermore conspicuously display the following notice:

*Source: Author, Title of The Water Research Foundation Work
Copyright [year of publication],
The Water Research Foundation. Reproduced with permission.*

D. Student Thesis. In the event a college or graduate student is a part of Sub-recipient work on the Project contemplated by this PFA, and that student completes a thesis, dissertation, or report relating to this Project, solely as part of such student's college or graduate course work submitted to the instructor or educational institution, and in no event for online publication, the student may utilize Subject Data, and/or WRF Intellectual Property.

E. Acknowledgement. Any public presentation or publication by Sub-recipient, including a student writing a thesis, dissertation, or report, based on the Inventions or any portion of the Work Product, if permitted by WRF, shall include a statement substantially as follows:

"Pima County RWRD gratefully acknowledges that The Water Research Foundation are funders of certain technical information upon which this [publication] [manuscript] [presentation] is based. Pima County RWRD thanks The Water Research Foundation, King County Department of Natural Resources & Parks -- Wastewater Treatment Division, Washington Suburban Sanitary Commission, and HDR Engineering, Inc. for their financial, technical, and administrative assistance in funding the project through which this information was discovered. This material does not necessarily reflect the views and policies of the funders, and any mention of trade names or commercial products does not constitute the funders' endorsement or recommendations thereof."

F. Originality. Sub-recipient represents that it, and its Subcontractors, are the sole creator(s) and originator(s) of all Work Product, Inventions, and Preexisting IP; none of those rights have been bargained, sold, encumbered, licensed, or otherwise transferred to any other party in a manner that would limit or interfere with the requirements and covenants of Sub-recipient under this PFA. Further, Sub-recipient shall ensure that no portion of this Project, including any portion completed by Subcontractors, infringes upon the IP rights of any other person or entity or violates the common law or statutory right, title, or interest of any person or entity. Sub-recipient shall execute and deliver to WRF, and shall cause its Subcontractors and agents to execute and deliver to WRF, all documents and

instruments reasonably requested by WRF, including, without limitation, the Assignment of Copyright attached in Exhibit E, to further evidence or memorialize the assignment of rights to WRF set forth in this PFA.

VII. TERM AND TERMINATION

- A. Term.** This PFA is effective as of the Effective Date, and shall continue for the duration of the Project, ending on WRF's delivery to Sub-recipient of the final disbursement of the Project Funds in accordance with Section III.B above. The term of this PFA governing only Sub-recipient's obligations and WRF's rights may be extended beyond final disbursement of the Project Funds, if expressly so stated in an Exhibit to this PFA. This PFA may be terminated earlier for the following reasons:
1. WRF may terminate this PFA by written notice to Sub-recipient at any time in the event of Sub-Recipient's or a Subcontractor's material breach of this PFA or any requirements or timelines in the Project, which breach is not cured within 30 days of WRF's written notice of such breach.
 2. WRF may terminate this PFA effective immediately by written notice to Sub-recipient if WRF reasonably determines that the Project is no longer feasible or its performance desired, or that if Sub-recipient is not likely to complete the Project on time.
 3. If Sub-recipient, after reasonable consultation with WRF and sufficient exploration of other options and possible mutual agreements to amend this PFA, determines that circumstances beyond its control prevent it from continuing the Project, Sub-recipient may terminate this PFA at any time by written notice to WRF.
 4. Any change in legal requirements or entitlements which materially alter Sub-recipient's performance under this PFA, or any change in the availability of funds to WRF, shall warrant good faith renegotiation of the provisions of this PFA impacted by such change. If the Parties cannot agree to an amendment to this PFA, at WRF's option, Sub-recipient's performance of the Project may be suspended, or this PFA may be terminated effective immediately by WRF's written notice.
 5. If termination occurs under this Section, Sub-recipient shall cease all work as of the notice of termination and shall prepare and submit to WRF a final invoice and accounting of expended and non-cancellable funds as of the date of receipt of the notice of termination. Any portion of the Project Funds that was prepaid to Sub-recipient, but which remains unspent, or which corresponds to Deliverables rendered unusable by Sub-recipient's material breach or termination of this PFA, shall be returned to WRF with the final invoice. WRF shall pay any amount owed under the final invoice, if reasonably accepted by WRF. Sub-recipient shall be entitled to compensation for all satisfactory and authorized work completed as of the termination date, provided that all Work Product corresponding to the invoiced amounts have been delivered to WRF, and further provided that funds are available (i.e., subject to any reduction in granted funds as stated above).
 6. **Return of IP.** Sub-recipient shall provide to WRF legible copies of all Work Product (including unencrypted source code and object code of any computer software program and programmer's notes and documentation) in a format reasonably designated by WRF within 30 days of any Party's delivery of a notice of termination hereunder, whether or not a cure period is provided. Further, at the same time, Sub-recipient shall provide copies and originals in whatever medium and format is reasonably designated by WRF. No further payments will be made unless Sub-recipient fully complies with the foregoing requirements.

