BACKUP MATERIAL

WP-019-14

DATE	FROM	TO	SUBJECT
5/13/14	FL/PBC HD	USD	Completion of all corrective actions
5/2/16	FL/PBC HD	USD	E-Mails, Action Plan and Preliminary Design Rept
3/5/14	USD-WTP	FL/PBCHD	Public Drinking Water System
2/13/14	FL/PBC HD	USD	Potential compliance issues

FL/PBC HD-Florida Department of Health PBC

May 13, 2014

Louis Aurigemma, Executive Director
City of Riviera Beach Utility District
P.O. Box 9757
Riviera Beach, FL 33404

Re: File Nos. WP-019-14 & WP-039-14

Dear Mr. Aurigemma:

As of May 9, 2014 the City of Riviera Beach has completed all of the corrective actions associated with the above file numbers. The Florida Department of Health Palm Beach County (Department) appreciates the efforts the City of Riviera Beach has expended to resolve these matters. The Department is, therefore, closing these cases without enforcement.

The issues which have been corrected include:

- Maximum Contaminant Level violation for total coliform.
- Failure to collect routine and repeat samples.
- Failure to conduct triggered monitoring.
- Failure to submit samples in a timely manner.
- Failure to sample for nitrate and nitrite.
- Failure to issue a Public Notice in November and December 2013.
- Failure to notify the Department.

Please note that the Department could be required to initiate formal enforcement actions against the City of Riviera Beach should the corrective actions fail to prevent future incidents.

If you have any questions, you may contact Pamela Lape at (561) 837-5947 or by email at pamela.lape@flhealth.gov.

For the Division Director,

Darrel J. Graziani, P.E., R.S.
Environmental Administrator, Water Programs
Division of Environmental Public Health
Florida Department of Health Palm Beach County

cc: FDOHPBC File:WP-019-14 & WP-039-14

(1)

PALM BEACH COUNTY HEALTH DEPARTMENT

Environmental Public Health - Water Programs

ENFORCEMENT REFERRAL

Facility/Site Information	Responsible Party Information
Name: RIVIERA BEACH UTILITY DISTRICT	Name, Address & Phone No.: DAVID DANFORD, SUPERINTENDENT P.O. BOX 9757, RIVIERA BEACH FL 33419
Location: 600 N BLUE HERON BLVD, RIVIERA BEACH FL 33404	Name, Address & Phone No.: LOUIS AURIGEMA, UTILITY DIRECTOR P.O. BOX 9757 RIVIERA BEACH FL 33419
Contact Information (Name, Title & Phone #): DAVID DANFORD - SUPERINTENDENT - SW - 845-4051	Name, Address & Phone No.:
Facility/Site ID: 4501229 / Program No.: 58 / Tracking No.:	Name, Address & Phone No.:

Violation Information

#	Statute/Rule/Permit	Violation Description
1	62-550.310(5)(a)1.	5 TCMCL VIOLATION FOR NOV & DEC 2013
2	62-550.518(7)(b)	FAILED TO SUBMIT REPEAT SAMPLES FOR TC & DISTRIBUTION SAMPLES IN NOV & DEC 2013
3	62-550.518(2)	FAILED TO COLLECT THE REQUIRED # OF DISTRIBUTION COMPLIANCE SAMPLES FOR TC IN SEP & OCT 2013
4		FAILED TO CONDUCT TRIGGERED MONITORING IN RESPONSE TO TC SAMPLES IN MAY, NOV & DEC 2013.

Corrective Actions/Activities

Date	Action/Activity
7-22-13	SHIE VIO DISCOVERED IN PRE-COMPLIANCE
10-20-13	SEP VIO DISCOVERED IN PRE-COMPLIANCE
11-20-13	OCT VIOS DISCOVERED IN PRE-COMPLIANCE
12-23-13	9 DEC NOV VIOS DISCOVERED IN PRE-COMPLIANCE
1-7-14	CORRESPONDENCE WITH R.B.

Attachments

No.	Description	No.	Description
(1)	CONVERSATION RECORD (2 pages)	(6)	Response to CAL (2 pages)
(2)	REGULATIONS	(7)	Meeting Record (2 pages)
(3)	LABS OF RESULTS (31 pages)	(8)	Request for extension
(4)	Emails (4 pages)	(9)	Action Plan (7 pages)
(5)	CAL dated 1/9/14 (3 pages)	(10)	Penalty Calc (4 pages)

EI's Name/Signature/Date	PS's Name/Signature/Date	ES's Tracking Record	Priority Violation
M. MADDEN 2-10-14	2-10-14	Received 02/07/14 Complete 02/10/14	
Revision Date(s)	Revision Date(s)	Case Number	Page 1 of 2
	2-10-14	WP 019-14	

(2)

PALM BEACH COUNTY HEALTH DEPARTMENT
Environmental Public Health - Water Programs

ENFORCEMENT REFERRAL

Facility/Site Information	Responsible Party Information
Name: RIVIERA BEACH UTILITY DISTRICT	Name, Address & Phone No.:
Location: CONTINUED	Name, Address & Phone No.:
Contact Information (Name, Title & Phone #):	Name, Address & Phone No.:
Facility/Site ID: 4501229 / Program No.: / Tracking No.:	Name, Address & Phone No.:

Violation Information

#	Statute/Rule/Permit	Violation Description
1	62-550.730(1)(a)	OCT 2013 QUAN ASSESSMENT SAMPLES SUBMITTED LATE.
2	62-550.512(1)	FAILURE TO SAMPLE FOR NITRATE + NITRITE IN 2013
3		
4		

Corrective Actions/Activities

Date	Action/Activity
(11)	CAL closout (CWOE)

Attachments

No.	Description	No.	Description

EI's Name/Signature/Date	PS's Name/Signature/Date	EB's Tracking Record: Received / Complete	Priority Violation
		02/05/14 / 02/06/14	
Revision Date(s)	Revision Date(s)	Case Number: WP 0194	Page 2 of 2

PALM BEACH COUNTY HEALTH DEPARTMENT

Environmental Public Health - Water Programs

ENFORCEMENT REFERRAL

Civil Penalty Assessment

Base Penalty ($/day): 62-550/62-518/62-340

ELRA ($/day):

Multiday Violation (# of Days):

Agency Costs ($):

Adjustment Factors (+/-):

Base/ELRA Penalty Amounts ($):

Negotiated Settlement Amount ($):

Meeting Record(s)

Date	Purpose/Results

Agency Cost Tracking

Date	Activity/Staff	Time (1/4 hrs)
12-27-13	S. Pattan prepares package	155
1-13-14	M. Addison sent back to revise	15
1-13-14	Revision S. Pattan	15
1-13-14	M. Addison review	15
1-15-14	Revision	15
1-28-14	Revised M. Addison	15
2-5-14	Reviewed S. Harrison → back for revision	30
2-10-14	Revision M. Addison	30
2-10-14	S. Harrison review	
07/17/14	Spreadsheet + CAL	1 hour
07/17/14	Spreadsheet + CAL	1/2 hour

General Notes/Comments

CAL - Need detailed explanation & action plan from R.B.

SH

(1)

Palm Beach County Health Dept.

Environmental Public Health - Water Programs

(1)

Conversation Record

Date/Time: 1-31-14 10:10	Facility Name/Call Purpose:	Site ID No.: 4501229
Program No.: 58		Case No.:

Attendees

Name/Representing/Phone No.	Name/Representing/Phone No.
Name/Representing/Phone No.	Name/Representing/Phone No.

Conversation Notes

Called Mr. Salas & Mr. Danford inquired about the nitrate and nitrite samples for 2013.

Palm Beach County Health Department
Environmental Public Health - Water Programs

(1)

Conversation Record

Date/Time: 01-07-14/8:50	Facility Name/Call Purpose: Riviera Beach Utility District, City of	Site ID No.: 4501229
Program No.: 58		Case No.:

Attendees

Name/Representing/Phone No.	Name/Representing/Phone No.
David Salas 561-845-4187	
Name/Representing/Phone No.	Name/Representing/Phone No.

Conversation Notes

- Called Mr. Salas, explained to him A) lack of Raw Sample bacteriological results of October in our data system; he said he will investigate B) Also lack of re-sampling of TC (+) samples (3 samples) in Nov. 2013.

01-07-14/ 11:09 AM

The results of Raw bacteriological samples of October 2013 was e-mailed to the office. Only item B) from above, has not been sent to the office.

Page ____ of ____

62-550.310 Primary Drinking Water Standards: Maximum Contaminant Levels and Maximum Residual Disinfectant Levels.

(5) MICROBIOLOGICAL – This subsection applies to all public water systems. Monitoring requirements to demonstrate compliance with this subsection are defined in Rule 62-550.518, F.A.C.

(a) The maximum contaminant level is based on the presence or absence of total coliforms in a sample, rather than coliform density. For the purposes of the public notice requirements in Rule 62-560.410, F.A.C., a violation of the standards in this paragraph poses a non-acute risk to health.

1. For a system which collects at least 40 samples per month, if no more than 5.0 percent of the samples collected during a month are total coliform-positive, the system is in compliance with the maximum contaminant level for total coliforms.

62-550.518 Microbiological Monitoring Requirements.

(7) Additional or Repeat Monitoring.

(b) If a routine distribution system sample is total-coliform-positive, the public water system shall collect a set of repeat distribution system samples within 24 hours of being notified of the positive result. The system shall collect all repeat samples on the same day. A system that collects monthly routine samples shall collect no fewer than three repeat samples for each total-coliform-positive sample found. A transient non-community water system that collects quarterly routine samples shall collect no fewer than four repeat samples for each total-coliform-positive sample found. The Department shall extend the 24-hour limit on a case-by-case basis if the system has a logistical problem that is beyond its control in collecting the repeat samples within 24 hours. If an extension is granted, the Department shall specify how much time the system has to collect the repeat samples. If a routine distribution system sample is total-coliform-positive and the public water system is collecting fewer than five routine distribution system samples per month, the system also shall comply with the sampling requirements in subsection 62-550.518(8), F.A.C.

62-550.518 Microbiological Monitoring Requirements.

(2) Total coliform samples shall be taken at regular intervals and in numbers proportionate to the population served by the system. Community water systems, non-transient non-community water systems, transient non-community water systems that are subpart H systems and transient non-community water systems that serve more than 1,000 persons per day during any one month shall take monthly distribution system samples. In addition, systems that are using ground water not under the direct influence of surface water shall take a minimum of one monthly raw water sample that is representative of each ground water source (i.e., well) not under the direct influence of surface water. For purposes of this subsection, consecutive systems that receive any finished water originating from a subpart H system are considered subpart H systems. In no event shall the number of distribution system samples be less than as set forth below:

62-550.730 Reporting Requirements for Public Water Systems.

(1) Suppliers of Water.

(a) Except where a shorter reporting period is specified in this chapter, the suppliers of water shall report to the appropriate District office of the Department or Approved County Health Department the results of the test measurement or analysis required by this chapter within the first ten days following the end of the required monitoring period as designated by the Department, or the first ten days following the month in which the sample results were received, whichever time is shortest.

62-550.512 Nitrate and Nitrite Monitoring Requirements.

All public water systems shall monitor to determine compliance with the maximum contaminant levels for nitrate and nitrite specified in paragraph 62-550.310(1)(a), F.A.C.

(1) Community or non-transient non-community water systems that are ground water systems shall monitor annually. Community or non-transient non-community water systems that are subpart H systems shall monitor quarterly.

③

DRINKING WATER MICROBIAL SAMPLE COLLECTION & LABORATORY REPORTING FORMAT

(62-550 730 Reporting Format Effective 01/1996, Revised 02/2010)

Jupiter Environmental Laboratories, Inc.
150 S Old Dixie Highway
Jupiter, FL 33458

Lab Receipt Date & Time: 12/21/13 1400
Analysis Date & Time: 12/22/13 0800
Sample Acceptance Criteria:
Sample Preservation: ☒ On Ice ☐ Not On Ice ☒ 4 °C
Disinfectant Check: ☒ Not Detected ☐ ______ mg/L
This sample does not meet the following NELAC requirements: ______

Report Number: 1312G1030 Sub-Contract Lab ID: E86546

Analysis Requested: (check all that apply)
☒ Total Coliform/E. coli ☐ Total Coliform/Fecal ☐ Enterococci ☐ Coliphage ☐ HPC ☐ Other: ______

Public Water System (PWS) Name: Riviera Beach Utilities **PWS I.D.** 4501229

PWS Address: 600 Blue Heron Blvd City: Riviera Beach

PWS or PWS Owner's Phone #: ______ Fax #: ______

Collector: Carlos Lausdad Collector's Phone #: ______

Type of Supply: (check only one)
☐ Community Water System ☐ Non-Transient Non-community Water System ☐ Transient Non-community Water System
☐ Limited Use System ☐ Bottled Water ☐ Private Well ☐ Swimming Pool ☐ Other: ______

Reason for Sampling: (check all that apply)
☐ Distribution Routine ☒ Distribution Repeat ☐ Raw (triggered or assessment) ☐ Raw (triggered or assessment) additional ☐ Well Survey
☐ Clearance ☐ Replacement (also check type of sample being replaced) ☐ Boil Water Notice ☐ Other: ______

Sample Collection Date: 12/21/13

To be completed by collector of sample						To be completed by lab — Analysis Method(s)[2]: SM9223B				
Sample #	Sample Point (Location or Specific Address)	Sample Collection Time	Sample Type[1]	Disinfectant Residual (mg/L)	pH	Non-Coliform	Total Coliform	Fecal, E. coli, Enterococci, or Coliphage[3]	Data Qualifier[4]	Lab Sample #
1	1301 Grandview	8:30 am	D	2.1			A	A		630-1
2	1177 Ave C	8:45 am	D	2.0			A	A		630-2
3	1509 Ave C	8:55 am	D	2.3			A	A		630-3
4	1357 Silver Beach	9:10 am	D	4.0			A	A		630-4
6	1341 Silver Beach	9:15 am	D	3.8			A	A		630-5
7	1373 Silver Beach	9:20 am	D	4.1			A	A		630-6
8	5766 Parkside	9:30 am	D	0.6			A	A		630-7

Average of disinfectant residuals for distribution routine & repeat samples.[5] Free chlorine or Total chlorine (circle one)

Disinfectant Residual Analysis Method:
☐ DPD Colorimetric ☐ Other: ______

Person performing disinfectant analysis is (see instructions on reverse):
☒ A certified operator (# 15223)
☐ Supervised by certified operator (# ______)
☐ Employed by a certified lab ☐ Employed by DEP or DOH
☐ Authorized representative of supplier of water

Unless otherwise noted, all tests are performed in accordance with NELAC standards, and the results relate only to the samples.

Date and time PWS notified by lab of positive results: ______
Date and time DEP/DOH notified by lab of positive results: ______
Date Report Issued: 12-23-13
Lab Signature: [signature]
Title: Director PM

Riviera Beach Utilities
600 Blue Heron Blvd
Riviera Beach, FL

DEP/DOH USE ONLY
☐ Satisfactory
☐ Incomplete Collection Information
☐ Repeat Samples Required
☐ Replacement Samples Required

[1] For Sample Types see instructions on reverse
[2] For Analysis Methods see instructions on reverse
[3] Circle appropriate selection
[4] Based on Florida Administrative Code 62-160 Table 1
[5] Complete for community & non-transient non-community systems serving populations up to and including 3,300. This average does not include samples on the coverage

(3)

DRINKING WATER MICROBIAL SAMPLE COLLECTION & LABORATORY REPORTING FORMAT

(62-550.730 Reporting Format Effective 01/1995, Revised 02/2010)

Jupiter Environmental Laboratories, Inc.
150 S Old Dixie Highway
Jupiter, FL 33458

Lab Receipt Date & Time: 12/21/13 1400
Analysis Date & Time: 12/22/13 0800
Sample Acceptance Criteria:
Sample Preservation: ☑ On Ice ☐ Not On Ice ☑ 4 °C
Disinfectant Check: ☑ Not Detected ☐ ______ mg/L
This sample does not meet the following NELAC requirements: ______

Report Number: 1335630 Sub-Contract Lab ID: E86546

Analysis Requested: (check all that apply)
☒ Total Coliform/*E. coli* ☐ Total Coliform/Fecal ☐ Enterococci ☐ Coliphage ☐ HPC ☐ Other: ______

Public Water System (PWS) Name: Riviera Beach Utilities **PWS I.D.** 4501229

PWS Address: 600 Blue Heron Blvd City: Riviera Beach

PWS or PWS Owner's Phone #: ______ Fax #: ______

Collector: Carlos Lourdes Collector's Phone #: ______

Type of Supply: (check only one)
☐ Community Water System ☐ Non-Transient Non-community Water System ☐ Transient Non-community Water System
☐ Limited Use System ☐ Bottled Water ☐ Private Well ☐ Swimming Pool ☐ Other: ______

Reason for Sampling: (check all that apply)
☐ Distribution Routine ☒ Distribution Repeat ☐ Raw (triggered or assessment) ☐ Raw (triggered or assessment) additional ☐ Well Survey
☐ Clearance ☐ Replacement (also check type of sample being replaced) ☐ Boil Water Notice ☐ Other: ______

Sample Collection Date: 12/21/13

To be completed by collector of sample						To be completed by lab — Analysis Method(s)[2]: SM9223B				
Sample #	Sample Point (Location or Specific Address)	Sample Collection Time	Sample Type[1]	Disinfectant Residual (mg/L)	pH	Non-Coliform	Total Coliform	Fecal, *E. coli*, Enterococci, or Coliphage[3]	Data Qualifier[4]	Lab Sample #
8	5778 Drake Ave	9:35 AM	D	0.8			A	A		630-8
9	5764 Drake Ave	9:40 AM	D	0.8			A	A		630-9
10	5783 Bermuda Cr	9:50 AM	D	0.8			A	A		630-10
11	5770 Bermuda Cr	9:55 AM	D	0.8			A	A		630-11
12	5813 Bermuda Cr	10:__ AM	D	0.8			A	A		630-12
13	2548 Mowry	10:20 AM	D	0.9			A	A		630-13
14	2550 Mowry	10:30 AM	D	0.8			A	A		630-14

Average of disinfectant residuals for distribution routine & repeat samples.[5] Free chlorine or Total chlorine (circle one)

Disinfectant Residual Analysis Method:
☐ DPD Colorimetric ☐ Other: ______

Person performing disinfectant analysis is (see instructions on reverse):
☒ A certified operator (# 15223)
☐ Supervised by certified operator (# ______)
☐ Employed by a certified lab ☐ Employed by DEP or DOH
☐ Authorized representative of supplier of water

Unless otherwise noted, all tests are performed in accordance with NELAC standards, and the results relate only to the samples.

Date and time PWS notified by lab of positive results: ______
Date and time DEP/DOH notified by lab of positive results: ______
Date Report Issued: 12-23-13

Lab Signature: [signature]
Title: Director

Riviera Beach Utilities
600 Blue Heron Blvd
Riviera Beach, FL

DEP/DOH USE ONLY
☐ Satisfactory
☐ Incomplete Collection Information
☐ Repeat Samples Required
☐ Replacement Samples Required

[1] [illegible]
[2] [illegible]
[3] [illegible]
[4] [illegible]
[5] [illegible]

③

DRINKING WATER MICROBIAL SAMPLE COLLECTION & LABORATORY REPORTING FORMAT

(62-550.730 Reporting Format Effective 01/1995, Revised 02/2010)

Jupiter Environmental Laboratories, Inc.
150 S Old Dixie Highway
Jupiter, FL 33458

Report Number: 1335630 Sub-Contract Lab ID: E86546

Lab Receipt Date & Time: 12/21/13 1400
Analysis Date & Time: 12/22/13 0800
Sample Acceptance Criteria:
Sample Preservation: ☒On Ice ☐Not On Ice ☒ 4 °C
Disinfectant Check: ☒Not Detected ☐ ____ mg/L
This sample does not meet the following NELAC requirements:

Analysis Requested: (check all that apply)
☒Total Coliform/E. coli ☐Total Coliform/Fecal ☐Enterococci ☐Coliphage ☐HPC ☐Other:

Public Water System (PWS) Name: Riviera Beach Utilities **PWS I.D.** 4501229
PWS Address: 600 Blue Heron Blvd City: Riviera Beach
PWS or PWS Owner's Phone #: Fax #:
Collector: Carlos Langford Collector's Phone #:

Type of Supply: (check only one)
☐Community Water System ☐ Non-Transient Non-community Water System ☐ Transient Non-community Water System
☐Limited Use System ☐Bottled Water ☐Private Well ☐Swimming Pool ☐Other:

Reason for Sampling: (check all that apply)
☐Distribution Routine ☒Distribution Repeat ☐Raw (triggered or assessment) ☐Raw (triggered or assessment) additional ☐Well Survey
☐Clearance ☐Replacement (also check type of sample being replaced) ☐Boil Water Notice ☐Other:

Sample Collection Date: 12/21/13

To be completed by collector of sample						To be completed by lab: Analysis Method(s)[2]: SM9223B				
Sample #	Sample Point (Location or Specific Address)	Sample Collection Time	Sample Type[1]	Disinfectant Residual (mg/L)	pH	Non-Coliform	Total Coliform	Fecal, E. coli, Enterococci, or Coliphage[3]	Data Qualifier[4]	Lab Sample #
15	2546 Hawaii	10:32	D	0.7			A	A		630-15

Average of disinfectant residuals for distribution routine & repeat samples.[5] Free chlorine or Total chlorine (circle one)

Disinfectant Residual Analysis Method:
☐DPD Colorimetric ☐Other:

Person performing disinfectant analysis is (see instructions on reverse):
☒ certified operator (# 15223)
☐Supervised by certified operator (#)
☐Employed by a certified lab ☐Employed by DEP or DOH
☐Authorized representative of supplier of water

Unless otherwise noted, all tests are performed in accordance with NELAC standards, and the results relate only to the samples.

Date and time PWS notified by lab of positive results:
Date and time DEP/DOH notified by lab of positive results:
Date Report Issued: 12-23-13
Lab Signature:
Title: Director

Riviera Beach Utilities
600 Blue Heron Blvd
Riviera Beach, FL

DEP/DOH USE ONLY
☐Satisfactory
☐Incomplete Collection Information
☐Repeat Samples Required
☐Replacement Samples Required

[1] See Sample Types on Instructions page
[2] See Analysis Methods on Instructions page
[3] Please circle appropriate selection
[4] [illegible]
[5] [illegible]

DRINKING WATER MICROBIAL SAMPLE COLLECTION & LABORATORY REPORTING FORMAT

(62-550.730 Reporting Format Effective 01/1995, Revised 02/2010)

Jupiter Environmental Laboratories, Inc.
150 S Old Dixie Highway
Jupiter, FL 33458

E86546

Report Number: 1335631 Sub-Contract Lab ID: ______

Lab Receipt Date & Time: 12/20/13 1530
Analysis Date & Time: 12-20-13 1700
Sample Acceptance Criteria:
Sample Preservation: ☒On Ice ☐Not On Ice ☒ 4 °C
Disinfectant Check: ☒Not Detected ☐ ______ mg/L
This sample does not meet the following NELAC requirements: ______

Analysis Requested: (check all that apply)
☒Total Coliform/*E. coli* ☐Total Coliform/Fecal ☐Enterococci ☐Coliphage ☐HPC ☐Other: ______

Public Water System (PWS) Name: Riviera Beach Utilities **PWS I.D.** 4501229

PWS Address: 600 Blue Heron Blvd City: Riviera Beach

PWS or PWS Owner's Phone #: ______ Fax #: ______

Collector: Carlos Lanadod Collector's Phone #: ______

Type of Supply: (check only one)
☐Community Water System ☐ Non-Transient Non-community Water System ☐ Transient Non-community Water System
☐Limited Use System ☐Bottled Water ☐Private Well ☐Swimming Pool ☐Other: ______

Reason for Sampling: (check all that apply)
☐Distribution Routine ☒Distribution Repeat ☐Raw (triggered or assessment) ☐Raw (triggered or assessment) additional ☐Well Survey
☐Clearance ☐Replacement (also check type of sample being replaced) ☐Boil Water Notice ☐Other: ______

Sample Collection Date: 12/20/13

To be completed by collector of sample						To be completed by lab				
						Analysis Method(s)[4]: SM9223B				
Sample #	Sample Point (Location or Specific Address)	Sample Collection Time	Sample Type[1]	Disinfectant Residual (mg/L)	pH	Non-Coliform	Total Coliform	Fecal, *E. coli*, Enterococci, or Coliphage[3]	Data Qualifier[4]	Lab Sample #
1	1301 Grandview	9:00 AM	D	2.2			A	A		5631-1
2	1177 Ave C	9:20 AM	D	1.8			A	A		631-2
3	1509 Ave C	9:30 AM	D	2.6			A	A		631-3
4	1357 Silver Beach	10:40 AM	D	4.4			P	A		631-4
5	1341 Silver Beach	10:50 AM	D	4.4			A	A		631-5
6	1373 Silver Beach	10:55 AM	D	4.3			A	A		631-6
7	5766 Parke Ave	11:25 AM	D	0.[illegible]			P	A		631-7

Average of disinfectant residuals for distribution routine & repeat samples,[5] Free chlorine or Total chlorine (circle one) ______

Disinfectant Residual Analysis Method:
☐DPD Colorimetric ☐Other: ______

Person performing disinfectant analysis is (see instructions on reverse):
☒A certified operator (# 15223)
☐Supervised by certified operator (# ______)
☐Employed by a certified lab ☐Employed by DEP or DOH
☐Authorized representative of supplier of water

Unless otherwise noted, all tests are performed in accordance with NELAC standards, and the results relate only to the samples.

Date and time PWS notified by lab of positive results: ______
Date and time DEP/DOH notified by lab of positive results: ______
Date Report Issued: 12-23-13
Lab Signature: [signature]
Title: Director PM

Riviera Beach Utilities
600 Blue Heron Blvd
Riviera Beach, FL

DEP/DOH USE ONLY
☐Satisfactory
☐Incomplete Collection Information
☐Repeat Samples Required
☐Replacement Samples Required

③

DRINKING WATER MICROBIAL SAMPLE COLLECTION & LABORATORY REPORTING FORMAT

(62-550 730 Reporting Format Effective 01/1995, Revised 02/2010)

Jupiter Environmental Laboratories, Inc.
150 S Old Dixie Highway
Jupiter, FL 33458

E86646

12/20

Lab Receipt Date & Time: 12-20-13 1530
Analysis Date & Time: 12-20-13 1700
Sample Acceptance Criteria:
Sample Preservation: ☒ On Ice ☐ Not On Ice ☐ 4 °C
Disinfectant Check: ☒ Not Detected ☐ ______ mg/L
This sample does not meet the following NELAC requirements:

Report Number: ______ Sub-Contract Lab ID: ______

Analysis Requested: (check all that apply)
☐ Total Coliform/E. coli ☐ Total Coliform/Fecal ☐ Enterococci ☐ Coliphage ☐ HPC ☐ Other: ______

Public Water System (PWS) Name: Riviera Beach Utilities **PWS I.D.** 4501229
PWS Address: 600 Blue Heron Blvd City: Riviera Beach
PWS or PWS Owners Phone #: ______ Fax #: ______
Collector: Carlos Laundrill Collector's Phone #: ______

Type of Supply: (check only one)
☐ Community Water System ☐ Non-Transient Non-community Water System ☐ Transient Non-community Water System
☐ Limited Use System ☐ Bottled Water ☐ Private Well ☐ Swimming Pool ☐ Other: ______

Reason for Sampling: (check all that apply)
☐ Distribution Routine ☒ Distribution Repeat ☐ Raw (triggered or assessment) ☐ Raw (triggered or assessment) additional ☐ Well Survey
☐ Clearance ☐ Replacement (also check type of sample being replaced) ☐ Boil Water Notice ☐ Other: ______

Sample Collection Date: 12/20/13

To be completed by collector of sample						To be completed by lab				
						Analysis Method(s)[2]: SM9223B				
Sample #	Sample Point (Location or Specific Address)	Sample Collection Time	Sample Type[1]	Disinfectant Residual (mg/L)	pH	Non-Coliform	Total Coliform	Fecal, E. coli, Enterococci, or Coliphage[3]	Data Qualifier[4]	Lab Sample #
8	5778 Pierce Ave	11:20 AM	D	0.8			P	A		1031-8
9	5764 Pierce Ave	11:40 AM	D	0.8			P	A		1031-9
10	5783 Bermuda Ct	11:50 AM	D	0.8			A	A		1031-10
11	5770 Bermuda Ct	12 PM	D	1.3			A	A		1031-11
12	5813 Bermuda Ct	12:10 PM	D	0.7			A	A		1031-12
13	2548 Mauiki	1:10 PM	D	0.9			P	A		1031-13
14	2550 Mauiki	1:20 PM	D	0.8			P	A		1031-14

Average of disinfectant residuals for distribution routine & repeat samples.[5] Free chlorine or Total chlorine (circle one)

Disinfectant Residual Analysis Method:
☐ DPD Colorimetric ☐ Other: ______

Person performing disinfectant analysis is (see instructions on reverse):
☒ A certified operator (# 15223)
☐ Supervised by certified operator (# ______)
☐ Employed by a certified lab ☐ Employed by DEP or DOH
☐ Authorized representative of supplier of water

Unless otherwise noted, all tests are performed in accordance with NELAC standards, and the results relate only to the samples.

Date and time PWS notified by lab of positive results: ______
Date and time DEP/DOH notified by lab of positive results: ______
Date Report Issued: 12-23-13
Lab Signature: [signature]
Title: Director PM

Riviera Beach Utilities
600 Blue Heron Blvd
Riviera Beach, FL

DEP/DOH USE ONLY
☐ Satisfactory
☐ Incomplete Collection Information
☐ Repeat Samples Required
☐ Replacement Samples Required

[illegible footnotes]

DRINKING WATER MICROBIAL SAMPLE COLLECTION & LABORATORY REPORTING FORMAT

(62-550 730 Reporting Format Effective 01/1995, Revised 02/2010)

Jupiter Environmental Laboratories, Inc.
150 S Old Dixie Highway
Jupiter, FL 33458

Lab Receipt Date & Time: 12·20·13 1530
Analysis Date & Time: 12·20·13 1700
Sample Acceptance Criteria:
Sample Preservation: ☒ On Ice ☐ Not On Ice ☑ 4 °C
Disinfectant Check: ☒ Not Detected ☐ ____ mg/L
This sample does not meet the following NELAC requirements:

Report Number: ______ Sub-Contract Lab ID: E86546

Analysis Requested: (check all that apply)
☒ Total Coliform/E. coli ☐ Total Coliform/Fecal ☐ Enterococci ☐ Coliphage ☐ HPC ☐ Other:

Public Water System (PWS) Name: Riviera Beach Utilities **PWS I.D.** 4501229

PWS Address: 600 Blue Heron Blvd City: Riviera Beach

PWS or PWS Owner's Phone #: ______ Fax #: ______

Collector: Carlos Lounsdaid Collector's Phone #: ______

Type of Supply: (check only one)
☐ Community Water System ☐ Non-Transient Non-community Water System ☐ Transient Non-community Water System
☐ Limited Use System ☐ Bottled Water ☐ Private Well ☐ Swimming Pool ☐ Other:

Reason for Sampling: (check all that apply)
☐ Distribution Routine ☒ Distribution Repeat ☐ Raw (triggered or assessment) ☐ Raw (triggered or assessment) additional ☐ Well Survey
☐ Clearance ☐ Replacement (also check type of sample being replaced) ☐ Boil Water Notice ☐ Other:

Sample Collection Date: 12/20/13

To be completed by collector of sample						To be completed by lab				
						Analysis Method(s)[2]: SM9223B				
Sample #	Sample Point (Location or Specific Address)	Sample Collection Time	Sample Type[1]	Disinfectant Residual (mg/L)	pH	Non-Coliform	Total Coliform	Fecal, E. coli, Enterococci, or Coliphage[3]	Data Qualifier[4]	Lab Sample #
15	2546 Mauiki	1:30 PM	D				P	A		681.15

Average of disinfectant residuals for distribution routine & repeat samples.[5] Free chlorine or Total chlorine (circle one)

Disinfectant Residual Analysis Method:
☐ DPD Colorimetric ☐ Other:

Person performing disinfectant analysis is (see instructions on reverse):
☒ A certified operator (# 15223)
☐ Supervised by certified operator (# ______)
☐ Employed by a certified lab ☐ Employed by DEP or DOH
☐ Authorized representative of supplier of water

Unless otherwise noted, all tests are performed in accordance with NELAC standards, and the results relate only to the samples.

Date and time PWS notified by lab of positive results: ______
Date and time DEP/DOH notified by lab of positive results: ______
Date Report Issued: 12·23·13
Lab Signature: [signature]
Title: Director

Riviera Beach Utilities
600 Blue Heron Blvd
Riviera Beach, FL

DEP/DOH USE ONLY
☐ Satisfactory
☐ Incomplete Collection Information
☐ Repeat Samples Required
☐ Replacement Samples Required

[1] See Sample Type on Instructions page 1 of 6
[2] See Analysis Methods on Instructions page 2 of 6
[3] Please circle appropriate selection
[4] Defined in Florida Administrative Code Rule 62-160.700, Table 1
[5] Complete for community & non-transient non-community water systems serving populations up to and including 3,300. Do not include raw or plant samples in the average.

(3)

DRINKING WATER BACTERIOLOGICAL SAMPLE COLLECTION
'G FORMAT

Jupiter Environmental Laboratories
150 S. Old Dixie Hwy
Jupiter, FL 33458
561-575-0030

FLORIDA, INC.

Lab Receipt Date & Time: 12/19/13 15:20
Analysis Date & Time: 12/19/13 1645

Report Number: 1335571 Sub-Contract Lab ID: E86546

Analysis Requested: (please check all that apply)
☒ Standard Coliform Test
☐ HPC
☐ Other

Sample Acceptance Criteria:
Sample Preservation ☒ On Ice ☐ Not On Ice ☑ 4 °C
Disinfectant Check ☒ Not Detected ☐ ____ mg/L
This sample does not meet the following NELAC requirements:

System Name: City of Riviera Beach Utilities **PWS I.D. 450-1229**

System Address 800 West Blue Heron Boulevard City: Riviera Beach
System or Owner's Phone #: 561-845-4187 Fax #: 561-840-7282
Collector: Marios Lavadaris Collector's Phone # 561-845-4187

Type of Supply: (check only one)
☒ Community Water System ☐ Non-Transient Non-community Water System ☐ Transient Non-community Water System
☐ Limited Use System ☐ Bottled Water ☐ Private Well ☐ Swimming Pool ☐ Other

Reason for Sampling: (check only one) ☒ Routine Compliance ☐ Repeat ☐ Replacement ☐ Main Clearance ☐ Well Survey ☐ Other

Sample Collection Date: 12/19/13

To be completed by collector of sample						To be completed by lab				
Sample Number	Sample Point (Location or Specific Address)	Collection Time	Sample Type[1]	Disinfect Res'd (mg/L)	PH	Non Coliform	Total Coliform	Fecal or E. coli	Data Qualifier[2]	Lab Sample Number
						Total Coliform Analysis Method: SM9223B				
						Fecal or E. coli Analysis Method:				
1	Well #1	10:25 AM	R				A	A		571-1
2	Well #4	0/S	R				A	A		571-2
3	Well #5	9:40 AM	R				A	A		571-3
4	Well #6	9:55 AM	R				A	A		571-4
5	Well #7	0/S	R				A	A		571-5
6	Well #9A	11:15 AM	R				A	A		571-6
7	Well #10A	11:20 AM	R				A	A		571-7

[1] Defined in Florida Administrative Code Rule 62-160, Table 1

Average of disinfectant residuals for routine and repeat samples. (Complete for community and non-transient non-community systems serving populations up to and including 4,900. Do not include raw or plant samples in the average.)

All tests are performed in accordance with NELAC standards.

Disinfectant Residual Analysis Method: ☐ DPD Colorimetric ☒ Other: N/A
Person performing analysis is (Please see instructions on reverse):
☒ A certified operator (# 5222) Employed by a certified lab
☐ Supervised by a cert operator (# _____) ☐ Employed by DEP or DOH

Date PWS notified by lab of positive results: _____
Date State notified by lab of positive results: _____

Lab Signature: _____
Title: _____

Name and Mailing Address of Person to Receive Report

City of Riviera Beach
P O Drawer #10682
Riviera Beach, FL 33419-1682

DEP/DOH USE ONLY
☐ Satisfactory
☐ Incomplete Collection Information
☐ Repeat Samples Required
☐ Replacement Samples Required
Date Reviewed by DEP/DOH: _____
DEP/DOH Reviewing Official: _____

(3)

DRINKING WATER BACTERIOLOGICAL SAMPLE COLLECTION ... FORMAT

E P R

Jupiter Environmental Laboratories
150 S. Old Dixie Hwy
Jupiter, FL 33458
561-575-0030

FLORIDA, INC.

