

Quality Assurance Project Plan

for

Emerging Contaminants in Small or Disadvantaged Communities Program



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Prepared by:

Water Protection Division

New Mexico Environment Department

Harold L. Runnels Building

1190 St. Francis Drive

Santa Fe, New Mexico 87505

APPROVAL PAGE

New Mexico Environment Department – Water Protection Division

Claudia Trueblood

Digitally signed by Claudia
Trueblood
Date: 2025.02.12 10:18:37 -0700'

Claudia Trueblood, Emerging Contaminants Program Manager
Water Protection Division- New Mexico Environment Department

Bethany Anderson

Digitally signed by Bethany
Anderson
Date: 2025.02.12 10:11:21 -0700'

Bethany Anderson, Quality Assurance Manager
Drinking Water Bureau - New Mexico Environment Department

Kelsey Rader

Digitally signed by Kelsey Rader
Date: 2025.02.12 14:36:17 -0700'

Kelsey Rader, Deputy Director
Water Protection Division - New Mexico Environment Department

U.S. Environmental Protection Agency – Region 6

**VICTOR
GARCIA**

Digitally signed by
VICTOR GARCIA
Date: 2025.02.21
14:10:18 -06'00'

Victor Garcia, Project Officer
United States Environmental Protection Agency – Region 6

QAPP VERSION CONTROL

QAPP Title	Version	Date	Page No.(s)	Revisions AND Comments	Reviewed by:
Emerging Contaminants SDC	0.0	020725	All	QAPP is being submitted for full review AND initial term under the requirements of EPA IT/IM Standard Directive Number CIO 2105-S-02.1 – Quality Assurance Project Plan Standard	Reviewed by EPA

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ACRONYMS AND ABBREVIATIONS

ASD	Administrative Services Division (NMED)
CCR	Consumer Confidence Report
CFR	Code of Federal Regulations
CO	Compliance Officer
DQO	Data Quality Objectives
DWB	Drinking Water Bureau
DWLCP	Drinking Water Laboratory Certification Program
ECP	Emerging Contaminants Program in Small or Disadvantaged Communities
EIO	Environmental Information Operations
EPA also U.S. EPA	United States Environmental Protection Agency
NM	New Mexico
NMAC	New Mexico Administrative Code
NMED	New Mexico Environment Department
NMSA 1978	New Mexico Statutes Annotated 1978
NPDWR	National Primary Drinking Water Regulations
OGC	Office of General Counsel (NMED)
OIT	Office of Information Technology (NMED)
PFAS	Per- and polyfluoroalkyl substances
PWS(s)	Public Water System(s)
QA	Quality Assurance
QAM	Quality Assurance Manager
QAPP	Quality Assurance Project Plan
QC	Quality Control
QMP	Quality Management Plan
SDWA	Safe Drinking Water Act
SDWIS	Safe Drinking Water Information System
SOP	Standard Operating Procedure
WPD	Water Protection Division

ESSENTIAL DEFINITIONS

Assessment—The evaluation process used to measure the performance or effectiveness of a system and its elements. As used here, assessment is an all-inclusive term used to denote any of the following: audit, performance evaluation, management review, peer review, inspection, surveillance, or readiness review (including competency assessment, Pre-award assessment of proposal, or technical assessment), peer consultation, product review (e.g., data inspection, software testing, pre-dissemination review, or review of contractor deliverables).

Audit—A systematic and independent examination to determine whether quality activities and related results comply with planned arrangements and whether these arrangements are implemented effectively and are suitable to achieve objectives.

Data—A quantitative or qualitative representation of values, facts, observations, or ideas in a formalized manner capable of being transmitted, processed, stored, analyzed, interpreted, and/or communicated by some.

Environmental Information—Includes data and information that describe environmental processes or conditions which support EPA's mission of protecting human health and the environment. Examples include but are not limited to:

- direct measurements of environmental parameters or processes
- analytical testing results of environmental conditions (e.g., geophysical, geochemical, or hydrological conditions)
- information on physical parameters or processes collected using environmental technologies.
- calculations or analyses of environmental information
- information provided by models.
- information data compiled or obtained from databases, software applications, decision support tools, websites, existing literature, and other sources: and
- design, construction, and operation or application of environmental technology.

Environmental Information Operations (EIO)—A collective term for work performed to collect, produce, evaluate, or use environmental information and the design, construction, operation, or application of environmental technology.

Environmental Measurement—A subgroup of Environmental Information that includes or produces values derived from tools, instruments, observational results, laboratory operations on environmental samples, or other sampling and testing equipment. It is any data collection activity or investigation involving the assessment of chemical, physical, or biological factors in the environment which affect human health and the environment.

Environmental Processes—Manufactured or natural processes that produce discharges or that impact human health and the environment.

Environmental Programs—Work or activities involving the environment, including but not limited to, characterization of environmental processes and conditions; environmental monitoring;

environmental research and development; the design, construction, and operation of environmental technologies; and laboratory operations on environmental samples.

Environmental Technology—An all-inclusive term for systems, devices, and their components applicable to both hardware and methods or techniques that measure and/or remove pollutants or contaminants and/or prevent them from entering the environment.

Extramural Agreement—A legal agreement between EPA and NMED. Such agreements include but are not limited to contracts, work assignments, delivery orders, task orders, cooperative agreements, research grants, state and local grants, and EPA-funded interagency agreements and as negotiated in other agreements not funded by EPA. Refer to *Environmental Information Quality Procedure*, for additional details related to QA documentation associated with extramural agreements.

Graded Approach—The process of determining the level of detail for management controls to be applied to an activity according to the intended use and the degree of confidence needed in the quality of the results. This approach establishes the QA and QC requirements commensurate with the importance of the work, the available resources, and the unique needs of the organization.

Must, Shall, Will—Denotes mandatory requirements.

Quality Assurance Manager (QAM)—The individual designated as the Quality Assurance Manager for projects defined in this QAPP is the individual designated to have oversight authority and responsibilities for planning, documenting, coordinating, and assessing the effectiveness of the Quality Program for specific programs.

Process—A set of interrelated resources and activities which transforms inputs into outputs. Examples of processes include analysis, design, data collection, operation, fabrication, and calculation.

