THE NEW JERSEY ELECTRONIC ENVIRONMENTAL (E2) REPORTING SYSTEM REFERENCE GUIDE FOR LABORATORIES

eDWR: SUBMITTING ANALYTICAL RESULTS FOR SAFE DRINKING WATER ACT COMPLIANCE MONITORING

Version 2.0 (06/2025)

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1.0 Introduction

As per N.J.A.C. 7:10-5.4(b), water systems shall ensure all compliance sampling reports are submitted to the New Jersey Department of Environmental Protection (DEP) electronically in a manner compatible with the DEP's computer system. The New Jersey Electronic Environmental (E2) Reporting System is a web-based information system that allows the regulated community to electronically submit sampling results to the DEP in a manner that is compatible with the Bureau of Safe Drinking Water's (BSDW) Safe Drinking Water Information System (SDWIS) database. This guide is intended to assist laboratories with ensuring sampling data is submitted correctly and that water systems remain in compliance with the federal and state Safe Drinking Water Act Regulations (SDWA).

The E2 system provides a means of submitting data that is efficient, and requires less processing than traditional paper submissions, for the regulated community and the DEP. As a fully operational electronic reporting system, all necessary legal, security, and electronic signature functionalities have been included to serve as a completely paperless reporting system. Additional information regarding E2 is available here: https://www.nj.gov/dep/online/e2/#dwr.

Laboratories are strongly encouraged to work closely with their water system clients, particularly those small entities that do not have a licensed operator. Any changes in facilities and/or sampling points may impact their monitoring and reporting requirements. Additionally, the sample results themselves may drive changes to monitoring schedules.

Water systems are responsible for knowing and understanding their monitoring requirements. Systems are notified of any new or changed sampling requirements via mailed and/or emailed correspondence and should share this information with their laboratory. The DEP provides a public facing application Drinking Water Viewer (DWV), that allows systems, and laboratories, to view their individual requirements and sample results. DWV is available here: https://waterviewer.nj.gov/. Legacy Drinking Water Watch (DWW) application is still available and can be found here: https://www.nj.gov/dep/watersupply/waterwatch. The DEP provides this information as a courtesy and strives to ensure its accuracy, but ultimately it is the water system's responsibility to know and understand their monitoring requirements. Refer to the Code of Federal Regulations (40 CFR 141) and the New Jersey Safe Drinking Water Act Regulations (N.J.A.C. 7:10) to confirm sampling requirements.

2.0 Identification Codes, and Common Acronyms

2.1 Water System Facility IDs:

- Facility Identification Codes:
  - **DS**: Distribution System
  - **WL######**: Well
  - **IN######**: Surface Water Intake
  - **CH######**: Common Header (Where 2 or more wells are joined (manifolded) together prior to entering the DS with no treatment facility)
  - **TP######**: Treatment Plant
  - **CC######**: Consecutive Connection (An interconnection with another water system)
- Point of entry (POE) facilities:
  - TP, CC, and possibly WL or CH
  - Note that if the water system has no treatment the WL or CH may also be the POE.
- Raw water (RW) sources:
  - May be WL, IN, or CH.

2.2 Sampling Point IDs:

- Represent the specific location where the sample is collected.
- For POE samples this will be the same as the Facility ID. (For example: WL001001, or TP001001)
- For most DS samples, this will also be DS.
- Certain systems may have specific sample point IDs for specific analytes. For instance, disinfection byproducts (DSMAX…) and lead and copper (PBCU##).

2.3 Sample Types:

- RT: Routine
- RP: Repeat
- TG: Triggered
- CO: Confirmation
- SP: Special

2.4 Acronyms

Acronym	Definition
AL	Action Level
ALE	Action Level Exceedance
BSDW	Bureau of Safe Drinking Water
BWSE	Bureau of Water System Engineering
CO	Confirmation Sample
COC	Chain of Custody
CWS	Community Water System
DEP	New Jersey Department of Environmental Protection
DL	Detection Limit
DR	Disinfection residual
DWV	Drinking Water Viewer
DWW	Drinking Water Watch (Legacy)
E2	New Jersey Electronic Environmental Reporting System
EC	*Escherichia coli*
FANL	Facility Analyte Levels
HAA5	Halo acetic acids
IOC	Inorganic Compound
M&R	Monitoring and Reporting
MCL	Maximum Contaminant Level
MDL	Method Detection Limit
MFL	Millions of Fibers per Liter
mg/L	Milligrams per liter
MRDL	Maximum residual disinfectant levels
MRL	Minimum Reporting Level
NCWS	Noncommunity water systems
NTU	Nephelometric Turbidity Units
OQA	Office of Quality Assurance
PFAS	Per- and polyfluoroalkyl substances
pCi/L	picocuries per liter
RDL	Regulatory Detection Limit
RP	Repeat Sample
RT	Routine Sample
SDWA	Safe Drinking Water Act
SDWIS	Safe Drinking Water Information System database
SOC	Synthetic Organic Compound
SSUP	Seasonal System Start-up
TC	Total Coliform
TG	Triggered Sample (GWR)
TTHM	Total Trihalomethanes
µg/L	Micrograms per liter
USEPA	United States Environmental Protection Agency
UOM	Units of Measure
VOC	Volatile Organic Compound
WQP	Water Quality Parameter

Note: Analyte specific acronyms may be found in their respective sections and/or Appendix A.

3.0 General Reminders

NOTE: All *E. coli* positive and nitrate exceedance results MUST be called into the DEP during business hours at 609-292-5550 or after hours at 877-WARNDEP within 24hrs of determination.

3.1 Submission Notes

3.1.1 Submission Forms:

a. Submission spreadsheets are available within the E2 application and can be downloaded directly under: “Create New Reports" under the Laboratory Tab.
b. Coliform samples and associated chlorine residual results are to be submitted via the Coliform reporting sheet.
c. All other sample results are to be submitted via the Generic Chemistry reporting sheet.
d. Only the excel spreadsheets are to be used for data submission. Do not use the online entry form.

3.1.2 Spreadsheet completion notes:

a. Do not submit any special characters (e.g., #, &, -, @, *) as part of any sample result values.
b. The “Analysis Method Code” field in both the Generic Chemistry and Coliform templates are mandatory. The analysis method must be entered in the spreadsheet when uploading data. **The method code must be entered exactly as it is listed under the Reference Data section in E2 (including any dashes, periods, slashes, etc.) or it will be rejected by the system.** The Reference Data section is located on the main page of E2 under the Laboratory module.
c. When entering individual analytical results on the E2 templates or Laboratory Information System (LIMS), do not enter the same parameter with the same Sample ID Number in the same submission.
d. For all repeat, triggered, and confirmation samples, ensure that the Lab Sample ID assigned to them is in all capital letters. Lab Sample IDs with lower case letters are automatically converted to upper case letters by SDWIS when migrated into the system. This causes errors when linking original Lab Sample IDs with confirmation samples or repeat samples.

3.1.3 Required Data:

a. E2 is only used for submission of regulatorily required sample data, as well as some additional data as directed by the DEP.
b. All reporting requirements listed in this document as being required to be submitted electronically may not be submitted via paper form.
c. Systems may be required to conduct monitoring as a condition of a Permit or Temporary Treatment Approval issued by the Bureau of Water System Engineering (BWSE). This Permit required data must be submitted via email to watersupply@dep.nj.gov using the *Water Sampling Analysis Form for Construction Permits and Temporary Approvals* (BWSE-PA-101) which is available on our website at https://www.nj.gov/dep/watersupply/dws-sampreg.html. This data should not be submitted via E2.

3.1.4 Sample Site Changes:

a. It is important that laboratories maintain contact with the water system clients regarding any potential water system facility/sampling point changes. Water system facilities can change as treatment is added (change from WL to TP) or removed from a well (TP to WL), or as wells with no treatment are manifolded and unmanifolded (CH to WL).

b. If a change is made to any facilities, it is in the best interest of the water system to notify BSDW of this change, so that the necessary changes to SDWIS can be made, including the updating of the water system's inventory and sample schedule(s).
c. It is also recommended the water system inform the laboratory responsible for collecting the necessary drinking water compliance samples of these changes and in particular changes to the water system's sample schedule. Failure to collect the drinking water compliance sample(s) from the proper water system facility, or upload it using the correct sample point ID, will result in monitoring and reporting violations for the water system.
d. Once a new sample point ID has been entered into SDWIS it will migrate into E2 within a day.

3.1.5 Out of Service Facilities:

a. To avoid non-submittal violations for any POE Water System Facility that is not used during the ENTIRE monitoring period (i.e., quarterly, or bi-weekly), the water system must notify the BSDW via the forms noted below within 10 days of the end of the applicable monitoring period.
b. Additional information and the individual forms may be found at https://www.nj.gov/dep/watersupply/dws-sampreg.html.
    i. General use: *Facility Out of Service Form* (DEP_10-S_00013)
    ii. Water Quality Parameters: *WQP Biweekly Monitoring: Facility Out of Service Reporting Form* (DEP 10-S 00049)
    iii. Ground Water Rule triggered sampling: *GWR triggered well out of service form* (DEP 10-S 00034)
    iv. Forms are to be submitted via email to watersupply@dep.nj.gov with the subject line: "[PWSID], Offline Facility."
    v. A single form is to be submitted for each individual facility, and it must reference an anticipated return to service date.

3.2 Data Quality, Invalidations, & Rejection Requests

3.2.1 Data Quality:

a. All reported data must be analyzed by a New Jersey certified laboratory and must adhere to the requirements set forth by DEP's Office of Quality Assurance (OQA).
b. The DEP does not accept qualified drinking water data. Results that have failed appropriate quality assurance / quality control measures are not considered to be accurate or precise. Therefore, unless otherwise stated in this Guide, qualified results are not acceptable for drinking water samples and should not be submitted. If you have specific questions regarding the quality of an analyzed sample, you may contact watersupply@dep.nj.gov.
c. Depending on the parameter, laboratories may be required to report to a regulatory detection limit (RDL) or a regulatory Minimum Reporting Level (MRL). In cases where a laboratory can achieve a method detection limit (MDL) that is lower than the relevant RDL, any concentration less than the RDL should be reported in the results field as less than ("<") the RDL. Similarly, in cases where a laboratory can achieve an MRL that is lower than the relevant regulatory MRL, any concentration less than the regulatory MRL should be reported in the results field as less than ("<") the regulatory MRL. Results that are reported in the results field with a value that is less than the relevant regulatory limit may cause our database to calculate running annual averages and determine monitoring adjustments incorrectly. The comments field may be used to enter the concentration achieved by the laboratory based on their MDL/MRL. Additional information is provided for specific analytes as applicable.

3.2.2 Invalidations

a. The DEP will not invalidate analytical results on the grounds of suspected or documented improper sampling. It is the responsibility of the water system and laboratory to ensure quality control and assurance in sampling protocol based on the sampling requirements outlined in the EPA's analytical methods for the targeted analytes and from their Quality Assurance Program Plan (QAPP). For further information regarding QAPPs contact OQA.
b. If a water system or laboratory suspects an error in sampling, the DEP advises that the laboratory does not analyze the sample and that a replacement sample be collected. Once a laboratory measures a result, the result must be submitted to the DEP. The DEP recommends that samples be collected in the beginning of a compliance period in case a replacement sample must be collected to allow sufficient time for submission via E2 by the end of the compliance period. It is important that a sample's chain of custody be completed with all applicable details to ensure confidence in sampling.
c. A sample invalidation would occur if there were errors in the handling and analysis of samples post-collection by the laboratory. Under a sample invalidation, the analytical results themselves are being questioned for error. All invalidation requests must be requested by the laboratory conducting the analysis. It is the responsibility of the laboratory to provide all evidence and supporting documentation justifying the sample invalidation claim. All sample invalidation inquiries should be submitted to watersupply@dep.nj.gov.
d. Any invalidation requests that require additional review that may impact a water system's compliance with the SDWA should be communicated with the water system and with the BSDW.

