**TECHNICAL MEMO**

# Ambient Water Quality Monitoring of Rivers and Streams in the Pomperaug River Watershed Southbury, Woodbury, Bethlehem, CT

**Water Samples Collected by**
**Pomperaug River Watershed Coalition**
**June to October 2021 and April to May 2022**

*Memo Prepared by Carol Haskins, PRWC Executive Director*

---

## INTRODUCTION

Ambient water quality monitoring (AWQM) has performed by the Pomperaug River Watershed Coalition (PRWC) to further assess and bracket potential sources of bacteria pollution associated with recreational impairments of the Weekeepeemee River, Pomperaug River, and Transylvania Brook since 2019. Based on pollutant load modeling conducted in support of developing a Watershed Based Plan (2018), it seemed likely that the Nonnewaug River may also have high levels of bacteria and may not fully support recreational uses. This river had not been previously monitored for bacteria and recreational use support. Therefore, it was also included in the ambient water quality monitoring program along with one of its primary tributaries – East Spring Brook.

AWQM data serve as a screening-level tool for tracking down potential pollutant sources in a watershed and identifying possible locations where restoration opportunities and mitigation measures could be implemented. This Technical Memo presents mapped and tabulated results for each round of monitoring data collected between June and October 2021 and between April and May 2022. These data were collected within the scope of the Pomperaug River Watershed Plan Implementation Groundwork Project funded in part by the Connecticut Department of Energy and Environmental Protection through a United States Environmental Protection Agency Clean Water Act Section 319 Nonpoint Source Grant. Data collection was subject to data quality provisions detailed in a Quality Assurance Project Plan (QAPP). These data are further summarized and presented in a manner that allows for a comparison of the findings during wet weather monitoring events to dry weather monitoring events to all events, and a discussion of the findings in relation to compliance with Connecticut's Water Quality Standards for recreation. Although not collected in strict adherence of the QAPP, ambient water quality monitoring data collected by PRWC in 2019, 2020, and the latter portion of 2022 were considered as secondary data in support the overall evaluation of current water quality conditions in the Pomperaug Watershed. As other data for these time frames do not exist, they were deemed meaningful in this analysis and were considered reliable as their collection protocols are well documented and generally follow the framework of the approved QAPP.

## METHODS

Stream segments in the Pomperaug Watershed listed as impaired were designated on the basis of spatially and temporally limited datasets (**Table 1/Figure 1**) and cannot be removed from the impaired waters list without supporting data. Thus, establishing a network of fixed ambient water quality monitoring stations was a key recommendation in the Pomperaug Watershed Based Plan. Pomperaug River Watershed Coalition followed suit and established a network of 15 fixed ambient stream monitoring stations throughout the watershed where stream water samples and field measurements were collected in effort to get a broader sense of stream health and potential pollutant sources contributing to the stream segments currently listed as impaired or speculated to be impaired (**Figure 1 / Table 2**). PRWC first developed protocols for its ambient water quality monitoring program in 2019 and began collecting bacteria and nitrate data. Development of a Quality Assurance Project Plan (QAPP) with approval by Connecticut Department of Energy and Environmental Protection (CT DEEP) and United State Environmental Protection Agency (USEPA) was required under the provisions of the 319 Grant for the Pomperaug River Watershed Plan Implementation Project. Accordingly, PRWC

refined its existing ambient water quality monitoring (AWQM protocols as they were integrated into the QAPP to ensure data quality (accuracy, precision, completeness, comparability, representativeness, bias) and that data was collected following standardized methods.

**Table 1.** Summary data by sample site for ambient water quality monitoring conducted by CT DEEP in 2010 and earlier which served as the basis for designating recreation use impairments for two segments of the Pomperaug River and the full length of the Weekeepeemee River (Source: CT Statewide TMDL for Bacteria). Geometric mean values shown in **red bold** exceed 126 CFU/100mL - the water quality limit for bacteria for safe recreational use. Highest single sample results shown in **blue bold** exceed 410 CFU/100mL water quality limits for bacteria for safe recreational use.

| Station Name | Station Location | Stream | Years Sampled | Number of Samples | | | Geometric Mean | | | Highest Single Sample Result | % Reduction (GeoMean) | % Reduction Single Sample |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Wet | Dry | All | Wet | Dry | All | | | |
| 1313 | **Off Flagg Swamp Road** *(Map in TMDL report shows this site at Audubon Bent of the River center on East Flatt Hill Road)* | Pompearug | 2010 | 4 | 6 | 10 | **359** | **838** | **204** | **4100** | 38 | 90 |
| 934 | **Upstream of Poverty Road crossing** *(same location as Station P-S-15025)* | Pomperaug | 2006-2009 | 18 | 24 | 42 | **291** | **476** | **201** | **5200** | 37 | 92 |
| 6122 | **Route 47 bridge across from Ruffin Road** *(Map in TMDL shows as Hotchkissville Bridge between W-W- 15530 Jack's Bridge Road and W-W-16022 Brushy Hill Road )* | Weekeepeemee | 2010 | 3 | 8 | 11 | **241** | **1175** | **133** | **24001** | 5 | 98 |

Full data collection methods are detailed in the QAPP that was initially approved by CT DEEP and US EPA in May 2021; modifications were approved in March 2022 (**Appendix A**). In a quick synopsis, monitoring included collecting ambient stream water samples that were analyzed by a Connecticut state-certified testing laboratory for *Escherichia coli* (*E. coli*) bacteria following Standard Method SM 9223B-2004 "Bio-P/A & QT by 18h Colilert" and EPA Method 353.2 "Nitrate & Nitrite by FIA" or EPA Method 300.0 Rev 2.1 "Inorganic Anions by IC." Field measurements for conductivity and temperature and observations pertaining to water color, odor, flow, designated uses, and sampling conditions (wet/dry weather) were also recorded when a stream water sample was collected. Field observations were recorded on Field Data Sheets and handling of samples was tracked using a Chain of Custody Form. Field observations were also recorded using the EpiCollect5 App (https://five.epicollect.net) installed on a tablet or smart phone and results reported by the laboratory were entered into the EpiCollect5 App upon receipt by PRWC.

Ambient water quality monitoring occurred twice a month for the months between June and October 2021 and April and May 2022. The original goal was to collect samples between April and October over the course of a single season, but was not possible due timing of the Quality Assurance Project Plan approvals. This necessitated spreading the monitoring events into two field seasons. Over the winter of 2021-2022, the original laboratory selected to conduct the analysis of the water samples changed ownership and re-organized which of their facilities would be sample drop-off points and which were to be actual laboratory analysis sites. As these details were different than what was initially included in the approved QAPP, a modified QAPP was submitted to reflect the change in the seasonal timeframe for monitoring as well as a change in the ownership and location of the laboratory where the *E. coli* and nitrate samples would be analyzed in 2022.

The fixed monitoring stations (**Table 2**) were divided into two sampling routes – northern and southern. The northern route consisted of sites located on the Weekeepeemee and Nonnewaug Rivers and associated tributaries in Woodbury and Bethlehem. The southern route consisted of sites on the Pomperaug River, Transylvania Brook, and associated tributaries in Southbury and southern portions of Woodbury.

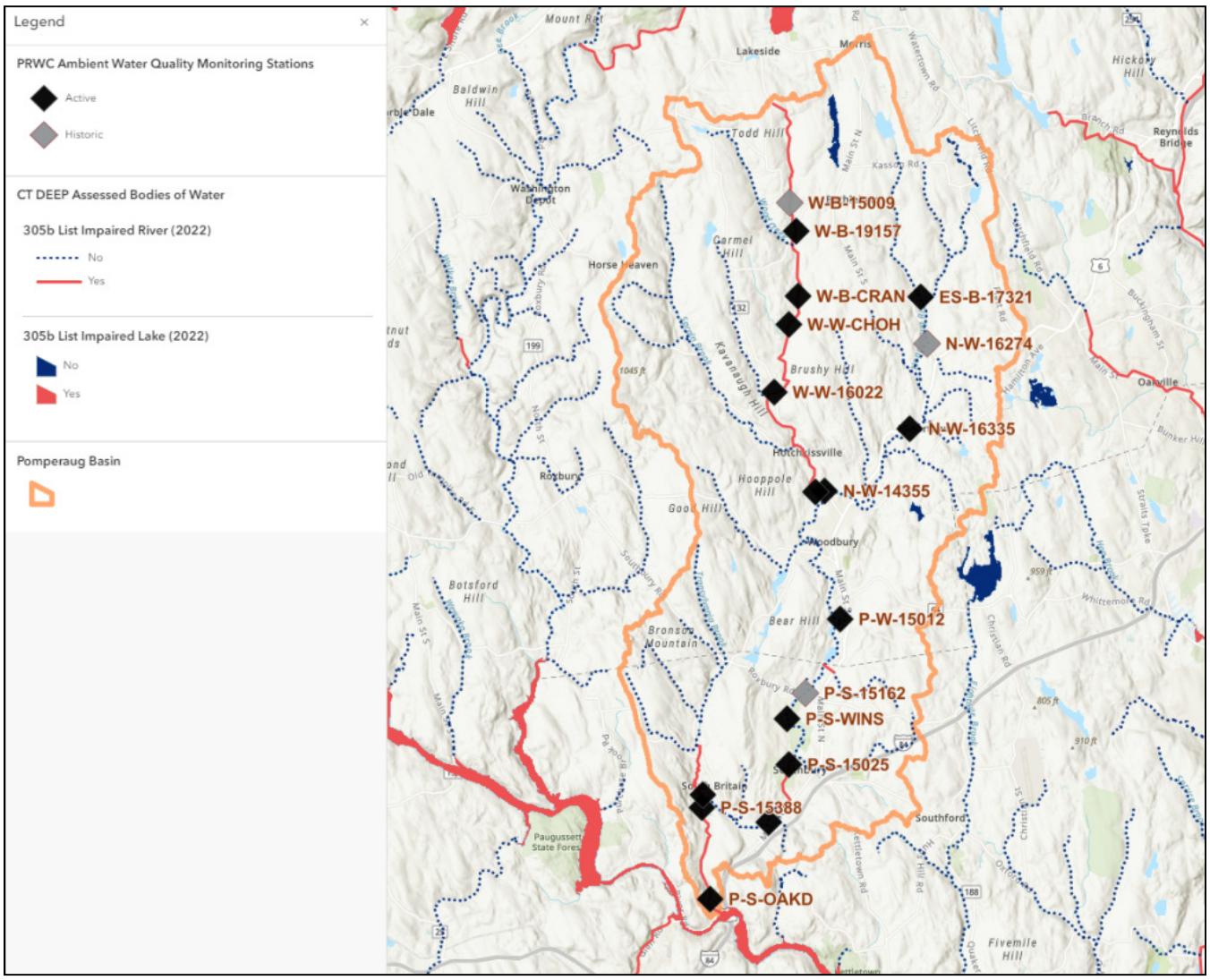


**Figure 1.** PRWC's active Ambient Water Qualiy Monitoring Stations for the 2021 and 2022 field seasons are shown in black. PRWC also collected ambient water quality monitoring samples from stations shaded in gray during the 2019 and 2020 field seasons.

**Table 2.** PRWC's Ambient Water Quality Monitoring Stations List.

| SITE ID *(last 5 digits = DEEP AWQ ID)* | RIVER NAME | SITE DESCRIPTION | DRIVING ADDRESS | TOWN |
|---|---|---|---|---|
| P-S-OAKD | Pomperaug R | Oakdale Manor | 190 Oakdale Manor Dr | Southbury |
| P-S-15388 | Pomperaug R | Audubon at Bent of the River | 185 East Flat Hill Rd | Southbury |
| T-S-14474 | Transylvania Bk | Seman Park | 200 East Flat Hill Road | Southbury |
| P-S-18395 | Pomperaug R | Flood Bridge Rd | 254 Flood Bridge Rd | Southbury |
| P-S-15025 | Pomperaug R | Poverty Rd @ Ewald Park / USGS Gauge | 234 Poverty Rd | Southbury |
| P-S-WINS* | Pomperaug R | River Gardens @ Heritage Village | 447 Winship Dr | Southbury |
| P-W-15012 (P-W-SPAVE) | Pomperaug R | Middle Quarter / South Pomperaug Ave | CAST Preschool 124 S Pomperaug Ave | Woodbury |
| N-W-14355 | Nonnewaug R | Route 47 Bridge @ Young's Nursery | 130 Washington Rd | Woodbury |
| W-W-15530 | Weekeepeemee R | Jacks Bridge Rd - USGS Gauge | Three Rivers Field on Jack's Bridge Rd | Woodbury |
| W-W-16022 | Weekeepeemee R | Brushy Hill Rd @ Route 132 | 316 Weekeepeemee Road | Woodbury |
| W-W-CHOH | Weekeepeemee R | Chohees Trail @ Weekeepeemee Road | 170 Chohees Trail | Woodbury |
| W-B-CRAN | Weekeepeemee R | Crane Hollow Road @ Weekeepeemee Road | 138 Crane Hollow Road | Bethlehem |
| W-B-19157 | Weekeepeemee R | Mill Pond Road @ Route 132 (Guilds Hollow Road) | 19 Mill Pond Road | Bethlehem |
| ES-B-17321* | East Spring Bk | Nonnewaug Road @ Porter Hill Road | 98 Porter Hill Road | Bethlehem |
| N-W-16335 | Nonnewaug R | Mill Rd - USGS Gage | 294 Minortown Rd | Woodbury |
| W-W-15009^ | Weekeepeemee R | Woodcreek Rd | 96 Woodcreek Rd | Bethlehem |
| N-W-16274^ | Nonnewaug R | Route 61 Bridge | 53 Bethlehem Rd | Woodbury |
| P-S-15262^ | Pomperaug R | Bennett Park / Route 67 Bridge | 166 Roxbury Rd | Southbury |

* *Monitoring by PRWC began in 2021.*

^ *Sites were monitored by PRWC in 2019 and 2020 only.*

*All other sites were monitored by PRWC between 2019 and 2022.*

To the extent practicable, samples were collected by the Ambient Water Quality Monitoring Team ("Field Team") on the first and third Tuesday and/or Wednesday of each month. In 2021, bacteria samples were analyzed within 6 hours of collection time by Hydro Technologies located at 62 Bank St in New Milford, Connecticut following SM 9223B and nitrate samples were analyzed within the 48 hours of collected time following EPA Method 353.2. For April and May 2022, bacteria samples were analyzed within 6 hours of collection time by EnviroTest Laboratory located at 315 Fullerton Avenue in Newburgh, New York following SM 9223B and nitrate samples were analyzed within the 48 hours of collected time following EPA Method 300.0. The analysis method for the nitrate samples differs than the one listed on page 30 (Section 2.4) of the Modified QAPP dated March 2, 2022. This was an oversight; PRWC understood they were using the same methods even though EnviroTest had provided a copy of their testing procedures that was inclused in Appendix D of the QAPP. The methods detailed were EPA Method 300.0 for testing Inorganics Anions using Ion Chromatography (IC). EnviroTest bought out Hydro Technologies and the merged labs were subsequently bought out by Pace Analytical Services whose corporate headquarters are located at 1800 Elm Street Southeast in Minneapolis, Minnesota. After the pre-determined number of samples to be collected within the scope of the Pomperaug Watershed Implementation Groundwork Project were collected (twice monthly monitoring June to Oct 2021 and April to May 2022 – up to 14 sampling events), PRWC continued to

collect samples once a month for the remainder of the 2022 field season (June to October). These monthly samples were analyzed within 6 hours of collection time at York Laboratories *dba AquaEnvironmental* located at 35 Church Hill Road, Newtown, Connecticut. York follows the same Standard Method SM 9223B-2004 "Bio-P/A & QT by 18h Colilert" for analysis of *E. coli* and EPA Method 300.0 "Inorganic Anions by IC" analyzing nitrate. PRWC continued to follow field protocols within the approved QAPP and paid for the analysis with funds supplemental to the 319 grant. PRWC changed labs for reasons that included data quality concerns encountered during the ownership transitions between HydroTechnologies, EnvironTest Labs, and Pace Analytical and wanting to use a lab in closer proximity to PRWC's office to allow for more of a cushion in meeting the 6-hour hold time requirement between collection and analysis. Though analysis of water samples by York Laboratory was not part of the approved QAPP, data from June to October 2022 were deemed reliable secondary data to include in this report.

To determine if samples were collected with antecedent wet weather or dry weather conditions, rainfall amounts within the previous 24, 48, 72, and 96-hour period before sampling were recorded. Rainfall data was obtained from the rain gage associated with the USGS Streamflow Gage located on the Weekeepeemee River at Jacks Bridge Road in Woodbury CT. For each monitoring event, these data were recorded and a wet or dry weather designation was made. Wet weather conditions were defined as greater than 0.1" precipitation in 24 hours *or* greater than 0.25" precipitation in 48 hours *or* greater than 2.0" precipitation in 96 hours. All other conditions were designated as dry weather. The original approved QAPP included an alternate definition for wet and dry sampling that was not entirely binary; this was addressed in the QAPP modification so that conditions could only be considered wet or dry. Anything that was designated as other than wet or dry prior to 2021 was re-assigned based the revised definition for wet or dry conditions in the final data assemblage.

To eliminate bias and to ensure completeness, accuracy, comparability and other data quality objectives, duplicates and blanks were collected during each round of monitoring. Effort was made to collect a duplicate sample for each site and to assign the blank to each site as some point over the course of the project. **Table 3** details the water sampling dates and corresponding site assignments for duplicates and blanks. This table also captures the wet dry designation that was made based on the precipitation data included in **Table 5.**

**Table 3.** Assignment of sites for duplicate and blank samples by sample date.

| Wet / Dry | Sample Round / Sample Date | Northern Route DUPLICATE SITE | Southern Route DUPLICATE SITE | BLANK SITE |
|---|---|---|---|---|
| Wet | Round 1<br>6/9/2021 | W-W-16022 | T-S-14474 | P-S-WINS |
| Dry | Round 2<br>6/22/2021 | W-B-19157 | P-S-WINS | P-W-15012 |
| Wet | Round 3<br>7/7/2021 | W-W-CHOH | P-S-15025 | P-S-OAKD |
| Dry | Round 4<br>7/20/2021 | ES-B-17321 | P-S-15388 | N-W-14355 |
| Dry | Round 5<br>8/3/2021 | N-W-14355 | T-S-14474 | P-S-15388 |
| Dry | Round 6<br>8/17/2021 | N-W-16335 | P-S-OAKD | W-W-15530 |
| Dry | Round 7<br>9/14/2021 | W-B-CRAN | P-W-15012 | T-S-14474 |
| Dry | Round 8<br>9/21/2021 | W-B-15530 | P-S-18395 | W-W-16022 |
| Wet | Round 9<br>10/5/2021 | W-B-19157 | P-S-WINS | P-S-18395 |
| Dry | Round 10<br>10/20/2021 | ES-B-17321 | P-S-15025 | W-W-CHOH |
| Wet | Round 11<br>4/6/2022 | W-W-15530<br>(bacteria & nitrate) | P-S-18395<br>(bacteria & nitrate) | P-S-15025<br>(bacteria & nitrate)<br>**Blanks were not submitted to the lab* |
| Wet | Round 12<br>4/20/2022 | W-W-CHOH<br>(bacteria & nitrate) | P-S-OAKD<br>(bacteria & nitrate) | W-B-CRAN<br>(bacteria & nitrate) |
| Wet | Round 13<br>5/4/2022 | W-W-16022<br>(bacteria) | P-S-15388<br>(bacteria & nitrate) | N-W-14355<br>(bacteria & nitrate)<br>*no regular sample* |
| Dry | Round 14<br>5/26/2022 | W-B-CRAN<br>(bacteria & nitrate) | P-W-15012<br>(bacteria & nitrate) | W-B-19157<br>(bacteria & nitrate)<br>*no regular sample* |
| Dry | Round 15<br>6/15/2022 | ES-B-17321<br>(bacteria & nitrate) | P-S-18395<br>(bacteria) | P-S-WINS (old jug)^<br>N-W-14355 (new jug)^<br>(bacteria & nitrate) |
| Wet | Round 16<br>7/20/2022 | N-W-16355<br>(bacteria) | P-S-15025<br>(bacteria & nitrate) | W-W-16022<br>(bacteria & nitrate) |
| Dry | Round 17<br>8/17/2022 | N-W-14355<br>(bacteria & nitrate) | T-S-14474<br>(bacteria & nitrate) | P-W-15012<br>(bacteria) |
| Wet | Round 18<br>9/21/2022 | W-W-CHOH<br>(bacteria & nitrate) | P-S-OAKD<br>(bacteria & nitrate) | W-W-15530<br>(bacteria & nitrate) |
| Dry | Round 19<br>10/20/2022 | N-W-16335<br>(bacteria & nitrate) | P-S-WINS<br>(bacteria) | P-S-OAKD<br>(bacteria & nitrate) |

^ *Control samples (blanks) submitted to the lab in April and May returned with measurable bacteria and nitrate. As an additional quality control measure, PRWC retested a sample from the "old jug" of distilled water at an alternate lab and submitted a second blank prepared with distilled water from a "new jug" as well.*

Ambient Water Quality Monitoring data were subject to review by PRWC's Project Manager / Quality Assurance Manager to confirm that results were in compliance of the data quality objectives (precision, accuracy, representativeness, completeness, sensitivity, comparability, and bias) that were outlined in the Quality Assurance Project Plan. Evaluation of laboratory results for trip blanks consisting of distilled water was an important piece of determining data quality. For each round of sampling, distilled water was used to prepare trip blanks. Blanks were labeled as regular samples for analysis by the water testing laboratory. This created a "blind analysis" of a sample with a known concentration of bacteria and nitrate (zero in both cases) to ensure samples were not being contaminated in the field or in the lab. If results returned with detectable levels of bacteria or nitrate, results for the corresponding round of monitoring were subject to further quality assurance checks detailed in the QAPP. This included requesting copies of bench sheets from the laboratory for the corresponding dates of analysis and reviewing the results for laboratory blanks and standard samples used for their internal calibration and data quality control processes. If quality assurances were still not met, results for the round were deemed unacceptable.

Once ambient water quality data and quality assurance data for each sampling round were reviewed and accepted or rejected based on accuracy, data were assembled and evaluated against the completeness and representativeness data quality objectives established for the project. Completeness objectives assured that the samples were inclusive of the established sampling period between months of April and October following a twice monthly sampling schedule; that at least 10 samples events yielded acceptable data based on the inclusion of duplicate samples and field blanks and that samples were analyzed following prescribed methods. Representativeness objectives included ensuring that a minimum number of both wet and dry weather conditions were included in the monitoring, and that monitoring stations were spatially distributed throughout the watershed and along the streams of interest. It also included details to ensure that samples and readings were collected from the center of the stream channel at mid-depth where the water is continually moving and mixing and not influenced by still water in the shallows or discharge from stormwater outfalls. Tabulated and mapped data are presented by sample date and by sample in the Results section of this Technical Memo.

Data adhering to the data quality objectives were subject to further analysis and comparison to Connecticut's Water Quality Standards for safe recreation (**Standard 1**). Analysis included calculating geometric means (**Equation 1**) from the acceptable results for each site and comparing them to the Water Quality Standards for safe recreation as well as flagging single event results that exceeded the Water Quality Standards. For sites that had bacteria levels in exceedance of the water quality standards, percent reductions (**Equation 2**) were calculated to determine how much the bacteria level needed to be lowered to support safe recreation at non-designated swimming areas. To understand when rivers may be unsafe for recreation, PRWC calculated geometric means for wet conditions, dry conditions, and all conditions. The results of these analyses are presented in tabulated and mapped formats in the Results section of this Technical Memo and are explained further in the Discussion section.

**Standard 1. Connecticut Water Quality Standard for Safe Recreation**

§22a-426-1 Regulations of Connecticut State Agencies include Water Quality Standards for the State of Connecticut. "The purpose of the Connecticut Water Quality Standards in addition to the statutory purposes is to: (1) provide clear and objective statements for existing and projected water quality and the general program to improve Connecticut's water resources; (2) provide water quality for the protection and propagation of fish, shellfish, and wildlife and for recreation in and on the water taking into consideration their use and value for public water supplies, propagation of fish, shellfish and wildlife, recreation in and on the water and agricultural, industrial and other purposes including navigation, wherever attainable; [*…(3), (4), (5), etc]*." Within the regulations, "recreational use means active or passive water-related leisure activities such as fishing, swimming, boating, and aesthetic appreciation." *Escherichia coli* is the indicator bacteria used in determining compliance with designated uses of various water resource. Single event (instantaneous) exceedance of 410 CFU/100mL or geometric mean exceedance of 126 CFU/100mL are noted as the water quality limits for bacteria for safe recreational use for non-designated swimming areas (areas that are not publicly designated bathing areas) along Class AA to Class B waters (**Table 4**). CFU stands for colony forming units which are counted as the most probable number (MPN) during laboratory analysis for indicator bacteria.

**Table 4.** Indicator Bacteria for Freshwater are used to detect the presence of contamination by human or animal wastes. This table provides the criteria for indicator bacteria for different designated uses of the water supply based on its classification as detailed in Connecticut's Water Quality Standards in §22a-426-1 Regulations of Connecticut State Agencies (CT DEEP). Due to the inherent uncertainty involved in sampling and analytically determining bacteria levels, exceedances of water quality criteria for indicator bacteria does not always indicate a water quality problem and therefore should be investigated by means of a sanitary survey or other appropriate means to determine sources of elevated bacteria levels.

| Designated Use | Indicator | Criteria by Classification | | | | |
|---|---|---|---|---|---|---|
| | | AA | A | B | SA | SB |
| **Drinking Water Supply** [1] | Total Coliform | Monthly moving average less than 100/100mL | | | | |
| | | Single sample maximum 500/100mL | | | | |
| **Recreation** [2] [3] **– Designated Swimming** [4] | Escherichia coli | Geometric mean less than 126/100mL | | | | |
| | | Single sample maximum 235/100mL | | | | |
| **Recreation** [2] [3] **– Non Designated Swimming** [5] | Escherichia coli | Geometric mean less than 126/100mL | | | | |
| | | Single sample maximum 410/100mL | | | | |
| **Recreation** [2] [3] **– All Other Uses** | Escherichia coli | Geometric mean less than 126/100mL | | | | |
| | | Single sample maximum 576/100mL | | | | |

(1) Criteria applies only at the drinking water supply intake structure.

(2) Criteria for the protection of recreational uses in Class B waters do not apply when disinfection of sewage treatment plant effluents is not required consistent with section 22a426-4(a)(9)(E) of the Regulations of Connecticut State Agencies.

(3) See section 22a-426-9(a)(2) of the Regulations of Connecticut State Agencies

(4) Procedures for monitoring and closure of bathing areas by state and local health authorities are specified in: Guidelines for Monitoring Bathing Waters and Closure Protocol adopted jointly by the Department of Environmental Protection and the Department of Public
Health, May 1989, revised April 2003 and updated December 2008.

(5) Includes areas otherwise suitable for swimming but which have not been designated by state or local authorities as bathing areas, waters which support tubing, water skiing, or other recreational activities where full body contact is likely.

(6) Criteria are based on utilizing the mTec method as specified in the U.S. Food and Drug Administration National Shellfish Sanitation Program-Model Ordinance (NSSP-MO) document Guide for the Control of Molluscan Shellfish 2007.

**Equation 1. Method for Calculating Geometric Mean**

In mathematics, the geometric mean is a mean or average which indicates a central tendency of a finite set of real numbers by using the product of their values. You get geometric mean by multiplying numbers together and then finding the $n^{th}$ root of the numbers such that the $n^{th}$ root is equal to the amount of numbers you multiplied.

Geometric Mean = $\sqrt[n]{x_1 x_2 \ldots x_n}$

**Equation 2. Method for Calculating Percent Reduction**

As an example, the highest geometric mean from "Stream Brook", a Class A segment impaired for E. coli, was 200 colonies/100 mL. The geometric mean Water Quality Standard (WQS) is 126 colonies/100 mL. The percent reduction needed to meet the geometric mean criteria is calculated as follows:

Percent reduction = [(200 – 126)/200] x 100 = 37% reduction

The highest single sample value for "Stream Brook" was 3000 colonies/100 mL. The single sample WQS is 410 colonies/100 mL. The percent reduction needed to meet the single sample criteria is calculated as follows:

Percent reduction = [(3000 – 410)/3000] x 100 = 86% reduction

The maps included as figures in this Technical Memo were generated in ESRI's ArcGIS Online tools. After each round of monitoring results were provided by the water testing lab and reviewed for quality assurance, they were entered into the EpiCollect5 App (https://five.epicollect.net). From there, data was exported into a .CSV file and imported into ArcGIS Online and added to an interactive map that displays results for each monitoring event using color codes to indicate if bacteria levels supported safe recreation or not. The interactive map with narrative to support the interpretation of water quality monitoring results was made available for public viewing through PRWC's website at www.pomperaug.org. The availability of the mapping tool and associated datasets was promoted throughout the community using various social media channels.

## RESULTS

Ambient water quality monitoring data collected during 2021 and 2022 at fixed monitoring stations on the Weekeepeemee River, Pomperaug River, Transylvania Brook, Nonnewaug River, and East Spring Brook are presented in this section. **Table 5** presents a summary of precipitation recorded prior to each sampling event, which was used to determine if samples were collected in wet or dry weather conditions. Review of this table confirms that samples between June and October 2021 and April and May 2022 were collected twice monthly and that the study included a minimum of 3 wet weather and 3 dry weather events.

Laboratory results for field blanks that were submitted during each round of sampling are omitted in the tables presenting the results by date (**Tables 7 to 25**). Instead, results for blanks are presented in a separate table that was used as part of the data quality assurance checks to determine if results for each sample round should be accepted (**Table 6**). Review of this table confirmed that results for April 6, April 20, May 4, and May 26, 2022 should not be accepted. On April 6, the field blanks were not delivered to the testing lab, thus the accuracy of the bacteria and nitrate results could not be confirmed. Results for the field blanks submitted on April 20, May 4, and May 26 yield measurable levels of both bacteria and nitrate. Accordingly, PRWC requested copies of bench sheets from the testing lab to further review the accuracy of the results for these dates. The bench sheets provided did not provide sufficient information to confirm the accuracy of the data (**Appendix D**) and therefore data for these dates were not accepted. Although these data were rejected and omitted from the statistical analysis, they have been included in the tables and figures that follow simply for a point of reference as other data for these months are not available and are consistently annotated to indicate the accuracy is questionable. Again, data for April and May 2022 were not included in the calculations of geometric means or used in the overall evaluation of metrics in comparison to water quality standards for recreational use.

Review of data presented in **Table 5** and **Table 6** confirm that a total of 14 sampling events occurred between June to October 2021 and April to May 2022. The collection of samples for 10 events considered acceptable for data quality purposes, though data from 12 events were desired. Despite the rejection of data for the April and May 2022 sampling events, there were acceptable results from the 10 sampling events in 2021. These 10 events provided the minimum number of wet and dry weather samples to support the completeness and representativeness objectives of this study. As shown in **Table 2**, a total of 15 fixed monitoring stations were included in the study. Review of data included in **Tables 7 to 25** demonstrates that at least 13 of the stations were sampled during reach round of monitoring between June to October 2021 and April to May 2022. **Table 3** and **Table 6** along with the results presented in **Tables 7 to 25** confirm that duplicate sets were collected at 2 stations per sampling event and that 1 set of field blanks were collected for analysis. Aside from unusable data for the months of April and May, all remaining data quality objectives were met as detailed in the QAPP.

Mapped and tabulated ambient water quality monitoring results conducted in 2021 and 2022 are presented by sample date in **Figures 2 to 19** and **Tables 7 to 25**. Not all data fields are included in these tables for simplicity and space constraints. Data fields removed for the purposes of this report are Water Color, Water Odor, Observed Uses, Sample Methods (wading, bucket, or extension pole), and Observations/Comments. The complete dataset will be provided to CT DEEP and USEPA in spreadsheet format and is available to readers of this Technical Memo upon request to Pomperaug River Watershed Coalition. Scanned copies of completed field data sheets, chain of custody forms, and analysis reports from the water testing laboratories are provided in **Appendix D.**

As some readers may be interested in a particular stream or stream reach, data are organized by monitoring station in **Tables B-1 to B-** included in **Appendix B**. Data presented by station were further coupled with secondary data for 2019 and 2020. From here, the geometric means for wet, dry, and all sampling events were calculated and the summary metrics were formatted to identify when and where single event bacteria levels and geometric means exceeded water quality criteria for safe recreation. In the event of a water quality criteria exceedance, the percent reduction was calculated and included in the final summary table **(Table 26).** Summary data for each site with metrics for comparison to water quality criteria are included in **Appendix C (Tables C-1 to C-18)**. Geometric means and maximum single sample bacteria results were also mapped in comparison to the listed water quality impairments to better illustrate the geography and weather conditions wherein water quality standards for safe recreation were recorded during PRWC's ambient water quality monitoring project (**Table 26** and **Figures 20-25**).

**Table 5.** Precipitation data recorded for each sampling date with corresponding wet/dry weather sampling condition designations are listed based on the following definition: Wet weather conditions are defined as greater than 0.1" precipitation in 24 hours or greater than 0.25" precipitation in 48 hours or greater than 2.0" precipitation in 96 hours. All other conditions are dry weather. Precipitation amounts were calculated from measurements recorded at the USGS gauging station for the Weekeepeemee River located at Jack's Bridge Road in Hotchkissville (Woodbury), CT. The totals were based on the first sample being collected at 8:30 AM and tallying rainfall for the previous 24, 48, 72, and 96 hours.

*Precipation totals based on 8:30 sample time and the respective time frame look back*

| Sampling Date | 24 hour previous Precip (inches) | 48 Hour Previous Precip (inches) | 72 hour previous precip (inches) | 96 hour previous precip | Wet/Dry Condition Designation** |
|---|---|---|---|---|---|
| 6/9/2021 | 0.93 | 0.93 | 0.93 | 0.93 | WET |
| 6/22/2021 | 0.01 | 0.01 | 0.02 | 0.02 | DRY |
| 7/7/2021 | 0.24 | 0.24 | 0.24 | 0.28 | WET |
| 7/20/2021 | 0.03 | 0.15 | 1.64 | 1.74 | DRY |
| 8/4/2021 | 0 | 0 | 0.15 | 0.15 | DRY |
| 8/17/2021 | 0 | 0 | 0.5 | 0.5 | DRY |
| 9/14/2021 | 0.01 | 0.01 | 0.01 | 0.01 | Dry |
| 9/21/2021 | 0 | 0 | 0 | 0 | Dry |
| 10/5/2021 | 0.32 | 0.99 | 0.99 | 0.99 | WET |
| 10/20/2021 | 0.01 | 0.06 | 0.06 | 0.59 | DRY |
| 4/6/2022 | 0.22 | 0.22 | 0.41 | 0.41 | WET |
| 4/20/2022 | 0.02 | 1.39 | 1.39 | 1.61 | WET |
| 5/4/2022 | 0.05 | 0.6 | 0.64 | 0.64 | WET |
| 5/26/2022 | 0 | 0 | 0 | 0.31 | DRY |
| 6/15/2022 | 0.00 | 0 | 0.00 | 0.27 | DRY |
| 7/20/2022 | 0.43 | 1.37 | 1.37 | 1.37 | WET |
| 8/17/2022 | 0 | 0 | 0 | 0 | DRY |
| 9/2/2022 | 0.02 | 0.28 | 0.28 | 0.28 | WET |
| 10/20/2022 | 0 | 0 | 0 | 0.4 | DRY |

** Precipitation record was downloaded from USGS gaging station on the Weekeepeemee River at Jack's Bridge Road. "USGS 01203805 WEEKEEPEEMEE RIVER AT HOTCHKISSVILLE, CT"

**Table 6.** Results for trip blanks used to ensure data quality of ambient water quality monitoring samples. Distilled water was used to prepare trip blanks for each round of monitoring. Blanks were labeled as regular samples for analysis by the water testing laboratory. This created a "blind analysis" of a sample with a known concentration of bacteria and nitrate (zero in both cases) to ensure samples were not being contaminated in the field or in the lab. If results returned with detectable levels of bacteria or nitrate, results for the corresponding round of monitoring were subject to further quality assurance checks detailed in the QAPP. If those quality assurance measures were still not met, results for the round were deemed unacceptable.

| Site | Lat | Long | Sample Type | Date | Sample Time | Nearest USGS Stream Gauge | Streamflow (cfs) | Wet/Dry Sample | Current Weather | Air Temp C | Water Level | Water Temp C | Conductivity (uS/cm) | Bacteria Result (MPN) | Nitrate Result (mg/L) | Sample Round Hold Times Met (Y/N) | Accept Data (Y/N) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P-S-WINS, Pomperaug, Winship Drive at HV River Gardens, Southbury | | | Blank | 6/9/2021 | 11:28:00 | Pomperaug | 89.7 | WET | Clouds with some sun | 29.1 | Average | 999999 | 99999 | <1 | ND | Yes | Yes |
| P-W-15012, Pomperaug, Middle Quarter / South Pomperaug Ave, Woodbury | 41.529088 | -73.200945 | Blank | 6/22/2021 | 8:39:00 | Pomperaug | 30.5 | DRY | Clouds with some sun | 20.9 | Average | 22.6 | 4 | <1 | ND | Yes | Yes |
| P-S-OAKD, Pomperaug, Oakdale Manor, Southbury | 41.443175 | -73.254497 | Blank | 7/7/2021 | 11:16:11 | Pomperaug | 65.9 | WET | Sunny | 27 | Average | 19 | 2.2 | <1 | ND | Yes | Yes |
| N-W-14355, Nonnewaug, Rt 47 Bridge, Woodbury | 41.529096 | -73.200976 | Blank | 7/20/2021 | 9:15:00 | Nonnewaug | 47.4 | DRY | Clouds with some sun | 25.2 | Average | 22.4 | 12.8 | <1 | ND | Yes | Yes |
| P-S-15388, Pomperaug, Bent of the River, Southbury | 41.529058 | -73.200924 | Blank | 8/4/2021 | 9:28:00 | Pomperaug | 33.9 | DRY | Cloudy | 22.2 | Average | 21.9 | 3.6 | <1 | ND | Yes | Yes |
| W-W-15530, Weekeepeemee, Jacks Bridge Rd, Woodbury | 41.528707 | -73.200645 | Blank | 8/17/2021 | 10:04:00 | Weekeepeemee | 3.64 | DRY | Cloudy | 24.4 | Average | 19.3 | 9 | <1 | ND | Yes | Yes |
| T-S-14474, Transylvania, Seman Park at East Flat Hill Rd, Southbury | 41.529127 | -73.201038 | Blank | 9/14/2021 | 9:55:00 | Pomperaug | 87.1 | DRY | Sun with some clouds | 20 | Average | 23.4 | 3.7 | <1 | ND | Yes | Yes |
| W-W-16022, Weekeepeemee, Brushy Hill Rd, Woodbury | 41.585535 | -73.23067 | Blank | 9/21/2021 | 9:05:00 | Weekeepeemee | 28.8 | DRY | Sunny | 13.6 | Average | 14.2 | 99999999 | <1 | ND | Yes | Yes |
| P-S-18395, Pomperaug, The Gym - Flood Bridge Rd, Southbury | 41.528936 | -73.200668 | Blank | 10/5/2021 | 10:10:00 | Pomperaug | 164 | WET | Cloudy | 21.8 | Average | 21.9 | 2.1 | <1 | ND | Yes | Yes |
| W-W-CHOH, Weekeepeemee, Chohees Trail,Woodbury | 41.529136 | -73.201046 | Blank | 10/20/2021 | 9:15:00 | Weekeepeemee | 29.6 | DRY | Sun with some clouds | 20.4 | Average | 20.4 | 10.4 | 0 | ND | Yes | Yes |
| P-S-15025, Pomperaug, Poverty Rd - Ewald Park - USGS Gauge, Southbury | 41.529247 | -73.200877 | Blank | 4/6/2022 | 13:54:40 | Pomperaug | 170 | WET | Foggy/misty | 16.9 | Average | 20.2 | 2.1 | No Blank | No Blank | Yes | **NO** |
| P-S-15025, Pomperaug, Poverty Rd - Ewald Park - USGS Gauge, Southbury | 41.481203 | -73.225509 | Blank | 4/20/2022 | 9:50:00 | Pomperaug | 328 | WET | Sunny | 21.6 | Average | 21 | 1.9 | 100 | 0.05 | Yes | **NO** |
| N-W-14355, Nonnewaug, Rt 47 Bridge, Woodbury | 41.557922 | -73.212032 | Blank | 5/4/2022 | 10:55:00 | Nonnewaug | 30.4 | WET | Light rain | 10.7 | Average | 19.6 | 1.4 | 110 | 0.052 | Yes | **NO** |
| W-B-19157, Weekeepeemee, Mill Pond Road, Bethlehem | 41.529125 | -73.200978 | Blank | 5/26/2022 | 10:45:00 | Weekeepeemee | 25.6 | DRY | Sun with some clouds | 22.7 | Average | 22.6 | 1.6 | 32 | 0.11 | Yes | **NO** |
| N-W-14355, Nonnewaug, Rt 47 Bridge, Woodbury | 41.529156 | -73.200964 | Blank | 6/15/2022 | 21:30:00 | Nonnewaug | 9.21 | DRY | Sunny | 23.6 | Average | 22.5 | 1.5 | <1 | ND | Yes | Yes |
| P-S-WINS, Pomperaug, Winship Drive at HV River Gardens, Southbury | 41.529181 | -73.200965 | Blank | 6/15/2022 | 21:30:00 | Pomperaug | 45.9 | DRY | Sunny | 23.6 | Average | 22.4 | 1.4 | <1 | ND | Yes | Yes |
| P-W-15012, Pomperaug, Middle Quarter / South Pomperaug Ave, Woodbury | 41.523937 | -73.209629 | Blank | 8/17/2022 | 11:30:23 | Pomperaug | 5.22 | DRY | Clouds with some sun | 99999 | Average | 99999 | 99999 | <1 | No Blank | Yes | Yes |
| W-W-15530, Weekeepeemee, Jacks Bridge Rd, Woodbury | 41.557633 | -73.215487 | Blank | 9/21/2022 | 11:30:35 | Weekeepeemee | 1.8 | WET | Sun with some clouds | 23.9 | Average | 22.2 | 2.9 | <1 | ND | Yes | Yes |
| W-W-16022, Weekeepeemee, Brushy Hill Rd, Woodbury | 41.529123 | -73.200948 | Blank | 7/20/2022 | 11:10:00 | Weekeepeemee | 3.59 | WET | Sunny | 26.8 | Average | 24.1 | 1.5 | <1 | ND | Yes | Yes |

## *AMBIENT WATER QUALITY MONITORING RESULTS BY DATE*

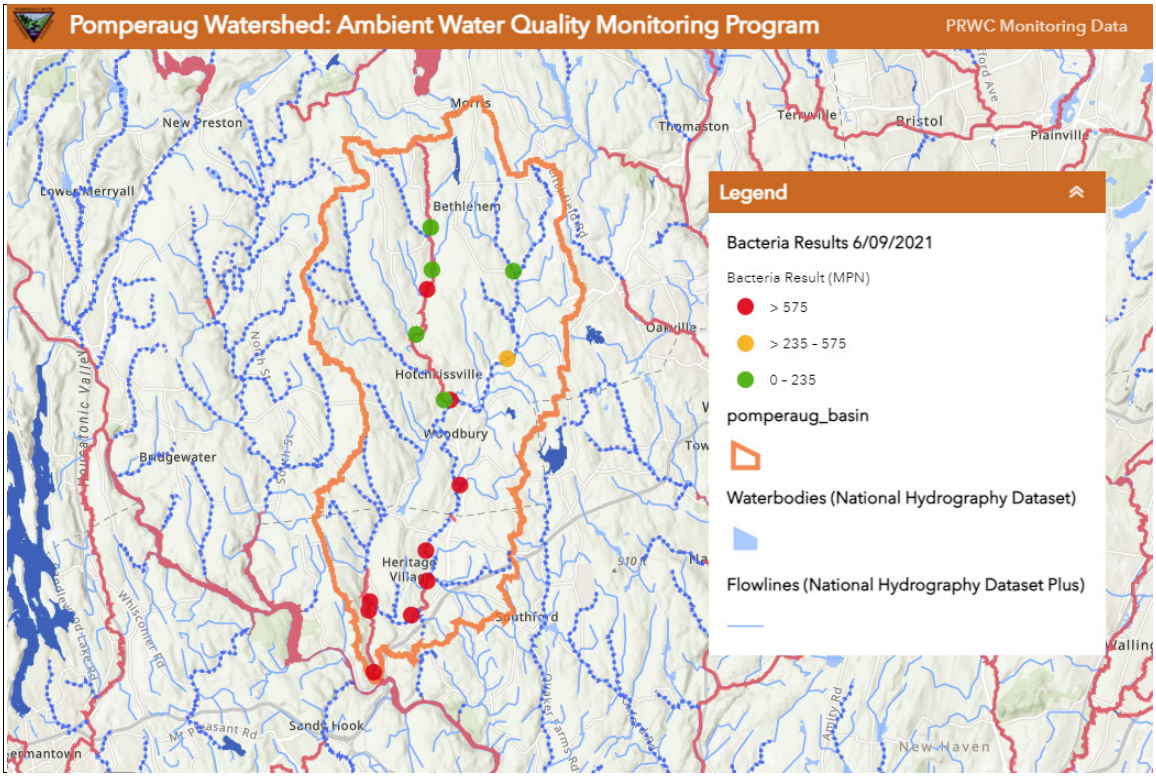


**Figure 2.** Results for Ambient Water Quality Monitoring on June 9, 2021 (*wet weather*).

**Table 7.** Results for Ambient Water Quality Monitoring on June 9, 2021 (*wet weather*).

| Site | Lat | Long | Date | Nearest USGS Stream Gauge | Streamflow (cfs) | Rainfall in Past 24 hrs | Rainfall in Past 48 hrs | Rainfall in Past 96 hrs | Wet/Dry Sample | Current Weather | Air Temp C | Water Level | Water Temp C | Conductivity (uS/cm) | Bacteria Result (MPN) | Nitrate (mgL) | Average of Duplicates? |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ES-B-17321, East Spring Brook, Nonnewaug Rd at Porter Hill Rd, Bethlehem | 41.612267 | -73.175952 | 6/9/2021 | Nonnewaug | 16.4 | 0.93 | 0.93 | 0.93 | Wet | Sun with some clouds | 27.3 | Average | 20.2 | 239.0 | 129 | 0.44 | |
| N-W-14355, Nonnewaug, Rt 47 Bridge, Woodbury | 41.557757 | -73.211978 | 6/9/2021 | Nonnewaug | 16.4 | 0.93 | 0.93 | 0.93 | Wet | Sun with some clouds | 28.3 | Low | 20.0 | 153.7 | 866 | 0.57 | |
| N-W-16335, Nonnewaug, Mill Rd - USGS Gauge, Woodbury | 41.575233 | -73.179848 | 6/9/2021 | Nonnewaug | 16.4 | 0.93 | 0.93 | 0.93 | Wet | Sun with some clouds | 26.2 | Average | 20.6 | 188.3 | 548 | 0.53 | |
| P-S-15025, Pomperaug, Poverty Rd - Ewald Park - USGS Gauge, Southbury | 41.48134 | -73.22506 | 6/9/2021 | Pomperaug | 89.7 | 0.93 | 0.93 | 0.93 | Wet | Clouds with some sun | 26.4 | Average | 22.6 | 225.0 | 980 | 0.52 | |
| P-S-15388, Pomperaug, Bent of the River, Southbury | 41.468681 | -73.258058 | 6/9/2021 | Pomperaug | 89.7 | 0.93 | 0.93 | 0.93 | Wet | Clouds with some sun | 26.5 | Average | 21.8 | 209.0 | 1733 | 0.50 | |
| P-S-18395, Pomperaug, The Gym - Flood Bridge Rd, Southbury | 41.466976 | -73.234062 | 6/9/2021 | Pomperaug | 89.7 | 0.93 | 0.93 | 0.93 | Wet | Clouds with some sun | 25.7 | Average, High | 22.6 | 213.0 | 1046 | 0.51 | |
| P-S-OAKD, Pomperaug, Oakdale Manor, Southbury | 41.442867 | -73.254958 | 6/9/2021 | Pomperaug | 89.7 | 0.93 | 0.93 | 0.93 | Wet | Sun with some clouds | 25.3 | Average | 21.6 | 214.0 | 687 | 0.52 | |
| P-S-WINS, Pomperaug, Winship Drive at HV River Gardens, Southbury | 41.493947 | -73.225812 | 6/9/2021 | Pomperaug | 89.7 | 0.93 | 0.93 | 0.93 | Wet | Sun with some clouds | 29.1 | Average | 25.0 | 178.8 | 1553 | 0.44 | |
| P-W-15012, Pomperaug, Middle Quarter / South Pomperaug Ave, Woodbury | 41.521945 | -73.206149 | 6/9/2021 | Pomperaug | 89.7 | 0.93 | 0.93 | 0.93 | Wet | Clouds with some sun | 27.2 | Average | 23.2 | 159.1 | 1203 | 0.48 | |
| T-S-14474, Transylvania, Seman Park at East Flat Hill Rd, Southbury** | 41.472517 | -73.257446 | 6/9/2021 | Pomperaug | 89.7 | 0.93 | 0.93 | 0.93 | Wet | Clouds with some sun | 27.4 | Average | 22.8 | 153.7 | 1300 | 0.28 | Yes |
| W-B-19157, Weekeepeemee, Mill Pond Road, Bethlehem | 41.63085 | -73.222519 | 6/9/2021 | Weekeepeemee | 20.7 | 0.93 | 0.93 | 0.93 | Wet | Sun with some clouds | 23.6 | Average | 20.2 | 189.1 | 27 | 0.23 | |
| W-B-CRAN, Weekeepeemee, Crane Hollow Road Bridge, Bethlehem | 41.612641 | -73.221824 | 6/9/2021 | Weekeepeemee | 20.7 | 0.93 | 0.93 | 0.93 | Wet | Sun with some clouds | 28.2 | Average | 20.1 | 186.3 | 61 | 0.24 | |
| W-W-15530, Weekeepeemee, Jacks Bridge Rd, Woodbury | 41.55769 | -73.215486 | 6/9/2021 | Weekeepeemee | 20.7 | 0.93 | 0.93 | 0.93 | Wet | Sun with some clouds | 27.5 | Average | 19.6 | 148.2 | 98 | 0.29 | |
| W-W-16022, Weekeepeemee, Brushy Hill Rd, Woodbury** | 41.585573 | -73.230815 | 6/9/2021 | Weekeepeemee | 20.7 | 0.93 | 0.93 | 0.93 | Wet | Sun with some clouds | 25.3 | Average | 19.5 | 170.7 | 164 | 0.28 | Yes |
| W-W-CHOH, Weekeepeemee, Chohees Trail,Woodbury | 41.604553 | -73.225085 | 6/9/2021 | Weekeepeemee | 20.7 | 0.93 | 0.93 | 0.93 | Wet | Sun with some clouds | 26.5 | Average | 20.1 | 190.9 | >2420 | 0.24 | |

*** Denotes duplicate samples were collected, the results / field measurements were averaged, and the average the bacteria result was rounded the nearest whole number.*

*Bacteria results are reported/displayed as MPN (most probable number) which equates to Colony Forming Units found in a 100 mL sample (CFU/100mL).*

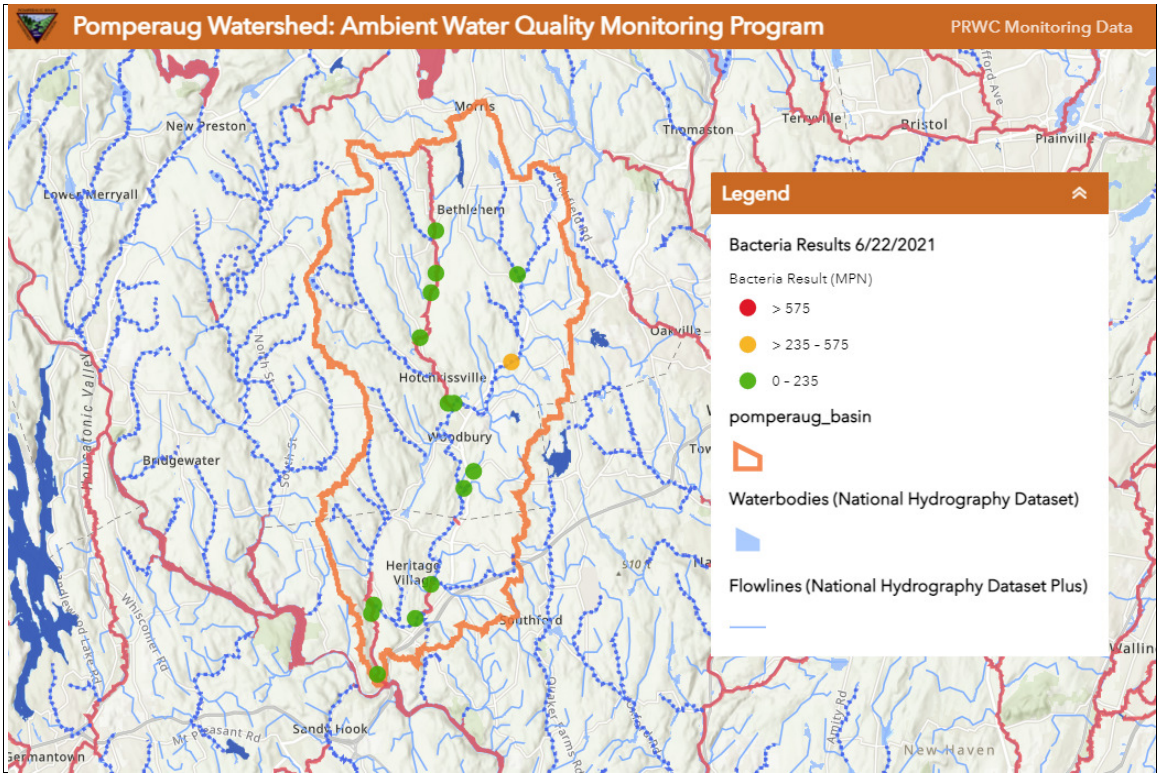


**Figure 3.** Results for Ambient Water Quality Monitoring on June 22, 2021 (*dry weather*).

**Table 8.** Results for Ambient Water Quality Monitoring on June 22, 2021 (*dry weather*).

| Site | Lat | Long | Date | Nearest USG Stream Gauge | Streamflow (cfs) | Rainfall in Past 24 hrs | Rainfall in Past 48 hrs | Rainfall in Past 96 hrs | Wet/Dry Sample | Current Weather | Air Temp C | Water Level | Water Temp C | Conductivity (uScm) | Bacteria Result (MPN) | Nitrate (mgL) | Average of Duplicates? |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ES-B-17321, East Spring Brook, Nonnewaug Rd at Porter Hill Rd, Bethlehem | 41.612184 | -73.175946 | 6/22/2021 | Nonnewaug | 6.01 | 0.01 | 0.01 | 0.02 | Dry | Cloudy, Light rain | 18.9 | Low | 19.2 | 143.8 | 125 | 0.53 | |
| N-W-14355, Nonnewaug, Rt 47 Bridge, Woodbury | 41.557749 | -73.212023 | 6/22/2021 | Nonnewaug | 6.01 | 0.01 | 0.01 | 0.02 | Dry | Cloudy | 22.4 | Low | 19.3 | 192.3 | 91 | 0.92 | |
| N-W-16335, Nonnewaug, Mill Rd - USGS Gauge, Woodbury | 41.57522 | -73.179816 | 6/22/2021 | Nonnewaug | 6.01 | 0.01 | 0.01 | 0.02 | Dry | Moderate or steady rain, Light rain, Cloudy | 20.5 | Low | 20.5 | 66.4 | 272 | 0.60 | |
| P-S-15025, Pomperaug, Poverty Rd - Ewald Park - USGS Gauge, Southbury | 41.481277 | -73.22473 | 6/22/2021 | Pomperaug | 30.5 | 0.01 | 0.01 | 0.02 | Dry | Cloudy | 21.2 | Average | 21.0 | 293.0 | 115 | 0.80 | |
| P-S-15388, Pomperaug, Bent of the River, Southbury | 41.468687 | -73.258188 | 6/22/2021 | Pomperaug | 30.5 | 0.01 | 0.01 | 0.02 | Dry | Cloudy | 21.2 | Average | 21.4 | 310.0 | 137 | 0.73 | |
| P-S-18395, Pomperaug, The Gym - Flood Bridge Rd, Southbury | 41.466925 | -73.234105 | 6/22/2021 | Pomperaug | 30.5 | 0.01 | 0.01 | 0.02 | Dry | Cloudy | 23.3 | Average | 21.4 | 294.0 | 119 | 0.78 | |
| P-S-OAKD, Pomperaug, Oakdale Manor, Southbury | 41.443135 | -73.254793 | 6/22/2021 | Pomperaug | 30.5 | 0.01 | 0.01 | 0.02 | Dry | Cloudy, Light rain | 24.4 | Average, High | 22.4 | 298.0 | 49 | 0.68 | |
| P-S-WINS, Pomperaug, Winship Drive at HV River Gardens, Southbury** | 41.529081 | -73.200951 | 6/22/2021 | Pomperaug | 30.5 | 0.01 | 0.01 | 0.02 | Dry | Light rain, Cloudy | 19.35 | Average | 21.4 | 219.5 | 79 | 0.64 | Yes |
| P-W-15012, Pomperaug, Middle Quarter / South Pomperaug Ave, Woodbury | 41.521979 | -73.20613 | 6/22/2021 | Pomperaug | 30.5 | 0.01 | 0.01 | 0.02 | Dry | Cloudy | 20.9 | Average | 21.5 | 212.0 | 99 | 0.67 | |
| T-S-14474, Transylvania, Seman Park at East Flat Hill Rd, Southbury | 41.472628 | -73.257232 | 6/22/2021 | Pomperaug | 30.5 | 0.01 | 0.01 | 0.02 | Dry | Cloudy | 22.1 | Average | 20.5 | 204.0 | 72 | 0.23 | |
| W-B-19157, Weekeepeemee, Mill Pond Road, Bethlehem** | 41.630671 | -73.222338 | 6/22/2021 | Weekeepeemee | 5.88 | 0.01 | 0.01 | 0.02 | Dry | Cloudy, Light rain | 18.75 | Low | 19.4 | 133.2 | 43 | 0.32 | Yes |
| W-B-CRAN, Weekeepeemee, Crane Hollow Road Bridge, Bethlehem | 41.612687 | -73.22179 | 6/22/2021 | Weekeepeemee | 5.88 | 0.01 | 0.01 | 0.02 | Dry | Cloudy | 21.5 | Low | 19.5 | 122.3 | 46 | 0.28 | |
| W-W-15530, Weekeepeemee, Jacks Bridge Rd, Woodbury | 41.557684 | -73.2155 | 6/22/2021 | Weekeepeemee | 5.88 | 0.01 | 0.01 | 0.02 | Dry | Cloudy | 22.3 | Average | 20.3 | 159.1 | 36 | 0.30 | |
| W-W-16022, Weekeepeemee, Brushy Hill Rd, Woodbury | 41.58559 | -73.230768 | 6/22/2021 | Weekeepeemee | 5.88 | 0.01 | 0.01 | 0.02 | Dry | Clouds with some sun | 20.7 | Low | 20.0 | 101.8 | 172 | 0.34 | |
| W-W-CHOH, Weekeepeemee, Chohees Trail,Woodbury | 41.604634 | -73.225149 | 6/22/2021 | Weekeepeemee | 5.88 | 0.01 | 0.01 | 0.02 | Dry | Clouds with some sun | 21.3 | Low | 20.0 | 123.6 | 79 | 0.29 | |

*** Denotes duplicate samples were collected, the results / field measurements were averaged, and the average the bacteria result was rounded the nearest whole number.*

*Bacteria results are reported/displayed as MPN (most probable number) which equates to Colony Forming Units found in a 100 mL sample (CFU/100mL).*