Lab Receipt Date & Time: 12/19/13 15:20
Analysis Date & Time: 12/19/13 1645
Sample Acceptance Criteria:
Sample Preservation ☒ On Ice ☐ Not On Ice ☑ 4 °C
Disinfectant Check ☒ Not Detected ☐ ____ mg/L
This sample does not meet the following NELAC requirements.

Report Number 1355571 Sub Contract Lab ID E86546

Analysis Requested: (please check all that apply)
☒ Standard Coliform Test
☐ HPC
☐ Other ____

System Name: City of Riviera Beach Utilities **PWS I.D. 450-1229**

System Address: 800 West Blue Heron Boulevard City: Riviera Beach
System or Owner's Phone #: 561-845-4187 Fax #: 561-840-7292
Collector: [signature] Collector's Phone # 561-845-4187

Type of Supply: (check only one)
☒ Community Water System ☐ Non-Transient Non-community Water System ☐ Transient Non-community Water System
☐ Limited Use System ☐ Bottled Water ☐ Private Well ☐ Swimming Pool ☐ Other ____

Reason for Sampling: (check only one) ☒ Routine Compliance ☐ Repeat ☐ Replacement ☐ Main Clearance ☐ Well Survey ☐ Other

Sample Collection Date: 12/19/13

To be completed by collector of sample / To be completed by lab
Total Coliform Analysis Method: MF SM9222B
Fecal or E. coli Analysis Method: SM9222D

Sample Number	Sample Point (Location or Specific Address)	Collection Time	Sample Type[1]	Disinfect Res'd (mg/L)	PH	Non Coliform	Total Coliform	Fecal or E. coli	Data Qualifier[2]	Lab Sample Number
8	Well #12A	11 10 AM	R	/			A	A		571-8
9	Well #13	O/S	R	/			A	A		571-9
10	Well #14	10 40 AM	R	/			A	A		571-10
11	Well #15	10 35 AM	R	/			A	A		571-11
12	Well #16	11 AM	R	/			P	A		571-12
13	Well #18	10 50 AM	R	/			A	A		571-13
14	Well #21	11 20 AM	R	/			A	A		571-14

[1] Defined in Florida Administrative Code Rule 62-160, Table 1

Average of disinfectant residuals for routine and repeat samples. (Complete for community and non-transient non-community systems serving populations up to and including 4,900. Do not include raw or plant samples in the average.)

All tests are performed in accordance with NELAC standards

Disinfectant Residual Analysis Method: ☐ DPD Colorimetric ☒ Other: N/A
Person performing analysis is (Please see instructions on reverse):
☒ A certified operator (# 15223) ☐ Employed by a certified lab
☐ Supervised by a cert operator (# ____) ☐ Employed by DEP or DOH

Date PWS notified by lab of positive results ____
Date State notified by lab of positive results ____

Lab Signature: ____
Title: ____

Name and Mailing Address of Person to Receive Report

City of Riviera Beach
P.O. Drawer #10682
Riviera Beach, FL 33419-1682

DEP/DOH USE ONLY
☐ Satisfactory
☐ Incomplete Collection Information
☐ Repeat Samples Required
☐ Replacement Samples Required
Date Reviewed by DEP/DOH: ____
DEP/DOH Reviewing Official: ____

(3)

DRINKING WATER BACTERIOLOGICAL SAMPLE COLLECTION AND LABORATORY REPORTING FORMAT

ENVI Jupiter Environmental Laboratories IRIDA, INC.
P.O. 150 S. Old Dixie Hwy
RIVIE Jupiter, FL 33458
561-575-0030

Report Number 133571 Sub-Contract Lab ID E80546

Analysis Request: (please check all that apply)
- ☒ Standard Coliform Test
- ☐ HPC
- ☐ Other

Lab Receipt Date & Time: 12/19/13 15:20
Analysis Date & Time: 12/19/13 1645
Sample Acceptance Criteria:
Sample Preservation ☒ On Ice ☐ Not On Ice ☑ 4 °C
Disinfectant Check ☒ Not Detected ☐ ____ mg/L
This sample does not meet the following NELAC requirements.

System Name: City of Riviera Beach Utilities PWS I.D. 450-1229

System Address: 800 West Blue Heron Boulevard City: Riviera Beach

System or Owner's Phone #: 561-845-4187 Fax #: 561-840-7282

Collector: Lucas Lunsford Collector's Phone # 561-845-4187

Type of Supply: (check only one)

☒ Community Water System ☐ Non-Transient Non-community Water System ☐ Transient Non-community Water System
☐ Limited Use System ☐ Bottled Water ☐ Private Well ☐ Swimming Pool ☐ Other

Reason for Sampling: (check only one) ☒ Routine Compliance ☐ Repeat ☐ Replacement ☐ Main Clearance ☐ Well Survey ☐ Other

Sample Collection Date: 12/19/13

To be completed by collector of sample						To be completed by lab				
						Total Coliform Analysis Method: MF				
						Fecal or E. coli Analysis Method: SM9223B				
Sample Number	Sample Point (Location or Specific Address)	Collection Time	Sample Type[1]	Disinfect Res'd (mg/L)	PH	Non Coliform	Total Coliform	Fecal or E. coli	Data Qualifier[2]	Lab Sample Number
15	Well #802	1:30 pm	R	/			A	A		571-15
16	Well #851	2:25 pm	R	/			A	A		571-16
17	Well #803	1:20 pm	R	/			A	A		571-17
18	Well #861	0/S	R	/			A	A		571-18
19	Well #871	0/S	R	/			A	A		571-19
20	Well #921	0/S	R	/			A	A		571-20
21	Well #922	2:25 pm	R	/			A	A		571-21

[1] Defined in Florida Administrative Code Rule 62-160, Table I

All tests are performed in accordance with NELAC standards.

Average of disinfectant residuals for routine and repeat samples. (Complete for community and non-transient non-community systems serving populations up to and including 4,900. Do not include raw or plant samples in the average.)

Disinfectant Residual Analysis Method: ☐ DPD Colorimetric ☒ Other: N/A

Person performing analysis is (Please see instructions on reverse):
- ☒ A certified operator (# 15223)
- ☐ Supervised by a certified operator (# _____)
- ☐ Employed by a certified lab
- ☐ Employed by DEP or DOH

Date PWS notified by lab of positive results: _____

Date State notified by lab of positive results: _____

Lab Signature: _____

Title: _____

Name and Mailing Address of Person to Receive Report

City of Riviera Beach
P.O. Drawer #10682
Riviera Beach, FL 33419-1682

DEP/DOH USE ONLY
- ☐ Satisfactory
- ☐ Incomplete Collection Information
- ☐ Repeat Samples Required
- ☐ Replacement Samples Required

Date Reviewed by DEP/DOH: _____

DEP/DOH Reviewing Official: _____

(3)

DRINKING WATER BACTERIOLOGICAL SAMPLE COLLECTION REPORTING FORMAT

Jupiter Environmental Laboratories
150 S. Old Dixie Hwy
Jupiter, FL 33458
561-575-0030

Lab Receipt Date & Time: 12/19/13 15:20
Analysis Date & Time: 12-19-13 1645

Report Number: 1335572 Sub-Contract Lab ID: E94540

Analysis Requested: (please check all that apply)
☒ Standard Coliform Test
☐ HPC
☐ Other: _____

Sample Acceptance Criteria:
Sample Preservation ☒ On Ice ☐ Not On Ice ☑ 4 °C
Disinfectant Check ☑ Not Detected ☐ ____ mg/L
This sample does not meet the following NELAC requirements:
_____

System Name: CITY OF RIVIERA BEACH PWS I.D. 4501229

System Address: 600 WEST BLUE HERON BLVD.

City: RIVIERA BEACH; FL. 33404

System or Owner's Phone #: (561)845-4187 Fax #: (561)840-7292

Collector: Carlos Lauredo Collector's Phone # (561)845-4187

Type of Supply: (check only one)
☒ Community Water System ☐ Non-Transient Non-community Water System ☐ Transient Non-community Water System
☐ Limited Use System ☐ Bottled Water ☐ Private Well ☐ Swimming Pool ☐ Other _____

Reason for Sampling: (check only one) ☒ Routine Compliance ☐ Repeat ☐ Replacement ☐ Main Clearance ☐ Well Survey ☐ Other

Sample Collection Date: 12/19/13

Total Coliform Analysis Method: SM9223B
Fecal or E. coli Analysis Method: SM9223B

Sample Number	Sample Point (Location or Specific Address)	Collection Time	Sample Type[1]		Non Coliform	Total Coliform	Fecal or E. coli	Data Qualifier[2]	Lab Sample Number
26	Well # 2004	1:00 pm	R			A	A		572-1
26	~~Well # 922~~		R						
27	Well # 961	0/3	R						
28	Well # 862	2:10 pm	R			A	A		572-2

[2] Defined in Florida Administrative Code Rule 62-160, Table 1

Average of disinfectant residuals for routine and repeat samples. (Complete for community and non-transient non-community systems serving populations up to and including 4,900. Do not include raw or plant samples in the average.)

All tests are performed in accordance with NELAC standards.

Disinfectant Residual Analysis Method: ☐ DPD Colorimetric ☒ Other: N/A

Person performing analysis is (Please see instructions on reverse):
☒ A certified operator (# 15223) ☐ Employed by a certified lab
☐ Supervised by a cert operator (# _____) ☐ Employed by DEP or DOH

Date PWS notified by lab of positive results: _____

Date State notified by lab of positive results: _____

Lab Signature: _____

Title: PM

Name and Mailing Address of Person to Receive Report

DEP/DOH USE ONLY
☐ Satisfactory
☐ Incomplete Collection Information
☐ Repeat Samples Required
☐ Replacement Samples Required
Date Reviewed by DEP/DOH: _____
DEP/DOH Reviewing Official: _____

[1] DEP Sample Type Codes: D = Distribution (Routine Compliance); C = Repeat or Check; R = Raw; N = Entry to Distribution; P = Plant Tap; S = Special (clearance, etc.)
Analysis Methods: MF = SM9222B & D; MTF = 9221B & EC/MUG; MMO/MUG = SM9223B; HPC = SM9215B

BICAL SAMPLE COLLECTION
ORTING FORMAT

(3)

Jupiter Environmental Laboratories
150 S. Old Dixie Hwy
Jupiter, FL 33458
561-575-0030

Lab Receipt Date & Time: 12/18/13 1600
Analysis Date & Time: 12·18·13 1650

Report Number: 1355555 Sub-Contract Lab ID: E485410

Sample Acceptance Criteria:
Sample Preservation ☒ On Ice ☐ Not On Ice ☑ 3.9 °C
Disinfectant Check ☑ Not Detected ☐ ____ mg/L
This sample does not meet the following NELAC requirements:

Analysis Requested: (please check all that apply)
☒ Standard Coliform Test
☐ HPC
☐ Other: _____

System Name: CITY OF RIVIERA BEACH PWS I.D. 4501229

☐☐ System Address: 600 WEST BLUE HERON BLVD.

City: RIVIERA BEACH; FL. 33404

System or Owner's Phone #: (561)845-4187 Fax #: (561)840-7292

Collector: Conroy Lansdwid Collector's Phone # (561)845-4187

Type of Supply: (check only one)
☒ Community Water System ☐ Non-Transient Non-community Water System ☐ Transient Non-community Water System
☐ Limited Use System ☐ Bottled Water ☐ Private Well ☐ Swimming Pool ☐ Other

Reason for Sampling: (check only one) ☒ Routine Compliance ☐ Repeat ☐ Replacement ☐ Main Clearance ☐ Well Survey ☐ Other

Sample Collection Date: 12/18/13

Total Coliform Analysis Method: SM9222B
Fecal or E. coli Analysis Method: SM9222D

Sample Number	Sample Point (Location or Specific Address)	Collection Time	Sample Type[1]	Disinfect Res'd (mg/L)	pH	Non Coliform	Total Coliform	Fecal or E. coli	Data Qualifier[2]	Lab Sample Number
1	600 W. Blue Heron Blvd. (Riviera Sch. City Hall)	8:50 AM	D	2.7			A	A		558·1
2	1057 W. 6th St. (West Riviera Elementary School)	9:05 AM	D	1.6			A	A		558·2
3	1160 W. 10th St. (Lincoln Elementary School)	9:20 AM	D	2.1			A	A		558·3
4	1901 Ave.S (Kennedy Middle School)	9:40 AM	D	1.9			A	A		558·4
5	1229 W. 25th St.	9:50 AM	D	3.3			A	A		558·5
6	1709 W. 30th St. (Washington Elementary School)	10:00 AM	D	3.0			A	A		558·6

[1]Defined in Florida Administrative Code Rule 62-160, Table I
All tests are performed in accordance with NELAC standards.

Average of disinfectant residuals for routine and repeat samples. (Complete for community and non-transient non-community systems serving populations up to and including 4,900. Do not include raw or plant samples in the average.)

Disinfectant Residual Analysis Method: ☒ DPD Colorimetric ☐ Other: _____
Person performing analysis is (Please see instructions on reverse):
☒ A certified operator (# 15223) ☐ Employed by a certified lab
☐ Supervised by a cert operator (# _____) ☐ Employed by DEP or DOH

Date PWS notified by lab of positive results: 12·19·13 16:09
Date State notified by lab of positive results: _____

Lab Signature: _____
Title: _____

Name and Mailing Address of Person to Receive Report

DEP/DOH USE ONLY
☐ Satisfactory
☐ Incomplete Collection Information
☐ Repeat Samples Required
☐ Replacement Samples Required
Date Reviewed by DEP/DOH: _____
DEP/DOH Reviewing Official: _____

[1]DEP Sample Type Codes: D = Distribution (Routine Compliance); C = Repeat or Check; R = Raw; N = Entry to Distribution; P = Plant Tap; S = Special (clearance, etc.)
Analysis Methods: MF = SM9222B & D; MTF = 9221B & EC/MUG; MMO/MUG = SM9223B; HPC = SM9215B
TNTC = too numerous to count

(3)

[illegible] WATER BACTERIOLOGICAL SAMPLE COLLECTION
[illegible] PORTING FORMAT

Jupiter Environmental Laboratories
150 S. Old Dixie Hwy
Jupiter, FL 33458
561-575-0030

Lab Receipt Date & Time: 12.18.13 1400
Analysis Date & Time: 12.18.13 105

Sample Acceptance Criteria:
Sample Preservation ☒ On Ice ☐ Not On Ice ☒ 3.9 °C
Disinfectant Check ☒ Not Detected ☐ ____ mg/L
This sample does not meet the following NELAC requirements:

Report Number: 1335558 Sub-Contract Lab ID: [illegible]

Analysis Requested: (please check all that apply)
☒ Standard Coliform Test
☐ HPC
☐ Other: ________

System Name: CITY OF RIVIERA BEACH **PWS I.D.** 4501229

System Address: 800 WEST BLUE HERON BLVD.

City: RIVIERA BEACH; FL. 33404

System or Owner's Phone #: (561)845-4187 Fax #: (561)840-7292

Collector: Carlos Lisandro Collector's Phone # (561)845-4187

Type of Supply: (check only one)
☒ Community Water System ☐ Non-Transient Non-community Water System ☐ Transient Non-community Water System
☐ Limited Use System ☐ Bottled Water ☐ Private Well ☐ Swimming Pool ☐ Other

Reason for Sampling: (check only one) ☒ Routine Compliance ☐ Repeat ☐ Replacement ☐ Main Clearance ☐ Well Survey ☐ Other

Sample Collection Date: 12/18/13

Total Coliform Analysis Method:
Fecal or E. coli Analysis Method: SM9223B

Sample Number	Sample Point (Location or Specific Address)	Collection Time	Sample Type[1]	Disinfect Res'd (mg/L)	pH	Non Coliform	Total Coliform	Fecal or E. coli	Data Qualifier[2]	Lab Sample Number
7	7535 Enterprise Rd. (2 Fat Guys Subs)	1:00 PM	D	3.5			A	A		558.7
8	6598 N. Military Trail (Vacation Travel Park)	1:45 PM	D	0.7			A	A		558.8
9	2548 Maniki Drive (Lone Pine Estates)	2:00 PM	D	0.6			P	A		558.9
10	2300 Old Dixie Hwy (Arnold Oro-Wheat Bakery)	9:00 AM	D	3.9			A	A		558.10
11	1357 Silver Beach Road	10:15 AM	D	3.2			P	A		558.11
12	Ave. A (U.S.Coast Guard Station)	10:30 AM	D	1.9			A	A		558.12

[2]Defined in Florida Administrative Code Rule 62-160, Table 1

All tests are performed in accordance with NELAC standards.

Average of disinfectant residuals for routine and repeat samples. (Complete for community and non-transient non-community systems serving populations up to and including 4,900. Do not include raw or plant samples in the average.)

Disinfectant Residual Analysis Method: ☒ DPD Colorimetric ☐ Other: ________
Person performing analysis is (Please see instructions on reverse):
☒ A certified operator (# 15223) ☐ Employed by a certified lab
☐ Supervised by a cert operator (# ________) ☐ Employed by DEP or DOH

Date PWS notified by lab of positive results: 12.19.13 1009
Date State notified by lab of positive results: ________

Lab Signature: [signature]
Title: PM

Name and Mailing Address of Person to Receive Report

DEP/DOH USE ONLY
☐ Satisfactory
☐ Incomplete Collection Information
☐ Repeat Samples Required
☐ Replacement Samples Required
Date Reviewed by DEP/DOH: ________
DEP/DOH Reviewing Official: ________

[1]DEP Sample Type Codes: D = Distribution (Routine Compliance); C = Repeat or Check; R = Raw; N = Entry to Distribution; P = Plant Tap; S = Special (clearance, etc.)
Analysis Methods: MF = SM9222B & D; MTF = 9221B & EC/MUG; MMO/MUG = SM9223B; HPC = SM9215B
[illegible] A = coliforms not present, P = coliforms are present, C = confluent growth, TNTC = too numerous to count

DRINKING WATER BACTERIOLOGICAL SAMPLE COLLECTION & REPORTING FORMAT

(3)

Jupiter Environmental Laboratories
150 S. Old Dixie Hwy
Jupiter, FL 33458
561-575-0030

Lab Receipt Date & Time: 12·18·13 1600
Analysis Date & Time: 12·18·13 1650

Report Number: 133555 8 Sub-Contract Lab ID: 580540

Sample Acceptance Criteria:
Sample Preservation ☑ On Ice ☐ Not On Ice ☑ 3.9 °C
Disinfectant Check ☑ Not Detected ☐ ____ mg/L
This sample does not meet the following NELAC requirements: _____

Analysis Requested: (please check all that apply)
☒ Standard Coliform Test
☐ HPC
☐ Other: _____

System Name: CITY OF RIVIERA BEACH **PWS I.D.** 4501229

☐☐ System Address: 800 WEST BLUE HERON BLVD.

City: RIVIERA BEACH, FL 33404

System or Owner's Phone #: (561)845-4187 Fax #: (561)840-7292

Collector: Carlos Lauadid Collector's Phone # (561)845-4187

Type of Supply: (check only one)

☒ Community Water System ☐ Non-Transient Non-community Water System ☐ Transient Non-community Water System
☐ Limited Use System ☐ Bottled Water ☐ Private Well ☐ Swimming Pool ☐ Other _____

Reason for Sampling: (check only one) ☒ Routine Compliance ☐ Repeat ☐ Replacement ☐ Main Clearance ☐ Well Survey ☐ Other

Sample Collection Date: 12/18/13

Total Coliform Analysis Method: SM9223B
Fecal or E. coli Analysis Method: SM9223B

Sample Number	Sample Point (Location or Specific Address)	Collection Time	Sample Type[1]	Disinfect Res'd (mg/L)	pH	Non Coliform	Total Coliform	Fecal or E. coli	Data Qualifier[2]	Lab Sample Number
13	237 E. 28th St.	10:40 AM	D	3.1			A	A		558-13
14	249 E. 23rd St.	10:50 AM	D	1.3			A	A		558-14
15	1819 Broadway (Larry Smith Electronics)	11:05 AM	D	0.8			A	A		558-15
16	1301 Grandview Place (Newcombe Hall)	11:30 AM	D	0.8			P	A		558-16
17	1501 Ave. U (Mary McCleod Bethune Elementary School)	9:35 AM	D	2.1			A	A		556-17
18	4860 Caribbean Blvd.	2:30 PM	D	0.6			A	A		556-18

[1]Defined in Florida Administrative Code Rule 62-160, Table 1

Average of disinfectant residuals for routine and repeat samples. (Complete for community and non-transient non-community systems serving populations up to and including 4,900. Do not include raw or plant samples in the average.)

All tests are performed in accordance with NELAC standards.

Disinfectant Residual Analysis Method: ☒ DPD Colorimetric ☐ Other: _____

Person performing analysis is (Please see instructions on reverse):
☒ A certified operator (# 15223) ☐ Employed by a certified lab
☐ Supervised by a cert operator (# _____) ☐ Employed by DEP or DOH

Date PWS notified by lab of positive results: 12·19·13 1609

Date State notified by lab of positive results: _____

Lab Signature: _____

Title: PM

Name and Mailing Address of Person to Receive Report

DEP/DOH USE ONLY
☐ Satisfactory
☐ Incomplete Collection Information
☐ Repeat Samples Required
☐ Replacement Samples Required
Date Reviewed by DEP/DOH: _____
DEP/DOH Reviewing Official: _____

[1]DEP Sample Type Codes: D = Distribution (Routine Compliance); C = Repeat or Check; R = Raw; N = Entry to Distribution; P = Plant Tap; S = Special (clearance, etc.)
Analysis Methods: MF = SM9222B & D; MTF = 9221B & EC/MUG; MMO/MUG = SM9223B; HPC = SM9215B

DRINKING WATER BACTERIOLOGICAL SAMPLE COLLECTION REPORTING FORMAT

(3)

Jupiter Environmental Laboratories
150 S. Old Dixie Hwy
Jupiter, FL 33458
561-575-0030

Lab Receipt Date & Time: 12-18-13 1600
Analysis Date & Time: 12-18-13 1050

Sample Acceptance Criteria:
Sample Preservation ☒ On Ice ☐ Not On Ice ☒ 3.9 °C
Disinfectant Check ☒ Not Detected ☐ ____ mg/L
This sample does not meet the following NELAC requirements:

Report Number: 1336558 Sub-Contract Lab ID: E86546

Analysis Requested: (please check all that apply)
☒ Standard Coliform Test
☐ HPC
☐ Other:

System Name: CITY OF RIVIERA BEACH **PWS I.D.** 4501229

System Address: 800 WEST BLUE HERON BLVD.

City: RIVIERA BEACH; FL 33404

System or Owner's Phone #: (561)845-4187 Fax #: (561)840-7292

Collector: Carlos Laurdriel Collector's Phone # (561)845-4187

Type of Supply: (check only one)
☒ Community Water System ☐ Non-Transient Non-community Water System ☐ Transient Non-community Water System
☐ Limited Use System ☐ Bottled Water ☐ Private Well ☐ Swimming Pool ☐ Other

Reason for Sampling: (check only one) ☒ Routine Compliance ☐ Repeat ☐ Replacement ☐ Main Clearance ☐ Well Survey ☐ Other

Sample Collection Date: 12/18/13

Total Coliform Analysis Method: SM9223B
Fecal or E. coli Analysis Method: SM9223B

Sample Number	Sample Point (Location or Specific Address)	Collection Time	Sample Type[1]	Disinfect Res'd (mg/L)	pH	Non Coliform	Total Coliform	Fecal or E. coli	Data Qualifier[2]	Lab Sample Number
19	5766 Parke Ave.	2:52 pm	D	0.6			P	A		558.19
20	5783 S. Bermuda Circle	2:40 pm	D	0.6			P	A		558.20

[2] Defined in Florida Administrative Code Rule 62-160, Table 1

Average of disinfectant residuals for routine and repeat samples. (Complete for community and non-transient non-community systems serving populations up to and including 4,900. Do not include raw or plant samples in the average.)

All tests are performed in accordance with NELAC standards.

Disinfectant Residual Analysis Method: ☒ DPD Colorimetric ☐ Other:
Person performing analysis is (Please see instructions on reverse):
☒ A certified operator (# 15223)
☐ Supervised by a cert operator (# ____)
☐ Employed by a certified lab
☐ Employed by DEP or DOH

Date PWS notified by lab of positive results: 12-19-13 1609
Date State notified by lab of positive results:

Lab Signature: [signature]
Title: PM

Name and Mailing Address of Person to Receive Report

DEP/DOH USE ONLY
☐ Satisfactory
☐ Incomplete Collection Information
☐ Repeat Samples Required
☐ Replacement Samples Required
Date Reviewed by DEP/DOH:
DEP/DOH Reviewing Official:

[1] DEP Sample Type Codes: D = Distribution (Routine Compliance); C = Repeat or Check; R = Raw; N = Entry to Distribution; P = Plant Tap; S = Special (clearance, etc.)
Analysis Methods: MF = SM9222B & D; MTF = 9221B & EC/MUG; MMO/MUG = SM9223B; HPC = SM9215B

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DRINKING WATER BACTERIOLOGICAL SAMPLE COLLECTION
)RTING FORMAT

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Jupiter Environmental Laboratories
150 S. Old Dixie Hwy
Jupiter, FL 33458
561-575-0030

Lab Receipt Date & Time: 11/22/13 1445
Analysis Date & Time: 11/22/13 1700
Sample Acceptance Criteria:
Sample Preservation ☒ On ice ☐ Not On ice ☒ 3.5 °C
Disinfectant Check ☒ Not Detected ☐ ____ mg/L
This sample does not meet the following NELAC requirements: ____

Report Number: 135180 **Sub-Contract Lab ID:** E86546
Analysis Requested: (please check all that apply)
☒ Standard Coliform Test
☐ HPC
☐ Other: ____

System Name: CITY OF RIVIERA BEACH **PWS I.D.** 4501229

System Address: 600 WEST BLUE HERON BLVD.

City: RIVIERA BEACH, FL. 33404

System or Owner's Phone #: (561)845-4187 Fax #: (561)840-7292

Collector: Carlos Lowndes Collector's Phone # (561)845-4187

Type of Supply: (check only one)

☒ Community Water System ☐ Non-Transient Non-community Water System ☐ Transient Non-community Water System
☐ Limited Use System ☐ Bottled Water ☐ Private Well ☐ Swimming Pool ☐ Other ____

Reason for Sampling: (check only one) ☒ Routine Compliance ☐ Repeat ☐ Replacement ☐ Main Clearance ☐ Well Survey ☐ Other

Sample Collection Date: 11/22/13

Total Coliform Analysis Method: SM9223B
Fecal or E. coli Analysis Method: SM9223B

Sample Number	Sample Point (Location or Specific Address)	Collection Time	Sample Type[1]	Disinfect Res'd (mg/L)	pH	Non Coliform	Total Coliform	Fecal or E. coli	Data Qualifier[1]	Lab Sample Number
1	600 W. Blue Heron Blvd. (Riviera Bch. City Hall)	8:35 am	D	3.9			A	A		180-1
2	1057 W. 6th St. (West Riviera Elementary School)	9:20 am	D	2.1			A	A		180-2
3	1150 W. 10th St. (Lincoln Elementary School)	9:25 am	D	2.0			A	A		180-3
4	1901 Ave.S (Kennedy Middle School)	9:50 am	D	2.7			A	A		180-4
5	1229 W. 25th St.	12:20 pm	D	3.1			A	A		180-5
6	1709 W. 30th St. (Washington Elementary School)	10:30 am	D	2.9			A	A		180-6

Average of disinfectant residuals for routine and repeat samples. (Complete for community and non-transient non-community systems serving populations up to and including 4,900. Do not include raw or plant samples in the average.)

[1]Defined in Florida Administrative Code Rule 62-160, Table 1
All tests are performed in accordance with NELAC standards.

Disinfectant Residual Analysis Method: ☒ DPD Colorimetric ☐ Other: ____
Person performing analysis is (Please see instructions on reverse):
☒ A certified operator (# 15223) ☐ Employed by a certified lab
☐ Supervised by a cert operator (# ____) ☐ Employed by DEP or DOH

Date PWS notified by lab of positive results: ____
Date State notified by lab of positive results: ____

Lab Signature: [signature]
Title: PM

Name and Mailing Address of Person to Receive Report

DEP/DOH USE ONLY
☒ Satisfactory
☐ Incomplete Collection Information
☐ Repeat Samples Required
☐ Replacement Samples Required
Date Reviewed by DEP/DOH: 12-5-13
DEP/DOH Reviewing Official: S. Parkinson

[1]DEP Sample Type Codes: D = Distribution (Routine Compliance); C = Repeat or Check; R = Raw; N = Entry to Distribution; P = Plant Tap; S = Special (clearance, etc.)
Analysis Methods: MF = SM9222B & D; MTF = 9221B & EC/MUG; MMO/MUG = SM9223B; HPC = SM9215B
Results: A = coliforms are absent; P = coliforms are present; C = confluent growth; TNTC = too numerous to count

62-550.730 Reporting Format - Effective 01/95, Revised 01/04

DRINKING WATER BACTERIOLOGICAL SAMPLE COLLECTION
ORTING FORMAT

(3)

Jupiter Environmental Laboratories
150 S. Old Dixie Hwy
Jupiter, FL 33458
561-575-0030

Lab Receipt Date & Time: 11/22/13 1445
Analysis Date & Time: 11/22/13 1700
Sample Acceptance Criteria:
Sample Preservation ☒ On Ice ☐ Not On Ice ☒ 3.5 °C
Disinfectant Check ☒ Not Detected ☐ ____ mg/L
This sample does not meet the following NELAC requirements:

Report Number: 1335180 Sub-Contract Lab ID: 86446

Analysis Requested: (please check all that apply)
☒ Standard Coliform Test
☐ HPC
☐ Other: ____

System Name: CITY OF RIVIERA BEACH **PWS I.D.** 4501229

System Address: 600 WEST BLUE HERON BLVD.

City: RIVIERA BEACH; FL. 33404

System or Owner's Phone #: (561)845-4187 Fax #: (561)840-7202

Collector: Carlos Lounder Collector's Phone # (561)845-4187

Type of Supply: (check only one)

☒ Community Water System ☐ Non-Transient Non-community Water System ☐ Transient Non-community Water System
☐ Limited Use System ☐ Bottled Water ☐ Private Well ☐ Swimming Pool ☐ Other ____

Reason for Sampling: (check only one) ☒ Routine Compliance ☐ Repeat ☐ Replacement ☐ Main Clearance ☐ Well Survey ☐ Other

Sample Collection Date: 11/22/13

Total Coliform Analysis Method: SM9223B
Fecal or E. coli Analysis Method: SM9223B

Sample Number	Sample Point (Location or Specific Address)	Collection Time	Sample Type[1]	Disinfect Res'd (mg/L)	pH	Non Coliform	Total Coliform	Fecal or E. coli	Data Qualifier[2]	Lab Sample Number
7	7535 Enterprise Rd. (2 Fat Guys Subs)	12:35 pm	D	3.1			A	A		180-7
8	6598 N. Military Trail (Vacation Travel Park)	12:50 pm	D	0.6			A	A		180-8
9	2548 Maniki Drive (Lone Pine Estates)	1:05 pm	D	0.9			A	A		180-9
10	2300 Old Dixie Hywy (Arnold Oro-Wheat Bakery)	8:45 am	D	3.8			A	A		180-10
11	1357 Silver Beach Road	10:15 am	D	3.8			A	A		180-11
12	Ave. A (U.S.Coast Guard Station)	10:25 am	D	1.8			A	A		180-12

[2]Defined in Florida Administrative Code Rule 62-160, Table 1

Average of disinfectant residuals for routine and repeat samples. (Complete for community and non-transient non-community systems serving populations up to and including 4,900. Do not include raw or plant samples in the average.)

All tests are performed in accordance with NELAC standards.

Disinfectant Residual Analysis Method: ☒ DPD Colorimetric ☐ Other: ____
Person performing analysis is (Please see instructions on reverse):
☒ A certified operator (# 15223) ☐ Employed by a certified lab
☐ Supervised by a cert operator (# ____) ☐ Employed by DEP or DOH

Date PWS notified by lab of positive results: ____
Date State notified by lab of positive results: ____

Lab Signature: [signature]
Title: PM

Name and Mailing Address of Person to Receive Report

DEP/DOH USE ONLY
☒ Satisfactory
☐ Incomplete Collection Information
☐ Repeat Samples Required
☐ Replacement Samples Required
Date Reviewed by DEP/DOH: 12-5-13
DEP/DOH Reviewing Official: S. Partan

[1]DEP Sample Type Codes: D = Distribution (Routine Compliance); C = Repeat or Check; R = Raw; N = Entry to Distribution; P = Plant Tap; S = Special (clearance, etc.)
Analysis Methods: MF = SM9222B & D; MTF = 9221B & EC/MUG; MMO/MUG = SM9223B; HPC = SM9215B
Results: A = coliforms are absent; P = coliforms are present; C = confluent growth; TNTC = too numerous to count

DRINKING WATER BACTERIOLOGICAL SAMPLE COLLECTION
REPORTING FORMAT

(3)

Jupiter Environmental Laboratories
150 S. Old Dixie Hwy
Jupiter, FL 33458
561-575-0030

Lab Receipt Date & Time: 11/22/13 1445
Analysis Date & Time: 11/22/13 1700
Sample Acceptance Criteria:
Sample Preservation ☒ On Ice ☐ Not On Ice ☒ 3.5 °C
Disinfectant Check ☒ Not Detected ☐ ____ mg/L
This sample does not meet the following NELAC requirements:

Report Number: 135180 Sub-Contract Lab ID: 135180
Analysis Requested: (please check all that apply)
☒ Standard Coliform Test
☐ HPC
☐ Other:

System Name: CITY OF RIVIERA BEACH PWS I.D. 4501229

System Address: 600 WEST BLUE HERON BLVD.

City: RIVIERA BEACH; FL. 33404

System or Owner's Phone #: (561)845-4187 Fax #: (561)640-7292

Collector: Carlos Lavadie Collector's Phone # (561)845-4167

Type of Supply: (check only one)
☒ Community Water System ☐ Non-Transient Non-community Water System ☐ Transient Non-community Water System
☐ Limited Use System ☐ Bottled Water ☐ Private Well ☐ Swimming Pool ☐ Other

Reason for Sampling: (check only one) ☒ Routine Compliance ☐ Repeat ☐ Replacement ☐ Main Clearance ☐ Well Survey ☐ Other

Sample Collection Date: 11/22/13

Total Coliform Analysis Method: SM9223B
Fecal or E. coli Analysis Method: SM9223B

Sample Number	Sample Point (Location or Specific Address)	Collection Time	Sample Type[1]	Disinfect Res'd (mg/L)	pH	Non Coliform	Total Coliform	Fecal or E. coli	Data Qualifier[2]	Lab Sample Number
13	237 E. 28th St.	10:37 AM	D	2.8			A	A		180-13
14	249 E. 23rd St.	10:55 AM	D	1.7			A	A		180-14
15	1619 Broadway (Larry Smith Electronics)	10:55 AM	D	1.1			A	A		180-15
16	1301 Grandview Place (Newcombe Hall)	11:10 AM	D	1.4			A	A		180-16
17	1501 Ave. U (Mary McCleod Bethune Elementary School)	9:35 AM	D	1.9			A	A		180-17
18	4660 Caribbean Blvd.	1:10 PM	D	0.7			A	A		180-18

[2]Defined in Florida Administrative Code Rule 62-160, Table 1

Average of disinfectant residuals for routine and repeat samples. (Complete for community and non-transient non-community systems serving populations up to and including 4,900. Do not include raw or plant samples in the average.)

All tests are performed in accordance with NELAC standards.

Disinfectant Residual Analysis Method: ☒ DPD Colorimetric ☐ Other:
Person performing analysis is (Please see instructions on reverse):
☒ A certified operator (# 15225) ☐ Employed by a certified lab
☐ Supervised by a cert operator (#) ☐ Employed by DEP or DOH

Date PWS notified by lab of positive results:
Date State notified by lab of positive results:

Lab Signature:
Title: PM

Name and Mailing Address of Person to Receive Report

DEP/DOH USE ONLY
☑ Satisfactory
☐ Incomplete Collection Information
☐ Repeat Samples Required
☐ Replacement Samples Required
Date Reviewed by DEP/DOH: 12-5-13
DEP/DOH Reviewing Official: S. Parkin

[1]DEP Sample Type Codes: D = Distribution (Routine Compliance); C = Repeat or Check; R = Raw; N = Entry to Distribution; P = Plant Tap; S = Special (clearance, etc.)
Analysis Methods: MF = SM9222B & D; MTF = 9221B & EC/MUG; MMO/MUG = SM9223B; HPC = SM9215B

(3)

DRINKING WATER BACTERIOLOGICAL SAMPLE COLLECTION REPORTING FORMAT

Jupiter Environmental Laboratories
150 S. Old Dixie Hwy
Jupiter, FL 33458
561-575-0030

Lab Receipt Date & Time: 11/22/13 1445
Analysis Date & Time: 11/22/13 1700
Sample Acceptance Criteria:
Sample Preservation ☒ On Ice ☐ Not On Ice ☒ 3.5 °C
Disinfectant Check ☒ Not Detected ☐ ____ mg/L
This sample does not meet the following NELAC requirements:

Report Number: 1335180 Sub-Contract Lab ID: E86546
Analysis Requested: (please check all that apply)
☒ Standard Coliform Test
☐ HPC
☐ Other:

System Name: CITY OF RIVIERA BEACH **PWS I.D.** 4501229

System Address: 800 WEST BLUE HERON BLVD.

