Request for Proposals

AUTOMATIC SAMPLERS AND FLOW METERS FOR SMALL, RURAL, TRIBAL, AND TERRITORIAL COMMUNITIES

Responses due:

11:59 pm Eastern Standard Time
on Friday, February 14, 2025, at
https://wef.secure-platform.com/a/solicitations/318/home

The Water Environment Federation (WEF) is inviting proposals for the provision of automatic samplers and flow meters, and training and troubleshooting related to their use, to small, rural, tribal, and territorial communities as part of our activities under a cooperative agreement with the U.S. Centers for Disease Control and Prevention (CDC).

Background

During the COVID-19 pandemic, wastewater-based disease surveillance emerged as a tool for understanding COVID-19 infection trends in communities independent of healthcare-seeking behavior and clinical testing resources. Participation in wastewater surveillance to date, however, has skewed toward larger, well-resourced utilities. These resources include, but are not limited to, continuous in-situ monitors and automatic samplers.

To help address disparities in the distribution of automatic samplers[1] (also known as composite samplers or peristaltic samplers and hereinafter referred to as "autosamplers"), WEF provided free autosamplers and flow meters to utilities in small communities in 2022, 2023, and 2024. In 2025, WEF would like to build on the success of the program thus far by providing 20 additional free autosamplers, including a flow meter if desired, to water resource recovery facilities (WRRFs) and organizations that collect sewage from small, rural, tribal, and territorial communities.

Representatives from eligible communities will apply to receive an autosampler as part of this program and will indicate their preference for either a full-size, refrigerated sampler that can be used to collect a sample where power is available (such as in a pumping station or at the WRRF influent) or portable, compact autosampler that could be deployed in locations without available power (such as a manhole). In addition, communities selecting a refrigerated sampler may opt for either a standard model or a model suitable for operation in cold ambient temperatures, as described for Task 1 below. Communities may also request a flow meter compatible with the autosampler.

Through this request, WEF is soliciting proposals from suppliers for the provision of autosampler and flow meter packages, and materials and troubleshooting related to their use.

[1] Automatic samplers can collect up to 24 discrete samples before they must be restocked with empty bottles and can be programmed to collect samples at specific time intervals or at specific flow rates. They facilitate collection of representative wastewater samples for disease surveillance, but also can enable improved understanding of organic, solids, and nutrient loadings to wastewater treatment facilities.

Scope of Work

The supplier will provide three tasks: (1) autosampler and flow meter supply; (2) autosampler and flow meter training; and (3) autosampler and flow meter troubleshooting, as described below.

Task 1. Autosampler and Flow Meter Supply

The supplier will provide up to 20 programmable autosampler and flow meter packages, each package to be complete with all appurtenances required for sustained collection of 24-hour composite (either time-based or flow-paced, the latter only if a flow meter is also provided, as described in the next paragraph) wastewater samples. Items to be provided by the supplier in each autosampler package will include:

1. One of three types of autosampler units, depending on the preference of the participating utility, either:
   (a) refrigerated autosampler suitable for operation in ambient temperatures from 0 to 45°C (hereinafter referred to as a "standard refrigerated autosampler");
   (b) refrigerated autosampler suitable for operation in ambient temperatures from -30 to 45°C (hereinafter referred to as a "cold-weather refrigerated autosampler"); or
   (c) portable autosampler suitable for deployment in an 18-inch manhole.

   The breakdown of demand for standard refrigerated vs. cold-weather refrigerated vs. portable autosamplers will not be known until utilities are enrolled in the program. Utility enrollment is expected to begin in January 2025.
2. For all autosamplers:
   i. A peristaltic pump sampling system capable of overcoming at least 20 feet of lift
   ii. A single-bottle configuration and a total of three plastic bottles (one primary and two spares) for use with the autosamplers, each with a minimum capacity of 9 liters
   iii. A weighted strainer for installation at the end of the sample/suction tubing that is in the wastewater flow
   iv. A full-container shutoff
   v. Programming capabilities that allow wastewater to be collected at intervals as close as 10 minutes and provide for purging of sample/suction tubing between sampling events
   vi. Extra peristaltic pump head tubing (enough for two pump head tubing changes), pump discharge tubing (10 ft minimum), sample/suction tubing (100 ft minimum), and a tube
   vii. cutter or other tool for cutting the pump, discharge, and sample/suction tubing to the appropriate lengths
   viii. A warranty that the autosamplers, under normal use and service, will be free from defects in materials and workmanship for at least 12 months after delivery and, if not, that the autosampler will be replaced
3. For portable autosamplers:
   i. A battery charger assembly and two batteries
   ii. A configuration that allows the addition of ice around the sample bottle or in the autosampler base to keep the composited sample cool during collection
4. For standard or cold-weather refrigerated autosamplers:
   i. A power supply

In addition, the eligible communities will be given the option to request that a flow meter be included with their autosampler package. WEF will request information from the program applicants to determine whether an ultrasonic level sensor with meter or a contact area velocity meter would be more suitable for their flow measurement application. Therefore, WEF is requesting pricing for both an ultrasonic level sensor with meter and for a contact area velocity meter. In either case, the flow measurement package should be suitable for measuring flow in open channels containing flowing wastewater and provided with a 30-ft cable. No measurements other than flow will be required. And no output to plant SCADA, or remote communication, will be necessary. Although the supplier should plan on supplying up to 20 flow meters, WEF recognizes that flow meters will not be compatible with all autosampler types and therefore requests information about the proposed flow meter package, as detailed in "Proposal Requirements" below.

