

PARTICIPATION AGREEMENT
CONCERNING
WATER RESEARCH AND OUTREACH COORDINATION

Between The University of Tennessee Knoxville
And
the Metropolitan Department of Water and Sewer Services

THIS PARTICIPATION AGREEMENT is entered into the _____ day of 2020 by the Metropolitan Department of Water and Sewer Services, a political subdivision of the State of Tennessee, a Home Rule Public Corporation, hereinafter referred as MWS, and The University of Tennessee, a public higher educational institution of the State of Tennessee, hereinafter referred to as UTK.

WHEREAS, storm water management and urban stream restoration are vital for flood prevention and the protection of life and property; pollution control and improving water quality and aquatic biota of urban streams; and

WHEREAS, monitoring of water quality to report on protection and enhancement of urban streams by implementation of stormwater control measures and stream restoration is required of the Metropolitan Department of Water and Sewer Services' National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) permits issued by the Tennessee Department of Environment and Conservation (TDEC); and

WHEREAS, research is needed to fulfil the obligation of MWS for effective management of their stormwater program, and research can be cost effectively implemented through the collective effort of major MS4s in the state of Tennessee; and the following MS4s have agreed to work together on projects that will improve outcomes from their program implementation: City of Memphis, City of Nashville, City of Chattanooga, City of Knoxville, Shelby County, Hamilton County, and Knox County [see Attachment A]; and

WHEREAS, it is the purpose of this Participation Agreement is to define projects and task orders for water research and outreach coordination funds to support MWS with their stormwater management program [See Attachment B]; UTK will provide support with faculty, staff and student support for research, monitoring, technical and training services, and outreach activities as deemed necessary by MWS.

This agreement is effective from the date this agreement is approved by the Metropolitan Council and filed with the Metropolitan Clerk. This agreement shall terminate on December 31, 2023.

THEREFORE, IT IS MUTUALLY AGREED THAT:

STATEMENT OF WORK

UTK agrees to use its reasonable efforts to perform the research project ("Project") as set out in the Statement of Work and the defined tasks incorporated by reference in Appendix B, and additional task orders per subsequent appendices. UTK's performance of the Project shall be carried out under the supervision of the Principal Investigator and identified in Appendix B or additional appendices. The failure of the Principal Investigator for any reason to continue to until the normal conclusion of the Project shall not be considered a breach of this Participation Agreement and shall not subject UTK to any liability. In such case, UTK and the MWS shall agree upon a Principal Investigator replacement, and if they fail to agree, either of them may terminate this Participation

Agreement without cause upon written notification to the other at least thirty (30) days prior to the effective date of termination.

Development of the Urban Waters Report Card (UWRC) is the Project defined in Appendix B, and the UTK Principal Investigator is Dr. John Schwartz.

PROJECT PERIOD OF PERFORMANCE

The individual mutually agreed upon project work orders will contain their period of performance schedules, though they all must be completed within the Participation Agreement's effective period.

BUDGET

The agreed to budgetary costs to complete the individual task work orders broken down by task may be detailed in each subsequent work orders. The total budget for development of the UWRC is not to exceed \$35,000 for the agreement period or \$15,000 max per year.

PAYMENT

Compensation will be detailed in the work orders established between UTK and MWS. This Agreement does not commit either party to compensation outside of the scope of work. Such compensation is subject to jointly agreed-upon work orders.

BILLING PROCEDURE

UTK will submit an invoice(s) to MWS for the project tasks performed in accordance with the individual work orders on a quarterly basis.

Payments under this Performance Agreement will be made by MWS in U.S. dollars by check or electronic funds transfer to UTK.

Payment by check to:

The University of Tennessee
Office of the Treasurer
210 Student Services Building
Knoxville, TN 37996-0105

Payment by Electronic Fund Transfer: Banking information provided upon Performance Agreement execution.

All funds provided by MWS under this Performance Agreement may be used at the discretion of UTK. Invoices must reference the Participation Agreement Work Order number, billing period being invoiced, and if the invoice is final it shall be marked, FINAL.