City: RIVIERA BEACH; FL. 33404

System or Owner's Phone #: (561)845-4187 Fax #: (561)840-7292
Collector: Carlos Lamadrid Collector's Phone # (561)845-4187

Type of Supply: (check only one)
☒ Community Water System ☐ Non-Transient Non-community Water System ☐ Transient Non-community Water System
☐ Limited Use System ☐ Bottled Water ☐ Private Well ☐ Swimming Pool ☐ Other
Reason for Sampling: (check only one) ☒ Routine Compliance ☐ Repeat ☐ Replacement ☐ Main Clearance ☐ Well Survey ☐ Other
Sample Collection Date: 11/22/13

Total Coliform Analysis Method: SM9223B
Fecal or E. coli Analysis Method:

Sample Number	Sample Point (Location or Specific Address)	Collection Time	Sample Type[1]	Disinfect Res'd (mg/L)	pH	Non Coliform	Total Coliform	Fecal or E. coli	Data Qualifier[2]	Lab Sample Number
19	5766 Parke Ave.	1:25 pm	D	0.6			P	A		180-19
20	5763 S. Bermuda Circle	1:40 pm	D	0.6			P	A		180-20

[2]Defined in Florida Administrative Code Rule 62-160, Table 1
All tests are performed in accordance with NELAC standards.

Average of disinfectant residuals for routine and repeat samples. (Complete for community and non-transient non-community systems serving populations up to and including 4,900. Do not include raw or plant samples in the average.)

Disinfectant Residual Analysis Method: ☒ DPD Colorimetric ☐ Other:
Person performing analysis is (Please see instructions on reverse):
☒ A certified operator (# 15223) ☐ Employed by a certified lab
☐ Supervised by a cert operator (# ____) ☐ Employed by DEP or DOH

Date PWS notified by lab of positive results:
Date State notified by lab of positive results:
Lab Signature: [signature]
Title: PM

Name and Mailing Address of Person to Receive Report

DEP/DOH USE ONLY
☐ Satisfactory
☐ Incomplete Collection Information
☒ Repeat Samples Required for both 180-19 & 180-20
☐ Replacement Samples Required
Date Reviewed by DEP/DOH: 12-5-13
DEP/DOH Reviewing Official: S. Parkison

[1]DEP Sample Type Codes: D = Distribution (Routine Compliance); C = Repeat or Check; R = Raw; N = Entry to Distribution; P = Plant Tap; S = Special (clearance, etc.)
Analysis Methods: MF = SM9222B & D; MTF = 9221B & EC/MUG; MMO/MUG = SM9223B; HPC = SM9215B

DRINKING WATER BACTERIOLOGICAL SAMPLE COLLECTION
3 FORMAT

(3)

RECEIVED
JAN 07 2014
Florida Department of Health - PBC
Water Section

E Jupiter Environmental Laboratories
E 150 S. Old Dixie Hwy FLORIDA, INC.
F Jupiter, FL 33458
F 561-575-0030

Lab Receipt Date & Time: 10/24/13 16:10
Analysis Date & Time: 10.24.13 1645
Sample Acceptance Criteria:
Sample Preservation ☒ On Ice ☐ Not On Ice 3 °C
Disinfectant Check ☒ Not Detected ☐ ____ mg/L
This sample does not meet the following NELAC requirements:

Report Number: 1341771 Sub-Contract Lab ID: E80546
Analysis Requested: (please check all that apply)
☒ Standard Coliform Test
☐ HPC
☐ Other

System Name: City of Riviera Beach Utilities PWS I.D. 450-1229
System Address: 800 West Blue Heron Boulevard City: Riviera Beach
System or Owner's Phone #: 561-845-4187 Fax #: 561-840-7292
Collector: Charles Linsdell Collector's Phone # 561-845-4187

Type of Supply: (check only one)
☒ Community Water System ☐ Non-Transient Non-community Water System ☐ Transient Non-community Water System
☐ Limited Use System ☐ Bottled Water ☐ Private Well ☐ Swimming Pool ☐ Other

Reason for Sampling: (check only one) ☒ Routine Compliance ☐ Repeat ☐ Replacement ☐ Main Clearance ☐ Well Survey ☐ Other

Sample Collection Date: 10/24/13

To be completed by collector of sample						To be completed by lab				
						Total Coliform Analysis Method: MF SM9222B				
						Fecal or E. coli Analysis Method:				
Sample Number	Sample Point (Location or Specific Address)	Collection Time	Sample Type*	Disinfect Res'd (mg/L)	PH	Non Coliform	Total Coliform	Fecal or E. coli	Data Qualifier*	Lab Sample Number
1	Well #1	1 29 PM	R				A	A		TTL-1
2	Well #4		R							
3	Well #5	12 35 PM	R				A	A		TTL-2
4	Well #6	12 50 PM	R				A	A		TTL-3
5	Well #7		R							
6	Well #9A	11 20 AM	R				A	A		TTL-4
7	Well #10A		R							

*Defined in Florida Administrative Code Rule 62-550, Table 1

Average of disinfectant residuals for routine and repeat samples. (Complete for community and non-transient non-community systems serving populations up to and including 4,900. Do not include raw or plant samples in the average.)

All tests are performed in accordance with NELAC standards.

Disinfectant Residual Analysis Method: ☐ DPD Colorimetric ☒ Other: N/A
Person performing analysis is (Please see instructions on reverse):
☒ A certified operator (# 0525) Employed by a certified lab
☐ Supervised by a cert operator (# _____) ☐ Employed by DEP or DOH

Date PWS notified by lab of positive results: ____
Date State notified by lab of positive results: ____

Lab Signature: [signature]
Title: M

Name and Mailing Address of Person to Receive Report

City of Riviera Beach
P O. Drawer #10682
Riviera Beach, FL 33419-1682

DEP/DOH USE ONLY
☑ Satisfactory
☐ Incomplete Collection Information
☐ Repeat Samples Required
☐ Replacement Samples Required
Date Reviewed by DEP/DOH: 1-7-14
DEP/DOH Reviewing Official: S. Partian

(3)

DRINKING WATER BACTERIOLOGICAL SAMPLE COLLECTION AND LABORATORY REPORTING FORMAT

EN' Jupiter Environmental Laboratories ,ORIDA, INC.
P.O 150 S. Old Dixie Hwy
RIV Jupiter, FL 33458
561-575-0030

Lab Receipt Date & Time: 10/24/13 16:10
Analysis Date & Time: 10-24-13 1645
Sample Acceptance Criteria:
Sample Preservation ☒ On Ice ☐ Not On Ice #3 °C
Disinfectant Check ☒ Not Detected ☐ ____ mg/L
This sample does not meet the following NELAC requirements

Report Number 1334771 Sub-Contract Lab ID ES605410

Analysis Requested: (please check all that apply)
☒ Standard Coliform Test
☐ HPC
☐ Other

System Name: City of Riviera Beach Utilities PWS I.D. 450-1229

System Address: 800 West Blue Heron Boulevard City: Riviera Beach

System or Owner's Phone #: 561-845-4187 Fax #: 561-840-7292

Collector: Carlos Quesada Collector's Phone # 561-845-4187

Type of Supply: (check only one)

☒ Community Water System ☐ Non-Transient Non-community Water System ☐ Transient Non-community Water System
☐ Limited Use System ☐ Bottled Water ☐ Private Well ☐ Swimming Pool ☐ Other

Reason for Sampling: (check only one) ☒ Routine Compliance ☐ Repeat ☐ Replacement ☐ Main Clearance ☐ Well Survey ☐ Other

Sample Collection Date: 10/24/13

To be completed by collector of sample						To be completed by lab				
						Total Coliform Analysis Method: MF				
						Fecal or E. coli Analysis Method: SM9223B				
Sample Number	Sample Point (Location or Specific Address)	Collection Time	Sample Type[1]	Disinfect Res'd (mg/L)	PH	Non Coliform	Total Coliform	Fecal or E. coli	Data Qualifier[2]	Lab Sample Number
8	Well #12A	1:50 PM	R				A	A		T11-5
9	Well #13		R							
10	Well #14	1:30 PM	R				A	A		T11-6
11	Well #15	1:40 PM	R				A	A		T11-7
12	Well #18	1:10 PM	R				A	A		T11-8
13	Well #16	12:55 PM	R				A	A		T11-9
14	Well #21	11:10 AM	R				A	A		T11-10

[1] Defined in Florida Administrative Code Rule 62-160, Table I

Average of disinfectant residuals for routine and repeat samples. (Complete for community and non-transient non-community systems serving populations up to and including 4,900. Do not include raw or plant samples in the average.)

All tests are performed in accordance with NELAC standards.

Disinfectant Residual Analysis Method: ☐ DPD Colorimetric ☒ Other N/A

Person performing analysis is (Please see instructions on reverse):
☒ A certified operator (# 13223) ☐ Employed by a certified lab
☐ Supervised by a cert operator (# _____) ☐ Employed by DEP or DOH

Date PWS notified by lab of positive results: _____

Date State notified by lab of positive results: _____

Lab Signature: [signature]

Title: PM

Name and Mailing Address of Person to Receive Report

City of Riviera Beach
P.O. Drawer #10682
Riviera Beach, FL 33419-1682

DEP/DOH USE ONLY
☑ Satisfactory
☐ Incomplete Collection Information
☐ Repeat Samples Required
☐ Replacement Samples Required
Date Reviewed by DEP/DOH: 1-7-14
DEP/DOH Reviewing Official: S. Parham

(3)

DRINKING WATER BACTERIOLOGICAL SAMPLE COLLECTION AND LABORATORY REPORTING FORMAT

Jupiter Environmental Laboratories FLORIDA, INC.
150 S. Old Dixie Hwy
Jupiter, FL 33458
561-575-0030

Lab Receipt Date & Time: 10/24/13 16:10
Analysis Date & Time: 10.24.13 1645
Sample Acceptance Criteria:
Sample Preservation ☒ On Ice ☐ Not On Ice 3 °C
Disinfectant Check ☒ Not Detected ☐ mg/L
This sample does not meet the following NELAC requirements:

Report Number 1334771 Sub-Contract Lab ID E86546
Analysis Request (please check all that apply)
☒ Standard Coliform Test
☐ HPC
☐ Other

PWS I.D. **450-1229**

System Name: City of Riviera Beach Utilities
City: Riviera Beach
System Address: 600 West Blue Heron Boulevard
Fax #: 561-840-7292
System or Owner's Phone #: 561-845-4187
Collector: [signature]
Collector's Phone # 561-845-4187

Type of Supply: (check only one)
☒ Community Water System ☐ Non-Transient Non-community Water System ☐ Transient Non-community Water System
☐ Limited Use System ☐ Bottled Water ☐ Private Well ☐ Swimming Pool ☐ Other
Reason for Sampling: (check only one) ☒ Routine Compliance ☐ Repeat ☐ Replacement ☐ Main Clearance ☐ Well Survey ☐ Other
Sample Collection Date: 10/24/13

To be completed by lab: Total Coliform Analysis Method: SM9223B; Fecal or E. coli Analysis Method: SM9223B

Sample Number	Sample Point (Location or Specific Address)	Collection Time	Sample Type[1]	Disinfect Res'd (mg/L)	PH	Non Coliform	Total Coliform	Fecal or E. coli	Data Qualifier[2]	Lab Sample Number
15	Well #802	10:20 AM	R	/			A	A		771.11
16	Well #851	10:05 AM	R	/			A	A		771.12
17	Well #852	/	R	/						
18	Well #861	/	R	/						
19	Well #871	/	R	/						
20	Well #921	/	R	/						
21	Well #922	9:50 AM	R	/			A	A		771.13

[1] Defined in Florida Administrative Code Rule 62-160, Table 1

All tests are performed in accordance with NELAC standards.

Average of disinfectant residuals for routine and repeat samples. (Complete for community and non-transient non-community systems serving populations up to and including 4,900. Do not include raw or plant samples in the average.)

Disinfectant Residual Analysis Method: ☐ DPD Colorimetric ☒ Other: N/A
Person performing analysis is (Please see instructions on reverse):
☒ A certified operator (# 15223) ☐ Employed by a certified lab
☐ Supervised by a cert operator (#) ☐ Employed by DEP or DOH

Date PWS notified by lab of positive results: ____
Date State notified by lab of positive results: ____
Lab Signature: [signature]
Title: PM

Name and Mailing Address of Person to Receive Report

City of Riviera Beach
P.O. Drawer #10682
Riviera Beach, FL 33419-1682

DEP/DOH USE ONLY
☒ Satisfactory
☐ Incomplete Collection Information
☐ Repeat Samples Required
☐ Replacement Samples Required
Date Reviewed by DEP/DOH: 1-7-14
DEP/DOH Reviewing Official: S. Partian

DRINKING WATER BACTERIOLOGICAL SAMPLE COLLECTION ...RTING FORMAT

(3)

Jupiter Environmental Laboratories
150 S. Old Dixie Hwy
Jupiter, FL 33458
561-575-0030

Lab Receipt Date & Time: 10/24/13 16:10
Analysis Date & Time: 10-24-13 1645

Sample Acceptance Criteria:
Sample Preservation ☒ On ice ☐ Not On ice 3 °C
Disinfectant Check ☒ Not Detected ☐ ___ mg/L
This sample does not meet the following NELAC requirements:

Report Number: 1384771 Sub-Contract Lab ID: E86546

Analysis Requested: (please check all that apply)
☒ Standard Coliform Test
☐ HPC
☐ Other:

PWS I.D. 4501229

System Name: CITY OF RIVIERA BEACH

System Address: 600 WEST BLUE HERON BLVD.

City: RIVIERA BEACH; FL. 33404

System or Owner's Phone #: (561)845-4187
Fax #: (561)840-7292

Collector: Carlos [signature]
Collector's Phone # (561)845-4187

Type of Supply: (check only one)
☒ Community Water System ☐ Non-Transient Non-community Water System ☐ Transient Non-community Water System
☐ Limited Use System ☐ Bottled Water ☐ Private Well ☐ Swimming Pool ☐ Other

Reason for Sampling: (check only one) ☒ Routine Compliance ☐ Repeat ☐ Replacement ☐ Main Clearance ☐ Well Survey ☐ Other

Sample Collection Date: 10/24/13

To be completed by collector of sample / To be completed by lab

Total Coliform Analysis Method: SM9223B
Fecal or E. coli Analysis Method:

Sample Number	Sample Point (Location or Specific Address)	Collection Time	Sample Type[1]		Non Coliform	Total Coliform	Fecal or E. coli	Data Qualifier[2]	Lab Sample Number
25	Well # 2004	10:45 AM	R			A	A		771.14
26	Well # 803	10:25 AM	R			A	A		771.15
27	Well # 961		R						
28	Well 862	9:50 AM	R			A	A		771.16

[2]Defined in Florida Administrative Code Rule 62-160, Table 1

All tests are performed in accordance with NELAC standards.

Average of disinfectant residuals for routine and repeat samples. (Complete for community and non-transient non-community systems serving populations up to and including 4,900. Do not include raw or plant samples in the average.)

Disinfectant Residual Analysis Method: ☐ DPD Colorimetric ☒ Other: N/A
Person performing analysis is (Please see instructions on reverse):
☒ A certified operator (# 15223) ☐ Employed by a certified lab
☐ Supervised by a cert operator (# ______) ☐ Employed by DEP or DOH

Date PWS notified by lab of positive results:
Date State notified by lab of positive results:

Lab Signature: [signature]
Title: [signature]

Name and Mailing Address of Person to Receive Report

DEP/DOH USE ONLY
☒ Satisfactory
☐ Incomplete Collection Information
☐ Repeat Samples Required
☐ Replacement Samples Required
Date Reviewed by DEP/DOH: 1-7-14
DEP/DOH Reviewing Official: S. Partian

[1]DEP Sample Type Codes: D = Distribution (Routine Compliance); C = Repeat or Check; R = Raw; N = Entry to Distribution; P = Plant Tap; S = Special (clearance, etc.)
Analysis Methods: MF = SM9222B & D; MTF = 9221B & EC/MUG; MMO/MUG = SM9223B; HPC = SM9215B

10-9-13 SP

DRINKING WATER BACTERIOLOGICAL SAMPLE COLLECTION AND LABORATORY REPORTING FORMAT

~~Environmental Services of South Florida, Inc.~~
~~P.O. Box 40000~~
~~Riviera Beach, FL 33440-7905~~
~~Lab Certification #E86740~~

JUPITER ENVIRONMENTAL LABS
160 S. OLD DIXIE HWY
JUPITER, FL 33458
561-575-0030

(3)

JUPITER ENVIRONMENTAL LABS
150 S. OLD DIXIE HWY
JUPITER, FL 33458
561-575-0030

Lab Receipt Date & Time: 10/3/13 1615
Analysis Date & Time: 10/3/13 1645
Sample Acceptance Criteria:
Sample Preservation ☒ On Ice ☐ Not On Ice @ 4 °C
Disinfectant Check ☒ Not Detected ☐ ____ mg/L
This sample does not meet the following NELAC requirements:

Report Number: 334473 Sub-Contract Lab ID: E805416

Analysis Requested: (please check all that apply)
☒ Standard Coliform Test
☐ HPC
☐ Other: _____

PWS I.D. # 4501229

System Name: City of Riviera Beach Utility District

City: Riviera Beach, FL 33404

System Address: 600 W. Blue Heron Blvd.

Fax #: (561)840-7202

System or Owner's Phone #: (561)845-4187

Collector: Carlos Lombardi

Collector's Phone # (561)845-4187

Type of Supply: (check only one)
☒ Community Water System ☐ Non-Transient Non-community Water System ☐ Transient Non-community Water System
☐ Limited Use System ☐ Bottled Water ☐ Private Well ☐ Swimming Pool ☐ Other _____

Reason for Sampling: (check only one) ☒ Routine Compliance ☐ Repeat ☐ Replacement ☐ Main Clearance ☐ Well Survey ☐ Other

Sample Collection Date: 10/3/13

Total Coliform Analysis Method: SM9222B
Fecal or E. coli Analysis Method:

Sample Number	Sample Point (Location or Specific Address)	Collection Time	Sample Type[1]	Disinfect Res'd (mg/L)	pH	Non Coliform	Total Coliform	Fecal or E. coli	Data Qualifier[2]	Lab Sample Number
1	600 W. 28th St. (Inlet Grove High School)	1:20 PM	D	4.0			A	A		473-1
2	2300 Ave. E (Marshals Bait)	1:10 PM	D	1.0			A	A		473-2
3	118 W. 19th St.	1:20 PM	D	1.2			A	A		473-3
4	35 W. 11th St	1:30 PM	D	1.7			A	A		473-4
5	200 E 13th St. (Riviera Beach Marina)	1:30 PM	D	3.2			A	A		473-5
6	2425 Lakeshore Dr.	9:25 AM	D	39			A	A		473-6

[1]Defined in Florida Administrative Code Rule 62-160, Table 1

Average of disinfectant residuals for routine and repeat samples. (Complete for community and non-transient non-community systems serving populations up to and including 4,900. Do not include raw or plant samples in the average.)

All tests are performed in accordance with NELAC standards.

Disinfectant Residual Analysis Method: ☒ DPD Colorimetric ☐ Other: _____
Person performing analysis is (Please see instructions on reverse):
☒ A certified operator (# 15223) ☐ Employed by a certified lab
☐ Supervised by a cert operator (# _____) ☐ Employed by DEP or DOH

Date PWS notified by lab of positive results: _____
Date State notified by lab of positive results: _____

Lab Signature: _____
Title: _____

Name and Mailing Address of Person to Receive Report

DEP/DOH USE ONLY
☑ Satisfactory
☐ Incomplete Collection Information
☐ Repeat Samples Required
☐ Replacement Samples Required
Date Reviewed by DEP/DOH: 10-9-13
DEP/DOH Reviewing Official: S. Pachiano

[1]DEP Sample Type Codes: D = Distribution (Routine Compliance); C = Repeat or Check; R = Raw; N = Entry to Distribution; P = Plant Tap; S = Special (clearance, etc.)
Analysis Methods: MF = SM9222B & D; MTF = 9221B & ECRMUG; MMO/MUG = SM9223B; HPC = SM9215B
Results: A = coliforms are absent; P = coliforms are present; C = confluent growth; TNTC = too numerous to count

DRINKING WATER BACTERIOLOGICAL SAMPLE COLLECTION AND LABORATORY REPORTING FORMAT

(3)

~~Environmental Services of South Florida~~ Inc.
~~P.O. BOX 10063~~
~~Riviera Beach, FL 33419-7605~~
~~Lab Certification #E86740~~

JUPITER ENVIRONMENTAL LABS
150 S. OLD DIXIE HWY
JUPITER, FL 33458
561-575-0030

JUPITER ENVIRONMENTAL LABS
150 S. OLD DIXIE HWY
JUPITER, FL 33458
561-575-0030

Lab Receipt Date & Time: 10/3/13 1045
Analysis Date & Time: 10/3/13 1045
Sample Acceptance Criteria:
Sample Preservation ☑ On Ice ☐ Not On Ice @ 4 °C
Disinfectant Check ☑ Not Detected ☐ ____ mg/L
This sample does not meet the following NELAC requirements:

Report Number: 338473 Sub-Contract Lab ID: E86546
Analysis Requested: (please check all that apply)
☑ Standard Coliform Test
☐ HPC
☐ Other: ____

System Name: City of Riviera Beach Utility District PWS I.D. #4501229
System Address: 600 W. Blue Heron Blvd. City: Riviera Beach, FL 33404
System or Owner's Phone #: (561)845-4187 Fax #: (561)840-7202
Collector: Carlos Landrid Collector's Phone #: (561)845-4187

Type of Supply: (check only one)
☑ Community Water System ☐ Non-Transient Non-community Water System ☐ Transient Non-community Water System
☐ Limited Use System ☐ Bottled Water ☐ Private Well ☐ Swimming Pool ☐ Other ____

Reason for Sampling: (check only one) ☑ Routine Compliance ☐ Repeat ☐ Replacement ☐ Main Clearance ☐ Well Survey ☐ Other

Sample Collection Date: 10/3/13

Total Coliform Analysis Method: SM9223B
Fecal or E. coli Analysis Method: SM9223B

Sample Number	Sample Point (Location or Specific Address)	Collection Time	Sample Type[1]	Disinfect Res'd (mg/L)	pH	Non Coliform	Total Coliform	Fecal or E. coli	Data Qualifier[2]	Lab Sample Number
7	300 Edwards Ln.	9:50 AM	D	3.5			A	A		473-7
8	2700 N. Ocean Dr.	9:20 AM	D	3.5			A	A		473-8
9	3100 N. Ocean Dr. (Island Beach Resort)	9:10 AM	D	3.7			A	A		473-9
10	101 Inlet Way	10:00 AM	D	4.0			A	A		473-10
11	5010 N. Ocean Dr. (Singer Island Fire Station)	8:45 AM	D	3.6			A	A		473-11
12	5480 N. Ocean Dr. (Dunes Tower Condominium)	8:25 AM	D	1.9			A	A		473-12

[2] Defined in Florida Administrative Code Rule 62-160, Table 1

Average of disinfectant residuals for routine and repeat samples. (Complete for community and non-transient non-community systems serving populations up to and including 4,900. Do not include raw or plant samples in the average.)

All tests are performed in accordance with NELAC standards.

Disinfectant Residual Analysis Method: ☑ DPD Colorimetric ☐ Other: ____
Person performing analysis is (Please see instructions on reverse):
☑ A certified operator (# 15223) ☐ Employed by a certified lab
☐ Supervised by a cert operator (# ____) ☐ Employed by DEP or DOH

Date PWS notified by lab of positive results: ____
Date State notified by lab of positive results: ____

Lab Signature: [signature]
Title: PM

Name and Mailing Address of Person to Receive Report

DEP/DOH USE ONLY
☑ Satisfactory
☐ Incomplete Collection Information
☐ Repeat Samples Required
☐ Replacement Samples Required
Date Reviewed by DEP/DOH: 10-9-13
DEP/DOH Reviewing Official: S. Fechtman

[1] DEP Sample Type Codes: D = Distribution (Routine Compliance); C = Repeat or Check; R = Raw; N = Entry to Distribution; P = Plant Tap; S = Special (clearance, etc.)
Analysis Methods: MF = SM9222B & D; MTF = 9221B & ECMUG; MMOMUG = SM9223B; HPC = SM9215B
Results: A = coliforms are absent; P = coliforms are present; C = confluent growth; TNTC = too numerous to count

DRINKING WATER BACTERIOLOGICAL SAMPLE COLLECTION AND LABORATORY REPORTING FORMAT

~~Environmental Services of South Florida, Inc.~~
~~P.O. Box 10093~~
~~Riviera Beach, FL 33419-7805~~
~~Lab Certification #E86740~~

JUPITER ENVIRONMENTAL LABS
150 S. OLD DIXIE HWY
JUPITER, FL 33458

JUPITER ENVIRONMENTAL LABS
150 S. OLD DIXIE HWY
JUPITER, FL 33458
561-575-0030

(3)

Lab Receipt Date & Time: 10/3/13 1615
Analysis Date & Time: 10/3/13 1604

Sample Acceptance Criteria:
Sample Preservation ☒ On Ice ☐ Not On Ice 4 °C
Disinfectant Check ☒ Not Detected ☐ ____ mg/L
This sample does not meet the following NELAC requirements: _____

Report Number: 1324473 Sub-Contract Lab ID: E86540

Analysis Requested: (please check all that apply)
☒ Standard Coliform Test
☐ HPC
☐ Other: _____

System Name: City of Riviera Beach Utility District PWS I.D. #4501229

System Address: 600 W. Blue Heron Blvd. City: Riviera Beach, FL. 33404

System or Owner's Phone #: (561)845-4187 Fax #: (561)840-7292

Collector: Carlos Lavadeid Collector's Phone # (561)845-4187

Type of Supply: (check only one)

☒ Community Water System ☐ Non-Transient Non-community Water System ☐ Transient Non-community Water System
☐ Limited Use System ☐ Bottled Water ☐ Private Well ☐ Swimming Pool ☐ Other _____

Reason for Sampling: (check only one) ☒ Routine Compliance ☐ Repeat ☐ Replacement ☐ Main Clearance ☐ Well Survey ☐ Other

Sample Collection Date: 10/3/13

Total Coliform Analysis Method: SM9222B
Fecal or E. coli Analysis Method: SM9222B

Sample Number	Sample Point (Location or Specific Address)	Collection Time	Sample Type[1]	Disinfect Res'd (mg/L)	pH	Non Coliform	Total Coliform	Fecal or E. coli	Data Qualifier[2]	Lab Sample Number
13	1051 Pine Point (Singer Island)	8:55 AM	D	3.7			A	A		473-13
14	1110 Grand Bahama Lane (Singer Island)	9:00 AM	D	2.6			A	A		473-14
15	900 E. Blue Heron Blvd. (Phil Foster Park)	10:10 AM	D	1.2			A	A		473-15
16	274 W. Blue Heron Blvd.	1:55 PM	D	4.0			A	A		473-16
17	7101 N. Military Tr. (Fire Station)	11:45 AM	D	2.1			A	A		473-17
18	4152 W. Blue Heron Blvd. (Centerpoint Plaza)	11:30 AM	D	1.9			A	A		473-18

[2]Defined in Florida Administrative Code Rule 62-160, Table I

Average of disinfectant residuals for routine and repeat samples. (Complete for community and non-transient non-community systems serving populations up to and including 4,900. Do not include raw or plant samples in the average.)

All tests are performed in accordance with NELAC standards.

Disinfectant Residual Analysis Method: ☒ DPD Colorimetric ☐ Other: _____

Person performing analysis is (Please see instructions on reverse):
☒ A certified operator (# 15223) ☐ Employed by a certified lab
☐ Supervised by a cert operator (# _____) ☐ Employed by DEP or DOH

Date PWS notified by lab of positive results: _____
Date State notified by lab of positive results: _____

Lab Signature: _____
Title: _____

Name and Mailing Address of Person to Receive Report

DEP/DOH USE ONLY
☒ Satisfactory
☐ Incomplete Collection Information
☐ Repeat Samples Required
☐ Replacement Samples Required
Date Reviewed by DEP/DOH: 10-9-13
DEP/DOH Reviewing Official: S. Parkin

[1]DEP Sample Type Codes: D = Distribution (Routine Compliance); C = Repeat or Check; R = Raw; N = Entry to Distribution; P = Plant Tap; S = Special (clearance, etc.)
Analysis Methods: MF = SM9222B & D; MTF = 9221B & EC/MUG; MMO/MUG = SM9223B; HPC = SM9215B
Results: A = coliforms are absent; P = coliforms are present; C = confluent growth; TNTC = too numerous to count

DRINKING WATER BACTERIOLOGICAL SAMPLE COLLECTION AND LABORATORY REPORTING FORMAT

~~Environmental Services of South Florida, Inc.~~
~~P.O. BOX 10003~~
~~Riviera Beach, FL 33419-7006~~
~~Lab Certification #E60740~~

JUPITER ENVIRONMENTAL LABS
150 S. OLD DIXIE HWY
JUPITER, FL 33458

JUPITER ENVIRONMENTAL LABS
150 S. OLD DIXIE HWY
JUPITER, FL 33458
561-575-0090

(3)

Lab Receipt Date & Time: 10/3/13 1015
Analysis Date & Time: 10/3/13 1045
Sample Acceptance Criteria:
Sample Preservation ☒ On Ice ☐ Not On Ice @ 4 °C
Disinfectant Check ☒ Not Detected ☐ ____ mg/L
This sample does not meet the following NELAC requirements: ____

Report Number: 1334473 Sub-Contract Lab ID: E60540

Analysis Requested: (please check all that apply)
☒ Standard Coliform Test
☐ HPC
☐ Other: ____

PWS I.D. # 4501229

System Name: City of Riviera Beach Utility District

System Address: 600 W. Blue Heron Blvd. City: Riviera Beach, FL 33404

System or Owner's Phone #: (561)845-4187 Fax #: (561)840-7282

Collector: Carlos Caballero Collector's Phone #: (561)845-4187

Type of Supply: (check only one)
☒ Community Water System ☐ Non-Transient Non-community Water System ☐ Transient Non-community Water System
☐ Limited Use System ☐ Bottled Water ☐ Private Well ☐ Swimming Pool ☐ Other ____

Reason for Sampling: (check only one) ☒ Routine Compliance ☐ Repeat ☐ Replacement ☐ Main Clearance ☐ Well Survey ☐ Other

Sample Collection Date: 10/3/13

Total Coliform Analysis Method: SM9222B
Fecal or E. coli Analysis Method: SM9222D

Sample Number	Sample Point (Location or Specific Address)	Collection Time	Sample Type[1]	Disinfect Res'd (mg/L)	pH	Non Coliform	Total Coliform	Fecal or E. coli	Data Qualifier[2]	Lab Sample Number
18	2000 Bonisle Cir. (Woodbine)	11:25 AM	D	3.1			A	A		473419
20	7301 Haverhill Rd. (Dyer Park)	11:55 AM	D	0.6			A	A		473420

[2]Defined in Florida Administrative Code Rule 62-160, Table I

Average of disinfectant residuals for routine and repeat samples. (Complete for community and non-transient non-community systems serving populations up to and including 4,900. Do not include raw or plant samples in the average.)

All tests are performed in accordance with NELAC standards.

Disinfectant Residual Analysis Method: ☒ DPD Colorimetric ☐ Other: ____
Person performing analysis is (Please see instructions on reverse):
☒ A certified operator (# 15223) ☐ Employed by a certified lab
☐ Supervised by a cert operator (# ____) ☐ Employed by DEP or DOH

Date PWS notified by lab of positive results: ____
Date State notified by lab of positive results: ____

Lab Signature: [signature]
Title: MM

Name and Mailing Address of Person to Receive Report

DEP/DOH USE ONLY
☐ Satisfactory
☐ Incomplete Collection Information
☐ Repeat Samples Required
☐ Replacement Samples Required
Date Reviewed by DEP/DOH: 10-9-13
DEP/DOH Reviewing Official: S. Parkin

[1]DEP Sample Type Codes: D = Distribution (Routine Compliance); C = Repeat or Check; R = Raw; N = Entry to Distribution; P = Plant Tap; S = Special (clearance, etc.)
Analysis Methods: MF = SM9222B & D; MTF = 9221B & EC/MUG; MMOMUG = SM9223B; HPC = SM9215B
Results: A = coliforms are absent; P = coliforms are present; C = confluent growth; TNTC = too numerous to count

62-550.730 Reporting Format - Effective 01/01, Revised 01/01

10-1-13 SP

(3)

[illegible] MICROBIAL SAMPLE COLLECTION & LABORATORY REPORTING FORMAT

(62-550.730 Reporting Format Effective 01/1995, Revised 02/2010)

JUPITER ENVIRONMENTAL LABORATORIES, INC
150 S. Old Dixie Highway Jupiter, FL 33458

Lab Receipt Date & Time: 9/24/13 1555
Analysis Date & Time: 9/24/13 1056
Sample Acceptance Criteria:
Sample Preservation: ☒On Ice ☐Not On Ice ☒≥4 °C
Disinfectant Check: ☒Not Detected☐ ______ mg/L
This sample does not meet the following NELAC requirements: ______

Report Number: 1334352 Sub-Contract Lab ID: E86546

Analysis Requested: (check all that apply)
☒Total Coliform/E. coli ☐Total Coliform/Fecal ☐Enterococci ☐Coliphage ☐HPC ☐Other: ______

Public Water System (PWS) Name: City of Riviera Beach Utilities **PWS I.D.** 4501229

PWS Address: ______ City: Riviera Beach

PWS or PWS Owner's Phone #: 561-845-4187 Fax #: 561-840-7292

Collector: K. TORRES Collector's Phone #: 561-845-4187

Type of Supply: (check only one)
☐Community Water System ☐Non-Transient Non-community Water System ☐Transient Non-community Water System
☐Limited Use System ☐Bottled Water ☐Private Well ☐Swimming Pool ☐Other: ______

Reason for Sampling: (check all that apply)
☐Distribution Routine ☐Distribution Repeat ☐Raw (triggered or assessment) ☐Raw (triggered or assessment) additional ☑Well Survey
☐Clearance ☐Replacement (also check type of sample being replaced) ☐Boil Water Notice ☐Other: ______

Sample Collection Date: 9/24/13

To be completed by collector of sample						To be completed by lab; Analysis Method(s)[2]: SM 9223B				
Sample #	Sample Point (Location or Specific Address)	Sample Collection Time	Sample Type[1]	Disinfectant Residual (mg/L)	pH	Non-Coliform	Total Coliform	Fecal, E. coli, Enterococci, or Coliphage[3]	Data Qualifier[4]	Lab Sample #
1	#1 WELL	2 30 pm					A	A		352-1 ✓
1	#4 WELL	245 pm					P	A		352-2 ✓
1	#12 WELL	300 pm					A	A		352-3 ✓

Average of disinfectant residuals for distribution routine & repeat samples.[5] Free chlorine or Total chlorine (circle one)

Disinfectant Residual Analysis Method:
☐DPD Colorimetric ☐Other: ______

Person performing disinfectant analysis is (see instructions on reverse):
☐A certified operator (# 16903)
☒Supervised by certified operator (# ______)
☐Employed by a certified lab ☐Employed by DEP or DOH
☐Authorized representative of supplier of water

Unless otherwise noted, all tests are performed in accordance with NELAC standards, and the results relate only to the samples.

Date and time PWS notified by lab of positive results: 9/25/13 11:05
Date and time DEP/DOH notified by lab of positive results: ______
Date Report Issued: 9/30/13
Lab Signature: [signature]
Title: DIRECTOR PM

DEP/DOH USE ONLY
☑Satisfactory
☐Incomplete Collection Information
☐Repeat Samples Required
☐Replacement Samples Required
Date Reviewed by DEP/DOH: 10-2-13
DEP/DOH Reviewing Official: S. [signature]

[1] For Sample Types see Instructions item [illegible].
[2] For Analysis Methods see Instructions item [illegible].
[3] Please circle appropriate selection.
[4] Defined in Florida Administrative Code Rule 62-160, Table 1.
[5] Complete for community & non-transient non-community systems serving populations up to and including 4,900. Do not include raw or plant samples in the average.