Product—The intended result or final output of an activity or process that is disseminated or distributed among EPA organizations or outside of EPA.

Project—A unique process consisting of a set of coordinated, defined, and controlled activities with start and finish dates, undertaken to achieve an objective conforming to specific requirements including constraints of time, cost, and resources.

Quality—The totality of processes, procedures, features, and characteristics of a product or service that bear on its ability to meet the stated or implied needs and expectations of the user.

Quality Assurance (QA)—Management of an integrated system of activities involving planning, implementation, documentation, assessment, reporting, and quality improvement to ensure that a process, item, or service is of the type and quality needed and expected by the organization.

Quality Assurance Project Plan (QAPP)—A planning document related to a project that describes in comprehensive detail the necessary QA/QC requirements and other technical activities that must be implemented to ensure that the results of the work performed will satisfy the stated performance and acceptance criteria.

Quality Control (QC)—The overall system of technical activities that measures the attributes and performance of a process, item, or service against defined standards to verify that they meet the stated requirements; operational techniques and activities that are used to fulfill requirements for quality.

Quality Management—The aspects of the Emerging Contaminants Program’s overall management system that drive the implementation of an organization’s Quality Program. Quality Management includes strategic planning, allocation of resources, and other systematic activities (e.g., planning, implementation, documentation, and assessment) pertaining to ECP’s Quality Program.

Quality Management Plan (QMP)—The WPD QMP defines the Quality Program in terms of the organizational structure, functional responsibilities of management and staff, lines of authority, and required interfaces for those planning, implementing, and assessing all activities conducted.

Quality Program—The totality of management controls, processes, and documentation in EPA’s and WPD’s planning, implementation, and assessment for ensuring the quality of Agency environmental information operations products and services.

1 PROJECT SCOPE

This QAPP applies to all activities performed by the ECP program staff and applicable contractors, who are responsible for the implementation of the methods and procedures described in this QAPP. The current version of this QAPP is made publicly available on the [ECP](#) webpage.

The Environmental Information Operation (EIO) activities represented in this document are in alignment with [EPA's Agency-wide Quality Program](#), Quality Policies, and Quality Procedures through the implementation of ECP's Quality Program. ECP's Quality Program supports EPA's mission of protecting the environment and human health and ensuring environmental information operations products and services are of known documented quality for their intended use.

The QAPP implements EPA Quality Policy and Procedures for principle of the graded approach applied to the systematic planning and establishes Quality Assurance (QA) and Quality Controls (QC) to the efforts under ECP. ECP will investigate the presence of per- and polyfluoroalkyl substances (PFAS) and other emerging contaminants in drinking water and source water. Under ECP, NMED staff or contractors will sample treated water in all communities in New Mexico (NM) that qualify as small or disadvantaged. Once all qualified Public Water Systems (PWSs) in NM are sampled and the data is compiled, reviewed, and verified, NMED will determine which systems have PFAS levels that exceed regulatory thresholds for drinking water. Then, NMED staff will work with consultants and water systems for which PFAS levels exceeded the established thresholds to plan for and implement treatment technologies. After those remediation strategies are applied, ECP will resample to assess if the remediation is producing the intended results.

The general objectives and goals of the NMED ECP quality system are to ensure quality in the work processes and products of the ECP such that all environmental data generated and processed are scientifically valid; of known precision and accuracy; of acceptable completeness, representativeness, and comparability; and legally defensible. The quality system includes processes for planning, implementing, documenting, and assessing work performed by ECP staff and contractors.

The ECP is committed to maintaining a quality system which instills confidence that deliverables and decisions generated by using environmental data operations meet the requirements of the State and Federal drinking water regulations, and that the public is provided with safe, clean drinking water. The WPD requires an approved QAPP for each project that generates environmental data.

The content of this QAPP is in alignment with all applicable EPA environmental information management documents and is compliant with EPA's Quality Policies, Standards, and regulatory requirements. Quality Information documents for ECP Quality Program are available on EPA's [Managing the Quality of Environmental Information - Specifications for States](#) webpage.

Table 1 – Documents Related to QAPP

Title of Document	Document Date	Pertinence to this QAPP
NMED EC-SDC Quality Management Plan	MM DD, YY	This QAPP is developed in accordance with ECP QMP and is made publicly available on the ECP webpage
ECP Water Sampling SOP	February 2025	Sampling Procedures
<i>EPA Quality Assurance Project Plan (QAPP) Standard– IT/IM Standard, CIO 2105-S-02.1</i>	April 3, 2024	This QAPP is developed in accordance with EPA’s Environmental Information Standards available on the EPA Environmental Information Policy, Procedures and Standards webpage.
<i>Environmental Information Quality Policy– IT/IM Directive, CIO 2105.4</i>	April 3, 2024	“ “
<i>EPA Environmental Information Quality Procedure IT/IM Directive, CIO 2105-P-01.4</i>	April 3, 2024	“ “
<i>PFAS National Primary Drinking Water Regulation</i>	April 26, 2024	Federal Register: PFAS National Primary Drinking Water Regulation
<i>Correction</i>	June 11, 2024	Federal Register: PFAS National Primary Drinking Water Regulation; Correction

The ECP Manager is responsible for preparing, maintaining, and updating this QAPP, and implementing the current version of the EPA IT/IM Directive - Quality Assurance Project Plan Standard, QAPP and QAPP checklist. The ECP Manager shall submit this QAPP to the ECP QAM 120 days prior to the QAPPs expiration date for internal review and approval. The ECP Manager may delegate these tasks but it will still be the responsibility of the Manager to make sure those tasks are completed.

The QAM is EPA’s point of contact for this QAPP and will consult with the EPA project officer and EPA Regional Quality Assurance Manager for additional requirements before submittal and approval of the QAPP. The QAM will submit the QAPP 60 days before the expiration date to the EPA Quality Assurance Manager for their approval. The QAM will ensure the quality assurance requirements have been implemented and updated within this QAPP during the annual review.

