



John A. Carey
Inspector General

OFFICE OF INSPECTOR GENERAL
PALM BEACH COUNTY



Inspector General
Accredited

“Enhancing Public Trust in Government”

Audit Report

2018-A-0009

**Town of Mangonia Park
Water Utility Cross-Connection
Program**

June 4, 2018



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PALM BEACH COUNTY**



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**AUDIT REPORT
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DATE ISSUED: JUNE 4, 2018

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TOWN OF MANGONIA PARK – WATER UTILITY CROSS-CONNECTION PROGRAM

SUMMARY

WHAT WE DID

We conducted an audit of the Town of Mangonia Park (Town) Water Utility Cross-Connection Program (Program). The audit included review of the Program and applicable regulatory requirements. We performed this audit because inadequate cross-connection¹ controls and testing increase the risk that the quality of water may be impacted. We selected the Town because it had not been previously audited by the OIG and it had high assessed risk based on our initial inquiry.

Our audit focused on the Program policies, procedures, and controls. The scope included a review of the Program for Fiscal Year (FY) 2017.

WHAT WE FOUND

The Safe Drinking Water Act of 1974² (Act) requires the Town to have a cross-connection program.

The Town enacted Ordinance Chapter 26 Utilities; Article V Cross Connection Controls, (Section 26-131 through 26-136) addresses cross-connections and backflow prevention devices. However, the Town has not implemented, administered, or maintained an ongoing cross-connection program in compliance with the Act, applicable laws and regulations, or Ordinance. Program related controls did not exist, and the Town has no written policies or procedures for the Program.

Town Management stated that the water is tested at the Water Plant prior to the water leaving the Water Plant. However, without the Program to test the devices preventing contamination, there is a risk of contamination at the cross connections.

Therefore, we found the Town is not in compliance with the Act. The lack of a Program increases the potential for water contamination, which may cause a potential health risk to the Town's water users.

¹ US EPA Cross-Connection Control Manual states that cross-connections are the links through which it is possible for contaminating materials to enter a potable water supply. The contaminant enters the potable water system when the pressure of the polluted source exceeds the pressure of the potable source. The action may be called backsiphonage or backflow.

² The Safe Drinking Water Act (SDWA) is the federal law that protects public drinking water supplies throughout the nation. Under the SDWA, EPA sets standards for drinking water quality.

WHAT WE RECOMMEND

Our report contains one (1) finding and offers eight (8) recommendations. Implementation of the recommendations will 1) assist the Town in establishing a Program, 2) help ensure that the Town maintains accurate records for monitoring and inspecting cross-connection and

backflow prevention devices, and 3) help the Town implement internal controls.

The Town concurred and accepted all of the recommendations and it is taking corrective actions to implement the recommendations.

We have included the Town's management response as Attachment 1.

BACKGROUND

The Town was initially chartered in 1947. In 1971, the Charter was abolished and reestablished by Chapter 71-762 Laws of Florida. The incorporated limits of the Town were originally part of an unincorporated area of West Palm Beach. The city limits of West Palm Beach are located to the South and East of the Town and the City of Riviera Beach sits on the north boundary of the Town. The Town has approximately 1,958 residents (as of 2014). Approximately 70% of the Town is commercial business and industry.

The Town is governed by a five-member Town Council elected to "at large" seats. The Town Charter requires the Town Council, by Resolution, to appoint one member as Mayor and another member as Vice Mayor. The Town Council appoints the Town Manager. The Town provides the following services: public safety, sanitation, roads and street facilities, parks, planning and zoning, general administrative services, and water and sewer utilities.

This audit was not part of the OIG 2018 Annual Audit Plan and was added based on concern regarding cross-connection controls and testing that could impact the quality of water. We selected the Town because it had not been previously audited by the OIG and it had a high assessed risk based on initial inquiry.

Safe Drinking Water Act

Congress enacted 42 U.S.C §300f, et. seq., the Safe Drinking Water Act of 1974 (Act) and amended and reauthorized it in 1986 and 1996. Under the provisions of the Act, the federal government authorized the EPA to establish national primary drinking water regulations to protect against health effects from exposure to naturally-occurring and man-made contaminants. The national primary drinking water regulations apply to every public water system³ in the United States, except where specifically exempted by law.