VIII. DISPUTE RESOLUTION

- A. All disputes between WRF and Sub-recipient arising under this PFA shall be resolved by binding arbitration in Denver, Colorado USA, conducted in accordance with the then effective rules of expedited commercial arbitration of the American Arbitration Association (“AAA”), before one Arbitrator selected in accordance with such rules. The Arbitrator shall have subpoena powers. The decision of the Arbitrator shall be final and binding and may be enforced in any court having proper jurisdiction. Notwithstanding the foregoing, WRF shall be entitled to seek injunctive relief in court, without the need to arbitrate, in order to enforce its IP rights.

IX. STANDARD TERMS AND CONDITIONS

- A. **Survival.** All terms which by their nature and intent are required to be performed after termination of this PFA shall survive to the extent necessary to enable their fulfillment.
- B. **Quality Assurance.** Sub-recipient shall use its best efforts to ensure that all data and test results, regardless of the source of such data and test results, developed or collected during this PFA and included, or relied upon, in the Final Report, are verified and accurate to the best of its knowledge, information, and belief.
- C. **Standard of Performance.** At all times, all obligations performed by Sub-recipient or by any Subcontractors pursuant to this PFA shall be performed in a manner consistent with professional and industry standards, and in compliance with all laws, regulations, and other requirements governing such activities.
- D. **Indemnification.** Sub-recipient shall be responsible for, and shall hold harmless and indemnify WRF, all other co-funders of the Project, and their officers, directors, affiliated organizations, employees, agents, volunteers, and publisher, if any, from any and all liability, obligation, damage, loss, cost, claim, lawsuit, cause of action, or demand whatsoever of any kind or nature, including, but not limited to, attorneys’ fees and costs (“Claims”), arising from (1) any negligent actions, or omissions, or willful misconduct of Sub-recipient, its officers, directors, Subcontractors, employees, independent contractors, agents, or other related entities or individuals, (2) any use or misuse of IP claimed to be owned by another, or (3) any breach of this PFA by Sub-recipient. If Sub-recipient or any Subcontractor is a governmental or quasi-governmental entity that is by law prohibited from indemnifying others, this Section IX.D is modified to the extent that will impose the maximum available liability and responsibility on Sub-recipient. Sub-recipient shall require all parties involved in the performance of this PFA that are not prohibited from indemnifying others to so indemnify WRF through a written agreement acceptable to WRF.
- E. **Insurance.** Sub-recipient shall maintain a financially sound program of self-insurance or commercially purchased liability insurance covering Sub-recipient if it is negligent and failed to adhere to generally accepted industry standards and negligent actions or omissions of any and all of Sub-recipient’s officers, directors, employees, agents, and independent contractors, and/or Subcontractors in the amount of \$1,000,000.00. Proof of such insurance shall be presented to WRF pursuant to the schedule detailed by Exhibit B. The proof of insurance document shall clearly specify the Project by number and title on the insurance certificate.