3.2.3 Rejections

a. Requests for rejection of data in E2 and SDWIS must be submitted on the *E2 DWR Sample Rejection Request form (DEP_DWSG-O 00057.1)* available on our website at https://www.nj.gov/dep/watersupply/dws-sampreg.html. The form is to be submitted via email to E2-DWRHelp@dep.nj.gov, noting the submission ID# and the water system PWSID# in the subject line.
b. Rejection requests due to typographical errors, incorrect water system, facility, and/or sample point ID number, incorrect units of measure, or other simple errors will be processed within 4 to 5 business days.
c. Any result that exceeds a Maximum Contaminant Level (MCL), that was submitted incorrectly (i.e. under an incorrect PWSID#) should be brought to the attention of the BSDW immediately to avoid the erroneous issuance of Notices of Non-compliance.
d. **Lead Sample Rejections:** Lead samples will not be rejected in E2. They will be tagged as "rejected" in SDWIS and will not be displayed on DWW/DWV or used for compliance determinations. A laboratory resubmitting the results to E2 must modify the original lab sample ID by appending "REV" to end of the number.
e. Carefully review all data prior to submission to ensure accuracy and decrease the need for rejections. Data submitted incorrectly may result in the issuance of erroneous violations to water systems.

4.0 Coliform & Chlorine Disinfection Residuals (DRs)

- The following are to be reported on the Coliform reporting Excel spreadsheet.
- **Chlorine disinfection residuals are to be submitted with the associated coliform sample results. (Required as of 7/1/2025)**
- If a sample is Total Coliform (TC) positive it must be analyzed for *E. coli* and that result must be submitted.
- *E. coli* results cannot be submitted without a TC+ result.
- GWR samples must be collected from a dedicated raw water tap. See DEP's *Ground Water Source Water Tap Installation and Sampling for Public Water Systems* available at https://www.nj.gov/dep/watersupply/pdf/gwr_source_tap_install.pdf.
- **REMINDER: All *E. coli* positive results MUST be called into the DEP at 609-292-5550 during business hours or at 877-WARNDEP during nonbusiness hours within 24 hours of the presence of *E. coli* being detected.**

Reporting Parameter/ SDWIS Analyte Code	Water System Facility/ Sample Point	Sample Type, Key Notes (if applicable)	Comments
4.1 Coliform: Routine & Repeat Samples			
Total Coliform (3100) *E. coli* (3014)	DS/DS	RT, RP	1. Routine (RT) and repeat (RP) samples are collected in the DS. a) Three (3) RP samples are required for each Total Coliform (TC) positive result. Also s*ee GWR Triggered Sampling below (Section 4.4).* b) All RP samples submitted must include the original lab sample number of the associated routine positive. c) The original RT samples may be submitted with the associated RP samples in the same submission**.** d) RP samples that are TC+ do not require additional repeats. e) We strongly recommend laboratories upload repeat total coliform results as soon as possible. 2. A street address location must be reported in the "Street Address Location" field for all coliform samples collected in the DS. For noncommunity water systems (NCWS), include the specific sampling location (e.g., bathroom sink, outdoor spigot). 3. All TC+ samples must have corresponding speciation results (*E. coli*, Analyte Code: 3014). 4. Systems on quarterly monitoring may be required to collect a minimum of three additional routine samples the month following a TC+ routine sample. Their quarterly schedule will then resume the following quarter.

Reporting Parameter/ SDWIS Analyte Code	Water System Facility/ Sample Point	Sample Type, Key Notes (if applicable)	Comments
4.2 Chlorine Disinfection Residuals			
(N/A)	DS/DS	Submitted with Coliform samples	1. Chlorine disinfection residuals (DR) are to be reported at the same time as coliform samples. They may not be reported separately. 2. For the "Free Chlorine (ppm)" and "Total Chlorine (ppm)" fields enter only the result value (i.e., numeric characters) in these fields with each RTCR result. 3. Non-numerical characters will not be accepted in these fields. 4. If the results of the chlorine sampling indicate a result below the detection level of the laboratory's equipment, enter a zero in the "Free Chlorine" or "Total Chlorine" field. Enter the specific detection level with a "<" in the new "Sample Comments" field. **5. For all samples collected on or after July 1, 2025, DRs are required to be submitted electronically by the laboratory that analyzed the associated coliform sample regardless of who performed the chlorine analysis.** 6. In the "Sample Collector Type" field use the drop down to select whether the "Certified Laboratory" or the "Water System" performed the analysis. 7. For LIMS Laboratories ONLY: When entering a value in the "Result Value" field, make sure it has three decimal places (e.g. 2.000). This field needs to have three decimal places or the submission will fail. Additionally, LIMS laboratories should enter the value "0.000" (a zero with three decimal places) in the "Free" or "Total Chlorine" field if the results of the chlorine sampling indicate a result below the detection level of the laboratory's equipment. This is done automatically for laboratories that utilize the template to upload data. 8. If a water system that chlorinates has an undetectable chlorine residual result, they may choose to analyze for Heterotrophic Plate Count (HPC). The results of the HPC analysis should be put in the "Free Chlorine" field. A value of "HPC" should also be placed in the "Sample Comments" field of the Coliform reporting spreadsheet. For HPC results <500, report a detectable level of 0.05 mg/L. For HPC results >500, report an undetectable level of 0 mg/L. 9. E2 and SDWIS will accept both free and total chlorine results, but only one result will be used to calculate the summary. If both the "Free" and "Total Chlorine" fields are populated, the "Free Chlorine" field will be

Reporting Parameter/ SDWIS Analyte Code	Water System Facility/ Sample Point	Sample Type, Key Notes (if applicable)	Comments
			used to calculate the summaries for compliance. A surface water system, or a ground water system that uses chloramines, should only report total chlorine so that the "Total Chlorine" field will be used in the summary calculation. 10. All chlorine residual samples should be uploaded to E2 on the Coliform reporting spreadsheet with their associated coliform sample. The result values should be in the "Free" or "Total Chlorine" fields. Do not upload chlorine residual samples on the Generic Chemistry template using Analyte Codes 0999 (Chlorine Residual) or 1006 (Chloramine residual).
4.3 Seasonal Start-Up Samples			
Total Coliform (3100)	DS/DS if required	RT If required to submit via E2, append "SSUP" to sample ID number.	1. Seasonal NCWS are required to monitor monthly during their operational period in accordance with their sample plan. 2. Seasonal System Start-Up (SSUP): a. In addition to standard monitoring, all seasonal water systems are required to demonstrate completion of a State-approved start-up procedure prior to serving water to the public. b. In NJ, the start-up procedure requires each seasonal system prior to serving water to collect a total coliform sample from an area of the DS that was depressurized, or other State-approved location as specified in the sample siting plan. c. The start-up sample must be analyzed for total coliform and the results are required to be submitted to the BSDW via email at watersupply@dep.nj.gov along with the *Start-Up Certification for Seasonal Noncommunity Public Water Systems* (BSDW-109) form prior to opening. The BSDW-109 is available at https://www.nj.gov/dep/watersupply/dws-sampreg.html. 3. Typically, seasonal start-up samples are not submitted electronically through E2 and should be submitted as noted above. However, if the seasonal start-up sample is collected in the same month as the system's monthly RTCR monitoring schedule (the month that they begin serving water) **and** is collected prior to opening, the sample can also be used to satisfy the monthly monitoring requirement. a. Submit the sample via E2 and append "SSUP" to the end of the Sample ID of the RT sample. b. The sample result MUST also be submitted via paper (as described in 2.c. above).

Reporting Parameter/ SDWIS Analyte Code	Water System Facility/ Sample Point	Sample Type, Key Notes (if applicable)	Comments
			c. To clarify as to when to submit a start-up sample via paper only or also through E2, see the examples below: i. A water system is scheduled to open on April 1, and an initial coliform sample is collected on March 30, the sample should ONLY be submitted using the paper form. This would only be considered a seasonal start-up sample and not for compliance since it was collected in the month prior to opening. ii. A water system is scheduled to open on April 25, and an initial coliform sample is collected on April 7, this sample may be used for both the monthly compliance and seasonal start-up requirements. Submit via E2 with "SSUP" appended to the end of the Sample ID AND submit via paper (as described in 2.c. above). d. Note: E2 will reject a sample if there is not an active monitoring schedule for the water system. Therefore, if the laboratory becomes aware that a seasonal system intends to open earlier than originally scheduled (i.e., their monitoring schedule begins in April, but they decide to open in March), the laboratory should direct the system to contact the BSDW to have their schedule updated promptly.
4.4 Ground Water Rule (GWR) – Triggered Sampling			
Total Coliform (3100) *E. coli* (3014)	WL######/ WL######	TG, CO Append "GWR" to sample ID number. Must be associated	1. If a RT TC sample is positive, a triggered source water sample must be collected as per Ground Water Rule (GWR) requirements. 2. Submit as type TG. 3. This sample must be associated to the original RT positive coliform sample. If a sample is submitted with a sample type "TG," then the "Original Lab Sample #" field must be populated with the Sample # of the **original positive routine RTCR sample**. 4. Triggered source water samples are collected at the well and water systems are required to have a raw water sample tap. If there is not one present, contact the BSDW at 609-292-5550 for guidance. Refer to DEP's *Ground Water Source Water Tap Installation and Sampling for Public Water Systems* available at https://www.nj.gov/dep/watersupply/pdf/gwr_source_tap_install.pdf for more information.

Reporting Parameter/ SDWIS Analyte Code	Water System Facility/ Sample Point	Sample Type, Key Notes (if applicable)	Comments
		to original DS TC+, Must be submitted after DS TC sample(s).	5. Add "GWR" to the end of any sample numbers of the initial triggered source water samples submitted for the GWR. 6. If the sample is TC positive, include the *E. coli* results. 7. Do not submit *E. coli* results if the TC sample is negative. The negative TC result will satisfy the monitoring schedule. This applies to all triggered, confirmation, and assessment monitoring samples. As a reminder, DEP must still be notified of any *E. coli* positive result within 24 hours of the presence being detected. 8. If the water system purchases water from another, the selling water system must also collect samples from all of their active ground water sources. When a laboratory submits a TG total coliform sample for the selling water system, it must use the original lab sample number of the purchasing water system's source samples. In the event the purchasing water system's results are not available in Drinking Water Watch, contact the purchasing water system, its laboratory, or the BSDW. 9. Enter the chlorine residual, either "Free Chlorine (ppm)" or "Total Chlorine (ppm)." Enter only the result value (i.e., numeric characters) in these fields with each GWR coliform result. Non-numerical characters will not be accepted in these fields. If the results of the chlorine sampling indicate a result below the detection level of the laboratory's equipment, enter a zero in the "Free Chlorine" or "Total Chlorine" field. Enter the specific detection level with a "<" in the "Sample Comments" field. These fields are required. 10. If any TG sample is *E. coli* positive, then five additional source water samples must be collected within 24 hours. These additional source water samples must be submitted to E2 as Sample Type Confirmation (CO). **Do not use the Generic Chemistry template to submit any GWR related bacteria results**. For confirmation samples the "Original Lab Sample Number" field must be populated with the Sample ID of the original triggered GWR sample. 11. **Do not upload a TG sample result until the initial RT sample is accepted by both E2 and SDWIS.** 12. If a TG sample is uploaded to E2 and the following error message appears: *"Multiple samples are found for Triggered (TG) type, please contact an E2 Coordinator at the Safe Drinking Water for details."* Contact E2-DWRHelp@dep.nj.gov as soon as possible to determine the correct Sample ID number. 13. When uploading a TG sample, you must input the Sample Collection Date of the **original RT positive coliform sample** in the new "Original Lab Sample Date" field.

Reporting Parameter/ SDWIS Analyte Code	Water System Facility/ Sample Point	Sample Type, Key Notes (if applicable)	Comments
4.5 Ground Water Rule (GWR) – Assessment Monitoring			
Total Coliform (3100) *E. coli* (3014)	WL###### ##/ WL###### ##	RT Append "AMGWR" to the sample ID number	1. If GWR Assessment Monitoring is required, monthly samples must be taken from the well(s) for a continuous 12 months while the system is in service. If a month is missed the schedule will start over. Seasonal systems are required to sample each month they are open until 12 months are reached. 2. These samples must be submitted via E2. 3. The Sample Point ID is always the same as the Water Facility State Code (i.e., WL001001). 4. Assessment Monitoring samples are sample type RT. 5. Do **not** populate the "Original Lab Sample Number" field with Assessment Monitoring samples. 6. Append "AMGWR" at the end of the sample number for Assessment Monitoring samples.