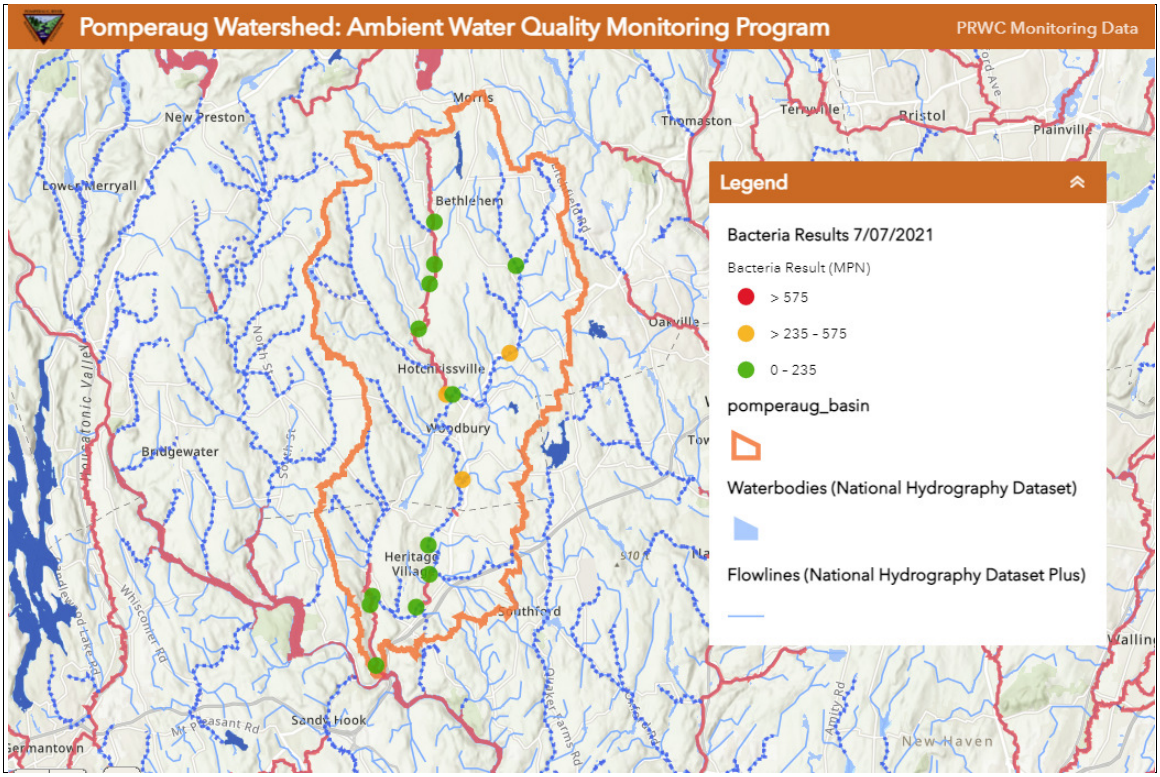


**Figure 4.** Results for Ambient Water Quality Monitoring on July 7, 2021 (*wet weather*).

**Table 9.** Results for Ambient Water Quality Monitoring on July 7, 2021 (*wet weather*).

| Site | Lat | Long | Date | Nearest USG Stream Gauge | Streamflow (cfs) | Rainfall in Past 24 hrs | Rainfall in Past 48 hrs | Rainfall in Past 96 hrs | Wet/Dry Sample | Current Weather | Air Temp C | Water Level | Water Temp C | Conductivity (uScm) | Bacteria Result (MPN) | Nitrate (mgL) | Average of Duplicates? |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ES-B-17321, East Spring Brook, Nonnewaug Rd at Porter Hill Rd, Bethlehem | 41.612303 | -73.175955 | 7/7/2021 | Weekeepeemee | 19.4 | 0.24 | 0.24 | 0.28 | Wet | Sunny | 29.7 | Average | 20.5 | 157.9 | 138 | 0.51 | |
| N-W-14355, Nonnewaug, Rt 47 Bridge, Woodbury | 41.557729 | -73.212038 | 7/7/2021 | Nonnewaug | 13 | 0.24 | 0.24 | 0.28 | Wet | Sunny | 27.8 | Average | 19.8 | 167.9 | 228 | 0.68 | |
| N-W-16335, Nonnewaug, Mill Rd - USGS Gauge, Woodbury | 41.575274 | -73.179805 | 7/7/2021 | Nonnewaug | 13 | 0.24 | 0.24 | 0.28 | Wet | Sunny | 27 | Low | 20.0 | 197.4 | 285 | 0.56 | |
| P-S-15025, Pomperaug, Poverty Rd - Ewald Park - USGS Gauge, Southbury** | 41.48153 | -73.224747 | 7/7/2021 | Pomperaug | 65.9 | 0.24 | 0.24 | 0.28 | Wet | Sunny | 24.6 | Average | 20.3 | 316.0 | 185 | 0.65 | Yes |
| P-S-15388, Pomperaug, Bent of the River, Southbury | 41.468716 | -73.258224 | 7/7/2021 | Pomperaug | 65.9 | 0.24 | 0.24 | 0.28 | Wet | Sunny | 26 | Average | 20.5 | 271.0 | 155 | 0.60 | |
| P-S-18395, Pomperaug, The Gym - Flood Bridge Rd, Southbury | 41.468016 | -73.232216 | 7/7/2021 | Pomperaug | 65.9 | 0.24 | 0.24 | 0.28 | Wet | Sunny | 26.1 | Average | 20.8 | 231.0 | 162 | 0.61 | |
| P-S-OAKD, Pomperaug, Oakdale Manor, Southbury | 41.443135 | -73.254793 | 7/7/2021 | Pomperaug | 65.9 | 0.24 | 0.24 | 0.28 | Wet | Sunny | 25.8 | Average | 19.8 | 243.0 | 126 | 0.58 | |
| P-S-WINS, Pomperaug, Winship Drive at HV River Gardens, Southbury | 41.493971 | -73.225731 | 7/7/2021 | Pomperaug | 65.9 | 0.24 | 0.24 | 0.28 | Wet | Sun with some clouds | 28.4 | Average | 21.5 | 193.6 | 119 | 0.51 | |
| P-W-15012, Pomperaug, Middle Quarter / South Pomperaug Ave, Woodbury | 41.521979 | -73.206103 | 7/7/2021 | Pomperaug | 65.9 | 0.24 | 0.24 | 0.28 | Wet | Sunny | 23.5 | Low | 20.0 | 190.8 | 249 | 0.53 | |
| T-S-14474, Transylvania, Seman Park at East Flat Hill Rd, Southbury | 41.472472 | -73.25747 | 7/7/2021 | Pomperaug | 65.9 | 0.24 | 0.24 | 0.28 | Wet | Sunny | 27.8 | Average | 19.9 | 189.7 | 84 | 0.29 | |
| W-B-19157, Weekeepeemee, Mill Pond Road, Bethlehem | 41.630691 | -73.222397 | 7/7/2021 | Weekeepeemee | 19.4 | 0.24 | 0.24 | 0.28 | Wet | Sunny | 23.9 | Average | 20.0 | 127.6 | 64 | 0.20 | |
| W-B-CRAN, Weekeepeemee, Crane Hollow Road Bridge, Bethlehem | 41.612687 | -73.221867 | 7/7/2021 | Weekeepeemee | 19.4 | 0.24 | 0.24 | 0.28 | Wet | Sunny | 28.2 | Average | 19.2 | 138.4 | 102 | 0.25 | |
| W-W-15530, Weekeepeemee, Jacks Bridge Rd, Woodbury | 41.557661 | -73.215484 | 7/7/2021 | Weekeepeemee | 19.4 | 0.24 | 0.24 | 0.28 | Wet | Sunny | 27.5 | Average | 19.6 | 147.8 | 344 | 0.32 | |
| W-W-16022, Weekeepeemee, Brushy Hill Rd, Woodbury | 41.585581 | -73.23071 | 7/7/2021 | Weekeepeemee | 19.4 | 0.24 | 0.24 | 0.28 | Wet | Sunny | 20.8 | Average | 18.6 | 120.7 | 167 | 0.29 | |
| W-W-CHOH, Weekeepeemee, Chohees Trail, Woodbury** | 41.604548 | -73.225159 | 7/7/2021 | Weekeepeemee | 19.4 | 0.24 | 0.24 | 0.28 | Wet | Sunny | 26.5 | Average | 19.5 | 132.8 | 157 | 0.26 | Yes |

*** Denotes duplicate samples were collected, the results / field measurements were averaged, and the average the bacteria result was rounded the nearest whole number.*

*Bacteria results are reported/displayed as MPN (most probable number) which equates to Colony Forming Units found in a 100 mL sample (CFU/100mL).*

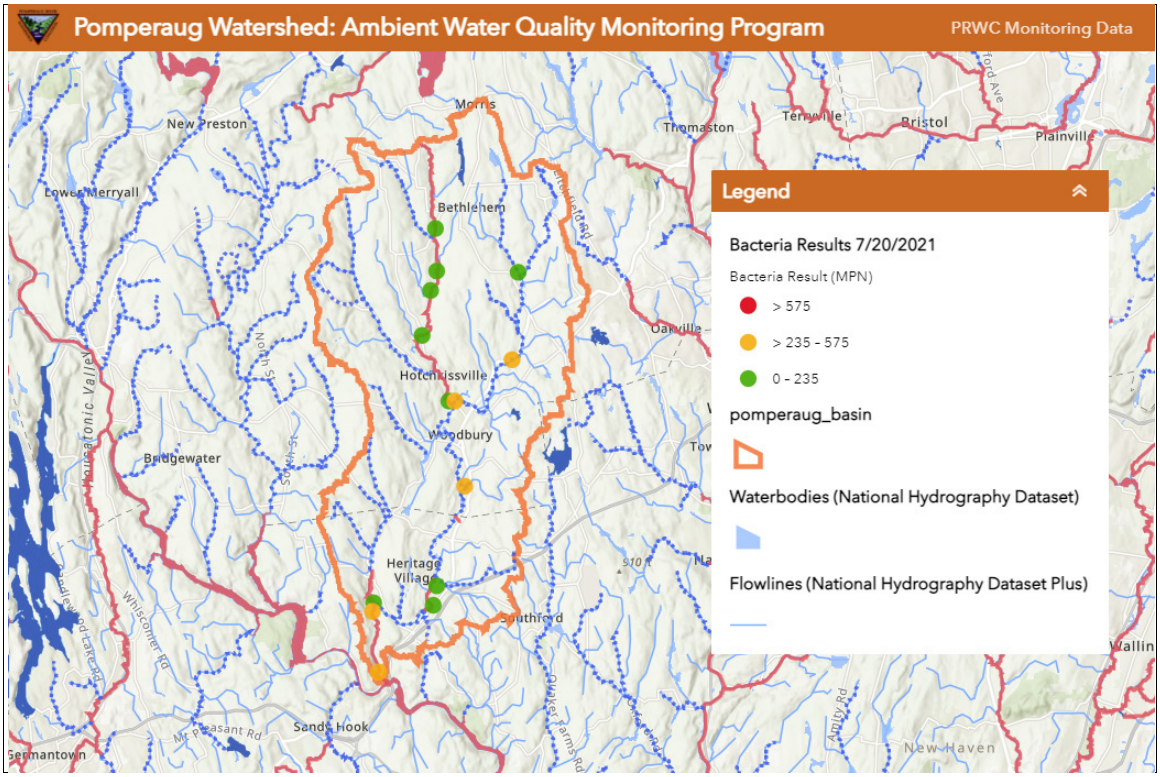


**Figure 5.** Results for Ambient Water Quality Monitoring on July 20, 2021 (*dry weather*).

**Table 10.** Results for Ambient Water Quality Monitoring on July 20, 2021 (*dry weather*).

| Site | Lat | Long | Date | Nearest USGS Stream Gauge | Streamflow (cfs) | Rainfall in Past 24 hrs | Rainfall in Past 48 hrs | Rainfall in Past 96 hrs | Wet/Dry Sample | Weather Condition | Air Temp C | Water Level | Water Temp C | Conductivity (uScm) | Bacteria Result (MPN) | Nitrate (mgL) | Average of Duplicates? |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ES-B-17321, East Spring Brook, Nonnewaug Rd at Porter Hill Rd, Bethlehem** | 41.612294 | -73.175879 | 7/20/2021 | Nonnewaug | 47.4 | 0.03 | 0.15 | 1.74 | Dry | Cloudy | 25 | Average | 20.3 | 205.0 | 138 | 0.51 | Yes |
| N-W-14355, Nonnewaug, Rt 47 Bridge, Woodbury | 41.557741 | -73.212045 | 7/20/2021 | Nonnewaug | 47.4 | 0.03 | 0.15 | 1.74 | Dry | Clouds with some sun | 25.2 | High | 19.2 | 145.0 | 236 | 0.74 | |
| N-W-16335, Nonnewaug, Mill Rd - USGS Gauge, Woodbury | 41.575305 | -73.179837 | 7/20/2021 | Nonnewaug | 47.4 | 0.03 | 0.15 | 1.74 | Dry | Cloudy, Clouds with some sun | 21.4 | High | 18.6 | 147.5 | 249 | 0.69 | |
| P-S-15025, Pomperaug, Poverty Rd - Ewald Park - USGS Gauge, Southbury | 41.471463 | -73.22385 | 7/20/2021 | Pomperaug | 153 | 0.03 | 0.15 | 1.74 | Dry | Clouds with some sun | 24.6 | Average | 20.2 | 194.8 | 228 | 0.59 | |
| P-S-15388, Pomperaug, Bent of the River, Southbury** | 41.468868 | -73.258291 | 7/20/2021 | Pomperaug | 153 | 0.03 | 0.15 | 1.74 | Dry | Clouds with some sun | 22.6 | Average | 20.4 | 186.9 | 257 | 0.55 | Yes |
| P-S-18395, Pomperaug, The Gym - Flood Bridge Rd, Southbury | 41.44294 | -73.254918 | 7/20/2021 | Pomperaug | 153 | 0.03 | 0.15 | 1.74 | Dry | Clouds with some sun | 24.5 | Average | 21.4 | 98.5 | 248 | 0.31 | |
| P-S-OAKD, Pomperaug, Oakdale Manor, Southbury | 41.442971 | -73.255103 | 7/20/2021 | Pomperaug | 153 | 0.03 | 0.15 | 1.74 | Dry | Clouds with some sun | 23.1 | Average | 20.4 | 185.6 | 365 | 0.54 | |
| P-S-WINS, Pomperaug, Winship Drive at HV River Gardens, Southbury | 41.479872 | -73.221878 | 7/20/2021 | Pomperaug | 153 | 0.03 | 0.15 | 1.74 | Dry | Clouds with some sun | 25.9 | Average | 20.7 | 154.8 | 228 | 0.52 | |
| P-W-15012, Pomperaug, Middle Quarter / South Pomperaug Ave, Woodbury | 41.522057 | -73.206293 | 7/20/2021 | Pomperaug | 153 | 0.03 | 0.15 | 1.74 | Dry | Clouds with some sun | 24.8 | High | 19.9 | 143.2 | 345 | 0.54 | |
| T-S-14474, Transylvania, Seman Park at East Flat Hill Rd, Southbury | 41.472507 | -73.257442 | 7/20/2021 | Pomperaug | 153 | 0.03 | 0.15 | 1.74 | Dry | Clouds with some sun | 25.6 | Average | 19.7 | 196.8 | 111 | 0.32 | |
| W-B-19157, Weekeepeemee, Mill Pond Road, Bethlehem | 41.630775 | -73.222555 | 7/20/2021 | Weekeepeemee | 61.3 | 0.03 | 0.15 | 1.74 | Dry | Sunny | 22.3 | Average | 20.6 | 151.9 | 61 | 0.26 | |
| W-B-CRAN, Weekeepeemee, Crane Hollow Road Bridge, Bethlehem | 41.612668 | -73.221865 | 7/20/2021 | Weekeepeemee | 61.3 | 0.03 | 0.15 | 1.74 | Dry | Sunny | 24.4 | Average, High | 19.5 | 148.8 | 96 | 0.25 | |
| W-W-15530, Weekeepeemee, Jacks Bridge Rd, Woodbury | 41.557674 | -73.21548 | 7/20/2021 | Weekeepeemee | 61.3 | 0.03 | 0.15 | 1.74 | Dry | Clouds with some sun | 26.1 | High | 18.8 | 128.4 | 111 | 0.28 | |
| W-W-16022, Weekeepeemee, Brushy Hill Rd, Woodbury | 41.585572 | -73.230658 | 7/20/2021 | Weekeepeemee | 61.3 | 0.03 | 0.15 | 1.74 | Dry | Sunny | 20.8 | High, Average | 18.7 | 147.6 | 201 | 0.27 | |
| W-W-CHOH, Weekeepeemee, Chohees Trail,Woodbury | 41.604607 | -73.225188 | 7/20/2021 | Weekeepeemee | 61.3 | 0.03 | 0.15 | 1.74 | Dry | Sunny | 24 | Average | 19.3 | 150.4 | 231 | 0.24 | |

*** Denotes duplicate samples were collected, the results / field measurements were averaged, and the average the bacteria result was rounded the nearest whole number.*

*Bacteria results are reported/displayed as MPN (most probable number) which equates to Colony Forming Units found in a 100 mL sample (CFU/100mL).*

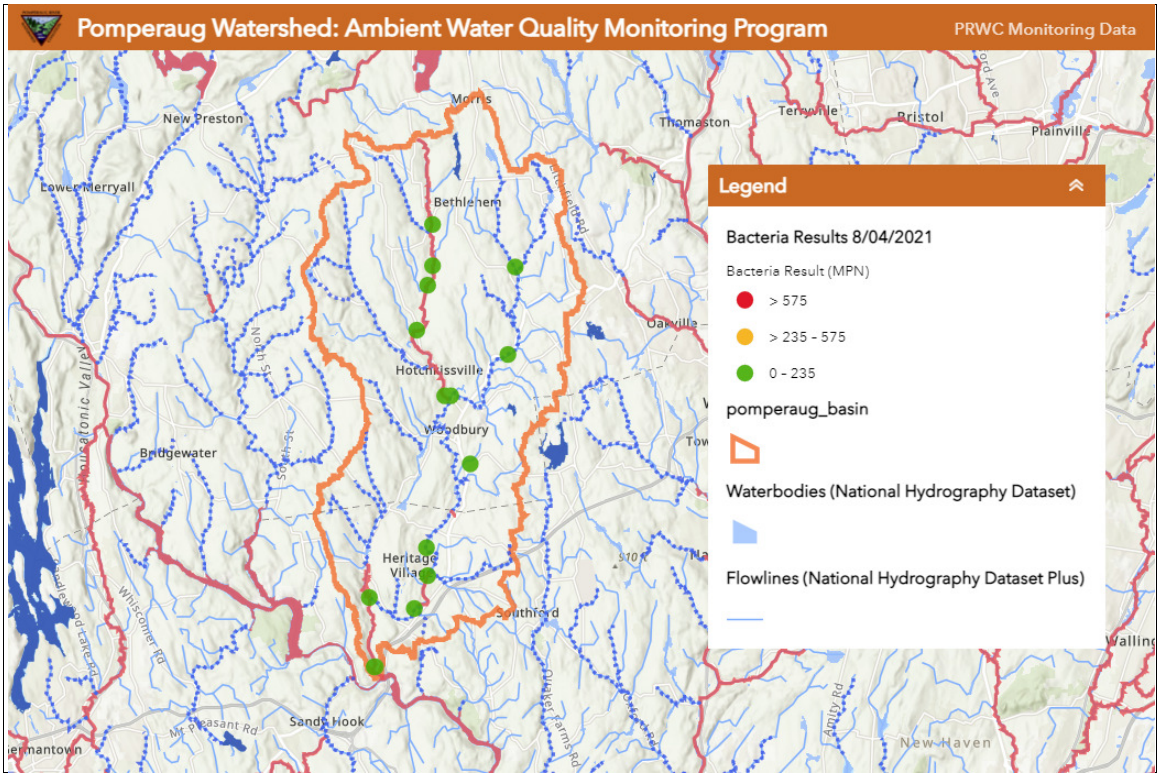


**Figure 6.** Results for Ambient Water Quality Monitoring on August 4, 2021 (*dry weather*).

**Table 11.** Results for Ambient Water Quality Monitoring on August 4, 2021 (*dry weather*).

| Site | Lat | Long | Date | Nearest USGS Stream Gauge | Streamflow (cfs) | Rainfall in Past 24 hrs | Rainfall in Past 48 hrs | Rainfall in Past 96 hrs | Wet/Dry Sample | Weather Condition | Air Temp C | Water Level | Water Temp C | Conductivity (uScm) | Bacteria Result (MPN) | Nitrate (mgL) | Average of Duplicates? |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ES-B-17321, East Spring Brook, Nonnewaug Rd at Porter Hill Rd, Bethlehem | 41.612322 | -73.175588 | 8/4/2021 | Nonnewaug | 9.21 | 0.00 | 0.00 | 0.15 | Dry | Cloudy | 18.4 | Average | 16.2 | 240.0 | 35 | 0.75 | |
| N-W-14355, Nonnewaug, Rt 47 Bridge, Woodbury** | 41.557739 | -73.211982 | 8/4/2021 | Nonnewaug | 9.21 | 0.00 | 0.00 | 0.15 | Dry | Cloudy | 21 | Average | 16.4 | 177.2 | 60 | 0.90 | Yes |
| N-W-16335, Nonnewaug, Mill Rd - USGS Gauge, Woodbury | 41.575132 | -73.179542 | 8/4/2021 | Nonnewaug | 9.21 | 0.00 | 0.00 | 0.15 | Dry | Cloudy | 19.6 | Average | 16.9 | 170.9 | 46 | 0.69 | |
| P-S-15025, Pomperaug, Poverty Rd - Ewald Park - USGS Gauge, Southbury | 41.481542 | -73.224899 | 8/4/2021 | Pomperaug | 33.9 | 0.00 | 0.00 | 0.15 | Dry | Clouds with some sun | 19.2 | Low | 17.8 | 278.0 | 42 | 0.75 | |
| P-S-15388, Pomperaug, Bent of the River, Southbury | 41.529058 | -73.200924 | 8/4/2021 | Pomperaug | 33.9 | 0.00 | 0.00 | 0.15 | Dry | Cloudy | 22.2 | Average | 21.9 | 274.0 | 34 | 0.65 | |
| P-S-18395, Pomperaug, The Gym - Flood Bridge Rd, Southbury | 41.468006 | -73.232222 | 8/4/2021 | Pomperaug | 33.9 | 0.00 | 0.00 | 0.15 | Dry | Clouds with some sun | 18.6 | Low | 18.0 | 265.0 | 32 | 0.70 | |
| P-S-OAKD, Pomperaug, Oakdale Manor, Southbury | 41.443243 | -73.254325 | 8/4/2021 | Pomperaug | 33.9 | 0.00 | 0.00 | 0.15 | Dry | Cloudy | 19.8 | Low | 18.3 | 267.0 | 24 | 0.63 | |
| P-S-WINS, Pomperaug, Winship Drive at HV River Gardens, Southbury | 41.493779 | -73.225687 | 8/4/2021 | Pomperaug | 33.9 | 0.00 | 0.00 | 0.15 | Dry | Clouds with some sun | 20.6 | Low | 18.2 | 207.0 | 35 | 0.62 | |
| P-W-15012, Pomperaug, Middle Quarter / South Pomperaug Ave, Woodbury | 41.442971 | -73.255103 | 8/4/2021 | Pomperaug | 33.9 | 0.00 | 0.00 | 0.15 | Dry | Cloudy | 16.9 | Average | 17.6 | 181.5 | 83 | 0.71 | |
| T-S-14474, Transylvania, Seman Park at East Flat Hill Rd, Southbury** | 41.472511 | -73.257464 | 8/4/2021 | Pomperaug | 33.9 | 0.00 | 0.00 | 0.15 | Dry | Clouds with some sun | 20 | Low | 17.1 | 230.0 | 138 | 0.23 | Yes |
| W-B-19157, Weekeepeemee, Mill Pond Road, Bethlehem | 41.630414 | -73.222355 | 8/4/2021 | Weekeepeemee | 9.05 | 0.00 | 0.00 | 0.15 | Dry | Cloudy | 17 | Average | 16.2 | 188.6 | 11 | 0.35 | |
| W-B-CRAN, Weekeepeemee, Crane Hollow Road Bridge, Bethlehem | 41.612636 | -73.221852 | 8/4/2021 | Weekeepeemee | 9.05 | 0.00 | 0.00 | 0.15 | Dry | Cloudy | 18.9 | Average | 15.9 | 188.9 | 24 | 0.29 | |
| W-W-15530, Weekeepeemee, Jacks Bridge Rd, Woodbury | 41.557685 | -73.215527 | 8/4/2021 | Weekeepeemee | 9.05 | 0.00 | 0.00 | 0.15 | Dry | Cloudy | 19.4 | Average | 16.5 | 154.6 | 29 | 0.31 | |
| W-W-16022, Weekeepeemee, Brushy Hill Rd, Woodbury | 41.585588 | -73.230695 | 8/4/2021 | Weekeepeemee | 9.05 | 0.00 | 0.00 | 0.15 | Dry | Cloudy | 17.4 | Average | 15.9 | 177.9 | 61 | 0.31 | |
| W-W-CHOH, Weekeepeemee, Chohees Trail,Woodbury | 41.604563 | -73.225066 | 8/4/2021 | Weekeepeemee | 9.05 | 0.00 | 0.00 | 0.15 | Dry | Cloudy | 18.4 | Average | 16.0 | 190.8 | 46 | 0.27 | |

*** Denotes duplicate samples were collected, the results / field measurements were averaged, and the average the bacteria result was rounded the nearest whole number.*

*Bacteria results are reported/displayed as MPN (most probable number) which equates to Colony Forming Units found in a 100 mL sample (CFU/100mL).*

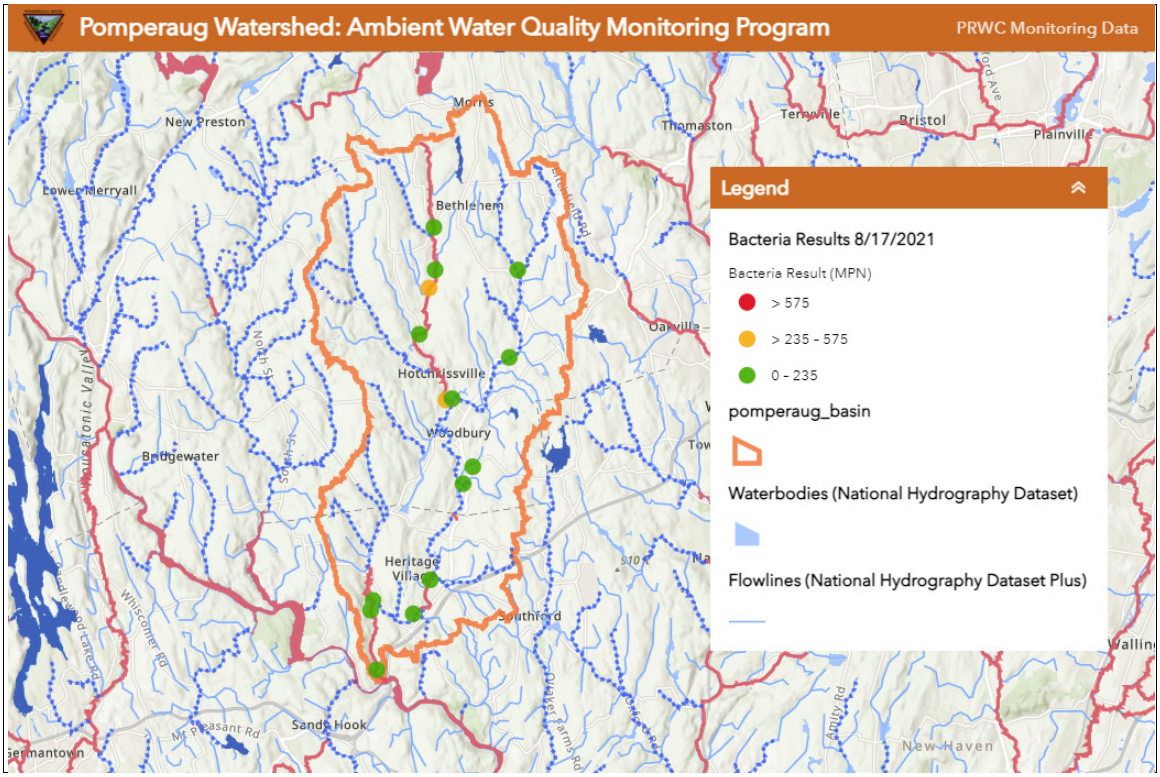


**Figure 6.** Results for Ambient Water Quality Monitoring on August 17, 2021 (*dry weather*).

**Table 12.** Results for Ambient Water Quality Monitoring on August 17, 2021 (*dry weather*).

| Site | Lat | Long | Date | Nearest USGS Stream Gauge | Streamflow (cfs) | Rainfall in Past 24 hrs | Rainfall in Past 48 hrs | Rainfall in Past 96 hrs | Wet/Dry Sample | Weather Condition | Air Temp C | Water Level | Water Temp C | Conductivity (uScm) | Bacteria Result (MPN) | Nitrate (mgL) | Average of Duplicates? |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ES-B-17321, East Spring Brook, Nonnewaug Rd at Porter Hill Rd, Bethlehem | 41.612391 | -73.175502 | 8/17/2021 | Nonnewaug | 6.29 | 0.00 | 0.00 | 0.50 | Dry | Cloudy | 22 | Average, Low | 18.9 | 229.0 | 109 | 0.79 | |
| N-W-14355, Nonnewaug, Rt 47 Bridge, Woodbury | 41.557768 | -73.212003 | 8/17/2021 | Nonnewaug | 6.29 | 0.00 | 0.00 | 0.50 | Dry | Cloudy | 25.8 | Low | 18.3 | 196.0 | 119 | 1.07 | |
| N-W-16335, Nonnewaug, Mill Rd - USGS Gauge, Woodbury** | 41.575277 | -73.179905 | 8/17/2021 | Nonnewaug | 6.29 | 0.00 | 0.00 | 0.50 | Dry | Cloudy | 23.9 | Low | 19.7 | 190.9 | 174 | 0.90 | Yes |
| P-S-15025, Pomperaug, Poverty Rd - Ewald Park - USGS Gauge, Southbury | 41.481277 | -73.22473 | 8/17/2021 | Pomperaug | 20.5 | 0.00 | 0.00 | 0.50 | Dry | Clouds with some sun | 24.7 | Average | 20.8 | 249.0 | 125 | 0.95 | |
| P-S-15388, Pomperaug, Bent of the River, Southbury | 41.468687 | -73.258188 | 8/17/2021 | Pomperaug | 20.5 | 0.00 | 0.00 | 0.50 | Dry | Cloudy | 22.4 | Low | 20.5 | 257.0 | 88 | 0.90 | |
| P-S-18395, Pomperaug, The Gym - Flood Bridge Rd, Southbury | 41.466925 | -73.234105 | 8/17/2021 | Pomperaug | 20.5 | 0.00 | 0.00 | 0.50 | Dry | Clouds with some sun | 24.6 | Average | 21.1 | 270.0 | 185 | 0.95 | |
| P-S-OAKD, Pomperaug, Oakdale Manor, Southbury** | 41.443135 | -73.254793 | 8/17/2021 | Pomperaug | 20.5 | 0.00 | 0.00 | 0.50 | Dry | Cloudy | 22.7 | Average | 21.8 | 261.0 | 48 | 0.90 | Yes |
| P-S-WINS, Pomperaug, Winship Drive at HV River Gardens, Southbury | 41.529081 | -73.200951 | 8/17/2021 | Pomperaug | 20.5 | 0.00 | 0.00 | 0.50 | Dry | Clouds with some sun | 24.7 | Average | 21.3 | 200.0 | 101 | 0.79 | |
| P-W-15012, Pomperaug, Middle Quarter / South Pomperaug Ave, Woodbury | 41.521865 | -73.206214 | 8/17/2021 | Pomperaug | 20.5 | 0.00 | 0.00 | 0.50 | Dry | Cloudy | 22.2 | Low | 21.0 | 210.0 | 173 | 0.80 | |
| T-S-14474, Transylvania, Seman Park at East Flat Hill Rd, Southbury | 41.472628 | -73.257232 | 8/17/2021 | Pomperaug | 20.5 | 0.00 | 0.00 | 0.50 | Dry | Cloudy | 24 | Average | 19.3 | 227.0 | 121 | 0.36 | |
| W-B-19157, Weekeepeemee, Mill Pond Road, Bethlehem | 41.630547 | -73.222337 | 8/17/2021 | Weekeepeemee | 3.64 | 0.00 | 0.00 | 0.50 | Dry | Cloudy | 19.3 | Average, Low | 18.0 | 247.0 | 33 | 0.55 | |
| W-B-CRAN, Weekeepeemee, Crane Hollow Road Bridge, Bethlehem | 41.612611 | -73.221852 | 8/17/2021 | Weekeepeemee | 3.64 | 0.00 | 0.00 | 0.50 | Dry | Cloudy | 23.7 | Average | 18.9 | 223.0 | 71 | 0.45 | |
| W-W-15530, Weekeepeemee, Jacks Bridge Rd, Woodbury | 41.557698 | -73.215455 | 8/17/2021 | Weekeepeemee | 3.64 | 0.00 | 0.00 | 0.50 | Dry | Foggy/misty | 24.4 | Low | 19.3 | 163.6 | 431 | 0.53 | |
| W-W-16022, Weekeepeemee, Brushy Hill Rd, Woodbury | 41.585408 | -73.230508 | 8/17/2021 | Weekeepeemee | 3.64 | 0.00 | 0.00 | 0.50 | Dry | Cloudy | 21.5 | Average, Low | 18.8 | 205.0 | 144 | 0.48 | |
| W-W-CHOH, Weekeepeemee, Chohees Trail,Woodbury | 41.604868 | -73.225439 | 8/17/2021 | Weekeepeemee | 3.64 | 0.00 | 0.00 | 0.50 | Dry | Cloudy | 22 | Low, Average | 19.6 | 227.0 | 410 | 0.37 | |

*** Denotes duplicate samples were collected, the results / field measurements were averaged, and the average the bacteria result was rounded the nearest whole number.*

*Bacteria results are reported/displayed as MPN (most probable number) which equates to Colony Forming Units found in a 100 mL sample (CFU/100mL).*

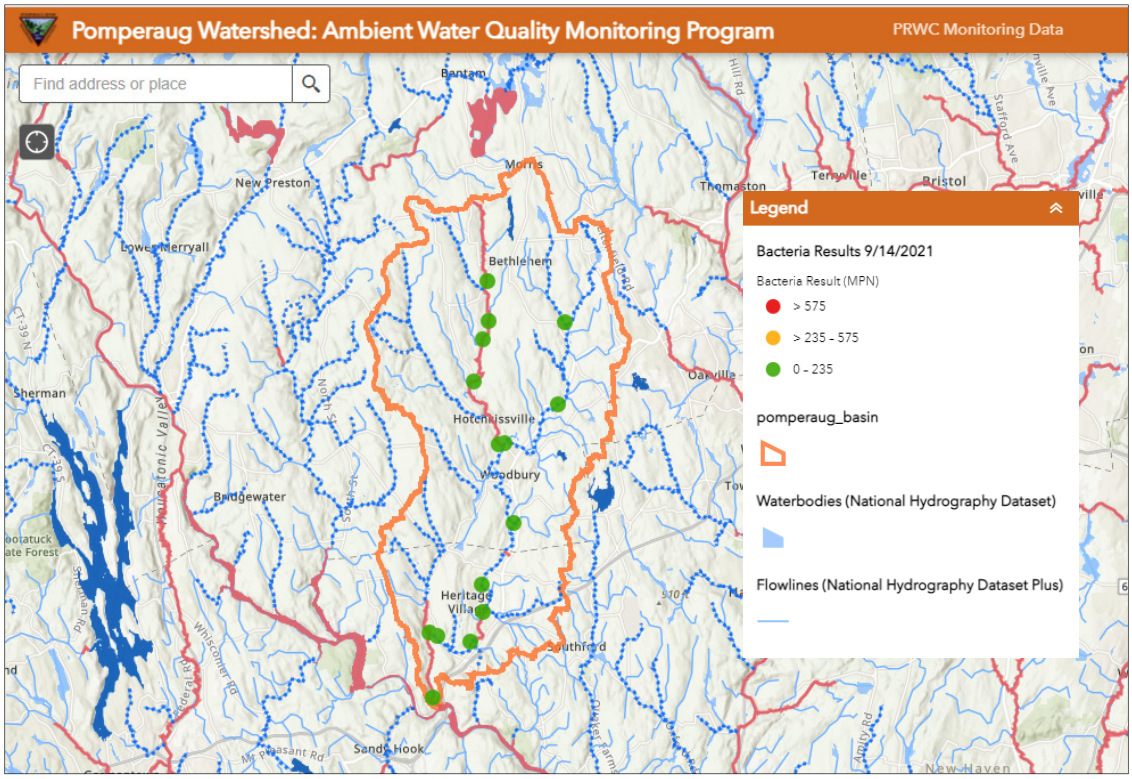


**Figure 7.** Results for Ambient Water Quality Monitoring on September 14, 2021 (*dry weather*).

**Table 13.** Results for Ambient Water Quality Monitoring on September 14, 2021 (*dry weather*).

| Site | Lat | Long | Date | Nearest USGS Stream Gauge | Streamflow (cfs) | Rainfall in Past 24 hrs | Rainfall in Past 48 hrs | Rainfall in Past 96 hrs | Wet/Dry Sample | Weather Condition | Air Temp C | Water Level | Water Temp C | Conductivity (uScm) | Bacteria Result (MPN) | Nitrate (mgL) | Average of Duplicates? |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ES-B-17321, East Spring Brook, Nonnewaug Rd at Porter Hill Rd, Bethlehem | 41.6123 | -73.175557 | 9/14/2021 | Nonnewaug | 13.4 | 0.01 | 0.01 | 0.01 | Dry | Sun with some clouds | 21.0 | Average | 17.1 | 216.0 | 70 | 0.84 | |
| N-W-14355, Nonnewaug, Rt 47 Bridge, Woodbury | 41.557747 | -73.212018 | 9/14/2021 | Nonnewaug | 13.4 | 0.01 | 0.01 | 0.01 | Dry | Sun with some clouds | 24.9 | High | 17.8 | 160.8 | 186 | 1.04 | |
| N-W-16335, Nonnewaug, Mill Rd - USGS Gauge, Woodbury | 41.575191 | -73.179784 | 9/14/2021 | Nonnewaug | 13.4 | 0.01 | 0.01 | 0.01 | Dry | Sun with some clouds | 21.1 | Average | 17.1 | 166.7 | 101 | 0.92 | |
| P-S-15025, Pomperaug, Poverty Rd - Ewald Park - USGS Gauge, Southbury | 41.48159 | -73.225236 | 9/14/2021 | Pomperaug | 87.1 | 0.01 | 0.01 | 0.01 | Dry | Sunny | 20.5 | Average | 18.2 | 210.0 | 56 | 0.74 | |
| P-S-15388, Pomperaug, Bent of the River, Southbury | 41.471108 | -73.252327 | 9/14/2021 | Pomperaug | 87.1 | 0.01 | 0.01 | 0.01 | Dry | Sunny | 20.0 | Average | 18.2 | 212.0 | 72 | 0.72 | |
| P-S-18395, Pomperaug, The Gym - Flood Bridge Rd, Southbury | 41.46805 | -73.232361 | 9/14/2021 | Pomperaug | 87.1 | 0.01 | 0.01 | 0.01 | Dry | Sunny | 20.2 | Average, High | 18.4 | 217.0 | 52 | 0.72 | |
| P-S-OAKD, Pomperaug, Oakdale Manor, Southbury | 41.443227 | -73.254882 | 9/14/2021 | Pomperaug | 87.1 | 0.01 | 0.01 | 0.01 | Dry | Sunny | 18.6 | Average | 18.6 | 227.0 | 64 | 0.74 | |
| P-S-WINS, Pomperaug, Winship Drive at HV River Gardens, Southbury | 41.493903 | -73.22599 | 9/14/2021 | Pomperaug | 87.1 | 0.01 | 0.01 | 0.01 | Dry | Sunny | 22.8 | Average | 18.9 | 178.5 | 61 | 0.65 | |
| P-W-15012, Pomperaug, Middle Quarter / South Pomperaug Ave, Woodbury** | 41.521927 | -73.206119 | 9/14/2021 | Pomperaug | 87.1 | 0.01 | 0.01 | 0.01 | Dry | Sunny | 21.6 | Average | 18.3 | 177.2 | 157 | 0.76 | Yes |
| T-S-14474, Transylvania, Seman Park at East Flat Hill Rd, Southbury | 41.47249 | -73.257451 | 9/14/2021 | Pomperaug | 87.1 | 0.01 | 0.01 | 0.01 | Dry | Sun with some clouds | 20.0 | Average | 18.0 | 195.2 | 67 | 0.31 | |
| W-B-19157, Weekeepeemee, Mill Pond Road, Bethlehem | 41.63057 | -73.222457 | 9/14/2021 | Weekeepeemee | 45.8 | 0.01 | 0.01 | 0.01 | Dry | Sun with some clouds | 19.3 | Average | 17.4 | 167.5 | 52 | 0.35 | |
| W-B-CRAN, Weekeepeemee, Crane Hollow Road Bridge, Bethlehem** | 41.612655 | -73.221779 | 9/14/2021 | Weekeepeemee | 45.8 | 0.01 | 0.01 | 0.01 | Dry | Sun with some clouds | 20.0 | Average | 16.8 | 162.8 | 132 | 0.31 | Yes |
| W-W-15530, Weekeepeemee, Jacks Bridge Rd, Woodbury | 41.557448 | -73.215513 | 9/14/2021 | Weekeepeemee | 45.8 | 0.01 | 0.01 | 0.01 | Dry | Sun with some clouds | 23.0 | High | 17.4 | 134.7 | 82 | 0.40 | |
| W-W-16022, Weekeepeemee, Brushy Hill Rd, Woodbury | 41.585472 | -73.230573 | 9/14/2021 | Weekeepeemee | 45.8 | 0.01 | 0.01 | 0.01 | Dry | Sun with some clouds | 17.8 | Average | 16.9 | 155.2 | 72 | 0.36 | |
| W-W-CHOH, Weekeepeemee, Chohees Trail,Woodbury | 41.604479 | -73.225057 | 9/14/2021 | Weekeepeemee | 45.8 | 0.01 | 0.01 | 0.01 | Dry | Sun with some clouds | 20.4 | Average | 16.9 | 161.7 | 179 | 0.30 | |

*** Denotes duplicate samples were collected, the results / field measurements were averaged, and the average the bacteria result was rounded the nearest whole number.*

*Bacteria results are reported/displayed as MPN (most probable number) which equates to Colony Forming Units found in a 100 mL sample (CFU/100mL).*

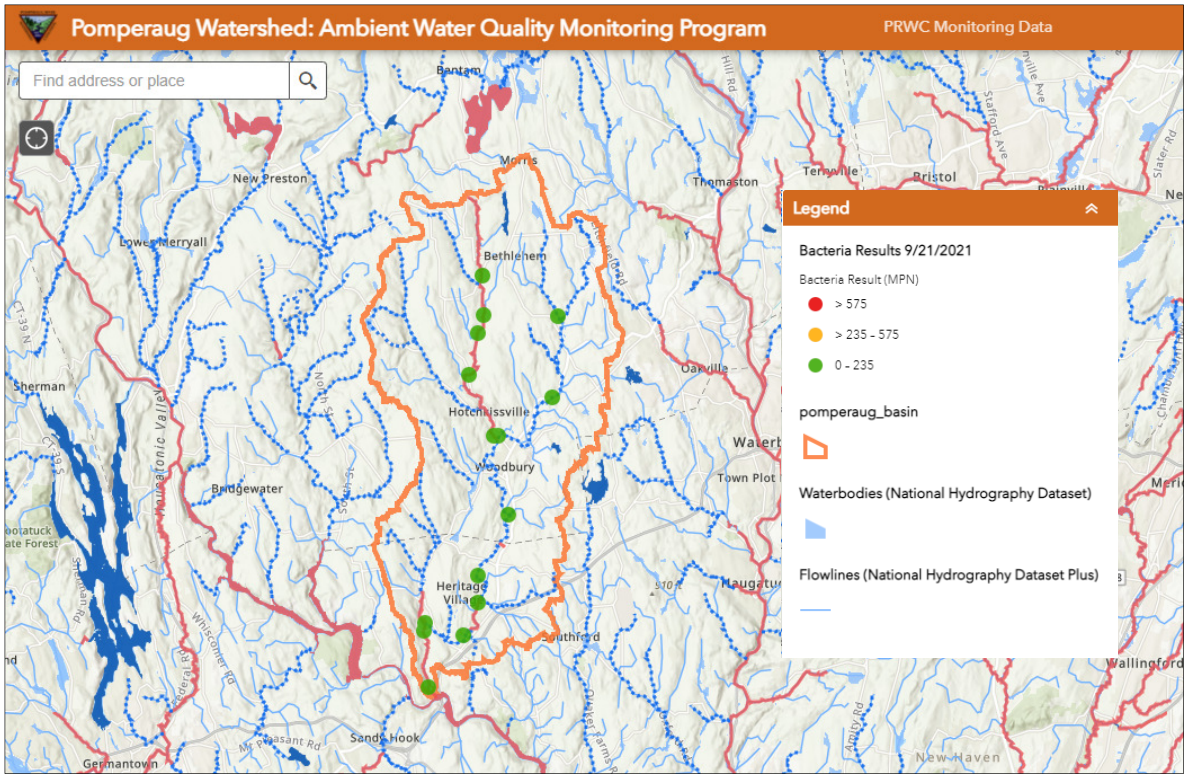


**Figure 8.** Results for Ambient Water Quality Monitoring on September 21, 2021 (*dry weather*).

**Table 14.** Results for Ambient Water Quality Monitoring on September 21, 2021 (*dry weather*).

| Site | Lat | Long | Date | Nearest USGS Stream Gauge | Streamflow (cfs) | Rainfall in Past 24 hrs | Rainfall in Past 48 hrs | Rainfall in Past 96 hrs | Wet/Dry Sample | Weather Condition | Air Temp C | Water Level | Water Temp C | Conductivity (uScm) | Bacteria Result (MPN) | Nitrate (mgL) | Average of Duplicates? |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ES-B-17321, East Spring Brook, Nonnewaug Rd at Porter Hill Rd, Bethlehem | 41.612244 | -73.17601 | 9/21/2021 | Nonnewaug | 8.2 | 0.00 | 0.00 | 0.00 | Dry | Sunny | 19.8 | Average | 15.2 | 228.0 | 46 | 0.81 | |
| N-W-14355, Nonnewaug, Rt 47 Bridge, Woodbury | 41.55789 | -73.212629 | 9/21/2021 | Nonnewaug | 8.2 | 0.00 | 0.00 | 0.00 | Dry | Sunny | 20.0 | Average | 16.0 | 173.3 | 57 | 0.93 | |
| N-W-16335, Nonnewaug, Mill Rd - USGS Gauge, Woodbury | 41.575199 | -73.179746 | 9/21/2021 | Nonnewaug | 8.2 | 0.00 | 0.00 | 0.00 | Dry | Sunny | 19.6 | Average | 15.2 | 175.3 | 55 | 0.88 | |
| P-S-15025, Pomperaug, Poverty Rd - Ewald Park - USGS Gauge, Southbury | 41.48144 | -73.224846 | 9/21/2021 | Pomperaug | 58.9 | 0.00 | 0.00 | 0.00 | Dry | Sunny | 19.1 | Average | 17.2 | 247.0 | 58 | 0.76 | |
| P-S-15388, Pomperaug, Bent of the River, Southbury | 41.468582 | -73.258053 | 9/21/2021 | Pomperaug | 58.9 | 0.00 | 0.00 | 0.00 | Dry | Sunny | 14.5 | Average | 16.9 | 256.0 | 77 | 0.70 | |
| P-S-18395, Pomperaug, The Gym - Flood Bridge Rd, Southbury** | 41.468068 | -73.232349 | 9/21/2021 | Pomperaug | 58.9 | 0.00 | 0.00 | 0.00 | Dry | Sunny | 17.7 | Average | 17.1 | 243.5 | 82 | 0.69 | Yes |
| P-S-OAKD, Pomperaug, Oakdale Manor, Southbury | 41.443063 | -73.255033 | 9/21/2021 | Pomperaug | 58.9 | 0.00 | 0.00 | 0.00 | Dry | Sunny | 14.5 | Average | 16.9 | 249.0 | 60 | 0.71 | |
| P-S-WINS, Pomperaug, Winship Drive at HV River Gardens, Southbury | 41.493843 | -73.225095 | 9/21/2021 | Pomperaug | 58.9 | 0.00 | 0.00 | 0.00 | Dry | Sunny | 21.8 | Average | 18.3 | 195.6 | 50 | 0.60 | |
| P-W-15012, Pomperaug, Middle Quarter / South Pomperaug Ave, Woodbury | 41.521968 | -73.20613 | 9/21/2021 | Pomperaug | 58.9 | 0.00 | 0.00 | 0.00 | Dry | Sun with some clouds | 18.4 | Average | 16.5 | 195.9 | 91 | 0.74 | |
| T-S-14474, Transylvania, Seman Park at East Flat Hill Rd, Southbury | 41.472458 | -73.257452 | 9/21/2021 | Pomperaug | 58.9 | 0.00 | 0.00 | 0.00 | Dry | Sunny | 16.8 | Average | 15.9 | 231.0 | 36 | 0.27 | |
| W-B-19157, Weekeepeemee, Mill Pond Road, Bethlehem | 41.630673 | -73.222475 | 9/21/2021 | Weekeepeemee | 28.8 | 0.00 | 0.00 | 0.00 | Dry | Sunny | 16.2 | Average | 15.1 | 180.0 | 23 | 0.32 | |
| W-B-CRAN, Weekeepeemee, Crane Hollow Road Bridge, Bethlehem | 41.612568 | -73.221765 | 9/21/2021 | Weekeepeemee | 28.8 | 0.00 | 0.00 | 0.00 | Dry | Sunny | 19.5 | Average | 14.9 | 177.1 | 30 | 0.29 | |
| W-W-15530, Weekeepeemee, Jacks Bridge Rd, Woodbury** | 41.557672 | -73.215534 | 9/21/2021 | Weekeepeemee | 28.8 | 0.00 | 0.00 | 0.00 | Dry | Sunny | 14.9 | Average | 14.5 | 146.6 | 19 | 0.37 | Yes |
| W-W-16022, Weekeepeemee, Brushy Hill Rd, Woodbury | 41.585378 | -73.230551 | 9/21/2021 | Weekeepeemee | 28.8 | 0.00 | 0.00 | 0.00 | Dry | Sunny | 13.6 | Average | 14.2 | 168.7 | 25 | 0.33 | |
| W-W-CHOH, Weekeepeemee, Chohees Trail,Woodbury | 41.604507 | -73.225112 | 9/21/2021 | Weekeepeemee | 28.8 | 0.00 | 0.00 | 0.00 | Dry | Sunny | 16.7 | Average | 14.8 | 178.5 | 52 | 0.28 | |

*** Denotes duplicate samples were collected, the results / field measurements were averaged, and the average the bacteria result was rounded the nearest whole number.*

*Bacteria results are reported/displayed as MPN (most probable number) which equates to Colony Forming Units found in a 100 mL sample (CFU/100mL).*

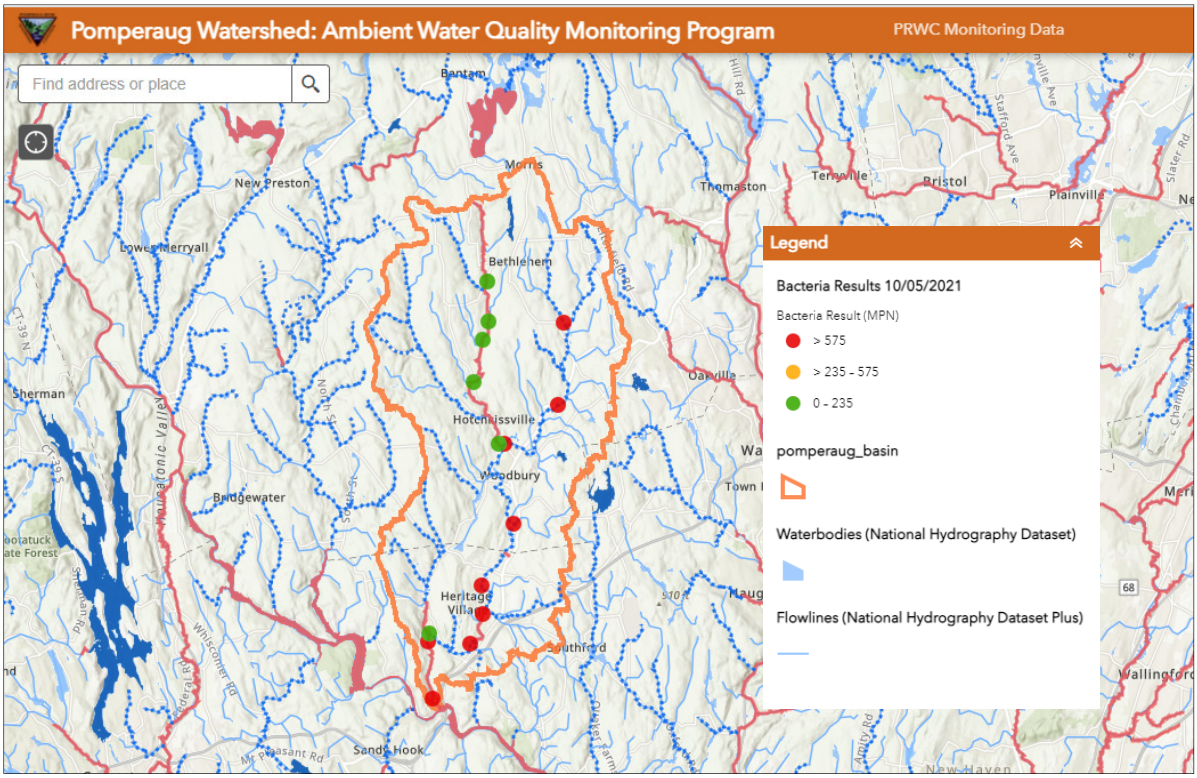


**Figure 9.** Results for Ambient Water Quality Monitoring on October 5, 2021 (*wet weather*).

**Table 15.** Results for Ambient Water Quality Monitoring on October 5, 2021 (*wet weather*).

| Site | Lat | Long | Date | Nearest USGS Stream Gauge | Streamflow (cfs) | Rainfall in Past 24 hrs | Rainfall in Past 48 hrs | Rainfall in Past 96 hrs | Wet/Dry Sample | Weather Condition | Air Temp C | Water Level | Water Temp C | Conductivity (uScm) | Bacteria Result (MPN) | Nitrate (mgL) | Average of Duplicates? |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ES-B-17321, East Spring Brook, Nonnewaug Rd at Porter Hill Rd, Bethlehem | 41.612281 | -73.175954 | 10/5/2021 | Nonnewaug | 42.1 | 0.32 | 0.99 | 0.99 | Wet | Cloudy | 15.0 | High | 14.4 | 209.0 | 816 | 0.45 | |
| N-W-14355, Nonnewaug, Rt 47 Bridge, Woodbury | 41.557806 | -73.21202 | 10/5/2021 | Nonnewaug | 42.1 | 0.32 | 0.99 | 0.99 | Wet | Cloudy | 16.5 | High | 14.5 | 162.6 | 2420 | 0.62 | |
| N-W-16335, Nonnewaug, Mill Rd - USGS Gauge, Woodbury | 41.575141 | -73.179749 | 10/5/2021 | Nonnewaug | 42.1 | 0.32 | 0.99 | 0.99 | Wet | Cloudy | 14.7 | High | 14.4 | 178.9 | 1986 | 0.60 | |
| P-S-15025, Pomperaug, Poverty Rd - Ewald Park - USGS Gauge, Southbury | 41.481277 | -73.22471 | 10/5/2021 | Pomperaug | 164.0 | 0.32 | 0.99 | 0.99 | Wet | Cloudy | 14.6 | Average | 14.8 | 189.4 | 1203 | 0.62 | |
| P-S-15388, Pomperaug, Bent of the River, Southbury | 41.468803 | -73.258192 | 10/5/2021 | Pomperaug | 164.0 | 0.32 | 0.99 | 0.99 | Wet | Cloudy | 13.6 | Average, High | 14.8 | 184.4 | 1414 | 0.58 | |
| P-S-18395, Pomperaug, The Gym - Flood Bridge Rd, Southbury | 41.467663 | -73.232615 | 10/5/2021 | Pomperaug | 164.0 | 0.32 | 0.99 | 0.99 | Wet | Cloudy | 14.1 | Average, High | 14.8 | 181.5 | 1046 | 0.60 | |
| P-S-OAKD, Pomperaug, Oakdale Manor, Southbury | 41.443052 | -73.2551 | 10/5/2021 | Pomperaug | 164.0 | 0.32 | 0.99 | 0.99 | Wet | Cloudy | 13.8 | Average | 14.9 | 185.1 | 1300 | 0.60 | |
| P-S-WINS, Pomperaug, Winship Drive at HV River Gardens, Southbury** | 41.493924 | -73.225778 | 10/5/2021 | Pomperaug | 164.0 | 0.32 | 0.99 | 0.99 | Wet | Cloudy | 17.1 | Average | 15.1 | 155.8 | 1643 | 0.56 | Yes |
| P-W-15012, Pomperaug, Middle Quarter / South Pomperaug Ave, Woodbury | 41.521974 | -73.206267 | 10/5/2021 | Pomperaug | 164.0 | 0.32 | 0.99 | 0.99 | Wet | Cloudy | 15.1 | Average | 14.6 | 147.6 | 2420 | 0.51 | |
| T-S-14474, Transylvania, Seman Park at East Flat Hill Rd, Southbury | 41.472605 | -73.257268 | 10/5/2021 | Pomperaug | 164.0 | 0.32 | 0.99 | 0.99 | Wet | Cloudy | 14.9 | Average | 15.0 | 173.7 | 185 | 0.28 | |
| W-B-19157, Weekeepeemee, Mill Pond Road, Bethlehem** | 41.630555 | -73.222388 | 10/5/2021 | Weekeepeemee | 82.2 | 0.32 | 0.99 | 0.99 | Wet | Cloudy | 13.6 | High | 14.3 | 173.2 | 57 | 0.27 | Yes |
| W-B-CRAN, Weekeepeemee, Crane Hollow Road Bridge, Bethlehem | 41.612592 | -73.221826 | 10/5/2021 | Weekeepeemee | 82.2 | 0.32 | 0.99 | 0.99 | Wet | Cloudy | 16.7 | High | 14.1 | 172.2 | 76 | 0.22 | |
| W-W-15530, Weekeepeemee, Jacks Bridge Rd, Woodbury | 41.557657 | -73.215449 | 10/5/2021 | Weekeepeemee | 82.2 | 0.32 | 0.99 | 0.99 | Wet | Cloudy | 13.1 | High | 14.1 | 144.9 | 93 | 0.28 | |
| W-W-16022, Weekeepeemee, Brushy Hill Rd, Woodbury | 41.585531 | -73.230696 | 10/5/2021 | Weekeepeemee | 82.2 | 0.32 | 0.99 | 0.99 | Wet | Cloudy | 14.5 | High | 14.1 | 161.4 | 88 | 0.26 | |
| W-W-CHOH, Weekeepeemee, Chohees Trail,Woodbury | 41.604529 | -73.225031 | 10/5/2021 | Weekeepeemee | 82.2 | 0.32 | 0.99 | 0.99 | Wet | Cloudy | 13.4 | High | 14.1 | 175.5 | 74 | 0.23 | |

*** Denotes duplicate samples were collected, the results / field measurements were averaged, and the average the bacteria result was rounded the nearest whole number.*

*Bacteria results are reported/displayed as MPN (most probable number) which equates to Colony Forming Units found in a 100 mL sample (CFU/100mL).*