The ECP Manager and staff ensure the quality system is implemented in accordance with its requirements. The ECP Manager also ensures that the responsibilities and duties are met for EPA assisted programs, grant funding, extramural agreements, contracts, memorandums of understanding (MOUs)/agreements (MOAs), and QA/QC EIOs.

All issues related to quality should be brought up to the ECP Manager who will coordinate with the QAM to determine appropriate action and create or revise any policies or procedures, as necessary. The ECP Manager has the authority to coordinate with the QAM to resolve QA concerns within ECP.

2 PROJECT MANAGEMENT AND INFORMATION/DATA QUALITY OBJECTIVES

2.1 PROJECT PURPOSE

The “Quality Assurance Project Plan (QAPP) for the Emerging Contaminants for Small or Disadvantaged Communities Program” ensures that environmental information operations of the New Mexico Environment Department Water Protection Division (NMED WPD) under the ECP, meet the required Quality Assurance (QA) criteria. This QAPP also describes how environmental information operations are planned, implemented, documented, and assessed during the life cycle of the project.

ECP serves several purposes:

1. ECP investigates the presence of per- and polyfluoroalkyl substances (PFAS) and other emerging contaminants in drinking water and source water in small or disadvantaged communities in New Mexico.
2. Support communities and PWS in complying with initial monitoring required by the PFAS National Primary Drinking Water Regulation by April 26, 2027.
3. Use the data compiled, reviewed, and verified by April 2027 to determine which water systems have PFAS levels that exceed regulatory thresholds for drinking water.
4. Offer those small and/or disadvantaged communities possible remediation alternatives and full support to implement those remediation measures, which involve engineering support, funding, and project management.
5. Resample in communities implementing remediation measures to determine whether the remediation is producing the intended results.

2.2 PROJECT BACKGROUND AND PROBLEM DEFINITION

President Biden signed the Bipartisan Infrastructure Law (BIL) on November 15, 2021. The law’s investment in the water sector includes more than \$50 billion to the U.S. Environmental Protection Agency (EPA) to strengthen the nation’s drinking water and wastewater systems. Among its provisions, the BIL provides a total of \$5 billion in fiscal years 2022-2026 for the Emerging Contaminants in Small or Disadvantaged Communities (EC-SDC) grant program, which focuses on addressing emerging contaminants—including perfluoroalkyl and polyfluoroalkyl substances (PFAS)—in small or disadvantaged communities’ drinking or source water.

On April 10, 2024, EPA announced the final National Primary Drinking Water Regulation (NPDWR) and health-based Maximum Contaminant Level Goals (MCLGs) for six per- and polyfluoroalkyl substances (PFAS): perfluorooctanoic acid (PFOA), perfluorooctane sulfonic acid (PFOS), perfluorohexane sulfonic acid (PFHxS), perfluorononanoic acid (PFNA), hexafluoropropylene oxide dimer acid (HFPO-DA, commonly known as GenX Chemicals), and perfluorobutane sulfonic acid (PFBS).

Through this action, the EPA finalized MCLGs for PFOA and PFOS at zero and individual Maximum Contaminant Levels (MCLs) for PFOA and PFOS at 4.0 nanograms per liter (ng/L) or parts per trillion (ppt). The EPA also finalized individual MCLGs and MCLs for PFHxS, PFNA, and HFPO-DA at 10 ng/L. In addition to the individual MCLs for PFHxS, PFNA, and HFPO-DA, and considering the known toxic effects, dose additive health concerns and occurrence and likely co-occurrence in drinking water of these three PFAS, as well as PFBS, the EPA finalized Hazard Index (HI) of 1 (unitless) as the MCLG and MCL for any mixture containing two or more of PFHxS, PFNA, HFPO-DA, and PFBS.

The final rule requires:

- Public water systems must monitor for these PFAS and have three years to complete initial monitoring (by April 2027), followed by ongoing compliance monitoring. Water systems must also provide the public with information on the levels of these PFAS in their drinking water beginning in 2027.
- Public water systems have five years (by 2029) to implement solutions that reduce these PFAS if monitoring shows that drinking water levels exceed these MCLs.
- Beginning in five years (2029), public water systems that have PFAS in drinking water which violates one or more of these MCLs must take action to reduce levels of these PFAS in their drinking water and must provide notification to the public of the violation.

2.3 PROJECT TASK DESCRIPTION

ECP will coordinate and fund water sampling statewide for PFAS and other emerging contaminants at small or disadvantaged communities that qualified under the grant. With the information gathered, ECP will assess which systems may need to consider remediation/treatment for having PFAS levels above the regulated PFAS thresholds. ECP will work with water systems to identify remediation options. ECP will then participate in the entire process of design to build which is not typical of NMED programs. The process finalizes with resampling of systems for which remediation strategies were used to assess their effectiveness. Throughout the entire process, ECP will be engaged in outreach and education activities with water systems that qualify under the grant funding, and with their communities.

Although testing in New Mexico has revealed the presence of PFAS at several locations around the state, additional testing is necessary to know the full extent of the problem. In particular, the initial or baseline assessment of PFAS levels in drinking water will support Community Water Systems and Non-Transient Non-Community Water Systems, required to comply with the final PFAS drinking water regulation, learn where they are vis-à-vis the new PFAS National Primary Drinking Water Regulation.

The initial monitoring will require surface water systems serving all population sizes to do quarterly sampling within a 12-month period, with samples collected 2 to 4 months apart. For small groundwater systems serving 10,000 or fewer customers, the sampling will have to be done on a semiannual basis, with samples collected 5 to 7 months apart.

The State of New Mexico has approximately 1,100 public water systems which include: Community Water Systems, Transient Non-Community Water Systems, and Non-Transient Non-Community Water Systems. Under ECP, approximately 650 water systems will need to be sampled at the entry points of the distribution system. This translates into approximately 2,200 samples that would be collected and analyzed.

Sampling activities of the ECP would be conducted by ECP staff or contractors who are certified by the NMED Drinking Water Bureau (NMED DWB) Utility Operator Certification Program (UOCP) to collect drinking water samples from various locations throughout the state. Samples are collected from sources, surface water intakes, and compliance entry points.