TERM AND TERMINATION

The term of this Participation Agreement will commence on the date this agreement is approved by the Metropolitan Council and filed with the Metropolitan Clerk. This agreement shall terminate on December 31, 2023 unless sooner terminated according to the provisions of this Participation Agreement. This Participation Agreement may be extended, renewed, or otherwise amended at any time by the mutual written consent of authorized representatives of the parties and approval by the Metropolitan Council by resolution.

In the event that either UTK or MWS defaults in the performance of its obligations under this Participation Agreement, or any representation by either party proves to be false, the defaulting party shall cure the default within thirty (30) days of written notice. If the defaulting party fails to cure

the default, then the party giving such notice may elect to terminate this Participation Agreement by written notice to the defaulting party.

The parties recognize that the results of any particular research project cannot be guaranteed even through the use of UTK's reasonable effort. Therefore, it is specifically agreed that the failure of UTK to achieve specific research results shall not constitute a default or breach of this Participation Agreement.

Either UTK or MWS may terminate this Participation Agreement without cause upon written notification to the other at least thirty (30) days prior to the effective date of termination.

If the total funds paid by MWS as of the date of termination are insufficient to cover the costs and non-cancellable commitments incurred by UTK in the performance of the Project, MWS shall reimburse UTK for same within thirty (30) days of termination. In no event shall MWS be responsible for any amount in excess of the stated budget total.

PUBLISHING

UTK reserves to itself and its employees the sole right to publish the results of the Project in whole or in part as they deem appropriate. In order that premature public disclosure of such information does not adversely affect the interests of the parties, UTK shall provide MWS with a copy of each manuscript pertaining to the Project that is intended for publication. MWS may request delay in publication for a period not to exceed sixty (60) days from the date on which MWS receives the manuscript. If MWS does not make a written request for delay in publication within thirty (30) days after receipt of a manuscript, UTK shall be free to publish the manuscript at any time after the end of the thirty (30) days.

CONFIDENTIALITY

UTK and MWS recognize that the conduct of a research program may require the transfer of proprietary information between the parties ("Confidential Information"). Except as otherwise provided in this Participation Agreement for a period of five (5) years following the date of disclosure, the receiving party will not disclose Confidential Information without the consent of the disclosing party. Confidential Information shall be subject to the following:

"Confidential Information" shall include only information which is clearly marked as proprietary or confidential at the time of disclosure. For oral disclosures to constitute "Confidential Information," such disclosures must be identified at the time as proprietary or confidential and the disclosing party must provide a written summary of the "Confidential Information" within ten (10) days after disclosure to the receiving party.

The subject matter of the Confidential Information is to be limited to information related to the Project outlined in the Statement of Work (Appendix B).

The receiving party will not publish or otherwise reveal to any third party the Confidential Information of the disclosing party without the disclosing party's written permission, unless the information:

- (1) is already lawfully in the receiving party's possession at the time of receipt from the disclosing party as evidenced by appropriate documentation;
- (2) is or later becomes public through no fault of the receiving party;
- (3) is published by UTK and or its employee(s) in accordance with the provisions of Section 5 (Publishing) above;
- (4) is lawfully received from a third party whom receiving party reasonably believes has the right to make the disclosure as evidenced by appropriate documentation; or

(5) is required by law to be disclosed, including the Tennessee Public Records Act, Tenn. Code Annotated § 10-7-503, as modified by § 49-7-120.

INTELLECTUAL PROPERTY

The term "Intellectual Property" shall mean all inventions and developments (whether or not patentable) and other creative works (excluding theses, dissertations and scholarly publications) developed in the course of the performance of the work under this Participation Agreement, including without limitation any patent, trademark, copyright, mask work right, or other property right pertaining to same.

Pre-Existing Intellectual Property Rights of the Parties

No party claims by virtue of this participation agreement any right, title, or interest in (a) any issued or pending patents, copyrights, or other intellectual property, owned or controlled by another party or (b) any previous invention, process, computer software, or product of another party, whether or not patented or patentable.

Allocation of rights

- A. Both UNIVERSITY and MWS agree to promptly disclose to the other all Intellectual Property developed in the course of the work under this Participation Agreement.
- The Intellectual Property developed solely by MWS shall be owned by MWS.
 - The Intellectual Property developed solely by UTK in the performance of work under this Agreement shall be owned by UTK.
 - The Intellectual Property developed jointly by UTK and MWS in the performance of work under this Agreement shall be jointly owned.
- B. UTK hereby assigns to University of Tennessee Research Foundation all of UTK's right, title and interest in Intellectual Property developed solely by UTK and in UTK's rights in Intellectual Property that is jointly owned.