5.0 Chemical Samples

- The following are to be reported on the Generic Chemistry reporting sheet
- **Nitrate exceedance results MUST be called into the DEP during business hours at 609-292-5550 or after hours at 877-WARNDEP within 24hrs of determination.**

Reporting Parameter/ SDWIS Analyte Code	Water System Facility/ Sample Point	Sample Type, Key Notes (if applicable)	Comments
5.1 Inorganic Analytes			
Asbestos (1094)	DS/DS or at the POE which may start with TP, WL, or CH	RT	1. Asbestos samples must be submitted to E2 as Sample Type RT. Samples are collected in the DS or at the POE. In both instances, the Sample Point ID is always the same as the Water Facility State Code selected. 2. Report results in MFL (millions of fibers per liter). 3. A specific sampling location must be placed in the "Street Address Location" field for asbestos samples collected in the DS only, this is a mandatory field. Samples collected at POE do not need a value in the "Street Address Location" field. 4. Aggressive indicator results must be submitted via paper with the asbestos waiver application. These samples should <u>not</u> be submitted electronically through E2.
Bromate (1011)	TP###### / TP######	RT	1. Bromate samples must be submitted to E2 as Sample Type RT. 2. Bromate samples are collected at the treatment plant (TP; Water Facility State Code: i.e., TP001001). The Sample Point ID is always the same as the Water Facility State Code. 3. The MRL for bromate is method dependent. a) The MRL for EPA 317.0 Rev 2.0, EPA 326.0, EPA 321.8, EPA 302.0 and EPA 557 is 0.0010 mg/L or 1.0 µg/L. b) The MRL for EPA 300.1, ASTM D6581-00 and ASTM D6581-08 (A or B) is 0.0050 mg/L or 5.0 µg/L. 4. Report results in mg/L (milligrams per liter) or µg/L (micrograms per liter).

Reporting Parameter/ SDWIS Analyte Code	Water System Facility/ Sample Point	Sample Type, Key Notes (if applicable)	Comments
Bromide (1004)	IN###### / IN######	RT	1. Bromide samples are to be submitted to E2 as Sample Type RT. 2. Bromide samples are to be collected at the intake (IN; Water Facility State Code: i.e., IN011021). The Sample Point ID is always the same as the Water Facility State Code. 3. Report results in mg/L (milligrams per liter) or µg/L (micrograms per liter).
Chlorite (1009) Chlorine Dioxide (1008)	DS/ CLO2MAX, CLO2FIRST or CLO2AVG	RT	1. The **monthly chlorite** samples are to be submitted to E2 as Sample Type RT. 2. Chlorite samples that are collected in the DS are to use Water Facility State Code: DS. The Sample Point ID for chlorite samples should be CLO2MAX, CLO2FIRST or CLO2AVG. 3. Chlorite samples taken in the DS must be reported to an MRL of 0.0020 mg/L or 2.0 µg/L. 4. **Chlorine dioxide** is required to be collected daily at the POE and in the DS only when the POE sample has exceeded the maximum residual disinfectant level (MRDL). a) Only samples that have exceeded the MRDL can be submitted via E2. b) Chlorine dioxide samples submitted to E2 should have a Sample Type RT. c) Chlorine dioxide samples are collected in the DS (Water Facility State Code: DS). The Sample Point ID for chlorine dioxide samples will be CLO2FIRST. 5. Report results in mg/L (milligrams per liter) or µg/L (micrograms per liter) for these parameters. 6. The **daily chlorite & chlorine dioxide** monitoring samples collected at the POE are still to be submitted via paper using the applicable Monthly Operators Report form. a) *Monthly Operators Report for Ground Water Systems* (BSDW-40) b) *Monthly Operating Report for Surface Water Treatment Plant/GWUDISW* (BSDW-41) c) They are available at https://www.nj.gov/dep/watersupply/dws-sampreg.html. d) *Note that electronic submission of this data is anticipated to begin in early 2026 via the eMOR application.*
Inorganic Compounds Antimony (1074)	POE which may start with TP, WL, or CH	RT	1. Routine samples are collected at the POE (Water Facility State Code: e.g. TP001001, WL002005, CH003009). The Sample Point ID is always the same as the Water Facility State Code (i.e., if the sample was collected at Water System Facility WL001001, the point of entry Sampling Point ID is also WL001001). 2. Report results in mg/L (milligrams per liter) or µg/L (micrograms per liter).

Reporting Parameter/ SDWIS Analyte Code	Water System Facility/ Sample Point	Sample Type, Key Notes (if applicable)	Comments
Arsenic (1005) Barium (1010) Beryllium (1075) Cadmium (1015) Chromium (1020) Cyanide (1024) Fluoride (1025) Mercury (1035) Nickel (1036) Selenium (1045) Thallium (1085) Sodium (1052)			3. These parameters are generally required to be sampled as a group. Some systems may be required to sample an individual analyte, such as arsenic or mercury, on a quarterly basis. 4. A water system may be required to conduct additional inorganic compound monitoring as a condition of a Permit or Temporary Treatment Approval (TTA) issued by the BWSE. **Only** compliance samples with an approved schedule in SDWIS should be submitted using E2.

Reporting Parameter/ SDWIS Analyte Code	Water System Facility/ Sample Point	Sample Type, Key Notes (if applicable)	Comments
Iron (1028) & Manganese (1032)	DS/DS	RT	1. Samples are submitted as type RT and are collected in the DS (Water Facility State Code: DS). The Sample Point ID is always the same as the Water Facility State Code (i.e., DS). 2. Report results in mg/L (milligrams per liter) or µg/L (micrograms per liter). 3. A specific sampling location must be placed in the "Street Address Location" field for iron and manganese samples collected in the DS only. 4. Refer to Section 9 for iron and manganese samples collected for secondary compliance at the POE. 5. A water system may be required to conduct additional iron and manganese monitoring as a condition of a Permit or Temporary Treatment Approval (TTA) issued by the BWSE. **Only** compliance samples with an approved schedule in SDWIS should be submitted using E2.
Nitrate (1040) Nitrite (1041) Total Nitrate/ Nitrite (1038)	POE which may start with TP, WL, or CH	RT, CO	1. Routine samples are collected at the POE (Water Facility State Code: e.g., TP001001, WL002005, or CH003009). The Sample Point ID is always the same as the Water Facility State Code selected (i.e., if the sample was collected at Water System Facility WL001001, the POE Sampling Point ID is also WL001001). 2. If the initial sample result is >10.5 mg/L, a confirmation sample should be collected within 24 hours of notice to the system and be analyzed within 72 hours of collection. Failure to do so will result in the water system being required to post Tier 1 notice immediately. **3. REMINDER: All Nitrate results >10.5 mg/L MUST be called into the DEP during business hours at 609-292-5550 or after hours at 877-WARNDEP within 24 hrs of determination of the exceedance.** 4. Initial samples are to be submitted as Sample Type RT, Confirmation samples must be submitted as Sample Type Confirmation (CO). 5. **The detection limit for nitrite will be no more than 0.10 mg/L and 1.0 mg/L for nitrate regardless of the methods used.** 6. Report results in mg/L (milligrams per liter) or µg/L (micrograms per liter). 7. A water system may be required to conduct additional nitrate or nitrite monitoring as a condition of a Permit or Temporary Treatment Approval (TTA) issued by the BWSE. **Only** compliance samples with an approved schedule in SDWIS should be submitted using E2.

Reporting Parameter/ SDWIS Analyte Code	Water System Facility/ Sample Point	Sample Type, Key Notes (if applicable)	Comments
5.2 Organic Compounds			
Volatile Organic Compounds (VOC)	POE which may start with TP, WL, or CH	RT	1. Routine (RT) samples are collected at the POE (Water Facility State Code: e.g., TP001001, WL002005, or CH003009). The Sample Point ID will always be the same as the Water Facility State Code. 2. Report results in mg/L (milligrams per liter) or µg/L (micrograms per liter). 3. Do not submit "meta xylene" and "para xylene" as separate analytes. They must be submitted together as "meta and para xylenes" (Analyte Code: 2963). This is required because of the inability to separate and detect the meta and para xylene isomers with analysis by EPA Methods 502.2 and 524.2. 4. In reporting xylenes for compliance, a laboratory must report the sample results for the following: a) Meta and Para Xylene (Analyte Code: 2963) b) Ortho-xylene (Analyte Code: 2997) c) Total Xylenes (Analyte Code: 2955) 5. When reporting VOCs to E2, only the 26 regulated compounds in the SDWIS sample schedules need to be reported to comply with the VOC rule. If samples are analyzed for more than the 26 regulated VOC compounds, submit the results of any unregulated VOC compounds that are detected. 6. The four total trihalomethane (TTHM) analytes of chloroform (Analyte Code: 2941), bromoform (Analyte Code: 2942), bromodichloromethane (Analyte Code: 2943), and chlorodibromomethane (Analyte Code: 2944) may possibly appear as VOC compounds as part of a VOC analysis. E2 will identify them as TTHM compounds. As a result, the system will require a value in the "Street Address Location" field, even though VOC results do not require a value in this field. If no value is inputted in the "Street Address Location" field, the VOC results may be rejected. If this happens, put a value of "VOC" in the "Street Address Location" field and resubmit the samples 7. **EDB, DBCP and 123TCP:** Laboratories must demonstrate a detection limit of 0.01 µg/L or less for EDB and 123TCP, and 0.02 µg/L or less for DBCP. Since the detection limits are higher for these analytes, **laboratories should no longer report these three analytes with compliance VOC monitoring results**. If these three analytes are reported using either EPA Methods 524.2 or 502.2, they will be rejected. See the SOC section for correct reporting of these analytes.

Reporting Parameter/ SDWIS Analyte Code	Water System Facility/ Sample Point	Sample Type, Key Notes (if applicable)	Comments
			8. For water systems with a SDW permit requiring the collection of influent/effluent VOC samples on a biweekly or other basis, these results shall **not** be sent to BSDW. These results do **not** have to be on state input forms, nor submitted via E2, and should be retained by the water system for inspection. **Only** compliance samples with an approved schedule in SDWIS should be submitted using E2.
<u>Synthetic Organic Compounds (SOCs)</u> Pesticides, Herbicides, Other Organic Compounds Refer to water system specific monitoring schedule for additional required analytes	POE which may start with TP, WL, or CH	RT	1. Routine samples are collected at the POE (Water Facility State Code: e.g, TP001001, WL002005, or CH003009). The Sample Point ID is always the same as the Water Facility State Code selected. 2. Report results in mg/L (milligrams per liter) or µg/L (micrograms per liter). 3. Lab Sample IDs for synthetic organic compounds (SOCs) must include the method number at the end of the sample number. Several SOC parameters can be analyzed with multiple SOC methods. By adding the method number as a suffix to the Sample ID number in E2 and SDWIS, the overwriting of the original result will be avoided. For example: Atrazine is an analyte in both EPA Methods 507 and 525.2 analyses. If both 507 and 525.2 are being performed on sample AB123, the sample number should be entered as AB123-507 to enter 507 results and AB123-525.2 to enter 525.2 results. 4. Ethylene dibromide (EDB) (2946), dibromochloropropane (DBCP) (2931), and 1,2,3 trichloropropane (123TCP) (2414) specific information: a. Waivers will not be issued for EDB, DBCP, and 123TCP. b. EDB, DBCP, and 123TCP **cannot** be reported using Method 524.2 or Method 502.2; they will be rejected by E2. The method detection limits under those two methods are too high to meet regulatory requirements. See table below for Analytical Methods. c. If the detected result for these 3 compounds is between the DL and the MRL, enter the value of the detected result in “Result” field and qualify with “J” in “Result Comments” field. d. If the detected result is above the MRL, enter result value in “Result” field. e. See table below for additional information regarding methods and associated DLs.

