

Investigator(s): Steven Garcia, Emmanuel Peters, Ewa Kudela-Leczynski and Jorge Patino
Florida Department of Health Palm Beach County
Bureau of Water Programs
Division of Environmental Health and Engineering
800 Clematis Street, West Palm Beach, FL 33401

Date Submitted: January 7, 2021

Violator: City of Delray Beach
Jennifer Alvarez, Interim City Manager
100 NW 1st Avenue
Delray Beach, FL 33444

Location of Violation(s): Palm Beach County, Florida
City of Delray Beach Water Utilities
PWS# 4500351

Nature/History of Violations: The City of Delray Beach operates a Community Water System that provides drinking water to approximately 68,000 people in its service area and has approximately 22,250 service connections.

The water treatment plant can produce approximately 26 million gallons per day of drinking water using filtration, including lime softening, coagulation, direct filtration and disinfection (Chlorine and/or chloramines).

The water treatment plant is subject to the applicable requirements of Chapters 62-550, 62-555, 62-560, 62-699, and 62-602 of the Florida Administrative Code (F.A.C.) and the federal regulations contained in 40 CFR Part 141 adopted by reference in the F.A.C.

On January 2, 2020, the Florida Department of Health Palm Beach County (Department) received a complaint from a City of Delray Beach Water Utilities (City) customer alleging the City's failure to notify customers of a cross connection event that occurred in the last quarter of 2018.

On December 19, 2018 the City of Delray Beach sent a letter of explanation to the Department detailing the City's response to a cross connection discovered at 801 S. Ocean Avenue, Delray Beach discovered on December 5, 2018. The explanation stated there was one cross connection discovered and there were "no reports of sickness or illness" during the time the cross connection existed. The letter states the cross connection occurred on November 15, 2018 when reclaimed water service was installed at 801 S. Ocean. The City's explanation is attached as Attachment A.

On January 2, 2020, the findings of the City of Delray Beach's December 2018 letter were shared with the January 2020 Complainant. The Complainant claimed she had been in contact with a City of Delray Beach employee (Employee) that disputed the City's letter. The Complainant had no details but advised that the Department should speak with the City of Delray Beach Employee. The Complaint, including contact information regarding the City of Delray Employee, was forwarded to the Department's Chief Counsel.

The Department contacted the City of Delray Beach Employee on January 3, 2020. The Employee provided a copy of her notes titled "Timeline on City of Delray Beach Cross Connection that occurred December 6, 2018." The notes provide a description of the Utility's activities before, during and after the discovery of the cross connection at 801 S. Ocean. The Employee's notes contained information that was not included in the City's explanation of the event, including multiple water quality and resident illness complaints. The Employee's notes contradict the letter of explanation provided by the City that there were no illnesses reported. The Employee's notes are attached as Attachment B.

The Employee alleges in the notes:

- a. In June 2018 the Employee volunteered to assist in implementing the Reclaim/Cross Connection program and discovered the City's database of properties served by reclaimed water was incorrect or missing data.
- b. The database showed no initial cross connection inspections were conducted by City of Delray Beach employees at properties when reclaimed water service was activated and no inspection records existed
- c. In September 2018 the Employee was assigned cross connection inspections in the 12C Area. The 12C Area includes 801 S Ocean, the subject of the cross connection event of December 2018. Employee identified properties in 12C with outside hose bibs, outside showers, and pool refills connected to reclaimed water service lines. Properties with both potable and reclaimed water service had no backflow prevention installed.
- d. The contractor hired by the City to connect the properties in 12C to reclaimed water did not perform cross connection inspections. "Everything that was once connected to their irrigation system that was domestic water is now connected to reclaim and it is not being checked."
- e. In November 2018 the City received multiple customer complaints about the drinking water color, odor, and resident illnesses. City staff responded to the complaints and determined water quality issues were caused by ground disruption and decided not to conduct water sampling, initially.
- f. Resident complaints continued to be made to the utility regarding water quality and on November 21, 26, 27, and 29, 2018 utility staff visited residences in the 12C area to respond to the complaints and conduct cross connection inspections. No cross connections were found but illness was reported by resident of 909 S. Ocean.
- g. On 12/1/2018 a complaint was made by the manager of 1171 S Ocean regarding water quality issues. There was no response by the utility on this complaint.
- h. On 12/3/2018 another complaint was made by the manager of 1171 S. Ocean. The Employee along with other utility staff arrived and the property manager complained that everyone in the household was sick, including their dog, with stomach issues and diarrhea. All were on prescribed antibiotics, and they believed the drinking water caused