- F. Worker's Compensation.** Sub-recipient and all Subcontractors shall maintain Worker's Compensation Insurance which complies with the applicable state laws. Proof of such insurance shall be presented to WRF pursuant to the schedule detailed by Exhibit B.
- G. Authority.** The individuals executing this PFA on behalf of their respective Parties hereby represent, and certify that they have the right, power, legal capacity, and appropriate authority to enter into this PFA on behalf of the entity for which they sign below.
- H. Modifications.** No provision, requirement, or term of this PFA may be modified, supplemented, or amended, nor may it be waived or discharged, except in writing, signed by all Parties. A written waiver of a breach of one provision in this PFA shall not operate as a waiver of a subsequent breach of the same provision.
- I. No Assignment.** Sub-recipient shall not assign this PFA in whole or in part, including by operation of law, merger, reorganization, or change in ownership or control. Any unauthorized assignments shall be void.
- J. Sub-Contracting.** Sub-recipient may only utilize Subcontractors under this PFA that have been disclosed in the Project Plan and are pre-approved by WRF.
1. Sub-recipient shall require any and all Subcontractors to comply with all applicable qualifications and terms of this PFA prior to working on the Project in any manner. All obligations of Sub-recipient apply equally to the Subcontractor(s). Sub-recipient shall at all times remain primarily responsible and liable to WRF for the acts and omissions and performance of this PFA by its Subcontractors, and their agents, employees, officers, directors, affiliates, and other representatives.
- K. Integration.** This PFA, including all attachments hereto, and the documents and requirements referenced herein, contains the entire understanding between the parties relating to this PFA. This PFA supersedes all prior and contemporaneous understandings, representations, negotiations, and agreements between the Parties whether written or oral. In the event of a conflict between the terms of an Exhibit or other document referenced herein and this PFA, the terms of this PFA shall control.
- L. Severability.** The provisions of this PFA shall be severable, and the invalidity, illegality, or unenforceability of any provision of this PFA shall not affect the validity or enforceability of any other provisions. If any provision of this PFA is found to be invalid, illegal, or unenforceable, such provision shall be modified to the extent necessary to render it enforceable, and as modified, this PFA shall remain in full force and effect.
- M. Notices.** Any notice, request, demand, or communication required or allowed under this PFA shall be sent in writing to the addresses and contact information for the Parties set forth in Exhibit B, and shall be deemed sufficiently given upon delivery, if delivered by hand (signed receipt obtained), or three days after posting if properly addressed and sent certified mail return receipt requested, or upon receipt if sent via facsimile or email, if delivery can be confirmed by the sender.
- N. Force Majeure.** No Party will be liable for any delay or default in performance caused by conditions beyond its control, including, but not limited to, acts of God; Government restrictions; continuing domestic or international problems such as wars, threats of terrorism, or insurrections; strikes; fires; floods; work stoppages and embargoes; provided; however, that any Party will have the right to terminate this PFA upon 30 days prior written notice if another Party's delay or default due to any of the above-mentioned causes continues for a period of two months.

- O. Limitation of Liability.** IN NO EVENT SHALL WRF OR ANY OF ITS OFFICERS, DIRECTORS, EMPLOYEES, AFFILIATES, AGENTS, OR REPRESENTATIVES BE LIABLE TO ANY OTHER PARTY, OR ANY THIRD PARTY FOR ANY SPECIAL, INDIRECT, INCIDENTAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES OR LOSS OF GOODWILL OR EXPECTED PROFITS OR REVENUES, IN ANY WAY RELATING TO THIS PFA, INCLUDING, WITHOUT LIMITATION, THE FAILURE OF ESSENTIAL PURPOSE, EVEN IF IT HAS BEEN NOTIFIED OF THE POSSIBILITY OR LIKELIHOOD OF SUCH DAMAGES OCCURRING, AND WHETHER SUCH LIABILITY IS BASED ON CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY, STATUTE, PRODUCTS LIABILITY, OR OTHERWISE. IN NO EVENT SHALL WRF'S LIABILITY HEREUNDER EXCEED THE FUNDING ALREADY MADE UNDER THIS PFA.
- P. Applicable Law/Venue.** This PFA is written and shall be construed in accordance with and governed by the laws of Colorado unless U.S. Federal law applies. However, if Sub-recipient is exclusively governed by U.S. Federal or state laws overriding Colorado laws (e.g., if Sub-recipient is a quasi-public or public entity), this PFA shall be construed and interpreted in accordance with such laws to the extent of such exclusivity. Any arbitration action under this PFA must be brought in Denver, Colorado and enforcement of arbitration decisions and injunctive relief must be brought in a State Court or U.S. Federal District Court located in Denver, Colorado.
- Q. Counterparts.** This PFA may be executed and delivered in counterparts, and by facsimile and email, and each shall be valid as if all Parties had executed the same document.
- R. Relationship.** The Parties are independent contractors, and no agency, employer-employee partnership, or joint venture relationship is intended or created by this PFA. No Party shall have any right or authority to assume or create any obligation, commitment, or responsibility for or on behalf of the others, except as the other may expressly authorize in writing. No Party shall be eligible to participate in another's benefit program. Sub-recipient shall be solely responsible for the performance and compensation of its employees, for withholding taxes, and providing unemployment and other benefits.
- S.** WRF maintains a non-discrimination policy. For more information, please see the following link: www.waterrf.org/non-discrimination-policies-and-complaint-procedures.