<table>
<tr><th>Reporting Parameter/ SDWIS Analyte Code</th><th>Water System Facility/ Sample Point</th><th>Sample Type, Key Notes (if applicable)</th><th>Comments</th></tr>
<tr><td></td><td></td><td></td><td>
<table>
<tr><th>Parameter</th><th>Regulated by:</th><th>MCL</th><th>Analytical Methods</th><th>Regulatory DL</th></tr>
<tr><td>1,2,3-Trichloropropane (123TCP)</td><td>NJDEP</td><td>0.030 µg/L</td><td>EPA 504.1
EPA 524.3
EPA 551.1</td><td>0.010 µg/L</td></tr>
<tr><td>1,2-Dibromoethane or Ethylene Dibromide (EDB)</td><td>USEPA</td><td>0.05 µg/L</td><td>EPA 504.1
EPA 524.3
EPA 551.1</td><td>0.01 µg/L</td></tr>
<tr><td>1,2-Dibromo-3-chloropropane (DBCP)</td><td>USEPA</td><td>0.2 µg/L</td><td>EPA 504.
EPA 524.3
EPA 551.1</td><td>0.02 µg/L</td></tr>
</table>
</td></tr>
<tr><td colspan="4">5.3 Per-and Polyfluoroalkyl Substances (PFAS)</td></tr>
<tr><td><u>NJ Regulated</u>

PFNA (2804)

PFOS (2805)

PFOA (2806)</td><td>POE which may start with TP, WL, or CH</td><td>RT</td><td>1. For the purposes of the NJ State Drinking Water Regulations, PFAS compounds shall be submitted as RT samples. Samples are collected at the POE. The Sample Point ID is always the same as the Water Facility State Code. For example, if the sample was collected at Water System Facility TP001001, the POE Sampling Point ID is also TP001001).
2. Method codes EPA 533, EPA 537.1 are accepted. As of July 2024, Method 537 will no longer be certified by the DEP's Office of Quality Assurance (OQA) and is therefore not an approved method.
3. Sample results must be reported to a regulatory detection limit (DL) of 0.002 µg/L or 2 ng/l for all NJ regulated PFAS analytes.
4. See Appendix B.4 for additional PFAS reporting information.</td></tr>
</table>

Reporting Parameter/ SDWIS Analyte Code	Water System Facility/ Sample Point	Sample Type, Key Notes (if applicable)	Comments
Federally Regulated and Unregulated PFAS	POE which may start with TP, WL, or CH	RT	1. Method codes EPA 533, EPA 537.1 are accepted. As of July 2024, Method 537 is no longer certified by the NJDEP's Office of Quality Assurance (OQA) and is therefore not an approved method. 2. On April 10, 2024, EPA announced its final National Primary Drinking Water Regulation (NPDWR) standards for six PFAS, which includes federal regulations for PFBS (2801), PFHxS (2803), and HFPO-DA or GenX Chemicals (2816) in addition to those already regulated by NJ. 3. At this time, water systems are encouraged to submit results for these 3 additional PFAS analytes. 4. For the purposes of Federal Drinking Water Regulations, sample results must be reported to a regulatory detection limit (DL) of 0.005 µg/L for PFHxS and HFPO-DA (GenX Chemicals). 5. Water systems may also submit any other PFAS compound for which results are available based on the analysis method.
5.4 Unregulated Compounds (Inorganics & Organics)			
Unregulated Compounds Inorganics Organics	DS/DS or at the POE which may start with TP, WL, or CH	RT	1. All unregulated compounds shall be submitted as routine samples. 2. Routine samples are collected at the POE (Water Facility State Code: e.g., TP001001, WL002005, or CH003009). The Sample Point ID is always the same as the Water Facility State Code (i.e., if the sample was collected at Water System Facility WL001001, the POE Sampling Point ID is also WL001001). 3. Report results in µg/L. 4. Contact the DEP for guidance regarding what unregulated contaminants are to be reported.

6.0 Disinfection By-Products (Stage 2)

- The following are to be reported on the Generic Chemistry reporting sheet

Reporting Parameter (SDWIS Analyte Code)	Water System Facility/ Sample Point	Sample Type, Key Notes (if applicable)	Comments
6.1 TTHM & HAA5			
Total Trihalomethane (TTHM) Chloroform (2941) Bromoform (2942) Bromodichloromethane (2943) Chlorodibromomethane (2944)	DS/ See E2 Reference Data section	RT	1. Samples are to be submitted as type RT. 2. Samples are collected from specific Stage 2 sample points that are listed in the Reference Data link under the Laboratory module of E2. The Water Facility State Code should be populated with a value of "DS" for all samples. The specific sample point found in the E2 Reference Data section must be inputted **exactly** as it is listed under the E2 Reference Data section or it will be rejected. 3. The MRL for the individual THMs is 0.0010 mg/L or 1.0 µg/L. When reporting the individual THMs, report any concentration less than this MRL as < 0.0010 mg/L or < 1.0 µg/L. 4. Report results in mg/L (milligrams per liter) or µg/L (micrograms per liter). 5. A specific sampling location must be placed in the "Street Address Location" field for all TTHM results. This is a mandatory field.
Haloacetic Acid Report (HAA5) Monochloroacetic Acid (2450) Dichloroacetic Acid (2451)	DS/ See E2 Reference Data section	RT	1. Samples are to be submitted as type RT. 2. Samples are collected from specific Stage 2 sample points that are listed in the Reference Data link under the Laboratory module of E2. The Water Facility State Code should be populated with a value of "DS" for all samples. The specific sample point found in the E2 Reference Data section must be inputted **exactly** as it is listed under the E2 Reference Data section or it will be rejected.

Reporting Parameter (SDWIS Analyte Code)	Water System Facility/ Sample Point	Sample Type, Key Notes (if applicable)	Comments
Trichloroacetic Acid (2452) Monobromoacetic Acid (2453) Dibromoacetic Acid (2454)			3. The MRL for monochloroacetic acid is 0.0020 mg/L or 2.0 µg/L. The MRL for the other four haloacetic acids is 0.0010 mg/L or 1.0 µg/L. Report the individual haloacetic acids to their respective MRL. For monochloroacetic acid, report any concentration below its MRL as < 2.0 µg/L (< 0.0020 mg/L) and for each of the other four haloacetic acids, as < 1.0 µg/L (< 0.0010 mg/L). 4. Report results in mg/L (milligrams per liter) or µg/L (micrograms per liter). 5. A specific sampling location must be placed in the "Street Address Location" field for all HAA5 results. This is a mandatory field.
6.2 Precursors (Surface Water Only)			
Disinfection By-Product Precursor Compliance Report Alkalinity (1927) Total Organic Carbon (2920)	Paired samples at IN###### / IN###### and TP###### / TP######	RT	1. Paired routine (RT) total organic carbon (TOC) samples are collected at the surface water intake (IN######) and the associated treatment plant (TP######). Alkalinity samples are collected at the intake at the same time. The Sample Point ID will always be the same as the Water Facility State Code. 2. SDWIS will calculate the TOC removal ratio and the running annual average (RAA). 3. **Submission via E2 is required for all samples collected on or after July 1, 2025.** Results may be submitted via E2 or the *Disinfection Byproduct Precursor Compliance Report* (BSDW-20) form until then. 4. If a system is using Applicable Alternative Criteria, and has submitted their data via E2, they will still need to submit the BSDW-20. Please indicate on the form that the sample results were submitted via E2. If a system is not using Applicable Alternative Criteria, they do not need to submit the BSDW-20.

7.0 Lead and Copper Rule Samples & Water Quality Parameters (PBCU & WQPs)

- The following are to be reported on the Generic Chemistry reporting sheet

Reporting Parameter/ SDWIS Analyte Code	Water System Facility/ Sample Point	Sample Type, Key Notes (if applicable)	Comments
7.1 Distribution System Lead & Copper Tap Samples			
Lead (1030) Copper (1022)	DS/DS (or assigned PBCU#)	RT	1. Routine samples are collected in the DS (Water Facility State Code: DS). The Sample Point ID is the same as the Water Facility State Code (i.e., DS) **except** when the water system has designated PBCU sample points. 2. Report results in mg/L (milligrams per liter) or µg/L (micrograms per liter). 3. A street address must be provided in the "Street Address Location" field for all samples. For NCWS please indicate the specific sampling location, room, or tap designation as appropriate. 4. **Systems with Approved Lead & Copper Sampling Plans:** a. As individual sampling plans and sampling points are DEP approved, lead/copper sampling point designations beginning with "PBCU" with a specific number at the end (e.g., PBCU1, PBCU2, etc.) will be assigned and migrated into SDWIS and E2. Sampling locations not approved by the DEP will have a Water System Facility Code of "DS." b. A value indicating the location of a new lead/copper sample point (e.g. 2 Main Street) will still be required. The street address nomenclature must match the nomenclature used in the sample point location (i.e., "Street" vs. "St"). c. When submitting Lead/Copper sampling points **the address must be entered exactly as it is listed on the BWSE-18 form.** i. Do not use any leading characters. ii. Do not add the PBCU#: "10 Main St" ≠ "PBCU41 – 10 Main St." iii. Do not add a sample number: "15 Main St" ≠ "#21 – 15 Main St." iv. Do not add a tap location: "11 Maple Ave." ≠ "Kitchen – 11 Maple." v. Do not repeat the facilities address or change the abbreviations 1. "Back Sink" ≠ "11 Main St – Back sink." 2. "East Wing Girls BR" ≠ "EW Girls Bath." 3. "14 North Ave" ≠ "14 N Avenue."

Reporting Parameter/ SDWIS Analyte Code	Water System Facility/ Sample Point	Sample Type, Key Notes (if applicable)	Comments
			d. Note that PBCU numbers are assigned to specific addresses/locations and do not change. If PBCU01 is assigned to 10 Main St. it is not to be used for any other location. e. Once a sampling plan or sample site has been approved, the water system client should be sending the laboratory a list of the new lead/copper sampling points, their location, and other information. The E2 Reference Data section under the Laboratory module on the main E2 page may also be used to confirm sample points once a lead/copper sampling plan is approved. f. If a water system collects a sample from a location that has not been assigned a PBCU number it may be submitted as DS in the sample location field. **5.** **Customer Requested Samples:** Water systems may collect a sample per a customer's request. The water system must notify the laboratory when a lead sample is taken due to a customer's request. These samples are generally **not** considered compliance samples and should **not** be submitted electronically via E2, **UNLESS the sample was taken during the system's compliance monitoring period, is from an appropriate Tier Site, and meets the 6-hour minimum stagnation period. If these conditions are met the sample results MUST be submitted for compliance.** a. "PBCR" should be appended to the Sample ID number. b. Both the water system facility and the Sampling Point ID will be DS. (Unless the laboratory notes that this was collected form a location with a PBCU number, then that sample point is to be used.) c. If the customer requested sample is not a first draw sample, is collected outside of the compliance monitoring period, and is not from the appropriate Tier, the sample should be submitted by the water system on the Non-Compliance Lead and Copper Tap Monitoring Form (BWSE-16). **Do not** submit these samples via E2. d. If the water system intends to include the new customer requested sample as a permanent sample location, they must contact the BSDW to update their approved sampling point locations.

Reporting Parameter/ SDWIS Analyte Code	Water System Facility/ Sample Point	Sample Type, Key Notes (if applicable)	Comments
7.2 Source Water Lead & Copper Samples			
Lead (1030) Copper (1022)	POE which may start with TP, WL, or CH	RT	1. Following a lead or copper action level exceedance (ALE), lead and copper source water samples must be collected within 6 months of the end of the monitoring period in which the ALE occurred. 2. Samples must be collected at the POE, not the well unless there is no treatment or common header. 3. The Sample Point ID is always the same as Water Facility State Code. 4. Do not submit these samples with the Facility ID of DS.
7.3 Water Quality Parameter Sampling – Initial			
Calcium (1016) Conductivity (1064) pH (1925) Total Alkalinity (1927) Temperature (1996) plus any additional analytes required by DEP	DS/DS & POE which may start with TP, WL, or CH	RT	1. Water systems that incur a lead or copper ALE are required to conduct Initial Water Quality Parameter (WQP) Sampling **WITHIN** the monitoring period in which the ALE occurred. 2. Samples are required to be collected in the DS and at the POE. The Sample Point ID will always be the same as the Water Facility State Code (i.e., DS). 3. WQPs under the Lead and Copper Rule may be collected, analyzed, and submitted by an approved person. They do not have to be collected by a certified laboratory. A laboratory shall not submit WQP results on behalf of an approved person. 4. For WQPs that are to be sampled at the POE, only samples taken at the POE should be submitted, unless requested by BSDW or BWSE (i.e., samples taken before treatment, where applicable, and should not be submitted). 5. Results for the parameters shall be reported as follows: a. Calcium (1016): mg/L (milligrams per liter) or µg/L (micrograms per liter) b. Total Alkalinity (1927): mg/L (milligrams per liter) or µg/L (micrograms per liter) 1. Results for pH (1925) shall be reported in PH units (parts hydrogen). Do not use “SU”, “mg/L” or any other unit. Any pH samples submitted with the wrong units cannot be used for compliance and may result in the water system receiving a violation. c. Results for conductivity (1064) @ 25°C shall be reported in uMHO/cm.