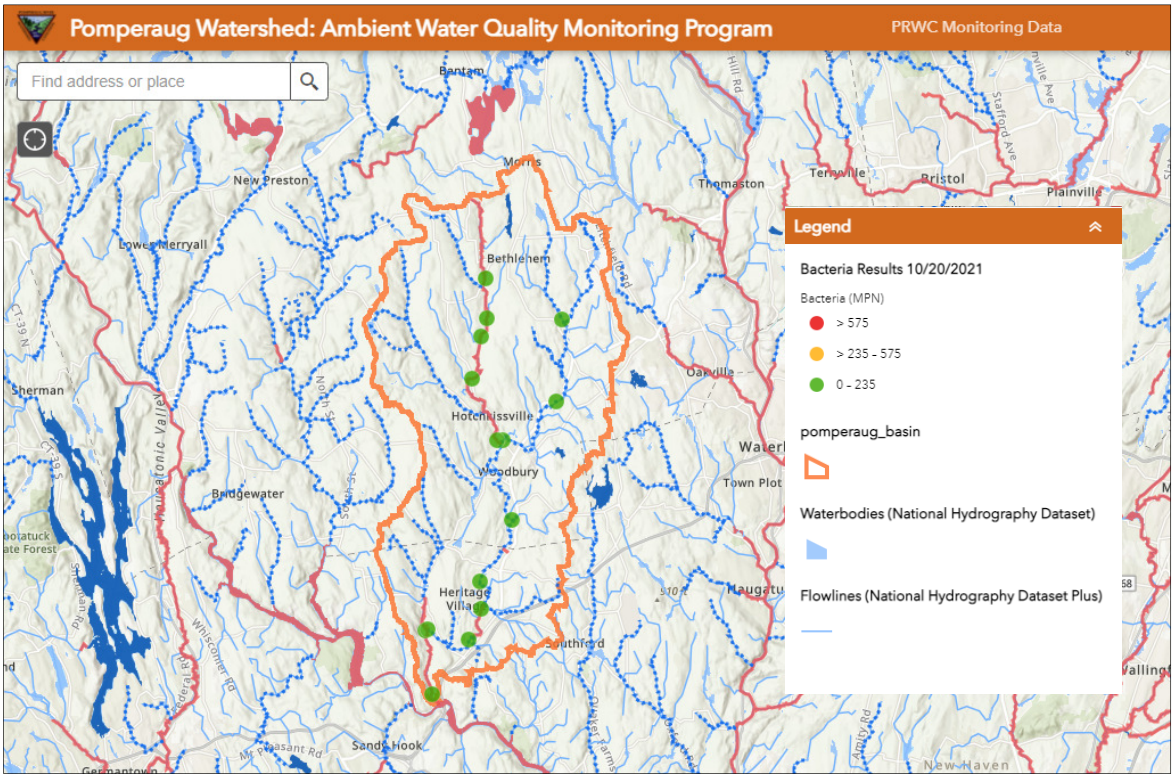


**Figure 10.** Results for Ambient Water Quality Monitoring on October 20, 2021 (*dry weather*).

**Table 16**. Results for Ambient Water Quality Monitoring on October 20, 2021 (*dry weather*).

| Site | Lat | Long | Date | Nearest USGS Stream Gauge | Streamflow (cfs) | Rainfall in Past 24 hrs | Rainfall in Past 48 hrs | Rainfall in Past 96 hrs | Wet/Dry Sample | Weather Condition | Air Temp C | Water Level | Water Temp C | Conductivity (uScm) | Bacteria Result (MPN) | Nitrate (mgL) | Average of Duplicates? |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ES-B-17321, East Spring Brook, Nonnewaug Rd at Porter Hill Rd, Bethlehem** | 41.612282 | -73.17559 | 10/20/2021 | Nonnewaug | 14.2 | 0.01 | 0.06 | 0.59 | Dry | Sun with some clouds | 13.3 | Average | 10.7 | 216.5 | 22 | 0.63 | Yes |
| N-W-14355, Nonnewaug, Rt 47 Bridge, Woodbury | 41.557772 | -73.212022 | 10/20/2021 | Nonnewaug | 14.2 | 0.01 | 0.06 | 0.59 | Dry | Sunny | 16.4 | Average | 11.1 | 176.3 | 39 | 0.88 | |
| N-W-16335, Nonnewaug, Mill Rd - USGS Gauge, Woodbury | 41.575193 | -73.179773 | 10/20/2021 | Nonnewaug | 14.2 | 0.01 | 0.06 | 0.59 | Dry | Sun with some clouds | 14.4 | Average | 10.3 | 181.3 | 46 | 0.81 | |
| P-S-15025, Pomperaug, Poverty Rd - Ewald Park - USGS Gauge, Southbury** | 41.481494 | -73.2249 | 10/20/2021 | Pomperaug | 62.4 | 0.01 | 0.06 | 0.59 | Dry | Clouds with some sun | 10.0 | Average, Low | 12.6 | 263.0 | 75 | 0.85 | Yes |
| P-S-15388, Pomperaug, Bent of the River, Southbury | 41.471878 | -73.258477 | 10/20/2021 | Pomperaug | 62.4 | 0.01 | 0.06 | 0.59 | Dry | Clouds with some sun | 9.0 | Low | 12.0 | 257.0 | 52 | 0.80 | |
| P-S-18395, Pomperaug, The Gym - Flood Bridge Rd, Southbury | 41.468027 | -73.232231 | 10/20/2021 | Pomperaug | 62.4 | 0.01 | 0.06 | 0.59 | Dry | Clouds with some sun | 10.3 | Average | 12.4 | 254.0 | 56 | 0.80 | |
| P-S-OAKD, Pomperaug, Oakdale Manor, Southbury | 41.443001 | -73.254729 | 10/20/2021 | Pomperaug | 62.4 | 0.01 | 0.06 | 0.59 | Dry | Clouds with some sun | 9.0 | Low | 11.9 | 253.0 | 34 | 0.84 | |
| P-S-WINS, Pomperaug, Winship Drive at HV River Gardens, Southbury | 41.493957 | -73.225789 | 10/20/2021 | Pomperaug | 62.4 | 0.01 | 0.06 | 0.59 | Dry | Sun with some clouds | 12.1 | Average, Low | 13.1 | 196.5 | 62 | 0.72 | |
| P-W-15012, Pomperaug, Middle Quarter / South Pomperaug Ave, Woodbury | 41.493982 | -73.225825 | 10/20/2021 | Pomperaug | 62.4 | 0.01 | 0.06 | 0.59 | Dry | Sunny | 12.5 | Average, Low | 10.8 | 195.8 | 125 | 0.55 | |
| T-S-14474, Transylvania, Seman Park at East Flat Hill Rd, Southbury | 41.472472 | -73.257407 | 10/20/2021 | Pomperaug | 62.4 | 0.01 | 0.06 | 0.59 | Dry | Clouds with some sun | 10.3 | Average | 11.5 | 224.0 | 40 | 0.47 | |
| W-B-19157, Weekeepeemee, Mill Pond Road, Bethlehem | 41.630557 | -73.222402 | 10/20/2021 | Weekeepeemee | 29.6 | 0.01 | 0.06 | 0.59 | Dry | Sun with some clouds | 12.2 | Average | 10.8 | 170.1 | 26 | 0.46 | |
| W-B-CRAN, Weekeepeemee, Crane Hollow Road Bridge, Bethlehem | 41.612645 | -73.221741 | 10/20/2021 | Weekeepeemee | 29.6 | 0.01 | 0.06 | 0.59 | Dry | Sun with some clouds | 12.5 | Average | 10.2 | 173.6 | 84 | 0.38 | |
| W-W-15530, Weekeepeemee, Jacks Bridge Rd, Woodbury | 41.557671 | -73.215472 | 10/20/2021 | Weekeepeemee | 29.6 | 0.01 | 0.06 | 0.59 | Dry | Clouds with some sun | 6.8 | Average | 9.9 | 151.1 | 18 | 0.44 | |
| W-W-16022, Weekeepeemee, Brushy Hill Rd, Woodbury | 41.585451 | -73.230542 | 10/20/2021 | Weekeepeemee | 29.6 | 0.01 | 0.06 | 0.59 | Dry | Sun with some clouds | 7.7 | Average | 9.6 | 166.8 | 32 | 0.40 | |
| W-W-CHOH, Weekeepeemee, Chohees Trail,Woodbury | 41.604571 | -73.225062 | 10/20/2021 | Weekeepeemee | 29.6 | 0.01 | 0.06 | 0.59 | Dry | Sun with some clouds | 9.4 | Average | 9.9 | 176.4 | 51 | 0.40 | |

*** Denotes duplicate samples were collected, the results / field measurements were averaged, and the average the bacteria result was rounded the nearest whole number.*

*Bacteria results are reported/displayed as MPN (most probable number) which equates to Colony Forming Units found in a 100 mL sample (CFU/100mL).*

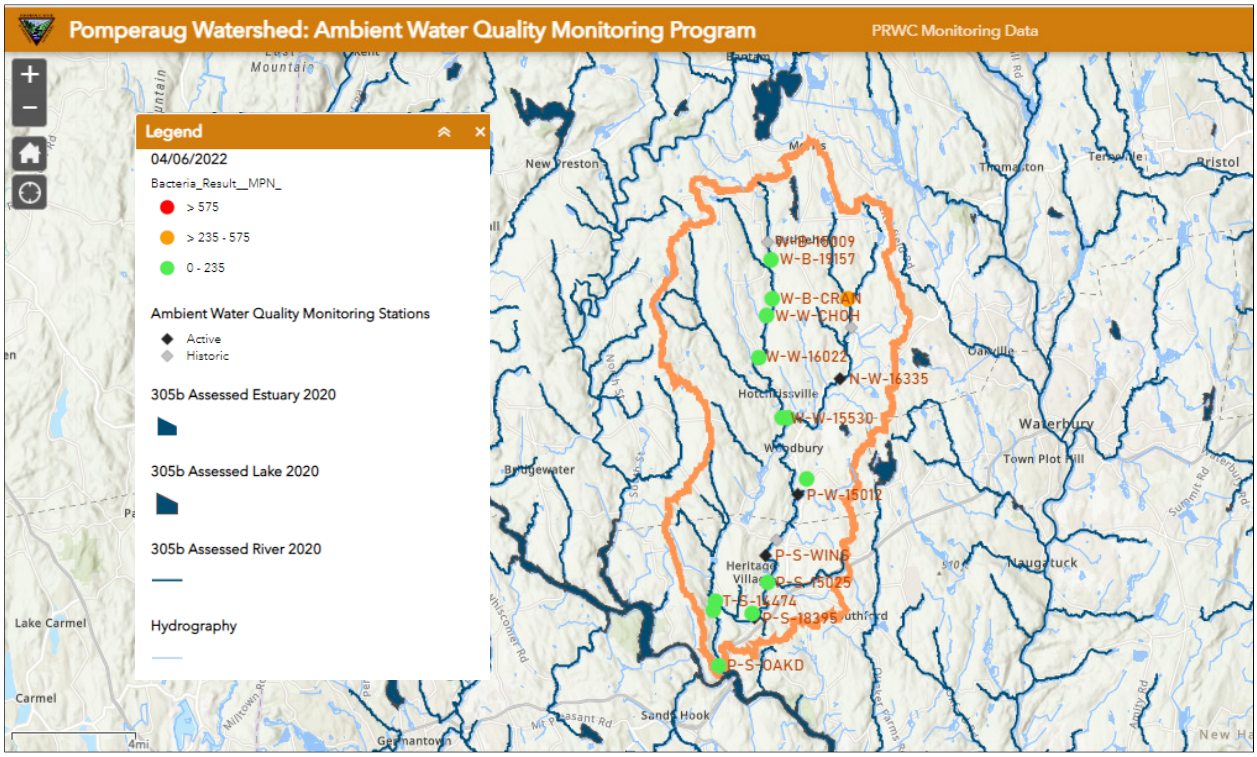


**Figure 11.** Results for Ambient Water Quality Monitoring on April 6, 2022 (*wet weather*).*

**Table 17.** Results for Ambient Water Quality Monitoring on April 6, 2022 (*wet weather*).*

| Site | Lat | Long | Date | Nearest USGS Stream Gauge | Streamflow (cfs) | Rainfall in Past 24 hrs | Rainfall in Past 48 hrs | Rainfall in Past 96 hrs | Wet/Dry Sample | Weather Condition | Air Temp C | Water Level | Water Temp C | Conductivity (uScm) | Bacteria Result (MPN) | Nitrate (mgL) | Average of Duplicates? |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ES-B-17321, East Spring Brook, Nonnewaug Rd at Porter Hill Rd, Bethlehem | 41.612282 | -73.17559 | 4/6/2022 | Nonnewaug | 46.3 | 0.22 | 0.41 | 0.41 | WET | Cloudy | 9.4 | Average | 7.9 | 199.3 | 260 | 0.53 | |
| N-W-14355, Nonnewaug, Rt 47 Bridge, Woodbury | 41.557772 | -73.212022 | 4/6/2022 | Nonnewaug | 46.3 | 0.2 | 0.4 | 0.4 | WET | Not Sampled | | | | | | | |
| N-W-16335, Nonnewaug, Mill Rd - USGS Gauge, Woodbury | 41.575193 | -73.179773 | 4/6/2022 | Nonnewaug | 46.3 | 0.22 | 0.22 | 0.41 | WET | Cloudy | 9.1 | High | 8.7 | 138.4 | 180 | 0.53 | |
| P-S-15025, Pomperaug, Poverty Rd - Ewald Park - USGS Gauge, Southbury | 41.481494 | -73.2249 | 4/6/2022 | Pomperaug | 170 | 0.22 | 0.41 | 0.41 | WET | Foggy/misty | 9.7 | High, Average | 9.3 | 208 | 20 | 0.64 | |
| P-S-15388, Pomperaug, Bent of the River, Southbury | 41.471878 | -73.258477 | 4/6/2022 | Pomperaug | 170 | 0.22 | 0.41 | 0.41 | WET | Foggy/misty | 9.1 | High, Average | 9.0 | 215 | 37 | 0.58 | |
| P-S-18395, Pomperaug, The Gym - Flood Bridge Rd, Southbury** | 41.468027 | -73.232231 | 4/6/2022 | Pomperaug | 170 | 0.22 | 0.41 | 0.41 | WET | Foggy/misty | 8.9 | Average, High | 9.1 | 206.5 | 34 | 0.61 | Yes |
| P-S-OAKD, Pomperaug, Oakdale Manor, Southbury | 41.443001 | -73.254729 | 4/6/2022 | Pomperaug | 170 | 0.22 | 0.41 | 0.41 | WET | Light rain | 10.1 | High, Average | 8.9 | 224 | 20 | 0.60 | |
| P-S-WINS, Pomperaug, Winship Drive at HV River Gardens, Southbury | 41.493957 | -73.225789 | 4/6/2022 | Pomperaug | 170 | 0.22 | 0.41 | 0.41 | WET | Foggy/misty | 9.6 | Average | 9.4 | 164.2 | 34 | 0.53 | |
| P-W-15012, Pomperaug, Middle Quarter / South Pomperaug Ave, Woodbury | 41.493982 | -73.225825 | 4/6/2022 | Pomperaug | 170 | 0.22 | 0.41 | 0.41 | WET | Not Sampled | | | | | | | |
| T-S-14474, Transylvania, Seman Park at East Flat Hill Rd, Southbury | 41.472472 | -73.257407 | 4/6/2022 | Pomperaug | 170 | 0.22 | 0.41 | 0.41 | WET | Foggy/misty | 9.4 | Average | 9.0 | 200 | 45 | 0.52 | |
| W-B-19157, Weekeepeemee, Mill Pond Road, Bethlehem | 41.630557 | -73.222402 | 4/6/2022 | Weekeepeemee | 76.4 | 0.22 | 0.41 | 0.41 | WET | Light rain | 8.1 | Average | 8.6 | 161.3 | 9 | 0.30 | |
| W-B-CRAN, Weekeepeemee, Crane Hollow Road Bridge, Bethlehem | 41.612645 | -73.221741 | 4/6/2022 | Weekeepeemee | 76.4 | 0.22 | 0.41 | 0.41 | WET | Light rain | 9.1 | Average | 8.3 | 160.4 | 120 | 0.27 | |
| W-W-15530, Weekeepeemee, Jacks Bridge Rd, Woodbury** | 41.557671 | -73.215472 | 4/6/2022 | Weekeepeemee | 76.4 | 0.22 | 0.41 | 4.10 | WET | Light rain | 9.4 | High | 8.0 | 133 | 67 | 0.33 | Yes |
| W-W-16022, Weekeepeemee, Brushy Hill Rd, Woodbury | 41.585451 | -73.230542 | 4/6/2022 | Weekeepeemee | 76.4 | 0.22 | 0.41 | 0.41 | WET | Light rain | 8.9 | Average | 8.2 | 145.8 | 160 | 0.33 | |
| W-W-CHOH, Weekeepeemee, Chohees Trail,Woodbury | 41.604571 | -73.225062 | 4/6/2022 | Weekeepeemee | 76.4 | 0.22 | 0.41 | 0.41 | WET | Cloudy | 8.6 | High | 8.3 | 160.8 | 130 | 0.29 | |

** These data should be rejected and should not be included in determining compliance with water quality standards as their accuracy was not supported by the submission of a blank to the water testing laboratory.*

*** Denotes duplicate samples were collected, the results / field measurements were averaged, and the average the bacteria result was rounded the nearest whole number.*

*Bacteria results are reported/displayed as MPN (most probable number) which equates to Colony Forming Units found in a 100 mL sample (CFU/100mL).*

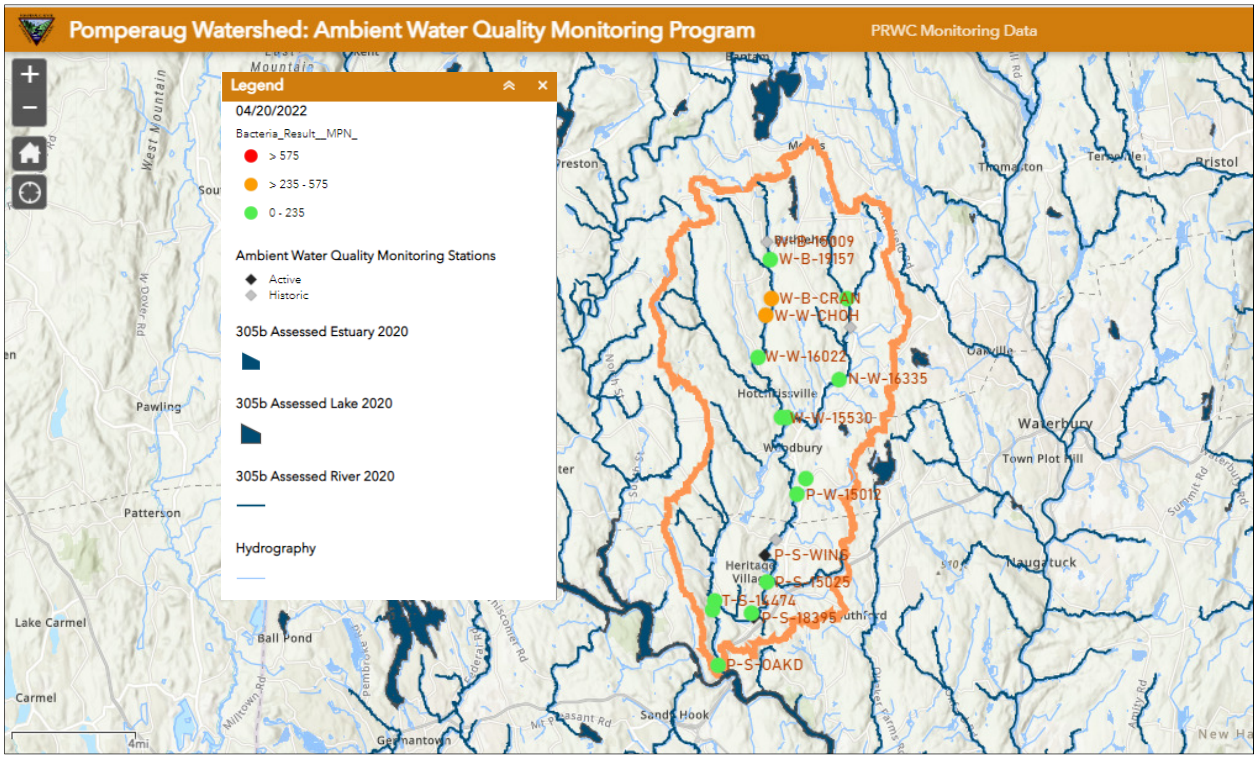


**Figure 12.** Results for Ambient Water Quality Monitoring on April 20, 2022 (*wet weather*).*

**Table 18.** Results for Ambient Water Quality Monitoring on April 20, 2022 (*wet weather*).*

| Site | Lat | Long | Date | Nearest USGS Stream Gauge | Streamflow (cfs) | Rainfall in Past 24 hrs | Rainfall in Past 48 hrs | Rainfall in Past 96 hrs | Wet/Dry Sample | Weather Condition | Air Temp C | Water Level | Water Temp C | Conductivity (uScm) | Bacteria Result (MPN) | Nitrate (mgL) | Average of Duplicates? |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ES-B-17321, East Spring Brook, Nonnewaug Rd at Porter Hill Rd, Bethlehem | 41.612282 | -73.17559 | 4/20/2022 | Nonnewaug | 68.6 | 0.02 | 1.39 | 1.61 | WET | Sun with some clouds | 12.7 | High | 9.9 | 176.3 | 94 | 0.32 | |
| N-W-14355, Nonnewaug, Rt 47 Bridge, Woodbury | 41.557772 | -73.212022 | 4/20/2022 | Nonnewaug | 68.6 | 0.02 | 1.39 | 1.61 | WET | Sunny | 12.6 | Average | 8.6 | 144.5 | 120 | 0.52 | |
| N-W-16335, Nonnewaug, Mill Rd - USGS Gauge, Woodbury | 41.575193 | -73.179773 | 4/20/2022 | Nonnewaug | 68.6 | 0.02 | 1.39 | 1.61 | WET | Sunny | 11 | High | 8.8 | 151.7 | 150 | 0.51 | |
| P-S-15025, Pomperaug, Poverty Rd - Ewald Park - USGS Gauge, Southbury | 41.481494 | -73.2249 | 4/20/2022 | Pomperaug | 328 | 0.02 | 1.39 | 1.61 | WET | Sun with some clouds | 11.2 | High | 8.8 | 183.5 | 96 | 0.46 | |
| P-S-15388, Pomperaug, Bent of the River, Southbury | 41.471878 | -73.258477 | 4/20/2022 | Pomperaug | 328 | 0.02 | 1.39 | 1.61 | WET | Sun with some clouds | 11.5 | High | 8.2 | 165.4 | 130 | 0.41 | |
| P-S-18395, Pomperaug, The Gym - Flood Bridge Rd, Southbury | 41.468027 | -73.232231 | 4/20/2022 | Pomperaug | 328 | 0.02 | 1.39 | 1.61 | WET | Sun with some clouds | 11.5 | High | 8.4 | 159.4 | 120 | 0.40 | |
| P-S-OAKD, Pomperaug, Oakdale Manor, Southbury | 41.443001 | -73.254729 | 4/20/2022 | Pomperaug | 328 | 1.20 | 1.20 | 1.20 | WET | Sun with some clouds | 10.7 | Average, High | 7.8 | 161 | 160 | 0.51 | |
| P-S-WINS, Pomperaug, Winship Drive at HV River Gardens, Southbury** | 41.493957 | -73.225789 | 4/20/2022 | Pomperaug | 328 | 0.02 | 1.39 | 1.61 | WET | Sun with some clouds | 12.4 | Average | 9.1 | 137.6 | 115 | 0.37 | Yes |
| P-W-15012, Pomperaug, Middle Quarter / South Pomperaug Ave, Woodbury | 41.493982 | -73.225825 | 4/20/2022 | Pomperaug | 328 | 0.02 | 1.39 | 1.61 | WET | Sunny | 9.7 | High | 7.6 | 141.4 | 130 | 0.46 | |
| T-S-14474, Transylvania, Seman Park at East Flat Hill Rd, Southbury | 41.472472 | -73.257407 | 4/20/2022 | Pomperaug | 328 | 0.02 | 1.39 | 1.61 | WET | Sun with some clouds | 12.8 | Average | 9.0 | 159.1 | 82 | 0.40 | |
| W-B-19157, Weekeepeemee, Mill Pond Road, Bethlehem | 41.630557 | -73.222402 | 4/20/2022 | Weekeepeemee | 120 | 0.02 | 1.39 | 1.61 | WET | Sun with some clouds | 12.3 | High | 9.4 | 149.1 | 16 | 0.24 | |
| W-B-CRAN, Weekeepeemee, Crane Hollow Road Bridge, Bethlehem | 41.612645 | -73.221741 | 4/20/2022 | Weekeepeemee | 120 | 0.02 | 1.39 | 1.61 | WET | Sun with some clouds | 11.2 | High | 8.6 | 147.6 | 410 | 0.15 | |
| W-W-15530, Weekeepeemee, Jacks Bridge Rd, Woodbury** | 41.557671 | -73.215472 | 4/20/2022 | Weekeepeemee | 120 | 0.02 | 1.39 | 1.61 | WET | Sunny | 11.1 | High | 8.1 | 123.7 | 76 | 0.26 | Yes |
| W-W-16022, Weekeepeemee, Brushy Hill Rd, Woodbury | 41.585451 | -73.230542 | 4/20/2022 | Weekeepeemee | 120 | 0.02 | 1.39 | 1.61 | WET | Sun with some clouds | 12.4 | High | 7.4 | 147.4 | 190 | 0.20 | |
| W-W-CHOH, Weekeepeemee, Chohees Trail,Woodbury | 41.604571 | -73.225062 | 4/20/2022 | Weekeepeemee | 120 | 0.02 | 1.39 | 1.61 | WET | Sun with some clouds | 12.5 | High | 8.3 | 149.8 | 240 | 0.28 | |

** These data should be rejected and should not be included in determining compliance with water quality standards as their accuracy was not supported by the results for blanks to the water testing laboratory; blanks consisting of distilled water were returned with measurable levels of bacteria and nitrate.*

*** Denotes duplicate samples were collected, the results / field measurements were averaged, and the average the bacteria result was rounded the nearest whole number.*

*Bacteria results are reported/displayed as MPN (most probable number) which equates to Colony Forming Units found in a 100 mL sample (CFU/100mL).*

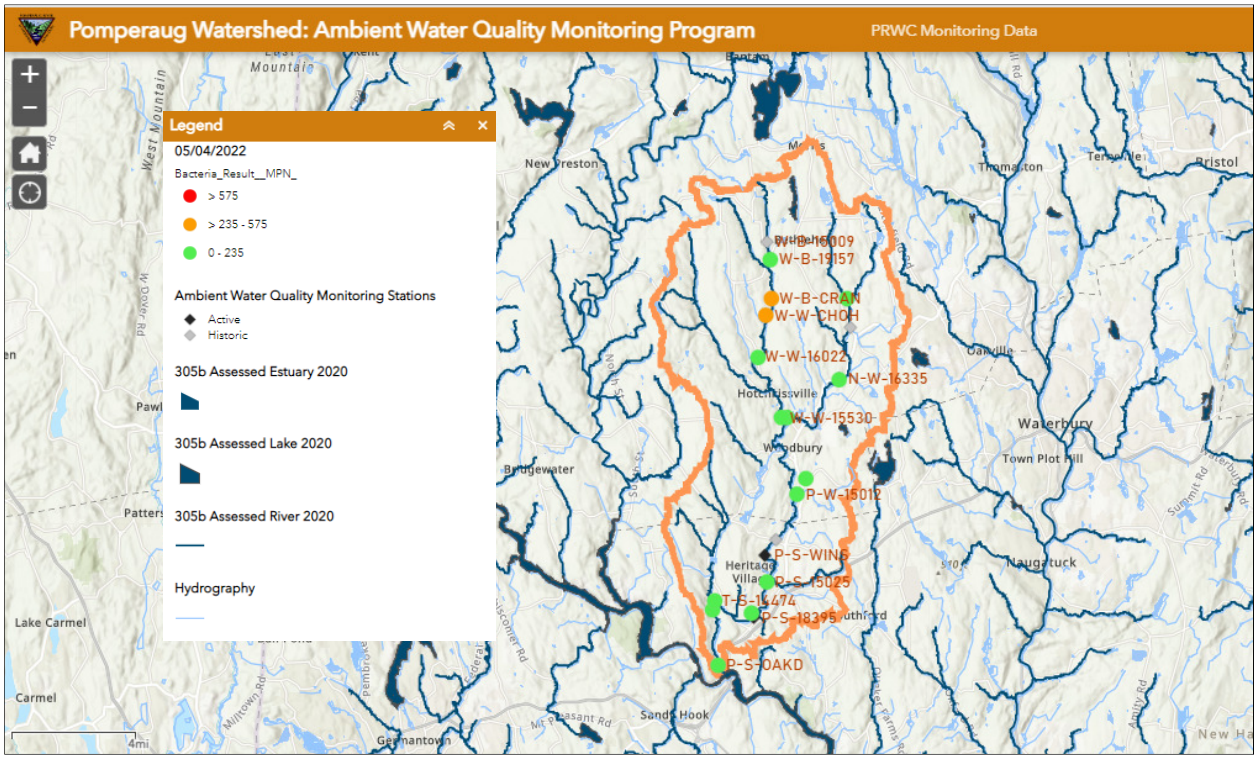


**Figure 13.** Results for Ambient Water Quality Monitoring on May 4, 2022 (*wet weather*).*

**Table 19.** Results for Ambient Water Quality Monitoring on May 4, 2022 (*wet weather*).*

| Site | Lat | Long | Date | Nearest USGS Stream Gauge | Streamflow (cfs) | Rainfall in Past 24 hrs | Rainfall in Past 48 hrs | Rainfall in Past 96 hrs | Wet/Dry Sample | Weather Condition | Air Temp C | Water Level | Water Temp C | Conductivity (uScm) | Bacteria Result (MPN) | Nitrate (mgL) | Average of Duplicates? |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ES-B-17321, East Spring Brook, Nonnewaug Rd at Porter Hill Rd, Bethlehem | 41.612282 | -73.17559 | 5/4/2022 | Nonnewaug | 30.4 | 0.05 | 0.60 | 0.64 | WET | Light rain, Cloudy | 10.6 | Average | 10.4 | 193.8 | 210 | 0.37 | |
| N-W-14355, Nonnewaug, Rt 47 Bridge, Woodbury | 41.557772 | -73.212022 | 5/4/2022 | Nonnewaug | 30.4 | 0.05 | 0.60 | 0.64 | WET | Light rain | 10.7 | High | 10.8 | 145.7 | 40 | 0.62 | |
| N-W-16335, Nonnewaug, Mill Rd - USGS Gauge, Woodbury | 41.575193 | -73.179773 | 5/4/2022 | Nonnewaug | 30.4 | 0.05 | 0.60 | 0.64 | WET | Cloudy | 13.5 | Average | 10.9 | 162.8 | 51 | 0.53 | |
| P-S-15025, Pomperaug, Poverty Rd - Ewald Park - USGS Gauge, Southbury | 41.481494 | -73.2249 | 5/4/2022 | Pomperaug | 133 | 0.05 | 0.60 | 0.64 | WET | Cloudy | 12.4 | Average | 11.5 | 217 | 130 | 0.58 | |
| P-S-15388, Pomperaug, Bent of the River, Southbury** | 41.471878 | -73.258477 | 5/4/2022 | Pomperaug | 133 | 0.05 | 0.60 | 0.64 | WET | Moderate or steady rain | 11.4 | Average | 11.3 | 195.6 | 63 | 0.50 | Yes |
| P-S-18395, Pomperaug, The Gym - Flood Bridge Rd, Southbury | 41.468027 | -73.232231 | 5/4/2022 | Pomperaug | 133 | 0.05 | 0.60 | 0.64 | WET | Cloudy | 11.8 | Average | 11.9 | 197.7 | 91 | 0.49 | |
| P-S-OAKD, Pomperaug, Oakdale Manor, Southbury | 41.443001 | -73.254729 | 5/4/2022 | Pomperaug | 133 | 0.05 | 0.60 | 0.64 | WET | Light rain | 11.5 | Average | 11.2 | 297 | 150 | 0.50 | |
| P-S-WINS, Pomperaug, Winship Drive at HV River Gardens, Southbury | 41.493957 | -73.225789 | 5/4/2022 | Pomperaug | 133 | 0.05 | 0.60 | 0.64 | WET | Cloudy | 13.2 | Average | 11.6 | 159.9 | 55 | 0.41 | |
| P-W-15012, Pomperaug, Middle Quarter / South Pomperaug Ave, Woodbury | 41.493982 | -73.225825 | 5/4/2022 | Pomperaug | 133 | 0.05 | 0.60 | 0.64 | WET | Light rain | 12.2 | Average | 11.3 | 157.8 | 110 | 0.10 | |
| T-S-14474, Transylvania, Seman Park at East Flat Hill Rd, Southbury | 41.472472 | -73.257407 | 5/4/2022 | Pomperaug | 133 | 0.05 | 0.60 | 0.64 | WET | Light rain | 12 | Average | 11.5 | 182.8 | 44 | 0.38 | |
| W-B-19157, Weekeepeemee, Mill Pond Road, Bethlehem | 41.630557 | -73.222402 | 5/4/2022 | Weekeepeemee | 49.7 | 0.05 | 0.60 | 0.64 | WET | Light rain | 10.9 | Average | 10.9 | 161.7 | 23 | 0.32 | |
| W-B-CRAN, Weekeepeemee, Crane Hollow Road Bridge, Bethlehem | 41.612645 | -73.221741 | 5/4/2022 | Weekeepeemee | 49.7 | 0.05 | 0.60 | 0.64 | WET | Foggy/misty | 11.2 | Average | 10.6 | 156.3 | 390 | 0.27 | |
| W-W-15530, Weekeepeemee, Jacks Bridge Rd, Woodbury | 41.557671 | -73.215472 | 5/4/2022 | Weekeepeemee | 49.7 | 0.05 | 0.60 | 0.64 | WET | Moderate or steady rain | 11.9 | High | 10.5 | 142.2 | 33 | 0.33 | |
| W-W-16022, Weekeepeemee, Brushy Hill Rd, Woodbury** | 41.585451 | -73.230542 | 5/4/2022 | Weekeepeemee | 49.7 | 0.05 | 0.60 | 0.64 | WET | Light rain | 12.5 | Average | 10.6 | 147.2 | 165 | 0.32 | Yes |
| W-W-CHOH, Weekeepeemee, Chohees Trail,Woodbury | 41.604571 | -73.225062 | 5/4/2022 | Weekeepeemee | 49.7 | 0.05 | 0.60 | 0.64 | WET | Light rain | 11.6 | Average | 10.5 | 158.4 | 290 | 0.28 | |

** These data should be rejected and should not be included in determining compliance with water quality standards as their accuracy was not supported by the results for blanks to the water testing laboratory; blanks consisting of distilled water were returned with measurable levels of bacteria and nitrate.*

*** Denotes duplicate samples were collected, the results / field measurements were averaged, and the average the bacteria result was rounded the nearest whole number.*

*Bacteria results are reported/displayed as MPN (most probable number) which equates to Colony Forming Units found in a 100 mL sample (CFU/100mL).*

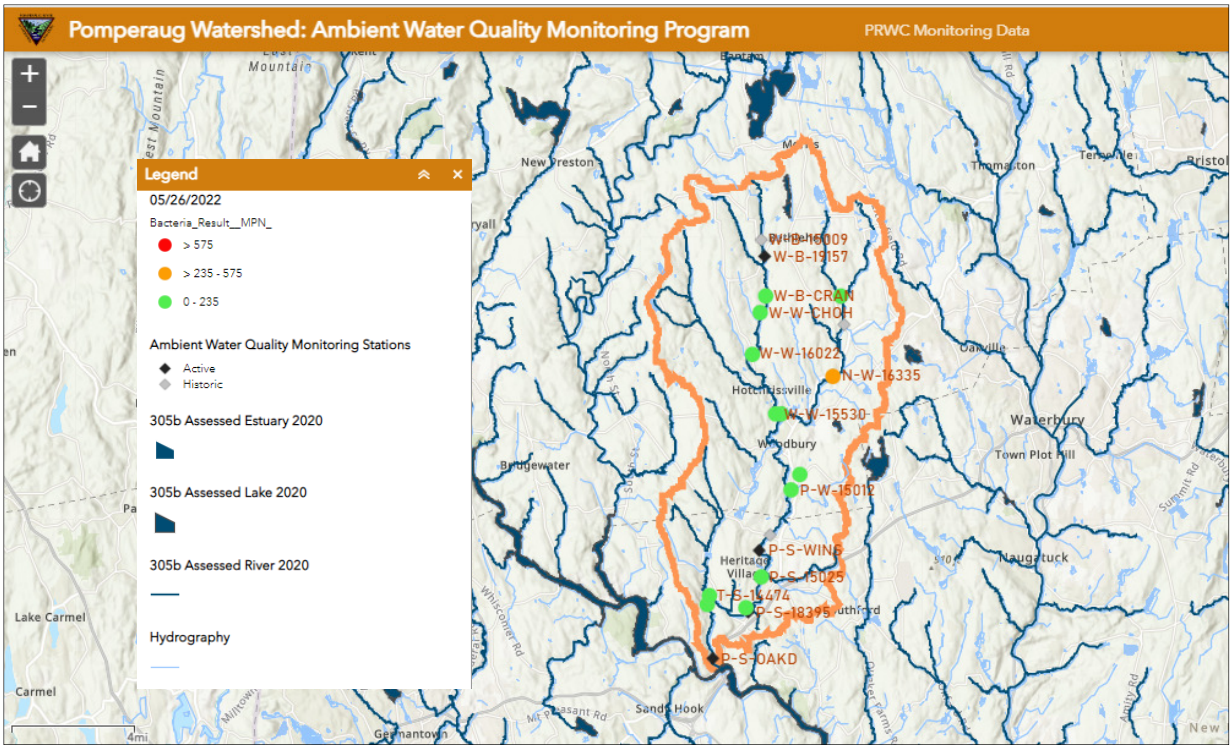


**Figure 14.** Results for Ambient Water Quality Monitoring on May 26, 2022 (*dry weather*).*

**Table 20.** Results for Ambient Water Quality Monitoring on May 26, 2022 (*dry weather*).*

| Site | Lat | Long | Date | Nearest USGS Stream Gauge | Streamflow (cfs) | Rainfall in Past 24 hrs | Rainfall in Past 48 hrs | Rainfall in Past 96 hrs | Wet/Dry Sample | Weather Condition | Air Temp C | Water Level | Water Temp C | Conductivity (uScm) | Bacteria Result (MPN) | Nitrate (mgL) | Average of Duplicates? |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ES-B-17321, East Spring Brook, Nonnewaug Rd at Porter Hill Rd, Bethlehem | 41.612282 | -73.17559 | 5/26/2022 | Nonnewaug | 13 | 0.00 | 0.00 | 0.31 | DRY | Sun with some clouds | 21.5 | Average | 14.9 | 201 | 55 | 0.73 | |
| N-W-14355, Nonnewaug, Rt 47 Bridge, Woodbury | 41.557772 | -73.212022 | 5/26/2022 | Nonnewaug | 13 | 0.00 | 0.00 | 0.31 | DRY | Sun with some clouds | 22.2 | Low | 15.1 | 164.7 | 38 | 0.92 | |
| N-W-16335, Nonnewaug, Mill Rd - USGS Gauge, Woodbury | 41.575193 | -73.179773 | 5/26/2022 | Nonnewaug | 13 | 0.00 | 0.00 | 0.31 | DRY | Sun with some clouds | 19.3 | Average | 15.7 | 167.4 | 490 | 0.82 | |
| P-S-15025, Pomperaug, Poverty Rd - Ewald Park - USGS Gauge, Southbury | 41.481494 | -73.2249 | 5/26/2022 | Pomperaug | 63.5 | 0.00 | 0.00 | 0.31 | DRY | Clouds with some sun | 19.9 | Average | 16 | 259 | 43 | 0.85 | |
| P-S-15388, Pomperaug, Bent of the River, Southbury | 41.471878 | -73.258477 | 5/26/2022 | Pomperaug | 63.5 | 0.00 | 0.00 | 0.31 | DRY | Sun with some clouds | 19.9 | Average | 16.7 | 252 | 130 | 0.66 | |
| P-S-18395, Pomperaug, The Gym - Flood Bridge Rd, Southbury | 41.468027 | -73.232231 | 5/26/2022 | Pomperaug | 63.5 | 0.00 | 0.00 | 0.31 | DRY | Sun with some clouds | 22.7 | Average | 16.5 | 246 | 93 | 0.70 | |
| P-S-OAKD, Pomperaug, Oakdale Manor, Southbury | 41.443001 | -73.254729 | 5/26/2022 | Pomperaug | 63.5 | 0.00 | 0.00 | 0.31 | DRY | Not Sampled | | | | | | | |
| P-S-WINS, Pomperaug, Winship Drive at HV River Gardens, Southbury | 41.493957 | -73.225789 | 5/26/2022 | Pomperaug | 63.5 | 0.00 | 0.00 | 0.31 | DRY | Sun with some clouds | 23.2 | Average | 17 | 194.5 | 84 | 0.68 | |
| P-W-15012, Pomperaug, Middle Quarter / South Pomperaug Ave, Woodbury** | 41.493982 | -73.225825 | 5/26/2022 | Pomperaug | 63.5 | 0.00 | 0.00 | 0.31 | DRY | Sun with some clouds | 19.4 | Average | 16.7 | 171.9 | 81 | 0.72 | Yes |
| T-S-14474, Transylvania, Seman Park at East Flat Hill Rd, Southbury | 41.472472 | -73.257407 | 5/26/2022 | Pomperaug | 63.5 | 0.00 | 0.00 | 0.31 | DRY | Sun with some clouds | 19 | Average | 17 | 186.4 | 56 | 0.25 | |
| W-B-19157, Weekeepeemee, Mill Pond Road, Bethlehem | 41.630557 | -73.222402 | 5/26/2022 | Weekeepeemee | 25.6 | 0.00 | 0.00 | 0.31 | DRY | Not Sampled | | | | | | | |
| W-B-CRAN, Weekeepeemee, Crane Hollow Road Bridge, Bethlehem** | 41.612645 | -73.221741 | 5/26/2022 | Weekeepeemee | 25.6 | 0.00 | 0.00 | 0.31 | DRY | Sun with some clouds | 22.5 | Average | 14.6 | 156.5 | 11 | 0.35 | Yes |
| W-W-15530, Weekeepeemee, Jacks Bridge Rd, Woodbury | 41.557671 | -73.215472 | 5/26/2022 | Weekeepeemee | 25.6 | 0.00 | 0.00 | 0.31 | DRY | Sun with some clouds | 20.5 | Average | 14.5 | 133.5 | 28 | 0.44 | |
| W-W-16022, Weekeepeemee, Brushy Hill Rd, Woodbury | 41.585451 | -73.230542 | 5/26/2022 | Weekeepeemee | 25.6 | 0.00 | 0.00 | 0.31 | DRY | Sun with some clouds | 18.8 | Average | 14.1 | 149.5 | 33 | 0.40 | |
| W-W-CHOH, Weekeepeemee, Chohees Trail,Woodbury | 41.604571 | -73.225062 | 5/26/2022 | Weekeepeemee | 25.6 | 0.00 | 0.00 | 0.31 | DRY | Sun with some clouds | 19.4 | Average | 15.2 | 155.6 | 26 | 0.36 | |

** These data should be rejected and should not be included in determining compliance with water quality standards as their accuracy was not supported by the results for blanks to the water testing laboratory; blanks consisting of distilled water were returned with measurable levels of bacteria and nitrate.*

*** Denotes duplicate samples were collected, the results / field measurements were averaged, and the average the bacteria result was rounded the nearest whole number.*

*Bacteria results are reported/displayed as MPN (most probable number) which equates to Colony Forming Units found in a 100 mL sample (CFU/100mL).*

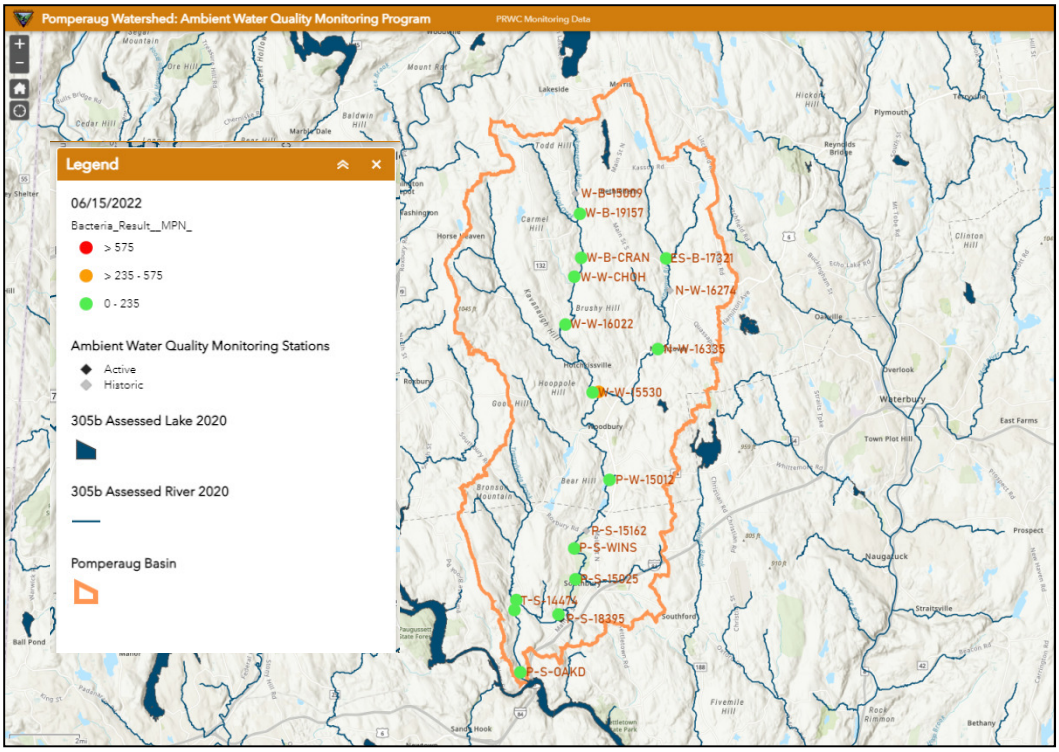


**Figure 15.** Results for Ambient Water Quality Monitoring on June 15, 2022 (*dry weather*).*

**Table 21.** Results for Ambient Water Quality Monitoring on June 15, 2022 (*dry weather*).*

| Site | Lat | Long | Date | Nearest USGS Stream Gauge | Streamflow (cfs) | Rainfall in Past 24 hrs | Rainfall in Past 48 hrs | Rainfall in Past 96 hrs | Wet/Dry Sample | Weather Condition | Air Temp C | Water Level | Water Temp C | Conductivity (uScm) | Bacteria Result (MPN) | Nitrate (mgL) | Average of Duplicates? |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ES-B-17321, East Spring Brook, Nonnewaug Rd at Porter Hill Rd, Bethlehem** | 41.612282 | -73.17559 | 6/15/2022 | Nonnewaug | 9.21 | 0.00 | 0.00 | 0.27 | DRY | Sunny | 28.8 | Average | 18.0 | 183.0 | 69 | 0.70 | Yes |
| N-W-14355, Nonnewaug, Rt 47 Bridge, Woodbury | 41.557772 | -73.212022 | 6/15/2022 | Nonnewaug | 9.21 | 0.00 | 0.00 | 0.27 | DRY | Sun with some clouds | 26.5 | Low | 17.8 | 182.7 | 261 | 1.00 | |
| N-W-16335, Nonnewaug, Mill Rd - USGS Gauge, Woodbury | 41.575193 | -73.179773 | 6/15/2022 | Nonnewaug | 9.21 | 0.00 | 0.00 | 0.27 | DRY | Sunny | 23.8 | Low | 17.9 | 181.7 | 172 | not sampled | |
| P-S-15025, Pomperaug, Poverty Rd - Ewald Park - USGS Gauge, Southbury | 41.481494 | -73.2249 | 6/15/2022 | Pomperaug | 45.9 | 0.00 | 0.00 | 0.27 | DRY | Sunny | 23.1 | Average | 18.5 | 278.0 | 79 | 0.90 | |
| P-S-15388, Pomperaug, Bent of the River, Southbury | 41.471878 | -73.258477 | 6/15/2022 | Pomperaug | 45.9 | 0.00 | 0.00 | 0.27 | DRY | Sunny | 26.2 | Average, Low | 19.0 | 272.0 | 108 | not sampled | |
| P-S-18395, Pomperaug, The Gym - Flood Bridge Rd, Southbury** | 41.468027 | -73.232231 | 6/15/2022 | Pomperaug | 45.9 | 0.00 | 0.00 | 0.27 | DRY | Sunny | 24.9 | Average | 19.3 | 266.0 | 105 | not sampled | Yes |
| P-S-OAKD, Pomperaug, Oakdale Manor, Southbury | 41.443001 | -73.254729 | 6/15/2022 | Pomperaug | 45.9 | 0.00 | 0.00 | 0.27 | DRY | Sunny | 22.7 | Average | 19.2 | 260.0 | 62 | 0.80 | |
| P-S-WINS, Pomperaug, Winship Drive at HV River Gardens, Southbury | 41.493957 | -73.225789 | 6/15/2022 | Pomperaug | 45.9 | 0.00 | 0.00 | 0.27 | DRY | Sunny | 27.8 | Average | 20.3 | 205.0 | 31 | not sampled | |
| P-W-15012, Pomperaug, Middle Quarter / South Pomperaug Ave, Woodbury | 41.493982 | -73.225825 | 6/15/2022 | Pomperaug | 45.9 | 0.00 | 0.00 | 0.27 | DRY | Sunny | 22.6 | Low | 18.7 | 176.4 | 86 | not sampled | |
| T-S-14474, Transylvania, Seman Park at East Flat Hill Rd, Southbury | 41.472472 | -73.257407 | 6/15/2022 | Pomperaug | 45.9 | 0.00 | 0.00 | 0.27 | DRY | Sunny | 23.5 | Average | 19.1 | 208.0 | 78 | 0.40 | |
| W-B-19157, Weekeepeemee, Mill Pond Road, Bethlehem | 41.630557 | -73.222402 | 6/15/2022 | Weekeepeemee | 19.4 | 0.00 | 0.00 | 0.27 | DRY | Sunny | 22.9 | Average | 18.4 | 163.9 | 14 | 0.40 | |
| W-B-CRAN, Weekeepeemee, Crane Hollow Road Bridge, Bethlehem | 41.612645 | -73.221741 | 6/15/2022 | Weekeepeemee | 19.4 | 0.00 | 0.00 | 0.27 | DRY | Sunny | 26.4 | Average | 17.6 | 169.6 | 122 | not sampled | |
| W-W-15530, Weekeepeemee, Jacks Bridge Rd, Woodbury | 41.557671 | -73.215472 | 6/15/2022 | Weekeepeemee | 19.4 | 0.00 | 0.00 | 0.27 | DRY | Sunny | 27.7 | Average | 18.4 | 150.6 | 72 | 0.60 | |
| W-W-16022, Weekeepeemee, Brushy Hill Rd, Woodbury | 41.585451 | -73.230542 | 6/15/2022 | Weekeepeemee | 19.4 | 0.00 | 0.00 | 0.27 | DRY | Sunny | 20.9 | Average | 16.3 | 159.4 | 75 | not sampled | |
| W-W-CHOH, Weekeepeemee, Chohees Trail,Woodbury | 41.604571 | -73.225062 | 6/15/2022 | Weekeepeemee | 19.4 | 0.00 | 0.00 | 0.27 | DRY | Sunny | 23.6 | Low | 17.5 | 169.9 | 135 | 0.50 | |

**These data were collected outside the scope of the QAPP with analysis performed by York Laboratories dba AquaEnvironmental. Aside from the testing laboratory and once a month sample frequency, these data otherwise adhere to the data quality objectives detailed in the QAPP.*

*** Denotes duplicate samples were collected, the results / field measurements were averaged, and the average the bacteria result was rounded the nearest whole number.*

*Bacteria results are reported/displayed as MPN (most probable number) which equates to Colony Forming Units found in a 100 mL sample (CFU/100mL).*

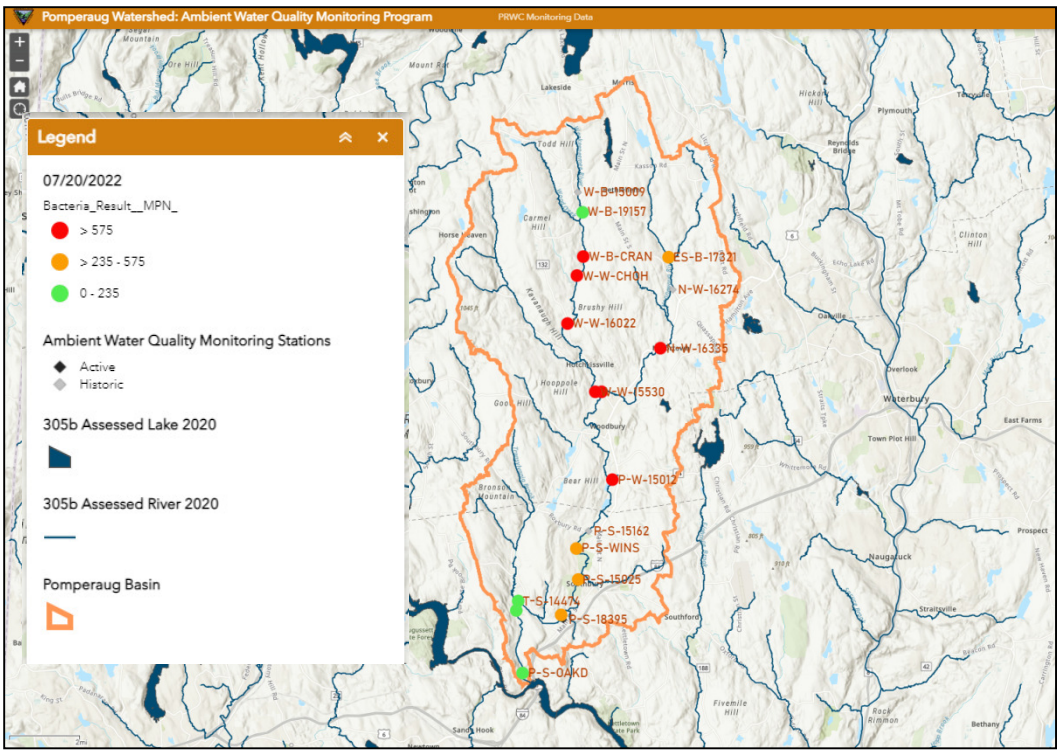


**Figure 16.** Results for Ambient Water Quality Monitoring on July 20, 2022 (*wet weather*).

**Table 22.** Results for Ambient Water Quality Monitoring on July 20, 2022 (*wet weather*).

| Site | Lat | Long | Date | Nearest USGS Stream Gauge | Streamflow (cfs) | Rainfall in Past 24 hrs | Rainfall in Past 48 hrs | Rainfall in Past 96 hrs | Wet/Dry Sample | Weather Condition | Air Temp C | Water Level | Water Temp C | Conductivity (uScm) | Bacteria Result (MPN) | Nitrate (mgL) | Average of Duplicates? |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ES-B-17321, East Spring Brook, Nonnewaug Rd at Porter Hill Rd, Bethlehem | 41.612282 | -73.17559 | 7/20/2022 | Nonnewaug | 4.29 | 0.43 | 1.37 | 1.37 | WET | Sunny | 26 | Average | 22.3 | 212 | 548 | 0.5 | |
| N-W-14355, Nonnewaug, Rt 47 Bridge, Woodbury | 41.557772 | -73.212022 | 7/20/2022 | Nonnewaug | 4.29 | 0.43 | 1.37 | 1.37 | WET | Sunny | 31 | Low | 21.3 | 198.9 | 914 | 1 | |
| N-W-16335, Nonnewaug, Mill Rd - USGS Gauge, Woodbury** | 41.575193 | -73.179773 | 7/20/2022 | Nonnewaug | 4.29 | 0.43 | 1.37 | 1.37 | WET | Sunny | 28.8 | Low | 22.2 | 199 | 2077 | Not Sampled | Yes |
| P-S-15025, Pomperaug, Poverty Rd - Ewald Park - USGS Gauge, Southbury** | 41.481494 | -73.2249 | 7/20/2022 | Pomperaug | 25.7 | 0.43 | 1.37 | 1.37 | WET | Sunny | 29.2 | Low | 22.6 | 298 | 377 | 1 | Yes |
| P-S-15388, Pomperaug, Bent of the River, Southbury | 41.471878 | -73.258477 | 7/20/2022 | Pomperaug | 25.7 | 0.43 | 1.37 | 1.37 | WET | Sunny | 29.2 | Average | 23 | 305 | 133 | Not Sampled | |
| P-S-18395, Pomperaug, The Gym - Flood Bridge Rd, Southbury | 41.468027 | -73.232231 | 7/20/2022 | Pomperaug | 25.7 | 0.43 | 1.37 | 1.37 | WET | Sunny | 27.9 | Average | 23.2 | 312 | 345 | Not Sampled | |
| P-S-OAKD, Pomperaug, Oakdale Manor, Southbury | 41.443001 | -73.254729 | 7/20/2022 | Pomperaug | 25.7 | 0.43 | 1.37 | 1.37 | WET | Sunny | 27.7 | Average | 23.7 | 307 | 198 | 0.8 | |
| P-S-WINS, Pomperaug, Winship Drive at HV River Gardens, Southbury | 41.493957 | -73.225789 | 7/20/2022 | Pomperaug | 25.7 | 0.43 | 1.37 | 1.37 | WET | Sunny | 32.6 | Average | 24 | 218 | 461 | Not Sampled | |
| P-W-15012, Pomperaug, Middle Quarter / South Pomperaug Ave, Woodbury | 41.493982 | -73.225825 | 7/20/2022 | Pomperaug | 25.7 | 0.43 | 1.37 | 1.37 | WET | Sunny | 26.6 | Low | 22.4 | 199.1 | 1203 | Not Sampled | |
| T-S-14474, Transylvania, Seman Park at East Flat Hill Rd, Southbury | 41.472472 | -73.257407 | 7/20/2022 | Pomperaug | 25.7 | 0.43 | 1.37 | 1.37 | WET | Sunny | 32.3 | Average | 22.7 | 228 | 125 | 0.4 | |
| W-B-19157, Weekeepeemee, Mill Pond Road, Bethlehem | 41.630557 | -73.222402 | 7/20/2022 | Weekeepeemee | 3.59 | 0.43 | 1.37 | 1.37 | WET | Sunny | 28.4 | Low | 21.7 | 227 | 127 | 0.6 | |
| W-B-CRAN, Weekeepeemee, Crane Hollow Road Bridge, Bethlehem | 41.612645 | -73.221741 | 7/20/2022 | Weekeepeemee | 3.59 | 0.43 | 1.37 | 1.37 | WET | Sunny | 28.8 | Low | 24.6 | 208 | 816 | Not Sampled | |
| W-W-15530, Weekeepeemee, Jacks Bridge Rd, Woodbury | 41.557671 | -73.215472 | 7/20/2022 | Weekeepeemee | 3.59 | 0.43 | 1.37 | 1.37 | WET | Sunny | 29 | Low | 21.9 | 164.7 | 579 | 0.6 | |
| W-W-16022, Weekeepeemee, Brushy Hill Rd, Woodbury | 41.585451 | -73.230542 | 7/20/2022 | Weekeepeemee | 3.59 | 0.43 | 1.37 | 1.37 | WET | Sunny | 23.7 | Low | 23.6 | 194.2 | 727 | Not Sampled | |
| W-W-CHOH, Weekeepeemee, Chohees Trail,Woodbury | 41.604571 | -73.225062 | 7/20/2022 | Weekeepeemee | 3.59 | 0.43 | 1.37 | 1.37 | WET | Sunny | 27.3 | Low | 23.3 | 213 | 1414 | 0.5 | |

** These data were collected outside the scope of the QAPP with analysis performed by York Laboratories dba AquaEnvironmental. Aside from the testing laboratory and once a month sample frequency, these data otherwise adhere to the data quality objectives detailed in the QAPP.*

*** Denotes duplicate samples were collected, the results / field measurements were averaged, and the average the bacteria result was rounded the nearest whole number.*

*Bacteria results are reported/displayed as MPN (most probable number) which equates to Colony Forming Units found in a 100 mL sample (CFU/100mL).*