BINDING AGREEMENT

This Participation Agreement is not assignable or transferable, in whole or in part, by any party without the prior written consent of the other parties.

LIMITATION OF LIABILITY ON BEHALF OF UTK

UTK is self-insured under the provisions of the Tennessee Claims Commission Act (T.C.A. 9-8-301 *et seq.*). Any liability of UTK to MWS or any third parties for any claims, damages, losses, or costs arising out of or related to acts performed by the UTK or its employees under this Participation Agreement will be governed by the provisions of said Act.

Notwithstanding anything in this Participation Agreement to the contrary, any provisions of this Participation Agreement will not apply to the extent that it is (they are) finally determined to violate the laws or Constitution of the State of Tennessee.

NEGATION OF WARRANTIES BY UTK

Although UTK will use reasonable efforts to perform the research as set forth in the Project, UTK makes no representations or warranties, either express or implied, as to the work to be performed under this Participation Agreement. UTK specifically disclaims any warranties of merchantability or fitness for a particular purpose. UTK shall not be liable for any direct, consequential, or other damages suffered by MWS or others resulting from the work performed under this Participation Agreement.

MISCELLANEOUS

A. Communications

Any payment, notice or other communication required or permitted hereunder (“notice”) shall be in writing and shall be hand-delivered, sent by overnight courier, mailed by certified United States mail, return receipt requested, or sent by email or facsimile, to the address(es) given below or to such other address(es) as the parties may hereafter specify in writing. Notice shall be deemed given and received five (5) days after being deposited with the U.S. Postal Service certified mail (postage prepaid and return receipt requested), or if notice is hand-delivered or sent by overnight courier, upon the date of actual delivery, or if sent by facsimile or email, upon the date the recipient party acknowledges receipt in writing, by email or otherwise. An email notice shall be given concurrently to up to three (3) email addresses provided hereunder by the recipient party and the first acknowledgment of receipt from the recipient party shall establish the date on which such notice is given.

All communications shall be sent to the addresses identified below or to such other address as a party may designate by advance written notice to the other party(ies).

MWS

Name: Mary Bruce

Address: 1607 County Hospital Rd. Bldg A, Nashville, TN 37218

Telephone: 615-533-0276

Email: Mary.Bruce@Nashville.gov

UTK: Administrative/Contract Representative:

Name: Monica Cole, Assistant Director, Office of Research and Engagement

Address: 1534 White Avenue, Knoxville, TN 37932

Telephone: 865-974-3466; Fax: 865-974-2805

Email: OSP@utk.edu

Technical Representative:

Name: John S. Schwartz, Director of the Tennessee Water Resources Research Center

Address: 600 Henley Street, Suite 311, Knoxville, TN 37996-4134

Telephone: 865-974-7721

Email: jschwart@utk.edu

- B. Each of the parties' relationship to the other parties in the performance of this Participation Agreement is that of an independent contractor.
- C. This Participation Agreement is made and entered into in the State of Tennessee and its validity and interpretation and the legal relations of the parties shall be governed by the laws of the State of Tennessee.
- D. No party will use the name of another party in any form of publicity, promotion, or advertising without the prior written permission of that party. However, nothing herein is intended to preclude or precludes, the parties from acknowledging the existence of this Participation Agreement or the relationship of the parties in UTK reports of sponsored activity.
- E. **Export Control:** MWS acknowledges that the export of goods and/or technical data from the United States may require some form of export control license from the U.S. Government. MWS agrees that it will not disclose, export or re-export any materials or technical data received under this Participation Agreement to any countries for which the U.S. Government requires an export license, unless MWS has obtained prior written authorization first from the U.S. agency or authority responsible for such matters. MWS agrees that it is responsible for any fees or

expenses associated with obtaining an Export License, if required. UTK neither represents that a license shall not be required nor that, if required, it shall be issued.