The Act gives primary responsibility to the states to implement a public water system program. In virtually all states, including Florida, the EPA has given up enforcement of the Act and now serves only to supervise the state programs approved to take its place. The Florida legislature enacted the "Florida Safe Drinking Water Act," Sections 403.850 through 403.864, Florida Statutes. This statute and Chapters 62-555 and 62-560, Florida Administrative Code are promulgated to implement the requirements of the Florida Safe Drinking Water Act and to maintain primacy for Florida under the Act. Florida adopted the national drinking water standards of the federal government and created additional rules to fulfill state and federal requirements. Florida must adopt all new and revised national regulations in order to continue to retain primary enforcement powers. The Department of Environmental Protection (DEP) has the primary role of

³ Public water system means a system for the provision to the public of water for human consumption through pipes or other constructed conveyances if such system has at least fifteen service connections or regularly serves at least twenty-five people for at least 60 days a year. The standards do not apply to private wells.

regulating public water systems in Florida. DEP has delegated the Drinking Water Program to county health departments in eight Florida counties.

The Town's Water System

The Town operates a community public water system;⁴ therefore, the Town is held responsible for compliance with the provisions of the Act and applicable state and federal safe drinking water laws and regulations. This includes a warranty that water quality provided by the Town's operation is in conformance with EPA standards at the source and is delivered to the customer without the quality being compromised as a result of its delivery through the distribution system.

Community water systems in Florida must establish and implement a routine cross-connection control program to detect and control cross-connections and prevent backflow of contaminants into the water system that create or have the potential to create an imminent and substantial danger to public health. This cross-connection program should include a written plan that is developed using recommended practices of the American Water Works Association set forth in "Recommended Practice for Backflow Prevention and Cross-Connection Control," AWWA Manual M14, 2nd Edition, 1990, as incorporated into Rule 62-555.330, Florida Administrative Code.

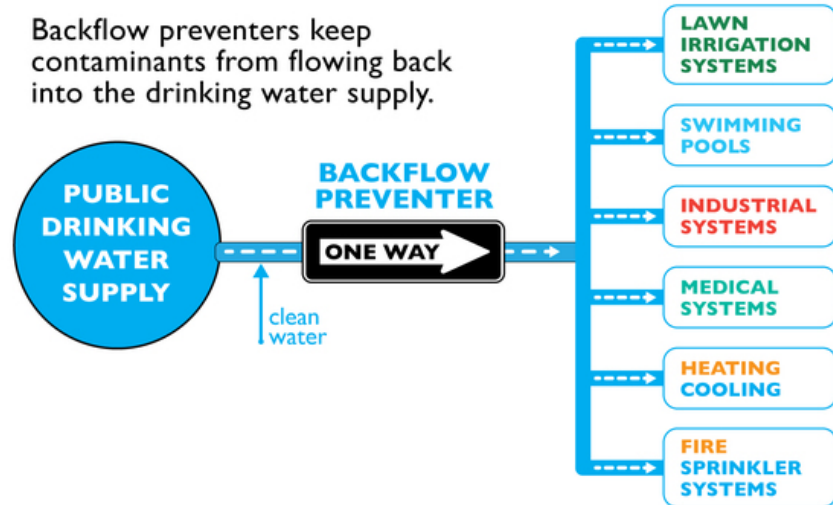
The Town enacted Ordinance Chapter 26 Utilities; Article V Cross Connection Controls, (Section 26-131 through 26-136), which addresses cross-connections and backflow prevention devices. The Ordinance states that "in compliance with the mandates of the Florida Safe Drinking Water Act...the Town of Mangonia Park hereby adopts a thirty-three (33) page Cross Connection Control Manual....A copy of such manual is on file at the Office of the town administrator." Additionally, the Ordinance states,

Backflow prevention devices are hereby required at all premises likely to have cross connections as described in the American Waterworks Association M-14 "Recommended Practice for Backflow Prevention and Cross Connection Control", 1990 Edition, as modified by the town. This manual sets forth potential cross connections between the consumer's water system and certain types of equipment, specialized installations, and water uses which afford opportunity for backflow into the public system.

The EPA describes cross-connections as "the links through which it is possible for contaminating materials to enter a potable water supply. The contaminant enters the potable water system when the pressure of the polluted source exceeds the pressure of the potable source. The action may be called backsiphonage or backflow."⁵

⁴ A community water public system is a public water system that supplies water to the same population year-round.