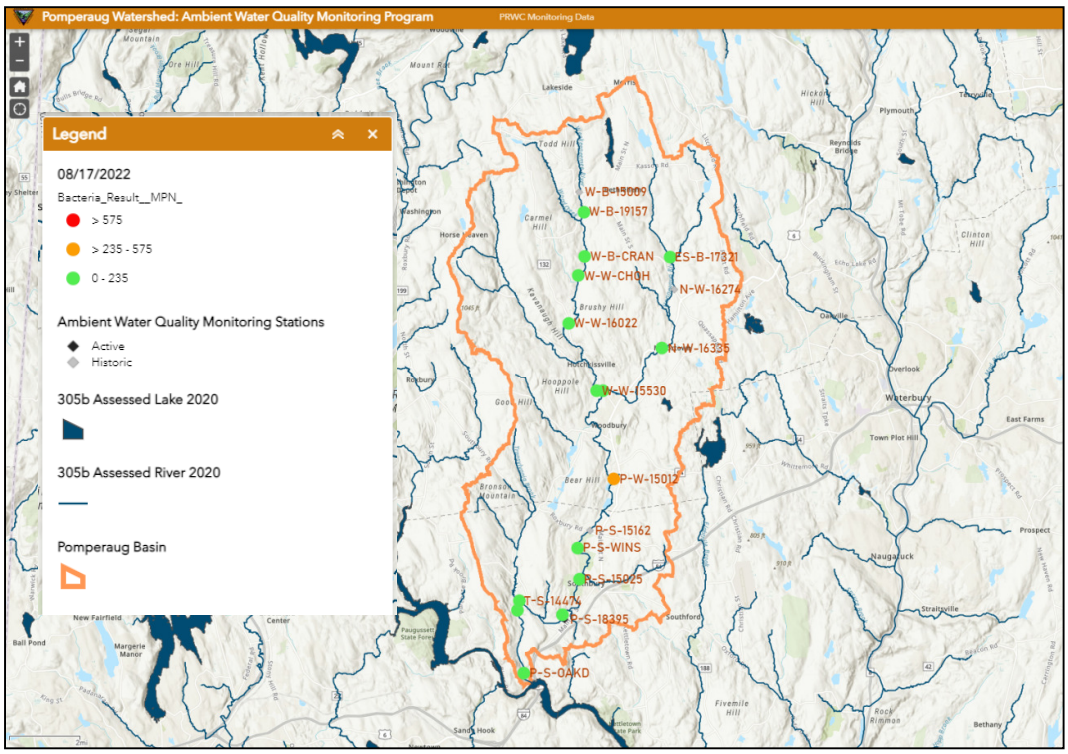


**Figure 17.** Results for Ambient Water Quality Monitoring on August 17, 2022 (*dry weather*).*

**Table 23.** Results for Ambient Water Quality Monitoring on August 17, 2022 (*dry weather*).*

| Site | Lat | Long | Date | Nearest USGS Stream Gauge | Streamflow (cfs) | Rainfall in Past 24 hrs | Rainfall in Past 48 hrs | Rainfall in Past 96 hrs | Wet/Dry Sample | Weather Condition | Air Temp C | Water Level | Water Temp C | Conductivity (uScm) | Bacteria Result (MPN) | Nitrate (mgL) | Average of Duplicates? |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ES-B-17321, East Spring Brook, Nonnewaug Rd at Porter Hill Rd, Bethlehem | 41.612282 | -73.17559 | 8/17/2022 | Nonnewaug | 1.15 | 0 | 0 | 0 | DRY | Clouds with some sun | 21.8 | Low | 18.2 | 199 | 19 | ND | |
| N-W-14355, Nonnewaug, Rt 47 Bridge, Woodbury** | 41.557772 | -73.212022 | 8/17/2022 | Nonnewaug | 1.15 | 0 | 0 | 0 | DRY | Cloudy | 23.1 | Very low | 18.1 | 179.5 | 62 | 0.9 | Yes |
| N-W-16335, Nonnewaug, Mill Rd - USGS Gauge, Woodbury | 41.575193 | -73.179773 | 8/17/2022 | Nonnewaug | 1.15 | 0 | 0 | 0 | DRY | Cloudy | 21.5 | Very low | 19.6 | 194.9 | 150 | Not Sampled | |
| P-S-15025, Pomperaug, Poverty Rd - Ewald Park - USGS Gauge, Southbury | 41.481494 | -73.2249 | 8/17/2022 | Pomperaug | 5.22 | 0 | 0 | 0 | DRY | Cloudy | 21.8 | Low | 20.2 | 407 | 60 | Not Sampled | |
| P-S-15388, Pomperaug, Bent of the River, Southbury | 41.471878 | -73.258477 | 8/17/2022 | Pomperaug | 5.22 | 0 | 0 | 0 | DRY | Cloudy, Light rain | 21.9 | Low | 20.3 | 488 | 39 | Not Sampled | |
| P-S-18395, Pomperaug, The Gym - Flood Bridge Rd, Southbury | 41.468027 | -73.232231 | 8/17/2022 | Pomperaug | 5.22 | 0 | 0 | 0 | DRY | Cloudy | 22.9 | Low | 20.1 | 306 | 79 | Not Sampled | |
| P-S-OAKD, Pomperaug, Oakdale Manor, Southbury | 41.443001 | -73.254729 | 8/17/2022 | Pomperaug | 5.22 | 0 | 0 | 0 | DRY | Light rain, Cloudy | 23.4 | Average | 23.2 | 449 | 19 | 0.6 | |
| P-S-WINS, Pomperaug, Winship Drive at HV River Gardens, Southbury | 41.493957 | -73.225789 | 8/17/2022 | Pomperaug | 5.22 | 0 | 0 | 0 | DRY | Cloudy | 22.7 | Average, Low | 20.5 | 255 | 59 | Not Sampled | |
| P-W-15012, Pomperaug, Middle Quarter / South Pomperaug Ave, Woodbury | 41.493982 | -73.225825 | 8/17/2022 | Pomperaug | 5.22 | 0 | 0 | 0 | DRY | Light rain | 19.3 | Low | 20.5 | 245 | 435 | Not Sampled | |
| T-S-14474, Transylvania, Seman Park at East Flat Hill Rd, Southbury** | 41.472472 | -73.257407 | 8/17/2022 | Pomperaug | 5.22 | 0 | 0 | 0 | DRY | Cloudy | 22.3 | Low | 19.9 | 258 | 53 | Not Sampled | Yes |
| W-B-19157, Weekeepeemee, Mill Pond Road, Bethlehem | 41.630557 | -73.222402 | 8/17/2022 | Weekeepeemee | 0.62 | 0 | 0 | 0 | DRY | Light rain | 19.1 | Very low | 17.1 | 268 | 5 | 0.6 | |
| W-B-CRAN, Weekeepeemee, Crane Hollow Road Bridge, Bethlehem | 41.612645 | -73.221741 | 8/17/2022 | Weekeepeemee | 0.62 | 0 | 0 | 0 | DRY | Light rain | 19.5 | Very low | 20.1 | 244 | 20 | Not Sampled | |
| W-W-15530, Weekeepeemee, Jacks Bridge Rd, Woodbury | 41.557671 | -73.215472 | 8/17/2022 | Weekeepeemee | 0.62 | 0 | 0 | 0 | DRY | Light rain | 20.5 | Low | 18.2 | 167 | 68 | 0.6 | |
| W-W-16022, Weekeepeemee, Brushy Hill Rd, Woodbury | 41.585451 | -73.230542 | 8/17/2022 | Weekeepeemee | 0.62 | 0 | 0 | 0 | DRY | Cloudy | 20.1 | Very low | 17.5 | 162.4 | 37 | Not Sampled | |
| W-W-CHOH, Weekeepeemee, Chohees Trail,Woodbury | 41.604571 | -73.225062 | 8/17/2022 | Weekeepeemee | 0.62 | 0 | 0 | 0 | DRY | Light rain | 18.7 | Very low | 17.6 | 258 | 132 | 0.5 | |

** These data were collected outside the scope of the QAPP with analysis performed by York Laboratories dba AquaEnvironmental. Aside from the testing laboratory and once a month sample frequency, these data otherwise adhere to the data quality objectives detailed in the QAPP.*

*** Denotes duplicate samples were collected, the results / field measurements were averaged, and the average the bacteria result was rounded the nearest whole number.*

*Bacteria results are reported/displayed as MPN (most probable number) which equates to Colony Forming Units found in a 100 mL sample (CFU/100mL).*

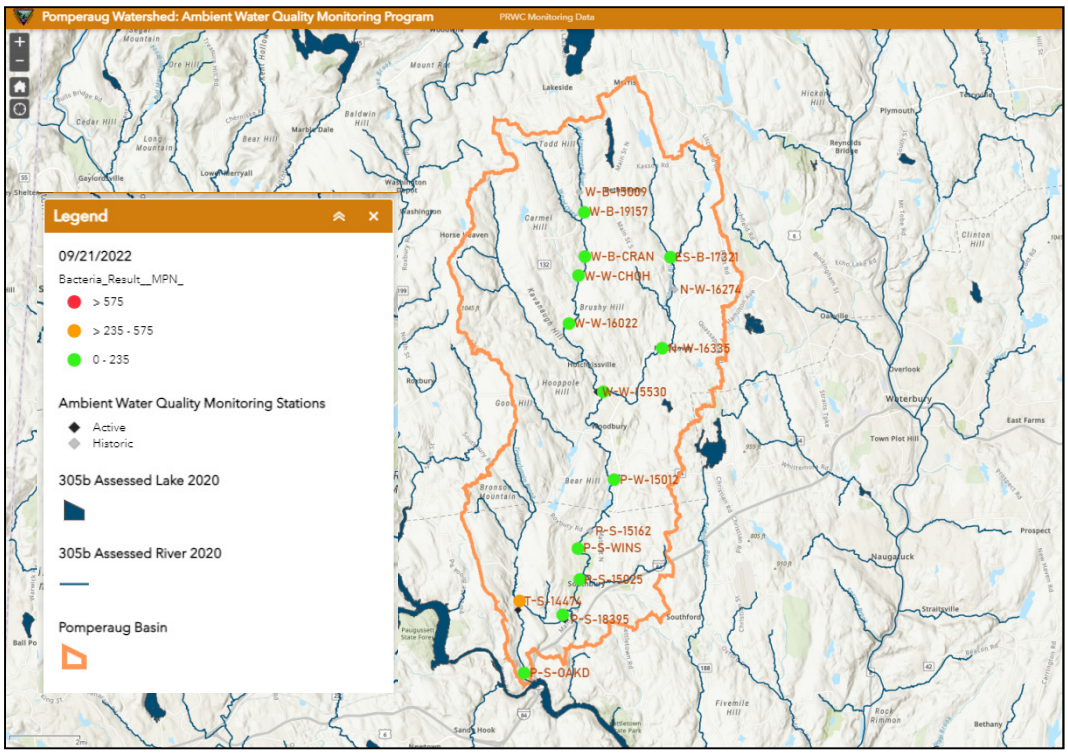


**Figure 18.** Results for Ambient Water Quality Monitoring on September 21, 2022 (*wet weather*).*

**Table 24.** Results for Ambient Water Quality Monitoring on September 21, 2022 (*wet weather*).*

| Site | Lat | Long | Date | Nearest USGS Stream Gauge | Streamflow (cfs) | Rainfall in Past 24 hrs | Rainfall in Past 48 hrs | Rainfall in Past 96 hrs | Wet/Dry Sample | Weather Condition | Air Temp C | Water Level | Water Temp C | Conductivity (uScm) | Bacteria Result (MPN) | Nitrate (mgL) | Average of Duplicates? |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ES-B-17321, East Spring Brook, Nonnewaug Rd at Porter Hill Rd, Bethlehem | 41.612282 | -73.17559 | 9/21/2022 | Nonnewaug | 3.68 | 0.02 | 0.28 | 0.28 | WET | Clouds with some sun | 18.9 | Average | 16.8 | 220 | 46 | 0 | |
| N-W-14355, Nonnewaug, Rt 47 Bridge, Woodbury | 41.557772 | -73.212022 | 9/21/2022 | Nonnewaug | 3.68 | 0.02 | 0.28 | 0.28 | WET | Sun with some clouds | 20.8 | Average | 16.5 | 220 | 142 | 1 | |
| N-W-16335, Nonnewaug, Mill Rd - USGS Gauge, Woodbury | 41.575193 | -73.179773 | 9/21/2022 | Nonnewaug | 3.68 | 0.02 | 0.28 | 0.28 | WET | Sun with some clouds | 18.1 | Average | 17.2 | 208 | 115 | Not Sampled | |
| P-S-15025, Pomperaug, Poverty Rd - Ewald Park - USGS Gauge, Southbury | 41.481494 | -73.2249 | 9/21/2022 | Pomperaug | 15.9 | 0.02 | 0.28 | 0.28 | WET | Sun with some clouds | 18.7 | Low | 17.7 | 342 | 64 | 0.9 | |
| P-S-15388, Pomperaug, Bent of the River, Southbury | 41.471878 | -73.258477 | 9/21/2022 | Pomperaug | 15.9 | 0.02 | 0.28 | 0.28 | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | |
| P-S-18395, Pomperaug, The Gym - Flood Bridge Rd, Southbury | 41.468027 | -73.232231 | 9/21/2022 | Pomperaug | 15.9 | 0.02 | 0.28 | 0.28 | WET | Sun with some clouds | 18.1 | Average | 17.7 | 372 | 80 | Not Sampled | |
| P-S-OAKD, Pomperaug, Oakdale Manor, Southbury** | 41.443001 | -73.254729 | 9/21/2022 | Pomperaug | 15.9 | 0.02 | 0.28 | 0.28 | WET | Sun with some clouds | 19.1 | Average | 18.7 | 360 | 27 | 0.8 | Yes |
| P-S-WINS, Pomperaug, Winship Drive at HV River Gardens, Southbury | 41.493957 | -73.225789 | 9/21/2022 | Pomperaug | 15.9 | 0.02 | 0.28 | 0.28 | WET | Sun with some clouds | 22.2 | Average | 18.3 | 248 | 30 | Not Sampled | |
| P-W-15012, Pomperaug, Middle Quarter / South Pomperaug Ave, Woodbury | 41.493982 | -73.225825 | 9/21/2022 | Pomperaug | 15.9 | 0.02 | 0.28 | 0.28 | WET | Sun with some clouds | 20.3 | Average | 17.9 | 233 | 86 | Not Sampled | |
| T-S-14474, Transylvania, Seman Park at East Flat Hill Rd, Southbury | 41.472472 | -73.257407 | 9/21/2022 | Pomperaug | 15.9 | 0.02 | 0.28 | 0.28 | WET | Sun with some clouds | 22.1 | Average | 17.3 | 273 | 435 | 0.5 | |
| W-B-19157, Weekeepeemee, Mill Pond Road, Bethlehem | 41.630557 | -73.222402 | 9/21/2022 | Weekeepeemee | 1.8 | 0.02 | 0.28 | 0.28 | WET | Sun with some clouds | 16.6 | Low | 15.9 | 243 | 31 | 0 | |
| W-B-CRAN, Weekeepeemee, Crane Hollow Road Bridge, Bethlehem | 41.612645 | -73.221741 | 9/21/2022 | Weekeepeemee | 1.8 | 0.02 | 0.28 | 0.28 | WET | Cloudy | 17.9 | Low | 17.2 | 248 | 173 | Not Sampled | |
| W-W-15530, Weekeepeemee, Jacks Bridge Rd, Woodbury | 41.557671 | -73.215472 | 9/21/2022 | Weekeepeemee | 1.8 | 0.02 | 0.28 | 0.28 | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | |
| W-W-16022, Weekeepeemee, Brushy Hill Rd, Woodbury | 41.585451 | -73.230542 | 9/21/2022 | Weekeepeemee | 1.8 | 0.02 | 0.28 | 0.28 | WET | Sun with some clouds | 18 | Average | 16.3 | 211 | 72 | Not Sampled | |
| W-W-CHOH, Weekeepeemee, Chohees Trail,Woodbury** | 41.604571 | -73.225062 | 9/21/2022 | Weekeepeemee | 1.8 | 0.02 | 0.28 | 0.28 | WET | Clouds with some sun | 17.1 | Low | 16.9 | 252 | 105 | 0 | Yes |

** These data were collected outside the scope of the QAPP with analysis performed by York Laboratories dba AquaEnvironmental. Aside from the testing laboratory and once a month sample frequency, these data otherwise adhere to the data quality objectives detailed in the QAPP.*

*** Denotes duplicate samples were collected, the results / field measurements were averaged, and the average the bacteria result was rounded the nearest whole number.*

*Bacteria results are reported/displayed as MPN (most probable number) which equates to Colony Forming Units found in a 100 mL sample (CFU/100mL).*

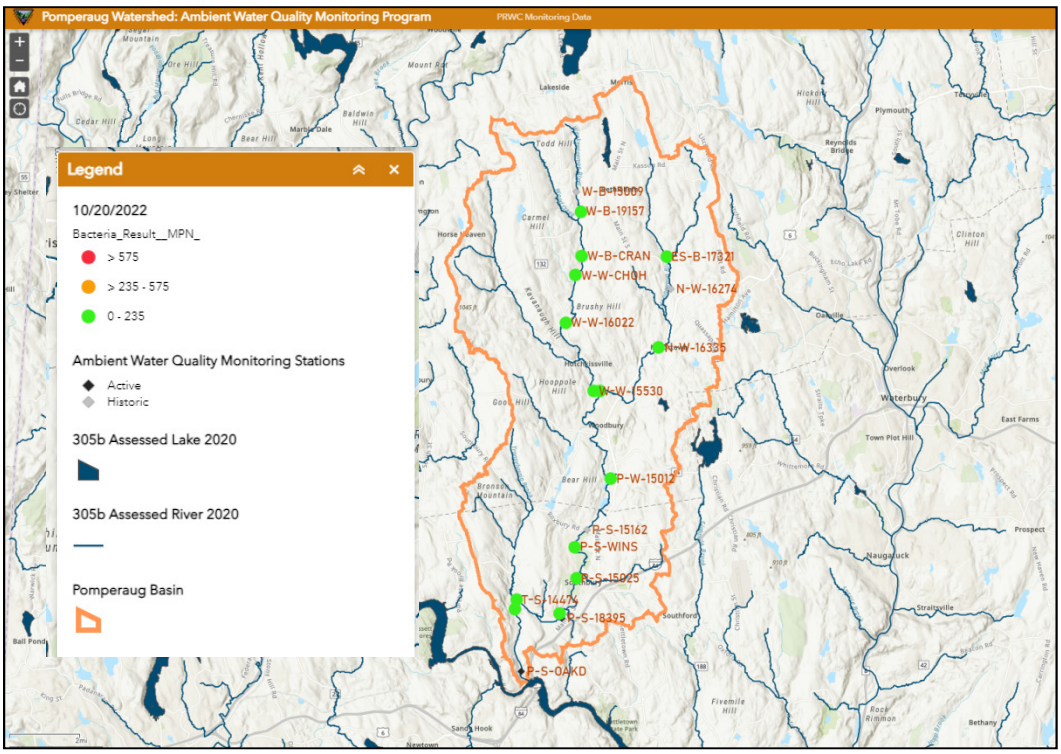


**Figure 19.** Results for Ambient Water Quality Monitoring on October 20, 2022 (*dry weather*).*

**Table 25.** Results for Ambient Water Quality Monitoring on October 20, 2022 (*dry weather*).*

| Site | Lat | Long | Date | Nearest USGS Stream Gauge | Streamflow (cfs) | Rainfall in Past 24 hrs | Rainfall in Past 48 hrs | Rainfall in Past 96 hrs | Wet/Dry Sample | Weather Condition | Air Temp C | Water Level | Water Temp C | Conductivity (uScm) | Bacteria Result (MPN) | Nitrate (mgL) | Average of Duplicates? |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ES-B-17321, East Spring Brook, Nonnewaug Rd at Porter Hill Rd, Bethlehem | 41.612282 | -73.17559 | 10/20/2022 | Nonnewaug | 9.21 | 0 | 0 | 0.4 | DRY | Sunny | 11.3 | Average | 7.4 | 239 | 56 | Not Sampled | |
| N-W-14355, Nonnewaug, Rt 47 Bridge, Woodbury | 41.557772 | -73.212022 | 10/20/2022 | Nonnewaug | 9.21 | 0 | 0 | 0.4 | DRY | Sunny | 5.9 | Average | 7.8 | 220 | 57 | 0.8 | |
| N-W-16335, Nonnewaug, Mill Rd - USGS Gauge, Woodbury** | 41.575193 | -73.179773 | 10/20/2022 | Nonnewaug | 9.21 | 0 | 0 | 0.4 | DRY | Sunny | 12.7 | Average | 7.1 | 211.5 | 108 | ND | Yes |
| P-S-15025, Pomperaug, Poverty Rd - Ewald Park - USGS Gauge, Southbury | 41.481494 | -73.2249 | 10/20/2022 | Pomperaug | 37.8 | 0 | 0 | 0.4 | DRY | Sunny | 8.9 | Average | 8.9 | 266 | 36 | 0.7 | |
| P-S-15388, Pomperaug, Bent of the River, Southbury | 41.471878 | -73.258477 | 10/20/2022 | Pomperaug | 37.8 | 0 | 0 | 0.4 | DRY | Sunny | 13.8 | Average | 9.8 | 264 | 29 | ND | |
| P-S-18395, Pomperaug, The Gym - Flood Bridge Rd, Southbury | 41.468027 | -73.232231 | 10/20/2022 | Pomperaug | 37.8 | 0 | 0 | 0.4 | DRY | Sunny | 11.3 | Average | 8.9 | 259 | 37 | Not Sampled | |
| P-S-OAKD, Pomperaug, Oakdale Manor, Southbury | 41.443001 | -73.254729 | 10/20/2022 | Pomperaug | 37.8 | 0 | 0 | 0.4 | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | |
| P-S-WINS, Pomperaug, Winship Drive at HV River Gardens, Southbury** | 41.493957 | -73.225789 | 10/20/2022 | Pomperaug | 37.8 | 0 | 0 | 0.4 | DRY | Sunny | 16.7 | Average | 9.7 | 204 | 42 | Not Sampled | Yes |
| P-W-15012, Pomperaug, Middle Quarter / South Pomperaug Ave, Woodbury | 41.493982 | -73.225825 | 10/20/2022 | Pomperaug | 37.8 | 0 | 0 | 0.4 | DRY | Sunny | 12 | Average | 9.4 | 200 | 88 | 0.6 | |
| T-S-14474, Transylvania, Seman Park at East Flat Hill Rd, Southbury | 41.472472 | -73.257407 | 10/20/2022 | Pomperaug | 37.8 | 0 | 0 | 0.4 | DRY | Sunny | 11.7 | Average | 9 | 217 | 32 | ND | |
| W-B-19157, Weekeepeemee, Mill Pond Road, Bethlehem | 41.630557 | -73.222402 | 10/20/2022 | Weekeepeemee | 5.66 | 0 | 0 | 0.4 | DRY | Sunny | 8.8 | Average | 6.6 | 209 | 5 | ND | |
| W-B-CRAN, Weekeepeemee, Crane Hollow Road Bridge, Bethlehem | 41.612645 | -73.221741 | 10/20/2022 | Weekeepeemee | 5.66 | 0 | 0 | 0.4 | DRY | Sunny | 10.4 | Average | 6.8 | 222 | 25 | Not Sampled | |
| W-W-15530, Weekeepeemee, Jacks Bridge Rd, Woodbury | 41.557671 | -73.215472 | 10/20/2022 | Weekeepeemee | 5.66 | 0 | 0 | 0.4 | DRY | Sunny | 7.5 | Average | 7 | 170.6 | 19 | Not Sampled | |
| W-W-16022, Weekeepeemee, Brushy Hill Rd, Woodbury | 41.585451 | -73.230542 | 10/20/2022 | Weekeepeemee | 5.66 | 0 | 0 | 0.4 | DRY | Sunny | 11.3 | Average | 6 | 202 | 16 | Not Sampled | |
| W-W-CHOH, Weekeepeemee, Chohees Trail,Woodbury | 41.604571 | -73.225062 | 10/20/2022 | Weekeepeemee | 5.66 | 0 | 0 | 0.4 | DRY | Sunny | 9.4 | Average | 6.5 | 222 | 21 | ND | |

** These data were collected outside the scope of the QAPP with analysis performed by York Laboratories dba AquaEnvironmental. Aside from the testing laboratory and once a month sample frequency, these data otherwise adhere to the data quality objectives detailed in the QAPP.*

*** Denotes duplicate samples were collected, the results / field measurements were averaged, and the average the bacteria result was rounded the nearest whole number.*

*Bacteria results are reported/displayed as MPN (most probable number) which equates to Colony Forming Units found in a 100 mL sample (CFU/100mL).*

## *AMBIENT WATER QUALITY MONITORING DATA COMPARED TO CONNECTICUT WATER QUALITY STANDARDS FOR SAFE RECREATIONAL USE*

**Table 26.** Summary data by sample site for ambient water quality monitoring conducted from 2019-2022 detailing geometric mean (wet, dry, and all), highest single sample result, percent load reduction needed to meet water quality standards for bacteria (both geometric mean for the season and for a single sample exceedance). Geometric mean values shown in **red bold** exceed 126 CFU/100mL - the water quality limit for bacteria for safe recreational use. Highest single sample results shown in **blue bold** exceed 410 CFU/100mL water quality limits for bacteria for safe recreational use. These data are displayed in map form in Figures 20-25. Summary data for each monitoring station by year is included in Appendix C of this Technical Memo.

| Station Name | Station Location | Stream | Years Sampled | Number of Samples | | | Geometric Mean | | | Highest Single Sample Result | % Reduction (GeoMean) | % Reduction Single Sample |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Wet | Dry | All | Wet | Dry | All | | | |
| ES-B-17321 | Nonnewaug Rd at Porter Hill Rd, Bethlehem | East Spring Brook | 2021-2022 | 5 | 10 | 15 | **205** | 57 | 87 | **816** | n/a | 50 |
| N-W-14355 | Rt 47 Bridge, Youngs Nursery, Woodbury | Nonnewaug | 2019-2022 | 9 | 18 | 27 | **609** | 124 | **214** | **2420** | 41 | 83 |
| N-W-16335 | Mill Rd - USGS Gauge, Woodbury | Nonnewaug | 2019-2022 | 9 | 17 | 26 | **565** | **145** | **242** | **2420** | 48 | 83 |
| P-S-15025 | Poverty Rd - Ewald Park - USGS Gauge, Southbury | Pomperaug | 2019-2022 | 9 | 18 | 27 | **392** | 104 | **155** | **1986** | 19 | 79 |
| P-S-15388 | Bent of the River, East Flat Hill Rd, Southbury | Pomperaug | 2019-2022 | 8 | 18 | 26 | **316** | 81 | 123 | **1733** | n/a | 76 |
| P-S-18395 | The Gym - Flood Bridge Rd, Southbury | Pomperaug | 2019-2022 | 9 | 18 | 27 | **311** | 89 | **138** | **1046** | 9 | 61 |
| P-S-OAKD | 185 Oakdale Manor, Southbury | Pomperaug | 2019-2022 | 9 | 17 | 26 | **195** | 55 | 88 | **1300** | n/a | 68 |
| P-S-WINS | Winship Drive at HV River Gardens, Southbury | Pomperaug | 2021 | 5 | 10 | 15 | **335** | 63 | 109 | **1643** | n/a | 75 |
| P-W-15012 | Middle Quarter / South Pomperaug Ave, Woodbury | Pomperaug | 2019-2022 | 9 | 18 | 27 | **361** | **127** | **180** | **2420** | 30 | 83 |
| T-S-14474 | Seman Park at East Flat Hill Rd, Southbury | Transylvania | 2021-2022 | 5 | 10 | 15 | **256** | 67 | 104 | **1300** | n/a | 68 |
| W-B-19157 | Mill Pond Road, Bethlehem | Weekeepeemee | 2021-2022 | 5 | 10 | 15 | 52 | 20 | 28 | 127 | n/a | n/a |
| W-B-CRAN | Crane Hollow Road Bridge, Bethlehem | Weekeepeemee | 2021-2022 | 5 | 10 | 15 | **146** | 52 | 74 | **816** | n/a | 50 |
| W-W-15530 | Jacks Bridge Rd, Woodbury | Weekeepeemee | 2019-2022 | 8 | 17 | 25 | **156** | 75 | 95 | **2420** | n/a | 83 |
| W-W-16022 | Brushy Hill Rd, Woodbury | Weekeepeemee | 2019-2022 | 9 | 18 | 27 | **182** | 98 | 120 | **2420** | n/a | 83 |
| W-W-CHOH | Chohees Trail,Woodbury | Weekeepeemee | 2019-2022 | 9 | 18 | 27 | **207** | **134** | **155** | **2420** | 19 | 83 |
| N-W-16274 | Rt 61 Bridge, Woodbury | Nonnewaug | 2019-2020 | 4 | 8 | 12 | **438** | **189** | **250** | **2420** | 50 | 83 |
| P-S-15162 | Route 67 - Bennett Park, Southbury | Pomperaug | 2019-2020 | 4 | 7 | 11 | **219** | 84 | 119 | **980** | n/a | 58 |
| W-B-15009 | Wood Creek Rd,Bethlehem | Weekeepeemee | 2019-2020 | 4 | 8 | 12 | 57 | 113 | 90 | **2420** | n/a | 83 |

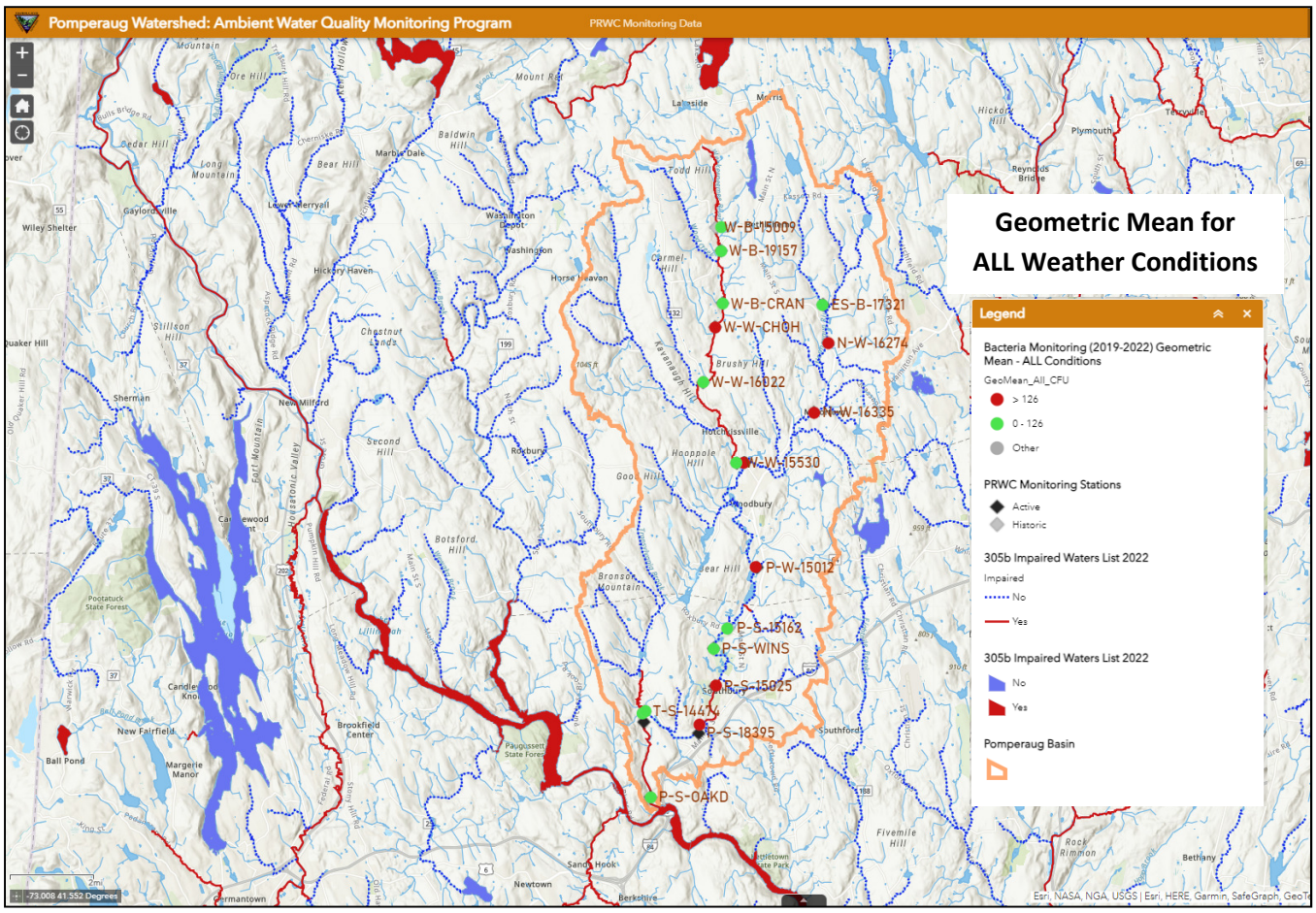


**Figure 20.** Summary data by sample site for ambient water quality monitoring conducted 2019-2022 detailing the geometric mean for all weather conditions. Sites shown in **green** meet the water quality limit for bacteria for safe recreational use in Connecticut with a result less than 126 CFU/100mL. Sites shown in **red** are locations where the geometric mean exceeded the water quality limit for bacteria for safe recreational use.

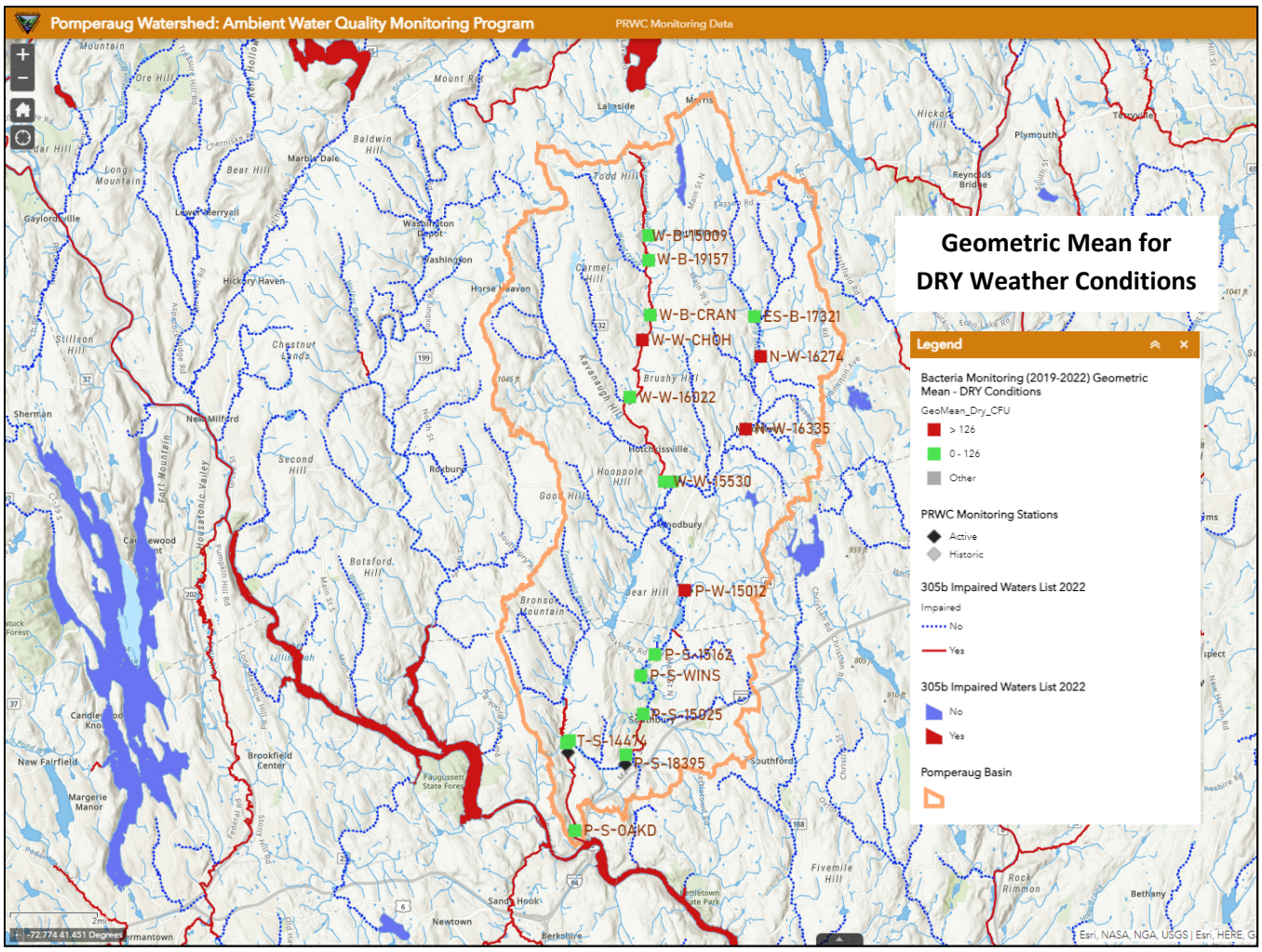


**Figure 21.** Summary data by sample site for ambient water quality monitoring conducted 2019-2022 detailing the geometric mean for DRY weather conditions. Sites shown in green meet the water quality limit for bacteria for safe recreational use in Connecticut with a result less than 126 CFU/100mL. Sites shown in red are locations where the geometric mean exceeded the water quality limit for bacteria for safe recreational use.

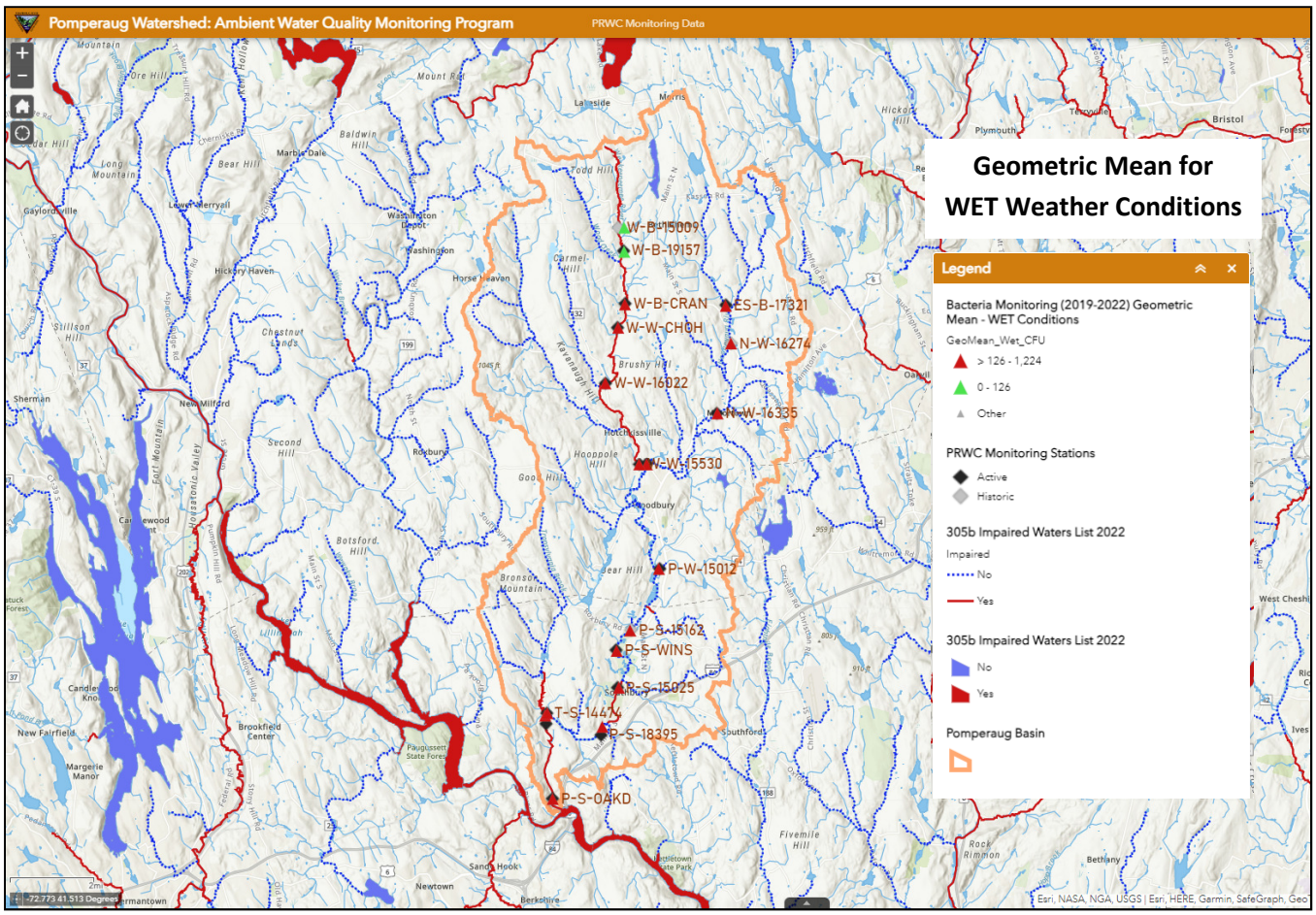


**Figure 22.** Summary data by sample site for ambient water quality monitoring conducted 2019-2022 detailing the geometric mean for wet weather conditions. Sites shown in **green** meet the water quality limit for bacteria for safe recreational use in Connecticut with a result less than 126 CFU/100mL. Sites shown in **red** are locations where the geometric mean exceeded the water quality limit for bacteria for safe recreational use.

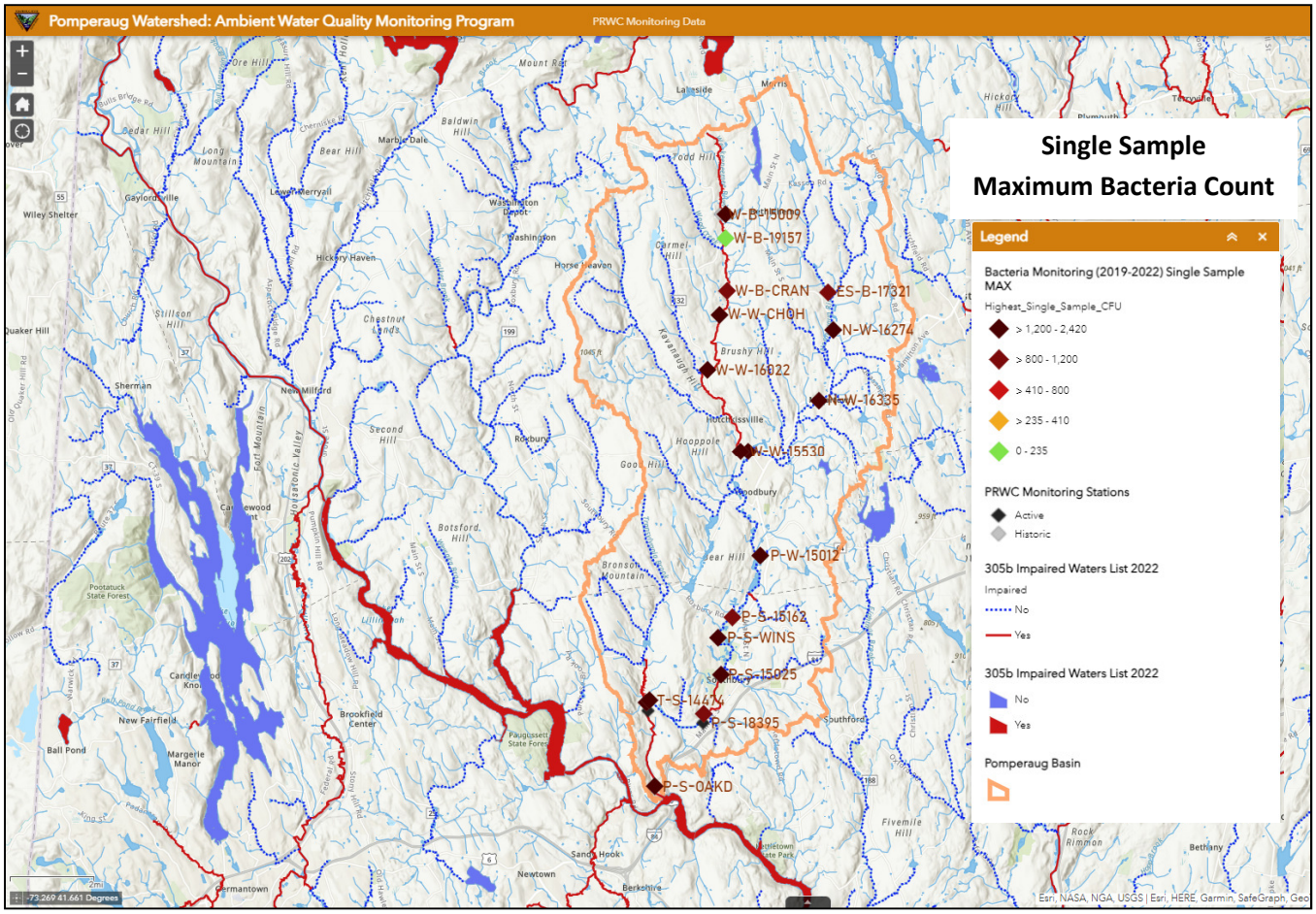


**Figure 23.** Summary data by sample site for ambient water quality monitoring conducted 2019-2022 detailing highest single event sample result. Sites shown in green meet the water quality limit for bacteria for safe recreational use in Connecticut with a single event result less than 410 CFU/100mL. Sites shown in varying shades of red are locations where the single event result exceeded the water quality limit for bacteria for safe recreational use.

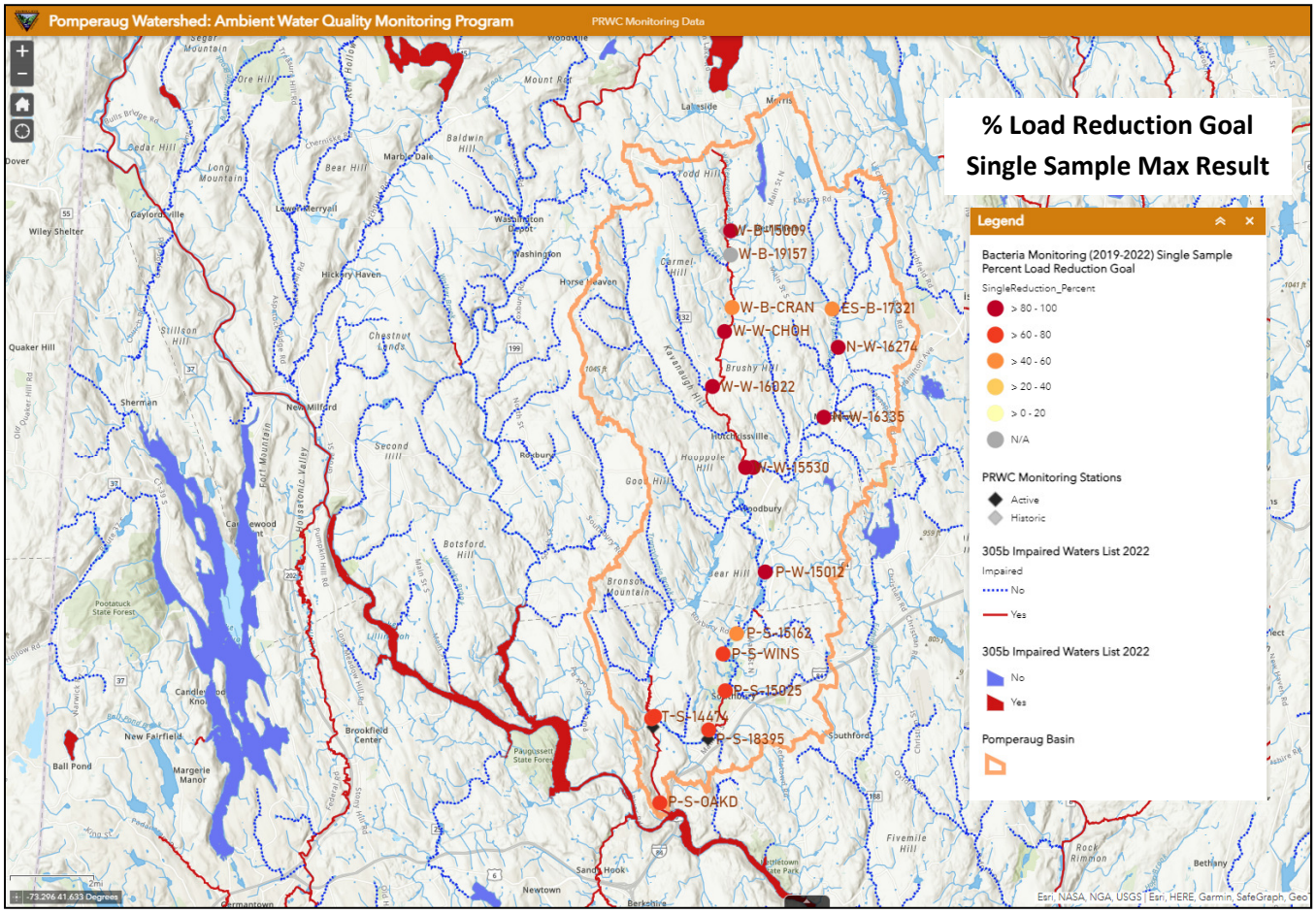


**Figure 24.** Summary data by sample site for ambient water quality monitoring conducted 2019-2022 detailing percent of bacteria load reduction in needed to meet the single event criterion (< 410 CFU/100mL) to support safe recreational use in Connecticut. Sites displayed in gray already meet this water quality criterion.

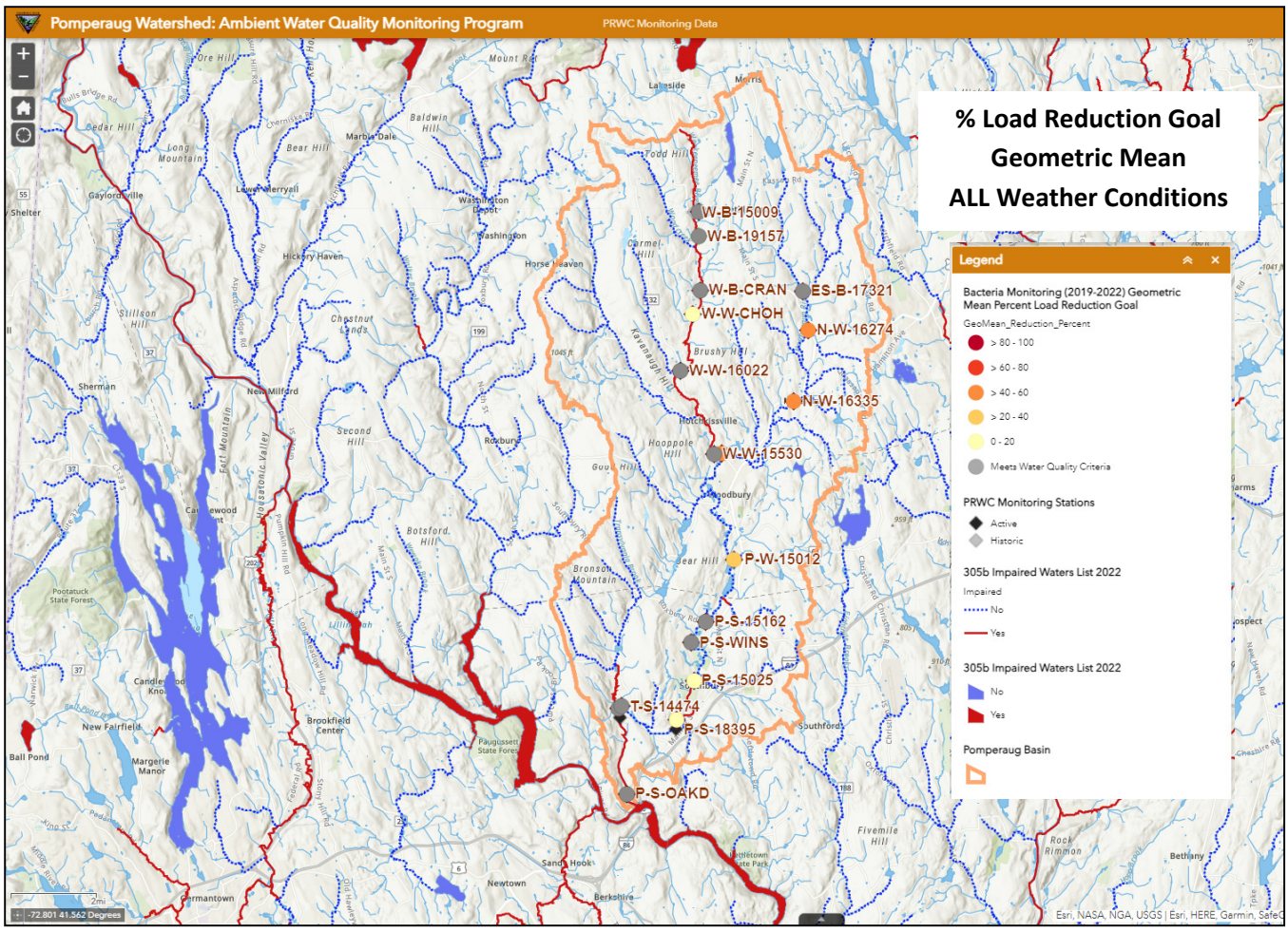


**Figure 25.** Summary data by sample site for ambient water quality monitoring conducted 2019-2022 detailing percent of bacteria load reduction in needed to meet the geometric mean criterion (< 126 CFU/100mL) to support safe recreational use in Connecticut. Sites displayed in gray already meet this water quality criterion.

## DISCUSSION

Ambient water quality monitoring data collected by Pomperaug River Watershed Coalition helps to illustrate the variability in bacteria levels observed in the Pomperaug River and its tributaries over the course of the warm weather season from April to October. The data also illustrate that precipitation precedent to the collection of samples influences the number of indicator bacteria (*E. coli*) present. Most notably, bacteria counts observed during dry weather sampling events typically met the single sample water quality criterion for safe recreation, while wet weather events yielded higher bacteria counts that were unsafe for recreational uses throughout the Pomperaug watershed (**Standard 1**). Although this was the general observation, there were occasional sample results that varied from this pattern. For example, there were a couple wet weather sampling events that yielded low counts of bacteria in areas where you would generally expect to see a higher result as unsafe levels of bacteria were present at nearly every upstream monitoring station. The results for P-S-15388 (Pomperaug at Audubon Bent of the River in Southbury) and P-S-OAKD (Pomperaug at Oakdale Manor in Southbury) on July 20, 2022 (**Figure 16/Table 22**) are a good example of this. These two sites had low bacteria counts while upstream sites including P-W-15012 (Pomperaug at Middle Quarter in Woodbury), N-W-14355 (Nonnewaug River at Route 47 in Woodbury), and W-W-15530 (Weekeepeemee River at Jacks Bridge Road in Woodbury) all had bacteria levels unsafe for recreational use. It seemed unusual to observe lower counts of bacteria at these more downstream sites as they received flow from areas with higher bacteria levels. There were also the occasional dry weather sampling events like on August 17, 2021 (**Figure 6/Table 12**) and July 20, 2021 (**Figure 5/Table 10**) where there were elevated bacteria numbers at a few of the sites. On August 17, bacteria counts at two sites were elevated: W-W-CHOH (Weekeepeemee at Chohees Trail in Woodbury) and W-W-15530 (Weekeepeemee at Jack's Bridge Rd in Woodbury). On July 20, bacteria counts at five sites were elevated: N-W-16335 (Nonnewaug at Mill Road in Woodbury), N-W-14355 (Nonnewaug at Route 47 Bridge in Woodbury), P-W-15012 (Pomperaug at Middle Quarter in Woodbury), P-S-15338 (Pomperaug at Audubon Bent of the River in Southbury), and P-S-OAKD (Pomperaug at Oakdale Manor in Southbury). For sites where bacteria counts were unexpectedly high during dry conditions, further investigation was needed to determine if there was a probable explanation for the result. In at least one case, it was noted that light rain began after precipitation values were tallied from the USGS Streamflow Gage data in the morning and dry weather conditions had been assigned. When the field observations recorded at the time of sampling did not provide enough information to explain a high bacteria result, the field team and project manager would revisit the site to conduct a visual inspection to determine if there was any obvious activity in the area that could be a contributing source of bacteria (dead animal, manure spreading, high animal traffic, signs of failing septic, etc.). In each case, no activities were specifically identified.

In order to demonstrate how much indicator bacteria levels need to be lowered to meet the criteria for single event sampling, PRWC identified the maximum level of bacteria recorded for each site between 2019 and 2022 (**Table 26**) and mapped the results (**Figure 23**). In this analysis, only one site was revealed to have a maximum bacteria level that met the criteria for safe recreation (W-B-19157, Weekeepeemee River at Mill Pond Road). It is important to note that the maximum bacteria levels observed were typically during wet weather sampling events. Using the maximum bacteria level, the percent bacteria load reduction needed to meet the single sample event criteria was then calculated and mapped. Nearly every site required between and 50% and 83% load reduction (**Table 26 / Figure 24**) to support safe recreational uses.

While instantaneous indicator bacteria levels are important in determining if conditions are safe for recreational uses in the short-term, additional statistical analyses provide a broader assessment of the conditions. Accordingly, water quality standards for safe recreation includes evaluating the geometric mean (or central tendency) of the data as one of criterion (**Standard 1 / Table 4**). PRWC calculated geometric means for all data collected between 2019 and 2022 (**Table 26**). The results were mapped (**Figure 20**).

In comparing the geometric means calculated for each site to the water quality criterion, 7 of 18 monitoring stations monitored between 2019 and 2022 had bacteria levels that exceeded the limit for safe recreational use (>126 CFU/100mL). Of these sites, one was located on the Weekeepeemee River, three were located on the Nonnewaug River, and three were located on the Pomperaug River. In general, PRWC noted that the further you move upstream towards the headwaters of the Nonnewaug and Weekeepeemee Rivers, the bacteria counts decreased. Based on the pollutant load modeling completed in support of the Pomperaug Watershed Based Plan, this result was expected as the contributing watershed areas are smaller and their physical attributes consist of land cover and land use characteristics that typically have fewer bacteria sources associated with them.

In reviewing stations where there were high geometric mean counts of bacteria, the station on the Weekeepeemee River with a water quality exceedance (W-W-CHOH) was noted to be downstream of an area with livestock immediately adjacent to the river. Other

stations along the Weekeepeemee – both upstream and downstream of W-W-CHOH (Chohees Trail, Woodbury) – met the geometric mean water quality criteria for safe recreation. Finding high levels of bacteria at stations on the Nonnewaug River was not surprising based on the land use composition of this watershed and the number of livestock present. Land uses in this watershed are similar to the Weekeepeemee River and the pollutant load model used in the developing the Pomperaug Watershed Based Plan indicated that livestock in the Nonnewaug watershed contribute approximately 20% of the bacteria load, compared to 13% of the load in the Weekeepeemee watershed. The Nonnewaug River is not currently designated as impaired for recreational uses, but indicator bacteria have not previously been monitored for this river. Along the Pomperaug River, the most upstream site (P-W-15012, Pomperaug at Middle Quarter in Woodbury) exceeded the geometric mean water quality criteria. Field observations for this monitoring station regularly included notes documenting evidence of wildlife (tracks and scat) along the streambank. The next two stations downstream – P-S-15162 (Pomperaug at Bennett Park, Southbury) and P-S-WINS (Pomperaug at Heritage Village River Gardens, Southbury) – met water quality criteria which PRWC interpreted to be an indication of good stewardship practices at the Southbury Dog Park (across from Bennett Park) and the equestrian centers located along this particular reach. It also suggested that bacteria levels from the site further upstream were diluted as the river flowed between the large quarry operation and a residential area that is characterized by large lots with ample vegetated buffers. Other riparian land uses along the stream segment included areas of designated open space (golf course, town park, and town conservation land), and a couple agricultural operations. The following two sites downstream were located downstream of the waste water treatment system for Heritage Village (P-S-15025 Pomperaug at USGS Gage Poverty Rd) and the more densely developed town center in Southbury (P-S-18395 Pomperaug at Flood Bridge Road). Bacteria levels at these two sites exceeded the limits for safe recreation. Interestingly, PRWC observed that the monitoring stations farthest downstream on the Pomperaug River – Audubon Bent of the River, Southbury (P-S-15388) and Oakdale Manor, Southbury (P-S-OAKD) – yielded bacteria levels that typically supported safe recreation in both wet and dry weather conditions. It is unclear if this reduction in the bacteria level is the result of dilution or other dissipation as the river flows through another reach characterized by large tracts of forested open space. Perhaps the 700-acre forested nature preserve that spans along 2 miles of the most downstream reach only contributes a small amount of bacteria and that the bacteria levels in this reach are otherwise diluted by water supplied by the several tributaries with minimally developed watersheds or that the levels are diluted by the river mixing with water that backflows from Lake Zoar up the mouth of the Pomperaug River. Dilution from Lake Zoar backflow up the Pomperaug River is unlikely as the Lake is also listed as impaired for recreation and is included in the CT Statewide Bacteria TMDL.