- F. HIPAA: The parties agree to comply with HIPAA regulations insofar as they apply to the parties under this Participation Agreement. MWS agrees to use any subject data or Protected Health Information (as defined in HIPAA regulations) only for purposes authorized by the signed subject consent form, authorization, or approved waiver.
- G. Use of Human Subjects/Laboratory Animals: It is understood that no work involving human subjects or laboratory animals will begin until the Project has been approved by the Institutional Review Board or the Institutional Animal Care and Use Committee, respectively.
- H. This Participation Agreement constitutes the sole, full, and complete agreement by and between the parties, and no amendments, changes, additions, deletions, or modifications to or of this Participation Agreement shall be valid unless in writing, and signed by authorized representatives of the parties.

APPROVING SIGNATURES

IN WITNESS WHEREOF, each party hereto has caused this agreement to be executed by an authorized official(s) on the day and year set forth opposite his/her signature (*on next page*).

**Metropolitan Water and Sewer Service
(CITY or COUNTY)**

By _____

Name _____

Title _____

Date _____

Metropolitan Department of Finance
Approved as to availability of funds:

By _____

Name _____

Title _____

Date _____

Metropolitan Department of Law
Approved as to form and legality:

By _____

Name _____

Title _____

Date _____

**THE UNIVERSITY OF TENNESSEE
(UNIVERSITY)**

By _____

Name _____

Title _____

Date _____



600 Henley Street, Suite 311
Knoxville, Tennessee 37996-4134

Phone: (865) 974-4251

E-mail: isse@utk.edu

Web: isse.utk.edu/wrrc

October 2, 2020

Re: Letter of Interest for the Development of a State-wide Urban Waters Report Card

In 2019, a group of municipal separate storm sewer system (MS4) communities with the Tennessee Department of Environment and Conservation (TDEC) initiated a conversation about developing an Urban Water Report Card (UWRC). The primary goal of the UWRC is to provide MS4 permittees with an assessment tool to incrementally grade the quality of their streams. Stream quality will be determined by a collective set of indicator parameters as established by the members of this working group, and used to develop the grading scheme. The proposed UWRC contrasts to the State's assessment program based solely on water quality and bioassessment standards, where a stream is assessed on five-year increments and §303(d) listed as impaired and threatened waters. With an assessment scheme that can grade a stream's quality in a format, i.e., A, B, C, D and F, it can greatly assist MS4 permittees in Tennessee with a means to effectively communicate to the public the improvements that have occurred by the implementation of their stormwater management program (SWMP). The proposed indicators in the UWRC will be simple enough that they can be updated frequently and displayed with visually appealing graphs for the public. The UWRC also will assist MS4s with prioritization of stormwater control and stream restoration projects. With useful monitoring data within the MS4 watersheds, it is anticipated that the use of the UWRC will target SWMP implementation, optimize program costs and improve stream quality by projects selected in identified problem areas. The UWRC will provide an excellent outreach tool for the public and public officials.

This letter of interest identifies the MS4 permittees that understand the potential benefits of developing a UWRC. The undersigned MS4 permittees will assist in development of the UWRC by working together to collectively create a list of common indicators that may together be grouped into a single UWRC grade per stream reach. The MS4 permittees that have agreed to participate as members of the working group to develop the UWRC are: Cities of Memphis and Chattanooga, Nashville Metro, and Counties of Shelby, Hamilton, and Knox. As indicators are selected, the Tennessee Water Resources Research Center (TNWRRC) will identify, if needed, experts that can assist in creating measurement protocols for a grading scale. TDEC staff will be available to assist in the development of the UWRC, and provide data and staff expertise to also assist in creating measurement protocols for a grading scale. The Tennessee Stormwater Association (TNSA) has agreed to assist in the development of the UWRC with the aim to promote the final assessment tool broadly among the state's MS4 permittees.

By participation in the UWRC Working Group, the following MS4s, TDEC, TNSA and the TNWRRC agree to collaborate in order to accomplish the above stated goals. We look forward to working together enhancing stormwater management programs in the state.

Sincerely,

A handwritten signature in black ink that reads 'John S. Schwartz'.