Samples are then submitted for analysis to EPA certified laboratories and/or laboratories certified by the NMED Drinking Water Laboratory Certification Program (DWLCP) to analyze drinking water for per- and polyfluoroalkyl substances (PFAS) using EPA Method 537.1. Contaminants of concern for which samples are analyzed include those listed in the National Primary Drinking Water Standards (40 CFR 141), National Secondary Drinking Water Standards (40 CFR 143), or other water samples deemed necessary by NMED. These contaminants consist of various organic and inorganic contaminants.

2.4 PROJECT INFORMATION / DATA QUALITY OBJECTIVES AND PERFORMANCE / ACCEPTANCE CRITERIA

The establishment of quality objectives ensures that ECP makes decisions about water quality management that are:

- Consistent with the mission, goals, and objectives of NMED
- Based on proper application of policy and guidance
- Based on all available pertinent information
- Based on a thorough understanding of the information
- Based on accurate information

Data Quality Objectives (DQOs) are criteria that aid ECP staff in making data-based decisions while limiting the occurrence of errors. Water sampling and testing are conducted by trained compliance staff and contractors in accordance with the procedures specified in Section 2.2 of this QAPP and undergo extensive review to ensure that the data and information collected is of sufficient quality to provide a prominent level of confidence in the resulting decisions.

2.5 PROJECT DISTRIBUTION LIST

A list of individuals or positions who receive a copy of this QAPP are summarized in Table 2. Those who receive a copy of this QAPP acknowledge receipt, understanding, and commitment to compliance by signing an acknowledgement form, copies of which are kept in a designated online file of the ECP.

Table 2 – Distribution List

Personnel	Title	Agency	Email	Phone number
Christy Warren	EPA Quality Assurance Manager	USEPA -R6	warren.christy@epa.gov	(281) 983-2137
Victor Garcia	EPA Project Officer	USEPA -R6	Garcia.Victor@epa.gov	(214) 665-7353
Chloe Adelman	EPA Project Officer	USEPA -R6	Ademann.Chloe@epa.gov	(214) 665-6796
Kelsey Rader	WPD Deputy Director	NMED - WPD	kelsey.rader@env.nm.gov	(505) 629-6732

Claudia Trueblood	Program Manager ECP	NMED-WPD	claudia.trueblood@env.nm.gov	(505) 489-6920
Bethany Anderson	Quality Assurance Manager ECP	NMED-DWB	bethany.anderson@env.nm.gov	(505) 469-7658
Andy Jochems	Source Water Protection Team Lead	NMED-DWB	andy.jochems@env.nm.gov	(505) 205-6964
Vacant	Water Sampling and Outreach	NMED- WPD- ECP		
Vacant	Water Resources Analyst	NMED- WPD- ECP		
Vacant	Water Systems Engineer	NMED- WPD- ECP		
Sampling contractor	Will be identified via RFP			
Testing contractor	Will be identified via RFP or established via Memorandum of Agreement			
James Midkiff	SDWIS Supervisor	NMED-DWB	james.midkiff1@env.nm.gov	(505) 660-3391

2.6 PROJECT QAM INDEPENDENCE

Through the delegation of the Cabinet Secretary the Water Protection Division (WPD) Director has designated the Drinking Water Bureau Chief to develop and oversee the Quality Program for the Bureau's environmental programs. The Drinking Water Bureau Chief has in turn delegated these responsibilities to the DWB Quality Assurance Manager.

The DWB Quality Assurance Manager (QAM) is responsible for the Quality Program of ECP. The QAM is independent of operational activities of ECP and has appropriate access and authority to coordinate development and implementation of ECP's Quality Program.

The QAM, or designee, distributes copies of the approved QAPP to the appropriate ECP staff listed within the QAPPs distribution List (Table 2) and outside participants, as applicable, to ensure that quality system policies are understood and implemented accordingly. Receipt and understanding of quality system documents are acknowledged by signing an acknowledgement form. The signed acknowledgement is retained and recorded by the QAM.

When disputes related to quality arise between EPC activities or ECP staff, there must be an initial attempt to resolve those disputes at the lowest organizational. Quality-related disputes that cannot be resolved at the staff level will be elevated through the QAM to the ECP manager and if necessary, the two of them will bring it to the attention of the WPD deputy director.

The ECP manager will not have authority to sign QAPPs for the QAM and vice versa. This means they cannot sign for each other, only a delegate can.

2.7 PROJECT ORGANIZATION

The project is organized in four stages. First ECP will investigate the presence of regulated PFAS and other emerging contaminants in drinking water at small or disadvantaged communities in New Mexico, and support these communities and the PWS that serve them to understand and complete their initial monitoring requirements under the PFAS NPDWR by April 26, 2027 and what their routine compliance monitoring frequency will be.

Second, ECP will work with participating communities on analyzing the data and assessing which systems are in need, and interested, in implementing remediation strategies if their drinking water analyses show that their systems are above PFAS regulatory thresholds.

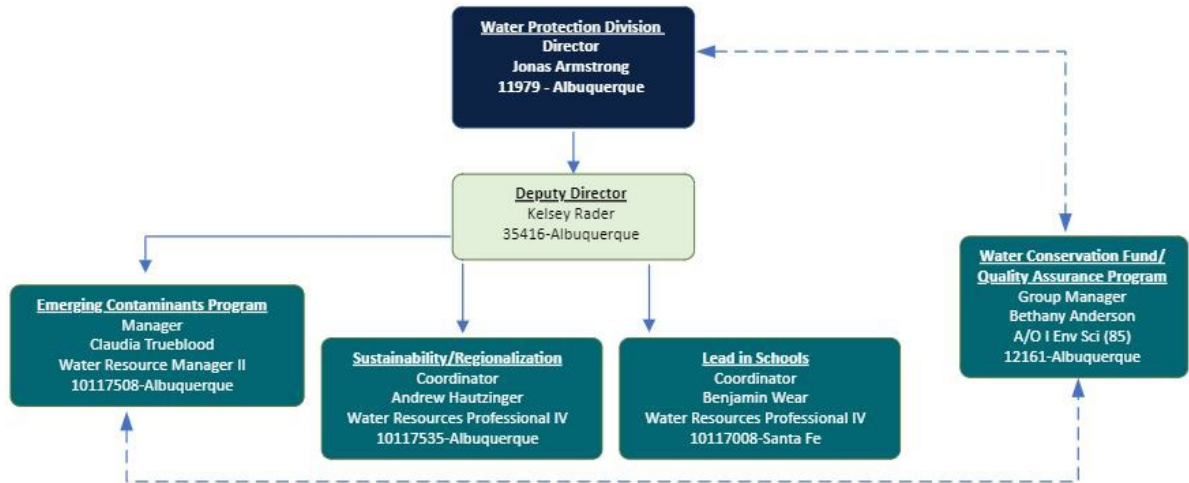
Third, agreed upon remediation strategies will be implemented with the assistance or engineering support from ECP and its contractors.