⁵ US EPA Cross-Connection Control Manual



The American Waterworks Association M-14 "Recommended Practice for Backflow Prevention and Cross Connection Control", 1990 Edition adopted by the State of Florida and by the Town lists several recommendations for a cross-connection control plan that include, but are not limited to:

1. Establish a cross-connection control ordinance at the local level and adoption of the ordinance with implementation.
2. Conduct a stakeholder meeting to identify and discuss the cross-connection control program objectives.
3. Institute public outreach and education program/customer communications. Success in operating a cross-connection control program is often linked to the public's understanding of the public health risks posed by cross-connections.
4. Management should periodically review the program's implementation.
5. Coordinate with other authorities involved in the cross-connection control process. At a minimum, the water supplier should coordinate with local regulatory agencies (e.g. building, plumbing, and health officials).
6. Establish well-defined guidelines for enforcement actions, which may include administrative fees, fines, work orders, or installation of a service protection backflow preventer.
7. Good record keeping is essential to the proper operation of a cross-connection control program.
8. Train staff.
9. Establish a list of sites that will be inspected.
10. A quality assurance program is important for all aspects of operating a water supplier.
11. Keep on file details on the investigation and subsequent corrective action taken for reported backflow incidents.

OBJECTIVES, SCOPE, AND METHODOLOGY

The objectives of the audit were to determine whether:

- Internal controls were adequate related to the cross-connection program; and
- The cross-connection program is monitored appropriately and in compliance with regulatory requirements.

The scope of the audit included the cross-connection activities for FY 2017.

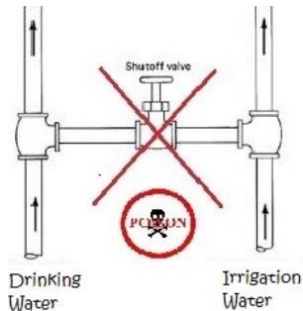
The audit approach included, but was not limited to:

- Review of internal controls related to the cross-connection program;
- Review of the cross-connection program policies, procedures, and compliance requirements;
- Interviews of appropriate personnel; and
- Review of reports, contracts, and agreements.

This audit was conducted in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

FINDINGS AND RECOMMENDATIONS

Finding (1): The Town is not in compliance with the Safe Drinking Water Act.



The water supplier (the Town) is responsible for the compliance to the provisions of the Safe Drinking Water Act. All public water systems should have cross-connection control programs as part of their responsibility to provide safe drinking water to the public. Water suppliers must implement, administer, and maintain ongoing backflow prevention and cross-connection control programs.

The Town's Ordinance Chapter 26 Utilities; Article V Cross Connection Controls, (Section 26-131 through 26-136) addresses cross-connections and backflow prevention devices.

We found the Town is not in compliance with the regulatory requirements because it does not have a cross-connection program as required by the EPA. There was no documentation or evidence attesting to the existence and implementation of proper controls and monitoring of the cross-connection program.

Additionally, we found:

- The Town has not implemented its Ordinance 26, Article V Cross Connection Controls;
- The Town was unable to provide the OIG with a copy of the Cross Connection Control Manual that is referenced in its Cross Connection Controls Ordinance; a copy of such Manual is not on file at the office of the town administrator, as required by its Ordinance;
- The Town was unable to provide any documentation identifying the location of backflow prevention devices where potential cross connections afford opportunity for backflow into the public system;
- The Town was unable to provide documentation showing no opportunity exists for the backflow of water from the consumer's system in the public water supply of the Town;
- The Town was unable to provide any documentation to show that the Town made any decisions regarding the installation and/or replacement of backflow prevention devices, where the nature and extent of the activities on the premises, or the materials used in connection with the activities or materials stored on the premises present an immediate and dangerous hazard to health;
- The Town did not have written policies and procedures for a cross-connection program, including backflow prevention devices;
- The Town has not implemented, administered, or maintained an ongoing cross-connection program;
- The Town did not monitor or require inspections for cross-connections, including the backflow prevention devices;

- The Town has not established a list of sites that need to comply with the regulatory requirements;
- The Town does not have a list of all testable devices to ensure they are certified and tested to meet the regulatory requirements.

Town Management advised our office that water is tested at the Water Plant prior to the water leaving the Water Plant. However, without the cross-connection program to test the devices preventing contamination, there is a risk of contamination at the cross connections after the water leaves the Water Plant.

