

Program Element #50: Safe Drinking Water Program

1. Description.

Funds provided under this Agreement for this Program Element may only be used in accordance with, and subject to, the requirements and limitations set forth below, to ensure safe drinking water.

The purpose of the Safe Drinking Water Program is to provide services to public water systems that result in reduced health risk and increased compliance with drinking water monitoring and Maximum Contaminant Level (MCL) requirements. The Safe Drinking Water Program reduces the incidence and risk of waterborne disease and exposure of the public to hazardous substances potentially present in drinking water supplies. Services provided through the Safe Drinking Water Program include investigation of occurrences of waterborne illness, drinking water contamination events, response to emergencies, water quality alerts, technical and regulatory assistance, inspection of water system facilities, and follow up of identified deficiencies. Safe Drinking Water Program requirements also include reporting of data to OHA, Public Health Division, Drinking Water Services (DWS) necessary for program management and to meet federal Environmental Protection Agency (EPA) Safe Drinking Water Act program requirements.

- a. Funds provided under this Agreement are intended to enable LPHA to assume primary responsibility for the quality of drinking water provided by most of the public water systems located within LPHA's jurisdiction.
- b. The work described herein is designed to meet the following EPA National Drinking Water Objective as follows:

“91% of the population served by Community Water Systems will receive water that meets all applicable health-based drinking water standards during the year; and 90% of the Community Water Systems will provide water that meets all applicable health-based drinking water standards during the year.”

Public drinking water systems addressed in this Program Element Description include Community Water Systems, Non-Transient Non-Community Water System (NTNC), and Transient Non-Community Water Systems Water Systems (TNC), serving 3,300 or fewer people and using Groundwater sources only, or purchased surface water, and those activities specifically listed for Non-EPA Water Systems using Groundwater sources only.

- c. LPHA is responsible for public water systems that purchase their water from other public water suppliers when the purchasing systems serve 3,300 or fewer people.

All changes to this Program Element are effective upon receipt of grant award unless otherwise noted in Exhibit C of the Financial Assistance Award.

2. Definitions Specific to Safe Drinking Water Program

- a. **Community Water System:** A public water system that has 15 or more service connections used by year-round residents, or that regularly serves 25 or more year-round residents.
- b. **Contact Report:** A form provided by DWS to LPHA to document contact with water systems.
- c. **Coliform Investigation:** An evaluation to identify the possible presence of sanitary defects, defects in distribution system coliform monitoring practices, and the likely reason that the Coliform Investigation was triggered at the public water system.
- d. **Drinking Water Services (DWS):** DWS is a program within OHA that administers and enforces state and federal safe drinking water quality standards for 3,600 public water systems in the state of Oregon. DWS prevents contamination of public drinking water systems by protecting drinking water sources; assuring that public water systems meet standards for design, construction, and operation; inspecting public water systems and assuring that identified deficiencies are corrected; providing technical assistance to public water suppliers; providing

financial assistance to construct safe drinking water infrastructure; and certifying and training water system operators.

- e. **Groundwater:** Any water, except capillary moisture, beneath the land surface or beneath the bed of any stream, lake, reservoir or other body of surface water within the boundaries of this state, whatever may be the geologic formation or structure in which such water stands, flows, percolates, or otherwise moves.
- f. **Level 1 Coliform Investigation:** An investigation conducted by the water system or a representative thereof. Minimum elements of the investigation include review and identification of atypical events that could affect distributed water quality or indicate that distributed water quality was impaired; changes in distribution system maintenance and operation that could affect distributed water quality (including water storage); source and treatment considerations that bear on distributed water quality, where appropriate (for example, whether a Groundwater system is disinfected); existing water quality monitoring data; and inadequacies in sample sites, sampling protocol, and sample processing. LPHA reviews sanitary defects identified and approves corrective action schedules.
- g. **Level 2 Coliform Investigation:** An investigation conducted by LPHA and is a more detailed and comprehensive examination of a water system (including the system's monitoring and operational practices) than a level 1 investigation. Minimum elements include those that are part of a level 1 investigation and additional review of available information, internal and external resources, and other relevant practices. Sanitary defects are identified and a schedule for correction is established.
- h. **Maximum Contaminant Level (MCL) Violation:** MCL violations occur when a public water system's water quality test results demonstrate a level of a contaminant that is greater than the established Maximum Contaminant Level.
- i. **Monitoring or Reporting (M/R) Violation:** Monitoring or Reporting violations occur when a public water system fails to take any routine samples for a particular contaminant or report any treatment performance data during a compliance period, or fails to take any repeat samples following a coliform positive routine or where the public water system has failed to report the results of analyses to DWS for a compliance period.
- j. **Non-EPA Water System:** A public water system serving 4-14 connections or 10-24 people during at least 60 days per year.
- k. **Non-Transient Non-Community Water System (NTNC):** A public water system that is not a Community Water System and that regularly serves at least 25 of the same persons over 6 months per year.
- l. **OHA:** Oregon Health Authority
- m. **Priority Deficiencies:** Deficiencies identified during water system sanitary survey that have a direct threat pathway to contamination or inability to verify adequate treatment.
 - Well: Sanitary seal or casing not watertight
 - Well: No screen on existing well vent
 - Spring: No screen on overflow
 - Spring: Spring box not impervious durable material
 - Spring: Access hatch / entry not watertight
 - Storage: No screened vent
 - Storage: Roof and access hatch not watertight