Reporting Parameter/ SDWIS Analyte Code	Water System Facility/ Sample Point	Sample Type, Key Notes (if applicable)	Comments
			d. Results for temperature, ºC (1996) shall be reported in ºC (Degrees Celsius). 6. For WQP samples collected in the DS, if multiple samples are collected at the same street address, indicate the specific location (i.e., "3rd floor restroom, kitchen sink," etc.) where the sample was collected.
7.4 Water Quality Parameter Sampling – Follow Up & Optimal			
pH (1925) Total Alkalinity* (1927) Calcium* (1016) Orthophosphate* (1044) Silica* (1049) * Only if adjusted through treatment.	DS/DS & POE which may start with TP, WL, or CH	RT	1. Water systems that install corrosion control treatment (CCT) are required to conduct Follow-Up WQP sampling for a period of at least 1 year following the installation. 2. Optimal WQP sampling is required after DEP sets Optimal Facility Analyte Levels (FANLs) and is continuous. 3. For both Follow-Up and Optimal samples are required to be collected in the DS and at the POE. The Sample Point ID will always be the same as the Water Facility State Code (i.e., DS). However, some water systems may have multiple DS codes to designate specific areas of the DS (e.g., DSWQP1). 4. WQPs under the Lead and Copper Rule may be collected, analyzed, and submitted by an approved person. They do not have to be collected by a certified laboratory. A laboratory shall not submit WQP results on behalf of an approved person. 5. Results for the following parameters shall be reported in mg/L (milligrams per liter) or µg/L (micrograms per liter): a. Calcium (Analyte Code: 1016). b. Total Alkalinity (Analyte Code: 1927). c. Orthophosphate (Analyte Code: 1044). d. Silica (Analyte Code: 1049). 6. Results for pH (1925) shall be reported in pH units (parts hydrogen). Do not use "SU", "mg/L" or any other unit. Any pH samples submitted with the wrong units cannot be used for compliance and may result in the water system receiving a violation.

Reporting Parameter/ SDWIS Analyte Code	Water System Facility/ Sample Point	Sample Type, Key Notes (if applicable)	Comments
			7. All orthophosphate results must be reported as "orthophosphate as P." If using an instrument with a readout for PO4, multiply the value by 0.326 to obtain the "orthophosphate as P" value. This value must be reported through E2. 8. DS samples are to be collected twice during the 6-month monitoring period. For example, if the schedule is for 10 samples, 5 are to be collected on or near the same day, with another 5 being collected at least 2 weeks later. 9. POE samples are collected on a bi-weekly basis. **NOTE:** the 2-week monitoring periods are determined based on the original monitoring schedule start date which will either be 1/1/20XX or 7/1/20XX. Lists are available here: https://www.nj.gov/dep/watersupply/dwc-lead-wqpm.html. 10. Systems on Optimal WQP sampling have been assigned FANLs that may be minimums or ranges. Results outside of those set FANLs may result in treatment technique violations. Please note the following: a. Every day that a value is below a minimum, or outside of the set range, the water system will be assessed with an "excursion". b. An excursion will be assessed every calendar DAY a water system has a value below the minimum or outside of the range at one or more sampling points. c. It is extremely important to communicate results to the water systems immediately so that a sample may be taken again as soon as possible, ideally the same or following day. d. If more than one sample is collected from the same location the same day, all results will be averaged by SDWIS. (E.g., pH sample collected on July 1st at 9:00 AM with a result of 6.8 and another sample collected the same day at 3:00 PM with a pH result of 7.6 would be averaged as 7.2. e. If the water system in the above example had an optimal WQP value of 7.0, the water system would have incurred a daily excursion based on a result of 6.8. However, since the second sample collected on the same day was 7.6, the average of 7.2 is greater than 6.8 and no excursion would be incurred.

Reporting Parameter/ SDWIS Analyte Code	Water System Facility/ Sample Point	Sample Type, Key Notes (if applicable)	Comments
			f. The accumulation of more than 9 excursions will result in a treatment technique violation and the water system would return to standard lead and copper monitoring if on annual or triennial. 11. WQP samples for systems on Follow-Up or Optimal may be collected, analyzed, and submitted by an approved person of the water system. They are not required to be collected, analyzed, or submitted by a certified laboratory. 12. For WQPs that are sampled at the POE, only samples taken at the POE shall be submitted, unless requested by BSDW (i.e., samples taken before treatment, should not be submitted).

8.0 Radionuclides

- The following are to be reported on the Generic Chemistry reporting sheet

Reporting Parameter (SDWIS Analyte Code)	Water System Facility/ Sample Point	Sample Type, Key Notes (if applicable)	Comments
8.1 General Notes			
See below	POE which may start with TP, WL, or CH	RT	1. Radionuclide samples are collected at the POE (Water Facility State Code: e.g. TP001001, WL002005, or CH003009). 2. All radionuclide samples should have Sample Type “Routine.” 3. The Sample Point ID is always the same as the Water Facility State Code selected. 4. Required analysis: a. For all systems gross alpha and radium-228 analyses are required. b. If the gross alpha value is > 5.0 pCi/L then radium 226 must also be analyzed for.

Reporting Parameter (SDWIS Analyte Code)	Water System Facility/ Sample Point	Sample Type, Key Notes (if applicable)	Comments
			c. If the gross alpha value is > 15.0 pCi/L then uranium must also be analyzed for. 5. Only submit the analytical results of parameters for which an analysis was performed. a. **Do not submit any substituted or calculated values**. b. SDWIS will calculate the combined radium result (analyte code 4010). c. SDWIS will only calculate the adjusted gross alpha value (EXCL. RADON & U, analyte code 4000) if a uranium value is also submitted. d. SDWIS will substitute the required values for radium 226 and uranium if results are not submitted e. **NOTE:** substituted values will not be displayed in DWV/DWW. 6. All radionuclide results that were analyzed by the same laboratory are to be submitted under the same sample ID number. When submitted under a different sample ID number SDWIS will not be able to calculate the adjusted gross alpha and/or the combined radium. 7. **Note:** if the analyses for different analytes collected in a single sample are conducted and submitted by different laboratories, SDWIS will not be able to do the calculations or substitutions. In these instances, BSDW staff manually determine compliance. 8. All radionuclide samples must include a radiological result count error result value in the "Radiological Result Count Error" field (except for uranium, mass and uranium, combined). This field is mandatory and must have a value. 9. Report any negative radiological result values as less than the MDL. 10. In the calculation of radionuclide compliance, the highest allowed detection limit for gross alpha (4002) is 3 pCi/L, radium-226 (4020) is 1 pCi/L, radium-228 (4030) is 1 pCi/L and uranium (4006) is 1 µg/L. These values are the regulatory detection limits for federally regulated radionuclides. Provided that a laboratory's detection limit is equal to or less than these regulatory detection limits, a non-detect of an analyzed (not substituted) radionuclide must be reported to E2 as less than the respective regulatory detection limit indicated above. For uranium results reported in activity units (pCi/L) the laboratory detection limit must be equal to or less than 0.67 pCi/L to be reported as less than 1 µg/L. 11. See Appendix B.3 for information regarding detection limits.

Reporting Parameter (SDWIS Analyte Code)	Water System Facility/ Sample Point	Sample Type, Key Notes (if applicable)	Comments
8.2 Gross Alpha			
Gross Alpha (4002)	POE which may start with TP, WL, or CH	RT	1. Analytical results for gross alpha (4002) must be reported in pCi/L. 2. For gross alpha: a. The only acceptable method for gross alpha will be ECLS-R-GA Rev 8. (A co-precipitation method may be used for a water system only if permission is granted by the Division of Water Supply and Geoscience upon request.) Due to the limited number of characters in the "Method Code" field, enter the method as follows: ECLS-R-GA R8. Remember to include a space between the GA and R8. b. The "Sample Collection Time," "Analysis Start Date," "Analysis Start Time," "Analysis Completion Date," and "Analysis Completion Time" fields are mandatory for gross alpha samples only (Analyte Code: 4002). The start time is the time at which the sample counting is initiated. If the sample requires a second count, the date and start time of the **second count** is to be entered. c. If a second count is performed, report the second count **only**. 3. The "Detection Level (Detection Limit)" field on the Generic Chemistry template is used for capturing the calculated sample specific gross alpha detection limit as determined using the formula in Note #16. Do **not** place a value in this field for any other radiological result. This field is mandatory for gross alpha (4002). If the gross alpha results for a water system have a DL that exceeds 3 pCi/L, that result cannot be used for compliance. 4. For any gross alpha result requiring a second count, enter "second ct" in the "Result Comments" field. 5. Enter the dissolved solids in units of mg/L for gross alpha in the "Result Comments" field. This is mandatory for any gross alpha result where the detection limit is greater than 3.0 pCi/L.

Reporting Parameter (SDWIS Analyte Code)	Water System Facility/ Sample Point	Sample Type, Key Notes (if applicable)	Comments
8.2 Radium 226 & 228			
Radium-226 (4020) Radium-228 (4030)	POE which may start with TP, WL, or CH	RT	1. Analytical results for radium-226 (4020), and radium-228 (4030) must be reported in pCi/L. 2. If the gross alpha result is > 5.0 pCi/L then radium 226 must be analyzed for. 3. If the radium 226 and radium 228 results are submitted on different days SDWIS may not calculate the combined value.
8.3 Uranium			
Uranium, Combined (4006)	POE which may start with TP, WL, or CH	RT	1. Sample results submitted for uranium, combined (4006) may be submitted in pCi/L or mg/L. 2. SDWIS, is incorrectly managing non-detected uranium results that are submitted in activity units (pCi/L). The system is not converting non-detected values in activity units to concentration units, and any result entered that is greater than 0.030 pCi/L is flagged as *"Non-Microbial Sample Result has a Laboratory Reporting Level supplied that exceeds the analyte's MCL value. (SAMPLE RESULT)"*. The system uses 0.030 for comparison since that is the MCL of uranium in mg/L units. Due to this problem, the Division of Water Supply and Geoscience is requesting any non-detected uranium result be reported as either less than 1 µg/L or 0.001 mg/L even if the uranium analysis was performed with a radiochemical method.

9.0 Secondary Compounds

- The following are to be reported on the Generic Chemistry reporting sheet

Reporting Parameter (SDWIS Analyte Code)	Water System Facility/ Sample Point	Sample Type, Key Notes (if applicable)	Comments
Foaming Agents – Surfactants (2905) Alkalinity, Total (1927) Aluminum (1002) Chloride (1017) Color (1905) Copper (1022) Corrosivity (1910) Fluoride (1025) Hardness, Carbonate (1916) Iron (1028) Manganese (1032)	POE which may start with TP, WL, or CH	RT	1. Routine samples are collected at the POE (Water Facility State Code: e.g. TP001001, WL002005, or CH003009). The Sample Point ID is always the same as the Water Facility State Code selected. 2. Results for color (1905) shall be reported in Color Units (CU). 3. Results for odor (1920) shall be reported in TON (Threshold Odor Number). 4. Results for Copper (1022) must have Pb/Cu Location = Flushed 5. Results for pH (1925) shall be reported in PH units (Parts Hydrogen). 6. Results for temperature, ºC (1996) shall be reported in ºC (Degrees Celsius). 7. Results for corrosivity shall be reported in mg/L. 8. Temperature and pH are to be reported as actual concentrations. Therefore, the "Less Than Indicator" field shall **not** be valued with the less than (<) symbol when entering results for these two parameters. 9. For all other secondary compounds, sample results are to be reported in mg/L (milligrams per liter) or µg/L (micrograms per liter). 10. A specific sampling location must be placed in the "Street Address Location" field for Iron and Manganese results collected in the DS only. Iron and manganese samples collected at the POE (e.g., TP001001) do not need a value in the "Street Address Location" field. This is a mandatory field for samples collected in the DS. **Important Notes**: 1. For Iron and manganese samples collected for monitoring requirements in the DS please refer to Section 5.1. 2. For color and odor samples, do **not** submit a zero for the sample result. Use a "<" if the result is non-detect. For color, use "< 5 CU," and for odor use "< 1 TON," respectively, if one or both is not detected.

