

Weekly Update
Apalachicola City Water
January 10th through January 16th, 2026

Apalachicola city water quality test results continue to meet state and federal drinking water standards.

Progress

Wells #5 and 6 are operational. Rehabilitation work continues on Well #7.

City Water Sample Test Results

- **Daily residual chlorine***
 - At the plant, levels ranged from 0.96 - 2.54 ppm.
 - At the remote location, levels ranged from 0.29 - 0.50 ppm.

Disinfectant Byproducts Quarterly Monitoring Period September - December 2025

- **Total Trihalomethanes (TTHM)** Locational Running Annual Average (LRAA) levels continue to be below the EPA Maximum Contaminant Level (MCL) of 80 ppb.
 - Bay City Lodge location: 70.80 ppb (LLRA)
 - Roberts Fish Dock location: 77.28 ppb (LLRA)
- **Haloacetic Acids Five (HAA5)** Locational Running Annual Average (LLRA) levels continue to be below the EPA Maximum Contaminant Level (MCL) of 60 ppb.¹
Bay City Lodge location: 21.74 ppb LLRA
Roberts Fish Dock location: 22.56 ppb LLRA

*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. This decrease is normal for every water treatment system. *State regulations say that chlorine levels cannot be above 4 ppm, or below 0.20 ppm. Levels above 4 ppm exceed the EPA Maximum Contaminant Level (MCL). Levels at or above 0.2 ppm indicate there is enough chlorine to kill bacteria.*

NOTE: The City is required to sample two locations quarterly (every three months). To monitor water quality more closely, the City tests the water for TTHMs and HAA5 once every month.

City Water Sample Test Results, continued

The following tables display the same information shown on page 1.

TTHM LRAA Sample Results, October - December, 2025		
Sample Location	Result (ppb or ug/L)	MCL (ppb or ug/L)
Bay City Lodge	70.80	80.00
Roberts Fish Dock	77.28	80.00
TTHM=total trihalomethanes; LLRA=locational running annual average—an average of 4 quarterly sample results; ppb=parts per billion; ug/L=micrograms contaminant/liter of water; MCL=EPA and FDEP's Maximum Contaminant Level.		

HAA5 LRAA Sample Results, October - December, 2025		
Sample Location	Result (ppb or ug/L)	MCL (ppb or ug/L)
Bay City Lodge	21.74	60.00
Roberts Fish Dock	22.56	60.00
HAA5=Haloacetic Acids 5; LLRA=locational running annual average—an average of 4 quarterly sample results; ppb=parts per billion; ug/L=micrograms contaminant/liter of water; MCL=EPA and FDEP's Maximum Contaminant Level.		

Every new quarter, the TTHM results are averaged to provide what is called a locational rolling annual average result (LRAA).

Locational rolling annual average= (Current quarter result+previous quarter+2 quarters ago+3 quarters ago)/4 quarters

The same happens for HAA5 results. When there are different sampling points, like Apalachicola has, each location has a LRAA.

The LRAA's values are what is compared to the Maximum Contaminant Level (MCL) legal standard. If the LRAA exceeds 80 ppb for TTHMs or 60 ppb for HAA5, the water treatment system is out of compliance with EPA standards.

City Water Sample Test Results, continued

Another number that is calculated is called the **Operational Evaluation (OE)**. This result gives the water treatment system operators an early indication of changing TTHM and HAA5 concentration trends so, if needed, they can adjust levels of chlorine being added to keep TTHM and HAA5 values low.

Some of the same information used to calculate the LRAA is used to calculate an OE. Instead of averaging all four quarters of test results, the OE is calculated by doubling the most recent result, adding the previous two quarters, and dividing by four. Operational Evaluation (OE) = $(2 \times \text{current quarter result} + \text{previous quarter} + 2 \text{ quarters ago}) / 4 \text{ quarters}$

Exceeding an OE does NOT mean the MCL is exceeded and the system is out of compliance. That is only determined by the LRAA. It means additional calculations are made (operational evaluation level, or OEL)

** OEL Result= sum of OEs from ((current quarter OE x 2) + sum of two previous quarterly OEs)/4. If the OEL does not exceed 80 ppb, additional paperwork is submitted to FDEP, and no further action is needed. If an OEL exceedance has occurred, FDEP is notified and the city issues a Notice to the Public.