Storage: No flap valve, screen, or equivalent on overflow

Treatment (UV): No intensity sensor with alarm or shut-off

- n. **Priority Non-Complier (PNC):** Water systems with system scores of 11 points or more.
- o. **Professional Engineer (PE):** A person currently registered as a Professional Engineer by the Oregon State Board of Examiners for Engineering and Land Surveying.
- p. **Registered Environmental Health Specialist (REHS):** A person currently registered as an Environmental Health Specialist by the Oregon Environmental Health Registration Board.
- q. **Regulated Contaminants:** Drinking water contaminants for which Maximum Contaminant Levels, Action Levels, or Water Treatment Performance standards have been established under Oregon Administrative Rule (OAR) 333-061.
- r. **Safe Drinking Water Information System (SDWIS):** USEPA’s computerized safe drinking water information system database used by DWS.
- s. **System Score:** A point-based value developed by USEPA, based on unaddressed violations for monitoring periods ending within the last five years, for assessing a water system’s level of compliance.
- t. **Transient Non-Community Water Systems (TNC):** A public water system that serves a transient population of 25 or more persons.
- u. **USEPA or EPA:** United States Environmental Protection Agency.
- v. **Water Quality Alert:** A report generated by the SDWIS data system containing one or more water quality sample results from a public water system that exceed the MCL for inorganic, disinfection byproducts, or radiological contaminants, detection of any volatile or synthetic organic chemicals, exceeds one-half of the MCL for nitrate, any excursion minimum water quality parameters for corrosion control treatment, any positive detection of a microbiological contaminant, or any exceedance of lead or copper action levels.
- w. **Water System Survey:** An on-site review of the water source(s), facilities, equipment, operation, maintenance and monitoring compliance of a public water system to evaluate the adequacy of the water system, its sources and operations in the distribution of safe drinking water. Significant deficiencies are identified and a schedule for correction is established.

3. **Program Components.** Activities and services delivered under this Program Element align with Foundational Programs and Foundational Capabilities, as defined in Oregon’s Public Health Modernization Manual, (http://www.oregon.gov/oha/PH/ABOUT/TASKFORCE/Documents/public_health_modernization_manual.pdf) as well as with public health accountability outcome and process metrics (if applicable) as follows:

- a. **Foundational Programs and Capabilities** (As specified in Public Health Modernization Manual)

Program Components	Foundational Program				Foundational Capabilities						
	CD Control	Prevention and health promotion	Environmental health	Access to clinical preventive services	Leadership and organizational competencies	Health equity and cultural responsiveness	Community Partnership Development	Assessment and Epidemiology	Policy & Planning	Communications	Emergency Preparedness and Response

Program Components	Foundational Program					Foundational Capabilities						
				Population Health	Direct services							
Asterisk (*) = Primary foundational program that aligns with each component X = Other applicable foundational programs						X = Foundational capabilities that align with each component						
Emergency Response	X		*					X			X	X
Investigation of Water Quality Alerts	X		*						X			
Independent Enforcement Actions	X		*			X						
Technical Regulatory Assistance	X		*				X					X
Water System Surveys	X		*			X						
Resolution of Priority Non-compliers (PNC)	X		*			X						
Water System Survey Significant Deficiency Follow-ups	X		*			X						
Enforcement Action Tracking and Follow-up	X		*			X						
Resolution of Monitoring and Reporting Violations	X		*			X						
Inventory and Documentation of New Water Systems	X		*			X						

b. **The work in this Program Element helps Oregon’s governmental public health system achieve the following Public Health Accountability Metric:** Percent of Community Water Systems that meet health-based standards

c. **The work in this Program Element helps Oregon’s governmental public health system achieve the following Public Health Modernization Process Measures:**

- (1) **Water system surveys completed.** Calculation: number of surveys completed divided by the number of surveys required.
- (2) **Alert responses.** Calculation: number of alerts responded to divided by the number of alerts generated.
- (3) **Resolution of PNCs.** Calculation: number of PNCs resolved divided by the total number of PNCs.