Task 2. Materials Related to Autosampler and Flow Meter Use

The supplier will provide a user manual and "quick start" guide for each type of autosampler and flow meter supplied, as well as training video(s) and live virtual training events. WEF will upload the user manuals, "quick start" guides, and video(s) to nwbe.org and make them available to the participating communities. A total of two (2) virtual events will be organized and run by the supplier and participation.

Topics to be covered by the supplier during the video(s) and live virtual training events will include:

- Health and safety considerations during autosampler and flow meter use
- Initial autosampler and flow meter assembly and setup
- Cleaning and regular maintenance of autosampler and flow meter parts
- Programming
- Sample tubing positioning best practices
- Replacement of pump head, pump discharge, and pump suction/sample tubing
- Quality assurance and quality control procedures to calibrate the pump and avoid cross contamination
- Troubleshooting common issues

The supplier will submit the user manuals, "quick start" guides, and training video(s) to WEF for review and approval before the files will be uploaded to nwbe.org. The supplier will perform a dry run of the virtual live training event for WEF staff before implementing the live virtual training events for the utilities.

All training materials and training events will be provided in English. Preference will be given to suppliers who are able to provide training materials and training events in at least one other language (such as Spanish, Chinese, or Vietnamese) as well.

Task 3. Autosampler and Flow Meter Troubleshooting

The supplier will provide troubleshooting support to each recipient of an autosampler/flow meter package for at least three months from the date the utility representative attends a live virtual training event. The supplier will provide a phone number and email address that the participating communities can use for questions and troubleshooting support, and utility questions and request for assistance will be answered via phone or email by the supplier within 48 hours.

The work of the selected supplier will be guided by WEF staff in coordination with, and with support from, the CDC.

Period of Performance

The period of performance of any agreement resulting from the RFP is tentatively scheduled to begin on or about March 1, 2025, and end on or about August 31, 2025.

Supplier Standards

The supplier needs to meet the following standards to be considered for this project:

- Have adequate financial resources to perform the agreement
- Be able to comply with the proposed performance schedule
- Have a satisfactory performance record
- Have a satisfactory record of integrity and business ethics
- Have a satisfactory health and safety record
- Have the necessary production and technical equipment and facilities to perform the contract

Although detailed financial documentation does not need to be included in the proposal submission, WEF reserves the right to request additional information to verify the proposer's financial resources prior to award.

Proposal Requirements

Firms with an interest in this work should submit a proposal that includes the following:

- A description of the proposed autosampler packages (standard refrigerated, cold-weather refrigerated, and portable), including complete technical specifications/datasheet.
- A description of the proposed flow meter package, including complete technical specifications that define flow sensor type, flow calculation method, suitable operating conditions (temperature, humidity), and power requirements.
- Description of the warranty coverage for the autosamplers, and clarification on whether the warranty coverage varies by autosampler component.
- Description of how the proposer meets the required supplier standards, including number of years in the business of providing autosamplers for wastewater applications and the approximate number of each type of autosampler sold in the past three years.
- Description of proposed training materials and program with samples from previous training programs.
- Description of the training qualifications and experience of supplier, including resumes of key training personnel.
- Description of troubleshooting support to be made available to participating communities experiencing problems with programming and other aspects of autosampler operation.
- Price for each autosampler package supply (including all items – 1.1 through 1.4 – listed for Task 1) and shipping, price for each flow meter package including shipping, materials for autosampler and flow meter use (Task 2), and autosampler and flow meter troubleshooting (Task 3), using the templates provided in Attachment 1.
- A copy of the standard agreement used by the supplier for autosampler sales, including, but not limited to, the standard terms and conditions.

The proposal text should be no more than seven (7) pages in length (not including autosampler datasheets, resumes of key training personnel, pricing tables, standard contract/terms and conditions, or other supporting information). The proposal should be submitted as a single .pdf file, inclusive of the proposal text and all supporting information.

Proposal Evaluation Criteria

Proposals submitted by the deadline will be reviewed by an external Proposal Review Committee, comprised of wastewater utility, academic, and public health representatives. WEF staff, Board of Trustee members, and House of Delegate members will not be eligible to participate on the review committee.

Proposals that include the elements described under "Proposal Requirements" will be scored according to the criteria in **Table 1**, for a maximum total possible score of 100 points. The highest scoring proposal will be selected for the award. WEF reserves the right to make multiple awards.