The following tables display the OE results.

TTHM OE* Sample Results, October - December, 2025			
Sample Location	TTHM OE (ppb or ug/L)	TTHM OEL** (ppb or ug/L)	MCL (ppb or ug/L)
Bay City Lodge	82.35	73.93	80.0
Roberts Fish Dock	89.07	78.93	80.0

TTHM=total trihalomethanes; OE=operational evaluation; ppb=parts per billion; ug/L=micrograms
contaminant/liter of water; MCL=EPA and FDEP's Maximum Contaminant Level. An OE exceeding an MCL is not a drinking water violation. If the OE is exceeded, it does NOT mean that the system is out of compliance. It means additional calculations are made (operational evaluation level, or OEL)

** OEL Result= sum of OEs from ((current quarter OE x 2) + sum of two previous quarterly OEs)/4. If the OEL does not exceed 80 ppb, additional paperwork is submitted to FDEP, and no further action is needed. If an OEL exceedance has occurred, FDEP is notified and the city issues a Notice to the Public. Based on OE and OEL results, the city contacted the FDEP and submitted an OEL report. No further action is necessary.

HAA5 OE Sample Results, October - December 2025		
Sample Location	HAA5 (ppb or ug/L)	MCL (ppb or ug/L)
Bay City Lodge	24.24	60.00
Roberts Fish Dock	26.12	60.00

HAA5=Haloacetic Acids 5; OE=operational evaluation; ppb=parts per billion; ug/L=micrograms contaminant/liter of water; MCL=EPA and FDEP's Maximum Contaminant Level. An OE exceeding an MCL is not a drinking water violation.

What to know about TTHMs and HAA5 (byproducts of disinfection):

Levels of TTHM and HAA5 generally increase in the summer months due to the warmer temperatures. Levels can also be affected by seasonal changes in well water quality or by changing amounts of chlorine added.

Reducing the levels of byproducts of disinfection while maintaining effective disinfection of the water is challenging. When chlorine levels are increased, so do the levels of chlorination byproducts (TTHMs and HAA5). Stopping disinfection is not an option, as the risk of illness from drinking untreated water is greater than the risks from exposure to the byproducts.

What to know about EPA Maximum Contaminant Level Regulations:

An EPA Maximum Contaminant Level (MCL) is the maximum level of a contaminant in drinking water delivered to any user of a public water system allowed by EPA. MCLs are enforceable. EPA sets MCLs at levels that are economically and technologically feasible. States can set MCLs lower than Federal EPA values.

For contaminants that may possibly cause cancer, MCLs are set by EPA at levels that may result in **one additional case of cancer 1 in 10,000 to 1 in 1,000,000 (one in a million) people who drink two liters of water at the MCL every day for 70 years.** This value is conservative (protective).

Both TTHM and HAA5 MCLs are based on the possible cancer risk. So taking TTHM as an example, drinking two liters of water every day containing 80 ppb TTHM for 70 years could result in one case of cancer in one person out of 10,000 to one person out of a million people exposed. For comparison—in the U.S., 1 in 2 men and 1 in 3 women will get some form of cancer in their lifetime. Common causes of cancer may include genetics, smoking, excess alcohol consumption, workplace exposure to chemicals, sun exposure, exposure to chemicals in the home (e.g., formaldehyde from new furniture, glues, and carpeting), air pollution, etc. (<https://www.cancer.org>).

MCLs for contaminants that are not possible carcinogens are based on non-cancer effects assuming drinking two liters of water per day with the contaminant level at the MCL over a lifetime (70 years).

NOTE: All drinking water test results for Apalachicola can be found on the Florida Department of Environmental Protection's OCULUS web page:
<https://depedms.dep.state.fl.us/Oculus/servlet/hitlist?action=hitlist&searchResultParam=fromSearchResultPage>