DRINKING WATER BACTERIOLOGICAL SAMPLE COLLECTION AND REPORTING FORMAT

10-1-13 SP

(3)

Jupiter Environmental Labs Inc
150 South Old Dixie Highway
Jupiter, Florida 33458

Lab Receipt Date & Time: 9/19/13 1430
Analysis Date & Time: 9/19/13 1810
Sample Acceptance Criteria:
Sample Preservation ☒ On Ice ☐ Not On Ice ☒ 2.9 °C
Disinfectant Check ☒ Not Detected ☐ ____ mg/L
This sample does not meet the following NELAC requirements:

Report Number: 1324097 Sub-Contract Lab ID: ESL09410

Analysis Requested: (please check all that apply)
☒ Standard Coliform Test
☐ HPC
☐ Other: _____

System Name: CITY OF RIVIERA BEACH PWS I.D. 4501228

☐☐ System Address: 600 WEST BLUE HERON BLVD.

City: RIVIERA BEACH; FL 33404

System or Owner's Phone #: (561)845-4187 Fax #: (561)840-7262

Collector: Carlos Luis Ruiz Collector's Phone # (561)845-4187

Type of Supply: (check only one)
☒ Community Water System ☐ Non-Transient Non-community Water System ☐ Transient Non-community Water System
☐ Limited Use System ☐ Bottled Water ☐ Private Well ☐ Swimming Pool ☐ Other _____

Reason for Sampling: (check only one) ☒ Routine Compliance ☐ Repeat ☐ Replacement ☐ Main Clearance ☐ Well Survey ☐ Other

Sample Collection Date: 9/19/13

Total Coliform Analysis Method: SM9223B
Fecal or E. coli Analysis Method:

Sample Number	Sample Point (Location or Specific Address)	Collection Time	Sample Type[1]	Disinfect Res'd (mg/L)	pH	Non Coliform	Total Coliform	Fecal or E. coli	Data Qualifier*	Lab Sample Number
1	600 W. Blue Heron Blvd. (Riviera Bch. City Hall)	9:20 AM	D	2.9			A	A		291-1
2	1057 W. 6th St. (West Riviera Elementary School)	10:22 AM	D	1.2			A	A		291-2
3	1150 W. 10th St. (Lincoln Elementary School)	10:10 AM	D	1.1			A	A		291-3
4	1901 Ave.S (Kennedy Middle School)	10:32 AM	D	1.9			P	A		291-4
5	1229 W. 25th St.	10:22 AM	D	2.3			A	A		291-5
6	1709 W. 30th St. (Washington Elementary School)	10:00 AM	D	1.8			A	A		291-6

*Defined in Florida Administrative Code Rule 62-160, Table I

Average of disinfectant residuals for routine and repeat samples. (Complete for community and non-transient non-community systems serving populations up to and including 4,900. Do not include raw or plant samples in the average.)

All tests are performed in accordance with NELAC standards.

Disinfectant Residual Analysis Method: ☒ DPD Colorimetric ☐ Other: _____
Person performing analysis is (Please see instructions on reverse):
☒ A certified operator (# 18223) ☐ Employed by a certified lab
☐ Supervised by a cert operator (# _____) ☐ Employed by DEP or DOH

Date PWS notified by lab of positive results: 9/20/13 1636
Date State notified by lab of positive results: _____

Lab Signature: [signature]
Title: PM

Name and Mailing Address of Person to Receive Report

DEP/DOH USE ONLY
☐ Satisfactory
☐ Incomplete Collection Information
☒ Repeat Samples Required 4
☐ Replacement Samples Required
Date Reviewed by DEP/DOH: 10-2-13
DEP/DOH Reviewing Official: S. Partin

[1]DEP Sample Type Codes: D = Distribution (Routine Compliance); C = Repeat or Check; R = Raw; N = Entry to Distribution; P = Plant Tap; S = Special (clearance, etc.)
Analysis Methods: MF = SM9222B & D; MTF = 9221B & EC/MUG; MMO/MUG = SM9223B; HPC = SM9215B
Results: A = coliforms are absent; P = coliforms are present; C = confluent growth; TNTC = too numerous to count

DRINKING WATER BACTERIOLOGICAL SAMPLE COLLECTION ORTING FORMAT

(3)

Jupiter Environmental Labs Inc
150 South Old Dixie Highway
Jupiter, Florida 33458

Lab Receipt Date & Time: 9/19/13 1475
Analysis Date & Time: 9/19/13 1600

Report Number: 1334267 Sub-Contract Lab ID: E816646

Analysis Requested: (please check all that apply)
☒ Standard Coliform Test
☐ HPC
☐ Other:

Sample Acceptance Criteria:
Sample Preservation ☒ On Ice ☐ Not On Ice ☒ 2.9 °C
Disinfectant Check ☒ Not Detected ☐ ____ mg/L
This sample does not meet the following NELAC requirements:

System Name: CITY OF RIVIERA BEACH PWS I.D. 4501229

System Address: 800 WEST BLUE HERON BLVD.

City: RIVIERA BEACH; FL. 33404

System or Owner's Phone #: (561)845-4187 Fax #: (561)840-7292

Collector: Charles Townsend Collector's Phone # (561)845-4187

Type of Supply: (check only one)
☒ Community Water System ☐ Non-Transient Non-community Water System ☐ Transient Non-community Water System
☐ Limited Use System ☐ Bottled Water ☐ Private Well ☐ Swimming Pool ☐ Other

Reason for Sampling: (check only one) ☒ Routine Compliance ☐ Repeat ☐ Replacement ☐ Main Clearance ☐ Well Survey ☐ Other

Sample Collection Date: 9/19/13

Total Coliform Analysis Method: SM9222B
Fecal or E. coli Analysis Method: SM9222D

Sample Number	Sample Point (Location or Specific Address)	Collection Time	Sample Type[1]	Disinfect Res'd (mg/L)	pH	Non Coliform	Total Coliform	Fecal or E. coli	Data Qualifier[2]	Lab Sample Number
7	7535 Enterprise Rd. (2 Fat Guys Subs)	12:20 PM	D	1.9			A	A		297-7
8	6598 N. Military Trail (Vacation Travel Park)	12:10 PM	D	0.7			A	A		297-8
9	2548 Manki Drive (Lone Pine Estates)	12:20 PM	D	0.6			A	A		297-9
10	2300 Old Dixie Hwy (Arnold Oro-Wheat Bakery)	9:50 AM	D	3.2			A	A		297-10
11	1357 Silver Beach Road	11:40 AM	D	2.5			A	A		297-11
12	Ave. A (U.S.Coast Guard Station)	11:30 AM	D	2.3			A	A		297-12

[1] Defined in Florida Administrative Code Rule 62-160, Table 1

All tests are performed in accordance with NELAC standards.

Average of disinfectant residuals for routine and repeat samples. (Complete for community and non-transient non-community systems serving populations up to and including 4,900. Do not include raw or plant samples in the average.)

Disinfectant Residual Analysis Method: ☒ DPD Colorimetric ☐ Other:
Person performing analysis is (Please see instructions on reverse):
☒ A certified operator (# 15223) ☐ Employed by a certified lab
☐ Supervised by a cert operator (# _____) ☐ Employed by DEP or DOH

Date PWS notified by lab of positive results: 9/20/13 1036
Date State notified by lab of positive results: _____

Lab Signature: _____
Title: DM

Name and Mailing Address of Person to Receive Report

DEP/DOH USE ONLY
☒ Satisfactory
☐ Incomplete Collection Information
☐ Repeat Samples Required
☐ Replacement Samples Required
Date Reviewed by DEP/DOH: 10-2-13
DEP/DOH Reviewing Official: S. Parkinson

[1] DEP Sample Type Codes: D = Distribution (Routine Compliance); C = Repeat or Check; R = Raw; N = Entry to Distribution; P = Plant Tap; S = Special (clearance, etc.)
Analysis Methods: MF = SM9222B & D; MTF = 9221B & EC/MUG; MMO/MUG = SM9223B; HPC = SM9215B

DRINKING WATER BACTERIOLOGICAL SAMPLE COLLECTION AND REPORTING FORMAT

(3)

Jupiter Environmental Labs Inc
150 South Old Dixie Highway
Jupiter, Florida 33458

Lab Receipt Date & Time: 9/19/13 1430
Analysis Date & Time: 9/19/13 1610

Report Number: 1334297 Sub-Contract Lab ID: E86546

Sample Acceptance Criteria:
Sample Preservation ☒ On Ice ☐ Not On Ice ☒ 2.9 °C
Disinfectant Check ☒ Not Detected ☐ ____ mg/L
This sample does not meet the following NELAC requirements: ____

Analysis Requested: (please check all that apply)
☒ Standard Coliform Test
☐ HPC
☐ Other: ____

System Name: CITY OF RIVIERA BEACH PWS I.D. 4501229

System Address: 600 WEST BLUE HERON BLVD

City: RIVIERA BEACH; FL. 33404

System or Owner's Phone #: (561)845-4187 Fax #: (561)840-7282

Collector: Carlos Fernandez Collector's Phone # (561)845-4187

Type of Supply: (check only one)
☒ Community Water System ☐ Non-Transient Non-community Water System ☐ Transient Non-community Water System
☐ Limited Use System ☐ Bottled Water ☐ Private Well ☐ Swimming Pool ☐ Other: ____

Reason for Sampling: (check only one) ☒ Routine Compliance ☐ Repeat ☐ Replacement ☐ Main Clearance ☐ Well Survey ☐ Other

Sample Collection Date: 9/19/13

Total Coliform Analysis Method: SM9222B
Fecal or E. coli Analysis Method: SM9222B

Sample Number	Sample Point (Location or Specific Address)	Collection Time	Sample Type[1]	Disinfect Res'd (mg/L)	pH	Non Coliform	Total Coliform	Fecal or E. coli	Data Qualifier[2]	Lab Sample Number
13	237 E. 28th St.	11:30 AM	D	1.7			A	A		297-13
14	249 E. 23rd St.	11:10 AM	D	1.0			A	A		297-14
15	1619 Broadway (Larry Smith Electronics)	11:20 AM	D	0.6			A	A		297-15
16	1301 Grandview Place (Newcombe Hall)	11:35 AM	D	0.6			A	A		297-16
17	1501 Ave. U (Mary McCleod Bethune Elementary School)	11:50 AM	D	1.5			A	A		297-17
18	4860 Caribbean Blvd.	12:35 PM	D	0.6			A	A		297-18

[2] Defined in Florida Administrative Code Rule 62-160, Table I

Average of disinfectant residuals for routine and repeat samples. (Complete for community and non-transient non-community systems serving populations up to and including 4,900. Do not include raw or plant samples in the average.)

All tests are performed in accordance with NELAC standards.

Disinfectant Residual Analysis Method: ☒ DPD Colorimetric ☐ Other: ____
Person performing analysis is (Please see instructions on reverse):
☒ A certified operator (# 15221) ☐ Employed by a certified lab
☐ Supervised by a cert operator (# ____) ☐ Employed by DEP or DOH

Date PWS notified by lab of positive results: 9/20/13 1630
Date State notified by lab of positive results: ____

Lab Signature: [signature]
Title: PM

Name and Mailing Address of Person to Receive Report

DEP/DOH USE ONLY
☑ Satisfactory
☐ Incomplete Collection Information
☐ Repeat Samples Required
☐ Replacement Samples Required
Date Reviewed by DEP/DOH: 10-2-13
DEP/DOH Reviewing Official: S. Pachian

[1] DEP Sample Type Codes: D = Distribution (Routine Compliance); C = Repeat or Check; R = Raw; N = Entry to Distribution; P = Plant Tap; S = Special (clearance, etc.)
Analysis Methods: MF = SM9222B & D; MTF = 9221B & EC/MUG; NMO/MUG = SM9223B; HPC = SM9215B
Results: A = coliforms are absent; P = coliforms are present; G = confluent growth; TNTC = too numerous to count

DRINKING WATER BACTERIOLOGICAL SAMPLE COLLECTION AND REPORTING FORMAT

(3)

[IN Jupiter Environmental Labs Inc
CI 150 South Old Dixie Highway
Jupiter, Florida 33458

Lab Receipt Date & Time: 9/19/13 1430
Analysis Date & Time: 9/19/13 1600

Report Number: 1334791 Sub-Contract Lab ID: E86646

Sample Acceptance Criteria:
Sample Preservation ☒ On Ice ☐ Not On Ice ☒ 2.9 °C
Disinfectant Check ☐ Not Detected ☐ ____ mg/L
This sample does not meet the following NELAC requirements: ____

Analysis Requested: (please check all that apply)
☒ Standard Coliform Test
☐ HPC
☐ Other: ____

System Name: CITY OF RIVIERA BEACH **PWS I.D.** 4501229

☐☐ System Address: 600 WEST BLUE HERON BLVD.

City: RIVIERA BEACH; FL 33404

System or Owner's Phone #: (561)845-4187 Fax #: (561)840-7292

Collector: Jules Lounsbury Collector's Phone # (561)845-4187

Type of Supply: (check only one)

☒ Community Water System ☐ Non-Transient Non-community Water System ☐ Transient Non-community Water System
☐ Limited Use System ☐ Bottled Water ☐ Private Well ☐ Swimming Pool ☐ Other ____

Reason for Sampling: (check only one) ☒ Routine Compliance ☐ Repeat ☐ Replacement ☐ Main Clearance ☐ Well Survey ☐ Other

Sample Collection Date: 9/19/13

Total Coliform Analysis Method: SM9223B
Fecal or E. coli Analysis Method: SM9223B

Sample Number	Sample Point (Location or Specific Address)	Collection Time	Sample Type[1]	Disinfect Res'd (mg/L)	pH	Non Coliform	Total Coliform	Fecal or E. coli	Data Qualifier[2]	Lab Sample Number
19	5766 Parke Ave.	1245 PM	D	0.6			A	A		297-19
20	5783 S. Bermuda Circle	1250 PM	D	0.6			A	A		297-20

[2] Defined in Florida Administrative Code Rule 62-160, Table I

Average of disinfectant residuals for routine and repeat samples. (Complete for community and non-transient non-community systems serving populations up to and including 4,900. Do not include raw or plant samples in the average.)

All tests are performed in accordance with NELAC standards.

Disinfectant Residual Analysis Method: ☒ DPD Colorimetric ☐ Other: ____
Person performing analysis is (Please see instructions on reverse):
☒ A certified operator (# 15223) ☐ Employed by a certified lab
☐ Supervised by a cert operator (# ____) ☐ Employed by DEP or DOH

Date PWS notified by lab of positive results: 9/20/13 1030
Date State notified by lab of positive results: ____

Lab Signature: [signature]
Title: MM

Name and Mailing Address of Person to Receive Report

DEP/DOH USE ONLY
☐ Satisfactory
☐ Incomplete Collection Information
☐ Repeat Samples Required
☐ Replacement Samples Required
Date Reviewed by DEP/DOH: 10-2-13
DEP/DOH Reviewing Official: S. Parham

[1] DEP Sample Type Codes: D = Distribution (Routine Compliance); C = Repeat or Check; R = Raw; N = Entry to Distribution; P = Plant Tap; S = Special (clearance, etc.)
Analysis Methods: MF = SM9222B & D; MTF = 9221B & EC/MUG; MMO/MUG = SM9223B; HPC = SM9215B

(9)

Addison, Mikeal E

From: Harrison, Scott A
Sent: Wednesday, January 08, 2014 9:25 AM
To: Partian, Syrus J
Cc: Addison, Mikeal E
Subject: RE: RE: Riviera Beach
Importance: High

Yes because they did not submit them.

In addition the ER will need to contain the information for November's 5% MCL violation.

Get with Mikeal and amend the one you just submitted for December.

Thanks,

Scott

Scott A. Harrison, R.S., CPO
Environmental Manager
Water Operations Section
Division of Environmental Public Health
Florida Health in Palm Beach County
800 Clematis Street, West Palm Beach, FL 33401
Office 561-837-5933
Cell 561-267-6833
Fax 561-837-5293

"To protect and promote the health of all residents and visitors in Palm Beach County."

From: Partian, Syrus J
Sent: Tuesday, January 07, 2014 9:08 AM
To: Harrison, Scott A
Subject: RE: RE: Riviera Beach

GOOD MORNING

I E-MAILED TO DAVIS SALLAS ON 01-06-14, AT 3;40 PM AND CALLED HIM ON 01-07-14, AT 8:50 AM, ASKING HIM ABOUT:

A) "R" SAMPLES FOR OCTOBER 2013 (ARE NOT SUBMITTED) AND,
B) TC(+) SAMPLE ON 11-07-13 AT 300 EDWARDS LN (IT WAS RESAMPLE ON 11-09-13, BUT NO UP/DOWNSTREAM SAMPLES) AND TC(+) ON 11-22-13 AT
5783 S BERMUDA LN AND 5766 PARK AVE. (THEY BOTH LACKING TOTAL RE-SAMPLING).

HE SAID HE WILL GET BACK TO ME SOON. DO YOU WANT ME WAIT OR GENERATE ER ANYWAY?

(9)

REGARDS-SYRUS

From: Harrison, Scott A
Sent: Monday, January 06, 2014 11:12 AM
To: Partlan, Syrus J
Cc: Addison, Mikeal E
Subject: RE: Riviera Beach
Importance: High

Syrus,

Did you do an ER for failure to complete repeat samples for the month of November for Riviera Beach?

I cannot find one.

Please advise.

Thanks,

Scott

Scott A. Harrison, R.S., CPO
Environmental Manager
Water Operations Section
Division of Environmental Public Health
Florida Health in Palm Beach County
800 Clematis Street, West Palm Beach, FL 33401
Office 561-837-5933
Cell 561-267-6833
Fax 561-837-5293

"To protect and promote the health of all residents and visitors in Palm Beach County."

Partian, Syrus J

From: Partian, Syrus J
Sent: Monday, January 06, 2014 2:47 PM
To: 'Salas, David F'
Cc: Addison, Mikeal E
Subject: October "R" Bact Samples

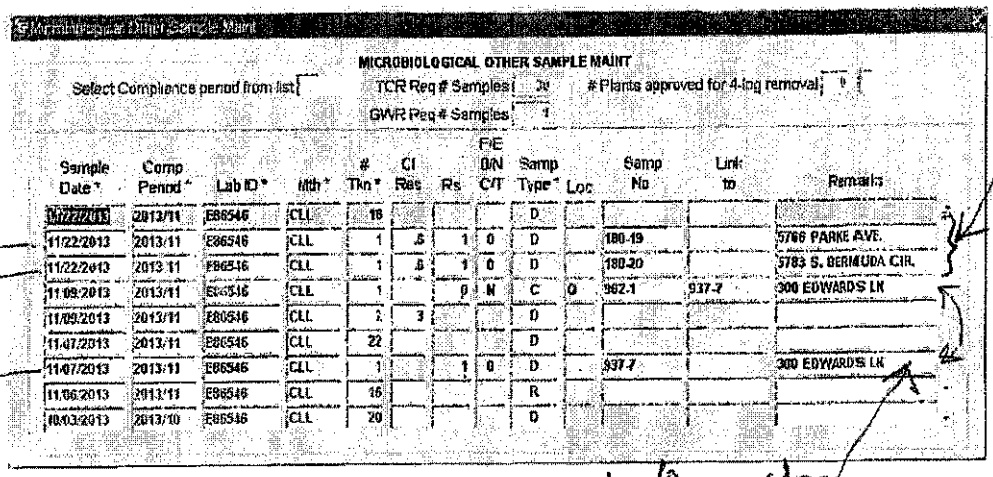
Happy New Year Mr. Salas

Would you please let me know, if you have sent the Raw Bacteriological results for the October 2013 (I only have 20 "D" samples for 10-2013). I can not locate the raw sample results.

Regards

Syrus Partian
Environmental Specialist II
Division of Environmental Public Health
800 Clematis St, WPB, FL 33402
Phone: 561-837-5954,
Fx: 561-837-5293
e-mail: syrus_partian@doh.state.fl.us

(9)



MICROBIOLOGICAL OTHER SAMPLE MAINT

Select Compliance period from list: | TCR Req # Samples: 30 | # Plants approved for 4-log removal: 0 | GWR Req # Samples: 1

Sample Date *	Comp Period *	Lab ID *	Mth *	# Tkn *	Cl Res	Rs	F/E 0/N C/T	Samp Type *	Loc	Samp No	Link to	Remarks
11/22/2013	2013/11	E86546	CLL	16				D				
11/22/2013	2013/11	E86546	CLL	1	.5	1	0	D		180-19		5766 PARK AVE.
11/22/2013	2013/11	E86546	CLL	1	.5	1	0	D		180-20		5783 S. BERMUDA CIR.
11/09/2013	2013/11	E86546	CLL	1		0	N	C	Q	962-1	937-7	300 EDWARDS LN
11/09/2013	2013/11	E86546	CLL	2	3			D				
11/07/2013	2013/11	E86546	CLL	22				D				
11/07/2013	2013/11	E86546	CLL	1		1	0	D		937-7		300 EDWARDS LN
11/06/2013	2013/11	E86546	CLL	16				R				
10/03/2013	2013/10	E86546	CLL	20				D				

1 — 11/22/2013 2013/11 E86546 CLL 1 .5 1 0 D 180-19 5766 PARK AVE.

2 — 11/22/2013 2013/11 E86546 CLL 1 .5 1 0 D 180-20 5783 S. BERMUDA CIR.

3 — 11/07/2013 2013/11 E86546 CLL 1 1 0 D 937-7 300 EDWARDS LN

no resamp

no up/downstream

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Louis Amigenna, Executive Director
City of Riviera Beach Utility District
P.O. Box 9757
Riviera Beach, FL 33404

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X S. Edwards ☐ Agent ☐ Addressee

B. Received by (Printed Name) S. EDWARDS
C. Date of Delivery 2-19-14

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☒ Certified Mail ☐ Express Mail
☐ Registered ☒ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

2. Article Number (Transfer from service label) 7012 2920 0000 6177 9849

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com®

OFFICIAL USE

Postage	$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$ 6.97

FEB 2014 33408 Postmark Here

7012 2920 0000 6177 9849

Sent To: Louis Amigenna, Executive Director
Street, Apt. No.; or PO Box No.: City of Riviera Beach Utility District
City, State, ZIP+4: P.O. Box 9757 Riviera Beach, FL 33404

PS Form 3800, August 2006 See Reverse for Instructions

Guarascio, Maryann C.

From: Guarascio, Maryann C.
Sent: Monday, May 02, 2016 5:26 PM
To: Monroe, Luecinda J. (Lmonroe@Rivierabch.com)
Subject: FW: CRBUD Action Plan for Palm Beach County Health Department (email 1 of 2)
Attachments: Action Plan to PBC Health Department.docx.pdf; SecondaryDisinfection PDR-PermitSubmittal.pdf

Giles found this and thought it should pertain to both WP's. I have to go into Lou's office to try to find any other info. Don't know how long it will take me.

Maryann Guarascio
Executive Assistant
Utility Special District
600 West Blue Heron Blvd
Riviera Beach, FL 33404
561-845-3489 (office)
561-840-7292 (fax)
mguarascio@rivierabch.com

From: Rhoads, Giles
Sent: Monday, May 02, 2016 4:55 PM
To: Guarascio, Maryann C.
Subject: FW: CRBUD Action Plan for Palm Beach County Health Department (email 1 of 2)

Here are half (email 1 of 2) the documents that helped resolve the issue.

Giles

From: Harrison, Scott A [mailto:Scott.Harrison@flhealth.gov]
Sent: Monday, May 5, 2014 12:00 PM
To: Rhoads, Giles; Danford, David; Aurigemma, Louis
Cc: Addison, Mikeal E; Lape, Pamela K
Subject: FW: CRBUD Action Plan for Palm Beach County Health Department (email 1 of 2)

Good Morning Giles,

I now have all of the documents requested. I will review them today and get back with you.

In addition, the e-mail chain below indicates that you did indeed attempt to send in the documents on time.

This e-mail confirms that fact.

Thank you very much.

Have a good day.

Scott

Scott A. Harrison, R.S., CPO

Environmental Manager
Water Operations Section
Division of Environmental Public Health
Florida Health in Palm Beach County
800 Clematis Street, West Palm Beach, FL 33401
Office 561-837-5933
Cell 561-267-6833
Fax 561-837-5293

"To protect and promote the health of all residents and visitors in Palm Beach County."

From: Rhoads, Giles [mailto:Grhoads@Rivierabch.com]
Sent: Monday, May 05, 2014 11:53 AM
To: Harrison, Scott A
Cc: Danford, David
Subject: FW: CRBUD Action Plan for Palm Beach County Health Department (email 1 of 2)

Scott - As discussed, I am breaking this up into multiple emails.

Giles Rhoads, P.E.
Assistant Executive Director

City of Riviera Beach Utility District
600 West Blue Heron Boulevard
Riviera Beach, Florida 33404
Office: (561) 845-4185
Fax: (561) 840-7292
email: grhoads@rivierabch.com

From: Rhoads, Giles
Sent: Monday, May 5, 2014 11:49 AM
To: 'Scott.Harrison@flhealth.gov'
Cc: Danford, David; Aurigemma, Louis
Subject: FW: CRBUD Action Plan for Palm Beach County Health Department

Scott - I am forwarding the action plan back to you again. The Utility District was not delaying this request, we finished the Action Plan on April 15th. I heard through David Danford you did not received my email submission below, however David informed me he had forwarded it to you after learning you never received the original transmission. This obviously was never received as well. Please let me know if you receive this transmission.

Giles Rhoads, P.E.
Assistant Executive Director

City of Riviera Beach Utility District
600 West Blue Heron Boulevard
Riviera Beach, Florida 33404
Office: (561) 845-4185
Fax: (561) 840-7292
email: grhoads@rivierabch.com

From: Rhoads, Giles
Sent: Tuesday, April 15, 2014 11:17 AM
To: 'Scott.Harrison@flhealth.gov'
Cc: Danford, David; Aurigemma, Louis; Salas, David F
Subject: CRBUD Action Plan for Palm Beach County Health Department

Good Morning Scott,

Per the request of the Health Department, please find the attached Action Plan and supporting documents. Thank you!

Giles Rhoads, P.E.
Assistant Executive Director

City of Riviera Beach Utility District
600 West Blue Heron Boulevard
Riviera Beach, Florida 33404
Office: (561) 845-4185
Fax: (561) 840-7292
email: grhoads@rivierabch.com

CITY OF RIVIERA BEACH WATER TREATMENT PLANT
ACTION PLAN

ACTION PLAN OVERVIEW

The City of Riviera Beach Utility District (CRBUD) is preparing an action plan as a result of testing for Total Coliform above MCL in the distribution system. Furthermore, the CRBUD failed perform the requirement of Ground Water Rule for triggered monitoring. Per the request of the Palm Beach County Health Department (PBCHD), the CRBUD has drafted this action plan.

1.0 STEPS TO IMPROVE LOW CHLORINE RESIDUAL

1.1 Automated Fire Hydrant Flushing Devices

To improve the water age and chlorine residual in distant locations in the distribution system, a network of automated fire hydrant flushing devices were installed. There are currently ten automatic flushing devices installed on fire hydrants in the CRBUD's water distribution system. The approximate locations of the flushing devices are summarized in **Table 1.01**.

Table 1.01
Location of Automatic Flushing Devices

Flusher No.	Approximate Location
1	5662 Park Ave. Gramercy Park
2	5154 Caribbean Blvd Gramercy Park
3	4803 Lake Arjaro Dr. & 45th St Gramercy Park
4	6780 41st Ave N, Palm Lakes Co-Op.
5	7392 N. Haverhill Rd
6	45th St, last hydrant
7	Eadie Pl, Gramercy Park
8	2471 Port West Blvd.
9	309 Canterbury Dr W, Lone Pine
10	8125 Fiscal Ct.

The flushing devices were installed in 2010 & 2011.

Design criteria listing the flushing device manufacturer, capacity and controller set points are listed in **Table 1.02**.

Table 1.02
Automatic Flushing Devices Design Criteria

Manufacturer	Kupferle Foundry Company
Model No.	9700
Flush Cycle Adjustability	9 flushing cycles per day at up to 4 hours of flush time per cycle
Maximum Flushing Rate	200 gallons per minute
Current Flushing Controller Settings (typical for all devices)	On at 11:00pm Off at 12:00am (One hour flushing) On at 2:00am Off at 3:00am (One hour flushing) On at 5:00am Off at 6:00am (One hour flushing)

A location map of the Automated Hydrant Flusher is included as **Appendix A**.

1.2 Secondary Disinfection System at Ave. U Repump Station

Based on the findings of the "*Water System Regulatory Review Report*", CRBUD has failed to maintain a minimum combined chlorine residual of 0.6 mg/L (per Rule 62-555.350(6), FAC) in the southwestern portion of its water distribution system. This region of the service area is known as Gramercy Park.

The CRBUD performed an evaluation of the existing secondary disinfection systems along with a desktop study of the secondary disinfection approaches in order to recommend capital improvements likely to achieve higher total combined chlorine residual in the distribution system. The findings of this study are summarized in a report titled "*Secondary Disinfection System Evaluation*", dated July 30, 2011 prepared by C Solutions, Inc.. This report recommended that a new gaseous chlorination system with controls be installed at the Avenue U Repump Station (western most existing repump station). These improvements would add chlorine to combine the free ammonia to increase disinfectant residual (chloramine) and remove free ammonia (which likely acts as a catalyst for nitrification and subsequent rapid reduction of the distribution system disinfectant residual).

The recommended secondary disinfection system is described in detail in the "*Secondary Disinfection System Preliminary Design Report*", dated May 10, 2012 prepared by C Solutions, Inc.. For convenience, the improvements recommended in that report are summarized in the following paragraph.

"Chlorine solution would be fed to one of two chemical injection points. Each injection point would consist of the chemical injection point (chlorine solution), an ammonia sample point (sample water feed to the ammonia analyzer), and a flow meter with a transmitter (sends a flow signal to PLC located in repump station building). Injection Point No. 1 would be the primary chemical injection point and would be located on the 12-inch fill line prior to the ground storage tank. Injection Point No. 2 would be used as the secondary chemical injection point and would be located on the 12-inch repump station pump discharge. The existing venturi meter located on the repump station discharge water main would be utilized to provide a flow signal to the PLC for utilization of Injection Point No. 2".

A water age assessment map is included as **Appendix B**.

1.3 New Core Disinfection Facility - Design/Build RFP is scheduled for advertisement May 2014

The Water Treatment Plant (WTP) currently uses chlorine gas for disinfection purposes. The existing chlorine gas system is at the end of its useful life. The CRBUD has made the policy decision to eliminate the use of chlorine gas and switch to sodium hypochlorite disinfectant. There is a Preliminary Design Report by Hazen and Sawyer dated January, 2013 that provides further detail of the preliminary sodium hypochlorite facility design. In addition, there is a proposed procurement plan for conversion of the chlorine system with a sodium hypochlorite facility, which will be discussed in this action plan.

The CRBUD has decided that the sodium hypochlorite facility will be implemented in a three step process, as follows:

- Step1 - Design and Construction of Core Sodium Hypochlorite Facility: The Preliminary Design Report presented herein master plans a core facility that would receive 12% sodium hypochlorite via bulk delivery. The plan includes flexibility to allow the CRBUD to increase its capital investment to utilize 0.8% on-site sodium hypochlorite generation (OSG) technology, if desired. The chlorine system would remain functional and be the primary means of disinfection until Step 3 is completed. The CRBUD would follow the conventional design-bid-build procurement approach for the design and construction of the sodium hypochlorite facility. The CRBUD would issue this Preliminary Design Report with a Request for Proposal (RFP) to acquire the services of an engineering firm to prepare a detailed design of the proposed sodium hypochlorite facility. Following completion of the detailed design, the CRBUD would bid the procurement documents to general contractors for construction of the proposed sodium hypochlorite facility. Once the proposed sodium hypochlorite facility has been constructed and accepted by the CRBUD, Step 2 can be initiated.

- Step 2 – Full-Scale Testing: CRBUD would obtain 12% sodium hypochlorite via a Palm Beach County co-op contract (or other procurement means) and use it for full scale testing of sodium hypochlorite at the WTP to make final adjustments to ensure that finished water quality to customers is not impacted. Additionally, the full-scale testing period would facilitate CRBUD operational staff to gain experience operating the new facility.

- Step 3 – Sodium Hypochlorite Procurement: Once full-scale testing of the new sodium hypochlorite facility is successfully completed, CRBUD would retain a consultant to prepare contract documents for procurement of sodium hypochlorite via:

    - Option 1: 12% bulk delivery;
    - Option 2: on-site generation of 0.8% sodium hypochlorite; or
    - Option 3: hybrid (a permittable combination of Options 1 & 2).

  The decision of which option is preferable to CRBUD would depend, in part, upon economic factors that fluctuate over time.

2.0 PROCESS TO HANDLE TOTAL COLIFORM SAMPLING, RESAMPLING, AND TRIGGERED MONITORING

2.1 Routine Sampling

The Public Water Supply system must routinely collect samples of the water in their distribution system and have them analyzed by a state approved laboratory to determine the presence of Coliforms. Based on the population size in the Riviera Beach Service Area, the Utility District must sample a minimum of 40 samples monthly. Currently, 20 samples are taken in a week and two weeks are sampled in a month.

The Riviera Beach Utility District WTP will develop a sampling schedule that will include a spreadsheet outlining all required total coliform sample dates & locations. This sampling plan will have instructions on what to do and who to contact in case of a failed sample. This schedule spreadsheet will be completed by May 31, 2014

2.1.1 Sampling Nitrite and Nitrate

The Public Water Supplier must collect water samples at least once a year and analyze them to find out if nitrates/nitrites are present above 50 percent of their MCLs. If it is present above this level, then the system must continue to monitor the contaminate every 3 months.

The Riviera Beach WTP missed reporting the last sample for these. The laboratory that performs sampling for the City did not realize they had to test for Nitrite & Nitrate from the distribution samples. This is ultimately the WTP's responsibility for any tests that are not collected. We will develop a sampling plan & schedule that will include all regulated and non-regulated state required samples. This plan will be given to whichever laboratory that is contracted to collect samples for the WTP. This sampling plan will be completed no later than May 31, 2014.

2.2 Repeat Sampling

Repeat sampling will be collected in accordance to the Total Coliform Rule (TCR) and the DEP Rule 62-550.828. Per the TCR, repeat samples will be taken within 24 hours of being notified of a positive test result. All repeat samples must be collected on the same day and samples must be taken at:

- The site that gave positive routine results.
- If possible, take one sample with 5 service connections upstream and one sample with 5 service connections downstream of the positive sample site.

Based on the results of the repeat sampling in accordance with TCR, the requirements for sampling based on Rule 62-550.828 will be determined. In addition, the sampling plan will have written instructions regarding collection of these samples.

2.3 Triggered Monitoring

To insure triggered monitoring sampling will be collected in accordance to the Ground Water Rule which was adopted into DEP Rule 62-550.828, a sampling plan will be developed outlining

what samples need to be collected and when. However, if the exceptions to the triggered source water monitoring requirements are met, then triggered monitoring will only be by voluntary basis by the WTP. This plan will be incorporated into the above routine sampling plan. This will be complete no later than May 31, 2014.

3.0 PUBLIC NOTICES & HEALTH DEPARTMENT DEALINGS

The RBUD will handle the public notice by daily newspaper. This will be done by the City's Public Information Officer. The CRBUD will draft a Tier 2 notification in accordance to the violation that is described in Rule 62-560.410.

The WTP Superintendent, David Danford, will be the person in charge of contacting the PBCHD. The Lead Operator, David Salas will be the alternate when communicating with the enforcement agency for matters of missing scheduled reporting dates and instances where a sample was over MCL.

4.0 ADDITIONAL ACTIONS

Prior to 2012, the WTP used Environmental Services to run all its bacteriological samples from the distribution system and wells. During that time, the WTP did not have issues with failed samples of total coliform. However, since the change of laboratories, the CRBUD distribution system has a lot of TC+ samples. Currently, we are working on adding other laboratories to our vendor list to have back-up coverage if necessary and to narrow down what may be one of the source causes of the failing results.