Lastly, ECP will retest the drinking water to determine if the remediation measures are producing the expected results. Along the various stages, ECP will be engaged in a continuous process of education and communication with participating communities. One important aspect throughout the entire project is that data will be uploaded into the Safe Drinking Water Information System when a portal for the six regulated PFAS is available. **Safe Drinking Water Information System (SDWIS):** The SDWIS group is led by the DWB SDWIS Program Supervisor who oversees a team of Data Stewards. Data Stewards ensure that information is properly and consistently entered or uploaded to SDWIS to meet federal reporting regulations. Data Stewards also provide support in the approval of lab invoices/statements, ensuring labs are properly paid by the DWB's Water Conservation Fund Group.

2.8 WPD PROGRAMS AND ECP ORGANIZATION CHART AND COMMUNICATIONS



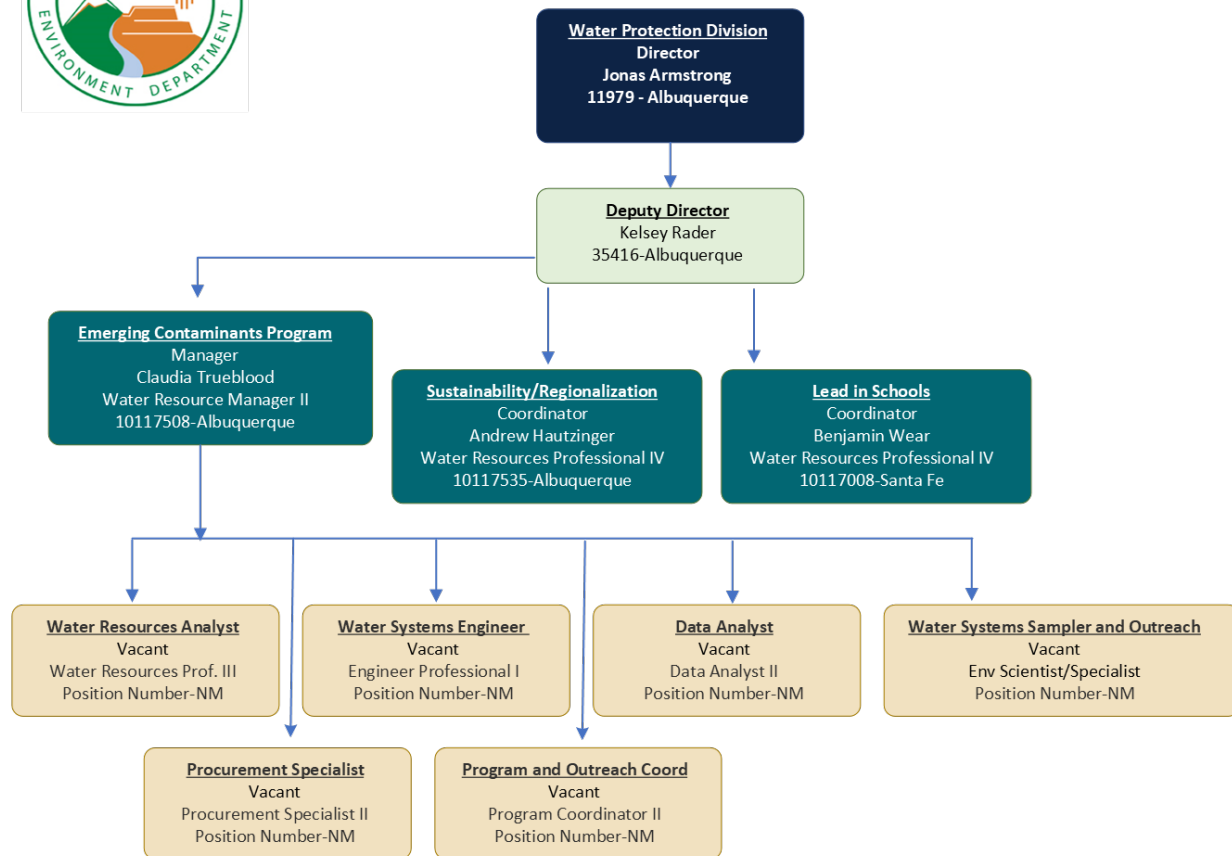
New Mexico Environment Department Water Protection Division - Emerging Contaminants Program Quality Program Organization Chart



Revised: December 24, 2024



New Mexico Environment Department Water Protection Division - Special Programs



Revised: January 17, 2025

2.9 STAFF TRAINING AND CERTIFICATIONS

Staff responsible for conducting environmental information operations identified in the QAPP shall have appropriate qualifications, education, training, experience, and knowledge of the requirements of the work activities to be performed. Each of the ECP staff positions require specific knowledge and training – a training tracker will be developed that is tailored to their specific responsibilities.

Some of the more general trainings and certifications are: **QA Training:** All pertinent ECP staff are required to be familiar with this QAPP, the ECP Quality Program, and ECP's Quality Management Plan (QMP), and all applicable policies and procedures pertinent to the project. The ECP Manager will provide these and other applicable documents to all new staff. Pertinent ECP staff are also required to be familiar with ECP's Sampling Standard Operating Procedure (SOP) which outlines the sampling processes.