To further interpret the ambient water quality monitoring data, PRWC compared the geometric mean calculated for wet weather sampling event results to the geometric mean calculated for dry weather sampling event results. Each set of these results were compared against the water quality criteria. In this analysis, nearly all sites demonstrated a water quality exceedance for wet weather events. The exceptions were the two most upstream sites on the Weekeepeemee River – Wood Creek Road, Bethlehem (W-B-15009) and Mill Pond Road, Bethlehem (W-B-19157). Again, this was not overly surprising as this is a headwaters area that is not overly developed. The highest concentration of residential properties is around Long Meadow Pond and many of these properties are former seasonal camps that have been converted to year-round residences. There are also a couple of agricultural operations in the headwaters area that include livestock operations, equestrian facilities, crop production, and hobby farms. Other than around the lake, most properties have ample vegetated buffers along the watercourse as it flows from Munger Hill Road/Bergemann Hill Road to Woodcreek Road in Bethlehem.

The geometric mean calculation for dry weather events revealed a handful of sites with water quality exceedances. Those sites were: W-W-CHOH (Weekeepeemee at Chohees Trail, Woodbury), N-W-16274 (Nonnewaug at Route 61 Bridge, Woodbury), N-W-16355 (Nonnewaug at Mill Road, Woodbury), and P-W-15012 (Pomperaug at Middle Quarter, Woodbury). The dry weather exceedance for W-W-CHOH seemed to be skewed by the results for two sampling events in 2020 (**Appendix C**). On September 2, 2020 the sampling conditions were entered as wet weather, but precipitation data defined the conditions as dry weather. Field observation notes and current weather entries for this date indicated steady rain was falling at the time of the sample and that the water had a fishy odor. On July 21, 2020, high bacteria levels were also recorded during dry weather conditions and could not be explained based on details in the field observations, corresponding nitrate monitoring results, or follow-up visual inspection for potential sources of bacteria. When the results from September 2, 2020 are recoded to wet weather and the geometric mean for dry weather is recalculated (geometric mean drops from 134 CFU/mL to 113 CFU/mL), W-W-CHOH meets the water quality criterion for safe recreation. The dry weather water quality exceedance for P-W-15012 (Pomperaug at Middle Quarter, Woodbury) is minimal – just 1 CFU/100mL higher than the acceptable level. The slightly elevated bacteria levels is generally attributed the presence of wildlife as evidenced by regular documentation of animal tracks and scat (beaver, deer, raccoon, squirrel, coyote, etc.) along the stream bank that were noted in the

field observations. Dry weather water quality exceedances on the Nonnewaug River are partially explained by results from September 2, 2020 where conditions were entered as wet weather, but precipitation data defined the conditions as dry weather. Field observation notes and current weather entries for this date indicated steady rain was falling at the time of the sample and that the water had a fishy odor. When data from this date are omitted in the geometric mean calculations for both sites, the result for site N-W-16335 drops from 145 CFU/100mL to 120 CFU/100mL to meet the water quality criteria. The result for site N-W-16274 it drops from 189 CFU/100mL to 154 CFU/100mL, which still exceeds the water quality criteria.

Overall, the nitrate monitoring data showed that the bacteria pollutant loads are from non-point sources of pollution. Nitrate levels consistently ranged between not detected (ND) and 1.07 mgL (**Tables 7 to 25**). Results greater than 10 mgL are typically indicative of a point source pollutant such as an illicit discharge, failing septic system, or significant animal waste in or near the river close to the sampling station (MNDH-EHD, 2021). Finding a nitrate result greater than 10 mgL along with high bacteria counts would have more clearly identified high priority areas for bacteria load reduction efforts.

In summary of the discussion above, recreational uses of rivers and streams in the Pomperaug Watershed should be avoided immediately following wet weather events that generate >0.1" of precipitation in 24 hours, >0.25" of precipitation in 48 hours, or >2" of precipitation in 96 hours. The exact timeframe required for bacteria counts to return to levels safe for recreation are not fully defined, but users should wait at least 24 to 48 hours for bacteria levels to drop along with the water level itself. Evaluating the geometric mean data for the Weekeepeemee River in all weather indicates that almost all monitoring stations along this river meet water quality criteria for safe recreation. The same data analysis indicates that the geometric mean of bacteria counts along the Nonnewaug typically exceed the water quality criteria when considering all weather conditions, and that exceedances occur at some sites in dry weather conditions. For the Pomperaug River, all sites meet water quality criteria for safe recreation during dry conditions. Two of the five stations on this river – P-S-15025 (Pomperaug at USGS Gage, Poverty Rd, Southbury) and P-S-18395 (Pomperaug at Flood Bridge Rd, Southbury) – showed the geometric mean bacteria counts exceeded the water quality criteria for safe recreation when all weather conditions are considered, while three of the sites had counts below the threshold and support safe recreation (**Figures 20 and 21**).

## CONCLUSIONS

Overall, PRWC's ambient water quality monitoring data illustrate that the *E. coli* indicator bacteria counts in the rivers and streams throughout the Pomperaug Watershed generally support recreational uses during dry weather and that recreational contact should be avoided during and immediately following wet weather. The monitoring program also revealed bacteria counts in the Nonnewaug River that exceed the thresholds for safe recreation. As such, this river will likely be added to the 303(d) impaired waters list and be listed as "not supporting" for designated recreational uses. The data further suggest that more actions to reduce contributing sources of bacteria may be need to be implemented in the Nonnewaug subwatershed than in the Weekeepeemee and Pomperaug subwatersheds to order meet the geometric mean criteria for safe recreation. Nonetheless, widespread implementation of pollution prevention and runoff reduction actions throughout the entire watershed are important and necessary to prevent high concentrations of bacteria from flowing into the rivers during wet weather events. AWQM data show that bacteria levels need to be reduced by 50% and 83% to meet the instantaneous sampling result criterion for safe recreation and reduced by 9% to 50% to meet the geometric mean criterion for safe recreation. As highlighted in the Pomperaug Watershed Based Plan, these bacteria reduction goals vary from those estimated by the Watershed Treatment Model which estimated bacteria pollutant load reduction goals by subregional watershed on based on the annual load of bacteria that would be delivered into the associated river system.

## NEXT STEPS

To further refine specific priority actions that will help achieve the bacteria load reductions necessary to fully support recreational uses in all weather conditions, the ambient water quality monitoring data should be overlaid with Streamwalk Assessment Survey data for the Weekeepeemee River, Municipal Stormwater Discharge data collected since 2016 when MS4 Permit requirements were expanded, and pollutant load modeling results presented in the 2018 Pomperaug Watershed Based Plan. Overlaying these dataset will further identify where the greatest load reductions can be achieved and where the greatest potential for best management practice implementation can be achieved in a cost-effective and timely manner.

Recommended actions are expected to include continued outreach to the agricultural operators in the Weekeepeemee and Nonnewaug watersheds on the topics of riparian buffer maintenance, live-stock fencing, and manure management along with widespread establishment and maintenance of riparian buffers, regular septic system maintenance, pet waste clean-up, and continued illicit discharge detection and elimination efforts which were previously detailed in the Pomperaug Watershed Based Plan.

## REFERENCES

Connecticut Department of Energy and Environmental Protection (CTDEEP). 2020. Integrated Water Quality Report. Hartford, CT.

Connecticut Department of Energy and Environmental Protection (CTDEEP). 2012. A Statewide Total Maximum Daily Load Analysis for Bacteria Impaired Waters. Hartford, CT.

Kitchell, A and T Schueler. 2004. Unified Stream Assessment: A User's Manual. Center for Watershed Protection. Ellicott City, MD.

Mas, E, S. Bengtson, W Guenther, D Mas. 2018. Pomperaug River Watershed Based Plan. Fuss & O'Neill. Manchester, CT.

Minnesota Department of Health - Environmental Health Division (MNDH-EHD). 2021. Nitrate in Drinking Water Fact Sheet. https://www.health.state.mn.us/communities/environment/water/docs/contaminants/nitratefctsht.pdf

Wright, T, C Swann, K Cappiella, and T Schueler. 2004. Unified Subwatershed and Site Reconnaissance: A User's Manual. Center for Watershed Protection. Ellicott City, MD.

# APPENDIX A

***Quality Assurance Project Plan***
***Dated May 7, 2021 and modified March 3, 2022***

**EPA RFA No. 21059**

This document is available in PDF format on Pomperaug River Watershed Coalition's website:
https://www.pomperaug.org/_files/ugd/ecda6a_fc2749ab466146d78fe1d983940a5444.pdf

# APPENDIX B

## *AMBIENT WATER QUALITY MONITORING RESULTS BY SITE*

### *Pomperaug River Watershed*
### *2021 & 2022*

# *AMBIENT WATER QUALITY MONITORING RESULTS BY SITE*

In the following series of tables, data from April and May 2022 have been grayed out as they did not meet data quality objectives for accuracy because the analysis of blanks of distilled water yielded measureable amounts of bacteria and nitrate. Data from June to October 2022 and data from 2019 and 2020 were also included as they were are deemed relevant and generally adhere to the data quality objectives of the quality assurance project plan although samples were collected and analyzed outside the scope of the QAPP for this project. Water Quality samples from June to October were analyzed by York Laboratories dba AquaEnvironmental in Newtown, CT. Aside from the testing laboratory, the once a month sample frequency, and nitrate note being collected at every site, these data otherwise adhere to the data quality objectives detailed in the modified QAPP approved by CT DEEP and US EPA. Water Quality Samples collected by PRWC in 2019 and 2020 were analyzed by HydroTechnologies Laboratory in New Milford, CT prior to its merger with EnviroTest Services and their subsequent merge with Pace Analytical.

***Table B-1. 2021-2022 Results for East Spring Brook (ES-B-17321) on Nonnewaug Road at Porter Hill Road, Bethlehem.***

| Site | Lat | Long | Date | Nearest USGS Stream Gauge | Streamflow (cfs) | Rainfall in Past 24 hrs | Rainfall in Past 48 hrs | Rainfall in Past 96 hrs | Wet/Dry Sample | Current Weather | Air Temp C | Water Level | Water Temp C | Conductivity (uS/cm) | Bacteria Result (MPN) | Nitrate (mgL) | Average of Duplicates? |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ES-B-17321, East Spring Brook, Nonnewaug Rd at Porter Hill Rd, Bethlehem | 41.612267 | -73.175952 | 6/9/2021 | Nonnewaug | 16.4 | 0.93 | 0.93 | 0.93 | Wet | Sun with some clouds | 27.3 | Average | 20.2 | 239.0 | 129 | 0.44 | |
| ES-B-17321, East Spring Brook, Nonnewaug Rd at Porter Hill Rd, Bethlehem | 41.612184 | -73.175946 | 6/22/2021 | Nonnewaug | 6.01 | 0.01 | 0.01 | 0.02 | Dry | Cloudy, Light rain | 18.9 | Low | 19.2 | 143.8 | 125 | 0.53 | |
| ES-B-17321, East Spring Brook, Nonnewaug Rd at Porter Hill Rd, Bethlehem | 41.612303 | -73.175955 | 7/7/2021 | Nonnewaug | 13 | 0.24 | 0.24 | 0.28 | Wet | Sunny | 29.7 | Average | 20.5 | 157.9 | 138 | 0.51 | |
| ES-B-17321, East Spring Brook, Nonnewaug Rd at Porter Hill Rd, Bethlehem | 41.612294 | -73.175879 | 7/20/2021 | Nonnewaug | 47.4 | 0.03 | 0.15 | 1.74 | Dry | Cloudy | 25 | Average | 20.3 | 205.0 | 138 | 0.51 | Yes |
| ES-B-17321, East Spring Brook, Nonnewaug Rd at Porter Hill Rd, Bethlehem | 41.612322 | -73.175588 | 8/4/2021 | Nonnewaug | 9.21 | 0.00 | 0.00 | 0.15 | Dry | Cloudy | 18.4 | Average | 16.2 | 240.0 | 35 | 0.75 | |
| ES-B-17321, East Spring Brook, Nonnewaug Rd at Porter Hill Rd, Bethlehem | 41.612391 | -73.175502 | 8/17/2021 | Nonnewaug | 6.29 | 0.00 | 0.00 | 0.50 | Dry | Cloudy | 22 | Average, Low | 18.9 | 229.0 | 109 | 0.79 | |
| ES-B-17321, East Spring Brook, Nonnewaug Rd at Porter Hill Rd, Bethlehem | 41.6123 | -73.175557 | 9/14/2021 | Nonnewaug | 13.4 | 0.01 | 0.01 | 0.01 | Dry | Sun with some clouds | 21.0 | Average | 17.1 | 216.0 | 70 | 0.84 | |
| ES-B-17321, East Spring Brook, Nonnewaug Rd at Porter Hill Rd, Bethlehem | 41.612244 | -73.17601 | 9/21/2021 | Nonnewaug | 8.2 | 0.00 | 0.00 | 0.00 | Dry | Sunny | 19.8 | Average | 15.2 | 228.0 | 46 | 0.81 | |
| ES-B-17321, East Spring Brook, Nonnewaug Rd at Porter Hill Rd, Bethlehem | 41.612281 | -73.175954 | 10/5/2021 | Nonnewaug | 42.1 | 0.32 | 0.99 | 0.99 | Wet | Cloudy | 15.0 | High | 14.4 | 209.0 | 816 | 0.45 | |
| ES-B-17321, East Spring Brook, Nonnewaug Rd at Porter Hill Rd, Bethlehem | 41.612282 | -73.17559 | 10/20/2021 | Nonnewaug | 14.2 | 0.01 | 0.06 | 0.59 | Dry | Sun with some clouds | 13.3 | Average | 10.7 | 216.5 | 22 | 0.63 | Yes |
| ES-B-17321, East Spring Brook, Nonnewaug Rd at Porter Hill Rd, Bethlehem | 41.612282 | -73.17559 | 4/6/2022 | Nonnewaug | 46.3 | 0.22 | 0.41 | 0.41 | WET | Cloudy | 9.4 | Average | 7.9 | 199.3 | 260 | 0.53 | |
| ES-B-17321, East Spring Brook, Nonnewaug Rd at Porter Hill Rd, Bethlehem | 41.612282 | -73.17559 | 4/20/2022 | Nonnewaug | 68.6 | 0.02 | 1.39 | 1.61 | WET | Sun with some clouds | 12.7 | High | 9.9 | 176.3 | 94 | 0.32 | |
| ES-B-17321, East Spring Brook, Nonnewaug Rd at Porter Hill Rd, Bethlehem | 41.612282 | -73.17559 | 5/4/2022 | Nonnewaug | 30.4 | 0.05 | 0.60 | 0.64 | WET | Light rain, Cloudy | 10.6 | Average | 10.4 | 193.8 | 210 | 0.37 | |
| ES-B-17321, East Spring Brook, Nonnewaug Rd at Porter Hill Rd, Bethlehem | 41.612282 | -73.17559 | 5/26/2022 | Nonnewaug | 13 | 0.00 | 0.00 | 0.31 | DRY | Sun with some clouds | 21.5 | Average | 14.9 | 201 | 55 | 0.73 | |
| ES-B-17321, East Spring Brook, Nonnewaug Rd at Porter Hill Rd, Bethlehem | 41.612282 | -73.17559 | 6/15/2022 | Nonnewaug | 9.21 | 0.00 | 0.00 | 0.27 | DRY | Sunny | 28.8 | Average | 18.0 | 183.0 | 69 | 0.70 | Yes |
| ES-B-17321, East Spring Brook, Nonnewaug Rd at Porter Hill Rd, Bethlehem | 41.612282 | -73.17559 | 7/20/2022 | Nonnewaug | 4.29 | 0.43 | 1.37 | 1.37 | WET | Sunny | 26 | Average | 22.3 | 212 | 548 | 0.5 | |
| ES-B-17321, East Spring Brook, Nonnewaug Rd at Porter Hill Rd, Bethlehem | 41.612282 | -73.17559 | 8/17/2022 | Nonnewaug | 1.15 | 0 | 0 | 0 | DRY | Clouds with some sun | 21.8 | Low | 18.2 | 199 | 19 | ND | |
| ES-B-17321, East Spring Brook, Nonnewaug Rd at Porter Hill Rd, Bethlehem | 41.612282 | -73.17559 | 9/21/2022 | Nonnewaug | 3.68 | 0.02 | 0.28 | 0.28 | WET | Clouds with some sun | 18.9 | Average | 16.8 | 220 | 46 | 0 | |
| ES-B-17321, East Spring Brook, Nonnewaug Rd at Porter Hill Rd, Bethlehem | 41.612282 | -73.17559 | 10/20/2022 | Nonnewaug | 9.21 | 0 | 0 | 0.4 | DRY | Sunny | 11.3 | Average | 7.4 | 239 | 56 | Not Sampled | |

***Table B-2.*** *2021-2022 Results for Nonnewaug River (N-W-14355) at Route 47 Bridge near Young's Nursery, Woodbury.*

| Site | Lat | Long | Date | Nearest USGS Stream Gauge | Streamflow (cfs) | Rainfall in Past 24 hrs | Rainfall in Past 48 hrs | Rainfall in Past 96 hrs | Wet/Dry Sample | Current Weather | Air Temp C | Water Level | Water Temp C | Conductivity (uS/cm) | Bacteria Result (MPN) | Nitrate (mgL) | Average of Duplicates? |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N-W-14355, Nonnewaug, Rt 47 Bridge, Woodbury | 41.557757 | -73.211978 | 6/9/2021 | Nonnewaug | 16.4 | 0.93 | 0.93 | 0.93 | Wet | Sun with some clouds | 28.3 | Low | 20.0 | 153.7 | 866 | 0.57 | |
| N-W-14355, Nonnewaug, Rt 47 Bridge, Woodbury | 41.557749 | -73.212023 | 6/22/2021 | Nonnewaug | 6.01 | 0.01 | 0.01 | 0.02 | Dry | Cloudy | 22.4 | Low | 19.3 | 192.3 | 91 | 0.92 | |
| N-W-14355, Nonnewaug, Rt 47 Bridge, Woodbury | 41.557729 | -73.212038 | 7/7/2021 | Nonnewaug | 13 | 0.24 | 0.24 | 0.28 | Wet | Sunny | 27.8 | Average | 19.8 | 167.9 | 228 | 0.68 | |
| N-W-14355, Nonnewaug, Rt 47 Bridge, Woodbury | 41.557741 | -73.212045 | 7/20/2021 | Nonnewaug | 47.4 | 0.03 | 0.15 | 1.74 | Dry | Clouds with some sun | 25.2 | High | 19.2 | 145.0 | 236 | 0.74 | |
| N-W-14355, Nonnewaug, Rt 47 Bridge, Woodbury | 41.557739 | -73.211982 | 8/4/2021 | Nonnewaug | 9.21 | 0.00 | 0.00 | 0.15 | Dry | Cloudy | 21 | Average | 16.4 | 177.2 | 60 | 0.90 | Yes |
| N-W-14355, Nonnewaug, Rt 47 Bridge, Woodbury | 41.557768 | -73.212003 | 8/17/2021 | Nonnewaug | 6.29 | 0.00 | 0.00 | 0.50 | Dry | Cloudy | 25.8 | Low | 18.3 | 196.0 | 119 | 1.07 | |
| N-W-14355, Nonnewaug, Rt 47 Bridge, Woodbury | 41.557747 | -73.212018 | 9/14/2021 | Nonnewaug | 13.4 | 0.01 | 0.01 | 0.01 | Dry | Sun with some clouds | 24.9 | High | 17.8 | 160.8 | 186 | 1.04 | |
| N-W-14355, Nonnewaug, Rt 47 Bridge, Woodbury | 41.55789 | -73.212629 | 9/21/2021 | Nonnewaug | 8.2 | 0.00 | 0.00 | 0.00 | Dry | Sunny | 20.0 | Average | 16.0 | 173.3 | 57 | 0.93 | |
| N-W-14355, Nonnewaug, Rt 47 Bridge, Woodbury | 41.557806 | -73.21202 | 10/5/2021 | Nonnewaug | 42.1 | 0.32 | 0.99 | 0.99 | Wet | Cloudy | 16.5 | High | 14.5 | 162.6 | 2420 | 0.62 | |
| N-W-14355, Nonnewaug, Rt 47 Bridge, Woodbury | 41.557772 | -73.212022 | 10/20/2021 | Nonnewaug | 14.2 | 0.01 | 0.06 | 0.59 | Dry | Sunny | 16.4 | Average | 11.1 | 176.3 | 39 | 0.88 | |
| N-W-14355, Nonnewaug, Rt 47 Bridge, Woodbury | 41.557772 | -73.212022 | 4/6/2022 | Nonnewaug | 46.3 | 0.2 | 0.4 | 0.4 | WET | Not Sampled | | | | | | | |
| N-W-14355, Nonnewaug, Rt 47 Bridge, Woodbury | 41.557772 | -73.212022 | 4/20/2022 | Nonnewaug | 68.6 | 0.02 | 1.39 | 1.61 | WET | Sunny | 12.6 | Average | 8.6 | 144.5 | 120 | 0.52 | |
| N-W-14355, Nonnewaug, Rt 47 Bridge, Woodbury | 41.557772 | -73.212022 | 5/4/2022 | Nonnewaug | 30.4 | 0.05 | 0.60 | 0.64 | WET | Light rain | 10.7 | High | 10.8 | 145.7 | 40 | 0.62 | |
| N-W-14355, Nonnewaug, Rt 47 Bridge, Woodbury | 41.557772 | -73.212022 | 5/26/2022 | Nonnewaug | 13 | 0.00 | 0.00 | 0.31 | DRY | Sun with some clouds | 22.2 | Low | 15.1 | 164.7 | 38 | 0.92 | |
| N-W-14355, Nonnewaug, Rt 47 Bridge, Woodbury | 41.557772 | -73.212022 | 6/15/2022 | Nonnewaug | 9.21 | 0.00 | 0.00 | 0.27 | DRY | Sun with some clouds | 26.5 | Low | 17.8 | 182.7 | 261 | 1.00 | |
| N-W-14355, Nonnewaug, Rt 47 Bridge, Woodbury | 41.557772 | -73.212022 | 7/20/2022 | Nonnewaug | 4.29 | 0.43 | 1.37 | 1.37 | WET | Sunny | 31 | Low | 21.3 | 198.9 | 914 | 1 | |
| N-W-14355, Nonnewaug, Rt 47 Bridge, Woodbury | 41.557772 | -73.212022 | 8/17/2022 | Nonnewaug | 1.15 | 0 | 0 | 0 | DRY | Cloudy | 23.1 | Very low | 18.1 | 179.5 | 62 | 0.9 | Yes |
| N-W-14355, Nonnewaug, Rt 47 Bridge, Woodbury | 41.557772 | -73.212022 | 9/21/2022 | Nonnewaug | 3.68 | 0.02 | 0.28 | 0.28 | WET | Sun with some clouds | 20.8 | Average | 16.5 | 220 | 142 | 1 | |
| N-W-14355, Nonnewaug, Rt 47 Bridge, Woodbury | 41.557772 | -73.212022 | 10/20/2022 | Nonnewaug | 9.21 | 0 | 0 | 0.4 | DRY | Sunny | 5.9 | Average | 7.8 | 220 | 57 | 0.8 | |

***Table B-3.*** *2021-2022 Results for Nonnewaug River (N-W-16355) on Mill Road near USGS Streamflow Gage, Woodbury.*

| Site | Lat | Long | Date | Nearest USGS Stream Gauge | Streamflow (cfs) | Rainfall in Past 24 hrs | Rainfall in Past 48 hrs | Rainfall in Past 96 hrs | Wet/Dry Sample | Current Weather | Air Temp C | Water Level | Water Temp C | Conductivity (uS/cm) | Bacteria Result (MPN) | Nitrate (mgL) | Average of Duplicates? |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N-W-16335, Nonnewaug, Mill Rd - USGS Gauge, Woodbury | 41.575233 | -73.179848 | 6/9/2021 | Nonnewaug | 16.4 | 0.93 | 0.93 | 0.93 | Wet | Sun with some clouds | 26.2 | Average | 20.6 | 188.3 | 548 | 0.53 | |
| N-W-16335, Nonnewaug, Mill Rd - USGS Gauge, Woodbury | 41.57522 | -73.179816 | 6/22/2021 | Nonnewaug | 6.01 | 0.01 | 0.01 | 0.02 | Dry | Moderate or steady rain, Light rain, Cloudy | 20.5 | Low | 20.5 | 66.4 | 272 | 0.60 | |
| N-W-16335, Nonnewaug, Mill Rd - USGS Gauge, Woodbury | 41.575274 | -73.179805 | 7/7/2021 | Nonnewaug | 13 | 0.24 | 0.24 | 0.28 | Wet | Sunny | 27 | Low | 20.0 | 197.4 | 285 | 0.56 | |
| N-W-16335, Nonnewaug, Mill Rd - USGS Gauge, Woodbury | 41.575305 | -73.179837 | 7/20/2021 | Nonnewaug | 47.4 | 0.03 | 0.15 | 1.74 | Dry | Cloudy, Clouds with some sun | 21.4 | High | 18.6 | 147.5 | 249 | 0.69 | |
| N-W-16335, Nonnewaug, Mill Rd - USGS Gauge, Woodbury | 41.575132 | -73.179542 | 8/4/2021 | Nonnewaug | 9.21 | 0.00 | 0.00 | 0.15 | Dry | Cloudy | 19.6 | Average | 16.9 | 170.9 | 46 | 0.69 | |
| N-W-16335, Nonnewaug, Mill Rd - USGS Gauge, Woodbury | 41.575277 | -73.179905 | 8/17/2021 | Nonnewaug | 6.29 | 0.00 | 0.00 | 0.50 | Dry | Cloudy | 23.9 | Low | 19.7 | 190.9 | 174 | 0.90 | Yes |
| N-W-16335, Nonnewaug, Mill Rd - USGS Gauge, Woodbury | 41.575191 | -73.179784 | 9/14/2021 | Nonnewaug | 13.4 | 0.01 | 0.01 | 0.01 | Dry | Sun with some clouds | 21.1 | Average | 17.1 | 166.7 | 101 | 0.92 | |
| N-W-16335, Nonnewaug, Mill Rd - USGS Gauge, Woodbury | 41.575199 | -73.179746 | 9/21/2021 | Nonnewaug | 8.2 | 0.00 | 0.00 | 0.00 | Dry | Sunny | 19.6 | Average | 15.2 | 175.3 | 55 | 0.88 | |
| N-W-16335, Nonnewaug, Mill Rd - USGS Gauge, Woodbury | 41.575141 | -73.179749 | 10/5/2021 | Nonnewaug | 42.1 | 0.32 | 0.99 | 0.99 | Wet | Cloudy | 14.7 | High | 14.4 | 178.9 | 1986 | 0.60 | |
| N-W-16335, Nonnewaug, Mill Rd - USGS Gauge, Woodbury | 41.575193 | -73.179773 | 10/20/2021 | Nonnewaug | 14.2 | 0.01 | 0.06 | 0.59 | Dry | Sun with some clouds | 14.4 | Average | 10.3 | 181.3 | 46 | 0.81 | |
| N-W-16335, Nonnewaug, Mill Rd - USGS Gauge, Woodbury | 41.575193 | -73.179773 | 4/6/2022 | Nonnewaug | 46.3 | 0.22 | 0.22 | 0.41 | WET | Cloudy | 9.1 | High | 8.7 | 138.4 | 180 | 0.53 | |
| N-W-16335, Nonnewaug, Mill Rd - USGS Gauge, Woodbury | 41.575193 | -73.179773 | 4/20/2022 | Nonnewaug | 68.6 | 0.02 | 1.39 | 1.61 | WET | Sunny | 11 | High | 8.8 | 151.7 | 150 | 0.51 | |
| N-W-16335, Nonnewaug, Mill Rd - USGS Gauge, Woodbury | 41.575193 | -73.179773 | 5/4/2022 | Nonnewaug | 30.4 | 0.05 | 0.60 | 0.64 | WET | Cloudy | 13.5 | Average | 10.9 | 162.8 | 51 | 0.53 | |
| N-W-16335, Nonnewaug, Mill Rd - USGS Gauge, Woodbury | 41.575193 | -73.179773 | 5/26/2022 | Nonnewaug | 13 | 0.00 | 0.00 | 0.31 | DRY | Sun with some clouds | 19.3 | Average | 15.7 | 167.4 | 490 | 0.82 | |
| N-W-16335, Nonnewaug, Mill Rd - USGS Gauge, Woodbury | 41.575193 | -73.179773 | 6/15/2022 | Nonnewaug | 9.21 | 0.00 | 0.00 | 0.27 | DRY | Sunny | 23.8 | Low | 17.9 | 181.7 | 172 | not sampled | |
| N-W-16335, Nonnewaug, Mill Rd - USGS Gauge, Woodbury | 41.575193 | -73.179773 | 7/20/2022 | Nonnewaug | 4.29 | 0.43 | 1.37 | 1.37 | WET | Sunny | 28.8 | Low | 22.2 | 199 | 2077 | Not Sampled | Yes |
| N-W-16335, Nonnewaug, Mill Rd - USGS Gauge, Woodbury | 41.575193 | -73.179773 | 8/17/2022 | Nonnewaug | 1.15 | 0 | 0 | 0 | DRY | Cloudy | 21.5 | Very low | 19.6 | 194.9 | 150 | Not Sampled | |
| N-W-16335, Nonnewaug, Mill Rd - USGS Gauge, Woodbury | 41.575193 | -73.179773 | 9/21/2022 | Nonnewaug | 3.68 | 0.02 | 0.28 | 0.28 | WET | Sun with some clouds | 18.1 | Average | 17.2 | 208 | 115 | Not Sampled | |
| N-W-16335, Nonnewaug, Mill Rd - USGS Gauge, Woodbury | 41.575193 | -73.179773 | 10/20/2022 | Nonnewaug | 9.21 | 0 | 0 | 0.4 | DRY | Sunny | 12.7 | Average | 7.1 | 211.5 | 108 | ND | Yes |

***Table B-4.*** *2021-2022 Results for Transylvania Brook (T-S-14474) at Seman Park, East Flat Hill Road, Southbury.*

| Site | Lat | Long | Date | Nearest USGS Stream Gauge | Streamflow (cfs) | Rainfall in Past 24 hrs | Rainfall in Past 48 hrs | Rainfall in Past 96 hrs | Wet/Dry Sample | Current Weather | Air Temp C | Water Level | Water Temp C | Conductivity (uS/cm) | Bacteria Result (MPN) | Nitrate (mgL) | Average of Duplicates? |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| T-S-14474, Transylvania, Seman Park at East Flat Hill Rd, Southbury | 41.472517 | -73.257446 | 6/9/2021 | Pomperaug | 89.7 | 0.93 | 0.93 | 0.93 | Wet | Clouds with some sun | 27.4 | Average | 22.8 | 153.7 | 1300 | 0.28 | Yes |
| T-S-14474, Transylvania, Seman Park at East Flat Hill Rd, Southbury | 41.472628 | -73.257232 | 6/22/2021 | Pomperaug | 30.5 | 0.01 | 0.01 | 0.02 | Dry | Cloudy | 22.1 | Average | 20.5 | 204.0 | 72 | 0.23 | |
| T-S-14474, Transylvania, Seman Park at East Flat Hill Rd, Southbury | 41.472472 | -73.25747 | 7/7/2021 | Pomperaug | 65.9 | 0.24 | 0.24 | 0.28 | Wet | Sunny | 27.8 | Average | 19.9 | 189.7 | 84 | 0.29 | |
| T-S-14474, Transylvania, Seman Park at East Flat Hill Rd, Southbury | 41.472507 | -73.257442 | 7/20/2021 | Pomperaug | 153 | 0.03 | 0.15 | 1.74 | Dry | Clouds with some sun | 25.6 | Average | 19.7 | 196.8 | 111 | 0.32 | |
| T-S-14474, Transylvania, Seman Park at East Flat Hill Rd, Southbury | 41.472511 | -73.257464 | 8/4/2021 | Pomperaug | 33.9 | 0.00 | 0.00 | 0.15 | Dry | Clouds with some sun | 20 | Low | 17.1 | 230.0 | 138 | 0.23 | Yes |
| T-S-14474, Transylvania, Seman Park at East Flat Hill Rd, Southbury | 41.472628 | -73.257232 | 8/17/2021 | Pomperaug | 20.5 | 0.00 | 0.00 | 0.50 | Dry | Cloudy | 24 | Average | 19.3 | 227.0 | 121 | 0.36 | |
| T-S-14474, Transylvania, Seman Park at East Flat Hill Rd, Southbury | 41.47249 | -73.257451 | 9/14/2021 | Pomperaug | 87.1 | 0.01 | 0.01 | 0.01 | Dry | Sun with some clouds | 20.0 | Average | 18.0 | 195.2 | 67 | 0.31 | |
| T-S-14474, Transylvania, Seman Park at East Flat Hill Rd, Southbury | 41.472458 | -73.257452 | 9/21/2021 | Pomperaug | 58.9 | 0.00 | 0.00 | 0.00 | Dry | Sunny | 16.8 | Average | 15.9 | 231.0 | 36 | 0.27 | |
| T-S-14474, Transylvania, Seman Park at East Flat Hill Rd, Southbury | 41.472605 | -73.257268 | 10/5/2021 | Pomperaug | 164.0 | 0.32 | 0.99 | 0.99 | Wet | Cloudy | 14.9 | Average | 15.0 | 173.7 | 185 | 0.28 | |
| T-S-14474, Transylvania, Seman Park at East Flat Hill Rd, Southbury | 41.472472 | -73.257407 | 10/20/2021 | Pomperaug | 62.4 | 0.01 | 0.06 | 0.59 | Dry | Clouds with some sun | 10.3 | Average | 11.5 | 224.0 | 40 | 0.47 | |
| T-S-14474, Transylvania, Seman Park at East Flat Hill Rd, Southbury | 41.472472 | -73.257407 | 4/6/2022 | Pomperaug | 170 | 0.22 | 0.41 | 0.41 | WET | Foggy/misty | 9.4 | Average | 9.0 | 200 | 45 | 0.52 | |
| T-S-14474, Transylvania, Seman Park at East Flat Hill Rd, Southbury | 41.472472 | -73.257407 | 4/20/2022 | Pomperaug | 328 | 0.02 | 1.39 | 1.61 | WET | Sun with some clouds | 12.8 | Average | 9.0 | 159.1 | 82 | 0.40 | |
| T-S-14474, Transylvania, Seman Park at East Flat Hill Rd, Southbury | 41.472472 | -73.257407 | 5/4/2022 | Pomperaug | 133 | 0.05 | 0.60 | 0.64 | WET | Light rain | 12 | Average | 11.5 | 182.8 | 44 | 0.38 | |
| T-S-14474, Transylvania, Seman Park at East Flat Hill Rd, Southbury | 41.472472 | -73.257407 | 5/26/2022 | Pomperaug | 63.5 | 0.00 | 0.00 | 0.31 | DRY | Sun with some clouds | 19 | Average | 17 | 186.4 | 56 | 0.25 | |
| T-S-14474, Transylvania, Seman Park at East Flat Hill Rd, Southbury | 41.472472 | -73.257407 | 6/15/2022 | Pomperaug | 45.9 | 0.00 | 0.00 | 0.27 | DRY | Sunny | 23.5 | Average | 19.1 | 208.0 | 78 | 0.40 | |
| T-S-14474, Transylvania, Seman Park at East Flat Hill Rd, Southbury | 41.472472 | -73.257407 | 7/20/2022 | Pomperaug | 25.7 | 0.43 | 1.37 | 1.37 | WET | Sunny | 32.3 | Average | 22.7 | 228 | 125 | 0.4 | |
| T-S-14474, Transylvania, Seman Park at East Flat Hill Rd, Southbury | 41.472472 | -73.257407 | 8/17/2022 | Pomperaug | 5.22 | 0 | 0 | 0 | DRY | Cloudy | 22.3 | Low | 19.9 | 258 | 53 | Not Sampled | Yes |
| T-S-14474, Transylvania, Seman Park at East Flat Hill Rd, Southbury | 41.472472 | -73.257407 | 9/21/2022 | Pomperaug | 15.9 | 0.02 | 0.28 | 0.28 | WET | Sun with some clouds | 22.1 | Average | 17.3 | 273 | 435 | 0.5 | |
| T-S-14474, Transylvania, Seman Park at East Flat Hill Rd, Southbury | 41.472472 | -73.257407 | 10/20/2022 | Pomperaug | 37.8 | 0 | 0 | 0.4 | DRY | Sunny | 11.7 | Average | 9 | 217 | 32 | ND | |

***Table B-5.*** *2021-2022 Results for Pomperaug River (P-S-15025) at Ewald Park near USGS Streamflow Gage, Poverty Road, Southbury.*

| Site | Lat | Long | Date | Nearest USGS Stream Gauge | Streamflow (cfs) | Rainfall in Past 24 hrs | Rainfall in Past 48 hrs | Rainfall in Past 96 hrs | Wet/Dry Sample | Current Weather | Air Temp C | Water Level | Water Temp C | Conductivity (uS/cm) | Bacteria Result (MPN) | Nitrate (mgL) | Average of Duplicates? |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P-S-15025, Pomperaug, Poverty Rd - Ewald Park - USGS Gauge, Southbury | 41.48134 | -73.22506 | 6/9/2021 | Pomperaug | 89.7 | 0.93 | 0.93 | 0.93 | Wet | Clouds with some sun | 26.4 | Average | 22.6 | 225.0 | 980 | 0.52 | |
| P-S-15025, Pomperaug, Poverty Rd - Ewald Park - USGS Gauge, Southbury | 41.481277 | -73.22473 | 6/22/2021 | Pomperaug | 30.5 | 0.01 | 0.01 | 0.02 | Dry | Cloudy | 21.2 | Average | 21.0 | 293.0 | 115 | 0.80 | |
| P-S-15025, Pomperaug, Poverty Rd - Ewald Park - USGS Gauge, Southbury | 41.48153 | -73.224747 | 7/7/2021 | Pomperaug | 65.9 | 0.24 | 0.24 | 0.28 | Wet | Sunny | 24.6 | Average | 20.3 | 316.0 | 185 | 0.65 | Yes |
| P-S-15025, Pomperaug, Poverty Rd - Ewald Park - USGS Gauge, Southbury | 41.471463 | -73.22385 | 7/20/2021 | Pomperaug | 153 | 0.03 | 0.15 | 1.74 | Dry | Clouds with some sun | 24.6 | Average | 20.2 | 194.8 | 228 | 0.59 | |
| P-S-15025, Pomperaug, Poverty Rd - Ewald Park - USGS Gauge, Southbury | 41.481542 | -73.224899 | 8/4/2021 | Pomperaug | 33.9 | 0.00 | 0.00 | 0.15 | Dry | Clouds with some sun | 19.2 | Low | 17.8 | 278.0 | 42 | 0.75 | |
| P-S-15025, Pomperaug, Poverty Rd - Ewald Park - USGS Gauge, Southbury | 41.481277 | -73.22473 | 8/17/2021 | Pomperaug | 20.5 | 0.00 | 0.00 | 0.50 | Dry | Clouds with some sun | 24.7 | Average | 20.8 | 249.0 | 125 | 0.95 | |
| P-S-15025, Pomperaug, Poverty Rd - Ewald Park - USGS Gauge, Southbury | 41.48159 | -73.225236 | 9/14/2021 | Pomperaug | 87.1 | 0.01 | 0.01 | 0.01 | Dry | Sunny | 20.5 | Average | 18.2 | 210.0 | 56 | 0.74 | |
| P-S-15025, Pomperaug, Poverty Rd - Ewald Park - USGS Gauge, Southbury | 41.48144 | -73.224846 | 9/21/2021 | Pomperaug | 58.9 | 0.00 | 0.00 | 0.00 | Dry | Sunny | 19.1 | Average | 17.2 | 247.0 | 58 | 0.76 | |
| P-S-15025, Pomperaug, Poverty Rd - Ewald Park - USGS Gauge, Southbury | 41.481277 | -73.22471 | 10/5/2021 | Pomperaug | 164.0 | 0.32 | 0.99 | 0.99 | Wet | Cloudy | 14.6 | Average | 14.8 | 189.4 | 1203 | 0.62 | |
| P-S-15025, Pomperaug, Poverty Rd - Ewald Park - USGS Gauge, Southbury | 41.481494 | -73.2249 | 10/20/2021 | Pomperaug | 62.4 | 0.01 | 0.06 | 0.59 | Dry | Clouds with some sun | 10.0 | Average, Low | 12.6 | 263.0 | 75 | 0.85 | Yes |
| P-S-15025, Pomperaug, Poverty Rd - Ewald Park - USGS Gauge, Southbury | 41.481494 | -73.2249 | 4/6/2022 | Pomperaug | 170 | 0.22 | 0.41 | 0.41 | WET | Foggy/misty | 9.7 | High, Average | 9.3 | 208 | 20 | 0.64 | |
| P-S-15025, Pomperaug, Poverty Rd - Ewald Park - USGS Gauge, Southbury | 41.481494 | -73.2249 | 4/20/2022 | Pomperaug | 328 | 0.02 | 1.39 | 1.61 | WET | Sun with some clouds | 11.2 | High | 8.8 | 183.5 | 96 | 0.46 | |
| P-S-15025, Pomperaug, Poverty Rd - Ewald Park - USGS Gauge, Southbury | 41.481494 | -73.2249 | 5/4/2022 | Pomperaug | 133 | 0.05 | 0.60 | 0.64 | WET | Cloudy | 12.4 | Average | 11.5 | 217 | 130 | 0.58 | |
| P-S-15025, Pomperaug, Poverty Rd - Ewald Park - USGS Gauge, Southbury | 41.481494 | -73.2249 | 5/26/2022 | Pomperaug | 63.5 | 0.00 | 0.00 | 0.31 | DRY | Clouds with some sun | 19.9 | Average | 16 | 259 | 43 | 0.85 | |
| P-S-15025, Pomperaug, Poverty Rd - Ewald Park - USGS Gauge, Southbury | 41.481494 | -73.2249 | 6/15/2022 | Pomperaug | 45.9 | 0.00 | 0.00 | 0.27 | DRY | Sunny | 23.1 | Average | 18.5 | 278.0 | 79 | 0.90 | |
| P-S-15025, Pomperaug, Poverty Rd - Ewald Park - USGS Gauge, Southbury | 41.481494 | -73.2249 | 7/20/2022 | Pomperaug | 25.7 | 0.43 | 1.37 | 1.37 | WET | Sunny | 29.2 | Low | 22.6 | 298 | 377 | 1 | Yes |
| P-S-15025, Pomperaug, Poverty Rd - Ewald Park - USGS Gauge, Southbury | 41.481494 | -73.2249 | 8/17/2022 | Pomperaug | 5.22 | 0 | 0 | 0 | DRY | Cloudy | 21.8 | Low | 20.2 | 407 | 60 | Not Sampled | |
| P-S-15025, Pomperaug, Poverty Rd - Ewald Park - USGS Gauge, Southbury | 41.481494 | -73.2249 | 9/21/2022 | Pomperaug | 15.9 | 0.02 | 0.28 | 0.28 | WET | Sun with some clouds | 18.7 | Low | 17.7 | 342 | 64 | 0.9 | |
| P-S-15025, Pomperaug, Poverty Rd - Ewald Park - USGS Gauge, Southbury | 41.481494 | -73.2249 | 10/20/2022 | Pomperaug | 37.8 | 0 | 0 | 0.4 | DRY | Sunny | 8.9 | Average | 8.9 | 266 | 36 | 0.7 | |

***Table B-6.*** *2021-2022 Results for Pomperaug River (P-S-15388) at Audubon Bent of the River Center, East Flat Hill Road, Southbury.*

| Site | Lat | Long | Date | Nearest USGS Stream Gauge | Streamflow (cfs) | Rainfall in Past 24 hrs | Rainfall in Past 48 hrs | Rainfall in Past 96 hrs | Wet/Dry Sample | Current Weather | Air Temp C | Water Level | Water Temp C | Conductivity (uS/cm) | Bacteria Result (MPN) | Nitrate (mgL) | Average of Duplicates? |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P-S-15388, Pomperaug, Bent of the River, Southbury | 41.468681 | -73.258058 | 6/9/2021 | Pomperaug | 89.7 | 0.93 | 0.93 | 0.93 | Wet | Clouds with some sun | 26.5 | Average | 21.8 | 209.0 | 1733 | 0.50 | |
| P-S-15388, Pomperaug, Bent of the River, Southbury | 41.468687 | -73.258188 | 6/22/2021 | Pomperaug | 30.5 | 0.01 | 0.01 | 0.02 | Dry | Cloudy | 21.2 | Average | 21.4 | 310.0 | 137 | 0.73 | |
| P-S-15388, Pomperaug, Bent of the River, Southbury | 41.468716 | -73.258224 | 7/7/2021 | Pomperaug | 65.9 | 0.24 | 0.24 | 0.28 | Wet | Sunny | 26 | Average | 20.5 | 271.0 | 155 | 0.60 | |
| P-S-15388, Pomperaug, Bent of the River, Southbury | 41.468868 | -73.258291 | 7/20/2021 | Pomperaug | 153 | 0.03 | 0.15 | 1.74 | Dry | Clouds with some sun | 22.6 | Average | 20.4 | 186.9 | 257 | 0.55 | Yes |
| P-S-15388, Pomperaug, Bent of the River, Southbury | 41.529058 | -73.200924 | 8/4/2021 | Pomperaug | 33.9 | 0.00 | 0.00 | 0.15 | Dry | Cloudy | 22.2 | Average | 21.9 | 274.0 | 34 | 0.65 | |
| P-S-15388, Pomperaug, Bent of the River, Southbury | 41.468687 | -73.258188 | 8/17/2021 | Pomperaug | 20.5 | 0.00 | 0.00 | 0.50 | Dry | Cloudy | 22.4 | Low | 20.5 | 257.0 | 88 | 0.90 | |
| P-S-15388, Pomperaug, Bent of the River, Southbury | 41.471108 | -73.252327 | 9/14/2021 | Pomperaug | 87.1 | 0.01 | 0.01 | 0.01 | Dry | Sunny | 20.0 | Average | 18.2 | 212.0 | 72 | 0.72 | |
| P-S-15388, Pomperaug, Bent of the River, Southbury | 41.468582 | -73.258053 | 9/21/2021 | Pomperaug | 58.9 | 0.00 | 0.00 | 0.00 | Dry | Sunny | 14.5 | Average | 16.9 | 256.0 | 77 | 0.70 | |
| P-S-15388, Pomperaug, Bent of the River, Southbury | 41.468803 | -73.258192 | 10/5/2021 | Pomperaug | 164.0 | 0.32 | 0.99 | 0.99 | Wet | Cloudy | 13.6 | Average, High | 14.8 | 184.4 | 1414 | 0.58 | |
| P-S-15388, Pomperaug, Bent of the River, Southbury | 41.471878 | -73.258477 | 10/20/2021 | Pomperaug | 62.4 | 0.01 | 0.06 | 0.59 | Dry | Clouds with some sun | 9.0 | Low | 12.0 | 257.0 | 52 | 0.80 | |
| P-S-15388, Pomperaug, Bent of the River, Southbury | 41.471878 | -73.258477 | 4/6/2022 | Pomperaug | 170 | 0.22 | 0.41 | 0.41 | WET | Foggy/misty | 9.1 | High, Average | 9.0 | 215 | 37 | 0.58 | |
| P-S-15388, Pomperaug, Bent of the River, Southbury | 41.471878 | -73.258477 | 4/20/2022 | Pomperaug | 328 | 0.02 | 1.39 | 1.61 | WET | Sun with some clouds | 11.5 | High | 8.2 | 165.4 | 130 | 0.41 | |
| P-S-15388, Pomperaug, Bent of the River, Southbury | 41.471878 | -73.258477 | 5/4/2022 | Pomperaug | 133 | 0.05 | 0.60 | 0.64 | WET | Moderate or steady rain | 11.4 | Average | 11.3 | 195.6 | 63 | 0.50 | Yes |
| P-S-15388, Pomperaug, Bent of the River, Southbury | 41.471878 | -73.258477 | 5/26/2022 | Pomperaug | 63.5 | 0.00 | 0.00 | 0.31 | DRY | Sun with some clouds | 19.9 | Average | 16.7 | 252 | 130 | 0.66 | |
| P-S-15388, Pomperaug, Bent of the River, Southbury | 41.471878 | -73.258477 | 6/15/2022 | Pomperaug | 45.9 | 0.00 | 0.00 | 0.27 | DRY | Sunny | 26.2 | Average, Low | 19.0 | 272.0 | 108 | not sampled | |
| P-S-15388, Pomperaug, Bent of the River, Southbury | 41.471878 | -73.258477 | 7/20/2022 | Pomperaug | 25.7 | 0.43 | 1.37 | 1.37 | WET | Sunny | 29.2 | Average | 23 | 305 | 133 | Not Sampled | |
| P-S-15388, Pomperaug, Bent of the River, Southbury | 41.471878 | -73.258477 | 8/17/2022 | Pomperaug | 5.22 | 0 | 0 | 0 | DRY | Cloudy, Light rain | 21.9 | Low | 20.3 | 488 | 39 | Not Sampled | |
| P-S-15388, Pomperaug, Bent of the River, Southbury | 41.471878 | -73.258477 | 9/21/2022 | Pomperaug | 15.9 | 0.02 | 0.28 | 0.28 | WET | Not Sampled | | | | | | | |
| P-S-15388, Pomperaug, Bent of the River, Southbury | 41.471878 | -73.258477 | 10/20/2022 | Pomperaug | 37.8 | 0 | 0 | 0.4 | DRY | Sunny | 13.8 | Average | 9.8 | 264 | 29 | ND | |

***Table B-7.*** *2021-2022 Results for Pomperaug River (P-S-18395) at Flood Bridge Road across the river from "The Gym" (Rev Fitness) and Riverview Cinema, Southbury.*

| Site | Lat | Long | Date | Nearest USGS Stream Gauge | Streamflow (cfs) | Rainfall in Past 24 hrs | Rainfall in Past 48 hrs | Rainfall in Past 96 hrs | Wet/Dry Sample | Current Weather | Air Temp C | Water Level | Water Temp C | Conductivity (uS/cm) | Bacteria Result (MPN) | Nitrate (mgL) | Average of Duplicates? |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P-S-18395, Pomperaug, The Gym - Flood Bridge Rd, Southbury | 41.466976 | -73.234062 | 6/9/2021 | Pomperaug | 89.7 | 0.93 | 0.93 | 0.93 | Wet | Clouds with some sun | 25.7 | Average, High | 22.6 | 213.0 | 1046 | 0.51 | |
| P-S-18395, Pomperaug, The Gym - Flood Bridge Rd, Southbury | 41.466925 | -73.234105 | 6/22/2021 | Pomperaug | 30.5 | 0.01 | 0.01 | 0.02 | Dry | Cloudy | 23.3 | Average | 21.4 | 294.0 | 119 | 0.78 | |
| P-S-18395, Pomperaug, The Gym - Flood Bridge Rd, Southbury | 41.468016 | -73.232216 | 7/7/2021 | Pomperaug | 65.9 | 0.24 | 0.24 | 0.28 | Wet | Sunny | 26.1 | Average | 20.8 | 231.0 | 162 | 0.61 | |
| P-S-18395, Pomperaug, The Gym - Flood Bridge Rd, Southbury | 41.44294 | -73.254918 | 7/20/2021 | Pomperaug | 153 | 0.03 | 0.15 | 1.74 | Dry | Clouds with some sun | 24.5 | Average | 21.4 | 98.5 | 248 | 0.31 | |
| P-S-18395, Pomperaug, The Gym - Flood Bridge Rd, Southbury | 41.468006 | -73.232222 | 8/4/2021 | Pomperaug | 33.9 | 0.00 | 0.00 | 0.15 | Dry | Clouds with some sun | 18.6 | Low | 18.0 | 265.0 | 32 | 0.70 | |
| P-S-18395, Pomperaug, The Gym - Flood Bridge Rd, Southbury | 41.466925 | -73.234105 | 8/17/2021 | Pomperaug | 20.5 | 0.00 | 0.00 | 0.50 | Dry | Clouds with some sun | 24.6 | Average | 21.1 | 270.0 | 185 | 0.95 | |
| P-S-18395, Pomperaug, The Gym - Flood Bridge Rd, Southbury | 41.46805 | -73.232361 | 9/14/2021 | Pomperaug | 87.1 | 0.01 | 0.01 | 0.01 | Dry | Sunny | 20.2 | Average, High | 18.4 | 217.0 | 52 | 0.72 | |
| P-S-18395, Pomperaug, The Gym - Flood Bridge Rd, Southbury | 41.468068 | -73.232349 | 9/21/2021 | Pomperaug | 58.9 | 0.00 | 0.00 | 0.00 | Dry | Sunny | 17.7 | Average | 17.1 | 243.5 | 82 | 0.69 | Yes |
| P-S-18395, Pomperaug, The Gym - Flood Bridge Rd, Southbury | 41.467663 | -73.232615 | 10/5/2021 | Pomperaug | 164.0 | 0.32 | 0.99 | 0.99 | Wet | Cloudy | 14.1 | Average, High | 14.8 | 181.5 | 1046 | 0.60 | |
| P-S-18395, Pomperaug, The Gym - Flood Bridge Rd, Southbury | 41.468027 | -73.232231 | 10/20/2021 | Pomperaug | 62.4 | 0.01 | 0.06 | 0.59 | Dry | Clouds with some sun | 10.3 | Average | 12.4 | 254.0 | 56 | 0.80 | |
| P-S-18395, Pomperaug, The Gym - Flood Bridge Rd, Southbury | 41.468027 | -73.232231 | 4/6/2022 | Pomperaug | 170 | 0.22 | 0.41 | 0.41 | WET | Foggy/misty | 8.9 | Average, High | 9.1 | 206.5 | 34 | 0.61 | Yes |
| P-S-18395, Pomperaug, The Gym - Flood Bridge Rd, Southbury | 41.468027 | -73.232231 | 4/20/2022 | Pomperaug | 328 | 0.02 | 1.39 | 1.61 | WET | Sun with some clouds | 11.5 | High | 8.4 | 159.4 | 120 | 0.40 | |
| P-S-18395, Pomperaug, The Gym - Flood Bridge Rd, Southbury | 41.468027 | -73.232231 | 5/4/2022 | Pomperaug | 133 | 0.05 | 0.60 | 0.64 | WET | Cloudy | 11.8 | Average | 11.9 | 197.7 | 91 | 0.49 | |
| P-S-18395, Pomperaug, The Gym - Flood Bridge Rd, Southbury | 41.468027 | -73.232231 | 5/26/2022 | Pomperaug | 63.5 | 0.00 | 0.00 | 0.31 | DRY | Sun with some clouds | 22.7 | Average | 16.5 | 246 | 93 | 0.70 | |
| P-S-18395, Pomperaug, The Gym - Flood Bridge Rd, Southbury | 41.468027 | -73.232231 | 6/15/2022 | Pomperaug | 45.9 | 0.00 | 0.00 | 0.27 | DRY | Sunny | 24.9 | Average | 19.3 | 266.0 | 105 | not sampled | Yes |
| P-S-18395, Pomperaug, The Gym - Flood Bridge Rd, Southbury | 41.468027 | -73.232231 | 7/20/2022 | Pomperaug | 25.7 | 0.43 | 1.37 | 1.37 | WET | Sunny | 27.9 | Average | 23.2 | 312 | 345 | Not Sampled | |
| P-S-18395, Pomperaug, The Gym - Flood Bridge Rd, Southbury | 41.468027 | -73.232231 | 8/17/2022 | Pomperaug | 5.22 | 0 | 0 | 0 | DRY | Cloudy | 22.9 | Low | 20.1 | 306 | 79 | Not Sampled | |
| P-S-18395, Pomperaug, The Gym - Flood Bridge Rd, Southbury | 41.468027 | -73.232231 | 9/21/2022 | Pomperaug | 15.9 | 0.02 | 0.28 | 0.28 | WET | Sun with some clouds | 18.1 | Average | 17.7 | 372 | 80 | Not Sampled | |
| P-S-18395, Pomperaug, The Gym - Flood Bridge Rd, Southbury | 41.468027 | -73.232231 | 10/20/2022 | Pomperaug | 37.8 | 0 | 0 | 0.4 | DRY | Sunny | 11.3 | Average | 8.9 | 259 | 37 | Not Sampled | |