4. **Procedural and Operational Requirements.** By accepting and using the Financial Assistance awarded under this Agreement and for this Program Element, LPHA agrees to conduct activities in accordance with the following requirements:

- a. General Requirements.** LPHA must prioritize all work according to the relative health risk involved and according to system classification with Community Water Systems receiving the highest priority. All services supported in whole or in part with funds provided to LPHA under this Agreement for this Program Element must be delivered in accordance with the following procedural and operational requirements:
- b. Required Services:**
- (1) Emergency Response: LPHA must develop, maintain, and carry out a response plan for public water system emergencies, including disease outbreaks, spills, operational failures, and water system contamination. LPHA must notify DWS in a timely manner of emergencies that may affect drinking water supplies.
 - (2) Independent Enforcement Actions: LPHA must take independent enforcement actions against licensed facilities that are also public water systems as covered under the following OARs: 333-029, 333-030, 333-031, 333-039, 333-060, 333-062, 333-150, 333-162, and 333-170. LPHA must report independent enforcement actions taken and water system status to DWS using the documentation and reporting requirements specified in this Agreement.
 - (3) Computerized Drinking Water System Data Base: LPHA must maintain access via computer to DWS's Data On-line website. Access via computer to DWS's Data On-line is considered essential to carry out the program effectively. LPHA must make timely changes to DWS's SDWIS computer database inventory records of public water systems to keep DWS's records current.
 - (4) Technical and Regulatory Assistance: LPHA must provide technical and regulatory assistance in response to requests from water system operators for information on and interpretation of regulatory requirements. LPHA must respond to water system complaints received as appropriate or as requested by DWS.
 - (5) Investigation of Water Quality Alerts: LPHA must investigate all water quality alerts for detections of regulated contaminants at community, NTNC, TNC, and non-EPA water systems.
 - (a) Immediately following acute MCL alerts (E.coli, Nitrate, and Arsenic), LPHA must consult with and provide advice to the water system operator on appropriate actions to ensure that follow-up sampling is completed, applicable public notices are distributed, and that appropriate corrective actions are initiated. LPHA must submit a Contact Report to DWS within 2 business day of the alert date.
 - (b) For all other alerts, LPHA must promptly consult with and provide advice to the subject water system operator on appropriate actions to ensure that follow-up sampling is completed, applicable public notices are distributed, and that appropriate corrective actions are initiated. LPHA must submit a Contact Report to DWS within 6 business days of the alert date.
 - (6) Conduct Level 2 Coliform Investigations: After a Level 2 investigation is triggered by DWS, LPHA must conduct a water system site visit (or equivalent), complete the Level 2 Investigation form and must submit to DWS within 30 days of triggered investigation date.
 - (7) Water System Surveys: LPHA must conduct a survey of each CWS within LPHA's jurisdiction every three years, or as otherwise scheduled by DWS; and each NTNC and TNC water system within LPHA's jurisdiction every five years or as otherwise scheduled by DWS. Surveys must be completed on DWS provided forms using the guidance in the Water System Survey Reference Manual and using the cover letter template provided by

DWS. Cover letter and survey forms must be submitted to DWS and water systems within 45 days from site visit completion.