- their illness. Two bottles decanted at the property showed yellow color and solids suspended in the water.
- i. On 12/4/2018 the Employee was assigned with another utility inspector to respond to a complaint at 969 S Ocean. The property manager informed the Employee and inspector that the water was yellow and that the children in the household were ill with “stomach aches.”
 - j. Multiple times during this period, the Employee requested a list of backflow installations at the properties in 12C from utility managers. Employee was told no list exists but was assured by utility staff that the contractor installed backflow prevention at the time reclaimed water service was connected to the properties in 12C.
 - k. Employee learned 70 homes in the 12C Area that have reclaimed water connected or available had no backflow prevention installed on the potable water lines.
 - l. Other areas of the City with properties connected to reclaimed water had no backflow prevention installed on the potable service lines.

On February 3, 2020 a meeting between City of Delray Beach Utilities and their lawyer and FDOH Drinking Water staff and their lawyers was held at the Department to provide the City an opportunity to respond to the allegations presented to the Department by the City of Delray Beach Employee. The City failed to produce complete records, including an inventory of all backflow assemblies and devices, as well as cross connection inspection and backflow inspection records requested by the Department. The utility staff admitted at the meeting that there were approximately 12 cross connections discovered in the 12C project area. Utility staff admitted they were aware that public notice and Department notification were required when cross connections were discovered, but they had no explanation for not initiating consultation with the Department or issuing public notices at the time the cross connections were discovered.

On February 4, 2020, the Department sent a letter requiring the City to issue a citywide Boil Water Notice. The City was instructed to inspect all locations served by both potable and reclaimed water and eliminate found cross connections and ensure appropriate backflow protection is installed at such connections. (Attachment C)

On February 4, 2020 the City responded with its letter proposing to shut-off the reclaimed water service throughout the City in lieu of a citywide boil water notice. In addition, the City proposed cross connection inspections at every location served by both potable and reclaimed water and to eliminate any cross connections found. (Attachment D)

On February 4, 2020, the Department agreed to the City’s proposal and sent a letter (Attachment E) with the following requirements:

- a. Disconnect the reclaimed water supply immediately.
- b. Collect two days of bacteriological samples at sample sites in the approved bacteriological sampling plan.
- c. Collect an additional ten bacteriological samples from each area or zone served by reclaimed water. A third-party lab shall be used to

- analyze samples.
- d. If greater than 5% of the samples are unsatisfactory, the City shall issue a boil water notice.
- e. Department staff will accompany City employees during sample collection.
- f. Samples are special samples and cannot be used for monthly compliance samples.
- g. The City shall ascertain that all locations served by potable and reclaimed water are equipped with appropriate backflow prevention and meet all requirements of Rule 62-555.360 and 62-610. F.A.C.
- h. Provide verification that all backflow assemblies have been tested within the last 12 months and all backflow devices replaced as required by manufacturer.
- i. Provide a reclaimed water distribution map including every connection.

On February 11, 2020, Bryan Heller, Deputy Director City of Delray Beach Utilities, reported the City's progress in complying with the requirements of the Department's letter. Bacteriological sampling had been completed and the cross connection investigation was ongoing. (Attachment F)

On February 11, 2020, George Gretsas, City Manager, City of Delray Beach, sent a letter to the Department claiming "no evidence of cross connections" exists based on the satisfactory bacteriological sample results. The City Manager requested evidence that supported the Department's request for a city-wide boil water notice in its February 4, 2020 letter to the City. (Attachment G)

On February 17, 2020 the Department responded to the City's letter of February 11, 2020 disputing the City's claim that "no evidence of cross connections" exist due to satisfactory bacteriological sample results. The Department explained that satisfactory bacteriological sample results alone are not sufficient proof that no cross connections exist in the distribution system. The Department required cross connection inspections of all locations served by both potable and reclaimed water. It is also required that all cross connections found shall be eliminated immediately, public notice issued, and reported to the Department. (Attachment H)

On March 6, 2020 the City requested the Department's permission to re-activate reclaimed water service throughout the City. (Attachment I)

On March 11, 2020 the Department denied the City's request to remove all restrictions to the delivery of reclaimed water. (Attachment J). The Department determined the information provided lacked a complete inventory of properties served by both potable and reclaimed water that includes:

- a. Date of cross connection inspection
- b. Date backflow prevention was installed
- c. Type of backflow at each property
- d. Date of testing or inspection of devices or assemblies
- e. Date property was first connected to reclaimed water service
- f. A plan or timeline for installation at properties without backflow

prevention.