Reporting Parameter (SDWIS Analyte Code)	Water System Facility/ Sample Point	Sample Type, Key Notes (if applicable)	Comments
Odor (1920) pH (1925) Silver (1050) Sulfate (1055) Temperature, ºC (1996) Total Dissolved Solids (1930) Zinc (1095)			3. Negative corrosivity (Analyte Code 1910) sample results can be reported to E2; however, do **not** submit any corrosivity samples with a zero or "<" as part of the result value. Submissions containing corrosivity samples with a zero of a "<" will now be rejected by E2. 4. A water system may be required to conduct additional secondary compound parameter monitoring as a condition of a Permit or Temporary Treatment Approval (TTA) issued by the BWSE. **Only** compliance samples with an approved schedule in SDWIS should be submitted using E2.

10.0 Childcare Data

As of November 1, 2014, all samples related to childcare requirements are to be submitted via E2 – even if the childcare facility is a non-public or a transient system.

The samples are to be submitted as Sample Type "Routine." All childcare related samples should also have a value of "Yes" in the "Compliance Sample" field of both the Generic Chemistry and Coliform templates. Submit all childcare related coliform samples utilizing the Coliform template. All other childcare related parameters must utilize the Generic Chemistry template.

Important Notes:

1. On both the Coliform and Generic Chemistry templates, set the "Replacement Indicator" field to "No".
2. Contact the BSDW (watersupply@dep.nj.gov) if a non-public childcare facility needs a PWSID number.
3. Drinking Water Viewer (DWV) and Drinking Water Watch (DWW) and data for childcare requirements:
    a. For a childcare facility that is classified as a non-public water system, all sample results (except for coliform) can be viewed in DWV/DWW.
    b. For a childcare facility that is classified as a transient or a non-transient water system, the sampling data that is related only to childcare requirements (i.e., not part of routine compliance monitoring) can be viewed in DWV by searching for the individual contaminant and in Legacy DWV by clicking on the "By Contaminant Name" option listed under the Chemical Results menu. Sampling data that is for routine compliance monitoring can be viewed under the Chemical Results menu by each category.
    c. To see the required drinking water sampling parameters for childcare licensing, refer to this link for a license renewal or a new or proposed center:https://www.state.nj.us/dep/watersupply/pdf/ccr-sdw-checklist.pdf
4. Results of coliform sampling data collected for childcare facilities that are not classified as transient or non-transient water systems may be rejected in error by E2. A workaround has been implemented to address this issue. The rejected sample results of the E2 submission will be reviewed by the BSDW and manually entered into our database. Once the result has been entered in our database, the E2 result status will be manually changed from "Rejected" to "Accepted" in E2 under the View Lab Samples tab. The results will then be viewable in Drinking Water Watch.

Appendix A: Analyte Codes

NAME	SDWIS Analyte CODE	CAS REGISTRY NUMBER
1,1,1,2-TETRACHLOROETHANE	2986	630-20-6
1,1,1-TRICHLOROETHANE	2981	71-55-6
1,1,2,2-TETRACHLOROETHANE	2988	79-34-5
1,1,2-TRICHLOROETHANE	2985	79-00-5
1,1-DICHLOROETHANE	2978	75-34-3
1,1-DICHLOROETHYLENE	2977	75-35-4
1,1-DICHLOROPROPANONE	2463	513-88-2
1,1-DICHLOROPROPENE	2410	563-58-6
1,2,3-TRICHLOROBENZENE	2420	87-61-6
1,2,3-TRICHLOROPROPANE (123-TCP)	2414	96-18-4
1,2,4-TRICHLOROBENZENE	2378	120-82-1
1,2,4-TRIMETHYLBENZENE	2418	95-63-6
1,2-DIBROMO-3-CHLOROPROPANE	2931	96-12-8
1,2-DICHLOROETHANE	2980	107-06-2
1,2-DICHLOROPROPANE	2983	78-87-5
1,3,5-TRIMETHYLBENZENE	2424	108-67-8
1,3-DICHLOROPROPANE	2412	142-28-9
1,3-DICHLOROPROPENE	2413	542-75-6
1,4-DIOXANE	2049	123-91-1
1-CHLOROBUTANE	2086	109-69-3
11CL-PF3OUDS	2813	763051-92-9
2,2,3,3,4,4,6-HEPTACHLOROBIPHENYL	9067	52663-71-5
2,2,3,3,4,5,6,6-OCTACHLORPBIPHENYL	9092	40186-71-8
2,2,3,4,6-PENTACHLOROBIPHENYL	8977	68194-05-8
2,2,4,4,5,6-HEXACHLOROBIPHENYL	9042	60145-22-4
2,2,4,4-TETRACHLOROBIPHENYL	8947	2437-79-8
2,2-DICHLOROPROPANE	2416	594-20-7
2,3,7,8-TCDD	2063	1746-01-6
2,3-DICHLOROBIPHENYL	8920	16605-91-7
2,4,5-T	2111	93-76-5
2,4,5-TP	2110	93-72-1
2,4,5-TRICHLOROBIPHENYL	8940	15862-07-4
2,4,5-TRICHLOROPHENOL	2242	95-95-4
2,4-D	2105	94-75-7
2,4-DB	2106	94-82-6
2-CHLOROBIPHENYL	8915	2051-60-7
2-HEXANONE	2269	591-78-6
2-NITROPROPANE	2469	79-46-9
3,4-DICHLOROBENZOIC ACID	2109	
3,5-DICHLOROBENZOIC ACID	2125	51-36-5
3-HYDROXYCARBOFURAN	2066	16655-82-6
4-METHYL-2-PENTANONE	2277	108-10-1
47-SILVER-110	4220	14391-76-5
9CL-PF3ONS	2814	756426-58-1
ACENAPHTHYLENE	2260	208-96-8
ACETOCHLOR	2027	34256-82-1
ACETONE	2243	67-64-1
ACIFLUORFEN	2126	50594-66-6

NAME	SDWIS Analyte CODE	CAS REGISTRY NUMBER
ACRYLONITRILE	2240	107-13-1
ADONA	2815	919005-14-4
ALDICARB	2047	116-06-3
ALDICARB SULFONE	2044	1646-88-4
ALDICARB SULFOXIDE	2043	1646-87-3
ALDRIN	2356	309-00-2
ALKALINITY, CARBONATE	1929	
ALKALINITY, TOTAL	1927	
ALLYL CHLORIDE	2402	107-05-1
ALPHA-CHLORDANE	7240	5103-71-9
ALUMINUM	1002	7429-90-5
ANATOXIN –A	3311	64285-06-9
ANTHRACENE	2280	120-12-7
ANTIMONY, TOTAL	1074	7440-36-0
AROCLOR 1016	2388	12674-11-2
AROCLOR 1221	2390	11104-28-2
AROCLOR 1232	2392	11141-16-5
AROCLOR 1242	2394	53469-21-9
AROCLOR 1248	2396	12672-29-6
AROCLOR 1254	2398	11097-69-1
AROCLOR 1260	2400	11096-82-5
ARSENIC	1005	7440-38-2
ASBESTOS	1094	1332-21-4
ATRAZINE	2050	1912-24-9
BARIUM	1010	7440-39-3

NAME	SDWIS Analyte CODE	CAS REGISTRY NUMBER
BAYGON	2023	114-26-1
BENTAZON	2625	25057-89-0
BENZENE	2990	71-43-2
BENZO(A)ANTHRACENE	2300	56-55-3
BENZO(A)PYRENE	2306	50-32-8
BENZO(B)FLUORANTHENE	2302	205-99-2
BENZO(G,H,I)PERYLENE	2312	191-24-2
BENZO(K)FLUORANTHENE	2304	207-08-9
BERYLLIUM, TOTAL	1075	7440-41-7
BHC-GAMMA	2010	58-89-9
BIS(2-CHLOROETHYL) ETHER	2222	111-44-4
BIS(2-CHLOROISOPROPYL) ETHER	2244	39638-32-9
BROMACIL	2098	314-40-9
BROMATE	1011	15541-45-4
BROMIDE	1004	24959-67-9
BROMOBENZENE	2993	108-86-1
BROMOCHLOROMETHANE	2430	74-97-5
BROMODICHLOROMETHANE	2943	75-27-4
BROMOFORM	2942	75-25-2
BROMOMETHANE	2214	74-83-9
BUTACHLOR	2076	23184-66-9
BUTYLBENZYL PHTHALATE	2294	85-68-7
CADMIUM	1015	7440-43-9
CALCIUM	1016	7440-70-2
CALCIUM HARDNESS	1914	

NAME	SDWIS Analyte CODE	CAS REGISTRY NUMBER
CARBARYL	2021	63-25-2
CARBOFURAN	2046	1563-66-2
CARBON DISULFIDE	1902	75-15-0
CARBON TETRACHLORIDE	2982	56-23-5
CARBON, TOTAL	2920	7440-44-0
CHLORAMBEN	2205	133-90-4
CHLORDANE	2959	57-74-9
CHLORIDE	1017	16887-00-6
CHLORINE	0999	
CHLORITE	1009	14998-27-7
CHLOROACETONITRILE	2466	107-14-2
CHLOROBENZENE	2989	108-90-7
CHLOROETHANE	2216	75-00-3
CHLOROFORM	2941	67-66-3
CHLOROMETHANE	2210	74-87-3
CHROMIUM	1020	7440-47-3
CHRYSENE	2296	218-01-9
CIS-1,2-DICHLOROETHYLENE	2380	156-59-2
CIS-1,3-DICHLOROPROPENE	2228	10061-01-5
COBALT, TOTAL	1081	7440-48-4
COLIFORM (TCR)	3100	
COLOR	1905	
COMBINED RADIUM (-226 & -228)	4010	
COMBINED URANIUM	4006	7440-61-1
CONDUCTIVITY @ 25 C UMHOS/CM	1064	

NAME	SDWIS Analyte CODE	CAS REGISTRY NUMBER
COPPER, FREE	1022	7440-50-8
CORROSIVITY	1910	
CRYPTOSPORIDIUM	3015	
CYANAZINE	2054	21725-46-2
CYANIDE	1024	57-12-5
CYLINDROSPERMOPSIN	3302	143545-90-8
DALAPON	2031	75-99-0
DCPA	2099	1861-32-1
DCPA MONO ACID DEGRADATE	2100	887-54-7
DCPA MONO/DI-ACID DEGRADATES	2108	
DESETHYLATRAZINE	2006	6190-65-4
DI(2-ETHYLHEXYL) ADIPATE	2035	103-23-1
DI(2-ETHYLHEXYL) PHTHALATE	2039	117-81-7
DI-N-BUTYL PHTHALATE	2290	84-74-2
DIBENZO(A,H)ANTHRACENE	2310	53-70-3
DIBROMOACETIC ACID	2454	631-64-1
DIBROMOCHLOROMETHANE	2944	124-48-1
DIBROMOMETHANE	2408	74-95-3
DICAMBA	2440	1918-00-9
DICHLOROACETIC ACID	2451	79-43-6
DICHLOROBENZENES, TOTAL	2401	25321-22-6
DICHLORODIFLUOROMETHANE	2212	75-71-8
DICHLOROMETHANE	2964	75-09-2
DICHLORPROP	2206	120-36-5
DIELDRIN	2070	60-57-1

NAME	SDWIS Analyte CODE	CAS REGISTRY NUMBER
DIETHYL PHTHALATE	2284	84-66-2
DIMETHYL PHTHALATE	2282	131-11-3
DINOSEB	2041	88-85-7
DIQUAT	2032	2764-72-9
E. COLI	3014	68583-22-2
ENDOSULFAN I	2068	959-98-8
ENDOSULFAN SULFATE	2074	1031-07-8
ENDOTHALL	2033	145-73-3
ENDRIN	2005	72-20-8
ETHYL ETHER	2090	60-29-7
ETHYL METHACRYLATE	2293	97-63-2
ETHYLBENZENE	2992	100-41-4
ETHYLENE DIBROMIDE (EDB)	2946	106-93-4
FECAL COLIFORM	3013	
FLUOMETURON	2297	
FLUORENE	2264	86-73-7
FLUORIDE	1025	16984-48-8
FOAMING AGENTS (SURFACTANTS)	2905	
GAMMA-CHLORDANE	7245	5103-74-2
GIARDIA LAMBLIA	3008	
GLYPHOSATE	2034	1071-83-6
GROSS ALPHA PARTICLE ACTIVITY	4109	12587-46-1
GROSS ALPHA, EXCL. RADON & U	4000	
GROSS ALPHA, INCL. RADON & U	4002	12587-46-1
GROSS BETA PARTICLE ACTIVITY	4100	12587-47-2