- (8) Resolution of Priority Non-compliers (PNC): LPHA must review PNC status of all water systems at least monthly and must contact and provide assistance to community, NTNC, and TNC water systems that are priority non-compliers (PNCs) as follows:
- (a) LPHA must review all PNCs at three months after being designated as a PNC to determine if the water system can be returned to compliance within three more months.
 - (b) If the water system can't be returned to compliance within three more months, LPHA must send a notice letter to the owner/operator (copy to DWS) with a compliance schedule listing corrective actions required and a deadline for each action. LPHA must follow up to ensure corrective actions are implemented.
 - (c) If it is determined the water system cannot be returned to compliance within six months or has failed to complete corrective actions in (c) above, LPHA must prepare and submit to DWS a written request for a formal enforcement action, including LPHA's evaluation of the reasons for noncompliance by the water supplier. The request must include the current owner's name and address, a compliance schedule listing corrective actions required, and a deadline for each action. LPHA must distribute a copy of the enforcement request to the person(s) responsible for the subject water system's operation.
- (9) Level 1 Coliform Investigation Review: After a level 1 investigation is triggered by DWS, LPHA must contact the water system and inform them of the requirements to conduct the investigation. Upon completion of the investigation by the water system, LPHA must review it for completeness, concur with proposed schedule, and submit the completed form to DWS within 30 days of triggered investigation date.
- (10) Water System Survey Significant Deficiency Follow-ups: LPHA must follow-up on significant deficiencies and rule violations in surveys on community, NTNC, and TNC water systems. Deficiencies include those currently defined in the DWS-Drinking Water Program publication titled Water System Survey Reference Manual (March, 2016).
- (a) After deficiencies are corrected, LPHA must prepare a list of the deficiencies and the dates of correction and submit to DWS within 30 days of correction.
 - (b) If any deficiencies are not corrected by the specified timeline, LPHA must follow up with a failure to take corrective action letter.
 - (c) For priority deficiencies LPHA must ensure that the deficiencies are corrected by the specified timeline or are on approved corrective action plan. LPHA must submit the approved corrective action plan to DWS within 30 days of approval. After the deficiencies are corrected LPHA must prepare a list of the deficiencies and the dates of correction and submit to DWS within 30 days of correction. If priority deficiencies are not corrected by specified timeline, LPHA must ensure the water system carries out public notice, and refer to DWS for formal enforcement.
- (11) Enforcement Action Tracking and Follow-up: For both EPA and non-EPA systems, after DWS issues an enforcement action, LPHA must monitor the corrective action schedule, and verify completion of each corrective action by the water supplier. LPHA must document all contacts and verifications and submit documentation to the DWS. LPHA must document any failure by the water supplier to meet any correction date and notify

the DWS within 30 days. LPHA must notify DWS when all corrections are complete and submit the notice within 30 days.

(12) Resolution of Monitoring and Reporting Violations:

- (a) LPHA must contact and provide assistance at community, NTNC, and TNC water systems to resolve (return to compliance) non auto-RTC violations for bacteriological, chemical, and radiological monitoring. Violation responses must be prioritized according to water system’s classification, system score, and violation severity.
- (b) Contact the water supplier, determine the reasons for the noncompliance, consult with and provide advice to the subject water system operator on appropriate actions to ensure that violations are corrected in a timely manner.
- (c) Submit Contact Reports to DWS regarding follow-up actions to assist system in resolving (returning to compliance) the violations.

(13) Inventory and Documentation of New Water Systems: LPHA must inventory existing water systems that are not in the DWS inventory as they are discovered, including non-EPA systems, using the forms designated by DWS. LPHA must provide the documentation to DWS within 60 days of identification of a new or un-inventoried water system. Alternatively, LPHA may perform a water system survey to collect the required inventory information, rather than submitting the forms designated by DWS.

(14) Summary of Required Services Based on Water System Type

	CWS	NTNC	TNC	Non-EPA
Independent Enforcement Actions	X	X	X	
Computerized Drinking Water System Data Base	X	X	X	X
Technical and Regulatory Assistance	X	X	X	X
Investigation of Water Quality Alerts	X	X	X	X
Conduct Level 2 Coliform Investigations	X	X	X	X*
Water System Surveys	X	X	X	
Resolution of Priority Non-compliers (PNC)	X	X	X	
Level 1 Coliform Investigation Review	X	X	X	
Water System Survey Significant Deficiency Follow-ups	X	X	X	
Enforcement Action Tracking and Follow-up	X	X	X	X*
Resolution of Monitoring and Reporting Violations	X	X	X	
Inventory and Documentation of New Water Systems	X	X	X	X

*E.coli only

c. Staffing Requirements and Qualifications.

- (1) LPHA must develop and maintain staff expertise necessary to carry out the services described herein.
- (2) LPHA staff must maintain and assimilate program and technical information provided by DWS, attend drinking water training events provided by DWS, and maintain access to information sources as necessary to maintain and improve staff expertise.

- (3) LPHA must hire or contract with personnel registered as Environmental Health Specialists or Professional Engineers with experience in environmental health to carry out the services described herein.

5. General Revenue and Expense Reporting. LPHA must complete an “Oregon Health Authority Public Health Division Expenditure and Revenue Report” located in Exhibit C of the Agreement. These reports must be submitted to OHA by the 25th of the month following the end of the first, second and third quarters, and no later than 50 calendar days following the end of the fourth quarter (or 12 month period).