On March 16, 2020, the City requested a phased approach to turning on the reclaimed water service for testing and conducting cross connection inspections. The phases are Phase I Golf Courses; Phase II Residential Areas; and, Phase III Master Metered Communities. (Attachment K)

On March 18, 2020, the Department approved the phased approach to turn on the reclaimed water for testing purposes under certain conditions. Until all conditions were met, the reclaimed water would remain disconnected. (Attachment L)

On March 26, 2020 the City submitted its first cross connection inspection reports. Upon receipt of satisfactory cross connection inspections and corrective actions at locations served by potable and reclaimed water, the Department approved the activation of reclaimed water service. The City's cross connection inspections and corrective action including eliminating cross connections and installing backflow prevention was ongoing and continues through the present date. The inspections performed and submitted over the last 9 months show the following violations:

- a. Numerous locations that were not inspected by a City employee at the time the reclaimed water service was connected and activated. The activation of reclaimed water service goes back to 2007 in many areas and the first inspections occurred in 2020.
- b. Five hundred eighty-one (581) locations were connected to reclaimed water service without backflow prevention installed on the potable water line. In July 2020, the City initially reported 730 properties served by reclaimed water without backflow prevention on the potable water lines. The City amended the number of properties without backflow prevention to 581 in its email of December 7, 2020. (Attachment M) To date, cross connection inspections revealed five (5) locations where physical cross connections existed between the reclaimed and potable water service lines. The locations lacked adequate backflow prevention on the potable water service line. The locations are 801 S Ocean, 120 S Ocean, 1029 Langer, 120 N Ocean and 1008 Vista Del Mar. The cross connections were eliminated, and backflow prevention installed at the time of inspection. (Attachment N)

Locations with backflow assemblies that had not been tested in many years. The City provided a list of properties that were pending installation of backflow prevention or testing of backflow assemblies. These locations have the reclaimed water locked out until the corrective action is completed and the inspection is approved by the Department. Therefore, the cross connection inspections are ongoing until all pending corrective actions have been completed. (Attachment O)

On July 1, 2020 the Department issued a Warning Letter (Attachment P) to the City identifying the following possible violations:

- a. Failure to implement cross connection control program. Rule 62-555.360(2) F.A.C.

- b. Failure to issue Public Notice within 24 hours of discovery of cross connections. Rule 62-560.410(1)(a)(1)(d) F.A.C.
- c. Failure to report cross connection to the Department within 24 hours of discovery. Rule 62-560.410(1)(a)(1) F.A.C.
- d. Failure to ensure adequate backflow protection is provided at all locations served by both potable drinking water and reclaimed water. The City has identified 581 customer connections served by both potable and reclaimed water without backflow protection. Rule 62-555.360(1)(b) F.A.C.
- e. Failure to evaluate customer's premises for cross connections and adequate backflow protection at new or existing service connections whenever customer connects to reclaimed water. Rule 62-555.360(2) F.A.C.
- f. Failure to conduct periodic inspections of customer connections in accordance with the City of Delray Beach Cross Connection Control Plan Section V, and the AWWA Manual M14 as incorporated in Rule 62-555.360(2) F.A.C.
- g. Five (5) cross connections between the potable water service and reclaimed water service have been identified by City of Delray Employees at service connections in its distribution system. Rule 62-555.360(1).
- h. Failure to maintain copies of any written reports, summaries, or communications relating to cross connection control program or sanitary surveys of the system including, but not limited to: records of installation, inspection, maintenance, and replacement of backflow prevention devices and assemblies. Rule 62-550.720(3) F.A.C.
- i. Failure to color code potable and reclaimed pipes and fixtures as required. Rule 62-555.320(21)(b)(3) F.A.C.
- j. Submission of one or more false statements or misrepresentations. Rule 62-560.310 (1)(e) F.A.C.
- k. Failure to implement enhanced public education in accordance with AWWA Manual M14. Rule 62-555.360(1)(a) F.A.C.