- The ECP Manager is required to complete EPA Region 6 QA Training that includes [QA Training](#) [How to Prepare and Review QAPPs](#) and [Quality Management Training, QA in Contracting](#)
- **Special Training:** Samplers need to be certified by NMED DWB to collect drinking water samples from various locations throughout the state. Samples are collected from sources, surface water intakes and compliance entry points. Contaminants of concern for which samples are analyzed include those listed in the National Primary Drinking Water Standards

(40 CFR 141), National Secondary Drinking Water Standards (40 CFR 143), or other water samples deemed necessary by NMED. These contaminants consist of various organic, inorganic, radionuclide, and microbiological contaminants.

Resources:

-[National Primary Drinking Water Regulations | US EPA](#)

- **PFAS Training:** Environmental, health, and safety professionals need training on PFAS due to rapid changes in regulations, risks, sampling, testing, and remediation measures.

Resources:

-[Per- and Polyfluoroalkyl Substances \(PFAS\) | US EPA](#)

-PFAS sampling, specific to the UCMR 5 study: <https://www.youtube.com/watch?v=8cHlxUTDPgE>

- **Emerging Contaminants:** Because of the evolving nature of this topic, it is important for professionals involved with the ECP to seek learning opportunities and stay current with scientific literature and advancements, as well as with regulations. As resources allow, ECP staff are encouraged to seek out and attend appropriate training courses, workshops, or other informative events and to share what they have learned with other staff. Information pertaining to attendance at these types of events is maintained in personnel files. Supervisor approval is required prior to attending any in-person events.

Resources:

-[Emerging Contaminants | U.S. Geological Survey](#)

- [Drinking Water Contaminant Candidate List \(CCL\) and Regulatory Determination | US EPA](#)

- **Driving Certification:** All state employees in New Mexico, including ECP personnel, are required to complete the National Safety Council Defensive Driving Course and obtain their driving certification because many of the job responsibilities demand for them to travel to and from the communities and water systems around the state. In accordance with NMED Vehicle Use Policy and Procedure 07-07 and 1.5.3.12 NMAC, all state personnel must adhere to the requirements specified in these documents, have their driving certification, and retain a copy of the Defensive Driving training certificate while operating state vehicles.

The QAM, or designee, is the individual responsible for documenting personnel training.

2.10 DOCUMENTS AND RECORDS

2.10.1 Documents

This QAPP is reviewed annually and revised as applicable, or upon changes in procedure. Upon approval it is made available to ECP staff and project personnel identified in the Distribution List in Section 1.5 of this QAPP. The QAM, or designee, ensures distribution of the approved QAPP.

All data generated from projects covered by this QAPP shall be of sufficient quality to withstand challenges to their validity, accuracy, and legalities. To meet this objective, data are recorded in standardized formats and in accordance with prescribed procedures. The documentation of all environmental data collection activities must meet the following minimum requirements:

Data and associated information must be documented directly, promptly, and legibly. All reported data must be uniquely traceable to the raw data/information.

Any changes to an original entry must not obscure the original entry. The reason for the change must be documented, the change must be initialed and dated by the person making the change, and by and approved by the individual's immediate supervisor or the ECP Manager.

2.10.2 Records

Table 3 describes how records are maintained by ECP. Records retention periods for files are in accordance with applicable State and Federal Regulations (20.7.10 NMAC; 40 CFR 141; 40 CFR 142; 40 CFR 143).

Table 3 - ECP Records Repositories

Common Name	Location	Description
Geographic record of communities and systems that qualify as small or disadvantaged (SD) under ECP	Maintained by NMED-WPD personnel as a shared folder on SharePoint with a backup copy placed in the appropriate NMED network folder	List of the systems and communities that qualify for ECP with the respective entry points to the water distribution system.
Requests from communities and water systems to participate in ECP	Electronic application via NMED web portal and maintained by NMED IT Department and ECP via email records	Electronic requests by communities and water systems to participate in ECP and to get samples for initial monitoring.
Agreements with communities and water systems to participate in ECP	Records will be kept by ECP and saved in SharePoint folder	These agreements include details about what communities and water systems interested in participating in the ECP agree to do according to a timeline, and what ECP agrees to do and when
Sample Collection and Scientific Analyses	Certified laboratories processing the water samples, NMED IT Department, and SDWIS Team	Analytical results of water samples reported by certified laboratories processing the water samples part of ECP activities
Sampling Details and Analytical Reports Recorded in Data Repository	Electronic database maintained by Source Water Protection Team Lead and ECP on a shared folder.	<p>Electronic repository for water test analyses for initial and compliance monitoring.</p> <p>Contractors and ECP personnel will use a shared folder that will be created by the contractors granting specific ECP staff and collaborators access with editing permissions. The shared folder will require users to be authenticated.</p> <p>If NMED staff want to internally backup these files, to ServerShare or their desktops, ECP will institute</p>

		some best management practices like adding a date stamp to internally backed-up files.
Contracts, agreements, and supporting documents	The Water Protection Division-Administrative Operation section has these documents stored in the NMED Shared Drive.	Documents corresponding to each contract and agreement established for ECP, and supporting documents like purchase orders, invoices, and record of payments.
Safe Drinking Water Information System (SDWIS)	Electronic database maintained by Drinking Water Bureau Staff	Electronic repository for information specific to individual water systems such as board and operator contact information, inventory information, and information pertaining to monitoring and compliance schedules, violations, and any enforcement or assistance actions.
Grants	NMED Grants Section manage these documents and records.	Documents related to the ECP grant and subgrants.
Community and Water System Training Database	Electronic database maintained by ECP	Electronic repository for information specific to trainings and presentations given to community members and water systems involved in ECP activities
Assessment	Electronic database maintained by ECP	After each water system is sampled and the data is compiled, ECP will keep record of which systems have PFAS levels that exceed the proposed drinking water regulations established by EPA.
Remediation	Electronic database maintained by ECP	From the systems that had PFAS levels that exceeded the proposed drinking water regulations established by EPA, ECP will keep record of remediation strategies and actions implemented by ECP via staff and contractors, and which water systems agreed.
Resample/Retest	Electronic database maintained by ECP	ECP will keep record of water tests and results from water systems for which treatment technologies or other remediation solutions were implemented.
QMP and QAPP	NMED public facing website	Upon EPA approval, the QMP and QAPP for ECP can be accessed at https://www.env.nm.gov/pfas/ec-sdc/

3 IMPLEMENTATION OF PROJECT ENVIRONMENTAL INFORMATION OPERATIONS

3.1 PROJECT ENVIRONMENTAL INFORMATION OPERATIONS

The ECP consists of 5 program activities and stages:

Sampling

Sample entry points to the water distribution system in small or disadvantaged communities in NM, specifically to detect PFAS and other specific emerging contaminants. EPA's Final PFAS National Primary Drinking Water Regulation requires the regulated water systems to conduct initial monitoring by April 27, 2026. Initial monitoring requires samples to be collected at all entry points of the water distribution system. Depending on the system size and source water type at an entry point, systems must conduct initial monitoring either twice or quarterly during a 12-month period in accordance with EPA's monitoring tables. A main goal of ECP is to support water systems, that qualify as small or disadvantaged, with the initial monitoring.