John S. Schwartz, PhD, PE

Professor and Director of the Tennessee Water Resources Research Center



Letter of Interest for the Development of a State-wide Urban Waters Report Card
Signature page

City of Memphis
Maylynnne Wilbert
Typed Name

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Maylynnne Wilbert
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Signature and Date Stamp

City of Chattanooga
Mo Minkara
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Mo Minkara
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Signature and Date Stamp

Nashville Metro
Michael Hunt
Typed Name

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Michael Hunt
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Shelby County
Chris Masin
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Chris Masin
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Hamilton County
Crystal Bishop
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Crystal Bishop
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Knox County
Natalie Landry
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Natalie Landry
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Signature and Date Stamp

Tennessee Department of
Conservation and Environment
Jennifer Dodd
Typed Name

DocuSigned by:
Jennifer Dodd
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Signature and Date Stamp

Tennessee Stormwater Association
Warren Garrett
Printed Name

DocuSigned by:
Warren Garrett
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Signature and Date Stamp

Tennessee Water Resources Research Center
John Schwartz
Typed Name

DocuSigned by:
John D. Schwartz
Signature and Date Stamp
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Appendix B

Development of the Urban Waters Report Card Budget Summary – August 2020

Scope of Work: Task Categories

1. Technical Content Experts - Technical experts will be responsible for assisting the UWRC working group with defining the categories that will be used in the composite grading scheme for impaired streams, what metrics will best represent the category and in the review and selection of protocols to be used for specific metrics. Technical experts will also provide independent review of existing data collected by participating MS4 communities to determine its application to the proposed grading scheme. Technical experts will attend the initial kick-off meeting where grading categories are defined and established by the working group, the meeting for the category/metrics they are responsible for reviewing and the final report card meeting. All technical content experts will be faculty members from academic institutions in TN. We anticipate 16.25 days of professional time for each technical expert.

2. Process Meetings – Once the development process has begun we plan on holding eight to ten one-day meetings. For the interim period we will hold monthly virtual meetings to gather input on funding options, refine metric categories and discuss existing data collected by MS4 participants. Once funding for the development process has been secured in-person meeting will begin at a location to be determined by the UWRC working group. The following is suggested schedule and meeting topics;
 - a. Kick-off meeting – Review of Report Card development process; establish ground rules and participants contribution to the process; review composite grading categories and brainstorm potential metric/attributes for each category; review timeline and establish meeting schedule.
 - b. Category/Metric meetings - Channel Habitat, Stream Corridor, Watershed Connectivity and Water Quality. Additional meetings as needed if more categories are added to the scoring scheme.
 - c. Draft Report Card review – each participating community will apply grading methodology to one or more streams, provide results to project team and then meet to review and discuss the draft score cards for each community.
 - d. Refinement and revision of scoring metrics and associated protocol – project team and experts modify grading methodology and related collection protocols based on feedback and share that with the working group.
 - e. Final Report Card Roll Out meeting.

Additional meetings could be scheduled is the UWRC working group determines they are needed to complete the process.

3. Technical Support – Includes staff time for process and logistics management, including dedicated Senior Research Associate and Graduate Research Assistant for project documentation, GIS support, website development; stream assessment protocols and tools; report card design, technical support to MS4 staff training for beta testing of grading scheme at local level and printing of final Report Card document.

Direct funding for completing the first round of the Urban Water Report Card process will come from all participating communities with some resources and support provided by the University of Tennessee for process oversight. Communities may also provide staff time and other resources as part of their participation in the UWRC working group. No direct funding will be provided by federal or State regulatory agencies to support the UWRC process. Additional funding sources will be identified by members of the UWRC working group and grant request for funds will be prepared by UT staff. Time frame for Phase 1 will be 18-24 months and Cooperative Agreements between the University of Tennessee/TNWRC and each MS4 community will be prepared and implemented once a final scope of work and project tasks are developed by the UWRC working group. Start date of January 1, 2021.

Budget Categories

1. Metric Content Experts ¹ - 2-4 technical experts 65 days @\$1,000/day Metric scoring development and refinement	\$65,000
2. Process meetings (in person) ² - 8-10 meetings \$2,000 per meeting (meeting space rental, food, travel, materials) Additional funds to cover travel to meet with stakeholder communities	\$22,000
3. Technical Support ³ - Senior Research Associate (30% effort \$35,000) Graduate Research Assistant (100% effort \$30,000)	\$65,000
4. F&A (15% of \$152,000 direct costs) -	\$22,800
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5. Total Projects Costs -	\$174,800