NAME	SDWIS Analyte CODE	CAS REGISTRY NUMBER
HARDNESS, CARBONATE	1916	
HARDNESS, TOTAL (AS CACO3)	1915	
HEPTACHLOR	2065	76-44-8
HEPTACHLOR EPOXIDE	2067	1024-57-3
HEXACHLOROBENZENE	2274	118-74-1
HEXACHLOROBUTADIENE	2246	87-68-3
HEXACHLOROCYCLOPENTADIENE	2042	77-47-4
HEXACHLOROETHANE	2225	67-72-1
HFPO-DA	2816	13252-13-6
HYDROGEN SULFIDE	1027	7783-06-4
IDENO(1,2,3-CD)PYRENE	2308	193-39-5
IRON	1028	7439-89-6
ISOPROPYL ALCOHOL	2095	67-63-0
ISOPROPYLBENZENE	2994	98-82-8
LASSO	2051	15972-60-8
LEAD	1030	7439-92-1
M-DICHLOROBENZENE	2967	541-73-1
M-XYLENE	2995	108-38-3
MALATHION	2058	121-75-5
MANGANESE	1032	7439-96-5
MANGANESE, SUSPENDED	1033	7439-96-5
MERCURY	1035	7439-97-6
METALAXYL	SO1	57837-19-1
METHACRYLONITRILE	2467	
METHIOCARB	2024	2032-65-7

NAME	SDWIS Analyte CODE	CAS REGISTRY NUMBER
METHOMYL	2022	16752-77-5
METHOXYCHLOR	2015	72-43-5
METHYL ETHYL KETONE	2247	78-93-3
METHYL IODINE	2458	
METHYL METHACRYLATE	2295	80-62-6
METHYL TERT-BUTYL ETHER	2251	1634-04-4
METOLACHLOR	2045	51218-45-2
METRIBUZIN	2595	21087-64-9
MICROCYSTIN-LA	3303	96180-79-9
MICROCYSTIN-LF	3304	154037-70-4
MICROCYSTIN-LR	3305	101043-37-2
MICROCYSTIN-LY	3306	123304-10-9
MICROCYSTIN-RR	3307	111755-37-4
MICROCYSTIN-YR	3308	101064-48-6
MONOBROMOACETIC ACID	2453	79-08-3
MONOCHLOROACETIC ACID	2450	79-11-8
N-BUTYLBENZENE	2422	104-51-8
N-HEXANE	2376	110-54-3
N-PROPYLBENZENE	2998	103-65-1
NAPHTHALENE	2248	91-20-3
NETFOSAA	2817	2991-50-6
NICKEL	1036	7440-02-0
NITRATE	1040	14797-55-8
NITRATE-NITRITE	1038	
NITRITE	1041	14797-65-0

NAME	SDWIS Analyte CODE	CAS REGISTRY NUMBER
NITROBENZENE	2254	98-95-3
NMEFOSAA	2818	2355-31-9
NODULARIN	3309	118399-22-7
NONAFLUORO NFDHA	2827	151772-58-6
NOTE: (RESERVED BY MSIS)	2999	
O-CHLOROTOLUENE	2965	95-49-8
O-DICHLOROBENZENE	2968	95-50-1
O-XYLENE	2997	95-47-6
ODOR	1920	
ORTHOPHOSPHATE	1044	14265-44-2
OXAMYL	2036	23135-22-0
P-CHLOROTOLUENE	2966	106-43-4
P-DICHLOROBENZENE	2969	106-46-7
P-ISOPROPYLTOLUENE	2030	99-87-6
P-XYLENE	2962	106-42-3
PENTACHLOROETHANE	2327	76-01-7
PENTACHLORONITROBENZENE	2934	82-68-8
PENTACHLOROPHENOL	2326	
PERCHLORATE	1039	
PERFLUORO PFEESA	2826	113507-82-7
PERFLUORO PFMBA	2825	863090-89-5
PERFLUORO PFMPA	2823	377-73-1
PERFLUOROBUTANESULFONIC ACID (PFBS)	2801	375-73-5
PERFLUOROBUTANOIC ACID (PFBA)	2819	375-22-4
PERFLUOROCTANE SULFONIC ACID (PFOS)	2805	1763-23-1

NAME	SDWIS Analyte CODE	CAS REGISTRY NUMBER
PERFLUOROCTANOIC ACID (PFOA)	2806	335-67-1
PERFLUORODECANE SULFONIC ACID 8:2 FTS	2822	39108-34-4
PERFLUORODECANOIC ACID (PFDA)	2807	335-76-2
PERFLUORODODECANOIC ACID (PFDOA)	2808	307-55-1
PERFLUOROHEPTANESULFONIC ACID (PFHPS)	2829	375-92-8
PERFLUOROHEPTANOIC ACID (PFHPA)	2802	375-85-9
PERFLUOROHEXANE SULFONIC ACID (PFHXS)	2803	355-46-4
PERFLUOROHEXANE SULFONIC ACID 4:2 FTS	2821	757124-72-4
PERFLUOROHEXANOIC ACID (PFHXA)	2809	307-24-4
PERFLUORONONANOIC ACID (PFNA)	2804	375-95-1
PERFLUOROOCTANE SULFONIC ACID 6:2 FTS	2820	27619-97-2
PERFLUOROPENTANESULFONIC ACID (PFPES)	2828	2706-91-4
PERFLUOROPENTANOIC ACID (PFPEA)	2824	2706-90-3
PERFLUOROTETRADECANOIC ACID (PFTA)	2810	376-06-7
PERFLUOROTRIDECANOIC ACID (PFTRDA)	2811	72629-94-8
PERFLUOROUNDECANOIC ACID (PFUNA)	2812	2058-94-8
PH	1925	
PHENANTHRENE	2278	85-01-8
PHOSDRIN	2073	7786-34-7
PICLORAM	2040	1918-02-1

NAME	SDWIS Analyte CODE	CAS REGISTRY NUMBER
POTASSIUM	1042	7440-09-7
PROMETON	2029	1610-18-0
PROPACHLOR	2077	1918-16-7
PROPIONITRILE	2468	107-12-0
PYRENE	2288	129-00-0
RADIUM-226	4020	13982-63-3
RADIUM-228	4030	15262-20-1
RADON	4004	10043-92-2
SCALE FORMING	1995	
SEC-BUTYLBENZENE	2428	135-98-8
SELENIUM	1045	7782-49-2
SILICA	1049	7631-86-9
SILVER	1050	7440-22-4
SIMAZINE	2037	122-34-9
SODIUM	1052	7440-23-5
SPECTRACIDE	2056	333-41-5
STRONTIUM	1051	7440-24-6
STYRENE	2996	100-42-5
SULFATE	1055	14808-79-8
SUTAN	2053	2008-41-5
TDS	1930	
TEMPERATURE (CENTIGRADE)	1996	
TERT-BUTYLBENZENE	2426	98-06-6
TETRACHLOROETHYLENE	2987	127-18-4
TETRAHYDROFURAN	2263	109-99-9

NAME	SDWIS Analyte CODE	CAS REGISTRY NUMBER
THALLIUM, TOTAL	1085	7440-28-0
THNA ISOMER-1 TRIMER	SO15	57964-39-3
THNA ISOMER-2 TRIMER	SO16	57964-39-3
THNA ISOMER-3 TRIMER	SO17	57964-39-3
TOLUENE	2991	108-88-3
TOTAL HALOACETIC ACIDS (HAA5)	2456	
TOTAL MICROCYSTIN	3301	77238-39-2
TOTAL POLYCHLORINATED BIPHENYLS (PCB)	2383	1336-36-3
TOXAPHENE	2020	8001-35-2
TRANS-1,2-DICHLOROETHYLENE	2979	156-60-5
TRANS-1,3-DICHLOROPROPENE	2224	10061-02-6
TRANS-1,4-DICHLORO-2-BUTENE	2970	110-57-6
TRANS-NONACHLOR	2273	39765-80-5
TRICHLOROACETIC ACID	2452	76-03-9
TRICHLOROETHYLENE	2984	79-01-6
TRICHLOROFLUOROMETHANE	2218	75-69-4
TTHM	2950	
TURBIDITY	0100	
UNKNOWN ANALYTE CODE1	2307	
UV ABSORBANCE @254 NM	2922	
VINYL CHLORIDE	2976	75-01-4
XYLENE, META AND PARA	2963	
XYLENES, TOTAL	2955	1330-20-7
ZINC	1095	7440-66-6

Appendix B: Methods, Detection Limits, and Reporting Limits

B.1: Validation Check (MRL & DL)

There are validation checks in E2 that will compare sample result values of certain parameters with their respective regulatory minimum reporting levels (MRL) or their regulatory detection limits (RDL) that a lab must report down to. If the sample results for a parameter listed in the table below are reported with a less than sign ("<") and are higher than the values in the last column, they will have a flagged status under the View Lab Samples tab in E2. Samples with a flagged status must be corrected and resubmitted. As a result, any laboratory that receives a flagged status for a sample must submit an *E2 Sample Rejection Form* to have the sample rejected in E2 and deleted from SDWIS.

Parameter	Analyte Code	Laboratory must Report Down To:
Disinfection Byproducts		
Chlorite	1009	0.020 mg/L
Bromate	1011	0.0050 mg/L
Haloacetic Acids		
Monochloroacetic acid	2450	0.0020 mg/L
Dichloroacetic acid	2451	0.0010 mg/L
Trichloroacetic acid	2452	0.0010 mg/L
Bromoacetic acid	2453	0.0010 mg/L
Dibromoacetic acid	2454	0.0010 mg/L
Trihalomethanes		
Chloroform	2941	0.0010 mg/L
Bromoform	2942	0.0010 mg/L
Dichlorobromomethane	2943	0.0010 mg/L
Chlorodibromomethane	2944	0.0010 mg/L
Volatile Organic Compounds		
Benzene	2990	0.00054 mg/L

Parameter	Analyte Code	Laboratory must Report Down To:
Carbon Tetrachloride	2982	0.00054 mg/L
1,2-Dichlorobenzene	2968	0.00054 mg/L
1,3-Dichlorobenzene	2967	0.00054 mg/L
1,4-Dichlorobenzene	2969	0.00054 mg/L
1,1-Dichloroethane	2978	0.00054 mg/L
1,2-Dichloroethane	2980	0.00054 mg/L
1,1-Dichloroethene	2977	0.00054 mg/L
cis-1,2-Dichloroethene	2380	0.00054 mg/L
trans-1,2-Dichloroethene	2979	0.00054 mg/L
1,2-Dichloropropane	2983	0.00054 mg/L
Ethylbenzene	2992	0.00054 mg/L
Methyl tertiary Butyl Ether	2251	0.00054 mg/L
Methylene Chloride	2964	0.00054 mg/L
Monochlorobenzene	2989	0.00054 mg/L
Naphthalene	2248	0.00054 mg/L
Styrene	2996	0.00054 mg/L
1,1,2,2-Tetrachloroethane	2988	0.00054 mg/L
Tetrachloroethene	2987	0.00054 mg/L
Toluene	2991	0.00054 mg/L
1,2,4-Trichlorobenzene	2378	0.00054 mg/L
1,1,1-Trichloroethane	2981	0.00054 mg/L
1,1,2-Trichloroethane	2985	0.00054 mg/L
Trichloroethene	2984	0.00054 mg/L
Vinyl Chloride	2976	0.00054 mg/L
Xylenes [total]	2955	0.00054 mg/L
Lead and Copper		
Lead	1030	0.0054 mg/L