Educational Outreach

ECP's communications plan includes marketing, education, and outreach. The plan includes different elements related to the promotion of what NMED can offer to water systems in terms of testing, remediation, education and communication for them and the communities they serve.

Assessment

After each water system is sampled and the data is compiled, ECP will determine which systems have PFAS levels that exceed the drinking water regulations established by EPA.

Remediation

ECP will work with water systems with PFAS levels that exceed the drinking water regulations established by EPA to explore remediation strategies. ECP will engage engineers and if necessary, consultants to plan for and implement necessary treatment technologies, new water source development, or other remediation avenues.

Retest

After treatment technologies or other solutions are implemented, ECP will resample these systems which had previously had levels above the Health Advisories to ensure solutions are effective. Starting April 26, 2029, Maximum Contaminant Levels (maximum regulatory limit and allowed in drinking water) are enforceable for six PFAS compounds (PFOA, PFOS, PFHxS, HFPODA, PFNA, PFBS).

3.2 METHODS FOR ENVIRONMENTAL INFORMATION ACQUISITION

The methods for environmental information acquisition will correspond to the different activities in which the program will engage. Samplers certified by the NMED Drinking Water Bureau (NMED DWB) Utility Operator Certification Program (UOCP) collect drinking water samples from various locations throughout the state. Samples are collected from sources, surface water intakes, and compliance entry points. Contaminants of concern for which samples are analyzed include those listed in the National Primary Drinking Water Standards (40 CFR 141), National Secondary Drinking Water Standards (40 CFR 143), or other water samples deemed necessary by NMED. These contaminants consist of various organic and inorganic contaminants. Samples are submitted for analysis to EPA

certified laboratories and/or laboratories certified by the NMED Drinking Water Laboratory Certification Program.

From the water sampling activity, ECP will acquire:

- i. Chain of custody documentation will accompany each sample to the certified lab in NM to which NMED wants the samples to be sent
- ii. Shipping invoices with tracking ID numbers provided
- iii. Field notes taken during sample collection
- iv. Field data forms completed with the information listed in Appendix A.

From the testing and analysis of water samples, ECP will obtain Level II analytical laboratory reports containing:

- i. Cover page
- ii. Definitions/glossary
- iii. Case narrative
- iv. Sample results
- v. Laboratory quality assurance/quality control practices and results
- vi. Laboratory sample receipt/intake condition form

Methods for environmental information acquisition from assessment post-initial testing, remediation alternatives, and retesting will be included in this section as the ECP develops.

3.3 INTEGRITY OF ENVIRONMENTAL INFORMATION

To ensure the integrity of environmental information so it is accurate, complete, and consistent over time, ECP has or will develop accurate and legally defensible chain of custody forms and field notes as well as lab reports, assessment of system compliance, remediation options, remediations plans, and other documentation throughout the process of environmental information acquisition and storage. The QAPP and QMP as well as other supporting documents related to quality control reference different structure and procedures that ECP has in place to ensure the validity and reliability of the environmental information.

QUALITY CONTROL

Quality control (QC) activities are technical activities performed on a routine basis to quantify the variability that is inherent to any environmental data measurement activity. The purpose of conducting QC activities is to understand and incorporate the effects this variability may have in the decision-making process. Additionally, the results obtained from QC activities may identify areas where the variability can be reduced or eliminated in future data collection efforts, thereby improving the overall quality of the program or project being implemented.

Each stage of the ECP will have specific quality control activities, including the following:

-Prior to sampling, the ECP team uses geographic information system (GIS) tools to determine which communities in New Mexico qualify as small or disadvantaged and could participate in the program, sampling frequency, and sample collection intervals depending on the kind of system (i.e. surface water system serving all population sizes, or small groundwater system serving 10,000 or fewer customers).

The ECP team runs the necessary estimations to determine the number of points to sample throughout the state to include in the requests for proposals from sampling contractors.

-During the Chemical Analysis, ECP requests for contracted laboratories to analyze drinking water samples per EPA Method 537.1 (PFAS in Drinking Water); analyze drinking water samples per EPA Method 200.7 (Determination of Metals and Trace Elements in Water and Wastes by Inductively Coupled Plasma-Atomic Emission Spectrometry); ensure laboratory Limit of Quantitation (LoQ) are below published EPA screening values where applicable; analyze duplicates at 10% of total samples collected (one duplicate per 10 samples collected); and commit to analytical turnaround times (TAT) of no more than 60 days.

-To complete validation of results, ECP requests contracted laboratories to perform Stage 2a validation on 100% of results ([Staged Electronic Data Deliverable, SEDD](#)), provide a data validation report, and provide the option to discuss availability for validation TAT.

-Once results are reviewed and verified for completeness, correctness, and conformance with procedure, methods, and contractual requirements, ECP will proceed with the assessments of each water system to determine if the system is above or below the established thresholds for the regulated PFAS. After that, the ECP team will propose potential remediation strategies for affected systems.

The quality control measure activities regarding the engineering assessments and remediation proposal as well as the retesting will be included in this QAPP as the program develops.

3.4 INSTRUMENTS/EQUIPMENT CALIBRATION, TESTING, INSPECTION AND MAINTENANCE

Complete procedures for calibrating instruments used for collecting measurements are contained in the manufacturer's instruction manual for each instrument. All ECP personnel and contractors using field equipment are expected to read and follow all procedures detailed in these manuals. Staff shall use appropriate standards and reagents specific to each instrument that are not expired.