6. Reporting Requirements.

- a. **Documentation of Field Activities and Water System Contacts.** LPHA must prepare and maintain adequate documentation written to meet a professional standard of field activities and water system contacts as required to:
 - (1) Maintain accurate and current public water system inventory information.
 - (2) Support formal enforcement actions.
 - (3) Describe current regulatory status of water systems.
 - (4) Guide and plan program activities.
- b. **Minimum Standard for Documentation.** LPHA must, at a minimum, prepare and maintain the following required documentation on forms supplied by DWS:
 - (1) Water system surveys, cover letters, and significant deficiencies: must be submitted on DWS forms to DWS and water system within 45 days of site visit completion.
 - (2) Level 1 and Level 2 Coliform Investigation forms: must submit on DWS forms to DWS within 30 days of investigation trigger.
 - (3) Water system Inventory, entry structure diagram, and source information updates: must submit on DWS forms to DWS within 6 business days of completion.
 - (4) Field and office contacts in response to complaints, PNCs, violations, enforcement actions, regulatory assistance, requests for regulatory information: must submit Contact Reports to DWS within 2 business day of alert generation for MCL alerts, and 6 business days for all other alerts and contact made with water systems.
 - (5) Field and office contacts in response to water quality alerts. For acute MCL alerts (E.coli, Nitrate, and Arsenic): must submit Contact Reports to DWS within 2 business days of alert, all other alerts submit to DWS within 6 business days of alert.
 - (6) Waterborne illness reports and investigations: must submit Contact Report to DWS within 2 business day of conclusion of investigation.
 - (7) All correspondence with public water systems under LPHA’s jurisdiction and DWS: submit Contact Reports within 6 business days of correspondence to DWS.
 - (8) Documentation regarding reports and investigations of spills and other emergencies affecting or potentially affecting water systems: must submit Contact Reports to DWS within 2 business days.
 - (9) Copies of public notices received from water systems: must submit to DWS within 6 business days of receipt.
- c. **DWS Audits.** LPHA must give DWS free access to all LPHA records and documentation pertinent to this Agreement for the purpose of DWS audits.

7. **Performance Measures.** LPHA must operate the Safe Drinking Water Program in a manner designed to make progress toward achieving the following Public Health Modernization Process Measure: Percent of Community Water Systems that meet health-based standards.

DWS will use three performance measures to evaluate LPHA's performance as follows:

- a. **Water system surveys completed.** Calculation: number of surveys completed divided by the number of surveys required per year.
- b. **Alert responses.** Calculation: number of alerts responded to divided by the number of alerts generated.
- c. **Resolution of PNCs.** Calculation: number of PNCs resolved divided by the total number of PNCs.

8. **Responsibilities of DWS.** The intent of this Program Element description and associated funding award is to enable LPHA to independently conduct an effective local drinking water program. DWS recognizes its role to provide assistance and program support to LPHA to foster uniformity of statewide services. DWS agrees to provide the following services to LPHA. In support of local program services, DWS will:

- a. Distribute drinking water program and technical information on a monthly basis to LPHA.
- b. Sponsor at least one annual 8-hour workshop for LPHA drinking water program staff at a central location and date to be determined by DWS. DWS will provide workshop registration, on-site lodging, meals, and arrange for continuing education unit (CEU) credits. LPHA is responsible for travel expenses for LPHA staff to attend. Alternatively, at the discretion of the DWS, the workshop may be web-based.
- c. Sponsor at least one regional 4-hour workshop to supplement the annual workshop. DWS will provide training materials and meeting rooms. LPHA is responsible for travel expenses for its staff to attend. Alternatively, at the discretion of the DWS, the workshop may be web-based.
- d. Provide LPHA with the following information:
 - (1) Immediate Email Notification: Alert data, plan review correspondence
 - (2) Monthly Email Notification: Violations, system scores, PNCs
Continuously: Via Data On-line listings of PNCs, individual water system inventory and water quality data, compliance schedules, and individual responses for request of technical assistance from LPHA.
 - (3) Immediate Phone Communication: In circumstances when the DWS technical contact assigned to a LPHA cannot be reached, DWS will provide immediate technical assistance via the Portland phone duty line at 971-673-0405.
- e. Support electronic communications and data transfer between DWS and LPHA to reduce time delays, mailing costs, and generation of hard copy reports.
- f. Maintain sufficient technical staff capacity to assist LPHA staff with unusual drinking water problems that require either more staff than is available to LPHA for a short time period, such as a major emergency, or problems whose technical nature or complexity exceed the capability of LPHA staff.
- g. Refer to LPHA all routine inquiries or requests for assistance received from public water system operators for which LPHA is responsible.
- h. Prepare formal enforcement actions against public water systems in the subject County, except for licensed facilities, according to the priorities contained in the current State/EPA agreement.
- i. Prepare other actions against water systems as requested by LPHA and as agree