Parameter	Analyte Code	Laboratory must Report Down To:
Copper	1022	0.0504 mg/L
Radionuclides		
Gross alpha (excluding radon)	4002	3.4 pCi/L
Radium 226	4020	1.4 pCi/L
Radium 228	4030	1.4 pCi/L
Uranium	4006	1.4 µg/L or 0.0014 mg/L
Regulated Per-and Polyfluoroalkyl Substances (PFAS)		
Perfluorononanoic acid (PFNA)	2804	0.002 µg/L (or 2 ng/L)
Perfluorooctanoic acid (PFOA)	2806	0.002 µg/L (or 2 ng/L)
Perfluorooctane sulfonic acid (PFOS)	2805	0.002 µg/L (or 2 ng/L)
Synthetic Organic Compounds		
Alachlor	2051	0.00024 mg/L
Atrazine	2050	0.00014 mg/L
Benzo[a]pyrene	2306	0.000024 mg/L
Carbofuran	2046	0.00094 mg/L
Chlordane	2959	0.00024 mg/L
Dalapon	2031	0.0014 mg/L
Di[2-ethylhexyl]adipate	2035	0.00064 mg/L
Di[2-ethylhexyl]phthalate	2039	0.00064 mg/L
Dibromochloropropane	2931	0.00002 mg/L
Dinoseb	2041	0.00024 mg/L
Diquat	2032	0.00044 mg/L
Endothall	2033	0.0094 mg/L
Endrin	2005	0.000110 mg/L
Ethylene Dibromide	2946	0.00001 mg/L
Glyphosate	2034	0.0064 mg/L
Heptachlor	2065	0.000044 mg/L

Parameter	Analyte Code	Laboratory must Report Down To:
Heptachlor Epoxide	2067	0.000110 mg/L
Hexachlorobenzene	2274	0.00014 mg/L
Hexachlorocyclopentadiene	2042	0.00014 mg/L
Lindane (BHC-Gamma)	2010	0.000044 mg/L
Methoxychlor	2015	0.00014 mg/L
Oxamyl	2036	0.0024 mg/L
PCBs	2383	0.00014 mg/L
Pentachlorophenol	2326	0.000044 mg/L
Picloram	2040	0.00014 mg/L
Simazine	2037	0.000074 mg/L
Toxaphene	2020	0.0014 mg/L
Dioxin	2063	0.0000000054 mg/L
1,2,3 – Trichloropropane	2414	0.00001 mg/L
2,4-D	2105	0.000220 mg/L
2,4,5-TP	2110	0.00024 mg/L

B.2: Detection Limit by Method

The regulatory detection limits (DL) for primary inorganics are listed in 40 CFR 141.23. For each inorganic, the DL is dependent on the analytical technique. The table below is a reference for determination of the highest allowed DL that can be reported for a non-detected primary inorganic. Non-detects reported at values higher than those in the list may be flagged by E2 with the following message: "*FLAGGED SAMPLE RESULT: Non-microbial Sample Result has a Laboratory Reporting Level supplied that exceeds the analyte's SDW regulatory reporting limit. (SAMPLE RESULT).*"

Parameter (Analyte Code)	MCL (µg/L)	Method, *Technique*	Technique DL (µg/L)
Antimony (1070)	6	EPA 200.8, *ICP-MS*	0.4
		EPA 200.9, *AA-Platform*	0.8
		ASTM D 3697, *Hydride AA*	1
		SM 3113B, *AA-Furnace*	3
Arsenic (1005)	5	EPA 200.8, *ICP-MS*	1.5
		EPA 200.9, *AA-Platform*	0.5
		ASTM D 2972 B, *Hydride AA*	1
		ASTM D 2972 C, *AA-Furnace*	1
		SM 3113B, *AA-Furnace*	1
		SM 3114B, *Hydride AA*	1
Barium (1010)	2,000	EPA 200.7, *ICP*	2
		EPA 200.8, *ICP-MS*	2
		SM 3111D, *AA-Direct*	100
		SM 3113B, *AA-Furnace*	2
		SM 3120B, *ICP*	2
Beryllium (1075)	4	EPA 200.7, *ICP*	0.3
		EPA 200.8, *ICP-MS*	0.3
		EPA 200.9, *AA-Platform*	0.02

Parameter (Analyte Code)	MCL (µg/L)	Method, *Technique*	Technique DL (µg/L)
		ASTM D 3635 B, *AA-Furnace*	0.2
		SM 3113B, *AA-Furnace*	0.2
		SM 3120B, *ICP*	0.3
Cadmium (1015)	5	EPA 200.7, *ICP*	1
		EPA 200.8, *ICP-MS*	0.5
		EPA 200.9, *AA-Platform*	0.05
		SM 3113B, *AA-Furnace*	0.1
		SM 3120B, *ICP*	1
Chromium (1020)	5	EPA 200.7, *ICP*	7
		EPA 200.8, *ICP-MS*	0.9
		EPA 200.9, *AA-Platform*	0.1
		SM 3113B, *AA-Furnace*	1
		SM 3120B, *ICP*	7
Cyanide (1024)	200	EPA 335.4, *Spect, Distill Semi auto*	5
		ASTM D 2036 A, *Spect, Distill manual*	20
		ASTM D 2036 B, *Spect Distil Amenable*	20
		SM 4500 CN C E, *Spect Distil Manual*	20
		SM 4500 CN C F, *Distill Selective Electrode*	50
		SM 4500 CN C G, *Spect Distil Amendable*	20
Mercury (1035)	2	EPA 200.8, *ICP-MS*	0.2
		EPA 245.1, *Manual Cold Vapor*	0.2
		EPA 245.2, *Automated Cold Vapor*	0.2
		ASTM D 3223, *Manual Cold Vapor*	0.2

Parameter (Analyte Code)	MCL (µg/L)	Method, *Technique*	Technique DL (µg/L)
		SM 3112B, *Manual Cold Vapor*	0.2
Nickel (1036)	NA	EPA 200.7, *ICP*	5
		EPA 200.8, *ICP-MS*	0.5
		EPA 200.9, *AA-Platform*	0.6
		SM 3113B, *AA-Furnace*	1
Nitrate (1040)	10,000	NA	1000
Nitrite (1041)	1,000	NA	100
Selenium (1045)	50	EPA 200.8, *ICP-MS*	8
		EPA 200.9, *AA-Platform*	2
		ASTM D 3859 A, *Hydride AA*	2
		ASTM D 3859 B, *AA-Furnace*	2
		SM 3113B, *AA-Furnace*	2
		SM 3114B, *Hydride AA*	2
Thallium (1085)	2	EPA 200.8, *ICP-MS*	0.3
		EPA 200.9, *AA-Platform*	0.7
		SM 3113B, *AA-Furnace*	1

B.3: Gross Alpha Detection Limit Calculation & Notes

1. The federal regulations at 40 CFR 141.25(c) state that: *"For the purpose of monitoring radioactivity concentrations in drinking water, the required sensitivity of the radioanalysis is defined in terms of a Detection Limit (DL). The detection limit shall be that concentration which can be counted with a precision of plus or minus 100 percent at the 95 percent confidence level (1.96σ where σ is the standard deviation of the net counting rate of the sample)."* The formula used to determine the DL is as follows:

This definition of the detection limit (DL) in the current version of 40 CFR 141.26 translates into the following equation:

$$DL = \frac{\frac{1.96^2}{2t_s} \times \left[1 + \sqrt{1 + \frac{4t_s^2}{1.96^2} \times R_B \times \left(\frac{1}{t_s} + \frac{1}{t_B}\right)}\right]}{2.22 \times V \times \varepsilon}$$

Where:

t_s	=	time of the measurement used to accumulate the sample count, minutes
t_B	=	time of the measurement used to accumulate the background count, minutes
R_B	=	mean background count rate, cpm
V	=	sample volume used, L
ε	=	efficiency and the self absorption correction

2. The calculated DL must be entered in the "Detection Limit" field of the Generic Chemistry template for each gross alpha result submitted to E2.
3. For calculated DLs that are greater than 3 pCi/L, the dissolved solids (in units of mg/L) will be required. The dissolved solids value is to be entered in the "Result Comments" field.
4. If the DL exceeds 3 pCi/L and the dissolved solids are reported, the system may be allowed to use an EPA approved co-precipitation method to analyze the sample. The water system (or laboratory on behalf of the water system) may contact BSDW (watersupply@dep.nj.gov) to obtain this permission. If, based on prior analyses, a laboratory knows that a water system's drinking water typically contains a high amount of dissolved solids, they may contact BSDW to request analysis using a co-precipitation method prior to running the sample using ECLS-R-GA Rev 8. **This allowance is granted on a case-by-case basis**.
5. The "Sample Collection Date & Time," "Analysis Start Date & Time," and "Analysis Completion Date & Time" fields are mandatory for gross alpha samples. The start time is the time at which the sample counting is initiated. If the sample requires a second count, the date and start time of the second count is to be entered. If a second count is required, enter "second ct" in the "Result Comments" field. The table below summarizes this information:

Additional Information Needed	Generic Chemistry Field	How to submit
Calculated Detection Limit	Detection Limit	Enter value in pCi/L
Dissolved solids (if DL is greater than 3 pCi/L)	Result Comments	Enter value in mg/L
Indicate if second count was necessary	Result Comments	Enter "second ct"

6. If data for gross alpha is submitted without the above information, BSDW may request the laboratory reports and raw data for the sample submitted.
7. For the determination of compliance for gross alpha, radium-226, radium-228, and uranium, the detection limit must not exceed the concentrations in the table:

Parameter	Detection Limit
Gross alpha particle activity	3 pCi/L
Radium 226	1 pCi/L
Radium 228	1 pCi/L
Uranium	1 µg/L

B.4: Per-and Polyfluoroalkyl Substances (PFAS) Reporting Notes

Parameter	**Reporting for:**	**If result is….**	**Enter in "Result" Field**	**Enter in "Result Comment" Field***	***Example for "Result Comments" Field***
PFNA, PFOA, or PFOS	**laboratory with DL < 2 ng/L**	A non-detect based on the laboratory's DL	<2 ng/L	"<" and the laboratory's DL (optional)	*< 1.5 ng/L*
		A detection that is between the laboratory's DL and 2 ng/L	< 2 ng/L	the detected value and "K" (optional)	*1.6 ng/L K*
		A quantifiable concentration between the laboratory's DL and 2 ng/L	<2 ng/L	the PFNA, PFOA, or PFOS concentration (optional)	*1.7 ng/L*
PFNA, PFOA, or PFOS	**laboratory with an MRL of < 2 ng/L**	A detection between the laboratory DL and the MRL	<2 ng/L	the detected value and "J" (optional)	*1.4 ng/L J*
		A result between the MRL and 2 ng/L	<2 ng/L	the concentration (optional)	*1.5 ng/L*

If the PFNA, PFOA, or PFOS result is equal to or greater than the analyte's regulatory MRL (or a lower MRL being used by a laboratory), the field reagent blank (FRB) must be analyzed. If the FRB has a detection of PFNA, PFOA, or PFOS above the regulatory detection limit (≥2 ng/), the laboratory must contact BSDW (watersupply@dep.nj.gov). The table below summarizes this information:

Parameter	Reporting for:	If result is….	Enter in "Result" Field	Enter in Result Comment Field*	*Example for Result Comments Field*	Enter in Sample Comment Field*
PFNA, PFOA, or PFOS	**laboratory using MRL ≤ the analyte specific regulatory MRL**	A PFNA, PFOA, or PFOS concentration greater than the MRL, with analyte detected in corresponding FRB	PFNA, PFOA, or PFOS concentration	This PFAS detected in FRB (required)		
		A PFNA, PFOA, or PFOS concentration greater than the MRL but where FRB was not analyzed	PFNA, PFOA, or PFOS concentration			"FRB not analyzed" (required)
		A PFNA, PFOA, or PFOS concentration greater than the MRL but FRB was not provided	PFNA, PFOA, or PFOS concentration			"FRB not provided" (required)
PFAS other than PFNA, PFOA, or PFOS	**laboratory analyzing and reporting for additional PFAS using laboratory MRLs**	A PFAS concentration greater than the MRL for that PFAS, where that PFAS is also detected in the corresponding FRB	PFAS concentration	This PFAS detected in FRB (required)		
		A PFAS result greater than the MRL for that PFAS, but the FRB was not analyzed	PFAS concentration			"FRB not analyzed" (required)
		A PFAS result greater than the MRL, but the FRB was not provided with the POE samples	PFAS concentration			"FRB not provided" (required)

As of July 2024, Method 537 is no longer certified by the DEP's Office of Quality Assurance (OQA), and is therefore not an approved method for testing.

On April 10, 2024, EPA announced its final National Primary Drinking Water Regulation (NPDWR) standards for six PFAS, which includes federal regulations for PFNA, PFOA, PFOS, PFBS, PFHxS, and HFPO-DA. States are required under the Federal Safe Drinking Water Act to adopt standards no less stringent than those established in the NPDWR. **In the interim, New Jersey water systems must continue to comply with New Jersey's Safe Drinking Water Act regulations and the MCLs set forth at N.J.A.C. 7:10**.