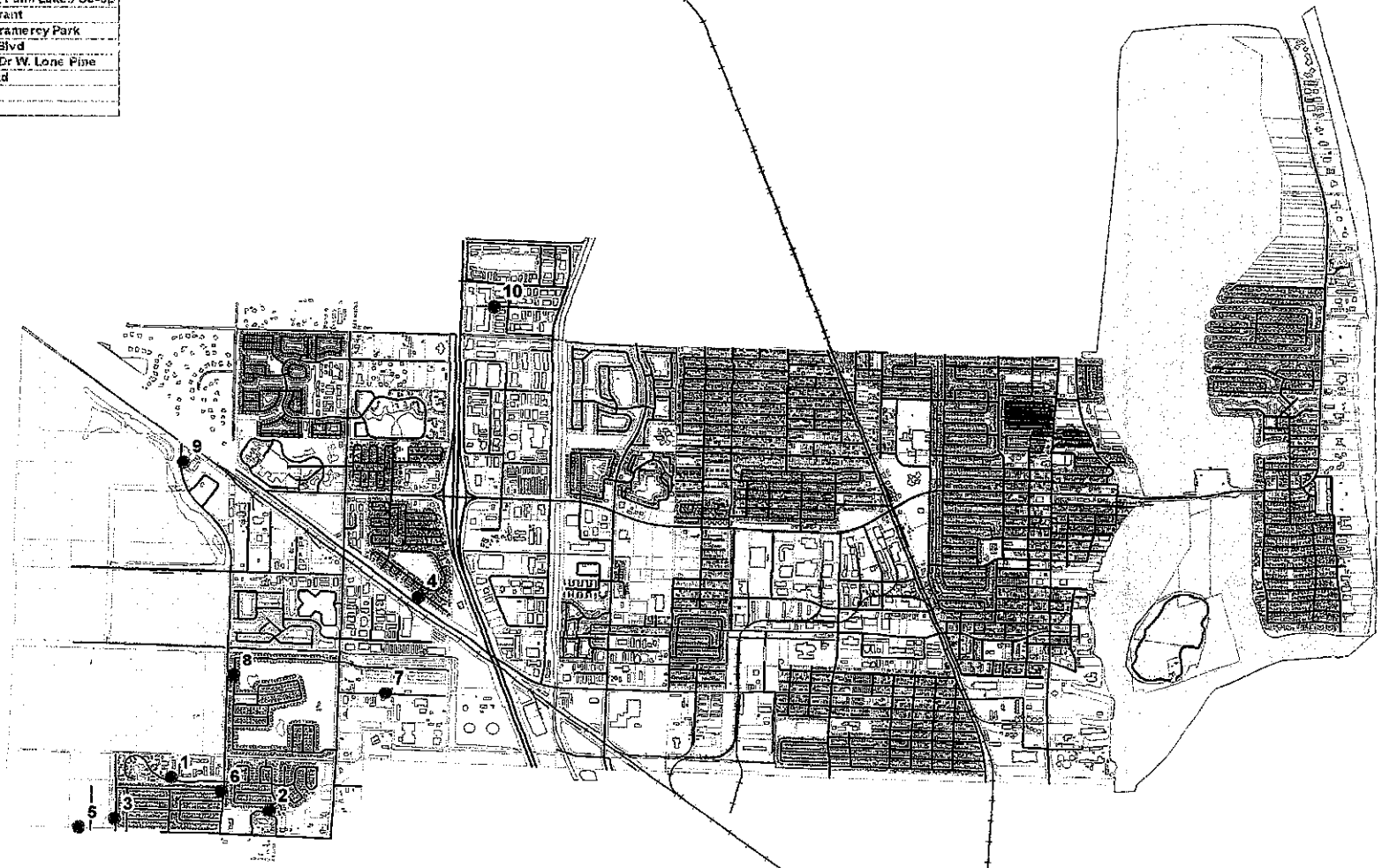
If the CRBUD water distribution system continues to receive MCL failing test results for total coliform and chlorine residual, a unidirectional flushing program may be implemented in affected locations of the service area. Unidirectional flushing (UDF) involves opening and closing valves within the pipe network to enhance flushing velocities by isolating certain segments of the pipe network. A successful UDF requires detailed planning to define the order in which pipes are to be flushed, hydrants opened, and isolation valves opened and closed.

If required, then it is recommended that the CRBUD implement a UDF program twice per year concurrent with super chlorination. The UDF would likely be effective in flushing sediments and biological slime that may be within the CRBUD's water mains, thus improving water quality and helping maintain chlorine residuals.

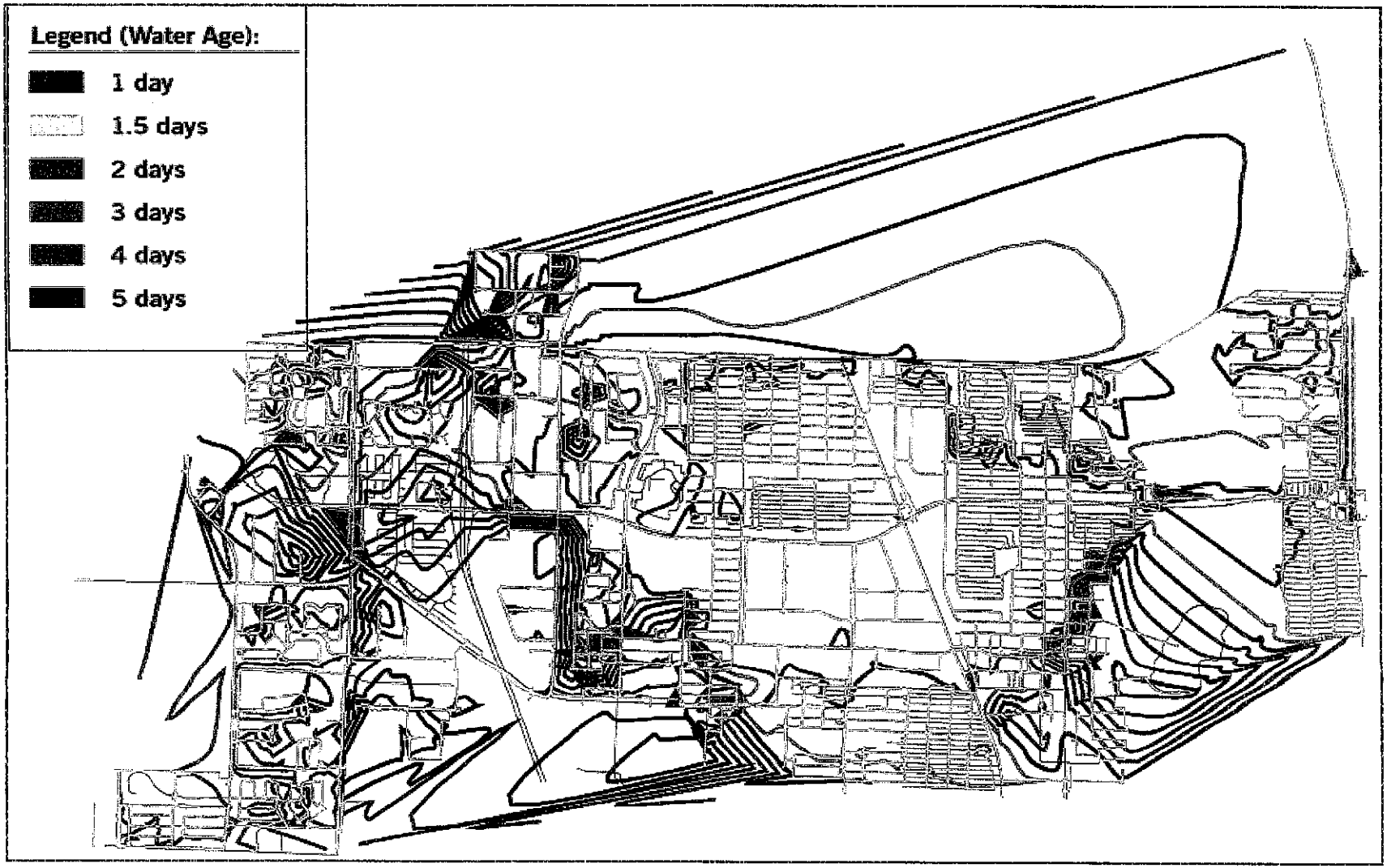
Development and execution of a UDF plan requires a detailed understanding of the pipe network, operational status of in-line valves, and the ability to isolate sections of the system. The development of the UDF planning document requires use of an EPS type hydraulic model of the water distribution system as a prerequisite. Preparing a UDF planning document will define the steps to follow to perform a complete unidirectional flushing of the potable water distribution system. CRBUD can use the UDF plan developer to provide field crews to perform the first field execution of the UDF program.

Hydrant Flushers

ID	Address
1	5145 Caribbean Blvd
2	4803 Lake Arjaro Dr
3	5674 Parke Ave, Gramercy Park
4	5780 41st Ave N, Palm Lakes Co-op
5	45th St, last hydrant
6	5821 Eadie Pl, Gramercy Park
7	2471 Port West Blvd
8	309 Canterbury Dr W, Lone Pine
9	7392 Haverhill Rd
10	6125 Fiscal Ct



Appendix A: Hydrant Flushers



Appendix B: Water Age Assessment

5/20 Copy to David

May 13, 2014

Louis Aurigemma, Executive Director
City of Riviera Beach Utility District
P.O. Box 9757
Riviera Beach, FL 33404

RECEIVED
MAY 2 1 2014
CITY OF RIVIERA BEACH
UTILITY DISTRICT

Re: File Nos. WP-019-14 & WP-039-14

Dear Mr. Aurigemma:

As of May 9, 2014 the City of Riviera Beach has completed all of the corrective actions associated with the above file numbers. The Florida Department of Health Palm Beach County (Department) appreciates the efforts the City of Riviera Beach has expended to resolve these matters. The Department is, therefore, closing these cases without enforcement.

The issues which have been corrected include:

- Maximum Contaminant Level violation for total coliform.
- Failure to collect routine and repeat samples.
- Failure to conduct triggered monitoring.
- Failure to submit samples in a timely manner.
- Failure to sample for nitrate and nitrite.
- Failure to issue a Public Notice in November and December 2013.
- Failure to notify the Department.

Please note that the Department could be required to initiate formal enforcement actions against the City of Riviera Beach should the corrective actions fail to prevent future incidents.

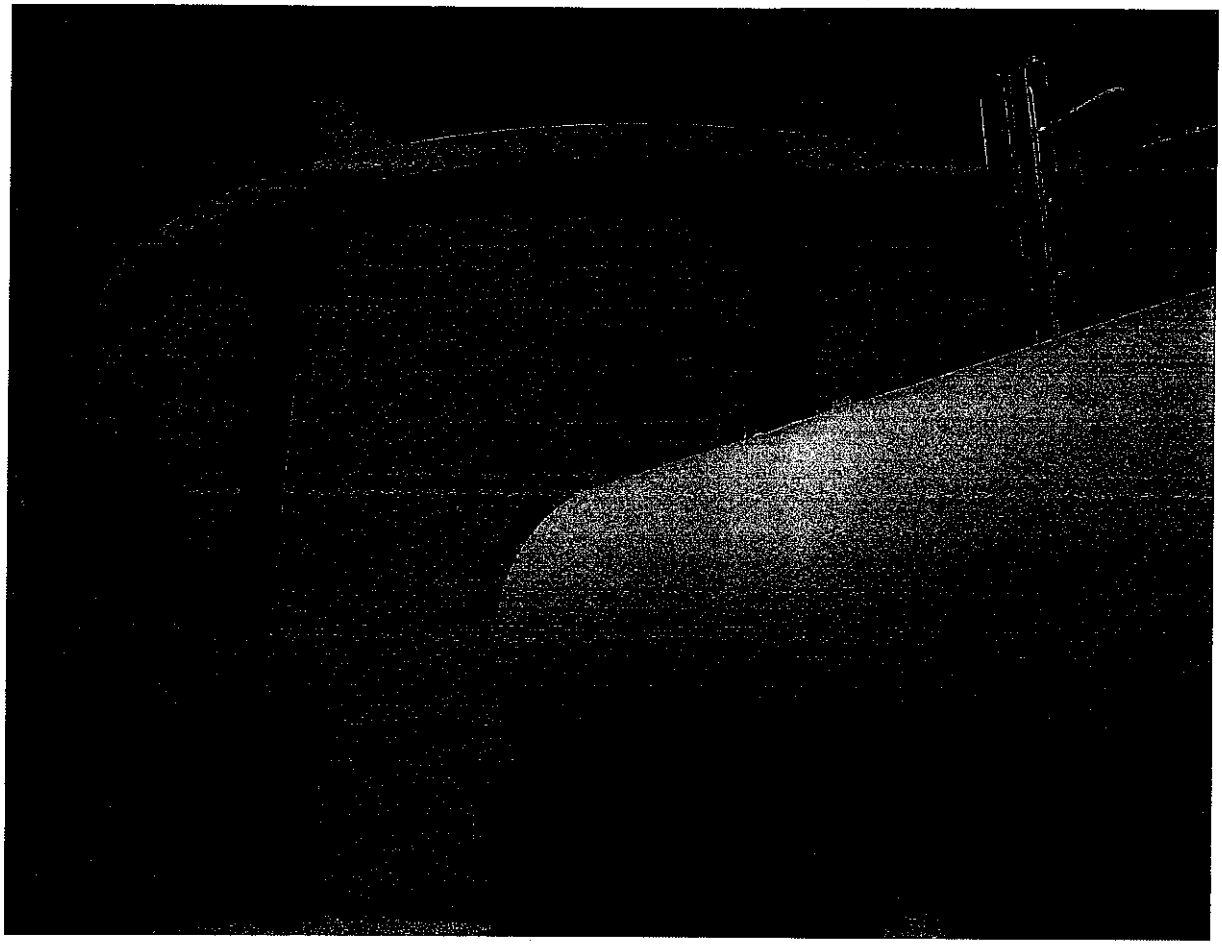
If you have any questions, you may contact Pamela Lape at (561) 837-5947 or by email at pamela.lape@flhealth.gov.

For the Division Director,

Darrel J. Graziani, P.E., R.S.
Environmental Administrator, Water Programs
Division of Environmental Public Health
Florida Department of Health Palm Beach County

cc: FDOHPBC File:WP-019-14 & WP-039-14

City of Riviera Beach



Preliminary Design Report

Secondary Disinfection System
Avenue U Repump Station

May 11, 2012

CHEN MOORE &ASSOCIATES

C Solutions Inc.

Table of Contents

Section 1
Introduction

1.1 Background

The City of Riviera Beach Utility District (UTILITY) owns and operates three potable water remote distribution system ground storage tanks (GST) and repump stations: North Singer Island Repump Station, Avenue U Repump Station, and Avenue C Repump Station and uses chloramine as the disinfectant residual in the water distribution system. In an attempt to maintain the required total chlorine residual in the service area and comply with drinking water regulations, the UTILITY is providing secondary disinfection at the Avenue U repump station. However, the UTILITY has been unable to maintain the required total chlorine residuals in the southwestern portion of the service area and on December 23, 2010 the Palm Beach County Health Department (Health Department) issued a consent order to the City of Riviera Beach for its failure to maintain the minimum combined chlorine residual of 0.6 mg/L as required by Rule 62-555.350(6) F.A.C. This consent order requires the UTILITY to pursue a solution to the problem of low total chlorine residuals.

The UTILITY evaluated the existing conditions and existing secondary disinfection system approaches to recommend a secondary disinfection approach and system that is likely to achieve a higher total combined chlorine residual in the disinfection system. The completed evaluation titled *Secondary Disinfection System Evaluation* and dated July 30, 2011, concluded that free chlorine could be added to the distribution system to bind existing free ammonia and reform a total chlorine (chloramine) residual. It was recommended that gaseous chlorine be utilized and a secondary disinfection system installed initially at the Avenue U repump station and possibly later at the Avenue C repump station. Although a gaseous chlorination does exist at the Avenue U repump station it needs to be redone to maintain proper chlorination control and to comply with regulations.

1.2 Purpose

The UTILITY has decided to install a secondary disinfection system utilizing gaseous chlorine at the Avenue U Repump Station. This report will serve as the preliminary design report and design criteria package for construction of a secondary disinfection system with the purpose of rebinding free ammonia into a total chlorine residual at the Avenue U Repump Station.

Section 2
Existing Facilities and Conditions

2.1 Locations

The City of Riviera Beach Utility District (UTILITY) owns and operates three potable water remote distribution system ground storage tanks (GST) and repump stations: North Singer Island Repump Station, Avenue C Repump Station, and Avenue U Repump Station. The water repump stations are located in the City of Riveria Beach as shown in Figure 2-1. North Singer Island Repump station is located in the northeastern most part of the service area, while Avenue C repump station is located in the southeastern part of the service area, and Avenue U repump station is the western-most repump station located in the southern part of the service area.

2.2 Existing Repump Stations Description

The UTILITY's service area includes the City of Riviera Beach, Palm Beach Shores, a small portion of unincorporated Palm Beach County north of Blue Heron Boulevard, Palm Beach County Cooperative located in the northwestern portion of the service area, and Gramarcy Park in the City of West Palm Beach and serves an estimated population of approximately 37,000.[1] The maximum day demand for the service area is approximately 10mgd.[2] The system is understood to be meeting the current demands and the estimated future demands of the service area. Typically repump stations serve to provide remote storage and pumping to maintain desired system pressures during localized peak demands; however, the original design intent for all of the UTILITY's repump stations do not appear to exist in relation to systematic operational strategies.[3] The lack of a systematic control strategy for the repump stations in normal operating conditions is a concern for nitrification and is likely a contributor to low total chlorine residuals in the service area. Although the purpose of this report is for the installation of a secondary disinfection system at the Avenue U Repump Station, all three of the UTILITY's repump stations are discussed in this Section.

2.2.1 North Singer Island Repump Station

The North Singer Island repump station (Picture 2-1) is the UTILITY's oldest repump station. The UTILITY has just completed a full renovation of the repump station. The current repump station is composed of one 1 MG above ground concrete storage tank; two variable speed booster pumps with a rated design flow of 2,200gpm each; a 10,000gal hydro-pneumatic tank; a diesel generator; a pressure indicator on the pumps discharge; and a flow meter on the discharge pipeline. The modifications to the repump station included the replacement of pumps, the addition of variable frequency drives (VFDs), replacement of hydro-pneumatic tank, replacement of generator, modification of piping and valves, and removal of secondary disinfection system.

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[1] The UTILITY of Riviera Beach's website list a population of "nearly 40,000" while the July 2007 US census population estimate for the UTILITY is reported as 36,566. This population does not account for the other service areas outside of the City limits of Riviera Beach which is not considered to be significant in relation to the City's population.

[2] Represents the highest maximum day flow recorded from monthly operating reports (MORs) from 2006 to 2010.

[3] This perception was deduced from multiple interviews with UTILITY staff concerning both the designed purpose and control strategy for each repump station.

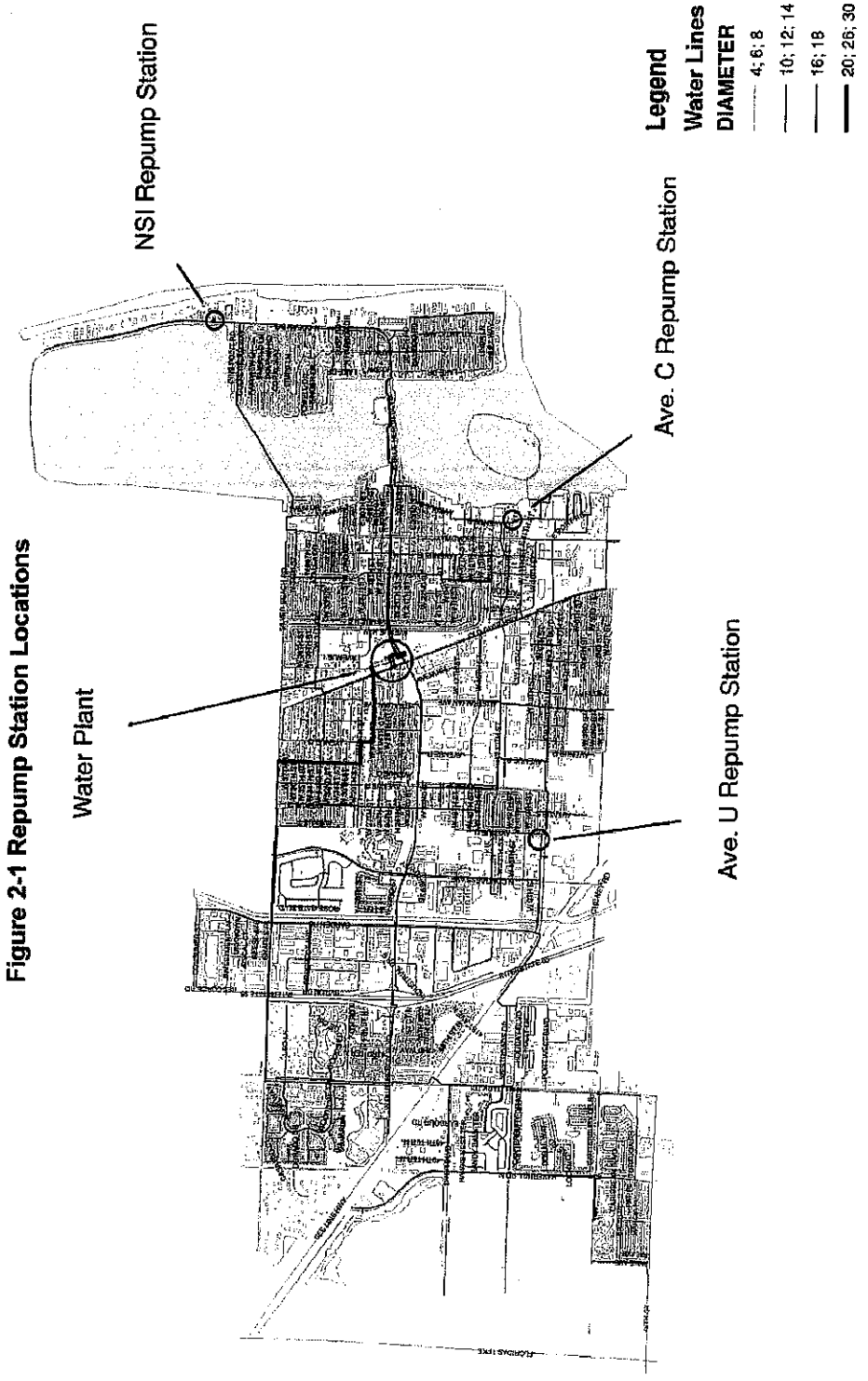
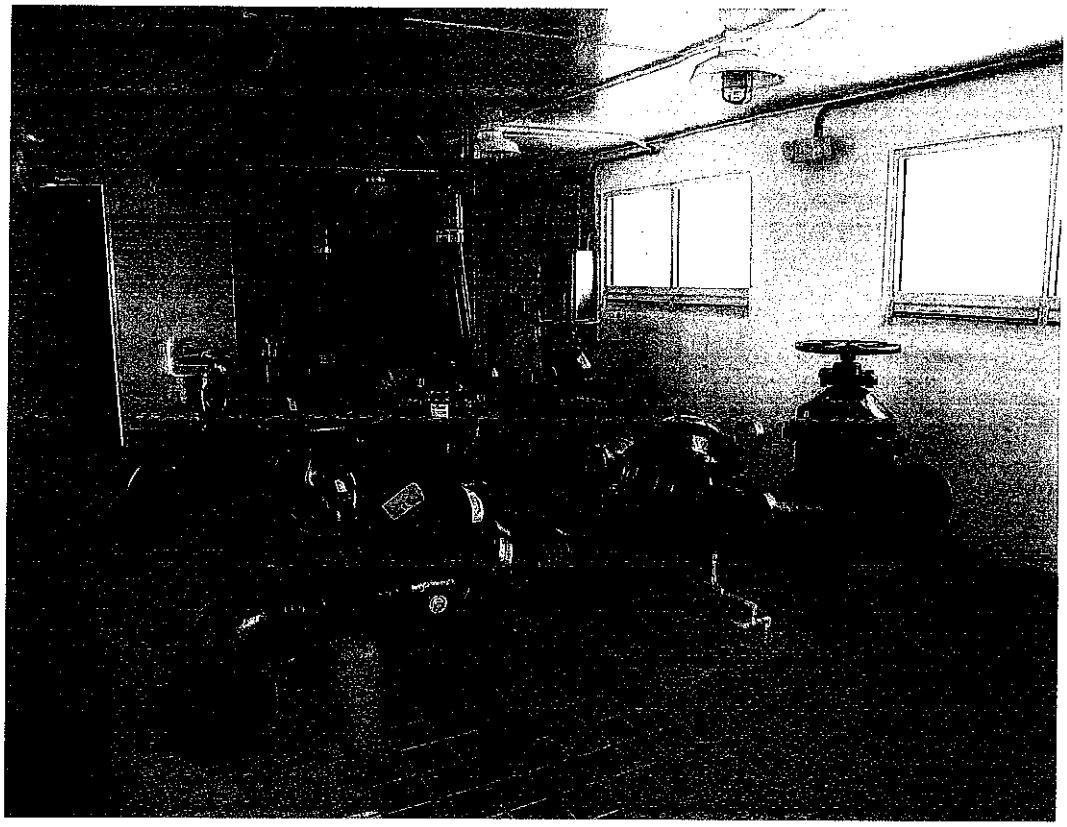


Figure 2-1 Repump Station Locations

The stated purpose of the North Singer Island repump station is to maintain system pressures for the developments located north of the repump station on Singer Island during peak flow conditions that normally reflect peak irrigation demands in the early morning hours (typically between 3am and 6am). This repump station does not currently include a secondary disinfection system and low chlorine residuals are not problematic in the service area.



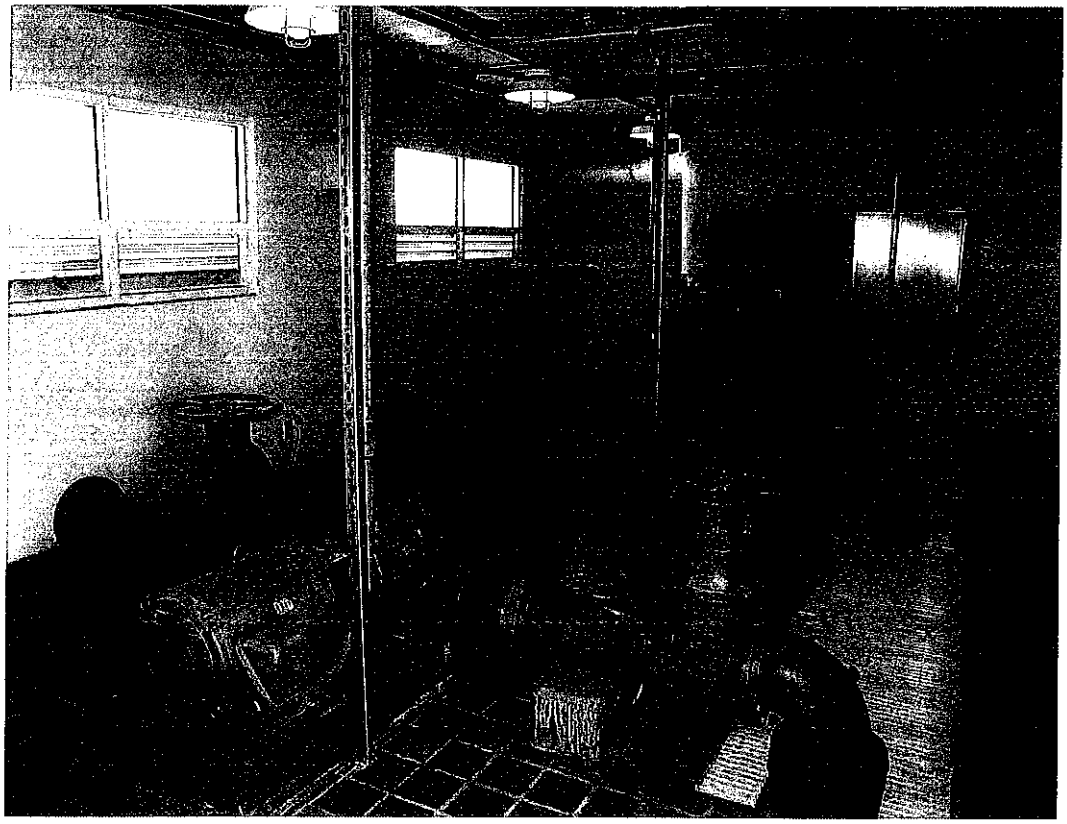
Picture 2-1 – North Singer Island Repump Station

Operation at the repump station can be divided into the filling of the GST and booster pump operation for pressure maintenance. Filling of the GST is controlled by the opening and closing of an back pressure sustaining valve located on the fill line into the GST. The back pressure sustaining valve is opened manually by an operator at the Water Treatment Plant during off-peak demand hours to fill the GST. While the back pressure sustaining valve is open the high service booster pumps are "locked out" and prevented from operating and the back pressure sustaining valve throttles to maintain a system backpressure of approximately 50psi. The back pressure sustaining valve closes when the high water level (HWL) is reached in the GST or the valve closed remotely by an operator in control room at Water Treatment Plant. The pump operation is controlled by a pressure indicator located on the discharge manifold of the pumps. The lead pump is turned on when pressure drops to the low pressure setpoint and the speed controlled to maintain the control setpoint discharge pressure. A motorized butterfly valve located on the discharge pipeline closes when the pump station is operational to prevent flow going south of the station and directs all service to demands

located north of the repump station. The pump is stopped when the high pressure setpoint is reached.

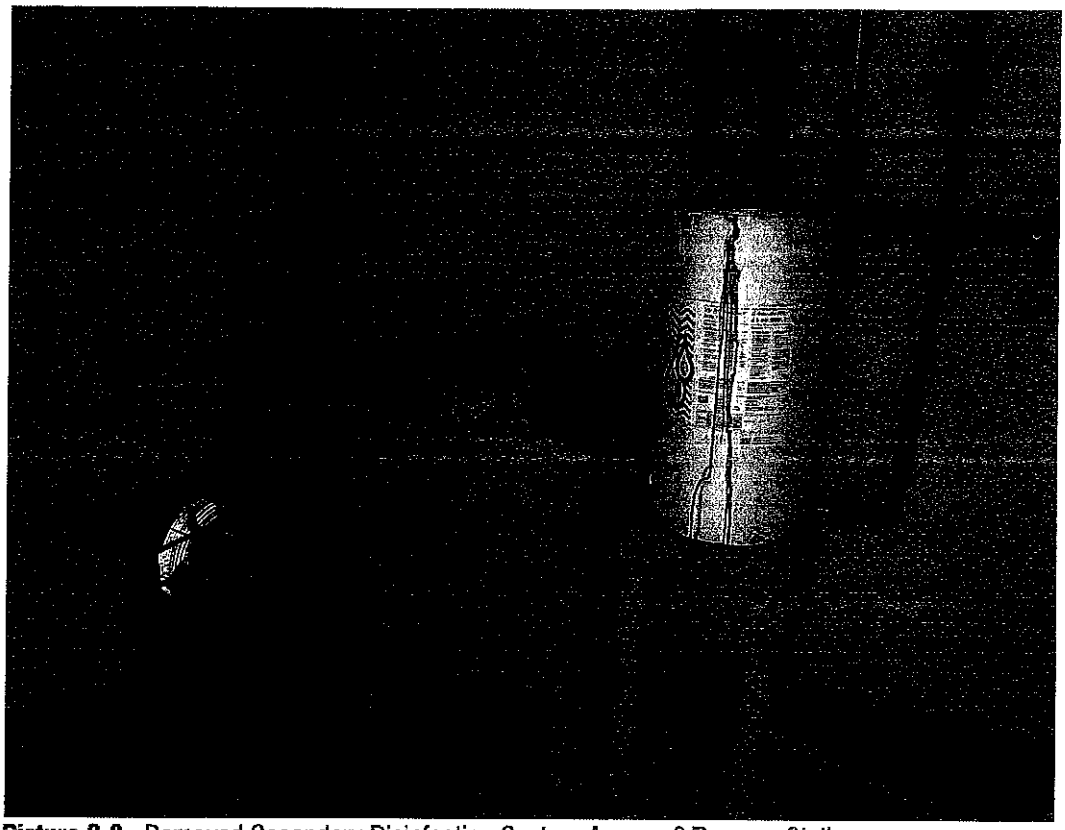
2.2.2 Avenue C Repump Station

The Avenue C repump station (Picture 2-2) is composed of one 1 MG above ground concrete storage tank; two constant speed booster pumps with a rated design flow of 900gpm each; a 10,000gal hydropneutmatic tank; a propane generator; a pressure indicator on the pumps discharge; a flow meter on the discharge pipeline; and a continuous total chlorine residual analyzer on the pumps discharge manifold.



Picture 2-2– Avenue C Repump Station

The generator is not attached to the stations electrical system and provides backup operation for a single pump via the operation of a direct coupled engine drive. The repump station is typically not needed for pressure maintenance and serves as added protection for fire flow demands at the port.

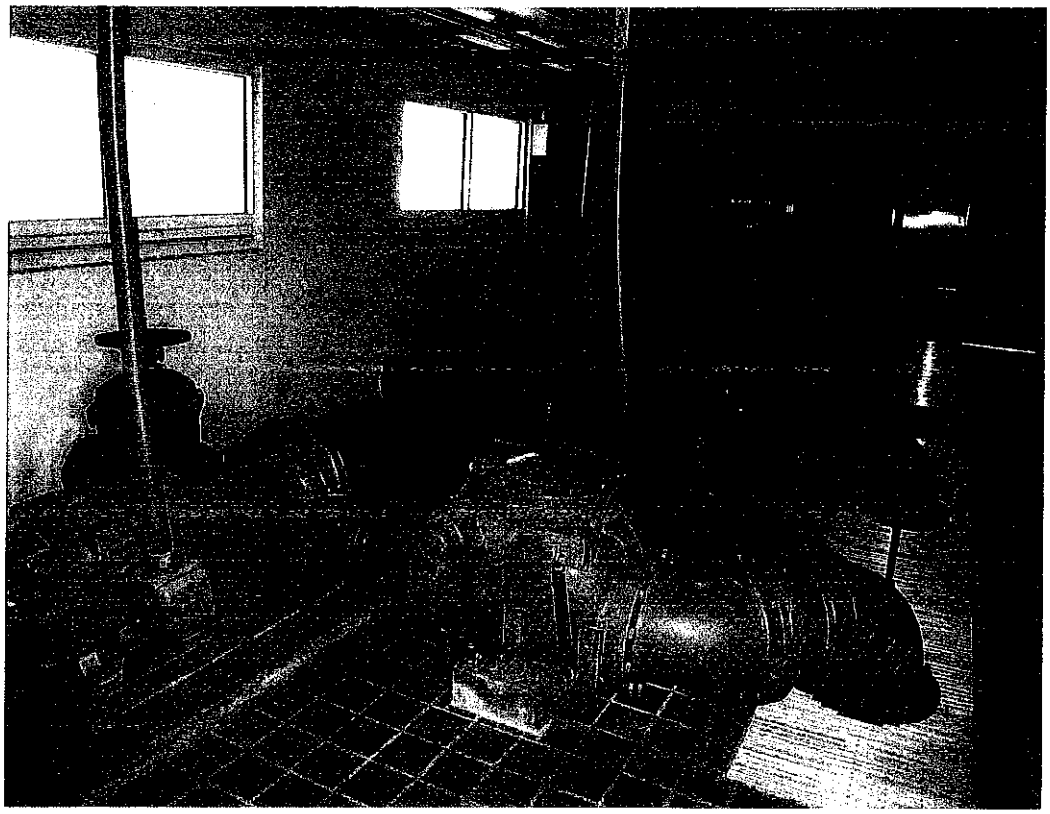


Picture 2-3– Removed Secondary Disinfection System Avenue C Repump Station

Operation at the repump station can be divided into the filling of the GST and booster pump operation for pressure maintenance. The operation of the calcium hypochlorite secondary disinfection system has been discontinued (Picture 2-3). Filling of the GST is controlled by the opening and closing of an back pressure sustaining valve located on fill line into the GST. The back pressure sustaining valve is opened manually by an operator at the Water Treatment Plant during off-peak demand hours to fill the GST. While the back pressure sustaining valve is open the high service booster pumps are "locked out" and prevented from operating and the back pressure sustaining valve throttles to maintain a system backpressure of approximately 50psi. The back pressure sustaining valve closes when the high water level (HWL) is reached in the GST or the valve is closed remotely by an operator in control room at Water Treatment Plant. The pump operation is manually controlled by an operator at the water treatment plant. The operator turns on the a pump to help cycle the water contained in the water storage tank at times of localized peak demand, typically between 7am to 9am. The pump is stopped manually when the demands are estimated to drop, typically around 9am.