***Table B-8.*** *2021-2022 Results for Pomperaug River (P-S-OAKD) at Oakdale Manor, Southbury.*

| Site | Lat | Long | Date | Nearest USGS Stream Gauge | Streamflow (cfs) | Rainfall in Past 24 hrs | Rainfall in Past 48 hrs | Rainfall in Past 96 hrs | Wet/Dry Sample | Current Weather | Air Temp C | Water Level | Water Temp C | Conductivity (uS/cm) | Bacteria Result (MPN) | Nitrate (mgL) | Average of Duplicates? |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P-S-OAKD, Pomperaug, Oakdale Manor, Southbury | 41.442867 | -73.254958 | 6/9/2021 | Pomperaug | 89.7 | 0.93 | 0.93 | 0.93 | Wet | Sun with some clouds | 25.3 | Average | 21.6 | 214.0 | 687 | 0.52 | |
| P-S-OAKD, Pomperaug, Oakdale Manor, Southbury | 41.443135 | -73.254793 | 6/22/2021 | Pomperaug | 30.5 | 0.01 | 0.01 | 0.02 | Dry | Cloudy, Light rain | 24.4 | Average, High | 22.4 | 298.0 | 49 | 0.68 | |
| P-S-OAKD, Pomperaug, Oakdale Manor, Southbury | 41.443135 | -73.254793 | 7/7/2021 | Pomperaug | 65.9 | 0.24 | 0.24 | 0.28 | Wet | Sunny | 25.8 | Average | 19.8 | 243.0 | 126 | 0.58 | |
| P-S-OAKD, Pomperaug, Oakdale Manor, Southbury | 41.442971 | -73.255103 | 7/20/2021 | Pomperaug | 153 | 0.03 | 0.15 | 1.74 | Dry | Clouds with some sun | 23.1 | Average | 20.4 | 185.6 | 365 | 0.54 | |
| P-S-OAKD, Pomperaug, Oakdale Manor, Southbury | 41.443243 | -73.254325 | 8/4/2021 | Pomperaug | 33.9 | 0.00 | 0.00 | 0.15 | Dry | Cloudy | 19.8 | Low | 18.3 | 267.0 | 24 | 0.63 | |
| P-S-OAKD, Pomperaug, Oakdale Manor, Southbury | 41.443135 | -73.254793 | 8/17/2021 | Pomperaug | 20.5 | 0.00 | 0.00 | 0.50 | Dry | Cloudy | 22.7 | Average | 21.8 | 261.0 | 48 | 0.90 | Yes |
| P-S-OAKD, Pomperaug, Oakdale Manor, Southbury | 41.443227 | -73.254882 | 9/14/2021 | Pomperaug | 87.1 | 0.01 | 0.01 | 0.01 | Dry | Sunny | 18.6 | Average | 18.6 | 227.0 | 64 | 0.74 | |
| P-S-OAKD, Pomperaug, Oakdale Manor, Southbury | 41.443063 | -73.255033 | 9/21/2021 | Pomperaug | 58.9 | 0.00 | 0.00 | 0.00 | Dry | Sunny | 14.5 | Average | 16.9 | 249.0 | 60 | 0.71 | |
| P-S-OAKD, Pomperaug, Oakdale Manor, Southbury | 41.443052 | -73.2551 | 10/5/2021 | Pomperaug | 164.0 | 0.32 | 0.99 | 0.99 | Wet | Cloudy | 13.8 | Average | 14.9 | 185.1 | 1300 | 0.60 | |
| P-S-OAKD, Pomperaug, Oakdale Manor, Southbury | 41.443001 | -73.254729 | 10/20/2021 | Pomperaug | 62.4 | 0.01 | 0.06 | 0.59 | Dry | Clouds with some sun | 9.0 | Low | 11.9 | 253.0 | 34 | 0.84 | |
| P-S-OAKD, Pomperaug, Oakdale Manor, Southbury | 41.443001 | -73.254729 | 4/6/2022 | Pomperaug | 170 | 0.22 | 0.41 | 0.41 | WET | Light rain | 10.1 | High, Average | 8.9 | 224 | 20 | 0.60 | |
| P-S-OAKD, Pomperaug, Oakdale Manor, Southbury | 41.443001 | -73.254729 | 4/20/2022 | Pomperaug | 328 | 1.20 | 1.20 | 1.20 | WET | Sun with some clouds | 10.7 | Average, High | 7.8 | 161 | 160 | 0.51 | |
| P-S-OAKD, Pomperaug, Oakdale Manor, Southbury | 41.443001 | -73.254729 | 5/4/2022 | Pomperaug | 133 | 0.05 | 0.60 | 0.64 | WET | Light rain | 11.5 | Average | 11.2 | 297 | 150 | 0.50 | |
| P-S-OAKD, Pomperaug, Oakdale Manor, Southbury | 41.443001 | -73.254729 | 5/26/2022 | Pomperaug | 63.5 | 0.00 | 0.00 | 0.31 | DRY | Not Sampled | | | | | | | |
| P-S-OAKD, Pomperaug, Oakdale Manor, Southbury | 41.443001 | -73.254729 | 6/15/2022 | Pomperaug | 45.9 | 0.00 | 0.00 | 0.27 | DRY | Sunny | 22.7 | Average | 19.2 | 260.0 | 62 | 0.80 | |
| P-S-OAKD, Pomperaug, Oakdale Manor, Southbury | 41.443001 | -73.254729 | 7/20/2022 | Pomperaug | 25.7 | 0.43 | 1.37 | 1.37 | WET | Sunny | 27.7 | Average | 23.7 | 307 | 198 | 0.8 | |
| P-S-OAKD, Pomperaug, Oakdale Manor, Southbury | 41.443001 | -73.254729 | 8/17/2022 | Pomperaug | 5.22 | 0 | 0 | 0 | DRY | Light rain, Cloudy | 23.4 | Average | 23.2 | 449 | 19 | 0.6 | |
| P-S-OAKD, Pomperaug, Oakdale Manor, Southbury | 41.443001 | -73.254729 | 9/21/2022 | Pomperaug | 15.9 | 0.02 | 0.28 | 0.28 | WET | Sun with some clouds | 19.1 | Average | 18.7 | 360 | 27 | 0.8 | Yes |
| P-S-OAKD, Pomperaug, Oakdale Manor, Southbury | 41.443001 | -73.254729 | 10/20/2022 | Pomperaug | 37.8 | 0 | 0 | 0.4 | DRY | Not Sampled | | | | | | | |

***Table B-9.*** *2021-2022 Results for Pomperaug River (P-S-WINS) at Heritage Village River Gardens, Winship Drive, Southbury.*

| Site | Lat | Long | Date | Nearest USGS Stream Gauge | Streamflow (cfs) | Rainfall in Past 24 hrs | Rainfall in Past 48 hrs | Rainfall in Past 96 hrs | Wet/Dry Sample | Current Weather | Air Temp C | Water Level | Water Temp C | Conductivity (uS/cm) | Bacteria Result (MPN) | Nitrate (mgL) | Average of Duplicates? |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P-S-WINS, Pomperaug, Winship Drive at HV River Gardens, Southbury | 41.493947 | -73.225812 | 6/9/2021 | Pomperaug | 89.7 | 0.93 | 0.93 | 0.93 | Wet | Sun with some clouds | 29.1 | Average | 25.0 | 178.8 | 1553 | 0.44 | |
| P-S-WINS, Pomperaug, Winship Drive at HV River Gardens, Southbury | 41.529081 | -73.200951 | 6/22/2021 | Pomperaug | 30.5 | 0.01 | 0.01 | 0.02 | Dry | Light rain, Cloudy | 19.35 | Average | 21.4 | 219.5 | 79 | 0.64 | Yes |
| P-S-WINS, Pomperaug, Winship Drive at HV River Gardens, Southbury | 41.493971 | -73.225731 | 7/7/2021 | Pomperaug | 65.9 | 0.24 | 0.24 | 0.28 | Wet | Sun with some clouds | 28.4 | Average | 21.5 | 193.6 | 119 | 0.51 | |
| P-S-WINS, Pomperaug, Winship Drive at HV River Gardens, Southbury | 41.479872 | -73.221878 | 7/20/2021 | Pomperaug | 153 | 0.03 | 0.15 | 1.74 | Dry | Clouds with some sun | 25.9 | Average | 20.7 | 154.8 | 228 | 0.52 | |
| P-S-WINS, Pomperaug, Winship Drive at HV River Gardens, Southbury | 41.493779 | -73.225687 | 8/4/2021 | Pomperaug | 33.9 | 0.00 | 0.00 | 0.15 | Dry | Clouds with some sun | 20.6 | Low | 18.2 | 207.0 | 35 | 0.62 | |
| P-S-WINS, Pomperaug, Winship Drive at HV River Gardens, Southbury | 41.529081 | -73.200951 | 8/17/2021 | Pomperaug | 20.5 | 0.00 | 0.00 | 0.50 | Dry | Clouds with some sun | 24.7 | Average | 21.3 | 200.0 | 101 | 0.79 | |
| P-S-WINS, Pomperaug, Winship Drive at HV River Gardens, Southbury | 41.493903 | -73.22599 | 9/14/2021 | Pomperaug | 87.1 | 0.01 | 0.01 | 0.01 | Dry | Sunny | 22.8 | Average | 18.9 | 178.5 | 61 | 0.65 | |
| P-S-WINS, Pomperaug, Winship Drive at HV River Gardens, Southbury | 41.493843 | -73.225095 | 9/21/2021 | Pomperaug | 58.9 | 0.00 | 0.00 | 0.00 | Dry | Sunny | 21.8 | Average | 18.3 | 195.6 | 50 | 0.60 | |
| P-S-WINS, Pomperaug, Winship Drive at HV River Gardens, Southbury | 41.493924 | -73.225778 | 10/5/2021 | Pomperaug | 164.0 | 0.32 | 0.99 | 0.99 | Wet | Cloudy | 17.1 | Average | 15.1 | 155.8 | 1643 | 0.56 | Yes |
| P-S-WINS, Pomperaug, Winship Drive at HV River Gardens, Southbury | 41.493957 | -73.225789 | 10/20/2021 | Pomperaug | 62.4 | 0.01 | 0.06 | 0.59 | Dry | Sun with some clouds | 12.1 | Average, Low | 13.1 | 196.5 | 62 | 0.72 | |
| P-S-WINS, Pomperaug, Winship Drive at HV River Gardens, Southbury | 41.493957 | -73.225789 | 4/6/2022 | Pomperaug | 170 | 0.22 | 0.41 | 0.41 | WET | Foggy/misty | 9.6 | Average | 9.4 | 164.2 | 34 | 0.53 | |
| P-S-WINS, Pomperaug, Winship Drive at HV River Gardens, Southbury | 41.493957 | -73.225789 | 4/20/2022 | Pomperaug | 328 | 0.02 | 1.39 | 1.61 | WET | Sun with some clouds | 12.4 | Average | 9.1 | 137.6 | 115 | 0.37 | Yes |
| P-S-WINS, Pomperaug, Winship Drive at HV River Gardens, Southbury | 41.493957 | -73.225789 | 5/4/2022 | Pomperaug | 133 | 0.05 | 0.60 | 0.64 | WET | Cloudy | 13.2 | Average | 11.6 | 159.9 | 55 | 0.41 | |
| P-S-WINS, Pomperaug, Winship Drive at HV River Gardens, Southbury | 41.493957 | -73.225789 | 5/26/2022 | Pomperaug | 63.5 | 0.00 | 0.00 | 0.31 | DRY | Sun with some clouds | 23.2 | Average | 17 | 194.5 | 84 | 0.68 | |
| P-S-WINS, Pomperaug, Winship Drive at HV River Gardens, Southbury | 41.493957 | -73.225789 | 6/15/2022 | Pomperaug | 45.9 | 0.00 | 0.00 | 0.27 | DRY | Sunny | 27.8 | Average | 20.3 | 205.0 | 31 | not sampled | |
| P-S-WINS, Pomperaug, Winship Drive at HV River Gardens, Southbury | 41.493957 | -73.225789 | 7/20/2022 | Pomperaug | 25.7 | 0.43 | 1.37 | 1.37 | WET | Sunny | 32.6 | Average | 24 | 218 | 461 | Not Sampled | |
| P-S-WINS, Pomperaug, Winship Drive at HV River Gardens, Southbury | 41.493957 | -73.225789 | 8/17/2022 | Pomperaug | 5.22 | 0 | 0 | 0 | DRY | Cloudy | 22.7 | Average, Low | 20.5 | 255 | 59 | Not Sampled | |
| P-S-WINS, Pomperaug, Winship Drive at HV River Gardens, Southbury | 41.493957 | -73.225789 | 9/21/2022 | Pomperaug | 15.9 | 0.02 | 0.28 | 0.28 | WET | Sun with some clouds | 22.2 | Average | 18.3 | 248 | 30 | Not Sampled | |
| P-S-WINS, Pomperaug, Winship Drive at HV River Gardens, Southbury | 41.493957 | -73.225789 | 10/20/2022 | Pomperaug | 37.8 | 0 | 0 | 0.4 | DRY | Sunny | 16.7 | Average | 9.7 | 204 | 42 | Not Sampled | Yes |

***Table B-10.*** *2021-2022 Results for Pomperaug River (P-W-15012) at Middle Quarter, South Pomperaug Ave, Woodbury.*

| Site | Lat | Long | Date | Nearest USGS Stream Gauge | Streamflow (cfs) | Rainfall in Past 24 hrs | Rainfall in Past 48 hrs | Rainfall in Past 96 hrs | Wet/Dry Sample | Current Weather | Air Temp C | Water Level | Water Temp C | Conductivity (uS/cm) | Bacteria Result (MPN) | Nitrate (mgL) | Average of Duplicates? |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P-W-15012, Pomperaug, Middle Quarter / S. Pomperaug Ave, Woodbury | 41.521945 | -73.206149 | 6/9/2021 | Pomperaug | 89.7 | 0.93 | 0.93 | 0.93 | Wet | Clouds with some sun | 27.2 | Average | 23.2 | 159.1 | 1203 | 0.48 | |
| P-W-15012, Pomperaug, Middle Quarter / S. Pomperaug Ave, Woodbury | 41.521979 | -73.20613 | 6/22/2021 | Pomperaug | 30.5 | 0.01 | 0.01 | 0.02 | Dry | Cloudy | 20.9 | Average | 21.5 | 212.0 | 99 | 0.67 | |
| P-W-15012, Pomperaug, Middle Quarter / S. Pomperaug Ave, Woodbury | 41.521979 | -73.206103 | 7/7/2021 | Pomperaug | 65.9 | 0.24 | 0.24 | 0.28 | Wet | Sunny | 23.5 | Low | 20.0 | 190.8 | 249 | 0.53 | |
| P-W-15012, Pomperaug, Middle Quarter / S. Pomperaug Ave, Woodbury | 41.522057 | -73.206293 | 7/20/2021 | Pomperaug | 153 | 0.03 | 0.15 | 1.74 | Dry | Clouds with some sun | 24.8 | High | 19.9 | 143.2 | 345 | 0.54 | |
| P-W-15012, Pomperaug, Middle Quarter / S. Pomperaug Ave, Woodbury | 41.522057 | -73.206293 | 8/4/2021 | Pomperaug | 33.9 | 0.00 | 0.00 | 0.15 | Dry | Cloudy | 16.9 | Average | 17.6 | 181.5 | 83 | 0.71 | |
| P-W-15012, Pomperaug, Middle Quarter / S. Pomperaug Ave, Woodbury | 41.521865 | -73.206214 | 8/17/2021 | Pomperaug | 20.5 | 0.00 | 0.00 | 0.50 | Dry | Cloudy | 22.2 | Low | 21.0 | 210.0 | 173 | 0.80 | |
| P-W-15012, Pomperaug, Middle Quarter / S. Pomperaug Ave, Woodbury | 41.521927 | -73.206119 | 9/14/2021 | Pomperaug | 87.1 | 0.01 | 0.01 | 0.01 | Dry | Sunny | 21.6 | Average | 18.3 | 177.2 | 157 | 0.76 | Yes |
| P-W-15012, Pomperaug, Middle Quarter / S. Pomperaug Ave, Woodbury | 41.521968 | -73.20613 | 9/21/2021 | Pomperaug | 58.9 | 0.00 | 0.00 | 0.00 | Dry | Sun with some clouds | 18.4 | Average | 16.5 | 195.9 | 91 | 0.74 | |
| P-W-15012, Pomperaug, Middle Quarter / S. Pomperaug Ave, Woodbury | 41.521974 | -73.206267 | 10/5/2021 | Pomperaug | 164.0 | 0.32 | 0.99 | 0.99 | Wet | Cloudy | 15.1 | Average | 14.6 | 147.6 | 2420 | 0.51 | |
| P-W-15012, Pomperaug, Middle Quarter / S. Pomperaug Ave, Woodbury | 41.522057 | -73.206293 | 10/20/2021 | Pomperaug | 62.4 | 0.01 | 0.06 | 0.59 | Dry | Sunny | 12.5 | Average, Low | 10.8 | 195.8 | 125 | 0.55 | |
| P-W-15012, Pomperaug, Middle Quarter / S. Pomperaug Ave, Woodbury | 41.522057 | -73.206293 | 4/6/2022 | Pomperaug | 170 | 0.22 | 0.41 | 0.41 | WET | Not Sampled | | | | | | | |
| P-W-15012, Pomperaug, Middle Quarter / S. Pomperaug Ave, Woodbury | 41.522057 | -73.206293 | 4/20/2022 | Pomperaug | 328 | 0.02 | 1.39 | 1.61 | WET | Sunny | 9.7 | High | 7.6 | 141.4 | 130 | 0.46 | |
| P-W-15012, Pomperaug, Middle Quarter / S. Pomperaug Ave, Woodbury | 41.522057 | -73.206293 | 5/4/2022 | Pomperaug | 133 | 0.05 | 0.60 | 0.64 | WET | Light rain | 12.2 | Average | 11.3 | 157.8 | 110 | 0.10 | |
| P-W-15012, Pomperaug, Middle Quarter / S. Pomperaug Ave, Woodbury | 41.522057 | -73.206293 | 5/26/2022 | Pomperaug | 63.5 | 0.00 | 0.00 | 0.31 | DRY | Sun with some clouds | 19.4 | Average | 16.7 | 171.9 | 81 | 0.72 | Yes |
| P-W-15012, Pomperaug, Middle Quarter / S. Pomperaug Ave, Woodbury | 41.522057 | -73.206293 | 6/15/2022 | Pomperaug | 45.9 | 0.00 | 0.00 | 0.27 | DRY | Sunny | 22.6 | Low | 18.7 | 176.4 | 86 | not sampled | |
| P-W-15012, Pomperaug, Middle Quarter / S. Pomperaug Ave, Woodbury | 41.522057 | -73.206293 | 7/20/2022 | Pomperaug | 25.7 | 0.43 | 1.37 | 1.37 | WET | Sunny | 26.6 | Low | 22.4 | 199.1 | 1203 | Not Sampled | |
| P-W-15012, Pomperaug, Middle Quarter / S. Pomperaug Ave, Woodbury | 41.522057 | -73.206293 | 8/17/2022 | Pomperaug | 5.22 | 0 | 0 | 0 | DRY | Light rain | 19.3 | Low | 20.5 | 245 | 435 | Not Sampled | |
| P-W-15012, Pomperaug, Middle Quarter / S. Pomperaug Ave, Woodbury | 41.522057 | -73.206293 | 9/21/2022 | Pomperaug | 15.9 | 0.02 | 0.28 | 0.28 | WET | Sun with some clouds | 20.3 | Average | 17.9 | 233 | 86 | Not Sampled | |
| P-W-15012, Pomperaug, Middle Quarter / S. Pomperaug Ave, Woodbury | 41.522057 | -73.206293 | 10/20/2022 | Pomperaug | 37.8 | 0 | 0 | 0.4 | DRY | Sunny | 12 | Average | 9.4 | 200 | 88 | 0.6 | |

***Table B-11.*** *2021-2022 Results for Weekeepeemee River (W-B-19157) at Mill Pond Road near Route 132, Bethlehem.*

| Site | Lat | Long | Date | Nearest USGS Stream Gauge | Streamflow (cfs) | Rainfall in Past 24 hrs | Rainfall in Past 48 hrs | Rainfall in Past 96 hrs | Wet/Dry Sample | Current Weather | Air Temp C | Water Level | Water Temp C | Conductivity (uS/cm) | Bacteria Result (MPN) | Nitrate (mgL) | Average of Duplicates? |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| W-B-19157, Weekeepeemee, Mill Pond Road, Bethlehem | 41.63085 | -73.222519 | 6/9/2021 | Weekeepeemee | 20.7 | 0.93 | 0.93 | 0.93 | Wet | Sun with some clouds | 23.6 | Average | 20.2 | 189.1 | 27 | 0.23 | |
| W-B-19157, Weekeepeemee, Mill Pond Road, Bethlehem | 41.630671 | -73.222338 | 6/22/2021 | Weekeepeemee | 5.88 | 0.01 | 0.01 | 0.02 | Dry | Cloudy, Light rain | 18.75 | Low | 19.4 | 133.2 | 43 | 0.32 | Yes |
| W-B-19157, Weekeepeemee, Mill Pond Road, Bethlehem | 41.630691 | -73.222397 | 7/7/2021 | Weekeepeemee | 19.4 | 0.24 | 0.24 | 0.28 | Wet | Sunny | 23.9 | Average | 20.0 | 127.6 | 64 | 0.20 | |
| W-B-19157, Weekeepeemee, Mill Pond Road, Bethlehem | 41.630775 | -73.222555 | 7/20/2021 | Weekeepeemee | 61.3 | 0.03 | 0.15 | 1.74 | Dry | Sunny | 22.3 | Average | 20.6 | 151.9 | 61 | 0.26 | |
| W-B-19157, Weekeepeemee, Mill Pond Road, Bethlehem | 41.630414 | -73.222355 | 8/4/2021 | Weekeepeemee | 9.05 | 0.00 | 0.00 | 0.15 | Dry | Cloudy | 17 | Average | 16.2 | 188.6 | 11 | 0.35 | |
| W-B-19157, Weekeepeemee, Mill Pond Road, Bethlehem | 41.630547 | -73.222337 | 8/17/2021 | Weekeepeemee | 3.64 | 0.00 | 0.00 | 0.50 | Dry | Cloudy | 19.3 | Average, Low | 18.0 | 247.0 | 33 | 0.55 | |
| W-B-19157, Weekeepeemee, Mill Pond Road, Bethlehem | 41.63057 | -73.222457 | 9/14/2021 | Weekeepeemee | 45.8 | 0.01 | 0.01 | 0.01 | Dry | Sun with some clouds | 19.3 | Average | 17.4 | 167.5 | 52 | 0.35 | |
| W-B-19157, Weekeepeemee, Mill Pond Road, Bethlehem | 41.630673 | -73.222475 | 9/21/2021 | Weekeepeemee | 28.8 | 0.00 | 0.00 | 0.00 | Dry | Sunny | 16.2 | Average | 15.1 | 180.0 | 23 | 0.32 | |
| W-B-19157, Weekeepeemee, Mill Pond Road, Bethlehem | 41.630555 | -73.222388 | 10/5/2021 | Weekeepeemee | 82.2 | 0.32 | 0.99 | 0.99 | Wet | Cloudy | 13.6 | High | 14.3 | 173.2 | 57 | 0.27 | Yes |
| W-B-19157, Weekeepeemee, Mill Pond Road, Bethlehem | 41.630557 | -73.222402 | 10/20/2021 | Weekeepeemee | 29.6 | 0.01 | 0.06 | 0.59 | Dry | Sun with some clouds | 12.2 | Average | 10.8 | 170.1 | 26 | 0.46 | |
| W-B-19157, Weekeepeemee, Mill Pond Road, Bethlehem | 41.630557 | -73.222402 | 4/6/2022 | Weekeepeemee | 76.4 | 0.22 | 0.41 | 0.41 | WET | Light rain | 8.1 | Average | 8.6 | 161.3 | 9 | 0.30 | |
| W-B-19157, Weekeepeemee, Mill Pond Road, Bethlehem | 41.630557 | -73.222402 | 4/20/2022 | Weekeepeemee | 120 | 0.02 | 1.39 | 1.61 | WET | Sun with some clouds | 12.3 | High | 9.4 | 149.1 | 16 | 0.24 | |
| W-B-19157, Weekeepeemee, Mill Pond Road, Bethlehem | 41.630557 | -73.222402 | 5/4/2022 | Weekeepeemee | 49.7 | 0.05 | 0.60 | 0.64 | WET | Light rain | 10.9 | Average | 10.9 | 161.7 | 23 | 0.32 | |
| W-B-19157, Weekeepeemee, Mill Pond Road, Bethlehem | 41.630557 | -73.222402 | 5/26/2022 | Weekeepeemee | 25.6 | 0.00 | 0.00 | 0.31 | DRY | Not Sampled | | | | | | | |
| W-B-19157, Weekeepeemee, Mill Pond Road, Bethlehem | 41.630557 | -73.222402 | 6/15/2022 | Weekeepeemee | 19.4 | 0.00 | 0.00 | 0.27 | DRY | Sunny | 22.9 | Average | 18.4 | 163.9 | 14 | 0.40 | |
| W-B-19157, Weekeepeemee, Mill Pond Road, Bethlehem | 41.630557 | -73.222402 | 7/20/2022 | Weekeepeemee | 3.59 | 0.43 | 1.37 | 1.37 | WET | Sunny | 28.4 | Low | 21.7 | 227 | 127 | 0.6 | |
| W-B-19157, Weekeepeemee, Mill Pond Road, Bethlehem | 41.630557 | -73.222402 | 8/17/2022 | Weekeepeemee | 0.62 | 0 | 0 | 0 | DRY | Light rain | 19.1 | Very low | 17.1 | 268 | 5 | 0.6 | |
| W-B-19157, Weekeepeemee, Mill Pond Road, Bethlehem | 41.630557 | -73.222402 | 9/21/2022 | Weekeepeemee | 1.8 | 0.02 | 0.28 | 0.28 | WET | Sun with some clouds | 16.6 | Low | 15.9 | 243 | 31 | 0 | |
| W-B-19157, Weekeepeemee, Mill Pond Road, Bethlehem | 41.630557 | -73.222402 | 10/20/2022 | Weekeepeemee | 5.66 | 0 | 0 | 0.4 | DRY | Sunny | 8.8 | Average | 6.6 | 209 | 5 | ND | |

***Table B-12.*** *2021-2022 Results for Weekeepeemee River (W-B-CRAN) at Crane Hollow Road Bridge, Bethlehem.*

| Site | Lat | Long | Date | Nearest USGS Stream Gauge | Streamflow (cfs) | Rainfall in Past 24 hrs | Rainfall in Past 48 hrs | Rainfall in Past 96 hrs | Wet/Dry Sample | Current Weather | Air Temp C | Water Level | Water Temp C | Conductivity (uS/cm) | Bacteria Result (MPN) | Nitrate (mgL) | Average of Duplicates? |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| W-B-CRAN, Weekeepeemee, Crane Hollow Road Bridge, Bethlehem | 41.612641 | -73.221824 | 6/9/2021 | Weekeepeemee | 20.7 | 0.93 | 0.93 | 0.93 | Wet | Sun with some clouds | 28.2 | Average | 20.1 | 186.3 | 61 | 0.24 | |
| W-B-CRAN, Weekeepeemee, Crane Hollow Road Bridge, Bethlehem | 41.612687 | -73.22179 | 6/22/2021 | Weekeepeemee | 5.88 | 0.01 | 0.01 | 0.02 | Dry | Cloudy | 21.5 | Low | 19.5 | 122.3 | 46 | 0.28 | |
| W-B-CRAN, Weekeepeemee, Crane Hollow Road Bridge, Bethlehem | 41.612687 | -73.221867 | 7/7/2021 | Weekeepeemee | 19.4 | 0.24 | 0.24 | 0.28 | Wet | Sunny | 28.2 | Average | 19.2 | 138.4 | 102 | 0.25 | |
| W-B-CRAN, Weekeepeemee, Crane Hollow Road Bridge, Bethlehem | 41.612668 | -73.221865 | 7/20/2021 | Weekeepeemee | 61.3 | 0.03 | 0.15 | 1.74 | Dry | Sunny | 24.4 | Average, High | 19.5 | 148.8 | 96 | 0.25 | |
| W-B-CRAN, Weekeepeemee, Crane Hollow Road Bridge, Bethlehem | 41.612636 | -73.221852 | 8/4/2021 | Weekeepeemee | 9.05 | 0.00 | 0.00 | 0.15 | Dry | Cloudy | 18.9 | Average | 15.9 | 188.9 | 24 | 0.29 | |
| W-B-CRAN, Weekeepeemee, Crane Hollow Road Bridge, Bethlehem | 41.612611 | -73.221852 | 8/17/2021 | Weekeepeemee | 3.64 | 0.00 | 0.00 | 0.50 | Dry | Cloudy | 23.7 | Average | 18.9 | 223.0 | 71 | 0.45 | |
| W-B-CRAN, Weekeepeemee, Crane Hollow Road Bridge, Bethlehem | 41.612655 | -73.221779 | 9/14/2021 | Weekeepeemee | 45.8 | 0.01 | 0.01 | 0.01 | Dry | Sun with some clouds | 20.0 | Average | 16.8 | 162.8 | 132 | 0.31 | Yes |
| W-B-CRAN, Weekeepeemee, Crane Hollow Road Bridge, Bethlehem | 41.612568 | -73.221765 | 9/21/2021 | Weekeepeemee | 28.8 | 0.00 | 0.00 | 0.00 | Dry | Sunny | 19.5 | Average | 14.9 | 177.1 | 30 | 0.29 | |
| W-B-CRAN, Weekeepeemee, Crane Hollow Road Bridge, Bethlehem | 41.612592 | -73.221826 | 10/5/2021 | Weekeepeemee | 82.2 | 0.32 | 0.99 | 0.99 | Wet | Cloudy | 16.7 | High | 14.1 | 172.2 | 76 | 0.22 | |
| W-B-CRAN, Weekeepeemee, Crane Hollow Road Bridge, Bethlehem | 41.612645 | -73.221741 | 10/20/2021 | Weekeepeemee | 29.6 | 0.01 | 0.06 | 0.59 | Dry | Sun with some clouds | 12.5 | Average | 10.2 | 173.6 | 84 | 0.38 | |
| W-B-CRAN, Weekeepeemee, Crane Hollow Road Bridge, Bethlehem | 41.612645 | -73.221741 | 4/6/2022 | Weekeepeemee | 76.4 | 0.22 | 0.41 | 0.41 | WET | Light rain | 9.1 | Average | 8.3 | 160.4 | 120 | 0.27 | |
| W-B-CRAN, Weekeepeemee, Crane Hollow Road Bridge, Bethlehem | 41.612645 | -73.221741 | 4/20/2022 | Weekeepeemee | 120 | 0.02 | 1.39 | 1.61 | WET | Sun with some clouds | 11.2 | High | 8.6 | 147.6 | 410 | 0.15 | |
| W-B-CRAN, Weekeepeemee, Crane Hollow Road Bridge, Bethlehem | 41.612645 | -73.221741 | 5/4/2022 | Weekeepeemee | 49.7 | 0.05 | 0.60 | 0.64 | WET | Foggy/misty | 11.2 | Average | 10.6 | 156.3 | 390 | 0.27 | |
| W-B-CRAN, Weekeepeemee, Crane Hollow Road Bridge, Bethlehem | 41.612645 | -73.221741 | 5/26/2022 | Weekeepeemee | 25.6 | 0.00 | 0.00 | 0.31 | DRY | Sun with some clouds | 22.5 | Average | 14.6 | 156.5 | 11 | 0.35 | Yes |
| W-B-CRAN, Weekeepeemee, Crane Hollow Road Bridge, Bethlehem | 41.612645 | -73.221741 | 6/15/2022 | Weekeepeemee | 19.4 | 0.00 | 0.00 | 0.27 | DRY | Sunny | 26.4 | Average | 17.6 | 169.6 | 122 | not sampled | |
| W-B-CRAN, Weekeepeemee, Crane Hollow Road Bridge, Bethlehem | 41.612645 | -73.221741 | 7/20/2022 | Weekeepeemee | 3.59 | 0.43 | 1.37 | 1.37 | WET | Sunny | 28.8 | Low | 24.6 | 208 | 816 | Not Sampled | |
| W-B-CRAN, Weekeepeemee, Crane Hollow Road Bridge, Bethlehem | 41.612645 | -73.221741 | 8/17/2022 | Weekeepeemee | 0.62 | 0 | 0 | 0 | DRY | Light rain | 19.5 | Very low | 20.1 | 244 | 20 | Not Sampled | |
| W-B-CRAN, Weekeepeemee, Crane Hollow Road Bridge, Bethlehem | 41.612645 | -73.221741 | 9/21/2022 | Weekeepeemee | 1.8 | 0.02 | 0.28 | 0.28 | WET | Cloudy | 17.9 | Low | 17.2 | 248 | 173 | Not Sampled | |
| W-B-CRAN, Weekeepeemee, Crane Hollow Road Bridge, Bethlehem | 41.612645 | -73.221741 | 10/20/2022 | Weekeepeemee | 5.66 | 0 | 0 | 0.4 | DRY | Sunny | 10.4 | Average | 6.8 | 222 | 25 | Not Sampled | |

***Table B-13.*** *2021-2022 Results for Weekeepeemee River (W-W-15530) at Jacks Bridge Road near USGS Streamflow Gage, Woodbury.*

| Site | Lat | Long | Date | Nearest USGS Stream Gauge | Streamflow (cfs) | Rainfall in Past 24 hrs | Rainfall in Past 48 hrs | Rainfall in Past 96 hrs | Wet/Dry Sample | Current Weather | Air Temp C | Water Level | Water Temp C | Conductivity (uS/cm) | Bacteria Result (MPN) | Nitrate (mgL) | Average of Duplicates? |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| W-W-15530, Weekeepeemee, Jacks Bridge Rd, Woodbury | 41.55769 | -73.215486 | 6/9/2021 | Weekeepeemee | 20.7 | 0.93 | 0.93 | 0.93 | Wet | Sun with some clouds | 27.5 | Average | 19.6 | 148.2 | 98 | 0.29 | |
| W-W-15530, Weekeepeemee, Jacks Bridge Rd, Woodbury | 41.557684 | -73.2155 | 6/22/2021 | Weekeepeemee | 5.88 | 0.01 | 0.01 | 0.02 | Dry | Cloudy | 22.3 | Average | 20.3 | 159.1 | 36 | 0.30 | |
| W-W-15530, Weekeepeemee, Jacks Bridge Rd, Woodbury | 41.557661 | -73.215484 | 7/7/2021 | Weekeepeemee | 19.4 | 0.24 | 0.24 | 0.28 | Wet | Sunny | 27.5 | Average | 19.6 | 147.8 | 344 | 0.32 | |
| W-W-15530, Weekeepeemee, Jacks Bridge Rd, Woodbury | 41.557674 | -73.21548 | 7/20/2021 | Weekeepeemee | 61.3 | 0.03 | 0.15 | 1.74 | Dry | Clouds with some sun | 26.1 | High | 18.8 | 128.4 | 111 | 0.28 | |
| W-W-15530, Weekeepeemee, Jacks Bridge Rd, Woodbury | 41.557685 | -73.215527 | 8/4/2021 | Weekeepeemee | 9.05 | 0.00 | 0.00 | 0.15 | Dry | Cloudy | 19.4 | Average | 16.5 | 154.6 | 29 | 0.31 | |
| W-W-15530, Weekeepeemee, Jacks Bridge Rd, Woodbury | 41.557698 | -73.215455 | 8/17/2021 | Weekeepeemee | 3.64 | 0.00 | 0.00 | 0.50 | Dry | Foggy/misty | 24.4 | Low | 19.3 | 163.6 | 431 | 0.53 | |
| W-W-15530, Weekeepeemee, Jacks Bridge Rd, Woodbury | 41.557448 | -73.215513 | 9/14/2021 | Weekeepeemee | 45.8 | 0.01 | 0.01 | 0.01 | Dry | Sun with some clouds | 23.0 | High | 17.4 | 134.7 | 82 | 0.40 | |
| W-W-15530, Weekeepeemee, Jacks Bridge Rd, Woodbury | 41.557672 | -73.215534 | 9/21/2021 | Weekeepeemee | 28.8 | 0.00 | 0.00 | 0.00 | Dry | Sunny | 14.9 | Average | 14.5 | 146.6 | 19 | 0.37 | Yes |
| W-W-15530, Weekeepeemee, Jacks Bridge Rd, Woodbury | 41.557657 | -73.215449 | 10/5/2021 | Weekeepeemee | 82.2 | 0.32 | 0.99 | 0.99 | Wet | Cloudy | 13.1 | High | 14.1 | 144.9 | 93 | 0.28 | |
| W-W-15530, Weekeepeemee, Jacks Bridge Rd, Woodbury | 41.557671 | -73.215472 | 10/20/2021 | Weekeepeemee | 29.6 | 0.01 | 0.06 | 0.59 | Dry | Clouds with some sun | 6.8 | Average | 9.9 | 151.1 | 18 | 0.44 | |
| W-W-15530, Weekeepeemee, Jacks Bridge Rd, Woodbury | 41.557671 | -73.215472 | 4/6/2022 | Weekeepeemee | 76.4 | 0.22 | 0.41 | 4.10 | WET | Light rain | 9.4 | High | 8.0 | 133 | 67 | 0.33 | Yes |
| W-W-15530, Weekeepeemee, Jacks Bridge Rd, Woodbury | 41.557671 | -73.215472 | 4/20/2022 | Weekeepeemee | 120 | 0.02 | 1.39 | 1.61 | WET | Sunny | 11.1 | High | 8.1 | 123.7 | 76 | 0.26 | Yes |
| W-W-15530, Weekeepeemee, Jacks Bridge Rd, Woodbury | 41.557671 | -73.215472 | 5/4/2022 | Weekeepeemee | 49.7 | 0.05 | 0.60 | 0.64 | WET | Moderate or steady rain | 11.9 | High | 10.5 | 142.2 | 33 | 0.33 | |
| W-W-15530, Weekeepeemee, Jacks Bridge Rd, Woodbury | 41.557671 | -73.215472 | 5/26/2022 | Weekeepeemee | 25.6 | 0.00 | 0.00 | 0.31 | DRY | Sun with some clouds | 20.5 | Average | 14.5 | 133.5 | 28 | 0.44 | |
| W-W-15530, Weekeepeemee, Jacks Bridge Rd, Woodbury | 41.557671 | -73.215472 | 6/15/2022 | Weekeepeemee | 19.4 | 0.00 | 0.00 | 0.27 | DRY | Sunny | 27.7 | Average | 18.4 | 150.6 | 72 | 0.60 | |
| W-W-15530, Weekeepeemee, Jacks Bridge Rd, Woodbury | 41.557671 | -73.215472 | 7/20/2022 | Weekeepeemee | 3.59 | 0.43 | 1.37 | 1.37 | WET | Sunny | 29 | Low | 21.9 | 164.7 | 579 | 0.6 | |
| W-W-15530, Weekeepeemee, Jacks Bridge Rd, Woodbury | 41.557671 | -73.215472 | 8/17/2022 | Weekeepeemee | 0.62 | 0 | 0 | 0 | DRY | Light rain | 20.5 | Low | 18.2 | 167 | 68 | 0.6 | |
| W-W-15530, Weekeepeemee, Jacks Bridge Rd, Woodbury | 41.557671 | -73.215472 | 9/21/2022 | Weekeepeemee | 1.8 | 0.02 | 0.28 | 0.28 | WET | Not Sampled | | | | | | | |
| W-W-15530, Weekeepeemee, Jacks Bridge Rd, Woodbury | 41.557671 | -73.215472 | 10/20/2022 | Weekeepeemee | 5.66 | 0 | 0 | 0.4 | DRY | Sunny | 7.5 | Average | 7 | 170.6 | 19 | Not Sampled | |

***Table B-14.*** *2021-2022 Results for Weekeepeemee River (W-W-16022) at Brushy Hill Road intersection with Route 132, Woodbury.*

| Site | Lat | Long | Date | Nearest USGS Stream Gauge | Streamflow (cfs) | Rainfall in Past 24 hrs | Rainfall in Past 48 hrs | Rainfall in Past 96 hrs | Wet/Dry Sample | Current Weather | Air Temp C | Water Level | Water Temp C | Conductivity (uS/cm) | Bacteria Result (MPN) | Nitrate (mgL) | Average of Duplicates? |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| W-W-16022, Weekeepeemee, Brushy Hill Rd, Woodbury | 41.585573 | -73.230815 | 6/9/2021 | Weekeepeemee | 20.7 | 0.93 | 0.93 | 0.93 | Wet | Sun with some clouds | 25.3 | Average | 19.5 | 170.7 | 164 | 0.28 | Yes |
| W-W-16022, Weekeepeemee, Brushy Hill Rd, Woodbury | 41.58559 | -73.230768 | 6/22/2021 | Weekeepeemee | 5.88 | 0.01 | 0.01 | 0.02 | Dry | Clouds with some sun | 20.7 | Low | 20.0 | 101.8 | 172 | 0.34 | |
| W-W-16022, Weekeepeemee, Brushy Hill Rd, Woodbury | 41.585581 | -73.23071 | 7/7/2021 | Weekeepeemee | 19.4 | 0.24 | 0.24 | 0.28 | Wet | Sunny | 20.8 | Average | 18.6 | 120.7 | 167 | 0.29 | |
| W-W-16022, Weekeepeemee, Brushy Hill Rd, Woodbury | 41.585572 | -73.230658 | 7/20/2021 | Weekeepeemee | 61.3 | 0.03 | 0.15 | 1.74 | Dry | Sunny | 20.8 | High, Average | 18.7 | 147.6 | 201 | 0.27 | |
| W-W-16022, Weekeepeemee, Brushy Hill Rd, Woodbury | 41.585588 | -73.230695 | 8/4/2021 | Weekeepeemee | 9.05 | 0.00 | 0.00 | 0.15 | Dry | Cloudy | 17.4 | Average | 15.9 | 177.9 | 61 | 0.31 | |
| W-W-16022, Weekeepeemee, Brushy Hill Rd, Woodbury | 41.585408 | -73.230508 | 8/17/2021 | Weekeepeemee | 3.64 | 0.00 | 0.00 | 0.50 | Dry | Cloudy | 21.5 | Average, Low | 18.8 | 205.0 | 144 | 0.48 | |
| W-W-16022, Weekeepeemee, Brushy Hill Rd, Woodbury | 41.585472 | -73.230573 | 9/14/2021 | Weekeepeemee | 45.8 | 0.01 | 0.01 | 0.01 | Dry | Sun with some clouds | 17.8 | Average | 16.9 | 155.2 | 72 | 0.36 | |
| W-W-16022, Weekeepeemee, Brushy Hill Rd, Woodbury | 41.585378 | -73.230551 | 9/21/2021 | Weekeepeemee | 28.8 | 0.00 | 0.00 | 0.00 | Dry | Sunny | 13.6 | Average | 14.2 | 168.7 | 25 | 0.33 | |
| W-W-16022, Weekeepeemee, Brushy Hill Rd, Woodbury | 41.585531 | -73.230696 | 10/5/2021 | Weekeepeemee | 82.2 | 0.32 | 0.99 | 0.99 | Wet | Cloudy | 14.5 | High | 14.1 | 161.4 | 88 | 0.26 | |
| W-W-16022, Weekeepeemee, Brushy Hill Rd, Woodbury | 41.585451 | -73.230542 | 10/20/2021 | Weekeepeemee | 29.6 | 0.01 | 0.06 | 0.59 | Dry | Sun with some clouds | 7.7 | Average | 9.6 | 166.8 | 32 | 0.40 | |
| W-W-16022, Weekeepeemee, Brushy Hill Rd, Woodbury | 41.585451 | -73.230542 | 4/6/2022 | Weekeepeemee | 76.4 | 0.22 | 0.41 | 0.41 | WET | Light rain | 8.9 | Average | 8.2 | 145.8 | 160 | 0.33 | |
| W-W-16022, Weekeepeemee, Brushy Hill Rd, Woodbury | 41.585451 | -73.230542 | 4/20/2022 | Weekeepeemee | 120 | 0.02 | 1.39 | 1.61 | WET | Sun with some clouds | 12.4 | High | 7.4 | 147.4 | 190 | 0.20 | |
| W-W-16022, Weekeepeemee, Brushy Hill Rd, Woodbury | 41.585451 | -73.230542 | 5/4/2022 | Weekeepeemee | 49.7 | 0.05 | 0.60 | 0.64 | WET | Light rain | 12.5 | Average | 10.6 | 147.2 | 165 | 0.32 | Yes |
| W-W-16022, Weekeepeemee, Brushy Hill Rd, Woodbury | 41.585451 | -73.230542 | 5/26/2022 | Weekeepeemee | 25.6 | 0.00 | 0.00 | 0.31 | DRY | Sun with some clouds | 18.8 | Average | 14.1 | 149.5 | 33 | 0.40 | |
| W-W-16022, Weekeepeemee, Brushy Hill Rd, Woodbury | 41.585451 | -73.230542 | 6/15/2022 | Weekeepeemee | 19.4 | 0.00 | 0.00 | 0.27 | DRY | Sunny | 20.9 | Average | 16.3 | 159.4 | 75 | not sampled | |
| W-W-16022, Weekeepeemee, Brushy Hill Rd, Woodbury | 41.585451 | -73.230542 | 7/20/2022 | Weekeepeemee | 3.59 | 0.43 | 1.37 | 1.37 | WET | Sunny | 23.7 | Low | 23.6 | 194.2 | 727 | Not Sampled | |
| W-W-16022, Weekeepeemee, Brushy Hill Rd, Woodbury | 41.585451 | -73.230542 | 8/17/2022 | Weekeepeemee | 0.62 | 0 | 0 | 0 | DRY | Cloudy | 20.1 | Very low | 17.5 | 162.4 | 37 | Not Sampled | |
| W-W-16022, Weekeepeemee, Brushy Hill Rd, Woodbury | 41.585451 | -73.230542 | 9/21/2022 | Weekeepeemee | 1.8 | 0.02 | 0.28 | 0.28 | WET | Sun with some clouds | 18 | Average | 16.3 | 211 | 72 | Not Sampled | |
| W-W-16022, Weekeepeemee, Brushy Hill Rd, Woodbury | 41.585451 | -73.230542 | 10/20/2022 | Weekeepeemee | 5.66 | 0 | 0 | 0.4 | DRY | Sunny | 11.3 | Average | 6 | 202 | 16 | Not Sampled | |

***Table B-15.*** *2021-2022 Results for Weekeepeemee River (W-W-CHOH) at Chohees Trail intersection with Weekeepeemee Road, Woodbury.*

| Site | Lat | Long | Date | Nearest USGS Stream Gauge | Streamflow (cfs) | Rainfall in Past 24 hrs | Rainfall in Past 48 hrs | Rainfall in Past 96 hrs | Wet/Dry Sample | Current Weather | Air Temp C | Water Level | Water Temp C | Conductivity (uS/cm) | Bacteria Result (MPN) | Nitrate (mgL) | Average of Duplicates? |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| W-W-CHOH, Weekeepeemee, Chohees Trail,Woodbury | 41.604553 | -73.225085 | 6/9/2021 | Weekeepeemee | 20.7 | 0.93 | 0.93 | 0.93 | Wet | Sun with some clouds | 26.5 | Average | 20.1 | 190.9 | >2420 | 0.24 | |
| W-W-CHOH, Weekeepeemee, Chohees Trail,Woodbury | 41.604634 | -73.225149 | 6/22/2021 | Weekeepeemee | 5.88 | 0.01 | 0.01 | 0.02 | Dry | Clouds with some sun | 21.3 | Low | 20.0 | 123.6 | 79 | 0.29 | |
| W-W-CHOH, Weekeepeemee, Chohees Trail,Woodbury | 41.604548 | -73.225159 | 7/7/2021 | Weekeepeemee | 19.4 | 0.24 | 0.24 | 0.28 | Wet | Sunny | 26.5 | Average | 19.5 | 132.8 | 157 | 0.26 | Yes |
| W-W-CHOH, Weekeepeemee, Chohees Trail,Woodbury | 41.604607 | -73.225188 | 7/20/2021 | Weekeepeemee | 61.3 | 0.03 | 0.15 | 1.74 | Dry | Sunny | 24 | Average | 19.3 | 150.4 | 231 | 0.24 | |
| W-W-CHOH, Weekeepeemee, Chohees Trail,Woodbury | 41.604563 | -73.225066 | 8/4/2021 | Weekeepeemee | 9.05 | 0.00 | 0.00 | 0.15 | Dry | Cloudy | 18.4 | Average | 16.0 | 190.8 | 46 | 0.27 | |
| W-W-CHOH, Weekeepeemee, Chohees Trail,Woodbury | 41.604868 | -73.225439 | 8/17/2021 | Weekeepeemee | 3.64 | 0.00 | 0.00 | 0.50 | Dry | Cloudy | 22 | Low, Average | 19.6 | 227.0 | 410 | 0.37 | |
| W-W-CHOH, Weekeepeemee, Chohees Trail,Woodbury | 41.604479 | -73.225057 | 9/14/2021 | Weekeepeemee | 45.8 | 0.01 | 0.01 | 0.01 | Dry | Sun with some clouds | 20.4 | Average | 16.9 | 161.7 | 179 | 0.30 | |
| W-W-CHOH, Weekeepeemee, Chohees Trail,Woodbury | 41.604507 | -73.225112 | 9/21/2021 | Weekeepeemee | 28.8 | 0.00 | 0.00 | 0.00 | Dry | Sunny | 16.7 | Average | 14.8 | 178.5 | 52 | 0.28 | |
| W-W-CHOH, Weekeepeemee, Chohees Trail,Woodbury | 41.604529 | -73.225031 | 10/5/2021 | Weekeepeemee | 82.2 | 0.32 | 0.99 | 0.99 | Wet | Cloudy | 13.4 | High | 14.1 | 175.5 | 74 | 0.23 | |
| W-W-CHOH, Weekeepeemee, Chohees Trail,Woodbury | 41.604571 | -73.225062 | 10/20/2021 | Weekeepeemee | 29.6 | 0.01 | 0.06 | 0.59 | Dry | Sun with some clouds | 9.4 | Average | 9.9 | 176.4 | 51 | 0.40 | |
| W-W-CHOH, Weekeepeemee, Chohees Trail,Woodbury | 41.604571 | -73.225062 | 4/6/2022 | Weekeepeemee | 76.4 | 0.22 | 0.41 | 0.41 | WET | Cloudy | 8.6 | High | 8.3 | 160.8 | 130 | 0.29 | |
| W-W-CHOH, Weekeepeemee, Chohees Trail,Woodbury | 41.604571 | -73.225062 | 4/20/2022 | Weekeepeemee | 120 | 0.02 | 1.39 | 1.61 | WET | Sun with some clouds | 12.5 | High | 8.3 | 149.8 | 240 | 0.28 | |
| W-W-CHOH, Weekeepeemee, Chohees Trail,Woodbury | 41.604571 | -73.225062 | 5/4/2022 | Weekeepeemee | 49.7 | 0.05 | 0.60 | 0.64 | WET | Light rain | 11.6 | Average | 10.5 | 158.4 | 290 | 0.28 | |
| W-W-CHOH, Weekeepeemee, Chohees Trail,Woodbury | 41.604571 | -73.225062 | 5/26/2022 | Weekeepeemee | 25.6 | 0.00 | 0.00 | 0.31 | DRY | Sun with some clouds | 19.4 | Average | 15.2 | 155.6 | 26 | 0.36 | |
| W-W-CHOH, Weekeepeemee, Chohees Trail,Woodbury | 41.604571 | -73.225062 | 6/15/2022 | Weekeepeemee | 19.4 | 0.00 | 0.00 | 0.27 | DRY | Sunny | 23.6 | Low | 17.5 | 169.9 | 135 | 0.50 | |
| W-W-CHOH, Weekeepeemee, Chohees Trail,Woodbury | 41.604571 | -73.225062 | 7/20/2022 | Weekeepeemee | 3.59 | 0.43 | 1.37 | 1.37 | WET | Sunny | 27.3 | Low | 23.3 | 213 | 1414 | 0.5 | |
| W-W-CHOH, Weekeepeemee, Chohees Trail,Woodbury | 41.604571 | -73.225062 | 8/17/2022 | Weekeepeemee | 0.62 | 0 | 0 | 0 | DRY | Light rain | 18.7 | Very low | 17.6 | 258 | 132 | 0.5 | |
| W-W-CHOH, Weekeepeemee, Chohees Trail,Woodbury | 41.604571 | -73.225062 | 9/21/2022 | Weekeepeemee | 1.8 | 0.02 | 0.28 | 0.28 | WET | Clouds with some sun | 17.1 | Low | 16.9 | 252 | 105 | 0 | Yes |
| W-W-CHOH, Weekeepeemee, Chohees Trail,Woodbury | 41.604571 | -73.225062 | 10/20/2022 | Weekeepeemee | 5.66 | 0 | 0 | 0.4 | DRY | Sunny | 9.4 | Average | 6.5 | 222 | 21 | ND | |

# APPENDIX C

## *AMBIENT WATER QUALITY MONITORING DATA*
## *(Pomperaug Watershed 2019 through 2022)*
## *COMPARED TO CONNECTICUT WATER QUALITY STANDARDS*
## *FOR SAFE RECREATIONAL USE*

Highest Single Sample Results
Geometric Mean Calculations
% Bacteria Reduction Calculations

# *AMBIENT WATER QUALITY MONITORING DATA COMPARED TO CONNECTICUT WATER QUALITY STANDARDS FOR SAFE RECREATIONAL USE*

In the following series of tables, data from April and May 2022 have been grayed out as they do not meet data quality objectives for accuracy as the analysis of blanks of distilled water yielded measureable amounts of bacteria and nitrate. Data from June to October 2022 were included as they were are deemed relevant and generally adhere to the data quality objectives of the quality assurance project plan although samples were collected and analyzed outside the scope of the QAPP for this project. Water Quality samples from June to October were analyzed by York Laboratories *dba AquaEnvironmental* in Newtown, CT. Aside from the testing laboratory, the once a month sample frequency, and nitrate note being collected at every site, these data otherwise adhere to the data quality objectives detailed in the modified QAPP approved by CT DEEP and US EPA.

**Table C-1.** Summary data by sample site for ambient water quality monitoring conducted 2019-2022 detailing geometric mean (wet, dry, and all), highest single sample result, percent load reduction needed to meet water quality standards for bacteria (both geometric mean for the season and for a single sample exceedance). Geometric mean values shown in **red bold** exceed 126 CFU/100mL - the water quality limit for bacteria for safe recreational use. Highest single sample results shown in **blue bold** exceed 410 CFU/100mL water quality limits for bacteria for safe recreational use.

| Station Name | Station Location | Stream | Years Sampled | Number of Samples | | | Geometric Mean | | | Highest Single Sample Result | % Reduction (GeoMean) | % Reduction Single Sample |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Wet | Dry | All | Wet | Dry | All | | | |
| ES-B-17321 | Nonnewaug Rd at Porter Hill Rd, Bethlehem | East Spring Brook | 2021-2022 | 5 | 10 | 15 | **205** | 57 | 87 | **816** | n/a | 50 |
| N-W-14355 | Rt 47 Bridge, Youngs Nursery, Woodbury | Nonnewaug | 2019-2022 | 9 | 18 | 27 | **609** | 124 | **214** | **2420** | 41 | 83 |
| N-W-16335 | Mill Rd - USGS Gauge, Woodbury | Nonnewaug | 2019-2022 | 9 | 17 | 26 | **565** | **145** | **242** | **2420** | 48 | 83 |
| P-S-15025 | Poverty Rd - Ewald Park - USGS Gauge, Southbury | Pomperaug | 2019-2022 | 9 | 18 | 27 | **392** | 104 | **155** | **1986** | 19 | 79 |
| P-S-15388 | Bent of the River, East Flat Hill Rd, Southbury | Pomperaug | 2019-2022 | 8 | 18 | 26 | **316** | 81 | 123 | **1733** | n/a | 76 |
| P-S-18395 | The Gym - Flood Bridge Rd, Southbury | Pomperaug | 2019-2022 | 9 | 18 | 27 | **311** | 89 | **138** | **1046** | 9 | 61 |
| P-S-OAKD | 185 Oakdale Manor, Southbury | Pomperaug | 2019-2022 | 9 | 17 | 26 | **195** | 55 | 88 | **1300** | n/a | 68 |
| P-S-WINS | Winship Drive at HV River Gardens, Southbury | Pomperaug | 2021 | 5 | 10 | 15 | **335** | 63 | 109 | **1643** | n/a | 75 |
| P-W-15012 | Middle Quarter / South Pomperaug Ave, Woodbury | Pomperaug | 2019-2022 | 9 | 18 | 27 | **361** | **127** | **180** | **2420** | 30 | 83 |
| T-S-14474 | Seman Park at East Flat Hill Rd, Southbury | Transylvania | 2021-2022 | 5 | 10 | 15 | **256** | 67 | 104 | **1300** | n/a | 68 |
| W-B-19157 | Mill Pond Road, Bethlehem | Weekeepeemee | 2021-2022 | 5 | 10 | 15 | 52 | 20 | 28 | 127 | n/a | n/a |
| W-B-CRAN | Crane Hollow Road Bridge, Bethlehem | Weekeepeemee | 2021-2022 | 5 | 10 | 15 | **146** | 52 | 74 | **816** | n/a | 50 |
| W-W-15530 | Jacks Bridge Rd, Woodbury | Weekeepeemee | 2019-2022 | 8 | 17 | 25 | **156** | 75 | 95 | **2420** | n/a | 83 |
| W-W-16022 | Brushy Hill Rd, Woodbury | Weekeepeemee | 2019-2022 | 9 | 18 | 27 | **182** | 98 | 120 | **2420** | n/a | 83 |
| W-W-CHOH | Chohees Trail,Woodbury | Weekeepeemee | 2019-2022 | 9 | 18 | 27 | **207** | **134** | **155** | **2420** | 19 | 83 |
| N-W-16274 | Rt 61 Bridge, Woodbury | Nonnewaug | 2019-2020 | 4 | 8 | 12 | **438** | **189** | **250** | **2420** | 50 | 83 |
| P-S-15162 | Route 67 - Bennett Park, Southbury | Pomperaug | 2019-2020 | 4 | 7 | 11 | **219** | 84 | 119 | **980** | n/a | 58 |
| W-B-15009 | Wood Creek Rd,Bethlehem | Weekeepeemee | 2019-2020 | 4 | 8 | 12 | 57 | 113 | 90 | **2420** | n/a | 83 |

**Table C-2.** 2021-2022 Simplified Results for East Spring Brook (ES-B-17321) on Nonnewaug Road at Porter Hill Road, Bethlehem with calculation of geometric means. Geometric means for 2022 exclude April and May sampling as data did not meet quality assurance specifications.

| | | | | | | | | | Geometric Mean Bacteria | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Site ID | Stream | Location | Town | Date | Weather Conditions | Conductivity (µS/cm) | Nitrate (mg/L) | Bacteria (MPN/100mL) | ALL | DRY | WET |
| ES-B-17321 | East Spring Brook | Nonnewaug Rd at Porter Hill Rd | Bethlehem | 6/9/2021 | Wet | 239.0 | 0.44 | 129 | 96 | 65 | 244 |
| ES-B-17321 | East Spring Brook | Nonnewaug Rd at Porter Hill Rd | Bethlehem | 6/22/2021 | Dry | 143.8 | 0.53 | 125 | | | |
| ES-B-17321 | East Spring Brook | Nonnewaug Rd at Porter Hill Rd | Bethlehem | 7/7/2021 | Wet | 157.9 | 0.51 | 138 | | | |
| ES-B-17321 | East Spring Brook | Nonnewaug Rd at Porter Hill Rd | Bethlehem | 7/20/2021 | Dry* | 204.5 | 0.51 | 138 | | | |
| ES-B-17321 | East Spring Brook | Nonnewaug Rd at Porter Hill Rd | Bethlehem | 8/4/2021 | Dry | 240.0 | 0.75 | 35 | | | |
| ES-B-17321 | East Spring Brook | Nonnewaug Rd at Porter Hill Rd | Bethlehem | 8/17/2021 | Dry | 229.0 | 0.79 | 109 | | | |
| ES-B-17321 | East Spring Brook | Nonnewaug Rd at Porter Hill Rd | Bethlehem | 9/14/2021 | Dry | 216.0 | 0.84 | 70 | | | |
| ES-B-17321 | East Spring Brook | Nonnewaug Rd at Porter Hill Rd | Bethlehem | 9/21/2021 | Dry | 228.0 | 0.81 | 46 | | | |
| ES-B-17321 | East Spring Brook | Nonnewaug Rd at Porter Hill Rd | Bethlehem | 10/5/2021 | Wet | 209.0 | 0.45 | **816** | | | |
| ES-B-17321 | East Spring Brook | Nonnewaug Rd at Porter Hill Rd | Bethlehem | 10/20/2021 | Dry* | 216.5 | 0.63 | 22 | | | |
| ES-B-17321 | East Spring Brook | Nonnewaug Rd at Porter Hill Rd | Bethlehem | 4/6/2022^ | Wet | 199.3 | 0.53 | 260 | 71 | 42 | 159 |
| ES-B-17321 | East Spring Brook | Nonnewaug Rd at Porter Hill Rd | Bethlehem | 4/20/2022^ | Wet | 176.3 | 0.32 | 94 | | | |
| ES-B-17321 | East Spring Brook | Nonnewaug Rd at Porter Hill Rd | Bethlehem | 5/4/2022^ | Wet | 193.8 | 0.37 | 210 | | | |
| ES-B-17321 | East Spring Brook | Nonnewaug Rd at Porter Hill Rd | Bethlehem | 5/26/2022^ | Dry | 201 | 0.73 | 55 | | | |
| ES-B-17321 | East Spring Brook | Nonnewaug Rd at Porter Hill Rd | Bethlehem | 6/15/2022 | Dry* | 183.0 | 0.70 | 69 | | | |
| ES-B-17321 | East Spring Brook | Nonnewaug Rd at Porter Hill Rd | Bethlehem | 7/20/2022 | Wet | 212 | 0.5 | **548** | | | |
| ES-B-17322 | East Spring Brook | Nonnewaug Rd at Porter Hill Rd | Bethlehem | 8/17/2022 | Dry | 199 | ND | 19 | | | |
| ES-B-17323 | East Spring Brook | Nonnewaug Rd at Porter Hill Rd | Bethlehem | 9/21/2022 | Wet | 220 | 0 | 46 | | | |
| ES-B-17324 | East Spring Brook | Nonnewaug Rd at Porter Hill Rd | Bethlehem | 10/20/2022 | Dry | 239 | NS | 56 | | | |

1. * Indicates average of duplicate samples
2. Gray shading indicates single event exceedance of 410 CFU/100mL or geometric mean exceedance of 126 CFU/100mL - water quality limits for bacteria for safe recreational use.
3. Data for 2021 and April to May 2022 were collected by Pomperaug River Watershed Coalition (PRWC) following protocols included in an EPA-approved Quality Assurance Project Plan (QAPP) as part of this 319 Grant funded "Watershed Based Plan Implementation Groundwork Project." Data for April and May 2022 did not meet data quality objectives and were omitted from the data summaries used to determine compliance with Connecticut Water Quality Standards.
4. 2019, 2020, and June to October 2022 data were collected following a standard protocol similar to that detailed in the QAPP for the collection of data described in #3 above, but sample collection and analysis did not specifically adhere to the provisions of a QAPP. These data were included as they were deemed to be relevant and credible secondary data where no other data exists.
5. Precipitation volumes were recorded in 2021, but not in 2019-2020; retroactively the Wet / Dry weather conditions was applied to the 2019-2020 data for consistency. Precipitation volumes recorded at nearby weather stations were used as reference.
6. ^^Weather conditions for 9/2/2020 were documented as Dry weather, but field notes indicated that it began to rain while field teams were out collecting samples. As such, some sites may have actually been sampled in dry conditions while others were sampled in wet conditions. Dry weather was designated to remain consistent in the time-frame look back period followed for all other sampling events. The inclusion of bacteria results for this site may skew the geometric mean calculations.
7. ^ Indicates nitrate and bacteria data are provisional and subject to further quality assurance review (lab analysis of trip blanks yielded bacteria results)
8. NS indicates Not Sampled
9. N/A indicates there was not enough data to calculate a geometric mean.