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Project 5272

Title: Evaluation of Adsorptive Medias for Optimizing Siloxane Removal from Biogas

IN WITNESS, WHEREOF, the parties have caused this PFA to be signed and dated as shown below.

The Water Research Foundation

Pima County RWRD

By: Peter C. Grevatt, PhD
Title: Chief Executive Officer

By: Jackson Jenkins
Title: RWRD Director

Date: _____

Date: _____

The Water Research Foundation

Pima County RWRD

By: Stephanie Fevig, PE
Title: Research Program Manager

By: Jeff Prevatt, PhD
Title: Principal Investigator

Date: _____

Date: _____

Above signed has read and understands the terms, conditions, and deliverables of this PFA.

Above signed has read and understands the terms, conditions, and deliverables of this PFA.

DRAFT AGREEMENT DO NOT SIGN

EXHIBIT A
PROJECT PLAN

Project 5272

NOTE: EXHIBIT A WILL CONSIST OF THE PROJECT PLAN IN THE FINAL DOCUMENT, IT IS NOT INCLUDED IN THE DRAFT DOCUMENT.

Title: Evaluation of Adsorptive Medias for Optimizing Siloxane Removal from Biogas

EXHIBIT B
TASKS AND SCHEDULE

Project 5272

NOTE: THE EXHIBIT B SHOWN IS THE STANDARD **DRAFT SCHEDULE. THE FINAL SCHEDULE WILL BE MUTUALLY AGREED UPON BY THE RESEARCH PROGRAM MANAGER AND PRINCIPAL INVESTIGATOR.**

Title: Evaluation of Adsorptive Medias for Optimizing Siloxane Removal from Biogas

TASK	DUE DATE (1st or 15th of Month)
Project Start	[Start date]
Project Information Summary	30 days after start date
Proof of Insurance	30 days after start date
Periodic Report 1 & Invoice	3 months after start date
Periodic Report 2 (Technical Summary & Web Update) & Invoice	6 months after start date
Periodic Report 3 & Invoice	9 months after start date
Periodic Report 4 (Technical Summary & Web Update) & Invoice	12 months after start date
Periodic Report 5 & Invoice	15 months after start date
Periodic Report 6 (Technical Summary & Web Update) & Invoice	18 months after start date
Periodic Report 7 & Invoice	21 months after start date
Periodic Report 8 (Technical Summary & Web Update) & Invoice	24 months after start date
Draft Deliverables & Invoice	27 months after start date
Final Deliverables	5 months after draft report
Assignment of Copyright (Exhibit E)	5 months after draft report
Letter of Confirmation from each participating utility review & in kind	5 months after draft report
Final Invoice & Project End (End of Deliverables)	5 months after draft report

Note: Please submit one **electronic copy** of each Periodic Report and Draft Report. Submit the Final Report in electronic copy in **MS Word format**. With each of these reports, you must submit an invoice using the form in Exhibit D, accompanied by a cover letter on your company letterhead. All Reports and Invoices should be sent to the Research Program Manager with a copy to the Project Coordinator identified in Exhibit B WRF Key Contacts.

CONTACTS

WRF Key Contacts:

The Water Research Foundation
6666 West Quincy Avenue
Denver, CO 80235

Name	Title	Phone	Email
Stephanie Fevig, PE	Research Program Manager	303.347.6103	sfevig@waterrf.org
Pam Prott	Project Coordinator	571.384.2113	pprott@waterrf.org
Justin Papka	Contracts Manager	303.734.3478	jpapka@waterrf.org
Olivia Painter	Contracts Administrator	303.734.3424	opainter@waterrf.org

Sub-recipient Key Contacts:

Name & Title	Project Role	Organization & Address	Phone	Email
Jeff Prevatt, PhD Deputy Director	PI	Pima County RWRD 7101 N Casa Grande Hwy, Tucson, AZ 85743	520.724.6060	Jeff.prevatt@pima.gov
Jenny Hanson Program Coordinator	Accounting	Pima County RWRD 7101 N Casa Grande Hwy Tucson, AZ 85743	520.724.3605	Jenny.hanson@pima.gov
Cindy Nguyen Deputy County Attorney, Business & Transactions	Contracts	Pima County RWRD 32 North Stone Avenue, Suite 2100 Tucson, AZ 85701	520.724.5700	Cindy.nguyen@pcao.pima.gov

Co-Principal Investigator(s):

Name & Title	Organization & Address	Phone	Email
Silvia (Alex) Fuentes Co-PI	WSSC Water 11 Farmington Road W Accokeek, MD 20607	301.206.7443	silvia.fuentes@wsscwater.com

Each Party shall provide written notice of changes in contact persons, addresses, telephone, and email addresses. The Principal Investigator, Co-Principal Investigator, or any Subcontractor may only be changed with the prior written approval of WRF.