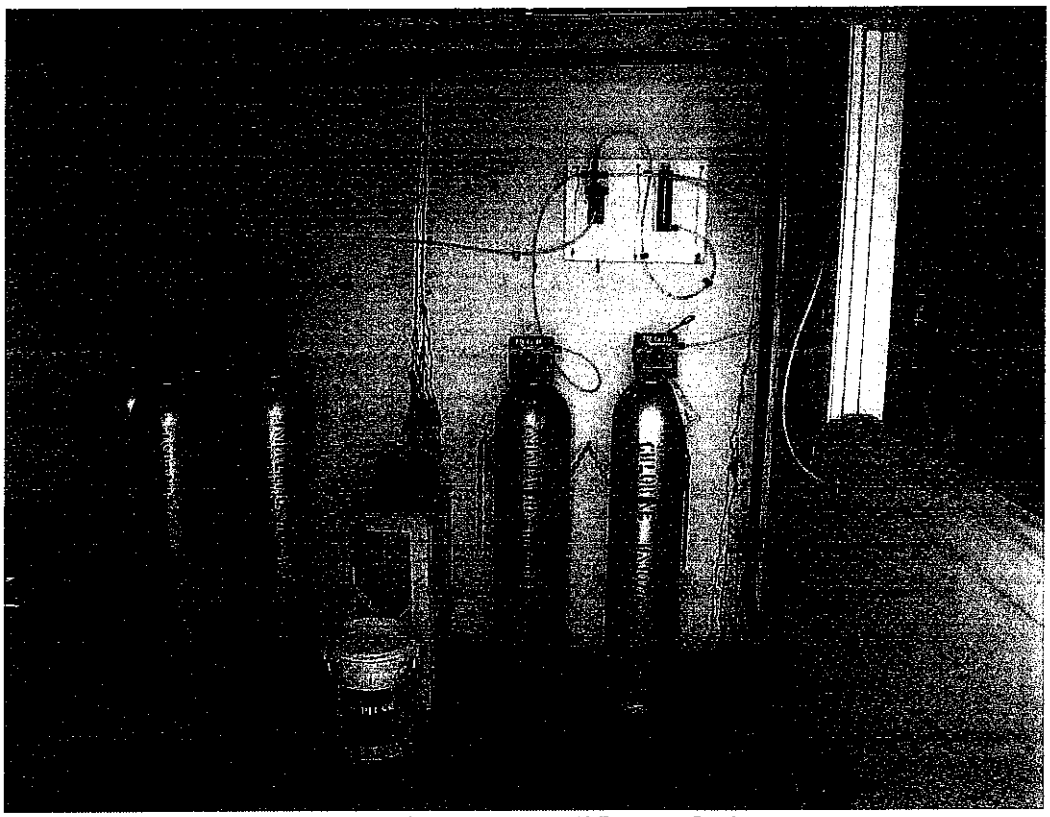
2.2.3 Avenue U Repump Station

The Avenue U repump station (Picture 2-4) is composed of one 1 MG above ground concrete storage tank; two constant speed booster pumps with a rated design flow of 2000gpm each; a 10,000gal hydropneutmatic tank; a propane generator; a pressure indicator on the pumps discharge; a flow meter on the discharge pipeline; a chlorine gas secondary disinfection system (Picture 2-5); and a continuous total chlorine residual analyzer on the pumps discharge manifold.



Picture 2-4 – Avenue U Repump Station

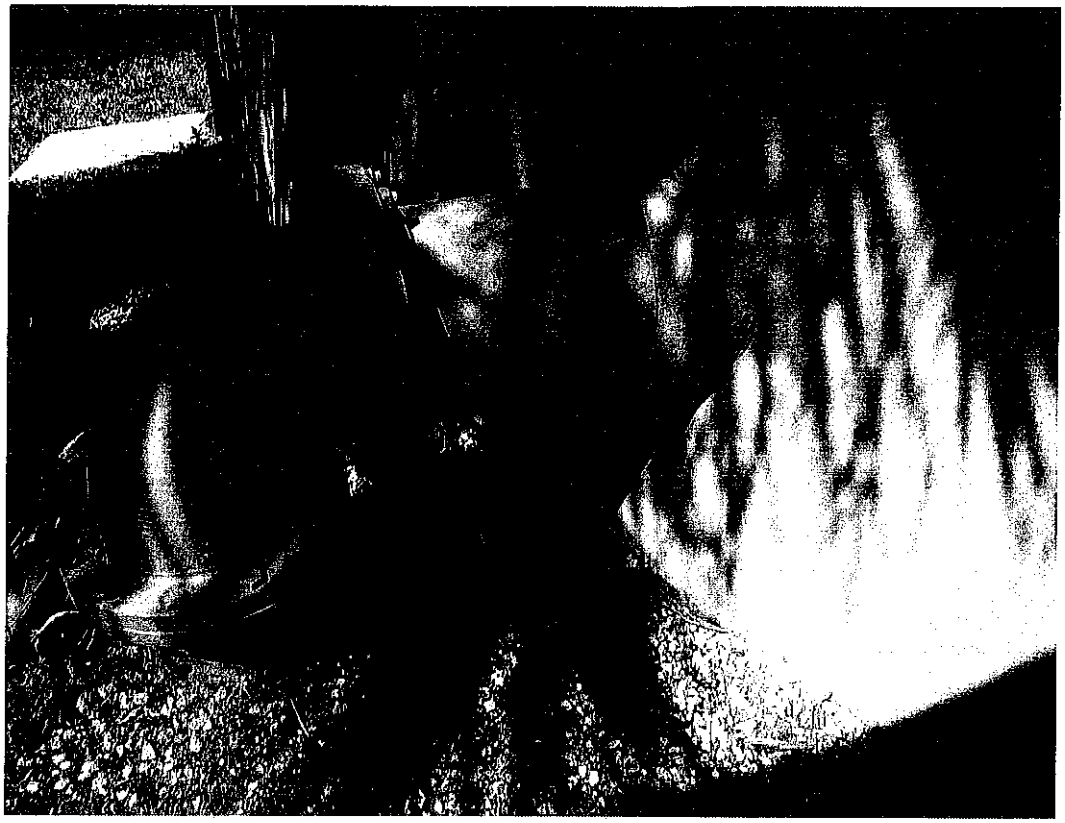
The repump station maintains system water pressures for the western portion of the service area and provides fire flow for the large Sysco Industrial complex located nearby. Like the Avenue C Repump Station, secondary disinfection using calcium hypochlorite replaced the original gas system and was in use until recently when the UTILITY changed the secondary disinfection system back to gas. The perceived ineffectiveness of the calcium hypochlorite secondary disinfection system and low chlorine residuals in the western part of the service area prompted the UTILITY to revert to use of gaseous chlorine for disinfection.



Picture 2-4 – Secondary Disinfection System Avenue U Repump Station

Operation at the repump station can be divided into the filling of the GST, booster pump operation for pressure maintenance, and secondary disinfection system operation. Filling of the GST is controlled by the opening and closing of a control valve located on fill line into the GST. The back pressure sustaining valve is opened manually by an operator at the Water Treatment Plant during off-peak demand hours to fill the GST. While the back pressure sustaining valve is open the high service booster pumps are "locked out" and prevented from operating and the back pressure sustaining valve throttles to maintain a system backpressure of approximately 50psi. The back pressure sustaining valve closes when the high water level (HWL) is reached in the GST or the valve is closed remotely by an operator in control room at Water Treatment Plant. The pump operation is manually controlled by an operator at the water treatment plant. The operator turns on the a pump to help with low pressures experienced in the western part of the service area during peak demand hours, typically between 7am to 9am and 6pm to 8pm. The pump is stopped manually at the end of the peak demand periods. The pump controller is also interconnected to the fire protection system at

Sysco and will automatically turn on a pump if the fire suppression system is operational. The secondary disinfection system operates when the pump station is operating and turns off when the repump station pumps are stopped. Additionally, the secondary disinfection system operates when the control valve on the fill line opens and stops when the valve closes. Metering of the gaseous chlorine is not automatically adjusted based on flow or chlorine residual. The orifice that controls the gas dosage is manually set at a preset dosage and a motive water pump operates at a constant pumping rate when the stations pumps are energized. Currently the orifice is fully open and set at a rate of 70 lbs/day.[4] The chlorine injection point was located on the discharge manifold of the pumps as shown by the yellow pipe in Picture 2-4. The UTILITY has recently moved the chlorine injection point to the fill line of the storage tank as shown in Picture 2-5.



Picture 2-5 – New Chlorine Injection Point Avenue U Repump Station

[4] Reported from interviews with UTILITY staff.

2.3 Existing Water Quality

The water quality was found to significantly vary at different locations throughout the UTILITY's service area. Low combined residual readings were mainly found in the western portions of the service area. Gramacy Park, located in the southwestern-most part of the service area, has suffered from low total chlorine residuals and on December 23, 2010 the Palm Beach County Health Department (Health Department) issued a consent order to the City of Riviera Beach for its failure to maintain the minimum combined chlorine residual of 0.6 mg/L as required by Rule 62-555.350(6) F.A.C. The water quality samples at the influent and effluent lines of each of the repump stations were not provided by the UTILITY as requested; however, some water quality samples were taken and analyzed. The UTILITY routinely measures total chlorine residual at various points in the system and report findings monthly to the regulatory authority. Spot samples for Ammonia and Chlorine where taken at three separate sample points on November 11, 2010 and February 3, 2011 at the Avenue C repump station and are shown in Table 2-1 and Table 2-2. Spot samples for Ammonia and Chlorine where taken at various sample points on November 11, 2010 and February 3, 2011 at the Avenue U repump station and are shown in Table 2-3 and Table 2-4.

Table 2-1 Water Quality Samples Avenue C Repump Station - November 11, 2010

Sampling Point	Total Chlorine Residual	Free Chlorine Residual	Ammonia
Storage Tank (Between tank and pump)	0.6 mg/ L	0.6 mg/L	0.0 mg/L
Storage Tank Fill Line	2.4 mg/L	1.4 mg/L	2.16 mg/L
Pump Discharge (after $Ca(OCl)_2$) injection and pump running for 20 minutes)	1.8 mg/L	2.0 mg/L	0.6 mg/L

Table 2-1 Water Quality Samples Avenue C Repump Station - February 3, 2011

Sampling Point	Total Chlorine Residual	Free Chlorine Residual	Ammonia
Storage Tank (Between tank and pump)	0.2 mg/ L	0.2 mg/L	0.12 mg/L
Water Main Avenue C #1	0.2 mg/L	0.2 mg/L	0.07 mg/L
Water Main Avenue C #2	0.2 mg/L	0.2 mg/L	0.05 mg/L

Table 2-3 Water Quality Samples Avenue U Repump Station - November 11, 2010

Sampling Point	Total Chlorine Residual	Free Chlorine Residual	Ammonia
Storage Tank (Between tank and pump)	0.0	0.0	0.0
Storage Tank Fill Line	2.0	1.2	2.16
Pump Discharge (after Cl_2 injection / pump off)	2.1	0.8	2.16
Pump Discharge (after Cl_2 injection and pump running for 20 minutes)	0.3	0.0	0.6
14-in WM on MLK Blvd. (Pump off)	3.8	2.8	3.0
14-in WM on MLK Blvd. (Pump on for 20min)	0.4	0.0	0.6

Table 2-4 Water Quality Samples Avenue U Repump Station - February 3, 2011

Sampling Point	Total Chlorine Residual	Free Chlorine Residual	Ammonia
Storage Tank (Between tank and pump)	1.5	1.3	0.08
Pump Discharge Manifold	2.8	2.5	0.49
Fire hydrant Avenue U	1.8	1.5	0.19
Haverhill North	1.0	0.5	0.24
Haverhill South	1.0	0.5	0.84

Both the sampling performed by the Health Department in the western portions of the service area and the water quality samples at the Avenue C repump station (Tables 2-1) show total combined chlorine residuals in the distribution system lower than 0.6 mg/L as required by regulations. Samples also revealed the presence of free ammonia with maximum concentrations of 3.00 mg/L. Samples taken with the pumps off and after the pumps where running for 20 minutes indicate high water age in the ground storage tank and the likelihood of nitrification episodes.

Unfortunately only limited sampling was performed and is not sufficient to define the representative conditions of the distribution system in the areas of the repump stations. Additional water quality sampling, as requested, should be performed. From the limited water quality samples provided, the minimum total chlorine residuals are not being met and free ammonia does exist in the water supply.

Section 3
Alternative Approaches

3.1 Description

Adding secondary disinfection at the UTILITY's Repump Stations must first consider the residual disinfectant being used. The UTILITY's Water Treatment Plant (WTP) provides potable water with a chloramine residual. Chloramines consist of monochloramine (NH_2Cl) and dichloramine ($NHCl_2$) and are formed when chlorine is added to water containing ammonia as shown in equations (3-1) and (3-2).

$$HOCl + NH_3 \rightarrow NH_2Cl + H_2O \qquad (3\text{-}1)$$

$$HOCl + NH_2Cl \rightarrow NHCl_2 + H_2O \qquad (3\text{-}2)$$

Liquid chlorine is usually available in the form of hypochlorous acid (HOCl) as shown in equation 3-1. Monochloramine (NH_2Cl) is generally the predominate chloramine present as a residual disinfectant and is characterized as a weaker disinfectant and oxidant than chlorine but has the benefits of producing the least detectable chlorinous taste and odor while forming lower levels of disinfection by-products (DBPs). The recommended Cl_2 to NH_3 weight ratio for the formation of monochloramine is between 4:1 to 5:1 because this will minimize the concentration of unreacted ammonia in the water. However, as shown in equation 3-2, as more chlorine is added beyond the formation of monochloramine, dichloramine ($NHCl_2$) is formed. Although a disinfectant, dichloramine produces undesirable taste and odors. It predominately occurs at the point where free ammonia has been exhausted, typically when the Cl_2 to NH_3 weight ratio is between 5:1 and 8:1. Continued addition of chlorine will convert an increasing proportion of monochloramine to dichloramine, which subsequently decomposes resulting in a roughly 2 mg/L drop in total chlorine residual for each milligram per liter of chlorine added.[5] This continuing decrease of total chlorine residual will taper off and reach a minimum point (breakpoint) after which the chlorine residual will increase with continued chlorine addition. The breakpoint represents a point in treatment where all ammonia compounds have been oxidized (including chloramines). Any additional chlorine added will increase the total chlorine residual as free chlorine. This phenomenon is shown in the breakpoint curve Figure 3-1. Hence, the addition of chlorine to water with a chloramine residual will reduce the total chlorine residual concentration without the presence of free ammonia to form additional monochloramine as shown in equation 3-1. This is one of the major concerns with the UTILITY's existing secondary disinfection system. With a constant supply of chloraminated water, the addition of free chlorine must be properly controlled and cannot be allowed to move towards the breakpoint. With the above considerations two options exist to increase the total residual in the distribution system:

- Add free chlorine to combine with free ammonia
- Add chlorine and ammonia (monochloramine)

Adding free chlorine to breakpoint is not considered a viable alternative.

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[5] AWWA, Water Chlorination/Chloramination Practices and Principals, Manual of Practice M20 Second Edition.

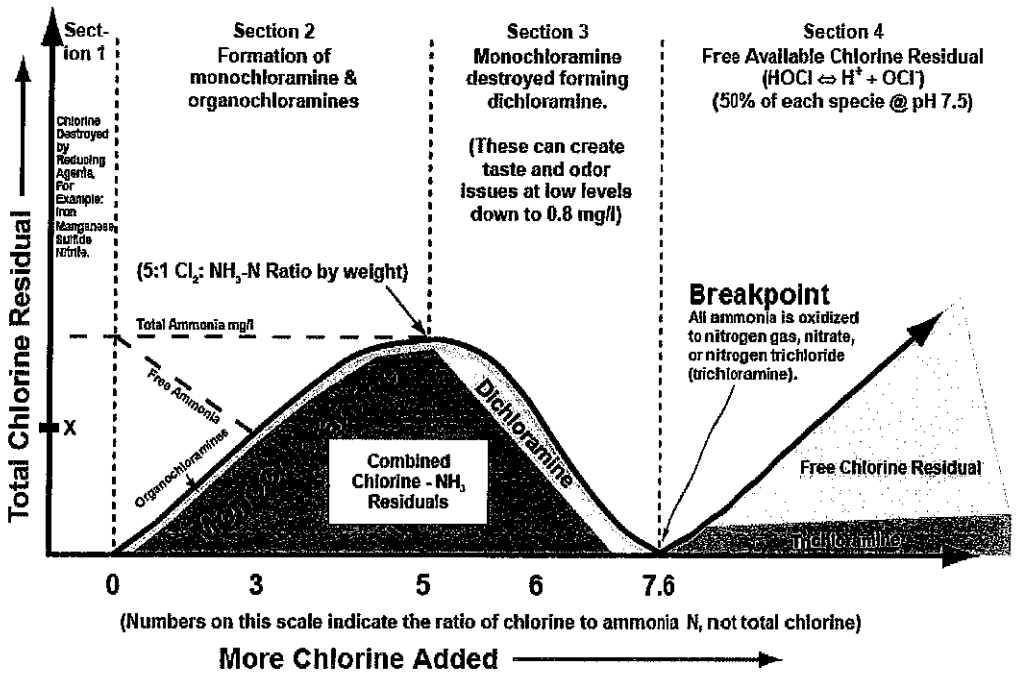

Figure 3-1 Breakpoint Curve

3.2 Addition of Free Chlorine to Reform Chloramine

The presence of free ammonia in quantities shown in the water quality sampling shown in Section 2.3 allow for the addition of free chlorine to combine with the free ammonia and restore an acceptable chloramine disinfectant residual. This process adds chlorine to combine the free ammonia into a disinfectant residual (chloramine) and removes it from causing nitrification. Residual free ammonia is normally present as a consequence of chloramine decay or oxidation of organic matter by chloramine. Chlorine is added in the ratio of 4.5:1 to 5:1 (chlorine to ammonia-nitrogen ratio) to reform a monochloramine residual. Stoichiometrically the weight ratio in a balanced equation of Cl_2 to NH_3 is approximately 5:1 but chlorine addition should not exceed this ratio to minimize the possibility of forming dichloramines.[6]

This alternative requires the addition of free chlorine storage on-site, chlorine metering pumps, controls, flow meter, free ammonia analyzer, and chlorine injector. It also requires the presence of free ammonia in the water supply at the injection point.

[6] This assumes that additional chlorine demand does not exist (i,e, nitrates)

3.2.1 Advantages

The advantages of this alternative are as follows:

- Free Chlorine will bind free ammonia into the residual disinfectant (monochloramine), therefore, not making it available for nitrification.
- Free Ammonia is not required to be added to form chloramine and thus does not have to be purchased or stored.
- It is the least costly alternative, both in capital and operational cost.
- It has less safety considerations since it does not require storage of ammonia in close proximity to hypochlorite or chlorine gas.

3.2.2 Disadvantages

The disadvantages of this alternative are as follows:

- If free ammonia is not present in the water, the addition of free chlorine will likely reduce the total chlorine residual[7]
- If free ammonia is not present in the water, the total chlorine residual cannot be increased.

3.3 Addition of Chloramine

This alternative requires the addition of free chlorine and free ammonia storage on-site, chlorine and ammonia metering pumps, flow meter, and chlorine and ammonia injectors.

3.3.1 Advantages

The advantages of this alternative are as follows:

- Free ammonia is not required in the water supply to boost the disinfectant residual.
- A breakpoint reaction or reduction of the total chlorine residual through excess addition of onsite disinfectant is not a concern as long as both ammonia and chlorine injectors are functional and controlled properly.

3.3.2 Disadvantages

The disadvantages of this alternative are as follows:

- Free ammonia present in the water supply will not be reformed into a chloramine residual and can nitrify causing additional chlorine demand.
- Ammonia can be problematic to store in spaces where temperatures might rise above 80°F. Climate control systems might need to be considered in order to store ammonia without difficulties.

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[7] Without free ammonia the addition of chlorine would reduce the total chlorine residual unless the chlorine oxidizes nitrates that would also serve to lower the total chlorine residual.

- Additional safety considerations must also be observed when storing ammonia in relative proximity to chlorine or hypochlorite since the reactions with chlorine can produce dangerous and/or explosive compounds, such as nitrogen trichloride.
- Additional storage, feeding, and control equipment makes this the most costly option, both in capital and operational costs.

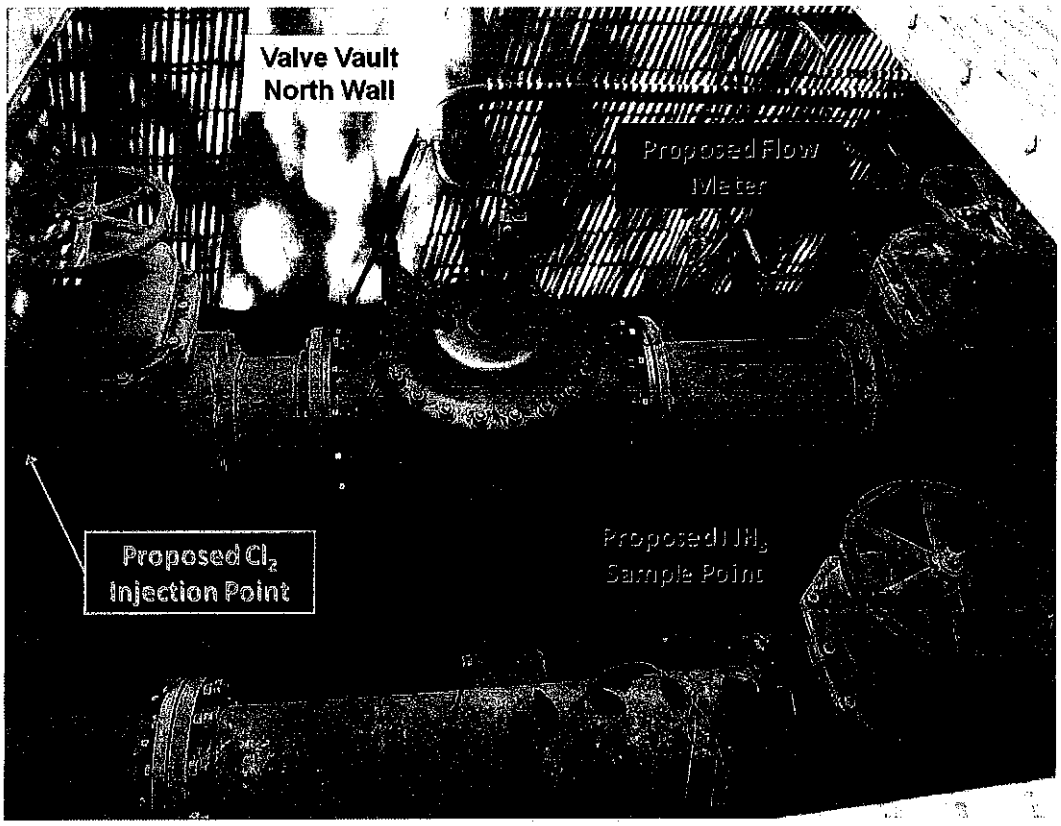
3.4 Recommendation

With the presence of free ammonia in the water supply (with sampled maximum concentrations of 3.0 mg/L), it is recommend that the UTILITY add free chlorine to the water supply. This would bind the free ammonia and make it unavailable for nitrification while increasing the total chlorine residual. This option is also the most cost effective of the alternatives and should be attempted before more expensive and complicated operations are implemented. With the proper operation of a system to add free chlorine, reasonable chloramine residuals can be reformed and free ammonia removed to assist in the prevention of nitrification and subsequent reduction of total chlorine residual to below compliance levels.

Section 4
Proposed Project

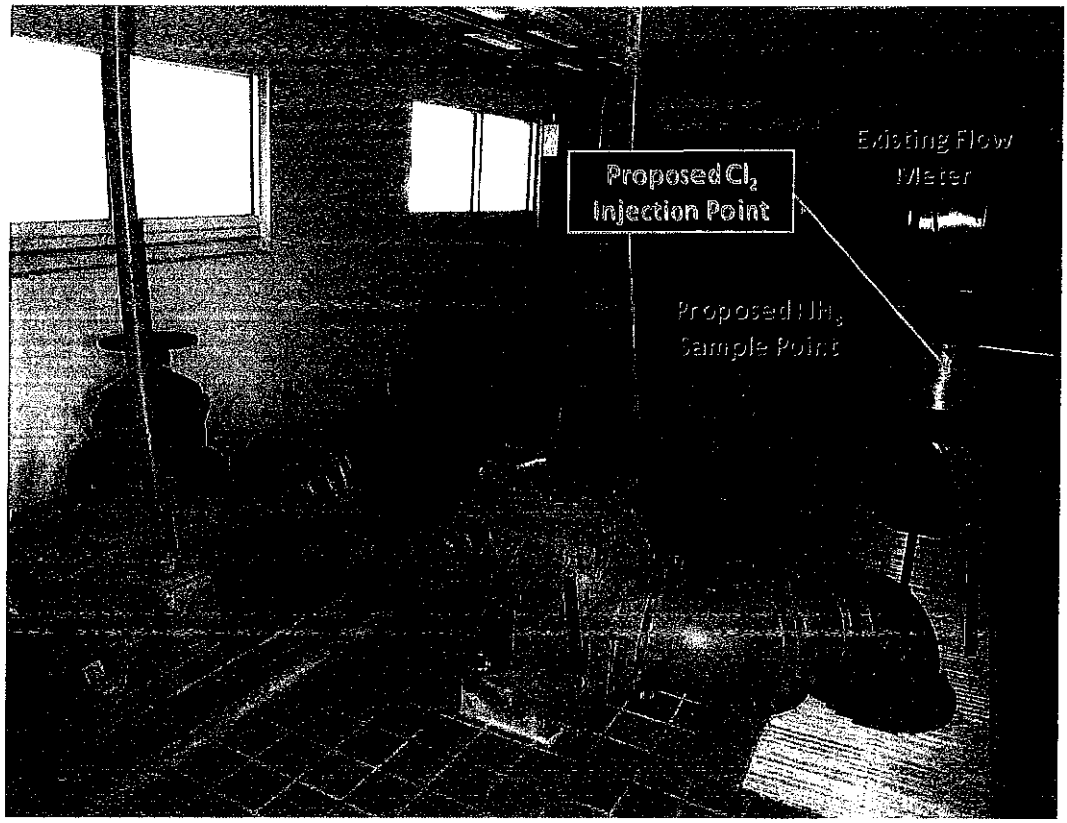
4.1 Description

Free chlorine will be added to the water supply either prior to the ground storage tank (GST), as depicted in Picture 4-1, or downstream of the GST in the repump station's pump discharge manifold, as depicted in Picture 4-2, in order to raise the chloramine residual by combination with available free ammonia. The UTILITY has chosen to provide free chlorine using a gaseous chlorination system with 150lb gas chlorine cylinders.



Picture 4-1 Valve Vault prior to GST

The complete chlorine feeding system will include chlorine gas cylinder scales, cylinder mounted automatic switchover vacuum regulators, gas chlorinator, gas injector, water booster pump, and a chlorine chemical injection assembly into the point shown in the picture above. Feed control will be provided by ammonia analyzer (with sample points located as depicted in Picture 4-1 and 4-2), flow meter (located as depicted in Picture 4-1 and 4-2), and a programmable logic controller (PLC). This section discusses the design criteria, proposed design, and operation and control strategies for the gaseous secondary disinfection system.



Picture 4-2 Valve Vault prior to GST

4.2 Design Criteria

Design criteria are based on good design practice as stated by the Recommended Standards for Water Works (2007) and the requirements for modifications to public access water systems as outlined in Chapter 62-550 and 62-555, F.A.C. Chapter 62-555.320(13)(a), F.A. C. details requirements for gas chlorination facilities.

4.2.1 Flow Rates

For the basis of design the following flow rates have been identified by the UTILITY[8] at the two injection points: Injection Point No. 1 (Fill Line to GST) and Injection Point No. 2 (Pump Discharge WM).

- Minimum GST Fill Rate = 700 gpm Maximum GST Fill Rate = 1300 gpm
- Minimum Pumping Rate = 1000 gpm Maximum Pumping Rate = 2500 gpm

[8] These flow rates were reported by UTILITY staff and derived from historical records. The maximum pumping rate was estimated as the runout point on the pump curve researched for the existing pumps (Crane Deming Type 5060 Horizontal Split Case Pump with 13.75in impeller at 1750rpm with 100hp motor).

Chapter 62-555.320(13)(a), F.A. C. requires that gaseous chlorine be feed into drinking water proportional to flow.

4.2.2 Disinfection

The following requirements set the minimum and maximum combined chloramine residual required.

- Chapter 62-555.320(12)(d) F.A.C requires the maintenance of a minimum combined chlorine residual of 0.6 mg/L throughout the water distribution system at all times
- Chapter 62-550.310 F.A.C requires a maximum residual disinfectant goal (MRDLG) for chlorine or chloramine of 4 mg/L.

4.2.3 Chemical Feed Equipment

Chapter 62-555.320(13)(a), F.A. C. and the Recommended Standards for Water Works (2007) sets the following requirements for chemical feed equipment.

- Scales shall be provided to accurately weigh chlorine cylinders in use
- New chlorinators shall be vacuum-operated, solution-feed type
- Chlorinators must have the capacity to feed enough disinfectant to maintain the minimum combined chlorine residual when maximum chlorine demand coincides with the maximum flow rate at the point of chlorine application.
- Chlorine shall be fed into drinking water proportional to flow. Automatic flow proportioning control of chlorinators shall be provided where the flow rate fluctuates significantly. Furthermore, automatic residual control of chlorinators shall be provided where the chlorine demand fluctuates significantly, and automatic compound-loop control of chlorinators shall be provided where both the flow rate and the chlorine demand fluctuate significantly.
- Scales shall be provided to accurately weigh chlorine cylinders or containers in use.
- Where chemical feed...is necessary for the protection of the supply, such as chlorination, coagulation or other essential processes, a standby unit or a combination of units of sufficient size to meet capacity shall be provided to replace the largest unit when out of service

The requirements for feed rate control are discussed in further detail below.

Chapter 62.555-320(13)(a)5., F.A.C. requires that hypochlorite be fed into drinking water proportional to flow and also states that *"Automatic flow proportioning control of chlorinators shall be provided where the flow rate fluctuates significantly"*. The flowrate data provided by the UTILITY shows that the flow fluctuates significantly, thus flow proportioning would be required. Furthermore, Chapter 62.555-320(13)(a)5., F.A.C. states that *"automatic residual control of chlorinators shall be provided where the chlorine demand fluctuates significantly, and automatic compound-loop control of chlorinators shall be provided where both the flow and the chlorine demand fluctuate significantly."* For this project chlorine demand is based on the ammonia concentrations prior to the GST. To date only the ammonia water quality samples shown in Section 2.3 have been taken and it is likely that the ammonia concentration does vary significantly enough to require automatic residual control. In order to accomplish automatic residual control a continuous ammonia analyzer would have to be provided at a point prior to the injection points. With

compound-loop control the metering pumps would be turned on when the back pressure sustaining valve was opened and controlled by both the ammonia analyzer and flow rate signal to apply the correct chlorine dosage at a ratio of approximately 5:1 (chlorine to ammonia-nitrogen ratio).

4.2.4 Gaseous Chlorine Storage and Housing

Chapter 62-555.320(13)(a), F.A. C. and the Recommended Standards for Water Works (2007) sets the following requirements that pertain to gaseous chlorination storage and housing as it relates to this project.

- Chlorine storage and feed facilities shall be located in a room or area separate from other operating areas.
- If chlorine storage or feed facilities are enclosed in a room, the room shall be located at ground level and shall be provided with floor-level ventilation as per Section 5.4.1.c of *Recommended Standards for Water Works*
- New or altered chlorine rooms shall be designed and constructed in accordance with Section 5.4.1 in *Recommended Standards for Water Works*
- Floor surfaces shall be smooth and impervious, slip proof and well drained
- Vents from feeders, storage facilities and equipment exhaust shall discharge to the outside atmosphere above grade and remote from air intakes.

4.2.5 Chlorine Injector

Chapter 62-555.320(13)(a), F.A. C. sets the following requirements that pertain to the injector mechanism.

- Chlorine shall be rapidly and thoroughly mixed with the drinking water being treated.
- Injectors shall be made removable for regular cleaning where hard water is to be treated

4.2.6 Operator Safety

Chapter 62-555.320(13)(a), F.A. C. sets the following requirements that pertain to operator safety.

- At each treatment plant that is using gas chlorination facilities the supplier of water shall provide an audio-visual alarm system that is activated by high- and low-vacuum switches, a continuous chlorine residual analyzer, or a continuous oxidation-reduction potential meter to indicate loss of chlorination capability or chlorine residual.
- At each treatment plant that is using gas chlorination facilities the supplier of water shall Provide in a convenient location, but not inside any room where chlorine is stored or handled, a self-contained breathing apparatus (SCBA) meeting the requirements of the National Institute for Occupational Safety and Health or, if withdrawing chlorine from only 150-pound or smaller cylinders, the supplier of water may provide an SCBA in each vehicle used by operators.
- Protective equipment should be provided at the site as required by the reviewing authority.

- A deluge shower and eye-washing device shall be provided where strong acids or alkalis are used or stored. Water used for eye-wash shall have a provision water tempering (room temperature).

4.3 Design Discussion

This section discusses the intended design for the proposed project in order to fulfill the project purpose while complying with the design criteria stated in section 4.2. A process flow diagram for the proposed system is included in Figure 4-1.

4.3.1 Chemical Disinfectant

The use of gaseous chlorine will produce a hypochlorous acid (HOCl) residual (equation 4-1) and will consume alkalinity which can create concerns for the creation of increased pipe corrosion and compliance with the Lead and Copper Rule.

$$Cl_2 + H_2O \rightarrow HOCl + HCl \qquad \text{(Equation 4-1)}$$

The gaseous chlorination system uses NSF Standard 60 listed chlorine gas to produce a liquid chlorine solution of approximately 100% available chlorine.

As noted above the decrease in alkalinity will increase concerns for pipe corrosion. However, the UTILITY's water supply is well buffered and the use of gaseous chlorine for secondary disinfection will not likely have a significant effect on water pH and thus corrosion concerns.

4.3.2 Chemical Dosing

The required dosage of chlorine solution is based both on the flow and the free ammonia concentration at the point of injection. The UTILITY has performed limited ammonia sampling and found the ammonia concentrations to vary between 0.08 mg/L and 3.0 mg/L at the Avenue U Repump Station. Estimated flow rates are as shown in Section 4.2.1. Chlorine addition for the reformation of a monochloramine residual by the combination of chlorine and ammonia has been shown successful at a ratio of 4.5:1 to 5:1 (chlorine to ammonia- nitrogen ratio). Chemical dosing shall be provided to handle free ammonia concentrations up to 3.00 mg/L[9] at the maximum fill rate specified in section 4.2.1. The chemical dosage and chlorinator sizing calculations are shown in Appendix A.

[9] Although the chlorinators can handle free ammonia concentrations slightly greater than specified here at the maximum flow rates specified in section 4.2.1 the UTILITY should consider SCADA notifications for consistent high free ammonia concentrations.