**Table C-3.** 2019-2022 Simplified Results for Nonnewaug River (N-W-14355) at the Route 47 Bridge near Three Rivers Park, Woodbury with calculation of geometric means. Geometric means for 2022 exclude April and May sampling as data did not meet quality assurance specifications.

| | | | | | | | | | Geometric Mean Bacteria | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Site ID | Stream | Location | Town | Date | Weather Conditions | Conductivity (µS/cm) | Nitrate (mg/L) | Bacteria (MPN/100mL) | ALL | DRY | WET |
| N-W-14355 | Nonnewaug | Rt 47 Bridge | Woodbury | 5/15/2019 | Wet | NS | 0.41 | 345 | 194 | 82 | 460 |
| N-W-14355 | Nonnewaug | Rt 47 Bridge | Woodbury | 6/12/2019 | Wet | NS | 0.82 | **613** | | | |
| N-W-14355 | Nonnewaug | Rt 47 Bridge | Woodbury | 7/10/2019 | Dry | NS | 1.06 | 73 | | | |
| N-W-14355 | Nonnewaug | Rt 47 Bridge | Woodbury | 8/14/2019 | Dry | NS | 1.08 | 91 | | | |
| N-W-14355 | Nonnewaug | Rt 47 Bridge | Woodbury | 6/10/2020 | Dry* | 178.6 | 0.80 | 105 | 336 | 225 | 1119 |
| N-W-14355 | Nonnewaug | Rt 47 Bridge | Woodbury | 6/24/2020 | Dry | 198.5 | 1.05 | 185 | | | |
| N-W-14355 | Nonnewaug | Rt 47 Bridge | Woodbury | 7/7/2020 | Dry | 203.0 | 0.99 | 261 | | | |
| N-W-14355 | Nonnewaug | Rt 47 Bridge | Woodbury | 7/21/2020 | Dry | 197.7 | 0.93 | 199 | | | |
| N-W-14355 | Nonnewaug | Rt 47 Bridge | Woodbury | 8/5/2020 | Wet | 194.2 | 0.81 | **2420** | | | |
| N-W-14355 | Nonnewaug | Rt 47 Bridge | Woodbury | 8/18/2020 | Wet | 202.0 | 0.86 | **517** | | | |
| N-W-14355 | Nonnewaug | Rt 47 Bridge | Woodbury | 9/2/2020^^ | Dry | 203.0 | 1.10 | **1120** | | | |
| N-W-14355 | Nonnewaug | Rt 47 Bridge | Woodbury | 10/21/2020 | Dry | 223.0 | 1.18 | 115 | | | |
| N-W-14355 | Nonnewaug | Rt 47 Bridge | Woodbury | 6/9/2021 | Wet | 153.7 | 0.57 | **866** | 177 | 94 | 782 |
| N-W-14355 | Nonnewaug | Rt 47 Bridge | Woodbury | 6/22/2021 | Dry | 192.3 | 0.92 | 91 | | | |
| N-W-14355 | Nonnewaug | Rt 47 Bridge | Woodbury | 7/7/2021 | Wet | 167.9 | 0.68 | 228 | | | |
| N-W-14355 | Nonnewaug | Rt 47 Bridge | Woodbury | 7/20/2021 | Dry | 145.0 | 0.74 | 236 | | | |
| N-W-14355 | Nonnewaug | Rt 47 Bridge | Woodbury | 8/4/2021 | Dry* | 176.8 | 0.90 | 60 | | | |
| N-W-14355 | Nonnewaug | Rt 47 Bridge | Woodbury | 8/17/2021 | Dry | 196.0 | 1.07 | 119 | | | |
| N-W-14355 | Nonnewaug | Rt 47 Bridge | Woodbury | 9/14/2021 | Dry | 160.8 | 1.04 | 186 | | | |
| N-W-14355 | Nonnewaug | Rt 47 Bridge | Woodbury | 9/21/2021 | Dry | 173.3 | 0.93 | 57 | | | |
| N-W-14355 | Nonnewaug | Rt 47 Bridge | Woodbury | 10/5/2021 | Wet | 162.6 | 0.62 | **2420** | | | |
| N-W-14355 | Nonnewaug | Rt 47 Bridge | Woodbury | 10/20/2021 | Dry | 176.3 | 0.88 | 39 | | | |
| N-W-14355 | Nonnewaug | Rt 47 Bridge | Woodbury | 4/6/2022^ | Wet | NS | NS | NS | 164 | 97 | 360 |
| N-W-14355 | Nonnewaug | Rt 47 Bridge | Woodbury | 4/20/2022^ | Wet | 144.5 | 0.52 | 120 | | | |
| N-W-14355 | Nonnewaug | Rt 47 Bridge | Woodbury | 5/4/2022^ | Wet | 145.7 | 0.62 | 40 | | | |
| N-W-14355 | Nonnewaug | Rt 47 Bridge | Woodbury | 5/26/2022^ | Dry | 164.7 | 0.92 | 38 | | | |
| N-W-14355 | Nonnewaug | Rt 47 Bridge | Woodbury | 6/15/2022 | Dry | 182.7 | 1.00 | 261 | | | |
| N-W-14355 | Nonnewaug | Rt 47 Bridge | Woodbury | 7/20/2022 | Wet | 198.9 | 1 | **914** | | | |
| N-W-14356 | Nonnewaug | Rt 47 Bridge | Woodbury | 8/17/2022 | Dry* | 179.5 | 0.9 | 62 | | | |
| N-W-14357 | Nonnewaug | Rt 47 Bridge | Woodbury | 9/21/2022 | Wet | 220 | 1 | 142 | | | |
| N-W-14358 | Nonnewaug | Rt 47 Bridge | Woodbury | 10/20/2022 | Dry | 220 | 0.8 | 57 | | | |

1. * Indicates average of duplicate samples
2. Gray shading indicates single event exceedance of 410 CFU/100mL or geometric mean exceedance of 126 CFU/100mL - water quality limits for bacteria for safe recreational use.
3. Data for 2021 and April to May 2022 were collected by Pomperaug River Watershed Coalition (PRWC) following protocols included in an EPA-approved Quality Assurance Project Plan (QAPP) as part of this 319 Grant funded "Watershed Based Plan Implementation Groundwork Project." Data for April and May 2022 did not meet data quality objectives and were omitted from the data summaries used to determine compliance with Connecticut Water Quality Standards.
4. 2019, 2020, and June to October 2022 data were collected following a standard protocol similar to that detailed in the QAPP for the collection of data described in #3 above, but sample collection and analysis did not specifically adhere to the provisions of a QAPP. These data were included as they were deemed to be relevant and credible secondary data where no other data exists.
5. Precipitation volumes were recorded in 2021, but not in 2019-2020; retroactively the Wet / Dry weather conditions was applied to the 2019-2020 data for consistency. Precipitation volumes recorded at nearby weather stations were used as reference.
6. ^^Weather conditions for 9/2/2020 were documented as Dry weather, but field notes indicated that it began to rain while field teams were out collecting samples. As such, some sites may have actually been sampled in dry conditions while others were sampled in wet conditions. Dry weather was designated to remain consistent in the time-frame look back period followed for all other sampling events. The inclusion of bacteria results for this site may skew the geometric mean calculations.
7. ^ Indicates nitrate and bacteria data are provisional and subject to further quality assurance review (lab analysis of trip blanks yielded bacteria results)
8. NS indicates Not Sampled
9. N/A indicates there was not enough data to calculate a geometric mean.

**Table C-4.** 2019-2022 Simplified Results for Nonnewaug River (N-W-16335) at Mill Road near the USGS Gage, Woodbury with calculation of geometric means. Geometric means for 2022 exclude April and May sampling as data did not meet quality assurance specifications.

| | | | | | | | | | Geometric Mean Bacteria | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Site ID | Stream | Location | Town | Date | Weather Conditions | Conductivity (µS/cm) | Nitrate (mg/L) | Bacteria (MPN/100mL) | ALL | DRY | WET |
| N-W-16335 | Nonnewaug | Mill Rd - USGS Gauge | Woodbury | 5/15/2019 | Wet | NS | 0.39 | 184 | 184 | 106 | 318 |
| N-W-16335 | Nonnewaug | Mill Rd - USGS Gauge | Woodbury | 6/12/2019 | Wet | NS | 0.71 | **548** | | | |
| N-W-16335 | Nonnewaug | Mill Rd - USGS Gauge | Woodbury | 7/10/2019 | Dry | NS | 0.77 | 124 | | | |
| N-W-16335 | Nonnewaug | Mill Rd - USGS Gauge | Woodbury | 8/14/2019 | Dry | NS | 0.64 | 91 | | | |
| N-W-16335 | Nonnewaug | Mill Rd - USGS Gauge | Woodbury | 6/10/2020 | Dry | NS | NS | NS | 434 | 329 | 1224 |
| N-W-16335 | Nonnewaug | Mill Rd - USGS Gauge | Woodbury | 6/24/2020 | Dry | 181.8 | 0.80 | **461** | | | |
| N-W-16335 | Nonnewaug | Mill Rd - USGS Gauge | Woodbury | 7/7/2020 | Dry* | 192.4 | 0.69 | 236 | | | |
| N-W-16335 | Nonnewaug | Mill Rd - USGS Gauge | Woodbury | 7/21/2020 | Dry* | 187.3 | 0.74 | 152 | | | |
| N-W-16335 | Nonnewaug | Mill Rd - USGS Gauge | Woodbury | 8/5/2020 | Wet* | 195.2 | 0.69 | **2420** | | | |
| N-W-16335 | Nonnewaug | Mill Rd - USGS Gauge | Woodbury | 8/18/2020 | Wet | 204.0 | 0.51 | 313 | | | |
| N-W-16335 | Nonnewaug | Mill Rd - USGS Gauge | Woodbury | 9/2/2020^^ | Dry | 174.5 | 0.53 | **2420** | | | |
| N-W-16335 | Nonnewaug | Mill Rd - USGS Gauge | Woodbury | 10/21/2020 | Dry | 215.0 | 0.38 | 96 | | | |
| N-W-16335 | Nonnewaug | Mill Rd - USGS Gauge | Woodbury | 6/9/2021 | Wet | 188.3 | 0.53 | **548** | 183 | 105 | 677 |
| N-W-16335 | Nonnewaug | Mill Rd - USGS Gauge | Woodbury | 6/22/2021 | Dry | 66.4 | 0.60 | 272 | | | |
| N-W-16335 | Nonnewaug | Mill Rd - USGS Gauge | Woodbury | 7/7/2021 | Wet | 197.4 | 0.56 | 285 | | | |
| N-W-16335 | Nonnewaug | Mill Rd - USGS Gauge | Woodbury | 7/20/2021 | Dry | 147.5 | 0.69 | 249 | | | |
| N-W-16335 | Nonnewaug | Mill Rd - USGS Gauge | Woodbury | 8/4/2021 | Dry | 170.9 | 0.69 | 46 | | | |
| N-W-16335 | Nonnewaug | Mill Rd - USGS Gauge | Woodbury | 8/17/2021 | Dry* | 190.9 | 0.90 | 174 | | | |
| N-W-16335 | Nonnewaug | Mill Rd - USGS Gauge | Woodbury | 9/14/2021 | Dry | 166.7 | 0.92 | 101 | | | |
| N-W-16335 | Nonnewaug | Mill Rd - USGS Gauge | Woodbury | 9/21/2021 | Dry | 175.3 | 0.88 | 55 | | | |
| N-W-16335 | Nonnewaug | Mill Rd - USGS Gauge | Woodbury | 10/5/2021 | Wet | 178.9 | 0.60 | **1986** | | | |
| N-W-16335 | Nonnewaug | Mill Rd - USGS Gauge | Woodbury | 10/20/2021 | Dry | 181.3 | 0.81 | 46 | | | |
| N-W-16335 | Nonnewaug | Mill Rd - USGS Gauge | Woodbury | 4/6/2022^ | Wet | 138.4 | 0.53 | 180 | 232 | 141 | 489 |
| N-W-16336 | Nonnewaug | Mill Rd - USGS Gauge | Woodbury | 4/20/2022^ | Wet | 151.7 | 0.51 | 150 | | | |
| N-W-16337 | Nonnewaug | Mill Rd - USGS Gauge | Woodbury | 5/4/2022^ | Wet | 162.8 | 0.53 | 51 | | | |
| N-W-16338 | Nonnewaug | Mill Rd - USGS Gauge | Woodbury | 5/26/2022^ | Dry | 167.4 | 0.82 | **490** | | | |
| N-W-16339 | Nonnewaug | Mill Rd - USGS Gauge | Woodbury | 6/15/2022 | Dry | 181.7 | NS | 172 | | | |
| N-W-16338 | Nonnewaug | Mill Rd - USGS Gauge | Woodbury | 7/20/2022 | Wet* | 199 | NS | **2077** | | | |
| N-W-16339 | Nonnewaug | Mill Rd - USGS Gauge | Woodbury | 8/17/2022 | Dry | 194.9 | NS | 150 | | | |
| N-W-16340 | Nonnewaug | Mill Rd - USGS Gauge | Woodbury | 9/21/2022 | Wet | 208 | NS | 115 | | | |
| N-W-16341 | Nonnewaug | Mill Rd - USGS Gauge | Woodbury | 10/20/2022 | Dry* | 211.5 | ND | 108 | | | |

1. * Indicates average of duplicate samples
2. Gray shading indicates single event exceedance of 410 CFU/100mL or geometric mean exceedance of 126 CFU/100mL - water quality limits for bacteria for safe recreational use.
3. Data for 2021 and April to May 2022 were collected by Pomperaug River Watershed Coalition (PRWC) following protocols included in an EPA-approved Quality Assurance Project Plan (QAPP) as part of this 319 Grant funded "Watershed Based Plan Implementation Groundwork Project." Data for April and May 2022 did not meet data quality objectives and were omitted from the data summaries used to determine compliance with Connecticut Water Quality Standards.
4. 2019, 2020, and June to October 2022 data were collected following a standard protocol similar to that detailed in the QAPP for the collection of data described in #3 above, but sample collection and analysis did not specifically adhere to the provisions of a QAPP. These data were included as they were deemed to be relevant and credible secondary data where no other data exists.
5. Precipitation volumes were recorded in 2021, but not in 2019-2020; retroactively the Wet / Dry weather conditions was applied to the 2019-2020 data for consistency. Precipitation volumes recorded at nearby weather stations were used as reference.
6. ^^Weather conditions for 9/2/2020 were documented as Dry weather, but field notes indicated that it began to rain while field teams were out collecting samples. As such, some sites may have actually been sampled in dry conditions while others were sampled in wet conditions. Dry weather was designated to remain consistent in the time-frame look back period followed for all other sampling events. The inclusion of bacteria results for this site may skew the geometric mean calculations.
7. ^ Indicates nitrate and bacteria data are provisional and subject to further quality assurance review (lab analysis of trip blanks yielded bacteria results)
8. NS indicates Not Sampled
9. N/A indicates there was not enough data to calculate a geometric mean.

**Table C-5.** 2019-2022 Simplified Results for Pomperaug River (P-S-15025) at Ewald Park on Poverty Road near the USGS Gage, Southbury with calculation of geometric means. Geometric means for 2022 exclude April and May sampling as data did not meet quality assurance specifications.

| | | | | | | | | | Geometric Mean Bacteria | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Site ID | Stream | Location | Town | Date | Weather Conditions | Conductivity (µS/cm) | Nitrate (mg/L) | Bacteria (MPN/100mL) | ALL | DRY | WET |
| P-S-15025 | Pomperaug | Poverty Rd - Ewald Park - USGS Gauge | Southbury | 5/15/2019 | Wet | NS | 0.38 | 113 | 166 | 88 | 313 |
| P-S-15025 | Pomperaug | Poverty Rd - Ewald Park - USGS Gauge | Southbury | 6/12/2019 | Wet | NS | 0.75 | **866** | | | |
| P-S-15025 | Pomperaug | Poverty Rd - Ewald Park - USGS Gauge | Southbury | 7/10/2019 | Dry | NS | 0.91 | 51 | | | |
| P-S-15025 | Pomperaug | Poverty Rd - Ewald Park - USGS Gauge | Southbury | 8/14/2019 | Dry | NS | 0.98 | 152 | | | |
| P-S-15025 | Pomperaug | Poverty Rd - Ewald Park - USGS Gauge | Southbury | 6/10/2020 | Dry | 273.0 | 0.83 | 125 | 231 | 191 | 413 |
| P-S-15025 | Pomperaug | Poverty Rd - Ewald Park - USGS Gauge | Southbury | 6/23/2020 | Dry | 287.0 | 0.85 | 194 | | | |
| P-S-15025 | Pomperaug | Poverty Rd - Ewald Park - USGS Gauge | Southbury | 7/7/2020 | Dry | 287.0 | 0.76 | 89 | | | |
| P-S-15025 | Pomperaug | Poverty Rd - Ewald Park - USGS Gauge | Southbury | 7/21/2020 | Dry | 307.0 | 0.86 | 114 | | | |
| P-S-15025 | Pomperaug | Poverty Rd - Ewald Park - USGS Gauge | Southbury | 8/5/2020 | Wet | 323.0 | 0.81 | **921** | | | |
| P-S-15025 | Pomperaug | Poverty Rd - Ewald Park - USGS Gauge | Southbury | 8/18/2020 | Wet | 395.0 | 0.70 | 185 | | | |
| P-S-15025 | Pomperaug | Poverty Rd - Ewald Park - USGS Gauge | Southbury | 9/2/2020^^ | Dry | 257.0 | 0.70 | **1986** | | | |
| P-S-15025 | Pomperaug | Poverty Rd - Ewald Park - USGS Gauge | Southbury | 10/21/2020 | Dry* | 284.0 | 0.73 | 99 | | | |
| P-S-15025 | Pomperaug | Poverty Rd - Ewald Park - USGS Gauge | Southbury | 6/9/2021 | Wet | 225.0 | 0.52 | **980** | 154 | 86 | 602 |
| P-S-15025 | Pomperaug | Poverty Rd - Ewald Park - USGS Gauge | Southbury | 6/22/2021 | Dry | 293.0 | 0.80 | 115 | | | |
| P-S-15025 | Pomperaug | Poverty Rd - Ewald Park - USGS Gauge | Southbury | 7/7/2021 | Wet* | 297.0 | 0.65 | 185 | | | |
| P-S-15025 | Pomperaug | Poverty Rd - Ewald Park - USGS Gauge | Southbury | 7/20/2021 | Dry | 194.8 | 0.59 | 228 | | | |
| P-S-15025 | Pomperaug | Poverty Rd - Ewald Park - USGS Gauge | Southbury | 8/4/2021 | Dry | 278.0 | 0.75 | 42 | | | |
| P-S-15025 | Pomperaug | Poverty Rd - Ewald Park - USGS Gauge | Southbury | 8/17/2021 | Dry | 249.0 | 0.95 | 125 | | | |
| P-S-15025 | Pomperaug | Poverty Rd - Ewald Park - USGS Gauge | Southbury | 9/14/2021 | Dry | 210.0 | 0.74 | 56 | | | |
| P-S-15025 | Pomperaug | Poverty Rd - Ewald Park - USGS Gauge | Southbury | 9/21/2021 | Dry | 247.0 | 0.76 | 58 | | | |
| P-S-15025 | Pomperaug | Poverty Rd - Ewald Park - USGS Gauge | Southbury | 10/5/2021 | Wet | 189.4 | 0.62 | **1203** | | | |
| P-S-15025 | Pomperaug | Poverty Rd - Ewald Park - USGS Gauge | Southbury | 10/20/2021 | Dry* | 263.0 | 0.85 | 75 | | | |
| P-S-15025 | Pomperaug | Poverty Rd - Ewald Park - USGS Gauge | Southbury | 4/6/2022^ | Wet | 208 | 0.64 | 20 | 84 | 55 | 155 |
| P-S-15025 | Pomperaug | Poverty Rd - Ewald Park - USGS Gauge | Southbury | 4/20/2022^ | Wet | 183.5 | 0.46 | 96 | | | |
| P-S-15025 | Pomperaug | Poverty Rd - Ewald Park - USGS Gauge | Southbury | 5/4/2022^ | Wet | 217 | 0.58 | 130 | | | |
| P-S-15025 | Pomperaug | Poverty Rd - Ewald Park - USGS Gauge | Southbury | 5/26/2022^ | Dry | 259 | 0.85 | 43 | | | |
| P-S-15025 | Pomperaug | Poverty Rd - Ewald Park - USGS Gauge | Southbury | 6/15/2022 | Dry | 278.0 | 0.90 | 79 | | | |
| P-S-15025 | Pomperaug | Poverty Rd - Ewald Park - USGS Gauge | Southbury | 7/20/2022 | Wet* | 298 | 1 | 377 | | | |
| P-S-15025 | Pomperaug | Poverty Rd - Ewald Park - USGS Gauge | Southbury | 8/17/2022 | Dry | 407 | NS | 60 | | | |
| P-S-15025 | Pomperaug | Poverty Rd - Ewald Park - USGS Gauge | Southbury | 9/21/2022 | Wet | 342 | 0.9 | 64 | | | |
| P-S-15025 | Pomperaug | Poverty Rd - Ewald Park - USGS Gauge | Southbury | 10/20/2022 | Dry | 266 | 0.7 | 36 | | | |

1. * Indicates average of duplicate samples
2. Gray shading indicates single event exceedance of 410 CFU/100mL or geometric mean exceedance of 126 CFU/100mL - water quality limits for bacteria for safe recreational use.
3. Data for 2021 and April to May 2022 were collected by Pomperaug River Watershed Coalition (PRWC) following protocols included in an EPA-approved Quality Assurance Project Plan (QAPP) as part of this 319 Grant funded "Watershed Based Plan Implementation Groundwork Project." Data for April and May 2022 did not meet data quality objectives and were omitted from the data summaries used to determine compliance with Connecticut Water Quality Standards.
4. 2019, 2020, and June to October 2022 data were collected following a standard protocol similar to that detailed in the QAPP for the collection of data described in #3 above, but sample collection and analysis did not specifically adhere to the provisions of a QAPP. These data were included as they were deemed to be relevant and credible secondary data where no other data exists.
5. Precipitation volumes were recorded in 2021, but not in 2019-2020; retroactively the Wet / Dry weather conditions was applied to the 2019-2020 data for consistency. Precipitation volumes recorded at nearby weather stations were used as reference.
6. ^^Weather conditions for 9/2/2020 were documented as Dry weather, but field notes indicated that it began to rain while field teams were out collecting samples. As such, some sites may have actually been sampled in dry conditions while others were sampled in wet conditions. Dry weather was designated to remain consistent in the time-frame look back period followed for all other sampling events. The inclusion of bacteria results for this site may skew the geometric mean calculations.
7. ^ Indicates nitrate and bacteria data are provisional and subject to further quality assurance review (lab analysis of trip blanks yielded bacteria results)
8. NS indicates Not Sampled
9. N/A indicates there was not enough data to calculate a geometric mean.

**Table C-6.** 2019-2022 Simplified Results for Pomperaug River (P-S-15388) at Audubon Bent of the River Center on East Flat Hill Road Southbury with calculation of geometric means. Geometric means for 2022 exclude April and May sampling as data did not meet quality assurance specifications.

| | | | | | | | | | Geometric Mean Bacteria | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Site ID | Stream | Location | Town | Date | Weather Conditions | Conductivity (µS/cm) | Nitrate (mg/L) | Bacteria (MPN/100mL) | ALL | DRY | WET |
| P-S-15388 | Pomperaug | Bent of the River | Southbury | 5/15/2019 | Wet* | NS | 0.33 | 60 | 94 | 64 | 140 |
| P-S-15388 | Pomperaug | Bent of the River | Southbury | 6/12/2019 | Wet | NS | 0.69 | 326 | | | |
| P-S-15388 | Pomperaug | Bent of the River | Southbury | 7/10/2019 | Dry | NS | 0.88 | 45 | | | |
| P-S-15388 | Pomperaug | Bent of the River | Southbury | 8/14/2019 | Dry* | NS | 0.96 | 90 | | | |
| P-S-15388 | Pomperaug | Bent of the River | Southbury | 6/10/2020 | Dry | 289.0 | 0.77 | 70 | 140 | 107 | 316 |
| P-S-15388 | Pomperaug | Bent of the River | Southbury | 6/23/2020 | Dry | 346.0 | 0.90 | 147 | | | |
| P-S-15388 | Pomperaug | Bent of the River | Southbury | 7/7/2020 | Dry | 306.0 | 0.73 | 102 | | | |
| P-S-15388 | Pomperaug | Bent of the River | Southbury | 7/21/2020 | Dry | 351.0 | 0.81 | 84 | | | |
| P-S-15388 | Pomperaug | Bent of the River | Southbury | 8/5/2020 | Wet | 370.0 | 0.68 | **649** | | | |
| P-S-15388 | Pomperaug | Bent of the River | Southbury | 8/18/2020 | Wet* | 472.0 | 0.79 | 154 | | | |
| P-S-15388 | Pomperaug | Bent of the River | Southbury | 9/2/2020^^ | Dry | 347.0 | 0.84 | 236 | | | |
| P-S-15388 | Pomperaug | Bent of the River | Southbury | 10/21/2020 | Dry | 297.0 | 0.67 | 71 | | | |
| P-S-15388 | Pomperaug | Bent of the River | Southbury | 6/9/2021 | Wet | 209.0 | 0.50 | **1733** | 161 | 84 | 724 |
| P-S-15388 | Pomperaug | Bent of the River | Southbury | 6/22/2021 | Dry | 310.0 | 0.73 | 137 | | | |
| P-S-15388 | Pomperaug | Bent of the River | Southbury | 7/7/2021 | Wet | 271.0 | 0.60 | 155 | | | |
| P-S-15388 | Pomperaug | Bent of the River | Southbury | 7/20/2021 | Dry* | 186.9 | 0.55 | 257 | | | |
| P-S-15388 | Pomperaug | Bent of the River | Southbury | 8/4/2021 | Dry | 274.0 | 0.65 | 34 | | | |
| P-S-15388 | Pomperaug | Bent of the River | Southbury | 8/17/2021 | Dry | 257.0 | 0.90 | 88 | | | |
| P-S-15388 | Pomperaug | Bent of the River | Southbury | 9/14/2021 | Dry | 212.0 | 0.72 | 72 | | | |
| P-S-15388 | Pomperaug | Bent of the River | Southbury | 9/21/2021 | Dry | 256.0 | 0.70 | 77 | | | |
| P-S-15388 | Pomperaug | Bent of the River | Southbury | 10/5/2021 | Wet | 184.4 | 0.58 | **1414** | | | |
| P-S-15388 | Pomperaug | Bent of the River | Southbury | 10/20/2021 | Dry | 257.0 | 0.80 | 52 | | | |
| P-S-15388 | Pomperaug | Bent of the River | Southbury | 4/6/2022^ | Wet | 215 | 0.58 | 37 | 63 | 50 | 133 |
| P-S-15388 | Pomperaug | Bent of the River | Southbury | 4/20/2022^ | Wet | 165.4 | 0.41 | 130 | | | |
| P-S-15388 | Pomperaug | Bent of the River | Southbury | 5/4/2022^ | Wet* | 195.6 | 0.50 | 63 | | | |
| P-S-15388 | Pomperaug | Bent of the River | Southbury | 5/26/2022^ | Dry | 252 | 0.66 | 130 | | | |
| P-S-15388 | Pomperaug | Bent of the River | Southbury | 6/15/2022 | Dry | 272.0 | NS | 108 | | | |
| P-S-15388 | Pomperaug | Bent of the River | Southbury | 7/20/2022 | Wet | 305 | NS | 133 | | | |
| P-S-15388 | Pomperaug | Bent of the River | Southbury | 8/17/2022 | Dry | 488 | NS | 39 | | | |
| P-S-15388 | Pomperaug | Bent of the River | Southbury | 9/21/2022 | Wet | Not Sampled | NS | NS | | | |
| P-S-15388 | Pomperaug | Bent of the River | Southbury | 10/20/2022 | Dry | 264 | ND | 29 | | | |

1. * Indicates average of duplicate samples
2. Gray shading indicates single event exceedance of 410 CFU/100mL or geometric mean exceedance of 126 CFU/100mL - water quality limits for bacteria for safe recreational use.
3. Data for 2021 and April to May 2022 were collected by Pomperaug River Watershed Coalition (PRWC) following protocols included in an EPA-approved Quality Assurance Project Plan (QAPP) as part of this 319 Grant funded "Watershed Based Plan Implementation Groundwork Project." Data for April and May 2022 did not meet data quality objectives and were omitted from the data summaries used to determine compliance with Connecticut Water Quality Standards.
4. 2019, 2020, and June to October 2022 data were collected following a standard protocol similar to that detailed in the QAPP for the collection of data described in #3 above, but sample collection and analysis did not specifically adhere to the provisions of a QAPP. These data were included as they were deemed to be relevant and credible secondary data where no other data exists.
5. Precipitation volumes were recorded in 2021, but not in 2019-2020; retroactively the Wet / Dry weather conditions was applied to the 2019-2020 data for consistency. Precipitation volumes recorded at nearby weather stations were used as reference.
6. ^^Weather conditions for 9/2/2020 were documented as Dry weather, but field notes indicated that it began to rain while field teams were out collecting samples. As such, some sites may have actually been sampled in dry conditions while others were sampled in wet conditions. Dry weather was designated to remain consistent in the time-frame look back period followed for all other sampling events. The inclusion of bacteria results for this site may skew the geometric mean calculations.
7. ^ Indicates nitrate and bacteria data are provisional and subject to further quality assurance review (lab analysis of trip blanks yielded bacteria results)
8. NS indicates Not Sampled
9. N/A indicates there was not enough data to calculate a geometric mean.

**Table C-7.** 2019-2022 Simplified Results for Pomperaug River (P-S-18395) on Flood Bridge Road across from Riverview Cinema and Rev Fitness (previously known as "The Gym"), Southbury with calculation of geometric means. Geometric means for 2022 exclude April and May sampling as data did not meet to quality assurance specifications.

| | | | | | | | | | Geometric Mean Bacteria | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Site ID | Stream | Location | Town | Date | Weather Conditions | Conductivity (µS/cm) | Nitrate (mg/L) | Bacteria (MPN/100mL) | ALL | DRY | WET |
| P-S-18395 | Pomperaug | The Gym - Flood Bridge Rd | Southbury | 5/15/2019 | Wet | NS | 0.34 | 64 | 102 | 48 | 216 |
| P-S-18395 | Pomperaug | The Gym - Flood Bridge Rd | Southbury | 6/12/2019 | Wet | NS | 0.73 | **727** | | | |
| P-S-18395 | Pomperaug | The Gym - Flood Bridge Rd | Southbury | 7/10/2019 | Dry | NS | 0.91 | 28 | | | |
| P-S-18395 | Pomperaug | The Gym - Flood Bridge Rd | Southbury | 8/14/2019 | Dry | NS | 1.03 | 84 | | | |
| P-S-18395 | Pomperaug | The Gym - Flood Bridge Rd | Southbury | 6/10/2020 | Dry | 280.0 | 0.81 | 72 | 163 | 127 | 343 |
| P-S-18395 | Pomperaug | The Gym - Flood Bridge Rd | Southbury | 6/23/2020 | Dry | 337.0 | 0.91 | 84 | | | |
| P-S-18395 | Pomperaug | The Gym - Flood Bridge Rd | Southbury | 7/7/2020 | Dry | 303.0 | 0.77 | 120 | | | |
| P-S-18395 | Pomperaug | The Gym - Flood Bridge Rd | Southbury | 7/21/2020 | Dry | 352.0 | 0.87 | 104 | | | |
| P-S-18395 | Pomperaug | The Gym - Flood Bridge Rd | Southbury | 8/5/2020 | Wet | 315.0 | 0.70 | **517** | | | |
| P-S-18395 | Pomperaug | The Gym - Flood Bridge Rd | Southbury | 8/18/2020 | Wet | 480.0 | 0.86 | 228 | | | |
| P-S-18395 | Pomperaug | The Gym - Flood Bridge Rd | Southbury | 9/2/2020^^ | Dry* | 327.0 | 0.82 | **448** | | | |
| P-S-18395 | Pomperaug | The Gym - Flood Bridge Rd | Southbury | 10/21/2020 | Dry | 282.0 | 0.71 | 125 | | | |
| P-S-18395 | Pomperaug | The Gym - Flood Bridge Rd | Southbury | 6/9/2021 | Wet | 213.0 | 0.51 | **1046** | 154 | 88 | 562 |
| P-S-18395 | Pomperaug | The Gym - Flood Bridge Rd | Southbury | 6/22/2021 | Dry | 294.0 | 0.78 | 119 | | | |
| P-S-18395 | Pomperaug | The Gym - Flood Bridge Rd | Southbury | 7/7/2021 | Wet | 231.0 | 0.61 | 162 | | | |
| P-S-18395 | Pomperaug | The Gym - Flood Bridge Rd | Southbury | 7/20/2021 | Dry | 184.1 | 0.56 | 248 | | | |
| P-S-18395 | Pomperaug | The Gym - Flood Bridge Rd | Southbury | 8/4/2021 | Dry | 265.0 | 0.70 | 32 | | | |
| P-S-18395 | Pomperaug | The Gym - Flood Bridge Rd | Southbury | 8/17/2021 | Dry | 270.0 | 0.95 | 185 | | | |
| P-S-18395 | Pomperaug | The Gym - Flood Bridge Rd | Southbury | 9/14/2021 | Dry | 217.0 | 0.72 | 52 | | | |
| P-S-18395 | Pomperaug | The Gym - Flood Bridge Rd | Southbury | 9/21/2021 | Dry* | 243.5 | 0.69 | 82 | | | |
| P-S-18395 | Pomperaug | The Gym - Flood Bridge Rd | Southbury | 10/5/2021 | Wet | 243.0 | 0.60 | **1046** | | | |
| P-S-18395 | Pomperaug | The Gym - Flood Bridge Rd | Southbury | 10/20/2021 | Dry | 243.0 | 0.80 | 56 | | | |
| P-S-18395 | Pomperaug | The Gym - Flood Bridge Rd | Southbury | 4/6/2022^ | Wet* | 206.5 | 0.61 | 34 | 97 | 67 | 166 |
| P-S-18395 | Pomperaug | The Gym - Flood Bridge Rd | Southbury | 4/20/2022^ | Wet | 159.4 | 0.40 | 120 | | | |
| P-S-18395 | Pomperaug | The Gym - Flood Bridge Rd | Southbury | 5/4/2022^ | Wet | 197.7 | 0.49 | 91 | | | |
| P-S-18395 | Pomperaug | The Gym - Flood Bridge Rd | Southbury | 5/26/2022^ | Dry | 246 | 0.70 | 93 | | | |
| P-S-18395 | Pomperaug | The Gym - Flood Bridge Rd | Southbury | 6/15/2022 | Dry* | 266.0 | NS | 105 | | | |
| P-S-18395 | Pomperaug | The Gym - Flood Bridge Rd | Southbury | 7/20/2022 | Wet | 312 | NS | 345 | | | |
| P-S-18395 | Pomperaug | The Gym - Flood Bridge Rd | Southbury | 8/17/2022 | Dry | 306 | NS | 79 | | | |
| P-S-18395 | Pomperaug | The Gym - Flood Bridge Rd | Southbury | 9/21/2022 | Wet | 372 | NS | 80 | | | |
| P-S-18395 | Pomperaug | The Gym - Flood Bridge Rd | Southbury | 10/20/2022 | Dry | 259 | NS | 37 | | | |

1. * Indicates average of duplicate samples
2. Gray shading indicates single event exceedance of 410 CFU/100mL or geometric mean exceedance of 126 CFU/100mL - water quality limits for bacteria for safe recreational use.
3. Data for 2021 and April to May 2022 were collected by Pomperaug River Watershed Coalition (PRWC) following protocols included in an EPA-approved Quality Assurance Project Plan (QAPP) as part of this 319 Grant funded "Watershed Based Plan Implementation Groundwork Project." Data for April and May 2022 did not meet data quality objectives and were omitted from the data summaries used to determine compliance with Connecticut Water Quality Standards.
4. 2019, 2020, and June to October 2022 data were collected following a standard protocol similar to that detailed in the QAPP for the collection of data described in #3 above, but sample collection and analysis did not specifically adhere to the provisions of a QAPP. These data were included as they were deemed to be relevant and credible secondary data where no other data exists.
5. Precipitation volumes were recorded in 2021, but not in 2019-2020; retroactively the Wet / Dry weather conditions was applied to the 2019-2020 data for consistency. Precipitation volumes recorded at nearby weather stations were used as reference.
6. ^^Weather conditions for 9/2/2020 were documented as Dry weather, but field notes indicated that it began to rain while field teams were out collecting samples. As such, some sites may have actually been sampled in dry conditions while others were sampled in wet conditions. Dry weather was designated to remain consistent in the time-frame look back period followed for all other sampling events. The inclusion of bacteria results for this site may skew the geometric mean calculations.
7. ^ Indicates nitrate and bacteria data are provisional and subject to further quality assurance review (lab analysis of trip blanks yielded bacteria results)
8. NS indicates Not Sampled
9. N/A indicates there was not enough data to calculate a geometric mean.

**Table C-8.** 2019-2022 Simplified Results for Pomperaug River (P-S-OAKD) at Oakdale Manor, Southbury with calculation of geometric means. Geometric means for 2022 exclude April and May sampling as data did not meet quality assurance specifications.

| | | | | | | | | | Geometric Mean Bacteria | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Site ID | Stream | Location | Town | Date | Weather Conditions | Conductivity (µS/cm) | Nitrate (mg/L) | Bacteria (MPN/100mL) | ALL | DRY | WET |
| P-S-OAKD | Pomperaug | Oakdale Manor | Southbury | 5/15/2019 | Wet | NS | 0.33 | 52 | 81 | 68 | 96 |
| P-S-OAKD | Pomperaug | Oakdale Manor | Southbury | 6/12/2019 | Wet | NS | 0.71 | 178 | | | |
| P-S-OAKD | Pomperaug | Oakdale Manor | Southbury | 7/10/2019 | Dry | NS | 0.77 | 44 | | | |
| P-S-OAKD | Pomperaug | Oakdale Manor | Southbury | 8/14/2019 | Dry | NS | 0.67 | 105 | | | |
| P-S-OAKD | Pomperaug | Oakdale Manor | Southbury | 6/10/2020 | Dry | 280.0 | 0.75 | 59 | 91 | 63 | 273 |
| P-S-OAKD | Pomperaug | Oakdale Manor | Southbury | 6/23/2020 | Dry | 339.0 | 0.75 | 25 | | | |
| P-S-OAKD | Pomperaug | Oakdale Manor | Southbury | 7/7/2020 | Dry | 289.0 | 0.65 | 52 | | | |
| P-S-OAKD | Pomperaug | Oakdale Manor | Southbury | 7/21/2020 | Dry* | 336.0 | 0.74 | 61 | | | |
| P-S-OAKD | Pomperaug | Oakdale Manor | Southbury | 8/5/2020 | Wet* | 398.0 | 0.75 | 257 | | | |
| P-S-OAKD | Pomperaug | Oakdale Manor | Southbury | 8/18/2020 | Wet | 441.0 | 0.61 | 291 | | | |
| P-S-OAKD | Pomperaug | Oakdale Manor | Southbury | 9/2/2020^^ | Dry | 323.0 | 0.81 | 248 | | | |
| P-S-OAKD | Pomperaug | Oakdale Manor | Southbury | 10/21/2020 | Dry | 295.0 | 0.61 | 53 | | | |
| P-S-OAKD | Pomperaug | Oakdale Manor | Southbury | 6/9/2021 | Wet | 214.0 | 0.52 | **687** | 112 | 60 | 483 |
| P-S-OAKD | Pomperaug | Oakdale Manor | Southbury | 6/22/2021 | Dry | 298.0 | 0.68 | 49 | | | |
| P-S-OAKD | Pomperaug | Oakdale Manor | Southbury | 7/7/2021 | Wet | 243.0 | 0.58 | 126 | | | |
| P-S-OAKD | Pomperaug | Oakdale Manor | Southbury | 7/20/2021 | Dry | 185.6 | 0.54 | 365 | | | |
| P-S-OAKD | Pomperaug | Oakdale Manor | Southbury | 8/4/2021 | Dry | 267.0 | 0.63 | 24 | | | |
| P-S-OAKD | Pomperaug | Oakdale Manor | Southbury | 8/17/2021 | Dry* | 260.5 | 0.90 | 48 | | | |
| P-S-OAKD | Pomperaug | Oakdale Manor | Southbury | 9/14/2021 | Dry | 227.0 | 0.74 | 64 | | | |
| P-S-OAKD | Pomperaug | Oakdale Manor | Southbury | 9/21/2021 | Dry | 249.0 | 0.71 | 60 | | | |
| P-S-OAKD | Pomperaug | Oakdale Manor | Southbury | 10/5/2021 | Wet | 185.1 | 0.60 | **1300** | | | |
| P-S-OAKD | Pomperaug | Oakdale Manor | Southbury | 10/20/2021 | Dry | 253.0 | 0.84 | 34 | | | |
| P-S-OAKD | Pomperaug | Oakdale Manor | Southbury | 4/6/2022^ | Wet | 224 | 0.60 | 20 | 50 | 34 | 73 |
| P-S-OAKD | Pomperaug | Oakdale Manor | Southbury | 4/20/2022^ | Wet | 161 | 0.51 | 160 | | | |
| P-S-OAKD | Pomperaug | Oakdale Manor | Southbury | 5/4/2022^ | Wet | 297 | 0.50 | 150 | | | |
| P-S-OAKD | Pomperaug | Oakdale Manor | Southbury | 5/26/2022^ | Dry | NS | NS | NS | | | |
| P-S-OAKD | Pomperaug | Oakdale Manor | Southbury | 6/15/2022 | Dry | 260.0 | 0.80 | 62 | | | |
| P-S-OAKD | Pomperaug | Oakdale Manor | Southbury | 7/20/2022 | Wet | 307 | 0.8 | 198 | | | |
| P-S-OAKD | Pomperaug | Oakdale Manor | Southbury | 8/17/2022 | Dry | 449 | 0.6 | 19 | | | |
| P-S-OAKD | Pomperaug | Oakdale Manor | Southbury | 9/21/2022 | Wet* | 360 | 0.8 | 27 | | | |
| P-S-OAKD | Pomperaug | Oakdale Manor | Southbury | 10/20/2022 | Dry | NS | NS | NS | | | |

1. * Indicates average of duplicate samples
2. Gray shading indicates single event exceedance of 410 CFU/100mL or geometric mean exceedance of 126 CFU/100mL - water quality limits for bacteria for safe recreational use.
3. Data for 2021 and April to May 2022 were collected by Pomperaug River Watershed Coalition (PRWC) following protocols included in an EPA-approved Quality Assurance Project Plan (QAPP) as part of this 319 Grant funded "Watershed Based Plan Implementation Groundwork Project." Data for April and May 2022 did not meet data quality objectives and were omitted from the data summaries used to determine compliance with Connecticut Water Quality Standards.
4. 2019, 2020, and June to October 2022 data were collected following a standard protocol similar to that detailed in the QAPP for the collection of data described in #3 above, but sample collection and analysis did not specifically adhere to the provisions of a QAPP. These data were included as they were deemed to be relevant and credible secondary data where no other data exists.
5. Precipitation volumes were recorded in 2021, but not in 2019-2020; retroactively the Wet / Dry weather conditions was applied to the 2019-2020 data for consistency. Precipitation volumes recorded at nearby weather stations were used as reference.
6. ^^Weather conditions for 9/2/2020 were documented as Dry weather, but field notes indicated that it began to rain while field teams were out collecting samples. As such, some sites may have actually been sampled in dry conditions while others were sampled in wet conditions. Dry weather was designated to remain consistent in the time-frame look back period followed for all other sampling events. The inclusion of bacteria results for this site may skew the geometric mean calculations.
7. ^ Indicates nitrate and bacteria data are provisional and subject to further quality assurance review (lab analysis of trip blanks yielded bacteria results)
8. NS indicates Not Sampled
9. N/A indicates there was not enough data to calculate a geometric mean.

**Table C-9.** 2019-2022 Simplified Results for Pomperaug River (P-S-WINS) at Heritage Village River Gardens on Winship Drive, Southbury with calculation of geometric means. Geometric means for 2022 exclude April and May sampling as data did not meet quality assurance specifications.

| | | | | | | | | | Geometric Mean Bacteria | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Site ID | Stream | Location | Town | Date | Weather Conditions | Conductivity (µS/cm) | Nitrate (mg/L) | Bacteria (MPN/100mL) | ALL | DRY | WET |
| P-S-WINS | Pomperaug | Winship Drive at HV River Gardens | Southbury | 6/9/2021 | Wet | 178.8 | 0.44 | **1553** | 143 | 74 | 672 |
| P-S-WINS | Pomperaug | Winship Drive at HV River Gardens | Southbury | 6/22/2021 | Dry* | 219.5 | 0.64 | 79 | | | |
| P-S-WINS | Pomperaug | Winship Drive at HV River Gardens | Southbury | 7/7/2021 | Wet | 193.6 | 0.51 | 119 | | | |
| P-S-WINS | Pomperaug | Winship Drive at HV River Gardens | Southbury | 7/20/2021 | Dry | 154.8 | 0.52 | 228 | | | |
| P-S-WINS | Pomperaug | Winship Drive at HV River Gardens | Southbury | 8/4/2021 | Dry | 207.0 | 0.62 | 35 | | | |
| P-S-WINS | Pomperaug | Winship Drive at HV River Gardens | Southbury | 8/17/2021 | Dry | 200.0 | 0.79 | 101 | | | |
| P-S-WINS | Pomperaug | Winship Drive at HV River Gardens | Southbury | 9/14/2021 | Dry | 178.5 | 0.65 | 61 | | | |
| P-S-WINS | Pomperaug | Winship Drive at HV River Gardens | Southbury | 9/21/2021 | Dry | 195.6 | 0.60 | 50 | | | |
| P-S-WINS | Pomperaug | Winship Drive at HV River Gardens | Southbury | 10/5/2021 | Wet* | 155.8 | 0.56 | **1643** | | | |
| P-S-WINS | Pomperaug | Winship Drive at HV River Gardens | Southbury | 10/20/2021 | Dry | 196.5 | 0.72 | 62 | | | |
| P-S-WINS | Pomperaug | Winship Drive at HV River Gardens | Southbury | 4/6/2022^ | Wet | 164.2 | 0.53 | 34 | 64 | 43 | 118 |
| P-S-WINS | Pomperaug | Winship Drive at HV River Gardens | Southbury | 4/20/2022^ | Wet* | 137.6 | 0.37 | 115 | | | |
| P-S-WINS | Pomperaug | Winship Drive at HV River Gardens | Southbury | 5/4/2022^ | Wet | 159.9 | 0.41 | 55 | | | |
| P-S-WINS | Pomperaug | Winship Drive at HV River Gardens | Southbury | 5/26/2022^ | Dry | 194.5 | 0.68 | 84 | | | |
| P-S-WINS | Pomperaug | Winship Drive at HV River Gardens | Southbury | 6/15/2022 | Dry | 205.0 | NS | 31 | | | |
| P-S-WINS | Pomperaug | Winship Drive at HV River Gardens | Southbury | 7/20/2022 | Wet | 218 | NS | **461** | | | |
| P-S-WINS | Pomperaug | Winship Drive at HV River Gardens | Southbury | 8/17/2022 | Dry | 255 | NS | 59 | | | |
| P-S-WINS | Pomperaug | Winship Drive at HV River Gardens | Southbury | 9/21/2022 | Wet | 248 | NS | 30 | | | |
| P-S-WINS | Pomperaug | Winship Drive at HV River Gardens | Southbury | 10/20/2022 | Dry* | 204 | NS | 42 | | | |

1. * Indicates average of duplicate samples
2. Gray shading indicates single event exceedance of 410 CFU/100mL or geometric mean exceedance of 126 CFU/100mL - water quality limits for bacteria for safe recreational use.
3. Data for 2021 and April to May 2022 were collected by Pomperaug River Watershed Coalition (PRWC) following protocols included in an EPA-approved Quality Assurance Project Plan (QAPP) as part of this 319 Grant funded "Watershed Based Plan Implementation Groundwork Project." Data for April and May 2022 did not meet data quality objectives and were omitted from the data summaries used to determine compliance with Connecticut Water Quality Standards.
4. 2019, 2020, and June to October 2022 data were collected following a standard protocol similar to that detailed in the QAPP for the collection of data described in #3 above, but sample collection and analysis did not specifically adhere to the provisions of a QAPP. These data were included as they were deemed to be relevant and credible secondary data where no other data exists.
5. Precipitation volumes were recorded in 2021, but not in 2019-2020; retroactively the Wet / Dry weather conditions was applied to the 2019-2020 data for consistency. Precipitation volumes recorded at nearby weather stations were used as reference.
6. ^^Weather conditions for 9/2/2020 were documented as Dry weather, but field notes indicated that it began to rain while field teams were out collecting samples. As such, some sites may have actually been sampled in dry conditions while others were sampled in wet conditions. Dry weather was designated to remain consistent in the time-frame look back period followed for all other sampling events. The inclusion of bacteria results for this site may skew the geometric mean calculations.
7. ^ Indicates nitrate and bacteria data are provisional and subject to further quality assurance review (lab analysis of trip blanks yielded bacteria results)
8. NS indicates Not Sampled
9. N/A indicates there was not enough data to calculate a geometric mean.

**Table C-10.** 2019-2022 Simplified Results for Pomperaug River (P-W-15012) at Middle Quarter / South Pomperaug Avenue, Woodbury with calculation of geometric means. Geometric means for 2022 exclude April and May sampling as data did not meet quality assurance specifications.

| | | | | | | | | | Geometric Mean Bacteria | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Site ID | Stream | Location | Town | Date | Weather Conditions | Conductivity (µS/cm) | Nitrate (mg/L) | Bacteria (MPN/100mL) | ALL | DRY | WET |
| P-W-15012 | Pomperaug | Middle Quarter / South Pomperaug Ave | Southbury | 5/15/2019 | Wet | NS | 0.31 | 53 | 107 | 57 | 202 |
| P-W-15012 | Pomperaug | Middle Quarter / South Pomperaug Ave | Southbury | 6/12/2019 | Wet | NS | 0.64 | **770** | | | |
| P-W-15012 | Pomperaug | Middle Quarter / South Pomperaug Ave | Southbury | 7/10/2019 | Dry | NS | 0.76 | 65 | | | |
| P-W-15012 | Pomperaug | Middle Quarter / South Pomperaug Ave | Southbury | 8/14/2019 | Dry | NS | 0.72 | 50 | | | |
| P-W-15012 | Pomperaug | Middle Quarter / South Pomperaug Ave | Southbury | 6/10/2020 | Dry | 186.5 | 0.72 | 52 | 152 | 143 | 185 |
| P-W-15012 | Pomperaug | Middle Quarter / South Pomperaug Ave | Southbury | 6/23/2020 | Dry | 209.0 | 0.77 | 81 | | | |
| P-W-15012 | Pomperaug | Middle Quarter / South Pomperaug Ave | Southbury | 7/7/2020 | Dry* | 203.0 | 0.69 | 148 | | | |
| P-W-15012 | Pomperaug | Middle Quarter / South Pomperaug Ave | Southbury | 7/21/2020 | Dry | 213.0 | 0.79 | 248 | | | |
| P-W-15012 | Pomperaug | Middle Quarter / South Pomperaug Ave | Southbury | 8/5/2020 | Wet | 216.0 | 0.78 | **517** | | | |
| P-W-15012 | Pomperaug | Middle Quarter / South Pomperaug Ave | Southbury | 8/18/2020 | Wet* | 247.0 | 0.76 | 66 | | | |
| P-W-15012 | Pomperaug | Middle Quarter / South Pomperaug Ave | Southbury | 9/2/2020^^ | Dry | 207.0 | 0.80 | **411** | | | |
| P-W-15012 | Pomperaug | Middle Quarter / South Pomperaug Ave | Southbury | 10/21/2020 | Dry | 192.5 | 0.61 | 133 | | | |
| P-W-15012 | Pomperaug | Middle Quarter / South Pomperaug Ave | Southbury | 6/9/2021 | Wet | 159.1 | 0.48 | **1203** | 240 | 136 | 898 |
| P-W-15012 | Pomperaug | Middle Quarter / South Pomperaug Ave | Southbury | 6/22/2021 | Dry | 212.0 | 0.67 | 99 | | | |
| P-W-15012 | Pomperaug | Middle Quarter / South Pomperaug Ave | Southbury | 7/7/2021 | Wet | 190.8 | 0.53 | 249 | | | |
| P-W-15012 | Pomperaug | Middle Quarter / South Pomperaug Ave | Southbury | 7/20/2021 | Dry | 143.2 | 0.54 | 345 | | | |
| P-W-15012 | Pomperaug | Middle Quarter / South Pomperaug Ave | Southbury | 8/4/2021 | Dry | 181.5 | 0.71 | 83 | | | |
| P-W-15012 | Pomperaug | Middle Quarter / South Pomperaug Ave | Southbury | 8/17/2021 | Dry | 210.0 | 0.80 | 173 | | | |
| P-W-15012 | Pomperaug | Middle Quarter / South Pomperaug Ave | Southbury | 9/14/2021 | Dry* | 177.2 | 0.76 | 157 | | | |
| P-W-15012 | Pomperaug | Middle Quarter / South Pomperaug Ave | Southbury | 9/21/2021 | Dry | 195.9 | 0.74 | 91 | | | |
| P-W-15012 | Pomperaug | Middle Quarter / South Pomperaug Ave | Southbury | 10/5/2021 | Wet | 147.6 | 0.51 | **2420** | | | |
| P-W-15012 | Pomperaug | Middle Quarter / South Pomperaug Ave | Southbury | 10/20/2021 | Dry | 195.8 | 0.55 | 125 | | | |
| P-W-15012 | Pomperaug | Middle Quarter / South Pomperaug Ave | Southbury | 4/6/2022^ | Wet | NS | NS | NS | 203 | 149 | 322 |
| P-W-15012 | Pomperaug | Middle Quarter / South Pomperaug Ave | Southbury | 4/20/2022^ | Wet | 141.4 | 0.46 | 130 | | | |
| P-W-15012 | Pomperaug | Middle Quarter / South Pomperaug Ave | Southbury | 5/4/2022^ | Wet | 157.8 | 0.10 | 110 | | | |
| P-W-15012 | Pomperaug | Middle Quarter / South Pomperaug Ave | Southbury | 5/26/2022^ | Dry* | 171.9 | 0.72 | 81 | | | |
| P-W-15012 | Pomperaug | Middle Quarter / South Pomperaug Ave | Southbury | 6/15/2022 | Dry | 176.4 | NS | 86 | | | |
| P-W-15012 | Pomperaug | Middle Quarter / South Pomperaug Ave | Southbury | 7/20/2022 | Wet | 199.1 | NS | **1203** | | | |
| P-W-15012 | Pomperaug | Middle Quarter / South Pomperaug Ave | Southbury | 8/17/2022 | Dry | 245 | NS | **435** | | | |
| P-W-15012 | Pomperaug | Middle Quarter / South Pomperaug Ave | Southbury | 9/21/2022 | Wet | 233 | NS | 86 | | | |
| P-W-15012 | Pomperaug | Middle Quarter / South Pomperaug Ave | Southbury | 10/20/2022 | Dry | 200 | 0.6 | 88 | | | |

1. * Indicates average of duplicate samples
2. Gray shading indicates single event exceedance of 410 CFU/100mL or geometric mean exceedance of 126 CFU/100mL - water quality limits for bacteria for safe recreational use.
3. Data for 2021 and April to May 2022 were collected by Pomperaug River Watershed Coalition (PRWC) following protocols included in an EPA-approved Quality Assurance Project Plan (QAPP) as part of this 319 Grant funded "Watershed Based Plan Implementation Groundwork Project." Data for April and May 2022 did not meet data quality objectives and were omitted from the data summaries used to determine compliance with Connecticut Water Quality Standards.
4. 2019, 2020, and June to October 2022 data were collected following a standard protocol similar to that detailed in the QAPP for the collection of data described in #3 above, but sample collection and analysis did not specifically adhere to the provisions of a QAPP. These data were included as they were deemed to be relevant and credible secondary data where no other data exists.
5. Precipitation volumes were recorded in 2021, but not in 2019-2020; retroactively the Wet / Dry weather conditions was applied to the 2019-2020 data for consistency. Precipitation volumes recorded at nearby weather stations were used as reference.
6. ^^Weather conditions for 9/2/2020 were documented as Dry weather, but field notes indicated that it began to rain while field teams were out collecting samples. As such, some sites may have actually been sampled in dry conditions while others were sampled in wet conditions. Dry weather was designated to remain consistent in the time-frame look back period followed for all other sampling events. The inclusion of bacteria results for this site may skew the geometric mean calculations.
7. ^ Indicates nitrate and bacteria data are provisional and subject to further quality assurance review (lab analysis of trip blanks yielded bacteria results)
8. NS indicates Not Sampled
9. N/A indicates there was not enough data to calculate a geometric mean.