The Town does not have a cross-connection program, which increases the potential for contamination, causing a potential health risk to the water users. Cross-connections have the risk of being responsible for contamination of drinking water and may result in the spread of disease. Without having a cross-connection program that is compliant with the EPA requirements, there is increased risk of contamination of the potable water supply.

Additionally, without proper monitoring, testing, and inspections, there is a risk that the backflow prevention devices may not be properly operating, which in turn increases the risk of contamination. Monitoring the cross-connection program is critical in ensuring continuous water safety for water users.

Recommendations:

We recommend that the Town:

- (1) Develop and implement a cross-connection control and backflow prevention program to comply with the EPA Safe Drinking Water Act.**
- (2) Comply with its Ordinance or amend the Ordinance, where permissible.**
- (3) Develop and implement written policies and procedures for the cross-connection program.**
- (4) Identify and document water customers that must comply with the cross-connection program, including backflow prevention devices.**
- (5) Ensure all required water customers have proper inspections/certificates for devices under the cross-connection program including backflow prevention devices.**
- (6) Develop and implement a monitoring program, including management review for the cross-connection program.**
- (7) Train Town staff on the cross-connection program objectives and requirements.**

- (8) Management should periodically review the program's implementation.

Management Response:

The Town concurs with the finding and each of the recommendations. As was explained at the May 14, 2018 exit interview, the Town is already in the process of engaging a professional consultant to assist with the implementation of the above recommendations. It is the Town's goal to have implemented these recommendations by the close of fiscal year 2017/2018.

ATTACHMENT

Attachment #1 – Town of Mangonia Park Management Response, page 11-12.

ACKNOWLEDGEMENT

The Inspector General's audit staff would like to extend our appreciation to the Town of Mangonia Park's management and staff for their assistance and support in the completion of this audit.

This report is available on the OIG website at: <http://www.pbcgov.com/OIG>. Please address inquiries regarding this report to Director of Audit, by email at inspector@pbcgov.org or by telephone at (561) 233-2350.

**ATTACHMENT 1 – TOWN OF MANGONIA PARK'S
MANAGEMENT RESPONSE**

Keith W. Davis, Esq.
Florida Bar Board Certified Attorney
City, County and Local Government Law
Email: keith@davisashtonlaw.com

May 16, 2018

Megan Gaillard, Director of Audit
Palm Beach County Office of Inspector General
P.O. Box 16568
West Palm Beach, Florida 33416

Re: Town of Mangonia Park Draft Audit Report – Audit of Water Utility Cross-Connection Program

Dear Ms. Gaillard:

On behalf of Town Manager Ken Metcalf and the Town of Mangonia Park Utility Department, please accept this response to the above referenced draft audit report. As requested, the following will respond to the finding and recommendations contained in said report, and will offer Town management's proposed corrective action.

There is one (1) finding in the report, that being that "The Town is not in compliance with the Safe Water Drinking Act." The report also offers eight (8) separate recommendations for the Town intended to bring the Town into compliance and maintain compliance into the future:

1. Develop and implement a cross-connection control and backflow prevention program to comply with the EPA Safe Drinking Water Act.
2. Comply with its Ordinance or amend the Ordinance, where permissible.
3. Develop and implement written policies and procedures for the cross-connection program.
4. Identify and document water customers that must comply with the cross-connection program, including backflow prevention devices.
5. Ensure all required water customers have proper inspections/certificates for devices under the cross-connection program including backflow prevention devices.
6. Develop and implement a monitoring program, including management review for the cross-connection program.
7. Train Town staff on the cross-connection program objectives and requirements.
8. Management should periodically review the program's implementation.

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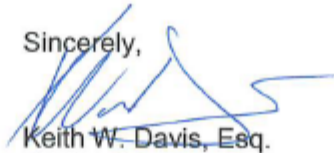
May 15, 2018

Town of Mangonia Park Draft Audit Report – Audit of Water Utility Cross-Connection Program

The Town concurs with the finding and each of the recommendations. As was explained at the May 14, 2018 exit interview, the Town is already in the process of engaging a professional consultant to assist with the implementation of the above recommendations. It is the Town's goal to have implemented these recommendations by the close of fiscal year 2017/2018.

On behalf of the Town Manager and the staff of the Utility Department, I want to thank you and your team for your observations and suggestions for improving the Town's Utility Department operations.

Sincerely,



Keith W. Davis, Esq.
General Counsel, Town of Mangonia Park

cc: Ken Metcalf, Town Manager