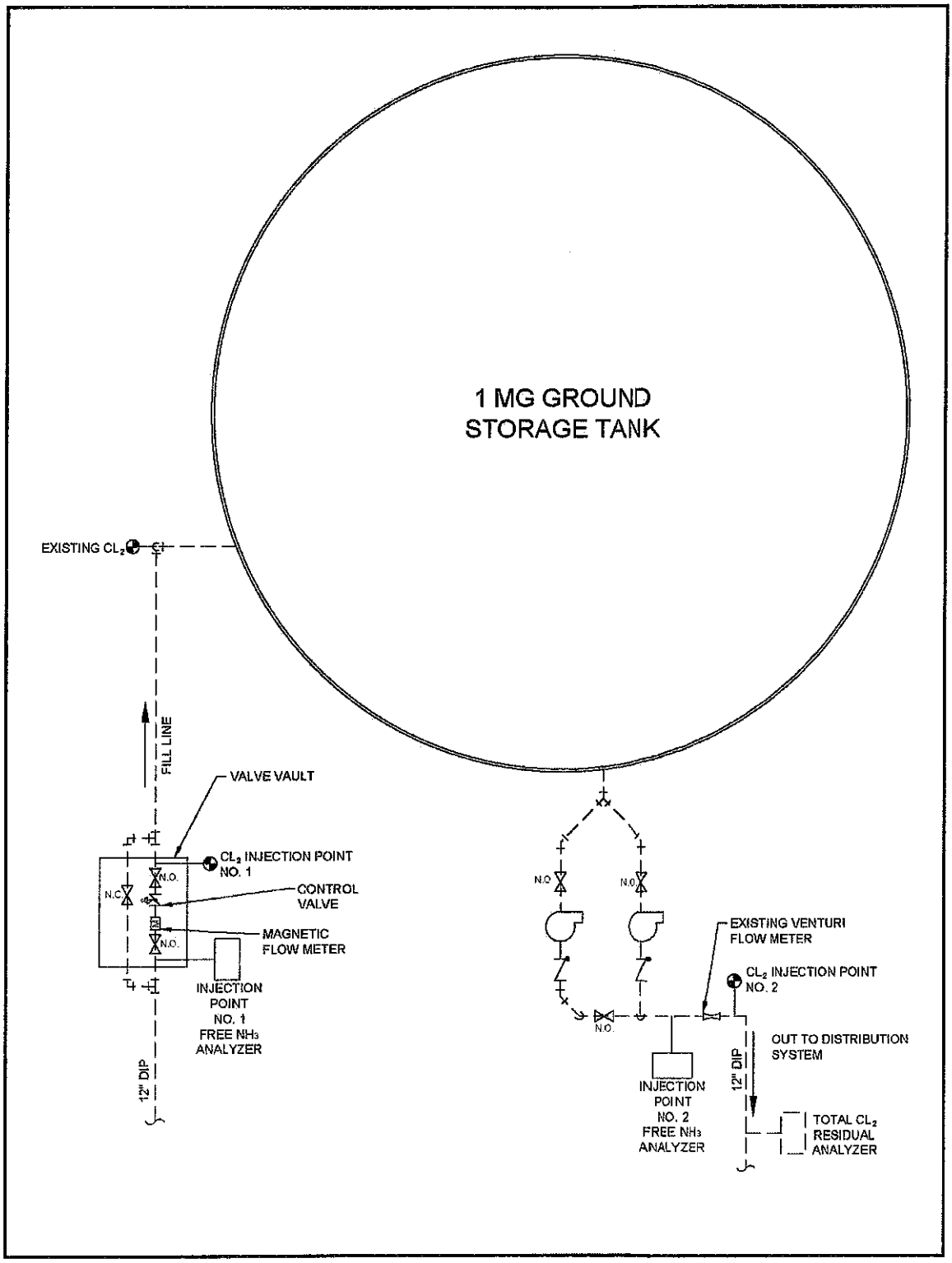


Figure 4-1 Process Flow Diagram

4.3.3 Civil / Site Work

This project includes equipment modifications on an existing site. No grading or drainage work is being done or any structural modifications. Disturbed paved areas will be patched to match the original grade. The placement of equipment will be in the pump building with an the existing assumed finished floor elevation of 20.00 ft NVGD[10], which exceeds the 25-year flood elevation. Any control or electrical panels will be placed above the 100 year flood elevation.

4.3.4 Yard Piping

The layout and yard piping of the Gaseous Chlorination system, metering pumps, and injector is shown in the drawings. The piping consists of supply water for chlorine solution, chemical feed lines for the injection of the chlorine solution, and sample lines for the ammonia analyzer.

A 2-inch site water main currently provides water to the pump building and is connected to smaller diameter water supply lines in the building. A 1-inch waterline, required for supply water to generate the chlorine solution, will be connected to the motive water booster pump and run to the injector in the chlorine room. The water main will be Schedule 80 PVC and color coded blue. A backflow preventer currently exists to isolate the disinfection system from the distribution water main. Chlorine solution piping will be Schedule 80 PVC and will run from the chlorinator to two chemical injection points shown in picture 4-1 and picture 4-2. The chlorine solution line will be color coded yellow as per the 10 State Standards. The ammonia sample lines will be 1/4-inch Schedule 80 PVC and will be color coded blue. Ammonia sample lines will run from a tap on the 12-inch GST fill line prior to the control valve (Picture 4-1) and from a tap on the repump station's discharge pump line to the ammonia analyzer located in the pump building (Picture 4-4). Both taps can be installed in periods where the repump station's pumps are not running and the ground storage tank (GST) is not being filled. Isolation valves exist to isolate the two required tapping locations on the 12-inch GST fill line from both the distribution system and backflow from the storage tank. An isolation valve also exist on the discharge water main of the repump station between the proposed chemical injection point and the connection to the distribution system 14-inch WM.

A magnetic flow meter will be installed on the 12-inch GST fill line prior to the control valve as shown in picture 4-1. To achieve stated accuracies the flow meter requires the flow profile to be fully developed, which typically requires 10 times the pipe diameter of straight pipe upstream and five times the straight pipe diameter downstream. Due to the difficulties with installing the meter in a valve vault to achieve desired straight runs of pipe and the operational flexibility to have the flow meter provide slightly less accuracy (assumed to be approximately 5% as opposed to 1%) [11]. Use of a venturi flow meter, that is more resilient to turbulence, was considered; however, a venturi meter did not fit in the existing valve vault.

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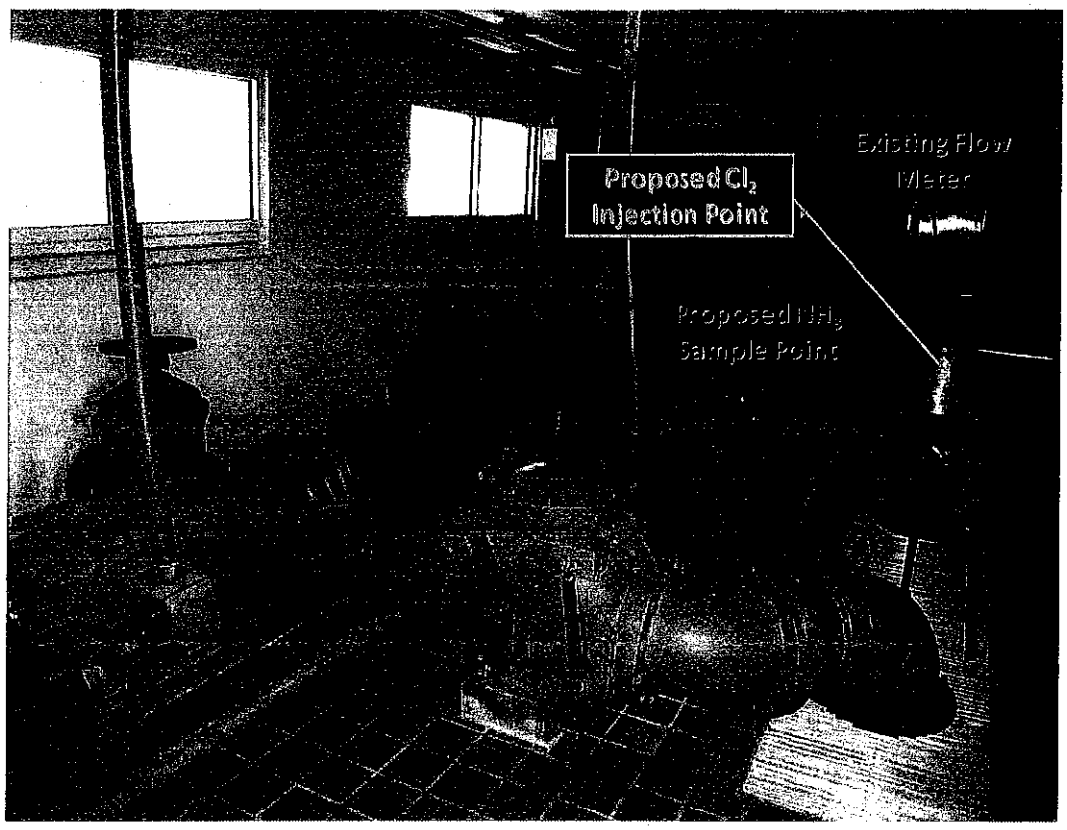
[10] This elevation is taken from the Avenue "U" Repump Station Modification As-built drawings (dated 10/1/97).
[11] 5% accuracy or better is the manufacturer's assumption for the given installation. The manufacturer will perform test at the site to determine if this assumption is valid within a reasonable level of certainty.

4.3.5 Chemical Feed Equipment

The Gaseous Chlorination system will be located in the chlorination room located in the southeast corner of the repump station building as shown in the drawings. The existing chlorination room floor is tiled with quarry tile as shown in Picture 4-3 which provides a slip resistant surface. It is recommended that the floor be pressure cleaned and the chlorine room walls cleaned and painted. The room is not climate controlled and is naturally ventilated via floor level louvers. The room requires mechanical ventilation with the installation of a wall fan to provide sufficient air changes and ventilation as required in Section 5.4.1.c of *Recommended Standards for Water Works*.



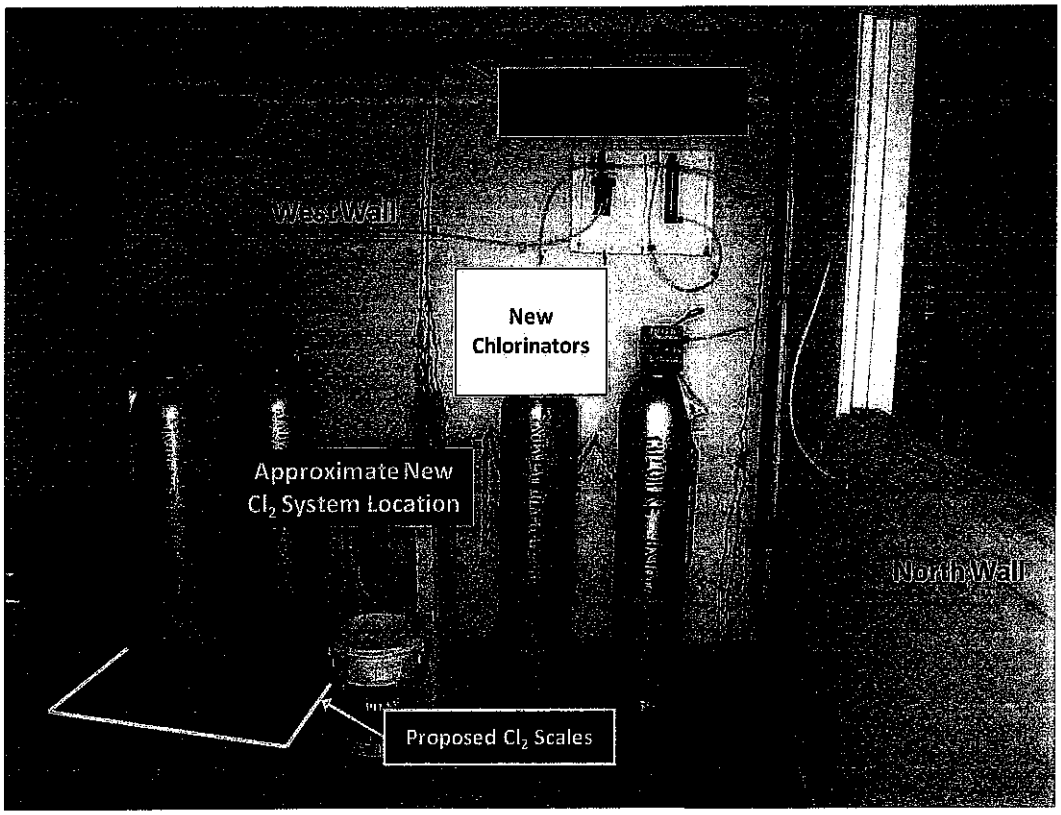
Picture 4-2 Supply Water Connection Point

4.3.5.1 Gaseous Chlorine (Storage)

Gaseous chlorine will be provided by two 150 pound gas cylinders, placed on scales, and regulated with automatic switchover vacuum regulators. The dual chlorine cylinder scales will be Model GR-150-2 with digital indicator as provided by Force Flow (Appendix B).

4.3.5.2 Chemical Feed System

The chemical feed system will provide chlorine gas from the two 150-pound chlorine cylinders each with cylinder mounted 500ppd automatic switchover vacuum regulators (Wallace & Tiernan (W&T) Model 510S). The vacuum regulators will provide chlorine gas under vacuum to a single automatically controlled gas chlorinator (W&T Series V10K) that will pace the chlorine feed to a injector that will provide the required chlorine solution to the selected chemical injection point (either Injection Point No. 1 or Injection Point No. 2). All material used for the chemical feed system should be compatible with 100% gaseous chlorine (for gas feed) and chlorine solution (for solutions feed). A motive water booster pump will be provided to ensure sufficient water pressure for the water supply line to the chlorine injector for Injection Point No. 2 on the discharge side of the high service pumps but will not be required for Injection Point No. 1 for which bypass provisions should be made.[12] Chemical feed system equipment cut sheets are provided in Appendix C.



Picture 4-3 Location for Chlorination System

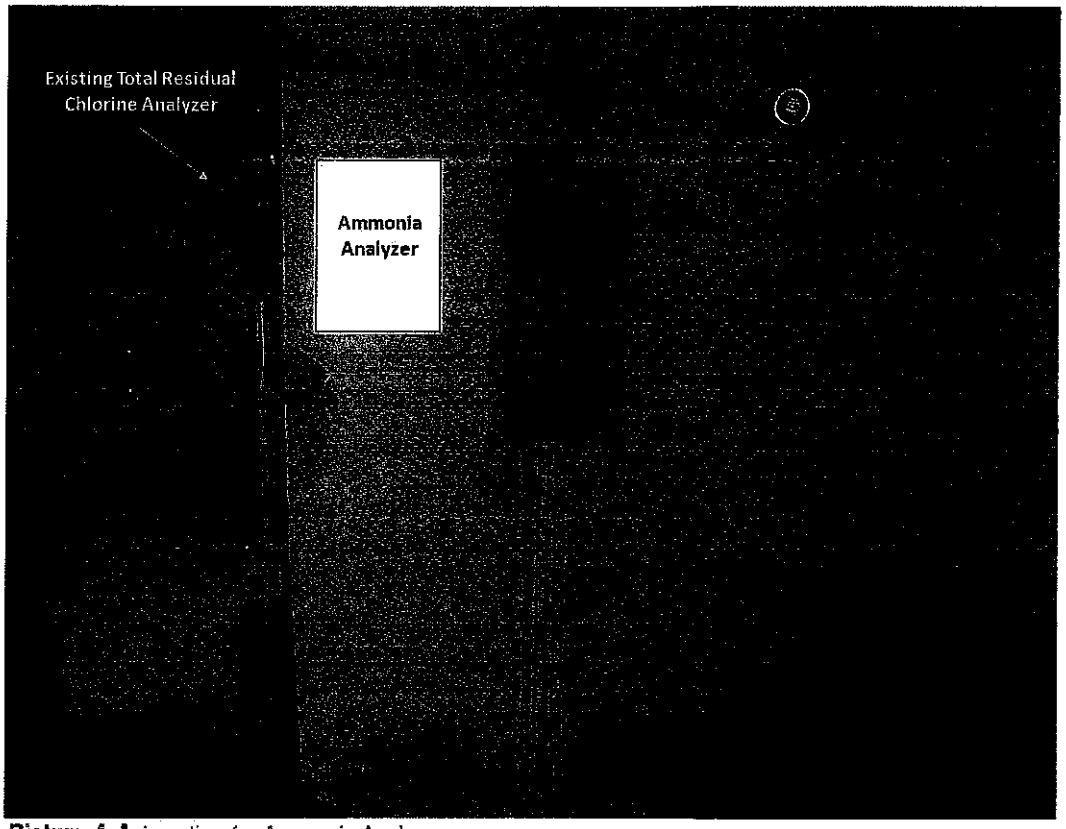
[12] The supply water main will have a higher pressure than the 12-inch GST fill line on the downstream side of the backpressure sustaining valve (which essentially represents the pressure of the water level in the GST plus head losses) where Injection Point No. 1 will be located. Use of a booster pump in this scenario could cause cavitation with the likelihood of the pump "running off the curve".

4.3.5.3 Chemical Injector

A removable chemical injector shall be provided at the injection point as shown in the drawings. The injector shall be inserted into the 12-inch GST fill line and the 12-inch repump station discharge water main in order to achieve rapid and through mixing with the drinking water being treated. The chlorine injector is specified to be removable, as required, to simplify cleaning and maintenance of the injection unit as shown in the drawings.

4.3.5.4 Ammonia Analyzer

An enhanced model Q45N ammonia analyzer (free ammonia version) as manufactured by ATI will be provided (Appendix D) and wall mounted in the pump building, as shown in the drawings and as illustrated in Picture 4-4, to continuously measure the free ammonia present in the 12-inch water main fill line to the GST or the 12-inch repump station discharge watermain.

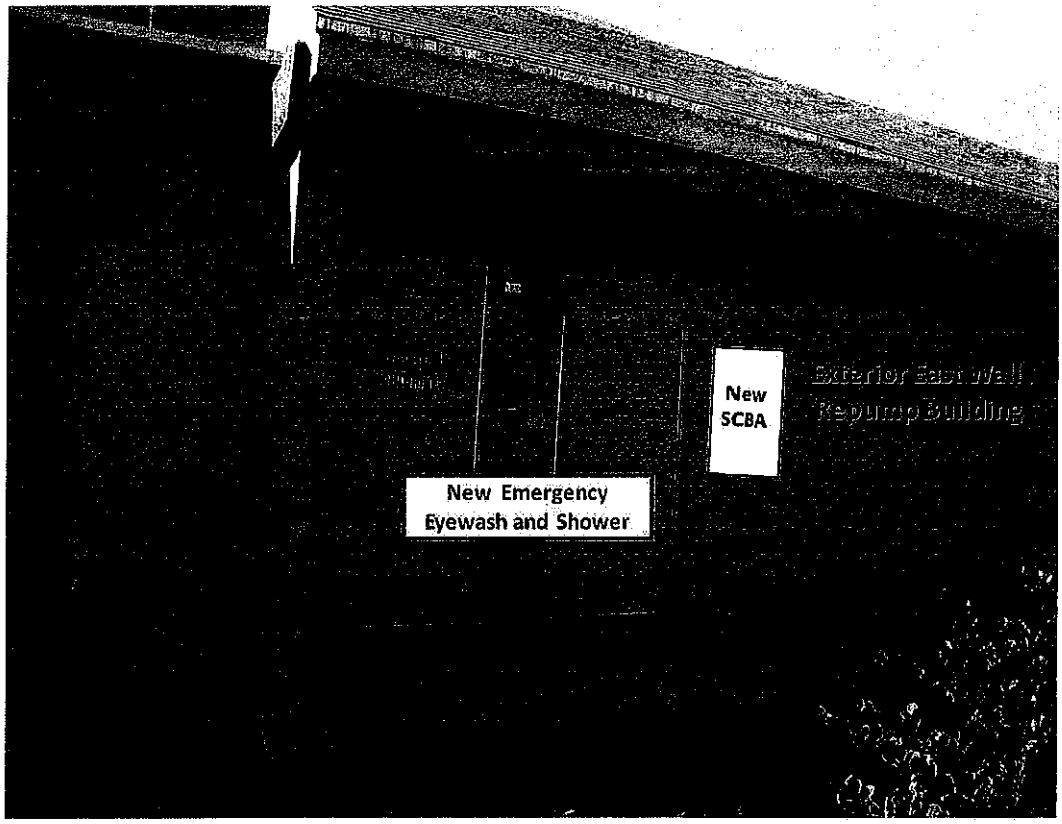


Picture 4-4 Location for Ammonia Analyzer

The ammonia analyzer will provide a "residual loop" 4-20mA signal to the programmable logic controller (PLC) for dosage control. Sample pumps are not needed since the assumed minimum system pressure (46psi) at the repump station site are adequate[13], with the given distance to the pump building, to provide the desired response time for the measurement system.

4.3.6 Operator Safety

Chlorine gas is being used at this site and thus it is recommended that various safety measures be included for operators. Although the some of the requirements shown in section 4.2.6 relate to gaseous chemical systems at water treatment plants it is recommended that both a deluge shower eyewash device and self-contained breathing apparatus (SCBA) be provided. It is recommended that both a deluge shower eyewash device per ANSI Z358.1 and SCBA be installed outside of the chlorination room as shown in the drawings and Picture 4-5.



Picture 4-5 Deluge Shower / Eyewash and SCBA Location

[13] The back pressure sustaining valve is programmed to maintain a system backpressure of 50psi while filling; thus, the minimum assumed system pressure of 46psi seems reasonable. The pressures in the discharge watermain should be higher than 50psi, thus the pressure in the GST fill line is assumed to control. The length of the sample line as well as system pressures will affect the response time of the Ammonia Analyzer; however, with the length of piping shown and assumed system pressures the response times should be adequate for good system performance.

The following additional safety equipment will be provided on site:

- Rubber gloves
- Protective Eye Glasses

4.3.7 Operation and Control Strategies

For this project operation and control strategies are divided into two general areas: 1) selection of the injection point and 2) Chlorinator control (control of the chlorine gas feed).

4.3.7.1 Selection of Chemical Injection Point

Chlorine solution will be feed to one of two chemical injection points. Each Injection Point will consist of the chemical injection point (chlorine solution), an ammonia sample point (sample water feed to the ammonia analyzer), and a flow meter with a transmitter (sends flow signal to PLC located in repump station building). Injection Point No. 1 will be the primary chemical injection point and will be located on the 12-inch fill line prior to the GST as shown in Figure 4-1. Injection Point No. 2 will be used as the secondary chemical injection point and will be located on the 12-inch repump station pump discharge water main as shown in Figure 4-1. The operator will manually select one injection point (either select Injection Point No. 1 or Injection Point No. 2) using a user interface at the PLC panel. Only one injection point will be allowed to be active at any one time. The selection of the active injection point does the following:

1) Selects the input ammonia sample from the selected injection point by control of a valve on the manifold of the ammonia sample lines into the Ammonia Analyzer
2) Selects which flow indicating transmitter to provide input to the PLC (Magnetic Flow Meter on the Fill line to GST - Injection Point No. 1 or the Venturi Meter on the pump discharge - Injection Point No. 2)
3) Opens the valve on the selected chemical injection line following the injector in the chlorination room and closes the valve on the chemical injection line not selected

4.3.7.2 Start Chemical Feed

Chlorine feed is controlled by the supply of water to the chlorine injector in the chlorination room. When water flows past the chlorine injector chlorine gas is pulled into the water supply at a rate determined by the chlorinator. Thus when no water flows past the injector, no chemical injection is provided. The flow of water is controlled by the opening of solenoid valves on the water supply line and the starting and stopping of the water supply booster pump (in case of Injection Point No. 2); all of which are controlled by a 4-20mA signal sent from the PLC. The following control logic shall be used for opening and closing the water supply line solenoid valves and starting and stopping the pump and varies depending on the active Injection Point Selected.

Injection Point No. 1 Selected

The solenoid valve on booster pump bypass is opened when the following conditions are met:

1) The control valve on the 12-inch fill line to the GST is open (the GST is being filled)
2) A user adjustable amount of time has passed since the opening of the valve (default = 5 minutes)
3) The Ammonia Analyzer is reading a free ammonia concentration of greater than a user adjustable setpoint (default = 0.10 mg/L) within a set range[14] (range = 0.05 to 3.0 mg/L).

The solenoid valve closes when any one of the following conditions are met:

1) The control valve on the 12-inch fill line to the GST closes (the GST is not being filled)
2) The Ammonia Analyzer is reading a free ammonia concentration of less than a user adjustable limit (default = 0.10 mg/L) within a set range[13] (range = 0.05 to 3.0 mg/L).

Injection Point No. 2 Selected

The solenoid valve on the water supply line booster pump is opened and booster pump starts when the following conditions are met:

1) One of the pumps in the repump station is running (the GST is being emptied)
2) A user adjustable amount of time has passed since the starting of the pump (default = 5 minutes)
3) The Ammonia Analyzer is reading a free ammonia concentration of greater than a user adjustable setpoint (default = 0.10 mg/L) within a set range (range = 0.05 to 2.0 mg/L).

The booster pump stops and the solenoid valve on the booster pump water supply line closes when any one of the following conditions are met:

1) The pump in the repump station is stopped (the GST is not being emptied)
2) The Ammonia Analyzer is reading a free ammonia concentration of less than a user adjustable limit (default = 0.10 mg/L) within a set range[13] (range = 0.05 to 2.0 mg/L).

It is important to note that existing control logic for operation (open/close) of the fill line control valve and the repump station pumps are interconnected. It is understood that when the pumps are started the control valve is automatically closed (if open). This control logic is not being changed in this project.

4.3.7.3 Chlorinator Feed Rate Control

When either of the water supply solenoid valves are open, compound loop feed rate control will be provided by a 4-20mA signal from a programmable logic controller (PLC) to the chlorinator. A flow measurement will be provided from the selection Injection Point flow meter. A free ammonia residual measurement will be provided, as measured by a continuous ammonia analyzer, to provide control of the chlorine-ammonia ratio of 5:1 (user adjustable on control panel). The programmed logic in the PLC will determine the required feed rate which will be sent via a 4-20mA signal to the chlorinator as mentioned above.

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[14] The user selectable range is set by the range of the installed ammonia analyzer's sensor as specified by the manufacturer.

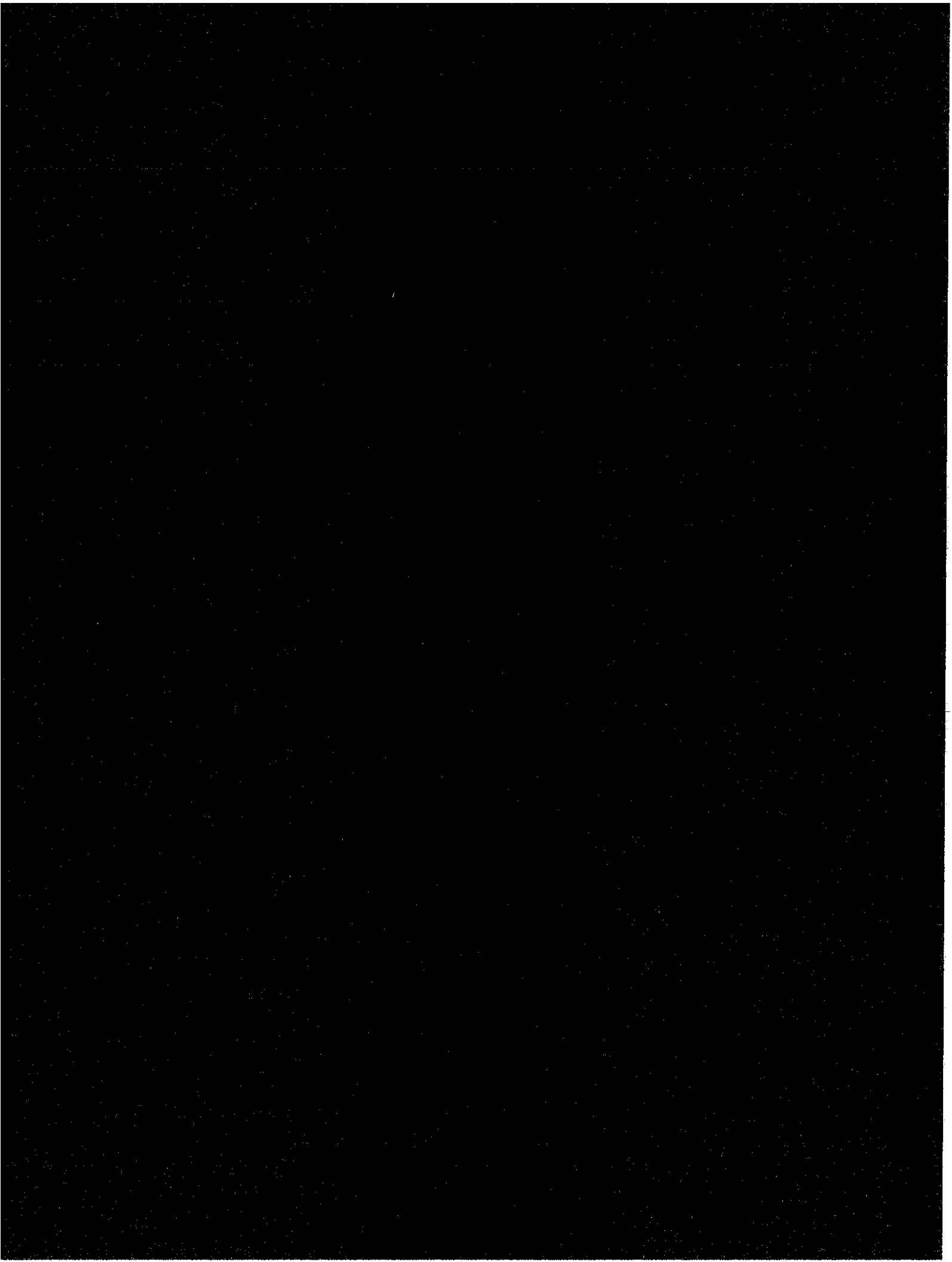
4.4 Estimated Construction Cost

The estimated construction cost for the recommended project is as shown below in Table 4-1.

Table 4-1 Estimated Construction Cost for Secondary Disinfection System

Item	Quantity	Unit Cost	Equipment Cost
Chlorinator and accessories (500ppd)	1	$5,109	$5,109
Automatic Switchover Vacuum Regulators (500ppd)	2	$3,764	$7,528
Chlorine Injectors	2	$600	$1,200
Dual Chlorine Cylinder Scales with Digital Indication	1	$2,500	$2,500
Chlorine leak detector (single point)	1	$1,342	$1,342
Booster Water Pump	1	$350	$350
Residual Free Ammonia Analyzer (ATI Q45N)	1	$6,700	$6,700
Magnetic Flow Meter with transmitter	1	$6,000	$6,000
PLC with programming	1	$14,000	$14,000
Emergency Eyewash / Shower	1	$4,000	$4,000
Emergency Self Contained Breathing Apparatus	1	$5,000	$5,000
Exhaust Fan	1	$3,000	$3,000
Piping, Valves, and appurtenances	-	-	$15,569
Miscellaneous Electrical	-	-	$2,000
Estimated Equipment Sales Tax (6%)	-	-	$4,458
Estimated Material and Equipment Cost:			**$78,756**
Installation Cost			$20,600
Construction Mobilization, Overhead, and Profit (30%)			$29,807
Estimated Construction Cost:			**$129,163**

The total construction cost of the system is estimated to be $129,163. This cost is limited to the process equipment specified above. Note that this cost is not inclusive of engineering nor permitting fees.



(6)

ENV. PUBLIC HEALTH
2014 MAR -7 AM 10: 12

March 5, 2014

Scott Harrison, R.S.
Environmental Manager-Water Programs
Div. of Environmental Public Health
P.B.C. Health Dept.

Subject: Public Drinking Water System
Facility ID No. 450-1229

Dear Mr. Harrison:
Pursuant to your February 13, 2014 letter to Mr. Aurigemma,
This letter is in response to the Palm Beach County Health Dept. Pre-Compliance Report.

1. The Water Plant received notice of more than two (2) failed distribution sample result from 40 samples taken in November and received notice of more than two (2) failed samples from December but all subsequence samples were clear.
2. The Water Plant received notice of a failed distribution sample result around 5:00pm on 11-8-13, the following day samples were turned in to lab around 9:00am. City of Riviera Beach Water Plant received notice of the failed sample results sometime after 4:15pm on 12-12-13. There was not enough daylight available to pick up samples on that date so the following day samples were picked up along with some Boil Water samples then delivered to Jupiter Labs which may account for the late delivery time on the sample sheet.
3. The Water Plant collected 20 distribution samples on 9/12/13 and 20 Distribution samples on 9/19/13.
4. The Water Plant did not collect triggered monitoring in response to the total coliform positive samples in November & December.
5. The Water Plant failed to collect the raw water assessment samples for the month of October.
6. The Water Plant contacted the Lab to have these samples collected, the lab that does Nitrate & Nitrite samples failed to collect the required samples in 2013.

The City of Riviera Beach would like to arrange for assistance from the Health Department to return to compliance without enforcement.

(6)

I apologize for any inconvenience this may have caused.

If you have any questions please feel free to contact,
Mr. David Danford, Water Plant Superintendent, at (561) 845-4185.

Sincerely,
David Danford,
Water Treatment Plant Superintendent

PALM BEACH COUNTY HEALTH DEPARTMENT
DIVISION OF ENVIRONMENTAL PUBLIC HEALTH – WATER PROGRAMS

(1)

MEETING RECORD

Date/Time:	Case No.:	Program No.:
04/01/14	WP-019-14 / WP-039-14	58
Responsible Party:		**Permit/Complaint No.:**
Riviera Beach WTP		

Meeting Notes

Case Discussion

Discussed both CALs.

They had delivered response to CAL dated March 4, 2014

Email to program is acceptable when a positive is obtained. (MCL violation) Notify immediately!

RB - are considering changing labs.

(RB) (1) Put out to bid → from chlorine gas to sodium hypochlorite. 1) Bids for building now. 2) Test the water 3) Implementation of sodium hypochlorite (Capital Improvement)

(2) Secondary disinfection out to bid. Already permitted. Booster station.

Case Resolution

Conducted chlorine burn - March

Change Lab

Case Action Items

* (Scott) Send a list of certified labs to David
  * → Exceptions from DEP, also EPA templates hand book

(RB) → Send PN for January 2014 MCL.
" Hydraulic study to FDOH.
Action Plan - submit to FDOH - delineated time frames. Submitted by → April 9, 2014

ES Name/Signature:	Date:
WPA Name/Signature:	**Date:**

(7)

PALM BEACH COUNTY HEALTH DEPARTMENT
DIVISION OF ENVIRONMENTAL PUBLIC HEALTH – WATER PROGRAMS

MEETING RECORD

Date/Time:	Case No.:	Program No.:
Responsible Party:		Permit/Complaint No.:

Meeting Notes (Continued)

Pamela Lapi FDOH PBC 837-5947
Scott Harrison FDOH PBC 837-5933
David Danford RBUD 845-4187
Lou Auriemma RBUD 845-4185
Giles Rhoads RBUD 291-5888

(8)

April 8, 2014

Scott Harrison, R.S.
Environmental Manager-Water Programs
Div. of Environmental Public Health
P.B.C. Health Dept.

Subject: Public Drinking Water System
Facility ID No. 450-1229

Dear Mr. Harrison:
Pursuant to our meeting on April 1, 2014.
This letter is a request for an extension to the April 9th deadline for the Palm Beach County Health Dept. Action Plan Report.

The City of Riviera Beach Water Plant would like to file for a time extension for the Action Plan Report that is due on 4/9/14.

The report will be delivered on April 11, 2014.

If you have any questions please feel free to contact,
Mr. David Danford, Water Plant Superintendent, at (561) 845-4185.

Sincerely,

David Danford,
Water Treatment Plant Superintendent

CITY OF RIVIERA BEACH WATER TREATMENT PLANT ACTION PLAN

ACTION PLAN OVERVIEW

The City of Riviera Beach Utility District (CRBUD) is preparing an action plan as a result of testing for Total Coliform above MCL in the distribution system. Furthermore, the CRBUD failed perform the requirement of Ground Water Rule for triggered monitoring. Per the request of the Palm Beach County Health Department (PBCHD), the CRBUD has drafted this action plan.

1.0 STEPS TO IMPROVE LOW CHLORINE RESIDUAL

1.1 Automated Fire Hydrant Flushing Devices

To improve the water age and chlorine residual in distant locations in the distribution system, a network of automated fire hydrant flushing devices were installed. There are currently ten automatic flushing devices installed on fire hydrants in the CRBUD's water distribution system. The approximate locations of the flushing devices are summarized in **Table 1.01**.

Table 1.01
Location of Automatic Flushing Devices

Flusher No.	Approximate Location
1	5662 Park Ave. Gramercy Park
2	5154 Caribbean Blvd Gramercy Park
3	4803 Lake Arjaro Dr. & 45th St Gramercy Park
4	6780 41st Ave N, Palm Lakes Co-Op.
5	7392 N. Haverhill Rd
6	45th St, last hydrant
7	Eadie Pl, Gramercy Park
8	2471 Port West Blvd.
9	309 Canterbury Dr W, Lone Pine
10	6125 Fiscal Ct.

The flushing devices were installed in 2010 & 2011.

Design criteria listing the flushing device manufacturer, capacity and controller set points are listed in **Table 1.02**.

Table 1.02
Automatic Flushing Devices Design Criteria

Manufacturer	Kupferle Foundry Company
Model No.	9700
Flush Cycle Adjustability	9 flushing cycles per day at up to 4 hours of flush time per cycle
Maximum Flushing Rate	200 gallons per minute
Current Flushing Controller Settings (typical for all devices)	On at 11:00pm Off at 12:00am (One hour flushing) On at 2:00am Off at 3:00am (One hour flushing) On at 5:00am Off at 6:00am (One hour flushing)

A location map of the Automated Hydrant Flusher is included as **Appendix A.**

1.2 Secondary Disinfection System at Ave. U Repump Station

Based on the findings of the "*Water System Regulatory Review Report*", CRBUD has failed to maintain a minimum combined chlorine residual of 0.6 mg/L (per Rule 62-555.350(6), FAC) in the southwestern portion of its water distribution system. This region of the service area is known as Gramercy Park.