**EXHIBIT C
BUDGET SUMMARY**

Project 5272

Sub-recipient: Pima County RWRD

Title: Evaluation of Adsorptive Medias for Optimizing Siloxane Removal from Biogas

WRF shall not have any obligation for payment of invoices for costs incurred by Sub-recipient after the foregoing end date. All report and invoice submittals shall be sent to the Research Program Manager with a copy to the Project Coordinator identified in Exhibit B WRF Key Contacts.

Payments to Sub-recipient will be issued to Sub-recipient organization and mailed to the address shown in the first paragraph of this funding agreement. If payment of an invoice requires a purchase order number, Sub-recipient agrees to provide such number.

Project Start Date **End Date:**

Financial Obligations for Project

- | | |
|--|--------------|
| a. WRF agrees to provide Award Funds: | \$66,000.00 |
| b. Co-funder(s) agree to provide to WRF: | \$66,000.00 |
| c. Sub-recipient agrees to provide Cost Share: | \$72,080.00 |
| d. Sub-recipient agrees to provide in-kind: | \$37,800.00 |
| e. Total Project budget is: | \$241,880.00 |

All amounts are in U.S. dollars.

ORGANIZATION	Award Amount/co-funding	Cost Share	In-Kind Amount
Sponsor			
Pima County RWRD	\$25,000	\$0.00	\$0.00
Participants			
WSSC Water	\$25,000	\$0.00	\$10,000
King County	\$6,000	\$0.00	\$0.00
HDR	\$10,000	\$0.00	\$0.00
South Platte Renew	\$0.00	\$0.00	\$6,000
SCS Engineers	\$0.00	\$0.00	\$11,800
Hazen & Sawyer	\$0.00	\$0.00	\$10,000
Sub-recipient			
Pima County RWRD (Jeff Prevatt)	\$0.00	\$72,080	\$0.00
The Water Research Foundation	\$66,000	\$0.00	\$0.00
TOTALS	\$132,000	\$72,080	\$37,800
Total Project Budget	\$241,880		

Award Funds Not To Exceed:	\$132,000.00
10% of Project Funds Advance:	\$13,200.00
Draft Report & Invoice Retainage:	\$13,200.00
Final Report & Invoice Retainage:	\$13,200.00

EXHIBIT D
INVOICING REQUIREMENTS

Project 5272

Title: Evaluation of Adsorptive Medias for Optimizing Siloxane Removal from Biogas

Invoices must be submitted in the form posted on the following page under the Exhibits section:

www.waterrf.org/contract-materials#Exhibits

EXHIBIT E
ASSIGNMENT OF INTEREST IN COPYRIGHTED WORKS

Project 5272

Title: Evaluation of Adsorptive Medias for Optimizing Siloxane Removal from Biogas

Whereas _____ whose address is _____
[“Assignor”] makes this assignment having full ownership and authority to make such assignment [or being
authorized to make such assignment by _____].

Whereas Assignor has created and authored the original, tangible expressions of ideas described as follows:
_____ (hereafter the “Works”); and,

whereas the Assignor certifies and represents to own all right, title, and interest in and to the Works, including
the copyright; and,

whereas The Water Research Foundation (WRF) whose principal place of business is located at 6666 W. Quincy
Avenue, Denver, Colorado 80235 USA [“Assignee”] is desirous of obtaining all rights in and to the Works,
including the copyright.

NOW; THEREFORE, in return for grants provided to Assignor by Assignee for research, said Assignor does hereby
assign unto the said Assignee all world-wide right, title, and interest in and to the said Works, including the right
to transfer any registration of copyright, or file application for copyright registration for such Works as Owner.

By Principal Investigator or author	Date	Approved and authorized individual by	Date
-------------------------------------	------	---------------------------------------	------

Title	Title for authorized individual/legal department
For	For

Assignor Name/Entity	Assignor Name/Entity
----------------------	----------------------

State of _____	}	
	}	ss
County of _____	}	

On this _____ day of _____, 20____, _____ [Assignor or authorized agent]
appeared before me, the person who signed this instrument, and of his/her own free will executed this
document [on behalf of the identified corporation or other entity with authority to do so].

Notary Public	Comm’n. Exp.
---------------	--------------