On July 22, 2020, the Health Department met with the City to discuss the regulatory concerns addressed in the Warning Letter. The City staff were unable to refute any of the allegations in the Warning Letter.

Penalty Rationale: Because of the numerous violations, and the fact that many violations date back to 2007, the initial penalty assessments have been based on the maximum amount allowed by either the Drinking Water Penalty Guidelines or Program Directive DEP 923. Other considerations in determining the penalties include the willful or intentional nature of the City's violations. The City adopted the 'City of Delray Beach Cross Connection/Backflow Prevention Program' on July 2, 2008. The City then failed to follow its plan as detailed below. In assessing penalties, the Department also considered the efforts by the City to comply with its Program and the laws regarding reclaimed water, prior to the Department's discovery of violations. Additionally, the Department noted that the City benefited economically by not

implementing the City's Cross Connection/Backflow Plan to the detriment of the City residents' health and welfare. In considering the penalties, the Department considered an amount to discourage not only the City from future violations of the rules, but also to discourage other Utilities from violating the reclaimed water rules as well. Finally, the City of Delray has the ability to pay these penalties.

Each penalty has been assessed separately. There are no multi day penalty assessments. No other adjustments (upward or downward) have been made at this time. Adjustments may, if appropriate, be made following negotiations with the City.

The attached penalty assessment spreadsheet, on pages IP1 through IP11, contain the individual penalty assessments for each violation.

Initial penalties, as shown on the summary sheet, under ELRA were assessed and determined to be more than \$10,000 and as such the penalty assessment falls outside the ELRA process.

The rationale for the individual penalty assessments includes the following:

Item 1: The City of Delray Beach failed to implement its Cross Connection Control Program. The City failed to conduct inspections to ensure its distribution system was protected from hazards originating on the premises of consumers. The City failed to have a dedicated employee conducting initial and follow-up inspections, testing, and complaint investigations. The City failed to ensure backflow prevention was installed at all properties where a health, pollution or system hazard to the water system exists. The City failed to produce and maintain a complete and accurate inventory of all backflow devices and assemblies including types, dates of installation and inspection and all relevant records.

The City of Delray Beach Cross Connection / Backflow Prevention Program was approved by the Department on July 2, 2008 and is attached as Attachment Q. Section 1-B of the Program states the purpose of the Cross Connection Control Program is "to protect the public water supply of the City of Delray Beach, from the possibility of contamination; to promote the elimination or control of actual or potential cross connections in the public water supply; and provide for the maintenance of a continuing program of cross connections in the public water system; and provide for the maintenance of a continuing program of cross connection control which will systematically and effectively prevent the contamination of potable water."

Specifically, the Program requires:

- a. An inspection by City of Delray Beach employee of "every building or structure so as to determine that the plumbing system has been installed to prevent the possibility that the public water supply will become polluted by cross connection, backflow or back-siphonage." Section 1-D (4).
- b. The City of Delray has a responsibility to "to take reasonable precaution to protect the distribution system from the hazards

- originating on the premises of its consumers that may degrade the water in the distribution system.” Section II-B
- c. “This program includes one dedicated individual who is responsible for the Cross Connection / Backflow Prevention Program...The designated individual...with the assistance of the Director...will ensure completion of all initial inspections, follow-up and testing as well as investigation of backflow incidents.” Section III-B (1)
 - d. The City will provide thorough inspections made regularly of commercial, condos and apartment’s backflow prevention devices installed at each service connection. Section III-B (2)
 - e. All new connections will be inspected prior to service.
 - f. An approved backflow prevention device shall be installed at each new or existing service connection to a consumer’s water system where, in the judgment of the water provider, a health, pollution, or system hazard to the water system exists. Section IV-A and IV-C(5).
 - g. An inventory record for each device includes the location, type of device, serial number and history of all inspections and tests. The original hard copy of all tests and all other relevant records such as surveys, questionnaire, distribution lists, and questionnaire responses are maintained in a file and kept for a period of at least 10 years. Section VI

The violation is addressed in the drinking water penalty guidelines (I.1 – Major - Major). The penalty is assessed at \$5,000 for a single event for the month (no multi-day assessment). Penalty assessed is \$5,000.