Table 1. Proposal Evaluation Criteria

Criterion	Considerations	Maximum Points Award
Price Evaluation	An effective average price (EAP)[2] for each proposal will be calculated based on historical uptake for different types of autosamplers 30% standard, 40% cold weather, and 30% portable) and the fact that 90% of supplies are sent to the conterminous US and 40% of autosampler recipients request a flow meter. Proposal with low EAP: 50 Proposals with EAP within 5% of low proposal: 40 Proposals with EAP within 10% of low proposal: 30 Proposals with EAP within 15% of low proposal: 20 Proposals with EAP within 20% of low proposal: 10	50
Past Performance Evaluation	Does the proposer meet the required supplier standards and have the capability to perform the scope of work? Will the supplier be able to do the work successfully within the proposed period of performance?	25
Technical Evaluation	Are the proposed autosampler and flow meter packages complete, high-quality, and consistent with the requirements described for Task 1 under "Scope of Work"? Will the training approach enable efficient and complete transfer of the information needed for safe operation of the autosamplers by the communities, and is it consistent with the requirements set forth in Task 2 of the "Scope of Work"? Will the proposed troubleshooting approach ensure sustainable operation of the autosamplers and is it consistent with the requirements set forth in Task 3 of the "Scope of Work"?	25

[2] Effective average price (EAP) will be calculated with the prices entered into the pricing template as follows:
$EAP = 0.3 * (S + 0.9 * S_c + 0.1 S_{NC}) + 0.4 * (C + 0.9 * C_C + 0.1 * C_{NC}) + 0.3 * (P + 0.9 * P_C + 0.1 * P_{NC}) + 0.20 * U + 0.20 * A + 0.36 * F_C + 0.04 * F_{NC}$

Question Submittal Information

Proposers are invited to submit questions no later than 5:00 PM Eastern Standard Time on Friday, January 3, 2025, to amehrotra@wef.org. If questions are received, WEF will hold a public webinar on Friday, January 10, 2025, at noon Eastern Standard Time to answer questions submitted by proposers. Please sign up for the webinar at this link: https://www.eventbrite.com/e/wef-2025-autosampler-flow-meter-program-answering-rfp-questions-tickets-1115854283199. WEF cannot guarantee that questions received after 5:00 PM Eastern Standard Time on Friday, January 3, 2025, will be answered during the webinar. An addendum to this RFP, if warranted based on the questions received, will be released on Friday, January 17, 2025.

Proposal Submittal Information

Proposals should be submitted at https://wef.secure-platform.com/a/solicitations/318/home no later than 11:59 PM Eastern Standard Time on Friday, February 14, 2025. Proposals submitted by email will not be accepted.

Attachment 1: Pricing Templates

Pricing Template for Task 1: Autosampler and Flow Meter Supply

Item	Variable	Unit	Unit Price
Standard Refrigerated Autosampler Package	S	Each package	
Shipping charges for standard refrigerated autosampler, each package, using standard ground shipping in the conterminous US	S_C	Total shipping charges for each autosampler package	
Shipping charges for standard refrigerated autosampler, each package, using second-day delivery to Alaska, Hawaii, or Puerto Rico	S_{NC}	Total shipping charges for each autosampler package	
Cold-Weather Refrigerated Autosampler Package	C	Each package	
Shipping charges for cold-weather refrigerated autosampler, each package, using standard ground shipping in the conterminous US	C_C	Total shipping charges for each autosampler package	
Shipping charges for cold-weather refrigerated autosampler, each package, using second-day delivery to Alaska, Hawaii, or Puerto Rico	C_{NC}	Total shipping charges for each autosampler package	
Portable Autosampler Package	P	Each package	
Shipping for portable autosampler, each package, using standard ground shipping in the conterminous US	P_C	Total shipping charges for each autosampler package	
Shipping for portable autosampler, each package, using second-day delivery to Alaska, Hawaii, or Puerto Rico	P_{NC}	Total shipping charges for each autosampler package	
Flow Meter Package Option 1: Ultrasonic level sensor with meter	U	Each package	
Flow Meter Package Option 2: Contact area velocity meter	A	Each package	
Shipping charges for flow meter package, each package, using standard ground shipping in the conterminous US	F_C	Total shipping charges for each autosampler package	
Shipping charges for flow meter package, each package, using second-day delivery to Alaska, Hawaii, or Puerto Rico	F_{NC}	Total shipping charges for each autosampler package	

Pricing Template for Task 2: Materials for Autosampler and Flow Meter Use

Item	Unit	Unit Price
User Manual, “Quick Start” Guide, and Video(s)	All materials together	
Virtual Trainings	Per training	

Pricing Template for Task 3: Autosampler and Flow Meter Troubleshooting

Item	Unit	Unit Price
Troubleshooting, three months	Per autosampler and flow meter package	