

Weekly Update
Apalachicola City Water Test Results
July 22, 2025

City Water Testing

The Florida Department of Environmental Protection (DEP) and the U.S. Environmental Protection Agency (EPA) both define our treatment system as a “small, rural system.”* The designation dictates the sampling and testing schedules.

Table 1 lists some of the contaminants the city is required to test for, the routine testing schedule, and the number of sampling locations we test. Table 2 shows the required “non-routine” sampling schedule, if a contaminant is detected during the routine schedule.

Table 1. Drinking Water Contaminant “Routine” Testing and Frequency

Contaminant	Test Frequency & Number of Locations	Notes
Chlorine residual	Daily, 2 locations	0.2 ppm and above are required to ensure against bacteria growth. One sampling location just before water leaves the treatment plant; one is at the end of the line (far from the plant).
Total coliform (TC)	Monthly, 6 locations	If there is a positive result, follow-up testing is required (see Table 2).
<i>E. Coli</i> bacteria	Monthly, 6 locations	If there is a positive test result, follow-up testing is required (See Table 2)
Disinfectant byproducts: Total Trihalomethanes (TTHM) Haloacetic acids (HAA5)	Quarterly, 2 locations	Apalachicola has been testing every month at 2 locations for years. Sample locations are far from the treatment plant.

*Apalachicola meets the “small, rural” designation criteria because it has less than 5,000 hookups.

Table 2. Required Testing Based on Table 1 Results

Contaminant	Action Level	Action
Chlorine Residual	<p>Leaving the plant, levels cannot be less than 0.2 ppm, or greater than 4 ppm.</p> <p>The remote location cannot be less than 0.20 ppm</p>	<p>If below 0.2 ppm, issue a precautionary boil water notice.</p> <p>The notice is lifted when chlorine residuals are 0.2 ppm or higher.</p>
Total Coliform (TC)	Positive*	<p>Retest within 24 hours at the same service location, a location upstream, and one downstream. If both TC and <i>E. Coli</i> are negative, no further action.</p> <p>If TC is still positive, visually inspect the system (wells, tanks, chlorinator, etc.) for places soil, leaves, insects, etc., could get into the system. Make repairs.</p> <p>If <i>E. Coli</i> is positive, see next row.</p>
<i>E. Coli</i>	Positive	<p>Immediately report to State (FDEP) and repeat testing within 24 hours.</p> <p>If the second test is positive, issue a precautionary boil water advisory notice.</p> <p>Note: Apalachicola water is tested for <i>E. Coli</i> in every TC sample.</p>
<p>*Coliform bacteria are present everywhere in our environment (even on skin and in our digestive system), so a positive result may not reflect what is in the water. It might have come during the water sampling process from touching the rim of the collection container, someone coughing, etc. If the 2nd test comes back positive, bacteria is considered present in the water.</p>		

Sample results since the precautionary boil water notice was lifted on June 28th,

- Chlorine residual (7/1 - 7/20/2025):
 - At the plant, levels ranged from 2.46 - 3.98 ppm.
 - At the remote location, levels ranged from 0.24 - 0.94 ppm.

[Chlorine residual is also measured when bacteria samples are collected at 6 different locations in the city. Wells are not tested because the chlorine hasn't been added yet. Levels ranged from 0.29 - 1.90 ppm.]

- Recent Total Coliform (TC) and *E. coli* results (7/3 - 7/11/2025):
 - Of the 6 locations tested, there was one positive test result for total coliform (TC+) for a water sample collected on Thursday, July 3rd. No *E. coli* was detected. That location was retested on the 7th and again on the 9th.* No TC or *E. coli* were detected.
 - Wells 5 and 7 were also tested on the 9th. A positive test result for total coliform (TC+) was found in the well 7 sample. *E. coli* was not found. Well 7 was retested on the 11th. Neither total coliform nor *E. coli* were detected.

*The repeat test occurred 4 days after the first sample was sent to the lab. It was the 4th of July weekend and the lab didn't contact the city until the 7th with the test result. The city immediately advised the DEP of the situation. The well was resampled on the 7th and 9th. No TC or *E. Coli* was detected.

Residual chlorine is the amount of chlorine that remains in the water after treatment at the drinking water plant. Chlorine reacts with organic material and hydrogen sulfide as it travels down the water distribution system—so chlorine levels decrease with increased distance from the plant. Levels at or above 0.2 ppm indicate there is enough chlorine to kill bacteria.

More chlorine is added at the plant if test results at the remote location appear to be decreasing. When more chlorine is added, total trihalomethanes (TTHMs) and haloacetic acid (HAA5) levels increase. So the plant operators are always balancing between adding enough chlorine without creating too much TTHMs and HAA5.

Coliform bacteria are always present in plant and soil material. Everything on earth is full of bacteria. So they are present in our homes, on our skin, pet fur, food, etc. They are also found in animal and human digestive tracts, and in their wastes. Some are beneficial and some are not.

Total coliforms include bacteria found in the soil, organic debris (leaves and plants), surface water, etc. Testing water for **total coliform (TC)** bacteria is considered a screening or indicator test. If a test is positive, it indicates other bacteria may be present and further testing is necessary. Five different coliform bacteria types, those most commonly found, make up the TC test. One of the five bacteria in this test is *E. coli*. Because it is such a sensitive test, a positive result may mean the sample was contaminated during sampling. That is why second samples are collected and analyzed. If the second set of results show TC is present, then the water is considered positive for TC, and additional steps are taken.

Testing for ***Escherichia coli* (*E. coli*)**, a subgroup of coliform bacteria, is done when a water sample has a positive TC result. The test is specific to *E. coli* and doesn't include other coliform bacteria. The presence of *E. coli* is a strong indication that the water may be contaminated with animal or human waste. Although most strains of *E. coli* are harmless, others can make you sick. Therefore, if detected, a boil water notice is issued as a precautionary measure. The result is reported to the DEP and a repeat sampling effort is initiated within 24 hours. The precautionary boil water advisory is not lifted until *E. coli* and other water indicators (TC and residual chlorine) are acceptable.

Like other bacteria, *E. coli* can be found on hands after typical household activities (food preparation, sweeping, cleaning bathrooms, etc.). Besides human and animal waste, *E. coli* is found in soil and household surface dust. It can be present in uncooked meat and produce.