The CRBUD performed an evaluation of the existing secondary disinfection systems along with a desktop study of the secondary disinfection approaches in order to recommend capital improvements likely to achieve higher total combined chlorine residual in the distribution system. The findings of this study are summarized in a report titled "*Secondary Disinfection System Evaluation*", dated July 30, 2011 prepared by C Solutions, Inc.. This report recommended that a new gaseous chlorination system with controls be installed at the Avenue U Repump Station (western most existing repump station). These improvements would add chlorine to combine the free ammonia to increase disinfectant residual (chloramine) and remove free ammonia (which likely acts as a catalyst for nitrification and subsequent rapid reduction of the distribution system disinfectant residual).

The recommended secondary disinfection system is described in detail in the "*Secondary Disinfection System Preliminary Design Report*", dated May 10, 2012 prepared by C Solutions, Inc.. For convenience, the improvements recommended in that report are summarized in the following paragraph.

"Chlorine solution would be fed to one of two chemical injection points. Each injection point would consist of the chemical injection point (chlorine solution), an ammonia sample point (sample water feed to the ammonia analyzer), and a flow meter with a transmitter (sends a flow signal to PLC located in repump station building). Injection Point No. 1 would be the primary chemical injection point and would be located on the 12-inch fill line prior to the ground storage tank. Injection Point No. 2 would be used as the secondary chemical injection point and would be located on the 12-inch repump station pump discharge. The existing venturi meter located on the repump station discharge water main would be utilized to provide a flow signal to the PLC for utilization of Injection Point No. 2".

A water age assessment map is included as **Appendix B.**

1.3 New Core Disinfection Facility - Design/Build RFP is scheduled for advertisement May 2014

The Water Treatment Plant (WTP) currently uses chlorine gas for disinfection purposes. The existing chlorine gas system is at the end of its useful life. The CRBUD has made the policy decision to eliminate the use of chlorine gas and switch to sodium hypochlorite disinfectant. There is a Preliminary Design Report by Hazen and Sawyer dated January, 2013 that provides further detail of the preliminary sodium hypochlorite facility design. In addition, there is a proposed procurement plan for conversion of the chlorine system with a sodium hypochlorite facility, which will be discussed in this action plan.

The CRBUD has decided that the sodium hypochlorite facility will be implemented in a three step process, as follows:

- Step1 - Design and Construction of Core Sodium Hypochlorite Facility: The Preliminary Design Report presented herein master plans a core facility that would receive 12% sodium hypochlorite via bulk delivery. The plan includes flexibility to allow the CRBUD to increase its capital investment to utilize 0.8% on-site sodium hypochlorite generation (OSG) technology, if desired. The chlorine system would remain functional and be the primary means of disinfection until Step 3 is completed. The CRBUD would follow the conventional design-bid-build procurement approach for the design and construction of the sodium hypochlorite facility. The CRBUD would issue this Preliminary Design Report with a Request for Proposal (RFP) to acquire the services of an engineering firm to prepare a detailed design of the proposed sodium hypochlorite facility. Following completion of the detailed design, the CRBUD would bid the procurement documents to general contractors for construction of the proposed sodium hypochlorite facility. Once the proposed sodium hypochlorite facility has been constructed and accepted by the CRBUD, Step 2 can be initiated.

- Step 2 – Full-Scale Testing: CRBUD would obtain 12% sodium hypochlorite via a Palm Beach County co-op contract (or other procurement means) and use it for full scale testing of sodium hypochlorite at the WTP to make final adjustments to ensure that finished water quality to customers is not impacted. Additionally, the full-scale testing period would facilitate CRBUD operational staff to gain experience operating the new facility.

- Step 3 – Sodium Hypochlorite Procurement: Once full-scale testing of the new sodium hypochlorite facility is successfully completed, CRBUD would retain a consultant to prepare contract documents for procurement of sodium hypochlorite via:

    - Option 1: 12% bulk delivery;
    - Option 2: on-site generation of 0.8% sodium hypochlorite; or
    - Option 3: hybrid (a permittable combination of Options 1 & 2).

  The decision of which option is preferable to CRBUD would depend, in part, upon economic factors that fluctuate over time.

2.0 PROCESS TO HANDLE TOTAL COLIFORM SAMPLING, RESAMPLING, AND TRIGGERED MONITORING

2.1 Routine Sampling

The Public Water Supply system must routinely collect samples of the water in their distribution system and have them analyzed by a state approved laboratory to determine the presence of Coliforms. Based on the population size in the Riviera Beach Service Area, the Utility District must sample a minimum of 40 samples monthly. Currently, 20 samples are taken in a week and two weeks are sampled in a month.

The Riviera Beach Utility District WTP will develop a sampling schedule that will include a spreadsheet outlining all required total coliform sample dates & locations. This sampling plan will have instructions on what to do and who to contact in case of a failed sample. This schedule spreadsheet will be completed by May 31, 2014

2.1.1 Sampling Nitrite and Nitrate

The Public Water Supplier must collect water samples at least once a year and analyze them to find out if nitrates/nitrites are present above 50 percent of their MCLs. If it is present above this level, then the system must continue to monitor the contaminate every 3 months.

The Riviera Beach WTP missed reporting the last sample for these. The laboratory that performs sampling for the City did not realize they had to test for Nitrite & Nitrate from the distribution samples. This is ultimately the WTP's responsibility for any tests that are not collected. We will develop a sampling plan & schedule that will include all regulated and non-regulated state required samples. This plan will be given to whichever laboratory that is contracted to collect samples for the WTP. This sampling plan will be completed no later than May 31, 2014.

2.2 Repeat Sampling

Repeat sampling will be collected in accordance to the Total Coliform Rule (TCR) and the DEP Rule 62-550.828. Per the TCR, repeat samples will be taken within 24 hours of being notified of a positive test result. All repeat samples must be collected on the same day and samples must be taken at:

- The site that gave positive routine results.
- If possible, take one sample with 5 service connections upstream and one sample with 5 service connections downstream of the positive sample site.

Based on the results of the repeat sampling in accordance with TCR, the requirements for sampling based on Rule 62-550.828 will be determined. In addition, the sampling plan will have written instructions regarding collection of these samples.

2.3 Triggered Monitoring

To insure triggered monitoring sampling will be collected in accordance to the Ground Water Rule which was adopted into DEP Rule 62-550.828, a sampling plan will be developed outlining

what samples need to be collected and when. However, if the exceptions to the triggered source water monitoring requirements are met, then triggered monitoring will only be by voluntary basis by the WTP. This plan will be incorporated into the above routine sampling plan. This will be complete no later than May 31, 2014.

3.0 PUBLIC NOTICES & HEALTH DEPARTMENT DEALINGS

The RBUD will handle the public notice by daily newspaper. This will be done by the City's Public Information Officer. The CRBUD will draft a Tier 2 notification in accordance to the violation that is described in Rule 62-560.410.

The WTP Superintendent, David Danford, will be the person in charge of contacting the PBCHD. The Lead Operator, David Salas will be the alternate when communicating with the enforcement agency for matters of missing scheduled reporting dates and instances where a sample was over MCL.

4.0 ADDITIONAL ACTIONS

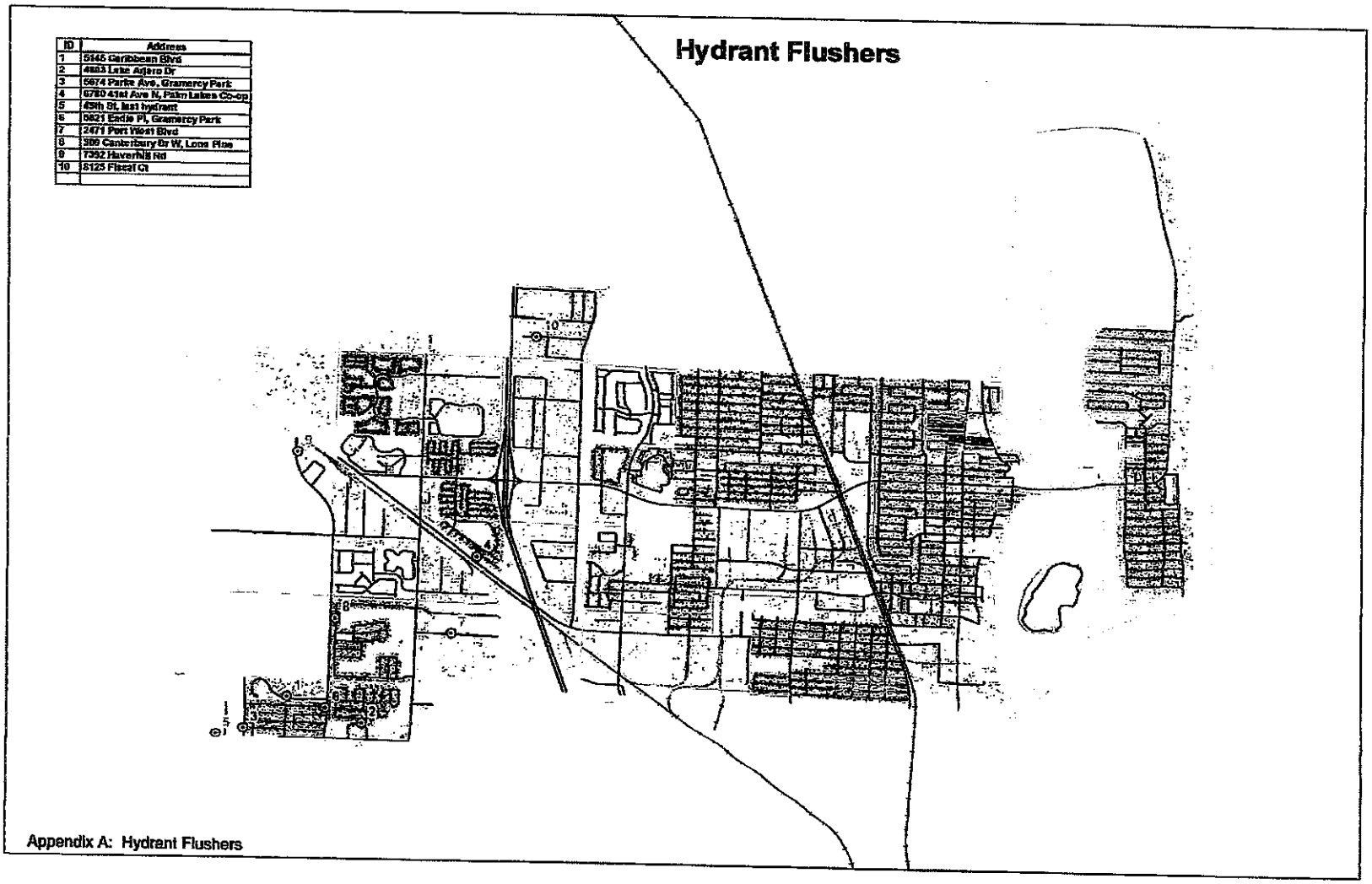
Prior to 2012, the WTP used Environmental Services to run all its bacteriological samples from the distribution system and wells. During that time, the WTP did not have issues with failed samples of total coliform. However, since the change of laboratories, the CRBUD distribution system has a lot of TC+ samples. Currently, we are working on adding other laboratories to our vendor list to have back-up coverage if necessary and to narrow down what may be one of the source causes of the failing results.

If the CRBUD water distribution system continues to receive MCL failing test results for total coliform and chlorine residual, a unidirectional flushing program may be implemented in affected locations of the service area. Unidirectional flushing (UDF) involves opening and closing valves within the pipe network to enhance flushing velocities by isolating certain segments of the pipe network. A successful UDF requires detailed planning to define the order in which pipes are to be flushed, hydrants opened, and isolation valves opened and closed.

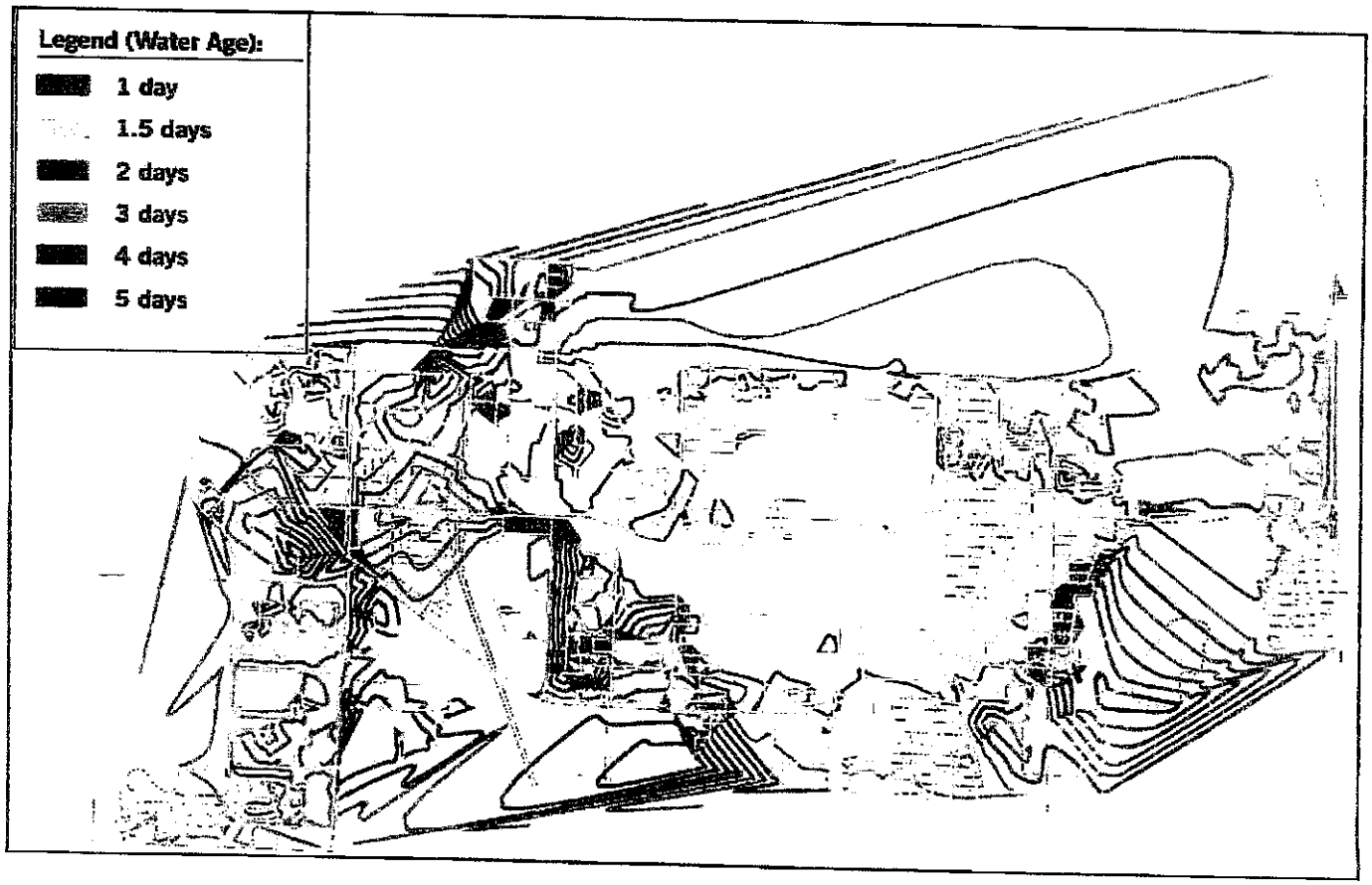
If required, then it is recommended that the CRBUD implement a UDF program twice per year concurrent with super chlorination. The UDF would likely be effective in flushing sediments and biological slime that may be within the CRBUD's water mains, thus improving water quality and helping maintain chlorine residuals.

Development and execution of a UDF plan requires a detailed understanding of the pipe network, operational status of in-line valves, and the ability to isolate sections of the system. The development of the UDF planning document requires use of an EPS type hydraulic model of the water distribution system as a prerequisite. Preparing a UDF planning document will define the steps to follow to perform a complete unidirectional flushing of the potable water distribution system. CRBUD can use the UDF plan developer to provide field crews to perform the first field execution of the UDF program.

ID	Address
1	5145 Caribbean Blvd
2	4883 Lake Azure Dr
3	5674 Parke Ave, Gramercy Park
4	6780 41st Ave N, Palm Lakes Co-op
5	45th St, last hydrant
6	5821 Eadie Pl, Gramercy Park
7	2471 Port West Blvd
8	305 Canterbury Dr W, Lone Pine
9	7352 Haverhill Rd
10	5125 Fleet Ct



Appendix A: Hydrant Flushers



Appendix B: Water Age Assessment

(10)

Palm Beach County Health Department
Division of Environmental Health and Engineering
Bureau of Water Programs

Drinking Water Penalty Assessment Sheet

Violation Tracking #:	1
Owner:	
Facility:	Riviera Beach
Facility/Site ID:	4500841
Population Served:	
Assessor's Name:	S. Harrison
Date:	5/7/2014

DEP Matrix Violation ID #:	[redacted]
Significantly Detrimental:	
Economic Benefit:	No
Category:	MCL/Sampling
Regulation:	62-550.300
Violation Description	Failure to comply with the MCLs, MRDLs, or treatment technique requirements in Chapter 62-550, FAC.

Drinking Water Guidelines

Potential to Harm:	Moderate	
Extent of Deviation:	Major	
Matrix Amounts (H - L) ($):	$ 2,299.00	
Muti-Day Factor:	1	
Adjustment Factor:	0	Excludes Economic Benefit
Additional Factors:	0	
Matrix Total ($):	$ 2,299.00	

ELRA Penalty - Chapter 403.121., F.S.

ELRA Citation:	403.121(3)(a)
ELRA Amount ($):	See Factors
Muti-Day Factor:	1
Adjustment Factors:	0
Additional Factors:	0
ELRA Total ($):	#VALUE!

DEP 923 - Settlement Guidelines (If Violation Not Addressed in Guidelines)

Potential to Harm:	Define
Extent of Deviation:	Define
DEP 923 Amount ($):	$
Muti-Day Factor:	1
Adjustment Factor:	0
Additional Factors:	0
DEP 923 Total ($):	$ -

Adjustments/Additional Factors

Multi-Day Penalty (Adjusted Penalty)
Justification: Multi-day based on max for first day
Start Date: **Stop Date:** **Duration:** 1
Factor: 1

Good faith/Lack of good faith prior to discovery (Range of -1 to +1)
Justification: No Adjustment
Factor: 0

Good faith/Lack of good faith after discovery (Range of -1 to +1)
Justification: No Adjustment
Factor: 0

History of Non-Compliance (Range -1 to +1)
Justification: No Adjustment
Factor: 0

Economic Benefit of non-compliance ($)/base penalty)
Justification: No Adjustment
Factor: 0 $ -

Ability to Pay (Range -1 to +1)
Justification: No Adjustment
Factor: 0

Small System Reduction (<3,301 Population)
Justification: No Adjustment
Factor: 0

Penalty Assessment

	ELRA	Guidelines	DEP 923
Total ($)	#VALUE!	$ 2,299	$ -
Daily ($/day)	#VALUE!	$ 2,299	$ -

Note: Penalty can not exceed $6000 per day

Palm Beach County Health Department
Division of Environmental Health and Engineering
Bureau of Water Programs

Drinking Water Penalty Assessment Sheet

Violation Tracking #:	1
Owner:	
Facility:	Riviera Beach
Facility/Site ID:	4500841
Population Served:	
Assessor's Name:	S. Hanison
Date:	5/7/2014
DEP Matrix Violation ID #:	[redacted]
Significantly Detrimental:	
Economic Benefit:	No
Category:	Sampling
Regulation:	62-550.500, FAC
Violation Description	Failure to monitor and report for VOC, SOC, Inorganic, or Radiological contaminants.

Drinking Water Guidelines

Potential to Harm:	Moderate	
Extent of Deviation:	Major	
Matrix Amounts (H - L) ($):	$ 2,299.00	
Muti-Day Factor:	1	
Adjustment Factor:	0	Excludes Economic Benefit
Additional Factors:	0	
Matrix Total ($):	$ 2,299.00	

ELRA Penalty - Chapter 403.121., F.S.

ELRA Citation:	403.121(4)(d)
ELRA Amount ($):	$ 2,000.00
Muti-Day Factor:	1
Adjustment Factors:	0
Additional Factors:	0
ELRA Total ($):	$ 2,000.00

DEP 923 - Settlement Guidelines (If Violation Not Addressed in Guidelines)

Potential to Harm:	Define
Extent of Deviation:	Define
DEP 923 Amount ($):	$ -
Muti-Day Factor:	1
Adjustment Factor:	0
Additional Factors:	0
DEP 923 Total ($):	$ -

Adjustments/Additional Factors

Multi-Day Penalty (Adjusted Penalty)

Justification: Multi-day based on max for first day

Start Date: Stop Date: Duration: 1

Factor: 1

Good faith/Lack of good faith prior to discovery (Range of -1 to +1)

Justification: No Adjustment

Factor: 0

Good faith/Lack of good faith after discovery (Range of -1 to +1)

Justification: No Adjustment

Factor: 0

History of Non-Compliance (Range -1 to +1)

Justification: No Adjustment

Factor: 0

Economic Benefit of non-compliance (($)/base penalty)

Justification: No Adjustment

Factor: 0 $ -

Ability to Pay (Range -1 to +1)

Justification: No Adjustment

Factor: 0

Small System Reduction (<3,301 Population)

Justification: No Adjustment

Factor: 0

Penalty Assessment

	ELRA	Guidelines	DEP 923
Total ($)	$ 2,000	$ 2,299	$ -
Daily ($/day)	$ 2,000	$ 2,299	$ -

Note: Penalty can not exceed $5000 per day

(10)

Palm Beach County Health Department
Division of Environmental Health and Engineering
Bureau of Water Programs

Drinking Water Penalty Assessment Sheet

Violation Tracking #:	1
Owner:	
Facility:	Riviera Beach
Facility/Site ID:	4500841
Population Served:	
Assessor's Name:	S. Harrison
Date:	5/7/2014
DEP Matrix Violation ID #:	[redacted]
Significantly Detrimental:	
Economic Benefit:	No
Category:	Sampling
Regulation:	62-550.518(7)(b), FAC
Violation Description	Failure to collect a set of repeat distribution system samples within 24 hours of being notified of a total-coliform-positive sample in a routine distribution system sample.

Drinking Water Guidelines

Potential to Harm:	Major	
Extent of Deviation:	Major	
Matrix Amounts (H - L) ($):	$ 5,000.00	
Muti-Day Factor:	1	
Adjustment Factor:	0	Excludes Economic Benefit
Additional Factors:	0	
Matrix Total ($):	$ 5,000.00	

ELRA Penalty - Chapter 403.121., F.S.

ELRA Citation:	403.121(4)(d)
ELRA Amount ($):	$ 2,000.00
Muti-Day Factor:	1
Adjustment Factors:	0
Additional Factors:	0
ELRA Total ($):	$ 2,000.00

DEP 923 - Settlement Guidelines (If Violation Not Addressed in Guidelines)

Potential to Harm:	Define
Extent of Deviation:	Define
DEP 923 Amount ($):	$
Muti-Day Factor:	1
Adjustment Factor:	0
Additional Factors:	0
DEP 923 Total ($):	$ -

Adjustments/Additional Factors

Multi-Day Penalty (Adjusted Penalty)
Justification: Multi-day based on max for first day
Start Date: Stop Date: Duration: 1
Factor: 1

Good faith/Lack of good faith prior to discovery (Range of -1 to +1)
Justification: No Adjustment
Factor: 0

Good faith/Lack of good faith after discovery (Range of -1 to +1)
Justification: No Adjustment
Factor: 0

History of Non-Compliance (Range -1 to +1)
Justification: No Adjustment
Factor: 0

Economic Benefit of non-compliance (($)/base penalty)
Justification: No Adjustment
Factor: 0 $ -

Ability to Pay (Range -1 to +1)
Justification: No Adjustment
Factor: 0

Small System Reduction (<3,301 Population)
Justification: No Adjustment
Factor: 0

Penalty Assessment

	ELRA	Guidelines	DEP 923
Total ($)	$ 2,000	$ 5,000	$ -
Daily ($/day)	$ 2,000	$ 5,000	$ -

Note: Penalty can not exceed $5000 per day

(10)

Palm Beach County Health Department
Division of Environmental Health and Engineering
Bureau of Water Programs

Drinking Water Penalty Assessment Sheet

Violation Tracking #:	1
Owner:	
Facility:	Riviera Beach
Facility/Site ID:	4500841
Population Served:	
Assessor's Name:	S. Harrison
Date:	5/7/2014
DEP Matrix Violation ID #:	[redacted]
Significantly Detrimental:	
Economic Benefit:	Yes
Category:	Sampling
Regulation:	62-550.518(1)-(4), FAC
Violation Description	Failure to monitor/analyze/report coliform bacteria.

Drinking Water Guidelines

Potential fo Harm:	Major	
Extent of Deviation:	Moderate	
Matrix Amounts (H - L) ($):	$ 3,999.00	
Muti-Day Factor:	1	
Adjustment Factor:	0	Excludes Economic Benefit
Additional Factors:	0	
Matrix Total ($):	$ 3,999.00	

ELRA Penalty - Chapter 403.121., F.S.

ELRA Citation:	403.121(4)(d)
ELRA Amount ($):	$ 2,000.00
Muti-Day Factor:	1
Adjustment Factors:	0
Additional Factors:	0
ELRA Total ($):	$ 2,000.00

DEP 923 - Settlement Guidelines (If Violation Not Addressed in Guidelines)

Potential fo Harm:	Define
Extent of Deviation:	Define
DEP 923 Amount ($):	$ -
Muti-Day Factor:	1
Adjustment Factor:	0
Additional Factors:	0
DEP 923 Total ($):	$ -

Adjustments/Additional Factors

Multi-Day Penalty (Adjusted Penalty)
Justification: Multi-day based on max for first day
Start Date: **Stop Date:** **Duration:** 1
Factor: 1

Good faith/Lack of good faith prior to discovery (Range of -1 to +1)
Justification: No Adjustment
Factor: 0

Good faith/Lack of good faith after discovery (Range of -1 to +1)
Justification: No Adjustment
Factor: 0

History of Non-Compliance (Range -1 to +1)
Justification: No Adjustment
Factor: 0

Economic Benefit of non-compliance ($)/base penalty)
Justification: No Adjustment
Factor: 0 $ -

Ability to Pay (Range -1 to +1)
Justification: No Adjustment
Factor: 0

Small System Reduction (<3,301 Population)
Justification: No Adjustment
Factor: 0

Penalty Assessment

	ELRA	Guidelines	DEP 923
Total ($)	$ 2,000	$ 3,999	$ -
Daily ($/day)	$ 2,000	$ 3,999	$ -

Note: Penalty can not exceed $5000 per day

(11)

May 13, 2014

Louis Aurigemma, Executive Director
City of Riviera Beach Utility District
P.O. Box 9757
Riviera Beach, FL 33404

Re: File Nos. WP-019-14 & WP-039-14

Dear Mr. Aurigemma:

As of May 9, 2014 the City of Riviera Beach has completed all of the corrective actions associated with the above file numbers. The Florida Department of Health Palm Beach County (Department) appreciates the efforts the City of Riviera Beach has expended to resolve these matters. The Department is, therefore, closing these cases without enforcement.

The issues which have been corrected include:

- Maximum Contaminant Level violation for total coliform.
- Failure to collect routine and repeat samples.
- Failure to conduct triggered monitoring.
- Failure to submit samples in a timely manner.
- Failure to sample for nitrate and nitrite.
- Failure to issue a Public Notice in November and December 2013.
- Failure to notify the Department.

Please note that the Department could be required to initiate formal enforcement actions against the City of Riviera Beach should the corrective actions fail to prevent future incidents.

If you have any questions, you may contact Pamela Lape at (561) 837-5947 or by email at pamela.lape@flhealth.gov.

For the Division Director,

Darrel J. Graziani, P.E., R.S.
Environmental Administrator, Water Programs
Division of Environmental Public Health
Florida Department of Health Palm Beach County

cc: FDOHPBC File:WP-019-14 & WP-039-14

PREVIOUS VERSION

PALM BEACH COUNTY HEALTH DEPARTMENT
Environmental Public Health - Water Programs

ENFORCEMENT REFERRAL

Facility/Site Information

Name: Riviera Beach Utility District - City of Riviera Beach

Location: P.O Box 9757, Riviera Beach FL 33419

Contact Information (Name, Title & Phone #): David Danford Water Plant Superintendent 561-845-4051

Facility/Site ID: 4501229 | Program No.: 58 | Tracking No.:

Responsible Party Information

Name, Address & Phone No.: City of Riviera Beach PO Box 9757 Riviera Beach FL 33419 (561)-845-4051

Name, Address & Phone No.:

Name, Address & Phone No.:

Name, Address & Phone No.:

Violation Information

#	Statute/Rule/Permit	Violation Description
1	62-550.310(5)(a)1.	5 percent MCL TC(-) violation SP
2	62-550-518(7)(b)	Failure to ~~re~~submit bacteriological ~~Results~~ SP
3		Resamples for TC(+) Distribution Samples
4	62-550.730(1)(a) nB(a)	Late submission of Raw bacteriological samples effect. 2013

Corrective Actions/Activities

Date	Action/Activity
12-26-13	Bacteriological sampling results received via e-mail
12-27-13	The bacteriological sampling results were reviewed
1-6-14	Plant manage was notified via e-mail
1-7-14	Talked to Mr. Salas

Attachments

No.	Description
1	Copy of rules regarding MCL violation (4PP) and 2 other pages of rules
2	14 PP of Bacteriological sampling results for 12-2013.
3	1 page e-mail
4	1 page conversation Record
5	1 page of bacteriological entry from ORACL Nov. 2013

EI's Name/Signature/Date	PS's Name/Signature/Date	ES's Tracking Record	
Syrus Partian 01-07-14 ~~12-27-2013~~	M. Addison 1-13-14	Received 02/09/14 Complete	~~Priority~~ Violation
Revision Date(s)	Revision Date(s)	Case Number	
Syrus Partian 01-15-13	~~M. Addison 01-16-14~~ SP	WP-019-14	Page 1 of ___

SP

location of plant is at a P.O. Box?

PALM BEACH COUNTY HEALTH DEPARTMENT

Environmental Public Health - Water Programs

ENFORCEMENT REFERRAL

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Responsible Party Information

Name, Address & Phone No.: David Danford 561-845-4051

Name, Address & Phone No.: POBox 9757, Riviera Beach, 33419

Name, Address & Phone No.: Louis Aurigemma Executive Director

Name, Address & Phone No.:

Violation Information

#	Statute/Rule/Permit	Violation Description
1	62-550-512(1)	Failure to submit Nitrate and Nitrite Results for 2013
2		SAMPLE FOR
3		
4		

Corrective Actions/Activities

Date	Action/Activity
1-31-14	Call David Salas & David Danford
1-31-14	checking the file (then & now)

Attachments

No.	Description
page 1	1 copy of the rules
2	1 page of conversation records

No.	Description

EI's Name/Signature/Date: Syrus Pashian 1-31-14

PS's Name/Signature/Date: 1-31-14

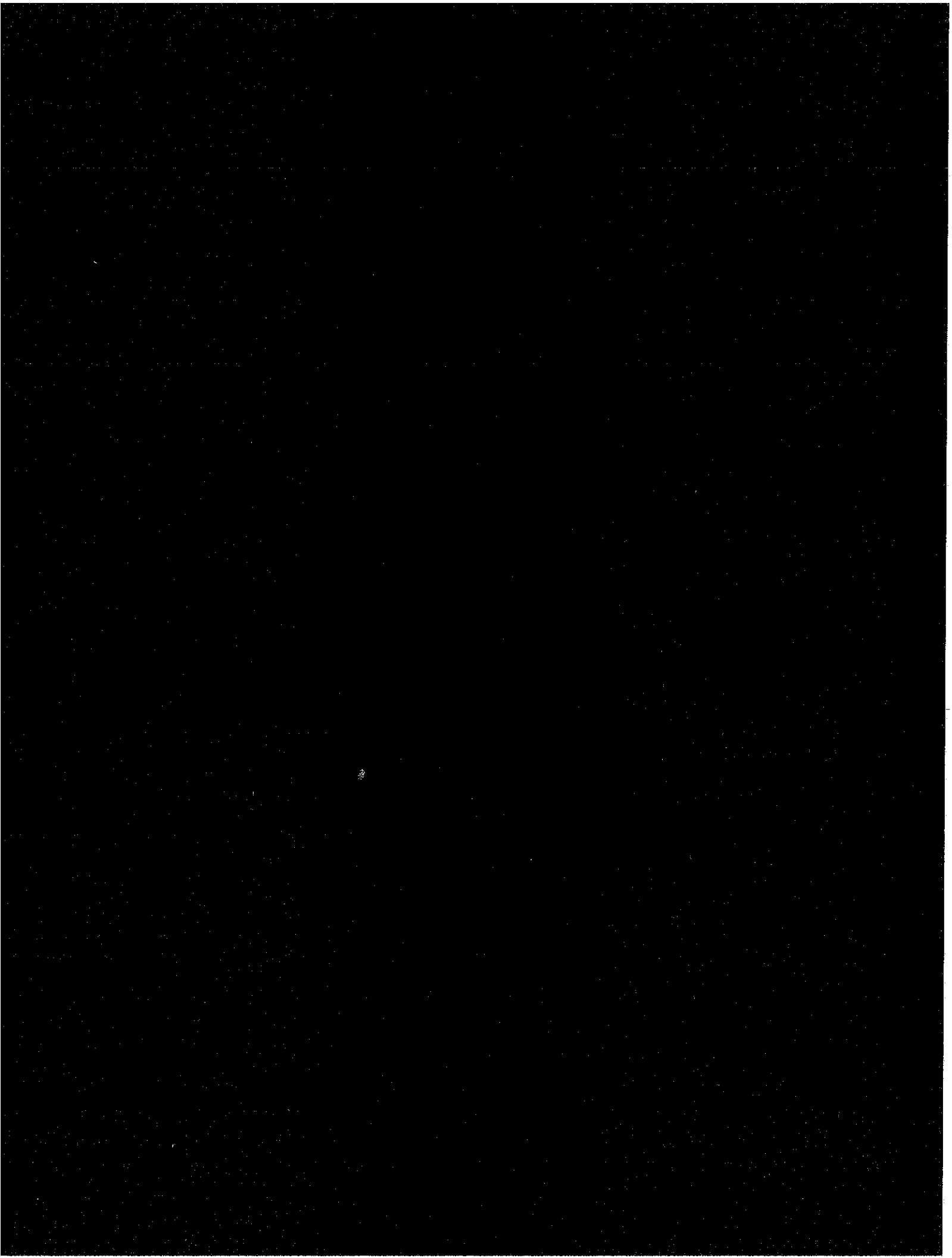
Revision Date(s):

Revision Date(s):

ES's Tracking Record — Received: 02/03/14 — Complete:

Case Number: WP 089-14

Priority Violation



February 13, 2014

COMPLIANCE ASSISTANCE LETTER
Certified Mail #7012 2920 0000 6177 9849
Return Receipt Requested

Louis Aurigemma, Executive Director
City of Riviera Beach Utility District
P.O. Box 9757
Riviera Beach, FL 33404

Re: Public Drinking Water System
Facility ID No. 450-1229
Agency File WP-019-14

Dear Mr. Aurigemma:

The purpose of this letter is to advise you of potential compliance issues associated with the operation of the above facility. Specifically, the Florida Department of Health Palm Beach County (Department) has examined the Pre-Compliance Reports for the months of June, September, October, November and December 2013 and noted the following:

1. More than 5% of the samples collected in November and December 2013 were total coliform positive.

2. The system failed to submit repeat samples within 24 hours of being notified of a total positive result in the distribution system during the months of November and December 2013.

3. The system failed to collect the required number of distribution compliance samples for total coliform in September and October 2013.

4. The system failed to conduct triggered monitoring in response to total coliform positive samples in November and December 2013.

5. In October 2013 the system failed to submit the raw assessment samples to the Department with in the first ten days following the month in which the sample results were received.

6. The system failed to submit Nitrate and Nitrite results for the year 2013.

(5)

We request that you respond in writing within 15 days of receipt of this Compliance Assistance Letter. Your written response should either:

1. Describe what you have done to resolve the issue.
2. Provide information that either mitigates the concerns or demonstrates them to be invalid, or
3. Arrange for compliance assistance from the Department's engineering staff which can offer suggested actions to return to compliance without enforcement.

If you are unable to meet the requested deadline please contact Pamela Lape at (561) 837-5947 of our office. We look forward to your cooperation in the resolution of this matter.

For the Division Director,

Scott Harrison, R.S.
Environmental Manager-Water Programs
Division of Environmental Public Health

cc: File:WP-019-14