Item 2: The City failed to issue Public Notice within 24 hours of discovery of cross connections as required by Rule 62-560.410(1)(a)(1) F.A.C.

The violation is addressed in the drinking water penalty guidelines (I.1 – Major - Moderate). The penalty is assessed at \$3,999 for a single event for the month (no multi-day assessment). Penalty assessed is \$3,999.

Item 3: The City failed to report cross connection to the Department within 24 hours of discovery. Rule 62-560.410(1)(a)(1) F.A.C.

The violation is addressed in the drinking water penalty guidelines (I.1 – Major - Major). The penalty is assessed at \$5,000 for a single event. The Penalty assessed is \$5,000.

Item 4: Failure to ensure adequate backflow protection is provided at all locations served by both potable drinking water and reclaimed water. The City has identified 587 customer connections served by both potable and reclaimed water without backflow protection. Rule 62-555.360(1)(b) F.A.C.

The violation is addressed in the drinking water penalty guidelines (I.1 – Major - Major). The penalty is assessed at \$5,000 for a single event. 581 locations affected at \$5,000 per occurrence. Penalty assessed is \$2,905,000.

Item 5: Failure to evaluate customer’s premises for cross connections and

adequate backflow protection at new or existing service connections whenever customer connects to reclaimed water. Rule 62-555.360(2) F.A.C.

The violation is addressed in the drinking water penalty guidelines (I.1 – Major - Major). The penalty is assessed at \$5,000 for a single event for the month (no multi-day assessment). Penalty assessed is \$5,000.

Item 6: Failure to conduct periodic inspections of customer connections. Rule 62-555.360(2) F.A.C..

The violation is addressed in the drinking water penalty guidelines (I.1 – Major - Major). The penalty is assessed at \$5,000 for a single event for the month (no multi-day assessment). Penalty assessed is \$5,000.

Item 7: Five (5) cross connections between the potable water service and reclaimed water service have been identified by City of Delray Employees at service in its distribution system. Rule 62-555.360(1).

**Penalty Rationale
(continued):**

The violation is addressed in the drinking water penalty guidelines (I.1 – Major - Major). The penalty is assessed at \$5,000 for a single event. Five (5) locations affected at \$5,000 per occurrence. Penalty assessed is \$25,000.

Item 8: Failure to maintain copies of any written reports, summaries, or communications relating to cross connection control program or sanitary surveys of the system including, but not limited to: records of installation, inspection, maintenance, and replacement of backflow prevention devices and assemblies. Rule 62-550.720(3) F.A.C.

The violation is addressed in the drinking water penalty guidelines (I.1 – Minor-Moderate). The penalty is assessed at \$600 for a single event for the month (no multi-day assessment). Penalty assessed is \$600.

Item 9: Failure to color code potable and reclaimed pipes and fixtures as required. Rule 62-555.320(21)(b)(3) F.A.C.

The violation is addressed in the drinking water penalty guidelines (I.1 – Major-Major). The penalty is assessed at \$5,000 for a single event for the month (no multi-day assessment). Penalty assessed is \$5,000.

Item 10: Submission of one or more false statements or misrepresentations. Rule 62-560.310 (1)(e) F.A.C.

The violation is not addressed in the drinking water penalty guidelines and has been assessed based on DEP 923 as a Major - Major at \$5,000 per day. No multi-day penalty is being assessed. Penalty assessed is \$5,000.

Item 11: Failure to implement enhanced public education in accordance with AWWA Manual M14. Rule 62-555.360(1)(a) F.A.C.

The violation is not addressed in the drinking water penalty guidelines and has been assessed based on DEP 923 as a Major - Major at \$5,000 per day. No multi-day penalty is being assessed. Penalty assessed is \$5,000.

**Penalty
Recommendation:**

It is recommended that a penalty of \$2,969,599 be approved for purposes of initial negotiations for a Consent Order with the City of West Palm Beach as shown on the attached sheets.

Alina Alonso, MD, Director
Florida Department of Health Palm Beach County

Date

OFFICE OF GENERAL COUNSEL REVIEW

_____ Approved

_____ Disapproved

Chief Deputy General Counsel

Date

Comments: _____