**Table C-11.** 2021-2022 Simplified Results for Transylvania Brook (T-S-14474) at Seman Park, East Flat Hill Road, Southbury with calculation of geometric means. Geometric means for 2022 exclude April and May sampling as data did not meet quality assurance specifications.

| | | | | | | | | | Geometric Mean Bacteria | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Site ID | Stream | Location | Town | Date | Weather Conditions | Conductivity (µS/cm) | Nitrate (mg/L) | Bacteria (MPN/100mL) | ALL | DRY | WET |
| T-S-14474 | Transylvania | Seman Park, East Flat Hill Road | Southbury | 6/9/2021 | Wet* | 153.7 | 0.28 | **1300** | 110 | 75 | 272 |
| T-S-14474 | Transylvania | Seman Park, East Flat Hill Road | Southbury | 6/22/2021 | Dry | 204.0 | 0.23 | 72 | | | |
| T-S-14474 | Transylvania | Seman Park, East Flat Hill Road | Southbury | 7/7/2021 | Wet | 189.7 | 0.29 | 84 | | | |
| T-S-14474 | Transylvania | Seman Park, East Flat Hill Road | Southbury | 7/20/2021 | Dry | 196.8 | 0.32 | 111 | | | |
| T-S-14474 | Transylvania | Seman Park, East Flat Hill Road | Southbury | 8/4/2021 | Dry* | 230.0 | 0.23 | 138 | | | |
| T-S-14474 | Transylvania | Seman Park, East Flat Hill Road | Southbury | 8/17/2021 | Dry | 227.0 | 0.36 | 121 | | | |
| T-S-14474 | Transylvania | Seman Park, East Flat Hill Road | Southbury | 9/14/2021 | Dry | 195.2 | 0.31 | 67 | | | |
| T-S-14474 | Transylvania | Seman Park, East Flat Hill Road | Southbury | 9/21/2021 | Dry | 231.0 | 0.27 | 36 | | | |
| T-S-14474 | Transylvania | Seman Park, East Flat Hill Road | Southbury | 10/5/2021 | Wet | 173.7 | 0.28 | 185 | | | |
| T-S-14474 | Transylvania | Seman Park, East Flat Hill Road | Southbury | 10/20/2021 | Dry | 224.0 | 0.47 | 40 | | | |
| T-S-14474 | Transylvania | Seman Park, East Flat Hill Road | Southbury | 4/6/2022^ | Wet | 200 | 0.52 | 45 | 94 | 51 | 233 |
| T-S-14474 | Transylvania | Seman Park, East Flat Hill Road | Southbury | 4/20/2022^ | Wet | 159.1 | 0.40 | 82 | | | |
| T-S-14474 | Transylvania | Seman Park, East Flat Hill Road | Southbury | 5/4/2022^ | Wet | 182.8 | 0.38 | 44 | | | |
| T-S-14474 | Transylvania | Seman Park, East Flat Hill Road | Southbury | 5/26/2022^ | Dry | 186.4 | 0.25 | 56 | | | |
| T-S-14474 | Transylvania | Seman Park, East Flat Hill Road | Southbury | 6/15/2022 | Dry | 208.0 | 0.40 | 78 | | | |
| T-S-14474 | Transylvania | Seman Park, East Flat Hill Road | Southbury | 7/20/2022 | Wet | 228 | 0.4 | 125 | | | |
| T-S-14474 | Transylvania | Seman Park, East Flat Hill Road | Southbury | 8/17/2022 | Dry* | 258 | NS | 53 | | | |
| T-S-14474 | Transylvania | Seman Park, East Flat Hill Road | Southbury | 9/21/2022 | Wet | 273 | 0.5 | **435** | | | |
| T-S-14474 | Transylvania | Seman Park, East Flat Hill Road | Southbury | 10/20/2022 | Dry | 217 | ND | 32 | | | |

1. * Indicates average of duplicate samples
2. Gray shading indicates single event exceedance of 410 CFU/100mL or geometric mean exceedance of 126 CFU/100mL - water quality limits for bacteria for safe recreational use.
3. Data for 2021 and April to May 2022 were collected by Pomperaug River Watershed Coalition (PRWC) following protocols included in an EPA-approved Quality Assurance Project Plan (QAPP) as part of this 319 Grant funded "Watershed Based Plan Implementation Groundwork Project." Data for April and May 2022 did not meet data quality objectives and were omitted from the data summaries used to determine compliance with Connecticut Water Quality Standards.
4. 2019, 2020, and June to October 2022 data were collected following a standard protocol similar to that detailed in the QAPP for the collection of data described in #3 above, but sample collection and analysis did not specifically adhere to the provisions of a QAPP. These data were included as they were deemed to be relevant and credible secondary data where no other data exists.
5. Precipitation volumes were recorded in 2021, but not in 2019-2020; retroactively the Wet / Dry weather conditions was applied to the 2019-2020 data for consistency. Precipitation volumes recorded at nearby weather stations were used as reference.
6. ^^Weather conditions for 9/2/2020 were documented as Dry weather, but field notes indicated that it began to rain while field teams were out collecting samples. As such, some sites may have actually been sampled in dry conditions while others were sampled in wet conditions. Dry weather was designated to remain consistent in the time-frame look back period followed for all other sampling events. The inclusion of bacteria results for this site may skew the geometric mean calculations.
7. ^ Indicates nitrate and bacteria data are provisional and subject to further quality assurance review (lab analysis of trip blanks yielded bacteria results)
8. NS indicates Not Sampled
9. N/A indicates there was not enough data to calculate a geometric mean.

**Table C-12.** 2021-2022 Simplified results for Weekeepeemee River (W-B-19157) at Mill Pond Road, Bethlehem with calculation of geometric means. Geometric means for 2022 exclude April and May sampling as data did not meet quality assurance specifications.

| | | | | | | | | | Geometric Mean Bacteria | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Site ID | Stream | Location | Town | Date | Weather Conditions | Conductivity (µS/cm) | Nitrate (mg/L) | Bacteria (MPN/100mL) | ALL | DRY | WET |
| W-B-19157 | Weekeepeemee | Mill Pond Road | Bethlehem | 6/9/2021 | Wet | 189.1 | 0.23 | 27 | 35 | 31 | 46 |
| W-B-19157 | Weekeepeemee | Mill Pond Road | Bethlehem | 6/22/2021 | Dry* | 133.2 | 0.32 | 43 | | | |
| W-B-19157 | Weekeepeemee | Mill Pond Road | Bethlehem | 7/7/2021 | Wet | 127.6 | 0.20 | 64 | | | |
| W-B-19157 | Weekeepeemee | Mill Pond Road | Bethlehem | 7/20/2021 | Dry | 151.9 | 0.26 | 61 | | | |
| W-B-19157 | Weekeepeemee | Mill Pond Road | Bethlehem | 8/4/2021 | Dry | 188.6 | 0.35 | 11 | | | |
| W-B-19157 | Weekeepeemee | Mill Pond Road | Bethlehem | 8/17/2021 | Dry | 247.0 | 0.55 | 33 | | | |
| W-B-19157 | Weekeepeemee | Mill Pond Road | Bethlehem | 9/14/2021 | Dry | 167.5 | 0.35 | 52 | | | |
| W-B-19157 | Weekeepeemee | Mill Pond Road | Bethlehem | 9/21/2021 | Dry | 180.0 | 0.32 | 23 | | | |
| W-B-19157 | Weekeepeemee | Mill Pond Road | Bethlehem | 10/5/2021 | Wet* | 173.2 | 0.27 | 57 | | | |
| W-B-19157 | Weekeepeemee | Mill Pond Road | Bethlehem | 10/20/2021 | Dry | 170.1 | 0.46 | 26 | | | |
| W-B-19157 | Weekeepeemee | Mill Pond Road | Bethlehem | 4/6/2022^ | Wet | 161.3 | 0.30 | 9 | 17 | 7 | 63 |
| W-B-19157 | Weekeepeemee | Mill Pond Road | Bethlehem | 4/20/2022^ | Wet | 149.1 | 0.24 | 16 | | | |
| W-B-19157 | Weekeepeemee | Mill Pond Road | Bethlehem | 5/4/2022^ | Wet | 161.7 | 0.32 | 23 | | | |
| W-B-19157 | Weekeepeemee | Mill Pond Road | Bethlehem | 5/26/2022^ | Dry | NS | NS | NS | | | |
| W-B-19157 | Weekeepeemee | Mill Pond Road | Bethlehem | 6/15/2022 | Dry | 163.9 | 0.40 | 14 | | | |
| W-B-19157 | Weekeepeemee | Mill Pond Road | Bethlehem | 7/20/2022 | Wet | 227 | 0.6 | 127 | | | |
| W-B-19157 | Weekeepeemee | Mill Pond Road | Bethlehem | 8/17/2022 | Dry | 268 | 0.6 | 5 | | | |
| W-B-19157 | Weekeepeemee | Mill Pond Road | Bethlehem | 9/21/2022 | Wet | 243 | 0 | 31 | | | |
| W-B-19157 | Weekeepeemee | Mill Pond Road | Bethlehem | 10/20/2022 | Dry | 209 | ND | 5 | | | |

1. * Indicates average of duplicate samples
2. Gray shading indicates single event exceedance of 410 CFU/100mL or geometric mean exceedance of 126 CFU/100mL - water quality limits for bacteria for safe recreational use.
3. Data for 2021 and April to May 2022 were collected by Pomperaug River Watershed Coalition (PRWC) following protocols included in an EPA-approved Quality Assurance Project Plan (QAPP) as part of this 319 Grant funded "Watershed Based Plan Implementation Groundwork Project." Data for April and May 2022 did not meet data quality objectives and were omitted from the data summaries used to determine compliance with Connecticut Water Quality Standards.
4. 2019, 2020, and June to October 2022 data were collected following a standard protocol similar to that detailed in the QAPP for the collection of data described in #3 above, but sample collection and analysis did not specifically adhere to the provisions of a QAPP. These data were included as they were deemed to be relevant and credible secondary data where no other data exists.
5. Precipitation volumes were recorded in 2021, but not in 2019-2020; retroactively the Wet / Dry weather conditions was applied to the 2019-2020 data for consistency. Precipitation volumes recorded at nearby weather stations were used as reference.
6. ^^Weather conditions for 9/2/2020 were documented as Dry weather, but field notes indicated that it began to rain while field teams were out collecting samples. As such, some sites may have actually been sampled in dry conditions while others were sampled in wet conditions. Dry weather was designated to remain consistent in the time-frame look back period followed for all other sampling events. The inclusion of bacteria results for this site may skew the geometric mean calculations.
7. ^ Indicates nitrate and bacteria data are provisional and subject to further quality assurance review (lab analysis of trip blanks yielded bacteria results)
8. NS indicates Not Sampled
9. N/A indicates there was not enough data to calculate a geometric mean.

**Table C-13.** 2021-2022 Simplified results for Weekeepeemee River (W-B-CRAN) at Crane Hollow Road Bridge, Bethlehem with calculation of geometric means. Geometric means for 2022 exclude April and May sampling as data did not meet quality assurance specifications.

| | | | | | | | | | Geometric Mean Bacteria | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Site ID | Stream | Location | Town | Date | Weather Conditions | Conductivity (µS/cm) | Nitrate (mg/L) | Bacteria (MPN/100mL) | ALL | DRY | WET |
| W-B-CRAN | Weekeepeemee | Crane Hollow Road Bridge | Bethlehem | 6/9/2021 | Wet | 186.3 | 0.24 | 61 | 64 | 59 | 78 |
| W-B-CRAN | Weekeepeemee | Crane Hollow Road Bridge | Bethlehem | 6/22/2021 | Dry | 122.3 | 0.28 | 46 | | | |
| W-B-CRAN | Weekeepeemee | Crane Hollow Road Bridge | Bethlehem | 7/7/2021 | Wet | 138.4 | 0.25 | 102 | | | |
| W-B-CRAN | Weekeepeemee | Crane Hollow Road Bridge | Bethlehem | 7/20/2021 | Dry | 148.8 | 0.25 | 96 | | | |
| W-B-CRAN | Weekeepeemee | Crane Hollow Road Bridge | Bethlehem | 8/4/2021 | Dry | 188.9 | 0.29 | 24 | | | |
| W-B-CRAN | Weekeepeemee | Crane Hollow Road Bridge | Bethlehem | 8/17/2021 | Dry | 223.0 | 0.45 | 71 | | | |
| W-B-CRAN | Weekeepeemee | Crane Hollow Road Bridge | Bethlehem | 9/14/2021 | Dry* | 162.8 | 0.31 | 132 | | | |
| W-B-CRAN | Weekeepeemee | Crane Hollow Road Bridge | Bethlehem | 9/21/2021^ | Dry | 177.1 | 0.29 | 30 | | | |
| W-B-CRAN | Weekeepeemee | Crane Hollow Road Bridge | Bethlehem | 10/5/2021 | Wet | 172.2 | 0.22 | 76 | | | |
| W-B-CRAN | Weekeepeemee | Crane Hollow Road Bridge | Bethlehem | 10/20/2021 | Dry | 173.6 | 0.38 | 84 | | | |
| W-B-CRAN | Weekeepeemee | Crane Hollow Road Bridge | Bethlehem | 4/6/2022^ | Wet | 160.4 | 0.27 | 120 | 97 | 39 | 376 |
| W-B-CRAN | Weekeepeemee | Crane Hollow Road Bridge | Bethlehem | 4/20/2022^ | Wet | 147.6 | 0.15 | **410** | | | |
| W-B-CRAN | Weekeepeemee | Crane Hollow Road Bridge | Bethlehem | 5/4/2022^ | Wet | 156.3 | 0.27 | 390 | | | |
| W-B-CRAN | Weekeepeemee | Crane Hollow Road Bridge | Bethlehem | 5/26/2022^ | Dry* | 156.5 | 0.35 | 11 | | | |
| W-B-CRAN | Weekeepeemee | Crane Hollow Road Bridge | Bethlehem | 6/15/2022 | Dry | 169.6 | NS | 122 | | | |
| W-B-CRAN | Weekeepeemee | Crane Hollow Road Bridge | Bethlehem | 7/20/2022 | Wet | 208 | NS | **816** | | | |
| W-B-CRAN | Weekeepeemee | Crane Hollow Road Bridge | Bethlehem | 8/17/2022 | Dry | 244 | NS | 20 | | | |
| W-B-CRAN | Weekeepeemee | Crane Hollow Road Bridge | Bethlehem | 9/21/2022 | Wet | 248 | NS | 173 | | | |
| W-B-CRAN | Weekeepeemee | Crane Hollow Road Bridge | Bethlehem | 10/20/2022 | Dry | 222 | NS | 25 | | | |

1. * Indicates average of duplicate samples
2. Gray shading indicates single event exceedance of 410 CFU/100mL or geometric mean exceedance of 126 CFU/100mL - water quality limits for bacteria for safe recreational use.
3. Data for 2021 and April to May 2022 were collected by Pomperaug River Watershed Coalition (PRWC) following protocols included in an EPA-approved Quality Assurance Project Plan (QAPP) as part of this 319 Grant funded "Watershed Based Plan Implementation Groundwork Project." Data for April and May 2022 did not meet data quality objectives and were omitted from the data summaries used to determine compliance with Connecticut Water Quality Standards.
4. 2019, 2020, and June to October 2022 data were collected following a standard protocol similar to that detailed in the QAPP for the collection of data described in #3 above, but sample collection and analysis did not specifically adhere to the provisions of a QAPP. These data were included as they were deemed to be relevant and credible secondary data where no other data exists.
5. Precipitation volumes were recorded in 2021, but not in 2019-2020; retroactively the Wet / Dry weather conditions was applied to the 2019-2020 data for consistency. Precipitation volumes recorded at nearby weather stations were used as reference.
6. ^^Weather conditions for 9/2/2020 were documented as Dry weather, but field notes indicated that it began to rain while field teams were out collecting samples. As such, some sites may have actually been sampled in dry conditions while others were sampled in wet conditions. Dry weather was designated to remain consistent in the time-frame look back period followed for all other sampling events. The inclusion of bacteria results for this site may skew the geometric mean calculations.
7. ^ Indicates nitrate and bacteria data are provisional and subject to further quality assurance review (lab analysis of trip blanks yielded bacteria results)
8. NS indicates Not Sampled
9. N/A indicates there was not enough data to calculate a geometric mean.

**Table C-14.** 2019-2022 Simplified results for Weekeepeemee River (W-W-15530) at Jack's Bridge Road, Woodbury with calculation of geometric means. Geometric means for 2022 exclude April and May sampling as data did not meet quality assurance specifications.

| | | | | | | | | | Geometric Mean Bacteria | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Site ID | Stream | Location | Town | Date | Weather Conditions | Conductivity (µS/cm) | Nitrate (mg/L) | Bacteria (MPN/100mL) | ALL | DRY | WET |
| W-W-15530 | Weekeepeemee | Jack's Bridge | Woodbury | 5/15/2019 | Wet | n/a | 0.13 | 31 | 65 | 86 | 50 |
| W-W-15530 | Weekeepeemee | Jack's Bridge | Woodbury | 6/12/2019 | Wet | n/a | 0.35 | 80 | | | |
| W-W-15530 | Weekeepeemee | Jack's Bridge | Woodbury | 7/10/2019 | Dry | n/a | 0.33 | 119 | | | |
| W-W-15530 | Weekeepeemee | Jack's Bridge | Woodbury | 8/14/2019 | Dry | n/a | 0.47 | 62 | | | |
| W-W-15530 | Weekeepeemee | Jack's Bridge | Woodbury | 6/10/2020 | Dry | 141.5 | 0.38 | 50 | 179 | 149 | 283 |
| W-W-15530 | Weekeepeemee | Jack's Bridge | Woodbury | 6/24/2020 | Dry | 150.5 | 0.47 | 308 | | | |
| W-W-15530 | Weekeepeemee | Jack's Bridge | Woodbury | 7/7/2020 | Dry | 156.8 | 0.34 | Sample error | | | |
| W-W-15530 | Weekeepeemee | Jack's Bridge | Woodbury | 7/21/2020 | Dry | 155.2 | 0.42 | 115 | | | |
| W-W-15530 | Weekeepeemee | Jack's Bridge | Woodbury | 8/5/2020 | Wet | 154.6 | 0.37 | **2420** | | | |
| W-W-15530 | Weekeepeemee | Jack's Bridge | Woodbury | 8/18/2020 | Wet | 157.1 | 0.38 | 33 | | | |
| W-W-15530 | Weekeepeemee | Jack's Bridge | Woodbury | 9/2/2020^^ | Dry | 155.1 | 0.32 | **548** | | | |
| W-W-15530 | Weekeepeemee | Jack's Bridge | Woodbury | 10/21/2020 | Dry* | 150.7 | 0.12 | 75 | | | |
| W-W-15530 | Weekeepeemee | Jack's Bridge | Woodbury | 6/9/2021 | Wet | 148.2 | 0.29 | 98 | 73 | 54 | 146 |
| W-W-15530 | Weekeepeemee | Jack's Bridge | Woodbury | 6/22/2021 | Dry | 159.1 | 0.30 | 36 | | | |
| W-W-15530 | Weekeepeemee | Jack's Bridge | Woodbury | 7/7/2021 | Wet | 147.8 | 0.32 | 344 | | | |
| W-W-15530 | Weekeepeemee | Jack's Bridge | Woodbury | 7/20/2021 | Dry | 128.4 | 0.28 | 111 | | | |
| W-W-15530 | Weekeepeemee | Jack's Bridge | Woodbury | 8/4/2021 | Dry | 154.6 | 0.31 | 29 | | | |
| W-W-15530 | Weekeepeemee | Jack's Bridge | Woodbury | 8/17/2021 | Dry | 163.6 | 0.53 | **431** | | | |
| W-W-15530 | Weekeepeemee | Jack's Bridge | Woodbury | 9/14/2021 | Dry | 134.7 | 0.40 | 82 | | | |
| W-W-15530 | Weekeepeemee | Jack's Bridge | Woodbury | 9/21/2021 | Dry* | 146.6 | 0.37 | 19 | | | |
| W-W-15530 | Weekeepeemee | Jack's Bridge | Woodbury | 10/5/2021 | Wet | 144.9 | 0.28 | 93 | | | |
| W-W-15530 | Weekeepeemee | Jack's Bridge | Woodbury | 10/20/2021 | Dry | 151.1 | 0.44 | 18 | | | |
| W-W-15530 | Weekeepeemee | Jack's Bridge | Woodbury | 4/6/2022^ | Wet* | 133 | 0.33 | 67 | 86 | 45 | N/A |
| W-W-15530 | Weekeepeemee | Jack's Bridge | Woodbury | 4/20/2022^ | Wet* | 123.7 | 0.26 | 76 | | | |
| W-W-15530 | Weekeepeemee | Jack's Bridge | Woodbury | 5/4/2022^ | Wet | 142.2 | 0.33 | 33 | | | |
| W-W-15530 | Weekeepeemee | Jack's Bridge | Woodbury | 5/26/2022^ | Dry | 133.5 | 0.44 | 28 | | | |
| W-W-15530 | Weekeepeemee | Jack's Bridge | Woodbury | 6/15/2022 | Dry | 150.6 | 0.60 | 72 | | | |
| W-W-15530 | Weekeepeemee | Jack's Bridge | Woodbury | 7/20/2022 | Wet | 164.7 | 0.6 | **579** | | | |
| W-W-15530 | Weekeepeemee | Jack's Bridge | Woodbury | 8/17/2022 | Dry | 167 | 0.6 | 68 | | | |
| W-W-15530 | Weekeepeemee | Jack's Bridge | Woodbury | 9/21/2022 | Wet | NS | NS | NS | | | |
| W-W-15530 | Weekeepeemee | Jack's Bridge | Woodbury | 10/20/2022 | Dry | 170.6 | NS | 19 | | | |

1. * Indicates average of duplicate samples
2. Gray shading indicates single event exceedance of 410 CFU/100mL or geometric mean exceedance of 126 CFU/100mL - water quality limits for bacteria for safe recreational use.
3. Data for 2021 and April to May 2022 were collected by Pomperaug River Watershed Coalition (PRWC) following protocols included in an EPA-approved Quality Assurance Project Plan (QAPP) as part of this 319 Grant funded "Watershed Based Plan Implementation Groundwork Project." Data for April and May 2022 did not meet data quality objectives and were omitted from the data summaries used to determine compliance with Connecticut Water Quality Standards.
4. 2019, 2020, and June to October 2022 data were collected following a standard protocol similar to that detailed in the QAPP for the collection of data described in #3 above, but sample collection and analysis did not specifically adhere to the provisions of a QAPP. These data were included as they were deemed to be relevant and credible secondary data where no other data exists.
5. Precipitation volumes were recorded in 2021, but not in 2019-2020; retroactively the Wet / Dry weather conditions was applied to the 2019-2020 data for consistency. Precipitation volumes recorded at nearby weather stations were used as reference.
6. ^^Weather conditions for 9/2/2020 were documented as Dry weather, but field notes indicated that it began to rain while field teams were out collecting samples. As such, some sites may have actually been sampled in dry conditions while others were sampled in wet conditions. Dry weather was designated to remain consistent in the time-frame look back period followed for all other sampling events. The inclusion of bacteria results for this site may skew the geometric mean calculations.
7. ^ Indicates nitrate and bacteria data are provisional and subject to further quality assurance review (lab analysis of trip blanks yielded bacteria results)
8. NS indicates Not Sampled
9. N/A indicates there was not enough data to calculate a geometric mean.

**Table C-15.** 2019-2022 Simplified results for Weekeepeemee River (W-W-16022) at Brushy Hill Road, Woodbury with calculation of geometric means. Geometric means for 2022 exclude April and May sampling as data did not meet quality assurance specifications.

| | | | | | | | | | Geometric Mean Bacteria | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Site ID | Stream | Location | Town | Date | Weather Conditions | Conductivity (µS/cm) | Nitrate (mg/L) | Bacteria (MPN/100mL) | ALL | DRY | WET |
| W-W-16022 | Weekeepeemee | Brushy Hill Rd | Woodbury | 5/15/2019 | Wet | NS | 0.14 | 91 | 118 | 118 | 119 |
| W-W-16022 | Weekeepeemee | Brushy Hill Rd | Woodbury | 6/12/2019 | Wet | NS | 0.33 | 155 | | | |
| W-W-16022 | Weekeepeemee | Brushy Hill Rd | Woodbury | 7/10/2019 | Dry | NS | 0.33 | 138 | | | |
| W-W-16022 | Weekeepeemee | Brushy Hill Rd | Woodbury | 8/14/2019 | Dry | NS | 0.36 | 101 | | | |
| W-W-16022 | Weekeepeemee | Brushy Hill Rd | Woodbury | 6/10/2020 | Dry | 169.1 | 0.36 | 82 | 228 | 198 | 348 |
| W-W-16022 | Weekeepeemee | Brushy Hill Rd | Woodbury | 6/24/2020 | Dry | 180.5 | 0.34 | 59 | | | |
| W-W-16022 | Weekeepeemee | Brushy Hill Rd | Woodbury | 7/7/2020 | Dry | 164.6 | 0.36 | 299 | | | |
| W-W-16022 | Weekeepeemee | Brushy Hill Rd | Woodbury | 7/21/2020 | Dry | 191.5 | 0.39 | 219 | | | |
| W-W-16022 | Weekeepeemee | Brushy Hill Rd | Woodbury | 8/5/2020 | Wet | 197.7 | 0.32 | **1553** | | | |
| W-W-16022 | Weekeepeemee | Brushy Hill Rd | Woodbury | 8/18/2020 | Wet | 202.0 | 0.24 | 78 | | | |
| W-W-16022 | Weekeepeemee | Brushy Hill Rd | Woodbury | 9/2/2020^^ | Dry | 164.4 | 0.24 | **2420** | | | |
| W-W-16022 | Weekeepeemee | Brushy Hill Rd | Woodbury | 10/21/2020 | Dry | 149.5 | 0.12 | 78 | | | |
| W-W-16022 | Weekeepeemee | Brushy Hill Rd | Woodbury | 6/9/2021 | Wet* | 170.7 | 0.28 | 164 | 92 | 78 | 134 |
| W-W-16022 | Weekeepeemee | Brushy Hill Rd | Woodbury | 6/22/2021 | Dry | 101.8 | 0.34 | 172 | | | |
| W-W-16022 | Weekeepeemee | Brushy Hill Rd | Woodbury | 7/7/2021 | Wet | 120.7 | 0.29 | 167 | | | |
| W-W-16022 | Weekeepeemee | Brushy Hill Rd | Woodbury | 7/20/2021 | Dry | 147.6 | 0.27 | 201 | | | |
| W-W-16022 | Weekeepeemee | Brushy Hill Rd | Woodbury | 8/4/2021 | Dry | 177.9 | 0.31 | 61 | | | |
| W-W-16022 | Weekeepeemee | Brushy Hill Rd | Woodbury | 8/17/2021 | Dry | 205.0 | 0.48 | 144 | | | |
| W-W-16022 | Weekeepeemee | Brushy Hill Rd | Woodbury | 9/14/2021 | Dry | 155.2 | 0.36 | 72 | | | |
| W-W-16022 | Weekeepeemee | Brushy Hill Rd | Woodbury | 9/21/2021 | Dry | 168.7 | 0.33 | 25 | | | |
| W-W-16022 | Weekeepeemee | Brushy Hill Rd | Woodbury | 10/5/2021 | Wet | 161.4 | 0.26 | 88 | | | |
| W-W-16022 | Weekeepeemee | Brushy Hill Rd | Woodbury | 10/20/2021 | Dry | 166.8 | 0.40 | 32 | | | |
| W-W-16022 | Weekeepeemee | Brushy Hill Rd | Woodbury | 4/6/2022^ | Wet | 145.8 | 0.33 | 160 | 75 | 35 | 229 |
| W-W-16022 | Weekeepeemee | Brushy Hill Rd | Woodbury | 4/20/2022^ | Wet | 147.4 | 0.20 | 190 | | | |
| W-W-16022 | Weekeepeemee | Brushy Hill Rd | Woodbury | 5/4/2022^ | Wet* | 147.2 | 0.32 | 165 | | | |
| W-W-16022 | Weekeepeemee | Brushy Hill Rd | Woodbury | 5/26/2022^ | Dry | 149.5 | 0.40 | 33 | | | |
| W-W-16022 | Weekeepeemee | Brushy Hill Rd | Woodbury | 6/15/2022 | Dry | 159.4 | NS | 75 | | | |
| W-W-16022 | Weekeepeemee | Brushy Hill Rd | Woodbury | 7/20/2022 | Wet | 194.2 | NS | **727** | | | |
| W-W-16022 | Weekeepeemee | Brushy Hill Rd | Woodbury | 8/17/2022 | Dry | 162.4 | NS | 37 | | | |
| W-W-16022 | Weekeepeemee | Brushy Hill Rd | Woodbury | 9/21/2022 | Wet | 211 | NS | 72 | | | |
| W-W-16022 | Weekeepeemee | Brushy Hill Rd | Woodbury | 10/20/2022 | Dry | 202 | NS | 16 | | | |

1. * Indicates average of duplicate samples
2. Gray shading indicates single event exceedance of 410 CFU/100mL or geometric mean exceedance of 126 CFU/100mL - water quality limits for bacteria for safe recreational use.
3. Data for 2021 and April to May 2022 were collected by Pomperaug River Watershed Coalition (PRWC) following protocols included in an EPA-approved Quality Assurance Project Plan (QAPP) as part of this 319 Grant funded "Watershed Based Plan Implementation Groundwork Project." Data for April and May 2022 did not meet data quality objectives and were omitted from the data summaries used to determine compliance with Connecticut Water Quality Standards.
4. 2019, 2020, and June to October 2022 data were collected following a standard protocol similar to that detailed in the QAPP for the collection of data described in #3 above, but sample collection and analysis did not specifically adhere to the provisions of a QAPP. These data were included as they were deemed to be relevant and credible secondary data where no other data exists.
5. Precipitation volumes were recorded in 2021, but not in 2019-2020; retroactively the Wet / Dry weather conditions was applied to the 2019-2020 data for consistency. Precipitation volumes recorded at nearby weather stations were used as reference.
6. ^^Weather conditions for 9/2/2020 were documented as Dry weather, but field notes indicated that it began to rain while field teams were out collecting samples. As such, some sites may have actually been sampled in dry conditions while others were sampled in wet conditions. Dry weather was designated to remain consistent in the time-frame look back period followed for all other sampling events. The inclusion of bacteria results for this site may skew the geometric mean calculations.
7. ^ Indicates nitrate and bacteria data are provisional and subject to further quality assurance review (lab analysis of trip blanks yielded bacteria results)
8. NS indicates Not Sampled
9. N/A indicates there was not enough data to calculate a geometric mean.

**Table C-16.** 2021-2022 Simplified results for Weekeepeemee River (W-W-CHOH) at Chohees Trail Bridge, Woodbury with calculation of geometric means. Geometric means for 2022 exclude April and May sampling as data did not meet quality assurance specifications.

| | | | | | | | | | Geometric Mean Bacteria | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Site ID | Stream | Location | Town | Date | Weather Conditions | Conductivity (µS/cm) | Nitrate (mg/L) | Bacteria (MPN/100mL) | ALL | DRY | WET |
| W-W-CHOH | Weekeepeemee | Chohees Trail Bridge | Woodbury | 5/15/2019 | Wet | NS | 0.13 | 34 | 79 | 116 | 54 |
| W-W-CHOH | Weekeepeemee | Chohees Trail Bridge | Woodbury | 6/12/2019 | Wet* | NS | 0.31 | 87 | | | |
| W-W-CHOH | Weekeepeemee | Chohees Trail Bridge | Woodbury | 7/10/2019 | Dry | NS | 0.33 | 107 | | | |
| W-W-CHOH | Weekeepeemee | Chohees Trail Bridge | Woodbury | 8/14/2019 | Dry | NS | 0.39 | 126 | | | |
| W-W-CHOH | Weekeepeemee | Chohees Trail Bridge | Woodbury | 6/10/2020 | Dry | 191.9 | 0.33 | 145 | 245 | 248 | 237 |
| W-W-CHOH | Weekeepeemee | Chohees Trail Bridge | Woodbury | 6/24/2020 | Dry | 194.7 | 0.32 | 161 | | | |
| W-W-CHOH | Weekeepeemee | Chohees Trail Bridge | Woodbury | 7/7/2020 | Dry | 200.0 | 0.34 | 201 | | | |
| W-W-CHOH | Weekeepeemee | Chohees Trail Bridge | Woodbury | 7/21/2020 | Dry* | 216.0 | 0.35 | **1140** | | | |
| W-W-CHOH | Weekeepeemee | Chohees Trail Bridge | Woodbury | 8/5/2020 | Wet | 218.0 | 0.31 | **866** | | | |
| W-W-CHOH | Weekeepeemee | Chohees Trail Bridge | Woodbury | 8/18/2020 | Wet | 258.0 | 0.28 | 65 | | | |
| W-W-CHOH | Weekeepeemee | Chohees Trail Bridge | Woodbury | 9/2/2020^^ | Dry | 195.0 | 0.33 | **2420** | | | |
| W-W-CHOH | Weekeepeemee | Chohees Trail Bridge | Woodbury | 10/21/2020 | Dry | 147.1 | 0.15 | 18 | | | |
| W-W-CHOH | Weekeepeemee | Chohees Trail Bridge | Woodbury | 6/9/2021 | Wet | 190.9 | 0.24 | **2420** | 147 | 107 | 304 |
| W-W-CHOH | Weekeepeemee | Chohees Trail Bridge | Woodbury | 6/22/2021 | Dry | 123.6 | 0.29 | 79 | | | |
| W-W-CHOH | Weekeepeemee | Chohees Trail Bridge | Woodbury | 7/7/2021 | Wet* | 132.8 | 0.26 | 157 | | | |
| W-W-CHOH | Weekeepeemee | Chohees Trail Bridge | Woodbury | 7/20/2021 | Dry | 150.4 | 0.24 | 231 | | | |
| W-W-CHOH | Weekeepeemee | Chohees Trail Bridge | Woodbury | 8/4/2021 | Dry | 190.8 | 0.27 | 46 | | | |
| W-W-CHOH | Weekeepeemee | Chohees Trail Bridge | Woodbury | 8/17/2021 | Dry | 227.0 | 0.37 | **410** | | | |
| W-W-CHOH | Weekeepeemee | Chohees Trail Bridge | Woodbury | 9/14/2021 | Dry | 161.7 | 0.30 | 179 | | | |
| W-W-CHOH | Weekeepeemee | Chohees Trail Bridge | Woodbury | 9/21/2021 | Dry | 178.5 | 0.28 | 52 | | | |
| W-W-CHOH | Weekeepeemee | Chohees Trail Bridge | Woodbury | 10/5/2021 | Wet | 175.5 | 0.23 | 74 | | | |
| W-W-CHOH | Weekeepeemee | Chohees Trail Bridge | Woodbury | 10/20/2021 | Dry | 176.4 | 0.40 | 51 | | | |
| W-W-CHOH | Weekeepeemee | Chohees Trail Bridge | Woodbury | 4/6/2022^ | Wet | 160.8 | 0.29 | 130 | 141 | 72 | 385 |
| W-W-CHOH | Weekeepeemee | Chohees Trail Bridge | Woodbury | 4/20/2022^ | Wet | 149.8 | 0.28 | 240 | | | |
| W-W-CHOH | Weekeepeemee | Chohees Trail Bridge | Woodbury | 5/4/2022^ | Wet | 158.4 | 0.28 | 290 | | | |
| W-W-CHOH | Weekeepeemee | Chohees Trail Bridge | Woodbury | 5/26/2022^ | Dry | 155.6 | 0.36 | 26 | | | |
| W-W-CHOH | Weekeepeemee | Chohees Trail Bridge | Woodbury | 6/15/2022 | Dry | 169.9 | 0.50 | 135 | | | |
| W-W-CHOH | Weekeepeemee | Chohees Trail Bridge | Woodbury | 7/20/2022 | Wet | 213 | 0.5 | **1414** | | | |
| W-W-CHOH | Weekeepeemee | Chohees Trail Bridge | Woodbury | 8/17/2022 | Dry | 258 | 0.5 | 132 | | | |
| W-W-CHOH | Weekeepeemee | Chohees Trail Bridge | Woodbury | 9/21/2022 | Wet* | 252 | 0 | 105 | | | |
| W-W-CHOH | Weekeepeemee | Chohees Trail Bridge | Woodbury | 10/20/2022 | Dry | 222 | ND | 21 | | | |

1. * Indicates average of duplicate samples
2. Gray shading indicates single event exceedance of 410 CFU/100mL or geometric mean exceedance of 126 CFU/100mL - water quality limits for bacteria for safe recreational use.
3. Data for 2021 and April to May 2022 were collected by Pomperaug River Watershed Coalition (PRWC) following protocols included in an EPA-approved Quality Assurance Project Plan (QAPP) as part of this 319 Grant funded "Watershed Based Plan Implementation Groundwork Project." Data for April and May 2022 did not meet data quality objectives and were omitted from the data summaries used to determine compliance with Connecticut Water Quality Standards.
4. 2019, 2020, and June to October 2022 data were collected following a standard protocol similar to that detailed in the QAPP for the collection of data described in #3 above, but sample collection and analysis did not specifically adhere to the provisions of a QAPP. These data were included as they were deemed to be relevant and credible secondary data where no other data exists.
5. Precipitation volumes were recorded in 2021, but not in 2019-2020; retroactively the Wet / Dry weather conditions was applied to the 2019-2020 data for consistency. Precipitation volumes recorded at nearby weather stations were used as reference.
6. ^^Weather conditions for 9/2/2020 were documented as Dry weather, but field notes indicated that it began to rain while field teams were out collecting samples. As such, some sites may have actually been sampled in dry conditions while others were sampled in wet conditions. Dry weather was designated to remain consistent in the time-frame look back period followed for all other sampling events. The inclusion of bacteria results for this site may skew the geometric mean calculations.
7. ^ Indicates nitrate and bacteria data are provisional and subject to further quality assurance review (lab analysis of trip blanks yielded bacteria results)
8. NS indicates Not Sampled
9. N/A indicates there was not enough data to calculate a geometric mean.

**Table C-17.** 2019-2020 Simplified results for Nonnewaug River (N-W-16274) at Route 61 Bridge, Woodbury with calculation of geometric means.

| | | | | | | | | | Geometric Mean Bacteria | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Site ID** | **Stream** | **Location** | **Town** | **Date** | **Weather Conditions** | **Conductivity (µS/cm)** | **Nitrate (mg/L)** | **Bacteria (MPN/100mL)** | **ALL** | **DRY** | **WET** |
| N-W-16274 | Nonnewaug | Route 61 Bridge | Woodbury | 5/15/2019 | Wet | NS | 0.38 | 225 | 223 | 154 | 322 |
| N-W-16274 | Nonnewaug | Route 61 Bridge | Woodbury | 6/12/2019 | Wet | NS | 0.66 | **461** | | | |
| N-W-16274 | Nonnewaug | Route 61 Bridge | Woodbury | 7/10/2019 | Dry | NS | 0.78 | 82 | | | |
| N-W-16274 | Nonnewaug | Route 61 Bridge | Woodbury | 8/14/2019 | Dry | NS | 0.60 | 291 | | | |
| N-W-16274 | Nonnewaug | Route 61 Bridge | Woodbury | 6/10/2020 | Dry | 199.9 | 0.54 | 179 | 264 | 202 | 596 |
| N-W-16274 | Nonnewaug | Route 61 Bridge | Woodbury | 6/24/2020 | Dry | 203.0 | 0.67 | **517** | | | |
| N-W-16274 | Nonnewaug | Route 61 Bridge | Woodbury | 7/7/2020 | Dry | 218.0 | 0.64 | 185 | | | |
| N-W-16274 | Nonnewaug | Route 61 Bridge | Woodbury | 7/21/2020 | Dry | 215.0 | 0.63 | 86 | | | |
| N-W-16274 | Nonnewaug | Route 61 Bridge | Woodbury | 8/5/2020 | Wet | 233.0 | 0.54 | **2420** | | | |
| N-W-16274 | Nonnewaug | Route 61 Bridge | Woodbury | 8/18/2020 | Wet | 261.0 | 0.47 | 147 | | | |
| N-W-16274 | Nonnewaug | Route 61 Bridge | Woodbury | 9/2/2020^ | Dry* | 196.5 | 0.48 | **785** | | | |
| N-W-16274 | Nonnewaug | Route 61 Bridge | Woodbury | 10/21/2020 | Dry | 224.0 | 0.28 | 58 | | | |

1. * Indicates average of duplicate samples
2. Gray shading indicates single event exceedance of 410 CFU/100mL or geometric mean exceedance of 126 CFU/100mL - water quality limits for bacteria for safe recreational use.
3. Data for 2021 and April to May 2022 were collected by Pomperaug River Watershed Coalition (PRWC) following protocols included in an EPA-approved Quality Assurance Project Plan (QAPP) as part of this 319 Grant funded "Watershed Based Plan Implementation Groundwork Project." Data for April and May 2022 did not meet data quality objectives and were omitted from the data summaries used to determine compliance with Connecticut Water Quality Standards.
4. 2019, 2020, and June to October 2022 data were collected following a standard protocol similar to that detailed in the QAPP for the collection of data described in #3 above, but sample collection and analysis did not specifically adhere to the provisions of a QAPP. These data were included as they were deemed to be relevant and credible secondary data where no other data exists.
5. Precipitation volumes were recorded in 2021, but not in 2019-2020; retroactively the Wet / Dry weather conditions was applied to the 2019-2020 data for consistency. Precipitation volumes recorded at nearby weather stations were used as reference.
6. ^^Weather conditions for 9/2/2020 were documented as Dry weather, but field notes indicated that it began to rain while field teams were out collecting samples. As such, some sites may have actually been sampled in dry conditions while others were sampled in wet conditions. Dry weather was designated to remain consistent in the time-frame look back period followed for all other sampling events. The inclusion of bacteria results for this site may skew the geometric mean calculations.
7. ^ Indicates nitrate and bacteria data are provisional and subject to further quality assurance review (lab analysis of trip blanks yielded bacteria results)
8. NS indicates Not Sampled
9. N/A indicates there was not enough data to calculate a geometric mean.

**Table C-18.** 2019-2020 Simplified results for Pomperaug River (P-S-15162) at Route 67 Bridge / Bennett Park, Southbury with calculation of geometric means.

| | | | | | | | | | Geometric Mean Bacteria | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Site ID** | **Stream** | **Location** | **Town** | **Date** | **Weather Conditions** | **Conductivity (µS/cm)** | **Nitrate (mg/L)** | **Bacteria (MPN/100mL)** | **ALL** | **DRY** | **WET** |
| P-S-15162 | Pomperaug | Route 67 - Bennett Park | Southbury | 5/16/2019 | Wet | NS | 0.30 | 48 | 136 | N/A | 217 |
| P-S-15162 | Pomperaug | Route 67 - Bennett Park | Southbury | 6/12/2019 | Wet | NS | 0.59 | **980** | | | |
| P-S-15162 | Pomperaug | Route 67 - Bennett Park | Southbury | 7/10/2019 | Dry | NS | 0.68 | 54 | | | |
| P-S-15162 | Pomperaug | Route 67 - Bennett Park | Southbury | 8/14/2019 | Dry | NS | NS | NS | | | |
| P-S-15162 | Pomperaug | Route 67 - Bennett Park | Southbury | 6/10/2020 | Dry | 191.0 | 0.64 | 52 | 113 | 90 | 221 |
| P-S-15162 | Pomperaug | Route 67 - Bennett Park | Southbury | 6/23/2020 | Dry* | 215.0 | 0.70 | 79 | | | |
| P-S-15162 | Pomperaug | Route 67 - Bennett Park | Southbury | 7/7/2020 | Dry | 205.0 | 0.57 | 61 | | | |
| P-S-15162 | Pomperaug | Route 67 - Bennett Park | Southbury | 7/21/2020 | Dry | 218.0 | 0.68 | 60 | | | |
| P-S-15162 | Pomperaug | Route 67 - Bennett Park | Southbury | 8/5/2020 | Wet | 218.0 | 0.67 | **525** | | | |
| P-S-15162 | Pomperaug | Route 67 - Bennett Park | Southbury | 8/18/2020 | Wet | 248.0 | 0.48 | 93 | | | |
| P-S-15162 | Pomperaug | Route 67 - Bennett Park | Southbury | 9/2/2020^^ | Dry | 243.0 | 0.62 | 291 | | | |
| P-S-15162 | Pomperaug | Route 67 - Bennett Park | Southbury | 10/21/2020 | Dry | 199.0 | 0.54 | 125 | | | |

1. * Indicates average of duplicate samples
2. Gray shading indicates single event exceedance of 410 CFU/100mL or geometric mean exceedance of 126 CFU/100mL - water quality limits for bacteria for safe recreational use.
3. Data for 2021 and April to May 2022 were collected by Pomperaug River Watershed Coalition (PRWC) following protocols included in an EPA-approved Quality Assurance Project Plan (QAPP) as part of this 319 Grant funded "Watershed Based Plan Implementation Groundwork Project." Data for April and May 2022 did not meet data quality objectives and were omitted from the data summaries used to determine compliance with Connecticut Water Quality Standards.
4. 2019, 2020, and June to October 2022 data were collected following a standard protocol similar to that detailed in the QAPP for the collection of data described in #3 above, but sample collection and analysis did not specifically adhere to the provisions of a QAPP. These data were included as they were deemed to be relevant and credible secondary data where no other data exists.
5. Precipitation volumes were recorded in 2021, but not in 2019-2020; retroactively the Wet / Dry weather conditions was applied to the 2019-2020 data for consistency. Precipitation volumes recorded at nearby weather stations were used as reference.
6. ^^Weather conditions for 9/2/2020 were documented as Dry weather, but field notes indicated that it began to rain while field teams were out collecting samples. As such, some sites may have actually been sampled in dry conditions while others were sampled in wet conditions. Dry weather was designated to remain consistent in the time-frame look back period followed for all other sampling events. The inclusion of bacteria results for this site may skew the geometric mean calculations.
7. ^ Indicates nitrate and bacteria data are provisional and subject to further quality assurance review (lab analysis of trip blanks yielded bacteria results)
8. NS indicates Not Sampled
9. N/A indicates there was not enough data to calculate a geometric mean.

**Table C-19.** 2019-2020 Simplified results for Weekeepeemee River (W-B-15009) at Wood Creek Road Bridge, Bethlehem with calculation of geometric means.

| | | | | | | | | | Geometric Mean Bacteria | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Site ID** | **Stream** | **Location** | **Town** | **Date** | **Weather Conditions** | **Conductivity (µS/cm)** | **Nitrate (mg/L)** | **Bacteria (MPN/100mL)** | **ALL** | **DRY** | **WET** |
| W-B-15009 | Weekeepeemee | Wood Creek Road Bridge | Bethlehem | 5/16/2019 | Wet | NS | 0.14 | 15 | 27 | 23 | 32 |
| W-B-15009 | Weekeepeemee | Wood Creek Road Bridge | Bethlehem | 6/12/2019 | Wet | NS | 0.32 | 68 | | | |
| W-B-15009 | Weekeepeemee | Wood Creek Road Bridge | Bethlehem | 7/10/2019 | Dry | NS | 0.34 | 30 | | | |
| W-B-15009 | Weekeepeemee | Wood Creek Road Bridge | Bethlehem | 8/14/2019 | Dry | NS | 0.35 | 18 | | | |
| W-B-15009 | Weekeepeemee | Wood Creek Road Bridge | Bethlehem | 6/10/2020 | Dry | 207.0 | 0.37 | 67 | 163 | 192 | 100 |
| W-B-15009 | Weekeepeemee | Wood Creek Road Bridge | Bethlehem | 6/24/2020 | Dry | 153.1 | 0.18 | 60 | | | |
| W-B-15009 | Weekeepeemee | Wood Creek Road Bridge | Bethlehem | 7/7/2020 | Dry | 195.1 | 0.31 | 72 | | | |
| W-B-15009 | Weekeepeemee | Wood Creek Road Bridge | Bethlehem | 7/21/2020 | Dry | 196.4 | 0.30 | 50 | | | |
| W-B-15009 | Weekeepeemee | Wood Creek Road Bridge | Bethlehem | 8/5/2020 | Wet | 194.0 | 0.25 | 387 | | | |
| W-B-15009 | Weekeepeemee | Wood Creek Road Bridge | Bethlehem | 8/18/2020 | Wet* | 265.0 | 0.37 | 26 | | | |
| W-B-15009 | Weekeepeemee | Wood Creek Road Bridge | Bethlehem | 9/2/2020^^ | Dry | 174.5 | 0.36 | **2420** | | | |
| W-B-15009 | Weekeepeemee | Wood Creek Road Bridge | Bethlehem | 10/21/2020 | Dry | 127.8 | 0.22 | **1414** | | | |

1. * Indicates average of duplicate samples
2. Gray shading indicates single event exceedance of 410 CFU/100mL or geometric mean exceedance of 126 CFU/100mL - water quality limits for bacteria for safe recreational use.
3. Data for 2021 and April to May 2022 were collected by Pomperaug River Watershed Coalition (PRWC) following protocols included in an EPA-approved Quality Assurance Project Plan (QAPP) as part of this 319 Grant funded "Watershed Based Plan Implementation Groundwork Project." Data for April and May 2022 did not meet data quality objectives and were omitted from the data summaries used to determine compliance with Connecticut Water Quality Standards.
4. 2019, 2020, and June to October 2022 data were collected following a standard protocol similar to that detailed in the QAPP for the collection of data described in #3 above, but sample collection and analysis did not specifically adhere to the provisions of a QAPP. These data were included as they were deemed to be relevant and credible secondary data where no other data exists.
5. Precipitation volumes were recorded in 2021, but not in 2019-2020; retroactively the Wet / Dry weather conditions was applied to the 2019-2020 data for consistency. Precipitation volumes recorded at nearby weather stations were used as reference.
6. ^^Weather conditions for 9/2/2020 were documented as Dry weather, but field notes indicated that it began to rain while field teams were out collecting samples. As such, some sites may have actually been sampled in dry conditions while others were sampled in wet conditions. Dry weather was designated to remain consistent in the time-frame look back period followed for all other sampling events. The inclusion of bacteria results for this site may skew the geometric mean calculations.
7. ^ Indicates nitrate and bacteria data are provisional and subject to further quality assurance review (lab analysis of trip blanks yielded bacteria results)
8. NS indicates Not Sampled
9. N/A indicates there was not enough data to calculate a geometric mean.

**Table C-20.** Summary data by sample site by year detailing geometric mean (wet, dry, and all), highest single sample result, percent load reduction needed to meet water quality standards for bacteria (both geometric mean for the season and for a single sample exceedance). Geometric mean values shown in **red bold** exceed 126 CFU/100mL - the water quality limit for bacteria for safe recreational use. Highest single sample results shown in **blue bold** exceed 410 CFU/100mL water quality limits for bacteria for safe recreational use.

| Station Name | Station Location | Stream | Years Sampled | Number of Samples | | | Geometric Mean | | | Highest Single Sample Result | % Reduction (GeoMean) | % Reduction Single Sample |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Wet | Dry | All | Wet | Dry | All | | | |
| ES-B-17321 | Nonnewaug Rd at Porter Hill Rd, Bethlehem | East Spring Brook | 2021 | 3 | 7 | 10 | **244** | 65 | 96 | **816** | n/a | 50 |
| ES-B-17322 | Nonnewaug Rd at Porter Hill Rd, Bethlehem | East Spring Brook | 2022 | 2 | 3 | 5 | **167** | 42 | 71 | **548** | n/a | 25 |
| N-W-14355 | Rt 47 Bridge, Youngs Nursery, Woodbury | Nonnewaug | 2019 | 2 | 2 | 4 | **460** | 82 | **193** | **613** | 35 | 33 |
| N-W-14355 | Rt 47 Bridge, Youngs Nursery, Woodbury | Nonnewaug | 2020 | 2 | 6 | 8 | **1119** | **225** | **336** | **2420** | 63 | 83 |
| N-W-14355 | Rt 47 Bridge, Youngs Nursery, Woodbury | Nonnewaug | 2021 | 3 | 7 | 10 | **782** | 78 | **177** | **2420** | 29 | 83 |
| N-W-14355 | Rt 47 Bridge, Youngs Nursery, Woodbury | Nonnewaug | 2022 | 2 | 3 | 5 | **360** | 97 | **164** | **914** | 23 | 55 |
| N-W-16335 | Mill Rd - USGS Gauge, Woodbury | Nonnewaug | 2019 | 2 | 2 | 4 | **318** | 106 | **184** | **548** | 32 | 25 |
| N-W-16335 | Mill Rd - USGS Gauge, Woodbury | Nonnewaug | 2020 | 2 | 5 | 7 | **1224** | **329** | **434** | **2420** | 71 | 83 |
| N-W-16335 | Mill Rd - USGS Gauge, Woodbury | Nonnewaug | 2021 | 3 | 7 | 10 | **677** | 105 | **183** | **1986** | 31 | 79 |
| N-W-16336 | Mill Rd - USGS Gauge, Woodbury | Nonnewaug | 2022 | 2 | 3 | 5 | **489** | **141** | **232** | **2077** | 46 | 80 |
| P-S-15025 | Poverty Rd - Ewald Park - USGS Gauge, Southbury | Pomperaug | 2019 | 2 | 2 | 4 | **313** | 88 | **166** | **566** | 24 | 28 |
| P-S-15025 | Poverty Rd - Ewald Park - USGS Gauge, Southbury | Pomperaug | 2020 | 2 | 6 | 8 | **413** | **191** | **231** | **1986** | 45 | 79 |
| P-S-15025 | Poverty Rd - Ewald Park - USGS Gauge, Southbury | Pomperaug | 2021 | 3 | 7 | 10 | **602** | 86 | **154** | **1203** | 18 | 66 |
| P-S-15026 | Poverty Rd - Ewald Park - USGS Gauge, Southbury | Pomperaug | 2022 | 2 | 3 | 5 | **155** | 55 | 84 | 377 | n/a | n/a |
| P-S-15388 | Bent of the River, East Flat Hill Rd, Southbury | Pomperaug | 2019 | 2 | 2 | 4 | **140** | 64 | 94 | 326 | n/a | n/a |
| P-S-15388 | Bent of the River, East Flat Hill Rd, Southbury | Pomperaug | 2020 | 2 | 6 | 8 | **316** | 107 | **140** | **649** | 10 | 37 |
| P-S-15388 | Bent of the River, East Flat Hill Rd, Southbury | Pomperaug | 2021 | 3 | 7 | 10 | **724** | 84 | **161** | **1414** | 22 | 71 |
| P-S-15389 | Bent of the River, East Flat Hill Rd, Southbury | Pomperaug | 2022 | 2 | 3 | 5 | **133** | 50 | 63 | 133 | n/a | n/a |
| P-S-18395 | The Gym - Flood Bridge Rd, Southbury | Pomperaug | 2019 | 2 | 2 | 4 | **216** | 48 | 102 | **727** | n/a | 44 |
| P-S-18395 | The Gym - Flood Bridge Rd, Southbury | Pomperaug | 2020 | 2 | 6 | 8 | **343** | 127 | **163** | **517** | 23 | 21 |
| P-S-18395 | The Gym - Flood Bridge Rd, Southbury | Pomperaug | 2021 | 3 | 4 | 10 | **562** | 88 | **154** | **1046** | 18 | 61 |
| P-S-18396 | The Gym - Flood Bridge Rd, Southbury | Pomperaug | 2022 | 2 | 3 | 5 | **166** | 67 | 97 | 345 | n/a | n/a |
| P-S-OAKD | 185 Oakdale Manor, Southbury | Pomperaug | 2019 | 2 | 2 | 4 | 96 | 68 | 81 | 178 | n/a | n/a |
| P-S-OAKD | 185 Oakdale Manor, Southbury | Pomperaug | 2020 | 2 | 6 | 8 | **273** | 63 | 91 | 291 | n/a | n/a |
| P-S-OAKD | 185 Oakdale Manor, Southbury | Pomperaug | 2021 | 3 | 7 | 10 | **483** | 60 | 112 | **1300** | n/a | 68 |
| P-S-OAKD | 186 Oakdale Manor, Southbury | Pomperaug | 2022 | 2 | 2 | 4 | 73 | 34 | 50 | 198 | n/a | n/a |
| P-S-WINS | Winship Drive at HV River Gardens, Southbury | Pomperaug | 2021 | 3 | 7 | 10 | **672** | 74 | **143** | **1643** | 12 | 75 |
| P-S-WINS | Winship Drive at HV River Gardens, Southbury | Pomperaug | 2022 | 2 | 3 | 5 | 118 | 43 | 64 | **461** | n/a | 11 |
| P-W-15012 | Middle Quarter / South Pomperaug Ave, Woodbury | Pomperaug | 2019 | 2 | 2 | 4 | **202** | 57 | 107 | **770** | n/a | 47 |
| P-W-15012 | Middle Quarter / South Pomperaug Ave, Woodbury | Pomperaug | 2020 | 2 | 6 | 8 | **185** | 143 | **152** | **517** | 17 | 21 |
| P-W-15012 | Middle Quarter / South Pomperaug Ave, Woodbury | Pomperaug | 2021 | 3 | 7 | 10 | **898** | 136 | **240** | **2420** | 48 | 83 |
| P-W-15013 | Middle Quarter / South Pomperaug Ave, Woodbury | Pomperaug | 2022 | 2 | 3 | 5 | **322** | **149** | **203** | **1203** | 38 | 66 |
| T-S-14474 | Seman Park at East Flat Hill Rd, Southbury | Transylvania | 2021 | 3 | 7 | 10 | **272** | 75 | 110 | **1300** | n/a | 68 |
| T-S-14475 | Seman Park at East Flat Hill Rd, Southbury | Transylvania | 2022 | 2 | 3 | 5 | **233** | 51 | 94 | **435** | n/a | 6 |
| W-B-19157 | Mill Pond Road, Bethlehem | Weekeepeemee | 2021 | 3 | 7 | 10 | 46 | 31 | 35 | 64 | n/a | n/a |
| W-B-19158 | Mill Pond Road, Bethlehem | Weekeepeemee | 2022 | 2 | 3 | 5 | 63 | 7 | 17 | 127 | n/a | n/a |
| W-B-CRAN | Crane Hollow Road Bridge, Bethlehem | Weekeepeemee | 2021 | 3 | 7 | 10 | 78 | 59 | 64 | 132 | n/a | n/a |
| W-B-CRAN | Crane Hollow Road Bridge, Bethlehem | Weekeepeemee | 2022 | 2 | 3 | 5 | **376** | 39 | 97 | **816** | n/a | 50 |
| W-W-15530 | Jacks Bridge Rd, Woodbury | Weekeepeemee | 2019 | 2 | 2 | 4 | 50 | 86 | 65 | 119 | n/a | n/a |
| W-W-15530 | Jacks Bridge Rd, Woodbury | Weekeepeemee | 2020 | 2 | 5 | 7 | **283** | 149 | **179** | **2420** | 30 | 83 |
| W-W-15530 | Jacks Bridge Rd, Woodbury | Weekeepeemee | 2021 | 3 | 7 | 10 | **146** | 54 | 73 | **431** | n/a | 5 |
| W-W-15531 | Jacks Bridge Rd, Woodbury | Weekeepeemee | 2022 | 1 | 3 | 4 | n/a | 45 | 86 | **579** | n/a | 29 |
| W-W-16022 | Brushy Hill Rd, Woodbury | Weekeepeemee | 2019 | 2 | 2 | 4 | 119 | 118 | 118 | 155 | n/a | n/a |
| W-W-16022 | Brushy Hill Rd, Woodbury | Weekeepeemee | 2020 | 2 | 6 | 8 | **348** | 95 | **228** | **2420** | 45 | 83 |
| W-W-16022 | Brushy Hill Rd, Woodbury | Weekeepeemee | 2021 | 3 | 7 | 10 | **134** | 56 | 92 | 201 | n/a | n/a |
| W-W-16023 | Brushy Hill Rd, Woodbury | Weekeepeemee | 2022 | 2 | 3 | 5 | **229** | 35 | 75 | **727** | n/a | 44 |
| W-W-CHOH | Chohees Trail,Woodbury | Weekeepeemee | 2019 | 2 | 2 | 4 | 54 | 116 | 79 | 126 | n/a | n/a |
| W-W-CHOH | Chohees Trail,Woodbury | Weekeepeemee | 2020 | 2 | 6 | 8 | **237** | **248** | **245** | **2420** | 49 | 83 |
| W-W-CHOH | Chohees Trail,Woodbury | Weekeepeemee | 2021 | 3 | 7 | 10 | **304** | 107 | **147** | **410** | 14 | 0 |
| W-W-CHOH | Chohees Trail,Woodbury | Weekeepeemee | 2022 | 2 | 3 | 5 | **385** | 72 | **141** | **1414** | 11 | 71 |
| N-W-16274 | Rt 61 Bridge, Woodbury | Nonnewaug | 2019 | 2 | 2 | 4 | **322** | **154** | **223** | **461** | 43 | 11 |
| N-W-16274 | Rt 61 Bridge, Woodbury | Nonnewaug | 2020 | 2 | 6 | 8 | **596** | **202** | **264** | **2420** | 52 | 83 |
| P-S-15162 | Route 67 - Bennett Park, Southbury | Pomperaug | 2019 | 2 | 1 | 3 | **217** | n/a | **136** | **980** | 7 | 58 |
| P-S-15162 | Route 67 - Bennett Park, Southbury | Pomperaug | 2020 | 2 | 4 | 8 | **221** | 75 | 113 | **525** | n/a | 22 |
| W-B-15009 | Wood Creek Rd,Bethlehem | Weekeepeemee | 2019 | 2 | 2 | 4 | 32 | 23 | 27 | 68 | n/a | n/a |
| W-B-15009 | Wood Creek Rd,Bethlehem | Weekeepeemee | 2020 | 2 | 6 | 8 | 100 | **192** | **163** | **2420** | 23 | 83 |

# APPENDIX D

## *AMBIENT WATER QUALITY MONITORING*
## *POMPERAUG WATERSHED*
## *2021 & 2022*

Field Data Sheets
Chain of Custody Forms
Laboratory Reports / Analysis Results
Bench Sheets for Data Quality Reconciliation

These materials are available in PDF format on the Pomperaug River Watershed Coalition website:
https://www.pomperaug.org/_files/ugd/ecda6a_85d2053f048c4662b2a0ea25c5dca6e6.pdf