3.5 INSPECTION AND ACCEPTANCE OF PROJECT SUPPLIES AND SERVICES

Equipment typically used for the activities under ECP includes smart phones equipped with Global Positioning System and digital camera applications. All field equipment is inspected, calibrated, and refurbished as necessary prior to each sampling trip. Complete procedures for operating and maintaining equipment used for collecting environmental measurements are contained in the manufacturer's instruction manual for each instrument. Any deficiencies in equipment must be reported immediately to the ECP Manager or designee, who will recheck the equipment and arrange for repair by the manufacturer or replacement. ECP staff do not use equipment if the working condition of the equipment is in doubt.

3.5.1 Instrument/Equipment Calibration and Frequency:

Complete procedures for calibrating instruments used for collecting measurements are contained in the manufacturer's instruction manual for each instrument. All ECP personnel and contractors using field equipment are expected to read and follow all procedures detailed in these manuals. Personnel shall use appropriate standards and reagents specific to each instrument that are not expired.

3.5.2 Indirect Measurements: *Not applicable.*

3.6 ENVIRONMENTAL INFORMATION MANAGEMENT

Once the analytical results are received, ECP staff and other NMED personnel will review the results and compare them with PFAS regulatory thresholds to assess if the results are above those limits. If they are, ECP staff and contractors will study remediation options to propose to the specific systems via engineering plans. Throughout the process, the environmental information will be handled according to the section 1.10 of this QAPP, Documents and Records.

4 ASSESSMENTS AND RESPONSE ACTIONS

4.1 ASSESSMENTS

The progress and quality of *ECP reports* is continuously assessed to ensure that objectives are met. The ECP Manager or designee will periodically evaluate the following:

- The sample collection schedules are being met.
- Water samples are being collected per the procedures specified in this QAPP and in the Sampling SOP.
- Corrective actions are implemented as needed.
- Assessment of system compliance is done according to schedule.
- Engineer reviews are being conducted as assessment as completed.
- Proposed corrective actions are designed when appropriate and implemented if approved by water systems.
- Retesting is scheduled and done to assess effectiveness of remediation actions.

4.2 RESPONSE ACTIONS

The ECP Manager will coordinate with the QAM as necessary to discuss any problems that arise and will develop appropriate corrective actions to maintain program integrity. Annual reviews will be conducted to identify areas in need of improvement. If data are found to be consistently outside of the specified DQOs, corrective actions will be taken. Corrective actions can include additional training for program staff, revised procedures, alternate schedules, etc. All project staff are encouraged to identify problems immediately and provide feedback on program activities and needs. Any resulting program modifications will be documented in subsequent revisions to the QAPP.

4.3 OVERSIGHT AND REPORTING TO MANAGEMENT

ECP staff conduct periodic meetings to review schedules and discuss any problems that have arisen and identify systems in need of further assistance. This information is used by ECP staff to report activities to grant entities and to ensure sampling, testing, assessment, remediation, and retesting are done according to schedule and keeping in line with all the quality assurance measures established. ECP has developed Monthly Progress Report sheets for samplers, contractors, and ECP personnel in general to complete. Those reports are then reviewed once a month by ECP staff at a progress and quality control team meeting.

The QAM performs a quality assessment review annually and produces a summary report of the evaluation. This report provides an evaluation of the overall status and quality assessment findings. The report includes program updates and identifies any changes that were made or may be needed. This report is provided to all parties included on the Distribution List in Section 1.5 of this QAPP.

5 ENVIRONMENTAL INFORMATION REVIEW AND USABILITY DETERMINATION

5.1 ENVIRONMENTAL INFORMATION REVIEW

All data/information collected by ECP undergoes a series of checks to ensure that data is of sufficient quality and conforms to a project's specific objectives. The following sections describe the procedures used to determine to accept, reject, or qualify data/information generated as part of the ECP.

Data verification and validation are performed automatically by a series of SDWIS applications. The criteria for flagging and rejecting data are coded into the application.

5.2 USABILITY DETERMINATION

Data is considered usable once the data verification and validation process has been completed and the ECP manager or designee has approved the final water test results, engineer assessments, remediation plans, retests ECP staff and manager will be able to move through the elements of the project and address issues as they arise, knowing that the determinations were made based on quality information.

Appendix A: Field Data Form Information

Samplers must complete field data forms to the best of their ability. Not all of the following data will be readily available during sampling at each location.

- a. Sampler name and affiliation
- b. Site and source name
- c. Source water type (groundwater [GW], surface water [SW], spring [SP])
- d. Field sample ID
- e. Date and time of sample collection
- f. Location of sample collection using handheld GPS unit
 - i. Latitude in decimal degrees (coordinate system: WGS84)
 - ii. Longitude in decimal degrees (coordinate system: WGS84)
- g. Well construction info (if applicable):
 - i. NM Office of the State Engineer ID
 - ii. Elevation
 - iii. Date drilled
 - iv. Depth
 - v. Casing diameter
 - vi. Casing material
 - vii. Casing height above ground
 - viii. Casing depth
 - ix. Static water level
 - x. Screened interval
 - xi. Aquifer system or water-bearing stratification (gravel, sandstone, etc.)
- h. Surface water or spring info (if applicable):
 - i. NM Office of the State Engineer ID
 - ii. Elevation
 - iii. Date installed
 - iv. Intake depth and construction details (if applicable)
 - v. Infiltration gallery construction details (if applicable)
 - vi. Spring box construction details (if applicable)
- i. Field water quality parameters
 - i. Water temperature
 - ii. Conductivity
 - iii. pH
- j. Finished Drinking Water Sample Treatment (Non-Chlorinated, Chlorinated, etc.)
- k. Analytical Method (Note: All samples to be analyzed using EPA Method 537.1) [for COC]
- l. Sample Filtration (Note: EPA Method 537.1 does not require sample filtration) [for COC]
- m. Sample Preservation (Note: Laboratory will provide Trizma-preserved sample containers for EPA Method 537.1 analyses) [for COC]